

CARD/STICKERS POCKET (SLEEVE)

IMPORTANT

The operation of the Pro Trailer Backup Assist with Trailer Reverse Guidance system depends on how and where you place the sticker or sensor.

- **DO NOT ATTEMPT TO PLACE THE STICKER OR SENSOR UNTIL YOU READ THROUGH THIS GUIDE.**



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Please scan the QR code for additional information about your vehicle.

This Quick Start Guide 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 chapters when questions arise. All information contained in this Quick Start Guide 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.

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.

LEARN MORE ABOUT YOUR NEW VEHICLE

To put QR tags to work for you, use your mobile phone's browser or app store to download a QR tag reader. Then follow the directions to scan the QR tag and see your vehicle's features come to life.



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August 2020
First Printing
Litho in U.S.A.
ML3J 19G217 RA



PRO TRAILER BACKUP ASSIST WITH TRAILER REVERSE GUIDANCE

F-150

QUICK START GUIDE

WHAT IS PRO TRAILER BACKUP ASSIST WITH TRAILER REVERSE GUIDANCE?

The Pro Trailer Backup Assist with Trailer Reverse Guidance utilizes the control knob on your instrument panel, your steering wheel and a suite of cameras to take the guesswork out of getting your trailer positioned where you want it, quickly and easily, while you're driving in reverse.

Turn the knob in the direction you want the trailer to go and the system takes over the steering to get it there. This allows you to focus on monitoring the mirrors and applying the brake and accelerator. Use the cameras and on-screen guidance to make even the most difficult maneuvers simple. This guide walks you through the setup process, calibration and operation.

Below is some of the added functionality that Trailer Backup Assist with Trailer Reverse Guidance provides:

TRAILER REVERSE GUIDANCE CAMERA*



See the camera view on the side where your trailer is moving, or both sides when the trailer is straight behind you.

Does not require setup.

STEER TRAILER WITH KNOB



Allows you to easily maneuver a trailer by turning the knob in the direction you want the trailer to go.



See page 13 for operation.

Setup required.

HITCH ANGLE GRAPHIC

A small top view representation of your truck and trailer.

The lines show you where your trailer is and where it is projected to go.



See page 17 for operation.

AUTO SPLIT VIEW CAMERA*

Auto

Changes views with the trailer direction.

See page 16 for operation.

STRAIGHT BACKUP MODE*



If you want to use your steering wheel:

A steering wheel image shows you which way to turn your steering wheel to keep your trailer straight.

See page 15 for operation.

HOW DO I USE IT?

Set up this feature by following the steps in this guide. Scan the QR code on the back cover with your smartphone for more information about your vehicle.

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TO SET UP THIS FEATURE, USE THE:

A Pro Trailer Backup Assist control knob

B Touchscreen Information and Entertainment Display



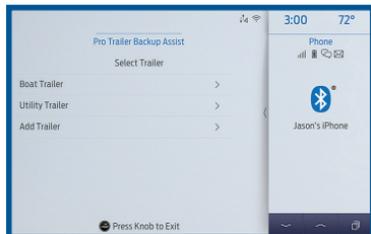
A
Control knob

B
Touchscreen Information and Entertainment Display

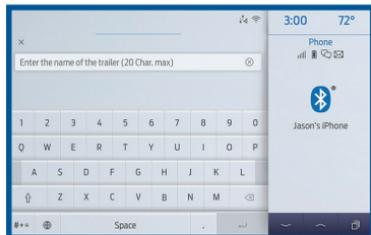
SET UP YOUR SYSTEM



Press the center button on the knob located to the right of the steering wheel to begin setting up the system.



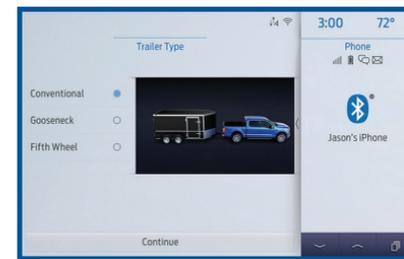
Select **Add Trailer** on the touchscreen display.



