

### Parts List

1	Carrier weldment
2	Support arm assembly
1	Third brake light assembly
1	Light extension bracket
1	<u>Spare tire adjustment plate</u>
1	Spare tire mount plate
1	Female spade terminal
1	Male spade terminal
1	Ring terminal
4	Carriage bolt, M6 - 1.0mm
4	Nylock nut, M6 - 1.0mm
4	Button head bolt, M10 - 1.5 x 85mm
10	Carriage bolt, M10 - 1.5 x 30mm
14	Nylock nut, M10 - 1.5

### Tools Required

Ratchet	Torque wrench
Flat blade screwdriver	Allen wrench, 3mm
T-25 Torx bit	Allen wrench, 6mm
T-50 Torx bit	Socket, 8mm
Wire stripper	Socket, 10mm
Wire crimper	Socket, 13mm
--	Socket, 17mm

### Torque Specifications

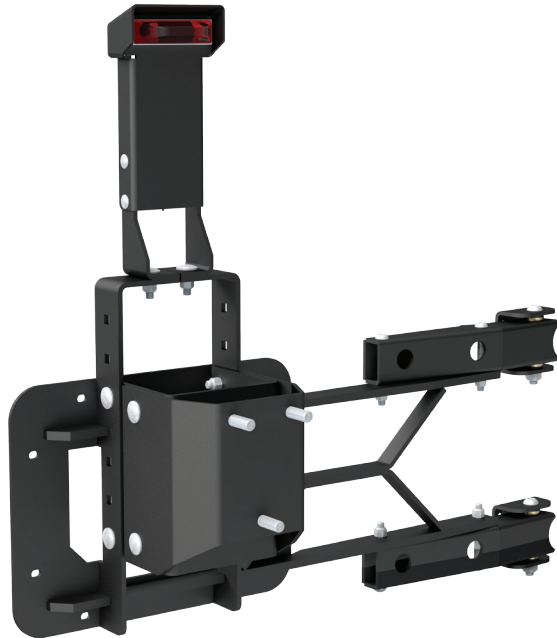
	Torque Specifications	
<b>METRIC</b>	M6 bolt	3 ft.-lbs.
	M8 bolt	7 ft.-lbs.
	M10 bolt	16 ft.-lbs.
	M12 bolt	28 ft.-lbs.
<b>SAE</b>	1/4" bolt	3 ft.-lbs.
	5/16" bolt	7 ft.-lbs.
	3/8" bolt	16 ft.-lbs.
	7/16" bolt	20 ft.-lbs.
	1/2" bolt	28 ft.-lbs.

\* Unless otherwise specified.

### Level of Difficulty

Moderate

### Product Image



### Notes and Maintenance

Before you begin installation, read all instructions thoroughly.

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

For black finishes, mild soap may be used to clean the product.

Refer to the table to the left when securing hardware during the installation process to help prevent damage to the product or vehicle.

**CAUTION:** If using aftermarket rims and / or lug nuts, be sure the lug nuts are fully seated against the rim before torquing to 60 ft.-lbs. Closed-end lug nuts may bottom out on the lugs and may not reach the rim, allowing the spare tire to move during use. Improper installation could result in damage to the spare tire carrier, rim and vehicle and will void all warranties related to the use of this product.

### Step 1

Remove the spare tire from the factory carrier. This will allow access to the mounting hardware and wire harness.

Open the rear door to access the electrical enclosure containing the wire harness disconnect.



### Step 2

With the rear door open, use a flat blade screwdriver to remove the plastic vent cover as shown.

With the cover removed, disconnect the third brake light wire harness from the quick plug on the vehicle's electrical harness.



### Step 3

With the plug disconnected, close the door and locate the plastic grommet securing the harness to the door.

Remove the grommet and pull the wiring harness and plug from the inside of the door.



### Step 4

With the brake light wiring harness free, use a 13mm socket to remove the eight hex bolts securing the carrier to the rear door.

With the bolts removed, lift the carrier off of the vehicle and set aside.

**Note:** Save the eight M8 hex bolts removed in this step. The factory hardware will be reused to install the new HD spare tire carrier.



### Step 5

Moving on to the hinge location, remove the plastic covers to expose the factory hinge mounting hardware.

The large plastic cover can be removed by squeezing the top and bottom near the hinge and pulling out.

Remove the small cover using a screwdriver or plastic trim removal tool to gently pry out the bottom edge and pull the cover free.



### Step 6

Using a socket, remove the two hex bolts securing the top hinge to the endgate.

Open the hinge 90° and use a T-50 Torx bit to remove the one outside and two inside fasteners securing the hinge to the frame.



### Step 7

With the top factory hinge removed, locate one of the HD replacement hinge and support arm assemblies supplied with the tire carrier.

Open the hinge 90° and reinstall the two inside factory hinge bolts removed in the previous step.

Snug the hardware, but do not fully tighten.



### Step 8

Close the hinge and loosely install one inside factory hex bolt to secure the hinge to the door. This will ensure the new hinge is properly aligned with the door.

With the top replacement hinge aligned, reinstall the third (outside) hinge bolt.

Fully tighten the outside bolt to 19 ft.-lbs.



### Step 9

Remove the hex head hinge bolt used to align the hinge to the door and open the hinge 90°. Fully tighten the two inside hinge bolts to 19 ft.-lbs.



