



# REAR STEEL BUMPER INSTALLATION INSTRUCTIONS

2003-2009 Lexus GX470

Version 3.2.0 - 2017

Thank you for purchasing the Southern Style OffRoad Lexus GX470 rear steel bumper. It will be necessary to make adjustments to the vehicle to ensure proper fitment and strength.

Tools required:

- 19,18,17, 13,12,10 mm socket/impact
- Socket extension
- Flat and Phillips screwdriver
- 12-14 16-gauge butt connectors
- 2 - 16 gauge quick taps
- Grinder (depending on irregularity of OEM welds on frame)
- Optional car jack and 2 ft 2x4 to help with alignment

Begin installation by carefully unpacking the bumper from the pallet and protective materials. Verify all required hardware and optional accessories are included.

It is best to leave about 12” of the protective material on the tips of the wings to protect your vehicle during installation. This installation procedure can be done with only 2 people, but 3 is optimal.

First, remove all the plastic clips holding the mud guards in place so that you may remove them. To do this, use a torx bit (an allen wrench will work in a pinch) to remove the bolt in the fender well. Next remove any Phillips head plastic pins or 10mm bolts to remove the mud guard.



Next, remove any towing accessories or hitches using a 17mm and 12mm wratchet with extension. You may also wish to remove your spare tire to make working behind the bumper crossmember easier. Unbolt towing connector here and save bolts:

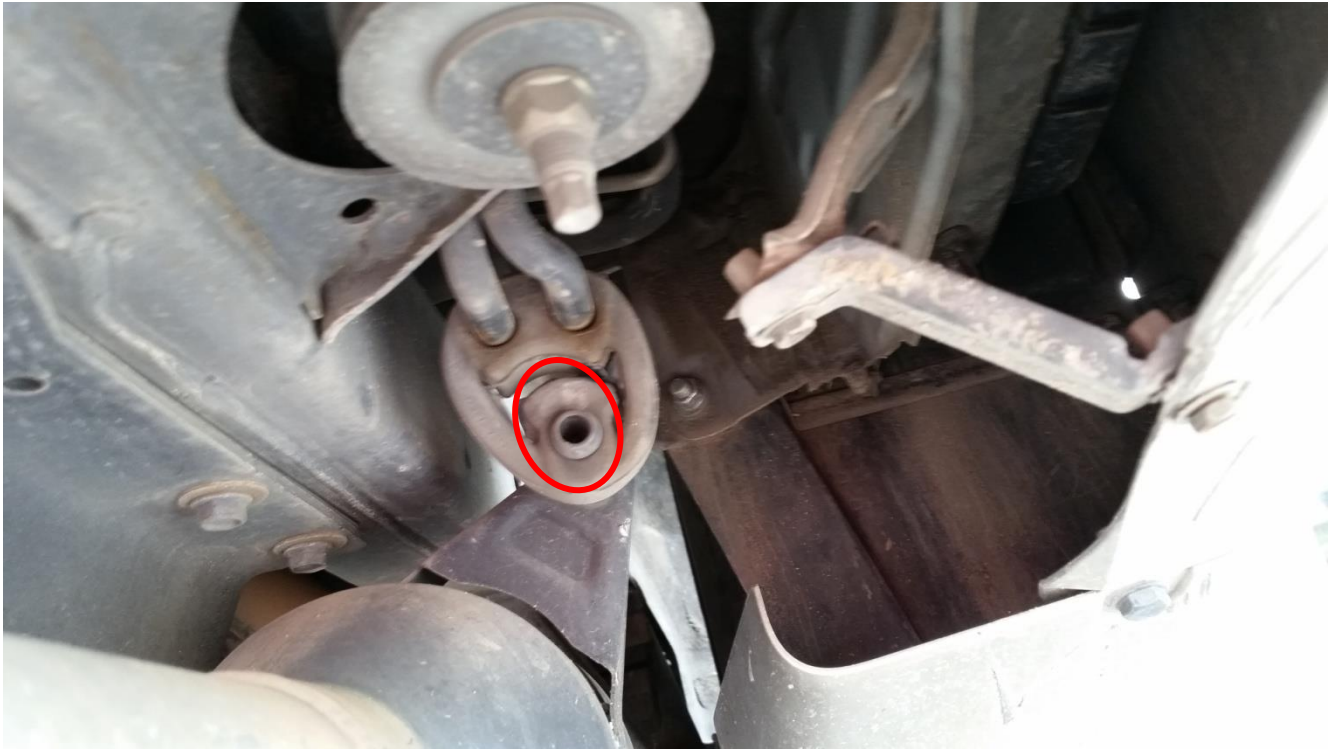




Remove all 10mm bolts and philips head clips holding the plastic bumper skin to the frame of the truck.



Slide the muffler off of its hanger using a little WD-40. You can let the tip hang. We will be reinstalling it or you can take this opportunity to chop your exhaust for better clearance as it will be the lowest point and will not be protected.



