

# BACKUP CAMERA RELOCATION GUIDE

## 2016+ TOYOTA TACOMA

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### THANK YOU FOR YOUR PURCHASE!

Note: we recommend professional installation on all of our products. Please fully read install guide prior to attempting installation to ensure you have a complete understanding and all required tools and procedures. If you are not confident in your ability to complete the procedure please seek professional installation. Be aware that the bumper is heavy (about 125lbs *without* a winch)! You will need 2-3 people to lift the bumper into position to secure it to the vehicle. **We assume no responsibility for any injury or property damages from installation or use of our bumper and accessories.**

#### TOOLS/PARTS REQUIRED:

- 3/8 or 1/4" Drive Ratchet and sockets to remove and re-mount camera
- Torx bit set and driver (T25 for Tacoma)
- Socket set including 10mm socket for camera removal
- Razor or sharp knife
- Wiring tools: 18ga wire in multiple colors, wire stripper/crimper. Soldering iron and solder or adhesive lined shrink tubing and torch/lighter, electrical tape, wiring loom, zip ties, etc.

#### INCLUDED HARDWARE:

- 2) 1/4x 3/4" stainless button head bolts, with 2 nyloc nuts and washers for camera mounting (Tacoma)
- Camera relocation bracket is welded onto carrier

*We always recommend working on a clean and dry vehicle. We STRONGLY recommend wearing safety glasses throughout the install process to keep debris from within the bumper/fenders from falling into your eyes while under the truck, as well as for protection when cutting and doing the wiring.*

Read each step of the install procedure fully before beginning that step. With the vehicle parked on level ground, transmission in park, and parking brake securely set begin the install process:

#### STEP 1:

Removal and preparation:

Lower tailgate and remove inner panel to access the camera within the tailgate handle bezel. There are Torx screws securing this panel to the truck, only the main large panel needs to be removed. Once this is out of the way remove the 2) bolts holding the camera to the bezel, this is easy to locate by following the wiring to the camera just toward driver side of center on the back of the handle. With the camera loose within the tailgate we'll need to unplug the wiring from the camera, then pop all the clips securing the wiring within the bottom of the tailgate and fish the wiring out of the tailgate and under the truck bed. Remove all the clips off of the wiring loom and reinstall them into their places to plug the holes and in case you may want to put the camera back in the future.

#### STEP 2:

Mounting camera:

Now we'll want to attach the camera to the relocation bracket on the tire carrier arm. This is done with the hardware included with the tire carrier. On the Tacoma the mounting bracket for the camera has an offset mounting tab, to make the camera mount flush/straight use the 2 included washers between the camera bracket and the relocate bracket to take up this space (see image below).

Now with the camera mounted it's time to cut and extend the camera wiring harness to reach the new location on the carrier arm.

### STEP 3:

#### Wiring extension:

Extending the wiring can be done in several ways, we'll outline the way we do it but if you have a preference for another method or location at which to splice we'll leave that up to your best judgment what is best for your vehicle.

First we need to determine where to cut and splice the wiring. On the Tacoma wiring we usually split open the loom and cut the wiring for the camera harness somewhere around 6-12" away from the camera plug and leave a pigtail to wire our extension onto. Be careful not to damage the small wiring! Take time and care here to get to the wiring, the wires are very small and delicate.

Once the wiring loom/casing is stripped back and prepared, route the other long end of the wiring harness from under the truck to near the tail light/carrier pivot so it can be later routed along the top of the carrier arm.

At this point we'll take about 36" of new wire and splice it between the 2 ends of the factory camera wiring harness. Match wiring colors or if you do not have all colors then connect wires one at a time on each end to the matching colors to not get confused. Wires can be stripped back and soldered together, or possibly the easier method is to use adhesive lined shrink tubing to secure and seal the wires- we'll outline this method.

Strip back about 2" of wire on each end of the harness and extension wires. Slip about a 2 ½" to 3" piece of adhesive tubing over one end of a wires, then hold the wires parallel and twist the stripped wire end around each other tightly. Fold the twisted wires over toward the original wire and slide the shrink tube over the wires ensuring the length is adequate to completely cover the connection. Heat the tubing to shrink and glue the connection tight and allow it to cool before allowing any tension on the connection.

Repeat this for each end of each wires.

### STEP 4:

#### Final wire protection and routing:

We are now ready to finish up the job of extending your camera wiring. At this point we recommend double checking camera functionality by turning the key(or push the ignition button for Push Start) to the accessory position with the trucks engine off and parking brake set, then putting the truck in reverse to trigger camera. As long as camera functions as normal put the truck back in Park, turn off the truck and return to work. Otherwise check all connections and recheck functionality.

Now we wrap the extended wires together with electrical tape at both splices, and then every 4-6" along the extension to hold everything together neatly. After taping the wires into a bundle, slide some wiring loom over the section of exposed extension wiring and secure ends with a bit more electrical tape. Use some zip ties to secure the wiring to the arm, we secure a small section of looped wire at the back of the camera to keep from pulling on the camera plug. Secure the rest of the wiring to the holes in the gussets on the arm. Take any excess harness length and slide it under the truck and secure with another zip tie. Ensure the harness has a bit of extra length under the bed free to move about when opening and closing the carrier arm and that it does not pinch or tug on the connections when opening and closing the arm. With this all done, the job is now complete and you can enjoy having camera functionality with your tire carrier!

*Congratulations on completing the installation of your new Relentless Off-Road  
Fabrication bumper camera relocation!*

*We hope you enjoy your new bumper for years to come!*

*Be sure to re-check torque on all bolts after the first 250 miles of use, and periodically thereafter as parts can settle or rattle loose from off-road use.*

*If you have any questions or comments please feel free to contact us Mon-Fri 9am-5PM PST at 775-200-0544 or any time via email: [Sales@relentlessfabrication.com](mailto:Sales@relentlessfabrication.com)*



Tacoma Tailgate internal view:



Camera removed from tailgate handle, wiring disconnected and pulled out of tailgate,  
loom clips removed from harness:





Camera relocated onto carrier bracket with washers to space the offset of mounting bracket (note the camera brackets are now welded to arm vs bolted as shown)





Self-made wiring extension, and adhesive-lined shrink tube we used for connections



*Wiring extension connected to both ends of factory harness:*





Final routing of loomed harness:

