



# EXCALIBUR

PUTCO®



For proper installation and best possible fit, please read all instructions BEFORE you begin.



## Important Information

BEFORE you begin the installation process:

- Carefully read all instructions.
- Verify that all parts are included by checking the contents of your kit.

If any parts are missing or appear damaged, please contact our customer service team for assistance.

## Customer Service

For support, please contact the Putco team, available Monday to Friday 8:30 AM to 5PM (Central Time).

1 800 247 3974

[support@putco.com](mailto:support@putco.com)

## Supported Vehicles

MAKE	MODEL	YEAR
Ford	F-150	2021-2024+

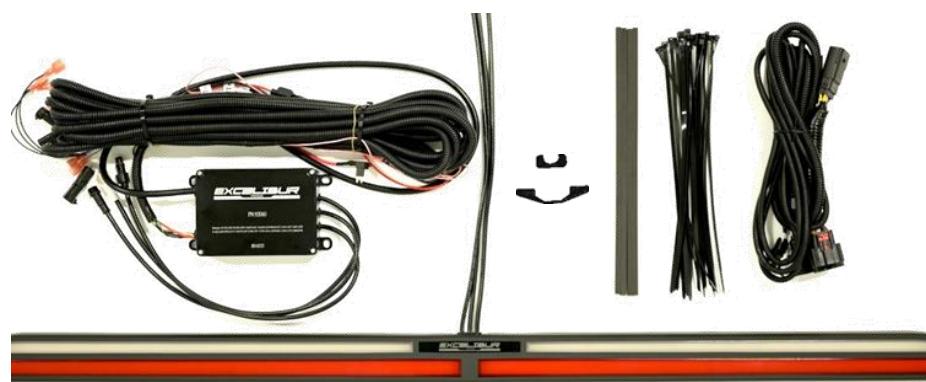
## Recommended Tools + Supplies

Microfiber cloth	Isopropyl alcohol	T25 driver
10mm socket	8mm socket	Diagonal pliers
Claw grabber tool	Trim removal tool	



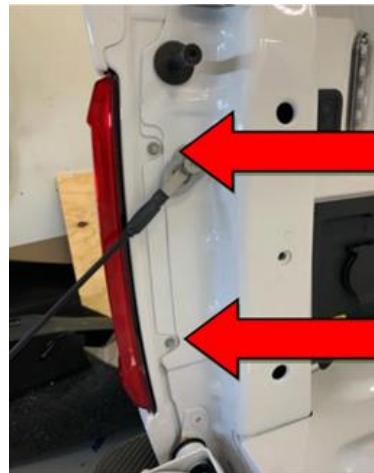
## Kit Contents

Light bar	Driver box	Zip ties
Plug and play harness	Foam gasket	Camera & Wire shroud



## Plug and Play Harness Installation

1. Remove taillights to install plug and play harness.
2. Carefully remove both the passenger and driver side tail lamps by removing the two 8mm bolts using a socket wrench.



3. Fish the wire harness up from below the tailgate and out the taillight holes on each side of the truck. The thicker side of the harness with 2 wires goes to the driver side tail light if not otherwise labeled.



4. Disconnect the factory harness from the taillight. Now plug the female end of the in the Putco quick disconnect harness into the tail lamp and the male harness into the factory harness. Repeat on the other side. Reattach the taillights to the truck.

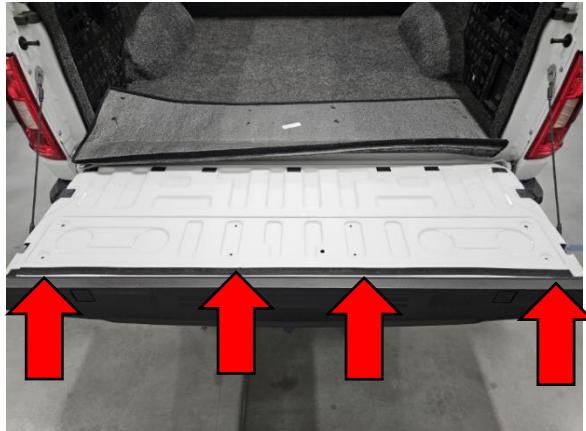


5. If your 52900XX wire harness ends in 12, 17, or 39, you must also install a wire harness that pulls reverse signal from the 7-pin trailer connector.
6. Push the tab on each side of the trailer connector to release it, pull it out and disconnect it. Connect the Putco T harness and then push the wires back inside the bumper.