Finally remove this 10mm/Philips screw. It will be located within the fender well in the very corner of the bumper skin nearest the tire.





Next, open the back door and remove this 10mm bolt holding the back doors stopper.

Lift the stopper arm off of the bolt. Now you will be able to gently pry off the black plastic cover to reveal some more push pins and screws still holding the bumper skin on.





Now you are ready to remove the bumper skin. Pull down and away at each corner of the bumper. **IF YOU FEEL AS IF THE BUMPER IS NOT LOOSE ENOUGH OR DOESN'T SLIDE OFF EASILY, STOP AND MAKE SURE THERE ARE NO BOLTS REMAINING.**



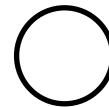
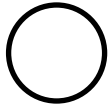
Reinstall the towing harness in this location. Simply run the OEM bolt through the original bolt hole backwards and into a pre-tapped hole on the backside of the cross member.



Ensure that the factory welds are smooth across the frame rails. Grind down any welds that prevent the 3/8" brackets from seating flat against the frame.



Using the supplied template, line up the bolt holes to the holes in the template and mark the inside rectangular pattern to be cut, FRONT and BACK of frame. You'll basically be notching a U out of the frame which is necessary because of the inner structure of the cross member at this point. There are concentric circles of steel welded front to back to strengthen the cross member for towing, we need to cut these steel circles out. You may choose to have a welder re-plate the backside of the cross member, although this is not necessary.



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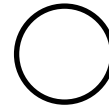
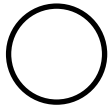
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Install the 3/8" brackets using the supplied m8 metric bolts as shown. Leave these bolts loose.



You may choose to install your cb antenna on the driver's side at this point. Once the bumper is installed onto the truck, installing the antenna at its location will be difficult.

**Depending on your order, the swing arm bearings may not be greased\*\*Please ensure that the swing arm bearings have been greased, tightened, pinned, and capped. \*\***

Continue on by removing the tool kit and door handle from interior of back door.





After removing plastic pins on both side of the handle, pull down and away to remove handle from frame of door



Pop this cover off using a screwdriver:



Remove phillips head screw



Using a panel removal tool or flat head screwdriver, carefully pry up the bottom corner of the back door panel. You'll be able to hear and feel each plastic pin pulling out as you move around the edge of the door.



Once you feel as though all pins have been released, go to the top corners of the door panel and gently pull the corners from under the window trim.



At this point, the door panel should be free, if it is not, double check that all pushpins have been released and finally pull the door panel away from the door.



Gently pull the weather barrier away from the door panel to expose the wire looms.



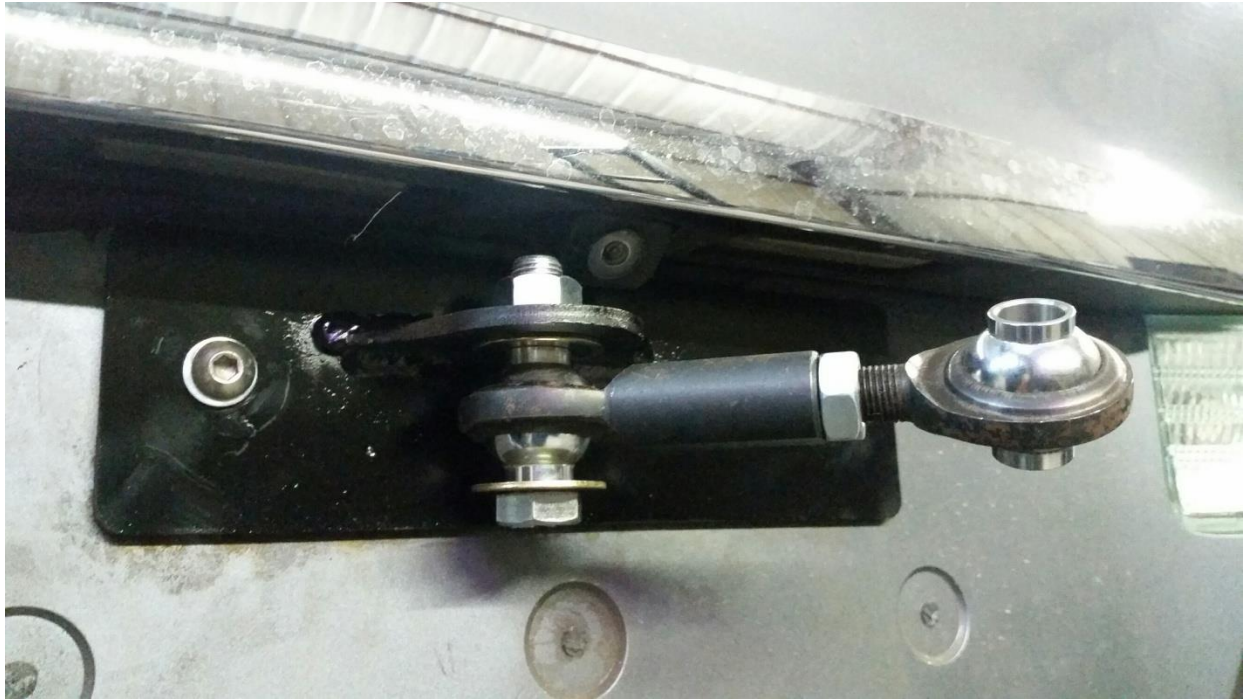
Next, we want to remove the shiny trim piece covering the access to the two bolts holding the backup camera in place. From the backside of the door, using a flat head screwdriver, coax the small pins out as you move toward the driver's side. It is helpful to have someone gently pull the trim piece away from the door as you disengage each subsequent pin.



