This Supplement is not intended to replace your vehicle Owner's Manual which contains more detailed information concerning the features of your vehicle, as well as important safety warnings designed to help reduce the risk of injury to you and your passengers. Please read your entire Owner's Manual carefully as you begin learning about your new vehicle and refer to the appropriate sections when questions arise.

All information contained in this supplement was accurate at the time of duplication. We reserve the right to change features, operation and/or functionality of any vehicle specification at any time. Your Ford dealer is the best source for the most current information. For detailed operating and safety information, please consult your Owner's Manual.

owner.ford.com

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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**.

Table of Contents

Mustang (CZG) Mach 1, enUSA, First-Printing

ABOUT THIS SUPPLEMENT

Congratulations on your decision to purchase the latest from Ford — the Mach 1. If you've owned or leased a Ford product in the past, we're glad you're back. If this is your first Ford vehicle, welcome to the Ford family! We are confident that our dedication to performance, quality, craftsmanship and customer service will ensure many miles of exhilarating, safe and comfortable driving in your new Mach 1.

Your choice of a Ford product is an intelligent and informed one. Ford strives to build engaging vehicles that involve the driver in every aspect of the driving experience. Although performance is at the heart of every Ford vehicle, we go much further. Our goal is to deliver a comprehensive, complete vehicle, sweating the details such as the sound of the exhaust, the quality of the interior materials, and the functionality and the comfort of the seats, to ensure that the driver enjoys not only exceptional performance but an outstanding driving environment as well. In the Mach 1, that philosophy is expressed by a sophisticated powertrain, outstanding chassis dynamics and significant interior and exterior enhancements.

This supplement complements your Mustang Owner's Manual and provides information specific to the Mach 1. By referring to the pages listed in this supplement, you can identify those features, recommendations and specifications unique to your new vehicle. If there are any discrepancies between this supplement and the Mustang Owner's Manual, this supplement shall supersede the information found in the Mustang Owner's Manual.

Mach 1 History

The Ford Mustang has been celebrated over the past half-century with many special performance versions, including several unique models that have proudly carried their own nomenclature. There have been HiPo's, Shelbys and GTs, plus California Specials, Bosses, Cobras, SVO's and 5.0's, Cobra Jets and Bullitts – each with distinct design cues and equipment enhancements targeted at specific buyers.

Of them all, perhaps the best-known and most accessible to the widest owner base is the Mustang Mach 1, a sporty fastback first introduced in 1969 that had the look, features and performance that helped define the muscle car era.

In postwar America, the Jet Age influence was all the rage -- especially in the auto industry, where tail fins and air intakes influenced progressive car designs. It was then when the terms Mach 1 and Sound Barrier became part of public conversation, as jets and rockets were being employed in aeronautic experiments to help humankind soar past the speed of sound.

Ford's first use of the Mach 1 name came on a concept vehicle – a wheel-less single-seat pod tethered to an arm that allowed it to glide on a cushion of air around a circular track set up at the Ford Rotunda in the spring of 1959. Ford's Levacar Mach 1 Concept was an air-propulsion flying car of sorts, suggesting that vehicles in the future could use ducted air to levitate and maneuver at high speed while off the ground.

The Mach 1 name was resurrected in 1966 for another Ford concept car that was meant to preview some aerodynamic and styling advances for a futuristic high-performance Mustang fastback. The two-seat Mustang Mach 1 Concept that was shown at the 1967 Detroit Auto Show featured a slanted areo-grille, severely chopped roof, large air scoops and steeply slanted rear glass as part of a full hatchback -- a design feature that wouldn't appear in production until 1974. Ford updated the Mustang Mach 1 Concept with a new front-end treatment in time for touring the auto show circuit in 1968 to herald the popular pony car's third styling refresh due the following year.

By the time 1969 had rolled around, the again restyled and upsized Ford Mustang was facing a series of new challenges, both in the muscle car wars taking place out in the marketplace by an onslaught of powerful new competitors, and inside of Ford Motor Company, where a new, Steed for Every Need marketing approach expanded pony car offerings to five distinct models with at least 10 different powertrain combinations. Ford's Mustang had galloped into its fifth model year refreshed with unmistakable good looks, thanks to its 2+2 fastback now called the SportsRoof, featuring upper rear-quarters cut with forward-facing scoops and a dramatic tail that incorporated an upswept rear edge.

Even though the GT equipment group introduced in 1965 was again available for a final year, it was overshadowed for 1969, as the hot ticket was an all-new Mach 1 model – wearing the name borrowed from those radical recent Mustang show cars. The new Mustang Mach 1 came standard with the 351, a desirable mix of appearance enhancements, plus special reflective bodyside stripes and an uplevel interior. Later, a flat-black rear decklid spoiler and a set of rear window louvers were added as dress-up options. To many enthusiasts today, a '69 Mach 1 equipped with an optional new-for-'69 428 Cobra Jet V-8 is the first true Mustang muscle car and a top-shelf collectible.

Other than yet another front-end freshening (including going back to just two headlamps and adding non-functional outboard air inlets) and the elimination of the side scoops, the biggest change to the 1970 Mustang lineup was a move to the Cleveland-design 351 V-8 over the Windsor 351 version from the year before. The GT model was dropped in the face of the Mach 1's popularity, but the 428CJ engine option was again available across the board. By 1971, Ford's famed

first-generation pony car had already undergone its fourth major facelift, growing in every dimension to accommodate even bigger engines. The '71 Mustang featured an extended nose with a body that was wider, close to a foot longer and around 600 pounds heavier than the original. The SportsRoof-only Mach 1 model was now Ford's bread-and-butter enthusiast model, especially with the optional new big-block 429 Cobra Jet engine, good for 370 horsepower.

There were only minor changes on tap for Mustang in 1972 and '73, most of them dealing with the options list and the continuing emasculation of engine offerings and horsepower in the face of emissions and fuel economy regulations, as well as the elimination of a convertible. The automotive performance world soon came to a screeching halt in the wake of an oil embargo and resulting gas shortages, forcing most Americans to abandon their muscle cars and V-8-powered rides in favor of smaller, more fuel-efficient vehicles. Ford saw the market shift as the perfect time to return its pony car to its roots – a compact, affordable, sporty car whose styling and image captured the spirit and imagination of the American public.

When the new-from-the-ground-up, second-generation Mustang II was launched for the 1974 model year, it was the first Mustang equipped with a four-cylinder engine. An all-new 2.3-liter I-4 produced around 90 horses as the standard powerplant for the downsized Mustang II - yet performance was roughly equivalent to the previous Mustang's big inline six. The Mustang II was available as a hardtop two-door notchback coupe or a three-door hatchback-style fastback. Buyers had a choice of either I-4 or V-6 power, as well as a three-speed automatic or four-speed manual transmissions. To keep Mustang's performance image going even in a world where consumers favored fuel economy over horsepower, an enthusiast-focused Mustang II Mach 1 model was offered as a three-door hatchback-style fastback, replete with bucket seats.

There's little question that the saving grace for the Mustang II's performance reputation came when Ford finally realized it needed to put the 302 V-8 back onto the Mustang option list for 1975-78. The V-8 was available in any model, but first only mated to a three-speed automatic transmission, as a four-speed manual was delayed a full year until a suitable clutch could be tooled up. The two-barrel 302 shoehorned into the Mustang II got catalytic converters to help meet 1976's tighter emissions standards, and saw an increase to 139 horsepower – nearly equal to the '73's standard V-8 power level. The Mach 1's optional Competition Suspension package offered stiffer springs, adjustable shock absorbers and fatter front and rear stabilizer bars to improve handling, and kept it a popular enthusiast choice over all five years of Mustang II's production. By the dawn of the third-generation Mustang, the Mach name would not return again to the Mustang line until some 25 years later.

After the 1979-93 Fox Body Mustang years had come and gone with the reintroduction of a GT model, new sheet metal on a revamped SN-95 platform helped to rekindle consumer interest in a fourth-generation Ford Mustang. Enthusiasts lavished their attention upon the 1993-1999 Mustang Cobra performance model developed by the Ford Special Vehicle Team skunkworks group, while Ford engineers looked to specialty models to fill the mid-market slot between the standard Mustang GT and the upmarket Cobra.

After the success of the 2001 Bullitt, a new-for-2003 Mach 1 was launched to offer fans some design cues from its '69 namesake, including a blackout hood, black front air-dam extension and rear decklid spoiler – even bodyside scoops. To match its aggressive look and hardware upgrades, the '03 Mach 1 was powered by a 305-horsepower, 4.6L DOHC modular V-8. Unlike the SVT Cobra, the Mach 1 offered an automatic transmission option in lieu of the manual, and consequently drew a new group of enthusiast buyers into the Ford fold. The strong customer response prompted another year of Mach 1 production for 2004, the Mustang's final year on the fourth-gen platform.

Thanks to a popular mix of appearance, features and power, the 1969-73 Mach 1's proved to be everyman's muscle car, and have earned a respected place in Mustang performance lore. Beyond those classic years, the Mach 1 carried over for all five years of the often overlooked 1974-78's before a hiatus that ended with the modern and muscular 2003-04's. Mach 1's return to the Mustang lineup for 2021 will add a new chapter on modern-day muscle for this beloved model, and will cement its rightful place near the very top of Mustang performance history.

John M. Clor

Enthusiast Communications Manager / FORD PERFORMANCE

Powertrain

- 5.0L, 302 cubic inch DOHC V8 engine with Ti-VCT (Twin independent Variable Camshaft Timing). Aluminum engine block and cylinder heads.
- 480 hp @ 7,000 RPM; 420 lb-ft @ 4,600 RPM.
- Forged steel cross-plane crankshaft and connecting rods, cast aluminum pistons, 12.0:1 compression ratio.
- GT350 87 mm large-bore electronic throttle body and cold air intake with exposed air filter element.
- Tubular exhaust manifolds.
- Auxiliary engine oil, transmission and differential fluid coolers.
- Active valve performance exhaust system with 4.5 inch polished tips.
- Tremec 3160 6-speed manual transmission with active rev-match and white shift knob. 10-speed automatic transmission with upgraded torque converter and steering wheel paddle shifters available.
- 3.73 (3.55 export markets) Torsen rear differential with Tremec 6-speed manual transmission. 3.55 Torsen rear differential with 10-speed automatic transmission.

Chassis

- MacPherson strut with double ball-joint front suspension.
- Front adjustable strut top mounts (with optional Handling Package).
- Integral-link, independent rear suspension with cross-axis joints.
- Electronic power assisted steering system (EPAS) with three unique, customer selectable steering modes (Comfort, Normal, Sport).
- Black painted Brembo 6-piston aluminum front brake calipers with 380 mm one-piece vented front brake rotors (red or orange painted calipers available).

- Black painted single-piston cast iron rear brake calipers with 330 mm one-piece vented rear brake rotors (red and orange painted calipers available).
- 19 x 9.5-inch front and 19 x 10.0-inch rear wheels with P255/40R19 front and P275/40R19 rear summer tires.
- 19 x 10.5-inch front and 19 x 11.0-inch rear wheels with P305/30R19 front and P315/30R19 rear Michelin Pilot Sport Cup 2 tires (with optional Handling Package).
- Electronic line lock (track use only).
- Programmable launch control (manual transmission; track use only).
- Five selectable drive modes (Normal, Snow/Wet, Sport, Drag, Track).
- Unique stability control, EPAS and ABS tuning.
- Monotube dampers with MagneRide electronic damping control (unique calibration included with optional Handling Package).

Exterior

- Unique front fascia with GT350 incandescent park/turn lamps, lower side openings and grilles for increased engine and transmission cooling.
- Unique front bellypan for improved aerodynamics.
- Satin black with red, orange or white unique hood and side stripes.
- Low gloss magnetic accents including front Mustang badge, rear spoiler and exterior mirror caps.
- GT500 rear fascia.
- Unique decklid and fender badges.
- GT350 rear spoiler with Gurney flap (with optional Handling Package).

