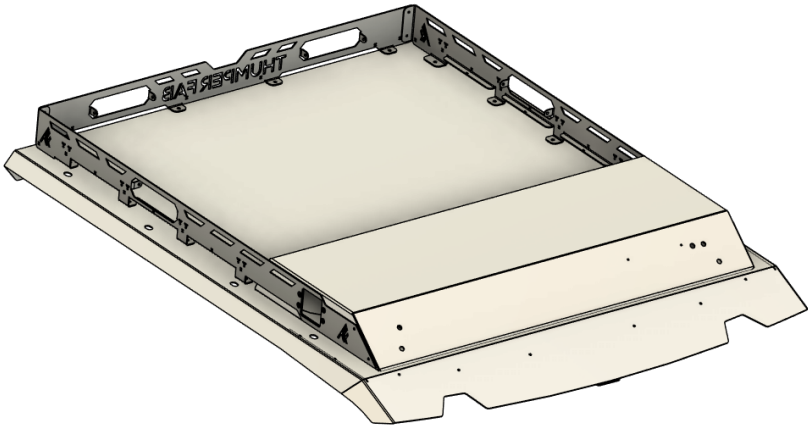


Ranger 1500XD
F-Series Audio Roof

SKU: TF230301



Thumper Fab
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Customer Service: 903-472-0928

Ranger 1500XD

Audio Roof

SKU: TF230301



PARTS

REF	QTY	DESCRIPTION
1	1	Audio Roof
2	1	Front Mount Bracket
3	1	Switch Mount
4	1	Extension Harness
5	100 IN	Foam Trim
6	6 IN	Waterproof Tape
HARDWARE KIT		
A	6	M6x30mm Button Flange Screw
B	8	M8x40mm Flange Head Bolt
C	2	M8x45mm Flange Head Bolt
D	2	1/4"x3/4" Button Head Screws
E	2	1/4" Nylon Lock Nut
F	6	1/4" Bonded Washers
G	8	5/16" Bonded Washers
H	10	Rubber Plugs
I	8	M8 Fender Washers
J	2	M10 Fender Washer
K	6	M6 Flange Nylon Lock Nut
L	6	M6 Fender Washer
M	2	M10x70mm Hex Head Bolts
N	2	M10 Nylon Lock Nuts
O	2	M10 Flat Washers

TOOLS

- 7/16" Socket and Wrench
- 10mm Socket and Wrench
- 13mm Socket and Wrench
- 15mm Socket and Wrench
- Panel Clip Removal Tool
- Flathead Screwdriver
- T25 Torx
- T30 Torx
- T40 Torx
- 5/32" Allen Wrench
- 4mm Allen Wrench
- Drill with Phillips Head Bit
- Box Knife

Torque Specs:

SIZE (STANDARD)	GRADE 5	GRADE 8
5/16"	15 ft/lbs	20 ft/lbs
3/8"	30 ft/lbs	35 ft/lbs
7/16"	45 ft/lbs	60 ft/lbs
1/2"	65 ft/lbs	90 ft/lbs
9/16"	95 ft/lbs	130 ft/lbs
5/8"	135 ft/lbs	175 ft/lbs
3/4"	185 ft/lbs	280 ft/lbs

SIZE (METRIC)	CLASS 8.8	CLASS 10.9
6MM	5 ft/lbs	9 ft/lbs
8MM	18 ft/lbs	23 ft/lbs
10MM	32 ft/lbs	45 ft/lbs
12MM	55 ft/lbs	75 ft/lbs
14MM	85 ft/lbs	120 ft/lbs
16MM	130 ft/lbs	165 ft/lbs
18MM	170 ft/lbs	240 ft/lbs

