

FORD **MUSTANG GTD** Owner's Manual



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California Proposition 65



WARNING: Operating, servicing and maintaining a passenger vehicle or off-highway motor vehicle can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle. For more information go to www.P65Warnings.ca.gov/passenger-vehicle.



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

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About Us

SVT

The Ford Special Vehicle Team (SVT) was established in 1991 to polish the Ford Oval by creating low-volume, factory-produced vehicles designed for those select few whose idea of driving is a high-powered, passionate experience – not just a means of getting from point A to point B.

In a move to support this spirited enthusiasm, Ford Motor Company carefully integrated the wide array of talent in the company into a small, cross-functional group of engineers and product planners, housed together under one roof with a common mission: to create vehicles specifically designed to meet the unique needs and desires of the knowledgeable driving enthusiast.

More than 400,000 SVT and Ford Performance vehicles were produced since the 1993 model year. These include the SVT Mustang Cobra and the Cobra R, the SVT F-150 Lightning, the SVT Contour, the SVT Focus, Ford GT, Shelby GT500, GT500KR and the F-150 SVT Raptor.

TEAM RS

Team RS traces its roots back nearly 60 years from the Lotus Ford Cortina and Twin Cam Escorts of the mid 1960's, through the first RS branded Escorts of the 1970's to the founding of Special Vehicle Engineering (SVE) in 1980. Through the 1980s and 90s, SVE delivered a breadth of vehicles from exciting XR and RS branded road going performance cars through homologation specials such as the iconic Sierra Cosworth RS500. The first ST (Sport Technology) vehicle appeared in 1996 as the ST24 Mondeo. The first collaboration between Ford's European and North American performance teams appeared in 2002 as the ST170 in Europe

and SVT Focus in North America. In 2003, Team RS replaced SVE in Europe as performance car and motorsport personnel were brought together as one team. Team RS subsequently created the 2004 Fiesta ST, 2005 Focus ST and 2009 Focus RS.

FORD PERFORMANCE

Welcome to the Ford Performance family!

SVT and Team RS officially began working together as one team in 2009. In 2015, these two teams, along with Ford Racing, were formally combined establishing Ford Performance as a single team responsible for all performance and racing oriented products and activities worldwide at Ford Motor Company. Your Ford Performance vehicle represents the best of what Ford Performance has to offer from around the globe. Your vehicle has been designed and developed with the four hallmarks of Ford Performance in mind: Performance, Substance, Exclusivity and Value. We are proud and passionate about what we do, and we are glad you have made us your choice.

Contacting Us

If you require assistance or clarification on policies or procedures, please contact the customer relationship center.

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Ford Credit - US Only

Ford Credit offers a full range of financing and lease plans to help you acquire your vehicle. If you have financed or leased your vehicle through Ford Credit, thank you for your business.

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Introduction

ABOUT THIS PUBLICATION



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.



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

Thank you for choosing Ford. We recommend that you take some time to get to know your vehicle in order to benefit from greater safety and pleasure from driving it. Use this publication, whether in-vehicle center display screen, print, in Ford mobile app or online, to familiarize yourself with the features on your vehicle.

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

Note: *Pass on all printed owner's information when selling this vehicle.*

Features and Options

This publication describes product features and options available throughout the range of available models, sometimes even before they are generally available. It could describe options that are not available on the vehicle you have purchased.

Driver Assistance Systems

Your vehicle may contain certain Driver Assistance Systems (i.e., Pre-Collision Assist, Adaptive Cruise Control, Lane Keeping System, and BlueCruise). Use of these technologies still requires your complete attention while driving. Your hands need to be on the steering wheel at all times unless you are actively operating BlueCruise and your vehicle informs you that you do not need to have your hands on the steering wheel. With all driving technologies, your eyes need to be on the road, and you must be alert to your surroundings. Your complete attention is required while driving since you may need to take immediate control due to the presence of roadway hazards or a change in road, weather, or lighting conditions. Use of these features does not relieve you of your responsibility to drive with due care and attention. Always be prepared to manually control the speed and direction of your vehicle. Please refer to this manual for information pertaining to each Driver Assistance feature.

Aftermarket Modifications, Add-ons, Accessories, and Repairs

Unapproved modifications to your vehicle may affect your vehicle's height or suspension and could shift the sensors out of the position from which they were designed and tested. Unapproved aftermarket parts or add-on accessories could also block or interfere with your vehicle's sensors or electronic systems.

Do not modify your vehicle with unapproved aftermarket products or repairs. Unapproved modifications may affect your vehicle warranty, performance, safety, or durability. We are not responsible for any damage or adverse effects caused by unapproved modifications to your vehicle or its systems.

Introduction

Providing Feedback

If you would like to provide feedback to the Owner's Manual team, please email us at OWNERMANUALFEEDBACK@ford.com.

You will not receive a direct email response. Your submission will be investigated and necessary changes will be made to the Owner's Manual content.

To help investigate your submission, please include the following information:

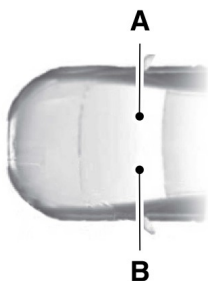
- Your vehicle model
- The country in which your vehicle was purchased
- The Owner's Manual section needing investigation

Illustrations

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

Location of Components

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.



- A Right-hand side.
- B Left-hand side.

Accessing the Digital Owner's Manual

If your vehicle is connected, you can find the latest version of the Owner's Manual through the Owner's Manual icon on the touchscreen. If your vehicle is not connected, then a code is displayed on the touchscreen. Scan the code with your smart device which leads you to the same version of the Owner's Manual online. This is the most up-to-date content and may vary slightly from any material originally provided with your vehicle.

Vehicles with a Portrait Center Display Screen

The Owner's Manual application is located in the Apps list.

Vehicles with a Landscape Center Display Screen

Depending on your vehicle, the Owner's Manual application is located in either the Apps list or the Features list.

Accessing the Online and Printed Owner's Manual

Online Owner's Manual

- Through your device's app store, you can download the Ford mobile app.
- You can visit the local Ford Website.

Note: To find the local Ford website, visit <https://corporate.ford.com/operations/locations/global-links.html>.



Introduction

Note: *We strongly recommend downloading a copy of the Owner's Manual and having it with you whenever you drive, and to view the information if you are unable to be inside the vehicle.*

Printed Owner's Manual

In U.S. and Canada, visit <https://www.helminc.com> or see an authorized dealer.



In Europe, visit <https://www.z-order.eu> or see an authorized dealer.



For all other Countries, see your authorized dealer.




USING THIS PUBLICATION

To quickly locate information about your vehicle, use the word search within the Owner's Manual application.

Symbols Glossary

SYMBOLS USED ON YOUR VEHICLE

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

	Airbag		Child safety door lock or unlock
	Air conditioning system		Child seat lower anchor
	Air conditioning system lubricant type		Child seat tether anchor
	Anti-lock braking system		Cruise control
	Avoid smoking, flames or sparks		Do not open when hot
	Battery		Electric Parking brake
	Battery acid		Engine air filter
	Blower motor		Engine coolant
	Brake fluid - non petroleum based		Engine coolant temperature
	Brake system		Engine oil
	Brake system		Explosive gas
	Cabin air filter		Fan warning
	Check fuel cap		Fasten seatbelt
			Flammable
			Front fog lamps

Symbols Glossary



Fuel pump reset



Fuse compartment



Hazard flashers



Headlamp high beams



Headlamps on



Heated rear window



Hill descent control



Horn control



Interior luggage compartment release



Jack



Keep out of reach of children



Lighting control



Low fuel level



Low tire pressure warning



Maintain correct fluid level



Malfunction Indicator Lamp (MIL)



Note operating instructions



Panic alarm



Parking aid



Parking lamps



Passenger airbag activated



Passenger airbag deactivated



Power steering fluid



Power windows front/rear



Power window lockout



Requires registered technician



Safety alert



See Owner's Manual



See Service Manual



Side airbag

Symbols Glossary



Shield the eyes



Stability control



Stability control off



Trail control



Turn Signal



Windshield defrosting system



Windshield wiping system



Windshield wash and wipe

SYMBOLS USED ON YOUR INSTRUMENT CLUSTER

Depending on your vehicle options, market, and instrument cluster type, not all symbols shown are available.

Lighting and Signaling



High beams. See **Headlamp Indicators** (page 82).



Auto high beams. See **Automatic High Beam Control Indicators** (page 86).



Rear fog lamps. See **Exterior Lamp Indicators** (page 84).



Turn signal - right. See **Using the Turn Signal Lamps** (page 83). See **Exterior Lamp Indicators** (page 84).



Turn signal - left. See **Using the Turn Signal Lamps** (page 83). See **Exterior Lamp Indicators** (page 84).



Positioning/side lights. See **Headlamp Indicators** (page 82).



Exterior bulb failure. See **Exterior Bulb Specification Chart** (page 235).

Brakes



Brake failure. See **Brakes – Warning Lamps** (page 150).



Brake failure. See **Brakes – Warning Lamps** (page 150).



Electric parking brake fault. See **Electric Parking Brake – Warning Lamps** (page 154).



Anti-lock brake system malfunction. See **Anti-Lock Braking System Indicators** (page 148). See **Brakes – Warning Lamps** (page 150).



Automatic brake hold. See **Auto Hold Indicators** (page 157).



Automatic brake hold off or unavailable. See **Auto Hold Indicators** (page 157).

Visibility



Windshield washer fluid level. See **Wipers and Washers – Warning Lamps** (page 81).

Symbols Glossary

Engine



Check engine. See **Starting and Stopping the Engine – Warning Lamps** (page 122).

See **Coolant – Warning Lamps** (page 228).



Engine oil pressure. See **Starting and Stopping the Engine – Warning Lamps**

(page 122).



Engine coolant temperature. See **Coolant – Warning Lamps** (page 228).



Auto Start/Stop.



Auto Start/Stop off or unavailable.

Fuel



Fuel. See **Fuel and Refueling – Warning Lamps** (page 131).

Transmission



Non-emission powertrain fault. See **Starting and Stopping the Engine – Warning Lamps**

(page 122).

Vehicle Handling



Selectable drive mode - normal. See **Normal** (page 145).



Selectable drive mode - sport. See **Sport** (page 145).



Selectable drive mode -track. See **Track** (page 145).



Selectable drive mode - slippery. See **Slippery** (page 145).



Selectable drive mode - drag strip. See **Drag Strip** (page 145).



Selectable drive mode - custom. See **Custom** (page 144).



Suspension mode - normal. See **Selecting a Drive Mode** (page 143).



Suspension mode - sport. See **Selecting a Drive Mode** (page 143).



Suspension mode - track. See **Selecting a Drive Mode** (page 143).



Suspension mode - track plus. See **Selecting a Drive Mode** (page 143).



Suspension mode - drag. See **Selecting a Drive Mode** (page 143).



Steering mode- normal. See **Selecting a Drive Mode** (page 143).



Steering mode - sport. See **Selecting a Drive Mode** (page 143).



Steering mode - comfort. See **Selecting a Drive Mode** (page 143).



Exhaust mode - single tip - normal. See **Selecting a Drive Mode** (page 143).



Exhaust mode - single tip - sport. See **Selecting a Drive Mode** (page 143).

Symbols Glossary



Exhaust mode - single tip - track. See **Selecting a Drive Mode** (page 143).



Exhaust mode - single tip - quiet. See **Selecting a Drive Mode** (page 143).



Launch control - ready. See **Launch Control** (page 317).



Launch control - active. See **Launch Control** (page 317).



Launch control - off or unavailable. See **Launch Control** (page 317).



RPM hold - ready. See **Launch Control** (page 317).



RPM hold - active. See **Launch Control** (page 317).



RPM hold - off or unavailable. See **Launch Control** (page 317).



Front-end lift. See **Unique Features** (page 30).

Driver Assistance



Cruise control. See **Cruise Control Indicators** (page 171).



Lane keeping assist. See **Lane Keeping System Indicators** (page 175).



Lane keeping assist off. See **Lane Keeping System Indicators** (page 175).

Safety



Seatbelt. See **Seatbelt Reminder Indicators** (page 44).



Airbag. See **Crash Sensors and Airbag Indicator** (page 57).



Stability control system active or not available. See **Stability Control Indicator** (page 161).



Stability control system off. See **Drive Mode Control – Warning Lamps** (page 146).



Tire failure/Low tire pressure. See **What Is the Tire Pressure Monitoring System** (page 285). See **Tire Pressure Monitoring System – Warning Lamps** (page 287).



Forward collision warning system. See **How Does Pre-Collision Assist Work** (page 178).



Forward collision warning system off or unavailable. See **Pre-Collision Assist – Warning Lamps** (page 183).



Driver alert system off or unavailable. See **Driver Alert Indicators** (page 186).



Door(s) ajar. See **Doors and Locks – Warning Lamps** (page 69).

Security



Hood release/ajar. See **Opening and Closing the Hood** (page 215).



Trunk release/ajar.

Symbols Glossary

Electrical Systems



Battery charge level. See

Catalytic Converter –

Warning Lamps (page 132).

See **12V Battery – Warning Lamps** (page 232).

Data Privacy



WARNING: Do not connect wireless plug-in devices to the data link connector. Unauthorized third parties could gain access to vehicle data and impair the performance of safety related systems. Only allow repair facilities that follow our service and repair instructions to connect their equipment to the data link connector.

We respect your privacy and are committed to protecting it. The information contained in this publication was correct at the time of release, but as technology rapidly changes, we recommend that you visit the local Ford website for the latest information.

Your vehicle has electronic control units that have data recording functionality and the ability to permanently or temporarily store data. This data could include information on the condition and status of your vehicle, vehicle maintenance requirements, events and malfunctions. The types of data that can be recorded are described in this section. Some of the data recorded is stored in event logs or error logs.

Note: Error logs are reset following a service or repair.

Note: We may provide information in response to requests from law enforcement, other government authorities and third parties acting with lawful authority or through a legal process. Such information could be used by them in legal proceedings.

Data recorded includes, for example:

- Operating states of system components, for example fuel level, tire pressure and battery charge level.
- Vehicle and component status, for example wheel speed, deceleration, lateral acceleration and seatbelt status.

- Events or errors in essential systems, for example headlamps and brakes.
- System responses to driving situations, for example airbag deployment and stability control.
- Environmental conditions, for example temperature.

Some of this data, when used in combination with other information, for example an accident report, damage to a vehicle or eyewitness statements, could be associated with a specific person.

Services That We Provide

If you use our services, we collect and use data, for example account information, vehicle location and driving characteristics, that could identify you. We transmit this data through a dedicated, protected connection. We only collect and use data to enable your use of our services to which you have subscribed, with your consent or where permitted by law. For additional information, see the terms and conditions of the services to which you have subscribed.

For additional information about our privacy policy, refer to the local Ford website.

Services That Third Parties Provide

We recommend that you review the terms and conditions and data privacy information for any services equipped with your vehicle or to which you subscribe. We take no responsibility for services that third parties provide.

Where equipped, SiriusXM with 360L could use the modem. To disable, turn off the SiriusXM with 360L or Vehicle Connectivity setting. See **Enabling and Disabling the Modem** (page 295).

Data Privacy

SERVICE DATA

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 in 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, Ford Motor Company (Ford of Canada, in Canada) may, where permitted by law, use vehicle diagnostic information for vehicle improvement or with other information we may have about you, for example, your contact information, to offer you products or services that may interest you. Data may be provided to our service providers such as part suppliers that may help diagnose malfunctions, and who are similarly obligated to protect data. We retain this data only as long as necessary to perform these functions or to comply with law. We may provide information where required in response to official requests to law enforcement or other government authorities or third parties acting with lawful authority or court order, and such information may be used in legal proceedings. For U.S. only (if equipped), if you choose to use connected apps and services, 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 to provide services to you, personalizing your experience, troubleshoot, and to improve products and services and offer you products and services that may interest

you, where permitted by law. For Canada only, for more information, please review the Ford of Canada privacy policy at www.ford.ca, including our U.S. data storage and use of service providers in other jurisdictions who may be subject to legal requirements in Canada, the United States and other countries applicable to them, for example, lawful requirements to disclose personal information to governmental authorities in those countries.

EVENT DATA

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 seatbelts were buckled/fastened.
- How far (if at all) the driver was depressing the accelerator and/or the brake pedal.
- How fast the vehicle was traveling.
- 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.

Data Privacy

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 (for example name, gender, age, and crash location) is recorded.

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.

SETTINGS DATA

Your vehicle has electronic control units that have the ability to store data based on your personalized settings. The data is stored locally in the vehicle or on devices that you connect to it, for example, a USB drive or digital music player. You can delete some of this data and also choose whether to share it through the services to which you subscribe.

Comfort and Convenience Data

Data recorded includes, for example:

- Seat and steering wheel position.
- Climate control settings.
- Radio presets.

Entertainment Data

Data recorded includes, for example:

- Music, videos or album art.
- Contacts and corresponding address book entries.
- Navigation destinations.

CONNECTED VEHICLE DATA



The modem has a SIM. The modem was enabled when your vehicle was built and periodically sends messages to stay connected to the cell phone network, receive automatic software updates and may send vehicle-related information to us, for example diagnostic information. Subject to your consent, the vehicle may send vehicle, driving and location data. These messages could include information that identifies your vehicle, the SIM and the electronic serial number of the modem. Cell phone network service providers could have access to additional information, for example cell phone network tower identification. For additional information about our privacy policy, visit <https://www.fordconnected.com> or refer to your local Ford website.

Note: The modem continues to send this information unless you disable the modem or stop the modem from sharing vehicle data by changing the modem settings. See **Connected Vehicle** (page 295).

Note: The service can be unavailable or interrupted for a number of reasons, for example environmental or topographical conditions and data plan coverage.

Note: To find out if your vehicle has a modem, visit <https://www.fordconnected.com>.

MOBILE DEVICE DATA

If you connect a mobile device to your vehicle, you can display data from your device on the touchscreen for example, music and album art. You can share your vehicle data with mobile apps on your device through the system.

The mobile apps function operates by your connected device sending data to us in the United States. The data is encrypted and includes, for example, the vehicle identification number of your vehicle, the SYNC module serial number, odometer, enabled apps, usage statistics and debugging information. We retain it only as long as necessary to provide the service, to troubleshoot, for continuous improvement and to offer you products and services that may be of interest to you according to your preferences and where allowed by law.

If you connect a cell phone to the system, the system creates a profile that links to that cell phone. The cell phone profile enables more mobile features and efficient operation. The profile contains, for example data from your phonebook, read and unread text messages and call history, including history of calls when your cell phone was not connected to the system.

If you connect a media device, the system creates and retains a media device index of supported media content. The system also records a short diagnostic log of approximately 10 minutes of all recent system activity.

The cell phone profile, media device index and diagnostic log remain in your vehicle unless you delete them and are generally accessible only in your vehicle when you connect your cell phone or media device. If you no longer plan to use the system or your vehicle, we recommend you use the system reset function to erase the stored information. See **Performing a System Reset** (page 336).

System data cannot be accessed without special equipment and access to your vehicle's module.

For additional information about our privacy policy, refer to the local Ford website.

Note: To find out if your vehicle has connectivity technology, visit <https://www.fordconnected.com>.

EMERGENCY CALL SYSTEM DATA

When the emergency call system is active, it may disclose to emergency services that your vehicle has been in a crash involving the deployment of an airbag or activation of the fuel pump shut-off. Certain versions or updates to the emergency call system may also be capable of electronically or verbally disclosing to emergency services operators your vehicle location or other details about your vehicle or crash to assist emergency services operators to provide the most appropriate emergency services. If you do not want to disclose this information, do not activate the emergency call system.

Note: You cannot deactivate emergency call systems that are required by law.

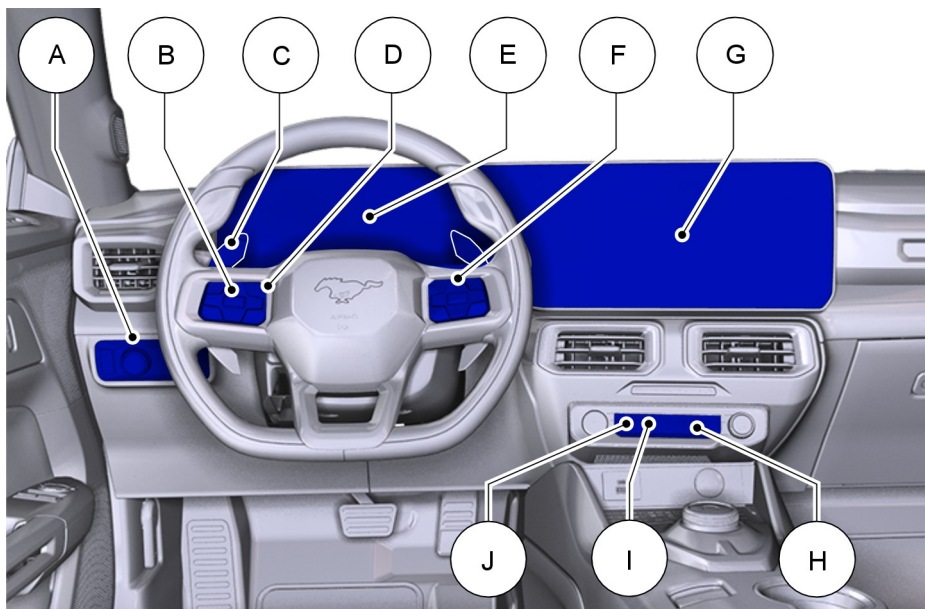
PROTECTING THE ENVIRONMENT

Sustainability is a priority at Ford. We are constantly looking for ways to reduce our impact on the planet while providing customers with great products and delivering a strong business. You should 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.

For additional information about our sustainability progress and initiatives, visit www.sustainability.ford.com.

Visual Search

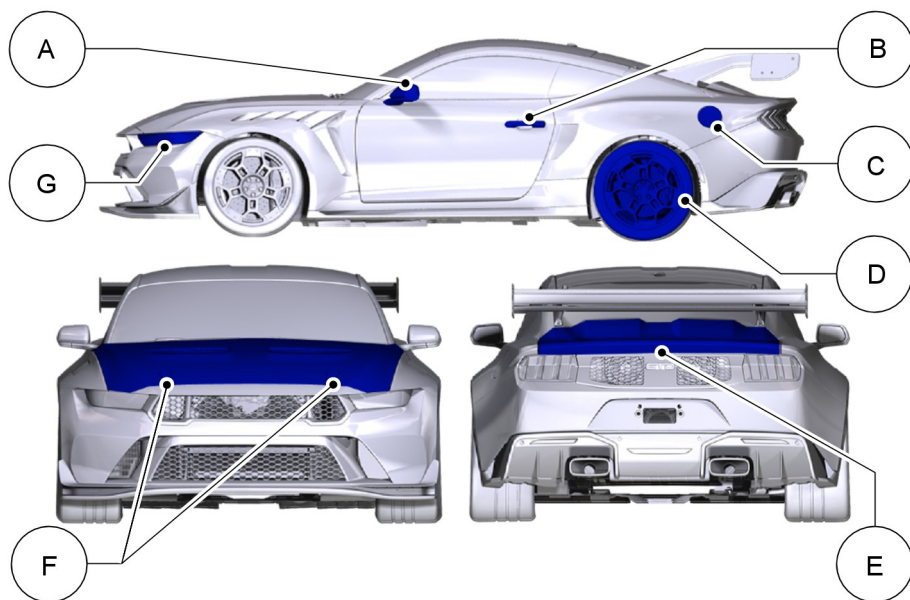
INTERIOR OVERVIEW



- A See **Exterior Lighting Control** (page 82).
- B See **Switching Cruise Control On and Off** (page 170).
- C See **Manually Shifting Gears** (page 135).
- D See **Selecting a Drive Mode** (page 143).
- E See **Instrument Cluster Overview** (page 95).
- F See **Selecting a Drive Mode** (page 143).
- G See **Center Display Overview** (page 310).
- H See **Unique Features** (page 30).
- I See **My Mustang Overview** (page 313).
- J See **Track Apps Overview** (page 314).

Visual Search

EXTERIOR OVERVIEW



- A See **Folding the Exterior Mirrors** (page 94).
- B See **Unlocking and Locking the Doors Using the Key Blade** (page 67).
- C See **Refueling Your Vehicle** (page 129).
- D See **Changing a Flat Tire** (page 290).
- E See **Removing and Installing the Technical Panel** (page 216).
- F See **Opening and Closing the Hood** (page 215).
- G See **Using the High Beam Headlamps** (page 82).

Unique Features

Powertrain

- 5.2L V8 supercharged engine.
- Rear dual clutch transaxle with integrated high performance electronic limited slip differential.
- High performance dry sump oiling system at the rear of the engine.
- Carbon fiber driveshaft.
- Akrapovic titanium exhaust.
 - High flow dual 2.75 in (6.98 cm) exhaust with X-pipe and valved mufflers.
- Rear mounted ducted transmission oil cooler.
- Dual path cold air intake.
- Tubular exhaust manifolds.
- DCT launch control.

Chassis

- Widened track width.
 - Approximately 4 in (100 mm) wider than Dark Horse.
- Unique short/long arm front suspension with forged aluminum control arms.
- Dual height and rate DSSV Multimatic dampers with ASV damping.
- Multi-link rear suspension with forged aluminum control arms.
- Inboard push rod actuated rear dampers.
- Ducted Brembo carbon ceramic brakes.
- Carbon ceramic rotors.
- 6-piston front and 4-piston rear Brembo calipers.
- Front end axle lift.
- Variable traction control. See **Track Use** (page 239).
- Brake pad wear sensors.

Exterior

- Extensive carbon body panels.
 - Fenders, hood, roof, tech panel, quarter panels, optional fascias, and rear diffuser.
- Aero package.
 - Front splitter, front aero floor, front fender vents, hood vent, rear wing, rear diffuser, and full aero floor.
- Optional active drag reduction system.
 - Full aero floor with active flaps and active upper element of rear wing.
- Forged aluminum wheels.
- Michelin Cup2R tires.

Interior

- Performance seats with unique covers.
- Package tray behind the front seats with integrated tie-down points.
- Viewing window from interior to inboard rear suspension with carbon fiber window surround.
- Optional 3D printed titanium steering wheel paddles, gear shift ring and serialized instrument panel badge from reclaimed fighter jet material.
- Carbon fiber shifter surround, HVAC bezels and steering wheel bezel.
- Unique door panel inserts.
- Unique steering wheel cover with center marker.
- Forward facing rear speakers with Interior compartment racetrack subwoofer as part of a 12 speaker premium audio system.
- Second row carbon fiber speaker grille.

Front End Lift

Allows you to raise the front axle to allow for driving over speed bumps or regions of road that require higher clearance.

Unique Features



Press the button on the instrument panel to lift or lower the front end of your vehicle.

Note: If you switch the vehicle off with the front end lifted, the vehicle returns to normal ride height.

Front lift is not available in the following conditions:

- The vehicle is in track or drag mode.
- Traveling above 15 mph (24 km/h).

Active Aero (If Equipped)

Active Aero in Normal Mode

A drag reduction system that automatically adjusts your vehicle to change the aerodynamics. In normal mode, it transitions to low drag mode when the vehicle speed exceeds 35 mph (56 km/h) and transitions to high drag mode when the vehicle speed is below 25 mph (40 km/h).

Active Aero in Track Mode

See **Track Use** (page 239).

Adjustable Driving Modes

Depending on the drive mode you select, you can adjust steering, exhaust, and suspension settings. See **Selecting a Drive Mode** (page 143).



Use the button on the steering wheel to change the steering mode.



Use the button on the steering wheel to change the suspension mode.



Use the button on the steering wheel to change the exhaust mode.

Available Adjustable Driving Modes

Drive Mode	Available Damping Mode	Available Exhaust Mode	Available Steering Mode	Vehicle Height
Normal	Normal, Sport	All modes available	All modes available	High
Sport	Normal, Sport	All modes available	All modes available	High
Track	Track, Track+	All modes available	All modes available	Low
Drag	Drag	All modes available	All modes available	High
Slippery	Normal	All modes available	All modes available	High

Brake Wear Indicator



Indicates the brake pads have worn down beyond normal operating parameters and should be replaced.

Child Safety

CHILD SAFETY PRECAUTIONS



WARNING: 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.



WARNING: All children are shaped differently. The National Highway Traffic Safety Administration and other safety organizations, base their recommendations for child restraints on probable child height, age and weight thresholds, or on the minimum requirements of the law. We recommend that you check with a NHTSA Certified Child Passenger Safety Technician (CPST) to make sure that you properly install the child restraint in your vehicle and that you consult your pediatrician to make sure you have a child restraint appropriate for your child. To locate a child restraint fitting station and CPST, contact NHTSA toll free at 1-888-327-4236 or go to www.nhtsa.dot.gov. In Canada, 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 child restraints made especially for their height, age and weight, may result in an increased risk of serious injury or death to your child.



WARNING: On hot days, the temperature inside the vehicle 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.



WARNING: Do not place a rearward facing child restraint in front of an active airbag. Failure to follow this instruction could result in personal injury or death.



WARNING: Properly secure children 13 years old and under in a rear seating position whenever possible. If you are unable to properly secure all children in a rear seating position, properly secure the largest child on the front seat. If you must use a forward facing child restraint on the front seat, move the seat as far back as possible. Failure to follow these instructions could result in personal injury or death.



WARNING: 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.

Child Safety



WARNING: Do not allow a passenger to hold a child on their lap when your vehicle is moving. Failure to follow this instruction could result in personal injury or death in the event of a sudden stop or crash.



WARNING: Do not use pillows, books or towels to boost your child's height. Failure to follow this instruction could result in personal injury or death.



WARNING: Properly secure child restraints or booster seats when they are not in use. They could become projectiles in a sudden stop or crash. Failure to follow this instruction could result in personal injury or death.



WARNING: Do not put the shoulder section of the seatbelt or allow the child to put the shoulder section of the seatbelt under their arm or behind their back. Failure to follow this instruction could reduce the effectiveness of the seatbelt and increase the risk of injury or death in a crash.



WARNING: Do not leave children or pets unattended in your vehicle. Failure to follow this instruction could result in personal injury or death.

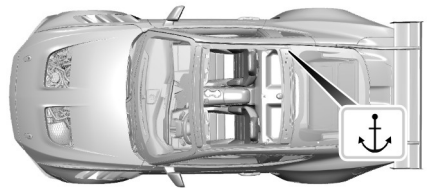
- Keep the buckle release button pointing up and away from the child restraint, with the tongue between the child restraint and the release button, to prevent accidental unbuckling.
- Put the seatbelt in the automatic locking mode.

CHILD RESTRAINT ANCHOR POINTS

WHAT ARE THE CHILD RESTRAINT ANCHOR POINTS

Anchor points allow you to quickly and safely install a child restraint.

LOCATING THE CHILD RESTRAINT TOP TETHER ANCHOR POINTS



When installing a child restraint with seatbelts:

- Place the vehicle seat in the upright position before you install the child restraint.
- Use the correct seatbelt buckle for that seating position.
- Insert the belt tongue into the buckle. Make sure the tongue is securely fastened in the buckle.

CHILD RESTRAINTS

CHILD RESTRAINT POSITION INFORMATION

Install the child restraint tightly against the vehicle seat.

Child Safety

Forward Facing Child Restraints

Combined Weight of Child and Child Restraint	Seatbelt and Top Tether Anchor
Up to 65 lb (29 kg)	X
Over 65 lb (29 kg)	X

Child Safety

CHILD RESTRAINTS RECOMMENDATION

Child Size, Height, Weight, or Age	Recommended Restraint Type
Children weighing 40 lb (18 kg) or less (generally age four or younger).	Use a child restraint (sometimes called an infant carrier, convertible seat, or toddler seat).
Children who have outgrown or no longer properly fit in a child restraint (generally children who are less than 57 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.
Children who have outgrown or no longer properly fit in a belt-positioning booster seat (generally children who are at least 57 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 seatbelt having the lap belt snug and low across the hips, shoulder belt centered across the shoulder and chest, and seat backrest upright.

You are required by law to properly use child restraints for infants and toddlers in the United States, Canada and Mexico.

Many states and provinces require that small children use approved booster seats until they reach age eight, a height of 57 in (1.45 m) tall, or 80 lb (36 kg). Check your local and state or provincial laws for specific requirements about the safety of children in your vehicle.

When possible, 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.

INSTALLING CHILD RESTRAINTS

USING SEATBELTS



WARNING: NEVER use a rearward facing child restraint on a seat protected by an ACTIVE AIRBAG in front of it, DEATH or SERIOUS INJURY to the CHILD can occur.



WARNING: 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, make sure occupants only use seating positions where they are able to be properly restrained.

Child Safety

When installing a child restraint with combination lap and shoulder belts:

- Use the correct seatbelt buckle for that seating position.
- Insert the belt tongue into the proper buckle until it latches. Make sure that you securely fasten the tongue in the buckle.
- Keep the buckle release button pointing up and away from the child restraint, with the tongue between the child restraint and the release button, to prevent accidental unbuckling.
- Place the vehicle seat in the upright position before you install the child restraint.
- 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 restraint:



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

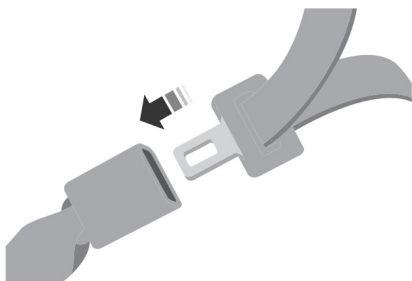


2. Pull down on the shoulder belt and then grasp the shoulder belt and lap belt together.



3. While holding the shoulder and lap belt portions together, route the tongue through the child restraint according to the child restraint manufacturer's instructions. Make sure that you did not twist the belt webbing.

Child Safety



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 the latch engages. Make sure you securely latch the tongue by pulling on it.



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

Note: The automatic locking mode is available on the front passenger seat. This vehicle does not require the use of a locking clip.

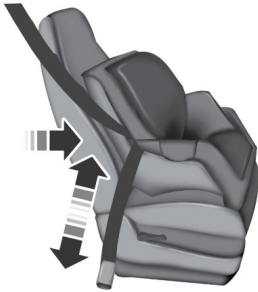
6. Allow the belt to retract to remove slack. The belt clicks as it retracts to indicate it is in the automatic locking mode.

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 did not lock, unfasten the belt and repeat Steps 5 and 6.



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 exists once you add the extra weight of the child to the child restraint. It also helps to achieve the proper snugness of the child restraint to your vehicle. Sometimes, a slight lean toward the buckle will additionally help to remove remaining slack from the belt.
9. If the child restraint has a tether strap, attach it.

Child Safety



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 in (2.5 cm) of movement.

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

USING TETHER STRAPS

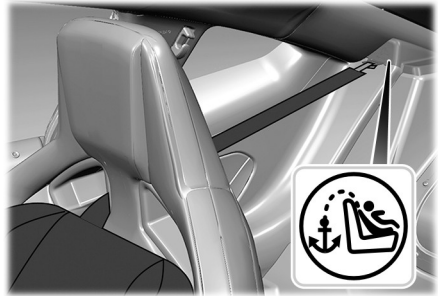


Many forward-facing child restraints include a tether strap which extends from the back of the child restraint and hooks to an anchoring point called the top tether anchor. Tether straps are available as an accessory for many older child restraints.

Contact the manufacturer of your child restraint for information about ordering a tether strap, or to obtain a longer tether strap if the tether strap on your child restraint does not reach the appropriate top tether anchor in your vehicle.

Once you install the child restraint using the seatbelt, you can attach the top tether strap.

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



1. Route the tether strap through the outermost opening in the seat backrest as shown.
2. Locate the anchor on the passenger side rear trim panel.
3. Clip the tether strap to the anchor.
4. Tighten the child restraint tether strap according to the manufacturer's instructions. If your child restraint system has a tether strap, and the child restraint manufacturer recommends its use, we also recommend its use.

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

BOOSTER SEATS

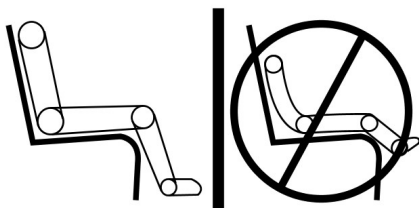
Use a belt-positioning booster seat for children who have outgrown or no longer properly fit in a child restraint and meet the following criteria.

- Generally children who are less than 57 in (1.45 m) tall.
- Are greater than age four (4) and less than age twelve (12).
- Are between 40 lb (18 kg) and 80 lb (36 kg) and upward to 100 lb (45 kg).

Child Safety

Many state and provincial laws require that children use approved booster seats until they reach age eight, a height of 57 in (1.45 m) tall, or 80 lb (36 kg).

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



- Can the child sit all the way back against their vehicle seat backrest 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



- Backless booster seats

If your backless booster seat has a removable shield, remove the shield.

If a vehicle seating position has a low seat backrest 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 backrest or head restraint and lap and shoulder belts, or consider using a high-back booster seat.



- 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.

Child Safety

Children and booster seats vary in size and shape. Choose a booster seat 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 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.



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 use any item thicker than this under the booster seat. Check with the booster seat manufacturer's instructions.

Seatbelts

SEATBELT PRECAUTIONS



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



WARNING: Children must always be properly restrained.



WARNING: Do not allow a passenger to hold a child on their lap when your vehicle is moving. Failure to follow this instruction could result in personal injury or death in the event of a sudden stop or crash.



WARNING: 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.



WARNING: 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. Make sure everyone in your vehicle is in a seat and properly using a seatbelt. Failure to follow this warning could result in serious personal injury or death.



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



WARNING: Each seating position in your vehicle has a specific seatbelt assembly made up of one buckle and one tongue designed to be used as a pair. Use the shoulder belt on the outside shoulder only. Never wear the shoulder belt under the arm. Never use a single seatbelt for more than one person.



WARNING: Seatbelts and seats may be hot in a vehicle that is in the sunshine. The hot seatbelts or seats may burn a small child. Check seat covers and buckles before you place a child anywhere near them.



WARNING: If your vehicle is involved in a crash, have the seatbelts and associated components inspected as soon as possible. Failure to follow this instruction could result in personal injury or death.

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

The seatbelt system consists of:

- Lap and shoulder seatbelts.
- Seatbelt pretensioners at the front seating positions.
- Belt tension sensors at the front seating positions.



A seatbelt warning light and chime.



Crash sensors and monitoring system with a readiness indicator.

Seatbelts

The seatbelt pretensioners 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 in side impacts and rollovers.

FASTENING AND UNFASTENING THE SEATBELTS



WARNING: Make sure that the seatbelts are securely stowed away when not in use and not outside your vehicle when closing the doors.

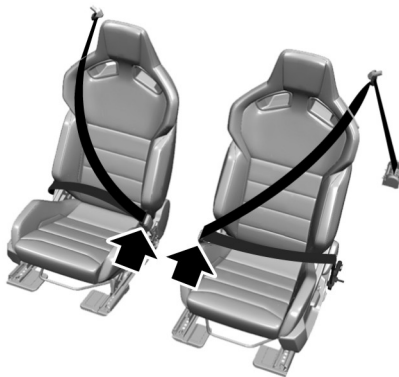


WARNING: Accessory seat covers not released by Ford Motor Company could prevent the seatbelt from retracting correctly. This could cause the seatbelt to become slack which could increase the risk of injuries in a crash.

A web guide is included on the outermost side of the front seats. Depending on occupant size and seating position, you may need to route the belt through the guide for a proper fit. If the seatbelt does not route across the middle of the shoulder, route the belt through the web guide.

All seatbelts in your vehicle are combination lap and shoulder seatbelts.

Fastening the Seatbelts



1. Pull the seatbelt out steadily.

Note: *It may lock if you pull it sharply or if the vehicle is on a slope.*

2. Insert the tongue into the buckle.
3. Pull the seatbelt tight to remove any slack.

Unfastening the Seatbelts

1. Press the red button on the buckle to release the seatbelt.
2. Hold the seatbelt tongue and let it retract completely and smoothly to its stowed position.

SENSITIVE LOCKING MODE

WHAT IS SENSITIVE LOCKING MODE

Sensitive locking mode is a seatbelt retractor feature that allows shoulder belt length adjustment according to your movements and locking in response to vehicle movement.

Seatbelts

HOW DOES SENSITIVE LOCKING MODE WORK

If the driver suddenly brakes, turns a corner sharply, or the vehicle receives an impact of about 5 mph (8 km/h) or more, the seatbelts lock to help reduce forward movement of the driver and passengers.

In addition, the seatbelt retractor locks if you pull the seatbelt webbing out too quickly. If the retractor locks, slowly lower the height adjuster to allow the seatbelt to retract.

If the retractor does not unlock, pull the seatbelt out slowly then feed a small length of webbing back toward the stowed position.

AUTOMATIC LOCKING MODE

WHAT IS AUTOMATIC LOCKING MODE

This is a safety feature built into the seatbelt retractors that keeps the seatbelts pre-locked.

WHEN TO USE AUTOMATIC LOCKING MODE

Use this mode any time you install a child restraint in a front outermost passenger seating position or any rear seating position. Properly restrain children 12 years old and under in a rear seat whenever possible.

Note: *Automatic locking mode is not available on the driver seatbelt.*

ENGAGING AUTOMATIC LOCKING MODE



1. Fasten the combination lap and shoulder belt.
2. Grasp the shoulder portion and pull downward until you pull the entire belt out.
3. Allow the belt to retract. As the belt retracts, you will hear a clicking sound. This indicates the seatbelt is now in the automatic locking mode.

DISENGAGING AUTOMATIC LOCKING MODE

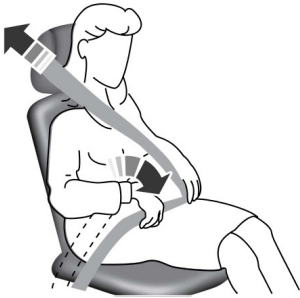
Unbuckle the combination lap and shoulder belt and allow it to retract completely to disengage the automatic locking mode and activate the vehicle sensitive locking mode.

Seatbelts

ADJUSTING THE SEATBELTS DURING PREGNANCY



WARNING: Always ride and drive with your seatback upright and properly fasten your seatbelt. Fit the lap portion of the seatbelt snugly and low across the hips. Position the shoulder portion of the seatbelt across your chest. Pregnant women must follow this practice. See the following figure.



Pregnant women should always wear their seatbelt. Position the lap belt portion of a combination lap and shoulder belt low across the hips below the belly and worn as tight as comfort allows. Position the shoulder belt to cross the middle of the shoulder and the center of the chest.

SEATBELT REMINDER

HOW DOES THE SEATBELT REMINDER WORK



WARNING: The system will only provide protection when you use the seatbelt correctly.

This system monitors all seating positions and provides audio and graphic feedback.

SEATBELT REMINDER INDICATORS



This lamp illuminates if you do not fasten your seatbelt when you switch the power on. The lamp switches off when you fasten your seatbelt.

When the initial warning expires for the driver, the system provides more warnings for the driver and front passenger. This lamp illuminates if you or your front passenger do not fasten the seatbelt buckle and the vehicle speed exceeds 6 mph (9.7 km/h).

Note: To avoid inadvertent warnings, do not place large objects on the front passenger seat.

If you see this seatbelt display on your instrument cluster, this section applies to your vehicle.



This warning displays if an occupant unfastens a seatbelt buckle or it becomes unfastened.

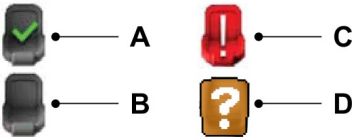
Note: If an occupant never fastens the seatbelt buckle to begin with, the warning will not display.

Seatbelts

Note: Front seating positions appear in this warning display. Warnings for unfastened front seatbelt buckles appear in the initial warning lamp.

Checking Seatbelt Status

To view the seatbelt status, use the touchscreen.



- A Seatbelt fastened.
- B Seatbelt not fastened.
- C Seatbelt recently unfastened or for your seat and seats with occupant presence detection not fastened when you start your vehicle.
- D Fault.

SEATBELT REMINDER AUDIBLE WARNINGS

A warning tone sounds if you do not fasten your seatbelt when you switch the power on. The tone switches off when you fasten your seatbelt or about one minute elapses.

When the initial warning expires for the driver, more warnings are provided for the driver and front passenger. This warning tone sounds if you or your front passenger do not fasten the seatbelt buckle and the vehicle exceeds a relatively low speed.

This tone also sounds if an occupant unfastens the rear seatbelt buckle or it becomes unfastened.

SWITCHING THE SEATBELT REMINDER ON AND OFF



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 off independently. When you perform this procedure for one seating position and the other seat is occupied, fasten the other seat.

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

Make sure that:

- You set the parking brake.
- The transmission is in park (P).
- The ignition is off.
- You close all vehicle doors.
- All seatbelts are unfastened.

1. Start the engine.

Seatbelts

2. Wait a short period of time until the seatbelt warning light switches off. After Step 2, wait an additional five seconds before proceeding with Step 3. Wait eight seconds until the seatbelt chime has finished. Once you start Step 3, complete the procedure within 30 seconds.
3. For the seating position you are switching off, fasten then unfasten the seatbelt four times at a moderate speed, ending in the unfastened state. After each unfasten, the seatbelt warning light switches on and off with each fasten.
4. The seatbelt warning light flashes for confirmation.

This switches the feature off for that seating position if it is currently on.

This switches the feature on for that seating position if it is currently off.

SEATBELT WARNING SYSTEM

If you see this seatbelt display on your instrument cluster, this section applies to your vehicle.



The seatbelt warning system includes visual and audible warnings to alert you of an unbuckled or recently unfastened occupant. Visual warnings display in the instrument cluster.

The system uses information from the front passenger sensing system to determine if a front seat passenger is present and potentially in need of a warning.

Note: To avoid inadvertent warnings, do not place large objects on the front passenger seat. Only the front seat passenger receives warnings as determined by the front passenger sensing system.

A seatbelt warning does not allow deactivation of visual or audible warnings.

Seatbelt Warning Lamp

A warning lamp illuminates if the ignition is on, a front seat is occupied and the seatbelt has not been fastened.



The warning lamp illuminates until you fasten your seatbelt.



Seatbelt is fastened.



Seatbelt recently unfastened or for seats with occupant presence detection not fastened when you start the vehicle.



Seatbelt not fastened.

Seatbelts



Fault.

Seatbelt Reminder

When the ignition is on or the engine is running, or if any front outermost seat is occupied and a seatbelt is unfastened, visual and audible warnings activate.

An audible warning continues for 30 seconds until:

- You fasten the seatbelts on the front outermost occupied seats.
- A seat is no longer occupied.

Visual warnings continue for front outermost seats until:

- You fasten the seatbelts on the front outermost occupied seats.
- The front outermost passenger seat is no longer occupied.

A visual warning continues for rear seats until:

- You fasten the rear seatbelts.
- 60 seconds elapse.

Seatbelt Monitor

Front Outermost Seats

This feature provides an audible and visual warning when you drive your with either of the front outermost occupied seats unfastened.

An audible warning continues until:

- You fasten the front outermost occupied seats.
- The front outermost passenger seat is no longer occupied.
- The vehicle stops.

Rear Seats

This feature provides an audible and visual warning when a rear seatbelt is unfastened and your vehicle is in a forward or reverse gear.

An audible alert remains until:

- You open or close a rear door.
- You fasten the seatbelt which was recently unfastened or fasten any other seatbelt in the same row while the rear doors are closed.
- 49 seconds elapse since you placed your vehicle in a forward or reverse gear.

A visual alert remains until:

- 49 seconds elapse since you placed your vehicle in a forward or reverse gear.
- You fasten the seatbelt which was recently unfastened or fasten any other seatbelt in the same row with the rear doors closed.

CHECKING THE SEATBELTS

Check the seatbelts and child restraints periodically to make sure they work properly and are not damaged. Make sure there are no nicks, tears or cuts. Replace if necessary.

Check all of the following seatbelt assemblies after a crash.

- Retractors.
- Buckles.
- Front seatbelt buckle assemblies.
- Shoulder belt guide on seat backrest.
- Child restraint anchors and top tethers.
- Attaching hardware.

Read the child restraint manufacturer's instructions for additional inspection and maintenance information specific to the child restraint.

Seatbelts

We recommend that all seatbelt 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. Seatbelt assemblies not in use during a crash should also be checked and replaced if either damage or improper operation is noted.

Properly care for seatbelts. See **Vehicle Care** (page 250).

If, because of body size or driving position, it is not possible to properly fasten the seatbelt over your lap and shoulder, an extension that is compatible with the seatbelts is available from our dealers. Only use our seatbelt extensions made by the original equipment seatbelt manufacturer with our seatbelts. Ask your authorized dealer if your extension is compatible with your vehicle restraint system.

SEATBELT EXTENSIONS



WARNING: Persons who fit into the vehicle's seatbelt should not use an extension. Unnecessary use could result in serious personal injury in the event of a crash.



WARNING: Never use seatbelt extensions to install child restraints.



WARNING: Only use extensions provided by our dealers. The dealer will provide an extension designed specifically for this vehicle and seating position. The use of an extension intended for another vehicle, model year or seating position may not offer you the full protection of your vehicle's seatbelt restraint system.



WARNING: Do not use extensions to change the way the seatbelt fits across the torso, over the lap or to make the seatbelt buckle easier to reach.

WHAT IS THE PERSONAL SAFETY SYSTEM

An advanced safety system that protects occupants in frontal crashes.

HOW DOES THE PERSONAL SAFETY SYSTEM WORK

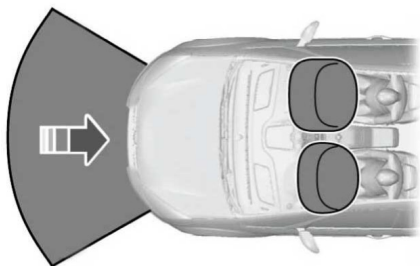
This system provides an improved level of frontal crash protection to front seat occupants and is designed to reduce the risk of airbag-related injuries. The system analyzes occupant conditions and crash severity before activating the appropriate safety devices. During a crash, the restraints control module may deploy the seatbelt pretensioners, and one or both stages of the dual-stage airbags based on crash severity and occupant conditions.

PERSONAL SAFETY SYSTEM COMPONENTS

- Driver and passenger dual-stage airbag supplemental restraints.
- Front seat outermost seatbelts with pretensioners, energy management retractors and seatbelt usage sensors.
- Front passenger sensing system.
- Passenger airbag off and on indicators.
- Front crash severity sensors.
- Restraints control module with impact and safing sensors.
- Restraint system warning light and tone.
- The electrical wiring for the airbags, crash sensors, seatbelt pretensioners, front seatbelt usage sensors, front passenger sensing system and indicator lights.

Airbags

HOW DO THE FRONT AIRBAGS WORK



The driver and front passenger airbags 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 57).

The airbags are a supplemental restraint system and are designed to work with the seatbelts 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.

Contact with a deploying airbag may 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.

Routine maintenance of the airbags is not required.

HOW DO THE SIDE AIRBAGS WORK



WARNING: Do not place objects or mount equipment on or near the airbag cover, on the side of the front or rear seatbacks, or in 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.



WARNING: Accessory seat covers not released by Ford Motor Company could prevent the deployment of the airbags and increase the risk of injuries in a crash.

Airbags



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

The side airbags are on the outermost side of each front seat backrest. In certain sideways crashes or rollovers, the airbags 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.



The system consists of the following:

- A label or embossed side panel indicating that your vehicle has side airbags.
- Side airbags inside the driver and front passenger seat backrests.
- Crash sensors and monitoring system with a readiness indicator. See **Crash Sensors and Airbag Indicator** (page 57).

HOW DO THE KNEE AIRBAGS WORK



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



WARNING: Close the glove box door when your vehicle is moving. Failure to follow this instruction could reduce the effectiveness of the passenger knee airbag and increase the risk of injury in a crash.

A driver knee airbag is under or within the instrument panel. A passenger knee airbag is within or under the glove compartment.

During a crash, the restraints control module may activate the driver and passenger knee airbags based on crash severity and occupant conditions. Under certain crash and occupant conditions, the driver and passenger knee airbag may deploy but the driver front airbag may not activate.

As with front and side airbags, it is important to be properly seated and restrained to reduce the risk of death or serious injury.



Make sure the knee airbag is operating properly. See **Crash Sensors and Airbag Indicator** (page 57).

Airbags

HOW DOES THE SAFETY CANOPY™ WORK



WARNING: 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.



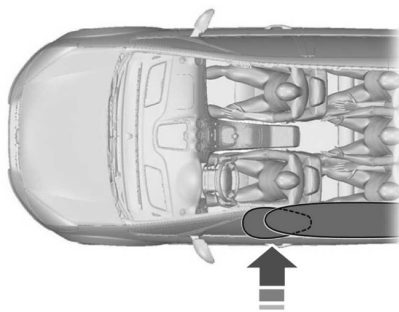
WARNING: Do not lean your head on the door. The curtain airbag could injure you as it deploys from the headliner.



WARNING: 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.

The Safety Canopy deploys 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 activates, 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.



The system consists of:

- Safety Canopy curtain airbags above the trim panels over the front and rear side windows. They are 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 57).

Properly restrain children 12 years old and under in the rear seats. The Safety Canopy airbags 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.

AIRBAG PRECAUTIONS



WARNING: 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.

Airbags



WARNING: 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.



WARNING: Properly secure children 13 years old and under in a rear seating position whenever possible. If you are unable to properly secure all children in a rear seating position, properly secure the largest child on the front seat. If you must use a forward facing child restraint on the front seat, move the seat as far back as possible. Failure to follow these instructions could result in personal injury or death.



WARNING: Do not place your arms on the airbag cover or through the steering wheel. Failure to follow this instruction could result in personal injury.



WARNING: Keep the areas in front of the airbags free from obstruction. Do not affix anything to or over the airbag covers. Objects could become projectiles during airbag deployment. Failure to follow this instruction could result in personal injury or death.



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



WARNING: Do not place a rearward facing child restraint in front of an active airbag. Failure to follow this instruction could result in personal injury or death.



WARNING: Do not attempt to service, repair, or modify the supplementary restraint system or associated components. Failure to follow this instruction could result in personal injury or death.



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



WARNING: If a supplementary restraint system component has deployed, it will not function again. Have the system and associated components inspected as soon as possible. Failure to follow this instruction could result in personal injury or death.

PROPERLY ADJUSTING THE DRIVER AND FRONT PASSENGER SEATS



WARNING: National Highway Traffic Safety Administration (NHTSA) recommends a minimum distance of at least 10 in (25 cm) 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.

Airbags

After all occupants have adjusted their seats and put on seatbelts, it is very important that they continue to sit properly. Properly seated occupants sit upright, lean against the seat backrest, and center themselves 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 greatly increases.

CHILDREN AND AIRBAGS



WARNING: Do not place a rearward facing child restraint in front of an active airbag. Failure to follow this instruction could result in personal injury or death.



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

WHAT IS THE FRONT PASSENGER SENSING SYSTEM

This system detects a properly seated occupant and determines if the front passenger airbag should be enabled.

HOW DOES THE FRONT PASSENGER SENSING SYSTEM WORK

The system uses a passenger airbag status indicator that illuminates indicating that the front passenger frontal airbag is either enabled or disabled.

Note: When you first switch the ignition on, the passenger airbag status indicator off and on lamps illuminate for a short period to confirm they are functional.



The indicator lamps are in the center of the instrument panel.

The front passenger sensing system is designed to disable the front passenger frontal airbag under these conditions:

- The front passenger seat is unoccupied.
- The system determines an infant is present in a child restraint.

Airbags

- A passenger takes their weight off of the seat for a period of time.
- If there is a problem with the airbag system or the passenger sensing system.

Note: *Even with this technology, parents are strongly encouraged to always properly restrain children in the rear seat.*

- When the front passenger sensing system disables the front passenger frontal airbag, the passenger airbag status indicator illuminates the off lamp.
- If you have installed the child restraint and the passenger airbag status indicator illuminates the on lamp, switch your vehicle off, remove the child restraint from your vehicle and reinstall the restraint following the child restraint manufacturer's instructions.

The front passenger sensing system works with sensors that are part of the front passenger seat and seatbelt. The sensors are designed to detect the presence of a properly seated occupant and determine if the front passenger frontal airbag should be enabled.

- When the front passenger sensing system enables the front passenger frontal airbag, the passenger airbag status indicator illuminates the on lamp.

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

- Switch your vehicle off and ask the person to place the seat backrest in an upright position.
- Have the person sit upright in the seat, centered on the seat cushion, with the person's legs comfortably extended.

- Restart your vehicle and have the person remain in this position for about two minutes. This allows the system to detect that person and enable the passenger frontal airbag.
- If the indicator off lamp remains illuminated even after this, you should advise the person to ride in the rear seat.

After all occupants have adjusted their seats and put on seatbelts, it is very important that they continue to sit upright, leaning against the seat backrest, 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 greatly increases.

If you think that the state of the passenger airbag status indicator lamp is incorrect, check for the following:

- Objects lodged underneath the seat.
- Objects between the seat cushion and the center console.
- Objects placed on the occupant's lap.
- Cargo interference with the seat
- Other passengers pushing or pulling on the seat.
- Rear passenger feet and knees resting or pushing on the seat.

The listed conditions could cause the weight of a properly seated occupant to be incorrectly interpreted by the front passenger sensing system. The person in the front passenger seat could appear heavier or lighter due to the conditions listed.

Airbags



Make sure the front passenger sensing system is operating properly. See **Crash Sensors and Airbag Indicator** (page 57).

FRONT PASSENGER SENSING SYSTEM PRECAUTIONS

If the airbag readiness light is on, do the following:

- Pull your vehicle over.
- Switch your vehicle off.
- Check for any objects lodged underneath the front passenger seat or cargo interfering with the seat.
- Remove the obstruction if found.
- Restart your vehicle.
- Wait at least two minutes and verify that the airbag readiness light in the instrument cluster is no longer illuminated.
- If the airbag readiness light in the instrument cluster remains illuminated, there may be a problem due to the front passenger sensing system.

Do not attempt to repair or service the system. Take your vehicle in for service immediately.

If it is necessary to modify an advanced front airbag system to accommodate a person with disabilities, contact your Customer Relationship Center.



WARNING: 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.



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



WARNING: Do not place objects under the front passenger seat or between the seat and the center console. Failure to follow this instruction may interfere with the front passenger seat sensing system and increase the risk of injury or death in a crash.



WARNING: Check the passenger airbag indicator lamp for proper airbag status. Failure to follow this instruction could result in personal injury or death.

FRONT PASSENGER SENSING SYSTEM INDICATORS

Occupant	Passenger Airbag Status Indicator	Passenger Airbag
Empty	OFF: Illuminated	Disabled
	ON: Not Illuminated	
Child	OFF: Illuminated	Disabled

Airbags

Occupant	Passenger Airbag Status Indicator	Passenger Airbag
	ON: Not Illuminated	
Adult	OFF: Not Illuminated	Enabled
	ON: Illuminated	

CRASH SENSORS AND AIRBAG INDICATOR



WARNING: Modifying or adding equipment to the front of your vehicle could affect the performance of the airbag system, increasing the risk of injury. This includes the hood, bumper system, frame, front body structure, tow hooks, hood pins, push bar and snowplows.

Your vehicle has a collection of crash and occupant sensors. These sensors provide information to the restraints control module which activates the following:

- Front seatbelt pretensioners.
- Driver airbag.
- Passenger airbag.
- Knee airbag(s).
- Seat mounted side airbags.
- Adaptive steering column.
- Safety Canopy airbags.

Based on the type of crash, the restraints control module deploys the appropriate safety devices.

The restraints control module also monitors the readiness of the above safety devices plus the crash and occupant sensors. The safety system displays an indicator in the instrument cluster when it is ready. The system sends out a tone as a backup if it is not working. The airbag does not require routine maintenance.

One or more of the following may indicate a system issue:



The readiness light does not immediately illuminate after you switch the power on.

- The readiness light either flashes or stays on.
- You hear a series of five tones. The tone pattern periodically repeats until the problem, the light or both are repaired.

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

Airbags

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, seatbelt usage) were not appropriate to activate these safety devices.

- The front airbags activate only in frontal and near-frontal crashes. The front airbags may activate in rollovers, side impacts or rear impacts if the crash causes sufficient frontal deceleration.
- The seatbelt pretensioners activate in frontal, near-frontal and side crashes, and in rollovers.
- The knee airbag deploys based on crash severity and occupant conditions.
- The side airbags inflate in certain side impact crashes or rollover events. Side airbags may activate in other types of crashes if the vehicle experiences sufficient sideways motion or deformation.
- The Safety Canopy inflates 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.

DISPOSING OF AIRBAGS

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

911 Assist - Vehicles With: Emergency Assistance

WHAT IS 911 ASSIST

911 Assist is a SYNC system feature that can call for help.

For more information, visit <https://www.owner.ford.com>.

HOW DOES 911 ASSIST WORK

If a crash deploys an airbag, excluding knee airbags and rear inflatable seatbelts, or activates the fuel pump shut-off, your vehicle may be able to contact emergency services by dialing 911 through a paired and connected **Bluetooth®** enabled phone.

Not all crashes deploy an airbag or activate the fuel pump shut-off. If a connected cell phone sustains damage or loses its connection to SYNC during a crash, SYNC searches for and tries to connect to a previously paired cell phone. SYNC then attempts to call the emergency services.

Before making the call:

- SYNC provides about 10 seconds to cancel the call. If you fail to cancel the call, SYNC attempts to dial 911.
- SYNC says the following, or a similar message: SYNC will attempt to call 911, to cancel the call, press Cancel on your screen or press and hold the phone button on your steering wheel.

