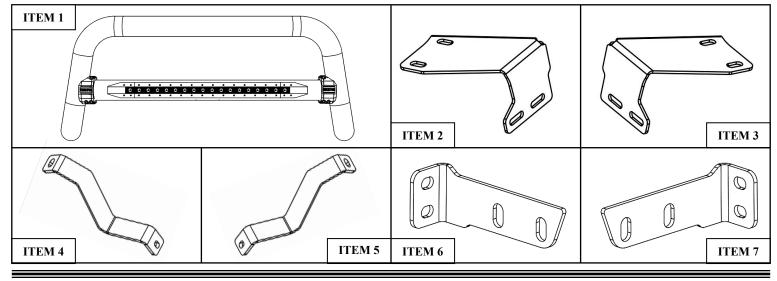


INSTALLATION INSTRUCTIONS

CONTOUR LED BULL BAR

APPLICATION: 2015 - 2017 Ford F-150 PART NUMBER: 32-31025T-L, 32-31020-L

ITEM	QUANTITY	DESCRIPTION	TOOLS NEEDED
1	1	CONTOUR BULL BAR ASSEMBLY	6MM HEX KEY
2,3	2	MOUNTING BRACKET, DRIVER (2) AND PASSENGER (3)	17MM WRENCH
4,5	2	SUPPORT STRAP, DRIVER (4) AND PASSENGER (5)	17MM SOCKET
6,7	2	LOWER MOUNTING BRACKET, DRIVER (6) AND PASSENGER (7)	19MM SOCKET
8	2	3/8" SQUARE U-BOLT (YELLOW ZINC)	19MM WRENCH
9	4	3/8" FLAT WASHER (YELLOW ZINC)	9/16" SOCKET
10	4	3/8" SPLIT LOCK WASHER (YELLOW ZINC)	UTILITY KNIFE
11	4	3/8" HEX NUT (YELLOW ZINC)	PRY TOOL
12	2	M8 HEX HEAD CAP SCREW (YELLOW ZINC)	RATCHET
13	2	M8 SPLIT LOCK WASHER (YELLOW ZINC)	TORQUE WRENCH
14	2	M8 FLAT WASHER (YELLOW ZINC)	
15	2	8MM SPACER (YELLOW ZINC)	
16	4	M10 HEX HEAD BOLT (YELLOW ZINC)	
17	4	M10 SPLIT LOCK WASHER (YELLOW ZINC)	
18	4	SMALL M10 FLAT WASHER (YELLOW ZINC)	
19	6	M10 BUTTON HEAD BOLT (BLACK ZINC/STAINLESS STEEL)	
20	6	SMALL M10 FLAT WASHER (BLACK ZINC/STAINLESS STEEL)	
21	4	LARGE M10 FLAT WASHER (BLACK ZINC/STAINLESS STEEL)	
22	6	M10 SPLIT LOCK WASHER (BLACK ZINC/STAINLESS STEEL)	
23	4	M10 HEX NUT (BLACK ZINC/STAINLESS STEEL)	
ANTI-SEIZE LUBRICANT MUST BE USED ON ALL STAINLESS STEEL FASTENERS TO PREVENT THREAD DAMAGE AND GALLING			





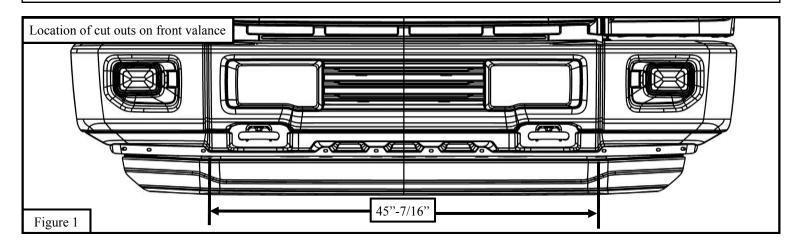
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PROCEDURE

1. Remove contents from box, verify if all parts listed are present and free from damage. Carefully read and understand all instructions before attempting installation.

Failure to identify damage before installation could lead to a rejection of any claim.