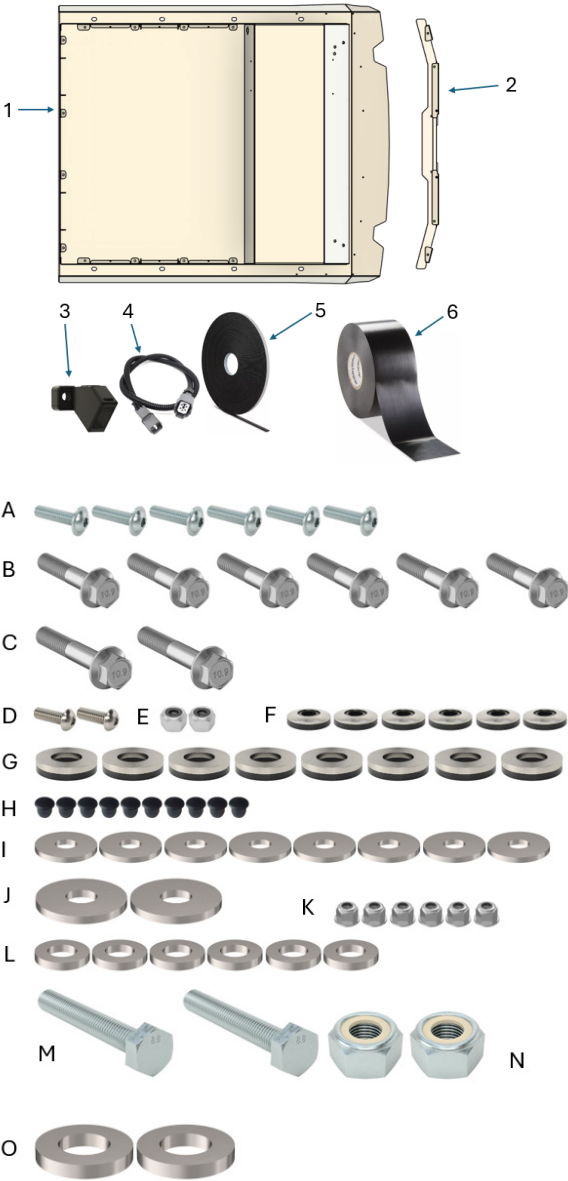
BEFORE YOU BEGIN

If you do not feel comfortable installing your **Thumper Fab** AUDIO ROOF, please see your nearest **POLARIS®** Dealer for installation.

Ranger 1500XD
Audio Roof
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PARTS



INSTALLATION INSTRUCTIONS

Installation Preparation

Use a T25 Torx to remove the dome light from the front headliner and disconnect the wiring harness from the back side of the light (**FIG 1 & FIG 2**).



FIG 1 & FIG 2 - Remove Dome Light

Use a T40 Torx to remove the 4 X OEM bolts that mount the front upper switch panel to the inside of the vehicle. Save this bolts as they will be reused later on in the installation process (**FIG 3**).



FIG 3 - Loosen Front - Upper Switch Panel

INSTALLATION INSTRUCTIONS

Installation Preparation

Use a panel clip removal tool to remove the panel clips that fasten the front section of the headliner to the vehicle. With all panel clips removed, take front section of headliner out of the vehicle and set aside for later use (**FIG 4**).



FIG 4 - Remove Front Headliner

Use a T25 Torx to remove the 2 X OEM bolts that fasten the rear corners of the rear headliner to the underside of the roof (**FIG 5**). Additionally, remove the panel clips that hold the rear portion of the headliner up and remove from vehicle (**FIG 6**). Rear window clamps will need to be rotated to pull the rear headliner out of the vehicle (**FIG 7**).



FIG 5 & FIG 6 - Remove Bolts and Panel Clips that fasten Rear Headliner

INSTALLATION INSTRUCTIONS

Installation Preparation

BE CAREFUL NOT TO LET THE REAR WINDOW FALL OUT OF THE VEHICLE.



FIG 7 - Rotated Rear Window Clamp

Using a 10mm socket, remove the 4 X OEM internal roof mounting clamps that fasten the underside of the roof to the vehicle (**FIG 8**).

