

# 2020 | SAFETY & TECHNOLOGY GUIDE



| FORD FLEET



## A LEADERSHIP ROLE

**We're committed to achieving top-level performance in real-world safety initiatives, driver-assist measures and more, including Ford Co-Pilot360™ and Lincoln Co-Pilot360™ confidence-driving technology.** Advancing vehicle technology includes the development of features that further protect occupants and other vulnerable road users in a variety of situations. We offer drivers a range of innovations that utilize radar, sonar and cameras to sense and interpret the environment. These systems can also aid with routine tasks to reduce demands on the driver. Many innovations require stringent internal criteria long before regulatory standards are adopted.

### SEE NUMEROUS FORD AND LINCOLN TECHNOLOGIES IN ACTION:

Visit [YouTube.com](https://www.youtube.com) and then, for Ford vehicles, type **Ford How-To – along with the name of the specific feature or technology** – in the search box at the top of the page. Follow the same procedure for Lincoln vehicles by typing **Lincoln How-To – plus the name of the specific feature or technology** – as the search query. These videos can also be found on [Owner.Ford.com/support](https://www.Owner.Ford.com/support) and [Owner.Lincoln.com/support](https://www.Owner.Lincoln.com/support) if preferred.

### DETECTING ACCIDENTS

A number of Ford technologies – in addition to handling and braking capabilities – can benefit drivers by helping them control the vehicle or alerting to potential collisions. These technologies can support routine driving tasks by improving confidence and reducing demands on the driver.

### ASSISTING DRIVERS

Driver-assist technology<sup>1</sup> will continue to advance to provide drivers more support in certain situations, such as when changing lanes, in traffic jams and on freeway trips. The driver will always remain in the loop to take control, if required.

### PROTECTING OCCUPANTS

Many factors influence a vehicle's crash performance, including the design of the vehicle and the use of safety equipment. Our commitment to advancing vehicle safety includes research and development of technology that further enhances occupant protection in a wide variety of crash circumstances.

### RESPONDING TO CRASHES

One method of assisting emergency responders to reach the scene of a vehicle crash quickly is through in-vehicle emergency call systems and post-crash notification. These systems can help occupants summon assistance in the event of an accident.<sup>2</sup>

### ENCOURAGING SAFER DRIVING

Driver behavior can be a contributing factor in many vehicle crashes. We developed and support an array of programs and technologies – such as MyKey® – that help encourage safer behavior on the roadways, for both experienced and novice drivers.

### MANAGING VEHICLE SAFETY

We design and manufacture vehicles that achieve high levels of vehicle safety for a wide range of people over a broad spectrum of real-world conditions. Vehicle safety is overseen by our Vice President of Sustainability, Environment and Safety Engineering.

<sup>1</sup>Driver-assist features are supplemental and do not replace the driver's attention, judgment and need to control the vehicle. <sup>2</sup>The vehicle's electrical system (including the battery), the wireless service provider's signal and a connected mobile phone must all be available and operating for 911 Assist to function properly. These systems may become damaged in a crash. The paired mobile phone must be connected to SYNC, and the 911 Assist feature enabled, in order for 911 to be dialed. When the feature is ON, 911 Assist uses your paired and connected mobile phone to assist occupants to contact emergency services by dialing 911 if your airbag deploys or, on certain vehicles, if the emergency fuel pump shut-off is activated. Aftermarket on-board diagnostic devices may interfere with various vehicle systems including 911 Assist. To avoid interference, remove the device or contact the device maker for more information on compatibility.



**4-WAY ADJUSTABLE HEAD RESTRAINTS**

Head restraints are designed to help minimize the risk of neck injury in the event of a collision. Not everyone is the same size, so these restraints are adjustable – moving up and down, and back and forth – to suit each individual.



**BRAKE ASSIST**

Engineered to detect how quickly a driver presses the brake pedal, the system can help provide additional stopping power in critical situations.