Use the keyboard on the touchscreen to enter your trailer name, then press the return button to confirm.

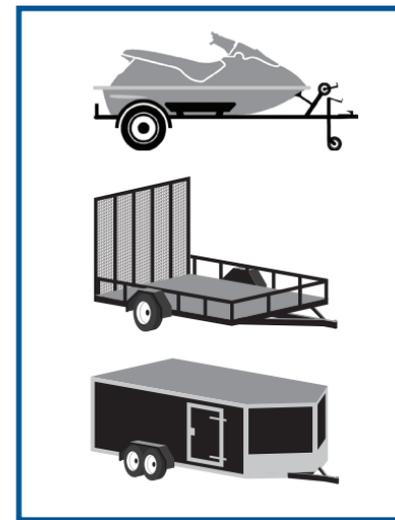
SELECT YOUR TRAILER TYPE

Use the images to the right to help you determine your trailer type. For example, if you have a conventional trailer, select **Conventional**.



Note: The system is designed to work with trailers that have a hitch point to center of axle or axles measurement of 6 -33 ft (1.85 -10.05 m). The system is designed to work with drawbars that have a license plate to hitch ball center measurement of 9 -18 in (23 -46 cm) when installed.

CONVENTIONAL TRAILER EXAMPLES



NON-CONVENTIONAL TRAILER EXAMPLES

The functionality of Pro Trailer Backup Assist with Trailer Reverse Guidance is not available for Fifth Wheel and Gooseneck type trailers.



POSITION YOUR TRUCK AND TRAILER

Read and follow all of these steps carefully to get the best results.

- Hitch your trailer to the truck and connect the electrical wiring harness. Check to make sure that the wiring is working.
- Park your truck and hitched trailer on a level surface.



- Make sure that the trailer and truck are in line with each other. You can do this by putting the truck in drive (D) and pulling straight forward.



FEATURE SETUP



SETUP OPTIONS

Your 2021 F-150 has two options for Pro Trailer Backup Assist with Trailer Reverse Guidance setup.

Your vehicle came with a trailer sensor kit. Follow the instructions included with the kit to set up your trailer. A brief overview of sensor installation begins below.

Your vehicle will be eligible to receive a vehicle system update that will allow trailers to be set up with the stickers in this kit. Once you receive the update, your display will show **Place Sticker Now** during setup instead of **Install Sensor Now**. Follow the instructions on [page 9](#) to place the sticker.

To set up a trailer with a sensor after the vehicle system update, install a sensor on your trailer and plug it into your vehicle prior to beginning trailer setup on the touchscreen.

SENSOR SETUP

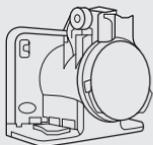
ONE-TIME SETUP

Once you input your trailer's information into the touchscreen, it is stored for easy recall. That way, when you want to use the Pro Trailer Backup Assist with Trailer Reverse Guidance system to help you back your trailer into your desired position, you can choose it from the touchscreen. You will not have to run through this setup again unless you want to add another trailer. You can store information for up to 10 trailers within this feature.



WHAT YOU WILL NEED TO INSTALL YOUR SENSOR

The sensor kit contains the components below. You may need additional items to install your sensor.



1 - Dock Station

Use to secure harness plug when not connected to truck.



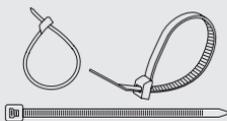
1 - Sensor Housing Assembly

The sensor detects trailer rotation and the housing protects the sensor. The sensor housing must be installed with the arrows pointing up.



1 - 10-foot Wire Harness

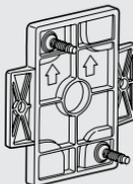
Wire harness to be used with the sensor.



4 - Sensor & Dock Station Tie Strap 8 - Wire Harness Tie Strap

Use the larger tie straps to secure the sensor housing and docking station to the trailer post or frame.

Use the smaller tie straps to secure the wire harness to the trailer.



1 - Sensor Mounting Bracket

Use the adhesive on the mounting bracket to attach the sensor housing. (Mounting Bracket is preassembled to the housing.)