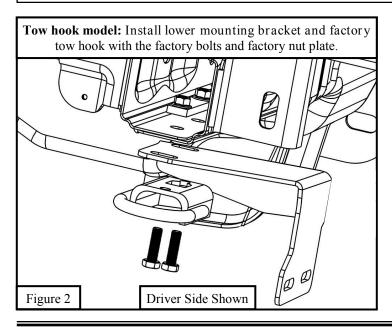
- 2. Mark approximate locations to trim the front valance. Cutouts must be made in the front valence to allow space for the mounting brackets. From outer flange to outer flange, the mounting brackets measure approximately 45-7/16". The cutouts will measure approximately 2.5" x 1/4." *Note*: Do not trim front valence until cutout locations have been verified by placing the mounting brackets in the locations shown in Step 4. See Figure 1.
- 3. Trim the front valence after verifying cutout locations.

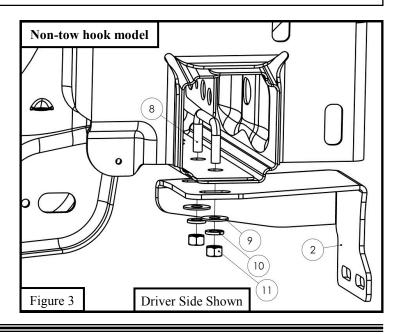


4. Installation of mounting brackets:

For vehicles with factory tow hooks: Remove the factory tow hook and place the mounting bracket against the frame making sure to align the two holes of the bracket with those of the channel. Place the tow hook beneath the bracket and loosely secure the mounting bracket and tow hook to the frame using the factory bolts and factory nut plate. See **Figure 2**. *Note*: Driver's side shown.

For vehicles with no tow hooks: Slide the supplied U-bolts (8) into the frame channel and loosely install the mounting brackets using the supplied 3/8" hardware (9-11). See Figure 3. *Note*: Driver's side shown.

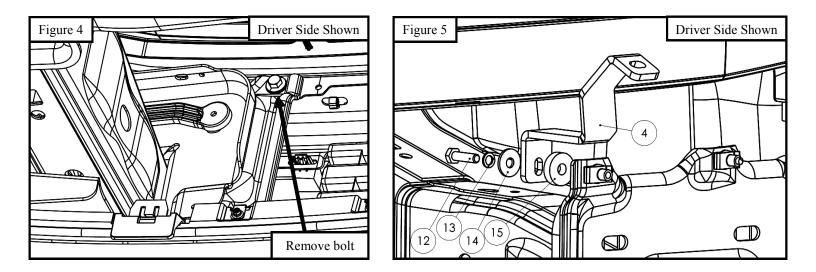






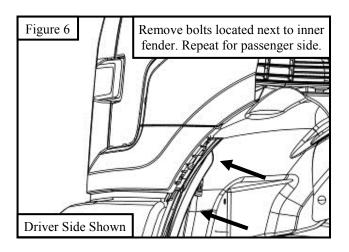
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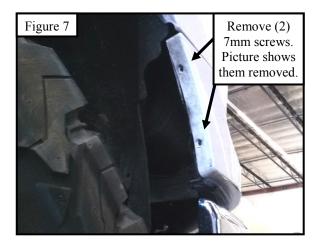
- 5. On each side of the vehicle, remove the factory bumper bolt shown in **Figure 4**. *Note*: Driver's side shown. Factory bolt will not be reused.
- Loosely install the upper support straps using the supplied M8 hardware and 8mm spacer (12-15) according to Figure 5. *Note:* 1) Removal of intercooler bolt and prying of intercooler may be required to fit the M8 hardware. 2) Bring the upper support straps into position by sliding them between the grille and bumper. For some models, it may be necessary to remove the grill before installing the upper support straps. See the Remove the Grill Section. 3) Driver's side shown



Remove the Grille (Optional Step)