**CORNERING LAMPS**

Automatically illuminate the inside of a corner when parking, turning or driving along winding roads.



**HEATED MIRRORS**

Helping keep the sideview mirrors clear of snow and ice, heating begins when the rear-window defroster is activated.



**INFLATABLE REAR SAFETY BELTS**

This feature combines attributes of traditional safety belts and airbags to provide an added level of crash safety protection for 2nd-row outboard passengers. In the event of certain frontal or side collisions, they distribute crash-force energy across more of the occupant's torso than a traditional safety belt.



**MYKEY®**

Program a multitude of vehicle functions even when not behind the wheel. Where necessary, MyKey can help promote good driving habits: Encourage front safety belt use through Belt-Minder®, limit top speed, provide speed-limit alert chimes, display an earlier low-fuel warning, keep audio volume down, and/or prevent safety features and driver-assist technologies from being disabled.



**PERSONAL SAFETY SYSTEM™**

During certain types of frontal collisions, strategically placed sensors measure occupant conditions. Then, in milliseconds, the system determines how the dual-stage front airbags will deploy and front safety-belt pretensioners will activate. This sophisticated network employs a Front-Passenger Sensing System to specifically determine whether (and in what stage) the front-passenger airbag should deploy.



**TIRE PRESSURE MONITORING SYSTEM (TPMS)**

Pressure is constantly measured in all the road tires. When any tire is significantly underinflated, a telltale on the instrument panel alerts you. That's the signal to check the pressure of each tire, matching the figure to the psi (pounds per square inch) recommended for the vehicle.



**INDIVIDUAL TIRE PRESSURE MONITORING SYSTEM (TPMS)**

This version of TPMS shows you specifically which tires are underinflated, plus the actual pressure in all 4 tires: The psi (pounds per square inch) numbers are shown in the vehicle's information display.



**WIPER-ACTIVATED HEADLAMPS**

With the exterior lighting control set in the Autolamp position, the headlamps and taillamps will automatically turn on when the windshield wipers activate.



**180-DEGREE CAMERA**

Get an extended perspective of what's in front of your vehicle to ensure a better cross-traffic view of oncoming vehicles. A lens washer is built in.



**360-DEGREE CAMERA<sup>2</sup>**

A many-perspectives approach: The 4 cameras – in each sideview mirror, along with the front and back – relay full-color images (including a bird's-eye view) to the Split-View Display. This system helps you see the ground in front of or around the vehicle to help avoid obstacles, or to help line up the vehicle when parking.



**ACTIVE PARK ASSIST<sup>2</sup>**

It helps take the angst out of parallel parking: With the simple press of a button, ultrasonic sensors can detect an appropriate parallel parking spot and automatically steer the vehicle into the space. You control the accelerator, gearshift and brakes.



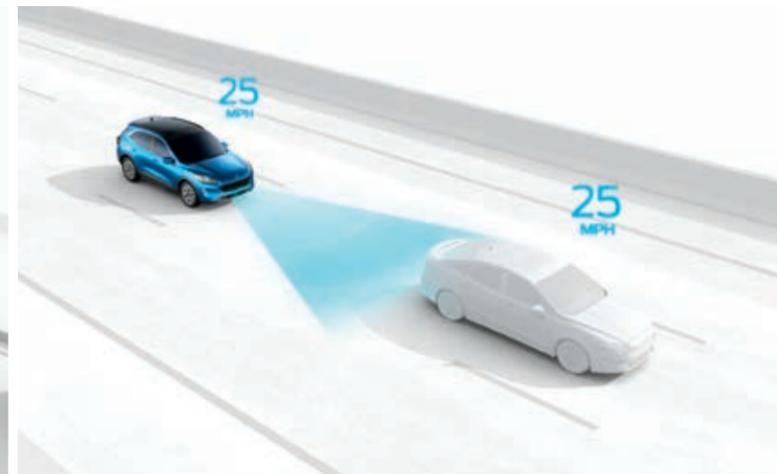
**ENHANCED ACTIVE PARK ASSIST<sup>2</sup>**

Never pass up a potential parking space again. Enhanced Active Park Assist makes it simple to nail an impressive park – time after time – even in tight parallel or reverse perpendicular spots. All you have to do is activate, shift, accelerate and brake while your vehicle takes care of the rest. This feature also offers Park Out Assist with side-sensing capability.