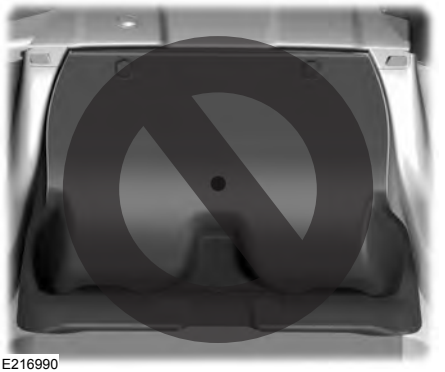
Interior

- 12 inch digital instrument cluster with unique start up graphic.
- 8 inch center stack screen with SYNC 3.
- Navigation system (if equipped).
- Dark Spindrift aluminum instrument panel accents and integrated chassis number badge.
- Track Apps (track use only). Includes acceleration timer, accelerometer, brake performance, lap timer, launch control (manual transmission only) and electronic line lock.
- Unique door sill plates.
- Dual-zone electronic climate control.
- Recaro front seats (if equipped).
- Rear seat delete (with optional Handling Package only).

INSTALLING CHILD RESTRAINTS

Rear Seat Delete (If Equipped)

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.



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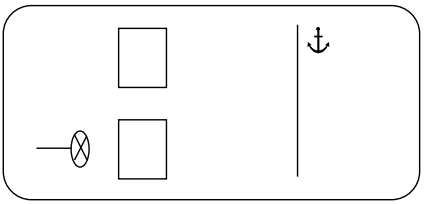
This is not a seating position. You cannot place persons or child restraints in the rear of the vehicle with the rear seat delete option.

Vehicles Without Rear Seats



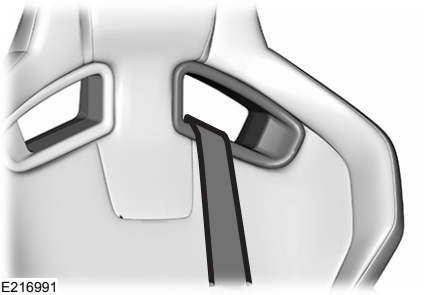
E216824

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

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

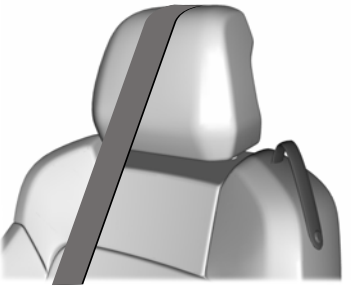
Perform the following to attach a child restraint to the tether anchor.

Route the tether strap as follows.



E216991

For Recaro front seats without rear seats, route the tether strap through the innermost slot of the front passenger seat backrest or route the tether strap over the top of the seat. You may need a tether strap extension to reach the tether anchor.

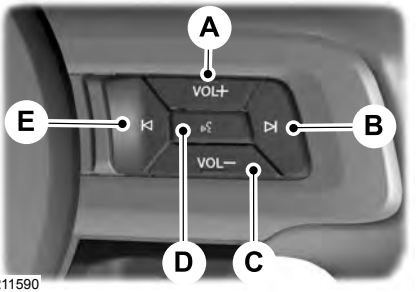


For standard front seats without rear seats, route the tether strap over the top of the seat.

If you install a child restraint and you attach the top tether strap to the proper top tether anchor, do not tighten the tether strap enough to lift the child restraint off the vehicle seat cushion when the child is seated in it. Keep the tether strap just snug without lifting the front of the child restraint. Keeping the child restraint just touching the vehicle seat gives the best protection in a severe crash.

See the Child Safety chapter in your base Owner's Manual for more information.

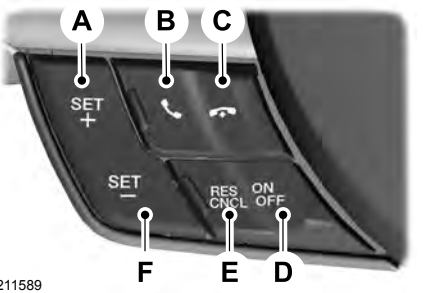
AUDIO CONTROL



E211590

A Volume up.
B Seek up or next.
C Volume down.
D Voice recognition.
E Seek down or previous.

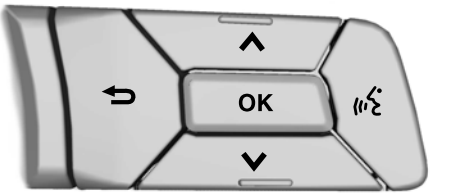
VOICE CONTROL



E211589

A Cruise control set and increase.
B Answer call.
C End call.
D Cruise control on and off.
E Cruise control resume and cancel.
F Cruise control set and decrease.

INFORMATION DISPLAY CONTROL



E248474

Quick Action Menus

E248531

See **Information Displays** (page 13).

GAUGES (IF EQUIPPED)

Oil Pressure Gauge

Indicates the engine oil pressure.

Vacuum Gauge

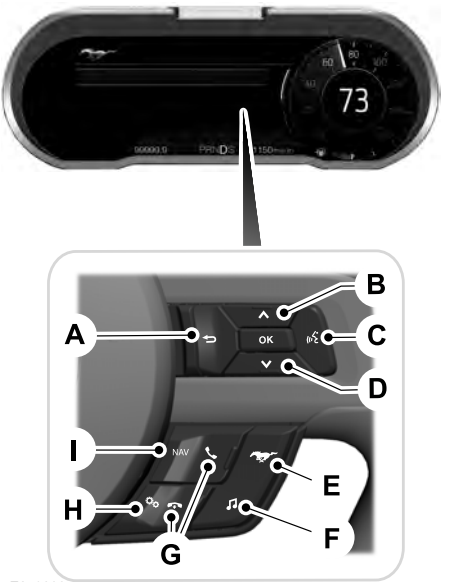
Indicates the vacuum or vacuum and boost pressure in the intake.

GENERAL INFORMATION

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

Note: *Some items could appear slightly different or not at all if the features are optional.*

Information Display Controls



E249038

A	Back button.
B	Arrow up.
C	Voice control button.
D	Arrow down.
E	Pony button.
F	Audio button.
G	Phone buttons.
H	Settings button.
I	Navigation button.

- Press one of the quick action menu buttons to enter a menu.
- Toggle **(B)** and **(D)** to scroll through and highlight the options within a menu.

- Press the ***OK*** button.
- Press **(A)** to exit a menu.
- Press the open menu's quick action menu button at any time to close the menu.
- Press the ***OK*** button to choose and confirm settings or messages.

Settings

Settings	
Trip computer	
Driver assist	Auto engine off
	BLIS
	Pre-Collision Assist
	Cross traffic alert
	Cruise control
	Driver Alert
	Hill start assist
	Rear Park Pilot
	Lane Keeping System
	Tyre pressure monitor
	Wipers
Speedometer in mph	
Speedometer in km/h	
Advanced settings	Vehicle settings
	MyKey
	Display settings

Pony

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.

Track Apps™ provides a suite of options to record and optimize your track performances. See **Track Use** (page 43).

Pony		
MyMode	Show status	
	Add MyMode	MyMode must be configured and saved before selection enabled.
Exhaust mode	Choose your applicable setting.[1]	
	Quiet start	
Track Apps	Acceleration timer	
	Brake performance	
	Line lock	
	Lap timer	
	Start option	
Perform-ance shift indicator	Shift point	
	Shift tone	
	Shift light mode	
Launch control	Launch control	
	RPM	
Rev Match		
Gauges	Show gauges	
	Configure MyGauges	
MyColour	Primary colour	
	Secondary colour	
	Ambient light	

Pony	
	Create MyColour
Cluster appearance	Change with drive mode
	Normal
	Sport
	Race track

[1] See **Track Use** (page 43).
Note: *Quiet start allows you to schedule when the exhaust mode turns on the quiet setting. The time window can be from 1 to 24 hours.*

Note: *Depending on your vehicle configuration, some features such as Exhaust Mode and Line Lock may be if equipped.*

Note: *The menu options for Performance Shift Indicator, Launch Control, and Rev Match are for manual transmissions only.*

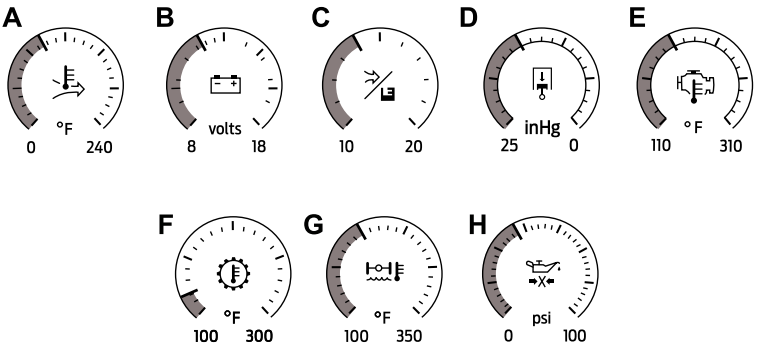
Phone

Audio

Navigation (If Equipped)

Configure MyGauges

When configuring your gauges you can select to display up to three virtual gauges.

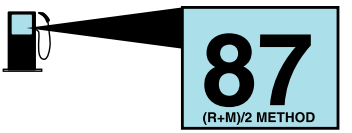


A Inlet air temperature.
B Battery voltage.
C Air fuel ratio.
D Vacuum.

E Cylinder head temperature.
F Transmission oil temperature.
G Axle temperature.
H Engine oil pressure.

FUEL QUALITY

Choosing the Right Fuel



Your vehicle is designed to operate on regular unleaded gasoline with a minimum pump (R+M)/2 octane rating of 87.

Some fuel stations, particularly those in high altitude areas, offer fuels posted as regular unleaded gasoline with an octane rating below 87. The use of these fuels could result in engine damage that will not be covered by the vehicle warranty.

For best overall vehicle and engine performance, premium fuel with an octane rating of 91 or higher is recommended.

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, refer to www.toptiergas.com.

Note: *Use of any fuel for which the vehicle was not designed can impair the emission control system, cause loss of vehicle performance, and cause damage to the engine which may not be covered by the vehicle Warranty.*

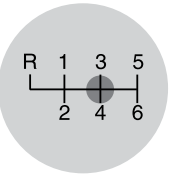
Do not use:

- 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.

MANUAL TRANSMISSION (IF EQUIPPED)

Using the Clutch



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Manual transmission vehicles have a starter interlock that prevents cranking the engine unless the clutch pedal is fully pressed.

To start the vehicle:

1. Make sure the parking brake is fully set.
2. Press the clutch pedal to the floor, then put the gearshift lever in the neutral position.
3. Start the engine.
4. Press the brake pedal and move the gearshift lever to the desired gear, first (1) or reverse (R).
5. Release the parking brake, then slowly release the clutch pedal while slowly pressing on the accelerator.

During each shift, the clutch pedal must be fully pressed to the floor. Make sure the floor mat is properly positioned so it does not interfere with the full extension of the clutch pedal.

Note: *Failure to fully press the clutch pedal to the floor may cause increased shift efforts, prematurely wear the transmission components or damage the transmission.*

Note: *Do not drive with your foot resting on the clutch pedal or use the clutch pedal to hold your vehicle at a standstill while waiting on a hill. These actions will reduce the life of the clutch and this may not be covered by your warranty.*

Note: *The engine may not start unless the intelligent access key is inside your vehicle.*

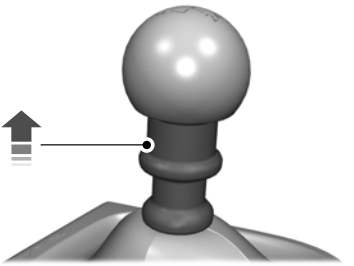
Recommended Shift Speeds

Note: *Do not downshift into first (1) when your vehicle is moving faster than 15 mph (24 km/h). This will damage the clutch.*

Upshifts When Accelerating - Recommended for Best Fuel Economy	
Shift from:	
1 - 2	13 mph (21 km/h)
2 - 3	24 mph (39 km/h)
3 - 4	31 mph (50 km/h)
4 - 5	39 mph (63 km/h)
5 - 6	43 mph (69 km/h)

Reverse

1. Press the clutch pedal to the floor to disengage the clutch.
2. Shift into reverse (R) by raising the collar below the gearshift knob up, then moving the lever fully to the left, then forward.



If reverse (R) is not fully engaged, press the clutch pedal down and return the gearshift to the neutral position. Release the clutch pedal for a moment, then raise the collar and shift to reverse (R) again.