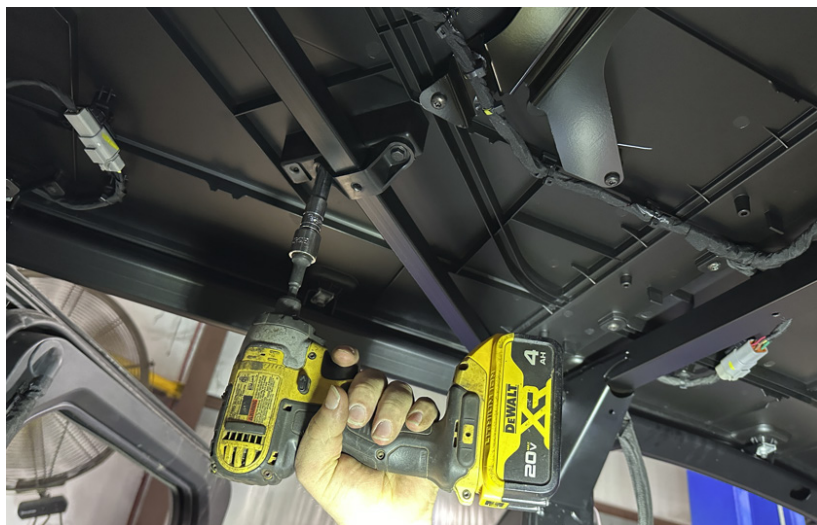


FIG 8 - Remove Internal Roof Mounting Clamps

INSTALLATION INSTRUCTIONS

Installation Preparation

With a flathead screwdriver or similar tool, disconnect the various wiring harnesses from the underside of the roof and allow the harnesses to hang down to ensure that no wires are still connected to the inside of the roof (**FIG 9**).



FIG 9 - Unfasten Wiring Harnesses from inside of Roof

With a 13mm socket, remove the 8 X OEM roof mounting bolts located on top of the roof (**FIG 10**).



FIG 10 - Remove OEM Roof Mounting Bolts

INSTALLATION INSTRUCTIONS

Installation Preparation

Remove and set aside the 8 X OEM roof grommets as they will be reused during the installation of the Thumper Fab Audio Roof (**FIG 11**).



FIG 11 - Remove and set aside Roof Grommets

Remove the 6 X OEM windshield hinge mounting bolts using a 10mm socket. The help of another person is suggested to support the windshield during the removal process (**FIG 12**).



FIG 12 - Remove OEM Windshield Hinge mounting bolts

INSTALLATION INSTRUCTIONS

Installation Preparation

Disconnect the wiring harness going to the windshield wiper motor as well as the windshield wiper fluid feed line (**FIG 13**).



FIG 13 - Disconnect Wiper Motor and Wiper Fluid line

Disconnect the gas shocks from the windshield and set the windshield aside for reinstallation in a later step (**FIG 14**).



FIG 14 - Disconnect Gas Shocks and remove Windshield

INSTALLATION INSTRUCTIONS

Installation Preparation

Use a T25 Torx to remove the bed light from the rear of the roof and disconnect the wiring harness from the back of the light. Set aside as it will be reused for installation (**FIG 15 & FIG 16**).



FIG 15 & FIG 16 - Remove Bed light from the Roof

Remove the 4 X OEM bolts located under the front brow of the roll cage using a 10mm socket (**FIG 17**).



FIG 17 - Remove the remaining Roof Mounting bolts (Front)

INSTALLATION INSTRUCTIONS

Installation Preparation

Remove the OEM roof and set aside (**FIG 18**).



FIG 18 - Remove the OEM Roof

Use 2 self tapping screws to fasten the rear pulse bar to the top of the roll cage near the passenger C-Pillar. Slide the foam back to gain access to the roll cage tube for more secure mounting (**FIG 19 & FIG 20**).



FIG 19 & FIG 20 - Mount Rear Pulse Bar to Roll Cage

INSTALLATION INSTRUCTIONS

Installation

Loosen the 2 X outer OEM bolts at the fronter center section of the roll cage using a 15mm socket. Slide front mount bracket down on the 2 X OEM bolts and loosley tighten (**FIG 21 & FIG 22**).



FIG 21 & FIG 22 - Install Front Mount Bracket

Unplug and remove the rear bed light switch from the front switch panel using a small flathead screwdriver to disengage the small prongs that hold the switch in place in the front switch panel (**FIG 23**).

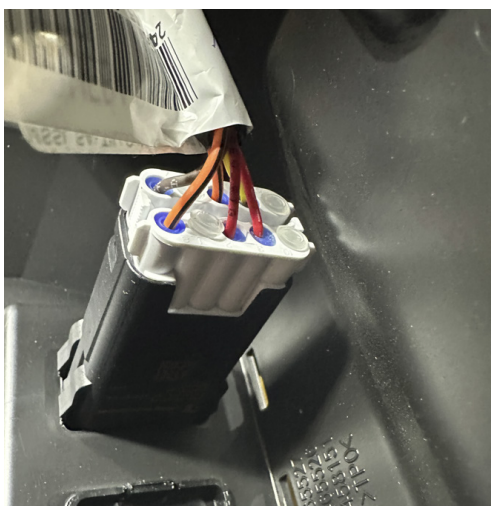


FIG 23 - Remove the Rear Bed Light from Front Siwtch Panel

INSTALLATION INSTRUCTIONS

Installation

Remove and replace the 2 X OEM flange head bolts and flange head lock nuts located on the center cross tube of the roll cage using a 17mm socket and 15mm wrench. Replace the OEM bolts with the M10x70mm hex head bolts and 2 X M10 flat washers. Tighten using OEM lock nuts (**FIG 24**).