If you do not cancel the call and SYNC makes a successful call a pre-recorded message plays for the 911 operator. The occupants in your vehicle are able to talk with the operator. Be prepared to provide your name, phone number and location immediately because not all 911 systems are capable of receiving this information electronically.

During an emergency call the system transmits vehicle data to the emergency service.

EMERGENCY CALL REQUIREMENTS



WARNING: Do not wait for 911 Assist to make an emergency call if you can do it yourself. Dial emergency services immediately to avoid delayed response time which could increase the risk of serious injury or death after a crash. If you do not hear 911 Assist within five seconds of the crash, the system or phone may be damaged or non-functional.



WARNING: Always place your phone in a secure location in your vehicle so it does not become a projectile or get damaged in a crash. Failure to do so may cause serious injury to someone or damage the phone which could prevent 911 Assist from working properly.



WARNING: Unless the 911 Assist setting is set on before a crash, the system will not dial for help which could delay response time, potentially increasing the risk of serious injury or death after a crash.

- SYNC is powered and working properly at the time of the incident and throughout feature activation and use.
- The 911 Assist feature must be set on before the incident.
- You must pair and connect a **Bluetooth®** enabled and compatible cell phone to SYNC.
- A connected **Bluetooth®** enabled phone must have the ability to make and maintain an outgoing call at the time of the incident.

911 Assist - Vehicles With: Emergency Assistance

- A connected **Bluetooth®** enabled phone must have adequate network coverage, battery power and signal strength.
- The vehicle must have battery power and be located in the U.S., Canada or in a territory in which 911 is the emergency number.

Note: *If any user sets 911 Assist to on or off, that setting applies for all paired phones. If 911 Assist is off and the phone connected to SYNC, an icon displays on the status bar.*

Note: *Every phone operates differently. While SYNC 911 Assist works with most cellular phones, some may have trouble using this feature.*

EMERGENCY CALL LIMITATIONS

The SYNC 911 Assist feature only operates in the U.S., Canada or in a territory in which 911 is the emergency number. The following are limitations of this feature:

- Your cellular phone or 911 Assist hardware sustains damage in a crash.
- The vehicle's battery or the SYNC system has no power.
- The phone(s) thrown from your vehicle are the ones paired and connected to the system.

Keys and Remote Controls

REMOTE CONTROL LIMITATIONS



WARNING: Changes or modifications not expressly 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.

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.

Make sure a valid remote control is within 3 ft (1 m) from the front door handles and rear of vehicle.

The system may not function if:

- The remote control remains stationary for about a minute.
- The vehicle battery has no charge.
- The remote control battery has no charge.
- There is interference causing issues with the remote control frequencies.
- The remote control is too close to metal objects or electronic devices, for example keys or a cell phone.

USING THE REMOTE CONTROL



WARNING: Do not leave a key or remote control unattended in the vehicle. Children or pets could operate the power windows, moonroof or other controls. Failure to follow this instruction could result in personal injury or death.

Use your remote control to access various vehicle systems.

Note: *The buttons on your remote may vary depending on the vehicle region or options.*

One-Stage Unlocking



Press the button to unlock all doors. See **Unlocking and Locking the Doors Using the Remote Control** (page 67).

Two-Stage Unlocking (If Equipped)



Press the button to unlock the driver's door. Press the button again within three seconds to unlock all doors. See **Unlocking and Locking the Doors Using the Remote Control** (page 67).

Lock



Press the button to lock all doors. See **Unlocking and Locking the Doors Using the Remote Control** (page 67).

Panic Alarm (If Equipped)



Press the button to sound the panic alarm. See **Sounding the Panic Alarm** (page 62).

Keys and Remote Controls

Remote Start (If Equipped)



Press the button to remote start. See **Using Remote Start** (page 99).

Technical Panel



Press the button twice to unlock the technical panel. See **Removing and Installing the Technical Panel** (page 216).

REMOVING THE KEY BLADE



Push the release button on your passive key and pull the key blade out.

SOUNDING THE PANIC ALARM



Press the button to sound the panic alarm. Press the button again or switch the vehicle on to turn it off.

Note: *The panic alarm only operates when the vehicle is off.*

LOCATING YOUR VEHICLE



Press the lock button twice within three seconds. The turn signal lamps flash. We recommend you use this method to locate your vehicle.

CHANGING THE REMOTE CONTROL BATTERY



WARNING: Keep batteries away from children to prevent ingestion. Failure to follow this instruction could result in personal injury or death. If ingested, immediately seek medical attention.



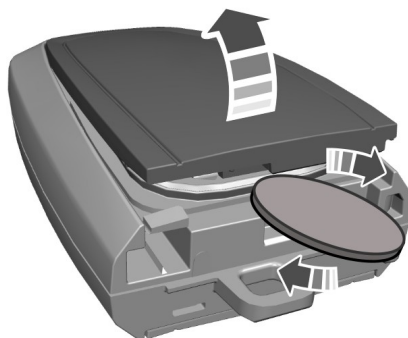
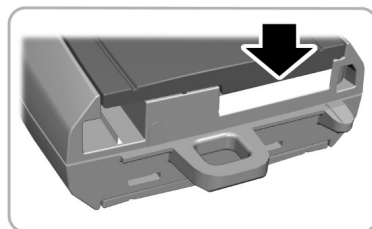
WARNING: If the battery compartment does not securely close, stop using the remote control and replace it as soon as possible. In the meantime, keep the remote control away from children. Failure to follow this instruction could result in personal injury or death.

The remote control uses one coin-type 3-volt lithium battery, CR2450, or equivalent.

Keys and Remote Controls

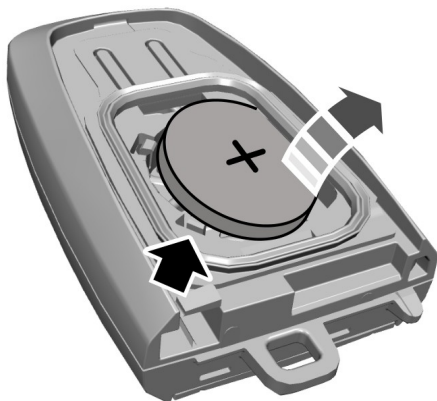


1. Push the release button and pull the key blade out.



2. Twist a thin coin under the tab hidden behind the key blade head to remove the battery cover.

Keys and Remote Controls



3. Insert a screwdriver in the position shown and carefully remove the battery.
4. Insert a new battery with the + facing upward.
5. Reinstall the battery cover onto the remote control and install the key blade.



Note: Refer to local regulations before you dispose of the remote control batteries.

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

Note: Replacing the remote control battery does not erase the programmed key from your vehicle. The remote control operates as normal.

Note: A message appears in the information display when the remote control battery is low.

REPLACING A LOST KEY OR REMOTE CONTROL

You can purchase replacement keys or remote controls from an authorized dealer. Authorized dealers can program remote controls for your vehicle.

PROGRAMMING THE REMOTE CONTROL

General Information

Make sure you are ready with the following before programming the remote control.

- You must have two previously programmed remote controls inside your vehicle. Contact an authorized dealer to have the spare remote control programmed if two previously programmed remotes are not available.
- The new unprogrammed remote controls must be readily accessible.
- Make sure that your vehicle is off.
- Make sure that you close all the doors 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.

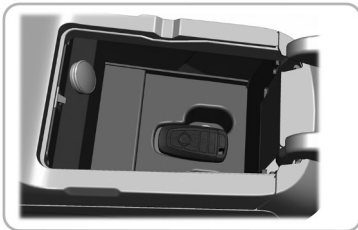
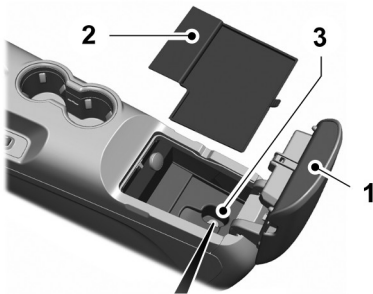
Read and understand the entire procedure before you begin.

Note: You can program a maximum of four remote controls to your vehicle.

Keys and Remote Controls

Note: If your programmed remote controls are lost or stolen and you do not have an extra coded remote, you need to have your vehicle towed to an authorized dealer. Store an extra programmed remote away from your vehicle in a safe place to help prevent any inconvenience. Contact an authorized dealer to purchase additional spare or replacement remotes.

Steps for Programming Your Spare Remote Control



1. Access the backup slot.
2. Place the first programmed remote in the backup slot in the center console with the buttons facing up. With your foot off the brake pedal, press and release the push button ignition switch.
3. Wait five seconds and then press and release the push button ignition switch again.
4. Remove the remote control.

5. Within 10 seconds, place a second programmed remote control in the backup slot. Press and release the push button ignition switch.
6. Wait five seconds and then press and release the push button ignition switch again. Keep the ignition on for at least three seconds, but no more than 10 seconds.
7. Remove the remote control.
8. Place the unprogrammed remote control in the backup slot and press and release the push button ignition switch.

Programming is now complete. With your foot on the brake pedal, press the push button ignition switch to verify the remote control functions operate and your vehicle starts with the new remote control.

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

KEYS AND REMOTE CONTROLS AUDIBLE WARNINGS

Key In Reminder

Sounds when the following conditions are met:

- Vehicle is out of park (P).
- You switch the vehicle off.
- You open the driver's door.
- You have left the key inside the vehicle.

Keys and Remote Controls

USING THE VALET MODE

What is Valet Mode

The valet mode allows you to limit the access to some features on the touchscreen.

Enabling Classic Valet Mode

Make sure the remote control is in your vehicle.

1. From the settings menu, press Valet Mode.
2. Enter a four digit code to lock the touchscreen.
3. Re-enter the same four digit code to complete enabling valet mode.

Disabling Classic Valet Mode

1. Press Exit Valet Mode.
2. Enter your four digit code to disable valet mode and unlock the touchscreen.

KEYS AND REMOTE CONTROLS – TROUBLESHOOTING

KEYS AND REMOTE CONTROLS – INFORMATION MESSAGES

Message	Details
Key battery low Replace soon	Replace remote control battery.

Doors and Locks

OPERATING THE DOORS FROM OUTSIDE YOUR VEHICLE

UNLOCKING AND LOCKING THE DOORS USING THE REMOTE CONTROL

You can only use the remote control when your vehicle is stationary.

Unlocking the Doors



Press the button to unlock all doors. One long flash of the turn signal lamps confirms that your vehicle has unlocked.

One-Stage Unlocking



Press the button to unlock all doors.

Two-Stage Unlocking (If Equipped)



Press the button to unlock the driver's door. Press the button again within three seconds to unlock all doors.

Locking the Doors



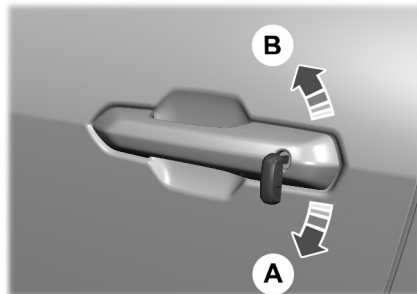
Press the button to lock all doors. One short flash of the turn signal lamps confirms your vehicle is locked.

A tone sounds when you press the lock button twice within three seconds on the remote control to confirm your vehicle is locked.

Note: You can also lock and unlock your vehicle without using the remote control. See **Keyless Entry** (page 71).

UNLOCKING AND LOCKING THE DOORS USING THE KEY BLADE

If there is a power door lock fault you can use the key blade to lock and unlock the doors.



A Lock.

B Unlock.

OPERATING THE DOORS FROM INSIDE YOUR VEHICLE

UNLOCKING AND LOCKING THE DOORS USING THE CENTRAL LOCKING

The power door lock control is on the front doors.



Press the button to unlock all doors.



Press the button to lock all doors.

Note: The central locking only operates if the front doors are fully closed.

Doors and Locks

OPENING THE DOORS FROM INSIDE YOUR VEHICLE

Pull the interior door handle to unlock and open a door.

AUTOUNLOCK

WHAT IS AUTOUNLOCK

Autounlock is a feature that centrally unlocks the vehicle doors when your vehicle comes to a stop and you open the driver door using the interior door handle.

AUTOUNLOCK REQUIREMENTS

Autounlock unlocks all the doors after:

1. The vehicle speed exceeds 12 mph (20 km/h).
2. Your vehicle comes to a stop.
3. You open the driver door.

Note: *Autounlock operates for only 10 minutes after the ignition is switched off.*

SWITCHING AUTOUNLOCK ON AND OFF

1. From the settings menu, press Vehicle.
2. Press Locks.
3. Switch Autounlock on or off.

AUTOLOCK

WHAT IS AUTOLOCK

Autolock is a locking feature that centrally locks your vehicle doors when driving.

AUTOLOCK REQUIREMENTS

Autolock locks all the doors after:

1. All doors are closed and the ignition is on.
2. Your vehicle speed exceeds 12 mph (20 km/h).

Autolock repeats if:

1. Your vehicle is stopped.
2. Any door is opened and closed again.
3. Your vehicle speed exceeds 12 mph (20 km/h).

MISLOCK

WHAT IS MISLOCK

Mislock is a locking feature that warns you if your vehicle has not locked after requesting a lock.

MISLOCK LIMITATIONS

The turn signals will not flash when you press the lock button once and the hood or any door is open.

If you switch mislock off, the horn does not sound if you press the lock button on the remote control when a door is open.

SWITCHING MISLOCK ON AND OFF

1. From the settings menu, press Vehicle.
2. Press Locks.
3. Switch Mislock Chirp on or off.

DOORS AND LOCKS AUDIBLE WARNINGS

Door Ajar Audible Warning

Sounds when any front door is not fully closed and your vehicle is moving.

Doors and Locks

DOORS AND LOCKS – TROUBLESHOOTING

DOORS AND LOCKS – WARNING LAMPS

Door Ajar Warning Lamp



Illuminates when you switch the vehicle on and remains on if any door, the hood or the liftgate is open.

DOORS AND LOCKS – INFORMATION MESSAGES

Message	Details
Driver door ajar	Displays if a door is open. Fully close the door.
Passenger door ajar	
Rear left door ajar	
Rear right door ajar	
Hood ajar	Displays if a hood is open. Fully close the hood.

Doors and Locks

DOORS AND LOCKS – FREQUENTLY ASKED QUESTIONS

Can accessories such as steps or handles be used with the latch assembly?

- Do not use the door latch assembly to attach any accessory, such as handles or steps, as this can cause damage to your vehicle.

Keyless Entry

WHAT IS KEYLESS ENTRY

The system allows you to lock and unlock your vehicle without taking the passive key out of your pocket or purse.

KEYLESS ENTRY LIMITATIONS

Make sure your remote control is within 3 ft (1 m) of the front door handles and rear of the vehicle.

The system could not function if:

- The remote control remains stationary for about a minute.
- The vehicle battery has no charge.
- The remote control battery has no charge.
- There is interference causing issues with the remote control frequencies.
- The remote control is too close to metal objects or electronic devices, for example keys or a cell phone.

KEYLESS ENTRY SETTINGS

Reprogramming the Unlocking Function (If Equipped)

You can enable the two-stage unlocking function allowing you to unlock only the driver door when you touch the unlock sensor.

Press and hold both the lock and unlock buttons on the remote control for four seconds to disable or enable two-stage unlocking.

If you program the unlocking function so that only the driver door unlocks, you can unlock all of the other doors from inside your vehicle using the power door lock control. You can unlock individual doors by pulling the interior door handles on those doors.

Key Detection Alert

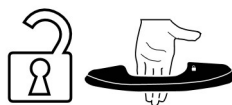
Displays a message in the instrument cluster if no valid key is detected, when you exit your vehicle with a key, after the last front door is closed and your keyless vehicle is in run, indicating your vehicle is still on. An audible alert sounds if you have driven the vehicle and reached a speed of 16 mph (25 km/h) and the above mentioned conditions are met.

You can switch the audible alert on or off.

1. From the settings menu, press Vehicle.
2. Switch Key Detection Alert On or Off.

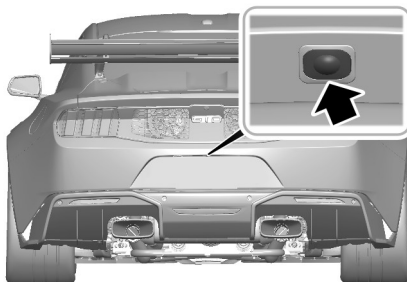
USING KEYLESS ENTRY

Unlocking the Doors



With your passive key within 3 ft (1 m) of your vehicle, gently press the touchpad on the door handle to unlock and open the door.

Opening the Rear Technical Panel with Passive Key



Keyless Entry

Press the exterior release button to unlock the rear technical panel with your passive key within 3 ft (1 m) of the vehicle. See

Removing and Installing the Technical Panel (page 216).

Locking the Doors



With your remote control within 3 ft (1 m) of your vehicle, touch the lock icon on the door handle to lock the door. The keyless entry system requires a brief delay to authenticate your device.

Note: *The door activation switch flashes once to indicate the vehicle locks.*

Note: *Do not use the outside door handle as a roof cargo strap.*

PASSIVE ANTI-THEFT SYSTEM

WHAT IS THE PASSIVE ANTI-THEFT SYSTEM

The passive anti-theft system prevents someone from starting your vehicle with an incorrectly coded key.

Note: Do not leave a duplicate coded key in your vehicle. Always take the keys and lock all the doors when leaving your vehicle.

HOW DOES THE PASSIVE ANTI-THEFT SYSTEM WORK

The passive anti-theft system arms when you switch your vehicle off.

It disarms when you switch your vehicle on with a correctly coded key.

Note: The system is not compatible with non-Ford aftermarket remote start systems.

Note: Do not leave a duplicate coded key in your vehicle. Always take the keys and lock all doors when leaving your vehicle.

ANTI-THEFT ALARM SYSTEM

WHAT IS THE ANTI-THEFT ALARM SYSTEM

The anti-theft alarm system warns you of an unauthorized entry to your vehicle.

HOW DOES THE ANTI-THEFT ALARM SYSTEM WORK

When armed, the anti-theft alarm is triggered in any of the following ways:

- If someone opens a door, the liftgate or the hood without a correctly coded key or remote control.
- If you turn the power on without a correctly coded key.
- If the interior sensors detect movement inside your vehicle.
- If the inclination sensors detect an attempt to raise your vehicle.
- If someone disconnects your vehicle's 12V battery or the battery backup alarm.

If the anti-theft alarm is triggered, the alarm horn sounds for 30 seconds and the turn signals flash for 5 minutes.

Any further attempts to carry out one of the above sounds the alarm again.

WHAT IS THE PERIMETER ALARM

The perimeter alarm is designed to detect unauthorized access to your vehicle.

WHAT ARE THE INTERIOR SENSORS

The interior sensors are designed to detect any movement inside your vehicle.

The interior sensors are in the overhead console.

Note: Do not cover the interior sensors.

WHAT ARE THE INCLINATION SENSORS

The inclination sensor is designed to detect an attempt to raise your vehicle, for example to remove a wheel or to tow it away.

Security

ARMING THE ANTI-THEFT ALARM SYSTEM

The alarm is ready to arm when you switch your vehicle off.

Lock your vehicle with your remote control to arm the alarm.

DISARMING THE ANTI-THEFT ALARM SYSTEM

Disarm the alarm by performing any of the following actions:

- Unlock the doors with the remote control or keyless entry feature.
- Switch your vehicle on or start your vehicle.

ANTI-THEFT ALARM SYSTEM SETTINGS

WHAT ARE THE ALARM SECURITY LEVELS

You can select two levels of alarm security, motion sensors on and motion sensors off.

Motion Sensors On

Motion sensors on is the standard setting.

In motion sensors on, all equipped sensors are on when you arm the alarm.

Note: Do not arm the alarm with motion sensors on if passengers, animals or other moving objects are inside your vehicle.

Motion Sensors Off

In motion sensors off, the interior sensor and the inclination sensor are off when you arm the alarm.

All the other equipped sensors activate when you arm the alarm in this mode.

Note: Motion sensor settings are turned on each time you start your vehicle.

SETTING THE ALARM SECURITY LEVEL

1. From the settings menu, press Vehicle. See **Center Display** (page 310).
2. Press Alarm System.
3. Press Motion Sensors and choose a setting.

WHAT IS ASK ON EXIT

You can choose which level of security you require after you switch your vehicle off.

Note: If you do not choose a setting, the system defaults to all sensors.

SWITCHING ASK ON EXIT ON AND OFF

1. From the settings menu, press Vehicle. See **Center Display** (page 310).
2. Press Alarm System.
3. Switch Ask on Exit on or off.

SECURITY – TROUBLESHOOTING

SECURITY – INFORMATION MESSAGES

No key detected	The system has not detected a correctly coded key.
Starting system fault	The system has malfunctioned. Have your vehicle checked as soon as possible.
Vehicle alarm To stop alarm, start vehicle	Displays when the alarm has been triggered due to unauthorized entry.

SECURITY – FREQUENTLY ASKED QUESTIONS

What should I do if there is a potential alarm problem with my vehicle?

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

What should I do if my vehicle is unable to start with a correctly coded key?

- Have your vehicle checked as soon as possible.

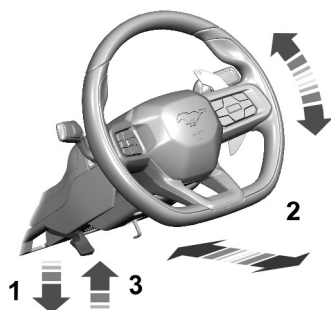
Steering Wheel

ADJUSTING THE STEERING WHEEL



WARNING: Do not adjust the steering wheel when your vehicle is moving. Failure to follow this instruction could result in the loss of vehicle control, personal injury or death.

Note: Make sure that you are sitting in the correct position. See **Sitting in the Correct Position** (page 106).



1. Unlock the steering column.
2. Adjust the steering wheel to the position you prefer.
3. Lock the steering column.

HORN



Press on the center of the steering wheel near the horn icon to activate the horn.

Wipers and Washers

WIPERS

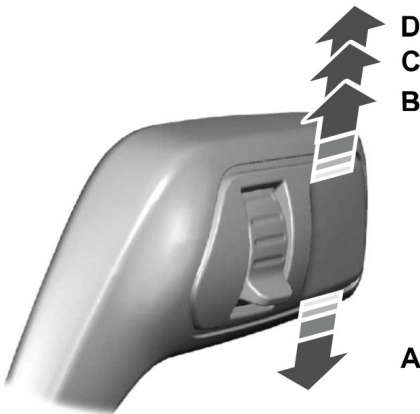
WIPER PRECAUTIONS

Do not operate the wipers on a dry windshield. This could scratch the glass or damage the wiper blades. Use the windshield washers before wiping a dry windshield.

Fully defrost the windshield before you switch the windshield wipers on.

Switch the windshield wipers off before entering a car wash.

SWITCHING WINDSHIELD WIPERS ON AND OFF



- A Single wipe.
- B Intermittent wipe/Auto wipe.
- C Normal wipe.
- D High-speed wipe.



Push the lever up or down to operate the windshield wipers.

For vehicles with auto lamps, the headlamps turn on when the windshield wipers operate.

AUTOWIPERS

WHAT ARE AUTOWIPERS

Autowipers, when turned on, automatically control the speed and frequency of the windshield wipers if the rain sensors detect moisture on the windshield.

Note: Keep the outside of the windshield clean. The rain sensor is very sensitive and the wipers may operate if dirt, mist or insects hit the windshield.

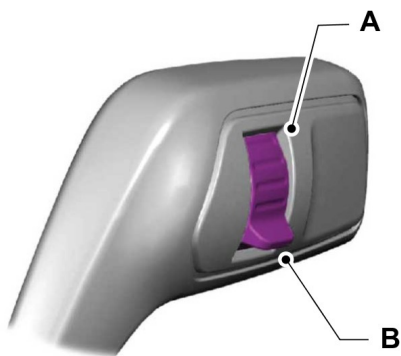
AUTOWIPERS SETTINGS

1. From the settings menu, press Vehicle.
2. Press Wipers.
3. Switch Rain sensing on or off.

Note: When you switch the feature off, the wipers do not operate based on the rain sensor. When you switch on the windshield wipers to the intermittent wipe position with the feature on, the wipers use the wipe speed set by the rotary control.

Wipers and Washers

ADJUSTING THE SENSITIVITY OF THE RAIN SENSOR



- A High sensitivity.
- B Low sensitivity.

Use the rotary control to set the rain sensor sensitivity.

When you select high sensitivity, the wipers operate when the sensor detects a small amount of water on the windshield.

When you select low sensitivity, the wipers operate when the sensor detects a large amount of water on the windshield.

CHECKING THE WIPER BLADES

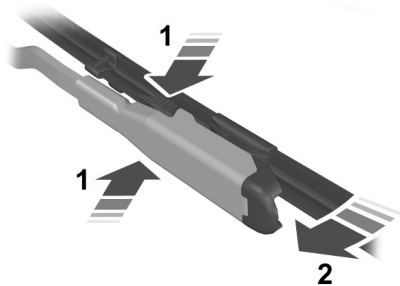


Run the tip of your fingers over the edge of the blade to check for roughness.

REPLACING THE FRONT WIPER BLADES

Make sure your vehicle is off before beginning this procedure.

Note: Do not manually move the wiper arms when the vehicle is on or in accessory mode, this could damage the wiper motor.



1. Lift the wiper arm and then press the wiper blade locking buttons together.

Note: Do not hold the wiper blade to lift the wiper arm.

Note: Make sure that the wiper arm does not spring back against the glass when the wiper blade is not attached.

Wipers and Washers

2. Slightly rotate the wiper blade.
3. Remove the wiper blade.
4. To install, reverse the removal procedure.

Note: Make sure that the wiper blade locks into place.

WASHERS

WASHER PRECAUTIONS



WARNING: If you operate your vehicle in temperatures below 41°F (5°C), use washer fluid with antifreeze protection. Failure to use washer fluid with antifreeze protection in cold weather could result in impaired windshield vision and increase the risk of injury or accident.

Do not operate the washers when the washer reservoir is empty. This could cause the washer pump to overheat.

Keep the outside of the windshield clean. The rain sensor is very sensitive and the wipers may operate if dirt, mist or insects hit the windshield.

USING THE WINDSHIELD WASHER



Pull the lever toward you to operate the windshield washer.

Note: A courtesy wipe occurs a short time after the wipers stop to clear any remaining washer fluid when switched on. See **Switching the Courtesy Wipe On and Off** (page 79).

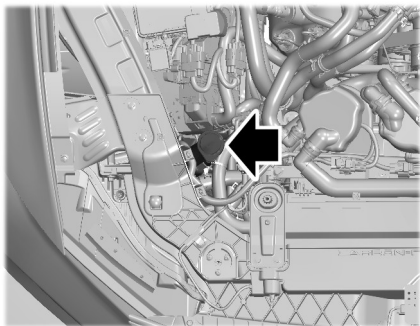
SWITCHING THE COURTESY WIPE ON AND OFF

1. From the settings menu, press Vehicle.
2. Press Wipers.
3. Switch Courtesy Wipe on or off.

Note: When you switch the feature on, the wipers make an additional single wipe at the end of the washer request. When you switch it off, the wipers finish the current washer request.

Wipers and Washers

ADDING WASHER FLUID



1. Remove the washer fluid reservoir cap.
2. Add washer fluid that meets our specification. See **Washer Fluid Specification** (page 80).
3. Install the washer fluid reservoir cap.

Note: The reservoir supplies the front and rear washer systems.

WASHER FLUID SPECIFICATION

Capacities

Variant	Quantity
All.	Fill as required.

Materials

Name	Specification
Motorcraft® Premium Windshield Wash Concentrate with Bitterant(U.S.) Motorcraft® Premium Quality Windshield Washer Fluid -35 °C / Liquide lave-glace de haute qualité - 35 °C Motorcraft®(Canada) ZC-32-B2(U.S.) CXC-37-M(Canada)	WSS-M14P19-A

Wipers and Washers

WIPERS AND WASHERS – TROUBLESHOOTING

WIPERS AND WASHERS – WARNING LAMPS



Illuminates when the windshield washer fluid is low for vehicles equipped with a washer fluid level sensor.

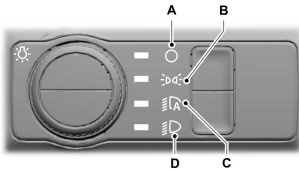
WIPERS AND WASHERS – FREQUENTLY ASKED QUESTIONS

Why are there streaks and smears on the windshield?

- The wiper blades could be dirty, worn or damaged. Check the wiper blades. See **Checking the Wiper Blades** (page 78). If the wiper blades are dirty, clean them with washer fluid or water applied with a soft sponge or cloth. If the wiper blades are worn or damaged, install new ones. See **Replacing the Front Wiper Blades** (page 78).

Exterior Lighting

EXTERIOR LIGHTING CONTROL



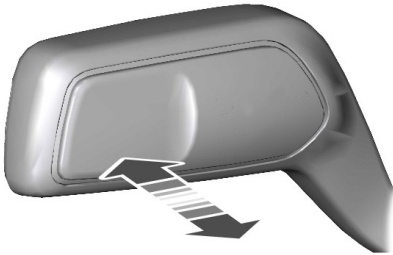
- A Lamps off.
- B Parking lamps on.
- C Autolamps on.
- D Headlamps on.

Rotate the control to make a selection.

Note: The lighting control defaults to autolamps every time you switch your vehicle on.

HEADLAMPS

USING THE HIGH BEAM HEADLAMPS



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

Push the lever forward again or pull the lever toward you to switch the high beams off.

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

Note: Continuous activation only with headlamps on.

SWITCHING HEADLAMP EXIT DELAY ON AND OFF

To switch headlamp exit delay on, pull the turn signal lever toward you when the headlamps are off and the ignition is off. A short tone sounds when the system is on.

To switch headlamp exit delay off, pull the turn signal lever toward you again or switch your vehicle on.

Note: The headlamps turn off after three minutes with any door open or 30 seconds after the last door closes.

ADJUSTING THE LEVEL OF THE HEADLAMPS

Your vehicle has a dynamic leveling system. The headlamps do not require additional aim adjustment.

HEADLAMP INDICATORS

Lamps On



Illuminates when you switch the low beam headlamps or the parking lamps on.

Headlamp High Beam



Illuminates when you switch the high beam headlamps on.

Exterior Lighting

AUTOLAMPS

WHAT ARE AUTOLAMPS



WARNING: The system does not relieve you of your responsibility to drive with due care and attention. You may need to override the system if it does not turn the headlamps on in low visibility conditions, for example daytime fog.

Autolamps turn the headlamps on in low light situations or when the windshield wipers operate.

AUTOLAMP SETTINGS

Autolamp Exit Delay

You can adjust the amount of time the autolamps remain on after you switch off your vehicle. Use the touchscreen to choose a delay setting.

1. From the settings menu, press Vehicle.
2. Press Lighting.
3. Press Autolamp Delay.
4. Select a setting.

Note: If the setting is off, the external lamps switch off immediately when you shut down your vehicle.

Note: You can pull the turn signal toward you to manually switch off the autolamp exit delay.

EXTERIOR LAMPS

USING THE TURN SIGNAL LAMPS



Push the lever up or down to switch the turn signal lamps on.

Set the lever to the middle position to switch the turn signal lamps off.

Note: Tap the lever up or down to make the turn signal lamps flash three times.

Turn Signal Lamp Indicator



It flashes when you switch the turn signal lamps on.

Note: An increase in the rate of flashing warns of a failed turn signal lamp.

Exterior Lighting

SWITCHING THE DAYTIME RUNNING LAMPS ON AND OFF - VEHICLES WITH: CONFIGURABLE DAYTIME RUNNING LAMPS



WARNING: The daytime running lamps system may not activate the rear lamps and may not provide adequate lighting during low visibility driving conditions. Make sure you switch the headlamps on, as appropriate, during all low visibility conditions. Failure to do so may result in a crash.

1. Press **Settings** on the touchscreen.
2. Press **Vehicle Settings**.
3. Press **Lighting**.
4. Switch **Daytime Running Lamps** on or off.

The daytime running lamps turn on when all of the following occur:

- You switch the system on.
- You switch your vehicle on.
- The transmission is not in park (P) for vehicles with automatic transmissions or you release the parking brake for vehicles with manual transmissions.
- The lighting control is in the autolamps position.
- The headlamps are off.

Note: Other lighting control positions do not turn on the daytime running lamps.

SWITCHING THE DAYTIME RUNNING LAMPS ON AND OFF - VEHICLES WITH: DAYTIME RUNNING LAMPS (DRL)



WARNING: The daytime running lamps system may not activate the rear lamps and may not provide adequate lighting during low visibility driving conditions. Make sure you switch the headlamps on, as appropriate, during all low visibility conditions. Failure to do so may result in a crash.

Daytime running lamps are always on unless you switch on the headlamps or your vehicle is in park (P).

SWITCHING WELCOME LIGHTING ON AND OFF

Welcome lighting turns on the exterior lamps when you approach your vehicle with an authenticated device.

1. Press **Settings** on the touchscreen.
2. Press **Vehicle**.
3. Press **Lighting**.
4. Switch **Welcome Lighting** on or off.

Note: Welcome lighting still displays when you use your remote control to unlock your vehicle.

EXTERIOR LAMP INDICATORS

Front Fog Lamp Indicator



It illuminates when you switch the front fog lamps on.

Rear Fog Lamp Indicator



It illuminates when you switch the rear fog lamps on.

Exterior Lighting

Turn Signal Lamp Indicator



It flashes when you switch the turn signal lamps on.

Note: An increase in the rate of flashing warns of a failed turn signal lamp.

EXTERIOR LAMPS ON AUDIBLE WARNING

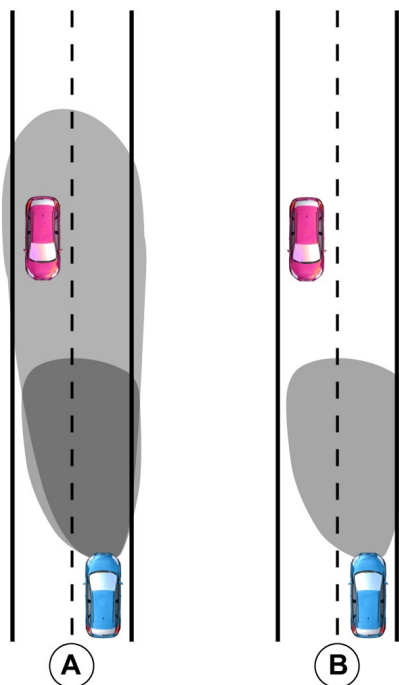
Sounds when you open the driver door and the exterior lamps are on.

AUTOMATIC HIGH BEAM CONTROL

HOW DOES AUTOMATIC HIGH BEAM CONTROL WORK

Automatic high beam control turns the high beams on if it is dark enough and no other traffic is present. If it detects an approaching vehicle's headlamps or tail lamps, or street lighting ahead, the system turns the high beams off.

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



- A Without automatic high beam control.
- B With automatic high beam control.

AUTOMATIC HIGH BEAM CONTROL PRECAUTIONS



WARNING: The system does not relieve you of your responsibility to drive with due care and attention. You may need to override the system if it does not turn the high beams on or off.

Exterior Lighting



WARNING: The system may not switch the high beams off if the lights of oncoming vehicles are hidden by obstacles, for example guard rails.



WARNING: You may need to override the system when approaching other road users.



WARNING: In situations with poor visibility, such as fog, heavy rain or other inclement weather, you may need to override or completely switch off the system.

AUTOMATIC HIGH BEAM CONTROL REQUIREMENTS

The system turns the high beams on if all of the following occur:

- You switch the system on.
- You set the lighting control to the autolamps position.
- The ambient light level is low enough that you require high beams.
- There is no traffic in front of your vehicle.
- The vehicle speed is greater than approximately 25 mph (40 km/h).

AUTOMATIC HIGH BEAM CONTROL LIMITATIONS

The system turns the high beams off if any of the following occur:

- You switch the system off.
- You set the lighting control to any position except autolamps.
- The ambient light level is high enough that you do not require high beams.
- The system detects an approaching vehicle's headlamps or a leading vehicle's tail lamps.

- The system detects severe rain, snow or fog.
- The system detects street lighting.
- The camera has reduced visibility.
- The vehicle speed falls below approximately 19 mph (30 km/h).

Note: The deactivation speed may be lower on curves.

SWITCHING AUTOMATIC HIGH BEAM CONTROL ON AND OFF

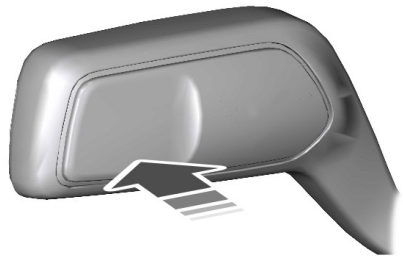
1. From the Settings menu, press Vehicle.
2. Press Lighting.
3. Switch auto high beam on or off.

AUTOMATIC HIGH BEAM CONTROL INDICATORS



Illuminates to confirm when the system is ready to assist.

OVERRIDING AUTOMATIC HIGH BEAM CONTROL



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

Push the lever away from you again to switch the high beams off.

Exterior Lighting

Push the lever away from you for a third time to switch automatic high beam control back on.

EXTERIOR LIGHTING – FREQUENTLY ASKED QUESTIONS

Why is there condensation in the exterior lamps?

- 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.

How much condensation is acceptable?

- The presence of a fine mist or small droplets without streak marks is normal condensation. This may occur under certain environmental conditions and will clear on its own.

How long does it take for the acceptable condensation to clear?

- Clearing time may vary depending on the outside temperature and environment, the drive duration or speed.

How much condensation is unacceptable?

- Standing water or a water puddle inside the lamp. Condensation with drip marks present on the interior of the lens.

What should I do if unacceptable condensation is present?

- Have your vehicle checked as soon as possible.

Why do my headlamps turn off when I have them switched on when I switch my vehicle off?

- The battery saver turns the headlamps off after a short period of time after you switch your vehicle off.

Interior Lighting

SWITCHING ALL OF THE INTERIOR LAMPS ON AND OFF

Switching All of the Interior Lamps On



Press the button on the overhead console toward the icon.

Switching All of the Interior Lamps Off



Press the button on the overhead console toward the icon.

When the switch is in this position the interior lights do not turn on when the door is open.

SWITCHING THE FRONT INTERIOR LAMPS ON AND OFF



Press the edge of the lamp lens.

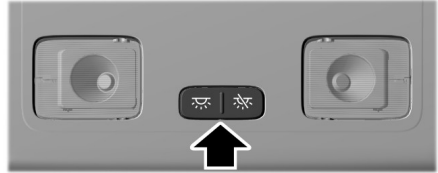
INTERIOR LAMP FUNCTION

WHAT IS THE INTERIOR LAMP FUNCTION

The interior lamp function switches the courtesy and door lamps on or off.

SWITCHING THE INTERIOR LAMP FUNCTION ON AND OFF

The switch is on the overhead console.



Set the switch to the middle position.

When you switch the interior lamp function on, the interior lamps turn on if:

- You open a door.
- You press the unlock button on the remote control.
- You switch the ignition off.

ADJUSTING THE INSTRUMENT PANEL LIGHTING BRIGHTNESS

The instrument lighting dimmer buttons are on the lighting control.



Repeatedly press one of the buttons to adjust the brightness.



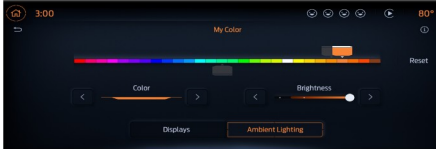
Note: There are six levels of brightness adjustments available during the day and twelve levels of brightness adjustments available at night.

AMBIENT LIGHTING

The ambient lighting system illuminates the interior of your vehicle in your choice of colors.

Interior Lighting

The ambient lighting controls are on the touchscreen and to access, press MyColor from the My Mustang menu and then press Ambient Lighting.



Switching Ambient Lighting On

Drag the brightness slider above the zero brightness to switch on the ambient lighting.

Changing the Color

Use the arrows or drag the color slider to select the desired color.

Adjusting the Brightness

Drag the brightness slider left or right to adjust the ambient lighting intensity.

Switching Ambient Lighting Off

Drag the brightness slider to zero brightness to switch off the ambient lighting.

INTERIOR LIGHTING – TROUBLESHOOTING

INTERIOR LIGHTING – FREQUENTLY ASKED QUESTIONS

Why do my courtesy lamps or interior lamps turn off when I have them switched on when I switch my vehicle off?

- The battery saver turns the courtesy lamps and interior lamps off after a short period of time after you switch your vehicle off.

Windows

OPENING AND CLOSING THE WINDOWS



WARNING: Do not leave children or pets unattended in your vehicle and do not let children play with the power windows. Failure to follow this instruction could result in personal injury or death.



WARNING: When closing the power windows, verify that they are free of obstructions and make sure children and pets are not in the proximity of the window openings. Failure to follow this instruction could result in personal injury or death.



WARNING: If an obstruction is detected, release the switch and reverse the window immediately. Failure to follow this instruction could result in personal injury or death.



WARNING: Do not leave a key or remote control unattended in the vehicle. Children or pets could operate the power windows and could become trapped in a closing window. Failure to follow this instruction could result in personal injury or death.



Press the window control switch to open the window. Lift the window control switch to close the window.

Note: *The power windows operate with the ignition on, and for several minutes after you switch the ignition off or until you open a front door.*

To reduce wind noise or pulsing noise when one window is open, slightly open the opposite window.

One-Touch Open

Fully press the window control switch and release it. Press again or lift it to stop the window.

One-Touch Close

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

Resetting One-Touch Close

Carry out all steps within 30 seconds of starting the sequence.

1. Close the door.
2. Press and hold the window control switch until the window is fully open.
3. Lift and hold the window control switch until the window is fully closed. The glass auto retracts.
4. Once auto retract is completed, lift and hold the window control switch until the window is fully closed. Hold the window control switch for a few seconds.

Note: *Repeat the procedure if the window does not close when you use one-touch or window does not function with the door open.*

GLOBAL OPENING

WHAT IS GLOBAL OPENING

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

USING GLOBAL OPENING

1. Press and release the unlock button on the remote control.
2. Press and hold the unlock button on the remote control.

Windows

3. Release the button when the windows start to open.

Press the lock or the unlock button on the remote control to stop global opening.

Note: You can use global opening for a short period of time when you unlock your vehicle using the remote control.

SWITCHING GLOBAL OPENING ON AND OFF

1. From the settings menu, press Vehicle.
2. Press Windows.
3. Switch Remote Open on or off.

WINDOW BOUNCE-BACK

WHAT IS WINDOW BOUNCE-BACK

The window stops and reverses if it detects an obstruction when closing.

OVERRIDING WINDOW BOUNCE-BACK



WARNING: If you override bounce-back, the window does not reverse if it detects an obstacle. Take care when closing the windows to avoid personal injury or damage to your vehicle.

1. Close the window until it reaches the point of resistance and let it reverse.
2. Lift and hold the window control switch within two seconds to override bounce-back and close the window. Bounce-back is now disabled and you can close the window manually.

Note: The window goes past the point of resistance and you can fully close it.

Note: If the window does not close, have your vehicle checked as soon as possible.

USING SHORT DROP WINDOWS

This feature lowers the window by a short distance to move the window out of the seal so you can open the door. It also raises the window a short distance, then back to the fully closed position as soon as you close the door.

Short drop windows requirements

Short drop windows only activate when all of the following occur:

- You open and close the door from the outside and inside of your vehicle.
- The vehicle speed falls below approximately 12.4 mph (20 km/h) from the external trigger and approximately 1.9 mph (3 km/h) from the internal trigger.
- During abnormal operation such as anti-pinch or over temperature conditions, short drop windows open when you interact with the trigger element.
- It allows the window to only move down if the current window position is greater than the short drop position.
- This feature allows the window to move up from the short drop position, when more than 30 seconds have elapsed with no door opened.

Note: Use the door handle with the unlock button from your interior trim switch to use the short drop window feature.

Note: Short drop windows do not work if the vehicle speed exceeds 12.4 mph (20 km/h) from the external trigger and 1.9 mph (3 km/h) from the internal trigger.

Windows

Note: *The short drop windows do not work in dry and wet conditions between -4.0°F (-20°C) and -39.9°F (-40°C) so that you can clear the ice from the windows and seals or activate the remote start to heat the chamber.*

Note: *The short drop window feature works for all doors.*

Resetting Short Drop Windows

Carry out all steps within 30 seconds of starting the sequence.

1. Close the door.
2. Press and hold the window control switch until the window is fully open.
3. Lift and hold the window control switch until the window is fully closed. The glass auto retracts.
4. Once auto retract is completed, lift and hold the window control switch until the window is fully closed. Hold the window control switch for a few seconds.

Note: *Repeat the procedure if the short drop windows do not work.*

INTERIOR MIRROR PRECAUTIONS



WARNING: Do not adjust the mirrors when your vehicle is moving. This could result in the loss of control of your vehicle, serious personal injury or death.

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

Note: In certain situations, very tall drivers may experience difficulty in reaching a satisfactory interior rear view mirror angle with the driver seat positioned all the way back. If this occurs, we recommend adjusting the interior rear view mirror toward the driver, up and then adjusting it to the desired position as needed. In extreme cases, the driver's face may reflect back in the mirror.

AUTO-DIMMING INTERIOR MIRROR

WHAT IS THE AUTO-DIMMING INTERIOR MIRROR

The mirror dims to reduce the effect of bright light from behind. It returns to normal when the bright light from behind is no longer present or if you shift into reverse (R).

AUTO-DIMMING INTERIOR MIRROR LIMITATIONS

Do not block the sensors on the front and back of the mirror.

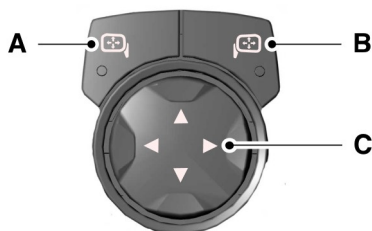
Note: A rear center passenger or raised rear center head restraint could prevent light from reaching the sensor.

Exterior Mirrors

ADJUSTING THE EXTERIOR MIRRORS



WARNING: Do not adjust the mirrors when your vehicle is moving. This could result in the loss of control of your vehicle, serious personal injury or death.



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

To adjust the mirrors, switch your vehicle on, with the push button start in accessory mode or your vehicle running.

1. Select the mirror you want to adjust. The control light turns on.
2. Use the adjustment control to adjust the position of the mirror.
3. Press the mirror control again. The control light turns off.

FOLDING THE EXTERIOR MIRRORS



WARNING: Objects in the mirror are closer than they appear.

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.

Directional Indicator Mirrors

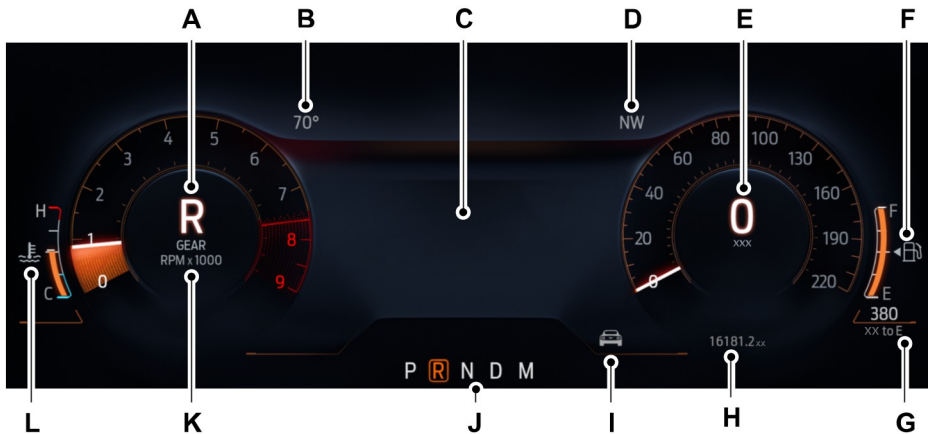
When your vehicle is running, the forward-facing portion of the appropriate mirror housing blinks when you switch on the turn signal.

Puddle Lamps

The puddle lamps turn on when you approach your vehicle with a remote control or phone. If your vehicle has auto-folding mirrors, the puddle lamps are only on if the mirrors are unfolded and turn off when the mirrors fold.

Instrument Cluster

INSTRUMENT CLUSTER OVERVIEW



- A Gear indicator.
- B Outside air temperature.
- C Information on demand area.
- D Compass.
- E Speedometer.
- F Fuel gauge.
- G Distance to empty.
- H Odometer.
- I Drive mode indicator.
- J Transmission position indicator.
- K Tachometer.
- L Engine coolant temperature.

TACHOMETER

Indicates the rotational speed of the engine to the driver at any given moment.

SPEEDOMETER

Indicates the vehicle speed.

Instrument Cluster

Secondary Speedometer (If Equipped)

You can switch on a secondary speedometer that displays other measurement units. See **Home Screen** (page 310).

FUEL GAUGE

WHAT IS THE FUEL GAUGE

Indicates approximately how much fuel is in the fuel tank.

FUEL GAUGE LIMITATIONS

The fuel gauge may not provide an accurate reading when your vehicle is on an incline.

LOCATING THE FUEL FILLER DOOR

The arrow adjacent to the fuel pump symbol indicates on which side of your vehicle the fuel filler door is located.

WHAT IS THE LOW FUEL REMINDER

A low fuel level reminder displays and sounds when the distance to empty reaches 50 mi (80 km), 25 mi (40 km), 10 mi (20 km) and 0 mi (0 km).

Note: *The low fuel reminder can appear at different fuel gauge positions depending on fuel economy conditions. This variation is normal.*

WHAT IS DISTANCE TO EMPTY

Indicates the approximate distance your vehicle can travel on the fuel remaining in the tank. Changes in driving pattern can cause the value to not only decrease but also increase or stay constant for periods of time.

ENGINE COOLANT TEMPERATURE GAUGE

Indicates the engine coolant temperature.

Instrument Cluster Display

USING THE INSTRUMENT CLUSTER DISPLAY CONTROLS



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.

The controls are on the steering wheel.



OK Button

Press to make a selection.

Scroll Buttons

Press the up or down buttons to scroll through information on demand screens or pop-up menu options.

CUSTOMIZING THE INSTRUMENT CLUSTER DISPLAY

Adding and Removing Screens

1. Press Settings on the touchscreen.
2. Press Instrument Cluster.
3. Press Choose Screens.
4. Select the screens you prefer.

ACCESSING THE TRIP COMPUTER

The trip computer is available as a configurable screen in your instrument cluster. See **Customizing the Instrument Cluster Display** (page 97).

Once the screens have been added, use the instrument cluster display controls on the steering wheel to view each trip screen.

RESETTING THE TRIP COMPUTER

1. Use the instrument cluster display controls to navigate the information screens in the instrument cluster.
2. Select the trip screen you want to reset.
3. Press and hold the **OK** button until the system reset confirmation appears.

Remote Start

USING REMOTE START





WARNING: Do not start the engine in a closed garage or in other enclosed areas. Exhaust fumes are toxic. Always open the garage door before you start the engine. Failure to follow this instruction could result in personal injury or death.



WARNING: Do not keep electrical devices plugged in the power outlet whenever the device is not in use. Power outlets power up during remote start.

The system allows you to remotely start your vehicle to heat or cool the interior to a preset temperature.

1.  Press the button on the remote control.
2.  Press the button twice within a few seconds.

When you successfully remote start your vehicle:

- The vehicle doors lock.
- The turn signal lamps flash twice.
- The parking lamps turn on when the vehicle is running.
- The vehicle remains secured when you have remotely started the vehicle. A valid key must be inside your vehicle to switch your vehicle on and drive your vehicle.
- All other vehicle systems remain off when you have remotely started the vehicle.

The horn sounds if the system fails to start.

Note: You cannot adjust any comfort settings until you switch your vehicle on from inside your vehicle.

Remote start does not work under the following conditions:

- Remote start is not enabled.
- The alarm horn is sounding.
- The hood is open.
- The transmission is not in park (P).
- Your vehicle is already on.

Note: Do not use remote start if your fuel level is low.

Note: A maximum of two remote starts are allowed. After that you have to switch your vehicle on and off before you can use remote start again.



To remotely stop your vehicle, press the button.

REMOTE START SETTINGS

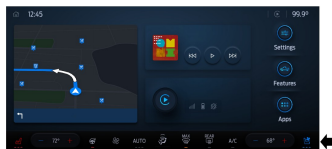
1. From the settings menu, press Vehicle.
2. Press Remote Start Setup.

You can adjust the following in the remote start settings menu:

- Enable or disable remote start.
- Climate control settings.
- Heated seat settings.
- Heated steering wheel settings.
- Remote start duration.

Climate Control

IDENTIFYING THE CLIMATE CONTROL UNIT



Note: Depending on your vehicle options, the controls may look different from what you see here.

SWITCHING CLIMATE CONTROL ON AND OFF



Press the button to activate the selection screen.



Press the button.

SWITCHING RECIRCULATED AIR ON AND OFF



Press the button to activate the selection screen.



Press the button to recirculate air currently in the passenger compartment.

Note: Recirculated air may turn off automatically, or prevent you from switching on in all air flow modes except MAX A/C to reduce the risk of fogging. Recirculation may also turn on and off automatically in various air distribution control combinations to improve heating or cooling efficiency.

SWITCHING AIR CONDITIONING ON AND OFF



Press the button.

Note: Under certain conditions, the air conditioning compressor could continue to operate after you switch air conditioning off.

Note: To keep the system and its components fully functional, switch air conditioning on and let your vehicle idle at least once per month for a minimum of two minutes.

SWITCHING DEFROST ON AND OFF



Press the button to activate the selection screen.



Press the button on the touchscreen to switch the windshield air vents on.



Make sure that the instrument panel air vents are switched off.



Make sure that the footwell air vents are switched off.

SWITCHING MAXIMUM DEFROST ON AND OFF



Press the button on the touchscreen.

Air flows through the windshield air vents, and the blower motor adjusts to the highest speed.

You can also use this setting to defog and clear the windshield of a thin covering of ice.

Climate Control

Note: You can also press the button on the instrument panel to switch the maximum defrost on or off.

Note: To prevent window fogging, you cannot select recirculated air when maximum defrost is on.

Note: The heated rear window and air conditioning also turn on when you select maximum defrost.

SWITCHING MAXIMUM COOLING ON AND OFF



Press the button to activate the selection screen.



Press the button.

Note: When you switch maximum cooling off, air conditioning remains on.

Note: In certain conditions, for example, cold weather, maximum cooling may not activate or could run slow when switched on. This helps reduce power consumption from the battery.

SWITCHING THE HEATED REAR WINDOW ON AND OFF



Press the button to clear the rear window of thin ice and fog. The heated rear window turns off after a short period of time.

Note: Do not use harsh chemicals, razor blades or other sharp objects to clean or remove decals from the inside of the heated rear window as this could cause damage to the heated rear window grid lines not covered by the vehicle Warranty.

Note: The engine must be running or your vehicle must be ready to drive to switch the system on.

SETTING THE BLOWER MOTOR SPEED



Press the button on the touchscreen to set the blower motor speed.

Slide the control to set the blower motor speed.

Note: You can press **+** or **-** to set the blower motor speed.

SETTING THE TEMPERATURE

Press the temperature controls on either side of the climate control to set the temperature for that side.



Slide the control to set the temperature.

Note: You can press **+** or **-** to set the temperature.

DIRECTING THE FLOW OF AIR

Directing Air to the Windshield Air Vents



Press the button to activate the selection screen.



Press the button on the touchscreen.

Directing Air to the Instrument Panel Air Vents



Press the button to activate the selection screen.



Press the button on the touchscreen.

Climate Control

Directing Air to the Footwell Air Vents



Press the button to activate the selection screen.



Press the button on the touchscreen.

AUTO MODE

SWITCHING AUTO MODE ON AND OFF



Press the button to switch auto mode on. Repeatedly press the button to adjust auto mode.

Adjust the blower motor control or air distribution control to switch auto mode off.

AUTO MODE INDICATORS

The indicators are on the Auto Mode button.

Auto Mode Indicator Status	Description
One indicator illuminated.	The blower motor speed is reduced. Use this setting to minimize the amount of noise from the blower motor. This setting increases the time taken to cool the interior.
Two indicators illuminated.	The blower motor speed is moderate.
Three indicators illuminated.	The blower motor speed is increased. Use this setting to reduce the time taken to cool the interior. This setting increases the amount of noise from the blower motor.

Climate Control

SWITCHING DUAL MODE ON AND OFF



Press the button to activate the selection screen.



Press the button.

Note: When dual mode is off, setting the temperature using the driver side controls, sets the temperature for both sides.

Note: Setting the temperature using the passenger side controls, sets the passenger temperature and switches dual mode on.

CLIMATE CONTROL HINTS

General Hints

- Prolonged use of recirculated air may cause the windows to fog up.
- You may feel a small amount of air from the footwell air vents regardless of the air distribution setting.
- To reduce humidity build-up inside your vehicle, do not drive with the system switched off or with recirculated air always switched on.
- Do not place objects under the front seats as this may interfere with the airflow to the rear seats.
- Remove any snow, ice or leaves from the air intake area at the base of the windshield.
- 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: When driving at high RPM for sustained periods, like on a racetrack, air conditioning performance may be reduced.

Automatic Climate Control

- Adjusting the settings when your vehicle interior is extremely hot or cold is not necessary. Automatic mode is best recommended to maintain set temperature.
- The system adjusts to heat or cool the interior to the temperature you select as quickly as possible.
- For the system to function efficiently, the instrument panel and side air vents should be fully open.
- If you press AUTO during cold outside temperatures, the system directs air flow to the windshield and side window air vents. In addition, the blower motor may run at a slower speed until the engine warms up.
- If you press AUTO during hot temperatures and the inside of the vehicle is hot, the system uses recirculated air to maximize interior cooling. Blower motor speed may also reduce until the air cools.

Quickly Heating the Interior

1. Press AUTO.
2. Adjust the temperature function to the setting you prefer.

Recommended Settings for Heating

1. Press AUTO.
2. Adjust the temperature function to the setting you prefer. Use 72°F (22°C) as a starting point, then adjust the setting as necessary.

Quickly Cooling the Interior

1. Press MAX A/C.
2. Drive with the windows open for a short period of time.

Climate Control

Recommended Settings for Cooling

1. Press AUTO.
2. Adjust the temperature function to the setting you prefer. Use 72°F (22°C) as a starting point, then adjust the setting as necessary.

Defogging the Side Windows in Cold Weather

1. Press and release defrost or maximum defrost.
2. Adjust the temperature control to the setting you prefer. Use 72°F (22°C) as a starting point, then adjust the setting as necessary.

AIR CONDITIONING SYSTEM REFRIGERANT



WARNING: The air conditioning refrigerant system contains refrigerant under high pressure. Only qualified personnel should service the air conditioning refrigerant system. Opening the air conditioning refrigerant system can cause personal injury.

Your vehicle has an under hood label that identifies the refrigerant used by the air conditioning system.

Note: Only allow a trained and certified technician service the refrigerant system to ensure proper and safe operation, as per local regulatory requirements.

Note: Never repair or replace the air conditioning evaporator with one from a salvage vehicle. Only replace it with a new evaporator to ensure proper and safe operation.

The meaning of each symbol on the under hood label are as follows:



Caution



Air conditioning system.



System lubricant type.



See vehicle service manual for service information.



Requires registered technician to service.



Flammable refrigerant.



Replace safety system components. Do not repair, reuse or try to salvage.

Interior Air Quality

WHAT IS THE CABIN AIR FILTER

The cabin air filter improves the quality of air in your vehicle by trapping dust, pollen and other particles.

LOCATING THE CABIN AIR FILTER

The cabin air filter is behind the glovebox.

Note: *The filter access door is above the passenger footwell under the instrument panel.*

REPLACING THE CABIN AIR FILTER

Replace the filter at regular intervals. See **Scheduled Maintenance** (page 339).

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.*

Note: *Using an aftermarket cabin air filter could reduce cabin air filtration and climate control performance.*

Front Seats

FRONT SEAT PRECAUTIONS



WARNING: 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.



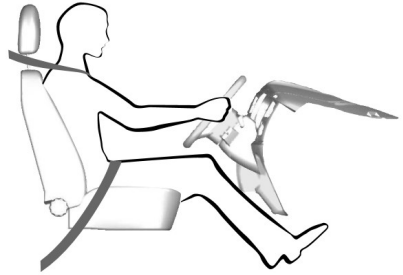
WARNING: Do not recline the seat backrest too far. This can cause an occupant to slide under the seatbelt in the event of a sudden stop or crash. Failure to follow this instruction can result in personal injury or death.



WARNING: Do not place objects higher than the top of the seat backrest. Failure to follow this instruction could result in personal injury or death in the event of a sudden stop or crash.



WARNING: Do not adjust the driver seat or seat backrest when your vehicle is moving. This may result in sudden seat movement, causing the loss of control of your vehicle.



When you use them properly, the seat, head restraint, seatbelt and airbags will provide optimum protection in 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.
- 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 seatbelt 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.

SITTING IN THE CORRECT POSITION



WARNING: 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.

Front Seats

MANUAL SEATS

ADJUSTING THE HEAD RESTRAINT



The non-adjustable head restraints consist of a trimmed foam covering over the upper structure of the seat backrest.

Properly adjust the seat backrest to an upright driving or riding position, so that the head restraint is positioned as close as possible to the back of your head.

MOVING THE SEAT BACKWARD AND FORWARD



WARNING: Make sure the seat fully locks into place by rocking it backward and forward. Not securing the seat into the locked position can be dangerous in a crash and could cause serious personal injury or death.