Note: *Make sure that your vehicle is at a complete stop before you shift into reverse (R). Failure to do so could damage the transmission.*

Note: *The gearshift lever can only be moved to reverse (R) by raising the collar below the gearshift knob up before shifting to reverse (R). This is a lockout feature which protects the transmission from accidentally engaging reverse (R) when intending to select first (1).*

Parking Your Vehicle

WARNING: Always set the parking brake fully and make sure you shift the gearshift lever to first gear. Switch the ignition off and remove the key whenever you leave your vehicle.

To park your vehicle:

1. Apply the brake and shift into the neutral (N) position.
2. Fully apply the parking brake, hold the clutch pedal down, then shift into first (1).
3. Turn the ignition off.

After you have turned the engine off, you can release the clutch pedal.

AUTOMATIC TRANSMISSION

(IF EQUIPPED)

WARNING: Always fully apply the parking brake and make sure you shift into park (P). Failure to follow this instruction could result in personal injury or death.

WARNING: Do not apply the brake pedal and accelerator pedal simultaneously. Applying both pedals simultaneously for more than a few seconds will limit engine performance, which may result in difficulty maintaining speed in traffic and could lead to serious injury.

Note: *You may not be able to shift out of park (P) unless the intelligent access key is inside your vehicle.*

Understanding the Positions of Your Automatic Transmission

Putting your vehicle in gear:

1. Fully press down on the brake pedal.
2. Press and hold the button on the top of the gearshift lever.
3. Move the gearshift lever into the desired gear.
4. Release the button and your transmission remains in the selected gear.

E174572

Transmission Selector Positions

The instrument cluster displays the current gear.

Park (P)

This position locks the transmission and prevents the rear wheels from turning. Come to a complete stop before putting your vehicle into and out of park (P).

Reverse (R)

With the selector in reverse (R), your vehicle moves backward. Always come to a complete stop before shifting into and out of reverse (R).

Neutral (N)

With the selector in neutral (N), you can start your vehicle and it is free to roll. Hold the brake pedal down when in this position.

Drive (D)

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

Sport (S)

Putting your vehicle in sport (S):

- Provides additional engine braking and extends lower gear operation to enhance performance for uphill climbs, hilly terrain or mountainous areas. This increases engine RPM during engine braking.
- Provides additional lower gear operation through the automatic transmission shift strategy.
- Provides gear upshifts and downshifts more quickly at higher engine speeds.

SelectShift Automatic™ Transmission (If Equipped)

This feature gives you the ability to change gears up or down as desired.

As long as the engine speed does not exceed the maximum allowable limit, you can downshift the vehicle. SelectShift automatically downshifts at low engine speeds in order to prevent engine stalls.

Note: *Engine damage may occur if you maintain excessive engine revving without shifting.*

In drive (D) mode, SelectShift automatically upshifts at the optimal max engine speed, regardless of accelerator pedal travel.

In sport (S) mode, SelectShift does not automatically upshift, even if the engine is approaching the RPM limit.

Pull the + paddle on the steering wheel to activate SelectShift.

- Pull the right paddle (+) to upshift.
- Pull the left paddle (–) to downshift.

SelectShift in drive (D):

- Provides a temporary manual mode for performing more demanding maneuvers where you require extra control of gear selection, for example, when towing or overtaking. This mode holds a selected gear for a temporary period of time dependent on driver inputs, for example, steering or accelerator pedal input.

SelectShift in sport (S):

- Provides a permanent manual gear selection where you require full control of gear selection.

To exit SelectShift mode shift the transmission into another gear, for example, drive (D), or hold the (+) paddle for 2 seconds.

The instrument cluster displays your currently selected gear. If a gear you request is not available due to vehicle conditions, the current gear flashes two times.

Brake-Shift Interlock

WARNING: Do not drive your vehicle until you verify that the stoplamps are working.

WARNING: When doing this procedure, you need to take the transmission out of park (P) which means your vehicle can roll freely. To avoid unwanted vehicle movement, always fully apply the parking brake prior to doing this procedure. Use wheels 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.

Use the brake shift interlock lever to move the gearshift lever from the park position in the event of an electrical malfunction or if your vehicle has a dead battery.

Apply the parking brake and switch the ignition off before performing this procedure.


E184747

1. Using a flat head screwdriver or similar tool, remove the chrome bezel and gearshift bracket at the base of the gearshift lever.

E174501

2. Locate the white release lever and slide the lever forward when pulling the gearshift lever out of the park (P) position and into the neutral (N) position.
3. Reinstall the chrome bezel and the gearshift bracket.
4. Start your vehicle and release the parking brake.

Note: *If you use this procedure, contact an authorized dealer as soon as possible.*

Note: *For some markets, this feature is disabled.*

Automatic Transmission Adaptive Learning

This feature is designed to increase durability and provide consistent shift feel over the life of your vehicle. A new vehicle or transmission may have firm or soft shifts. This operation is normal and does not affect function or durability of the transmission. Over time, the adaptive learning process fully updates transmission operation.

If Your Vehicle Gets Stuck in Mud or Snow

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

Note: *Do not rock your vehicle if the engine is not at normal operating temperature or damage to the transmission could occur.*

Note: *Do not rock your vehicle for more than a minute or damage to the transmission and tires could occur, or the engine may overheat.*

TECHNICAL SPECIFICATIONS

Item	Description	
Transmission	Tremec 6-speed manual with 215 millimeter dual clutch and dual mass flywheel.	
Driveshaft Rear Axle	3.73[1]	
Gear Ratios	Gear	Ratio
	1st	3.25
	2nd	2.23
	3rd	1.61
	4th	1.24

Item	Description	
	5th	1.00
	6th	0.63
	Reverse	2.95

[1] 3.55 Export Markets

Item	Description	
Transmission	10R80 Automatic Transmission	
Driveshaft Rear Axle	3.55	
Gear Ratios	Gear	Ratio
	1st	4.70
	2nd	2.99
	3rd	2.15
	4th	1.77
	5th	1.52
	6th	1.28
	7th	1.00
	8th	0.85
	9th	0.69
	10th	0.64
	Reverse	4.86

GENERAL INFORMATION

Your vehicle has a brake system designed for high speed and superior fade resistance. You may notice occasional brake squeal and elevated levels of brake dust. This is normal and does not affect brake system performance.

Prior to track use, replace the brake fluid with fresh Motorcraft/Ford DOT 4 LV High Performance Brake Fluid or other DOT compliant fluid with a dry boiling point greater than 500°F (260°C) from a sealed container. Do not use silicone or DOT 5 brake fluids.

DRIVE CONTROL

Selectable Drive Modes

Selectable drive modes deliver a customized driving experience using a variety of electronic vehicle systems. The systems optimize vehicle dynamics and powertrain response based on your selected mode. Systems associated with selectable drive modes are:

- Electronically power assisted steering.
- Electronic stability control and traction control maintain your vehicle control in adverse conditions or high performance driving.
- Electronic throttle control enhances the powertrain response to your driving input.
- Adaptive dampers, if your vehicle comes with them.
- Active exhaust, if provided on your vehicle, adjusts the sound characteristics of your vehicle.

Using Selectable Drive Modes

To change the drive mode setting, press the mode button on the instrument panel under the display. The first press illuminates the selected mode, subsequent presses change the selected mode.

Note: *Mode changes are not available when the ignition is off or when the transmission is in reverse (R). Some modes may be unavailable when the transmission is in drive (D) or sport (S).*

Note: *Your vehicle may have some of the drive modes that follow.*

Modes:

- Normal – Best suited for everyday driving. If your vehicle has adaptive dampers, the suspension delivers a balanced combination of comfort and handling. Selectable steering defaults to normal but can be changed using the steering button.
- Sport – Engages when you shift your automatic transmission into sport (S). Sport mode increases throttle response and helps your vehicle accelerate faster, but does not change the vehicle dynamics or stability system. The automatic transmission holds lower gears and a higher RPM when lifting off the accelerator. The automatic transmission downshifts to a higher RPM when braking aggressively.
- Sport+ – Best suited for spirited driving. This mode increases throttle response, and if your vehicle has active exhaust, it takes on a more powerful tone. If your vehicle has adaptive dampers, the suspension becomes stiffer, body motion reduces and the steering becomes more precise. Selectable steering defaults to sport. Depending on your vehicle configuration, you may be able to change the selectable steering setting by pressing the steering button. The automatic transmission holds lower gears and a higher RPM when lifting off the accelerator. The automatic transmission downshifts to a higher RPM when braking aggressively.

- Track – Provides a performance driving experience. Throttle response increases, and if your vehicle has active exhaust, it takes on a more powerful tone. A performance oriented traction control mode is automatically utilized. In this mode, traction control intervention is reduced and tuned specifically for track usage only. This mode is not intended for public roads.If your vehicle has adaptive dampers, the suspension is optimized for transient handling maneuvers. This mode offers maximum control and confidence in handling on road courses or auto-cross style events. Selectable steering defaults to sport. Depending on your vehicle configuration, you could change the selectable steering setting by pressing the steering button. The automatic transmission holds lower gears and a higher RPM and downshifts more aggressively under braking than in sport mode.
- Drag Strip - Provides a performance driving experience tailored to driving on a drag strip. The engine responds directly to your inputs, and if your vehicle has active exhaust, it takes on a more powerful tone. This mode is not intended for public roads. If your vehicle has adaptive dampers, the setting is optimized for straight line maximum acceleration. Selectable steering defaults to sport. Depending on your vehicle configuration, you could change the selectable steering setting by pressing the steering button. The automatic transmission is calibrated to shift very aggressively to provide a performance kick when driven at maximum throttle.
- Snow/Wet - Provides a confident handling driving experience during poor weather. If your vehicle has adaptive dampers, the suspension delivers a balanced combination of comfort and handling. Selectable steering defaults to normal. Depending on your vehicle configuration, you could change the selectable steering setting by pressing the steering button.

Using MyMode (If Equipped)

You can use MyMode to create a unique drive mode.

To create or save MyMode, press the button on the steering wheel and access the menu. See **General Information** (page 13). The available systems display. Choose your desired settings using the appropriate buttons and menus. Press and hold OK to save your settings. MyMode is added to the drive mode list and can be selected the next time you drive your vehicle.

Note: *The system has diagnostic checks that continuously monitor the system to make sure it properly operates. If a mode is unavailable due to a system fault or change in gear position, the selected mode defaults to normal.*

Note: *Pre-Collision Assist is automatically disabled when track mode is selected.*

Note: *If your vehicle has adaptive dampers, the steering setting is optimized to work with each drive mode. Other steering settings may not be available.*

Selectable Steering

Press the steering button on the instrument panel to change the steering feel. The first press illuminates the selected mode. Each time you press the button, it changes the mode.

Modes:

- Normal - Default factory setting.
- Sport - Slightly higher effort required for steering with more road force felt through the steering wheel.
- Comfort - Slightly less effort required for steering with less road force felt through the steering wheel.

Note: *A soft feedback bump in the steering wheel may be felt after you make a selection.*

Note: *The steering setting defaults to normal if the battery is disconnected or removed.*

Active Exhaust (If Equipped)

Use the information display to adjust the tone of the exhaust.

Active Exhaust modes:

- Quiet - Lowers the noise of the exhaust.
- Normal - Default factory setting.
- Sport - Raises the noise of the exhaust.
- Track - Tunes the exhaust for track performance.

Note: *The track exhaust mode setting is only for use at tracks and not for use on public roadways. Use of this setting results in increased exterior noise, which may not meet state and local laws and regulations. It is the obligation of the driver to operate the vehicle in a manner that complies with state and local requirements. Only use the track exhaust mode setting at a competition track or an off-road course where elevated exterior vehicle noise is acceptable.*

Rev Match (If Equipped)

This feature provides a smoother driving experience, particularly during a downshift event. This is accomplished by a shift position prediction that commands a quick engine RPM match to the selected gear. You can switch this feature on and off through the information display. See **General Information** (page 13).

Note: *The system remembers your last selection through ignition cycles.*

Note: *Rev match is only available with a manual transmission.*

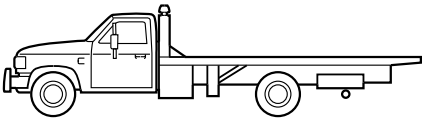
No Lift Shift

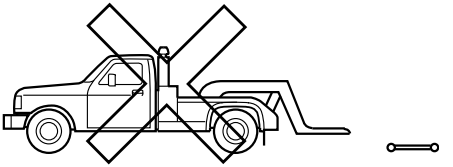
This feature provides you with the ability to keep the accelerator pedal firmly pressed down during high engine speed, wide open throttle accelerations. During wide open throttle gear shifts, the engine controller prevents the engine speed from flaring with the clutch disengaged during a rapid upshift. This allows reduced manual transmission upshift time, resulting in quicker acceleration and smoother no lift shifts.