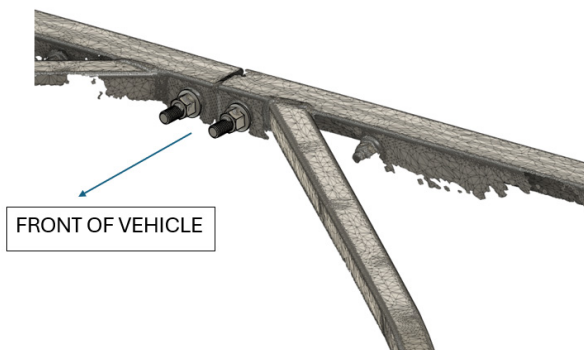


FIG 24 - Replace OEM Cage Bolts

With the replacement roll cage bolts properly torqued, slide the switch mount over the excess threads followed by 2 X M10 nylon lock nuts. Loosely fasten lock nuts using a 17mm socket. **Do not overtighten as switch mount is plastic and will crack if overtightened (FIG 25 & FIG 26).**

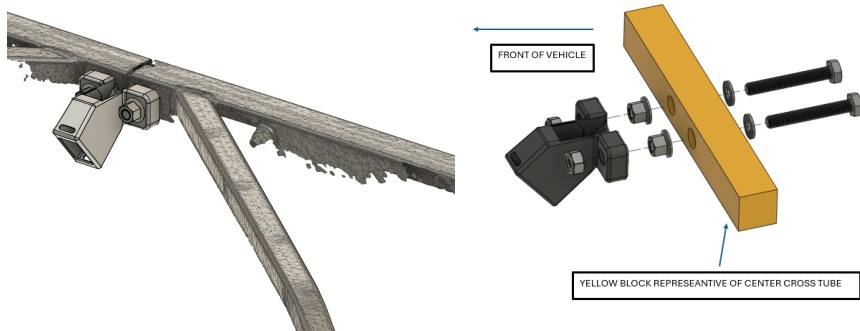


FIG 25 & FIG 26 - Fasten Switch Mount to Roll Cage Bolts

INSTALLATION INSTRUCTIONS

Installation

Plug the bed light harness into the back of the switch with the wiring routed over the roll cage as shown below (**FIG 27**).

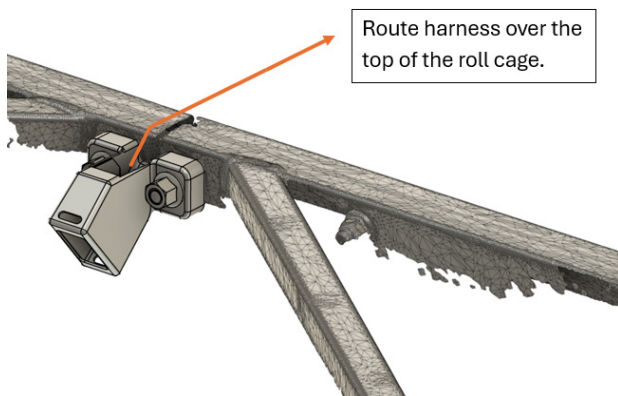


FIG 27 - Plug Bed Light Harness into Switch

Plug the extension harness into the female connector for the windshield wiper motor. Route the harness along the path shown below with the female end of the extension harness ending near the rear view mirror location (**FIG 28**).



FIG 28 - Route Windshield Wiper Harness on path (Orange)

INSTALLATION INSTRUCTIONS

Installation

Fasten any remaining harnesses that are hanging down in the rear section of the cab using zip ties to hold the harnesses to the rear support tubes (**FIG 29**).

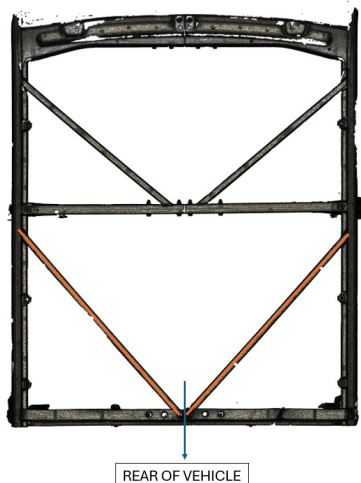


FIG 29 - Tie up any loose wiring harnesses

Plug the holes in the front of the roll cage using the rubber plugs provided in the hardware kit (**FIG 30**).