### Step 10

With the hinge fully secured to the frame, close the hinge and reinstall both factory M8 hex bolts to secure the top hinge to the door. Fully tighten both bolts and torque to 15ft.-lbs.



### Step 11

With the top hinge installed, locate the door-mounted HD carrier. With help, align the eight slots in the weldment with the factory mounting holes in the endgate.

Loosely reinstall all eight factory spare tire carrier bolts to hold the weldment in position. Do not fully thread the fasteners at this time as some adjustment is necessary to secure the arms to the hinge body.



### Step 12

With the carrier weldment loosely attached to the door, locate the two M10 x 85mm button head bolts and M10 nylon lock nuts provided with the carrier.

Align the holes on the carrier arms with the holes in top hinge body. Loosely attached the arms with the M10 bolts and lock nuts.

Snug the hardware, but do not fully tighten at this time.



### Step 13

Repeat step 6 to remove the lower factory door hinge. Loosely install the lower HD replacement hinge following step 7.

With the lower hinge in position, loosely attach the bottom carrier arm to the support arm with a second set of M10 button head bolts and lock nuts.



### Step 14

Fully tighten the outside hinge bolt to the vehicle frame with a T-50 Torx bit. Torque to 19 ft.-lbs.

With the rear hinge in position, tighten the two factory M8 hex bolts to secure the hinge to the door. Torque to 15 ft.-lbs.



### Step 15

Fully tighten all four M10 x 85mm button head bolts to secure the carrier arms to the hinge support arms. Torque to 25 ft.-lbs.

Fully tighten all eight factory M8 bolts to secure the carrier weldment to the jeep door. Torque to 15 ft.-lbs.



### Step 16

With the carrier secured to the door and hinge locations, open the endgate 90° to access the two lower inside hinge bolts. Fully tighten the two lower hinge bolts by torquing to 19 ft.-lbs.

Open and close the endgate to ensure it is properly aligned with the latch. Make adjustments to the hinge or latch position if required.



### Step 17

With the replacement hinges and carrier installed, locate the third brake light extension bracket.

Align the holes on the base of the extension bracket with the holes on the top of the HD carrier.

Secure the bracket to the carrier with two M10 x 30mm carriage bolts and two M10 lock nuts. Fully tighten to 15 ft.-lbs.



### Step 18

Locate the tire adjustment plate and determine the best vertical mounting position based on your tire diameter.

The lowest position matches the factory mount height, and it can be adjust up two positions at 1.75" increments.

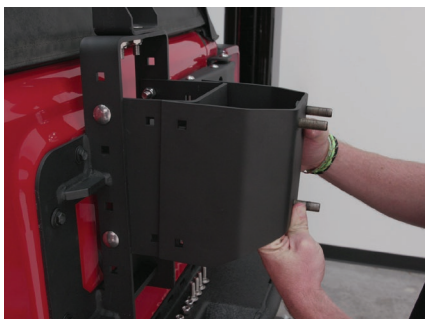
Secure the plate to the carrier at your desired height with four M10 x 30mm carriage bolts and lock nuts. Torque the fasteners to 25 ft.-lbs.



### Step 19

Locate the spare tire adapter plate. The adapter has two horizontal positions. Select the position that allows your tire to clear the vertical third brake light pillar on the back of the carrier.

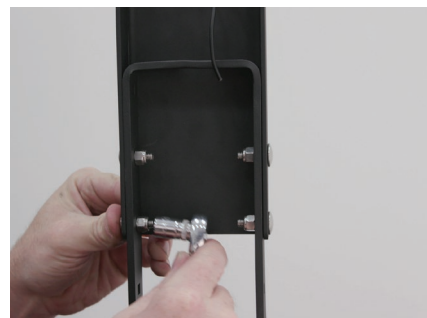
Secure the spare tire adapter to the vertical adjustment plate from step 18, using four M10 x 30mm carriage bolts and lock nuts. Torque the fasteners to 25 ft.-lbs.



### Step 20

Locate the supplied third brake light assembly and determine the appropriate mounting height on the extension bracket to clear the top of your spare tire.

Secure the third brake light assembly to the extension bracket with four supplied M6 x 20mm carriage bolts and four M6 nylock nuts.



### Step 21

Lay the factory spare tire carrier on a flat surface and remove the four T-25 torx screws securing the light to the housing.

Lift the factory LED light from the housing arm and disconnect the quick connect plug on the light to free the harness from the factory carrier.



### Step 22

Reinstall the factory wiring harness by reversing the order of steps 2 and 3.

Route the factory harness up to the new third brake light assembly and clip the factory plug off of the harness.

Strip 1/4" from both ends of the factory wires and the wire coming from the new third brake light.



### Step 23

Connect the black positive wire on the factory harness to the new LED light by crimping a female and male spade terminals on each wire and pressing them together.

Crimp the ring terminal to the white factory ground wire. Remove the lens from the new LED to expose the mounting screws. Remove the M5 nut on the ground lug with a 3mm allen wrench and 8mm socket.

Attached the factory ground to the grounded stud and reinstall the nylock nut to secure the wire to the LED light housing. Reinstall the lens.



### Step 24

Lift your spare tire into position over the three lugs on the spare tire adapter. Reinstall the factory lug nuts to secure the tire to the carrier. Torque the lug nuts to 60 ft.-lbs.

Congratulations on the installation of your new ARIES heavy-duty spare tire carrier.