**ACTIVE PARK ASSIST 2.0<sup>2</sup>**

Find the parking space that's just right. When engaged, Active Park Assist 2.0 can actually help locate a potential spot. Then all you have to do is brake to a complete stop, shift into neutral, and hold down the Active Park Assist button – your vehicle takes care of the rest. Park Out Assist with side-sensing capability is included so you can confidently navigate out of a spot when someone's parked too close.



**ADAPTIVE CRUISE CONTROL WITH STOP-AND-GO AND LANE CENTERING<sup>2</sup>**

Few driving situations can feel as tedious as stop-and-go traffic. Not only does Adaptive Cruise Control help you keep pace on your journey, it also slows down your vehicle if the traffic ahead has stopped or slowed. As soon as things clear, you'll resume your set speed.<sup>3</sup> Plus, the added Lane Centering feature even scans lane markings to help you keep your vehicle centered between the lines.

<sup>1</sup>Feature availability varies by vehicle. <sup>2</sup>Ford Co-Pilot360 Technology and Lincoln Co-Pilot360 Technology features are supplemental and do not replace the driver's attention, judgment and need to control the vehicle. <sup>3</sup>If vehicle is stopped for more than 3 seconds, driver must intervene and press "RES" button or accelerator pedal to resume system operation.



**INTELLIGENT ADAPTIVE CRUISE CONTROL<sup>2</sup>**

You can think of it as next-level adaptive cruise. Beyond keeping pace with traffic ahead – and stopping or slowing down your vehicle as the need arises – Intelligent Adaptive Cruise Control is so smart, it can “read” speed limit signs and adjust your speed accordingly.<sup>3</sup> To help keep your vehicle centered between the lines, this ingenious system also scans lane markings.



**ADAPTIVE STEERING**

The steering ratio of the vehicle is adjusted to adapt to changing conditions. At slower speeds, the system makes the vehicle agile and easy to turn as it dials more steering into the road wheel. And at highway speeds, this technology further optimizes steering response, enabling the vehicle to react smoothly and precisely to driver input.



**ADVANCETRAC® ELECTRONIC STABILITY CONTROL<sup>4</sup>**

When this system senses wheelslip or loss of traction, it applies braking where needed to help keep the vehicle on its intended path. Several sensors combine information, including the steering-wheel angle, lateral acceleration and yaw rate, to determine if the vehicle begins to lose directional control.



**ADVANCETRAC WITH RSC® (ROLL STABILITY CONTROL™)<sup>4</sup>**

When a loss of traction or wheelslip is sensed, AdvanceTrac with RSC applies braking where necessary to help keep the vehicle on its intended path. In addition to electronic stability control helping avoid skids and lateral slides, the Roll Stability Control helps avoid a rollover thanks to a pair of gyroscopic sensors that monitor vehicle dynamic data.



**AUTO HIGH-BEAM HEADLAMPS<sup>2</sup>**

Now, unlit roads, dark peripheries, and other low-visibility situations don't have to catch you off guard. Auto High-Beam Headlamps can sense poor lighting conditions and switch on to light your path ahead. They can even sense oncoming headlamps and dim automatically, so you don't have to worry about blinding other drivers.



**AUTOLAMP**

In the Autolamp position, the headlamps will turn on automatically when necessary or whenever the windshield wipers activate. The headlamps will also stay on for a set period of time after you turn off the ignition and you exit the vehicle.



**BLIS® (BLIND SPOT INFORMATION SYSTEM) WITH CROSS-TRAFFIC ALERT<sup>2</sup>**

How many times have you tensed up during an attempted lane change? BLIS can help detect and alert you to vehicles in your blind spots, while Cross-Traffic Alert can detect traffic behind you when you're slowly backing out of a parking space.