FIG 30 - Plug holes in roll cage using Rubber Plugs

INSTALLATION INSTRUCTIONS

Installation

Trim the tape provided in the hardware kit to seal the seam and holes in the front center section of the roll cage. Remove the adhesive backing and install the tape so that it covers the seam and holes completely (**FIG 31 & FIG 32**).

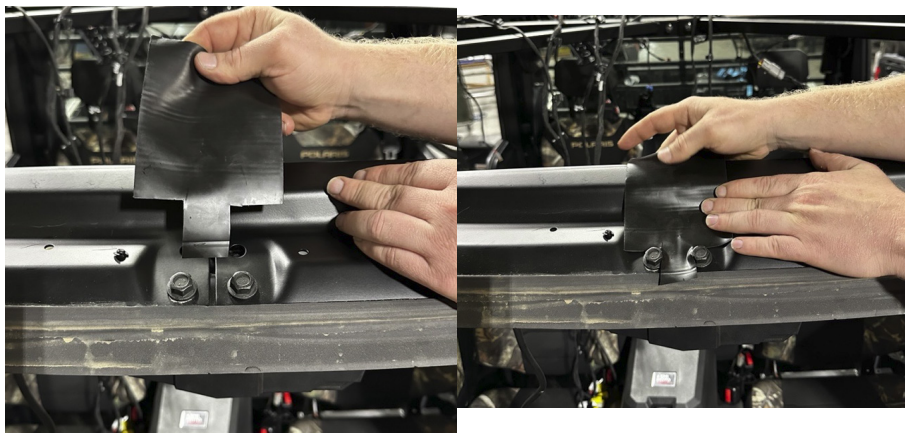


FIG 31 & 32 - Trim and install Tape on Center Seam and Holes

Mount the bed light to the Thumper Fab Audio Roof using 2 X 1/4"x3/4" button head screws and 2 X 1/4" nylon lock nuts. Tighten using a 5/32" allen wrench and a 7/16" wrench (**FIG 33 & FIG 34**).



FIG 33 & FIG 34 - Fasten Bed Light to Audio Roof

INSTALLATION INSTRUCTIONS

Installation

Install foam trim along driver and passenger side of roof before installing roof assembly on top of vehicle (**FIG 35**).

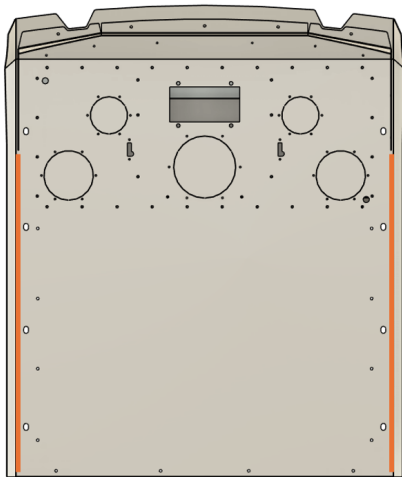


FIG 35 - Install Foam Trim on Roof

Place the roof on the vehicle and use the M8 bolts and 8 X M8 fender washers provided in the hardware kit along with the OEM roof grommets to loosley fasten the roof to the roll cage (**FIG 36**).



FIG 36 - Loosley Fasten Audio Roof to vehicle

INSTALLATION INSTRUCTIONS

Installation

Fasten the roof to the front mounting using 6 X M6x30mm button flange screws and 6 X M6 bonded washers (**ON THE OUTSIDE OF VEHICLE**), and 6 X M6 fender washers with 6 X M6 flange nylon lock nuts (**ON THE INSIDE OF VEHICLE**). Loosley tighten using a 10mm socket and a 4mm allen wrench (**FIG 37**).



FIG 37 - Fasten Roof to Front Mount Bracket

Reinstall the windshield using the OEM hardware. Tighten using a 10mm socket. Plug in the windshield wiper motor and reconnect the washer fluid feed line (**FIG 38**).



