



REAR BUMPER

2020+ LAND ROVER

DEFENDER



INSTALL GUIDE

EXP912

PLEASE READ ENTIRE GUIDE BEFORE INSTALLATION

Recommended that you read this entire install guide before installation. Check that all hardware is present before starting or scheduling an install. This guide is supplemental to mechanical knowledge and ability. Anyone not familiar with automotive installation should seek professional installation.



INSTALL GUIDE

IMPORTANT INFO/FAQ

INSTALL GUIDE

ALL

INSTALLATION HELP

Please review terms and conditions for details

Recommended purchaser review Welcome Guide at time of purchase for details

Care and Maintenance available at www.exp-one.com/resources

We do our best to offer timely assistance with your installation questions however as most of our team members are primarily engaged in the manufacturing process and packaging processes, we do not currently offer a tech for on-demand calls and inquiries. For the more technical installs or installs that are time-sensitive in nature, we would recommend our customers seek out the services of professional shops with experience specific to aftermarket bumpers that can better meet your needs. We are happy to make recommendations to you on shops familiar with our products in your area. We do our best to respond to installation questions within 24-48 hours of contact as much as possible. Long-distance problem assessment can be difficult, so photos and videos are often required for us to best assist you. We highly recommend your initial contact regarding installation questions include both close-up and full photos, detailed descriptions using our part descriptions as much as possible, and video. This enables us to better assist without having the ability to see the install difficulties directly and assist you as quickly as possible.

NOTE

Expedition One does not guarantee fitment with other aftermarket products, or reinstallation of take off OEM parts.

Expedition One is NOT RESPONSIBLE for damage to paint or powder coating, items assembled in error during installation or costs associated with install

OEM manufacture model refreshes/updates, factory build location and suppliers may cause variations in fitment or installation and can not be verified, vehicle to vehicle .

This product contains chemicals known to the state of California to cause birth defects or other reproductive harm. For more information go to www.p65warnings.gov

GSA# GS-30F-013CA

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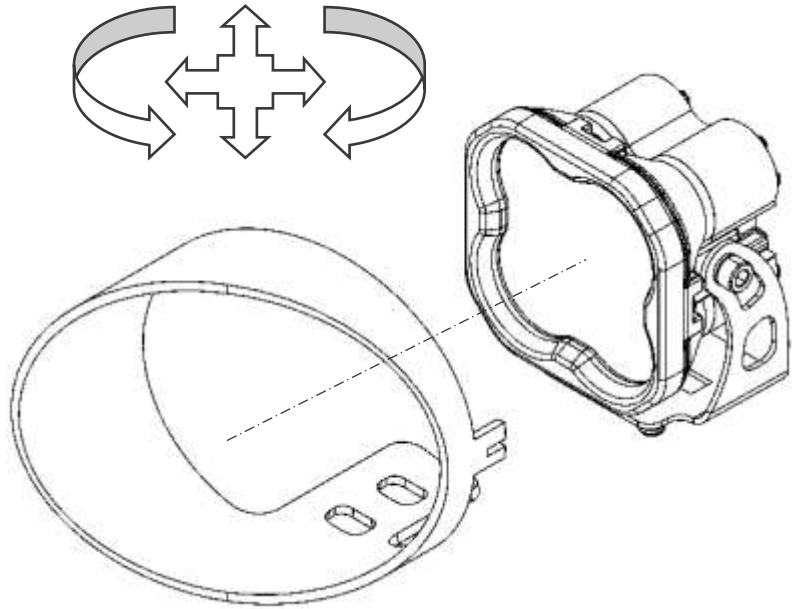
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INSTALL GUIDE

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LIGHTPORTS

To give you a wide range of options from various brands and designs, the light ports were designed to be as universal as possible. Not all mounts or designs will fit exactly and may require the use of shims, spacers, light manufacture mounts or different hardware to mount. Reuse of OEM light is limited to select bumpers and will come with provided hardware to reinstall. It is recommended that lights be purchased with the bumper in hand to gain the best fitment. We **DO NOT** manufacture the lights, provided wiring, or instructions on how to connect to the OEM harness.



EXAMPLE SHOWN – LIGHT PORTS VARY

AFTERMARKET or OEM PRODUCTS

We **DO NOT** guarantee fitment or installation of any aftermarket, third party or OEM parts, accessories, or hardware. This includes items such as lighting, winches, skids, lifts, suspension, and accessory mounts. Access to all brands, manufactures and country of origin specific parts is limited or impossible during the product development stage and subsequent new or modified revisions of said products including OEM design changes or refreshes. It is recommended you have the product in hand and installed before modifying with other aftermarket parts. Consult forums or other sources to gain any first hand knowledge of other products others have installed.
















INSTALL GUIDE

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HARDWARE

Please review for details and installation. Figures or data may vary. Leave all accessible hardware loose for installation and tighten all hardware after everything is installed on the vehicle. Check and retighten all hardware after the first 100 miles and/or after off roading. **Some hardware locations do not require being tightened to spec due to there design, location or material attachment (including rubber, plastic, and aluminum). Over tightening may break or damage parts. Torque spec may vary, amounts listed are generic.**

| HARDWARE | | TORQUE SPEC – FT.-LBS. | |
|----------|---------------|------------------------|---------------------|
| SIZE | SOCKET WRENCH | GRADE 5 M- 8.8 | GRADE 8 M – 10.9 |
| #8 | 1/4" | X | |
| #10 | 5/16" | | |
| 1/4" | 7/16" | 6-8 | 9-10 |
| 5/16" | 1/2" | 13-14 | 18-20 |
| 3/8" | 9/16" | 23-26 | 33-37 |
| 7/16" | 5/8" | 37-41 | 52-58 |
| 1/2" | 3/4" | 57-64 | 80-90 |
| 9/16" | 13/16" | 82-91 | 115-129 |
| 5/8" | 15/16" | 112-118 | 159-180 |
| 3/4" | 1-1/8" | 200-223 | 282-315 |
| 7/8" | 1-5/16" | 322-355 | 454-501 |
| 1" | 36MM | X | |
| M6 | 10MM | 9-10 | 13-15 |
| M8 | 13MM | 22-24 | 32-35 |
| M10 | 15MM | 44-49 | 64-72 |
| M12 | 18MM | 76-83 | 112-123 |

| TYPES OF HARDWARE | | |
|---|---|---|
|  |  |  |
| HEX CAP BOLT | WASHER | NYLOC NUT |
|  |  |  |
| BUTTON HEAD BOLT | FENDER WASHER | HEX NUT |
|  |  |  |
| CARRIAGE BOLT | INTERNAL TOOTH | JAM NUT |
|  |  |  |
| SOCKET CAP BOLT | CLIP NUT | ACORN NUT |
|  |  |  |
| FLAT HEAD SCREW | RIVET NUT | COUPLING |



