555 E Queen Creek Rd Bldg A Chandler, AZ 85286 WWW.DV80FFROAD.COM

INSTALLATION MANUAL

CAGE TIRE CARRIER

18+ JEEP WRANGLER JL

TCJL-14



TOOLS REQUIRED

- 12-16ft wire for license plate light
- Hammer, punch, drill, 11/32" drill bit
- #4, #5,#6 & 12mm Allen Tool
- 10mm, 13mm, 21mm, 22mm Socket
- T8, T20, T25, T40, T55 Torx tool
- Trim tool
- -11/4" wrench
- Blue Thread Locker
- Safety Glasses

SKILL LEVEL

- Novice/Intermediate
- -1 (you) to 2 persons

Little skill level required, you can easily install it by yourself however, additional help will be useful

TIME REQUIRED

- 4.5 Hours

Time to install this should only take about four and a half hours.

WARNINGS/CAUTIONS BEFORE STARTING INSTALLATION

Before you Install this Kit — Read and understand all instructions, warnings, cautions, and notes contained in this installation instruction guide. Consult your vehicle owner's manual for proper disconnection of electrical and lifting of vehicle if required for installation of this product.

This install may require some technical skills and knowledge of basic mechanical work. If you do not feel that you are capable of performing this install please take this product to a trained professional.

After reading this guide please contact us with any questions or concerns before installing product. Customer Service: 855-680-9595

DV8 Offroad is not responsible for any bodily injury or harm to you or your vehicle as a result of an improper install.

recommended procedures for removal and installation of original equipment components. We recommend that the factory shop manual and any special tools needed to service your vehicle be on hand during the installation. Installation of this kit without proper knowledge of the factory recommended procedures may affect the performance of these components and the safety of the vehicle

• Always wear eye protection when operating power tools

Inspect all contents of this package to make sure product is not damaged and all installation hardware has been included. If parts are missing from kit, please be prepared to provide the following information

- 1. Name of purchase location
- 2. Bar Code on side of box
- 3. Date above bar code
- 4. Date inside box cover

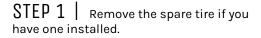




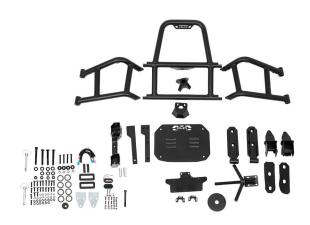
Begin by unpacking all items and inspecting for missing pieces or damage. If you have any concerns, please contact the company the product was purchased from. Extra hardware may be included with the product.

HARDWARE INCLUDED

- (2) M14x35mm Hex Bolts
- (2) M14 Nylon Lock Nuts
- (4) M14 Flat Washers
- (8) M8x35mm Hex Bolts
- (8) M8 Split Washers
- (8) M8 Flat Washers
- (4) M10x45mm Bolts
- (4) M10 Split Washers
- (4) M10 Flat Washers (12) M12 Flat Washers
- (6) M12 Nylon Lock Nuts
- (6) M12x35mm Hex Bolts
- (3) M10x30mm Countersunk Bolts
- (3) M10 Nylon Lock Nuts
- (3) M10 Flat Washers
- (1) M6x14mm Allen Bolts
- (1) M6 Washers
- (1) M6 Split Washers
- (2) Rubber Plugs



Use a 13mm socket to remove the bottom (6) bolts from the factory spare tire carrier.





STEP 2 | Use a T25 torx bit to remove the hardware securing the third brake light to the tire carrier.







STEP 3 | Loosen the remaining hardware on the passenger side and remove the hardware on the passenger side, allowing the tire carrier to drop and rotate slightly to the passenger side.

Remove the third brake light and gently set it on the bumper.

Use a zip tie to secure it to the tailgate handle to ensure it does not fall, or pull on the wiring.











STEP 4 Use a T25 torx bit to remove the two bolts securing the stud plate to the tire carrier.

Then, using a rubber mallet, remove the stud plate.

Use the mallet with caution, taking care not to damage the carrier or vehicle paint.











 $\begin{array}{c|c} \text{STEP 5} & \text{Remove the factory carrier} \\ \text{and set it off the side.} \end{array}$

Note: The factory carrier will not be reused.



STEP 6 | Open the tailgate and use a T40 torx tool to remove the torx head bolt that secures the tailgate check cable.



STEP 7 Use a trim clip tool to remove the plastic panel from the tail gate.

Clips are located along each edge.

Pull straight away from the tailgate to avoid breaking any clips.









STEP 8 | Unclip all three plugs to the camera, third brake light and tailgate door handle.