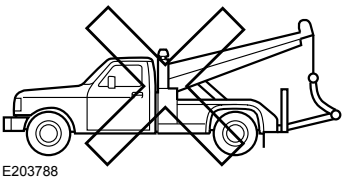
TOWING A TRAILER

WARNING: Your vehicle is not approved for trailer towing. Never tow a trailer with your vehicle.

TRANSPORTING THE VEHICLE







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If you need to have your vehicle towed, contact your roadside assistance center or a professional towing service.

We recommend that your vehicle be towed with flatbed equipment only. When towing with a flatbed, race ramps or wood ramps must be used when loading or unloading your vehicle. Wheel baskets are required when flatbed towing.

Your vehicle comes with a front recovery hook to assist in vehicle recovery situations. See **Towing Points** (page 36).

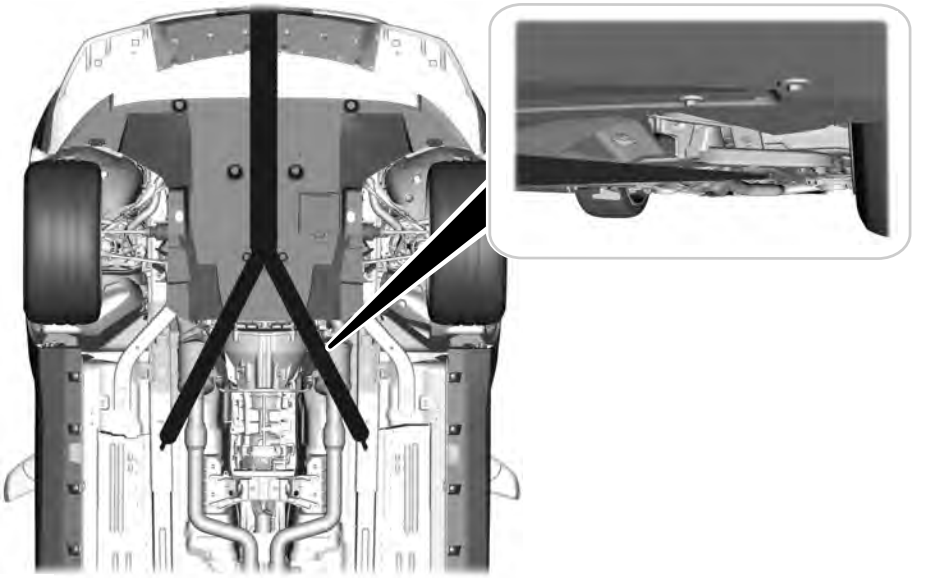
Perform the following when towing your vehicle:

- Enable manual park override. See **Automatic Transmission** (page 20).

Note: *Do not use the Stay in Neutral Mode for towing.*

Note: *Do not tow with a slingbelt or wheel lift equipment.*

Note: *If the vehicle is towed incorrectly or by any other means, vehicle damage may occur.*



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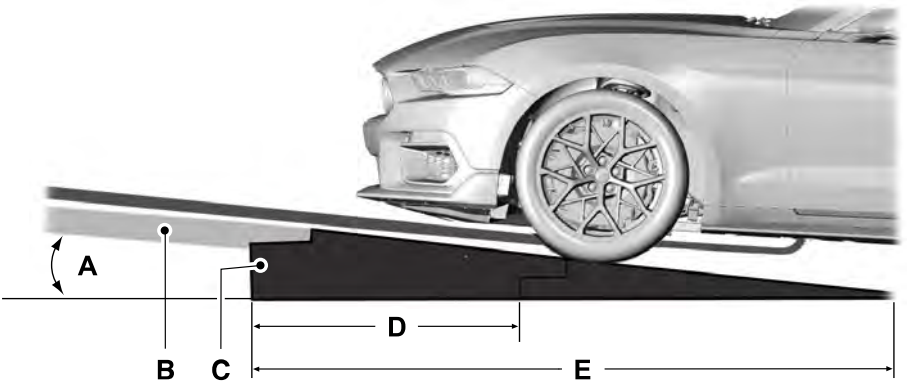
Two mini J hooks should be used when the vehicle is towed. The hooks should be attached to the oblong holes in rails as shown to winch the vehicle onto the flatbed. Use tire slings only to tie the vehicle down to the flatbed. Other methods may damage the vehicle.

Preferred Flatbed Method



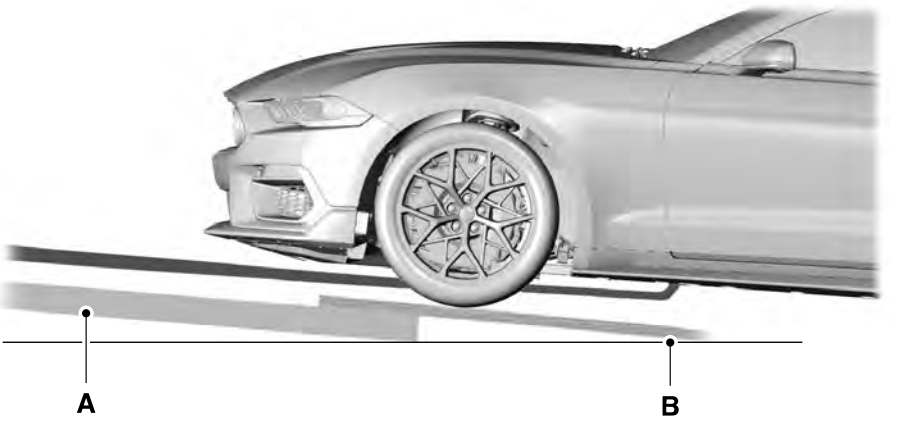
A Seven degrees maximum.
B Tow vehicle ramp.
C Race ramps.
D 30 inches (76 centimeters) minimum.
E 70 inches (178 centimeters) minimum.

Use race ramps to load the vehicle.

The diagram illustrates the maximum ramp angle allowable to load your vehicle on a flatbed. Vehicle damage may occur with greater angles.

Ramps must be used to achieve appropriate undercarriage clearances.

Alternate Flatbed Method



A Tow vehicle ramp.

B Wooden ramp.

Use 2 in (5 cm) by 8 in (20 cm) by 8 ft (2.5 m) wooden ramps to load the vehicle.

The diagram illustrates the maximum ramp angle allowable to load your vehicle on a flatbed. Vehicle damage may occur with greater angles.

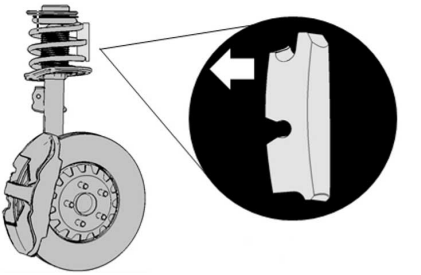
Blocks must be used to achieve appropriate undercarriage clearances.

Transporting or Trailering - Mach 1 Handling Package (If Equipped)

Due to low ground clearance, your vehicle is transported from the assembly plant to the dealer with front suspension spacers installed. These are removed by the dealer prior to customer delivery and are provided with the vehicle. If you plan to transport or trailer your vehicle and need additional clearance, the spacers may be reinstalled for additional underbody clearance.

Note: *Suspension spacers must be removed before driving your vehicle. Failure to remove the spacers may cause damage to suspension components and degrade vehicle performance.*

Note: *It is only possible for you to install or remove the suspension spacers while the vehicle is raised in the air.*



Front Suspension

Insert the top of the spring spacer onto the spring first, then snap the bottom of the spacer into place.

BREAKING-IN

Your vehicle requires a break-in period. For the first 1,000 mi (1,600 km), avoid driving at high speeds, heavy braking, aggressive shifting or using your vehicle to tow. During this time, your vehicle may exhibit some unusual driving characteristics.

Ground Clearance

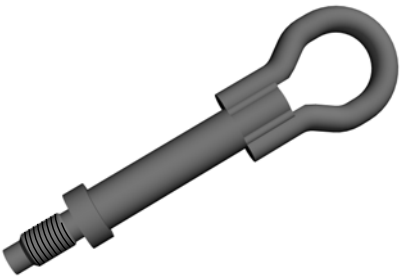
Since ground clearance is reduced, use caution when approaching curbs or curb stops from the front and rear as vehicle damage may occur. Additionally, when crossing speed bumps or driveway curbs, you should approach at a 45 degree angle to reduce the risk of vehicle damage.

DRIVING THROUGH WATER

Your vehicle has aerodynamic devices attached to the underbody designed to help control airflow for superior performance. Therefore, the driver must be especially careful to avoid driving through deep or standing water. If driving through deep or standing water is unavoidable, do not exceed 10 mph (16 km/h). 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 the intake of water into the engine.

TOWING POINTS (IF EQUIPPED)

Recovery Hook Location

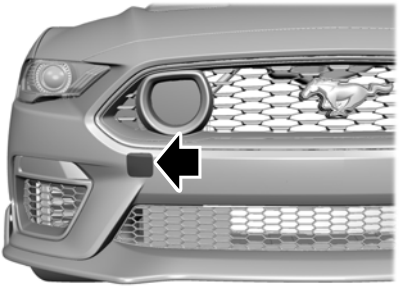


The recovery hook is in the spare wheel storage tray.

Installing the Recovery Hook

There is an installation point for the recovery hook behind the towing eye attachment point cover.

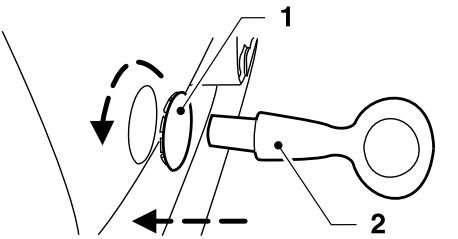
To remove the towing eye attachment point cover:



1. Gently press at the position indicated until the left side of the cover pops out.
2. Gently remove the cover from the front fascia by pulling on the left side of the cover, away from the vehicle.

Note: *The towing eye attachment point cover has a small lanyard to keep it attached to the bumper. Disconnect the lanyard if necessary.*

To install the recovery hook:



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Insert the recovery hook and turn it counterclockwise to install it. Make sure that you fully tighten the recovery hook.

Note: *The recovery hook has a left-hand thread.*

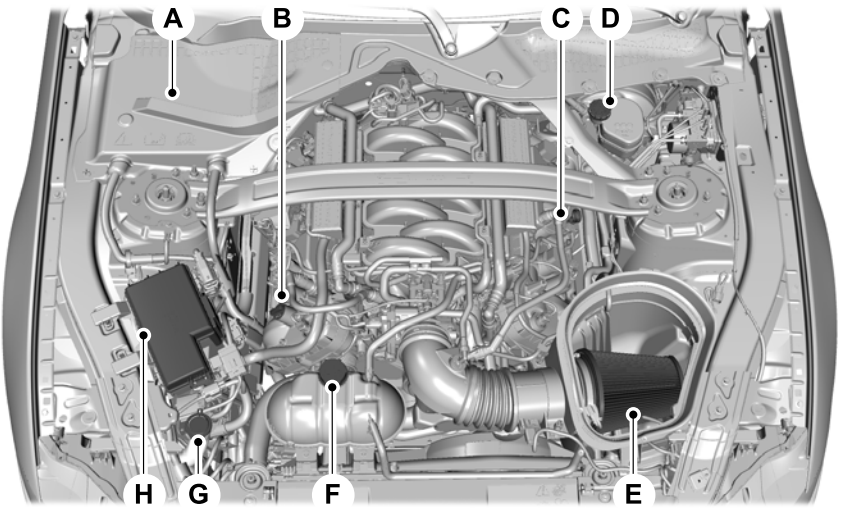
To re-install the towing eye attachment point cover:

1. Insert the right side of the cover into the front fascia. There is a protruding edge on the cover that inserts into the fascia.
2. Push the left side of the cover into the front fascia until it is aligned with the fascia and you hear a snap.

FUSE SPECIFICATION CHART

See the Owner's Manual for your vehicle's fuse information.