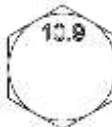
GRADE5



CLASS8.8



GRADE8



CLASS10.9

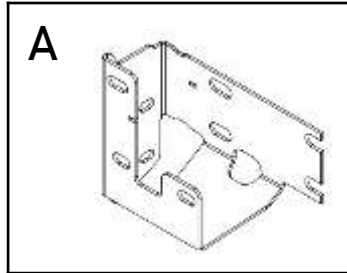
NOTE - Extra hardware may be left over due to model or option specific items that may not be required for the install.

INSTALL GUIDE

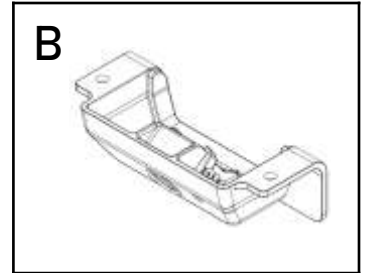
EXP912

BUMPER

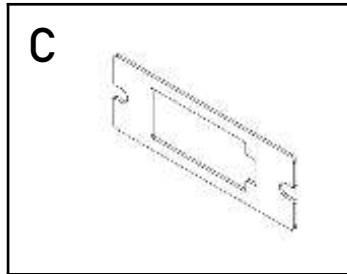
A Bumper Mount Bracket 2



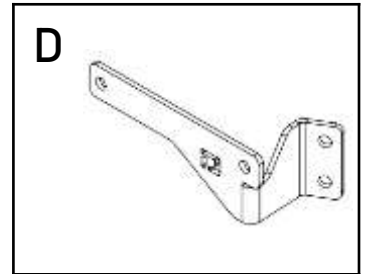
B Camera Mount 1



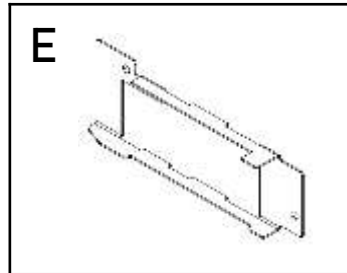
C License Plate Light Bracket 2



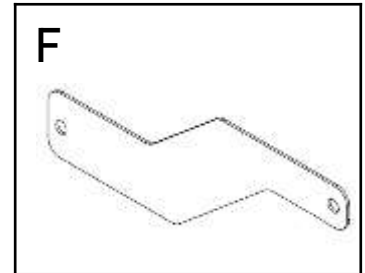
D Sensor Bracket 1



E Sensor Mount 2



F Sensor Mount Cover 2



Hardware Kit 1

1/4" - 20 x 3/4" Button Head 18

1/4" - 20 x 3/4" Hex Cap 8

1/4" - 20 Nyloc Nut 26

1/4" SAE Washer 16

1/2"-13 X 1 1/4" Hex Cap 8

1/2" USS Washer 8

Dog Bone Bolt Retainer 4

Sensor Bezel 6

Sensor Cover 2

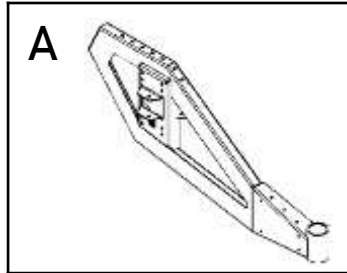
Wire Ties 10

INSTALL GUIDE

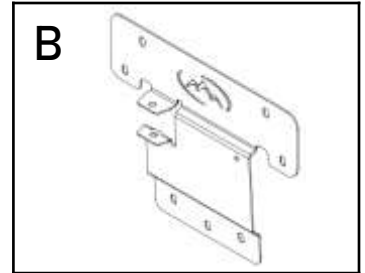
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STC ADDITIONAL