STEP 9 | Remove the fin vents by pulling from the exterior, while using a trim clip tool on the interior if necessary.







STEP 10 | Using a Dremel or cutting tool of choice, remove the three sided border from the fin vents.

Then use a file to clean up any rough edges.

Reinstall the vents back into the tailgate.





STEP 11 | Use a T8 torx bit to remove the camera from the factory carrier, disconnect it by pressing the release tab on the connector.

Place the camera off to the side on a soft surface being careful not to scratch/damage it.









STEP 12 | If you vehicle is equipped with the newer camera style shown, depress the camera from the camera mount, unplug the camera harness and set everything off to the side.



STEP 13 | Use a T55 torx tool to remove the (4) tailgate hinge bolts.

Tech Tip: Assistance required to hold the tailgate from falling and sustaining damage.

Set the tailgate off to the side.







STEP 14 | Pull the tailgate seal from the pinch weld as shown. (Do not completely remove)



STEP 15 | Use a T20 torx tool to remove the factory torx head bolt that secures the rear trim panel/sub-woofer.

Use a trim tool to remove the plastic trim cap.









STEP 16 | Use a trim tool to remove the seatbelt cover.



STEP 17 Use the trim tool to separate the panels at there parting line.

With a firm grip, carefully start separate the plastic trim panel from the vehicle.



STEP 18 | Open the rear storage compartment and remove the tire jack/ tool compartment cover.







 $\begin{array}{c|c} \text{STEP 19} & \text{Use a trim tool to pry loose} \\ \text{the lower trim panel clips.} \end{array}$





 $\begin{array}{c|c} \text{STEP 20} & \text{I} & \text{Use the trim tool to pry the} \\ \text{panels last clip.} \end{array}$





STEP 21 | Using a trim clip tool, remove the tail light bolt cover.



STEP 22 | Using a 10mm socket, loosen the plastic tail light bolt.



STEP 23 \mid With a firm grip, remove pull the tail light housing away from the vehicle.







STEP 24 | Remove the factory hing cover stickers to gain access to the (6) hinge bolts.





STEP 25 | Use a 13mm socket to remove the (6) factory hinge bolts. Set the factory hinges off to the side, they will not be reused.





STEP 26 | Place the provided foam piece onto each of the DV8 hinges as shown.



STEP 27 | Before mounting the DV8 hinges, place a small mount of blue thread locker to each of the (6) factory hinge bolts.



STEP 28 | Install the bottom DV8 hinges using a 13mm socket and the factory hinge bolts. Place the two provided hinge spacers behind the bottom hinge as shown. Tighten the bolts so they are snug.

Place the hinge with the **square cam stop** at the top hinge position.







STEP 29 | Install the upper hinge. Tighten the bolts so they are tight (factory torque recommendation is 35 ft.lbs).

Ensure the hinge with the cam stop is installed at the top.







STEP 30 | Place the provided foam pieces on to the back of the hinge arm as shown.

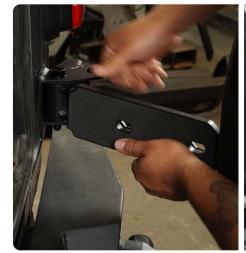






STEP 31 | Mount the hinge arms to the hinge using the provided M14x35 Hex head hardware. Use an M14 flat washer for the bolt and nylon nut.

The hinge arm with zip tie tabs will be mounted to the top hinge.







STEP 32 | Mount the tailgate back onto the vehicle aligning the vehicles body lines.

We recommend using painters tape to keep the tailgate in place and aligned.







STEP 33 Using the provide (4) M10 allen head bolts, and a #6 allen tool, secure the hinge arms to the tailgate.



STEP 34 | With hinges installed and tailgate secured we can now assemble the tire carrier.

Lay the cage pieces on a covered working bench.

Using a #5 allen tool and the provided (8) M8x30 Hexagonal socket bolts, assemble the tire carrier cage.

Ensure these bolts are tight.











STEP 35 Using a 13mm socket or wrench, mount the spare tire post to the tire carrier cage center plate using (6) of the provided M8x25 hex bolts.

Use (1) M8 split washer and (1) M8 flat washer per bolt.











STEP 36 | Mount the rear camera into the rear camera bracket by pressing the camera into place. This will be a snug fit.













STEP 37 | Install the rear camera mount into the provided rear camera housing.

If you rear camera has the pink colored housing, install the camera into the provided housing so that the camera sits flush against the housing plate.

Do not crush the camera, but ensure it is secure.













STEP 38 | Using a #4 allen and 10mm wrench with the provided M6 allen head hardware, secure the rear camera in the camera housing.

Use (1) M6 flat washer on the allen head side and (1) M6 flat washer on the nylon lock nut.



STEP 39 Using a 13mm socket or wrench, mount the rear camera housing to the bottom of the tire carrier cage center plate. Using (4) of the provided M8x25 hex bolts.

Use (1) M8 split washer and (1) M8 flat washer per bolt.









STEP 40 | (Optional) If you wish to relocate your license plate to the tire carrier cage, use the provided license plate bracket to do so.

Sandwich between the post and cage center plate.

Using a 13mm socket or wrench with the provided M8x25 hardware, secure the license plate bracket and post to the center plate.

Mount the provided license plate light to the license plate mount using the provided M4 Phillips head hardware.

If you are not familiar with wiring we recommend professional installation.

To wire the license plate light use an additional 16 gauge length of wire with T-taps (not provided) to tap into the factory license plate light wiring harness in the driver side rear wheel well (not shown).











 $\begin{array}{c|c} \text{STEP 41} & \text{with assistance, slide the} \\ \text{cage bushings into the hinges, starting} \\ \text{with the bottom then the top.} \end{array}$







STEP 42 | Loosely secure the cage to the upper hinge using the provided M14x40 hexagonal bolt with cam nut to hold the tire carrier in place.





STEP 43 | Loosely secure the bottom of the cage to the lower hinge using the provided M14x35 hex bolt.









STEP 44 | Connect the provided rear camera extended wiring harness to the factory wiring harness behind the tailgate interior trim cover.

Route the extended wiring harness through the tailgate.





STEP 45 | Feed the extended harness through the tire carrier cage tube.

We recommend using a fish wire to feed the extended harness through the tube.









STEP 46 | Connect the harness to the camera.

Use the zip-tie tabs on the tube to secure any loose excess wiring.







 $\begin{array}{c|c} \text{STEP 47} & \text{Mount your spare tire onto} \\ \text{the cage tire carrier.} \end{array}$

Use the provided rubber cone, cone plate and T-handle to secure your spare tire to the cage tire carrier.



















STEP 48 | Using the provided pins, Mount the driver side mounting bracket to the tire carrier cage.

Carefully close the cage tire carrier, allowing the driver side bracket to rest against the vehicles body.

The carrier driverside bracket will most likely too low against the body which is normal for this step.





STEP 49 | Ensure bolt upper and lower hinge bolts are loose enough to be adjusted.

Using a 1-1/4 inch wrench, adjust the tire carrier by turning the cam-nut on the upper hinge clockwise. Adjust the cam nut until the bend in the center of the bracket aligns with the vehicle body line.













STEP 50 | The driver side mounting bracket should be 1/8 inch away from the edge of the body panel.

If the mounting bracket does not align as shown and covers over the tailgate and body seem, pull the cage over to the driver side with a firm grip.









STEP 51 | Using a 22mm wrench and 12mm allen tool to secure the cam-nut in place.

Use a 21mm socket and 22mm wrench to secure the cages lower bolt.

Ensure these are tight.





STEP 52 | With the mounting bracket aligned, mark the upper, middle and the bottom holes that will need to be drill out.

Let the bracket hang freely on the carrier as shown. Do not hold it up to center on the carrier.









STEP 53 | Using a 11/32 drill bit, drill out the holes.





STEP 54 | Place the provided support bracket into the body panel through the tail light cut out with the flat side of the nutserts faced towards the rear of the vehicle.





STEP 55 | Align the pre installed nutserts in the support bracket with the holes previously drilled out.

Using a #5 allen tool and the provided M8 allen head bolts, secure the driver side mounting bracket to the vehicles body.





STEP 56 Close the carrier to check alignment. The carrier should have some pre-load.

Note: It is better to have the tire carrier cage positioned slightly too high vs too low.

Press down on the cage slightly to seat the carrier into the driver side mounting bracket.









STEP 57 | Carefully install the rear taillight in the reverse order it was removed.



STEP 58 | To prevent up and down movement of tire carrier cage we provide (4) 2mm round spacers and (4) 1mm round spacers.

Use the provided spacer as needed under the pin bushings as shown.











STEP 59 | Place the provided rubber stop strips into the upper mounting slot on the driver side bracket.





STEP 60 | Place the provided foam strip in the center of the tailgate vent cut outs.





STEP 61 | Using a #5 allen tool and (4) of the provided M8 allen head bolts, secure the provided DV8 tailgate cover plate.





STEP 62 | Double check that all hardware is secure.

Congratulations, installation of the DV8 JL Cage Tire carrier is now complete.





