



INSTALLATION MANUAL

MFF24HBM1

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	Mounting plate, driver-side
1	Mounting plate, passenger-side
1	Center insert, driver-side
1	Center insert, passenger-side
1	Fog light insert, driver-side
1	Fog light insert, passenger-side
1	Light bracket, driver-side
1	Light bracket, passenger-side
1	Adaptive Cruise Control, plastic
1	Adaptive Cruise Control, bracket
1	Adaptive Cruise Control, backer
1	Grill insert 2
4	Plastic spacer
6	Rubber grommet
2	Sensor pigtail
8	Hex bolt, 1/2"-13 x 2", grade 5
4	Hex bolt, 1/2"-13 x 1-1/2", grade 5
24	Flat washer, 1/2"
12	Lock washer, 1/2"
12	Hex nut, 1/2"-13
6	Button head bolt, 1/4"-20 x 1-1/2", black
40	Button head bolt, 1/4"-20 x 3/4", black
46	Kep nut, 1/4"-20, black
1	Midnight front bumper

Tools Required

Ratchet	Torque wrench
SAE socket set	SAW wrenches
Metric socket set	Metric wrenches
Allen wrench, 5/32"	Socket extension

Torque Specifications

M12 bolt	59 ft-lbs.
1/2" bolt	75 ft-lbs.
1/2" bolt	110 ft-lbs.

Use above torque setting unless otherwise noted

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 model does not support the following features after installation:

- Motorized air dam
- Tow hooks
- Fog lights

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

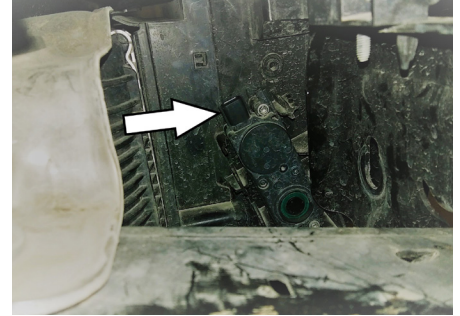
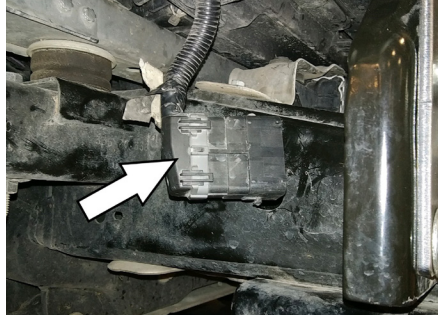
Locate and disconnect the vehicle battery and fasten this wire down and away from the battery while completing the installation process.

CAUTION

Failure to disconnect the battery may result in accidental triggering of the impact sensors and unintentional deployment of the vehicle airbags.

Step 2

Locate and disconnect the main harness connector and the connector for the bottom louvers, taking care not to damage the locking tabs. Both connectors are located on the passenger side.



Step 3

Using a 21mm socket, remove the six (6) mounting nuts securing the bumper (three on each side).

Carefully pull the bumper away from the frame slightly and remove the last wiring connector above the bottom louver system on the driver side, taking care not to damage the locking tabs.

Once the final connector is removed, pull the bumper away from the frame the rest of the way and set it aside.

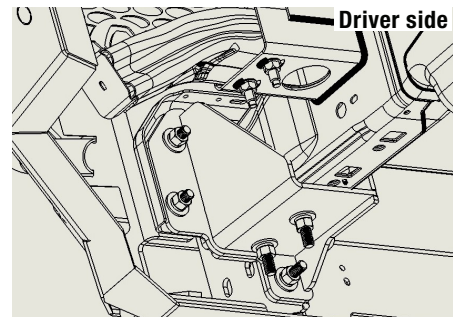
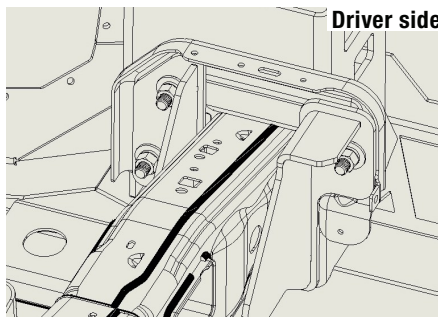


Step 4

Using an 18mm socket, remove the four (4) bolts securing the tow hooks (two bolts per hook) and remove them with the hooks and return the hooks and bolts to the customer.

Step 5

From the inside of the frame, insert 1/2" x 1-1/2" bolts and flat washers through the mounting plates and into the frame. From the outside, finger tighten a 1/2" nut with a flat washer and lock washer on all the bolts. Align the upper holes to the frame plate before tightening to full torque.