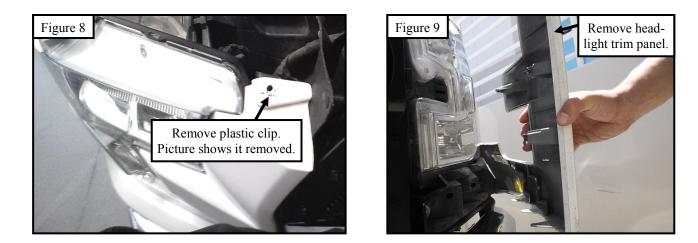
A. On each side of the vehicle, remove the headlight trim panel by removing two bolts located near the front tire (Figures 6 & 7) and a plastic clip on the top of the trim panel (Figure 8). First, start by removing the headlight trim panel from the top then the bottom. Then, continue to pry the trim panel moving towards the center of the panel. See Figures 6 - 9.



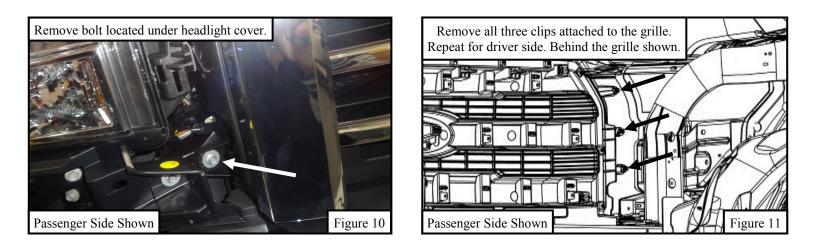




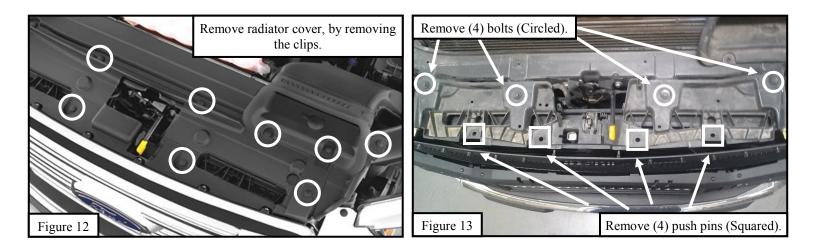
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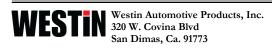


- B. On each side of the vehicle, remove the bolt that holds the bottom portion of the grille. See Figure 10.
- C. Remove the three clips that attach the rubber shield from each side of the grille. See Figure 11.

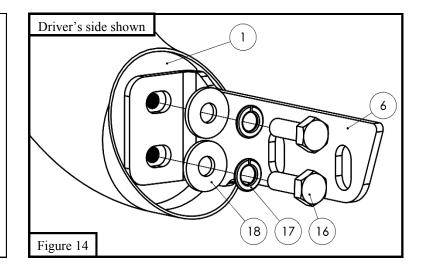


- D. Remove the plastic push pins with a pry tool and remove the radiator cover. See **Figure 12. Note:** Un-plug any electrical connectors that connect to the grille.
- E. Remove (4) bolts and (4) push pins that attach the grille to the vehicle and remove the grille from the truck. See Figure 13.

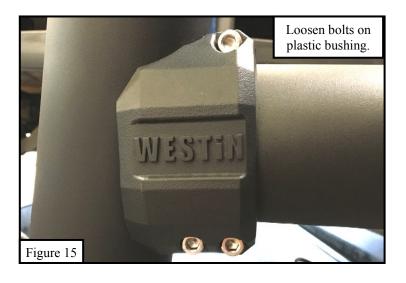


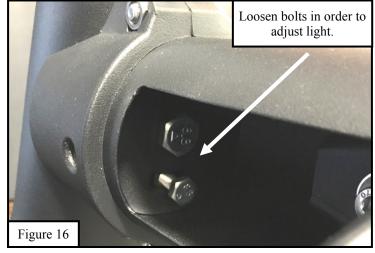


- 7. After installing the support straps, reinstall the grille and headlight trim panel.
- Loosely install the lower mounting brackets (6 & 7) onto bull bar using provided M10 hardware (16-18). Refer to Figure 14. *Note*: Driver's side shown.

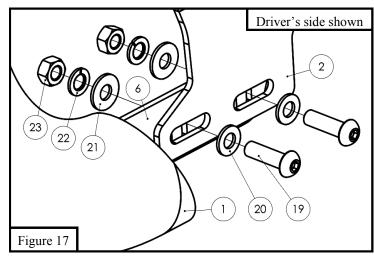


9. Adjust the center tube of the contour bull bar assembly so that the light will point straight ahead by first loosening the bolts on the plastic bushings (3 bolts on each bushing). See **Figure 15**. Next, locate the rectangular openings behind the light and loosen the two bolts on each side. Rotate and align the light as needed and then tighten hardware. See **Figure 16**.





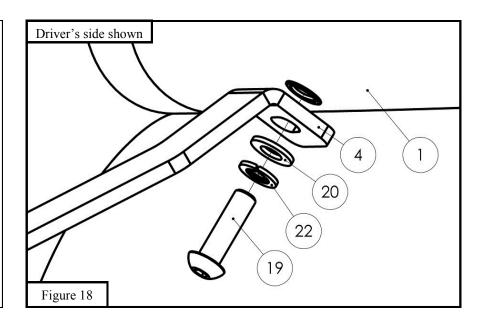
10. With assistance, hold the bull bar up in position on the inside of the lower mounting brackets. Loosely attach the bull bar to the mounting brackets using the supplied M10 hardware (19-23). See Figure 17. *Note*: Driver's side shown.

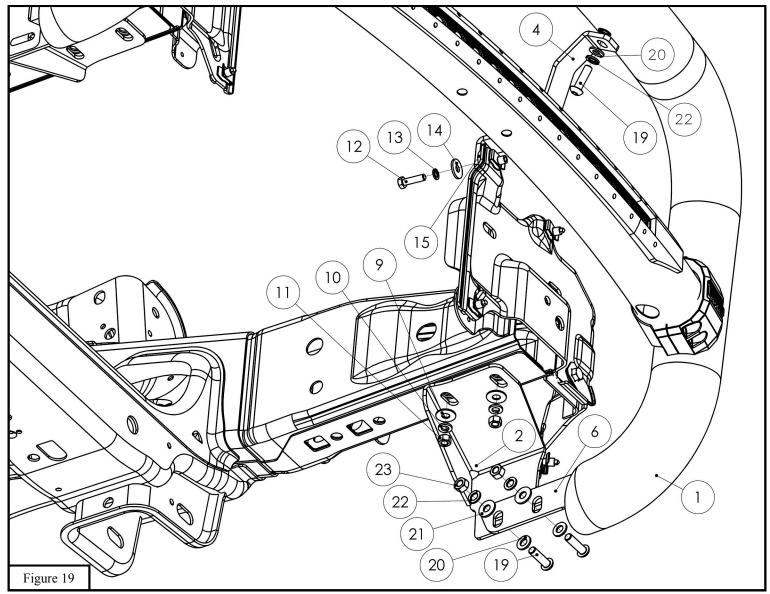


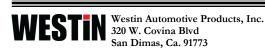


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- 11. Loosely attach the support straps (4 & 5) to the bull bar using the supplied M10 button hardware according to Figure 18. *Note*: Driver's side shown.
- 12. Align and adjust the bull bar as necessary. Tighten and torque hardware to the following specifications. M8 hardware to 15-18 ft-lbs, M10 hardware to 30-35 ft-lbs, and 3/8" hardware to 25-30 ft-lbs.







WIRING INSTRUCTIONS:

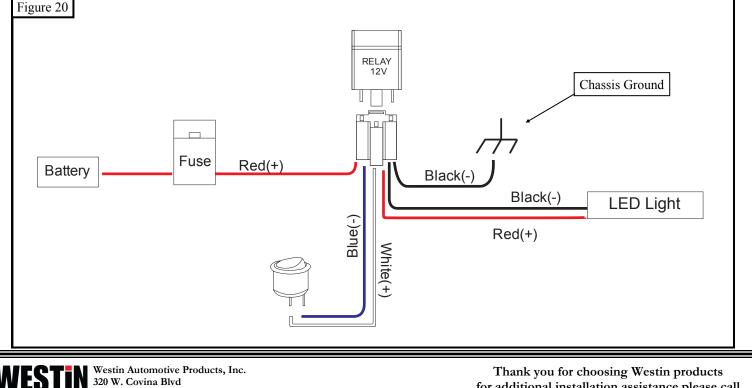
CAUTION:

