



INSTALLATION MANUAL

LWD191BL1

Level of Difficulty

Moderate

Installation difficulty levels are based on time and effort involved and may vary depending on the installer level of expertise, condition of the vehicle and proper tools and equipment.

Parts List

Qty	Description
1	DS Mounting Bracket
1	PS Mounting Bracket
1	DS Bumper Mount
1	PS Bumper Mount
1	DS Sensor Bracket
1	PS Sensor Bracket
1	Winch Plate
1	License Plate Bracket
10	Black Carriage Bolt, 1/2"-13 x 1 1/2", Grade 5
10	Black Flat Washer, 1/2"
10	Black Hex Lock Nut, 1/2"-13 UNC, Grade 8
16	Hex Head Bolt, 1/2"-13 x 1 1/2", Grade 5
32	Flat Washer, 1/2", Grade 5
16	Lock Washer, 1/2"
16	Hex Nut, 1/2"-13 UNC, Grade 5
8	Black Button Head Screw, 1/4"-20 x 3/4, Grade 5
8	Black Keps Nut, 1/4"-20 UNC, Grade 5
2	Rubber Grommet
2	Sensor Pigtailed
2	Button Plug

Tools Required

Air ratchet	Socket set, SAE
Wrenches, SAE	Socket set, Metric
Wrenches, Metric	Torque wrench
Ratchet	Extension (optional)
Allen Wrench, 5/32"	Pliers, needle nose

Torque Specifications

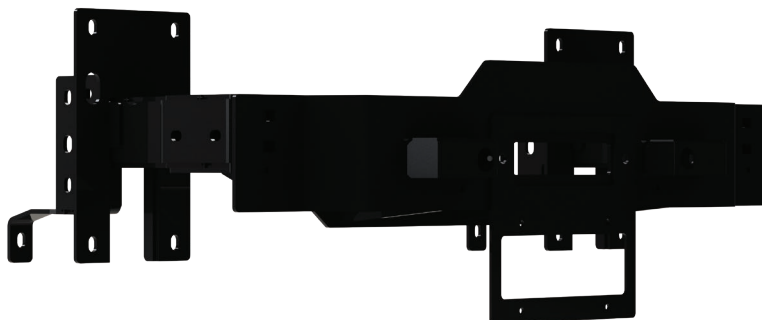
M12 bolt	59 ft-lbs.
1/2" bolt, gr 5	75 ft-lbs.
1/2" bolt, gr 8	110 ft-lbs.

Use above torque setting unless otherwise noted

CAUTION

Use all tools as manufacturer recommended.

Product Photo



NOTICE

Visit www.ranchhand.com for a full-color copy of this instruction manual, as well as helpful videos, guides and much more!

Before you begin installation, read all instructions thoroughly.

Proper tools will improve the quality of installation and reduce the time required.

Always disconnect the vehicle battery before removing sensors or disconnecting wiring harnesses. Ranch Hand is not responsible for sensor miscalibration or accidental deployment of airbags during installation.

Always mark the orientation of sensors prior to removal from the factory bumper. Many vehicle sensors are calibrated to a particular orientation, and reinstallation sideways or upside down will impact vehicle performance. A piece of masking tape, a grease pencil, or other mark to indicate the sensor's original orientation will help to ensure proper re-installation.

Periodic inspection of your product should be performed to ensure all hardware and / or components remain secure.

To help prevent damage to the product or vehicle, refer to the specified torque specifications when securing hardware during the installation process.

Be sure to inspect and test fit product before having it coated or painted. Ranch Hand will not be responsible for the cost of the coating if any problems with fit or finish are not noted and addressed beforehand.

This product will not work with Adaptive Cruise Control.

SAFETY INSTRUCTIONS

Be sure to wear proper safety equipment, such as eye protection and steel toe shoes.

Maintenance

Mild automotive detergent may be used to clean the product. Do not use dish detergent, abrasive cleaners, abrasive pads, wire brushes or other similar products that may damage the finish.

Product Registration and Warranty

Ranch Hand stands behind our products with industry-leading warranties. To get copies of the product warranties, register your purchase or provide feedback, visit: warranty.curtgroup.com/surveys

Step 1

Disconnect the battery from the vehicle.

⚠ CAUTION

Be sure to disconnect the vehicle battery and fasten this wire down and away from the battery while completing the installation process. Failure to disconnect the battery may result in accidental triggering of the impact sensors and unintentional deployment of the vehicle airbags.