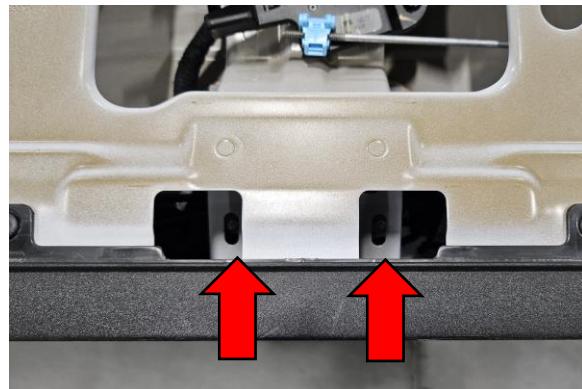


## Lightbar Installation

1. Lower the tailgate.
2. Remove the access panel by removing the eight T25 bolts.
3. Remove the access panel.



4. Remove the two 10mm nuts from behind the tailgate handle.
5. Using a trim tool gently pop the tailgate handle trim bezel loose. It is held in place with 4 clips, one in each corner.



6. Hold the light bar up to the truck so you can see how it fits the contours of the tailgate.
7. Clean the tailgate surface using a clean microfiber cloth and some isopropyl alcohol to ensure the lightbar makes a good bond.



8. Peel off the adhesive tape backing on the back of the lightbar.



10. Fish the wires from the lightbar through the bottom of the tailgate handle opening and into the driver side of the tailgate.
11. With the help of a friend, place the lightbar onto the tailgate. If the lightbar looks properly aligned, press firmly on all areas of the lightbar for several seconds.



12. Clean the edge of the tailgate handle opening.
13. Peel the adhesive backing off the included foam gasket.
14. Attach included  $\frac{1}{4}$ " foam gasket around the edge of the tailgate handle opening.



15. Once the light bar and foam strips are installed, carefully reinstall the handle bezel by pushing it under the top trim piece then align the 4 clips and push. Open the tailgate and reinstall the two 10mm nuts.

**CAUTION: When reinstalling the tailgate handle, ensure you don't pull on the lightbar wires. Leave some slack in the wiring before fully tightening the handle.**



16. Peel the tape off the shroud.
17. Insert the protective wire shroud between the lightbar and the handle bezel. Push until it securely sticks.



18. Peel the tape off the camera shroud. Clean the surface around the camera with IPA and clean cloth. Push until it securely sticks as shown.

This shroud helps to reduce any glare in the backup camera.



19. Clean the surface on the inside of the tailgate.

20. Peel off the 3M tape backing on the back of the driver box.

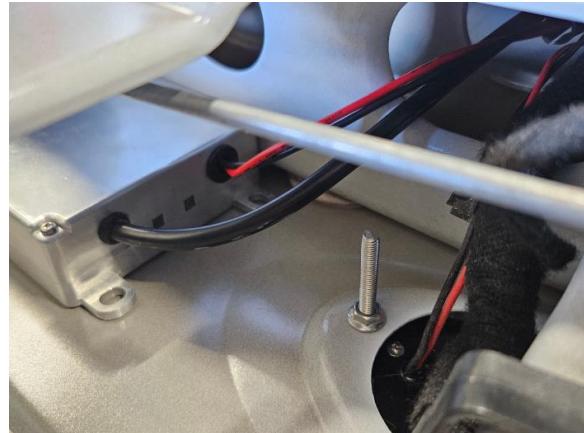
21. Mount the driver box inside the tailgate on the flat section and against the internal wall. Press firmly for several seconds.



22. Connect the light bar to the driver box. Make sure the pins align, do not force the connectors.



23. Using a flexible grabber tool or stiff piece of wire, fish the long wires from the driver box through to the bottom of the tailgate.