**BLIS (BLIND SPOT INFORMATION SYSTEM) WITH TRAILER COVERAGE<sup>2</sup>**

It's rush hour. You've got a large item in tow. And you need to change lanes. The situation is a bit daunting. To help ease lane-change anxiety, this feature can alert you not only when a vehicle is in your blind spot, but also when one is alongside your trailer.

<sup>1</sup>Feature availability varies by vehicle. <sup>2</sup>Ford Co-Pilot360 Technology and Lincoln Co-Pilot360 Technology features are supplemental and do not replace the driver's attention, judgment and need to control the vehicle. <sup>3</sup>If vehicle is stopped for more than 3 seconds, driver must intervene and press "RES" button or accelerator pedal to resume system operation. <sup>4</sup>Remember that even advanced technology cannot overcome the laws of physics. It's always possible to lose control of a vehicle due to inappropriate driver input for the conditions.



**CURVE CONTROL**

Sensing a particular curve is being taken too fast, this smart system slows the vehicle down. Employing engine throttle reduction and 4-wheel braking intervention, it's always active in helping you maintain control around curves.



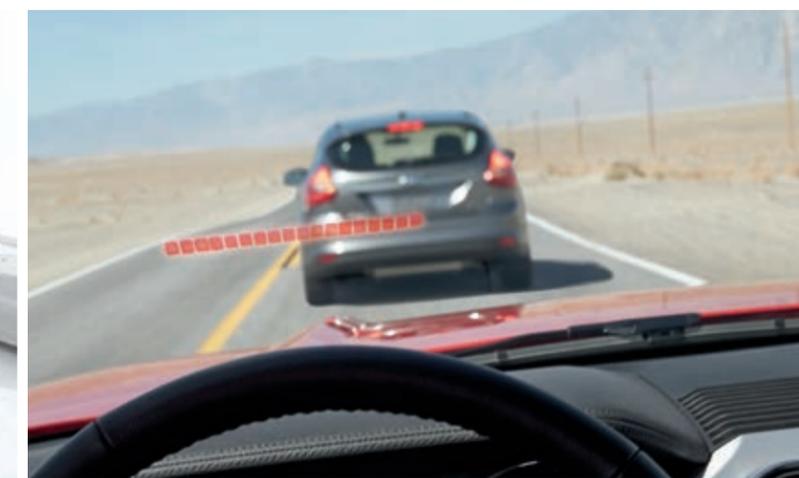
**DRIVER ALERT SYSTEM**

A forward-facing camera can detect lane markings on the road ahead. If the system detects your alertness level is reduced below a certain threshold, a chime sounds and a message appears in the cluster display.



**EVASIVE STEERING ASSIST<sup>2,3</sup>**

Traffic is rolling along smoothly when suddenly there's a slow or stopped vehicle in your path. Evasive Steering Assist can help make it easier to avoid a collision. It doesn't steer for you, but it can provide extra steering support if the system's warning goes off and you need to maneuver around the vehicle ahead.



**FORWARD COLLISION WARNING WITH BRAKE SUPPORT**

Sensors can detect slower vehicles traveling in the same direction. If a potential collision is detected a warning sounds. If a collision is imminent, the vehicle precharges the brake system for full responsiveness when you brake.



**FORWARD SENSING SYSTEM**

When the vehicle is in Drive and traveling at a low rate of speed, ultrasonic sensors on the front bumper determine the distance of certain objects in front of the vehicle. If an object is detected, a high-pitched tone sounds.



**HILL DESCENT CONTROL™<sup>2</sup>**

Steep hills are often tricky to navigate, especially if you're towing a trailer. Hill Descent Control can help ease the situation by doing just what its name says. It helps you maintain a set speed when you're driving down an incline by automatically applying the brake when needed.