TRAILER SENSOR SETUP



The sensor must be mounted to a vertical part of the trailer that pivots when you turn your vehicle. Do not mount to a stationary surface, such as the truck side of the trailer hitch.

Make sure the mounting surface is vertical and the arrows on the sensor housing are pointing up. The sensor housing must be firmly attached to the trailer so that it does not shake or wobble.



Plug in the wiring harness to the sensor and the vehicle. When you plug in the wiring harness to the 12-way connector, the red seal on the connector should not be visible when the connector is fully plugged in.

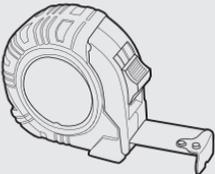
For sensor installation instructions, please refer to the sensor kit.

Note: Once your truck receives the vehicle system update that enables sticker setup, it will default to sticker setup. To set up a trailer with the sensor, you must install the sensor on the trailer and plug it into the vehicle prior to beginning setup on the touchscreen.

STICKER SETUP

Note: Once your truck receives the vehicle system update that enables sticker setup, it will default to sticker setup. To set up a trailer with the sensor, you must install the sensor on the trailer and plug it into the vehicle prior to beginning setup on the touchscreen.

MAKE SURE YOU HAVE THE FOLLOWING ITEMS:

<p>This guide with the sticker placement card and the stickers in the inside back cover pocket</p>	<p>Tape measure (English or metric)</p>
	

ONE-TIME SETUP

Once you input your trailer's information into the touchscreen, it is stored for easy recall. That way, when you want to use the Pro Trailer Backup Assist with Trailer Reverse Guidance system to help you back your trailer into your desired position, you can choose it from the touchscreen. You will not have to run through this setup again unless you want to add another trailer. You can store information for up to 10 trailers within this feature.

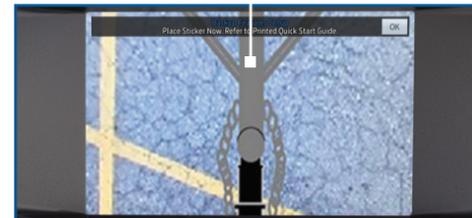
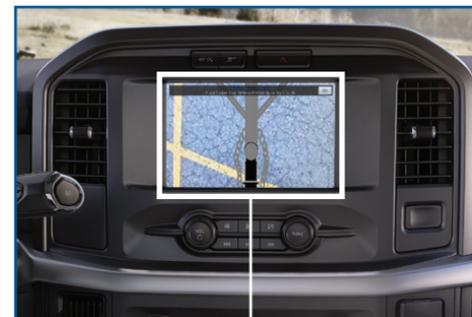
For more information about your vehicle, please scan the QR code below



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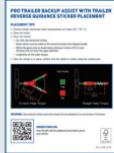
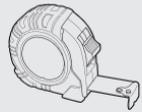
PLACING THE STICKER

Place the entire sticker in the green zone on the trailer as outlined in the diagram on the next page. The sticker is in the back cover pocket of this guide.



Rear view camera

MAKE SURE YOU GATHER THE FOLLOWING ITEMS BEFORE EXITING THE VEHICLE:

		
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Sticker and sticker placement card (provided inside the back cover pocket of this guide).

Tape measure (not provided).

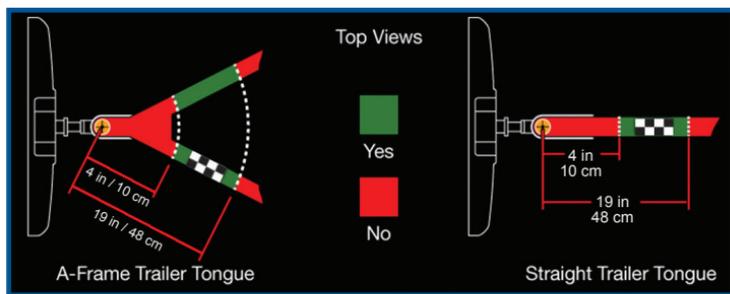
PLACING THE STICKER



OUTSIDE THE VEHICLE

- Take the sticker placement card and the sticker from the back of this guide, and a tape measure and walk back to your trailer.
- Determine where to place the sticker. You must place it in the green zone as indicated in the diagram below.
- Confirm that the sticker is visible using the touchscreen. An assistant can remain inside the vehicle to help you do this.