- 1. Disconnect ground connection from battery (-) to avoid accidental short circuits before attempting to connect electrical wires.
- 2. When running wires, avoid areas of excessive heat, vibration, pinch or rotation when securing harness to vehicle.
- 3. Always use a fused (+) positive supply source.
- 4. This light becomes hot under continuous use. Do not remove or touch the casting for at least 30 minutes after the lamp has been turned off.

WESTIN recommends using a professional for this installation.

Refer to Figure 20 below.

- 1. Locate the wiring harness and mount the switch in a convenient location where it is easily accessible from the drivers seat. **Note:** *The switch will need to be removed from the wiring harness so that the rest of the harness can be routed from the engine bay to the cabin.*
- 2. Route the wiring harness wire, specifically the fuse and relay, from the positive battery terminal along the firewalls existing wire routes. **Note:** *Tape as necessary to correct slack*.
- 3. Secure the relay by either drilling or using a pre-existing bolt along the chassis that is not connected to any other wire.
- 4. Run the switch harness through the firewall preferably through the pre-existing rubber plug that is used to run the OEM wiring harness from the engine bay to fuse box. **Note:** *Reconnect the switch to the wiring harness.*
- 5. Place the LED plug wire along the fender chassis where it will not get pinched and away from any moving parts (fan, pulleys etc.).
- 6. Run the attached wire from the LED Light Bar as previously mentioned away from any moving parts.
- 7. Connect both ends of wiring connectors from LED light bar and wiring harness.
- 8. Re-connect battery terminals, attach the red (+) wire to battery positive, and the black (-) wire to ground. Note: *A dd dielec-tric grease (not supplied)*.
- 9. Turn on the switch to make sure if the light works. If not, please check carefully if the wiring installation is correct.



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CARE INSTRUCTIONS

- REGULAR WAXING IS RECOMMENDED. DO NOT USE ANY TYPE OF POLISH OR WAX THAT MAY CONTAIN ABRASIVES.
- STAINLESS STEEL PRODUCTS CAN BE CLEANED WITH MILD SOAP AND WATER. STAINLESS STEEL POLISH SHOULD BE USED TO POLISH SMALL SCRATCHES.
- GLOSS BLACK FINISHES SHOULD BE CLEANED WITH MILD SOAP AND WATER.

WESTIN 320 San

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WARNING

Failure to follow these instructions could lead to death, personal injury, and / or property damage.

FASTENERS:

All Westin supplied fasteners must be utilized and installed in accordance with the installation instructions and apply torgue to the specifications as defined. DOUBLE CHECK ALL FASTENERS BEFORE INITIAL USE, AND PERIODICALLY IN THE FUTURE TO ENSURE PROPER FUNCTION AND SAFETY.

DRILLING:

Most Westin products do not require drilling for installation. If drilling is defined as required, use caution when drilling a vehicle. FAILURE TO REVIEW AN AREA TO BE DRILLED MAY RESULT IN PERSONAL INJURY AND/OR INJURY TO OTHERS AS WELL AS VEHICLE DAMAGE.

EYE PROTECTION:

ALWAYS WEAR SAFETY GLASSES OR GOGGLES DURING THE INSTALLATION PROCESS TO AVOID PERSONAL INJURY.

MAXIMUM TOWING/CARRYING CAPACITY:

The Westin Receiver Hitches will have a visible tow rating label affixed directly on the product. User should never exceed the vehicle manufacturers maximum tow and weight rating regardless of the capacity of the hitch. FAILURE TO FOLLOW THESE GUIDELINES WILL VOID THE WESTIN WARRANTY AND MAY RESULT IN PERSONAL INJURY AND/OR INJURY TO OTHERS AS WELL AS VEHICLE DAMAGE.



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