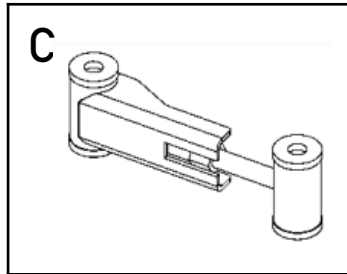
A Swing Plate 1



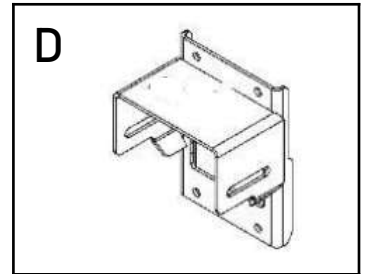
B Door Plate 1



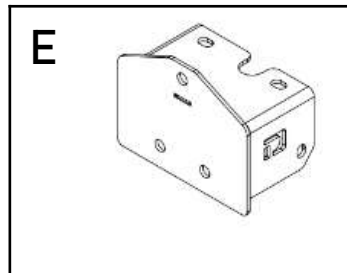
C Coupler 1



D Tire Carrier Mount 1



E Tire Mount 1



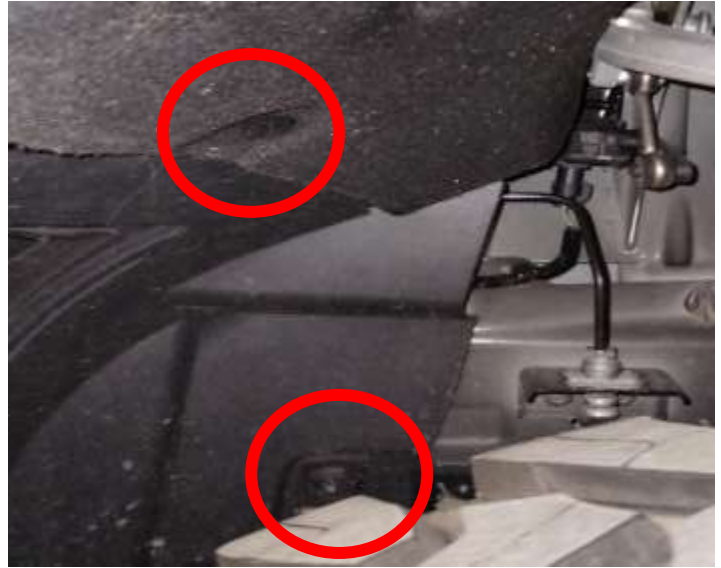
Hardware Kit 1

- 1/4" - 20 x 3/4" Button Head 8
- 1/4" - 20 X 3/4" Button Head 4
- 1/4" - 20 Nyloc Nut 4
- 1/4" SAE Washer 4
- 3/8" - 16 X 1/4" Hex Cap 4
- 3/8" - 16 X 1/4" Button Head 2
- 3/8" - 16 X 4" Hex Cap 2
- 3/8" - 16 Nyloc Nut 6
- 3/8" - 16 Nyloc Jam Nut 1
- 3/8" SAE Washer 10
- 1/2" - 13 X 1 1/4" Hex Cap Bolt 3
- 1/2" - 13 X 3 1/2" Hex Cap Bolt 1
- 1/2" - 13 X 4 1/2" Hex Cap Bolt 1
- 1/2" - 13 Nyloc Nut 5
- 1/2" X 1.125 SAE Washer 8
- 1" - 14 Nyloc Nut 1
- 1" X 2.000 Washer 1
- M6 - 1.00 X 25mm Bolt 2
- M6 - 1.00 Nyloc Nut 2

NOTE - Extra hardware may be left over due to model or option specific items that may not be required for the install.

1 - REMOVE OEM BUMPER HARDWARE

Remove the front bumper OEM hardware from the front wheel wells on each side of the vehicle. Extra locations may need to be unbolted to flex the fender liner (or completely remove the trim) for bumper removal, access and installation.



2 - WIRING CONNECTIONS

Disconnect all wiring. Remember to disconnect the parking sensors from the bezels and the rear camera. The OEM lights and sensors should remain attached to the bumper as part of the harness.

3 - BUMPER REMOVAL

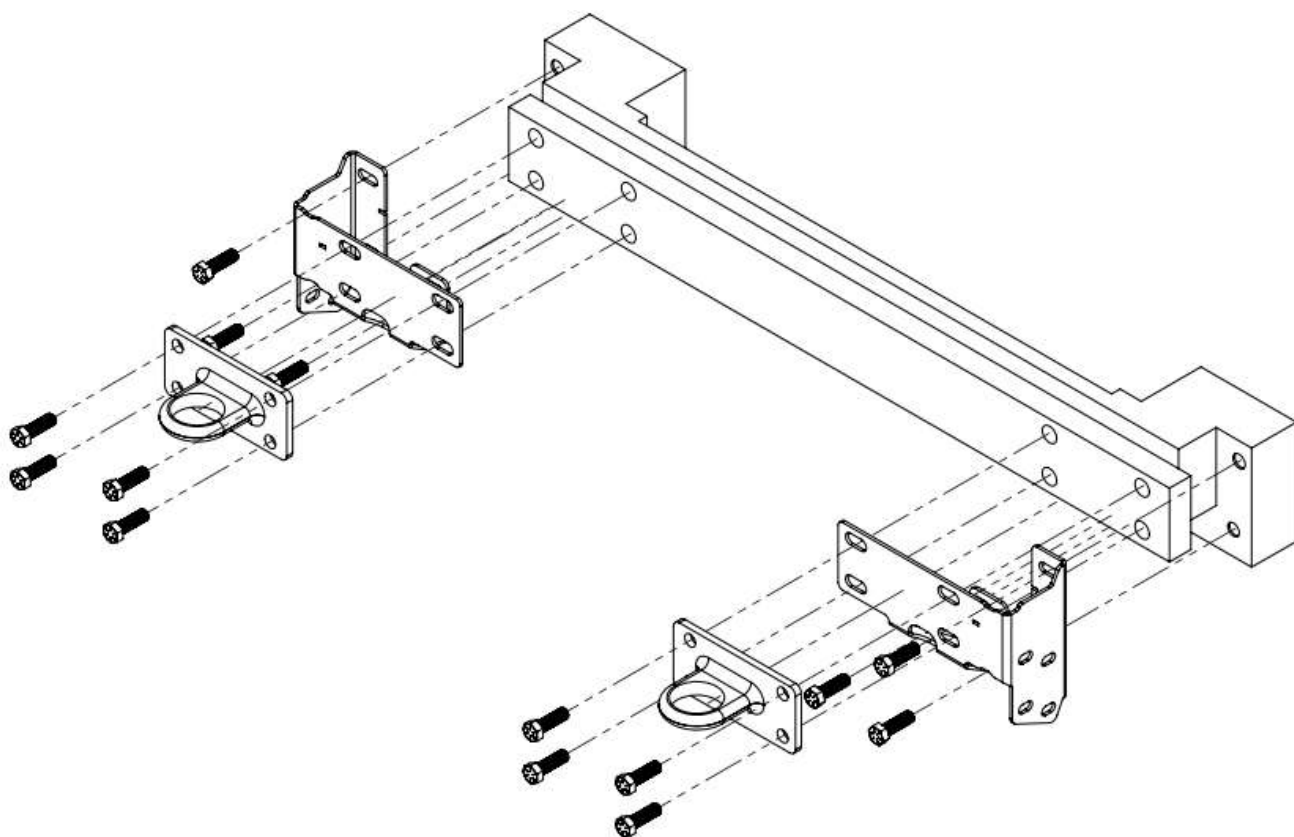
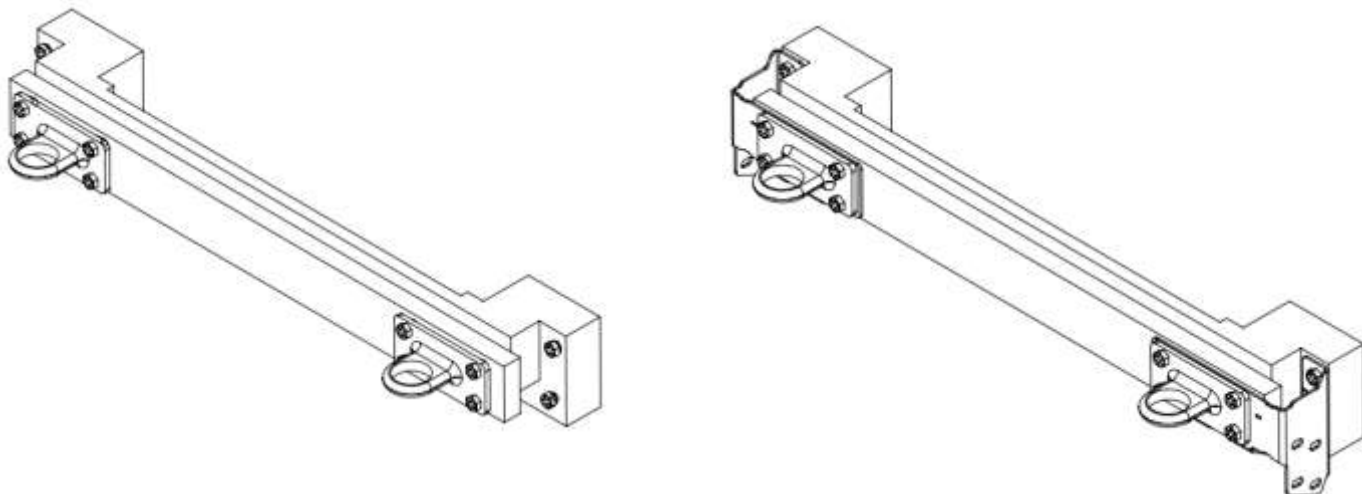
Disconnect the bumper panels from the vehicle. Unbolt the heat shield plate from underneath. Save all hardware for installation of new bumper.