**HILL START ASSIST<sup>2</sup>**

On a slope, this technology helps to momentarily keep the vehicle from rolling when releasing the brake pedal. It allows time for you to transition your foot to the accelerator pedal.



**LANE-KEEPING SYSTEM<sup>2</sup>**

It happens. Maybe you've wandered a little too close to the edge of your lane. The Lane-Keeping System can help, even during a moment of distraction. This feature scans your vehicle's position between the lines in the road ahead and can alert you if you're starting to edge out of your lane.<sup>4</sup> Having trouble staying on track? After you've drifted a few times, you'll see a coffee cup icon letting you know it's time to take a break.



**NAVIGATION<sup>2</sup>**

Whether it means missing a timed delivery or losing your cool, a wrong turn can put a dent in your day. But like a sherpa for trips large and small, the Navigation System can help you stay confidently on course. And that's not all – it can also point you to the nearest gas stations.



**PRE-COLLISION ASSIST WITH AUTOMATIC EMERGENCY BRAKING (AEB)<sup>2</sup>**

We should all drive defensively, but sometimes other people's lack of attention can create a hazard. This feature scans the road ahead and can alert you to potential collisions with vehicles or pedestrians detected in your path.<sup>3</sup> If an impact becomes imminent and you don't take corrective action, the brakes can apply automatically. But don't worry – they'll only activate if they're needed.



**PRO TRAILER BACKUP ASSIST™<sup>2</sup>**

Whether you're a novice or a seasoned pro, backing up with a trailer can be challenging. This technology makes it as easy as turning a knob – simply rotate it in the direction you want the trailer to go, and Pro Trailer Backup Assist responds accordingly.



**RAIN-SENSING WINDSHIELD WIPERS**

Once set, they automatically turn on and adjust the rate of wiper action – depending on the amount of moisture (rain, sleet or snow) detected on the windshield.



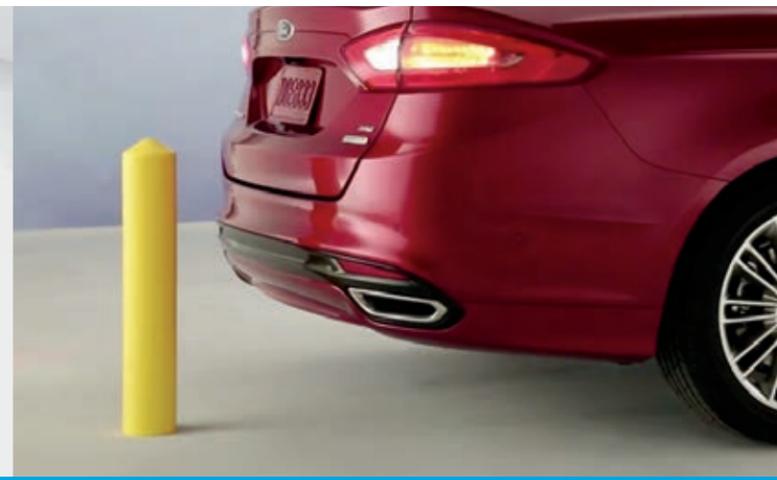
**REAR VIEW CAMERA<sup>2</sup>**

Between glancing in the rearview mirror and craning your neck, backing up requires a little multitasking. The Rear View Camera may not be an extra set of eyes, but it does provide a great view of what's behind your vehicle.<sup>4</sup> Be sure to keep the camera lens free of debris (like dust and snow) and you can navigate Reverse with more confidence.



**REVERSE BRAKE ASSIST<sup>2</sup>**

Backing up just got a lot less stressful. Reverse Brake Assist can detect both stationary and moving objects behind your vehicle. Not only that, it can apply the brakes if you don't stop in time. The system can recognize vehicles crossing your path at up to 37 mph.



**REVERSE SENSING SYSTEM**

While slowly backing up, ultrasonic sensors on the rear bumper can help detect certain objects up to 6' behind the vehicle. Upon getting closer to the object, a low-pitch tone sounds more rapidly inside the vehicle.



**SOS POST-CRASH ALERT SYSTEM™<sup>5</sup>**

The horn sounds and hazard lights flash to alert others if the vehicle is involved in an accident where any airbag deploys and/or the front safety belt pretensioners activate; especially useful if the driver is unconscious and can't signal for help.

<sup>1</sup>Feature availability varies by vehicle. <sup>2</sup>Ford Co-Pilot360 Technology and Lincoln Co-Pilot360 Technology features are supplemental and do not replace the driver's attention, judgment and need to control the vehicle. <sup>3</sup>Pre-Collision Assist with Automatic Emergency Braking can detect pedestrians, but not in all conditions and does not replace safe driving. See owner's manual for system limitations. <sup>4</sup>Camera only operates at speeds under 6 miles per hour. <sup>5</sup>SOS hardware may become damaged or the battery may lose power in a crash, which could prevent operation. Not all crashes will activate an airbag or safety belt pretensioner.



**TRAILER SWAY CONTROL**

The motions of the vehicle are monitored when towing. If trailer sway is detected, the system selectively applies the brakes<sup>2</sup> as needed to help you maintain control of the truck and trailer.

**MORE FORD CO-PILOT360 TECHNOLOGY & LINCOLN CO-PILOT360 TECHNOLOGY<sup>1</sup>**

- 911 Assist<sup>®</sup>
- Adaptive Cruise Control
- Adaptive Cruise Control with Stop-and-Go
- Adaptive Headlamps
- Adjustable Speed Limiter
- Auto Hold
- Dynamic Hitch Assist
- Lane-Keeping Alert
- Post-Collision Braking
- Pre-Collision Assist with Dynamic Brake Support
- Side Wind/Cross Wind Stabilization
- Trail Control



**AUTO START-STOP**

In an effort to help reduce vehicle tailpipe emissions, improve fuel economy and eliminate wasted fuel, the engine switches off when the vehicle is stationary and you have pressure on the brake pedal.



**CONFIGURABLE DAYTIME RUNNING LAMPS**

Daytime running lamps complement the design and look of the headlamps and provide a subtle, visual cue for other drivers in daylight situations. Using the vehicle's information display, you can choose to turn them on or off.



**DYNAMIC TORQUE VECTORING<sup>2</sup>**

Teaming up with all-wheel drive (AWD) to send up to 100% of the available rear-axle torque to a single outside rear wheel while cornering, the end result is a smooth and seamless driving experience.



**ELECTRIC POWER-ASSISTED STEERING (EPAS)**

An electric, speed-sensitive steering-assist system, EPAS helps deliver great maneuverability and responsive handling. Pull-drift compensation adapts to changing conditions, such as crowned roads or steady crosswinds. Active nibble control (if so equipped) helps smooth out the effect of minor tire vibrations.



**INTEGRATED TRAILER BRAKE CONTROLLER**

This factory-installed controller<sup>3</sup> synchronizes the vehicle and electric trailer brakes. It includes GAIN adjusters, a GAIN setting display, an output bar graph, and a visual/audible indicator for a successful trailer connection or trailer disconnect.



**INTELLIGENT 3-BLINK TURN SIGNAL**

Especially beneficial for a simple lane change: With a single tap of the turn-signal lever, the signal blinks 3 times – and then it stops automatically. It can also be set to function for longer periods, such as when indicating a turn.