FIG 38 - Reinstall the Windshield

INSTALLATION INSTRUCTIONS

Installation

Route the power wire from the roof towards the battery compartment located under the passenger rear seat. Zip tie the power wire to the roll cage along the path to the passenger C-Pillar and route the wire down the pillar towards the battery compartment (**FIG 39 & FIG 40**).



FIG 39 & FIG 40 - Route Power Wire towards Battery

Connect the positive power wire (White) to the supplied breaker and connect the breaker and ground wire to the battery terminals (**FIG 41 & FIG 42**).

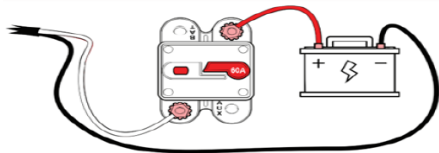


FIG 41 & FIG 42 - Connect Power Wire to Breaker and Breaker and ground wire to Battery

INSTALLATION INSTRUCTIONS

Installation

Once all bolts are started, tighten all roof mounting bolts down evenly. Reinstall the front and rear headliner sections along with the front switch panel using the OEM hardware and panel clips. Use a box knife to trim the front headliner as shown below for a clean finished appearance (**FIG 43**).



FIG 43 - Tighten Roof, Install and Trim Front Headliner

Test the lights, speakers and all factory options including rear bed light, windshield wiper motor and sprayer. Enjoy your new Thumper Fab Audio Roof.



INSTALLATION INSTRUCTIONS

PRODUCT DISCLAIMER

The installation of products sold or manufactured by Thumper Fabrication, LLC (Thumper Fab) including, but not limited to suspension components such as lift kits, audio roofs, roll cages, frame stiffener kits, and tires that exceed the original specifications for the vehicle, may change the vehicle's center of gravity and handling characteristics both on- and off-road. You are aware that the installation of tires that are larger than original vehicle specifications may reduce the effectiveness of the braking system. Use of these products may place added stress to the original factory vehicle components which could cause them to weaken or possibly fail.

Products sold or manufactured by Thumper Fab are intended for off-road use only. Operation of a vehicle modified with these products on a road could result in serious bodily injury or death, and such operation may violate the laws of your state or municipality. You agree to operate your vehicle exclusively in the manner intended by the vehicle manufacturer. You agree that failure to safely and reasonably operate your vehicle could result in serious bodily injury or death, and that, as a result of installation of this product(s) to your vehicle, extreme care must be taken to prevent vehicle rollover or loss of control, which may be more likely to occur as a result of said modifications. You will avoid unsafe maneuvers, including sudden sharp turns or other abrupt maneuvers, which could make a vehicular accident more likely. You understand that Thumper Fab is not responsible or liable for any damages or any injuries to yourself or your passengers that could occur upon possible accidents due to driver error, incorrect installations, bad judgment, incompatibility with other aftermarket accessories or natural disasters to the fullest extent allowable by law. You will have all vehicle occupants fasten seatbelts, if equipped, and wear proper safety equipment, such as DOT approved helmet and eye protection prior to operating the vehicle. You understand and acknowledge that failure to wear proper safety equipment may increase the risk of serious bodily injury or death to yourself and any passengers.

Proper installation of products sold or manufactured by Thumper Fab requires knowledge of the factory recommended procedures for removal and installation of original equipment components. Installation of these products without proper knowledge and experience may affect the performance of these components and the safety of the vehicle and cause serious bodily injury or death. It is strongly recommended that a certified mechanic familiar with the installation of similar components perform the product(s) installation.

Prior to installing any products sold or manufactured by Thumper Fab, you will perform or cause to be performed an inspection of their vehicle to confirm its condition is suitable for the installation of these products. A proper inspection of the vehicle includes confirmation that the vehicle has not been in a collision and is free of corrosion. If the vehicle is suspected to have been in a collision or misused, or is otherwise unsuitable for modification, you will not install the product(s). You will continue to inspect the vehicle prior to each use to confirm its condition is suitable for its intended use, and you acknowledge that the failure to do so may result in serious bodily injury or death, as well as damage to the vehicle itself.

You will install any warning labels provided with the product so it may be prominently seen by yourself and all passengers. You will notify all passengers of the modifications performed to your vehicle prior to operation.

Insurance companies may handle coverage of a modified vehicle differently. Please check with your insurance carrier prior to modifying the vehicle to ensure your coverage remains sufficient. Installation of this product(s) may void your vehicle warranty. If this is a concern, please check with the manufacturer or dealer before purchase or installation of this product(s).



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