Step 2

Unplug the main wiring harness connecting the bumper to the frame.

Step 3

Unplug the fog light wires.

Step 4

Unbolt and remove the tow hooks.

Step 5

Remove the fasteners in the wheel well connecting the liner to the bumper.

Step 6

Remove the nuts holding the bumper mount to the frame.

Step 7

Remove the factory bumper by carefully sliding it away from the front of the truck.

Step 8

With the bumper removed from the vehicle, unplug the 2 front center parking sensors and remove the sensors from the bumper. These sensors will be relocated later.

NOTICE

Mark the orientation of the sensor prior to removal to ensure correct re-installation. Failure to reinstall the sensor in the correct orientation may impact vehicle performance.

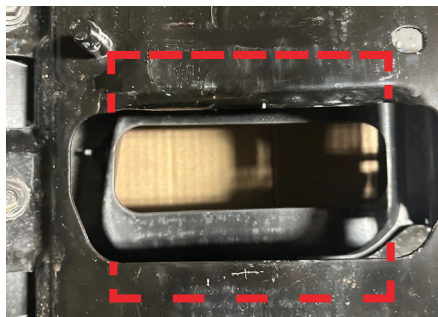
NOTICE

Each parking sensor is attached to a sensor housing by 2 clips and needs to be removed from the housing before it will completely detach from the bumper. The sensors on the sides of the bumper do not need to be removed and will operate normally in their factory positions.

Step 9

Cut the plastic out of the tow hook opening on the bumper, as well as the metal from the factory mounting bracket to allow space for the mounting brackets to fit through.

You will remove approximately 1-1/8" from the top, and 5/8" from the bottom.



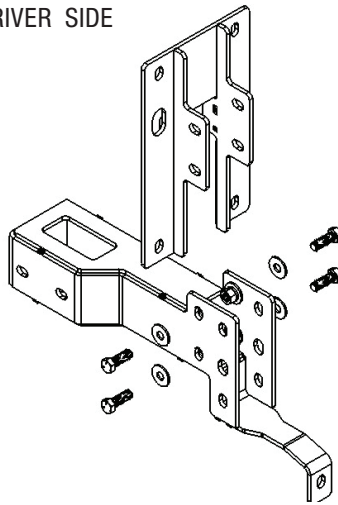
Step 10

Mount the bumper mount to its corresponding mounting bracket.

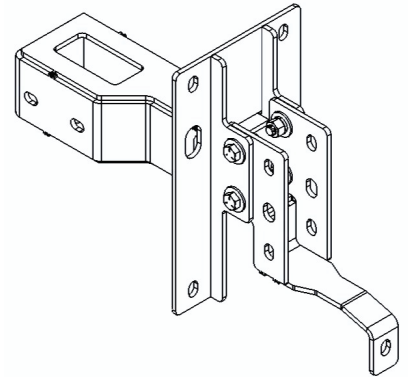
Note: Before installing the mounting brackets and bumper mounts, make sure the frame rails, factory bumper plate, and other mounting locations are free of debris.

Both the passenger and driver side will use 4 of the provided hex bolts, lock washers, and hex nuts, as well as 8 of the provided stainless washers.

DRIVER SIDE

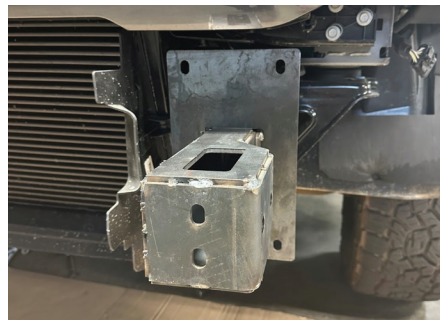
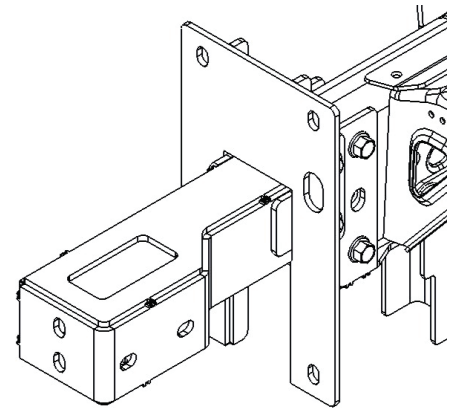
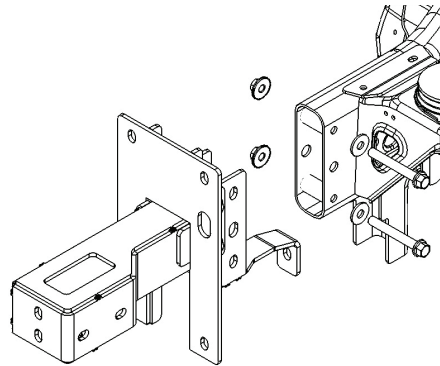