STICKER PLACEMENT DIAGRAM



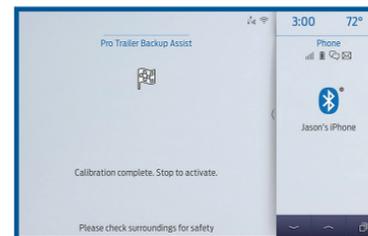
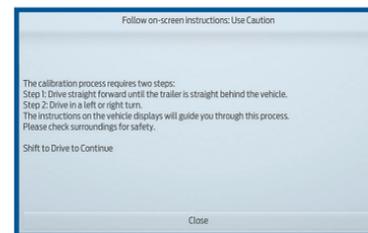
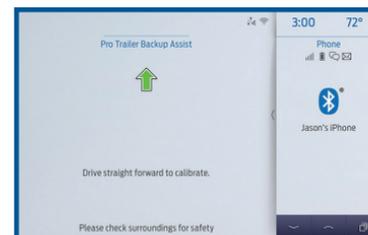
Note: You must place the *entire sticker* within the green zone. Once you place the sticker, you cannot move it. Do not attempt to re-use stickers. Use a new sticker.

If you cannot find a location that meets the sticker requirements, the sensor is recommended.

STICKER PLACEMENT TIPS

- Perform sticker placement when temperatures are above 32° F (0° C).
- Put the sticker on a flat, dry, clean horizontal surface.
- Using a tape measure, find a place to put the entire sticker in the range as shown below:
 - Within the green zone.
 - Between 4 inches (10 centimeters) and 19 inches (48 centimeters) from the trailer ball hitch.
- Make sure no hardware will obstruct the view from the camera to the sticker (jack handle, wiring, etc.).
- Place the sticker.

CALIBRATION



Note: You can calibrate within the Trailer Backup Assist or Trailer Reverse Guidance system.

An area where you can safely drive forward and turn left or right is required to calibrate your system. An open parking lot is an ideal place to perform the calibration. During calibration, the system determines the trailer length. Drive straight at approximately 5 mph to align the trailer behind your vehicle.

The touchscreen provides you with instructions and will tell you when the system is ready for you to turn. Turn left or right whenever you are ready and in a safe turning area.



Too shallow of a turn



Correct 90 degree turn

When the calibration is complete, the touchscreen shows a message that calibration is complete. The feature is now ready to use. Please refer to the Feature Operation section ([page 13](#)) for information on how to operate the feature.

FEATURE OPERATION

USING TRAILER BACKUP ASSIST

- To switch on the system, press the center button on the knob and watch the touchscreen. Use the touchscreen to select the connected trailer. The system will detect the trailer and instruct you to shift into reverse when ready.
- Shift into reverse to activate. The touchscreen will instruct you to remove your hands from the steering wheel.
- Use the knob to turn the trailer. Turning the knob to the left will turn the trailer to the left. Turning the knob to the right will turn the trailer to the right.



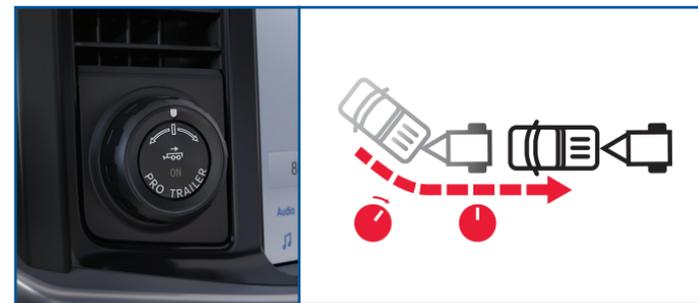
FEATURE OPERATION

USING TRAILER BACKUP ASSIST

- Once you have the trailer moving in the direction you want it to go, release the knob. You control the accelerator and brakes while the system steers the truck to keep the trailer moving straight back.
- The sharper you turn the knob, the sharper the trailer will turn.