4 – MOUNT BRACKET INSTALLATION

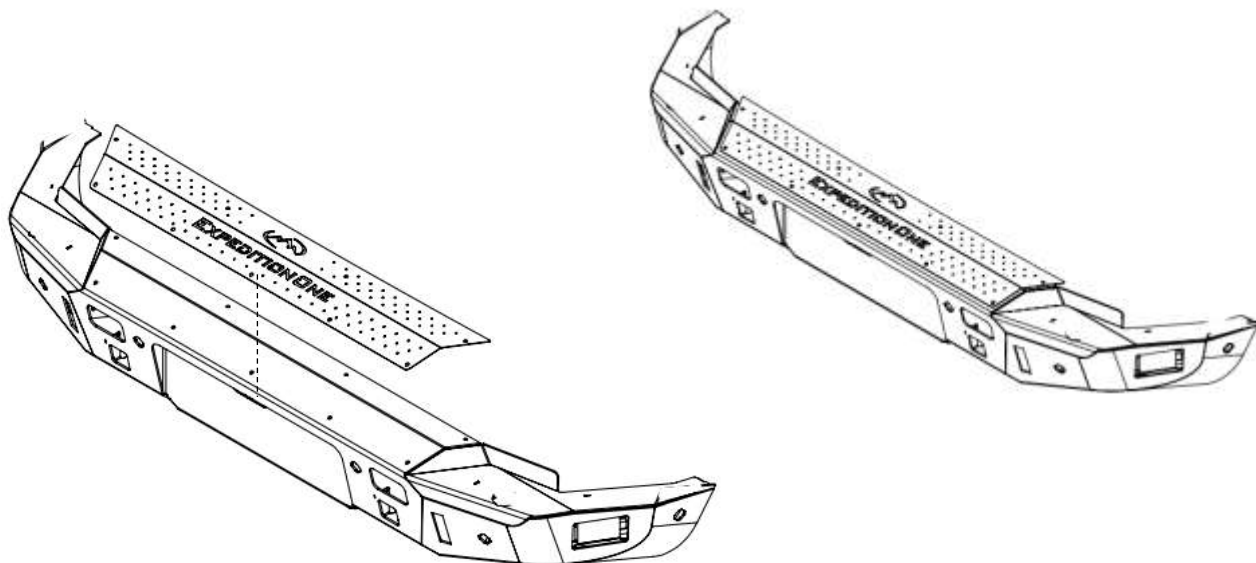
Attach the reinforcement bracket to the frame as shown (brackets will mount behind the OEM tow points)

Mount using the original hardware..



5 – TREAD PLATE INSTALLATION

Mount the tread plate as shown using the provided 1/4"

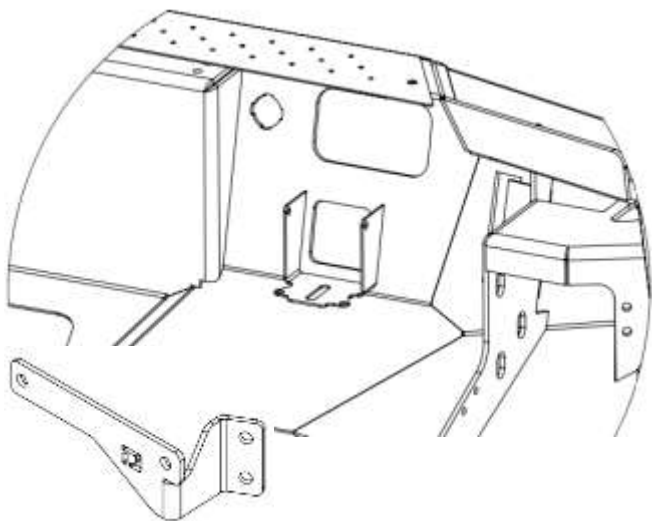


6 – WIRING HARNESS

Reconnect the wiring harness into the new bumper. Place all wiring out of the way of mounting points and hardware locations. Check that the wiring loom connectors match their original points of connection per each side of the vehicle. Install the new bezels and connect the sensors. When using the provided replacement rubber bezels use WD40 and align the fat edge directional to the pointed surface when fitting. Secure the wiring loom to with the provided ties and small hole locations