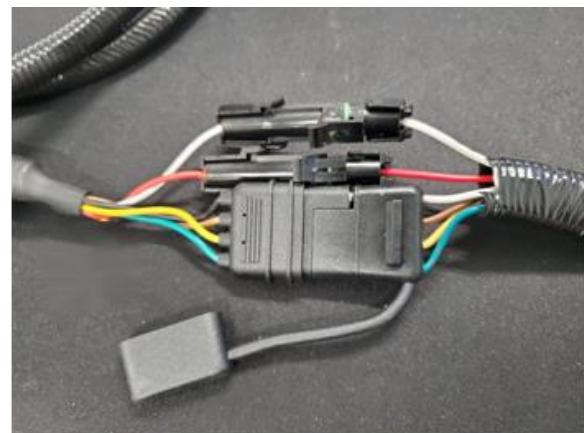


24. Fish the long wires that are now at the bottom of the tailgate through the opening in the bumper.



25. Connect the plug and play 4-pin connector and the light bars 4-pin connector as well as the weatherpack connectors.

26. We recommend applying 1-2 grams of dielectric grease on the 4-pin connector to increase water resistance. Use zip ties to bundle and secure any extra wire.



27. Run the Batt+, Batt – and ACC wires from the rear bumper into the **passenger** side of the engine bay securing to the frame every 16 inches with zip ties. Avoid hot areas and pinch points.

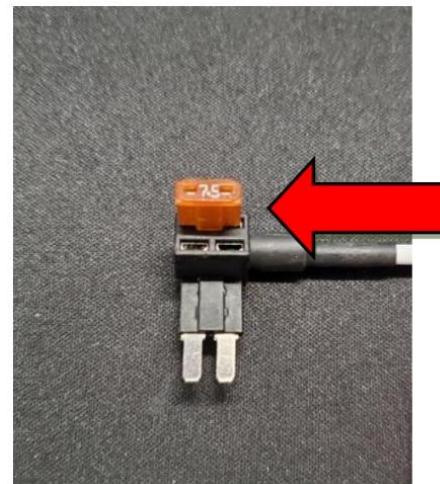
28. Connect the red Batt+ ring terminal to the positive battery post. Connect the Batt- ring terminal to the negative battery post.



29. Connect the ACC wire to a fuse circuit which is on when the truck turns on, and is off when the truck turns off, such as 101- L headlight or 21- headlamp run/start feed depending on trim level.



30. The fuse you take out of the fuse box goes into the bottom slot of the ACC connector. Reinstall the fuse box cover.

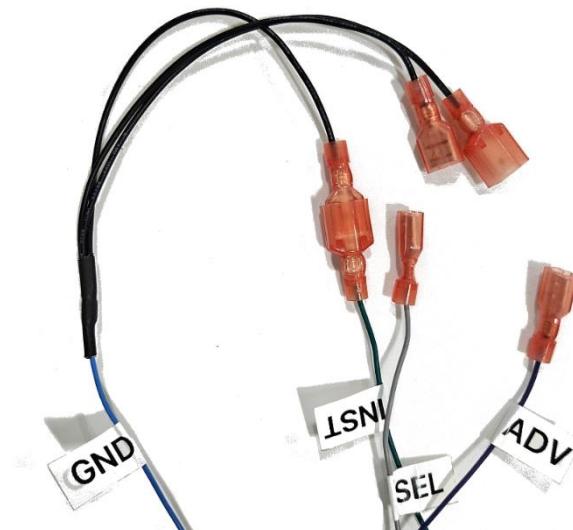


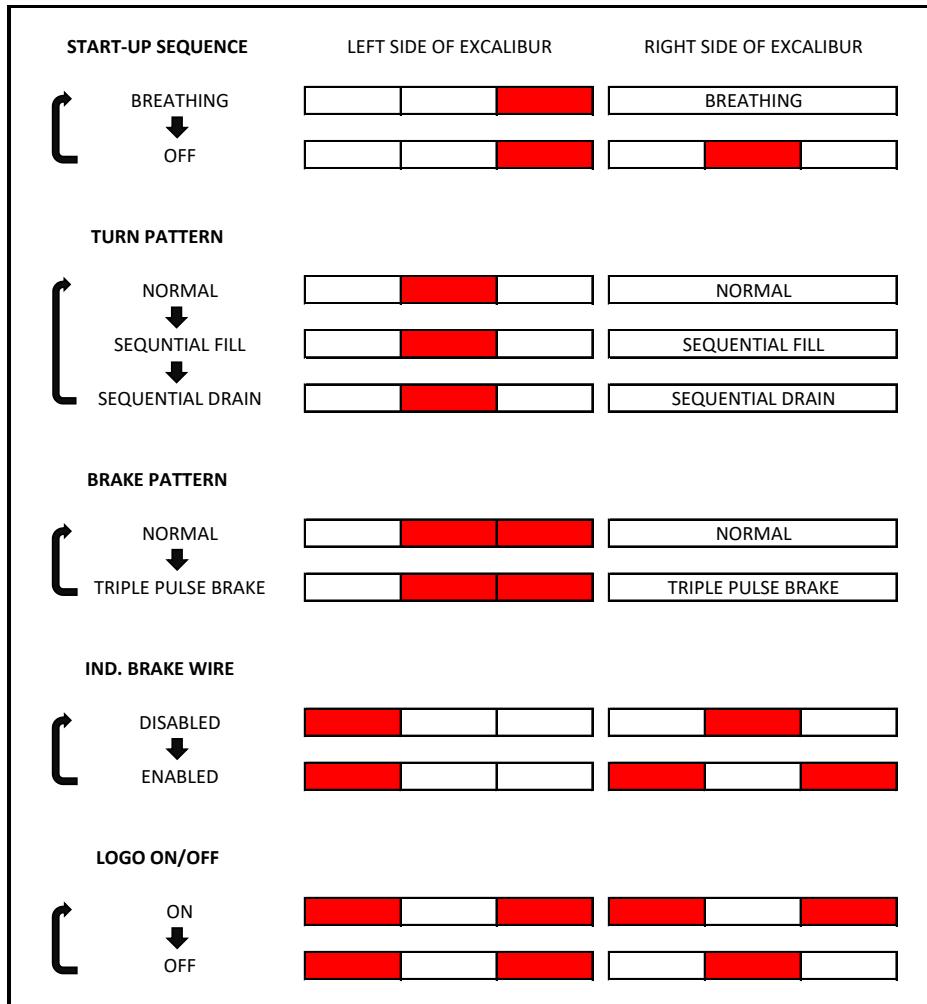
## INSTALLATION MODE

When you install your Excalibur, you can select between several different options which are shown in the table below. These options are remembered and only need to be set once.

#	Start-Up	Turn Pattern	Brake Pattern	Independent Brake	Logo
<b>1</b>	Breathing	Normal	Normal	Disabled	On
<b>2</b>	Off	Chase	Triple Pulse	Enabled	Off
<b>3</b>		Scan			

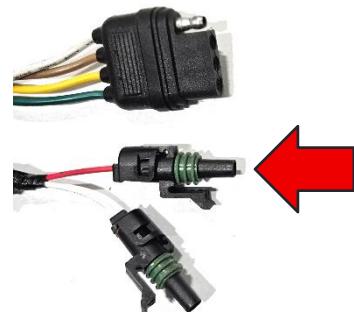
1. To enable the start-up sequence, sequential turns and triple pulse brake, the OEM\_SEL wire must be connected to ground. If it is cut, the extra modes are disabled.
2. To reset the light bar to factory settings, turn on your truck or apply 12V to the ACC wire. Next hold the SEL wire to ground for 3 seconds. All settings will be erased and your lightbar will flash reverse 3 times and return to default settings.
3. To enter installation mode, connect the male spade connector labeled INST into the female spade connector labeled GND.
4. To change your selection, tap the SEL wire to ground, if you go past the setting you want, simply tap the SEL wire to ground again until you get back to the desired setting.
5. Once you are happy with your selection, tap ADV to ground to move on to the next category. The left side of the light bar will show you what category you are currently choosing, and the right side will show you what your current selection is.
6. When you are happy with your selections disconnect the INST wire from ground.
7. Bundle the excess programming wires and wrap with electrical tape when not in use.





**NOTE:**

If the harness you received with the Excalibur light bar includes a red connector (shown to the right) you must connect it and enable independent brake mode, which is the fourth option in installation mode. If you do not, triple pulse brake mode will not work properly.



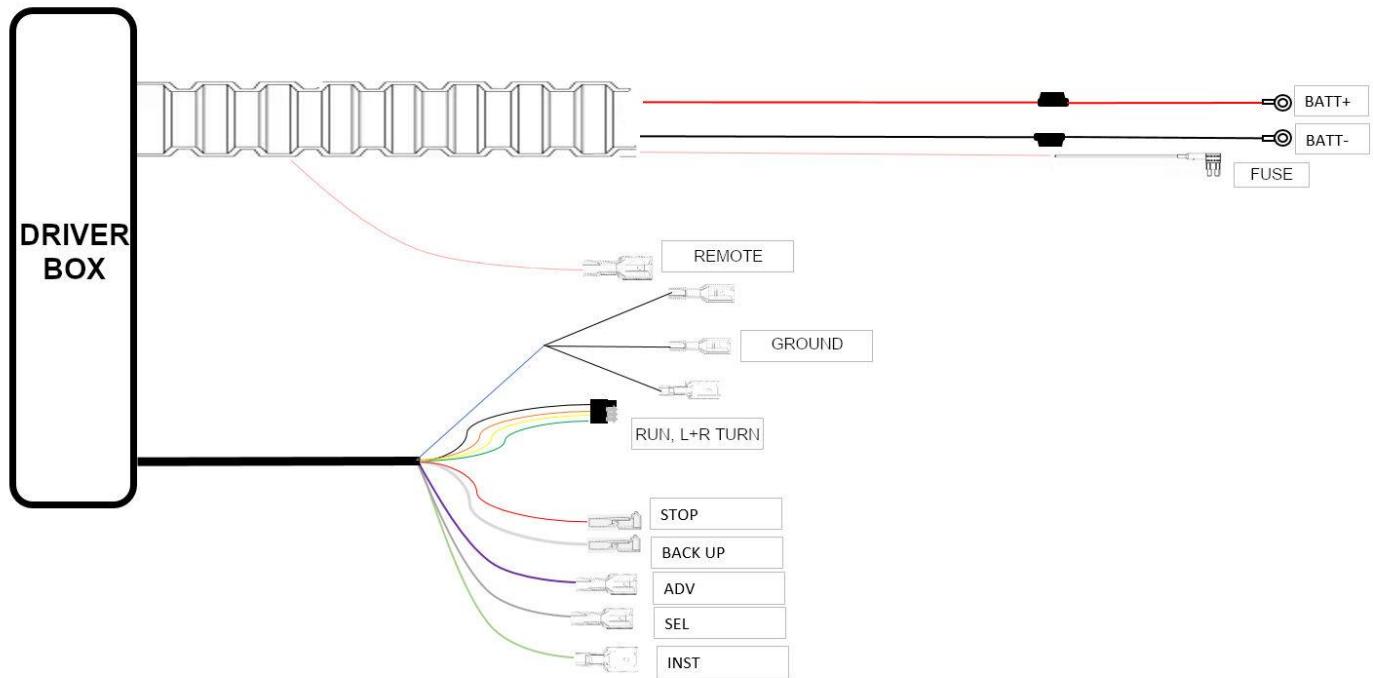
**NOTE:**

You must manually connect the INST wire to ground to enter installation mode. This safety feature ensures installation mode cannot be activated while driving. Dielectric grease is recommended in the spade connectors.

**NOTE:**

Do not plug the spade connector on the PINK wire labeled REMOTE into the BLACK ground spade, it will knock out the fuse in the engine bay. The pink wire is only used for REMOTE installation.

## WIRE DIAGRAM



You can find a full installation video by scanning the QR code below!

<https://www.youtube.com/watch?v=2iKr5LGPwas>



Congratulations on completing the installation of your Putco product!  
For information regarding your warranty, please visit [www.putco.com/warranty](http://www.putco.com/warranty).

**Issues? Please Contact Our Technical Support Team: 1 800 247 3974**



**WARNING:** Final Inspection required. Inspect product was properly installed and all installation instructions were followed.



For additional information, please visit our website at [www.putco.com](http://www.putco.com)!