Note: If you attempt to accelerate beyond the system's threshold, the system automatically limits your vehicle's speed.

Note: If you use the steering wheel, you will be canceled out of the Pro Trailer Backup Assist system. A warning will appear.



- As soon as you release the knob or turn it back to the center position, the vehicle starts following the trailer's path.
- Turn and hold the knob continuously for sharper vehicle and trailer turns.
- **CAUTION:** Always keep your hand close to the control knob. You may need to redirect the trailer quickly.
- You may have to use the knob to correct the trailer direction while attempting to move the trailer straight back under some conditions.

Note: If you need to make a sharper turn, the trailer angle limit can be increased in the touchscreen towing menu. Refer to your Owner's Manual for selecting the Trailer Angle limit setting.

FEATURE OPERATION

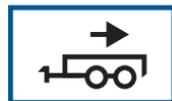
USING TRAILER REVERSE GUIDANCE

Trailer Reverse Guidance provides informational graphics and up to 7 camera views to help you back up your trailer while you use the steering wheel to control your trailer.

If you do not set up the system, you can still use the camera views. However, the hitch angle graphic, automatic view switching and straight backup mode will not be available. You will need to complete the system setup for full functionality.



- To use Trailer Reverse Guidance, shift your vehicle into reverse and press the rear view camera button on the touchscreen to expand the menu.
- Select the Trailer Reverse Guidance icon on the screen. You will need to select your trailer from the touchscreen.
- The system will detect the trailer and display the hitch angle graphic.



- The auto mode camera view is the default display. You can now use your steering wheel and the camera views to navigate your trailer into position.



USING STRAIGHT BACKUP MODE WITH TRAILER REVERSE GUIDANCE

- This view is only available when you are in Trailer Reverse Guidance.
- This mode will show you which way to turn your steering wheel to keep your trailer backing up straight. A steering wheel icon image is shown on the touchscreen. A blue arrow will show you which way to turn your wheel to keep your trailer straight.
- To activate this mode, select the rearview camera icon, then the straight backup mode icon.

VIEW OPERATION

Use the buttons below to select the best view for backing up your vehicle and trailer. You can use these views for Pro Trailer Backup Assist or Trailer Reverse Guidance.

You can select the following views by selecting the rear camera icon  on the touchscreen display. The view drawer displays. (View drawer shown)



360 Degree Camera*: shows the rear camera view on the left side of the screen and the 360 degree view on the right side of the screen.



Rear View Camera: shows what is behind your vehicle.



Rear Split View Camera*: shows a 180 degree view of area behind your vehicle.



Bed Camera*: shows the truck bed and can be used to hitch a 5th wheel or gooseneck trailer.



Trailer AUX Camera*: shows a rear view camera image of what is behind your trailer. This camera needs to be purchased and installed separately.



Trailer Reverse Guidance View*: shows you a view of the sides of your truck and your trailer.

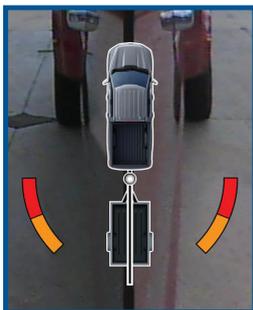


In auto mode, this view moves as your trailer moves so that you do not have to adjust the camera as you turn. You can use the left and right arrows to see more of the driver or passenger side. Press **Auto** to return to automatic camera adjustments.



Takes you back to the 360 degree camera system and out of the Trailer Reverse Guidance feature.

HITCH ANGLE GRAPHIC



The hitch angle graphic display shows you a small, top-view representation of your truck and trailer.

This representation shows two different-colored lines:

- A black line shows you where your trailer is in relation to your vehicle.
- For Trailer Backup Assist, the white line represents the amount the trailer will turn based on knob input.
- For Trailer Reverse Guidance, the white line represents the amount the trailer will turn based on steering wheel position.

This graphic can be seen in the Normal Rear View, Bed Camera, Trailer AUX Camera and Trailer Reverse Guidance Camera views.