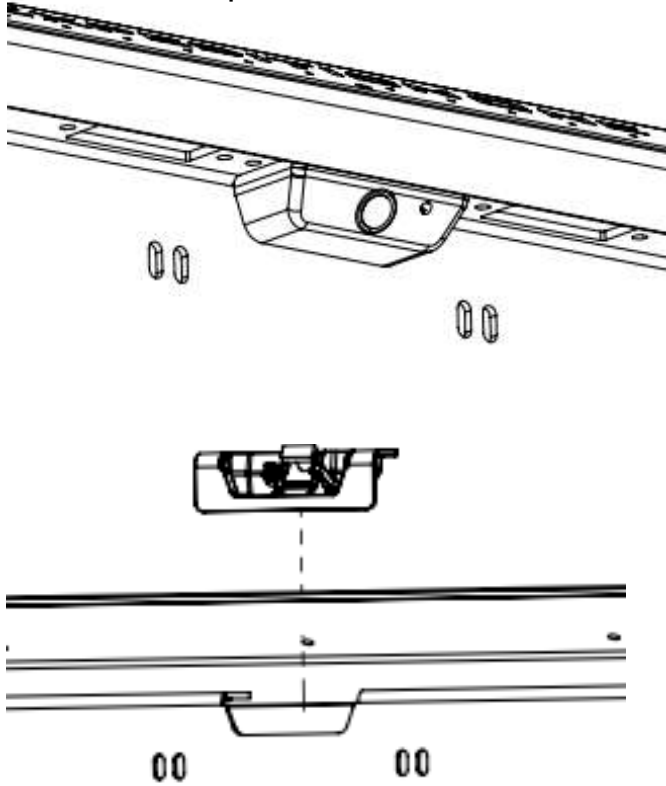
7 – LIGHT INSTALLATION (OPTIONAL)

Mount to the light ports as shown below. See light section for details on aftermarket lights.



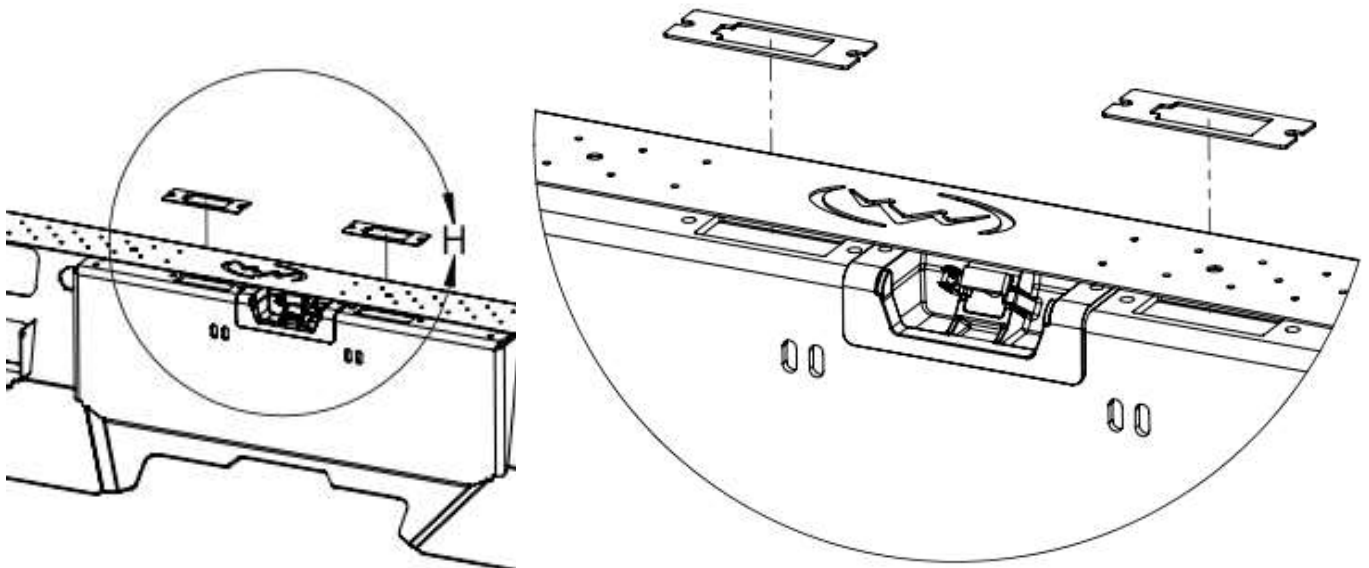
7 – CAMERA MOUNTING

Insert the camera and washer into the provided camera mount. Attach the camera mount to the bumper and secure with the provided 1/4" button head hardware.