UNDER HOOD OVERVIEW



A Battery (out of view).
B Engine oil filler cap. See **Engine Oil Check** (page 38).
C Engine oil dipstick.
D Brake fluid reservoir.
E Air filter assembly. See **Changing the Engine Air Filter** (page 39).
F Engine coolant reservoir. See **Engine Coolant Check** (page 40).
G Windshield washer reservoir.
H Power distribution box.

ENGINE OIL CHECK

1. Make sure that your vehicle is on level ground.
2. Check the oil before starting the engine or switch the engine off and wait 10 minutes for the oil to drain into the oil pan.
3. Remove the dipstick and wipe it with a clean, lint-free cloth.
4. Reinstall the dipstick and make sure it is fully seated. Remove it again to check the oil level.
5. If the oil level is between the maximum and minimum marks, the oil level is acceptable. Do not add oil.

6. If the oil level is at the minimum mark, immediately add oil.
7. Reinstall the dipstick. Make sure it is fully seated.

Note: *The oil consumption of new engines reaches its normal level after approximately 3,000 mi (5,000 km).*

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.

Do not use supplemental engine oil additives. They could cause 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 **Capacities and Specifications** (page 60).
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.*

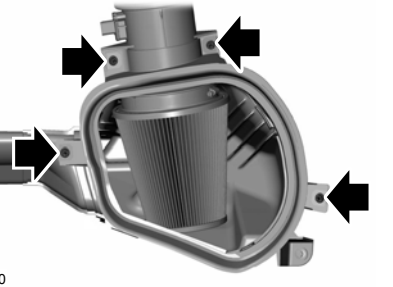
Note: *Soak up any spillage with an absorbent cloth immediately.*

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.

See the scheduled maintenance information for the appropriate intervals for changing the air filter element.

When changing the air filter element, use only the Motorcraft™ air filter element listed. See the Motorcraft part numbers in the Capacities and Specifications chapter.



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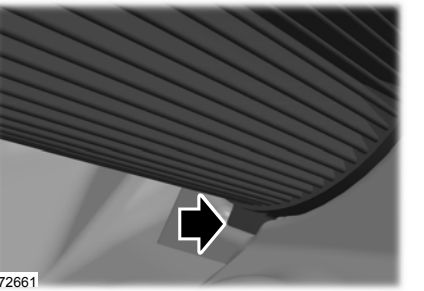

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1. Remove the two sensor wire harness retainers from the air box studs located on the front side of the air box.
2. Remove the four studs that fasten the upper air box housing to the lower air box housing.
3. Separate the upper air box housing from the lower air box housing.
4. Loosen the air filter clamp enough to allow the filter to slip off the housing easily.
5. Remove the air filter from the air filter housing.
6. Wipe the newly-exposed air filter outlet tube clamping area clean to remove any dirt or debris.
7. Install a new air filter, taking care not to damage the air filter element. Align the tab on the closed end of the filter with the notch in the air filter housing.
8. Tighten the air filter clamp down.

Note: *Do not overtighten the clamp or studs when reinstalling.*

9. Reinstall the upper air box piece to the lower air box piece. Tighten the 4 studs down.
10. Reinstall the two sensor wire harness retainers to the mating air box studs.

ENGINE COOLANT CHECK

Check the concentration and level of engine coolant at the mileage intervals listed in the scheduled maintenance information.

Note: *Make sure that the level is between the **MIN** and **MAX** marks on the engine and coolant reservoirs.*

Note: *Coolant expands when it is hot. The level could extend beyond the **MAX** mark. If the level is at the **MIN** mark, add coolant immediately.*

Maintain the coolant concentration within 48% to 50%, which equates to a freeze point between -30ºF (-34ºC) and -34ºF (-37ºC).

Note: *For best results, test coolant concentration with a refractometer, such as Rotunda tool 300-ROB75240, available from your dealer. We do not recommend the use of hydrometers or coolant test strips for measuring coolant concentrations.*

Be sure to read and understand Precautions in your Owner's Manual. If you do not check the coolant at the recommended interval, the engine coolant reservoir could become low or empty. If the reservoir is low or empty, add coolant to the reservoir.

Note: *Automotive fluids are not interchangeable. Do not use engine coolant, antifreeze or windshield washer fluid outside of its specified function and vehicle location. For more information about engine coolant, see the Maintenance chapter of the Owner's Manual.*

Adding Coolant

WARNING: Do not add engine coolant when the engine is on or the cooling system is hot. Failure to follow this instruction could result in personal injury.

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: 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.

WARNING: Do not add coolant further than the ***MAX*** mark.

Note: *Do not use stop leak pellets, cooling system sealants, or additives as they can cause damage to the engine cooling or heating systems. Your vehicle warranty would not cover this damage.*

- DO NOT MIX different colors or types of coolant in your vehicle. Make sure you use the correct coolant. Mixing of engine coolants could harm your engine's cooling system. The use of an improper coolant could harm engine and cooling system components and could void the warranty.
- In case of emergency, you can add a large amount of water without engine coolant, in order to reach a vehicle service location. In this instance, drain the cooling system, chemically clean the system with Motorcraft® Premium Cooling System Flush, and refill with prediluted coolant as soon as possible. Water alone without engine coolant can cause engine damage from corrosion, overheating or freezing.

Note: *Do not use alcohol, methanol or brine or any engine coolants mixed with alcohol or methanol antifreeze coolant. Alcohol and other liquids can cause engine damage from overheating or freezing.*

Note: *Do not add extra inhibitors or additives to the coolant. These can be harmful and compromise the corrosion protection of the engine coolant.*

Unscrew the cap slowly. Any pressure could escape as you unscrew the cap.

Add prediluted engine coolant meeting our specification. See the Capacities and Specifications chapter of the Owner's Manual for more information. Whenever you add coolant, check the coolant level in the coolant reservoir the next few times you drive the vehicle. If necessary, add enough prediluted coolant to bring the coolant level to the proper level.

Coolant Refill Procedure

Use the following procedure when refilling the cooling system after it has been drained or become extremely low.

1. Remove the pressure relief cap from the coolant reservoir as previously outlined.
2. Slowly add prediluted coolant to the coolant reservoir until the coolant level is between the ***MIN*** and ***MAX*** marks on the reservoir.
3. Reinstall the pressure relief cap.
4. Start and idle the engine until the upper radiator hose is warm, which indicates the thermostat is open and coolant is flowing through the entire system.
5. Shut the engine off and let it cool.
6. Remove the pressure relief cap from the coolant reservoir as previously outlined.
7. Add prediluted coolant to the coolant reservoir until the coolant level is between the ***MIN*** and ***MAX*** marks on the reservoir.
8. Reinstall the pressure relief cap.
9. Check the coolant level in the reservoir before you drive your vehicle the next few times with the engine cool.

10. If necessary, add prediluted coolant to the coolant reservoir until the coolant level is between the ***MIN*** and ***MAX*** marks on the reservoir.

Whenever you add coolant, check the coolant level in the coolant reservoir the next few times you drive the vehicle. If necessary, add prediluted coolant to bring the coolant level to the proper level.

If you have to add more than 1 qt (1 L) of coolant per month, have your dealer check the cooling system. Your cooling system could have a leak. Operating an engine with a low level of coolant can result in engine overheating and engine damage.

Operating at High Speeds and Track Days

Your vehicle is capable of sustained high speeds and track day driving.

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 **Wheels** (page 52).
- Verify fluid levels for oil, coolant, brake and hydraulic fluid. See **Capacities and Specifications** (page 56).
- Change the engine oil and replace the engine oil filter prior to use on the track. Change the engine oil and filter again after every four hours of track time. Maintain the engine oil level at or near the max mark on the engine oil dipstick. See **Engine Oil Check** (page 38).
- Replace the brake fluid with fresh Motorcraft/Ford DOT 4 LV High Performance Brake Fluid or other DOT compliant fluid with a dry boiling point greater than 500ºF (260ºC) from a sealed container. Do not use silicone or DOT 5 brake fluids.
- If you are operating your Mach 1 on a drag strip, use drag strip selectable drive mode in addition to using line lock and launch control to provide a specific set-up tuned for the quickest straight line elapsed times.
- If you are operating your Mach 1 on a road course, use sport or track selectable drive modes to provide a specific set-up tuned for optimal shift and suspension set-up that is tuned towards handling prowess on closed course surfaces.

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 **Wheels** (page 52).
- Check all fluid levels.
- Refer to the track maintenance interval chart. See **Normal Scheduled Maintenance** (page 71).
- Check the front and rear wheel bearings for abnormal wear.
- Inspect brake caliper dust boots for abnormal wear.

Track Apps

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.

This information display driven feature provides a suite of menu options to record and optimize your track performances. See **General Information** (page 13).

Note: *Track Apps are for track use only. Do not use them under any other driving conditions.*

Note: *You cannot view or clear your results unless your vehicle is at a complete stop with the right arrow on the display menu inactive. If your vehicle does not reach 100 mph (160 km/h) during the track run, your display may not show your selected interval's results.*

Note: *The pre-collision assist system turns off when using Track Apps or when you switch off your stability control system.*

Acceleration Timer

Displays your vehicle's rate of acceleration for a given speed or distance range.

Accelerometer

Displays your vehicle's rate of acceleration or deceleration. A dot moves toward the area of acceleration or deceleration.

LEFT Acceleration or Deceleration

When accelerating or decelerating left, the dot moves to the right on the accelerometer.

RIGHT Acceleration or Deceleration

When accelerating or decelerating right, the dot moves to the left on the accelerometer.

Brake Performance

Displays your vehicle's rate of deceleration for a given speed range.

Exhaust Mode

Gives the driver the ability to choose the vehicle's exhaust mode.

Note: *The Track Exhaust Mode setting is only for use at tracks and not for use on public roadways. Use of this setting results in increased exterior noise, which may not meet state and local laws and regulations. It is the obligation of the driver to operate the vehicle in a manner that complies with state and local requirements. Only use the Track Exhaust Mode setting at a competition track or an off-road course where elevated exterior vehicle noise is acceptable.*

Lap Timer

Gives you the ability to record lap times at three separate tracks.

Launch Control (If Equipped)

Maximizes your vehicle's traction from a standing start.

Follow these steps to use launch control:

1. Bring your vehicle to a complete stop.
2. Make sure launch control is enabled. The indicator illuminates in the information display when launch control is enabled.
3. Fully press the clutch pedal.
4. Shift the transmission into 1st gear.
5. Fully depress the accelerator pedal and allow the engine RPM to stabilize.
6. Release the clutch pedal.

Line Lock

Line lock is a feature intended for use at tracks only and should not be used on public roadways. Use of this feature may result in significantly increased rear tire wear. It is intended to condition the rear tires to maximize traction prior to track use. Line lock maintains brake force at the front wheels, allowing the rear wheels to spin with minimal vehicle movement.

This feature is located in the Track Apps menu. Make selections through the 5-way information display control and OK button located on the steering wheel.

Using Line Lock

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. Follow the prompts in the information display to initiate line lock.

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.

If you want to cancel line lock once it is initialized, press the left information display control. 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 information 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 driver information 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.
- The driver door is closed.
- The transmission is in a forward gear.
- Selectable drive mode is not in wet mode (if equipped).
- There are no electronic stability control faults.
- The steering wheel must be in the straight ahead position.

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 releases immediately and normal vehicle function resumes. When line lock engages, a countdown timer shows the remaining time before line lock is released automatically. If you exceed the time limit, 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 while line lock is engaged, line lock automatically cancels and normal brake function resumes.*

Performance Shift Indicator

The performance shift indicator displays a row of colored lights that represent engine RPM.

The performance shift indicator menu allows you to:

- Choose whether the indicator is shown on the windshield or information display.
- Set a shift point within the allowable RPM range in increments of 100.
- Enable or disable the associated shift tone, based on the set shift point.
- Set the between off, change with drive mode, tach, track and drag.
- Set the light intensity. The intensity adjusts between day time and night time.

Start Option

Allows you to select the type of countdown the information display shows before starting an event.

Status Screen

Provides the status of your chosen performance-related settings.

View/Clear Results

Allows you to view and clear the last and saved results of the Acceleration Timer, Brake Performance, and All Time Best results.

Road Course Alignment Recommendations

Note: *After your track day is complete, return your car to the street alignment and tire pressures.*

Note: *Using these wheel alignment settings may cause excessive tire wear. Only use these settings for racing or competitive driving. Excessive tire wear is not covered under the vehicle warranty.*

If you plan to participate in road course track days, we recommend the following chassis settings for optimal tire wear and handling performance.