ADJUSTING THE SEAT BACKREST



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



WARNING: Do not place cargo or any objects behind the seat backrest before returning it to the original position. Pull on the seat backrest to make sure that it has fully latched after returning the seat backrest to its original position. An unlatched seat may become dangerous if you stop suddenly or have a crash.

Front Seats

ADJUSTING THE SEAT HEIGHT



You can also fold the seat backrest by pulling the release handle and folding the backrest forward.

Garage Door Opener

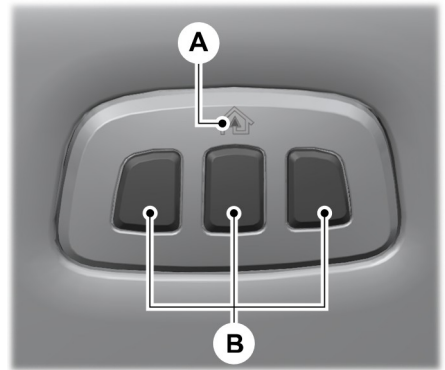
UNIVERSAL GARAGE DOOR OPENER

HomeLink Wireless Control System



WARNING: 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.

The universal garage door opener replaces the common handheld garage door opener with a three-button transmitter integrated into the driver side sun visor.



- A Homelink indicator.
- B Homelink function buttons.

The system includes two primary features, a garage door opener and a platform for remote activation of devices within the home. You can program garage doors as well as entry gate operators, security systems, entry door locks and home or office lighting. You can program a maximum of three devices.

To change or replace any of the three buttons after they have been initially programmed, you must either clear all codes, or reprogram each individual button. To clear all stored codes in the garage door opener in your vehicle, use the clear function. To override one button, use the reprogram function.

Garage Door Opener

Clearing Stored Codes	Reprogramming Individual Buttons
To clear all stored codes in the garage door opener in the vehicle:	If a button on your garage door opener has already been programmed, you can override it. To program a device to a previously trained button:
<ol style="list-style-type: none">1. Press and hold the outer two Homelink function buttons simultaneously for approximately 10 seconds until the Homelink indicator flashes rapidly.2. When the indicator flashes, release the Homelink function buttons. This clears all stored codes. You cannot erase codes for individual buttons.	<ol style="list-style-type: none">1. Press and hold the desired Homelink function button for approximately 20 seconds until the indicator begins to flash.2. Without releasing the Homelink function button, proceed to Step 3 of Programming the Garage Door Opener to your Handheld Transmitter.

We recommend that upon the sale or lease termination of your vehicle, you erase the programmed function buttons for security reasons.



Additional assistance can be found online at <https://www.homelink.com/Ford> by scanning the code below or by calling the toll-free help line at 1-800-355-3515.

Programming the Garage Door Opener

Canadian radio frequency laws require transmitter signals to time out, or quit, after several seconds, which may not be long enough for HomeLink to pick up the signal. U.S. gate operators time out in the same manner. For these transmitters, use the Programming the Garage Door Opener to your Gate Opener Motor information.

Before programming:

- Put a new or unused battery in the handheld transmitter. This allows for quicker training and accurate transmission of the radio frequency signal. Using an old battery may result in the Homelink producing a weak signal.
- Make sure that the garage door and security device are free from obstruction when you are programming. Do not program the universal garage door opener with the vehicle in the garage.

Garage Door Opener

Homelink Indicator Status

Indicator Status	Details
Slow Flash	The transmitter is searching for a program code.
Solid or Continuous Light	The transmitter is programmed to a fixed code.
Rapid Flash	The transmitter is programmed to a rolling code and may need additional programming.

Programming the Garage Door Opener to your Handheld Transmitter

The programming steps below assume you are programming a HomeLink that was not previously programmed. If your HomeLink was previously programmed, you may need to clear or reprogram your HomeLink buttons.

To program your in-vehicle HomeLink function button with your handheld transmitter:

1. With your vehicle parked outside the garage, switch the ignition on, but do not start the engine.
2. Press and release one of the three HomeLink function buttons that you would like to program. The indicator should begin to flash. If the indicator does not flash, press and hold the function button for 20 seconds until the indicator begins to flash.
3. Hold your handheld garage door transmitter 1–3 in (2–8 cm) away from the HomeLink button you are programming.

4. Press and hold the handheld transmitter button you want to program while watching the indicator on HomeLink. Continue to hold the handheld button until the HomeLink indicator flashes rapidly or is continuously on. You may need to use a different method if you live in Canada or have difficulties programming your gate operator or garage door opener.
5. 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 the HomeLink indicator stays on, the programming is complete. If the HomeLink indicator flashes rapidly, the transmitter is programmed to a rolling code system, repeat this step. If your device still does not operate, you must program your garage door opener to your garage door opener motor.
6. To program additional buttons, repeat Steps 1–4.

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

Programming the Garage Door Opener to your Garage Door Opener Motor



1. Press the Learn button on the garage door opener motor. You have 30 seconds to complete the next two steps.
2. Return to your vehicle.

Garage Door Opener

3. Press and hold one of the three HomeLink function buttons you want to program for two seconds, then release.
4. Repeat Step 3. Depending on your brand of garage door opener, you may need to repeat this sequence a third time.

Programming the Garage Door Opener to your Gate Opener Motor

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.

If programming a garage door opener or gate operator, unplug the device during the **cycling** process to prevent possible overheating.

1. Press and release your handheld transmitter, **every two seconds**, until the HomeLink indicator flashes rapidly or is continuously on.
2. Release the handheld transmitter button.
3. Press and hold the HomeLink function button you want to program for two seconds, then release. You may need to do this twice to activate the door. If the HomeLink indicator stays on, the programming is complete. If the HomeLink indicator flashes rapidly, the transmitter is programmed to a rolling code system, repeat Step 3.
4. To program additional buttons, repeat Steps 1–4.

Additional assistance can be found online at <https://www.homelink.com/Ford> or by calling the toll-free help line at 1-800-355-3515.

FCC and RSS-210 Industry Canada Compliance



WARNING: Changes or modifications not expressly 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.

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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End Users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must be at least 8 in (20 cm) from the user and must not be co-located or operating in conjunction with any other antenna or transmitter.

USB Ports

LOCATING THE USB PORTS

Data Transfer USB Ports



The USB ports could be in the following locations:

- On the lower instrument panel.
- Inside the center console.

Note: These USB ports can also charge devices.

Note: Not all USB ports in your vehicle have data transfer capabilities.

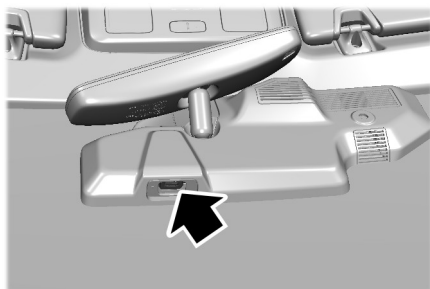
Note: We recommend using only USB-IF certified cables and adapters. Non-certified cables and adapters may not work.

Charge Only USB Ports



The USB ports could be in the following locations:

- On the lower instrument panel.
- Inside the center console.
- On the windshield, behind the rear view mirror.



PLAYING MEDIA USING THE USB PORT



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.

Connect your device to a data transfer USB port.



Press the audio button on the home screen.

Select Sources.



Select the USB option.



Press to play a track. Press again to pause the track.



Press to skip to the next track. Press and hold to fast forward through the track.



Press once to return to the beginning of a track. Repeatedly press to return to previous tracks.

Press and hold to fast rewind.

CHARGING A DEVICE

Connect your device to the USB port.

USB Ports

Data Transfer USB Ports



You can charge your device through the data transfer USB port when SYNC is on.

Charge Only USB Ports



You can charge your device through the charge only USB port when the vehicle is in accessory mode or when the vehicle is running.

Power Outlet

WHAT IS THE POWER OUTLET

The power outlet can power devices using a 12 V outlet adapter.

POWER OUTLET PRECAUTIONS



WARNING: Do not plug electrical devices into the power outlets that exceed the maximum power rating. Incorrect use of the power outlets can cause damage not covered by the vehicle warranty, and can result in fire or personal injury.



WARNING: Do not keep electrical devices plugged into the power outlet whenever the device is not in use. The outlet provides power when the vehicle is on. Failure to follow this instruction could result in personal injury.

When you switch the vehicle on, you can use the power outlets to power 12 V appliances with a maximum current rating of 15 A.

To prevent damage to the vehicle's battery:

- Do not use the power outlets over the vehicle capacity of 12 V DC 180 W or a fuse could blow.
- Do not plug in any device that supplies power to the vehicle through the power outlets. This could result in damage to vehicle systems.
- Do not hang any accessory from the accessory plug. Always keep the power outlets caps closed when not in use.
- Do not insert objects other than an accessory plug into the power outlets.

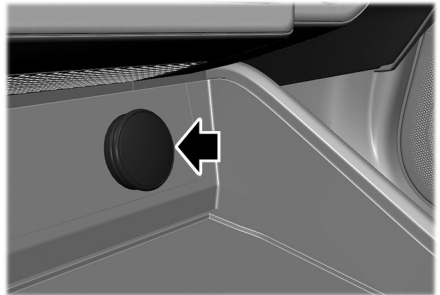
To prevent the battery from running out of charge:

- Do not use the power outlets longer than necessary when the vehicle is off.
- Do not leave devices plugged in overnight or when you park your vehicle for extended periods.
- Using devices for extended periods may require starting and running the engine to recharge the battery.

LOCATING THE POWER OUTLETS

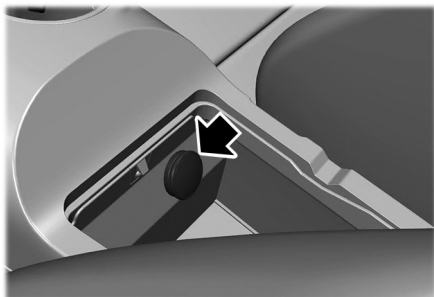
The power outlets may be located in the media bin below the instrument panel and inside the center console bin.

Below the Instrument Panel



Power Outlet

Inside the Center Console



Storage

CUP HOLDERS

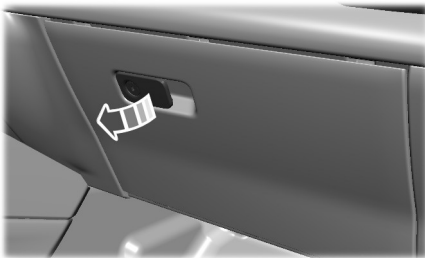
CUP HOLDER PRECAUTIONS



WARNING: Use caution when stowing items or hot drinks in the cup holders. Items could become loose or spill during hard braking, acceleration or crashes. Failure to follow this instruction could result in personal injury.

GLOVE COMPARTMENT

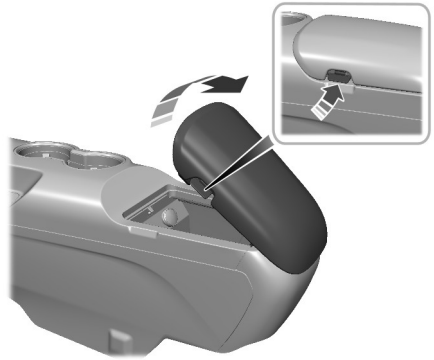
OPENING THE GLOVE COMPARTMENT



Pull the latch to the left to open the glove compartment.

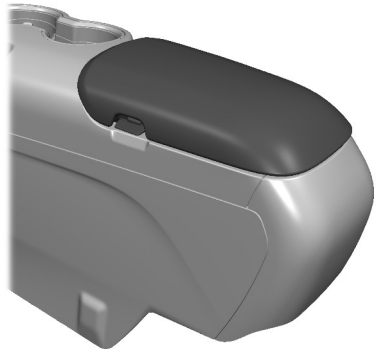
CENTER CONSOLE

OPENING THE CENTER CONSOLE



Lift the latch to open the center console.

LOCKING THE CENTER CONSOLE



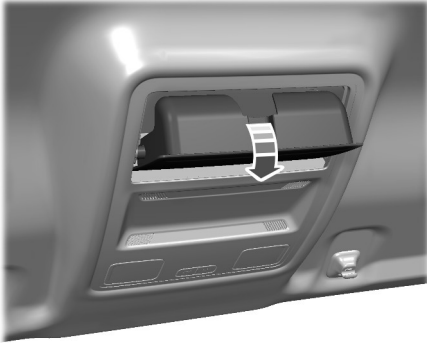
The center console locks when you electronically lock the doors. The center console unlocks when you use the remote control to unlock the driver door.

Storage

Note: *You cannot lock the center console when the vehicle is on.*

GLASSES HOLDER

LOCATING THE GLASSES HOLDER



The glasses holder is in the overhead console.

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

Starting and Stopping the Engine

STARTING AND STOPPING THE ENGINE – PRECAUTIONS



WARNING: 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.



WARNING: 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.



WARNING: Do not start the engine in a closed garage or in other enclosed areas. Exhaust fumes are toxic. Always open the garage door before you start the engine. Failure to follow this instruction could result in personal injury or death.



WARNING: Do not use starting fluid, for example ether, in the air intake system. Such fluid could cause immediate explosive damage to the engine and possible personal injury.



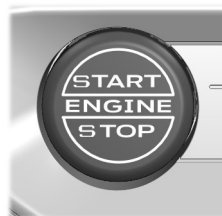
WARNING: Exhaust leaks may result in entry of harmful and potentially lethal fumes into the passenger compartment. If you smell exhaust fumes inside your vehicle, have your vehicle inspected immediately. Do not drive if you smell exhaust fumes.

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

If you stop your vehicle and leave the engine idling for long periods, we recommend that you do one of the following:

- Open the windows at least 1 in (2.5 cm).
- Set your climate control to outside air.

PUSH BUTTON IGNITION SWITCH



Switching the Ignition Off

When the ignition is on or in accessory mode, press the push button ignition switch once without your foot on the brake pedal.

Switching the Ignition to Accessory Mode

When the ignition is off, press the push button ignition switch once without your foot on the brake pedal.

All electrical circuits and accessories are operational and the warning lamps and indicators illuminate.

Note: Your vehicle has a battery saver feature that shuts your vehicle off when it detects a certain amount of battery drain, or after about 30 minutes of inactivity in accessory mode.

Starting and Stopping the Engine

Note: The system may not function if the passive key is close to metal objects or electronic devices, for example keys or a cell phone.

Note: You need a valid passive key inside your vehicle to switch the ignition on and start the engine.

STARTING THE ENGINE

STARTING A GASOLINE ENGINE

Before starting your vehicle, check the following:

- Make sure that the parking brake is on.
 - Make sure that the transmission is in park (P) for automatic transmissions or neutral (N) for manual transmissions.
1. Fully press the brake pedal for automatic transmissions or clutch pedal for manual transmissions.

Note: Do not touch the accelerator pedal.

2. Press the push button ignition switch. See **Push Button Ignition Switch** (page 119).

Note: The engine may continue cranking for up to 15 seconds or until it starts.

Note: The engine takes longer to start at lower temperatures. It may crank for several seconds when very cold.

RESTARTING THE ENGINE AFTER STOPPING IT

The system allows you to start the engine within 20 seconds of switching it off, even if it does not detect a valid passive key. After 20 seconds, you can no longer start the engine if the system does not detect a valid passive key.

Within 20 seconds of switching the engine off, fully press the brake pedal for automatic transmissions or clutch pedal for manual transmissions and press the push button ignition switch.

When you start the engine, it remains running until you press the push button ignition switch, even if your vehicle does not detect a valid passive key. If you open and close a door when the engine is running, the system searches for a valid passive key.

STOPPING THE ENGINE

STOPPING THE ENGINE WHEN YOUR VEHICLE IS STATIONARY

1. Make sure that the transmission is in park (P) for automatic transmissions or neutral (N) for manual transmissions.
2. Apply the parking brake.
3. Wait until the engine reaches idle speed.
4. Press the push button ignition switch. See **Push Button Ignition Switch** (page 119).

STOPPING THE ENGINE WHEN YOUR VEHICLE IS MOVING



WARNING: Switching off the engine when your vehicle is still moving results in a significant decrease in braking assistance. Higher effort is required to apply the brakes and to stop your vehicle. A significant decrease in steering assistance could also occur. The steering does not lock, but higher effort

Starting and Stopping the Engine

could be required to steer your vehicle. When you switch the ignition off, some electrical circuits, for example airbags, also turn off. If you unintentionally switch the ignition off, shift into neutral (N) and restart the engine.

Only in case of emergency, do the following.

1. Press and hold the push button ignition switch until the engine stops, or press it three times within two seconds. See **Push Button Ignition Switch** (page 119).
2. Shift into neutral (N) and use the brakes to safely bring your vehicle to a complete stop.
3. Make sure that the transmission is in park (P) for automatic transmissions or neutral (N) for manual transmissions.
4. Apply the parking brake.

AUTOMATIC ENGINE STOP

WHAT IS AUTOMATIC ENGINE STOP

Automatic engine stop switches the engine off if it has been idling for an extended period to help you save fuel.

HOW DOES AUTOMATIC ENGINE STOP WORK

Automatic engine stop turns the engine off. The ignition also turns off to save battery power. Before the engine shuts down, a message appears in the instrument cluster display showing a timer counting down. If you do not intervene within 30 seconds, the engine shuts down. Another message appears in the instrument cluster display to inform you that the engine has shut down to save fuel. Start your vehicle as you normally do.

SWITCHING AUTOMATIC ENGINE STOP ON AND OFF

1. From the settings menu, press Vehicle.
2. Switch 30min Max Idle on or off.

Note: You cannot permanently switch off the automatic engine stop feature. If you switch it off, it turns on automatically at the next ignition cycle.

OVERRIDING AUTOMATIC ENGINE STOP

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:

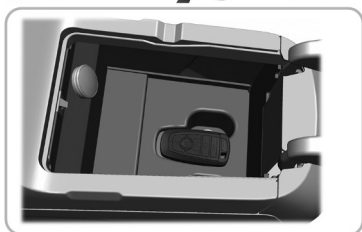
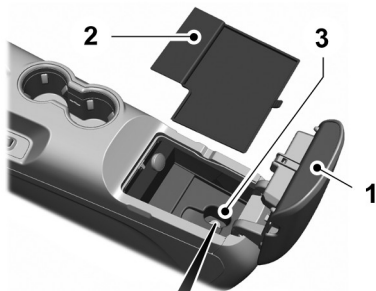
- Pressing the brake pedal or accelerator pedal.
- Pressing the **OK** or **RESET** button during the countdown.

Note: You cannot permanently switch off the automatic engine stop feature. If you switch it off, it turns on automatically at the next ignition cycle.

Starting and Stopping the Engine

ACCESSING THE PASSIVE KEY BACKUP POSITION

If you are unable to start the engine, do the following:



1. Open the center console storage compartment lid.
2. Remove the plastic mat from the console floor.
3. With the buttons facing upward and the unlock button facing the front of your vehicle, place the passive key into the backup slot.
4. With the key in this position, press the brake pedal then press the push button ignition switch to switch the ignition on and start your vehicle.

STARTING AND STOPPING THE ENGINE – TROUBLESHOOTING

STARTING AND STOPPING THE ENGINE – WARNING LAMPS

Malfunction Indicator Lamp



If it illuminates when the engine is running, the on-board diagnostics system is detecting a malfunction of the vehicle emission control system.

If it flashes, engine misfire could be occurring. Increased exhaust gas temperatures could damage the catalytic converter or other vehicle components. Avoid heavy acceleration and deceleration, and have your vehicle checked as soon as possible.

Powertrain Warning Lamp



If it illuminates when the engine is running, this indicates a powertrain or four-wheel drive fault. If it flashes when you are driving, immediately reduce the vehicle speed. Avoid heavy acceleration and deceleration, and have your vehicle checked as soon as possible.

If both lamps illuminate when the engine is running, stop your vehicle as soon as it is safe to do so. Continuing to drive your vehicle could cause reduced power or the engine to stop. Switch the ignition off and attempt to restart the engine. Have your vehicle checked as soon as possible.

Starting and Stopping the Engine

Oil Pressure Warning Lamp



It illuminates when you switch the ignition on. If it illuminates when the engine is running, this

indicates a malfunction. Stop your vehicle and switch the engine off. Check the engine oil level. If the oil level is sufficient, this indicates a system malfunction. Have your vehicle checked as soon as possible.

STARTING AND STOPPING THE ENGINE – INFORMATION MESSAGES

Message	Details
Cranking time exceeded	Displays if you exceed the starting time limit. You cannot attempt to start the engine for 15 minutes. If you cannot start the engine after 15 minutes passes, have your vehicle immediately checked.
Starting system fault	Displays if you are unable to start your vehicle with a correctly coded key. The system has detected a fault that requires service. Have your vehicle checked as soon as possible.
No key detected	Displays if the system does not detect a valid passive key.

Starting and Stopping the Engine

STARTING AND STOPPING THE ENGINE – FREQUENTLY ASKED QUESTIONS

Why is the engine idle speed high when I start the engine?

- The speed the engine idles immediately after starting is optimized to minimize vehicle emissions and maximize cabin comfort and fuel economy.

Why is the engine not cranking?

The engine does not crank if:

- The system does not detect a valid passive key.
- The passive key battery has no charge.
- The vehicle battery does not have sufficient charge.
- The brake pedal is not pressed for automatic transmissions or the clutch pedal is not pressed for manual transmissions.
- The transmission is not in the park (P) or neutral (N) for automatic transmissions.
- The starting system has been disabled after multiple attempts of starting the engine.

What should I do if the starting system is disabled?

- You can only attempt to start the engine for a set number of times before the starting system temporarily disables. If you exceed the limit, a message may appear and you need to wait at least 15 minutes to start the engine again.

What should I do if the engine does not start?

- If you cannot start the engine after three attempts, wait 10 seconds and do the following:
 1. Fully press the brake pedal for automatic transmissions or clutch pedal for manual transmissions.

Note: Make sure that the parking brake is applied.

Note: Make sure that the transmission is in park (P) or neutral (N) for automatic transmissions.

2. Fully press and hold the accelerator pedal.
3. Press the push button ignition switch. See **Push Button Ignition Switch** (page 119).

Note: The engine cranks for a short period of time and then stops.

4. Release the accelerator pedal.
5. Press the push button ignition switch. See **Push Button Ignition Switch** (page 119).

Why do I experience different driving characteristics?

- If you disconnect the battery, your vehicle may exhibit some unusual driving characteristics for about 5 mi (8 km) 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.

Starting and Stopping the Engine

What happens if the system does not detect a valid passive key?

- If the system does not detect a valid passive key, the engine does not start and a warning message displays in the instrument cluster display. To start the engine insert the passive key into the backup position and press the push button ignition switch to start the engine. See **Accessing the Passive Key Backup Position** (page 122).

What happens when driving the vehicle without a valid key?

- When you drive the vehicle without a valid passive key and reach a speed of 3 mph (5 km/h) for the first time after starting the engine, a warning message displays in the instrument cluster display.
- When the ignition is on or in accessory mode and you exit your vehicle with a valid passive key and close all of the doors, a warning message displays in the instrument cluster display.
- A horn sounds in addition to the warning message in the instrument cluster display, when the ignition is on and you exit your vehicle with a valid passive key and close any one of the front doors, and the following conditions are met:
 - Key detection alert is turned on in the center display. See **Keyless Entry Settings** (page 71).
 - A vehicle speed of 16 mph (25 km/h) is reached at least once in the current drive cycle.

Note: A valid passive key is required to start the engine again if you turned the engine off when the warning message was present in the instrument cluster display.

Fuel and Refueling

FUEL AND REFUELING PRECAUTIONS



WARNING: Fuels can cause serious injury or death if misused or mishandled.



WARNING: Fuel may contain benzene, which is a cancer-causing agent.



WARNING: Read and follow all the instructions on the pump island.



WARNING: 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.

Follow these guidelines when refueling:

- Extinguish all smoking materials and any open flames before refueling your vehicle.
- Switch the engine off before refueling.
- Automotive fuels can be harmful or fatal if swallowed. Fuel is highly toxic and if swallowed can cause death or permanent injury. If fuel is swallowed immediately call a physician, even if no symptoms are immediately apparent. The toxic effects of fuel may not be apparent for hours.
- Avoid inhaling fuel vapors. Inhaling fuel vapor 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 in your eyes. If you splash fuel in your eyes, immediately 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 be harmful if absorbed through the skin. If you splash fuel on your skin, clothing or both, promptly remove contaminated clothing and thoroughly wash your skin with soap and water. Repeated or prolonged skin contact causes skin irritation.
- Be particularly careful if you are taking Antabuse or other forms of Disulfiram for the treatment of alcoholism. Breathing fuel vapors could cause an adverse reaction, serious personal injury or sickness. Immediately call a physician if you experience any adverse reactions.

FUEL QUALITY

SELECTING THE CORRECT FUEL



Use only premium unleaded gasoline with a minimum pump (R+M)/2 octane rating of 91. For optimal performance, use premium unleaded gasoline with an octane rating of 93 or higher.

Fuel and Refueling

The use of the correct fuel is an important part of the proper maintenance of your vehicle, and a condition of the vehicle warranty. For this vehicle, the use of gasoline with an octane level of 91 or higher is required. The use of gasoline with an octane rating lower than 91 will invalidate the vehicle warranty. It can degrade vehicle performance and lead to severe mechanical damage.

Do not be concerned if the engine sometimes knocks lightly. However, if the engine knocks heavily while using fuel with the recommended octane rating, contact an authorized dealer to prevent any engine damage.

We recommend top tier detergent gasolines, where available to help minimize engine deposits and maintain optimal vehicle and engine performance.

For additional information, visit <https://www.toptiergas.com>.



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.

LOCATING THE FUEL FILLER FUNNEL

The fuel filler funnel is in the glove compartment.

RUNNING OUT OF FUEL

FILLING A PORTABLE FUEL CONTAINER



WARNING: 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.

Use the following guidelines to avoid electrostatic charge build-up, which can produce a spark, 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).

Fuel and Refueling

- 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.

ADDING FUEL FROM A PORTABLE FUEL CONTAINER



WARNING: Do not insert the nozzle of a fuel container or an aftermarket funnel into the fuel filler neck. This may damage the fuel system filler neck or its seal and cause fuel to run onto the ground.



WARNING: Do not pry open the fuel tank filler valve. This could damage the fuel system. Failure to follow this instruction could result in fire, personal injury or death.



WARNING: 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 fuel filler funnel included with your vehicle. See **Locating the Fuel Filler Funnel** (page 127).

Note: Do not use aftermarket funnels as they may 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 filler door.



2. Fully insert the fuel filler funnel into the fuel filler inlet.
3. Add fuel to your vehicle from the fuel container.
4. Remove the fuel filler funnel.
5. Fully close the fuel filler door.
6. Clean the fuel filler funnel and place it back in your vehicle or correctly dispose of it.

Note: If your vehicle runs out of fuel add a minimum of 1.0 gal (3.8 L) of fuel to restart the engine.

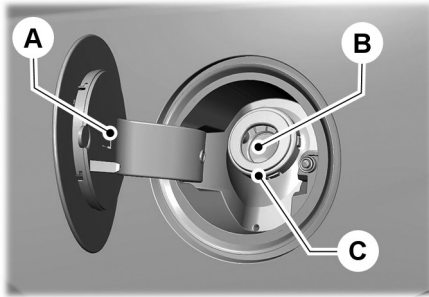
Note: You may need to switch the ignition from off to on several times after refueling to allow the fuel system to pump the fuel from the tank to the engine. When restarting, cranking time takes a few seconds longer than normal.

Note: Extra funnels can be purchased from an authorized dealer if you choose to dispose of the funnel.

Fuel and Refueling

REFUELING

REFUELING SYSTEM OVERVIEW



- A Fuel filler door.
- B Fuel filler inlet.
- C Fuel tank filler pipe.

REFUELING YOUR VEHICLE

WARNING: 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.

WARNING: Fuel vapor burns violently and a fuel fire can cause severe injuries.

WARNING: 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.

WARNING: Keep children away from the fuel pump. Never let children pump fuel.

WARNING: Do not pry open the fuel tank filler valve. This could damage the fuel system. Failure to follow this instruction could result in fire, personal injury or death.

WARNING: Stay outside your vehicle and do not leave the fuel pump unattended when refueling your vehicle.

WARNING: Do not remove the fuel pump nozzle from its fully inserted position when refueling.

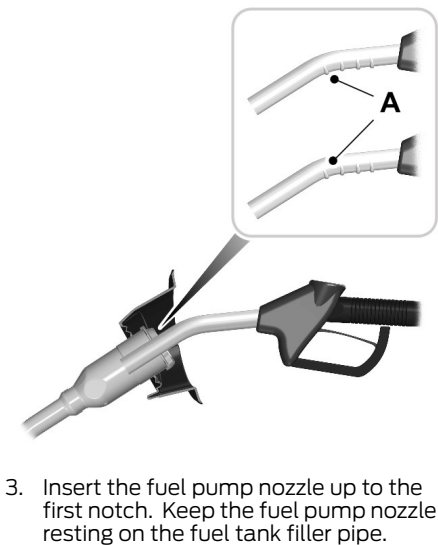
WARNING: Stop refueling when the fuel pump nozzle automatically shuts off for the first time. Failure to follow this will fill the expansion space in the fuel tank and could lead to fuel overflowing.

WARNING: Do not overfill the fuel tank. The pressure in an overfilled tank may cause leakage and lead to fuel spray and fire.

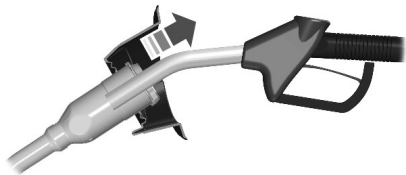
WARNING: Wait at least five seconds before removing the fuel pump nozzle to allow any residual fuel to drain into the fuel tank.

1. Fully open the fuel filler door.
2. Select the correct fuel pump nozzle for your vehicle.

Fuel and Refueling

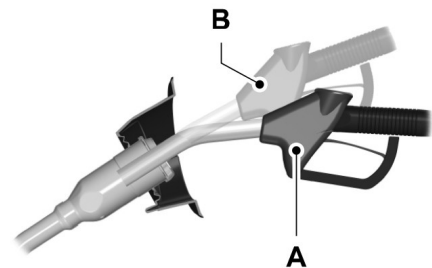


4. Hold the fuel pump nozzle in position A when refueling. Holding the fuel pump nozzle in position B can affect the flow of fuel and shut off the fuel pump nozzle before the fuel tank is full.



5. When the pump shuts off, wait five seconds, then raise the fuel pump nozzle and slowly remove it.
6. Fully close the fuel filler door.

Note: Do not attempt to start the engine if you have filled the fuel tank with incorrect fuel. Incorrect fuel use could cause damage not covered by the vehicle Warranty. Have your vehicle immediately checked.



FUEL TANK CAPACITY

Capacities

Variant	Quantity
All	16 gal (60.5 L)

Fuel and Refueling

Advertised Capacity

The advertised capacity is the maximum amount of fuel that you can add to the fuel tank when the fuel gauge indicates empty.

In addition, the fuel tank contains an empty reserve. The empty reserve is an unspecified amount of fuel that remains in the fuel tank when the fuel gauge indicates empty.

Note: When refueling your vehicle after the fuel gauge indicates empty, you might not be able to refuel the full amount of the advertised capacity due to the empty reserve still present in the fuel tank.

FUEL AND REFUELING – TROUBLESHOOTING

FUEL AND REFUELING – WARNING LAMPS



If it illuminates when you are driving, refuel as soon as possible.

FUEL AND REFUELING – INFORMATION MESSAGES

Refueling System Warning

If the fuel tank filler valve does not fully close, a message could appear in the instrument cluster display.

Message
Check fuel fill inlet

If the message appears, do the following:

1. Stop your vehicle as soon as it is safe to do so and switch the engine off.
2. Shift into park (P) or neutral (N).
3. Apply the parking brake.

4. Fully open the fuel filler door.
5. Check the fuel tank filler valve for any debris that may be restricting its movement.
6. Remove any debris from the fuel tank filler valve.
7. Fully insert a fuel pump nozzle or the fuel filler funnel provided with your vehicle into the fuel filler pipe. See **Locating the Fuel Filler Funnel** (page 127). This action should dislodge any debris that may be preventing the fuel tank filler valve from fully closing.
8. Remove the fuel pump nozzle or fuel filler funnel from the fuel filler pipe.
9. Fully close the fuel filler door.

Note: The message may not immediately reset. If the message continues to appear and a warning lamp illuminates, have your vehicle checked as soon as possible.

Catalytic Converter

WHAT IS THE CATALYTIC CONVERTER

The catalytic converter is part of your vehicle's emissions system and filters harmful pollutants from the exhaust gas.

CATALYTIC CONVERTER PRECAUTIONS



WARNING: 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.



WARNING: The normal operating temperature of the exhaust system is very high. Never work around or attempt to repair any part of the exhaust system until it has cooled. Use special care when working around the catalytic converter. The catalytic converter heats up to a very high temperature after only a short period of engine operation and stays hot after the engine is switched off.



WARNING: 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 vehicle inspected immediately. Do not drive if you smell exhaust fumes.

To avoid damaging the catalytic converter:

- Do not crank the engine for more than 10 seconds at a time.
- Do not run the engine with a spark plug lead disconnected.
- Do not push-start or tow-start your vehicle. Use booster cables. See **Jump Starting the Vehicle** (page 197).

- Use the correct fuel. See **Fuel and Refueling** (page 126).
- Do not switch the ignition off when your vehicle is moving.
- Avoid running out of fuel.
- Have the items listed in scheduled maintenance information performed according to the specified schedule.

Note: Do not make any unauthorized changes to your vehicle or engine. By law, vehicle owners and anyone who manufactures, repairs, or services a fleet of vehicles are not permitted to intentionally remove an emission control device or prevent it from working.

CATALYTIC CONVERTER – TROUBLESHOOTING

CATALYTIC CONVERTER – WARNING LAMPS

Your vehicle has an on-board diagnostics system that monitors the emission control system. If any of the following warning lamps illuminate, this may indicate that the on-board diagnostics system has detected an emission control system malfunction.



Continuing to drive your vehicle may cause reduced power or the engine to stop. Failure to respond to a warning lamp may cause damage that your vehicle Warranty may not cover. Have your vehicle checked as soon as possible.

Automatic Transmission

AUTOMATIC TRANSMISSION POSITIONS

AUTOMATIC TRANSMISSION PRECAUTIONS



WARNING: Apply the parking brake, shift into park (P), switch the vehicle off and remove the key or remote control before you leave your vehicle. Failure to follow this instruction could result in personal injury or death.



WARNING: When your vehicle is stationary, keep the brake pedal fully pressed when shifting gears. Failure to follow this instruction could result in personal injury, death or property damage.



WARNING: Do not apply the brake pedal and accelerator pedal simultaneously. Applying both pedals simultaneously for more than a few seconds limits vehicle performance, which may result in difficulty maintaining speed in traffic and could lead to serious injury.

Note: Ford vehicles incorporate innovative transmissions to boost fuel efficiency and reduce greenhouse gases, among other benefits. Optimizing performance involves balancing many vehicle attributes including acceleration, handling, shift-feel, fuel economy, or hauling and towing capacity. Designing a transmission in light of that balance and to meet varied customer expectations and preferences, from smoother shift to quick shift and everything in between, may result in what some operators could perceive as a brief jerking or shaking sensation during gear changes. That is a normal part of transmission operation. If you have concerns about your transmission, please visit your Ford-authorized dealer. If the vehicle has a malfunction during normal use because of a defect in factory-supplied materials or factory workmanship during the warranty term, Ford will service the vehicle under warranty. Transmission service may be a software modification (including calibration upgrades) to alter the subjective driving characteristics of your vehicle, such as transmission shift-feel, that may better fit your personal preferences. To the extent Ford offers a software modification to enhance customer satisfaction, the service is not evidence of the existence of a defect or to cure an impairment to the use, value or safety of the vehicle.

SHIFTING YOUR VEHICLE INTO GEAR

The selector is on the center console.

Automatic Transmission



1. Press and hold the brake pedal.
2. Rotate the outer ring to select a position.

Note: Your vehicle cannot shift from drive (D) to park (P) with a clockwise rotation. Your vehicle cannot shift from park (P) to drive (D) with a counterclockwise rotation.

3. Press the manual (M) button when your vehicle is in drive (D) to enter or exit mode.

PARK (P)



WARNING: Shift into park (P) only when your vehicle is stationary.

In park (P) power is not transmitted to the driven wheels.

Note: A tone sounds if you attempt to exit your vehicle without the vehicle in park (P).

Note: Your vehicle may not shift out of park (P) if the 12 V battery has run out of charge.

Note: Your vehicle may not shift out of park (P) if a fuse is blown.

Note: Your vehicle may not shift out of park (P) unless the key or remote control is inside your vehicle.

Note: The electronic parking brake could apply when you power your vehicle on with the selector in park (P).

Note: The electronic parking brake could apply if you shift to park (P) without fully pressing the brake pedal.

Note: The electronic parking brake could apply if you shift to park (P) on a slope.

Note: Do not manually release the parking brake when the selector is in park (P). See **Automatically Releasing the Electric Parking Brake** (page 153).

REVERSE (R)



WARNING: Shift into reverse (R) only when your vehicle is stationary.

In reverse (R) power is transmitted to the driven wheels.

NEUTRAL (N)



WARNING: In neutral (N) your vehicle is free to roll.

In neutral (N) power is not transmitted to the driven wheels.

DRIVE (D)

Drive (D) is the normal driving position for the best fuel economy and smoothness. Shift the transmission selector to drive (D) to allow your vehicle to move forward and shift automatically through the forward gears.

Automatic Transmission

The transmission shifts to the appropriate gear for optimum performance based on ambient temperature, road slope, vehicle load and your input.

MANUAL (M)

To select manual (M), place the transmission selector in drive (D) and press the M button in the middle of the selector.

With the transmission selector in manual (M), the driver can change gears up or down using the paddle shifters. After pressing the manual (M) button while the transmission is in drive (D), you now have control of selecting the gear you desire using the (+) and (-) paddle shifters to upshift and downshift.

To exit manual (M) and return to drive (D), press the M button again.

AUTOMATIC TRANSMISSION POSITION INDICATORS

The instrument cluster displays the current position.



Note: The position could illuminate on the transmission selector.

MANUALLY SHIFTING GEARS

SelectShift™ Dual Clutch Transmission

This transmission gives you the ability to change gears up or down without a clutch, as desired.

SelectShift is operational in both drive (D), known as Live in Drive, and manual (M).

While you can start the vehicle in as low as -22°F (-30°C), the transmission does not shift from park (P) until the transmission fluid temperatures warms up above -4°F (-20°C).

If the transmission is overheating from extreme use, it can result in the following symptoms:

Clutch Over Temperature: This message indicates one or both clutches are overheating and may open to protect the system. This occurs when the clutch absorbs too much energy in the form of slip, due to a variety of reasons.

Automatic Transmission

Some examples of what could cause this are:

- Launch control at an RPM set speed higher than optimal for the current conditions. The best mitigation is to either lower the RPM set speed for launch control maneuvers, or by not holding the RPM set speed as long in preparation for launch control.
- Slow uphill driving with no throttle application, known as creeping, or using the throttle instead of the brake to prevent rolling back on an uphill grade. These maneuvers cause the clutches to be in a constant state of slip. The best mitigation is to use the brake when at a standstill, or find a safe place to stop and put the transmission in park (P) until you can achieve a faster uphill speed of approximately 10 mph (16 km/h).
- Avoid simultaneously depressing the brake and accelerator pedals when driving in slow speed conditions. For example, in stop and go traffic, parades or drag strip staging lanes. This adds unnecessary heat to the clutches. Use a stop and start driving method rather than an ultra-slow creep.

If the clutch opens for temperature mitigation, clutch capability restores automatically after a brief period of time. If drive capability does not restore, stop in a safe location and put the vehicle in park (P) while leaving the engine running. If drive capability still does not restore after running the engine while in park (P), shut the vehicle off to allow it to cool down. If transmission issues exist after shutting the vehicle off, have your vehicle checked as soon as possible.

Transmission Too Hot Press Brake: This message acts as a warning that the transmission fluid is beginning to overheat. When a yellow warning appears in the cluster, you may notice a decrease in performance as engine torque limits itself to help cool the transmission fluid. A red warning indicates maximum torque limitation. The best way to quickly cool the transmission fluid and restore full performance is non-aggressive driving at a constant speed between 40–70 mph (65–112 km/h) in the highest available gear.

SelectShift in Drive (D)

Provides a temporary manual mode for performing more demanding maneuvers where extra control of gear selection is beneficial. For example, when towing or passing another vehicle. This mode holds a selected gear for a temporary period of time depending on driver inputs like accelerator pedal travel and the steering wheel angle.

To prevent the engine from either running at too low an RPM which risks stalling, or at too high an RPM which risks engine damage, Live in Drive automatically downshifts and upshifts if the engine speed is approaching idle or redline and you have not shifted in time. Although Live in Drive makes some shifts for you, it still allows you to shift at any time if it determines that there is no risk of damage to the engine from lugging or over-revving.

- Pull and release the right paddle to (+) to upshift.
- Pull and release the left paddle (-) to downshift.
- Pull and hold both the right paddle (+) and the left paddle (-) to temporarily open the clutches. The transmission remains in neutral (N) until you release both paddles, or after 30 minutes pass. When the clutches are open, no engine

Automatic Transmission

power transmits to the wheels and the vehicle can roll freely unless you apply the brakes. When holding the throttle pedal fully depressed, the release of both paddle shifters simultaneously results in an aggressive launch of the vehicle. You can utilize this feature with traction control on or off. You can also use this feature with traction control off to initiate wheel spin. Then, you can apply the brake pedal to keep the car stationary.

- Pull and hold the right paddle (+) to exit Live in Drive and command the transmission to sequentially upshift to the maximum allowed gear.
- Pull and hold the left paddle (-) for the lowest allowable gear. This is only available in **Normal** and **Sport** drive modes.



Note: When in Live in Drive and you quickly press the accelerator pedal all the way down, the transmission downshifts for maximum performance when in drive (D).

SelectShift in Manual (M)

- Provides a permanent manual gear selection where full control of gear selection is required. Manual does not automatically upshift even if the engine is approaching the RPM limit. You need to manually shift by pressing the (+) button.
- Pull and release the right paddle (+) to upshift.

- Pull and release the left paddle (-) to downshift.
- Pull and hold both the right paddle (+) and the left paddle (-) for a temporary neutral position. Neutral (N) remains until you release both paddles.
- Pull and hold the right paddle (+) to command the transmission to sequentially upshift to the maximum allowed gear.
- Pull and hold the left paddle (-) for the lowest allowable gear. This is only available in **Normal** and **Sport** drive modes.

Note: Do not use the temporary neutral position if you plan to tow your vehicle. Use the manual park release procedure found later in this section.

Note: Engine damage may occur if you maintain excessive engine revving without shifting.

To exit SelectShift when in manual (M), deselect manual by pressing the (M) on the gear selector.

Note: Shifting gears at low speed is not permitted unless the vehicle is in Slippery mode. Shifting to 2nd gear is allowed in Slippery mode for a lower torque at start up.

TEMPORARY NEUTRAL MODE

How Does Temporary Neutral Mode Work

Use this mode to keep your vehicle in neutral (N), for a limited time, when you exit your vehicle or switch your vehicle off. For example, if you exit your vehicle before an automatic car wash.

Note: You do not need to use this mode at an automatic car wash if you shift into neutral (N) and stay in your vehicle with power on.

Automatic Transmission

Note: Do not tow your vehicle in this mode.

Note: Automatic return to park (P) is delayed when your vehicle is in this mode. See **Automatic Return to Park (P)** (page 138).

Temporary Neutral Mode Limitations

This mode could be unavailable if your 12 volt battery charge level is low. Connect an external power source and attempt the procedure again.

Your vehicle could shift to park (P) after 30 minutes, or when the vehicle battery charge level is low. Prolonged use of this mode can cause the 12 volt battery to run out of charge.

This mode could be unavailable if your vehicle is below operating temperature. Warm up your vehicle and attempt the procedure again.

Do not tow your vehicle in this mode. Failure to follow these instructions could result in vehicle damage not covered by the vehicle warranty.

Entering Temporary Neutral Mode

1. Bring your vehicle to a complete stop.
2. Press and hold the brake pedal.
3. Power your vehicle on.
4. Shift into neutral (N).

Note: An instructional message appears.

5. Shift into neutral (N) again within a few seconds.

Note: A confirmation message appears when your vehicle enters the mode.

6. Release the brake pedal.

Note: Your vehicle is free to roll.

7. Switch your vehicle off.

Note: Do not tow your vehicle in this mode.

Note: The neutral (N) indicator on the transmission selector may flash in this mode.

Exiting Temporary Neutral Mode

1. Press the brake pedal.
2. Shift into park (P), or power your vehicle on and shift into drive (D) or reverse (R).

AUTOMATIC RETURN TO PARK (P)

How Does Automatic Return to Park (P) Work

Your vehicle shifts into park (P) when your vehicle is stationary and any of the following occur:

- You switch the vehicle off.
- You open the driver door with the driver seatbelt unfastened.
- You unfasten the driver seatbelt when the driver door is open.

Note: Do not use automatic return to park (P) when your vehicle is moving, except in an emergency. See **Starting and Stopping the Engine** (page 119).

Automatic Return to Park (P) Limitations

Automatic return to park (P) may not work if any of the following occur:

- The driver door ajar sensor is malfunctioning.
- The driver seatbelt sensor is malfunctioning.

See an authorized dealer if any of the following occur:

Automatic Transmission

- Seatbelt indicator illuminates or tone sounds with the driver seatbelt fastened.
- Door ajar indicator does not illuminate with the driver door open.
- Door ajar indicator illuminates with the driver door closed.
- Transmission not in park message appears, with the driver door closed, after you shift out of park (P).

SHIFTING YOUR IMMOBILE VEHICLE OUT OF PARK (P)



WARNING: When doing this procedure, you need to take your vehicle out of park (P) which means your vehicle can roll freely. To avoid unwanted vehicle movement, apply the parking brake prior to doing this procedure. Use wheel chocks if appropriate.



WARNING: If the parking brake is fully released, but the brake warning lamp remains illuminated, the brakes may not be working properly. Have your vehicle checked as soon as possible.



WARNING: Do not drive your vehicle until you verify that the stoplamps are working.

Use this procedure to shift your vehicle out of park (P) in the event of an electrical malfunction or emergency.

Activating the Manual Park Release Cable

1. Apply the parking brake.

Note: If the 12V battery has run out of charge, use an external power source to apply the parking brake.

2. Remove the access cover located under the center console armrest using a plastic wedge or pry tool.

Note: Do not pull the tether.



3. Sit in the driver seat.
4. Power your vehicle on without your foot on the brake pedal.

Note: Do not attempt this procedure when the engine is running. Failure to follow this instruction could result in vehicle damage not covered by the vehicle warranty.

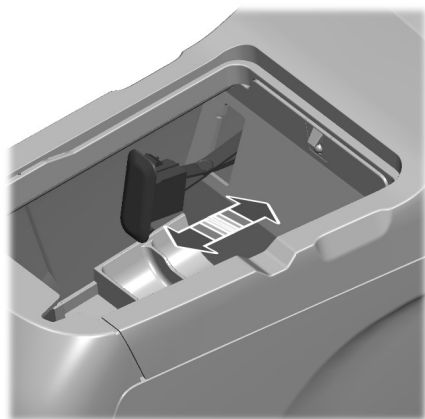
5. Press and hold the brake pedal.
6. Pull the tether towards you until the lever engages.

Note: Do not use excessive force. Failure to follow this instruction could result in vehicle damage not covered by the vehicle warranty.

Note: A message appears when your vehicle is out of park (P). If you do not receive a message attempt the procedure again.

Note: A warning lamp could illuminate.

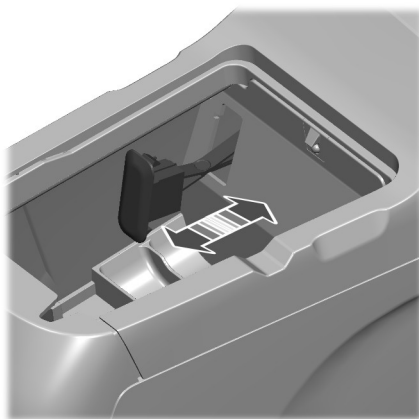
Automatic Transmission



4. Press and hold the brake pedal.

Note: Do not start your vehicle.

5. Pull the tether outward until you feel a hard stop. Release the tension and return the tether to the stowed position.



7. Release the parking brake.

8. Release the brake pedal.

Note: Your vehicle is free to roll.

9. Turn off the ignition.

10. Disconnect the negative battery cable from the 12V battery as soon as it is safe to do so.

Note: If your vehicle detects wheel speed when the 12V battery is connected, the electronic parking brake could apply.

Returning Your Vehicle to Normal Mode

1. Connect the negative battery cable to the 12V battery as soon as it is safe to do so.

Note: If your vehicle detects wheel speed when the 12V battery is connected, the electronic parking brake could apply.

2. Apply the parking brake.

Note: If the 12V battery has run out of charge, use an external power source to apply the parking brake.

3. Sit in the driver seat.

6. Start your vehicle.

7. Confirm the instrument cluster displays park (P).

Note: If the instrument cluster does not display park (P), the warning lamp remains illuminated, or a message continues to display, have your vehicle checked as soon as possible.

8. Switch your vehicle off.

9. Release the brake pedal.

10. Install the access cover.

Automatic Transmission

AUTOMATIC TRANSMISSION AUDIBLE WARNINGS

Transmission Not in Park (P) Audible Warning

Sounds if any of the following occur:

- You switch your vehicle off before shifting into park (P).
- You open the driver door before shifting into park (P).

AUTOMATIC TRANSMISSION FLUID CAPACITY AND SPECIFICATION

Note: When checking or filling the transmission fluid there are specific procedures in the workshop manual which must be followed. See your authorized dealer. These steps are critical in achieving the proper transmission fluid level.

Note: Only use transmission fluid that conforms to the defined specification. Use of other fluids could result in vehicle damage not covered by the vehicle warranty.

Variant	Quantity
All	12.15 qt (11.5 L)

Materials

Name	Specification
Motorcraft® GT500 Dual Clutch Transmission Fluid(U.S.) Motorcraft® GT500 Dual Clutch Transmission Fluid / GT500 Huile boîtes embrayage double Motorcraft® (Canada) XT-14-L(U.S. & Canada)	-

Electronic Limited-Slip Differential

WHAT IS THE ELECTRONIC LIMITED-SLIP DIFFERENTIAL

The transaxle in your vehicle has an electronic limited slip differential. This system uses hydraulic pressure to apply torque transfer across the rear wheels and can vary that lockup from fully open to very stiff based on numerous vehicle sensor inputs and driver demand. This enables the differential to improve both traction and stability and, unlike many conventional mechanical differentials, does not require driveshaft torque, allowing the system to enhance stability even off throttle. The differential operation is completely automatic and transparent to you, adjusting output to suit conditions and changing strategy based on drive mode selection.

Drive Mode Control

WHAT IS DRIVE MODE CONTROL

This feature connects multiple vehicle systems through a single interface, providing you with enhanced vehicle control and driving dynamics for different driving scenarios, terrains, weather, or various road conditions.

HOW DOES DRIVE MODE CONTROL WORK

The drive modes adjust the steering feel, exhaust sound, throttle response, transmission shift points and character, suspension firmness, aerodynamic settings and matching stability, and traction control systems. These can be adjusted for added confidence in slippery conditions or responsiveness for track driving.

The stability and traction control assist your vehicle control in adverse conditions or high-performance driving.

Throttle control enhances the powertrain response, transmission controls become optimized with shift schedules.

Note: The system has diagnostic checks that continuously monitor the system for proper operation. If a mode is unavailable due to a system fault, the drive mode system defaults to normal. When the system defaults to normal, the driveline settings remain the same as prior to the system fault.

SELECTING A DRIVE MODE



Press the mode buttons on the steering wheel to scroll through the available drive modes.

Select the drive mode first and then you can make individual adjustments to steering feel, exhaust sound, and suspension feel to meet your personal preferences and road conditions.

Note: Button icons vary depending on your vehicle's options.

Note: If you disconnect or remove the battery, the steering system defaults to normal.

Individual Adjustment Selections

For more information on available damper, steering, exhaust and ride height settings, See **Unique Features** (page 30).

Selecting a Steering Mode



To change the steering mode, press the button on the steering wheel. The first press of the steering wheel button displays a pop-up message in the instrument cluster display for the selected mode and subsequent presses changes the selected mode.

Drive Mode Control

Modes



Normal - Developed to complement vehicle response during daily driving.



Sport - Slightly less assist and damping for improved steering feel during spirited driving.



Comfort - Slightly more assist for driver preference and daily driving ease.

The steering selections available are dependent on the current drive mode.

After selecting the desired setting, you may feel a soft feedback bump in the steering wheel when the changeover occurs.

Note: *Steering options from custom mode may appear different from what is displayed on the instrument cluster display.*

Selecting a Suspension Mode



To change the suspension mode, press the button on the steering wheel. The available suspension settings can be set for different drive modes. The first press of the damper button displays a pop-up message in the instrument cluster display for the selected mode and subsequent presses changes the selected mode. See **Custom Drive Mode** (page 319).

Modes



Normal - Default factory setting.



Sport - Slightly stiffer suspension with emphasis on handling and control.



Track - Maximum emphasis on handling and control.



Track Plus - Revised Track Mode tuning for improved grip on bumpy circuits.



Drag - Maximizes shock performance for drag strip environments.

Selecting an Exhaust Mode



To change the exhaust mode, press the button on the steering wheel. The available exhaust settings can be set for different drive modes. The first press of the exhaust button displays a pop-up message in the instrument cluster display for the selected mode and subsequent presses changes the selected mode.

Modes



Normal - Default setting provides a balance of comfort and feedback.



Sport - Slightly louder than normal for spirited driving.



Track - Loudest setting for track use only. Maximum exhaust noise under all driving conditions.



Quiet - Quietest setting for maximum comfort under all driving conditions.

DRIVE MODES

CUSTOM



Press the button on the instrument panel to set up a Custom drive mode on the center display. See **Custom Drive Mode** (page 319).

Drive Mode Control



Custom drive mode allows you to create your own drive mode experience. From the center display, choose a drive mode to use as a starting point and then mix and match settings to tailor the experience to your preferences. Custom drive mode must be active in order to see real time updates. You can set one of the six custom modes as the active mode. The active mode appears as an available mode when selecting a drive mode.

Note: *Some settings or combinations of settings may not be available.*

DRAG STRIP



This mode adjusts the transmissions shift schedule for aggressive shifting and higher engine speeds, optimizing performance at maximum throttle. This feature increases accelerator pedal responsiveness and sets the steering to its sport setting for enhanced driver connectivity and feedback.

Depending on your vehicles options, the system optimizes the adaptive dampers for straight line maximum acceleration and sets the active exhaust to a louder tone.

Use this mode for high-performance driving on closed circuit drag strips where you need optimal straight line performance.

Note: *This mode is for track use only and is not intended for public roads.*

NORMAL



For everyday driving. This mode is the perfect balance of excitement, comfort, and convenience. This is the default mode after each ignition cycle and all systems altered by drive mode control are adjusted to their base settings.

SLIPPERY



Use this mode for crossing terrain where loose or slippery materials, such as snow or ice, cover a firm surface. Slippery mode lowers throttle response and optimizes shifting for slippery surfaces.

SPORT



For sporty driving with improved performance handling and response. This mode increases accelerator pedal responsiveness, holds the transmission in lower gears longer, and changes steering feel to have more torque buildup enhancing driver connectivity and feedback. Chassis controls are switched to their sport settings. The adjustable suspension is modified to provide firmer and more responsive dynamics. Additionally, exhaust sound is changed to its sport setting for a louder and more aggressive tone. Use this mode for a fun and engaging driving experience.

TRACK



For high-performance track driving. This mode increases throttle response and adjusts the transmission shift schedule to hold lower gears longer, for faster acceleration and downshift more aggressively under braking. When entering Track mode, the suspension

Drive Mode Control

will lower for improved aerodynamics and increased spring and damper rates, making the chassis much more responsive. Use this mode for on-road courses, auto-cross style events, and on-road closed circuit track driving.

The adaptive dampers are optimized for transient handling maneuvers and active exhaust is opened to take on a more powerful tone. Additionally, steering is switched to its Sport setting for enhanced connectivity and driver feedback.

Traction and stability control intervention is reduced and tuned specifically for track usage. Variable traction control is available in Track mode. See **Track Use** (page 239).

Note: *This mode is for track use only and is not intended for public roads. Automatic Emergency Braking and Brake Over Accelerator systems are disabled.*

DRIVE MODE CONTROL – TROUBLESHOOTING

DRIVE MODE CONTROL – WARNING LAMPS



Some drive modes reduce traction and stability control performance and the indicator illuminates in the instrument cluster.

Note: *The system has diagnostic checks that continuously monitor the system for proper operation. If a mode is unavailable due to a system fault, the drive mode system defaults to normal. When the system defaults to normal, the driveline settings remain the same as prior to the system fault.*

DRIVE MODE CONTROL – INFORMATION MESSAGES

Message	Details
Drive mode not available	The system is not available. If it is still not available the next time you switch the ignition on, the system has malfunctioned. Have your vehicle checked as soon as possible.

Drive Mode Control

DRIVE MODE CONTROL – FREQUENTLY ASKED QUESTIONS

Why did the system default to normal mode?

- If a mode is unavailable due to a system fault, it defaults to normal mode and the driveline settings remain the same as before the system fault.

Can I switch drive modes while I am driving?

- In most instances, you can switch drive modes while you are driving (if you maintain attention on the road), or while the vehicle is stationary. However, you should not switch the vehicle into a drive mode intended for track use while driving on paved, public roads. For example, while driving on a paved highway, it would be acceptable to switch from normal mode to eco mode, but not to track mode.

How long does it take for the vehicle to switch modes after I make a selection?

- After switching modes, the new drive mode activates within several seconds, if all preconditions are met.

How would I decide which drive mode to use?

- Selecting a drive mode usually depends on the driving experience you would like to have, and the driving conditions. For example, if you want to have a more exciting on-road driving experience, you could switch into sport mode. If you find yourself driving on slick roads, you could switch into slippery mode.

Will drive modes impact my vehicle's fuel consumption?

- Drive modes can have an impact on your vehicle's fuel consumption. In addition to the active mode, your driving style affects the fuel consumption.

Brakes

BRAKE PRECAUTIONS

Wet brakes result in reduced braking efficiency. Gently press the brake pedal a few times when leaving a car wash or driving from standing water to dry the brakes.

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.*

ANTI-LOCK BRAKING SYSTEM

ANTI-LOCK BRAKING SYSTEM LIMITATIONS

The anti-lock braking system does not eliminate the risk of crash 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.

Note: *If the system activates, the brake pedal could pulse and travel further. Maintain pressure on the brake pedal.*

ANTI-LOCK BRAKING SYSTEM INDICATORS

This system helps you maintain steering control during emergency stops by keeping the brakes from locking.



If the warning lamp illuminates when you are driving, this indicates a malfunction. Your vehicle continues to have normal braking without the anti-lock brake system function. Have your vehicle checked as soon as possible.

The warning lamp also momentarily illuminates 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 an authorized dealer.

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.

Note: *Brake over accelerator will not function in Drag and Track modes.*

LOCATING THE BRAKE FLUID RESERVOIR

See **Under Hood Overview** (page 219).

CHECKING THE BRAKE FLUID



WARNING: 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.

Brakes

WARNING: 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.

WARNING: 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.

WARNING: The brake system could be affected if the brake fluid level is below the **MIN** mark or above the **MAX** mark on the brake fluid reservoir.

1. Park your vehicle on a level surface.



2. Look at the brake fluid reservoir to see where the brake fluid level is relative to the **MIN** and the **MAX** marks on the reservoir.

Note: Do not tighten the brake fluid reservoir cap over 1.7 Nm. Overtightening may cause leaks.

Note: To avoid fluid contamination, the reservoir cap must remain in place and fully tight, unless you are adding fluid.

Note: After track driving, wipe off any residual brake fluid from the top of the reservoir and check the brake fluid level at the end of the day.

Only use fluid that meets our specifications. See **Brake Fluid Specification** (page 149).

BRAKE FLUID SPECIFICATION

Use fluid that meets the defined specification and viscosity grade.

If you do not use fluid that meets the defined specification and viscosity grade, it could result in:

- Component damage that your vehicle warranty does not cover.
- Reduced brake performance.

Note: We recommend you to use Dot 4 Low Viscosity (LV) High Performance Brake Fluid meeting WSS-M6C65-A2 specifications or ISO 4925 Class 6 standards. If you use any fluid other than the recommended fluid, it could cause reduced brake performance and not meet our performance standards. Keep brake fluid clean and dry.

Contamination with dirt, water, petroleum products or other materials could result in brake system damage and possible failure.

Brakes

Capacities

Variant	Quantity
All.	Fill as required.

Materials

Name	Specification
Motorcraft® DOT 4 LV High Performance Motor Vehicle Brake Fluid(U.S.) Motorcraft® DOT 4 LV High Performance Motor Vehicle Brake Fluid / Liquide de frein automobile haute performance DOT 4 LV Motorcraft®(Canada) PM-20(U.S. & Canada)	WSS-M6C65-A2

BRAKES – TROUBLESHOOTING

BRAKES – WARNING LAMPS



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



If the ABS indicator illuminates when you are driving, this indicates a malfunction. Your vehicle continues to have normal braking without the anti-lock braking system function. Have your vehicle checked as soon as possible.