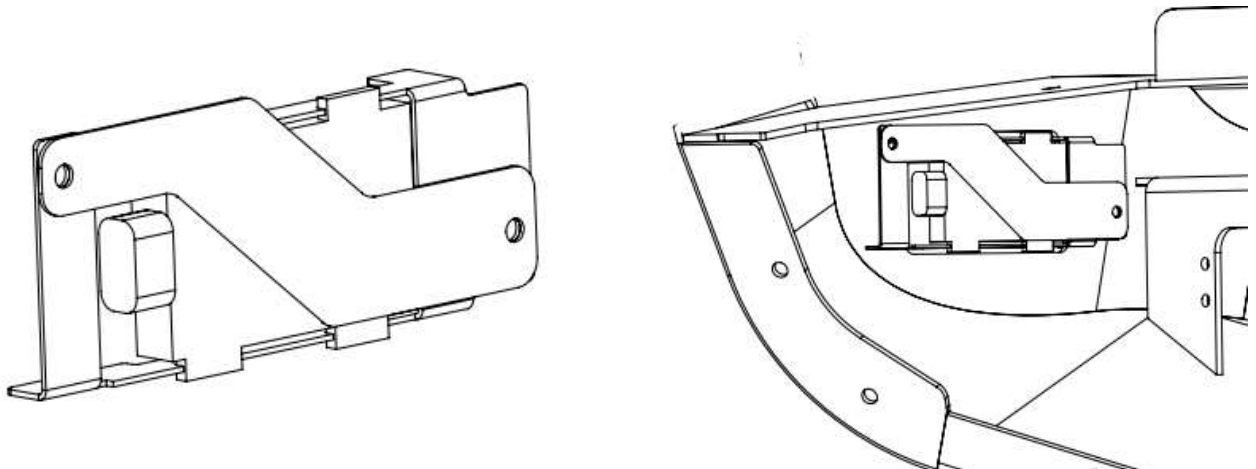
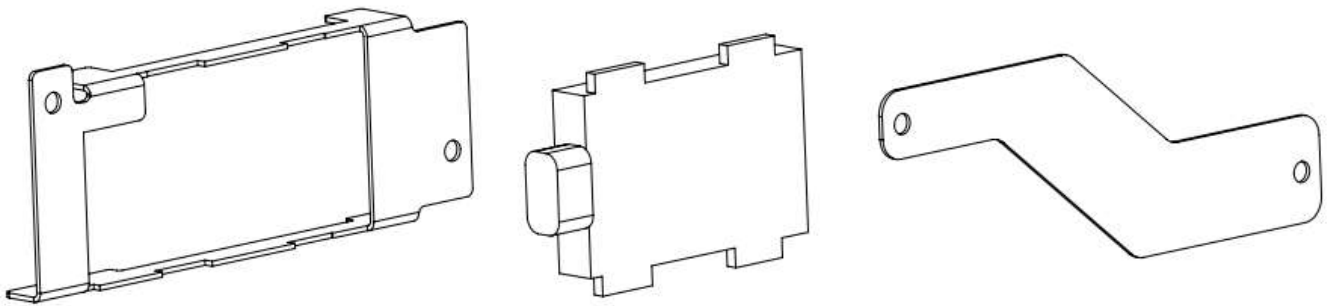
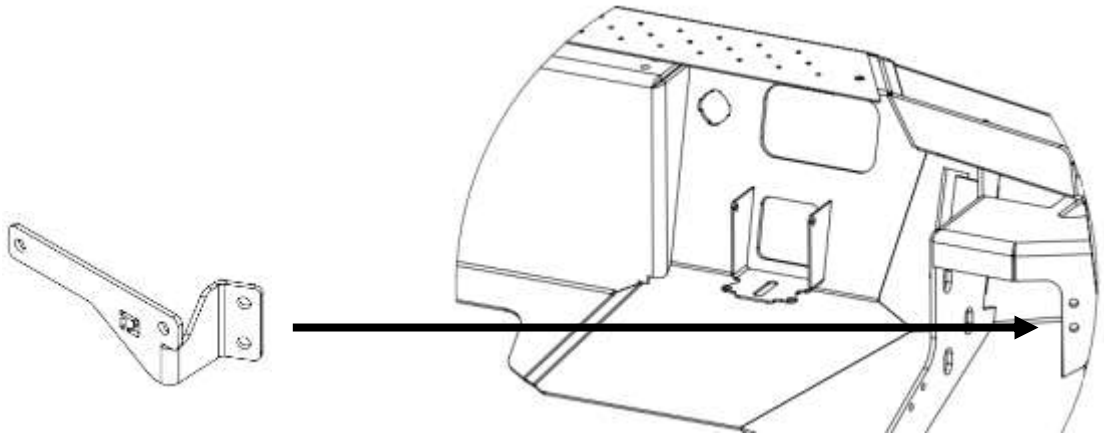
8 – LICENSE PLATE LIGHT INSTALLATION

Mount to the OEM license plate lights to the provided plates. Install in the bumper as shown below using the provided 1/4" hardware.



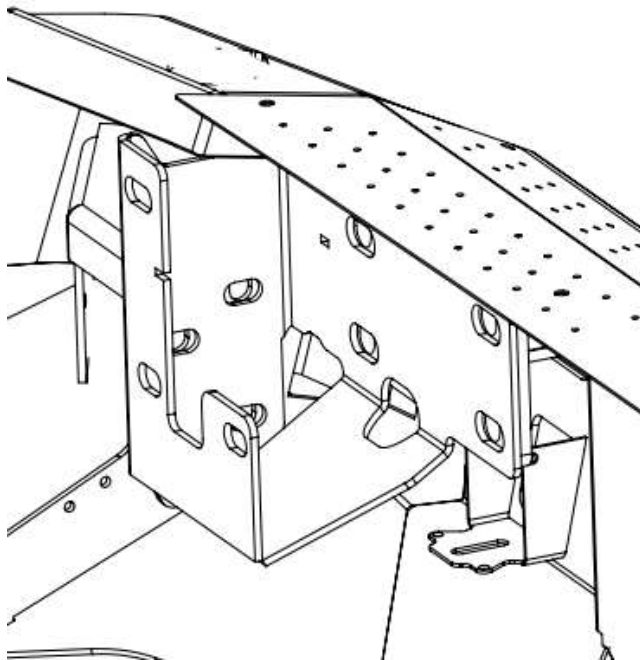
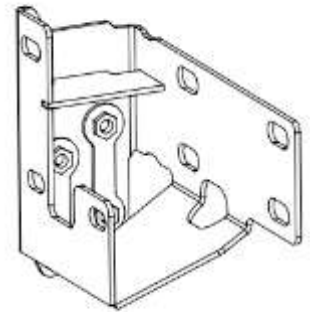
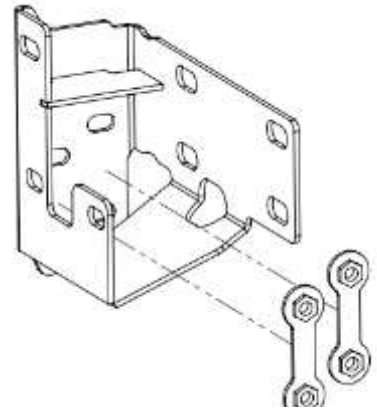
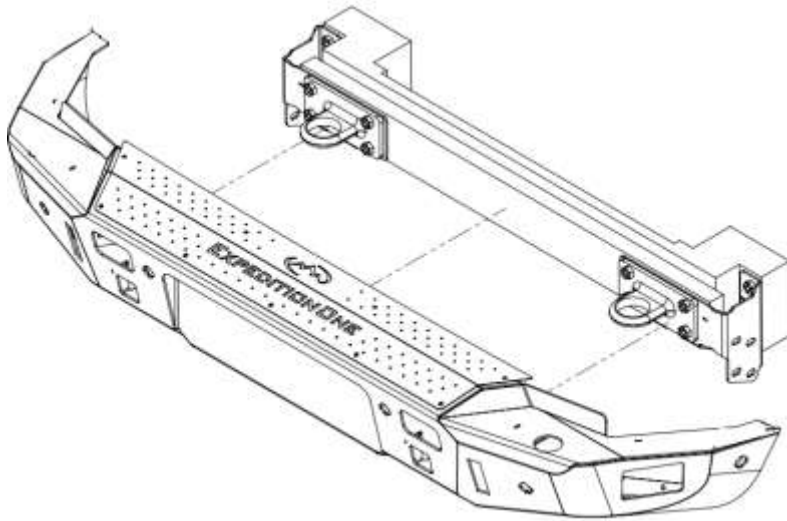
9 – SENSOR MOUNTING

Insert the sensor cover into the opening. Assemble the sensor as shown and secure to the bumper using the provided 1/4" hex cap bolts. This can be done once on the vehicle if needed for installation. Connect the sensors to the wire loom once the bumper is on the vehicle .



10 – BUMPER MOUNTING

Mount the bumper as shown using the provided 1/2" hardware. Center the bumper with the vehicle and align gaps between the body and bumper to your preference before mounting. Leave all hardware loose for adjustment.



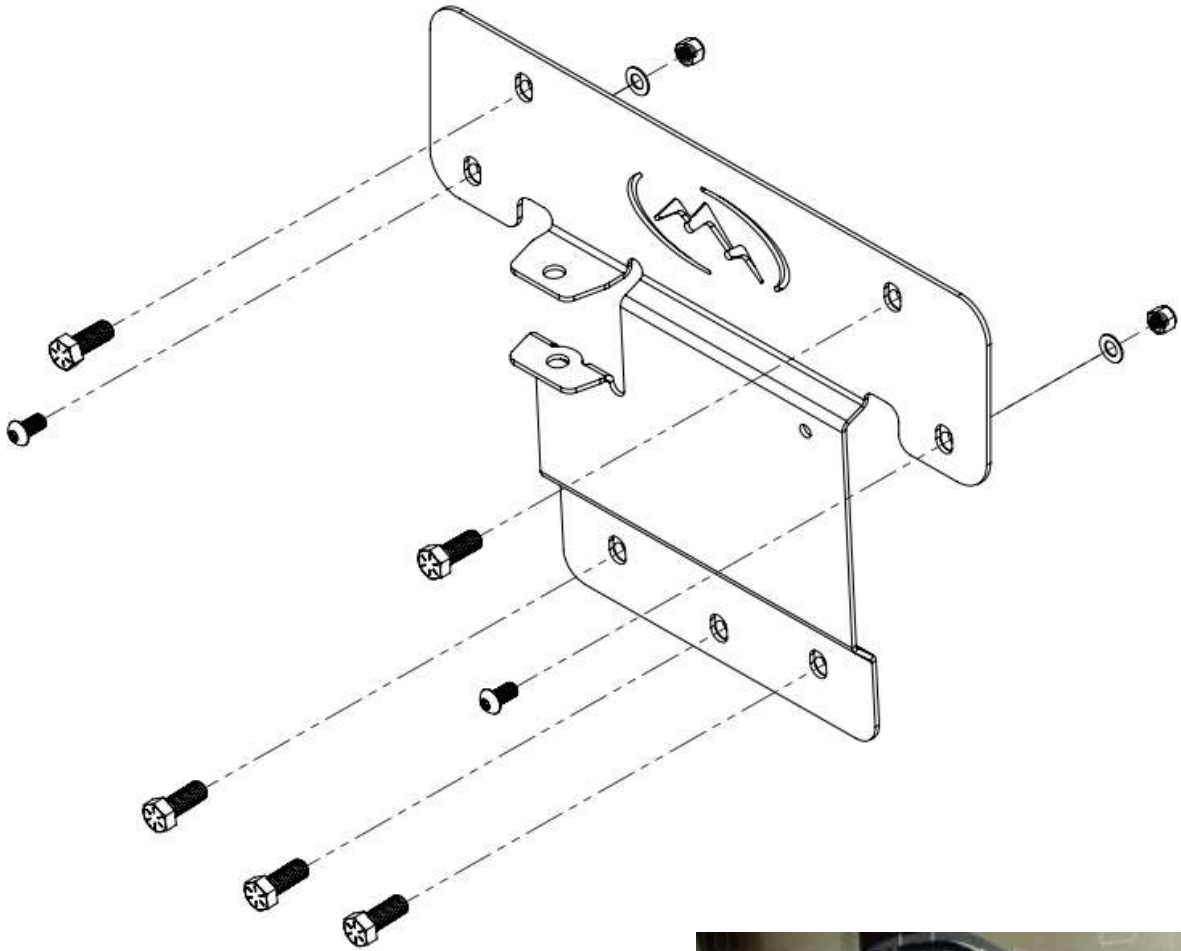
11 – TIGHTEN HARDWARE

Adjust the bumper to its desired location and **TIGHTEN HARDWARE**. Check that all hardware is tightened including all brackets and mounting locations.

STC BUMPER ARM INSTALLATION

13 – DOOR PLATE INSTALLATION

Remove the OEM tire mount from the door. Install the new door plate using the OEM, 3/8" button Head Bolts, and spacers. Place the provided spacers behind the doorplate. Leave all hardware loose for adjustment.



14 – SWING ARM MOUNTING

Connect the swing arm and door as shown using the provided hardware and coupler with spacers. 15 Overall, you want the carrier to be snug against the rear door. The coupling joints are the key to this. With the rear gate and carrier in the closed position, you can now start the adjustment of the coupling joints. You may need to adjust the height of the coupling joints with the spacers so it doesn't bottom-out. NOTE: The door and the carrier swing at slightly different angles. With the tire carrier installed and the door in the closed or almost closed position, the bump-stop needs to be making contact with the door. Adjust the coupling so that when the door is open and closed the bump-stop initially contacts the door mount plate on the tail gate (this may need to be adjusted later when the spare tire is mounted to the carrier). The door will naturally want to raise up due to its design and lack of tire mounted on it. Adjust the bumper pitch and height in combination of getting the door to align. You want the carrier to shut and be snug but not overly tight. If the door swings with little or no binding the installation can now be completed. Check the swing of the arm, if there is little or no binding you may finish the install and tighten all hardware. Recommended: use water resistant grease in fitting the coupler bolts. Place the washer into the swing arm, then insert the nut over the bolt. Tighten the nut using a 36mm socket. Don't over tighten to prevent binding.



Place the washer into the swing arm, then insert the nut over the bolt. Tighten the nut using a 36mm socket. Don't over tighten to prevent binding.



14 – CONTINUED

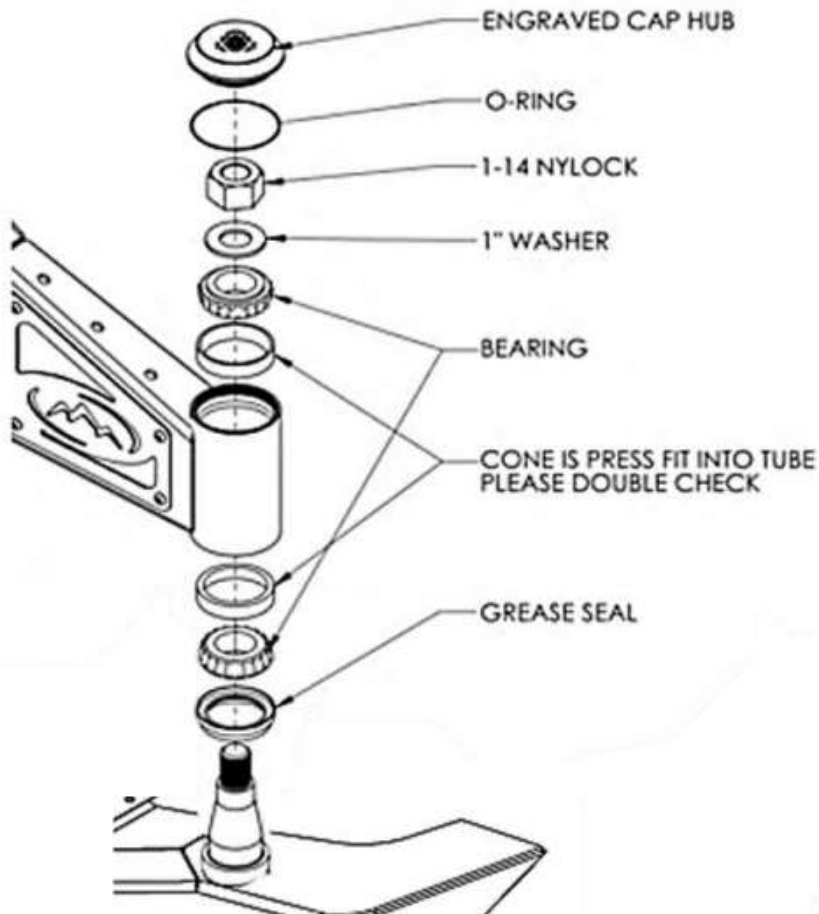
Connect the Ensure that the inside of the spindle and its contents are coated thoroughly. Check that the hub cap has a O-ring and spread anti-seize around the cap thread before tightening on the arm.



USE 36MM SOCKET FOR NUT

Always be sure to use the anti-seize when installing and re-installing your hub cover, otherwise removal will be very difficult! Remove your hub cover and check inside your hub assembly regularly. If you live in a dry climate and of-road a "standard" amount, we would recommend you check your hub assembly at least once per year. If you live in a wet climate, humid climate, or a climate with extremes, we would recommend you check your hub assembly quarterly or with season changes. Climates with heavy salt content are some the harshest conditions on your components and may need to be checked more frequently. Regrease as needed.

SWING ARM MOUNTING



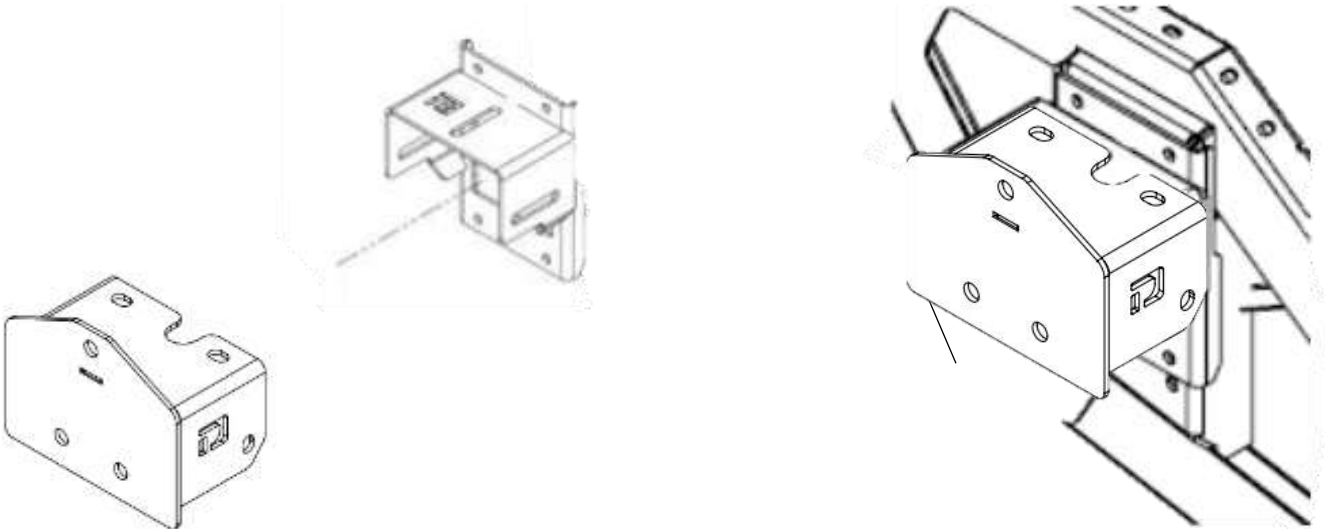
14 – CONTINUED

Coupler example shown



15 – TIRE MOUNT INSTALLATION

Attach the tire mount to the swing arm door as shown below. Mount using the provided 3/8" and 1/2" hardware to the highest mounting position.



TIGHTEN ALL HARDWARE

Adjust the bumper to its desired location and TIGHTEN HARDWARE. Check that all hardware is tightened including all brackets and mounting locations. Reconnect the parking sensor wiring harness and other connections to the vehicles electronics and secure all loose wiring. Check that everything is working and adjust if needed before driving on the road.

ADDITIONAL LINKS

<https://www.exp-one.com/wp-content/uploads/2016/10/Proper-Care-and-Maintenance.pdf>

<https://www.exp-one.com/wp-content/uploads/2016/10/Paint-touch-up-instructions.pdf>

<https://www.exp-one.com/wp-content/uploads/2018/02/Exp-One-2016-TC-word-doc.pdf>

**TIGHTEN ALL HARDWARE AFTER EVERYTHING IS INSTALLED ON THE VEHICLE
CHECK AND RETIGHTEN ALL HARDWARE AFTER THE FIRST 100 MILES AND AFTER
OFF ROADING. CHECK REGULARLY**