



# 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	Super Duty (F-250, F-350, F-450)	2023+

## 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	Wire Shroud & Camera Shroud



## Plug and Play Harness Installation

1. Carefully remove both the passenger and driver side tail lamps by removing the two 8mm bolts using a socket wrench.



2. Fish the wire harness up from below the tailgate and out the taillight holes on each side of the truck. This can be done by following the OEM taillight harness. The thicker side of the Putco wiring harness will go to the Driver's Side, while the thinner side will go to the passenger side.



3. 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.



4. Next, install the second wiring harness to the factory 7-pin. This will pull the "reverse" signal from the vehicle.
5. 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.
6. Once this step is complete, the vehicle will have a wiring harness attached to the Driver Side Tail Lamp, Passenger Side Tail Lamp, and Factory 7-Pin.



## 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.

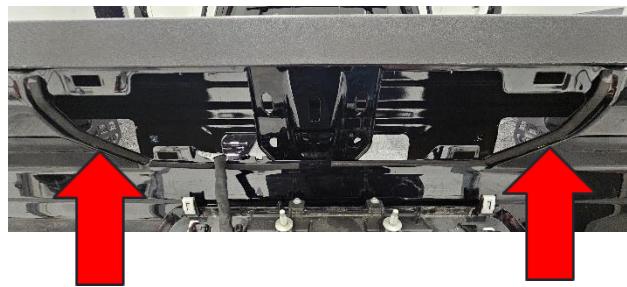
*Pro Tip: Try peeling just a few inches from each section of tape and allow them to hang as "tabs". Then, hold the light bar in the desired mounting position. This will make it easier to move the light bar to position correctly and allow a few inches of tape to temporarily attach the part to check. When the bar is ready to be installed, hold it against the vehicle and peel the tape from behind while pushing gently on the light bar.*



10. Fish the wires from the lightbar through the bottom of the tailgate handle opening and into the driver side of the tailgate.
11. Recommended 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 tightening the handle.



16. Peel the tape off the wire shroud. Clean the surface with IPA and clean cloth.

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.

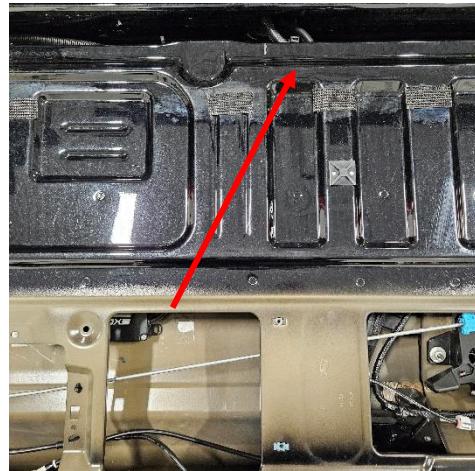
21. Mount the driver box inside the tailgate on the flat section and against the internal wall. Press firmly for several seconds.



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



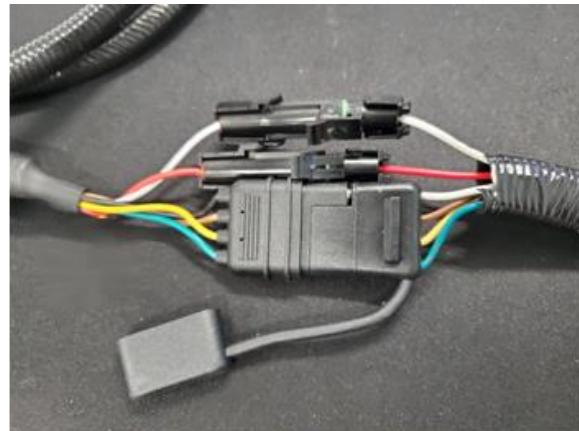
23. Using a flexible grabber tool or stiff piece of wire, fish the long (30') wires from the driver box through to the bottom of the tailgate.



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



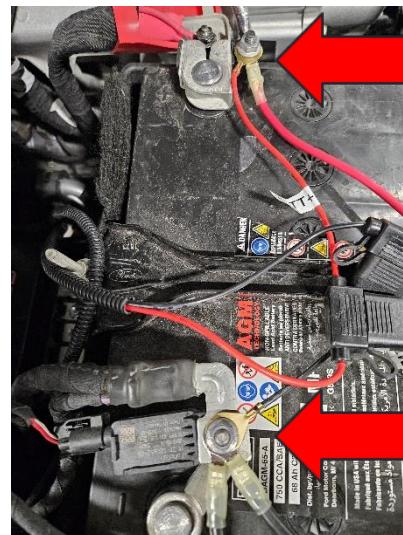
25. Connect the plug and play 4- pin connector and the light bars 4-pin connector as well as the weatherpack connectors. The white wire will connect to the reverse wiring harness. The Red Wire will only connect to factory LED models if the harness is equipped with a mating connector.



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 #21, Vehicle power 1, depending on trim level.



30. The fuse you take out of the fuse box goes into the bottom slot of the ACC connector. Make sure the factory fuse is relocated to the Putco add-a-fuse.

31. Reinstall the fuse and fuse box cover.



## INSTALLATION MODE

The Excalibur has a variety of selectable features to personalize your light bar. These features are chosen (programmed) using wiring connected directly to the light bar itself with our “Installation Mode” feature.

Settings are outlined in the below graphic and include “**Features**”, which are the programmable settings of the product, and “**Functions**”, which are the selectable options for each feature.

FUNCTIONS	FEATURES					
	Function	Start-Up Animation	Turn Pattern	Brake Pattern	Independent Brake	Logo Illumination
1	Enabled	Normal	Normal	Disabled	Enabled	
2	Disabled	Chase	Triple Pulse	Enabled	Disabled	
3		Scan				

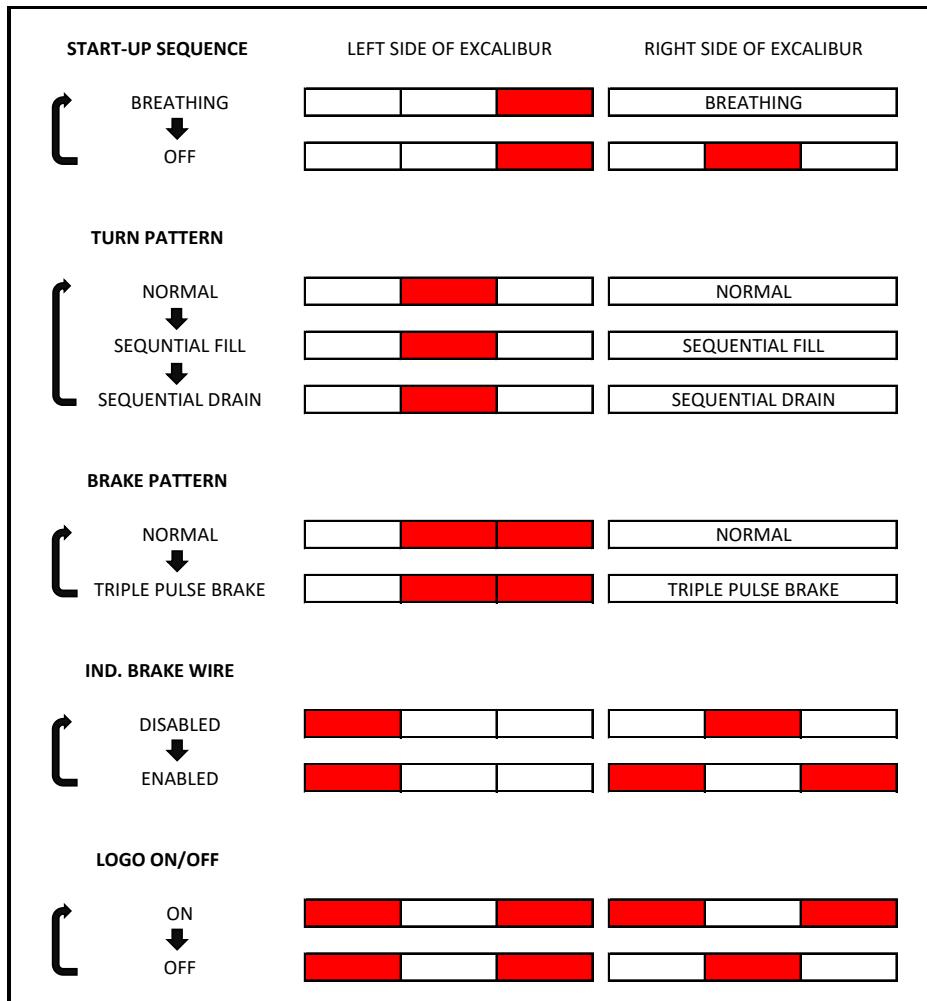
**NOTE: If you have a 529026 (Factory LED Tail Lamps) harness, independent brake needs set to enabled!**

1. Ensure the product is fully installed and receiving 12V either by putting the vehicle in accessory mode or turning the vehicle on. The product should illuminate.
2. To enter Installation Mode and select the above **FUNCTIONS** and **FEATURES**, connect the “INST” (Installation Mode) wire to one of the spade connectors flagged with “GND” (Ground). The connectors should mate. Once this is complete, the light bar will be in “Installation Mode”. **\*NOTE – Keep this connection intact during the below steps and disconnect when programming is completed – the light bar will function properly when this connection is removed.**
3. To toggle which product **FEATURE** you would like to program, tap the ADV (Advance Feature) wire to one of the ground terminals via their spade connectors. The light bar will display **FEATURE** sequence on the left side of the Excalibur. The diagram below is a key that will show which **FEATURE** associates with the sequence displayed on the Excalibur. **\*NOTE – There is no need to actually connect the spade connectors – just tap to cycle until desired feature is reached.**
4. Once a desired feature is selected to be programmed – tap the SEL (Selection) wire to one of the ground terminals via the spade connectors. This is how a **FUNCTION** within a feature will be selected. The right side of the Excalibur will show an animation that displays the selected **FUNCTION**. This is outlined in the document below. The **FUNCTION** that is displaying on the Excalibur is the current selected function and will save when the INST wire is disconnected.

**\*NOTE – There is no need to actually connect the spade connectors – just tap to cycle until desired function is reached.**

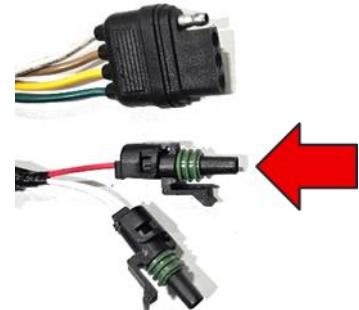
- Once all desired FUNCTIONS and FEATURES are selected, simply disconnect the INST wire from ground and bundle all excess programming wires. We recommend wrapping them in electrical tape.

#### EXCALIBUR – INSTALLATION MODE FUNCTION/FEATURE KEY



#### 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.



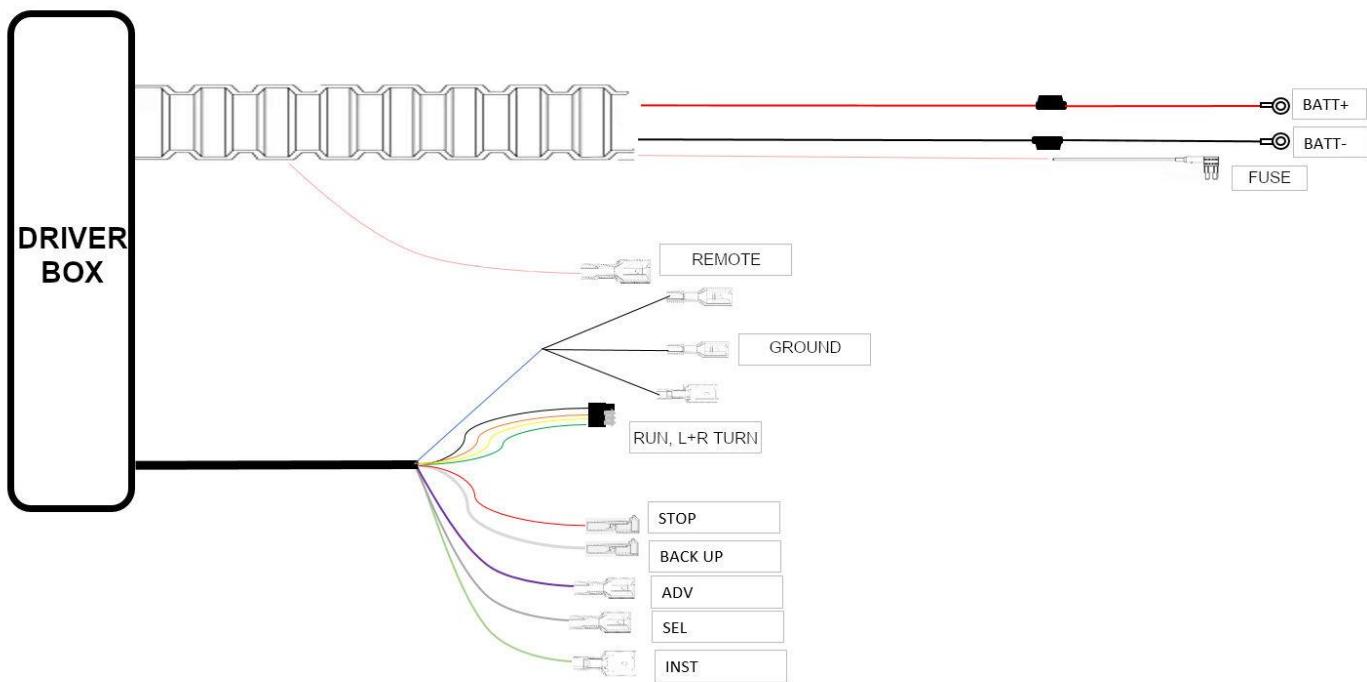
**NOTE:**

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!

[www.youtube.com/watch?v=2iKr5LGPwas](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)!