BRAKE



The brake indicator momentarily illuminates when you switch the ignition on to confirm the lamp is functional. It may also illuminate when you apply the parking brake and the ignition is on. If it illuminates when your vehicle is moving, make sure the parking brake is disengaged. If the parking brake is disengaged, this indicates low brake fluid level or a brake system fault. Have your vehicle checked as soon as possible.

Note: Lamps may vary depending on region.

BRAKE WEAR



Indicates the brake pads have worn down beyond normal operating thickness and should be replaced.

Brakes

Note: *Lamps may vary depending on region.*

BRAKES – INFORMATION MESSAGES

Message	Details
Brake fluid level low	The brake fluid level is low, check the brake system immediately. See Checking the Brake Fluid (page 148).
Check Brake System	Have the system checked as soon as possible.

BRAKES – FREQUENTLY ASKED QUESTIONS

Is it normal for my brakes to make noise?

Occasional brake noise during on-road use is normal in your high-performance system. Track use may induce more brake squeal noise. If a metal-to-metal or continuous grinding sound is present, the brake lining could be worn. Have the system checked.

There is an electrical motor sound when I press on the brake pedal or activate the park brake switch. Is this normal?

Yes, those sounds are the electronic brake booster or the electronic park brake operating.

Electric Parking Brake

WHAT IS THE ELECTRIC PARKING BRAKE

The electric parking brake is used to hold your vehicle on slopes and flat roads.

APPLYING THE ELECTRIC PARKING BRAKE



WARNING: Apply the parking brake, shift into park (P), switch the ignition off and remove the key before you leave your vehicle. Failure to follow this instruction could result in personal injury or death.



WARNING: If you drive extended distances with the parking brake applied, you could cause damage to the brake system.



WARNING: The electric parking brake does not operate if the vehicle battery has run out of charge.



WARNING: If the parking brake is fully released, but the brake warning lamp remains illuminated, the brakes may not be working properly. Have your vehicle checked as soon as possible.



The switch is on the lower part of the instrument panel.

Pull the switch up to apply the electric parking brake. The red warning lamp flashes, then steadily illuminates when the parking brake is applied.

Note: You can apply the electric parking brake when the ignition is off.

Note: The electric parking brake could automatically apply when park (P) is selected. See **Park (P)** (page 134).

APPLYING THE ELECTRIC PARKING BRAKE IN AN EMERGENCY

You can use the electric parking brake to slow or stop your vehicle in an emergency. Pull the switch up and hold it.

The red warning lamp illuminates, a tone sounds and the stoplamps turn on when you use the electric parking brake in an emergency.

The electric parking brake continues to slow your vehicle down unless you release the switch.

Note: Do not apply the electric parking brake when your vehicle is moving, except in an emergency. If you repeatedly use the electric parking brake to slow or stop your vehicle, you could cause damage to the brake system.

MANUALLY RELEASING THE ELECTRIC PARKING BRAKE

1. Switch the ignition on.
2. Press and hold the brake pedal.
3. Push the switch down.

The red warning lamp turns off.

AUTOMATICALLY RELEASING THE ELECTRIC PARKING BRAKE

1. Close the driver door.
2. Shift into gear.
3. Press the accelerator pedal and pull away in a normal manner.

Electric Parking Brake

ELECTRIC PARKING BRAKE AUDIBLE WARNING

Sounds when the parking brake is on and your vehicle is moving with at least 5 km/h. If the warning tone continues after you have released the parking brake, this indicates a malfunction. Have your vehicle checked as soon as possible.

RELEASING THE ELECTRIC PARKING BRAKE IF THE VEHICLE BATTERY HAS RUN OUT OF CHARGE



WARNING: The electric parking brake does not operate if the vehicle battery has run out of charge.

Connect a booster battery to the vehicle battery to release the electric parking brake if the vehicle battery has run out of charge. See **Jump Starting the Vehicle** (page 197).

ELECTRIC PARKING BRAKE – TROUBLESHOOTING

ELECTRIC PARKING BRAKE – WARNING LAMPS

Brake System



It illuminates red when you apply the parking brake and your vehicle is on. If the lamp flashes when the parking brake has been released, this indicates the parking brake system requires service. Have your vehicle checked as soon as possible.

Note: Lamps may vary depending on region.

Electric Parking Brake



When the lamp illuminates yellow, it indicates a malfunction in the electric parking brake. Have your vehicle checked as soon as possible.

Note: Lamps may vary depending on region.

Electric Parking Brake

ELECTRIC PARKING BRAKE – INFORMATION MESSAGES

Message	Details
To Release: Press Brake and Switch	The electric parking brake is set and a manual release is attempted without the brake pedal being pressed.
Park Brake Use Switch to Release	The electric parking brake is set and an automatic release is attempted but cannot be performed. Perform a manual release.
Release Park Brake	The electric parking brake is set and your vehicle speed exceeds 3 mph (5 km/h). Release the electric parking brake before continuing to drive.
Park Brake Not Applied	The electric parking brake is not fully applied.
Park Brake Not Released	The electric parking brake is not fully released.
Brake maintenance mode	The electric parking brake system has been put into a special mode to allow brake service. Have the system checked as soon as possible.
Park Brake Limited Function Service Required	The electric parking brake system has detected a condition that requires service. Some functionality may still be available. Have the system checked as soon as possible.
Park Brake Malfunction Service Now	The electric parking brake system has detected a condition that requires service. Have the system checked as soon as possible.

Hill Start Assist

WHAT IS HILL START ASSIST

Hill Start Assist applies the brakes to hold your vehicle after you bring it to a stop on a slope. This makes it easier for you to pull away without using the parking brake.

HOW DOES HILL START ASSIST WORK

When the system activates, your vehicle remains stationary for a few seconds after you release the brake pedal. This gives you time to move your foot from the brake pedal to the accelerator pedal. The brakes release when you apply the accelerator pedal and the vehicle begins to move forward, or the system exceeds the time allowed for automatically applying the brakes.

The system activates when your vehicle is in any forward gear and facing uphill, or when your vehicle is in reverse (R) and facing downhill.

HILL START ASSIST PRECAUTIONS



WARNING: The system does not replace the parking brake. When you leave your vehicle, always apply the parking brake.



WARNING: 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 follow this instruction could result in the loss of control of your vehicle, personal injury or death.



WARNING: The system turns off if there is a malfunction.

SWITCHING HILL START ASSIST ON AND OFF

Hill start assist is active when you switch the ignition on. You cannot switch the system on or off.

HILL START ASSIST – TROUBLESHOOTING

HILL START ASSIST – INFORMATION MESSAGES

Message	Details
Hill Start Assist not available	Displays when system is not available. Have your vehicle checked as soon as possible.

Auto Hold (If Equipped)

HOW DOES AUTO HOLD WORK

Auto hold applies the brakes to hold your vehicle after you bring the vehicle to a stop. This can help when waiting on a hill or in traffic.

SWITCHING AUTO HOLD ON AND OFF



WARNING: The system does not replace the parking brake. When you leave your vehicle, always apply the parking brake.



WARNING: 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 follow this instruction could result in the loss of control of your vehicle, personal injury or death.

You can switch the system on or off by accessing the menu on the touchscreen.

1. Press Features on the touchscreen.
2. Press Driver Assistance.

Note: You can only switch the system on after you close the driver door and fasten your seatbelt.

Note: The system remembers the last setting when you start your vehicle.

Note: When using an automatic car wash, make sure to switch auto hold off, or shift into neutral (N) with the brake pedal applied to make sure auto hold is not active.

USING AUTO HOLD

1. Bring your vehicle to a complete stop. The auto hold active indicator illuminates in the information display.
2. Release the brake pedal. The system holds your vehicle at a standstill. The auto hold active indicator remains illuminated in the information display.
3. Apply the accelerator and drive off in a normal manner. The system releases the brakes and the auto hold active indicator switches off.

Note: The system only activates if you apply enough brake pressure on the brake pedal to bring the vehicle to a standstill.

Note: Under certain conditions, the system could apply the electric parking brake. The brake system warning lamp illuminates. The electric parking brake releases when you press the accelerator pedal. See **Automatically Releasing the Electric Parking Brake** (page 153).

Note: The system switches off if you shift into reverse (R) or neutral (N) while pressing the brake pedal.

There could be actions that can cause the auto hold system not to work when the following occur:

- Your vehicle is in stay in temporary neutral mode.
- The driver door is open or the driver seatbelt is unbuckled.
- You shift into reverse (R) or neutral (N) before the system is active.

AUTO HOLD INDICATORS



Illuminates when the system is active.

Auto Hold (If Equipped)



Illuminates when the system is on but cannot hold your vehicle at a standstill at this particular

time.

Traction Control

WHAT IS TRACTION CONTROL

The traction control system helps to avoid drive wheel spin and loss of traction.

HOW DOES TRACTION CONTROL WORK

If your vehicle begins to slide, the system applies the brakes to individual wheels and, when needed, reduces power at the same time. If the wheels spin when accelerating on slippery or loose surfaces, the system reduces power in order to increase traction.

SWITCHING TRACTION CONTROL ON AND OFF



WARNING: 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 traction control system turns on each time you switch the ignition on.

The button for the stability and traction control system is on the instrument panel.

Press and release the button to switch traction control off. The stability control system remains fully active, to switch it off, press and hold the button for a few seconds, then release.

When you switch traction control off, a message and an illuminated icon appear on the instrument cluster.

Press the switch again to turn the traction control system back on to normal operation.

If your vehicle is stuck in mud or snow, switching traction control off may be beneficial as this allows the wheels to spin.

TRACTION CONTROL – TROUBLESHOOTING

TRACTION CONTROL – WARNING LAMPS



The traction control light temporarily illuminates on start-up and flashes when activated by a driving condition. The light stays on if a problem occurs in the system.



The traction control off light temporarily illuminates on start-up and stays on:

- When you switch the traction control system off.
- When you select an alternative stability control mode.

TRACTION CONTROL – INFORMATION MESSAGES

Message	Details
Traction Control Off	The status of the traction control system after you switched it off.
Traction Control On	The status of the traction control system after you switched it on.

Stability Control

HOW DOES STABILITY CONTROL WORK



WARNING: 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 speakers may interfere with and adversely affect the electronic stability control system. 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.



WARNING: 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. 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.



WARNING: You are responsible for controlling your vehicle at all times. The system is designed to be an aid and does not relieve you of your responsibility to drive with due care and attention. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

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 power.

The stability control system has several features built into it to help you maintain control of your vehicle:

Electronic Stability Control

Electronic stability control 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 power.

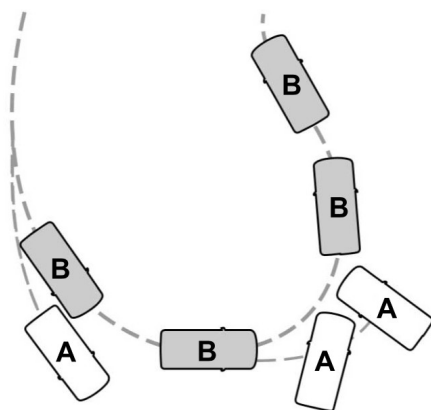
Curve Control

Curve control enhances your vehicle's ability to follow the road when cornering severely or avoiding objects in the roadway. Curve control operates by reducing power and, if necessary, applying brakes to one or more of the wheels individually.

Traction Control

Traction control enhances your vehicle's ability to maintain traction of the wheels by detecting and controlling wheel spin. See **What Is Traction Control** (page 159).

Stability Control



- A Vehicle without stability control skidding off its intended route.
- B Vehicle with stability control maintaining control on a slippery surface.

SWITCHING STABILITY CONTROL ON AND OFF



The system turns on each time you switch the power on.

Press and hold the stability and traction control button for a few seconds and then release to switch the system off.

Shifting into reverse (R) will disable the system.

You can switch the traction control system off or on independently. See **Switching Traction Control On and Off** (page 159).

STABILITY CONTROL INDICATOR



If it does not illuminate when you switch the power on, or remains on, this indicates a malfunction. Have your vehicle checked by an authorized dealer as soon as possible.

STABILITY CONTROL – TROUBLESHOOTING

STABILITY CONTROL – INFORMATION MESSAGES

Message	Details
Service AdvanceTrac	Displays when the system detects a condition that requires service. Have the system serviced as soon as possible.
AdvanceTrac Off	The status of the system when you disable it.
AdvanceTrac On	The status of the system when you enable it.
AdvanceTrac Sport mode	The system is in sport mode.

Steering

ELECTRIC POWER STEERING

HOW DOES ELECTRIC POWER STEERING WORK

The electric power steering system uses an electric motor to provide assistance when turning the steering wheel to steer your vehicle. If your vehicle detects a steering concern when you are driving, a warning message appears and the system reduces steering assistance. If your vehicle loses electrical power, the steering system still operates and you can manually steer your vehicle. Manually steering your vehicle requires more effort.

Note: *When the battery is disconnected or a new battery is installed, you must drive your vehicle a short distance before the system relearns the strategy and reactivates all systems.*

Steering Tips

If the steering wanders or pulls, check for:

- An improperly inflated tire.
- Uneven tire wear.
- Loose or worn suspension components.
- Improper vehicle alignment.

Note: *A high crown in the road or high crosswinds could also make the steering wander or pull.*

ELECTRIC POWER STEERING PRECAUTIONS



WARNING: 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 vehicle off. After at least 10 seconds, switch the vehicle on and watch the information display for a steering system warning message. If a steering system warning message returns, have the system checked as soon as possible.



WARNING: If the system detects an error, you may not feel a difference in the steering, however a serious condition may exist. Have your vehicle checked as soon as possible. Failure to do so may result in loss of steering control.

Adapt your speed and driving behavior according to reduced steering assist.

Extreme continuous steering may increase the effort to steer. This occurs to prevent internal overheating and damage to the steering system. If this occurs, you will not lose the ability to steer your vehicle manually nor will it cause damage to the system. Normal steering and driving allows the system to cool down and steering assist returns to normal.

Note: *There is no fluid reservoir to check or fill.*

When your vehicle is still moving, a significant decrease in steering assistance or a loss of steering assistance could occur if:

- You switch your vehicle off.
- Your vehicle loses electrical power.
- Your vehicle detects a concern.

When your vehicle is off and your vehicle begins moving, there is no steering assistance.

Steering

STEERING – TROUBLESHOOTING

STEERING – INFORMATION MESSAGES

Message	Details
Steering fault Service now	The power steering system has detected a condition that requires service. Have your vehicle checked as soon as possible.
Steering loss Stop safely	The power steering system is not working. Stop your vehicle in a safe place. Have your vehicle checked as soon as possible.
Steering assist fault Service required	The power steering system has detected a condition that requires service. Have your vehicle checked as soon as possible.
Steering lock fault Service now	The steering system has detected a condition that could prevent you from starting your vehicle. Have your vehicle checked as soon as possible.

Parking Aids

PARKING AID PRECAUTIONS



WARNING: To help avoid personal injury, always use caution when in reverse (R) and when using the sensing system.



WARNING: The system may not detect objects with surfaces that absorb reflection. Always drive with due care and attention. Failure to take care may result in a crash.



WARNING: Traffic control systems, fluorescent lamps, inclement weather, air brakes, external motors and fans may affect the correct operation of the sensing system. This may cause reduced performance or false alerts.



WARNING: The system may not detect small or moving objects, particularly those close to the ground.



WARNING: The parking aid system can only assist you to detect objects when your vehicle is moving at parking speeds. To help avoid personal injury you must take care when using the parking aid system.



WARNING: The system may not function if the sensor is blocked.



WARNING: In cold and severe weather conditions the system may not function. Rain, snow and spray can all limit sensor performance.



WARNING: If damage occurs in the immediate area surrounding the sensor, have your vehicle checked as soon as possible.

Note: If your vehicle sustains damage leaving the sensors misaligned, this will cause inaccurate measurements or false alerts.

Note: Certain add-on devices installed around the bumper or fascia may create false alerts. For example, large trailer hitches, bike or surfboard racks, license plate brackets, bumper covers or any other device could block the normal detection zone of the parking aid system. Remove the add-on device to prevent false alerts.

Note: Keep the sensors free from snow, ice and large accumulations of dirt.

Do not clean the sensors with sharp objects.

SWITCHING PARKING AID ON AND OFF

You can only switch the audible tone on and off. The parking aid system remains on at all times.

Muting the Audible Tone



Shift into reverse (R) and press the button on the rear view camera display screen to switch the system's audible tone on and off.

REAR PARKING AID

WHAT IS THE REAR PARKING AID

Rear parking sensors detect objects behind your vehicle when in reverse (R).

REAR PARKING AID LIMITATIONS

There is a decreased coverage area at the outer corners.

Parking Aids

The rear parking aid sensors are active when your vehicle is in reverse (R) and the vehicle speed is less than 5 mph (8 km/h).

The sensor coverage area is up to 71 in (180 cm) from the rear bumper.

The rear parking aid detects large objects when you shift into reverse (R) and any of the following occur:

- Your vehicle is moving backward at a low speed.
- Your vehicle is stationary but an object is approaching the rear of your vehicle at a low speed.
- Your vehicle is moving backward at a low speed and an object is moving towards your vehicle, for example another vehicle at a low speed.

The system shall provide no audible warning for the object behind the vehicle when in neutral (N) gear.

LOCATING THE REAR PARKING AID SENSORS



The rear parking aid sensors are in the rear bumper.

REAR PARKING AID AUDIBLE WARNINGS

A warning tone sounds when your vehicle approaches an object. As your vehicle moves closer to an object, the rate of the tone increases. The warning tone continuously sounds when an object is 12 in (30 cm) or less from the rear bumper.

If your vehicle remains stationary for a few seconds, the audible warning turns off. If your vehicle moves backward the tone sounds again.

Note: When the parking aid system sounds a tone, the audio system may reduce the set volume.

PARKING AID INDICATORS

Parking Aid Indicators Shown When 360 Degree Camera Views are not Available



The system provides object distance indication through the touchscreen.

Parking Aids

- As the distance to an object decreases, the indicators change color. The indicators for closer objects appear closer to the vehicle icon.
- The indicators are green when the object is at the farthest detection point. As the object gets closer, the indicators turn amber. When the object is at the closest detection point, the indicators turn red.
- If the system does not detect an object, the distance indicators do not activate.

The active visual indicators continue to display when your vehicle is stopped in reverse (R). If stopped in drive (D) or neutral (N), the active visual indicators disappear after four seconds.

Note: *If stopped in drive (D) or neutral (N) with rear camera delay mode showing the rear camera view, the active visual indicators continue to display.*

Parking aids are not available in the following situations:

- The system is switched off.
- Something is blocking the sensors.
- A system fault occurs.

Note: *If the parking aids are not available, the distance indicators do not display. See **Parking Aids – Troubleshooting** (page 166).*

Note: *Front park aid indicators are not available.*

PARKING AIDS – TROUBLESHOOTING

PARKING AIDS – INFORMATION MESSAGES

If a fault is present in the parking aids, a warning message appears in the instrument cluster or the touchscreen.

Message	Details
Parking Sensors fault	The system detects a condition that requires service. Have your vehicle checked as soon as possible.
Parking Sensors not available Sensor blocked See manual Press OK to close	Inclement weather, ice, mud, or water is blocking the sensor, causing the system to become unavailable. You can typically clean the sensor to resolve.
Parking Sensors not available Sensor blocked See manual Press OK to close	Certain add-on devices installed around the bumper or fascia are blocking the sensor. Remove add-on devices to resolve.
Parking Sensors not available Sensor blocked See manual Press OK to close	This message may appear when you drive slowly at a constant distance from a stationary object. It disappears once the distance from the object changes. This may happen when driving slowly close to something like a wall.

Rear View Camera

WHAT IS THE REAR VIEW CAMERA

The rear view camera provides a video image of the area behind your vehicle when the transmission is in reverse (R).

REAR VIEW CAMERA PRECAUTIONS



WARNING: 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.



WARNING: 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.



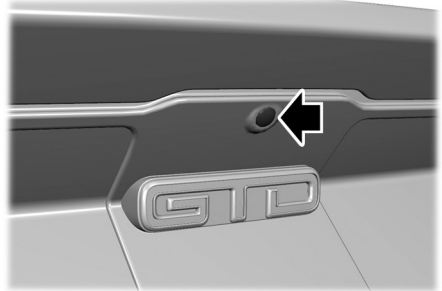
WARNING: Reverse your vehicle slowly. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



WARNING: Use caution when turning camera features on or off when the transmission is not in park (P). Make sure your vehicle is not moving.

Note: If the view comes on while the vehicle is not in reverse (R) and you have not recently shifted out of reverse (R), have the system inspected by your authorized dealer.

LOCATING THE REAR VIEW CAMERA



The rear view camera is located just under the rear technical panel.

REAR VIEW CAMERA GUIDE LINES

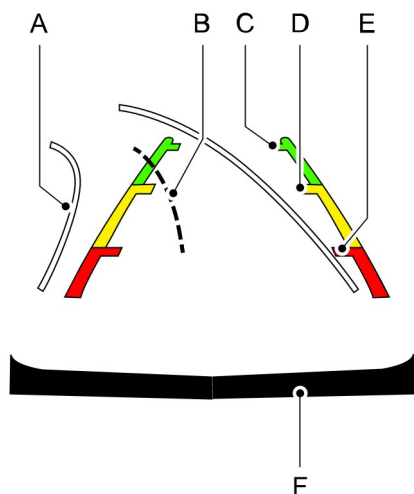
Note: Active guide lines and fixed guide lines are only available when the transmission is in reverse (R).

Note: The centerline is only available if the active or fixed guide lines are on.

Note: When the battery is disconnected, the fixed guidelines may not function until you restart your vehicle. Make sure the center display shuts down in between ignition cycles.

Note: When the battery is disconnected, the active guidelines may not function until you drive your vehicle a short distance and exceed 12.4 mph (20 km/h).

Rear View Camera



- A. Active guide lines.
- B. Centerline.
- C. Fixed guide line: Green zone.
- D. Fixed guide line: Yellow zone.
- E. Fixed guide line: Red zone.
- F. Rear bumper.

Active guide lines only show with fixed guide lines. To use active guide lines, turn the steering wheel to point the guide lines toward an intended path. If the steering wheel position changes while reversing, your vehicle might deviate from the intended path.

The fixed and active guide lines faded in and out depending on the steering wheel position. The active guide lines do not display when the steering wheel position is straight.

Use caution while reversing. Objects in the red zone are closest to your vehicle and objects in the green zone are farther away. Objects get 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.

REAR VIEW CAMERA SETTINGS

ZOOMING THE REAR VIEW CAMERA IN AND OUT



WARNING: When manual zoom is on, the full area behind your vehicle may not show. Be aware of your surroundings when using the manual zoom feature.

Selectable settings for this feature are zoom in (+) and zoom out (-). Press the symbol on the camera screen to change the view. The default setting is zoom off.

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.

Note: Manual zoom is only available when the transmission is in reverse (R).

Note: Only the centerline shows when you enable manual zoom.

SWITCHING REAR VIEW CAMERA DELAY ON AND OFF

1. From the driver assistance menu, press Rear View Camera. See **Driver Assistance Menu** (page 312).
2. Switch rear view camera delay on or off.

Rear View Camera

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 approximately 5 mph (8 km/h).
- You shift your vehicle into park (P).

Cruise Control

WHAT IS CRUISE CONTROL

Cruise control lets you maintain a set speed without keeping your foot on the accelerator pedal.

Requirements

Use cruise control when the vehicle speed is greater than 20 km/h in metric units or 15 mph in imperial units.

SWITCHING CRUISE CONTROL ON AND OFF



WARNING: 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.

The cruise controls are on the steering wheel.

Switching Cruise Control On



Press the button to activate the system. When the system activates, the set speed is equal to the current vehicle speed or 20 km/h (15 mph), whichever is greater. If the speed is too low, or other conditions are not correct for cruise control activation, the system enters standby mode.

Switching Cruise Control Off



Press the button when the system is active or switch the ignition off.

Note: When you switch cruise control off, the set speed clears.

SETTING THE CRUISE CONTROL SPEED



WARNING: When you are going downhill, your vehicle speed could increase above the set speed. The system does not apply the brakes.

Drive to the speed you prefer.

SET+

Press either button to set the current speed.

SET-

Take your foot off the accelerator pedal.

Note: The indicator changes color in the instrument cluster display.

Changing the Set Speed

SET+

Press and release the button to increase the set speed in small increments.

SET-

Press and release the button to decrease the set speed in small increments.

Press and hold the button to accelerate. Release the button when you reach your preferred speed.

Press and hold the button to decelerate. Release the button when you reach your preferred speed.

Note: If you accelerate by pressing the accelerator pedal, the set speed does not change. When you release the accelerator pedal, your vehicle returns to the speed that you previously set.

Cruise Control

CANCELING THE SET SPEED



Press the button, or tap the brake pedal to cancel the set speed.

Note: *The system remembers the set speed.*

Note: *The system cancels if the vehicle speed drops below 10 mph (16 km/h) under the set speed when driving uphill.*

RESUMING THE SET SPEED



Press the button.

CRUISE CONTROL INDICATORS



Illuminates when you switch the system on.

Lane Keeping System

WHAT IS THE LANE KEEPING SYSTEM

The lane keeping system alerts you by providing temporary steering assistance or steering wheel vibration when it detects an unintended lane departure.

HOW DOES THE LANE KEEPING SYSTEM WORK

The lane keeping system uses a forward looking camera mounted on the windshield to monitor vehicle movement within the lane of travel.

When the camera detects a drift out of the lane of travel, the lane keeping system alerts the driver by vibrating the steering wheel, or aids the driver by providing a small steering input to move the vehicle back into the lane of travel.

The driver can select one of three modes:

- Alert (if equipped)
- Aid
- Alert + Aid

LANE KEEPING SYSTEM PRECAUTIONS



WARNING: You are responsible for controlling your vehicle at all times. The system is designed to be an aid and does not relieve you of your responsibility to drive with due care and attention. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



WARNING: The system will not operate if the sensor cannot track the road lane markings.



WARNING: The sensor may incorrectly track lane markings as other structures or objects. This can result in a false or missed warning.



WARNING: In cold and severe weather conditions the system may not function. Rain, snow and spray can all limit sensor performance.



WARNING: The system may not operate properly if the sensor is blocked. Keep the windshield free from obstruction.



WARNING: If damage occurs in the immediate area surrounding the sensor, have your vehicle checked as soon as possible.



WARNING: The system may not function properly if your vehicle is fitted with a replacement windshield not approved by us.



WARNING: Large contrasts in outside lighting can limit sensor performance.



WARNING: The system may not correctly operate if your vehicle is fitted with a suspension kit not approved by us.

LANE KEEPING SYSTEM LIMITATIONS

The lane keeping system only operates when the vehicle speed is greater than 40 mph (64 km/h).

The system works when the camera can detect at least one lane marking or the edge of the road.

Lane Keeping System

The lane keeping system may not correctly operate in any of the following conditions:

- The lane keeping system does not detect at least one lane marking.
- You switch the turn signal on.
- You apply direct steering, accelerate fast or brake hard.
- The vehicle speed is less than 40 mph (64 km/h).
- The anti-lock brake, stability control or traction control system activates.
- The lane is too narrow.
- Something is obscuring the camera or it is unable to detect the lane markings due to environment, traffic or vehicle conditions.

The lane keeping system may not correct lane positioning in any of the following conditions:

- High winds.
- Uneven road surfaces.
- Heavy or uneven loads.
- Incorrect tire pressure.

SWITCHING THE LANE KEEPING SYSTEM ON AND OFF



To activate the lane keeping system, press the button on the steering wheel.

To deactivate the lane keeping system, press the button again.

Note: When switching the system on or off a message appears in the instrument cluster display to show the status.

Note: The system stores the on or off setting until manually changed. For some markets, the system defaults to the ON setting at every Ignition cycle.

SWITCHING THE LANE KEEPING SYSTEM MODE

1. From the settings menu, press Driver Assistance.
2. Press Lane-Keeping System.
3. Press Lane-Keeping Mode.
4. Select a mode.

Note: The system stores the on or off setting until manually changed. For some markets, the system defaults to the ON setting at every Ignition cycle.

LANE KEEPING SYSTEM SETTINGS

Adjusting the Steering Wheel Vibration Intensity

1. From the settings menu, press Driver Assistance. See **Driver Assistance Menu** (page 312).
2. Press Lane Keeping System.
3. Press Alert Intensity.
4. Select a setting.

Note: This setting is not available in all modes.

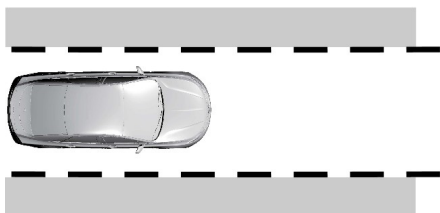
ALERT MODE

WHAT IS ALERT MODE

Alert mode vibrates the steering wheel when it detects an unintended lane departure.

Lane Keeping System

HOW DOES ALERT MODE WORK



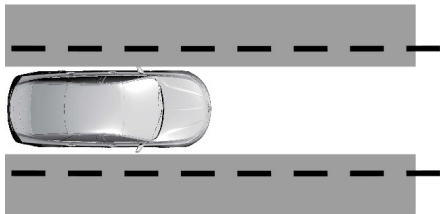
When in alert mode, the lane keeping system alerts you by vibrating the steering wheel. The intensity of the vibration is set through the lane keeping system menu.

AID MODE

WHAT IS AID MODE

Aid mode provides temporary steering assistance toward the center of the lane.

HOW DOES AID MODE WORK



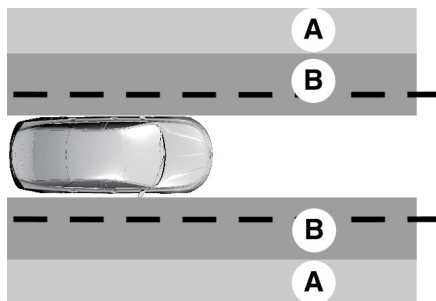
The lane keeping system aids you when an unintentional lane departure occurs. The system provides a small steering input to move the vehicle towards the center of the lane.

ALERT AND AID MODE

WHAT IS ALERT AND AID MODE

Alert and aid mode uses multiple features to keep you in your lane. The system first provides a small steering input to bring your vehicle back towards the center of the lane. If your vehicle moves too far from the center of the lane the system alerts you with vibration in the steering wheel.

HOW DOES ALERT AND AID MODE WORK



- A Alert.
- B Aid.

The lane keeping system detects a lane departure and provides aid when the vehicles enters **B** and applies the additional alert warning if **A** is entered.

Lane Keeping System

LANE KEEPING SYSTEM INDICATORS



If you switch the lane keeping system on, a graphic with lane markings and an activation icon appear in the instrument cluster display.



If you switch the system off, the lane marking graphics do not display and a deactivation icon appears in the instrument cluster display.

Note: *The overhead vehicle graphic may still display if adaptive cruise control is enabled.*

While the lane keeping system is on, the color of the lane markings change to indicate the system status.

Gray	Green	Yellow	Red
Indicates that the system is temporarily unavailable to provide a warning or intervention on the indicated side.	Indicates that the system is available or ready to provide a warning or intervention on the indicated side.	Indicates that the system is providing or has just provided a lane keeping aid intervention.	Indicates that the system is providing or has just provided a lane keeping alert warning.

Lane Keeping System

LANE KEEPING SYSTEM – TROUBLESHOOTING

LANE KEEPING SYSTEM – INFORMATION MESSAGES

Message	Action
Lane-Keeping System fault Service required	The system detects a fault. Have your vehicle checked as soon as possible.
Front camera temporarily not available	The system is over-temperature due to environmental conditions. Cool the cabin by lowering the climate control temperature, parking your vehicle in the shade, or opening the windows. Clear any dirt or debris from the windshield at the front windshield camera.
Front camera low visibility Clean screen	The system detects a condition that requires you to clean the windshield in order for it to properly operate.
Front camera fault Service required	The system detects a fault. Have your vehicle checked as soon as possible.
Keep hands on steering wheel	The system requests that you keep your hands on the steering wheel.

Lane Keeping System

LANE KEEPING SYSTEM – FREQUENTLY ASKED QUESTIONS

Why is the feature not available (lane markings are gray) when I can see the lane markings on the road?

- Your vehicle speed is less than 40 mph (65 km/h).
- The sun is shining directly into the camera lens.
- A quick intentional lane change has occurred.
- You are driving your vehicle too close to the lane markings for an extended interval of time.
- Driving at high speeds in curves.
- The last alert warning or aid intervention occurred a short time ago.
- Ambiguous lane markings, for example, in construction zones.
- Rapid transition from light to dark, or from dark to light.
- Sudden offset in lane markings.
- ABS or AdvanceTrac™ is active.
- There is a camera blockage due to dirt, grime, fog, frost or water on the windshield.
- You are driving too close to the vehicle in front of you.
- Transitioning between no lane markings to lane markings, or vice versa.
- There is standing water on the road.
- Faint lane markings, for example, partial yellow lane markings on concrete roads.
- Lane width is too narrow or too wide.

- The windshield camera was not properly calibrated after a windshield replacement.
- Driving on roads with tight curves or uneven surfaces.

Why does the vehicle not come back toward the middle of the lane, as expected, in the Aid, or Aid + Alert mode?

- High cross winds are present.
- There is a large road crown.
- Rough roads, grooves or shoulder drop-offs.
- Heavy, uneven loading of the vehicle or improper tire inflation pressure.
- The tires or suspension has been modified from what your vehicle was designed to use.

Pre-Collision Assist

WHAT IS PRE-COLLISION ASSIST

Pre-collision assist detects and warns of approaching hazards in the roadway. If your vehicle is rapidly approaching another stationary vehicle, a vehicle traveling in the same direction as yours, or a pedestrian within your driving path, the system provides multiple levels of assistance to help avoid a collision.

HOW DOES PRE-COLLISION ASSIST WORK

The system warns the driver of potential hazards by providing three levels of assistance.



If your vehicle is rapidly approaching potential hazards the system provides the following levels of functionality:

1. Alert.
2. Brake support.
3. Automatic emergency braking.



Alert: When active, a flashing visual warning appears and an audible warning tone sounds.

Brake Support: The system helps reduce the impact speed by preparing the brakes for rapid braking. The system does not automatically apply the brakes. If you press the brake pedal, the system may apply additional braking up to maximum braking force, even if you lightly press the brake pedal.

Automatic Emergency Braking:

Automatic emergency braking may activate if the system determines that a collision is imminent.

Note: If the pre-collision assist alerts are too frequent or disturbing, you can reduce the alert sensitivity. Setting the low sensitivity results in fewer and later warnings of a potential forward collision. The manufacturer recommends using the high sensitivity setting where possible.

Note: Automatic emergency braking performance is not affected by the sensitivity setting.

Each system has various levels of detection capabilities. See **Pre-Collision Assist Limitations** (page 179).

PRE-COLLISION ASSIST PRECAUTIONS



WARNING: You are responsible for controlling your vehicle at all times. The system is designed to be an aid and does not relieve you of your responsibility to drive with due care and attention. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



WARNING: The system only provides limited braking. Your vehicle may not always decelerate quickly enough to avoid a crash without driver intervention. Apply the brakes when necessary.



WARNING: The system does not operate during hard acceleration or steering. Failure to take care may lead to a crash or personal injury.

Pre-Collision Assist



WARNING: The system may operate with reduced function during cold and inclement weather conditions. Snow, ice, rain, spray and fog can adversely affect the system. Keep the front camera and radar free of snow and ice. Failure to follow this instruction may result in the loss of control of your vehicle, serious personal injury or death.



WARNING: The system may not function properly if your vehicle is fitted with a replacement windshield not approved by us.



WARNING: Do not perform windshield repairs around the rear-view mirror. Failure to follow this instruction could limit sensor performance.



WARNING: System performance could be reduced in situations where the vehicle camera has limited detection capability. These situations include but are not limited to direct or low sunlight, vehicles at night without tail lights, unconventional vehicle types, pedestrians or cyclists with complex backgrounds, running pedestrians or fast moving cyclists, partly obscured pedestrians or cyclists, pedestrians or cyclists that the system cannot distinguish from a group. Failure to take care may result in the loss of control of your vehicle, personal injury or death.



WARNING: The system cannot help prevent all crashes. Do not rely on this system to replace driver judgment and the need to maintain a safe distance and speed.



WARNING: Take additional care if your vehicle is heavily loaded or you are towing a trailer. These conditions could result in reduced performance of this system. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

Note: *Automatic emergency braking may activate when a collision is imminent. The system cannot prevent all crashes, but may reduce crash severity. Do not test automatic emergency braking or forward collision warning. Testing this system must only be conducted by authorized test facilities using specialized equipment. Do not use automatic emergency braking to replace normal braking for any reason. Relying on automatic emergency braking to stop your vehicle may cause an unexpected accident which could lead to serious injury or death.*

Note: *The system does not detect animals.*

PRE-COLLISION ASSIST LIMITATIONS

Pre-collision assist depends on the detection ability of its camera and sensors. Any obstructions or damage to these areas can limit detection or prevent the system from functioning. See **Locating the Pre-Collision Assist Sensors** (page 181).

The system is active at 3 mph (5 km/h) and above.

Note: *Brake support and automatic emergency braking are active up to the maximum speed of the vehicle.*

Note: *The pre-collision assist system automatically disables when you manually disable AdvanceTrac™ or put the vehicle in Track Mode (if available)*

Pre-Collision Assist

Pedestrian Detection Limitations

Pedestrian detection is active at speeds up to 50 mph (80 km/h).

Pedestrian detection functions optimally when detected hazards are clearly identifiable. System performance may reduce in situations where pedestrians are running, partly obscured, have a complex background, or the system cannot distinguish the pedestrian from a group.

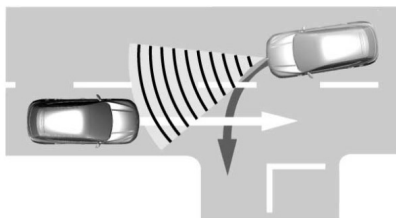
Cyclist Detection Limitations

Cyclist detection is active at speeds up to 50 mph (80 km/h).

Cyclist detection functions optimally when detected hazards are clearly identifiable. The system's detection level may be less in situations where cyclists are moving fast, partly hidden, have a complex background, or the system cannot distinguish the cyclist from a group.

Intersection Assist

The pre-collision assist system may operate in a scenario where you are turning across the path of an oncoming vehicle, or with crossing pedestrians and cyclists. Detection of vehicles driving in an oncoming direction is active if you are driving at speeds up to 19 mph (30 km/h). Detection of crossing pedestrians and cyclists at an intersection is active if you are driving at speeds up to 19 mph (30 km/h).



SWITCHING PRE-COLLISION ASSIST ON AND OFF

You cannot switch the system off.

Adjusting the Pre-Collision Assist Settings

You can adjust the following settings by using the touchscreen controls in the pre-collision assist menu:

- Change alert sensitivity to one of three possible settings.
- If required, switch automatic emergency braking on or off.
- If required, switch evasive steering assist on or off.

Note: *Automatic emergency braking and evasive steering assist automatically turn on every time you start your vehicle.*

Note: *If you switch automatic emergency braking off, evasive steering assist switches off.*

Pre-Collision Assist

LOCATING THE PRE-COLLISION ASSIST SENSORS



1. Camera.

If a message regarding a blocked camera appears in the instrument cluster display, something is obstructing the front windshield camera. With a blocked camera, the system may not function, or performance may reduce. See

Pre-Collision Assist – Information Messages (page 183).

Note: Proper system operation requires a clear view of the road by the camera. Repair any windshield damage in the area of the camera's field of view.

Note: If your vehicle detects excessive heat at the camera or a potential misalignment condition, a message could appear in the instrument cluster display indicating temporary sensor unavailability. When operational conditions are correct, the message deactivates. For example, when the ambient temperature around the sensor decreases or the sensor successfully recalibrates.

DISTANCE INDICATION

WHAT IS DISTANCE INDICATION

Distance indication displays the gap between your vehicle and the vehicle ahead of you.

Note: The graphic does not display if you switch on cruise control or adaptive cruise control.

Vehicle Speed	System Sensitivity	Distance Indicator Color	Distance Gap	Time Gap
62 mph (100 km/h).	Normal.	Blue.	Greater than 82 ft (25 m).	Greater than 0.9 seconds.
		Yellow.	56–82 ft (17–25 m).	0.6–0.9 seconds.
		Red.	Less than 56 ft (17 m).	Less than 0.6 seconds.

Pre-Collision Assist

SWITCHING DISTANCE INDICATION ON AND OFF

1. From the Driver Assistance menu, press Pre-Collision Assist. See **Driver Assistance Menu** (page 312).
2. Press Distance Indication.
3. Switch the feature on or off.

DISTANCE INDICATION INDICATOR

The indicator displays the time gap between your vehicle and vehicles traveling in the same direction ahead of you.



FORWARD COLLISION WARNING

WHAT IS FORWARD COLLISION WARNING

A warning flashes and an audible warning sounds if your vehicle rapidly approaches another vehicle to warn you of the risk of a crash with the vehicle in front of you.

ADJUSTING THE SENSITIVITY OF FORWARD COLLISION WARNING

1. From Driver Assistance menu, press Pre-Collision Assist. See **Driver Assistance Menu** (page 312).
2. Press Alert Sensitivity.
3. Select a setting.

AUTOMATIC EMERGENCY BRAKING

WHAT IS AUTOMATIC EMERGENCY BRAKING

Automatic emergency braking may activate if the system determines that a collision is imminent. The system may help to reduce impact damage or completely avoid the crash.

SWITCHING AUTOMATIC EMERGENCY BRAKING ON AND OFF

1. From the Driver Assistance menu, press Pre-Collision Assist. See **Driver Assistance Menu** (page 312).
2. Press Auto Emergency Braking.
3. Switch the feature on or off.

Pre-Collision Assist

Note: A telltale remains illuminated in the instrument cluster when automatic emergency braking is switched off using the settings menu.

Note: Automatic emergency braking turns on each time you switch the ignition on.

Note: If you turn automatic emergency braking off, evasive steering assist also turns off.

PRE-COLLISION ASSIST – TROUBLESHOOTING

PRE-COLLISION ASSIST – WARNING LAMPS



A telltale illuminates in the instrument cluster display to indicate if the system is disabled, unavailable, or temporarily degraded due to external environmental conditions.

Note: If the telltale illuminates without a corresponding information message, make sure the setting for automatic emergency braking is switched on. See **Switching Automatic Emergency Braking On and Off** (page 182). No action is needed unless an information message appears. See **Pre-Collision Assist Precautions** (page 178).

PRE-COLLISION ASSIST – INFORMATION MESSAGES

Message	Details
Pre-Collision Assist not available Sensor blocked	You have a blocked sensor due to bad weather, ice, mud or water in front of the radar sensor. You can typically clean the sensor to resolve.
Pre-Collision Assist not available	A fault with the system has occurred. Have your vehicle checked as soon as possible.

PRE-COLLISION ASSIST – FREQUENTLY ASKED QUESTIONS

Camera Troubleshooting

The windshield in front of the camera is dirty or obstructed.

Clean the outside of the windshield in front of the camera.

The windshield in front of the camera is clean, but the message remains in the instrument cluster display.

Wait a short time. It could take several minutes for the camera to detect that there is no obstruction.

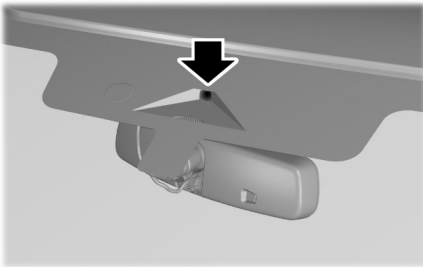
Driver Alert

WHAT IS DRIVER ALERT

Driver alert alerts you if it determines that you are becoming drowsy or if your driving deteriorates.

HOW DOES DRIVER ALERT WORK

Driver alert determines your alertness level based on your driving behavior in relation to the lane markings and other factors using the front windshield camera.



DRIVER ALERT PRECAUTIONS



WARNING: You are responsible for controlling your vehicle at all times. The system is designed to be an aid and does not relieve you of your responsibility to drive with due care and attention. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



WARNING: Take regular rest breaks if you feel tired. Do not wait for the system to warn you.



WARNING: Certain driving styles may result in the system warning you even if you are not feeling tired.



WARNING: In cold and severe weather conditions the system may not function. Rain, snow and spray can all limit sensor performance.



WARNING: The system will not operate if the sensor cannot track the road lane markings.



WARNING: If damage occurs in the immediate area surrounding the sensor, have your vehicle checked as soon as possible.



WARNING: The system may not correctly operate if your vehicle is fitted with a suspension kit not approved by us.



WARNING: The system may not operate properly if the sensor is blocked. Keep the windshield free from obstruction.



WARNING: The system may not function properly if your vehicle is fitted with a replacement windshield not approved by us.

Note: If something is blocking the camera or damaged the windshield, Driver Alert may not function.

DRIVER ALERT LIMITATIONS

Driver alert will not function correctly if:

- The sensor cannot track the road lane markings.
- Your vehicle's speed is less than the required activation speed. See **Driver Alert Indicators** (page 186).

Driver Alert

SWITCHING DRIVER ALERT ON AND OFF

- 1. From the driver assistance menu, press Driver Alert. See **Driver Assistance Menu** (page 312).
- 2. Switch the feature on or off.

DRIVER ALERT INDICATORS

System Warnings

The warning system has two stages:

- 1. A temporary warning is issued to advise you to take a rest. This message only appears for a short time.
- 2. If you do not rest and the system continues to detect that your driving deteriorates, it issues a further warning. This remains in the instrument cluster display until you cancel it.

Note: *The system does not warn you if the vehicle speed falls below approximately 20 mph (30 km/h).*

If there is a fault in the system, a telltale appears in the instrument cluster display.

DRIVER ALERT – TROUBLESHOOTING

DRIVER ALERT – INFORMATION MESSAGES

Message	Details
Driver Alert Rest now	Stop and rest as soon as it is safe to do so.
Driver Alert Rest suggested	Take a rest soon.

Load Carrying

LOAD CARRYING PRECAUTIONS

Keep your loaded vehicle weight within its design rating capability, with or without a trailer. Properly loading your vehicle provides maximum return of vehicle design performance. Before you load your vehicle, become familiar with the following terms for determining your vehicle's weight rating, with or without a trailer, from the vehicle's Tire and Loading Information label or Safety Compliance Certification label.



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.



WARNING: Exceeding the Safety Compliance Certification label vehicle weight limits can adversely affect the performance and handling of your vehicle, cause vehicle damage and can result in the loss of control of your vehicle, serious personal injury or death.



WARNING: Do not use replacement tires with lower load carrying capacities than the original tires because they may lower your vehicle's Gross Vehicle Weight Rating and Gross Axle Weight Rating limitations. Replacement tires with a higher limit than the original tires do not increase the Gross Vehicle Weight Rating and Gross Axle Weight Rating limitations.



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



WARNING: Exceeding any vehicle weight rating can adversely affect the performance and handling of your vehicle, cause vehicle damage and can result in the loss of control of your vehicle, serious personal injury or death.

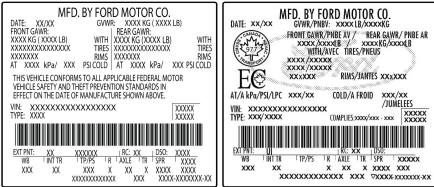
Load carrying can also impact other systems present in your vehicle.

Load Carrying

The gross combined weight must never exceed the Gross Combined Weight Rating.

LOCATING THE SAFETY COMPLIANCE CERTIFICATION LABELS

Safety Compliance Certification Label Example:



The Safety Compliance Certification label is located on the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver seating position.

WHAT IS THE GROSS AXLE WEIGHT RATING

GAWR (Gross Axle Weight Rating)

GAWR is the maximum allowable weight that a single axle (front or rear) can carry. These numbers are on the Safety Compliance Certification label.

WHAT IS THE GROSS VEHICLE WEIGHT RATING

GVWR is the maximum allowable weight of the fully loaded vehicle. This includes all options, equipment, passengers and cargo. It appears on the Safety Compliance Certification label.

WHAT IS THE GROSS COMBINED WEIGHT RATING

Gross Combined Weight Rating (GCWR) 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.)

Note: Your vehicle is not designed for trailer towing. Never tow a trailer with your vehicle.

Load Carrying

CALCULATING PAYLOAD

Tire and Loading Label Information

Example:



TIRE AND LOADING INFORMATION

SEATING CAPACITY TOTAL : 5 FRONT: 2 REAR: 3

The combined weight of occupants, and cargo should never exceed: 385 kg or 850 lbs.

TIRE	SIZE	COLD TIRE PRESSURE	SEE OWNERS MANUAL FOR ADDITIONAL INFORMATION
FRONT	235/45R18 94V	235 KPA, 34 PSI	
REAR	235/45R18 94V	235 KPA, 34 PSI	
SPARE	NONE	NONE	

is the maximum payload for your vehicle as built by the assembly plant. If you install any additional equipment on your vehicle, you must determine the new payload. Subtract the weight of the equipment from the payload listed on the Tire and Loading label.

Note: Your vehicle is not designed for trailer towing. Never tow a trailer with your vehicle.

CALCULATING THE LOAD LIMIT



TIRE AND LOADING INFORMATION RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

SEATING CAPACITY TOTAL 5 FRONT 2 REAR 3
NOMBRE DE PLACES

The combined weight of occupants and cargo should never exceed 396 kg or 875 lbs.
Le poids total des occupants et du chargement ne doit jamais dépasser

TIRE PNEU	SIZE DIMENSIONS	COLD TIRE PRESSURE PRESSION DES PNEUS A FROID	SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION VOIR LE MANUEL DE L'USAGER POUR PLUS DE RENSEIGNEMENTS
FRONT AVANT	235/40R19 96V	255 KPA, 37 PSI	
REAR ARRIERE	235/40R19 96V	255 KPA, 37 PSI	
SPARE DE SECOURS	T125/80R16 97M	415 KPA, 60 PSI	



WARNING: Your vehicle is not approved for trailer towing. Never tow a trailer with your vehicle.

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.

Payload is the combined weight of cargo and passengers that your vehicle is carrying. The maximum payload for your vehicle appears on the Tire and Loading label. The label is either on the B-pillar or the edge of the driver door. Vehicles exported outside the US and Canada may not have a tire and loading 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 and Loading Information label

Load Carrying

4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the “XXX” amount equals 700 lb. and there will be two 150 lb. passengers in your vehicle, the amount of available cargo and luggage load capacity is 400 lb.
 $(700 - 300 (2 \times 150)) = 400 \text{ lb.}$
5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.

Helpful example for calculating the available amount of cargo and luggage load capacity

Suppose your vehicle has a 700 (318-kilogram) cargo and luggage capacity. You decide to go golfing. Is there enough load capacity to carry you, your friend and both the golf bags? You and friend average 220 pounds (99 kilograms) each and the golf bags weigh approximately 30 pounds (13.5 kilograms) each. The calculation would be: $700 - (2 \times 220) - (2 \times 30) = 700 - 440 - 60 = 200$ pounds. Yes, you have enough load capacity in your vehicle to

transport your friend and both golf bags. In metric units, the calculation would be: $635 \text{ kilograms} - (2 \times 99 \text{ kilograms}) - (2 \times 13.5 \text{ kilograms}) = 635 - 495 - 67.5 = 72.5 \text{ kilograms}$.

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.

Towing a Trailer

TOWING A TRAILER PRECAUTIONS



WARNING: Your vehicle is not approved for trailer towing. Never tow a trailer with your vehicle.

Driving Hints

COLD WEATHER PRECAUTIONS

The functional operation of some components and systems can be affected at temperatures below approximately -13°F (-25°C).

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 your vehicle slides while cornering, steer in the direction of the slide until you regain control of your vehicle.

On ice and snow, you should drive more slowly than usual. Your vehicle has an anti-lock braking system, apply the brake pedal steadily. Do not pump the brake pedal. See **Anti-Lock Braking System Limitations** (page 148).

BREAKING-IN

Your vehicle requires a break-in period. The vehicle automatically limits torque to help you achieve the proper break-in of the components. Drive the vehicle normally and use the available torque, as the system protects the components from over torque during this break in period. The vehicle releases increasing amounts of torque as the powertrain breaks in. Be sure to vary RPM and load during this period. Avoid track driving during the first 250 mi

(402.3 km). After 250 mi (402.3 km), the full torque is available, and the break-in is complete. The transmission learns and adapts to your driving style in the first 100 mi (160.9 km). As the transmission learns, shift feel may change and improve.

Launch control is not available during the first 250 mi (402.3 km)

Ground Clearance

Since ground clearance is reduced, use caution when approaching curbs or curb stops from the front and rear as vehicle damage may occur. Additionally, when crossing speed bumps or driveway curbs, make sure you approach at a 45 degree angle to reduce the risk of vehicle damage.

Front lift allows you to raise the front axle to allow for driving over speed bumps or regions of road that require higher clearance. See **Unique Features** (page 30).

DRIVING ECONOMICALLY

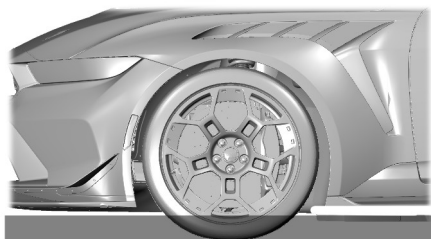
The following helps to improve fuel consumption:

- Drive smoothly, accelerate gently and anticipate the road ahead to avoid heavy braking.
- Regularly check your tire pressures and make sure that they are inflated to the correct pressure.
- Follow the recommended maintenance schedule and carry out the recommended checks.
- Plan your journey and check the traffic before you set off. It is more efficient to combine errands into a single trip whenever possible.
- Avoid idling the engine in cold weather or for extended periods. Start the engine only when you are ready to set off.

Driving Hints

- Do not carry unnecessary weight in your vehicle as extra weight wastes fuel.
- Do not add unnecessary accessories to the exterior of your vehicle, for example running boards. If you use a roof rack, remember to fold it down or remove it when not in use.
- Do not shift into neutral when you are braking or when your vehicle is slowing down.
- Shut all windows when driving at high speeds.
- Switch off all electric systems when not in use, for example air conditioning. Make sure that you unplug any accessories from the auxiliary power points when not in use.

Never drive through water that is higher than the bottom of the wheel rims. Water may enter through the air intake due to the vacuum generated in the engine. Your vehicle warranty does not cover damage caused by water in the engine.



DRIVING THROUGH SHALLOW WATER



WARNING: Do not attempt to cross a deep or flowing body of water. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

Note: *Driving through standing water can cause vehicle damage.*

Note: *Engine damage can occur if water enters the air filter.*

Your vehicle has aerodynamic devices attached to the underbody designed to help control airflow for superior performance. Therefore, avoid driving through deep or standing water. If driving through deep or standing water is unavoidable, do not exceed 9.9 mph (16 km/h).

Before driving through standing water, check the depth.

When driving through standing water, drive very slowly and do not stop your vehicle. Your brake performance and traction could 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.
- Turn the steering wheel to check that the steering power assist works.

Check the function of the following:

- Horn.
- Exterior lights.

FLOOR MATS



WARNING: Use a floor mat designed to fit the footwell of your vehicle that does not obstruct the pedal area. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

Driving Hints

WARNING: Pedals that cannot move freely can cause loss of vehicle control and increase the risk of serious personal injury.

WARNING: Secure the floor mat to both retention devices so that it cannot slip out of position and interfere with the pedals. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

WARNING: Do not place additional floor mats or any other covering on top of the original floor mats. This could result in the floor mat interfering with the operation of the pedals. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

WARNING: Always make sure that objects cannot fall into the driver foot well while your vehicle is moving. Objects that are loose can become trapped under the pedals causing a loss of vehicle control.

To install floor mats that have eyelets, position the floor mat eyelet over the retention post and press down to lock in position. Repeat for all eyelets on the floor mat.

If the driver side floor mat is not securely fastened, remove it, and contact an authorized dealer as soon as possible. Do not drive with a loose floor mat.

To remove the floor mats, reverse the installation procedure.

Note: *Regularly check the floor mats to make sure they are secure.*



Crash and Breakdown Information

ROADSIDE ASSISTANCE

Vehicles Sold in the United States: Getting Roadside Assistance

If you have a vehicle concern, Ford Motor Company offers a complimentary roadside assistance program. This program is separate from the New Vehicle Limited Warranty.

The service is available:

- 24 hours a day, seven days a week.
- For the coverage period supplied with your vehicle.

Knowing your vehicle's VIN, mileage and your specific location allows help to get to you faster.

Roadside Assistance covers:

- 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 customer's responsibility).
- Fuel delivery — independent service contractors, if not prohibited by state, local or municipal law, shall deliver up to 2 gal (8 L) of gasoline or 5 gal (20 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 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 Ford eligible vehicles to an authorized dealer within 50 mi (80 km) of the disablement location or to the nearest authorized dealer. If a member requests a tow to an authorized dealer that is more than 50 mi (80 km) from the disablement location, the member shall be responsible for any mileage costs in excess of 50 mi (80 km). Warranty towing, non-warranty towing and collision towing are available.
- Roadside Assistance includes up to \$200 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 vehicle customers who require Roadside Assistance, call 1-800-241-3673.

If you need to arrange roadside assistance on your own, Ford Motor Company reimburses a reasonable amount for towing to the nearest dealership within 50 mi (80 km). To obtain reimbursement information, United States vehicle customers call 1-800-241-3673. Customers need to submit their original receipts.

Vehicles Sold in Canada: Getting Roadside Assistance

If you have a vehicle concern, Ford Motor Company of Canada, Limited offers a complimentary roadside assistance program. This program is eligible within Canada or the continental United States.

The service is available 24 hours a day, seven days a week.

Crash and Breakdown Information

This program is separate from the New Vehicle Limited Warranty, but the coverage is concurrent with the powertrain coverage period of your vehicle. Canadian roadside coverage and benefits may differ from the U.S. coverage. For complete details, see your Warranty Guide at

www.ford.ca/support/owner-manuals



Download the Sykes4Ford Roadside Assistance App for access to your roadside assistance services. For more information, scan here:



If you require more information, please call us in Canada at 1-800-665-2006, or visit our website at www.ford.ca.



Ford Motor Company of Canada, Limited reserves the right to modify or discontinue Roadside Assistance at any time. Certain restrictions apply to Roadside Assistance benefits.

For further details, call
1-800-665-2006

SWITCHING THE HAZARD FLASHERS ON AND OFF



The hazard flasher button is on the instrument panel. Press the button to switch the hazard flashers on if your vehicle is creating a safety hazard for other road users.

When you switch the hazard flashers on, all front and rear direction indicators flash.

Note: *The hazard flashers operate when the ignition is in any position, or if the key is not in the ignition. The battery loses charge and could have insufficient power to restart your vehicle.*

Press the button again to switch them off.

JUMP STARTING THE VEHICLE

JUMP STARTING PRECAUTIONS



WARNING: 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.



WARNING: 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.

Crash and Breakdown Information



WARNING: Use only adequately sized cables with insulated clamps.



WARNING: Make sure that the cables are clear of any moving parts and fuel delivery system parts.



WARNING: Connect batteries with only the same nominal voltage.



WARNING: Using the jump leads incorrectly or completing the jump start procedure incorrectly can cause the battery to explode, which can lead to severe injuries.



WARNING: All work on the vehicle battery and the electrical system can cause serious chemical burns, fire or electric shocks. Always read the warnings and safety information before carrying out any kind of work on the battery.



WARNING: Never charge a 12-volt vehicle battery once it has been frozen. Discharged 12-volt vehicle batteries can even freeze at temperatures of approximately 0°C (+32°F).



WARNING: The battery should be replaced if it is or has ever been frozen.



WARNING: A highly explosive mixture of gases is given off when the vehicle battery is jump started. Always keep fire, sparks, naked flames and lit cigarettes away from the vehicle battery. Never use a mobile telephone when the jump leads are being connected or disconnected.



WARNING: Only charge the battery in a well-ventilated space as the battery emits a highly explosive mixture of gases when the vehicle is being jump started.



WARNING: Never confuse the negative and positive terminals or connect the jump leads incorrectly.



WARNING: Observe the jump lead manufacturer's instructions.



WARNING: If the engine is running while the hood is open, stay clear of moving engine components. Failure to follow this warning could result in serious personal injury or death.

Do not attempt to push-start an automatic transmission vehicle. This could cause transmission damage.

Do not disconnect the battery of the disabled vehicle. This could damage your vehicle's electrical system.

PREPARING THE VEHICLE

Use only a 12 volt supply to start your vehicle.

Park the booster vehicle close to the front of the disabled vehicle, making sure the two vehicles do not touch.

JUMP STARTING THE VEHICLE

Connecting the Jumper Cables

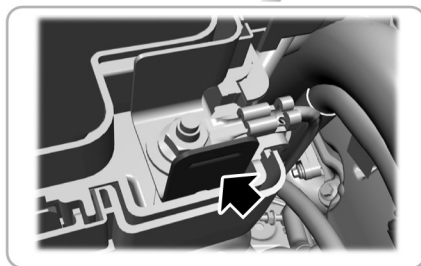
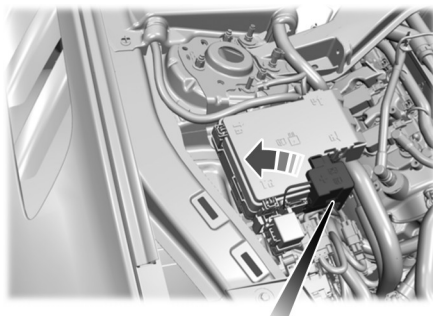
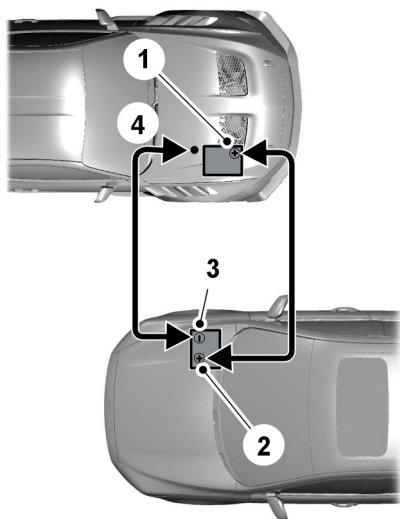


WARNING: Do not connect the negative jumper cable to any other part of your vehicle. Use the ground point.

Note: If you are using a jump pack or booster box, follow the manufacturer's instructions.

Note: In the illustration that follows, the bottom vehicle represents the booster vehicle.

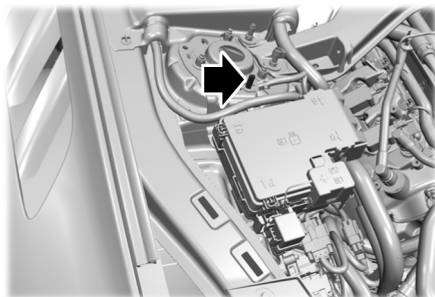
Crash and Breakdown Information



1. Remove the rain cover. See **Accessing the Under Hood Fuse Box** (page 205).
2. Lift the black cap. Connect the positive (+) jumper cable to the positive (+) terminal tab on the power distribution center.
3. Connect the other end of the positive (+) jumper cable to the positive (+) terminal of the booster vehicle battery.
4. Connect the negative (-) jumper cable to the negative (-) terminal of the booster vehicle battery.
5. Make the final connection of the negative (-) jumper cable to the jump start stud, as shown in the following illustration.

Note: Do not use the hood latch as a negative (-) connection point. This could cause springs in the latch to burn and prevent the hood from operating correctly.

Crash and Breakdown Information



Starting the Engine

1. Start the engine of the booster vehicle and moderately rev the engine, or gently press the accelerator to keep the engine speed between 2000 RPM and 3000 RPM, as shown in your tachometer.
2. Start the engine of the disabled vehicle.
3. Once you start the disabled vehicle, 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.

Note: Do not switch the headlamps on when disconnecting the cables. The peak voltage could blow the bulbs.

Built-In Emergency Jump Starting

This feature acts as a built-in jump starter and allows for a few emergency start attempts if the battery is ever over-discharged. See **Changing the 12V Battery** (page 231).

Note: This feature should only be used in emergency starting situations. It should not be activated during normal battery operation. Use in non-emergencies could damage the battery.

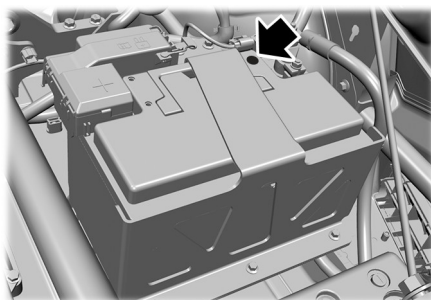
Note: After starting, immediately drive the vehicle at least 30 minutes for a partial recharge, or one hour for a full recharge, or place the battery on a Lithium Charger to fully recharge.

Activating the Jump Start Feature Using the Keyfob (If Battery Enters Sleep Mode)

Prior to attempting to start the vehicle make sure the lights and all accessories are turned off.

Press the button on the keyfob. The battery will turn ON and you will be able to start the vehicle. When using this method, it will automatically turn off after 10 minutes, so there is nothing more to do after starting; simply drive the vehicle.

Activating the Jump Start Feature Manually (If Battery Enters Sleep Mode)



1. Turn off all lights and accessories.
2. Remove the technical panel. See **Removing and Installing the Technical Panel** (page 216).

Crash and Breakdown Information

Note: *If the battery is in sleep mode, connect 12V power to the underhood jump posts before pressing the release switch to open the technical panel.*

3. Press the button on top of the battery.
4. When the light turns Red start your vehicle.
5. After the vehicle has been started, press the button again to turn it off.

Note: *Failure to press the button again after starting will damage the battery.*

POST-CRASH ALERT SYSTEM

WHAT IS THE POST-CRASH ALERT SYSTEM

The system helps draw attention to your vehicle in the event of a serious impact.

HOW DOES THE POST-CRASH ALERT SYSTEM WORK

The system is designed to turn the hazard flashers on, turn the courtesy lamps on, intermittently sound the horn and unlock all doors in the event of a serious impact that deploys an airbag or the seatbelt pretensioners.

POST-CRASH ALERT SYSTEM LIMITATIONS

Depending on applicable laws in the country your vehicle was built for, the horn does not sound in the event of a serious impact.

SWITCHING THE POST-CRASH ALERT SYSTEM OFF

Press the hazard flasher switch, or the unlock button on the remote control, or the panic button on the remote control or turn your vehicle off and on twice to switch the system off.

Note: *The alert turns off when the vehicle battery runs out of charge.*

POST-COLLISION BRAKING

How Does Post-Collision Braking Work

In the event of a moderate to severe crash, the braking system reduces the vehicle's speed to prevent or reduce the impact of a potential secondary crash.

Post-Collision Braking Limitations

Post-collision braking does not activate if any of the following occur:

- The anti-lock braking system is damaged during the collision.
- Electronic stability control is disabled.

Overriding Post-Collision Braking

You can override post-collision braking by pressing the brake or accelerator pedal.

Post-Collision Braking Indicators



It flashes when a post-collision braking event is occurring.

Crash and Breakdown Information

AUTOMATIC CRASH SHUTOFF

WHAT IS AUTOMATIC CRASH SHUTOFF

The automatic crash shutoff is designed to stop the fuel going to the engine in the event of a moderate or severe crash.

Note: *Not every impact causes a shutoff.*

AUTOMATIC CRASH SHUTOFF PRECAUTIONS



WARNING: If your vehicle has been involved in a crash, have the fuel system checked. Failure to follow this instruction could result in fire, personal injury or death.

RE-ENABLING YOUR VEHICLE

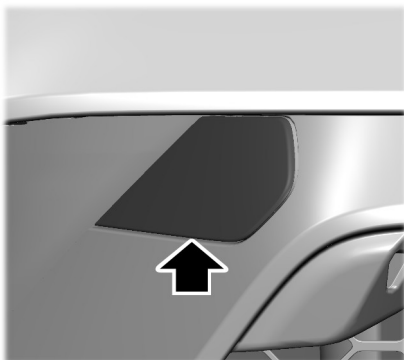
1. Switch the ignition off.
2. Attempt to start your vehicle.
3. Switch the ignition off.
4. Attempt to start your vehicle.

Note: *If your vehicle does not start after the third attempt, have your vehicle checked as soon as possible.*

RECOVERY TOWING (IF EQUIPPED)

ACCESSING THE FRONT TOWING POINT

There is an installation point for the recovery hook behind the fascia.



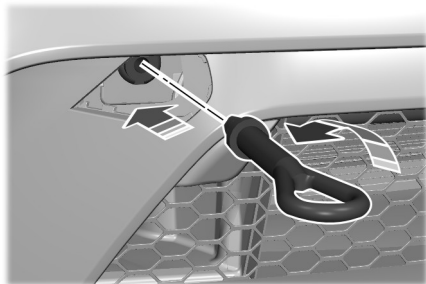
1. Insert a suitable tool into the hole on the underside of the cover.
2. Carefully pry off the cover.

LOCATING THE TOWING EYE

If your vehicle is equipped with a screw-in recovery hook, it is in the glove box.

INSTALLING THE TOWING EYE

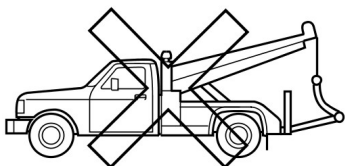
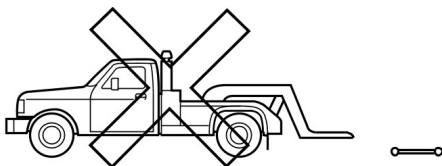
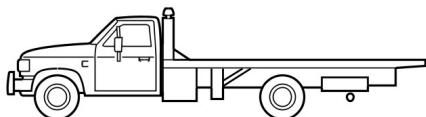
Insert the recovery hook into the installation point and turn it counterclockwise. Make sure that you fully tighten the recovery hook.



Crash and Breakdown Information

Note: The screw-in recovery hook has a left-hand thread.

TRANSPORTING THE VEHICLE



If you need to have your vehicle towed, contact your roadside assistance center or a professional towing service.

We recommend towing your vehicle with flatbed equipment only. When towing with a flatbed, race ramps or wood ramps must be used when loading or unloading your vehicle. Tire slings are required when flatbed towing.

Note: Do not tow with a sling belt or wheel lift equipment.

Note: If your vehicle is towed incorrectly or by any other means, vehicle damage may occur.

FAIL-SAFE COOLING

WHAT IS FAIL-SAFE COOLING

Fail-safe cooling allows you to temporarily drive your vehicle before any incremental component damage occurs due to overheating.

The fail-safe distance depends on outside temperature, vehicle load and terrain.

HOW DOES FAIL-SAFE COOLING WORK

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 still operates, however:

- Engine power is limited.
- The air conditioning system turns off.

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 the engine.

Note: Have your vehicle checked as soon as possible to minimize engine damage.

DRIVING WHEN FAIL-SAFE MODE IS ACTIVATED



WARNING: 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

Crash and Breakdown Information

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.



WARNING: Do not remove the coolant reservoir cap when the engine is on or the cooling system is hot. Wait 10 minutes for the cooling system to cool down. Cover the coolant reservoir cap with a thick cloth to prevent the possibility of scalding and slowly remove the cap. Failure to follow this instruction could result in personal injury.

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 the engine. Have your vehicle checked as soon as possible to minimize engine damage.

Your vehicle has limited engine power when in the fail-safe mode, drive your vehicle with caution. Your vehicle does not maintain high-speed operation and the engine may 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 the engine off.
2. If you are a member of a roadside assistance program, we recommend that you contact your roadside assistance service provider.
3. If this is not possible, wait for a short period of time for the engine to cool.
4. Check the coolant level. If the coolant level is at or below the minimum mark, add prediluted coolant immediately.

5. When the engine temperature cools, you can re-start the engine. Have your vehicle checked as soon as possible to minimize engine damage.

Note: *Driving your vehicle without repair increases the chance of engine damage.*

FAIL-SAFE COOLING INDICATORS



If the engine begins to overheat, the coolant temperature gauge moves toward the red zone.



A warning lamp illuminates and a message may appear in the instrument cluster display.

Towing Your Vehicle

TOWING YOUR VEHICLE PRECAUTIONS

Use the following guidelines when towing your vehicle. Failure to follow this instruction could result in vehicle damage not covered by the vehicle warranty.

Note: *Make sure you properly secure your vehicle to the tow vehicle.*

Note: *If you are unsure of the vehicle's configuration, contact an authorized dealer.*

RECREATIONALLY TOWING YOUR VEHICLE

You cannot recreational tow your vehicle with all wheels on the ground because vehicle or transmission damage could occur. You must recreational tow your vehicle with all four wheels off the ground, such as when using a car-hauling trailer. Otherwise, you cannot recreational tow your vehicle.

EMERGENCY TOWING

If your vehicle becomes inoperable without access to wheel dollies or a vehicle transport trailer, it can be flat-towed with all wheels on the ground, regardless of the powertrain and transmission configuration, under the following conditions:

- Your vehicle is facing forward for towing in a forward direction.
- Place the transmission in neutral (N). If you cannot move the transmission into neutral (N), you may need to perform the manual park release procedure. See **Shifting Your Immobile Vehicle Out of Park (P)** (page 139).
- Maximum speed is 16 mph (25 km/h).
- Maximum distance is 4 mi (6 km).

Fuses

FUSE PRECAUTIONS



WARNING: Always disconnect the battery before servicing high current fuses.



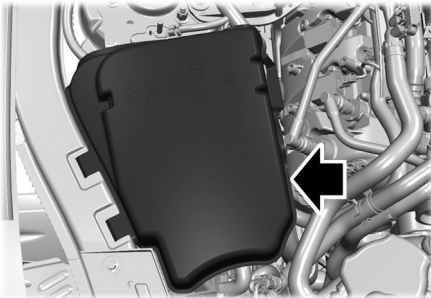
WARNING: To reduce risk of electrical shock, always replace the cover to the power distribution box before reconnecting the battery or refilling fluid reservoirs.



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.

UNDER HOOD FUSE BOX

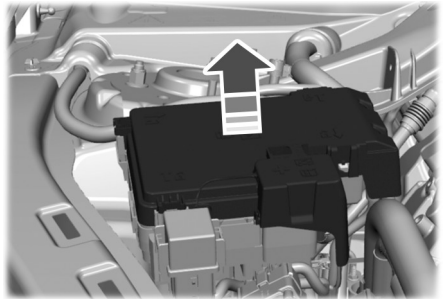
LOCATING THE UNDER HOOD FUSE BOX



ACCESSING THE UNDER HOOD FUSE BOX



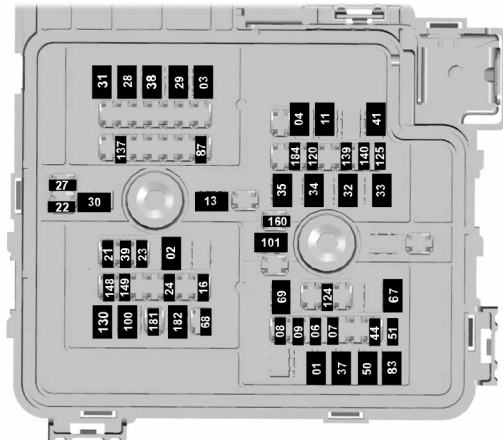
1. Remove the rain cover.



2. Remove the under hood fuse box cover.

Fuses

IDENTIFYING THE FUSES IN THE UNDER HOOD FUSE BOX



Item	Rating	Protected Component
1	40 A	Body control module 1.
2	30 A	Run/start body control module.
3	30 A	Body control module 2.
4	15 A	Fuel pump.
6	15 A	Vehicle power 1.
7	30 A	Vehicle power 2.
8	15 A	Vehicle power 3.
9	20 A	Vehicle power 4.
11	30 A	Starter motor.
13	40 A	Blower motor.
16	10 A	Decklid release.
21	10 A	Rear power distribution box run/start relay.

Fuses

Item	Rating	Protected Component
22	5 A	Run/start power 2.
23	10 A	Automatic brake system module.
24	10 A	Powertrain control module. Electronic power assist steering.
27	5 A	Run/start power 1.
28	40 A	Automatic brake system valve.
29	60 A	Automatic brake system pump.
30	40 A	Driver power seat. Driver seat module.
31	30 A	Passenger power seat.
32	20 A	Power point 1.
33	20 A	Power point 2.
34	20 A	Not used (spare).
35	30 A	Permanent power 1.
37	20 A	Not used (spare).
38	30 A	Climate controlled seat.
39	7.5 A	Run/start active aerodynamics.
41	20 A	Not used (spare).
44	15 A	Permanent power 2.
50	40 A	Heated rear window.
51	10 A	Heated exterior mirror.
67	20 A	Not used (spare).
68	10 A	Electronic steering column lock.
69	30 A	Wiper motor.

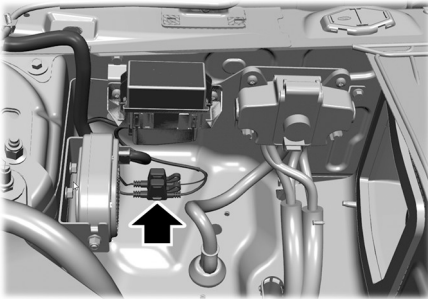
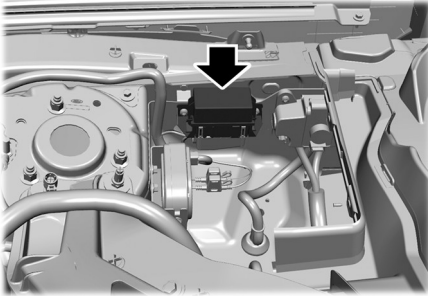
Fuses

Item	Rating	Protected Component
83	15 A	Charge air cooler pump.
87	15 A	Not used (spare).
100	15 A	Left-hand headlamps.
101	15 A	Right-hand headlamps.
120	15 A	Fuel injectors.
124	5 A	Rain sensor.
125	5 A	Not used (spare).
130	20 A	Not used (spare).
137	10 A	Advanced driver assistance module.
139	5 A	USB charge port 2.
140	10 A	Not used (spare).
148	10 A	Left-hand tail lamp.
149	10 A	Right-hand tail lamp.
160	10 A	On-board diagnostic connector. Gateway module.
181	5 A	Headlamp control module.
182	30 A	Body control module.
184	7.5 A	Wireless accessory charging module.

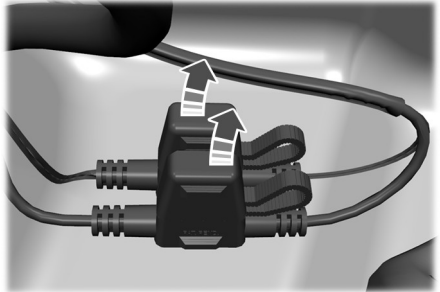
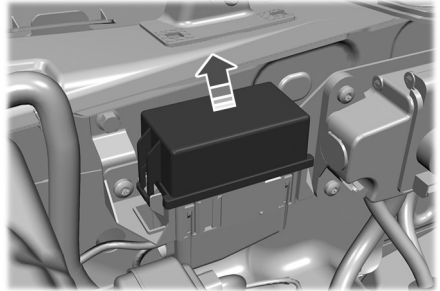
Fuses

BATTERY FUSE BOX

LOCATING THE BATTERY FUSE BOX



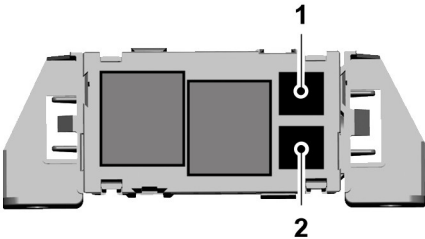
ACCESSING THE BATTERY FUSE BOX



1. Remove the caps that cover the inline fuses.

Fuses

IDENTIFYING THE FUSES IN THE BATTERY FUSE BOX

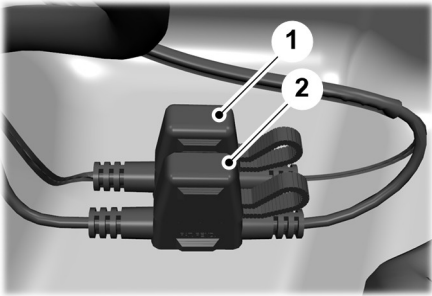
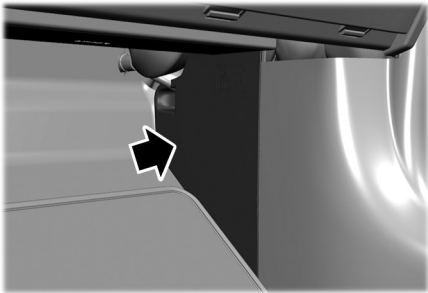


Item	Rating	Protected Component
1	5 A	Secondary air injection powertrain control module.
2	5 A	Secondary air injection powertrain control module.

Item	Rating	Protected Component
1	50 A	Secondary air injection pump.
2	50 A	Secondary air injection pump.

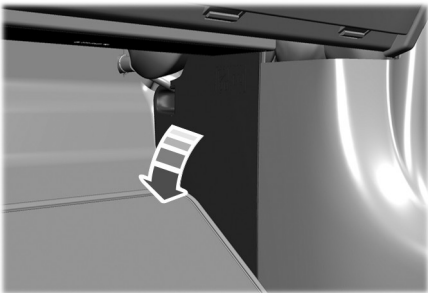
BODY CONTROL MODULE FUSE BOX

LOCATING THE BODY CONTROL MODULE FUSE BOX

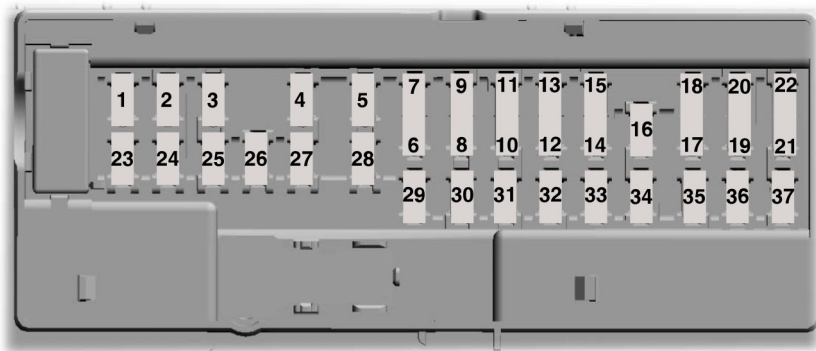


Fuses

ACCESSING THE BODY CONTROL MODULE FUSE BOX



IDENTIFYING THE FUSES IN THE BODY CONTROL MODULE FUSE BOX



Item	Rating	Protected Component
1	—	Not used.
2	10 A	Power windows.
3	7.5 A	Not used (spare).
4	20 A	Amplifier.
5	—	Not used.

Fuses

Item	Rating	Protected Component
6	10 A	Not used (spare).
7	10 A	Auxiliary body module.
8	5 A	Telematics control unit module.
9	5 A	Intrusion sensor module. Performance electric parking brake.
10	—	Not used.
11	—	Not used.
12	7.5 A	Climate control module.
13	7.5 A	Steering column control module. Instrument cluster display.
14	15 A	Not used (spare).
15	15 A	SYNC.
16	—	Not used.
17	7.5 A	Not used (spare).
18	7.5 A	Not used (spare).
19	5 A	Headlamp switch.
20	5 A	Push button ignition switch.
21	5 A	Not used (spare).
22	5 A	Vehicle dynamics module.
23	30 A	Driver door module. Driver door window.
24	30 A	Vehicle dynamics module.
25	20 A	Amplifier.
26	30 A	Passenger door module. Passenger door window.
27	30 A	Left-hand rear window power (convertible).

Fuses

Item	Rating	Protected Component
28	30 A	Right-hand rear window power (convertible).
29	15 A	Instrument cluster module.
30	5 A	Not used (spare).
31	10 A	SYNC display screen. Integrated control panel. Gateway module. Remote keyless entry.
32	20 A	Audio unit.
33	—	Not used.
34	30 A	Run/start relay.
35	5 A	Auxiliary body module.
36	15 A	Not used (spare).
37	20 A	Auto-dimming interior mirror. Heated steering wheel.

HIGH CURRENT FUSE BOX

LOCATING THE HIGH CURRENT FUSE BOX

The high current fuse box is in the trunk.

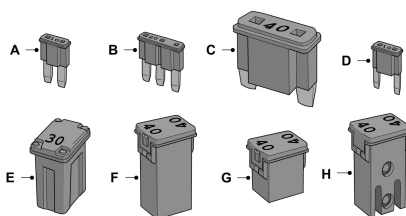
ACCESSING THE HIGH CURRENT FUSE BOX

To access the fuses in the high current fuse box, contact an authorized dealer.

IDENTIFYING THE FUSES IN THE HIGH CURRENT FUSE BOX

To identify the fuses in the high current fuse box, contact an authorized dealer.

IDENTIFYING FUSE TYPES



- A Micro 2.
- B Micro 3.
- C Maxi.
- D Mini.
- E M Case.
- F J Case.

Fuses

- G J Case Low Profile.
- H Slotted M Case.

FUSES – TROUBLESHOOTING

FUSES – FREQUENTLY ASKED QUESTIONS

When do I need to check a fuse?

- If electrical components in the vehicle are not working.

When do I need to replace a fuse?

- If a fuse has blown.

How do I identify a blown fuse?

- You can identify a blown fuse by a broken wire within the fuse.

Maintenance

MAINTENANCE PRECAUTIONS

Service your vehicle 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.

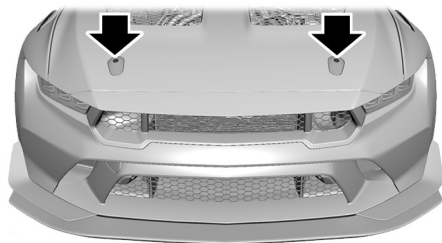
If your vehicle requires professional service, an authorized dealer can provide the necessary parts and service. Check your warranty information to find out which parts and services are covered.

Use only recommended fuels, lubricants, fluids and service parts conforming to specifications.

- 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.
- Set the parking brake, shift the transmission to park (P) and block the wheels.
- Measure the width of your vehicle before placing it on a hoist to ensure compatibility. Failure to take this measurement could result in damage to the vehicle. Use caution when pulling on to the hoist where there are limited clearances. See **Changing a Flat Tire** (page 290).

OPENING AND CLOSING THE HOOD

Opening the Hood

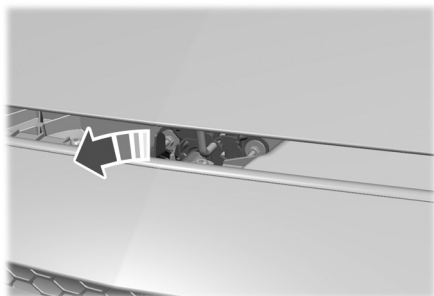


1. Push down on the hood near the release button with one hand to relieve pressure. This makes it easier to release the latch.
2. Press the release button on that side.
3. Repeat steps 1 and 2 on the other side.



4. Inside the vehicle, pull the hood release handle located under the left-hand side of the instrument panel.
5. Lift the hood slightly to access the secondary release lever.

Maintenance



6. Release the hood latch by pushing the secondary release lever to your left.
7. Open the hood. The hood struts automatically support the hood.

Closing the Hood

Lower the hood and make sure it fully latches.

Note: Make sure that the hood is correctly closed.

Warning Lamps and Indicators

Hood Ajar



It illuminates when the ignition is on and the hood is not completely closed.

REMOVING AND INSTALLING THE TECHNICAL PANEL

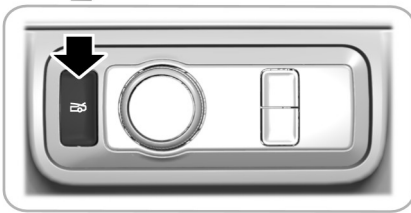
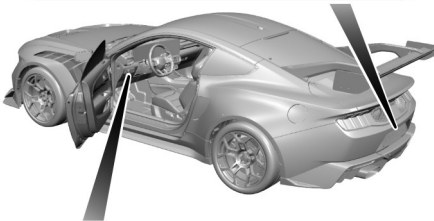
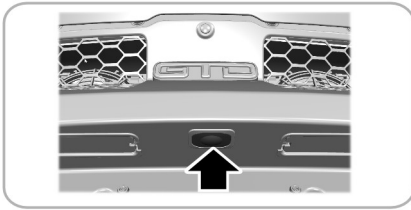
Removing The Technical Panel



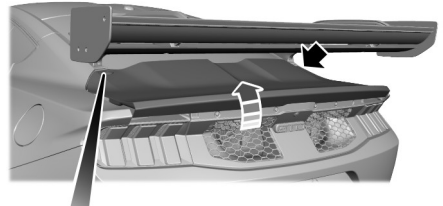
WARNING: Do not use the technical compartment for storage. Objects stored in this compartment could damage vehicle components and wiring or become lodged in the suspension components and cause loss of vehicle control, personal injury, death or property damage.

Note: This area is not water tight and you can expect to see some amount of water if driven or parked in the rain or after a car wash. This is normal and expected.

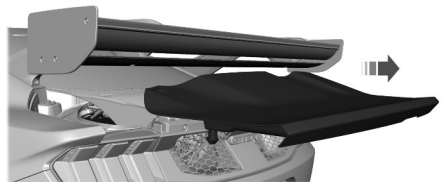
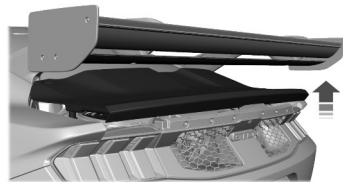
Maintenance



1. Press either the interior release button on the dash or the exterior release button hidden above the license plate. You need to unlock your vehicle or have an intelligent access key within 3.3 ft (1 m) of the vehicle.



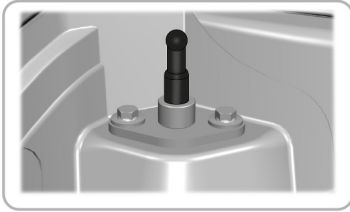
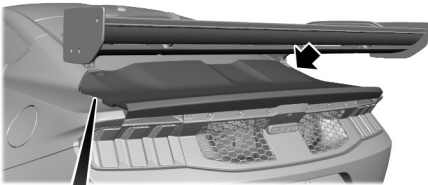
2. Press each of the button latch releases until you hear an audible click. Grasping the front of the panel should make it easier to press the buttons.



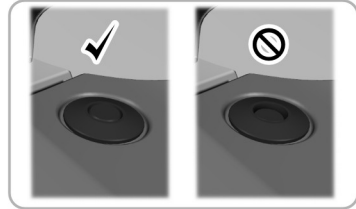
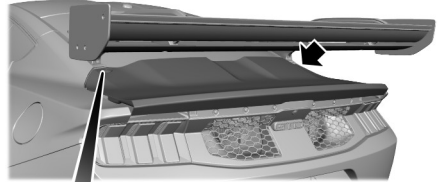
3. Lift the panel slightly up and carefully pull it toward the rear of the vehicle and set aside.

Maintenance

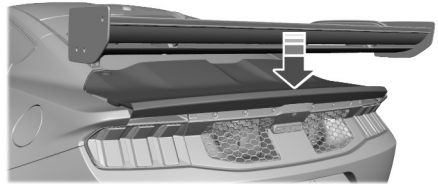
Installing The Technical Panel



1. Carefully slide the technical panel under the rear wing and seat the front latch housings on both ball pins.



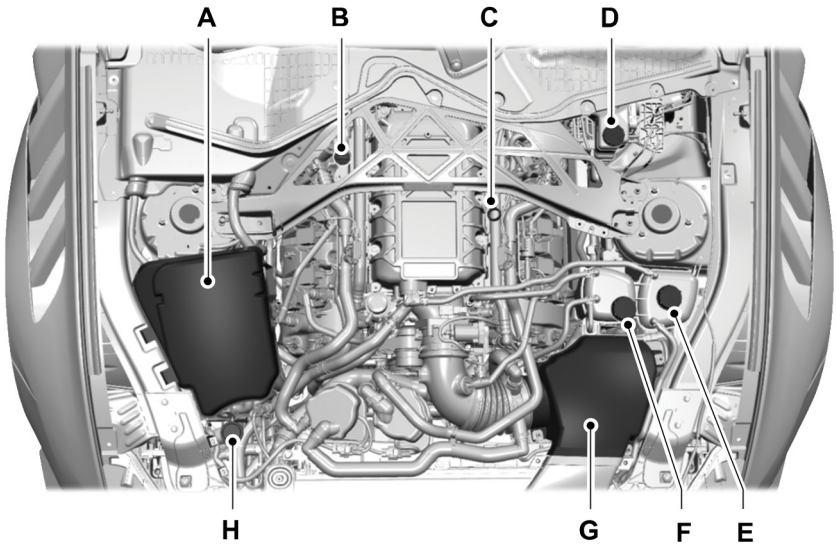
2. Press down on each of the front sides of the technical panel until you hear an audible click. Check that both buttons are flush with the latch housing.



3. Press down on the middle rear of the technical panel until you hear an audible click. Check that you have properly secured the technical panel and that it is not loose on the vehicle.

Maintenance

UNDER HOOD OVERVIEW

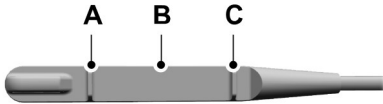


- A Engine compartment fuse box with rain cover. See **Accessing the Under Hood Fuse Box** (page 205).
- B Engine oil filler cap. See **Adding Engine Oil** (page 220).
- C Engine oil dipstick. See **Checking the Engine Oil Level** (page 220).
- D Brake fluid reservoir.
- E Intercooler coolant reservoir. See **Checking the Coolant Level** (page 225).
- F Engine coolant reservoir. See **Checking the Coolant Level** (page 225).
- G Air filter. See **Changing the Engine Air Filter** (page 223).
- H Washer fluid reservoir. See **Washer Fluid Specification** (page 80).

Maintenance

ENGINE OIL

ENGINE OIL DIPSTICK OVERVIEW



- A Minimum.
- B Nominal.
- C Maximum.

CHECKING THE ENGINE OIL LEVEL

Note: Use a thick cloth to protect your hand when removing the oil tank dipstick.

To check the engine oil level consistently and accurately, do the following:

1. Make sure that the vehicle is on level ground.
2. Make sure the parking brake is on. Make sure the transmission is in park (P) or neutral (N).
3. Run the engine until it reaches normal operating temperature 199°F (93°C) or higher). Oil Temperature can be monitored through the cluster.
4. Turn the engine off and wait 30 seconds before checking the oil level.
5. Open the front hood. See **Opening and Closing the Hood** (page 215).
6. Remove the dipstick and wipe it with a clean, lint-free cloth. See **Under Hood Overview** (page 219).

7. Replace the dipstick and remove it again to check the oil level. See **Engine Oil Dipstick Overview** (page 220).
8. Make sure that the oil level is between the minimum and maximum marks. If the oil level is at or below the minimum marks, add oil immediately. Add oil in 0.25 qt (0.24 L) increments to avoid overfill. See **Engine Oil Capacity and Specification** (page 221).
9. If the oil tank is overfilled, an appropriate amount of oil will need to be carefully removed from the oil tank drain plug. The oil fill change procedure will need to be restarted.
10. If the oil level is correct, replace the dipstick and make sure it is fully seated.

Note: Do not remove the dipstick when the engine is running.

Note: If the oil level is between the maximum and minimum marks, the oil level is acceptable. Do not add oil.

Note: The oil consumption of new engines reaches its normal level after approximately 3,000 mi (5,000 km).

Note: High performance vehicles tend to be driven in such a way the engine experiences high speed and high load. As a result, some oil consumption could occur between oil changes. We recommend that you check the oil level on a regular basis.

ADDING ENGINE OIL



WARNING: Do not remove the filler cap when the engine is running.



WARNING: Do not add engine oil when the engine is hot. Failure to follow this instruction could result in personal injury.

Maintenance

Do not use supplemental engine oil additives because they are unnecessary and could lead to engine damage that the vehicle warranty may not cover.

1. Clean the area surrounding the engine oil filler cap before you remove it.
2. Remove the engine oil filler cap.
3. Add engine oil that meets our specifications. See **Engine Oil Capacity and Specification** (page 221).
4. Reinstall the engine oil filler cap. Turn it clockwise until you feel a strong resistance.

Note: Do not add oil further than the maximum mark. Oil levels above the maximum mark may cause engine damage.

Note: Immediately soak up any oil spillage with an absorbent cloth.

INTELLIGENT OIL LIFE MONITOR

Under certain conditions the vehicle's intelligent oil life monitor may determine your oil requires replacement prior to your general service. Should this occur it is recommended you replace your oil within two weeks or 500 mi (800 km) of being alerted.

Your authorized dealer will be able to advise you whether only an engine oil and filter change is recommended or whether you should complete your general service inclusive of oil and oil Filter.

Capacities

Variant	Quantity
All.	15.5 qt (14.7 L)

RESETTING THE INTELLIGENT OIL LIFE MONITOR

1. Press Settings on the touchscreen.
2. Press Vehicle.
3. Select Oil Life.
4. Press and hold the **OK** button until the system reset confirmation appears.

ENGINE OIL CAPACITY AND SPECIFICATION

Engine Oil



We recommend Motorcraft ® motor oil for your vehicle. If Motorcraft ® oil is not available, use motor oils of the recommended viscosity grade that display the API service symbol for API SP.

Do not use supplemental engine oil additives because they are unnecessary and could lead to engine damage that your vehicle warranty does not cover.

Maintenance

Materials

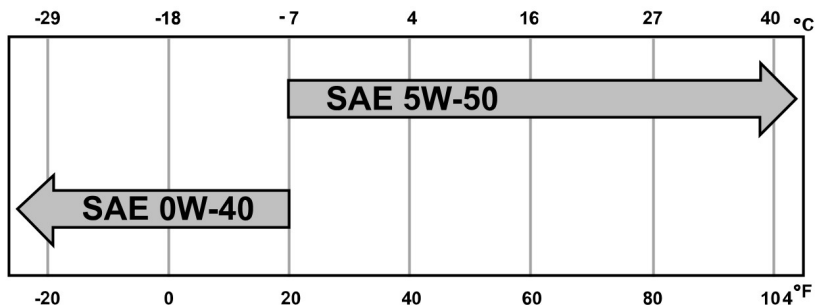
Name	Specification
Motorcraft® SAE 5W-50 Full Synthetic Motor Oil (U.S.) Motorcraft® SAE 5W-50 Full Synthetic Motor Oil / Huile moteur synthétique SAE 5W-50 Motor- craft® (Canada) XO-5W50-QGT (U.S. & Canada)	WSS-M2C931-E1

Alternative Engine Oil for Extremely Cold Climates

To improve engine cold start performance, we recommend that you use the following alternative engine oil in extremely cold climates, where the ambient temperature reaches 20°F (-6.6°C) or below.

Materials

Name	Specification
Engine Oil - SAE 0W-40	WSS-M2C937-A



Maintenance

Note: If you use your vehicle regularly above the altitude of 5,000 ft (1,524 m) and under the temperature of 68.0°F (20°C), it is recommended to use the alternative engine oil.

ENGINE AIR FILTER

CHANGING THE ENGINE AIR FILTER



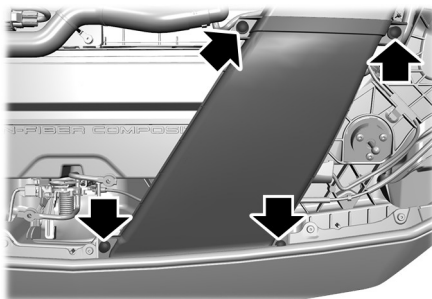
WARNING: To reduce the risk of vehicle damage and personal burn injuries, do not start your engine with the air cleaner removed and do not remove it while the engine is running.

Change the air filter element at the proper intervals. See **Scheduled Maintenance** (page 339).

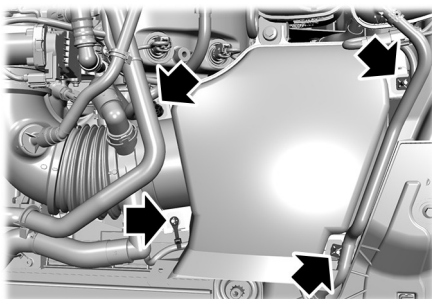
When changing the air filter element, use only the air filter element listed. See **Vehicle Specifications** (page 236).

Note: Failure to use the correct air filter element could result in severe engine damage that the vehicle Warranty may not cover.

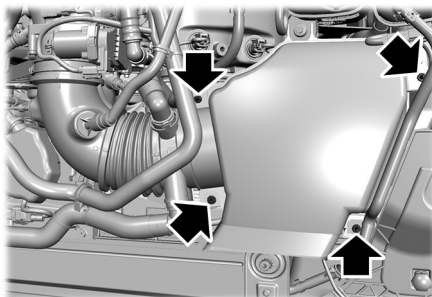
Note: When servicing the air cleaner, do not allow foreign material to enter the air induction system. The engine is susceptible to damage from even small particles.



1. Release the four push pins that secure the air intake to the air filter housing.

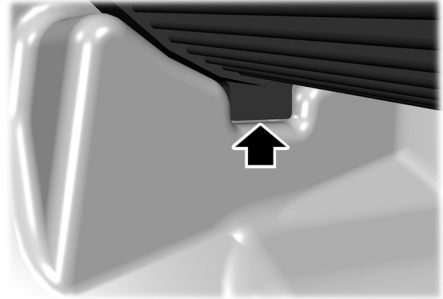
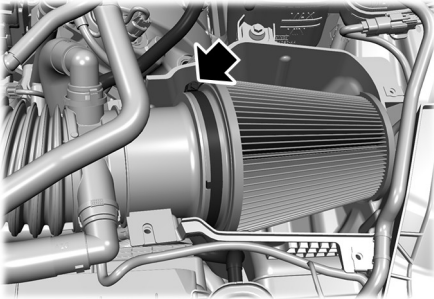


2. Carefully pry off the four wire and hose retainer clips.



3. Remove the four nut retainers from the air box cover.

Maintenance



4. Using a flathead screwdriver, loosen the metal clamp securing the air filter cone to the intake tube.
5. Remove the air filter element from the air filter housing.

6. To install, reverse the removal procedure.

Note: Make sure that the tab on the bottom of the filter is properly seated to the notch in the housing.

ENGINE AIR FILTER – INFORMATION MESSAGES

Message	Action
Filter OK	Indicates the engine air filter is performing as expected.
Check Filter See Manual	Indicates that there is a higher than expected restriction across the engine air filter, which could represent an air filter at full useful life or a filter with an obstruction. When this displays, inspect the engine air filter and replace if necessary. After the inspection or engine air filter replacement, you must reset the system in order to change the status from Check Filter to Filter OK.
System Fault See Manual	Indicates that there is an error within the electronic air filter maintenance minder system requiring service.

Maintenance

COOLANT

CHECKING THE COOLANT LEVEL



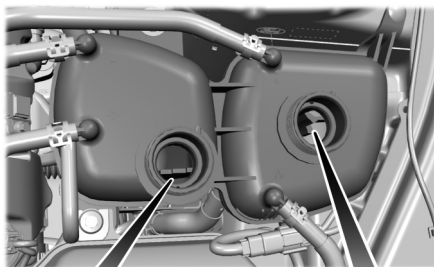
WARNING: Do not remove the coolant reservoir cap when the engine is on or the cooling system is hot. Wait 10 minutes for the cooling system to cool down. Cover the coolant reservoir cap with a thick cloth to prevent the possibility of scalding and slowly remove the cap. Failure to follow this instruction could result in personal injury.



WARNING: 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.

When the engine is cold, check the concentration and level of the coolant at the intervals listed in the scheduled maintenance information. See **Scheduled Maintenance** (page 339).

Note: Make sure that the coolant level is between the **MIN** and the **MAX** marks on the coolant reservoir.



- A High Temperature coolant circuit reservoir.
- B Low Temperature coolant circuit reservoir.

Note: Coolant expands when it is hot. The level may extend beyond the **MAX** mark. This is normal.

Maintain coolant concentration within 48% to 50%, which equates to a freeze point between -29°F (-34°C) and -35°F (-37°C). Check the coolant concentration using a refractometer. We do not recommend the use of hydrometers or coolant test strips for measuring coolant concentration.

ADDING COOLANT



WARNING: Do not add coolant when the vehicle is on or the cooling system is hot. Failure to follow this instruction could result in personal injury.

Maintenance



WARNING: Do not remove the coolant reservoir cap when the engine is on or the cooling system is hot. Wait 10 minutes for the cooling system to cool down. Cover the coolant reservoir cap with a thick cloth to prevent the possibility of scalding and slowly remove the cap. Failure to follow this instruction could result in personal injury.



WARNING: 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.



WARNING: Do not put coolant in the windshield washer reservoir. If sprayed on the windshield, coolant could make it difficult to see through the windshield.



WARNING: Do not add coolant further than the **MAX** mark.

Note: Do not use stop leak pellets, cooling system sealants, or non-specified additives as they can cause damage to the engine cooling or heating systems. Resulting component damage may not be covered by the vehicle Warranty.

Note: Automotive fluids are not interchangeable.

It is very important to use prediluted coolant approved to the correct specification in order to avoid plugging the small passageways in the engine cooling system. See **Coolant** (page 228). See **Cooling System Capacity and Specification** (page 228). Do not mix different colors or types of coolant in your vehicle. Mixing of engine coolants or using an incorrect coolant may harm the engine or cooling system components and may not be covered by the vehicle Warranty.

Note: If prediluted coolant is not available, use the approved concentrated coolant diluting it to 50/50 with deionised or distilled water. See **Coolant** (page 228). See **Cooling System Capacity and Specification** (page 228). Using water that has not been deionised may contribute to deposit formation, corrosion and plugging of the small cooling system passageways.

Note: Coolants marketed for all makes and models may not be approved to our specifications and may cause damage to the cooling system. Resulting component damage may not be covered by the vehicle Warranty.

If the coolant level is at or below the minimum mark, add prediluted coolant immediately.

To top up the coolant level do the following:

1. Unscrew the cap slowly. Any pressure escapes as you unscrew the cap.
2. Add prediluted coolant approved to the correct specification. See **Coolant** (page 228). See **Cooling System Capacity and Specification** (page 228).
3. Add enough prediluted coolant to reach the correct level.
4. Replace the coolant reservoir cap. Turn the cap clockwise until it contacts the hard stop.
5. Check the coolant level in the coolant reservoir the next few times you drive your vehicle. If necessary, add enough prediluted engine coolant to bring the coolant level to the correct level.

If you have to add more than 1.1 qt (1 L) of engine coolant per month, have your vehicle checked as soon as possible. Operating an engine with a low level of coolant can result in engine overheating and possible engine damage.

Maintenance

In case of emergency, you can add a large amount of water without engine coolant in order to reach a vehicle service location.

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 coolant mixed with alcohol or methanol antifreeze.

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 coolant.

CHANGING THE COOLANT

For coolant change, see your authorized dealer.

Changing the coolant is necessary at specific mileage intervals listed in the scheduled maintenance information. See **Scheduled Maintenance** (page 339).

MANAGING THE COOLANT TEMPERATURE

If you tow a trailer with your vehicle, the engine may temporarily reach a higher temperature during severe operating conditions, for example ascending a long or steep grade in high ambient temperatures.

At this time, you may notice the coolant temperature gauge moves toward the red zone and a message may appear in the information display.



WARNING: Do not drive your vehicle when the coolant warning lamp is on, as this may indicate your engine could be overheating. As a result, your vehicle speed may reduce, acceleration could be compromised, or the engine might stop without warning. Pull your vehicle over safely as soon as possible. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

You may notice a reduction in vehicle speed caused by reduced engine power in order to manage the engine coolant temperature. Your vehicle may enter this mode if certain high-temperature and high-load conditions take place. The amount of speed reduction depends on vehicle loading, grade and outside temperature. If this occurs, there is no need to stop your vehicle. You can continue to drive. See **Fail-Safe Cooling** (page 202).

The air conditioning may automatically turn on and off during severe operating conditions to protect the engine from overheating. When the coolant temperature decreases to the normal operating temperature, the air conditioning turns on.

If the coolant temperature gauge moves fully into the red zone, or if the coolant temperature warning or service engine soon messages appear in your information display, do the following:

1. Stop your vehicle as soon as it is safe to do so. Fully apply the parking brake, shift into park (P) or neutral (N).
2. Leave the engine running until the coolant temperature gauge needle returns to the normal position. If the temperature does not drop after several minutes, follow the remaining steps.

Maintenance

3. Switch the engine off and wait for it to cool. Check the coolant level.
4. If the coolant level is at or below the minimum mark, add prediluted coolant immediately.
5. If the coolant level is normal, restart the engine and continue.

COOLING SYSTEM CAPACITY AND SPECIFICATION

Use coolant that meets the defined specification.

If you do not use coolant that meets the defined specification, it could result in:

- Component damage that your vehicle warranty does not cover.
- Reduced vehicle performance.

Capacities

Variant	Quantity
Engine cooling system volume.	14.1 qt (13.3 L)
Intercooler cooling system volume.	5.39 qt (5.1 L)

Materials

Name	Specification
Motorcraft® Yellow Prediluted Antifreeze/Coolant(U.S.) Motorcraft® Yellow Prediluted Antifreeze/Coolant / Antigel/liquide de refroidissement prédilué jaune Motorcraft®(Canada) VC-13DL-G(U.S.) CVC-13DL-G(Canada)	WSS-M97B57-A2

Note: Yellow coolant may become darker over time. This is normal.



A warning lamp illuminates and a message may appear in the information display.

COOLANT – WARNING LAMPS



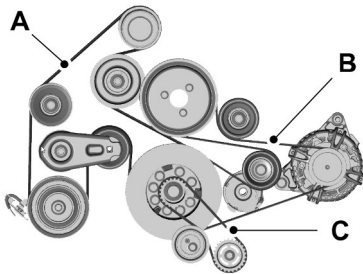
If the engine begins to overheat, the coolant temperature gauge moves toward the red zone.

Maintenance

COOLANT – INFORMATION MESSAGES

Message	Description and Action
High engine temperature Stop safely	Displays when the engine temperature is too high. Stop your vehicle as soon as it is safe to do so, switch the engine off and allow it to cool. If the problem persists, have your vehicle checked as soon as possible. See Checking the Coolant Level (page 225).

DRIVE BELT ROUTING OVERVIEW



- A. 8 groove drive belt is on the first pulley set closest to the engine.
- B. 4 groove drive belt is on the second pulley set.
- C. Oil pump drive belt is on the third pulley set farthest from the engine.

12V BATTERY

12V BATTERY PRECAUTIONS

⚠ WARNING: 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.

⚠ WARNING: 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.

Maintenance



WARNING: 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.



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



WARNING: This vehicle may have 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.



WARNING: For vehicles with Auto-Start-Stop the battery requirement is different. You must replace the battery with one of exactly the same specification.



WARNING: For vehicles equipped with a 12V battery vent tube, always properly reconnect the vent tube to the battery after disconnecting. Failure to follow this instruction could allow harmful gasses to enter the vehicle cabin, which could cause personal injury or death.

WHAT IS THE BATTERY MANAGEMENT SYSTEM

The battery management system monitors battery conditions and takes actions to extend battery life.

HOW DOES THE BATTERY MANAGEMENT SYSTEM WORK

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 could appear in the information display to alert you that battery protection actions are active. This message is only for notification that an action is taking place, and not intended to indicate an electrical problem or that the battery requires replacement.

BATTERY MANAGEMENT SYSTEM LIMITATIONS

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 could temporarily disable some electrical systems.*

Maintenance

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 could adversely affect battery performance and durability. This could also affect the performance of other electrical systems in the vehicle.*

CHANGING THE 12V BATTERY

The battery is located under the technical panel in the rear service compartment. See **Maintenance** (page 215).

Your vehicle is equipped with a Lithium Ion maintenance-free battery.

If the vehicle battery has a cover, make sure you correctly install it after cleaning or replacing the battery.

For longer, trouble-free operation, keep the top of the battery clean and dry and the battery cables tightly fastened to the battery terminals.

We recommend that you disconnect the negative battery cable terminal from the battery if you plan to store your vehicle for an extended period.

Note: *If you only disconnect the negative battery cable terminal, make sure it is isolated or placed away from the battery terminal to avoid unintended connection or arcing.*

If you disconnect or replace the battery and your vehicle has an automatic transmission, it must relearn its adaptive strategy. Because of this, the transmission may shift firmly when first driven. This is normal operation while the transmission fully updates its operation to optimum shift feel.

Removing the Battery

1. Apply the parking brake and switch the ignition off.
2. Switch all electrical equipment off, for example lights and radio.
3. Wait a minimum of two minutes before disconnecting the battery.

Note: *The engine management system has a power hold function and remains powered for a period of time after you switch the ignition off. This is to allow diagnostic and adaptive tables to be stored. Disconnecting the battery without waiting can cause damage not covered by the vehicle Warranty.*

4. Disconnect and isolate the negative battery cable terminal.
5. Disconnect and isolate the positive battery cable terminal.

Note: *Before removing a battery with a vent tube, disconnect and secure the tube.*

6. Remove the battery securing clamp.
7. Remove the battery.

If you disconnect or replace the vehicle battery, you must reset the following features:

- Window bounce-back. See **Window Bounce-Back** (page 91).
- Clock Settings.
- Pre-set radio stations.

Maintenance

Replacing the Battery

Note: Before reconnecting the battery, make sure the ignition remains switched off.

You must replace the battery with one of exactly the same specification.

To install, reverse the removal procedure.

Note: Make sure that you correctly install the battery cable terminals, battery terminal covers, battery vent tube, battery securing clamp, and battery cover.

Storing the Vehicle

If your vehicle is not going to be driven for an extended period of time (more than two weeks) or is in long term storage, only use a lithium compatible trickle charger or battery maintainer. Allowing the battery to discharge may reduce battery performance or cause damage. See **Jump Starting the Vehicle** (page 197).

If the battery is discharged, the BMS (battery management software) must be reset before the battery can accept a charge. The BMS may be reset by using a lithium compatible charger with BMS reset capabilities. Reference the battery manufacturer's instructions.

If the battery is discharged while the vehicle is locked, access the front jump posts by opening the driver door with the manual key, release the hood, access the remote jump posts under the hood, connect a lithium compatible charger with a BMS reset, and follow the charger manufacturer's reset and charge procedure. Alternatively, utilize the wireless jump start feature integrated into the battery.

RESETTING THE BATTERY SENSOR

When you install a new battery, reset the battery sensor by doing the following:

1. Switch the ignition on, and leave the engine off.

Note: Complete Steps 2 and 3 within 10 seconds.

2. Flash the high beam headlamps five times, ending with the high beams off.
3. Press and release the brake pedal three times.

The battery warning lamp flashes three times to confirm that the reset is successful.

RECYCLING AND DISPOSING OF THE 12V BATTERY



Make sure that you dispose of old batteries in an environmentally friendly way.

Seek advice from your local authority about recycling old batteries.

12V BATTERY – TROUBLESHOOTING

12V BATTERY – WARNING LAMPS



If it illuminates while driving, it indicates a charging system error. Switch off all unnecessary electrical equipment and have your vehicle immediately checked.

Maintenance

12V BATTERY – INFORMATION MESSAGES

Message	Details
Electrical system fault Service soon Steering and brake assist limited	The charging system needs servicing. If the warning stays on or continues to come on, have your vehicle checked as soon as possible. ¹
Electrical system fault Service now Steering and brake assist limited	The charging system needs servicing. Have your vehicle immediately checked. ¹
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. The system clears this message once you start your vehicle and the battery state of charge recovers. Turning off unnecessary electrical loads allows for a faster battery state-of-charge recovery.
Electrical power saver active Some features turned off See manual	Displays when the battery management system detects an extended low-voltage condition. The system disables various vehicle features to help preserve the battery. Turn off as many of the electrical loads as soon as possible to improve system voltage. If the system voltage recovers, the disabled features will operate again as normal. ¹
12V battery low Charge by driving Steering and brake assist limited	The battery management system determines that the 12V battery is at a low state of charge. Start the engine to charge the battery or charge the battery using an aftermarket battery charger. Always use the vehicle ground point when connecting the negative cable of the external battery charger. See Jump Starting the Vehicle (page 197). This message clears once you restart your vehicle and the battery state of charge has recovered. Do not switch on the ignition when a battery charger is in use to charge the battery. To resolve the issue after the battery reset, start and stop the vehicle three times. See Starting and Stopping the Engine (page 119). ²

¹ Check Brake System message may also display.

² Check Brake System message may also display. Start and stop the vehicle three times or charge the battery to clear the message. If the message still appears, have the system checked as soon as possible.

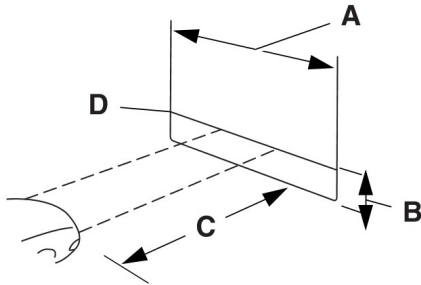
Maintenance

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 an authorized dealer.

Headlamp Aiming Target



- A 8 ft (2.4 m).
- B Center height of lamp to ground (measurement B is relative to vehicle height).
- C 25 ft (7.6 m).
- D Horizontal reference line.

Vertical Aim Adjustment

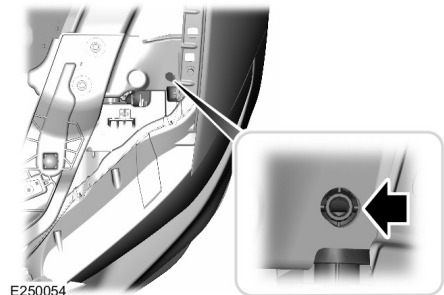
1. Park the vehicle directly in front of a wall or screen on a level surface, approximately 25 ft (7.6 m) away.
2. Measure the height from the center of your headlamp indicated by a 3 mm circle on the lens to the ground and mark an 8 ft (2.4 m) horizontal reference line on the vertical wall or screen 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.



4. On the wall or screen you will observe a flat zone of high intensity light at the top of the right-hand portion of the beam pattern. If the top edge of the high intensity light zone is not at the horizontal reference line, the headlamp needs to be adjusted.



E250054

Maintenance

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.
6. Repeat Steps 3 through 7 to adjust the other headlamp.
7. Close the hood and turn off the lamps.

Horizontal Aim Adjustment

The headlamps are not equipped with horizontal adjusters.

EXTERIOR BULBS

EXTERIOR BULB SPECIFICATION CHART

Your vehicle has LED lamps. These are not serviceable items. See an authorized dealer if they fail.

INTERIOR BULBS

INTERIOR BULB SPECIFICATION CHART

Your vehicle has LED lamps. These are not serviceable items. See an authorized dealer if they fail.

CHECKING THE SUSPENSION HYDRAULIC FLUID

To check the hydraulic fluid level consistently and accurately, do the following:

1. Remove the Technical Panel. See **Removing and Installing the Technical Panel** (page 216).
2. Make sure the vehicle is at normal ride height. See **Track Use** (page 239).

Note: *Switching the ignition off while in track mode returns the vehicle to normal ride height.*

3. Make sure that the fluid level is between the MIN and the MAX marks on the hydraulic reservoir.

Note: *If the fluid is below the MIN marking on the reservoir, this may indicate a leak in the system.*

Note: *The GTD's hydraulic suspension system contains a special blend of additives that maintains proper performance. Adding the incorrect fluid can reduce the hydraulic system's performance. Do not add pure Mercon LV to this system. See a dealer for details.*

Vehicle Specifications

ENGINE SPECIFICATIONS

Item	Description
Configuration.	90 degree V8.
Bore x stroke.	3.70 in (94 mm) bore x 3.66 in (93 mm) stroke.
Displacement.	315 in ³ (5,163 cm ³)
Compression ratio.	9.5:1
Spark plug gap.	0.037 ± 0.002 in (0.95 ± 0.05 mm)
Horsepower.	815 hp (599 kW) @ 7400 rpm
Torque.	664 lb.ft (900 Nm) @ 4500 rpm
Redline.	7650 RPM
Valvetrain.	Overhead cams - roller finger followers.
Ignition.	Coil on plug.
Throttle body.	3.6 in (92 mm)
Pistons.	Forged aluminum.
Crankshaft.	Forged steel cross plane.
Connecting rods.	Forged steel I-beam.
Induction.	Intercooled supercharger.
Exhaust system.	High flow exhaust with X-pipe and active valves for acoustic refinement.

Vehicle Specifications

VEHICLE DIMENSIONS

Dimension	Specification
Overall Vehicle Length.	194 in (4,918 mm)
Front Overhang.	42 in (1,071 mm)
Rear Overhang.	44 in (1,127 mm)
Track Width (Front).	68 in (1,725 mm)
Track Width (Rear).	68 in (1,734 mm)
Vehicle Height - Curb.	56 in (1,410 mm)
Vehicle Height - Body at Curb.	55 in (1,389 mm)
Vehicle Width - with Mirrors Folded.	82 in (2,075 mm)
Vehicle Width - Including Outside Mirrors.	82 in (2,080 mm)
Body Width at SgRP - Front.	73 in (1,858 mm)
Vehicle Width at Front Wheel Centerline.	81 in (2,058 mm)
Vehicle Width at Rear Wheel Centerline.	82 in (2,075 mm)
Wheel Base.	107 in (2,720 mm)

Vehicle Specifications

MOTORCRAFT PARTS

Component	Motorcraft Part Number
Air filter element.	FA-1922-A
Battery. ¹	See note below. ²
Oil filter. ³	FL-500-S
Spark plugs.	SP-581-X
Windshield wiper blade.	WW-1964-A (passenger side) WW-2160-A (driver side)
Cabin air filter.	FP-78
A/C compressor belt.	JK8-707
Accessory drive belt.	JK4-682
Oil pump drive belt.	SR3Z-6B651-A

¹Configure your vehicle's battery management system to match the replacement battery. Failure to use an appropriate configuration for your battery management system could result in shortened battery life, features not working correctly, or your vehicle not starting. Consult your local dealer or service provider for further details.

²See your dealer for the most current part number.

³If a Motorcraft oil filter is not available, use an oil filter that aligns to SAE/USCAR – 36 Performance Specifications. Filter Type C.

We recommend Motorcraft parts that are available at your authorized dealer or at www.fordparts.com. We engineer these parts for your vehicle to meet or exceed our specifications. Use of other parts could impact vehicle performance, emissions and durability. Your warranty could be void for any damage related to use of other parts.

Track Use

We will void the warranty if you use or drive your vehicle in a competitive event with simultaneous multi-vehicle participation (such as, racing, including on a racetrack or other closed-course).

Appropriately change the engine oil for track events. Before and after track events, drain the engine oil and replace the engine oil filter. See **Engine Oil Capacity and Specification** (page 221).

Regularly check the engine oil level during the event. Maintain the engine oil level at or near the max mark on the engine oil dipstick. See **Checking the Engine Oil Level** (page 220).

Operating at High Speeds and Track Days



WARNING: Before driving at high speeds, adjust the tire pressures to the recommended tire inflation pressures which are on the tire information label on the driver side B-pillar. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



WARNING: After each track session or when rotating or changing tires, make sure to carefully inspect all inner and outer surfaces of wheels and the entire surface of each tire for any signs of wear or other damage. Immediately replace any tire or wheel that shows signs of damage or excessive wear. Failure to properly inspect and maintain your tires and wheels after track use or when rotating or changing tires, can dramatically increase the risk of tire failure, loss of vehicle control, personal injury or death.

Before operating your vehicle at high speeds:

- Verify your tires have the correct pressures.
- Inspect wheels and tires for wear and damage. Replace any damaged wheels and tires.
- Check and set lug nut torque. See **Wheel Nuts** (page 292).
- Verify fluid levels for oil, coolant, brake and hydraulic fluid.
- Change the oil and filter prior to use on the track.
- Inspect the rear brake cooling ducts and hoses for wear and damage. If the hose is damaged, replace the hose.

After operating your vehicle at high speeds or track day driving, do the following:

- Set the tire pressure to the proper specification.
- Check and set the lug nut torque. See **Wheel Nuts** (page 292).
- Check all fluid levels.
- Check the front and rear wheel bearings for abnormal wear.
- Inspect brake caliper dust boots for abnormal wear.

Note: After driving on track, wipe any residual brake fluid from the top of the reservoir, check fluid level and refill to the Max line if necessary.

Drive Modes and Track Apps

If you are operating your vehicle on a drag strip, use the drag strip selectable drive mode in addition to line lock and launch control to provide a specific setup tuned for the quickest straight line elapsed times.

Track Use

If you are operating your vehicle on a road course, use the track selectable drive mode to provide a specific setup tuned for optimal shift and suspension tuned toward handling prowess on closed course surfaces. See **Drive Modes** (page 144). See **Track Apps** (page 314).

Note: *Track mode is for track use only. Do not use it under any other driving conditions.*

Oil Change

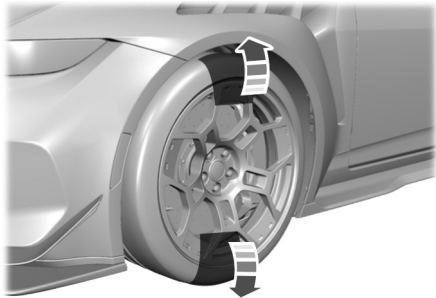
Interval	Maintenance
Before track use.	Change the oil.

Wheel Bearings

Interval	Maintenance
Every 1,200 mi (2,000 km) or if the manual inspection detects free play or movement.	Change the wheel bearings.

To manually check the wheel bearings:

1. Lift the vehicle. See **Changing a Flat Tire** (page 290).



Recovery Towing

If needed, your vehicle has an installation point for a recovery hook behind the fascia. See **Recovery Towing** (page 201).

Track Use Maintenance Intervals

Follow these maintenance intervals for when you use your vehicle on a track or in a high speed event.

2. When the vehicle is lifted, place your hands at the specified points and press back and forth. If the tire moves, replace the wheel bearings.

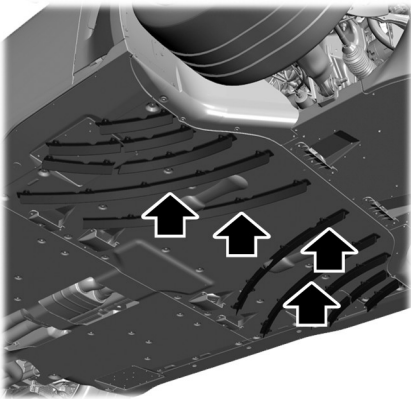
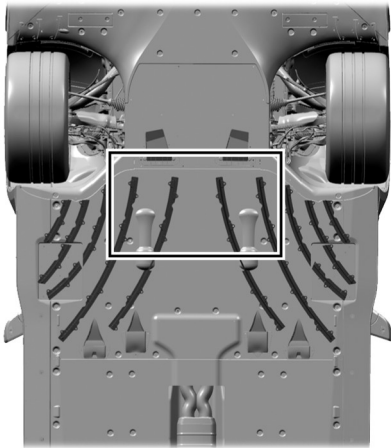
Track Use

Tire Wake Deflectors (If Equipped)

Interval	Maintenance
When less than 1 in (25 mm).	Replace the tire wake deflectors.

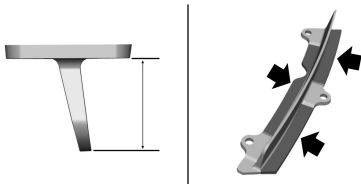
Note: You may hear the tire wake deflectors touch the road surface, this is normal.

To measure the tire wake deflectors:



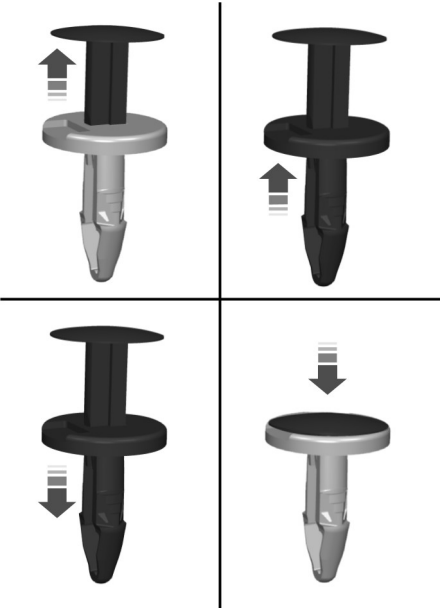
1. Lift the vehicle. See **Changing a Flat Tire** (page 290).

To replace the tire wake deflectors:



2. Measure the height of the two innermost deflectors on each side of the vehicle. Make sure to measure from the thinner portions of the mounting flange as indicated. If they are less than 1 in (25 mm), replace all of the deflectors.

Track Use



1. Remove the pushpins holding the deflector. Use a suitable tool such as a thin flat screwdriver to pull out the central pin before removing the entire pushpin.

Note: Do not reuse the pushpins.

2. Remove the deflector.
3. Set the new deflector in place and insert new pushpins in all attachment locations. Do not push the central pins in until all pushpins are inserted in all attachment locations.
4. Push the central pins in. Make sure all pushpins are secure.
5. Repeat Steps 1-4 for all deflectors.

Road Course Alignment Recommendations

If you plan to participate in road course track days, we recommend the following chassis settings for optimal tire wear and handling performance:

Note: All alignment specs measured at high ride height condition, (full of fuel, 2 x 170 lb (77 kg) occupant load).

Note: After completing your track day, return your car to the street alignment and tire pressures.

Note: Using these wheel alignment settings could cause excessive tire wear. Only use these settings for racing or competitive driving. The vehicle warranty does not cover excessive tire wear.

Front	Track	Street
Camber	-2.3°	-1.3°
Caster	7.5°	7.5°
Toe - Total	-0.1° (toe out)	-0.1° (toe out)

Note: Front negative camber increases 0.2° for every 0.039 in (1 mm) of upper control arm shim removed.

Note: Always remove an equal amount of shims from the front and rear leg of the front upper control arm.

Note: After adjusting the number of shims to achieve the correct camber angle be sure to re-tighten the upper control arm fasteners to 45 ± 5 lb.ft (60 ± 10 Nm).

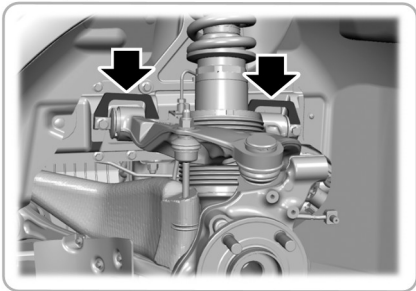
Track Use

Rear	Track	Street
Camber	-1.1°	-1.1°
Toe - Total	0.24° (toe in)	0.24° (toe in)

Adding and Removing Shims

To add or remove shims:

1. Lift the vehicle. See **Changing a Flat Tire** (page 290).



2. Using a suitable tool, loosen the four bolts indicated.

3. Add or remove required shims based on your target alignment. Refer to the table below for shim variations and thickness. When adding shims, make sure the shim is fully resting on the two bolts before tightening.

Note: Front negative camber increases 0.2° for every 0.039 in (1 mm) of upper control arm shim removed.

Note: Switching from street alignment to track alignment should require the removal of 0.197 in (5 mm) worth of shims, or as close to 0.197 in (5 mm) as possible with the shims provided.

Note: Always remove an equal amount of shims from the front and rear leg of the front upper control arm.

4. Tighten the bolts to 45 ± 5 lb.ft (60 ± 10 Nm).
5. Repeat Steps 2-4 for the other side of the vehicle.

Shim Variations and Thickness

Shim Color	Thickness
Gold	0.295 in (7.5 mm)
Blue	0.236 in (6 mm)
Black	0.187 in (4.762 mm)
Red	0.079 in (2 mm)
Silver	0.039 in (1 mm)

Track Use

Track Tire Pressures

Cold Tire Pressures

Front	Rear
26 psi (1.79 bar)	26 psi (1.79 bar)

Hot Tire Pressures

Front	Rear
34 psi (2.34 bar)	34 psi (2.34 bar)

Note: After completing your track day, return your car to the street alignment and tire pressures.

Aerodynamics (If Equipped)

Active Aero in Track Mode

A performance-oriented Automatic Drag Reduction System (A-DRS) that controls the active aero system when the vehicle is in track mode. This system identifies appropriate periods of full throttle acceleration and automatically decreases drag in those scenarios to maximize acceleration performance, while maximizing downforce as needed for braking and cornering.

When the feature is off, the system is set to maximum downforce and high drag at all times.

Note: The feature is recommended for usage under dry, track conditions only.

Switching Active Aero On or Off in Track Mode

You can switch the feature on or off for track mode only. All other drive modes have a non-selectable aero strategy suitable for corresponding use cases. See **Unique Features** (page 30).

1.



From the My Mustang menu, press the button to switch the feature on or off. This takes effect when you switch to track mode.

Note: The system retains your previous selection after each key cycle.

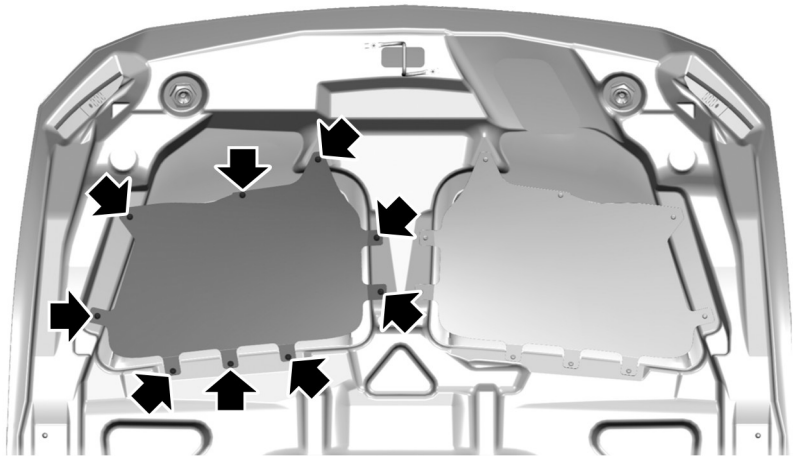
Removing the Hood Grilles

You can remove the grilles under the hood to increase airflow.

Note: If you remove the grilles, we recommend reinstalling them for normal road usage.

1. Open the hood. See **Opening and Closing the Hood** (page 215).

Track Use



2. Using a 4mm Allen key, remove the bolts. Do this for both grilles.
3. Install in reverse order.

Track Ride Height

Lowers the vehicle when entering track mode. This changes the driving characteristics to allow for better handling.

Low ride height is for use with track specific damping which has a stiffer characteristic for driving on a track.

To lower the vehicle ride height:

Note: Check the surrounding area of the vehicle before lowering.

1. Shift the vehicle into park (P).
2. Switch the vehicle to track mode.
3. Acknowledge the message that appears in the center display screen.

To raise the vehicle ride height:

1. Shift the vehicle into park (P).
2. Switch to any other drive mode.

Switching the ignition off while in track mode returns the vehicle to normal ride height.

Manual Shifting

Live in Drive has unique behavior in track and drag drive modes compared to normal, sport, and weather. See the general description of Live in Drive in the Transmission chapter. See **Manually Shifting Gears** (page 135).

Live in Drive does not automatically exit when in track or drag mode. This provides you with two unique manual modes when in track or drag mode:

Track Use

- In Live in Drive (D), the transmission automatically upshifts at redline. It does not automatically downshift to the lowest available gear when you quickly press the throttle all the way down, as it does in normal, sport, and weather modes.
- In true Manual (M), the transmission will adhere more strictly to exactly what the driver requests or does not request. This means the transmission will not automatically upshift at redline.

Live in Drive can be entered at a standstill in track and drag modes. This allows the driver to enter this unique Live in Drive mode immediately upon shifting to drive, rather than waiting for a low vehicle speed threshold for the feature to become available.

To manually exit Live in Drive in track and drag mode, perform the same method as in the other drive modes:

- Pull and hold the right paddle (+) to exit Live in Drive.
- Or shift out of drive.

Variable Traction Control

Variable traction control allows you to select different levels of traction control intervention to maximize on track performance.

Switching Variable Traction Control On and Off



WARNING: The variable traction control feature allows you to limit or disable traction control. When variable traction control is enabled, the electronic stability control can be disabled. Operating your vehicle with the electronic stability control system disabled and traction control limited or disabled could lead to an increased risk of loss of vehicle control, vehicle rollover, personal injury, and death.

Switching Variable Traction Control On with AdvanceTrac™

1. Make sure you are in either track mode or a custom track mode that has track mode as a base.

2.



Press the button on the instrument panel.

Note: A message appears when you switch it on.

Switching Variable Traction Control On without AdvanceTrac™

1. Make sure you are in either track mode or a custom track mode that has track mode as a base.

2.



Press and hold the button on the instrument panel for five seconds.

Note: AdvanceTrac™ is disabled.


Note: A message appears when you switch it on.

Note: If variable traction control with AdvanceTrac™ is already on, you can press and hold the button to switch AdvanceTrac™ off.

Track Use

Switching Variable Traction Control Off

You can use any of the following methods to switch variable traction control off.

1.  Press the button on the instrument panel.
2. Change drive modes.
3. Switch the vehicle off.

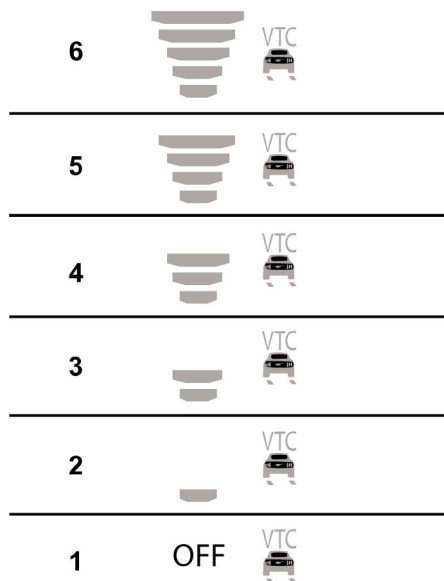
Using Variable Traction Control

1. Switch variable traction control on.
2. Use the Set+ and Set- buttons on the steering wheel to set the traction control intervention level. The levels display on the instrument cluster.

Note: The system defaults to level five when you switch it on.

Variable Traction Control Indicator

The indicator and intervention level bars appear on the instrument cluster. The number of bars indicate the level set.



Track Use

Intervention Level	Details	Use Case
6	Highest level of traction control providing significant engine torque intervention on mild wheel slip and power induced oversteer.	Intended for all driver skill levels. Recommended in wet or damp conditions or conditions with low tire grip.
5	This is the default mode. Standard level of engine torque intervention to allow some wheel slip and power induced oversteer under heavy acceleration.	For use by less experienced drivers or while learning a new track.
4	Moderate engine torque intervention to allow some wheel slip and power induced oversteer under heavy acceleration. Vehicle agility increases.	For use by experienced drivers or while learning a new track.
3	Less engine torque intervention to allow for controlled wheel spin and power induced oversteer. Torque interventions are applied later.	For use by experienced drivers who are familiar with the track.
2	Minimum torque intervention for any unexpected wheel slip or power induced oversteer. Vehicle agility increases at the cost of stability. The system later applies torque intervention.	For use by experienced drivers who are familiar with the track aiming for maximum cornering speed.
1	The system turns off AdvanceTrac™ and traction control for no torque intervention.	For use by experienced drivers who are familiar with the track aiming for maximum cornering speed.

Track Use

Variable Traction Control Information Messages

Message	Details
Variable Traction Control Unavailable. See Manual.	Displays if there is a fault and variable traction control turns off. You cannot switch variable traction control back on after a fault. Switch the vehicle off and back on to clear the message.

Brake Burnishing

Properly burnish the brakes prior to heavy track use. Excessive brake noise may occur after the track burnish or track use.

Perform this procedure in a safe manner on dry pavement, and in compliance with all local and state ordinances and laws regarding motor vehicle operation.

How to Burnish the Brakes

Initial low temperature bedding:

- If your brakes already have 200 mi (322 km) or more of city driving, skip this step and go directly to the high temperature bedding cycle procedure. Otherwise, perform at least 30 stops from 50 mph (80 km/h) at 1/3 g deceleration with 1 mi (1.2 km) spacing between stops. Access the deceleration gauge through the Track Apps menu in your touchscreen. See **Brake Performance** (page 315).

High temperature bedding cycle:

- Beginning with cool brakes, perform 15 consecutive stops back-to-back, accelerating at 3/4 throttle to 80 mph (128 km/h) and braking to 20 mph (32 km/h) at 1.0 g deceleration. The brakes may emit an odor or smoke during this part of the procedure.

Cool down:

- Cool the brakes down by driving one or two laps, 5 mi (8 km), at 60 mph (96 km/h) with minimal to no brake usage.

Recovery low temperature bedding:

- Perform at least 30 stops from 50 mph (80 km/h) at 1/3 g deceleration with 0.7 mi (1.2 km) spacing between stops. There is a deceleration gauge that you can access the Track Apps menu in your touchscreen.

Vehicle Care

CLEANING PRODUCTS

For best results, use the following products or products of equivalent quality:

Materials

Name	Specification
Motorcraft® Bug and Tar Remover, ZC-42 (U.S. & Canada)	-
Motorcraft® Custom Bright Metal Cleaner, ZC-15 (U.S. & Canada)	ESR-M5B194-B
Motorcraft® Detail Wash, ZC-3-A (U.S. & Canada)	ESR-M14P4-A
Motorcraft® Engine Shampoo and Degreaser, ZC-20 (U.S.)	ESR-M14P3-A
Motorcraft® Engine Shampoo, CXC-66-A (Canada)	-
Motorcraft® Premium Leather and Vinyl Cleaner, ZC-56 (U.S. & Canada)	-
Motorcraft® Multi-Purpose Cleaner, CXC-101 (Canada)	-
Motorcraft® Premium Windshield Wash Concentrate with Bitterant, ZC-32-B2 (U.S.)	WSS-M14P19-A
Motorcraft® Premium Quality Windshield Washer Fluid, CXC-37-F/M (Canada)	WSS-M14P19-A
Motorcraft® Professional Strength Carpet & Upholstery Cleaner, ZC-54 (U.S. & Canada)	-
Motorcraft® Premium Glass Cleaner, CXC-100 (Canada)	ESR-M14P5-A
Motorcraft® Spot and Stain Remover, ZC-14 (U.S.)	-
Motorcraft® Ultra-Clear Spray Glass Cleaner, ZC-23 (U.S.)	ESR-M14P5-A
Motorcraft® Wheel and Tire Cleaner, ZC-37-A (U.S. & Canada)	-

Vehicle Care

CLEANING THE EXTERIOR

CLEANING THE EXTERIOR PRECAUTIONS

Immediately remove fuel spillages, additive residuals, bird droppings, insect deposits and road tar. These may damage your vehicle's paintwork or trim over time. Remove any exterior accessories, for example antennas, before entering a car wash.

Note: *If you intend to park your vehicle for an extended period after cleaning, drive it for few minutes before parking. This reduces the risk of corrosion of the brake discs, brake pads and linings.*

CLEANING HEADLAMPS AND REAR LAMPS

We recommend that you only use cold or lukewarm water containing car shampoo to clean the headlamps and the rear lamps.

Do not scrape the lamps.

Do not wipe lamps when they are dry.

CLEANING WINDOWS AND WIPER BLADES

To clean the windshield and wiper blades:

- Clean the windshield with a non-abrasive glass cleaner.

Note: *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.*

- Clean the wiper blades with washer fluid or water applied with a soft sponge or cloth.

Note: *Do not use razor blades or other sharp objects to clean or remove decals from the inside of the heated rear window. This can cause damage not covered by the vehicle Warranty.*

Note: *Do not use chemicals or corrosive products, as they can compromise surfaces and damage critical systems of your vehicle.*

CLEANING CHROME, ALUMINIUM OR STAINLESS STEEL

We recommend that you only use a car shampoo, a soft cloth and water on bumpers and other chrome, aluminium or stainless steel parts.

Note: *For additional information and assistance, we recommend that you contact an authorized dealer.*

Note: *Rinse the area well after cleaning.*

Note: *Do not use abrasive materials, for example steel wool or plastic pads, as they can scratch these surfaces.*

Note: *Do not use chrome cleaner, metal cleaner or polish on wheels or wheel covers.*

CLEANING WHEELS

Only use a recommended wheel and tire cleaner to clean the wheels. For additional information and assistance, contact an authorized dealer.

1. Use a sponge to remove heavy deposits of dirt and brake dust.
2. Rinse well after cleaning.

Note: *Do not apply a cleaning chemical to hot wheel rims, wheel covers, and wheel ornaments.*

If you intend to park your vehicle for an extended period after cleaning the wheels, drive it for few minutes before parking. This reduces the risk of corrosion of the brake discs, brake pads and linings.

Vehicle Care

Do not clean hot wheel rims, wheel covers and wheel ornaments.

Note: *Some car washes could damage wheel rims, wheel covers, and wheel ornaments.*

Note: *Using non-recommended cleaners, harsh acidic cleaning products, chrome wheel cleaners or abrasive materials could damage wheel rims and covers.*

Note: *Failure to properly clean the stainless steel lug nuts may result in a white, hazy finish, pitting, or an orange/brown rust appearance. Such damage is not covered by your vehicle warranty.*

CLEANING THE ENGINE COMPARTMENT

Use a vacuum cleaner to remove debris from the screen area below the windshield.

Note: *If you are not familiar with the parts around the engine do not wash the engine compartment. Avoid frequent engine washes.*

When washing the engine compartment:

- Never wash or rinse the engine while it is hot or running.
- Never wash or rinse any ignition coil, spark plug wire or spark plug well.
- Cover the battery, power distribution box, and air filter assembly to prevent water damage.

Note: *If your vehicle has an engine cover remove the cover before application of shampoo and degreaser.*

- Spray an approved engine shampoo and degreaser on all parts that require cleaning and rinse with water.

Note: *Follow the manufacturer's instructions for using engine shampoo and degreaser.*

CLEANING STRIPES OR GRAPHICS

It is recommended to wash your vehicle by hand however, pressure washing may be used under the following conditions:

- Use a spray with a minimum of 40° wide spray angle pattern.
- Keep the nozzle 12 in (30 cm) and at a 90° angle to your vehicle.
- Do not use water pressure higher than 1,000 psi (6,895 kPa).
- Do not use water hotter than 73°F (23°C).

Note: *Holding the pressure washer nozzle at an angle to the vehicle's surface may damage graphics and cause the edges to peel away.*

CLEANING CAMERA LENSES AND SENSORS

We recommend that you only use lukewarm or cold water and a soft cloth to clean the camera lens and sensors.

Note: *Do not pressure wash camera lens and sensors.*

CLEANING THE UNDERBODY

Flush the complete underside of your vehicle frequently. Keep body and door drain holes free from packed dirt.

Suspension and steering components may require regular cleaning with a power washer or a thorough rinse with a strong stream of water if the vehicle is operated in dusty or muddy environments. Leaf springs or other suspension components may emit squeaking or popping noises while operating the vehicle if particles, such as dirt, rocks, or other debris, are present in the components.

Vehicle Care

CLEANING THE INTERIOR

CLEANING THE INSTRUMENT PANEL



WARNING: Do not use chemical solvents or strong detergents when cleaning the steering wheel or instrument panel to avoid contamination of the airbag system.

We recommend that you only clean the instrument panel and cluster lens with a damp soft cloth. Dry the area with a clean, soft cloth.

For additional information and assistance, we recommend that you contact an authorized dealer.

Note: 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.

CLEANING PLASTIC

We recommend that you only use a mild soap and water solution on a soft cloth. Dry the area with a clean, soft cloth.

Note: 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.

CLEANING DISPLAYS AND SCREENS

We recommend that you only use a microfiber cloth in a circular motion to clean off the fingerprint or dust.

Note: Do not pour or spray alcohol onto the touchscreen.

Note: Do not use detergent or any type of solvent to clean the touchscreen.

CLEANING FABRIC



WARNING: 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 crash.

We recommend that you only clean fabric in the following way:

1. Remove dust and loose dirt with a vacuum cleaner.
2. Wipe the surface with a soft, damp cloth and a mild soap and water solution. Dry the area with a clean, soft cloth.
3. For additional information and assistance, we recommend that you contact an authorized dealer.

For heavy stains, spot clean the area. If a ring forms on the fabric, clean the entire area immediately, but do not oversaturate or the ring could set.

CLEANING LEATHER



WARNING: 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 crash.

We recommend that you only clean the leather surfaces in the following way:

1. Remove dust and loose dirt with a vacuum cleaner.

Vehicle Care

2. Wipe the surface with a soft, damp cloth and a mild soap and water solution. Dry the area with a clean, soft cloth.
3. Make sure the leather is dry, then apply a small amount of conditioner to a clean, dry cloth.
4. Rub the conditioner into the leather until it disappears. Allow the conditioner to dry, then repeat the process for the entire interior. If a film appears, wipe it off with a dry, clean cloth.
5. For additional information and assistance, we recommend that you contact an authorized dealer.

CLEANING VINYL



WARNING: 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 crash.

We recommend that you only clean vinyl surfaces in the following way:

1. Remove dust and loose dirt with a vacuum cleaner.
2. Wipe the surface with a soft, damp cloth and a mild soap and water solution. Dry the area with a clean, soft cloth.
3. For additional information and assistance, we recommend that you contact an authorized dealer.

CLEANING CARPETS AND FLOOR MATS

We recommend that you only clean your carpets in the following way:

1. Remove dust and loose dirt with a vacuum cleaner.
2. Wipe the surface with a soft, damp cloth and a mild soap and water solution. Dry the area with a clean, soft cloth.
3. For additional information and assistance, we recommend that you contact an authorized dealer.

For heavy stains, spot clean the area. If a ring forms on the fabric, clean the entire area immediately, but do not oversaturate or the ring could set.

We recommend that you only clean your floor mats in the following way:

1. Remove dust and loose dirt with a vacuum cleaner.
2. Wash rubber floor mats using mild soap and lukewarm or cold water.
3. Completely dry the floor mat before placing them back in your vehicle.

CLEANING SEATBELTS



WARNING: Do not use cleaning solvents, bleach or dye on the vehicle's seatbelts, as these actions may weaken the belt webbing.

1. Wipe the surface with a soft, damp cloth and a mild soap and water solution. Dry the area with a clean, soft cloth.

CLEANING STORAGE COMPARTMENTS

1. Remove dust and loose dirt with a vacuum cleaner.
2. Wipe the surface with a soft, damp cloth and a mild soap and water solution. Dry the area with a clean, soft cloth.

Vehicle Care

CLEANING THE INTERIOR SUSPENSION WINDOW



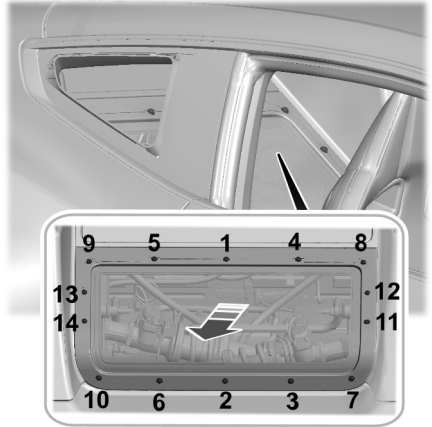
WARNING: Do not drive or run your vehicle with the suspension window panel removed. Exhaust fumes are toxic. Exhaust leaks may result in entry of harmful and potentially lethal fumes into the passenger compartment. Do not drive if you smell exhaust fumes and have your vehicle inspected immediately. Failure to follow this instruction could result in personal injury or death.



WARNING: When reinstalling the suspension window panel, do not place your fingers between the window panel and the window frame. Failure to follow this instruction could result in personal injury.

To clean the suspension window remove the 14 screws from the window closeout panel.

Clean the window using an ammonia free, plastic safe cleaner and a clean microfiber cloth to avoid scratches.



Tighten the screws in the order shown.

Note: Make sure the foam seal is placed in between the window and carbon surround while you reinstall the panel.

Note: Tighten the 14 screws to $7.74 \pm 1.18 \text{ lb.ft}$ ($10.5 \pm 1.6 \text{ Nm}$).

REPAIRING MINOR PAINT DAMAGE

We recommend that you contact an authorized dealer to identify your vehicle color code. Authorized dealers have touch-up paint to match your vehicle's color.

Before repairing minor paint damage, use a cleaner to remove particles such as bird droppings, tree sap, insect deposits, tar spots, road salt and industrial fallout.

Read the instructions before using cleaning products.

WAXING YOUR VEHICLE

Wax the high-gloss painted surface of your prewashed vehicle once or twice a year.

We recommend that you only use an approved quality wax that does not contain abrasives. Follow the manufacturer's instructions to apply and remove the wax. For additional information and assistance, we recommend that you contact an authorized dealer.

When washing and waxing, park your vehicle in a shaded area out of direct sunlight.

Note: *Avoid waxing unpainted or low-gloss black colored parts, they discolor over time.*

Body Styling Kits

BODY STYLING KIT PRECAUTIONS

The distance between the underside of your vehicle and the ground is less than that of other models. Drive with extreme care to avoid damage to your vehicle.

Storing Your Vehicle

PREPARING YOUR VEHICLE FOR STORAGE

If you plan on storing your vehicle for 30 days or more, the following maintenance recommendations make sure your vehicle stays in good operating condition.

Under various conditions, long-term storage may lead to degraded engine performance or failure unless you use specific precautions to preserve your vehicle.

General

- Store all vehicles in a dry, ventilated place.
- If vehicles are stored outside, they require regular maintenance to protect against rust and weather damage.
- 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.
- Fill the fuel tank with high-quality fuel until the first automatic shutoff of the fuel pump nozzle.

Engine

- Change the engine oil and filter prior to storage because used engine oil contains contaminants which may cause engine damage.

Body

- Wash your vehicle thoroughly to remove dirt, grease, oil, tar or mud from exterior surfaces, rear wheel housings 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. Rewax as necessary when you wash your vehicle.
- Lubricate hood, doors and latches with a light grade oil.
- Cover interior trim to prevent fading.
- Keep all rubber parts free from oil and solvents.

12 Volt Battery

- When storing your vehicle for longer than 30 days the battery state would be greatly reduced. Additionally, we recommend to disconnect the 12v battery to reduce system loads on the battery, or you can use a trickle charger for longer storage periods.
- Check and recharge as necessary. Keep connections clean.

Tires

- Maintain recommended air pressure.
- To minimize flat spots on the tires, inflate all four tires to the recommended cold pressures listed on the Safety Compliance Certification label or Tire Label affixed to your vehicle. When the vehicle is taken out of storage, reset the tire pressures as necessary to the recommended levels listed on the Safety Compliance Certification label or Tire Label affixed to your vehicle.

Note: If you store your vehicle in a location with low ambient temperatures, follow the instructions for care of summer tires. See **Using Summer Tires** (page 269).

Brakes

Make sure the brakes and parking brake fully release.

Storing Your Vehicle

Note: *If you intend to park your vehicle for an extended period after cleaning, drive it for few minutes before parking. This reduces the risk of corrosion of the brake discs, brake pads and linings.*

REMOVING YOUR VEHICLE FROM STORAGE

When your vehicle is ready to come out of storage, do the following:

- We recommend that you change the engine oil before you use your vehicle again.
- Wash your vehicle to remove any dirt or grease film build-up on window surfaces.
- Check windshield wipers for any deterioration.
- Check the underhood for any foreign materials such as mice or squirrel nests.
- Check the exhaust for any foreign materials.
- Check tire pressures and set tire inflation per the Tire Label.
- Check brake pedal operation. Corroded brake rotors could cause brake noise. Drive your vehicle and gently apply and release the brakes repeatedly over a 10-minute drive to reduce the corrosion from the brakes.
- 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.

Wheel and Tire Information

LOCATING THE TIRE LABEL

The tire label or safety certification label is on the driver side B-pillar or the edge of the driver door. It contains information on the recommended front and rear tire inflation pressures. See **Locating the Safety Compliance Certification Labels** (page 188).

DEPARTMENT OF TRANSPORTATION UNIFORM TIRE QUALITY GRADES



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 us 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 1½ 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.

Wheel and Tire Information

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

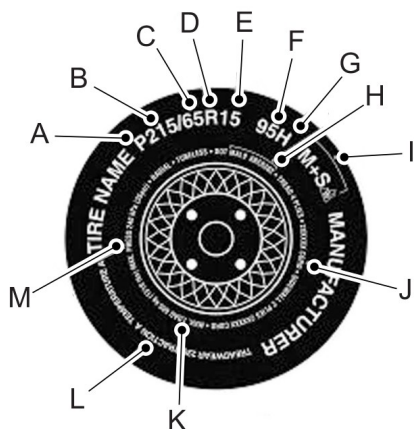
test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 139. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

INFORMATION 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.

Wheel and Tire Information

Information on P Type Tires



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

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 (300 km/h). These ratings are listed in the following chart.

Wheel and Tire Information

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

Letter rating	Speed rating
M	81 mph (130 km/h)
N	87 mph (140 km/h)
P	93 mph (150 km/h)
Q	99 mph (160 km/h)
R	106 mph (170 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 (300 km/h)
ZR	>186 mph (300 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 (TIN): This begins with the letters DOT and indicates that the tire meets all federal standards. The next two numbers or letters are the plant code designating where it was manufactured, the next two are the tire size code and the last four numbers represent the week and year the tire was built. For example, the numbers 317 mean the 31st week of 1997. After 2000, the numbers go to four digits. For example, 2501 means the 25th week of 2001. The numbers in between are identification codes used for traceability. This information is used to contact customers if a tire defect requires a recall.

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.

Wheel and Tire Information

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 test 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.

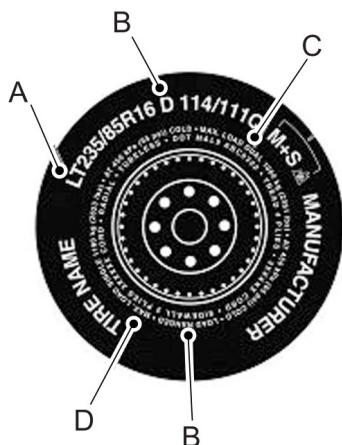
M. Maximum Inflation Pressure: Indicates the tire manufacturers' maximum permissible pressure or the pressure at which the maximum load can be carried by the tire. This pressure is normally higher than the vehicle manufacturer's recommended cold inflation pressure which can be found on the Safety Compliance 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.*

Wheel and Tire Information



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.

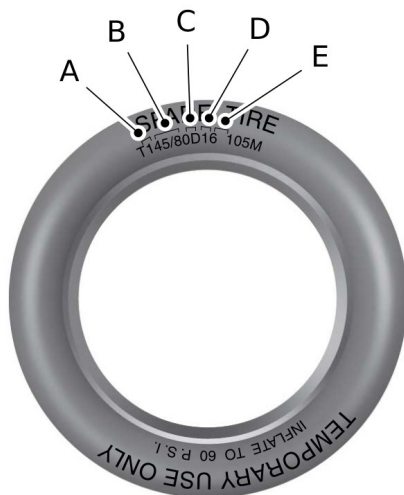
C. **Maximum Load Dual lb (kg) at psi (kPa) cold:** Indicates the maximum load and tire pressure when the tire is used as a dual, defined as four tires on the rear axle (a total of six or more tires on the vehicle).

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.*



Wheel and Tire Information

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.

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 (TIN):** 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.

***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) 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 mi (1.6 km).

Wheel and Tire Information

***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 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.

TIRE REPLACEMENT REQUIREMENTS

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



WARNING: Only use replacement tires and wheels that are the same size, load index, speed rating, and type as those originally provided for your vehicle. The recommended tire and wheel sizes can be found on the Tire Label on the driver side door frame or the edge of the driver door. If this information is not found in those locations, or for additional options, contact your authorized dealer. Use of any tire or wheel not recommended, could 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.



WARNING: 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.



WARNING: 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.

Wheel and Tire Information



WARNING: Always inflate steel carcass tires with a remote air fill with the person inflating standing at a minimum of 12 ft (3.66 m) away from the wheel and tire assembly.



WARNING: Only use the specified jacking points. If you use any other locations you could damage vehicle components, such as brake lines.



WARNING: 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:

- Make sure that you have the correct tire and wheel size.
- Lubricate the tire bead and wheel bead seat area again.
- Stand at a minimum of 12 ft (3.66 m) away from the wheel and tire assembly.
- Use both eye and ear protection.

Note: *If your vehicle has 265/35R20 tires, replace them with original equipment tires provided by us. Using other tire sizes could damage your vehicle.*

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 if the worn tires still have usable depth.

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 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.

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.

Wheel and Tire Information

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 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.

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.

USING SUMMER TIRES

Summer tires provide superior performance on wet and dry roads. Summer tires do not have the Mud and Snow (M+S or M/S) tire traction rating on the tire side wall. Since summer tires do not have the same traction performance as All-season or Snow tires, we do not recommend using summer tires when temperatures drop to about 45°F (7°C) or below, depending on tire wear and environmental conditions, or in snow and ice conditions. Like any tire, summer tire performance is affected by tire wear and environmental conditions. If you must drive in those conditions, we recommend using Mud and Snow (M+S, M/S), All-season or Snow tires.

Always store your summer tires indoors at temperatures above 19°F (-7°C). The rubber compounds used in these tires lose flexibility and may develop surface cracks in the tread area at temperatures below 19°F (-7°C). If the tires have been subjected to 19°F (-7°C) or less, warm them in a heated space to at least 41°F (5°C) for at least 24 hours before installing them on a vehicle, or moving the vehicle with the tires installed, or checking tire inflation. Always inspect the tires after storage periods and before use.

Tire Care

CHECKING THE TIRE PRESSURES

Safe operation of your vehicle requires that your tires are properly inflated. Every day before you drive, check your tires.

At least once a month and before long trips, inspect each tire and check the tire pressure with a tire gauge. Inflate all tires to the recommended inflation pressure. See **Inflating the Tires** (page 270).

INFLATING THE TIRES



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!



WARNING: Do not use the tire pressure displayed in the information display as a tire pressure gauge. Failure to follow this instruction could result in personal injury or death.

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

Inflate your tires to the recommended inflation pressure even if it is less than the maximum inflation pressure information found on the tire. You can find the tire label with the recommended tire inflation pressure next to the tire size on the B-Pillar or the edge of the driver door.

The recommended tire inflation pressure is also 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 on the B-pillar, or on the edge of the driver door.

Failure to follow the tire pressure recommendations can cause uneven treadwear patterns and adversely affect the way your vehicle handles.

Tire Care

Checking Pressure when tires are hot:

If pressures are checked after tires have been driven for more than three minutes or more than 1 mile, (2 km) the tires become hot and the pressures will increase by approximately 4 psi (27.6 kPa). Therefore when the tire pressure is adjusted under these conditions, it should be increased to a gauge reading of 4 psi (27.6 kPa) greater than the recommended cold inflation pressure.

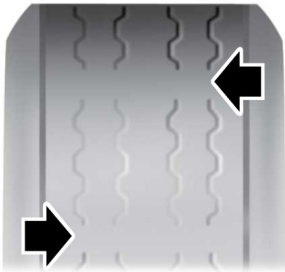
After inflating the tires while hot, make sure to recheck tire pressure later once the tires are cold.

For Example Only

Gauge reading of hot tire	33 psi (230 kPa)
If recommended, cold inflation pressure is	32 psi (220 kPa)
The hot tire pressure is only 1 psi (10 kPa) greater than the recommended cold inflation pressure. Therefore, add 3 psi (20 kPa) more to increase the hot pressure to 4 psi (30 kPa) over the recommended cold inflation pressure.	

New hot pressure	36 psi (250 kPa)
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INSPECTING THE TIRE FOR WEAR



When the tread is worn down to 2/32 inch (1.6 mm), 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 2/32 inch (1.6 mm).

When the tire tread wears down to the same height as these wear bars, the tire is worn out and must be replaced.

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

Tire Care

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.



WARNING: Do not spin the wheels at over 34 mph (55 km/h). The tires may fail and injure a passenger or bystander.

INSPECTING THE TIRE FOR DAMAGE

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 dismounted 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.

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.

Safety Practices



WARNING: 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.

HIGH SPEED DRIVING CAN BE DANGEROUS

Correct inflation pressure is especially important. However, at high speeds, even with the correct inflation pressure, a road hazard for example is more difficult to avoid and if contact is made, has a greater chance of causing tire damage than at a lower speed. Moreover, driving at high speed reduces the reaction time available to avoid accidents and bring your vehicle to a safe stop.

If you see any damage to a tire or wheel, replace it with the spare at once and visit a participating Tire Retailer.

Exceeding the maximum speeds shown on the following page for each type of tire will cause the tire to build up excessive heat which can cause tire damage that could result in sudden tire destruction and rapid air loss. Failure to control a vehicle when one or more tires experience a sudden air loss can lead to an accident.

In any case, you should not exceed reasonable speeds as indicated by the legal limits and driving conditions.

Tire Care

DO NOT OVERLOAD: DRIVING ON ANY OVERLOADED TIRE IS DANGEROUS

The maximum load rating of your tires is molded on the tire sidewall. Do not exceed this rating. Follow the loading instructions of the manufacturer of your vehicle and this will ensure that your tires are not overloaded. Tires which are loaded beyond their maximum allowable loads for the particular application will build up excessive heat that may result in sudden tire destruction. Do not exceed the gross axle weight rating for any axle on your vehicle.

TIRE ALTERATIONS

Do not make or allow to be made any alterations on your tires. Alterations may prevent proper performance, leading to tire damage which can result in an accident. Tires which become unserviceable due to alterations such as truing, whitewall inlays, addition of balancing or sealant liquids, or the use of tire dressing containing petroleum distillates are excluded from warranty coverage.

REPAIRS - WHEREVER POSSIBLE, SEE YOUR TIRE RETAILER AT ONCE

If any tire sustains a puncture, have the tire demounted and thoroughly inspected by a tire retailer for possible damage that may have occurred. A tread area puncture in any passenger or light truck tire can be repaired provided that the puncture hole is not more than 1/4" in diameter, not more than one radial cable per casing ply is damaged, and the tire has not been damaged further by the puncturing object or by running underinflated. Tire punctures consistent with these guidelines should only be repaired by following the US Tire Manufacturers Association (USTMA) recommended repair procedures. Plug-only repairs done on-the-wheel are considered improper and therefore, not recommended. Such repairs are not reliable and may cause further damage to the tire.

STORAGE

Tires contain waxes and emollients to protect their outer surfaces from ozone and weather checking. As the tire rolls and flexes, the waxes and emollients continually migrate to the surface, replenishing this protection throughout the normal use of the tire. Consequently, when tires sit unused for long periods of time (a month or more) their surfaces

Tire Care

become dry and more susceptible to ozone and weather checking and the casing becomes susceptible to flat spotting. **For this reason, tires should always be stored in a cool, dry, clean, indoor environment. If storage is for one month or more, eliminate the weight from the tires by raising the vehicle or by removing the tires from the vehicle. Failure to store tires in accordance with these instructions could result in damage to your tires or premature aging of the tires and sudden tire failure.**

When tires are stored, be sure they are placed away from sources of heat and ozone such as direct sunlight, hot pipes and electric generators. Be sure that surfaces on which tires are stored are clean and free from grease, gasoline or other substances, which could deteriorate the rubber. Failure to store tires in accordance with these instructions could result in damage to your tires or premature aging of the tires and sudden tire failure.

FOLLOW THESE MOUNTING RECOMMENDATIONS

Tire changing can be dangerous and must be done by professionally trained persons using proper tools and procedures as specified by the US Tire Manufacturers Association (USTMA). Single or dual assemblies must be completely deflated before demounting.

Your tires should be mounted on wheels of correct size and type and which are in good, clean condition. Wheels that are bent, chipped, rusted (steel wheels) or corroded (alloy wheels) may cause tire damage. The inside of the tire must be free from foreign material. Have your retailer check the wheels before mounting new tires. Mismatched tires and rims can explode during mounting. Also, mismatched tires and rims can result in dangerous tire failure on the road. If a tire is mounted by error on the wrong-sized rim, do not remount it on the proper rim – scrap it. It may have been damaged internally (which is not externally visible) by having been dangerously stretched and could fail on the highway.

Tire Care

Old valves may leak. When new tubeless tires are mounted, have new valves of the correct type installed. Tubeless tires must only be mounted on wheels designed for tubeless tires i.e., wheels which have safety humps or ledges.

It is recommended that you have your tires and wheels balanced. Tires and wheels, which are not balanced, may cause steering difficulties, a bumpy ride, and irregular tire wear.

Be sure that all your valves have suitable valve caps. The valve cap is the primary seal against air loss.

TEMPORARY SPARE TIRES

When using any temporary spare tire, be sure to follow the vehicle manufacturer's instructions.

REMEMBER... TO AVOID DAMAGE TO YOUR TIRES AND POSSIBLE ACCIDENT:

- CHECK TIRE PRESSURE AT LEAST ONCE EACH MONTH WHEN TIRES ARE COLD AND BEFORE LONG TRIPS.
- DO NOT UNDERINFLATE/OVERINFLATE.
- DO NOT OVERLOAD.
- DRIVE AT MODERATE SPEEDS, OBSERVE LEGAL LIMITS.

- AVOID DRIVING OVER POTHOLES, OBSTACLES, CURBS OR EDGES OF PAVEMENT.
- AVOID EXCESSIVE WHEEL SPINNING.
- IF YOU SEE ANY DAMAGE TO A TIRE, REPLACE WITH THE SPARE AND VISIT ANY AUTHORIZED RETAILER AT ONCE.
- IF YOU HAVE ANY QUESTIONS, CONTACT YOUR AUTHORIZED RETAILER.

Highway Hazards

No matter how carefully you drive, there is always the possibility that you could eventually have a flat tire on the highway. Drive slowly to the closest safe area out of traffic. This could 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 you cannot detect a cause, have the vehicle towed to the nearest repair facility or tire dealer to have the vehicle inspected.

Tire Care

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 are driving, the wheels could be out of alignment. Have an authorized dealer check the wheel alignment periodically.

Wheel misalignment in the front or the rear can cause uneven and rapid treadwear of your tires and should be corrected by an authorized dealer.

INSPECTING THE WHEEL VALVE STEMS

Check the valve stems for holes, cracks, or cuts that could permit air leakage.

TIRE ROTATION



WARNING: If the tire label shows different tire pressures for the front and rear tires and the vehicle has a tire pressure monitoring system, then you need to update the settings for the system sensors. Always

perform the system reset procedure after tire rotation. If you do not reset the system, it may not provide a low tire pressure warning when necessary.

Rotating your tires at the recommended interval helps your tires wear more evenly, providing better tire performance and longer tire life.

Note: *If your tires show any uneven wear have the alignment checked by an authorized dealer before rotating tires.*

Note: *After having your tires rotated check and adjust inflation pressure to the vehicle requirements.*

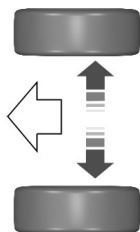
Tire Rotation Diagram

Follow the diagram indicating the correct tire locations for rotating the tires.

Rear-wheel drive vehicles (front tires on the left side of the diagram).

Vehicles equipped with different size tires on the front and rear axle.

Tire Care



Tire Sealant and Inflator Kit

WHAT IS THE TIRE SEALANT AND INFLATOR KIT

The kit consists of an air compressor to re-inflate the tire and a canister of sealing compound that effectively seals most punctures. This kit provides a temporary tire repair allowing you to drive your vehicle up to 120 mi (200 km) at a maximum speed of 50 mph (80 km/h) to reach a tire service location.

Note: *The temporary mobility kit contains enough sealant compound in the canister for one tire repair only. See an authorized dealer for replacement sealant canisters.*

TIRE SEALANT AND INFLATOR KIT PRECAUTIONS



WARNING: Depending on the type and extent of tire damage, some tires can only be partially sealed or not sealed at all. Loss of tire pressure can affect vehicle handling, leading to loss of vehicle control.



WARNING: Do not use the kit on a previously damaged tire, for example when it has been driven under inflated. This could cause loss of vehicle control, personal injury or death.



WARNING: Do not run the engine when operating the air compressor unless the vehicle is outdoors or in a well-ventilated area.

The temporary mobility kit contains enough sealant compound in the canister for one tire repair only.

After using the sealant, an authorized dealer needs to replace the tire pressure monitoring system sensor and valve stem on the wheel.

LOCATING THE TIRE SEALANT AND INFLATOR KIT

The kit is located next to the battery in the service compartment in the rear of the vehicle.

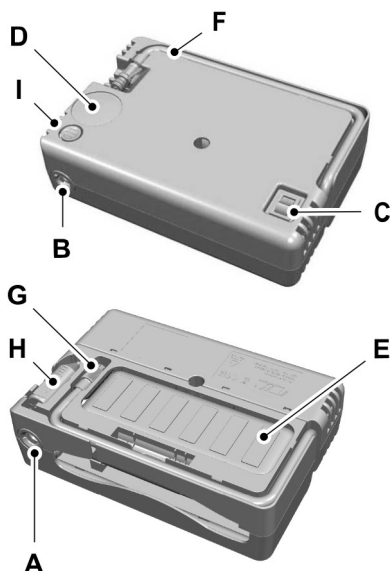
Do not attempt to repair punctures larger than 0.24 in (6 mm) or damage to the tire's sidewall.

Only punctures located within the tire tread can be sealed with the kit.

Only use the kit supplied with your vehicle.

Tire Sealant and Inflator Kit

TIRE SEALANT AND INFLATOR KIT COMPONENTS



- A Air compressor (inside)
- B Air Hose port (1 of 2)
- C On and Off button
- D Air pressure gauge
- E Sealant bottle and canister
- F Dual purpose hose: air and repair
- G Tire valve connector
- H Accessory power plug
- I Casing/housing

USING THE TIRE SEALANT AND INFLATOR KIT

To make sure the kit operates safely and properly, observe the following:

- Before using the kit, make sure your vehicle is safely off the road and away from moving traffic.
- Do not remove any foreign objects, such as nails or screws, from the tire.
- Do not allow the compressor to run continuously for more than 15 minutes. This prevents the compressor from overheating.
- Only use the kit when the ambient temperature is between -40°F (-40°C) and 158°F (70°C).
- Do not use expired sealing compound. The use by date is on the sealant canister label and can be seen through the rectangular viewing window on the bottom of the compressor. Check the use by date regularly and replace the canister when the sealant expires.

Note: Sealant compound contains latex. Use appropriate precautions to avoid any allergic reactions.



The tire sealant and inflator kit can be for regular tire pressure maintenance and inflating other objects by plugging the air supply hose into the port identified by a tire pump icon as indicated by the gray portion of the instruction label.

What to do when a tire is punctured

A tire puncture within the tire's tread area can be repaired in two stages with the kit:

Tire Sealant and Inflator Kit

- In the first stage, the tire is reinflated with a sealing compound and air. After the tire has been inflated, drive the vehicle 4 mi (6 km) to distribute the sealant in the tire.
- In the second stage, check the tire pressure and adjust, if necessary, to the vehicle's specified tire inflation pressure.

First Stage: Reinflating the Tire with sealing compound and air



WARNING: Do not stand directly over the kit while inflating the tire. If you notice any unusual bulges or deformations in the tire's sidewall during inflation, stop and call roadside assistance.



WARNING: If the tire does not inflate to the recommended tire pressure within 15 minutes, stop and call roadside assistance.

Park the vehicle in a safe, level, and secure area, away from moving traffic.

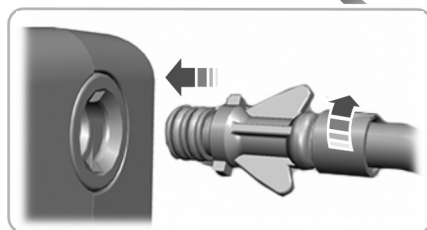
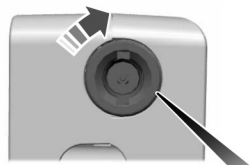
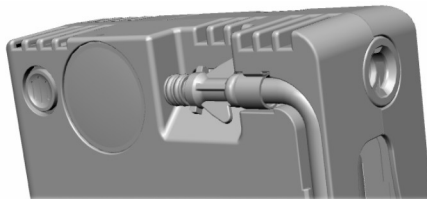
Turn the hazard lights on. Apply the parking brake and power off the vehicle. Inspect the flat tire for visible damage.

If a puncture is located in the tire sidewall, stop and call roadside assistance.

1. The dual purpose hose (black tube) for air and sealant is pressed into a groove on the compressor housing. Remove the dual purpose hose from the compressor housing.
2. Insert the air supply hose into the port as identified by the punctured tire icon and indicated by the blue portion of the instruction label for temporary repair of a tire puncture.

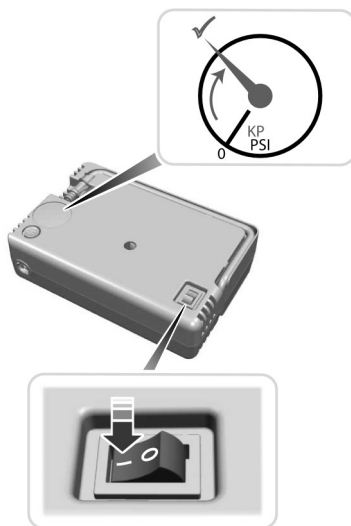
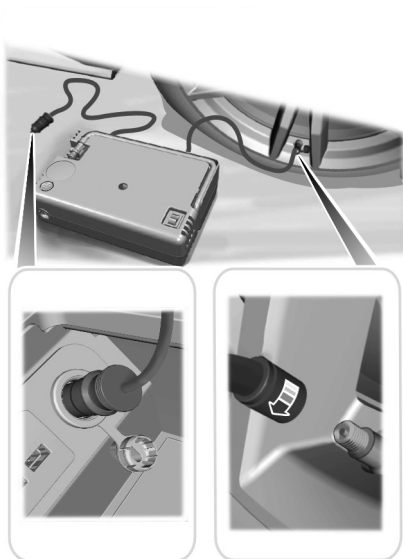
Note: Note the winged twist connector on the instruction label side of the housing.

3. Follow the arrow on the blue, puncture repair portion of the label to find the port for the winged twist connector on the side of the compressor housing. It is labeled A with a printed icon of a punctured tire.



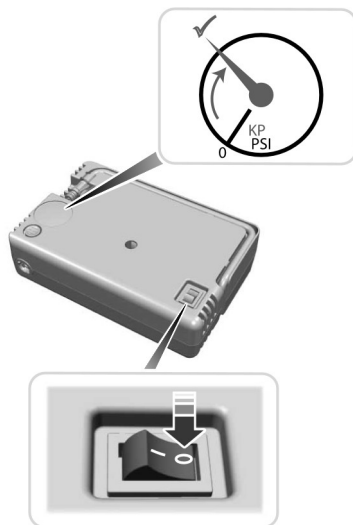
4. Insert the connector and twist it clockwise until the connector wing aligns with the marking on the compressor housing and it is locked in position.
5. Remove the valve cap from the tire valve.

Tire Sealant and Inflator Kit



6. Fasten the hose to the tire valve by turning the threaded connector clockwise. Tighten the connection securely.
7. Plug the power cable into the 12-volt power point in the vehicle.
8. Turn the tire inflator kit on by pressing the on/off button.
9. Inflate the tire to the pressure listed on the tire label located on the driver door or the door jamb area. Check the final tire pressure with the compressor turned off to get an accurate pressure reading.

Tire Sealant and Inflator Kit



Note: If you experience any unusual vibration, ride disturbance, or noise while driving, reduce your speed until you can safely pull off to the side of the road to call roadside assistance. Do not proceed to the second stage of this operation.

Second Stage: Checking the tire pressure with the inflator kit



WARNING: If the tire does not inflate to the recommended tire pressure within 15 minutes, stop and call roadside assistance.



WARNING: The power plug and the inflation hose may get hot after use and should be handled carefully when unplugging.

Check the air pressure of your tires as follows:



10. When the recommended tire pressure is reached, turn off the kit, unplug the power cable, and disconnect the hose from the tire valve. Reinstall the valve cap on the tire valve and return the kit to the rear of the vehicle.
11. Remove the red warning sticker found on the casing/housing and place it on top of the instrument panel or the center of the dash.
12. Drive the vehicle 4 mi (6 km) to evenly distribute the sealant inside the tire. Do not exceed 50 mph (80 km/h).
13. After 4 mi (6 km) stop and check the tire pressure. See Second Stage: Checking Tire Pressure.

1. Remove the valve cap from the tire valve.
2. Attach the air compressor hose onto the valve stem by turning clockwise.
3. Push and turn the dial clockwise to the air position.
4. If required, turn on the compressor and adjust the tire to the recommended inflation pressure.

Tire Sealant and Inflator Kit

5. Remove the hoses, reinstall the valve cap on the tire valve and return the kit to the rear of the vehicle.

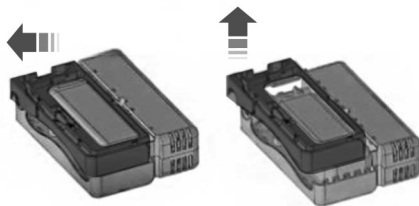
What to do after the tire has been sealed

After using the kit to seal your tire, replace the sealant canister. Sealant canisters and spare parts can be obtained at an authorized dealer. Empty sealant canisters may be disposed of at home. However, canisters still containing liquid sealant should be disposed of in accordance with local waste disposal regulation.

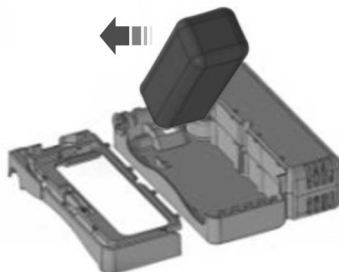
Removal of the sealant canister from the kit



1. Unwrap the dual purpose hose (black tube) from the compressor housing and discard.
2. Unwrap the power cord.



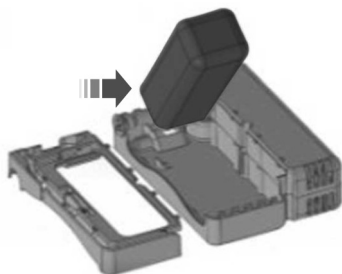
3. Unlatch the sealant bottle cover by sliding it outward, then lift and remove the cover.



4. Rotate the sealant canister up 60 degrees and slide it from the case/housing to remove.

Tire Sealant and Inflator Kit

Installation of the sealant canister to the kit



1. Hold the canister at an angle to the housing and insert the canister nozzle into the connector. Push the nozzle until seated.
2. Rotate the canister 90 degrees into the housing/case.
3. Slide the back cover over the canister until it snaps back into place.
4. Wrap the new dual purpose hose (black tube) into the channel around the housing/case.
5. Stow the power cord in the side compartment of the housing and stow the accessory power cord into its storage slot on the back cover.

Note: *If you experience any difficulties with the removal or installation of the sealant canister, contact your authorized dealer for assistance. Make sure the sealant compound use by date is on the sealant canister label and can be seen through the rectangular viewing window on the bottom of the kit. Replace the sealant canister after four years of non-use.*

Tire Pressure Monitoring System

WHAT IS THE TIRE PRESSURE MONITORING SYSTEM



The tire pressure monitoring system measures the vehicle's tire pressures. A warning lamp illuminates if one or more tires are significantly underinflated or if there is a system malfunction.

TIRE PRESSURE MONITORING SYSTEM OVERVIEW



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!



WARNING: To determine the required pressure(s) for your vehicle, see the Safety Compliance Certification Label (on the door hinge pillar, door-latch post or the door edge that meets the door-latch post, next to the driver seat) or the Tire Label on the B-Pillar or the edge of the driver door.

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.

Tire Pressure Monitoring System

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.



WARNING: Changes or modifications not expressly 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.

This device complies with Part 15 of the FCC Rules and with License exempt RSS Standards 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.

TIRE PRESSURE MONITORING SYSTEM PRECAUTIONS



WARNING: The tire pressure monitoring system is not a substitute for manually checking tire pressures. You should periodically check tire pressures using a pressure gauge. Failure to correctly maintain tire pressures could increase the risk of tire failure, loss of control, vehicle rollover and personal injury.



WARNING: Do not use the tire pressure displayed in the information display as a tire pressure gauge. Failure to follow this instruction could result in personal injury or death.

Note: *The use of tire sealants can damage the tire pressure monitoring system.*

Note: *If the tire pressure monitor sensor becomes damaged it may not function.*

TIRE PRESSURE MONITORING SYSTEM LIMITATIONS

When the outside temperature drops significantly, the tire pressure could decrease and activate the low tire pressure warning lamp.

The warning lamp could also illuminate when you use a spare wheel, or tire sealant from the inflator kit.

Note: *Regularly checking the vehicle tire pressures can reduce the possibility for the warning lamp to illuminate due to outside air temperature changes.*

Note: *After you inflate the tires to the recommended pressure it could take up to two minutes of driving over 20 mph (32 km/h) for the warning indicator to turn off.*

Tire Pressure Monitoring System

VIEWING THE TIRE PRESSURES



To view the current tire pressures, use the information display or touchscreen.

TIRE PRESSURE MONITORING SYSTEM – TROUBLESHOOTING

TIRE PRESSURE MONITORING SYSTEM – WARNING LAMPS



The low tire pressure warning lamp has combined functions, as it warns you when your tires need air, and when the system is no longer capable of functioning as intended.

Warning Lamp	Possible Cause	Action Required
Solid warning lamp	One or more tires are significantly under inflated	After inflating your tires to the manufacturer's recommended pressure as shown on the tire label, on the edge of driver door or the B-pillar, drive your vehicle for at least two minutes over 20 mph (32 km/h) before the light turns off.
Solid warning lamp or flashing warning lamp	Temporary spare wheel in use	Repair the damaged road wheel and tire and refit it to your vehicle to restore operation of the system.
	Tire pressure monitoring system malfunction	If the tires are inflated to the recommended tire pressures and the temporary spare wheel is not in use, the system detected a fault that requires service. Have your vehicle checked as soon as possible.

Tire Pressure Monitoring System

TIRE PRESSURE MONITORING SYSTEM – INFORMATION MESSAGES

Message	Details
Tire pressure low	After inflating your tires to the manufacturer's recommended pressure as shown on the tire label, on the edge of the driver door or the B-pillar, drive your vehicle for at least two minutes over 20 mph (32 km/h) before the light turns off.
Tire pressure monitor fault	The system has detected a fault that requires service. Have your vehicle checked as soon as possible.
Tire pressure Sensor fault	The system has detected a fault that requires service or a spare tire is in use. Have your vehicle checked as soon as possible.

Changing a Road Wheel

CHANGING A FLAT TIRE - VEHICLES WITHOUT: AERO PERFORMANCE PACKAGE

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

Your vehicle does not include a spare wheel and tire, or a vehicle jack.

Have the flat serviced as soon as possible to prevent damage to the tire pressure monitoring system sensors. See **Tire Pressure Monitoring System Overview** (page 285). During repairing or replacing of the flat tire, have the tire pressure monitoring system sensor inspected for damage as soon as possible.

Note: Only use tire sealants in roadside emergencies as they may damage the tire pressure monitoring system sensor. If you must use a sealant, use the Tire Mobility Kit sealant included with your vehicle. Replace the tire pressure monitoring system sensor and valve stem on the wheel as soon as possible after use of the sealant.

Note: The tire pressure monitoring system indicator illuminates when the spare tire is in use. To restore the full function of the tire pressure monitoring system, all road wheels equipped with tire pressure monitoring sensors must be mounted on the vehicle.

Note: Measure the width of your vehicle before placing it on a hoist. Failure to take this measurement could result in damage to the vehicle.

Tire Change Procedure



WARNING: To help prevent your vehicle from moving when changing a wheel, shift the transmission into park (P), set the parking brake and use an appropriate block or wheel chock to secure the wheel diagonally opposite to the wheel being changed. For example, when changing the front left wheel, place an appropriate block or wheel chock on the right rear wheel.



WARNING: Never place anything between the vehicle jack and your vehicle.



WARNING: Never place anything between the vehicle jack and the ground.



WARNING: Do not attempt to change a tire on the side of the vehicle close to moving traffic. Pull far enough off the road to not obstruct the flow of traffic and avoid the danger of being hit when operating the jack or changing the wheel.



WARNING: Do not get under a vehicle that is supported by a jack.



WARNING: Only use the specified jacking points. If you use any other locations you could damage vehicle components, such as brake lines.

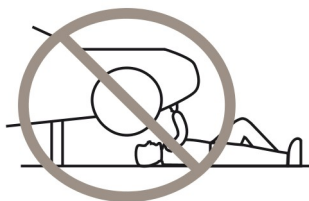


WARNING: It is recommended that the wheels of the vehicle be chocked, and that no person should remain in a vehicle that is being jacked.



WARNING: Make sure there is no grease or oil on the threads or the surface between the wheel studs and the wheel nuts. This can cause the wheel nuts to loosen while driving.

Changing a Road Wheel



- Only lift the vehicle at the specified locations to avoid damage to the vehicle.

CHANGING A FLAT TIRE - VEHICLES WITH: AERO PERFORMANCE PACKAGE

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

Your vehicle does not include a spare wheel and tire, or a vehicle jack.

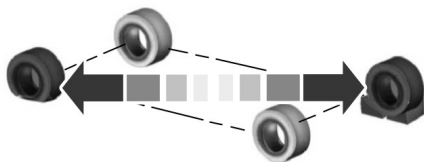
Have the flat serviced as soon as possible to prevent damage to the tire pressure monitoring system sensors. See **Tire Pressure Monitoring System Overview** (page 285). During repairing or replacing of the flat tire, have the tire pressure monitoring system sensor inspected for damage as soon as possible.

Note: Only use tire sealants in roadside emergencies as they may damage the tire pressure monitoring system sensor. If you must use a sealant, use the Tire Mobility Kit sealant included with your vehicle. Replace the tire pressure monitoring system sensor and valve stem on the wheel as soon as possible after use of the sealant.

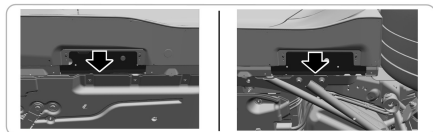
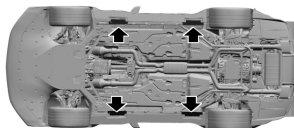
Note: The tire pressure monitoring system indicator illuminates when the spare tire is in use. To restore the full function of the tire pressure monitoring system, all road wheels equipped with tire pressure monitoring sensors must be mounted on the vehicle.

Note: Measure the width of your vehicle before placing it on a hoist. Failure to take this measurement could result in damage to the vehicle.

- Park on a level surface, set the parking brake and activate the hazard flashers.
- Place the selector lever in park (P) and power the vehicle off.



- Block the wheel diagonally opposite the flat tire. For example, if the left front tire is flat, block the right rear wheel.



Changing a Road Wheel

Tire Change Procedure

⚠ WARNING: To help prevent your vehicle from moving when changing a wheel, shift the transmission into park (P), set the parking brake and use an appropriate block or wheel chock to secure the wheel diagonally opposite to the wheel being changed. For example, when changing the front left wheel, place an appropriate block or wheel chock on the right rear wheel.

⚠ WARNING: Never place anything between the vehicle jack and your vehicle.

⚠ WARNING: Never place anything between the vehicle jack and the ground.

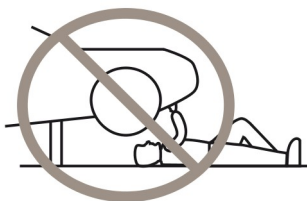
⚠ WARNING: Do not attempt to change a tire on the side of the vehicle close to moving traffic. Pull far enough off the road to not obstruct the flow of traffic and avoid the danger of being hit when operating the jack or changing the wheel.

⚠ WARNING: Do not get under a vehicle that is supported by a jack.

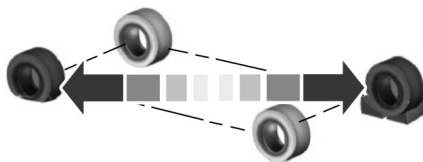
⚠ WARNING: Only use the specified jacking points. If you use any other locations you could damage vehicle components, such as brake lines.

⚠ WARNING: It is recommended that the wheels of the vehicle be chocked, and that no person should remain in a vehicle that is being jacked.

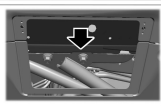
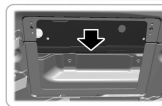
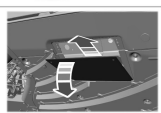
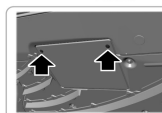
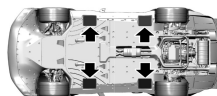
⚠ WARNING: Make sure there is no grease or oil on the threads or the surface between the wheel studs and the wheel nuts. This can cause the wheel nuts to loosen while driving.



1. Park on a level surface, set the parking brake and activate the hazard flashers.
2. Place the selector lever in park (P) and power the vehicle off.



3. Block the wheel diagonally opposite the flat tire. For example, if the left front tire is flat, block the right rear wheel.



Changing a Road Wheel

4. Use a 4MM allen key and turn the fastener a quarter turn. Remove the aero covers and jack at the specified locations to avoid damage to the vehicle.

WHEEL NUTS



WARNING: When you install a wheel, 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 to secure any fasteners that attach the rotor to the hub so they do not interfere with the mounting surfaces of the wheel. Installing wheels without following these steps can cause the wheel nuts to loosen and the wheel to come off while your vehicle is in motion, resulting in loss of vehicle control, personal injury or death.

Note: *If your vehicle has magnesium wheels, the lug nuts require Force 842^o® Dry Moly lubricant after every removal, regardless of the lug nut composition.*

Wheel Torque

Wheel Type	Magnesium Wheel	Aluminum Wheel
Bolt Size	lb.ft (Nm) ¹	lb.ft (Nm) ¹
M14 x 1.5	148 ± 7 lb.ft (200 ± 10 Nm)	148 ± 7 lb.ft (200 ± 10 Nm)

¹ Torque specifications are for nut and bolt threads free of dirt and rust. Use only our recommended replacement fasteners.

Retighten the lug nuts to the specified torque within 100 mi (160 km) after any wheel disturbance, such as tire rotation, changing a flat tire or wheel removal.

Dry Moly Lubricant Requirement

Wheel Nut Type	Wheel Type	Requires Moly Lube
Titanium Wheel Nut	Magnesium Wheel	Yes
Titanium Wheel Nut	Aluminum Wheel	Yes
Steel Wheel Nut	Magnesium Wheel	Yes
Steel Wheel Nut	Aluminum Wheel	No

Changing a Road Wheel



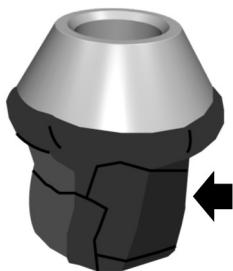
A Hub pilot bore.

Inspect the wheel pilot hole and mounting surface prior to installation. Remove any visible corrosion or loose particles.

Titanium Wheel Nuts (If Equipped)

The titanium wheel nuts require Force 842® Dry Moly lubricant after every removal. The procedure below gives you the details on how to apply the lubricant.

1. Use masking tape to mask the hex portion of the wheel nut to prevent overspray on visible surfaces.



2. Apply a light even coat of Force 842® Dry Moly lubricant on the cone surface of the wheel nut. Let lubricant dry and remove the masking tape.

Note: Plug the threads inside the wheel nut to ensure no moly lubricant is introduced onto the threads.



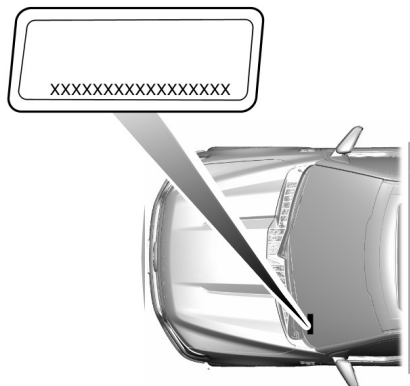
3. Inspect the wheel nut mounting surface for proper lubricant coating. See the image to the right for the uniform coating of the wheel nut seat area. If the wheel nut is not properly coated repeat the procedure.

Vehicle Identification

VEHICLE IDENTIFICATION NUMBER

LOCATING THE VEHICLE IDENTIFICATION NUMBER

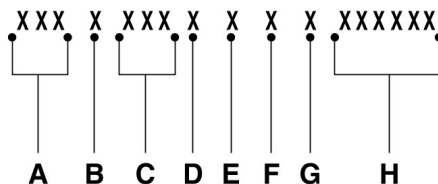
The vehicle identification number is on the left-hand side of the instrument panel.



Note: In the illustration, XXXX is representative of your vehicle identification number.

VEHICLE IDENTIFICATION NUMBER OVERVIEW

The vehicle identification number contains the following information:



- 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 or motor type.
- E Check digit.
- F Model year.
- G Assembly plant.
- H Production sequence number.

Connected Vehicle

WHAT IS A CONNECTED VEHICLE

A connected vehicle has technology that allows your vehicle to connect to a mobile network and for you to access a range of features. When used in conjunction with the Ford app, it could allow you to monitor and control your vehicle further, for example checking the tire pressures, the fuel level and the vehicle location. For additional information, refer to the local Ford website.

CONNECTED VEHICLE REQUIREMENTS

Connected service and related feature functionality requires a compatible vehicle network.

Some remote features require additional service activation. Log in to your Ford account for details. Some restrictions, third party terms and message or data rates may apply.

CONNECTED VEHICLE LIMITATIONS

Evolving technology, cellular networks, or regulations could affect functionality and availability, or continued provision of some features. These changes could even stop some features from functioning.

CONNECTING THE VEHICLE TO A MOBILE NETWORK

WHAT IS THE MODEM



The modem allows access to a range of features built into your vehicle.

ENABLING AND DISABLING THE MODEM

1. From the settings menu, press Connectivity.
2. Press Connected Vehicle Features.
3. Switch vehicle connectivity on or off.

CONNECTING THE FORD APP TO THE MODEM

1. Make sure that the modem is enabled using the vehicle settings menu.
2. Open the Ford app on your device and log in.
3. Add your vehicle or select your vehicle if already added.
4. Select the option to activate your vehicle.
5. Make sure that the name on the screen matches the name shown in your Ford account.
6. Confirm that your Ford account is connected to the modem.

Note: Some connected vehicle services are subscription-based and may require activation through your Ford app. Go to your Ford app for more information.

CONNECTING THE VEHICLE TO A WI-FI NETWORK

1. From the settings menu, press Connectivity.
2. Press Wi-Fi.
3. Switch Wi-Fi on.
4. Press View Available Networks.
5. Select an available Wi-Fi network.

Note: Enter the network password to connect to a secure network.

Connected Vehicle

CONNECTED VEHICLE SETTINGS

You can adjust several settings on the touchscreen under the connected vehicle features menu, such as:

- Vehicle connectivity.
- Share vehicle data.
- Share vehicle location.
- Share driving data.

Note: Depending on your vehicle, different options may be available.

Note: Editing connectivity settings could result in some features not operating correctly or at all. When you edit connectivity settings, pop-up messages may appear to notify you that services will not work without that setting. If you switch a feature on, pop-up messages could appear informing you of the settings that will be turned on. Some features, for example driver assistance features, use map data. We recommend having all connected vehicle settings enabled to allow the map content to be updated to the latest version.



Press the button next to a menu option for more information.

CONNECTED VEHICLE – TROUBLESHOOTING

CONNECTED VEHICLE – FREQUENTLY ASKED QUESTIONS

Why is my Ford app not connecting to my vehicle?

- The modem is not enabled. Switch vehicle connectivity on.
- The network signal is weak. Move your vehicle closer to a place where the network signal is not obstructed.
- The modem or gateway may need to be reset. Reboot the touchscreen to reset the modem or gateway. See **Rebooting the Center Display** (page 312).

Why can I not connect to a Wi-Fi network?

- You entered the wrong network password. Enter the correct password.
- The network signal is weak. Move your vehicle closer to the Wi-Fi router or to a place where the network signal is not obstructed.
- There are multiple access points in range with the same network name. Choose a unique name for your network. Do not use the default name unless it contains a unique identifier, for example as part of the MAC address.

Why does the Wi-Fi connection disconnect after successful connection?

- The network signal is weak. Move your vehicle closer to the Wi-Fi router or to a place where the network signal is not obstructed.

Connected Vehicle

What can I do if I am close to a Wi-Fi router but the network signal strength is weak?

- If your vehicle has a heated windshield, position your vehicle so that the windshield is not facing the Wi-Fi router.
- If your vehicle has metallic tinting on the windows but not on the windshield, position your vehicle so that the windshield is facing the Wi-Fi router or open the windows that are facing the router.
- If your vehicle has metallic tinting on the windows and the windshield, open the windows that are facing the router.
- If your vehicle is in a garage and you have the garage door closed, open the garage door as it could block the signal.

Why can I not see a network I expect to see in the list of available networks?

- The network is hidden. Make the network visible and try again, or manually add a network in the Wi-Fi settings menu.
- Some network security types are not supported, for example WEP.

Why do software downloads take too long?

- The network signal is weak. Move your vehicle closer to the Wi-Fi router or to a place where the network signal is not obstructed.
- Wi-Fi network is in high demand or has a slow Internet connection. Use a more reliable Wi-Fi network.

Why does the software not update when the system seems to connect to a Wi-Fi network and the signal strength is excellent?

- No software update is available at this time.
- Select automatic updates option in the settings menu to enable automatic software update or contact an authorized dealer.
- There could be a connection problem. Test the network using another device.

Why is a cloud-based feature not connecting to my vehicle?

- The modem or gateway may need to be reset. Reboot the touchscreen to reset the modem or gateway. See **Rebooting the Center Display** (page 312).

Vehicle Hotspot

SETTING UP A VEHICLE HOTSPOT

With a data plan, your hotspot can provide devices in and around your vehicle with Wi-Fi data.

Note: A mobile device is required to complete hotspot setup.

1. From the settings menu, press Vehicle Hotspot. See **Center Display** (page 310).
2. Press Settings.
3. Press Show Password.
4. Connect your device to the vehicle hotspot by selecting the hotspot from the list of Wi-Fi Networks.
5. When prompted, enter the password.

Activating a Trial or Purchasing a Data Plan

1. Connect a device to your vehicle hotspot. The vehicle network carrier's service activation website opens on your device.

Note: If the website does not open, open a new website and it redirects to the vehicle network carrier's website.

2. Follow the instructions on the carrier portal to purchase a plan or start a trial.

Note: Visit the vehicle network carrier's website to purchase more data.

Note: Hotspot services are subject to your vehicle network carrier agreement, coverage and availability.

VEHICLE HOTSPOT SETTINGS

You can change the following in the vehicle hotspot settings menu:

- Vehicle hotspot name or password.
- Vehicle hotspot frequency.

Changing the Vehicle Hotspot Name or Password

The hotspot information can only be updated once you activate the hotspot.

1. From the settings menu, press Vehicle Hotspot. See **Center Display** (page 310).
2. Press Settings.
3. Press Edit.
4. Press Change Network Name.
5. Enter your required network name.
6. Press enter to save the network name.
7. Press Change Password.
8. Enter your required password.
9. Press enter to save the password.

Changing the Vehicle Hotspot Frequency

The vehicle hotspot frequency band is selectable depending upon your device capabilities. You cannot connect your device to the vehicle hotspot if it does not support the selected frequency band.

1. From the settings menu, press Vehicle Hotspot. See **Center Display** (page 310).
2. Press Settings.
3. Press Edit.
4. Press Change Frequency Band.
5. Select a frequency.

Vehicle Hotspot

VEHICLE HOTSPOT – TROUBLESHOOTING

VEHICLE HOTSPOT – FREQUENTLY ASKED QUESTIONS

Why can I not see the vehicle hotspot name when I search for Wi-Fi networks on my cell phone or other device?

- Make sure the vehicle hotspot visibility is on.
- Check what frequency the hotspot is transmitting in the vehicle hotspot settings menu. If the frequency is 5 GHz and your device cannot see the network, change the frequency to 2.4 GHz.
- The system does not provide a vehicle hotspot at this time.

What should I do if my phone shows "No internet connection" when connecting to the vehicle hotspot?

- Check the status of your data plan.
- If your subscription is active, try moving the vehicle to an open area to improve reception.

What should I do if my phone shows "This network is operating on Wi-Fi channels in use by several other nearby networks" when connecting to the vehicle hotspot?

- Restart your vehicle.
- Move your vehicle to a different location.
- In the vehicle hotspot settings, switch between the 2.4 GHz and 5 GHz frequency.

How do I remove the vehicle from the vehicle network carrier's account?

- Contact your vehicle network carrier.

Audio System

AUDIO SYSTEM PRECAUTIONS



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.

Listening to loud audio for long periods of time could damage your hearing.

SWITCHING THE AUDIO UNIT ON AND OFF



Press the button on the volume control.

SELECTING THE AUDIO SOURCE

1. Select Sources.
2. Select the desired source by pressing the tile on the touchscreen.

MEDIA CONTROL BUTTONS



Press to play a track. Press again to pause the track.

Note: *Not all sources can be paused.*

Note: *In case the source is not paused audio is muted.*



Press the button to skip to the next track.

Press and hold the button to fast forward through the track.



Press the button once to return to the beginning of a track.

Repeatedly press the button to return to previous tracks.

Press and hold the button to fast rewind through the track.



Press the button on the touchscreen to switch shuffle mode on or off.

Note: *Not all sources have shuffle mode.*



Press the button on the touchscreen to change repeat mode.

Note: *Not all sources have repeat mode.*

ADJUSTING THE VOLUME



E391071

Turn to adjust the volume.

Some vehicles may be able to adjust the volume using buttons on the steering wheel.

Audio System

SETTING A MEMORY PRESET

Your vehicle comes with set of presets by default that you cannot delete, but you can always save your own favorites over them.

1. Select a station or channel.
2. Press and hold one of the existing presets on the list to replace it with the current station or channel.

Note: *The audio mutes briefly while the system saves the preset and returns once it is stored.*

Setting the Number of Preset Pages

Depending on your vehicle options, you can adjust the number of preset pages up to six pages.

1. From the Settings menu, press Radio. See **Center Display** (page 310).
2. Press Preset pages.
3. Select the desired number of pages from the drop down option.

Note: *You can store a maximum of thirty presets depending on the number of preset pages you select.*

ADJUSTING THE SOUND SETTINGS

To access the sound settings menu:

1. From the settings menu, press Sound. See **Center Display** (page 310).

From the menu, you can adjust the following:

- Tone settings.
- Balance and fade.
- Speed compensated volume.
- Volume settings.
- Sound mode/Occupancy mode

Note: *Depending on your vehicle options, not all settings are available.*

SETTING THE CLOCK AND DATE

1. From the settings menu, press Clock. See **Center Display** (page 310).
2. Set the time.

Note: *The AM and PM options are not available if 24-hour mode is on.*

Switching Automatic Time Updates On and Off

1. From the settings menu, press Clock. See **Center Display** (page 310).
2. Switch Auto Time Update on or off

AM/FM RADIO

AM/FM RADIO LIMITATIONS

The further you travel from an AM or FM station, the weaker the signal and the weaker the reception.

Hills, mountains, tall buildings, bridges, tunnels, freeway overpasses, parking garages, dense tree foliage and thunderstorms can interfere with the reception.

When you pass a ground-based broadcast repeating tower, a stronger signal may overtake a weaker one and result in the audio system muting.

Audio System

SELECTING AN AM/FM RADIO STATION

Manually Selecting a Radio Station



Press the button on the radio tuner to go up the frequency band.



Press the button on the radio tuner to go down the frequency band.

Using Seek



Press to seek the next station up the frequency band.

Press and hold to quickly seek up the frequency band.



Press to seek the next station down the frequency band.

Press and hold to quickly seek down the frequency band.

SWITCHING THE DISPLAY ON AND OFF

1. Press Settings on the touchscreen.
2. Press Display.
3. Press Calm screen.
4. Press anywhere on the touchscreen to switch the display back on.

Note: The display defaults to on each time you switch your vehicle on.

DIGITAL RADIO

WHAT IS DIGITAL RADIO

HD Radio™ technology is the digital evolution of analog AM/FM radio.

For additional information, visit www.HDRadio.com.

HD Radio Technology is manufactured under license from iBiquity Digital Corporation and foreign patents. HD Radio and the HD and HD Radio logos are proprietary trademarks of XPERI. The vehicle manufacturer and XPERI are not responsible for the content sent using HD Radio technology. Content may be changed, added or deleted at any time at the station owner's discretion.

HOW DOES DIGITAL RADIO WORK

Your system has a special receiver that allows it to receive digital broadcasts in addition to analog broadcasts.

HD1 signifies the main programming status and is available in both analog and digital broadcasts. Other multicast stations are only available digitally and could contain new or different content.

Note: When the system first receives an HD1 station, it plays the station in the analog version until it verifies the station is an HD Radio station. Then it shifts to the digital version.

Note: There is an audio mute delay when switching to an HD2 or HD3 station because the system has to reacquire and decode the digital signal.

DIGITAL RADIO LIMITATIONS

If you are outside the reception area, the system could not work.

If you are on the fringe of the reception area, the station could mute due to weak signal strength.

Audio System

Note: If you are listening to HD1, the system changes back to the analog broadcast until the digital broadcast is available again. If you are listening to any other multicast channels, the station mutes and stays muted unless it is able to connect to the digital signal again.

Depending on the station quality, you could hear a slight sound change when the station changes between analog and digital audio.

You cannot access a saved HD station if your vehicle is outside the station's reception area.

SWITCHING DIGITAL RADIO RECEPTION ON AND OFF

1. From the settings menu, press Radio.
2. Switch HD Radio on or off.

DIGITAL RADIO INDICATORS

HD Radio Indicator

The indicator appears when HD Radio is on and you tune to a station broadcasting HD Radio technology.



The color of the indicator changes to indicate the system status.

Gray indicates the system is acquiring a digital station.

Orange indicates digital audio is playing.

Multicast Indicator

The multicast indicator appears if the current station is broadcasting multiple digital broadcasts. The highlighted numbers indicate additional digital channels available.

Note: For stations that have more than one HD multicast, the HD indicator and radio text appears as a button. Press the button to cycle through all of the HD stations on that specific frequency.

SATELLITE RADIO

WHAT IS SATELLITE RADIO

Your factory-installed SiriusXM radio system includes a limited subscription term, which begins on the date of sale or lease of your vehicle. See an authorized dealer for availability.

For additional information about extended subscription terms, visit <https://www.SiriusXM.com> in the United States, <https://www.SiriusXM.ca> in Canada, or call SiriusXM at 1-888-539-7474.

Note: SiriusXM reserves the unrestricted right to change, rearrange, add or delete programming including canceling, moving or adding particular channels, and its prices, at any time, with or without notice to you. Neither SiriusXM and its affiliates nor Ford Motor Company and its affiliates will be liable to you or any third party for any such modification, suspension or termination.

Audio System

SATELLITE RADIO LIMITATIONS

For optimal reception performance, keep the antenna clear of snow and ice build-up and keep luggage and other material as far away from the antenna as possible. Placing luggage over the antenna may reduce performance. Factory-installed and aftermarket vehicle structures including, but not limited to, roof racks and soft top roofs in a partially open position could reduce reception performance.

Hills, mountains, tall buildings, bridges, tunnels, freeway overpasses, parking garages, dense tree foliage and thunderstorms can interfere with your reception.

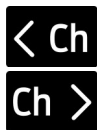
When you pass a ground-based broadcast-repeating tower, a stronger signal may overtake a weaker one and could result in the audio system muting. Your display could show an error message to indicate the interference.

LOCATING THE SATELLITE RADIO IDENTIFICATION NUMBER

1. Select SiriusXM as the audio source.
2. Tune to channel 0.

SELECTING A CHANNEL

Manually Selecting a Channel



Press the button to find the previous or next available radio channel.

Linear Tuner

The linear tuner is displayed when manually selecting a channel. You can swipe left or right on the linear tuner carousel to navigate through the channel list. Tap on a channel title to listen to it.

Using Direct Tune

1. Press the channel up or down button to open the linear tuner screen.
2. Press Direct Tune to open the number pad.
3. Enter the channel you prefer.

Using Browse

1. Press Browse.
2. Select a channel.

SATELLITE RADIO SETTINGS

Subscription

Your subscription status is displayed. You can subscribe or manage your subscription directly from the touchscreen.

SiriusXM Favorites

While you are listening to SiriusXM, you can save favorites by:

- Tapping the currently tuned channel or show logo on the SiriusXM audio screen.
- Tuning to a channel or show you want to save as a favorite. Navigate to the SiriusXM Favorites screen and press the Add Current button. The currently tuned channel or show is saved as a favorite.
- Saving a radio preset. This saves the currently tuned SiriusXM channel or show as a favorite.

Note: Requires a trial or active subscription to use.

Audio System

Listening History

Listening history is a list of recently listened to SiriusXM content. You can view, manage and reset the listening history using the controls on the touchscreen.

Note: *Requires a trial or active subscription to use.*

Help and Support

You can contact SiriusXM Customer Care directly from the operating system and view information required to manage your SiriusXM account.

Audio System

AUDIO SYSTEM – TROUBLESHOOTING

AUDIO SYSTEM – INFORMATION MESSAGES

Satellite Radio Troubleshooting

Error Message	Potential Effects	Recommended Action
Connectivity Disabled	Internet streaming and On Demand shows are unavailable and some SiriusXM features are disabled.	Internet connectivity is turned off. See Connected Vehicle (page 295).
No Internet	Audio system may mute. Switch to Satellite button may be displayed on the SiriusXM audio screen if the channel is also available via satellite.	SYNC attempts to connect. See Satellite Radio Limitations (page 304). Switch to a satellite connection for the current channel if the option is available.
No Satellite Signal	Audio system may mute. Switch to Internet button may be displayed on the SiriusXM audio screen if the channel is also available via streaming.	Antenna may be obstructed or satellite reception is weak in your location. See Satellite Radio Limitations (page 304). Switch to an internet connection for the current channel if the option is available.
Slow Network Connection	Audio system may mute while the audio attempts to load.	Allow some time for the audio to load or tune to a different channel.
Channel Unavailable	Audio system may mute. Radio may tune to a different channel.	A temporary update may be in progress. Allow some time before retrying to tune to the channel. If the issue continues, the channel may no longer be available.
Episode Unavailable	Audio system may mute. Radio may tune to a different channel.	A temporary update may be in progress. Allow some time before retrying to play the episode. If the issue continues, the episode may no longer be available.

Audio System

Error Message	Potential Effects	Recommended Action
Something went wrong	Audio system may mute. Radio may tune to a different channel.	Allow some time and retry the action.
Subscribe to Listen	Cannot listen to selected content. Content may appear grayed out and some features may be disabled.	<p>Your subscription has expired or you have not yet subscribed for access to the listed content. Navigate to Subscription under the Satellite Radio Settings menu. If you have an active subscription which includes the listed channel or content and you see this error, you may need to refresh your radio. To refresh your SiriusXM radio, visit www.siriusxm.com/refresh in the US, or www.siriusxm.ca/refresh in Canada.</p> <p>You may need to provide your SiriusXM Radio identification number. See Locating the Satellite Radio Identification Number (page 304).</p>

Audio System

Error Message	Potential Effects	Recommended Action
Upgrade to Listen	Cannot listen to selected content. Content may appear grayed out and some features may be disabled.	Your subscription does not include access to the listed content. You may need to upgrade your subscription. Navigate to Subscription under the Satellite Radio Settings menu. If you have an active subscription which includes the listed channel or content and you see this error, you may need to refresh your radio. To refresh your SiriusXM radio, visit www.siriusxm.com/refresh in the US, or www.siriusxm.ca/refresh in Canada. You may need to provide your SiriusXM Radio identification number. See Locating the Satellite Radio Identification Number (page 304).
Location Restricted Content	Audio may mute. Not available in your location or Unable to determine your location may be displayed.	Content is not available in your location or SiriusXM is unable to determine your location. Tuning to a different channel may resolve the issue.
Channel Blocked	Audio may mute. Radio may tune to a different channel.	The Block Explicit Content filter is turned on. Navigate to Listener Settings under the Satellite Radio Settings menu to access the Block Explicit Content filter. Navigate to Listener Settings. See Satellite Radio Settings (page 304).
Antenna Problem or Hardware Problem	Audio may mute. Access to SiriusXM features may be unavailable.	If issue persists, you may need to visit an authorized dealer for service.

Audio System

Error Message	Potential Effects	Recommended Action
SiriusXM Updating...	Audio may mute.	Allow SiriusXM some time to complete updating.
Loading...	Audio may mute. Content may be temporarily unavailable while loading.	No action necessary. If loading time is longer than usual, See Satellite Radio Settings (page 304).
SiriusXM Loading...	Audio may mute. Content and controls may be temporarily unavailable.	No action necessary. Allow SiriusXM some time to finish loading.

Center Display

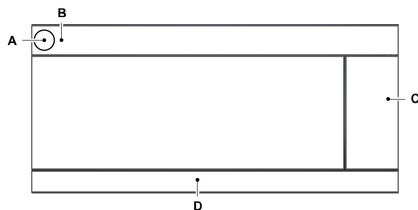
CENTER DISPLAY OVERVIEW



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.

For your safety, features that are not critical while driving are not available when the vehicle is moving at or above 5 mph (8 km/h).

Note: Illustrations are provided for conceptual understanding only and may appear differently on your vehicle.



- A Home screen button. See **Home Screen** (page 310).
- B Status bar. See **Status Bar** (page 310).
- C Information on demand screen. See **Information On Demand Screen** (page 312).
- D Climate control. See **Climate Control** (page 100).

HOME SCREEN



Press to open the home screen.

Features, such as navigation, audio and phone, are located in the main portion of the display. The icons located on the side of the display allow you to access other vehicle features and settings.



Press to access the settings menu.

You can change the display language and other measurement units under the General menu.



Press to view features.

Note: The icon may be different depending on your vehicle.



Press to see a list of apps. To open an app, select the app.



If you see this icon next to a menu option, press it for more information.

STATUS BAR

The status bar appears at the top of the display. The following buttons and icons can appear in the status bar.

Note: Some buttons and icons may not apply to your vehicle or may not appear exactly as shown.


Alexa Built-In





Press to set up Alexa. See **Alexa Built-In** (page 323).

Center Display

Traffic Announcements

 Traffic announcements are turned on but are not supported by the selected station.


 Traffic announcements are turned on and supported by the selected station but are not active.


 Traffic announcements are active.


Note: If no traffic announcement icons are displayed, traffic announcements are turned off.


Vehicle Data


 Wi-Fi available.

 Wi-Fi connected.


 Vehicle data sharing on.

 Vehicle data sharing off.


 Vehicle location sharing on.

 Vehicle data and vehicle location sharing on.


Outside Air Temperature


 Outside air temperature is active.

Audio System


 Audio system muted.


Connected Device


 Cell phone microphone muted.


 Phone call in progress.


 Media player connected using **Bluetooth®**.


 Cell phone network signal strength.

 Cell phone roaming.

 Text message received.

 Unread email message.


 Automatic crash notification system off.

 Cell phone battery status.

Software Updates

 Press to see details about software updates. See **Vehicle Software Updates** (page 334).

Back Button

 Some screens have a back button in the top corner. Press the button to return to the previous screen.

Center Display

INFORMATION ON DEMAND SCREEN

The information on demand screen displays cards on the side of the display and allows you to see information from different features.

You can swipe up or down to view a different card.

Note: *On some screens, you can swipe a card toward the center of the screen to move the content into the main screen.*

SETTINGS

Display Settings

From the display menu you can do the following:

- Switch the calm screen on.
- Manually adjust the screen brightness.
- Set the display mode.

Touchscreen Brightness

To manually adjust the screen brightness, use the plus or minus buttons.

Note: *The display brightness is limited if the settings of the instrument panel lighting brightness are set to the highest or lowest setting.*

DRIVER ASSISTANCE MENU

To access the driver assistance menu:

1.  Press to open the home screen.
2.  Press to view features.

Note: *The icon may be different depending on your vehicle.*

3. Press Driver Assistance.

REBOOTING THE CENTER DISPLAY

You can reboot the center display using the controls on the steering wheel.

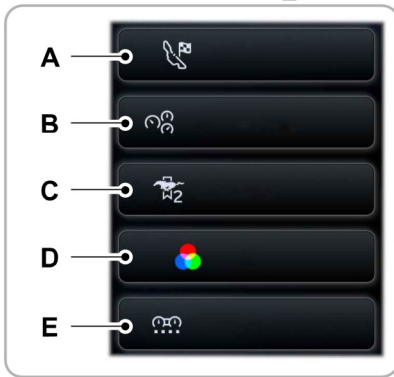
1. Simultaneously press and hold the seek forward and audio system power button for 10 seconds.

My Mustang

MY MUSTANG OVERVIEW



Press the button on the instrument panel.



- A Track apps.
- B Auxiliary gauges.
- C Custom mode.
- D My color.
- E Cluster theme.

My Mustang

TRACK APPS

TRACK APPS PRECAUTIONS



WARNING: Track Apps™ is for track use only. Remember that even advanced technology cannot defy the laws of physics. It is 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.

Note: Track apps are for track use only. Do not use them under any other driving conditions.

Note: The pre-collision assist system turns off when using Track apps or when you switch off your stability control system.

TRACK APPS OVERVIEW



To access the track apps menu, press the button on the instrument panel or, from the My Mustang menu, press Track Apps.



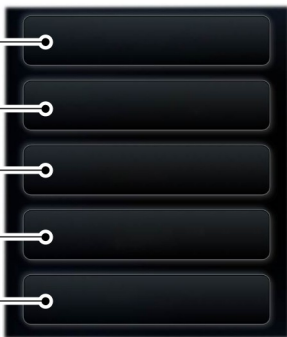
A

B

C

D

E



- A Acceleration timer.
- B Brake performance.
- C Lap timer.

F

G

H



- D Launch settings.
- E Performance shift indicator.
- F Active aero.
- G Line lock.
- H Launch control.

ACCELERATION TIMER

Displays your vehicle's rate of acceleration for a given speed or distance range.

Note: *Test events vary depending on the measurement unit conventions selected.*

Using Acceleration Timer

1. From the Track Apps menu, press **Acceleration Timer**.
2. Select a drive type.
3. Select a start type.
4. Press **Start**.

Note: *The start button is not available until a drive type and start type are selected.*

5. Press the OK button on the steering wheel to start the timer.

When finished, press OK for more options.

Results

To view your timer results:

1. From the acceleration timer menu, press **Results**.

To clear results without clearing all-time best:

1. Press **Clear**.
2. Press **Yes**.

To clear all results.

1. Press **Clear All**.
2. Press **Yes**.

BRAKE PERFORMANCE

Displays your vehicle's rate of deceleration for a given speed range.

Note: *Test events vary depending on the measurement unit conventions selected.*

Using Brake Performance

1. From the Track Apps menu, press **Brake Performance**.
2. Select a speed range.
3. Press **Start**.
4. Accelerate the vehicle above the selected speed.

Results

To view your results:

1. From the brake performance menu, press **Results**.

To clear results without clearing all-time best:

1. Press **Clear**.
2. Press **Yes**.

To clear all results.

1. Press **Clear All**.
2. Press **Yes**.

MANUAL LAP TIMER

Gives you the ability to record lap times at three separate tracks.

My Mustang

Using Lap Timer

1. From the Track Apps menu, press **Lap Timer**.

2. Select a track.

Note: You can edit the track names.

3. Press **Start**.
4. Press the OK button on the steering wheel.

Note: You can interrupt a session at any time by holding the OK button on the steering wheel.

When finished, press OK for more options.

Results

To view your results:

1. From the lap timer menu, press **Results**.

Note: If there are no saved results, the button is grayed out.

To clear results without clearing all-time best:

1. Press **Clear**.
2. Press **Yes**.

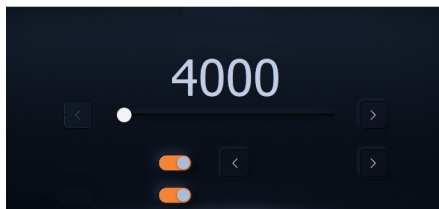
To clear all results.

1. Press **Clear All**.
2. Press **Yes**.

PERFORMANCE SHIFT INDICATOR

The performance shift indicator allows you to set the point at which you want to be alerted to shift gears, through audible and visual alerts. You can choose different graphic themes that represent the engine's rotation.

1. From the Track Apps menu, press **Performance Shift Indicator** to reach the menu.



2. From the menu, you can:
 - Set the light mode between off, tach, track and drag.
 - Set a shift point within the allowable RPM range in increments of 100.
 - Enable or disable the shift tone, based on the set shift point.

Note: To enable or disable the feature, you must choose a light mode.

LINE LOCK

Line lock maintains brake force at the front wheels, allowing the rear wheels to spin with minimal vehicle movement. It is intended to condition the rear tires to maximize traction prior to track use.

Note: Line lock is a feature intended for use at tracks only and should not be used on public roadways.

Note: Use of this feature could result in significantly increased rear tire wear.

There are three line lock stages:

- Initiated.
- Engaged.
- Off.

Initiating Line Lock

The initiation stage verifies that the vehicle is ready for line lock function, and confirms driver intent.

1. From the track apps menu, press **Line Lock**.
2. Press and hold the OK button on the steering wheel.

The following conditions must be met to initialize line lock:

- The vehicle is on a level surface.
- The engine is running.
- The vehicle is traveling less than 25 mph (40 km/h).
- Selectable drive mode is not in wet mode (if equipped).
- There are no electronic stability control faults.
- A spare tire is not installed.
- The parking brake is not applied.
- Auto hold is turned off.
- Adaptive cruise control is not active.
- Both doors are closed.

If you want to cancel line lock once it is initialized, press the OK button on the steering wheel. Once initiated, line lock is prepared for activation and remains initiated up to 25 mph (40 km/h). If vehicle speed exceeds 25 mph (40 km/h), line lock automatically cancels.

Engaging Line Lock

Follow the prompts in the instrument cluster display to engage line lock after it is initialized. To engage, firmly apply the brakes. Then press the OK button. Once engaged, release the brake pedal. The front brakes remain applied and the rear brakes release. At this point, the engagement timer is initiated and shown on the instrument cluster display.

The following conditions must be met to engage line lock:

- The vehicle is on a level surface.
- The engine is running.
- The vehicle is stopped.
- The parking brake is not applied.
- Both doors are closed.
- The transmission is in a forward gear.
- There are no electronic stability control faults.
- The steering wheel is in the straight ahead position.
- A spare tire is not installed.
- Auto hold is turned off.
- Adaptive cruise control is not active.

Releasing Line Lock

While line lock is engaged, you can exit (release) the feature using the OK button. When you press the OK button, line lock immediately releases and normal vehicle function resumes. When line lock engages, a countdown timer shows the remaining time before line lock is automatically released. If the timer expires, or another vehicle condition requires line lock to release, the system safely disengages and normal vehicle function resumes.

Note: *If you apply the brake pedal or parking brake while line lock is engaged, line lock automatically cancels and normal brake function resumes.*

LAUNCH CONTROL

Temporarily holds the engine RPM at a set point and maximizes traction to the wheels for a more aggressive start.

Enabling or Disabling Launch Control

1. From the Track Apps menu, press Launch Control.

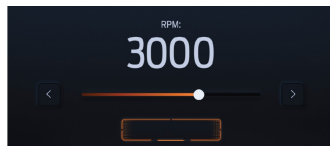
My Mustang

Note: Launch control is not available until after the 250 mi (402 km) break in period has been met.

To set the RPM hold point:

1. From the Track Apps menu, press Launch Settings.

Note: You can also enable or disable the feature from this screen.



2. Use the slider bar or arrows to set the RPM value.

Using Launch Control

1. Make sure launch control is enabled.
2. Bring your vehicle to a complete stop.
3. Shift the transmission into drive or first gear.
4. The indicator illuminates white in the instrument cluster when launch control is ready.
5. Fully press and hold the brake pedal.
6. Fully press the accelerator pedal and keep it pressed. Allow the tachometer to settle at the RPM that you selected and wait for the indicator to turn green.
7. Release the brake pedal.

Improving Your Launch

If launch control is not available when you come to a stop:

- Wait for the engine to come to operating temperature. If the engine is too hot or cold, launch control is not available.
- Make sure the drive mode is not set to Slippery.

If the vehicle did not launch effectively:

- Adjust the RPM and practice releasing the brake.
- Switch traction control on, this can reduce excessive wheel spin.
- A time out occurs after holding the throttle at the launch setpoint for more than 15 seconds.

Keep in mind that weather, road surface, and tire conditions can also affect your launch.

Launch Control Indicators

With Traction Control Off



Not ready.



Ready to use.



Active and ready to launch.

With Traction Control On



Not ready.



Ready to use.



Active and ready to launch.

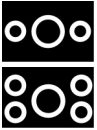
AUXILIARY GAUGES



Auxiliary gauges are available in the touchscreen.


From the My Mustang menu, press **Auxiliary Gauges**.

My Mustang



Press the button to switch between three or five-gauge view.

To edit the gauges:

-  Press the button.
- Use the arrows on the screen to select the gauges you prefer.

Auxiliary gauges:

- Cylinder head temperature.
- Engine oil temperature.
- Transmission oil temperature.
- Axle temperature.
- Engine oil pressure.
- Inlet air temperature.
- Manifold charge temperature.

- Intercooler coolant temperature.
- Vacuum or vacuum/boost.
- Voltage.

Note: Depending on your vehicle configuration, not all gauges are available.

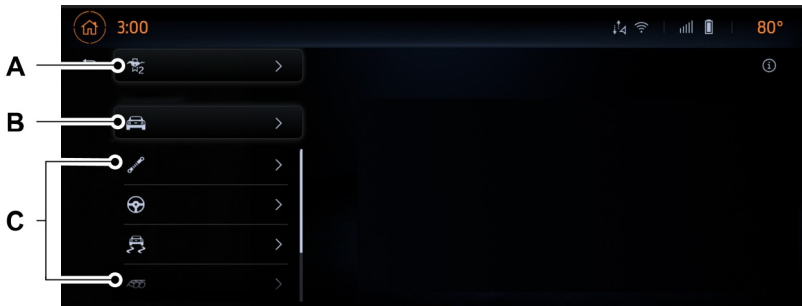
CUSTOM DRIVE MODE

Allows you to create your own drive mode experience. Choose a drive mode to use as a starting point and then mix and match settings to tailor the experience to your preferences. You can create up to six custom modes.



You can set one of the six custom modes as the active mode. The active mode appears as an available mode when selecting a drive mode. See **Selecting a Drive Mode** (page 143).

Creating a Drive Mode



- A Profile selection.
- B Base drive mode.
- C Adjustable settings.

- From the My Mustang menu, press **Custom Drive Mode**.
- Press the profile button to select a profile to edit.

Note: Selecting a profile also sets it as the active mode.

3. Select the base drive mode you prefer.
4. Press each option and select the setting you prefer.

CLUSTER THEME



You can change the style of the display behind the steering wheel.

1. From the My Mustang menu, press **Cluster Theme**.
2. Select a theme.

Note: If you choose **Match Drive Mode**, the instrument cluster style changes according to the drive mode you select.

MY COLOR



Allows you to customize the colors of the instrument cluster and touchscreen.

You can also adjust the ambient lighting. See **Interior Lighting** (page 88).

1. From the My Mustang menu, press **MyColor**.
2. Adjust the primary and secondary colors to the setting you prefer.

Voice Interaction

FORD ASSISTANT

USING FORD ASSISTANT

The digital assistant allows you to control vehicle features using conversational requests.

To begin a voice interaction using the wake word, say the selected wake word, then say your command.



Press the voice interaction button on the steering wheel. A tone sounds before you can say your command.

Note: You may need to enable your vehicle's modem to use certain voice commands. See **Enabling and Disabling the Modem** (page 295).

Voice Command Examples

To see examples of what voice commands you can use with different features:



Press the button on the touchscreen.

1. Press Ford Assistant.
2. Press Voice Command Help.
3. Select a feature.

FORD ASSISTANT SETTINGS

To access the settings menu:



Press the button on the touchscreen.

1. Press Ford Assistant.

From the settings menu you can do the following:

- Switch listen for wake word on or off.
- Set the preferred wake word.
- Switch advanced mode on or off.

- Switch phone confirmation on or off.
- Switch the commands list on or off.
- View the commands help menu.



Press the button next to a menu option for more information.

FORD ASSISTANT – FREQUENTLY ASKED QUESTIONS

Why does the system not understand what I am saying?

- You are speaking too soon. When using the button of the steering wheel, wait for the tone before you speak.

Why does the system not understand the name of a track or artist?

- **Bluetooth®** does not support voice commands. Connect your device to a USB port.
- You are not saying the name exactly as it appears on your device. Say the name of the track or artist exactly as it appears on your device. Spell out any abbreviations in the name.
- The system does not recognize some special characters contained in the name of a song or artist, for example *, - or +. Rename the files on your device or use the touchscreen to select and play the track.

Why does the system not understand the name of a contact in the phonebook on my device and calls the wrong contact?

- You are not saying the name exactly as it appears on your device. Say the first and last name of the contact exactly as it appears on your device. Spell out any abbreviations in the name.
- The name contains special characters, for example *, - or +. Rename the contact on your device or use the touchscreen to select and call the contact.

Why does the system not understand foreign names of contacts in the phonebook on my device?

- The system applies phonetic pronunciation rules of the selected language to the names of contacts in the phonebook on your device. Select the name of the contact on the touchscreen and use the Hear it option to get an idea of how the system expects you to pronounce it.

Why do the system voice prompts and the pronunciation of some words not seem accurate?

- The system uses text-to-speech technology and a synthetically generated voice rather than a pre-recorded human voice.

Alexa Built-In

WHAT IS ALEXA BUILT-IN

Alexa Built-In allows you to use Alexa in your vehicle for auto-specific use cases on the road and gives you access to an ever-evolving number of skills that help to make your life more productive, entertaining, and connected while using your vehicle.

ALEXA BUILT-IN REQUIREMENTS

To use Alexa, all of the following must occur:

- Your vehicle is added to your Ford app account.
- You are signed in to an existing Amazon account.
- Vehicle location services are enabled.
- Vehicle connectivity and vehicle data sharing are enabled.

Note: Support and functionality may vary based on the country where your Ford app account is registered.

SIGNING IN TO YOUR ACCOUNT



Press the button in the status bar and follow the on-screen prompts.

To sign in using the settings menu:

1. Press **Settings** on the touchscreen.
2. Press **Amazon Alexa**.
3. Press **Get Started**.
4. Sign in to your account by either scanning the QR code or entering the on-screen code into the Amazon website.

5. Once signed in, follow the on-screen prompts.
6. When complete, the vehicle informs you that Alexa is ready to be used in the vehicle.

Signing Out of Your Account

1. Press **Settings** on the touchscreen.
2. Press **Amazon Alexa**.
3. Press **Sign Out**.

USING ALEXA BUILT-IN

To use Alexa, say “Alexa” or press the voice interaction button on the steering wheel and then say “Alexa” to invoke Alexa to start listening.

Note: If the wake word is not enabled, you can only use the voice interaction button.

You can use Alexa for the following and more:

- Entertainment.
- Hands-free calling.
- Traffic and navigation.
- Vehicle controls.
- Smart home device control.
- Weather and news information.

ALEXA BUILT-IN SETTINGS

Enabling the Wake Word

1. Press **Settings** on the touchscreen.
2. Press **Amazon Alexa**.
3. Switch **Listen for Wake Word** on or off.

Note: If the wake word is not enabled, you can only use the voice interaction button.

Contact List

Displays a list of connected phones and contact sharing status for each phone.

Alexa Built-In

To change the contact sharing status:

1. Press **Settings** on the touchscreen.
2. Press **Amazon Alexa**.
3. Press **Contact List**.
4. Enable or disable sharing for each phone.

Note: *You can share contacts from more than one phone at a time.*

Things to Try

Learn more about what you can do with Alexa by browsing the things to try.

1. Press **Settings** on the touchscreen.
2. Press **Amazon Alexa**.
3. Press **Things to Try**.

Phone

PHONE PRECAUTIONS



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.

CONNECTING YOUR PHONE

Go to the settings menu on your device and switch **Bluetooth®** on.



Press the phone option on the home screen.

1. Press Add phone.

Note: A prompt alerts you to search for your vehicle on your cell phone.

2. Select your vehicle on your cell phone.

Note: A number appears on your cell phone and on the touchscreen.

3. Confirm the number on your cell phone matches the number on the touchscreen.

Note: The touchscreen indicates that you have successfully paired your cell phone.

4. Download the phonebook from your cell phone when you are prompted.

Note: If you pair more than one cell phone, use the phone settings on the center display to specify the primary phone. You can change this setting at any time.

PHONE MENU

This menu becomes available after pairing a phone.

Recent Call List

Display and select an entry from a list of previous calls.

Contacts

Display a smart search form to look up your contacts. Use the List button to alphabetically sort your contacts.

Favorites

Display the list of favorite contacts that are set up on your phone.

Messaging

Displays the list of text messages to read, listen to, or respond to.

Email

Displays the list of emails to read, listen to, or respond to.

Phone List

Display the list of paired or connected devices that you can select.

Note: Up to 12 devices can be stored.

Do Not Disturb

Reject incoming calls and switch ring tones and alerts off.

Phone Keypad

Directly dial a number.

Phone

Voice Control

Press the button and say a command to use the Google or Siri voice assistant available on your connected phone to access supported features.

Note: *Some features under the phone menu may not be available if the feature is not supported through the phone.*

Phone

MAKING AND RECEIVING A PHONE CALL

Making Calls

To call a number in your contacts, select:

Menu Item	Action and Description
Contacts	You can then select the name of the contact you want to call. Any numbers stored for that contact display along with any stored contact photos. You can then select the number that you want to call. The system begins the call.

To call a number from your recent calls, select:

Menu Item	Action and Description
Recent Call List	You can then select an entry that you want to call. The system begins the call.

To call a number from your favorites, select:

Menu Item	Action and Description
Favorites	You can then select an entry that you want to call. The system begins the call.

To call a number that is not stored in your phone, select:

Menu Item	Action and Description
Phone Keypad	Select the digits of the number you wish to call.
Call	The system begins the call.

Pressing the backspace button deletes the last digit you typed.

Receiving Calls

During an incoming call, an audible tone sounds. Caller information appears in the display if it is available.

To accept the call, select:

Menu Item
Accept

Note: You can also accept the call by pressing the phone button on the steering wheel.

To reject the call, select:

Menu Item
Reject

Ignore the call by doing nothing. The system logs it as a missed call.

During a Phone Call

During a phone call, the contacts name and number display on the screen along with the call duration.

The phone status items are also visible:

- Signal Strength.
- Battery.

You can select any of the following during an active phone call:

Phone

Item	
End Call	Immediately end a phone call. You can also press the button on the steering wheel.
Keypad	Press this to access the phone keypad.

Item	
Mute	You can switch the microphone off so the caller does not hear you.
Privacy	Transfer the phone call audio to the cell phone or back to the touchscreen.

SENDING AND RECEIVING A TEXT MESSAGE

Menu Item	Description
Hear It	Hear the text message.
View	View the text message.
Call	Call the sender.
Reply	Reply to the text message with a standard text message.

Phone

SWITCHING TEXT MESSAGE NOTIFICATION ON AND OFF

The settings on your device must be enabled to receive text message notifications on the center display. Check your device settings to enable these features.

ENABLING APPS ON A MOBILE DEVICE

When you start an app through the system for the first time, you could be asked to grant certain permissions. You can review and change the permissions that you have granted at any time when your vehicle is not moving. We recommend that you check your data plan before using your apps through the system. Using them could result in additional charges. We also recommend that you check the app provider's terms and conditions and privacy policy before using their app. Make sure that you have an active account for apps that you want to use through the system. Some apps work with no setup. Others require you to configure some personal settings before you can use them.

Enabling Apps on an iOS Device



Select the apps option on the feature bar.

1. Select Mobile Apps Help.
2. Follow the instructions to pair and connect your device via **Bluetooth®** or with a USB cable.
3. Start the apps on your device that you want to use.
4. Select the app that you want to use on the touchscreen.

Note: Some apps may run through Apple CarPlay if it is enabled.

Note: Closing an app on your device closes it on the touchscreen.

Note: For troubleshooting assistance select Mobile Apps List under Mobile Apps Help.

Enabling Apps on an Android Device



Select the apps option on the feature bar.

1. Select Mobile Apps Help.
2. Follow the instructions to pair and connect your device via **Bluetooth®** or with a USB cable.
3. Start the apps on your device that you want to use.
4. Select Find Mobile Apps.
5. Select the app that you want to use on the touchscreen.

Note: Some devices may lose the ability to play music over USB when Mobile Apps are enabled.

Note: Some apps may run through Android Auto if it is enabled.

Note: Closing an app on your device closes it on the touchscreen.

Note: For troubleshooting assistance select Mobile Apps List under Mobile Apps Help.

SWITCHING APPLE CARPLAY ON AND OFF

Enabling Apple CarPlay with USB

1. Connect your device to a USB port.
2. Follow the instructions on your device and the touchscreen.

Note: Selecting Enable Wireless CarPlay on your device prepares the device for wireless CarPlay when you reenter the vehicle.

Phone

Enabling Apple CarPlay with Wireless

1. Pair your device to **Bluetooth®**.
2. Follow the instructions on your device and the touchscreen.

Disabling Apple CarPlay



Select the settings option on the feature bar.

1. Press Phone List.
2. Select your device from the list.
3. Press Disable.

Re-Enabling Apple CarPlay



Select the settings option on the feature bar.

1. Press Phone List.
2. Select your device from the list.
3. Press Connect to Apple CarPlay.

SWITCHING ANDROID AUTO™ ON AND OFF

Enabling Android Auto with USB

(If Equipped)

1. Connect your device to a USB port.
2. Follow the instructions on the touchscreen.

Note: Certain features of the system are not available when you are using Android Auto.

Enabling Android Auto with Wireless

1. Pair your device to **Bluetooth®**.
2. Follow the instructions on your device and the touchscreen.

Note: Certain Android™ devices do not support Android Auto Wireless. Check your Android OS version for compatibility.

Disabling Android Auto



Select the settings option on the feature bar.

1. Press Phone List.
2. Select your device from the list.
3. Press Disable.

Re-Enabling Android Auto



Select the settings option on the feature bar.

1. Press Phone List.
2. Select your device from the list.
3. Press Connect to Android Auto.

CONNECTING A BLUETOOTH® DEVICE

1. Make sure **Bluetooth®** is enabled on your device.
2. Press Phone icon on the touchscreen.
3. Press Add Phone.

Note: A prompt alerts you to search for your vehicle on your device.

4. Select your vehicle on your device.

Note: A number appears on your device and on the touchscreen.

5. Confirm that the number on your device matches the number on the touchscreen.

Note: The touchscreen indicates that you have successfully paired your device.

The **Bluetooth®** word mark and logos are registered trademarks owned by **Bluetooth SIG, Inc.** and any use of such marks by Ford Motor Company is under license. Other trademarks and trade names are those of their respective owners.

Connect your device.



Press the audio button on the home screen.



Press Sources.



Press the **Bluetooth®** option.

To play your selected media file, use the audio system buttons on the touchscreen. See **Media Control Buttons** (page 300).

PLAYING MEDIA USING BLUETOOTH®



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.

Navigation

CONNECTED NAVIGATION (IF EQUIPPED)

Your vehicle may have connected navigation as a free trial after purchase. You require a subscription after the trial expires. For additional information, visit ford.com/connectedservices.

Note: *If you do not sign up or renew your subscription, you can still use navigation through a connected device.*

ACCESSING NAVIGATION



Press the button to access Navigation.

Note: *As the driver, be aware of all local traffic regulations and road attributes, and operate your vehicle in a safe and legal manner.*

NAVIGATION MAP UPDATES

To update your map data over Wi-Fi, your vehicle must be connected to a Wi-Fi access point. For USB updates and other details, contact dealers at 1-866-462-8837 in the United States and Canada, or 800-557-5539 in Mexico.

Note: *If you find map data errors, you may report them by going to www.here.com/mapcreator.*

ADJUSTING THE MAP

ZOOMING THE MAP IN AND OUT

You can use pinch gestures to zoom in and out. Place two fingers on the touchscreen and move them apart to zoom in. Place two fingers on the touchscreen and bring them together to zoom out.

CHANGING THE FORMAT OF THE MAP



Press the Menu button.

1. Press the Map Orientation tile.
2. Select a map orientation.

LIVE TRAFFIC

WHAT IS LIVE TRAFFIC

You can observe real-time road congestion when live traffic is on.

SWITCHING LIVE TRAFFIC ON AND OFF



Press the Menu button.

1. Press the Traffic on Map tile.
2. Press Traffic on or Traffic Off.

SETTING A DESTINATION

SETTING A DESTINATION USING THE TEXT ENTRY SCREEN

1. Press the search bar at the top of the screen.
2. Enter your destination using the keyboard.
3. Press Search.
4. Select a destination from the list.
5. Press Start to begin navigation.

Navigation

SETTING A DESTINATION USING THE MAP SCREEN

Press and hold on the map to place a pin at that location. Information about the location of the pin appears on the screen.



Press the button to begin navigation to the pin.

SETTING A DESTINATION USING A PREDICTIVE DESTINATION

Press the predicted destination card on the touchscreen to navigate to it. These appear when the navigation system has learned your driving habits.

SETTING A DESTINATION USING A RECENT DESTINATION

1. Press the Recents tile.
2. Select a destination from the list.

SETTING A DESTINATION USING A SAVED DESTINATION

1. Press Saved Places.
2. Select a saved destination.

Note: Press the star icon next when viewing location details to save the location.

SETTING A DESTINATION USING A POINT OF INTEREST

Press a point of interest icon on the map. Information about the location of the point of interest appears on the screen.



Press the button to begin navigation to the point of interest.

WAYPOINTS

ADDING A WAYPOINT



Press the Add Waypoint button when in an active navigation session.

1. Select a category or enter your waypoint on the keyboard and press Search.
2. Select a waypoint from the list.
3. Press Add to Trip.

EDITING WAYPOINTS

1. Press the waypoint you would like to edit.
2. Select an option to reorder or delete the waypoint.

ROUTE GUIDANCE

ADJUSTING THE GUIDANCE PROMPT VOLUME

Turn the volume control when a guidance prompt plays to adjust the volume.

CANCELING ROUTE GUIDANCE



Press the button to cancel route guidance to the selected location.

Vehicle Software Updates

These software updates introduce new features or provide updates to vehicle software systems. To receive updates, we recommend you switch Automatic Updates on, set a recurring update schedule and connect your vehicle to Wi-Fi. Updates could take longer when not connected to Wi-Fi or could not download at all. See **Connecting the Vehicle to a Wi-Fi Network** (page 295).

Your vehicle may be able to receive drivable software updates, non-drivable software updates or both. Drivable software updates happen during normal vehicle usage. If Automatic Updates is switched on, updates happen without any input from you. If Automatic Updates is switched off, a software update icon displays on the touchscreen and customer acceptance is required.

Non-drivable software updates require you to input a scheduled start time. You are notified on your touchscreen and connected device prior to a non-drivable update.

Most updates complete in less than 30 minutes, although some updates could take up to a few hours.

You are notified of the software updates status on the top left part of the touchscreen and on your connected device. See **Software Update Indicators** (page 335).

Note: *Some updates may be delivered when automatic updates is on, while other updates are downloaded and you need to schedule or press update now.*

Vehicle Software Update Requirements

Non-drivable software updates do not install if any of the following occur:

- Your vehicle is running.
- Your vehicle is switched on.

- Your vehicle is not parked.
- The 12 V battery charge is too low.
- The hazard indicators are switched on.
- The alarm is sounding.
- The doors are open.
- The parking lamps are switched on.
- You are pressing the brake pedal.
- An emergency call is in process.
- Your vehicle is in limp home mode.

Vehicle Software Update Limitations

Once you begin a non-drivable software update, you cannot:

- Cancel the update.
- Enter your vehicle unless you have a key blade.
 - You can open the doors using the mechanical latch if child locks are not on.
- Use the remote control to lock, unlock or start your vehicle.
- Drive your vehicle.

SOFTWARE UPDATE SETTINGS

From settings menu, press Software Updates. See **Center Display** (page 310).

You can do the following in the Software Updates menu:

- Switch Automatic Updates on and off.
- Schedule and install software updates.
- View software update details.



Press the button next to a menu option for more information.

Vehicle Software Updates

Switching Automatic Updates On and Off

Your vehicle may come with Automatic Updates switched on or off.

Switch Automatic Updates on. When Automatic Updates is set to on, you agree that software updates may be automatically delivered without any further notice or additional consent from you.

To make sure your vehicle always has the latest software, which could include security or other enhancements, we recommend switching Automatic Updates On.

Note: *Software updates require approval to download or install with Automatic Updates switched off.*

Scheduling and Installing Software Updates

Scheduling Software Updates

From the Software Updates menu:

1. Press Recurring Schedule.
2. Select from the list of available timings or set a custom schedule.

The more days that updates are scheduled, the more frequently your vehicle installs new updates. We recommend selecting a time you normally do not need your vehicle.

Note: *The schedule you set is recurring. If Automatic Updates is on, every time a non-drivable update is available, it installs on this schedule unless you change it. You are notified on your touchscreen prior to a non-drivable update, with an option to reschedule it.*

Installing Software Updates

Using the Status Bar

1. Press the Software Update indicator on your touchscreen when it appears.

2. Follow the instructions on the touchscreen.

Using the Touchscreen

From the Software Updates menu:

1. Press Updates Details.
2. Press Update Now.

Viewing Software Update Details

From the Software Updates menu, press Update Details.

SOFTWARE UPDATE INDICATORS

You can press the indicators in the status bar when they appear for more information.



Vehicle software update reminder, schedule required, confirmation of default schedule required, or consent required.



Vehicle software update canceled, update not successful, or precondition not met.



Vehicle software update successful.

Vehicle System Reset

PERFORMING A SYSTEM RESET

1. Press Settings on the touchscreen.
2. Press General.
3. Press Reset.

You can perform multiple resets from this menu.



Press the button next to a menu option for more information.

Accessories

For a complete listing of the accessories that are available for your vehicle, please contact your authorized dealer or visit the online store web site:

United States of America



For more information scan here or visit:

<https://www.ford.com/accessories>

Canada



For more information scan here or visit:

<https://accessories.ford.ca>

We will repair or replace any properly authorized dealer-installed Ford 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.

We will warrant your Ford Original Accessory 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.

Ford Licensed Accessories are the accessory manufacturer's designs. The manufacturer develops and therefore warrants Ford Licensed Accessories, and does not design or test these accessories to Ford Motor Company engineering requirements. Contact an authorized Ford dealer for the manufacturer's limited warranty details, and request a copy of the Ford 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). Ask 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 Federal Communications Commission (FCC) and Canadian Radio Telecommunications Commission (CRTC) regulations and should be installed only by an authorized dealer.

Accessories

- An authorized dealer needs to install mobile communications systems. Improper installation may harm the operation of your vehicle, particularly if the manufacturer did not design the mobile communication system specifically for automotive use.
- If you or an authorized Ford dealer add any non-Ford 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.

Scheduled Maintenance

Intelligent Oil-Life Monitor®

Your vehicle has an Intelligent Oil-Life Monitor that determines when you should change the engine oil based on how you use your vehicle. 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.

Maintenance Intervals

Note: *You must use the proper replacement parts or you may void your vehicle warranty.*

At Every Oil Change Interval as Indicated by the Information Display¹
Change the engine oil and filter. ²
Inspect the dry sump drive belt.
Rotate the tires, inspect tire wear and measure the tread depth.
Perform a multi-point inspection, recommended.
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 intercooler and intercooler coolant.
Inspect the driveshaft, CV joints and boots.
Inspect the half-shaft boots.
Check the hydraulic fluid level.
Inspect the steering linkage, ball joints, suspension, tie-rod ends, driveshaft and U-joints. Lubricate any areas with grease fittings.
Inspect the wheels and related components for abnormal noise, wear, looseness or drag.
Inspect cabin air filter if equipped, service as required.
Inspect engine air filter, service as required.

¹ Do not exceed one year or 5,000 mi (8,000 km) between service intervals.

² Reset the Intelligent Oil-Life Monitor after the engine oil and filter changes.

Scheduled Maintenance

Brake Fluid Maintenance¹

Every three years.	Change the brake fluid. ²
--------------------	--------------------------------------

¹ Perform this maintenance item every three years. Do not exceed the designated time for the interval.

² Brake fluid servicing requires special equipment available at your authorized dealer.

Other Maintenance Items¹

Every 10,000 mi (16,000 km)	Grease the front sway bar bushings. ⁵
Every 20,000 mi (32,000 km)	Inspect the intercooler and the intercooler coolant. Inspect the supercharger drive belt. Replace the cabin air filter. Replace the dual clutch transmission side filter and top off fluid with the dual clutch transmission fill procedure.
Every 5 years or 15,000 mi (24,000 km)	Replace the dry sump drive belt.
Every 30,000 mi (48,000 km)	Replace the engine air filter.
Every 40,000 mi (64,000 km)	Change the dual clutch transmission fluid and side filter. ²
Every 50,000 mi (80,400 km)	Replace the fuel filter.
Every 10 years or 60,000 mi (96,000 km)	For severe service, replace the spark plugs. Change the hydraulic fluid and filter.
Every 100,000 mi (160,000 km)	Replace the spark plugs.
	Inspect the accessory drive belt(s). ³

Scheduled Maintenance

Other Maintenance Items ¹	
Every 150,000 mi (240,000 km)	Replace the accessory drive belt(s).
At 200,000 mi (322,000 km)	Change the engine coolant. ⁴

¹ Perform these maintenance items within 3,000 mi (4,800 km) of the last engine oil and filter change. Do not exceed the designated distance for the interval.

² The large main dual clutch transmission filter does not need to be serviced.

³ After initial inspection, inspect every other oil change until replaced.

⁴ Initial replacement at 10 years or 200,000 mi (322,000 km), then every five years or 100,000 mi (160,000 km).

⁵ Use Prothane 191751 grease or equivalent.

Exceptions

There are several exceptions to the schedule:

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 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.

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.

Scheduled Maintenance

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.

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 has an intelligent oil-life monitor that determines oil life based on engine operating conditions.

- Under normal operating conditions, a message appears in the instrument cluster display to indicate the regular oil change interval.
- Under severe operating conditions, the oil change interval may reduce, and the message interval may adjust.

High performance vehicles can be driven in such a way that may lead to higher oil consumption (this includes extended time at high engine speeds, high loads, engine braking, hard cornering maneuvers, and track use). Under these conditions, oil consumption of approximately 1 quart per 500 miles (1 liter per 800 km) is possible. As a result, you need to check the engine oil level at every refueling and adjust to maintain the proper level, and to avoid engine damage.

Note: *Oil level should not exceed the maximum mark on the indicator. See **Checking the Engine Oil Level** (page 220).*

Your vehicle can be driven in such a way that dilutes and increases the level of oil by short trips that do not allow the engine to get to operating temperature, extended idling, and low speed driving for long periods of time.

Scheduled Maintenance

When the oil change message appears in the instrument cluster display, it is time for an oil change. Make sure you perform the oil change within two weeks or 500 mi (800 km) of the message appearing. Make sure you reset the Intelligent Oil-Life Monitor after each oil change. See **Resetting the Intelligent Oil Life Monitor** (page 221).

If your instrument cluster display resets prematurely or becomes inoperative, you should perform the oil change interval at six months or 5,000 mi (8,000 km) from your last oil change. Never exceed one year or 10,000 mi (16,000 km) 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 immediately inspect discolored fluids that also show signs of overheating or foreign material contamination.

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.

Scheduled Maintenance Service Intervals

For your scheduled maintenance service intervals, visit <https://www.ford.com/support/maintenance-schedule>.



Scheduled Maintenance

Owner Checks and Services

maintenance checks and inspections every month or at six-month intervals.

Make sure you perform the following basic

Check every month
Engine oil level.
For severe use, high engine speed and engine loads, engine braking and track use, check engine oil level every fuel fill-up.
Function of all interior and exterior lights.
Tires, 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.
Seatbelts and seat latches for wear and function.
Safety warning lamps operation for brake, ABS, airbag and seatbelt.
Washer spray and wiper operation. Clean or replace blades as necessary.

Owner Checks and Services

Make sure you perform the following basic maintenance checks and inspections every month or at six-month intervals.

Scheduled Maintenance

Check Every Month
Engine oil level (normal vehicle use).
For severe use, (high engine speed and engine loads, engine braking and track use) check engine oil level every fuel fill-up.
Function of all interior and exterior lights.
Tires; 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.
Seatbelts and seat latches for wear and function.
Safety warning lamps (brake, ABS, airbag and seatbelt) 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.

Scheduled Maintenance

Multi-Point Inspection	
Accessory drive belt(s)	Horn operation
Battery performance	Intercooler
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 ¹ ; fill if necessary	Tires; for wear and proper pressure ²
For oil and fluid leaks	Windshield for cracks, chips or pits
Half-shaft dust boots	Washer spray and wiper operation
Hazard warning system operation	

¹ Brake, coolant recovery reservoir and window washer.

² 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.

Severe Driving Conditions

A vehicle that is driven for short trips of less than 5–10 mi (8–16 km), driving in temperatures greatly below or above average, track use, driving in any dusty conditions, idling more than recommended such as in traffic, and driving with a heavy load or while towing a load are considered severe driving conditions. If you drive your vehicle in any of these conditions, follow the severe service maintenance items listed in the scheduled maintenance chart.

Customer Information

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 will provide 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.

Allow a reasonable time to perform a repair after taking your vehicle to the authorized dealer. Repairs will be made using Ford or Motorcraft® parts, or remanufactured or other parts that are authorized by Ford.

Away From Home

If you are away from home when your vehicle needs service, contact the Ford Customer Relationship Center or use the online resources listed below to find the nearest authorized dealer. See **Contacting Us** (page 12).

Additional information and resources are available online:

Market	Website
United States	www.ford.com/support
Canada	www.ford.ca/help/contact



These are some of the items that you can find online:

- U.S. dealer locator by Dealer Name, City/State or Zip Code.
- Owner Manuals.
- Maintenance Schedules.
- Recalls.

- Ford Extended Service Plans.
- Ford Genuine Accessories.
- Service specials and promotions.

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 Ford Motor Company policies, please contact the Ford Customer Relationship Center. See **Contacting Us** (page 12).

Customer Information

In order to help us serve you better, please have the following information available when contacting a Customer 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 within the United States, you need to directly notify Ford in writing before pursuing remedies under your state's warranty laws, and Ford is also allowed a final repair attempt.

Additionally, in some states within the United States, a consumer has the option of submitting a warranty dispute 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 18,000 mi (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

Customer Information

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.

California Lemon Law

Notification requirements in California. Ford and your Ford dealer place a high priority on your satisfaction with our performance. If you are not satisfied with our resolution of a warranty concern and you would like to seek a civil penalty from Ford, you must follow these steps under California law (Cal. Code Civ. Proc., §871.24(a)-(d)):

At least 30 days before filing a lawsuit seeking civil penalties (Civ. Code § 1794(c)), you must:

1. Notify Ford of your name and the name(s) of any other vehicle owner(s), the accurate Vehicle Identification Number ("VIN") of your motor vehicle, and a brief summary of the repair history and problems with your motor vehicle, and
2. Demand that Ford repurchase or replace your motor vehicle.

When you submit the notice to Ford, you must have possession of your motor vehicle.

Your notice to Ford must be in writing and must be sent either by email to LLNOTICE@ford.com or by certified or registered mail, return receipt requested, to:

Ford Motor Company

Office of General Counsel

Attn: California LL Notice

One American Road

Dearborn, MI 48126

Customer Information

THE BETTER BUSINESS BUREAU AUTO LINE PROGRAM

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 considers the testimony provided and makes a decision after the hearing.

Disputes submitted to the BBB AUTO LINE program are usually decided within 40 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 that follows, 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 needs to be completed, signed and returned to the BBB along with proof of ownership. Upon receipt, the BBB reviews 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 a Division of BBB National Programs, Inc.
1676 International Drive, Suite 550
McLean, VA 22102**

BBB AUTO LINE applications can also be requested by calling the Ford Motor Company Customer Relationship Center at 1-800-392-3673.

For additional information, refer to the Better Business Bureau website.

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.*

THE MEDIATION AND ARBITRATION PROGRAM

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).

Customer Information

The CAMVAP program is a straightforward 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 or petrol/gas engines or the proper sulfur fuel for diesel engines.

If you cannot find the proper fuel recommended for your vehicle, contact our Customer Relationship Center.

The use of improper fuels 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 improper fuels 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 and/or Puerto Rico, Central America, the Caribbean, and Israel and the Middle East, contact the nearest authorized dealer. If the authorized dealer cannot help you, contact the corresponding Ford Relationship Center or Lincoln Client Relationship. See **Contacting Us** (page 12).

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 Global Trade Services by emailing, expcso@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 mentioned.

Customer Information

REPORTING SAFETY DEFECTS IN THE UNITED STATES

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 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 www.safercar.gov.

REPORTING SAFETY DEFECTS IN CANADA

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 (English)	https://tc.canada.ca/recalls
Website (French)	http://tc.canada.ca/rappels
Phone	1-800-333-0510

Ford of Canada Contact Information	
Website	https://www.ford.ca
Phone	1-800-565-3673

THIRD PARTY SOFTWARE COPYRIGHT ACKNOWLEDGMENT

Your vehicle could have components that use open source software. For additional information, visit <http://corporate.ford.com/ford-open-source.html>.

RADIO FREQUENCY CERTIFICATION LABELS

You can locate radio frequency certification labels and declarations of conformity for components on your vehicle at your local Ford or Lincoln website along with your owner information.

For more information scan here:



<https://corporate.ford.com/operations/locations/global-links.html>

PERCHLORATE

Certain components in your vehicle such as airbag modules, seatbelt 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:

dtsc.ca.gov/perchlorate

REPLACEMENT PARTS RECOMMENDATION

We have built your vehicle 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.

Collision Repairs

We hope that you never experience a collision, but accidents happen sometimes.

Genuine Ford replacement collision parts meet our stringent requirements for fit, finish, structural integrity, corrosion protection and dent resistance. During vehicle development we validate that 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 Ford Warranty.

Customer Information

The Ford Warranty may not cover damage caused to your vehicle as a result of failed non-Ford parts.

For additional information, refer to the terms and conditions of the Ford Warranty.

MOBILE COMMUNICATIONS EQUIPMENT



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.

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 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.

FEDERAL HIGHWAY ADMINISTRATION REGULATION

Regulations such as those issued by the Federal Highway Administration or issued pursuant to the Occupational Safety and Health Act (OSHA), and state and local laws and regulations may require additional equipment for the way you intend to use your vehicle. It is the responsibility of the registered owner to determine the applicability of such laws and regulations to your intended use for the vehicle, and to arrange for the installation of required equipment. The dealer has information about the availability of equipment which can be ordered for your vehicle.

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.

Customer Information

- **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.

Customer Information

- **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.

Customer Information

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

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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.

Customer Information

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 PARTICULAR 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.

Customer Information

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

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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.

(g) 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 without notice to you. You agree to visit the TeleNav website from time to time to review the then current version of this Agreement and of the privacy policy.

<https://www.telenav.com>

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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).

You agree to indemnify and hold TeleNav harmless against all claims resulting from any dangerous or otherwise inappropriate use of the TeleNav Software in any moving vehicle, including as a result of your failure to comply with the directions above.

2. Account Information

You agree: (a) when registering the TeleNav Software, to provide TeleNav with true, accurate, current, and complete information about yourself, and (b) to inform TeleNav promptly of any changes to such information, and to keep it true, accurate, current and complete.

3. Software License

- Subject to your compliance with the terms of this Agreement, TeleNav hereby grants to you a personal, non-exclusive, non-transferable license (except as expressly permitted below in connection with your permanent transfer of the TeleNav Software license), without the right to sublicense, to use the TeleNav Software (in object code form only) in order to access and use the TeleNav Software. This license shall terminate upon any termination or expiration of this Agreement. You agree that you will use the TeleNav Software only for your personal business or leisure purposes, and not to provide commercial navigation services to other parties.

3.1 License Limitations

- **(a)** reverse engineer, decompile, disassemble, translate, modify, alter or otherwise change the TeleNav Software or any part thereof; **(b)** attempt to derive the source code, audio library or structure of the TeleNav Software without the prior express written consent of TeleNav; **(c)** remove from the TeleNav Software, or alter, any of TeleNav's or

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its suppliers' trademarks, trade names, logos, patent or copyright notices, or other notices or markings; **(d)** distribute, sublicense or otherwise transfer the TeleNav Software to others, except as part of your permanent transfer of the TeleNav Software; or **(e)** use the TeleNav Software in any manner that

- i. infringes the intellectual property or proprietary rights, rights of publicity or privacy or other rights of any party,
- ii. violates any law, statute, ordinance or regulation, including but not limited to laws and regulations related to spamming, privacy, consumer and child protection, obscenity or defamation, or
- iii. is harmful, threatening, abusive, harassing, tortuous, defamatory, vulgar, obscene, libelous, or otherwise objectionable; and (f) lease, rent out, or otherwise permit unauthorized access by third parties to the TeleNav Software without advanced written permission of TeleNav.

4. Disclaimers

- To the fullest extent permissible pursuant to applicable law, in no event will TeleNav, its licensors and suppliers, or agents or employees of any of the foregoing, be liable for any decision made or action taken by you or anyone else in reliance on the information provided by the TeleNav Software. TeleNav also does not warrant the accuracy of the map or other data used for the TeleNav Software. Such data may not always reflect reality due to, among other things, road closures, construction, weather, new roads and other changing conditions. You are responsible for the entire risk arising out of your use of the TeleNav Software. For example but without limitation, you agree not to rely on the

TeleNav Software for critical navigation in areas where the well-being or survival of you or others is dependent on the accuracy of navigation, as the maps or functionality of the TeleNav Software are not intended to support such high risk applications, especially in more remote geographical areas.

- TELENNAV EXPRESSLY DISCLAIMS AND EXCLUDES ALL WARRANTIES IN CONNECTION WITH THE TELENNAV SOFTWARE, WHETHER STATUTORY, EXPRESS OR IMPLIED, INCLUDING ALL WARRANTIES WHICH MAY ARISE FROM COURSE OF DEALING, CUSTOM OR TRADE AND INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT OF THIRD PARTY RIGHTS WITH RESPECT TO THE TELENNAV SOFTWARE.
- Certain jurisdictions do not permit the disclaimer of certain warranties, so this limitation may not apply to you.

5. Limitation of Liability

- TO THE EXTENT PERMITTED UNDER APPLICABLE LAW, UNDER NO CIRCUMSTANCES SHALL TELENNAV OR ITS LICENSORS AND SUPPLIERS BE LIABLE TO YOU OR TO ANY THIRD PARTY FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL OR EXEMPLARY DAMAGES (INCLUDING IN EACH CASE, BUT NOT LIMITED TO, DAMAGES FOR THE INABILITY TO USE THE EQUIPMENT OR ACCESS DATA, LOSS OF DATA, LOSS OF BUSINESS, LOSS OF PROFITS, BUSINESS INTERRUPTION OR THE LIKE) ARISING OUT OF THE USE OF OR INABILITY TO USE THE TELENNAV SOFTWARE, EVEN IF TELENNAV HAS BEEN ADVISED OF THE

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POSSIBILITY OF SUCH DAMAGES. NOTWITHSTANDING ANY DAMAGES THAT YOU MIGHT INCUR FOR ANY REASON WHATSOEVER (INCLUDING, WITHOUT LIMITATION, ALL DAMAGES REFERENCED HEREIN AND ALL DIRECT OR GENERAL DAMAGES IN CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE), THE ENTIRE LIABILITY OF TELENV AND OF ALL OF TELENV'S SUPPLIERS SHALL BE LIMITED TO THE AMOUNT ACTUALLY PAID BY YOU FOR THE TELENV SOFTWARE. SOME STATES AND/OR JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

6. Arbitration and Governing Law

- You agree that any dispute, claim or controversy arising out of or relating to this Agreement or the TeleNav Software shall be settled by independent arbitration involving a neutral arbitrator and administered by the American Arbitration Association in the County of Santa Clara, California. The arbitrator shall apply the Commercial Arbitration Rules of the American Arbitration Association, and the judgment upon the award rendered by the arbitrator may be entered by any court having jurisdiction. Note that there is no judge or jury in an arbitration proceeding and the decision of the arbitrator shall be binding upon both parties. You expressly agree to waive your right to a jury trial. This Agreement and performance hereunder will be governed by and construed in accordance with the laws of the State of California, without giving effect to its conflict of law provisions. To the extent judicial action is necessary in connection with the binding arbitration,

both TeleNav and you agree to submit to the exclusive jurisdiction of the courts of the County of Santa Clara, California. The United Nations Convention on Contracts for the International Sale of Goods shall not apply.

7. Assignment

- You may not resell, assign, or transfer this Agreement or any of your rights or obligations, except in totality, in connection with your permanent transfer of the TeleNav Software, and expressly conditioned upon the new user of the TeleNav Software agreeing to be bound by the terms and conditions of this Agreement. Any such sale, assignment or transfer that is not expressly permitted under this paragraph will result in immediate termination of this Agreement, without liability to TeleNav, in which case you and all other parties shall immediately cease all use of the TeleNav Software. Notwithstanding the foregoing, TeleNav may assign this Agreement to any other party at any time without notice, provided the assignee remains bound by this Agreement.

8. Miscellaneous

8.1

This Agreement constitutes the entire agreement between TeleNav and you with respect to the subject matter hereof.

8.2

Except for the limited licenses expressly granted in this Agreement, TeleNav retains all right, title and interest in and to the TeleNav Software, including without limitation all related intellectual property rights. No licenses or other rights which are not expressly granted in this Agreement are intended to, or shall be, granted or

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conferred by implication, statute, inducement, estoppel or otherwise, and TeleNav and its suppliers and licensors hereby reserve all of their respective rights other than the licenses explicitly granted in this Agreement.

8.3

By using the TeleNav Software, you consent to receive from TeleNav all communications, including notices, agreements, legally required disclosures or other information in connection with the TeleNav Software (collectively, "Notices") electronically. TeleNav may provide such Notices by posting them on TeleNav's Website or by downloading such Notices to your wireless device. If you desire to withdraw your consent to receive Notices electronically, you must discontinue your use of the TeleNav Software.

8.4

TeleNav's or your failure to require performance of any provision shall not affect that party's right to require performance at any time thereafter, nor shall a waiver of any breach or default of this Agreement constitute a waiver of any subsequent breach or default or a waiver of the provision itself.

8.5

If any provision herein is held unenforceable, then such provision will be modified to reflect the intention of the parties, and the remaining provisions of this Agreement will remain in full force and effect.

8.6

The headings in this Agreement are for convenience of reference only, will not be deemed to be a part of this Agreement, and will not be referred to in connection with the construction or interpretation of this Agreement. As used in this Agreement, the words "include" and "including" and variations thereof, will not be deemed to be terms of limitation, but rather will be deemed to be followed by the words "without limitation".

9. Other Vendors Terms and Conditions

- The Telenav Software utilizes map and other data licensed to Telenav by third party vendors for the benefit of you and other end users. This Agreement includes end-user terms applicable to these companies (included at the end of this Agreement), and thus your use of the Telenav Software is also subject to such terms. You agree to comply with the following additional terms and conditions, which are applicable to Telenav's third party vendor licensors.

9.1 End User Terms Required by HERE North America, LLC

The data ("Data") is provided for your personal, internal use only and not for resale. It is protected by copyright, and is subject to the following terms and conditions which are agreed to by you, on the one hand, and Telenav ("Telenav") and its licensors (including their licensors and suppliers) on the other hand.

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The Data for Mexico includes certain data from Instituto Nacional de Estadística y Geografía.

9.2 End User Terms Required by NAV2 (Shanghai) Co., Ltd

The data ("Data") is provided for your personal, internal use only and not for resale. It is protected by copyright, and is subject to the following terms and conditions which are agreed to by you, on the one hand, and NAV2 (Shanghai) Co., Ltd ("NAV2") and its licensors (including their licensors and suppliers) on the other hand. 20xx. All rights reserved

Terms and Conditions

Permitted Use. You agree to use this Data together with the Telenav Software solely for the internal business and personal purposes for which you were licensed, and not for service bureau, time-sharing or other similar purposes. Accordingly, but subject to the restrictions set forth in the following paragraphs, you agree not to otherwise reproduce, copy, modify, decompile, disassemble, create any derivative works of, or reverse engineer any portion of this Data, and may not transfer or distribute it in any form, for any purpose, except to the extent permitted by mandatory laws.

Restrictions. Except where you have been specifically licensed to do so by Telenav, and without limiting the preceding paragraph, you may not use this Data (a) with any products, systems, or applications installed or otherwise connected to or in communication with vehicles, capable of vehicle navigation, positioning, dispatch, real time route guidance, fleet management or similar applications; or (b) with or in communication with any positioning devices or any mobile or wireless-connected electronic or computer devices, including without limitation cellular phones, palmtop and handheld computers, pagers, and personal digital assistants or PDAs.

Warning. The Data may contain inaccurate or incomplete information due to the passage of time, changing circumstances, sources used and the nature of collecting comprehensive geographic data, any of which may lead to incorrect results.

No Warranty. This Data is provided to you "as is," and you agree to use it at your own risk. Telenav and its licensors (and their licensors and suppliers) make no guarantees, representations or warranties of any kind, express or implied, arising by law or otherwise, including but not limited to, content, quality, accuracy, completeness, effectiveness, reliability, fitness for a particular purpose, usefulness, use or results to be obtained from this Data, or that the Data or server will be uninterrupted or error-free.

Disclaimer of Warranty: TELENAV AND ITS LICENSORS (INCLUDING THEIR LICENSORS AND SUPPLIERS) DISCLAIM ANY WARRANTIES, EXPRESS OR IMPLIED, OF QUALITY, PERFORMANCE, MERCHANTABILITY, FITNESS FOR A

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PARTICULAR PURPOSE OR NON-INFRINGEMENT. Some States, Territories and Countries do not allow certain warranty exclusions, so to that extent the above exclusion may not apply to you.

Disclaimer of Liability: TELENAV AND ITS LICENSORS (INCLUDING THEIR LICENSORS AND SUPPLIERS) SHALL NOT BE LIABLE TO YOU: IN RESPECT OF ANY CLAIM, DEMAND OR ACTION, IRRESPECTIVE OF THE NATURE OF THE CAUSE OF THE CLAIM, DEMAND OR ACTION ALLEGING ANY LOSS, INJURY OR DAMAGES, DIRECT OR INDIRECT, WHICH MAY RESULT FROM THE USE OR POSSESSION OF THE INFORMATION; OR FOR ANY LOSS OF PROFIT, REVENUE, CONTRACTS OR SAVINGS, OR ANY OTHER DIRECT, INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF YOUR USE OF OR INABILITY TO USE THIS INFORMATION, ANY DEFECT IN THE INFORMATION, OR THE BREACH OF THESE TERMS OR CONDITIONS, WHETHER IN AN ACTION IN CONTRACT OR TORT OR BASED ON A WARRANTY, EVEN IF TELENAV OR ITS LICENSORS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Some States, Territories and Countries do not allow certain liability exclusions or damages limitations, so to that extent the above may not apply to you.

Export Control. You shall not export from anywhere any part of the Data or any direct product thereof except in compliance with, and with all licenses and approvals required under, applicable export laws, rules and regulations, including but not limited to the laws, rules and regulations administered by the Office of Foreign Assets Control of the U.S. Department of Commerce and the Bureau of Industry and Security of the U.S. Department of Commerce. To the extent that any such

export laws, rules or regulations prohibit HERE from complying with any of its obligations hereunder to deliver or distribute Data, such failure shall be excused and shall not constitute a breach of this Agreement.

Entire Agreement. These terms and conditions constitute the entire agreement between Telenav (and its licensors, including their licensors and suppliers) and you pertaining to the subject matter hereof, and supersedes in their entirety any and all written or oral agreements previously existing between us with respect to such subject matter.

Governing Law. The above terms and conditions shall be governed by the laws of the State of Illinois [insert "Netherlands" where European HERE Data is used], without giving effect to (i) its conflict of laws provisions, or (ii) the United Nations Convention for Contracts for the International Sale of Goods, which is explicitly excluded. You agree to submit to the jurisdiction of the State of Illinois [insert "The Netherlands" where European HERE Data is used] for any and all disputes, claims and actions arising from or in connection with the Data provided to you hereunder.

Government End Users. If the Data is being acquired by or on behalf of the United States government or any other entity seeking or applying rights similar to those customarily claimed by the United States government, this Data is a "commercial item" as that term is defined at 48 C.F.R. ("FAR") 2.101, is licensed in accordance with these End-User Terms, and each copy of Data delivered or otherwise furnished shall be marked and embedded as appropriate with the following "Notice of Use," and shall be treated in accordance with such Notice:

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NOTICE OF USE

CONTRACTOR (MANUFACTURER/
SUPPLIER) NAME: HERE

CONTRACTOR (MANUFACTURER/
SUPPLIER) ADDRESS: c/o Nokia, 425
West Randolph Street, Chicago, Illinois
60606

This Data is a commercial item as
defined in FAR 2.101 and is subject to
these End-User Terms under which this
Data was provided.

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If the Contracting Officer, federal government agency, or any federal official refuses to use the legend provided herein, the Contracting Officer, federal government agency, or any federal official must notify HERE prior to seeking additional or alternative rights in the Data.

I. US/Canada Territory

A. United States Data. The End-User Terms for any Application containing Data for the United States shall contain the following notices:

"HERE holds a non-exclusive license from the United States Postal Service® to publish and sell ZIP+4® information."

"©United States Postal Service® 20XX. Prices are not established, controlled or approved by the United States Postal Service®. The following trademarks and registrations are owned by the USPS: United States Postal Service, USPS, and ZIP+4."

B. Canada Data. The following provisions apply to the Data for Canada, which may include or reflect data from third party licensors ("Third Party Data"), including Her Majesty the Queen in Right of Canada ("Her Majesty"), Canada Post Corporation ("Canada Post") and the Department of Natural Resources of Canada ("NRCan"):

1. Disclaimer and Limitation: Client agrees that its use of the Third Party Data is subject to the following provisions:

a. Disclaimer: The Third Party Data is licensed on an "as is" basis. The licensors of such data, including Her Majesty, Canada Post and NRCan, make no guarantees, representations or warranties respecting such data, either express or implied, arising by law or otherwise, including but not limited to, effectiveness, completeness, accuracy or fitness for a particular purpose.

b. Limitation on Liability: The Third Party Data licensors, including Her Majesty, Canada Post and NRCan, shall not be liable: (i) in respect of any claim, demand or action, irrespective of the nature of the cause of the claim, demand or action alleging any loss, injury or damages, direct or indirect, which may result from the use or possession of such Data; or (ii) in any way for loss of revenues or contracts, or any other consequential loss of any kind resulting from any defect in the Data.

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2. Copyright Notice: In connection with each copy of all or any portion of the Data for the Territory of Canada, Client shall affix in a conspicuous manner the following copyright notice on at least one of: (i) the label for the storage media of the copy; (ii) the packaging for the copy; or (iii) other materials packaged with the copy, such as user manuals or end user license agreements: "This data includes information taken with permission from Canadian authorities, including © Her Majesty the Queen in Right of Canada, © Queen's Printer for Ontario, © Canada Post Corporation, GeoBase®, © The Department of Natural Resources Canada. All rights reserved."

3. End-User Terms: Except as otherwise agreed by the parties, in connection with the provision of any portion of the Data for the Territory of Canada to End-Users as may be authorized under the Agreement, Client shall provide such End-Users, in a reasonably conspicuous manner, with terms (set forth with other end user terms required to be provided under the Agreement, or as otherwise may be provided, by Client) which shall include the following provisions on behalf of the Third Party Data licensors, including Her Majesty, Canada Post and NRCan:

The Data may include or reflect data of licensors, including Her Majesty the Queen in the Right of Canada ("Her Majesty"), Canada Post Corporation ("Canada Post") and the Department of Natural Resources Canada ("NRCan"). Such data is licensed on an "as is" basis. The licensors, including Her Majesty, Canada Post and NRCan, make no guarantees, representations or warranties respecting such data,

either express or implied, arising by law or otherwise, including but not limited to, effectiveness, completeness, accuracy or fitness for a particular purpose. The licensors, including Her Majesty, Canada Post and NRCan, shall not be liable in respect of any claim, demand or action, irrespective of the nature of the cause of the claim, demand or action alleging any loss, injury or damages, direct or indirect, which may result from the use or possession of the data or the Data. The licensors, including Her Majesty, Canada Post and NRCan, shall not be liable in any way for loss of revenues or contracts, or any other consequential loss of any kind resulting from any defect in the data or the Data.

End User shall indemnify and save harmless the licensors, including Her Majesty, Canada Post and NRCan, and their officers, employees and agents from and against any claim, demand or action, irrespective of the nature of the cause of the claim, demand or action, alleging loss, costs, expenses, damages or injuries (including injuries resulting in death) arising out of the use or possession of the data or the Data.

4. Additional Provisions: The terms contained in this Section are in addition to all of the rights and obligations of the parties under the Agreement. To the extent that any of the provisions of this Section are inconsistent with, or conflict with, any other provisions of the Agreement, the provisions of this Section shall prevail.

Customer Information

II. Mexico. The following provision applies to the Data for Mexico, which includes certain data from the Instituto Nacional de Estadística y Geografía (“INEGI”):

A. Any and all copies of the Data and/or packaging containing Data for Mexico shall contain the following notice: “Fuente: INEGI (Instituto Nacional de Estadística y Geografía)”

III. Latin America Territory

A. Third Party Notices. Any and all copies of the Data and/or packaging relating thereto shall include the respective Third Party Notices set forth below and used as described below corresponding to the Territory (or portion thereof) included in such copy:

Territory	Notice
Argentina	IGN “INSTITUTO GEOGRAFICO NACIONAL ARGENTINO”
Ecuador	“INSTITUTO GEOGRAFICO MILITAR DEL ECUADOR AUTORIZACION N° IGM-2011-01- PCO-01 DEL 25 DE ENERO DE 2011” “source: © IGN 2009 - BD TOPO ®”
Guadeloupe, French Guiana and Martinique Mexico	“Fuente: INEGI (Instituto Nacional de Estadística y Geografía)”

IV. Middle East Territory

A. Third Party Notices. Any and all copies of the Data and/or packaging relating thereto shall include the respective Third Party Notices set forth below and used as described below corresponding to the Territory (or portion thereof) included in such copy:

Country	Notice
Jordan	“© Royal Jordanian Geographic Centre”. The foregoing notice requirement for Jordan Data is a material term of the Agreement. If Client or any of its permitted sublicensees (if any) fail to meet such requirement, HERE shall have the right to terminate Client’s license with respect to the Jordan Data.

B. Jordan Data. Client and its permitted sublicensees (if any) are restricted from licensing and/or otherwise distributing HERE’s database for the country of Jordan (“Jordan Data”) for use in Enterprise Applications to (i) non-Jordanian entities for use of the Jordan Data solely in Jordan or (ii) Jordan-based customers. In addition, Client, its permitted sublicensees (if any) and End-Users are restricted from using the Jordan Data in Enterprise Applications if such party is (i) a non-Jordanian entity using the Jordan Data solely in Jordan or (ii) a Jordan-based customer. For purposes of the foregoing, “Enterprise Applications” shall mean Geomarketing applications, GIS applications, mobile business asset management applications, call center applications, telematics applications, public organization Internet applications or for providing geocoding services.

Customer Information

V. Europe Territory

A. Use of Certain Traffic Codes in Europe

1. General Restrictions Applicable to Traffic Codes. Client acknowledges and agrees that in certain countries of the Europe Territory, Client will need to obtain rights directly from third party RDS-TMC code providers to receive and use the Traffic Codes in the Data and to deliver to End-Users Transactions in any way derived from or based on such Traffic Codes. For such countries, HERE shall deliver the Data incorporating Traffic Codes to Client only after receiving certification from Client of its having obtained such rights.

2. Display of Third Party Rights Legends for Belgium. Client shall, for each Transaction that uses Traffic Codes for Belgium, provide the following notice to the End-User: "Traffic Codes for Belgium are provided by the Ministerie van de Vlaamse Gemeenschap and the Ministère de l'Équipement et des Transports."

B. Paper Maps. With respect to any license granted to Client relating to making, selling or distributing paper maps (i.e., a map fixed on a paper or paper-like medium): (a) such license with respect to Data for the Territory of Great Britain is conditioned on Client's entering into and complying with a separate written agreement with the Ordnance Survey ("OS") to create and sell paper maps, Client's paying to the OS any and all applicable paper map royalties, and Client's complying with the OS copyright notice requirements; (b) such license for selling or otherwise distributing for charge with respect to Data for the Territory of Czech Republic

is conditioned on Client's obtaining prior written consent from Kartografie a.s.; (c) such license for selling or distributing with respect to Data for the Territory of Switzerland is conditioned on Client's obtaining a permit from Bundesamt für Landestopografie of Switzerland; (d) Client is restricted from using Data for the Territory of France to create paper maps with a scale between 1:5,000 and 1:250,000; and (e) Client is restricted from using any Data to create, sell or distribute paper maps that are the same or substantially similar, in terms of data content and specific use of color, symbols and scale, to paper maps published by the European national mapping agencies, including without limitation, Landvermessungsämter of Germany, Topografische Dienst of the Netherlands, Nationaal Geografisch Instituut of Belgium, Bundesamt für Landestopografie of Switzerland, Bundesamt für Eich-und Vermessungswesen of Austria, and the National Land Survey of Sweden.

C. OS Enforcement. Without limiting Section IV(B) above, with respect to Data for the Territory of Great Britain, Client acknowledges and agrees that the Ordnance Survey ("OS") may bring a direct action against Client to enforce compliance with the OS copyright notice (see Section IV(D) below) and paper map requirements (see Section IV(B) above) contained in this Agreement.

D. Third Party Notices. Any and all copies of the Data and/or packaging relating thereto shall include the respective Third Party Notices set forth below and used as described below corresponding to the Territory (or portion thereof) included in such copy:

Country(ies) Notice

Customer Information

Austria	"© Bundesamt für Eich- und Vermessungswesen"	Spain	"Información geográfica propiedad del CNIG"
Croatia Cyprus, Estonia, Latvia, Lithuania, Moldova, Poland, Slovenia and/or Ukraine	"© EuroGeographics"	Sweden	"Based upon electronic data © National Land Survey Sweden."
France	"source: © IGN 2009 – BD TOPO ®"	Switzerland	"Topografische Grundlage: © Bundesamt für Landestopographie."
Germany	"Die Grundlagendaten wurden mit Genehmigung der zuständigen Behörden entnommen"	<p>E. Respective Country Distribution. Client acknowledges that HERE has not received approvals to distribute map data for the following countries in such respective countries: Albania, Belarus, Kyrgyzstan, Moldova and Uzbekistan. HERE may update such list from time to time. The license rights granted to Client under this TL with respect to the Data for such countries are contingent upon Client's compliance with all applicable laws and regulations, including, without limitation, any required licenses or approvals to distribute the Application incorporating such Data in such respective countries.</p>	
Great Britain	"Contains Ordnance Survey data © Crown copyright and database right 2010 Contains Royal Mail data © Royal Mail copyright and database right 2010"		
Greece	"Copyright Geomatics Ltd."		
Hungary	"Copyright © 2003; Top-Map Ltd."		
Italy	"La Banca Dati Italiana è stata prodotta usando quale riferimento anche cartografia numerica ed al tratto prodotta e fornita dalla Regione Toscana."		
Norway	"Copyright © 2000; Norwegian Mapping Authority"	<p>VI. Australia Territory</p> <p>A. Third Party Notices. Any and all copies of the Data and/or packaging relating thereto shall include the respective Third Party Notices set forth below and used as described below corresponding to the Territory (or portion thereof) included in such copy:</p> <p>Copyright. Based on data provided under license from PSMA Australia Limited.</p>	
Portugal	"Source: IgeoE – Portugal"		

Customer Information

Product incorporates data which is © 20XX Telstra Corporation Limited, GM Holden Limited, Intelomatics Australia Pty Ltd and Continental Pty Ltd.

B. Third Party Notices for Australia. In addition to the foregoing, the End-User Terms for any Application containing RDS-TMC Traffic Codes for Australia shall contain the following notice: "Product incorporates traffic location codes which is © 20XX Telstra Corporation Limited and its licensors."

<https://www.pdma.com.au>



AT&T Vehicle Network Carrier Telematics Disclosure

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ACTION, WHETHER FOR BREACH OF CONTRACT, WARRANTY, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, END USER'S EXCLUSIVE REMEDY FOR CLAIMS ARISING IN ANY WAY IN CONNECTION WITH THIS AGREEMENT, FOR ANY CAUSE WHATSOEVER, INCLUDING BUT NOT LIMITED TO ANY FAILURE OR DISRUPTION OF SERVICE PROVIDED HEREUNDER, IS LIMITED TO PAYMENT OF DAMAGES IN AN AMOUNT NOT TO EXCEED THE AMOUNT PAID BY END USER FOR THE SERVICES DURING THE TWO-MONTH PERIOD PRECEDING THE DATE THE CLAIM AROSE.

(ii) END USER AGREES TO INDEMNIFY AND HOLD HARMLESS THE UNDERLYING WIRELESS SERVICE CARRIER AND ITS OFFICERS, EMPLOYEES, AND AGENTS AGAINST ANY AND ALL CLAIMS, INCLUDING WITHOUT LIMITATION CLAIMS FOR LIBEL, SLANDER, OR ANY PROPERTY DAMAGE, PERSONAL INJURY OR DEATH, ARISING IN ANY WAY, DIRECTLY OR INDIRECTLY, IN CONNECTION WITH THIS AGREEMENT OR THE USE, FAILURE TO USE, OR INABILITY TO USE THE DEVICE EXCEPT WHERE THE CLAIMS RESULT FROM THE UNDERLYING CARRIER'S GROSS NEGLIGENCE OR WILLFUL MISCONDUCT. THIS INDEMNITY WILL SURVIVE THE TERMINATION OF THE AGREEMENT.

(iii) END USER HAS NO PROPERTY RIGHT IN ANY NUMBER ASSIGNED TO THE DEVICE.

(iv) END USER UNDERSTANDS THAT FORD AND THE UNDERLYING CARRIER CANNOT GUARANTEE THE SECURITY OF WIRELESS TRANSMISSIONS, AND WILL NOT BE LIABLE FOR ANY LACK OF SECURITY RELATING TO THE USE OF THE SERVICES

Customer Information

THE SERVICE IS FOR [END USER'S] USE ONLY AND END USER MAY NOT RESELL THE SERVICE TO ANY OTHER PARTY. END USER UNDERSTANDS THAT THE UNDERLYING CARRIER DOES NOT GUARANTEE ANY END USER UNINTERRUPTED SERVICE OR COVERAGE. THE UNDERLYING CARRIER DOES NOT WARRANT THAT END USERS CAN OR WILL BE LOCATED USING THE SERVICE. THE UNDERLYING CARRIER MAKES NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SUITABILITY, OR PERFORMANCE REGARDING ANY SERVICES OR GOODS, AND IN NO EVENT SHALL AT&T BE LIABLE, WHETHER OR NOT DUE TO ITS OWN NEGLIGENCE, FOR ANY: (A) ACT OR OMISSION OF A THIRD PARTY; (B) MISTAKES, OMISSIONS, INTERRUPTIONS, ERRORS, FAILURES TO TRANSMIT, DELAYS, OR DEFECTS IN THE SERVICE PROVIDED BY OR THROUGH THE UNDERLYING CARRIER; (C) DAMAGE OR INJURY CAUSED BY SUSPENSION OR TERMINATION BY THE UNDERLYING CARRIER; OR (D) DAMAGE OR INJURY CAUSED BY A FAILURE OR DELAY IN CONNECTING A CALL TO ANY ENTITY, INCLUDING 911 OR ANY OTHER EMERGENCY SERVICE. TO THE FULL EXTENT ALLOWED BY LAW, THE END USER RELEASES, INDEMNIFIES AND HOLDS THE UNDERLYING CARRIER HARMLESS FROM AND AGAINST ANY AND ALL CLAIMS OF ANY PERSON OR ENTITY FOR DAMAGES OF ANY NATURE ARISING IN ANY WAY FROM OR RELATING TO, DIRECTLY OR INDIRECTLY, SERVICES PROVIDED BY THE UNDERLYING CARRIER OR ANY PERSON'S USE THEREOF, INCLUDING CLAIMS ARISING IN WHOLE OR IN PART FROM THE ALLEGED NEGLIGENCE OF THE UNDERLYING CARRIER.

VII. China Territory

Personal Use Only

You agree to use this Data together with [insert name of Client Application] for the solely personal, non-commercial purposes for which you were licensed, and not for service bureau, time-sharing or other similar purposes. Accordingly, but subject to the restrictions set forth in the following paragraphs, you may copy this Data only as necessary for your personal use to (i) view it, and (ii) save it, provided that you do not remove any copyright notices that appear and do not modify the Data in any way. You agree not to otherwise reproduce, copy, modify, decompile, disassemble or reverse engineer any portion of this Data, and may not transfer or distribute it in any form, for any purpose, except to the extent permitted by mandatory laws.

Restrictions

Except where you have been specifically licensed to do so by NAV2 , and without limiting the preceding paragraph, you may not (a) use this Data with any products, systems, or applications installed or otherwise connected to or in communication with vehicles, capable of vehicle navigation, positioning, dispatch, real time route guidance, fleet management or similar applications; or (b) with or in communication with any positioning devices or any mobile or wireless-connected electronic or computer devices, including without limitation cellular phones, palmtop and handheld computers, pagers, and personal digital assistants or PDAs. You agree to cease using this Data if you fail to comply with these terms and conditions.

Customer Information

Limited Warranty

NAV2 warrants that (a) the Data will perform substantially in accordance with the accompanying written materials for a period of ninety (90) days from the date of receipt, and (b) any support services provided by NAV2 shall be substantially as described in applicable written materials provided to you by NAV2, and NAV2's support engineers will make commercially reasonable efforts to solve any problem issues.

Customer Remedies

NAV2 and its suppliers' entire liability and your exclusive remedy shall be, at NAV2's sole discretion, either (a) return of the price paid, if any, or (b) repair or replacement of the Data that do not meet NAV2's Limited Warranty and that are returned to NAV2 with a copy of your receipt. This Limited Warranty is void if failure of the Data has resulted from accident, abuse, or misapplication. Any replacement Data will be warranted for the remainder of the original warranty period or thirty (30) days, whichever is longer. Neither these remedies nor any product support services offered by NAV2 are available without proof of purchase from an authorized international source.

No Other Warranty:

EXCEPT FOR THE LIMITED WARRANTY SET FORTH ABOVE AND TO THE EXTENT PERMITTED BY APPLICABLE LAW, NAV2 AND ITS LICENSORS (INCLUDING THEIR LICENSORS AND SUPPLIERS) DISCLAIM ANY WARRANTIES, EXPRESS OR IMPLIED, OF QUALITY, PERFORMANCE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OWNERSHIP OR NON-INFRINGEMENT. Certain warranty exclusions may not be permitted under applicable law, so to that extent the above exclusion may not apply to you.

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Export Control

You agree not to export to anywhere any part of the Data provided to you or any direct product thereof except in compliance with, and with all licenses and approvals required under, applicable export laws, rules and regulations.

Customer Information

IP Protection

The Data are owned by NAV2 or its suppliers and are protected by applicable copyright and other intellectual property law and treaties. The Data are provided solely on the basis of a license to use, not sale.

Entire Agreement

These terms and conditions constitute the entire agreement between NAV2 (and its licensors, including their licensors and suppliers) and you pertaining to the subject matter hereof, and supersedes in their entirety any and all written or oral agreements previously existing between us with respect to such subject matter.

Governing Law.

The above terms and conditions shall be governed by the laws of the People's Republic of China, without giving effect to (i) its conflict of laws provisions, or (ii) the United Nations Convention for Contracts for the International Sale of Goods, which is explicitly excluded. Any dispute arising from or in connection with the Data provided to you hereunder shall be submitted to the Shanghai International Economic and Trade Arbitration Commission for arbitration.

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Taiwan Territory

According to the "Technical Specifications for Low Power Radio Frequency Equipment" formulated by the National Communications and Communication Committee of the Executive Yuan: 3.8.2. For the low-power radio frequency

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equipment that has obtained the verification certificate, the company, firm or user shall not change the frequency, increase the power or change the characteristics and functions of the original design without authorization.

The use of low-power radio frequency equipment must not affect flight safety and interfere with legal communications: when the system detects interference, immediately stop using it until there is no interference.

The aforementioned legal communication refers to the wireless communication operated in accordance with the provisions of the Telecommunications Management Law. Low-power radio frequency equipment needs to endure the interference of legal communication or industrial, scientific and medical radio wave radiation electrical equipment.

SUNA TRAFFIC CHANNEL – TERMS AND CONDITIONS

By activating, using and/or accessing the SUNA Traffic Channel, SUNA Predictive or other content or material provided by Intelomatics (together, **SUNA Products and/or Services**), you must accept certain terms and conditions. The following is a brief summary of the terms and conditions that apply to you. To view the full terms and conditions relevant to your use of the SUNA Products and/or Services, please consult:

<https://www.sunatraffic.com.au/termsandconditions>



1. Acceptance

By using SUNA Products and/or Services, you will be deemed to have accepted and agreed to be bound by the terms and conditions fully detailed at:

<https://www.sunatraffic.com.au/termsandconditions>



2. Intellectual Property

SUNA Products and/or Services are for your personal use. You may not record, or retransmit the content, nor use the content in association with any other traffic information or route guidance service or device not approved by Intelomatics. You obtain no right of ownership in any Intellectual Property Rights (including copyright) in the data that is used to provide SUNA Products and/or Services.

3. Appropriate Use

SUNA Products and/or Services are intended as an aid to personal motoring and travel planning, and do not provide comprehensive or accurate information on all occasions. On occasions, you may experience additional delay as a result of using SUNA Products and/or Services. You acknowledge that it is not intended, or suitable, for use in applications where time of arrival or driving directions may impact the safety of the public or yourself.

4. Use of SUNA Products and Services while driving

Customer Information

You, and other authorized drivers of the vehicle in which SUNA Products and/or Services are available or installed and active, remain at all times responsible for observing all relevant laws and codes of safe driving. In particular, you agree to only actively operate SUNA Products and/or Services when the Vehicle is at a complete stop and it is safe to do so.

5. Service Continuity and Reception of the SUNA Traffic Channel

We will use reasonable endeavors to provide the SUNA Traffic Channel 24 hours a day, 365 days a year. The SUNA Traffic Channel may occasionally be unavailable for technical reasons or for planned maintenance. We will try to perform maintenance at times when congestion is light. We reserve the right to withdraw SUNA Products and/or Services at any time.

Also, we cannot assure the uninterrupted reception of the SUNA Traffic Channel RDS-TMC signal at any particular location.

6. Limitation of Liability

Neither Intelematics (nor its suppliers or the manufacturer of your device (the “**Suppliers**”)) shall be liable to you or to any third party for any damages either direct, indirect, incidental, consequential or otherwise arising out of the use of or inability to use SUNA Products and/or Services even if Intelematics or a Supplier has been advised of the possibility of such damages. You also acknowledge that neither Intelematics nor any Supplier guarantees nor make any warranties that relate to the availability, accuracy or completeness of SUNA Products and/or Services, and to the extent which it is lawful to do so, both Intelematics and each Supplier excludes any warranties which might otherwise be implied by any State or Federal legislation in relation to SUNA Products and/or Services.

7. Please Note

Great care has been taken in preparing this manual. Constant product development may mean that some information is not entirely up-to-date. The information in this document is subject to change without notice.

EMISSION LAW



WARNING: Do not remove or alter the original equipment floor covering or insulation between it and the metal floor of the vehicle. The floor covering and insulation protect occupants of the vehicle from the engine and exhaust system heat and noise. On vehicles with no original equipment floor covering insulation, do not carry passengers in a manner that permits prolonged skin contact with the metal floor. Failure to follow these instructions may result in fire or personal injury.

U.S. federal laws and certain state laws prohibit removing or rendering inoperative emission control system components. Similar federal or provincial laws may apply in Canada. We do not approve of any vehicle modification without first determining applicable laws.



Tampering with emissions control systems including related sensors or the Diesel Exhaust Fluid system can result in reduced engine power and the illumination of the service engine soon light.

Customer Information

Tampering With a Noise Control System

Federal laws prohibit the following acts:

- Removal or rendering inoperative by any person other than for purposes of maintenance.
- Repair or replacement of any device or element of the design incorporated into a new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use.
- The use of the vehicle after any person removes or renders inoperative any device or element of the design.

The U.S. Environmental Protection Agency may presume to constitute tampering as follows:

- Removal of hood blanket, fender apron absorbers, fender apron barriers, underbody noise shields or acoustically absorptive material.
- Tampering or rendering inoperative the engine speed governor, to allow engine speed to exceed manufacturer specifications.

If the engine does not start, runs rough, experiences a decrease in engine performance, experiences excess fuel consumption or produces excessive exhaust smoke, check for the following:

- A plugged or disconnected air inlet system hose.
- A plugged engine air filter element.
- Water in the fuel filter and water separator.
- A clogged fuel filter.
- Contaminated fuel.
- Air in the fuel system, due to loose connections.
- An open or pinched sensor hose.
- Incorrect engine oil level.

- Incorrect fuel for climatic conditions.
- Incorrect engine oil viscosity for climatic conditions.

Note: *Some vehicles have a lifetime fuel filter that is integrated with the fuel tank. Regular maintenance or replacement is not needed.*

Note: *If these checks do not help you correct the concern, have your vehicle checked as soon as possible.*

Noise Emissions Warranty, Prohibited Tampering Acts and Maintenance

On January 1, 1978, Federal regulation became effective governing the noise emission on trucks over 10,000 lb (4,536 kg) Gross Vehicle Weight Rating (GVWR). The preceding statements concerning prohibited tampering acts and maintenance, and the noise warranty found in the Warranty Guide, are applicable to complete chassis cabs over 10,000 lb (4,536 kg) GVWR.

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. 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.**

Customer Information

WARRANTY INFORMATION

The following warranties may apply to your vehicle:

- New vehicle limited warranties.
- Emissions warranties, if applicable.
- Other warranties, if applicable.

Detailed warranty information specific to your vehicle can be found in the Warranty Guide at

www.ford.com/support/owner-manuals



OWNER'S WARRANTY RESPONSIBILITIES:

- As the vehicle owner, you are responsible for getting your vehicle the required maintenance listed in your owner's manual. We recommend that you retain all receipts covering maintenance on your vehicle. However, we cannot deny you of your vehicle warranty solely for the lack of receipts, or for your failure to have all scheduled maintenance performed on your vehicle.

- You are responsible for bringing your vehicle to an authorized dealer as soon as a problem exists. Have the warranty repairs completed in a reasonable amount of time, not to exceed 30 days.

- As the vehicle owner, be aware that we may deny you warranty coverage if your vehicle or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

If you have any questions regarding your warranty rights and responsibilities, you should contact Ford Customer Service at 1-800-392-3673.

New Vehicle Limited Warranty

Your vehicle comes with a New Vehicle Limited Warranty. The express warranties of the New Vehicle Limited Warranty are in substitution for and exclude all other liabilities of any kind whether arising under statute, in tort, by implication of law or otherwise including, to the full extent as may be allowed by law, liability for any other representations respecting the vehicle, statutory warranties or implied warranties or conditions as to its merchantability or fitness.

Download a free electronic copy or order one free printed copy of the most up-to-date Warranty Guide by visiting the Owner Manuals section of www.ford.com/support/owner-manuals (United States).



For Canada, visit www.ford.ca/support/owner-manuals



For Limo/Livery/Hearse vehicles: View and download your Warranty Guide by visiting the Warranty Information section of the Fleet website, www.fordpro.com/en-us/fleet-vehicles/livery (United States only).

Customer Information



Appendices

ELECTROMAGNETIC COMPATIBILITY



WARNING: Do not place objects or mount equipment on or near the airbag cover, on the side of the front or rear seatbacks, or in 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.



WARNING: Do not fasten antenna cables to vehicle wiring, pipes, or hoses.

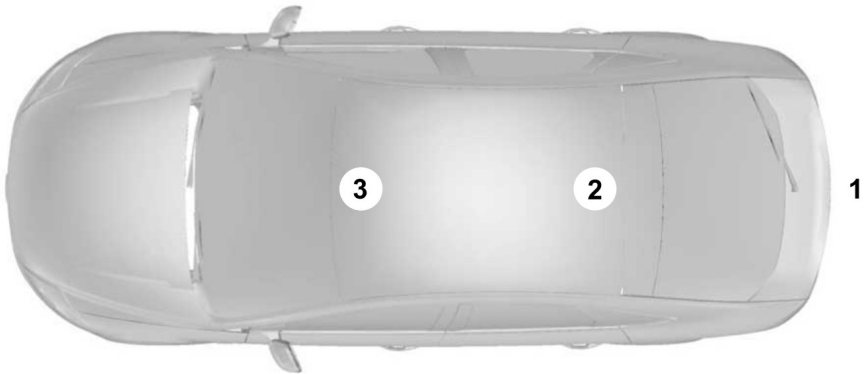


WARNING: Keep antenna and power cables at least 4 in (10 cm) from any electronic modules and airbags.

Note: We test and certify your vehicle to meet electromagnetic compatibility legislation. It is your responsibility to make sure that any equipment an authorized dealer installs on your vehicle complies with applicable local legislation and other requirements. Installation of some aftermarket electronic devices could degrade the performance of vehicle functions, which use radio frequency signals such as broadcast radio receiver, tire pressure monitoring system, push button start, **Bluetooth®** connectivity or satellite navigation.

Note: Any radio frequency transmitter equipment in your vehicle (such as cell phones and amateur radio transmitters) must keep to the parameters in the following illustrations and table. We do not provide any other special provisions or conditions for installations or use.

Car

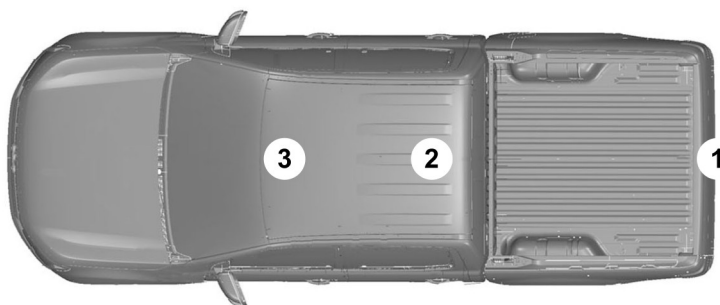


Appendices

Van



Truck



Appendices

Frequency Band MHz	Maximum Output Power Watt (Peak RMS)	Antenna Positions
1-30 ¹	50	1
50-54	50	2, 3
68-87	50	2, 3
144-174	50	2, 3
380-512	50	2, 3
806-870	10	2, 3

¹For battery electric vehicles and plug-in hybrid vehicles, this frequency is not approved when your vehicle is plugged-in and charging.

Note: After the installation of radio frequency transmitters, check for disturbances from and to all electrical equipment in your vehicle, both in the standby and transmit modes.

Check all electrical equipment:

- With the ignition ON.
- With the vehicle running.
- During a road test at various speeds.

Check that electromagnetic fields generated inside your vehicle cabin by the transmitter installed do not exceed applicable human exposure requirements.

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