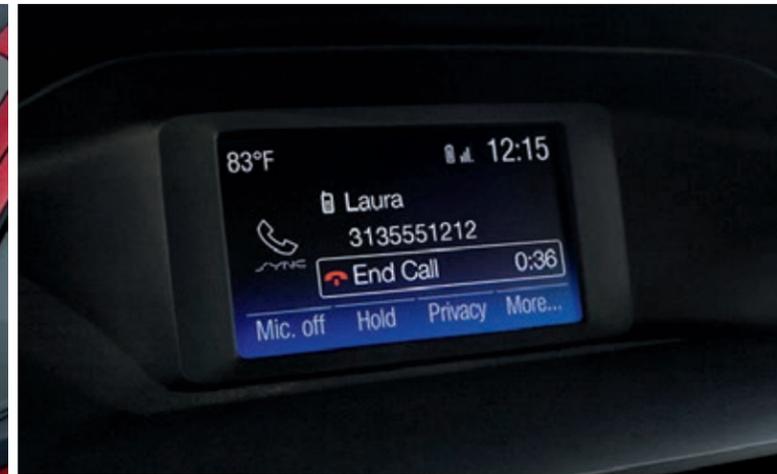
<sup>1</sup>Feature availability varies by vehicle. <sup>2</sup>Remember that even advanced technology cannot overcome the laws of physics. It's always possible to lose control of a vehicle due to inappropriate driver input for the conditions. <sup>3</sup>Ford trailer brake controller (TBC) has verified compatibility with trailers (one to four axles) utilizing electrically actuated drum brakes and certain Electric-Over-Hydraulic (EOH) actuated drum or disc brake systems. See the chart for Ford-verified brands and model numbers of TBC-compatible EOH brake systems.

# OTHER TECHNOLOGY<sup>1</sup>



## QUICKCLEAR™ ELECTRIC WINDSHIELD DEFROSTER

A transparent heating element embedded in the windshield greatly helps clear snow, ice and fogging, reducing the need to scrape the windshield.



## SYNC<sup>®2</sup>

This voice-activated technology helps you keep your eyes on the road and hands on the wheel. Use your voice to make a call, listen to music, access select apps with SYNC AppLink<sup>®3</sup> and much more.



## SYNC 3<sup>2</sup>

Control calls, music and more with just a touch and your voice. SYNC 3 lets you keep your hands on the wheel while it quickly responds to spoken requests. Or the responsive touchscreen in the center of the instrument panel can be accessed for its many helpful features. The system also features 2 smart-charging USB ports to help keep devices powered up and ready to go.



## TERRAIN MANAGEMENT SYSTEM™

Allows you to select from 4 modes that help balance 4WD, engine, transmission and traction-control systems to various situations and road conditions encountered.

- 1. Normal (for everyday driving)
- 2. Mud/Rut
- 3. Sand
- 4. Snow/Gravel/Grass



## TORQUE VECTORING CONTROL (TVC)<sup>4</sup>

Operating automatically, it helps keep the vehicle tracking along the driver's intended path, even when road surfaces may compromise intention. While accelerating through a corner, TVC adjusts the speed between the front wheels to enhance cornering agility and reduce understeer. Braking is applied to the front inside wheel, so more engine torque goes to the outside wheel, which has more grip.



## TOW/HAUL MODE WITH INTEGRATED ENGINE BRAKE

Tow/haul mode helps provide better control when hauling a heavy trailer load down steep grades. It downshifts the transmission – when needed – to provide additional levels of engine braking. Helping slow down the vehicle and trailer, the integrated engine brake harnesses the force of the Power Stroke<sup>®</sup> Turbo Diesel.







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## | FORD FLEET

### North American Fleet, Lease & Remarketing Operations

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Some features discussed may be optional. Vehicles shown may contain optional equipment. Features shown may be offered only in combination with other options or subject to additional ordering requirements or limitations. Select features and packages are shown. Please visit [fleet.ford.com](http://fleet.ford.com) for a complete Ordering Guide. Information in this Technologies Guide was developed from Ordering Guides as of March 2019. Following publication of this brochure, certain changes in standard equipment, options and the like, or product delays may have occurred which would not be included in these pages. Ford Motor Company reserves the right to change product specifications at any time without incurring obligations.

Availability of technologies and systems described in this brochure varies by model and trim level. Not all systems are available on all Ford Motor Company vehicles. See your local Ford or Lincoln Dealer for complete details.



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