After removing this trim piece, you'll gain access to two small bolts holding the backup camera into place. Remove these bolts.

Disconnect the backup camera from its harness and remove the camera from its location. Remove the camera from the plastic housing so that all you are left with is the camera itself and its wires. Set the camera aside for now.

Remove your license plate from the rear of your truck. **With an electric drill and a 3/8" or larger drill bit, enlarge the top 2 license plate holes.** We will utilize these for the swing arm heim joint. After the holes have been made big enough for the supplied 3/8" x 1" length button head bolts, sandwich the door using the outside heim joint bracket and interior channel bracket to strengthen the door panel as shown.





Cut the OEM wiring harness at the point indicated in the picture above. **It is important that you make this cut so that there are 4 wires and not 3.** One of those wires is a shielded cable that splits off into 2 near the electrical connector. Once again, make sure you make the cut where there will be 4 wires on both sides of this cut. You may need to trim away some of the black protective loom.

You will basically be extending these 4 wires so that they reach the new camera location in the swing arm. The plug that is cut from the OEM harness (circled in red) will be used again at the new camera location. This allows for replacement of the camera itself by just unplugging the connector.

Poke a hole in the factory door grommet as shown.



Mark the length of harness you'll need to run the wires through the factory door grommet and to the 4 OEM wires you just cut. Use the heat shrink around the supplied wire harness. Leave approximately 8-10 inches of wire and plug hanging out of the door grommet. Also use this opportunity to choose two wires from the harness to act as your license plate light and back up lights. You can use a quick tap connection. Simply tap the positive wire from both the reverse light harness and backup light harness to extend those wires as well. You can access these wires directly at the light bulb housing.

The wiring harness provided allows for 6 connections:



- 1 backup light
- 1 license plate light
- 4 wires to lengthen/relocate camera

Be certain to remember the specific color of wire connected to each OEM wire from the 4 wire camera setup. If these wires are not reconnected exactly as they were disconnected the camera will not function correctly. It will be beneficial to have a voltmeter handy should you come across any electrical issues. Right down the color connections you choose, you'll need it later to hook up the camera connector to the extended harness.

Moving to the bumper swing arm, begin by sliding the arm onto the stub mount of the bumper. Secure it using two of the supplied 3/8" button head bolts as shown. Make sure all mounting holes align.



Install your license plate and bracket with 1/4" button head bolts. Connect the positive wire to the license plate wire in the harness extension and run the wire the length of the swing arm to the grommet near the spindle.



Also take this time to run your backup camera extension wires up the swing arm into the wheel mount area. Reconnect the extension harness camera wires to the section

of plug and wire snipped off the oem harness. It is best to “stagger” your butt connectors so that they will still fit through all passages. Your remaining wire is for auxiliary backup lights wherever you should choose to put them. Keep this wire available to you for later.

Install the back plate to the swingarm upright afterwards as shown, with the heim joint bracket near the top, using the ¼” button head bolts.



After all wires and harnesses have been run and fully tested for functionality. Install the large swing arm back plate using the remaining ¼" button head bolts and washers.



If you purchased the optional high lift mount, install the lower bracket using the remaining 3/8" bolts into the swing arm as shown. Otherwise, just install the bolts without the bracket.



Install the upper hi lift mount above the heim joint using the supplied 1/4" bolts.



After you've successfully run the wires and tested the camera, you can begin installing the camera onto your tire carrier. Begin by placing the back plate onto your tire carrier and feed the camera and plug through the large hole in the center of the back plate.



Sandwich the camera between the back plate and the adapter plate



Tighten the provided ¼" button head bolts and nuts so that the camera is snug.



You'll also notice that the camera back plate has been cut so that you can easily bend the camera into the position that best suits your install. This will help keep the camera focused directly behind you instead of off into the distance.



Verify that the picture is clear. You can adjust the angle of the camera at any time, however it was not designed for constant adjustment. The metal may fatigue and snap if adjusted up and down too many times.



Test all electrical connections BEFORE reinstalling any weather barrier, door panels, or finalizing any electrical connections. After verifying all connections are working properly, reapply weather barrier to backside of OEM door. Re-secure the door panel by sliding upper corners under the window trim and firmly pressing all plastic push pins back into place. Reinstall chrome trim by firmly pressing all plastic push pins back into place. Reinstall locking mechanism on OEM door if you haven't done so already. