

STARKEY

PRODUCTS

2015-2017 Ford F-150 Raptor-Style Grille Lights

<u>Parts List:</u>	<u>Quantity:</u>	<u>Tool List:</u>
Bracket & pre-installed lamps	1	• Flat head screwdriver
PB-4530 Parts Bag	1	• Phillips screwdriver
		• Ratchet & Socket set
		• Pliers

Thank you for purchasing one of our products. Please familiarize yourself with the parts included as well as the instructions before attempting installation. Please seek the help of a certified technician if you feel unable to complete the installation safely and properly. Failure to read and follow the instructions below may result in personal injury or damage to property. Starkey Products, Inc. and our retailers assume no liability for failures to comply with guidelines and warnings outlined in this instruction manual.

For additional tips and tricks, visit our website to watch the installation video for this product!

Removing the grille:

Before beginning the steps below, turn off the vehicle, remove key, and engage the emergency brake.

1. Open hood of truck and make sure hood is held open securely.
2. Remove the black plastic radiator cover (shown in picture 1). The panel is attached by 11 plastic pins. The pins are removed by prying up on center part and then prying up on the body of the pin. See picture 2. Save pins and black panel for re-installation later.
3. Remove the 2 bolts (7mm) that attach the headlight trim panels to the wheel well on each side of the truck. Set aside for re-install later. See picture 3.
4. Some models have factory fender flares. The fender flares are held on by clips. You can loosen the fender flare enough (for headlight trim panel removal) without completely removing it. Simply pull outward (towards you) on the front part of the fender flare until the first 2 clips unsnap.
5. Remove headlight trim panels on each side of the truck. Start on the inside at the top and work your way down and toward the outer corner of the headlight. There are clips holding the panel in place. You will hear 'popping' sounds as the clips disengage. This is normal. If you encounter a lot of resistance, check to make sure wheel well hardware has been removed as well as the outer push pins removed in step 2 above. See picture 4.
6. Remove the 4 bolts (10mm) located below the radiator cover we removed in step 2. These bolts hold on the grille and active shutter system. See arrows in picture 5 below.



Remove black panel shown. Save 11 retaining pins for re-install later.



Pry up on center part of pin first. Then pry out entire retainer pin.



Remove 2 - 7mm bolts on driver and passenger side wheel well.



Remove headlight trim starting at inside top and finish at wheel well.



Remove 4 – 10mm bolts and then remove 4 push-pins circled above.



Use pliers to pull the large push-pins straight up and out of grille.

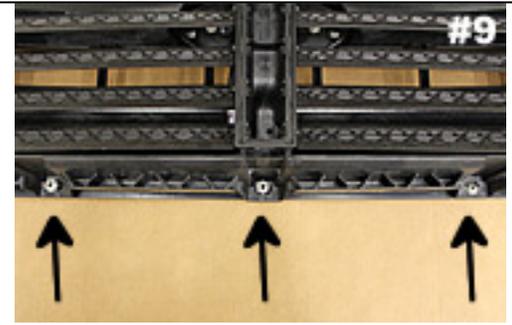
7. Using a pair of pliers, remove the 4 large push-pins located on the outer edge of the grille. See the circled push-pins in picture 5. See picture 6 for a close up view.
8. Unplug the 2 electrical connectors located near the hood latch.
9. Remove the 2 – 8mm bolts that hold on the bottom part of the grille. One is located on each side. See Picture 7.
10. Remove the 6 push-pins that hold the rubber insulation/ shield to the grille. There are 3 push-pins on each side. See picture 8. These push-pins are ribbed so they will be tougher to remove than the others.
11. Now that you have removed all of the hardware holding the grille/ active shutters to the truck, you can carefully lift the grille UP and OFF the truck. If you get any significant resistance, check to make sure all hardware has been removed in steps 1 through 9.
12. Make sure you have a soft, flat surface to place the grille on such as a large piece of cardboard or towel. Place the grille face down on said surface. Be careful to prevent scratches.
13. Using a 10mm deep well socket, remove the three nuts on the bottom of the grille/ active shutters. Be very careful as these nuts are attached to plastic studs. See picture 9 below.
14. Remove the 8mm screw in the center of the grille. It sits directly behind the Ford emblem. See picture 10 below for arrow pointing to the location of the screw.
15. There are 4 – 10mm nuts that need to be removed at each corner of the grille (see the circled areas in picture 10 below). These nuts attach to bolts/ u-clips that are attached to the grille. During removal you may find that using a finger to hold the u-clips will help you remove the nuts more easily.
16. Now, lift the active shutter assembly off of the grille carefully and sit it off to the side.



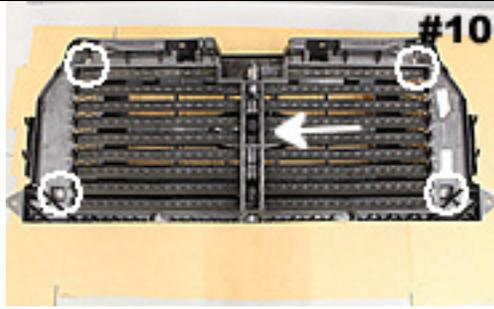
Remove the 2 – 8mm bolts on each bottom corner of the grille.



Remove the 6 push-pins holding rubber shield to grille. 3 on each side.



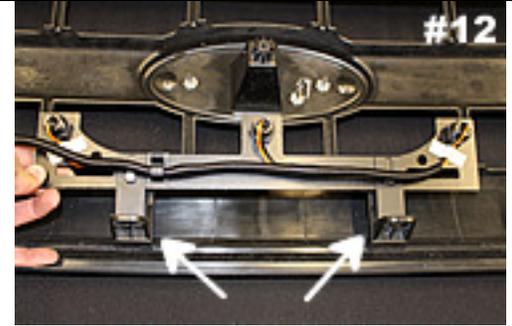
Use a 10mm deep socket to carefully remove 3 nuts on grille bottom.



Remove 8mm center screw and 4 10mm nuts on each corner of grille.



Slide L-Bracket up or down to adjust height of light bar. Then tighten nuts.



Position as shown to determine desired height of L-Brackets.

Installing the Light Bar:

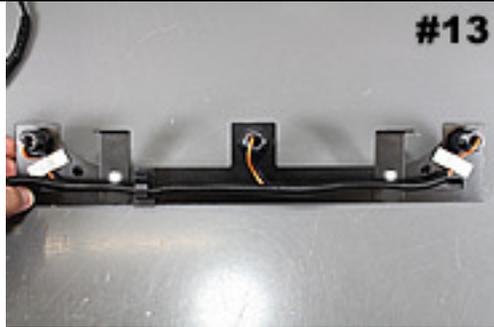
1. Mount the 2 L-brackets to the light bar with the included stainless steel hardware. The inner most holes on the light bar will be the ones used. The set of holes near the flat edge of the light bar (used in picture 11) will be used on all grilles except the XLT sport grille. Tighten the hardware just enough so that you can adjust the L-brackets to the desired height. See picture 11 & 12. Once you determine where you want the light bar to sit behind the grille, use a 10mm socket and wrench to firmly tighten the hardware. The brackets allow adjustability for all factory grilles –You’ll want to adjust the L-Brackets so that the lights are visible when secured to the grille. Note: XLT Sport grilles will need to flip the L-brackets upside down to be visible at the top slot of the grille. You’ll also need to use the bottom set of mounting holes. Picture 13 shows how the L-brackets should be oriented and which holes on the light bar should be used.
2. Once you have attached the L-brackets, lay the grille face down (Ford emblem face down) on a soft surface. Position the Light Bar in its approximate final mounting location with the lights facing down.
3. Re-install the active grille shutters onto the back of the grille.
4. Locate 2 of the large push-pins you removed with pliers during ‘Removing the Grille’ section on Page 1 – Step 6. These will be re-installed in the holes shown in picture 14. This picture shows the top of the Grille/ Active shutters. The push-pins will be inserted through these holes and into the holes located on the L-brackets.
5. To do this, you’ll need to carefully stick your hand through the active grille shutters to line the top of the L-bracket up with the push-pin. Once the push-pin is through the hole, push the top of the pin in to lock the Light bar into place. Repeat on the other side.
6. Check Light Bar to make sure it is secure.
7. Route the wiring out of the top of the grille/ active shutter assembly. Be sure it will not interfere with shutter operation.
8. Re-install all hardware on the grille/ active shutters. Once you have done that, re-install the grille onto the truck.

Connecting the Wiring:

Wiring will vary depending on the type of headlamps you have. If you have the standard headlamps (halogen with a yellowish appearance), follow step 1 below. If you have the LED headlamp package, skip to step 5.

1. **Halogen Headlamps** = Locate the amber running light bulb/ connector behind the headlight on the passenger side. See picture 15. **Please Note:** XLT Sport grille owners who flipped the L-brackets upside down will connect all of their wiring on the driver side.
2. Unplug the connector and carefully pull back the electrical tape to expose the wiring.

- Using the supplied red wire tap, slide the Brown wire with Yellow stripe onto the tap. If you have an XLT Sport grille and you are connecting the wiring to the driver side parking light, the wire color is Green with Orange stripe. The wire should sit in the middle of the two teeth. Squeeze down on the wire tap making sure it snaps closed. Do not cut wire! See picture 16.



Flip the L-Brackets for installation on XLT Sport grilles.



Use the 2 of the large push-pins to secure the L-brackets.



Locate the amber running light connector behind the head light.

- Now skip to step 9.
- LED Headlamps** = Turn your steering wheel all the way to the left.
- Pull back the wheel well liner on the passenger side to gain access to the headlamp connector. It is held on by 3 – 5.5mm screws.
- Locate the rectangular connector plugged into the back of your LED headlamp. It has 7 wires coming out of it. Unplug the connector.
- Using the supplied red wire tap, slide the Blue wire with Gray stripe (Pin#3) onto the tap. See picture 16 below. The wire should sit in the middle of the two teeth. Squeeze down on the wire tap making sure it snaps closed. Do not cut wire!
- Plug the red wire from the Light Bar wiring into the back of the wire tap. See picture 17.
- Use an 8mm socket or wrench to attach the **black** ground wire to the bolt shown in picture 18 below. Re-attach the bolt so the ring terminal makes proper contact and the bolt is tight.



Slide wire into place and close wire tap completely.



Plug correct wire into the wire tap as indicated above.



Attach the ground wire to the bolt in front of washer fluid reservoir.

Final Installation:

1. Double check everything to make sure it was connected properly. Test the Light Bar to make sure it comes on and off with your other running lights. This can be done by unlocking/ locking the doors with your key fob. If the lights do not come on, visit the trouble shooting guide below.
2. Make sure that all of the hardware you removed from the grille/ active shutters has been re-installed.
3. Re-install the head light trim panels by reversing the removal procedure you completed earlier. Be sure they are completely snapped back into place and all corners line up properly.
4. Re-install the radiator cover and make sure all push-pins are re-installed. Failure to do so can cause check engine light to illuminate on your dash.
5. Enjoy your new Raptor-Style Light Bar! The lights will activate automatically when your running lights are turned on.

Trouble shooting guide:

Lamps won't turn on –

- Check to make sure you connected **red** wire tap to the correct wire outlined in the 'Installing the Light Bar' section above. This is the MOST common mistake made during installation.
- Check the ground cable you connected under the 'Installing the Light Bar' section. Make sure that it is making proper contact and that the bolt is tightened.

If you are still having trouble with your product, please contact us for technical assistance. Tech support is available via phone Monday through Friday 9am-5pm. Email tech support is available during regular business hours as well as weekends, holidays, and evenings.

Starkey Products, Inc.

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Limited Warranty:

This warranty covers defects in materials or workmanship in any component sold by Starkey Products, Inc. or its authorized dealers. Warranty is effective for five years from the date of purchase. Coverage terminates if you sell or transfer ownership of the product. Starkey Products will repair or replace the defective or malfunctioning product or any defective or malfunctioning part thereof at no charge. This warranty covers parts and labor only. This warranty does not cover any problem that is caused by abuse, misuse, acts of God, or improper installation. Any modification or alteration to any component will void the product warranty. Warranty does not cover wear that any components receive through the normal course of operation and use (including but not limited to bulbs). All warranty claims require proof of purchase.*

**Any painted surfaces are guaranteed not to bubble, peel, or crack for the duration of the warranty period. Warranty does not cover normal wear and tear resulting from impacts, scratches, road debris, or harsh chemicals.*