Step 6

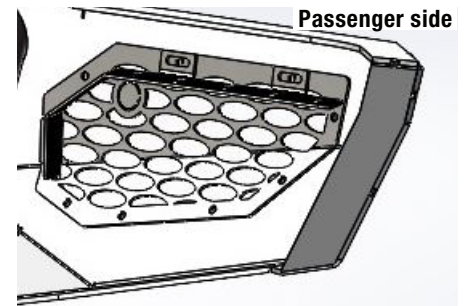
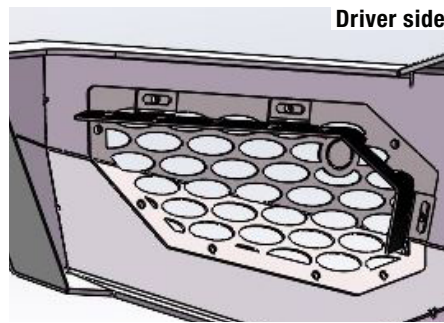
On trucks without a front camera, mount the small center mesh into the camera hole on the grill guard and secure it with the black 1/4" x 3/4" button head bolts and kep nuts.

Step 7

Mount the center mesh inserts to the backside of the bumper and secure them with the black 1/4" x 3/4" button head bolts and kep nuts.

Step 8

Mount the side mesh inserts and fog light brackets to the bumper and secure them with the black 1/4" x 3/4" button head bolts and kep nuts.



Step 9

If sensors are present, remove the knockouts from the grill guard and install rubber grommets into the openings.

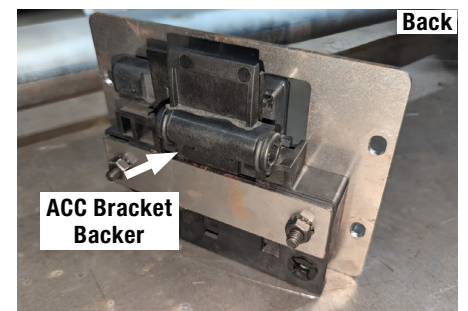
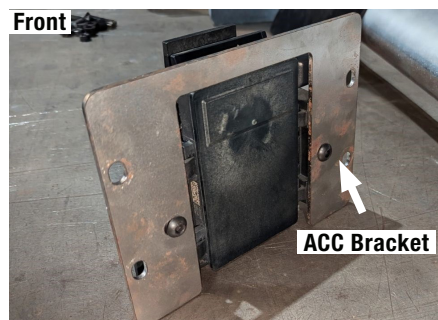
If vehicle has adaptive cruise remove the rectangle knockout on the driver center mesh insert.

NOTICE

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

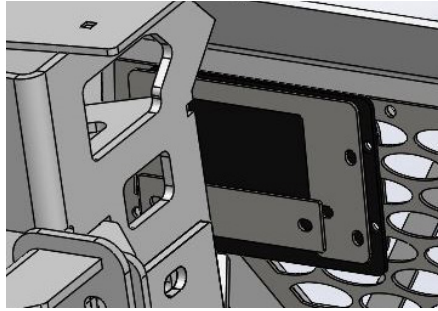
Step 10

If adaptive Cruise Control (ACC) is present, remove the ACC module from the factory bumper. Secure the module to the ACC bracket using two 1/4" x 1-1/4" black button head bolts. Place the backer bracket on the back side of module and secure the pieces with 1/4" kep nuts.



Step 11

Mount the ACC module and bracket to the driver-side center mesh insert. Insert four 1/4" x 1-1/2" black button head bolts from the front side through the bolt holes of the mesh. Slide the black plastic cover and the plastic spacers over the bolts on the back side. Then mount the ACC module and bracket over the bolts. Secure it with 1/4 kee nuts.



Step 12

Remove the wiring harness from the factory bumper and connect the harness to the Midnight bumper. Connect the adaptive cruise control connectors. Install the vehicle sensors into the grill guard taking care to observe the orientation markings made on step 9. Connect the sensors using the provided wiring pigtails. On some models there will be an extra sensor located on each side of the factory bumper. Remove the knockouts located on the endcap of the bumper to accommodate these sensors. The motorized air dam cannot be used with the Midnight bumper, so do not reconnect its harness.

Step 13

If winch plate model MWF24HBM1 is to be installed, follow the instructions provided with that product to mount the winch plate to the Midnight bumper, and skip step 14.

Step 14

Install the license plate using 1/4" x 3/4" black button head bolts and nuts to the center of the bumper.

Step 15

Install the Midnight bumper to the mounting plates by using 1/2" x 2" bolts and hardware.