DRIVER SIDE



Step 11

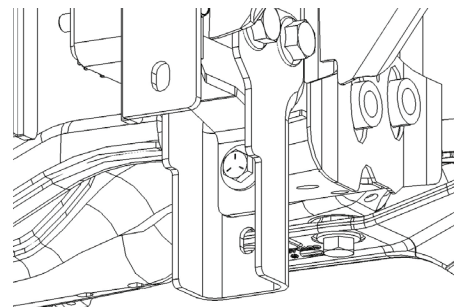
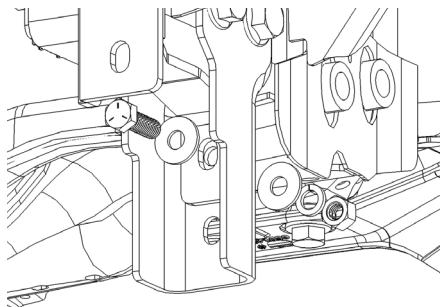
Mount the bumper mount and mounting bracket assembly to the frame on its corresponding side using the factory nuts and bolts.



Step 12

Bolt the lower rear part of the mounting bracket to the frame extension.

Each side will require one Hex Head Bolt, Hex Nut, and Lock Washer, as well as 2 flat washers.

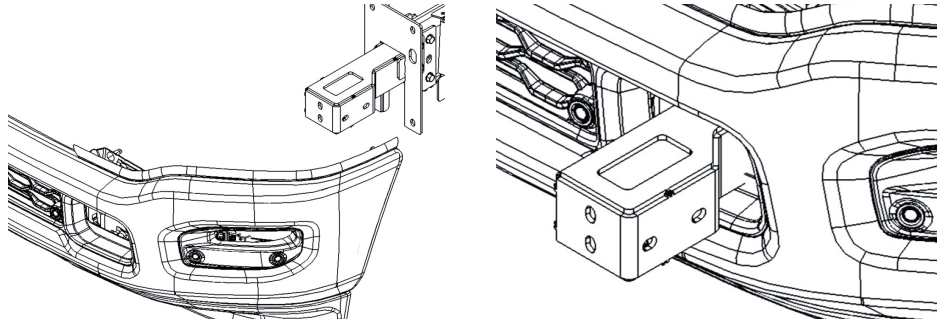


Step 13

Carefully slide the bumper back onto the truck with the mounting brackets extending through the tow hook holes.

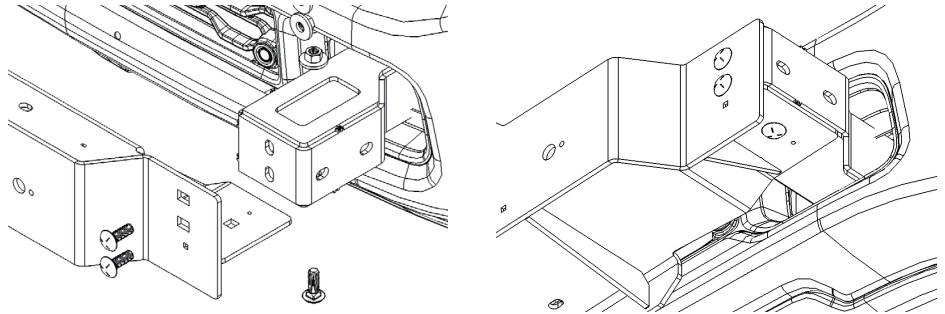
Use the existing hardware to refasten the bumper to the bumper mounting bracket.

Reattach the fasteners to the bumper and wheel well liner.



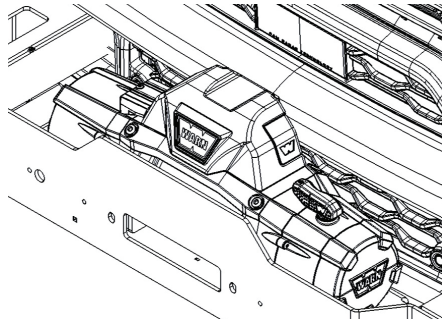
Step 14

Bolt the winch plate to the mounting brackets using 6 of the provided carriage bolts, black washers, and lock nuts.