All settings are at curb loading condition full of fuel.

Mach 1

Front	Track	Street
Camber	-1.5º	-1.03º
Toe - Total	0º	0º

Rear	Track	Street
Camber	-1.5º	-1.5º
Toe - Total	0.24º	0.24º

Mach 1 with Handling Package

Front	Track	Street
Camber	-2.25º	-1.21º
Toe - Total	0.1º	0.1º

Rear	Track	Street
Camber	-1.5º	-1.14º
Toe - Total	0.3º	0.3º

Track Tire Pressures

Cold Tire Pressures

Tire Pressure	Front	Rear
Mach 1	30 psi (2.07 bar)	30 psi (2.07 bar)
Mach 1 with Handling Package	28 psi (1.93 bar)	28 psi (1.93 bar)

Hot Tire Pressures

Tire Pressure	Front	Rear
Mach 1	Less than 38 psi (2.62 bar)	Less than 38 psi (2.62 bar)
Mach 1 with Handling Package	Less than 36 psi (2.48 bar)	Less than 36 psi (2.48 bar)

Track Use Maintenance Intervals

Follow these maintenance intervals for when you use your vehicle on a track or in a high-speed event.

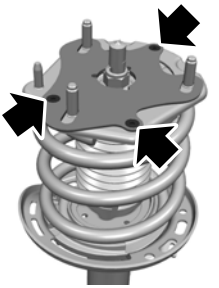
Interval	Vehicle Use and Example
One track weekend or approximately 4 hours of track use	Change the engine oil and filter
Every 500 mi (800 km)	Change the rear axle fluid[1]

[1] Change the fluid every 500 mi (800 km) or when a message appears in the information display stating that the axle fluid is over temperature.

Adjustable Camber Front Strut Top Mounts (vehicles with Optional Handling Package)

Your vehicle has adjustable strut mounts which you can use to adjust the camber of your vehicle before and after a track event to the specifications listed in the Road Course Alignment Recommendations table previously shown.

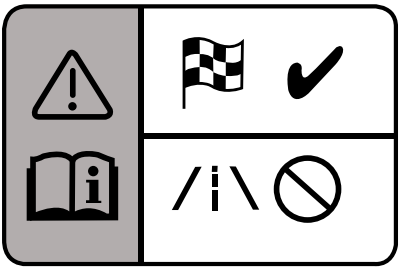
Note: *After your track day is complete, return your car to the street alignment and tire pressures.*



Note: *The adjustable camber front strut mounts are fitted with three set screws that must be removed before camber can be adjusted. If you cannot adjust the camber, please see your authorized dealer or call 800–367–3788 for more details to remove the set screws.*

Aerodynamics (If Equipped)

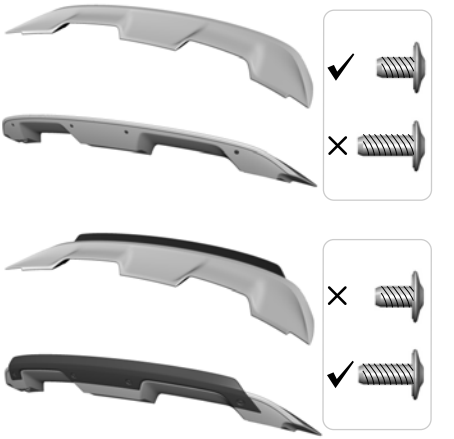
Rear Gurney Flap



The rear Gurney flap must be removed for on-road driving.

Your vehicle may include a removable Gurney flap in the luggage compartment. The Gurney flap greatly enhances high speed stability and performance on the track. It is recommended that you use the Gurney flap at all tracks featuring high speed corners and can be used at any track regardless of cornering speeds.

You could benefit from the removal Gurney flap to improve low speed balance on smaller tracks with maximum cornering speeds below 70 mph (112 km/h). We recommend that you attach the Gurney flap for all track events and carefully assess both the vehicle's condition and your capability before removal.



Note: *The Gurney flap comes with longer size bolts to install it onto the rear spoiler.* ***Do not use the longer size bolts without the Gurney flap attached or damage to the spoiler may occur.***

Brake Burnishing

The brakes should be properly burnished 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. A deceleration gauge can be accessed through the TrackApps menu in your information display.

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 omit an odor or smoke during this part of the procedure.

Cool down:

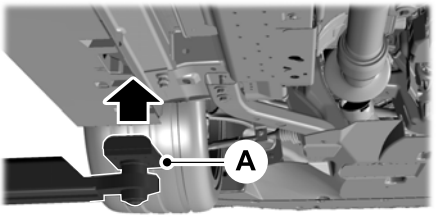
- Cool the brakes down by driving one or two laps, 5 mi (8 km), at 60 mph (96 km/h) with minimal to no brake usage.

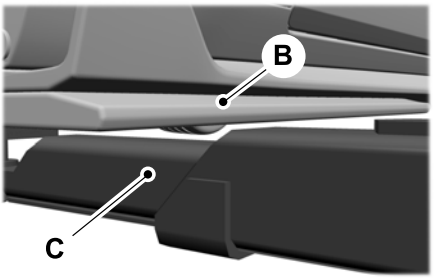
Recovery low temperature bedding:

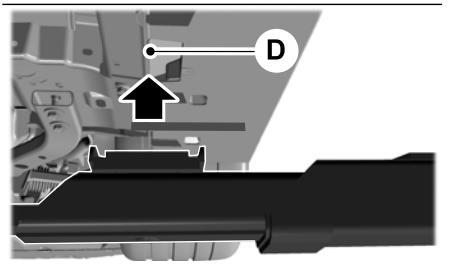
- Perform at least 30 stops from 50 mph (80 km/h) at 1/3 g deceleration with 0.7 mi (1.2 km) spacing between stops. A deceleration gauge can be accessed through the TrackApps menu in your information display.

GENERAL INFORMATION

Lifting Your Vehicle







A Hoist pad.
B Rocker molding.
C Hoist arm.
D Sill flange.

Using a Two Post Vehicle Hoist

When using a vehicle hoist, make sure the rocker moldings (B) do not contact or interfere with the hoist arms (C) or damage to your vehicle may occur.

Follow these steps to hoist your vehicle:

1. Align your vehicle with the hoist and position the hoist pads (A) to align with the sill flange (D).
2. Lift the hoist until all four hoist pads (A) make contact with the sill flange (D).

Note: *The hoist pad (A) may contact the bottom of the rocker molding (B). If the vehicle is hoisted from the proper location this does not damage the part.*

3. Inspect all hoist arms (C) for any interference or contact with the rocker molding (B).
4. If there is no contact with any hoist arm (C), your vehicle can be lifted safely.

If there is contact with any hoist arm (C), do not lift the vehicle and follow these instructions:

1. Make sure the hoist arms (C) are fully lowered to the ground.
2. If necessary, adjust the hoist pad (A) height until it makes contact with the sill flange (D) and the rocker molding (B) is clear from the hoist arm. Hoist pad (A), height can usually be adjusted by rotating the hoist pad (A) counter-clockwise.
3. If the vehicle hoist does not use adjustable pads, install spacers onto the hoist pad (A) for the same effect.

Note: *Do not use wood spacers as they could split along the grain of the wood.*

4. Raise the hoist until the hoist pads (A) make contact will the sill flange (D). Make sure there is no contact between the rocker molding (B) and all hoist arms (C) before lifting the vehicle.

CLEANING THE EXTERIOR

Washing Your Vehicle

Note: *Do not use a touchless car wash or any kind of commercial car wash equipment with front splitter wickers installed.*

Note: *Always hand wash your vehicle if you have vinyl stripes.*

Do not drive your vehicle through an automated, commercial car wash due to the vehicle's low ground clearance and tire width. Wash your vehicle by hand, or by using a touchless commercial wash with no mechanical tracks on the floor. Do not use a power washer or high pressure wand.

To maintain proper cooling and aerodynamics at high speeds, your vehicle has heat exchangers integrated with the front fascia designed to maximize performance. Do not use a power washer or high powered spray nozzle as damage to the cooling fins could occur.

Note: *For heavy accumulation of debris or dirt, clean with a non-metallic soft bristle car wash brush and warm soapy water as needed.*

CLEANING THE ENGINE

Note: *Do not allow water or cleaning solutions to contact the exposed air filter element. Cover the air filter assembly and avoid spraying water at it.*

WHEELS

Your vehicle has unique wheels matched to the tires. These wheels are more susceptible to damage due to their diameter, width and low profile tires.

To avoid damage to your wheels:

- Maintain proper tire pressure (see Tires in this supplement).
- When installing wheels, always torque lug nuts to specification with a torque wrench.
- Inspect your wheels for damage on a regular basis. If a wheel is damaged, replace it immediately.
- In the event that you encounter an abnormally harsh impact, inspect the outer diameter of your wheels, both inside and out, for damage.

Use Motorcraft™ Wheel and Tire Cleaner to maintain your wheels. See your Owner's Manual for information on other cleaning products and vehicle care.

Wheel Lug Nut Torque Specifications

WARNING: When you install a wheel, always remove any corrosion, dirt or foreign materials present on the mounting surfaces of the wheel or the surface of the wheel hub, brake drum or brake disc that contacts the wheel. Make sure 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 correct metal-to-metal contact at the wheel mounting surfaces can cause the wheel nuts to loosen and the wheel to come off while your vehicle is in motion, resulting in loss of vehicle control, personal injury or death.

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

Lug nut size	lb-ft (Nm)*
M14 x 1.5	150 ± 15 (200 ± 20)

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

TIRES

WARNING: Only use replacement tires and wheels that are the same size, load index, speed rating and type (such as P-metric versus LT-metric or all-season versus all-terrain) as those originally provided by Ford. The recommended tire and wheel size may be found on either the Safety Compliance Certification Label (affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position), or the Tire Label which is located on the B-Pillar or edge of the driver's door. If this information is not found on these labels, then you should contact your authorized dealer as soon

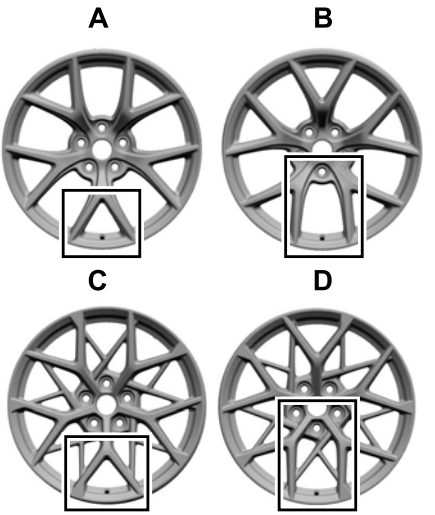
as possible. Use of any tire or wheel not recommended by Ford can affect the safety and performance of your vehicle, which could result in an increased risk of loss of vehicle control, vehicle rollover, personal injury and death.

Note: *Do not use tire chains on your vehicle. The use of any type of tire chain on these tires could damage your vehicle.*

Your vehicle is equipped with low profile, high performance tires that are designed to optimize the driving dynamics you expect in a Ford Performance vehicle. These tires are not optimized for off-road or winter (snow or cold weather) performance, and their ride, noise and wear characteristics are different than non-performance tires. Also, because of their lower profile, the tires are more susceptible to damage due to potholes and rough roads.

Variant		Tires	Wheels (inches)
Mach 1	Front	255/40R19	19 x 9.5
	Rear	275/40R19	19 x 10
Mach 1 with handling package	Front	305/30R19	19 x 10.5
	Rear	315/30R19	19 x 11

Note: *As outlined in the previous table, there are different sized tires and wheels on the front and rear positions. In order to identify that wheels are in their correct position, check the valve hole location as indicated in the following chart:*



A 19 in. x 9.5 in. front wheel, with the valve hole in a smaller window.

B 19 in. x 10 in. rear wheel, with the valve hole in a larger window.

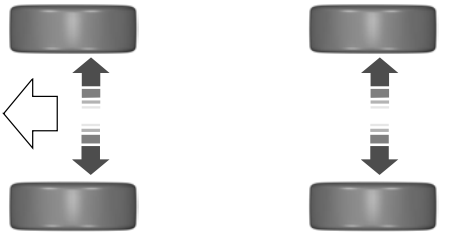
C 19 in. x 10.5 in. front wheel, with the valve hole in a smaller window.

D 19 in. x 11 in. rear wheel, with the valve hole in a larger window.