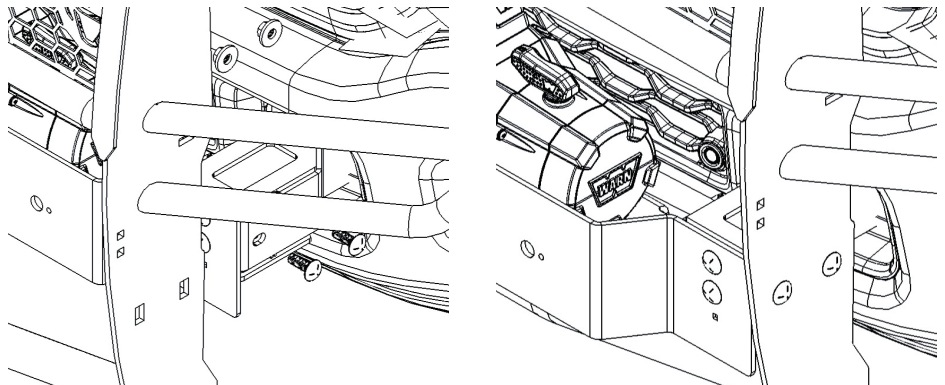
Step 15

Carefully place the winch onto the winch plate and secure using the hardware provided with the winch.



Step 16

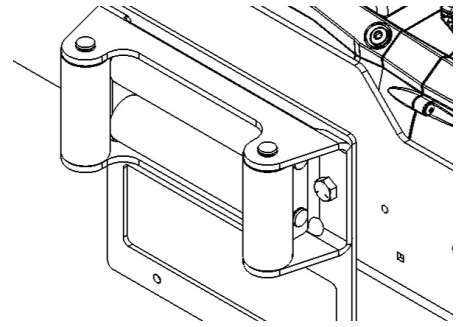
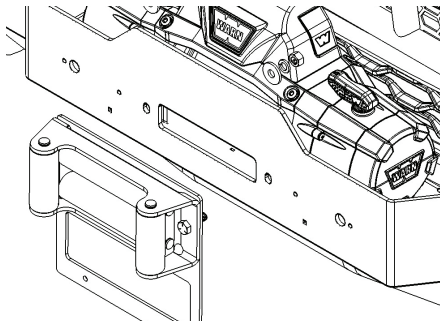
Carefully slide the grille guard over the mounting brackets and fasten using 4 of the provided carriage bolts, black washers, and lock nuts.



Step 17

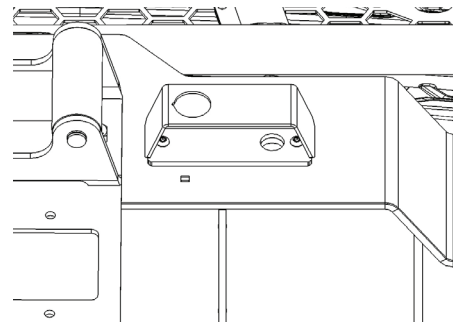
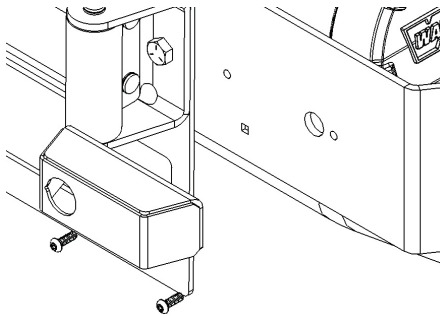
Using the hardware provided with the winch, as well as 2 stainless washers, hex nuts, and lock washers, place the license plate bracket on the front of the winch plate, followed by the fairlead roller and secure it to the winch plate.

Note: Use needle nose pliers on the back side to secure the nut while threading the bolt through it. Then slide a wrench over the nut to fully tighten.



Step 18

Mount the sensor brackets to the winch plate using 4 of the provided 1/4" screws and keps nuts.



Step 19

Insert the rubber grommets into the holes in the front of the sensor brackets.

Step 20

Plug the provided pigtail wires into the sensor plugs and slide through the opening where the sensor was previously located in the factory bumper.



Step 21

Plug the sensor into the pigtail wire.

Step 22

Slide the sensors through the holes in the winch plate and push the sensor into the grommet. If the sensor struggles to slide into the grommet, spray some WD-40 around the inner surface of the grommet.

Note: Make sure to maintain the same sensor orientation determined in step 8.