To make sure that your tires perform as intended, it is important that you maintain your tires properly:

- Your original equipment tires are optimized for performance in both wet and dry conditions. We do not recommend using the original equipment tires when temperatures drop to about 45ºF (7ºC) or below (depending on tire wear and environmental conditions) or in snow and ice conditions.
- The tires were designed for track use and may exhibit significantly reduced tread life and increased tire noise compared to the standard equipment tires under normal driving conditions. Increasing the front camber settings beyond the factory settings may further accelerate tread wear and induce tire noise.
- For tire pressures, see the placard located on the B-pillar inside the driver door.
- Always maintain your tire pressures according to the tire information placard on the driver door jamb, using an accurate gauge.
- Tire pressures are specified cold and should be checked after the vehicle has been parked for at least three hours. Do not reduce pressure of warm tires.
- Check your tire pressure often to maintain it properly. Tire pressure can diminish over time and fluctuate with temperature.
- Do not overload your vehicle. Maximum vehicle and axle weights are listed on the tire information placard.
- Extra caution should be taken when operating the vehicle near its maximum load, including assuring proper tire pressure and reducing speeds.

- Extra caution should be taken when operating on rough roads to avoid impacts that could cause tire damage.
- In the event that you encounter an abnormally harsh impact, inspect your tires for damage.
- Inspect your tires for damage on a regular basis. If a tire is damaged, replace it immediately.
- Proper suspension alignment is critical for maximum performance and optimal tire wear. If you notice uneven tire wear, have your alignment checked.
- When replacing tires, the only way to maintain original performance is to use the original equipment tire. If a different tire is used, it should be the same size, speed rating and load rating and be replaced as a set of four. Never mix tire brands.
- Rotate tires as recommended in the tire rotation information. Your vehicle has a staggered tire configuration. Rotate the tires from side to side only, not from front to back. See your owner's manual for more information.



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USING WINTER TIRES

The original equipment tires on your vehicle are designed to optimize its performance in dry or wet summer road conditions. They are not optimized for off-road or winter performance and you must not use them with snow chains. The use of any type of snow chains with the original equipment wheels and tires of your vehicle may cause damage not covered by the vehicle warranty. We do not recommend using the original equipment tires when temperatures drop below 45ºF (7ºC) or in snow and ice conditions.

Note: *We recommend that you use winter or all-season tires when temperatures drop below 45ºF (7ºC) or in snow and ice conditions.*

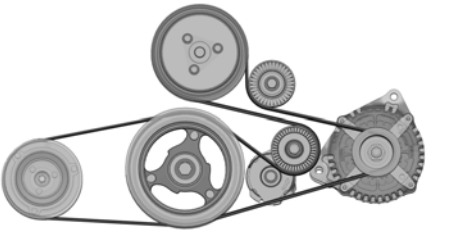
- Use winter tires with the same load index as the summer tires originally equipped with your vehicle.
- If you fit winter tires with a speed rating less than the original equipment tires, do not exceed the maximum speed rating for the tire. Do not operate your vehicle above posted speed limits while using winter tires. Never perform high speed driving with winter tires.

Please call the Ford Performance Information Center at 1-800-367-3788 for specific winter tire recommendations.

ENGINE SPECIFICATIONS

Item	Description
Configuration.	90 degree V8.
Bore x stroke.	3.66 in (93 mm) bore x 3.65 in (92.7 mm) stroke.
Displacement.	307 in^3 (5,038 cm^3)
Compression ratio.	12.0:1
Spark plug gap.	0.049 in (1.25 mm) - 0.053 in (1.35 mm)
Horsepower.	480 hp (358 kW) @ 7000 RPM
Torque.	420 lb.ft (569 Nm) @ 4600 RPM
Redline.	7500 RPM
Top speed with manual transmission without gurney flap.	168 mph (270 km/h)
Top speed with automatic transmission.	155 mph (249 km/h) Electronically limited.
Valvetrain.	Dual overhead cams - roller finger followers.
Ignition.	Coil on plug.
Throttle body.	3.4 in (87 mm)
Pistons.	Cast aluminum.
Crankshaft.	Forged steel cross-plane.
Connecting rods.	Forged steel.
Induction.	Naturally aspirated cold air induction.
Exhaust system.	High-flow dual exhaust with H-pipe and active valve mufflers.

Drivebelt Routing



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BRAKE SYSTEM SPECIFICATIONS

Front

Description	Specification
Rotor diameter.	14.96 in (380 mm)
Rotor width.	1.34 in (34 mm)
Rotor swept area.	81.18 in^2 (523.76 cm^2)
Caliper piston diameter.	1.42 in (36 mm)

Rear

Description	Specification
Rotor diameter.	12.99 in (330 mm)
Rotor width.	0.98 in (25 mm)
Rotor swept area.	56.04 in^2 (361.55 cm^2)
Caliper piston diameter.	1.77 in (45 mm)

SUSPENSION SPECIFICATIONS

Item	Standard	With Handling Package
Front suspension.	MacPherson strut, double ball-joint	MacPherson strut, double ball-joint
Rear suspension.	Multi-link	Multi-link
Front spring rate.	34 N/mm (194 lbf/in)	37 N/mm (211 lbf/in)
Rear spring rate.	115 N/mm (657 lbf/in)	130 N/mm (742 lbf/in)
Front stabilizer bar.	33.3 mm diameter x 5.0 mm wall (1.31 x 0.20 in)	33.3 mm diameter x 5.0 mm wall (1.31 x 0.20 in)
Rear stabilizer bar.	24 mm diameter x 3.6 mm wall (0.95 x 0.14 in)	24 mm (0.95 in) diameter - solid bar

MOTORCRAFT PARTS

Component	Part Number
Air filter element.	FA-1922
Oil filter.	FL-500-S
Battery.	BXT-96R-590
Spark plugs.	SP-551
Transmission filter.	FT-202
Cabin air filter.	FP-78
Windshield wiper blade.	WW-1964 (passenger side) WW-2160 (driver side)

We recommend Motorcraft replacement parts available at your Ford dealer or at fordparts.com for scheduled maintenance. These parts meet or exceed Ford Motor Company's specifications and are engineered for your vehicle. Use of other parts may impact vehicle performance, emissions and durability. Your warranty may be void for any damage related to use of other parts.

If a Motorcraft oil filter is not available, use an oil filter that meets industry performance specification SAE/USCAR-36.

For spark plug replacement, contact an authorized dealer. Replace the spark plugs at the appropriate intervals. See **Scheduled Maintenance** (page 68).

CAPACITIES AND SPECIFICATIONS

Use oil and fluid that meets the defined specification and viscosity grade.

If you do not use oil and fluid that meets the defined specification and viscosity grade, it could result in:

- Component damage that your vehicle warranty does not cover.
- Longer engine cranking periods.
- Increased emission levels.
- Reduced engine performance.
- Reduced fuel economy.
- Reduced brake performance.

Air Conditioning System

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.

Capacities

Variant	Refrigerant	Refrigerant Oil
All.	19 oz (0.539 kg)	3.38 fl oz (100 ml)

Materials

Name	Specification
R-1234yf Refrigerant(U.S.) R-1234yf Refrigerant / Frigorigène R-1234yf(Canada) YN-33-A(U.S.) HS7Z-19B519-BA(Canada)	WSS-M17B21-A
Motorcraft® R-1234yf Refrigerant PAG Oil(U.S.) Motorcraft® R-1234yf Refrigerant PAG Oil / Huile PAG pour frigorigène R-1234yf Motorcraft®(Canada) YN-35(U.S. & Canada)	WSS-M2C300-A2

Automatic Transmission

Note: *Only use MERCON ULV transmission fluid for automatic transmissions that require MERCON ULV transmission fluid. The use of any other fluid could cause transmission damage.*

Capacities

Variant	Quantity
All.	13.8 qt (13.1 L) [1]

[1] Approximate dry fill capacity. Actual amount could vary during fluid changes.

Materials

Name	Specification
Motorcraft® MERCON® ULV Automatic Transmission Fluid(U.S.) Motorcraft® MERCON® ULV Automatic Transmission Fluid / MERCON® ULV huile pour boîtes automatique Motorcraft®(Canada) XT-12-QULV(U.S. & Canada)	WSS-M2C949-A, MERCON® ULV

Manual Transmission

Capacities

Variant	Quantity
All.	3.3 qt (3.1 L)

Materials

Name	Specification
Motorcraft® MERCON® LV Automatic Transmission Fluid(U.S.) Motorcraft® MERCON® LV Automatic Transmission Fluid / Huile pour boîte automatique MERCON® LV Motorcraft®(Canada) XT-10-QLVC(U.S.) CXT-10-LV6(Canada)	WSS-M2C938-AMERCON® LV,

Engine Coolant

Capacities

Variant	Quantity
All.	15.2 qt (14.4 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

Engine Oil

An oil that displays this symbol conforms to current engine, emission system and fuel economy performance standards of ILSAC.

We recommend Motorcraft motor oil for your vehicle. If Motorcraft oil is not available, use motor oils of the recommended viscosity grade that meet API SP requirements and display the API Certification Mark for gasoline engines.

Do not use supplemental engine oil additives because they are unnecessary and could lead to engine damage that your vehicle warranty does not cover.

Capacities

Variant	Including the Oil Filter
All.	10.0 qt (9.5 L)

Materials

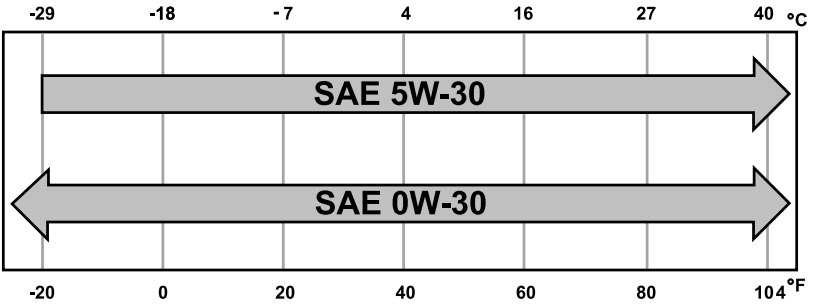
Name	Specification
Motorcraft® SAE 5W-30 Synthetic Blend Motor Oil(U.S.) Motorcraft® SAE 5W-30 Super Premium Motor Oil / Huile moteur de très haute qualité SAE 5W-30 Motorcraft®(Canada) XO-5W30-Q1SP(U.S.) CXO-5W30-LSP6(Canada)	WSS-M2C961-A1

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 -22.0°F (-30°C) or below.

Materials

Name	Specification
Engine Oil - SAE 0W-30 - Synthetic Blend	WSS-M2C963-A1



Fuel Tank

Capacities

Variant	Quantity
All.	16.0 gal (60.55 L)

Grease

Materials

Name	Specification
Motorcraft® Multi-Purpose Grease Spray(U.S.) Motorcraft® Multi-Purpose Grease Spray / Graisse tout usage en aérosol Motorcraft®(Canada) XL-5-A(U.S. & Canada)	ESB-M1C93-B

Hydraulic Brake System

Note: *We recommend using DOT 4 Low Viscosity (LV) High Performance Brake Fluid or equivalent meeting WSS-M6C65-A2. Use of any fluid other than the recommended fluid 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.*

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

Locks

Materials

Name	Specification
Motorcraft® Penetrating and Lock Lubricant(U.S.) Motorcraft® Penetrating Fluid / Liquide dégrippant Motorcraft®(Canada) XL-1(U.S.) CXC-51-A(Canada)	-

Rear Axle

Capacities

Variant	Quantity
All.	2.0 qt (1.9 L) [1]

[1] For complete refill of our limited slip axles, add 3.28 fl oz (97 ml) of Additive Friction Modifier XL-3 or equivalent meeting specification EST-M2C118-A. Include this friction modifier in the total fluid capacity. Our rear axles contain a synthetic lubricant that does not require changing unless you submerge the axle in water.

Materials

Name	Specification
Motorcraft® SAE 75W-85 Premium Synthetic Hypoid Gear Lubricant(U.S.) Motorcraft® SAE 75W-85 Premium Synthetic Hypoid Gear Lubricant / Huile synthétique de haute qualité pour engrenages hypoïdes SAE 75W-85 Motorcraft®(Canada) XY-75W85-QL(U.S. & Canada)	WSS-M2C942-A
Motorcraft® Additive Friction Modifier(U.S.) Motorcraft® Additive Friction Modifier / Additif modificateur de friction Motorcraft®(Canada) XL-3(U.S.) CXL-3(Canada)	EST-M2C118-A

Washer Reservoir

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 / Liquide lave-glace de haute qualité Motorcraft®(Canada) ZC-32-B2(U.S.) CXC-37-A/B/D/F(Canada)	WSS-M14P19-A

BASE WARRANTY

Your vehicle carries the same warranty as other Ford Mustang models. This information is covered in its entirety in the warranty information.

Warranty service for your vehicle or any Ford Performance vehicle can be obtained at any Ford dealer nationwide.

We do not recommend modifying or racing (for competition or time) Ford Performance vehicles, as they are designed and built to be driven as delivered from the factory. The warranty information discusses vehicle usage and the installation of aftermarket parts and their effect on warranty coverage.

Additionally, perform multi-point inspection and the maintenance outlined in the 150,000 mi (240,000 km) normal maintenance schedule of the scheduled maintenance before and after track use. See the vehicle service manual for removal and installation procedures. Replace with Genuine Ford and Motorcraft® service parts as needed.

Subjecting your vehicle to competition conditions may render repairs non-reimbursable under the warranty.

What is Not Covered Under the New Vehicle Limited Warranty?

Damage caused by:

- Abuse, competition, racing, track use or other events.
- Accidents, crashes or objects striking the vehicle (including driving through a car wash).
- Theft, vandalism or riot.
- Fire or explosion.
- Using contaminated or improper fuel or fluids.
- Customer-applied chemicals or accidental spills.
- Driving through water deep enough to cause water to be ingested into any component, for example powertrain components.
- Misuse of the vehicle, such as driving over curbs, overloading or using the vehicle as a permanent stationary power source.

GENERAL MAINTENANCE INFORMATION

Why Maintain Your Vehicle?

Carefully following the maintenance schedule helps protect against major repair expenses resulting from neglect or inadequate maintenance and may help to increase the value of your vehicle when you sell or trade it. Keep all receipts for completed maintenance with your vehicle.

We have established regular maintenance intervals for your vehicle based upon rigorous testing. It is important that you have your vehicle serviced at the proper times. These intervals serve two purposes; one is to maintain the reliability of your vehicle and the second is to keep your cost of owning your vehicle down.

It is your responsibility to have all scheduled maintenance performed and to make sure that the materials used meet the specifications identified in this owner's manual. See **Capacities and Specifications** (page 56).

Failure to perform scheduled maintenance invalidates warranty coverage on parts affected by the lack of maintenance.

Why Maintain Your Vehicle at Your Dealership?

Factory-Trained Technicians

Service technicians participate in extensive factory-sponsored certification training to help them become experts on the operation of your vehicle. Ask your dealership about the training and certification their technicians have received.

Genuine Ford and Motorcraft® Replacement Parts

Dealerships stock Ford, Motorcraft and Ford-authorized branded re-manufactured replacement parts. These parts meet or exceed our specifications. Parts installed at your dealership carry a nationwide 24-month or unlimited mile (kilometer) parts and labor limited warranty.

If you do not use Ford authorized parts they may not meet our specifications and depending on the part, it could affect emissions compliance.

Convenience

Many dealerships have extended evening and Saturday hours to make your service visit more convenient and they offer one stop shopping. They can perform any services that are required on your vehicle, from general maintenance to collision repairs.

Note: *Not all dealers have extended hours or body shops. Please contact your dealer for details.*

Protecting Your Investment

Maintenance is an investment that pays dividends in the form of improved reliability, durability and resale value. To maintain the proper performance of your vehicle and its emission control systems, make sure you have scheduled maintenance performed at the designated intervals.

Your vehicle is equipped with an intelligent oil-life monitor that determines oil life based on engine operating conditions.

- Under normal operating conditions, a message appears in the information 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, the engine oil level needs to be checked at every refueling and adjusted to maintain proper level to avoid engine damage.

Note: *Oil level should not exceed the maximum mark on the indicator. See* ***Engine Oil Check*** *(page 38).*

When the oil change message appears in the information display, it is time for an oil change. Make sure you perform the oil change within two weeks or 500 mi (800 km) of the message appearing. Make sure you reset the Intelligent Oil-Life Monitor after each oil change.

If your information 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 inspect discolored fluids that also show signs of overheating or foreign material contamination immediately.

Make sure to change your vehicle's oils and fluids at the specified intervals or in conjunction with a repair. Flushing is a viable way to change fluid for many vehicle sub-systems during scheduled maintenance. It is critical that systems are flushed only with new fluid that is the same as that required to fill and operate the system or using a Ford-approved flushing chemical.

Owner Checks and Services

Make sure you perform the following basic maintenance checks and inspections every month or at six-month intervals.

Check every month
Engine oil level.
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, including spare, for wear and proper pressure.
Windshield washer fluid level.

Check every six months
Battery connections. Clean if necessary.
Body and door drain holes for obstructions. Clean if necessary.
Cooling system fluid level and coolant strength.
Door weatherstrips for wear. Lubricate if necessary.
Hinges, latches and outside locks for proper operation. Lubricate if necessary.
Parking brake for proper operation.
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.

Multi-Point Inspection

In order to keep your vehicle running right, it is important to have the systems on your vehicle checked regularly. This can help identify potential issues and prevent major problems. We recommend having the following multi-point inspection performed at every scheduled maintenance interval to help make sure your vehicle keeps running great.

Multi-Point inspection	
Accessory drive belts.	Hazard warning system operation.
Battery performance.	Horn operation.
Engine air filter.	Radiator, cooler, heater and air conditioning hoses.
Exhaust system.	Suspension components for leaks or damage.
Exterior lamps operation.	Steering and linkage.
Fluid levels; fill if necessary.[1]	Tires, including spare, 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.

[1] Brake, coolant recovery reservoir, automatic transmission 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.

NORMAL 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.

The following table provides examples of vehicle use and its impact on oil change intervals. It is a guideline only. Actual oil change intervals depend on several factors and generally decrease with severity of use.

When to expect the message prompting you to change your oil	
Interval	**Vehicle Use and Example**
7,000–10,000 mi (11,265–16,000 km)	**Normal**
	Normal commuting with highway driving. No, or moderate, load or towing. Flat to moderately hilly roads. No extended idling.
5,000–7,000 mi (8,000–11,999 km)	**Severe**
	Moderate to heavy load or towing. Mountainous or off-road conditions. Extended idling. Extended hot or cold operation. High engine speeds and loads, engine braking and hard cornering.
3,000–5,000 mi (4,800–7,999 km)	**Extreme**
	Maximum load or towing. Extreme hot or cold operation.

Normal Maintenance Intervals

At every oil change interval as indicated by the information display [1]
Change the engine oil and filter. [2]
Rotate tires, inspect tire wear and measure the tread depth.
Perform a multi-point inspection, recommended.
Inspect the automatic transmission fluid level if your vehicle has a dipstick. Consult your dealer for requirements.
Inspect the brake pads, rotors, hoses and the parking brake.
Inspect the engine cooling system strength and hoses.

At every oil change interval as indicated by the information display [1]
Inspect the exhaust system and heat shields.
Inspect rear axle and U-joints. Lubricate if your vehicle has grease fittings.
Inspect the half-shaft boots.
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.

[1] Do not exceed one year or 10,000 mi (16,000 km) between service intervals.
[2] Reset the Intelligent Oil-Life Monitor after engine oil and filter changes.

Brake Fluid Maintenance [1]	
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 Items [1]	
Every 20,000 mi (32,000 km)	Replace the cabin air filter.
Every 30,000 mi (48,000 km)	Replace the engine air filter.
Every 100,000 mi (160,000 km)	Replace the spark plugs.
	Inspect the accessory drive belts. [2]
Every 150,000 mi (240,000 km)	Change the automatic transmission fluid and filter.
	Change the manual transmission fluid.
	Replace the accessory drive belts.

Other Maintenance Items [1]	
	Change the rear axle fluid.
At 200,000 mi (322,000 km)	Change the engine coolant. [3]

[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] After initial inspection, inspect every other oil change until replaced.

[3] Initial replacement at 10 years or 200,000 mi (322,000 km), then every 5 years or 100,000 mi (160,000 km).

Track Use Maintenance Intervals

Follow these maintenance intervals for when you use your vehicle on a track or in a high-speed event.

In addition to the recommendations below, we recommend following the procedures previously outlined in the Normal Maintenance Intervals section to help keep your vehicle running right, to identify potential issues, and to prevent major problems.

Interval	Vehicle Use and Example
One track weekend or approximately four hours of track use	Change the engine oil and filter.
Every 500 mi (800 km)	Change the rear axle fluid.[1]

[1] Change the fluid every 500 mi (800 km) or when a message appears in the information display stating that the axle fluid is overtemperature.

SPECIAL OPERATING CONDITIONS SCHEDULED MAINTENANCE

If you operate your vehicle primarily in any of the following conditions, you need to perform extra maintenance, as indicated. If you operate your vehicle occasionally under any of these conditions, it is not necessary to perform the extra maintenance. For specific recommendations, see your dealership service advisor or technician.

Towing a Trailer or Using a Car-top Carrier	
As required	Change engine oil and filter as indicated by the information display and perform services listed in the Normal Scheduled Maintenance chart.
Inspect frequently, service as required	Inspect rear axle and U-joints. Lubricate if equipped with grease fittings.
	See axle maintenance items under, Exceptions.
Every 60,000 mi (96,000 km)	Change manual transmission fluid.
	Replace spark plugs.

Extensive Idling or Low-speed Driving for Long Distances, as in Heavy Commercial Use Such as Delivery, Taxi, Patrol Car or Livery	
As required	Change engine oil and filter as indicated by the information display and perform services listed in the Normal Scheduled Maintenance chart.
Inspect frequently, service as required	Replace cabin air filter.
Every 15,000 mi (24,000 km)	Inspect engine air filter. Replace as required.
Every 60,000 mi (96,000 km)	Replace spark plugs.

Operating in Dusty or Sandy Conditions Such as Unpaved or Dusty Roads	
Inspect frequently, service as required	Replace cabin air filter.
Every 15,000 mi (24,000 km)	Inspect engine air filter. Replace as required.
Every 5,000 mi (8,000 km)	Inspect the wheels and related components for abnormal noise, wear, looseness or drag.
	Rotate tires, inspect tires for wear and measure tread depth.

Operating in Dusty or Sandy Conditions Such as Unpaved or Dusty Roads	
Every 5,000 mi (8,000 km) or six months	Change engine oil and filter.[1]
Every 50,000 mi (80,000 km)	Change manual transmission fluid.

[1] Reset your Intelligent Oil-Life Monitor after each engine oil and filter change.

Exclusive Use of E85 - Flex Fuel Vehicles Only	
Every oil change interval	If ran exclusively on E85, fill the fuel tank full of regular unleaded fuel.

Exceptions

There are several exceptions to the Normal Schedule:

Axle Maintenance

Change the axle fluid anytime an axle is submerged in water.

If you receive an axle overtemperature warning message in the information display and a wrench warning indicator appears, you should change the rear axle fluid at the next convenient time. The wrench warning indicator turns off when you switch off your vehicle.

Timing Chain

If you use your vehicle extensively at a racetrack or at high rpm, it is possible to exceed the service life of the engine timing chain. A wrench indicator light will illuminate when it is time for you to replace your chain. See an authorized dealer.

California Fuel Filter Replacement

If you register your vehicle in California, the California Air Resources Board has determined that the failure to perform this maintenance item does not nullify the emission warranty or limit recall liability before the completion of your vehicle's useful life. Ford Motor Company, however, urges you to have all recommended maintenance services performed at the specified intervals and to record all vehicle service.

Hot Climate Oil Change Intervals

Vehicles operating in the Middle East, North Africa, Sub-Saharan Africa or locations with similar climates using an American Petroleum Institute (API) Certified for Gasoline Engines (Certification mark) oil of SM or SN quality, the normal oil change interval is 3,000 mi (4,800 km).

If the available API SM or SN oils are not available, then the oil change interval is 1,800 mi (2,900 km).

Engine Air Filter and Cabin Air Filter Replacement

The life of the engine air filter and cabin air filter is dependent on exposure to dusty and dirty conditions. Vehicles operated in these conditions require frequent inspection and replacement of the engine air filter and cabin air filter.

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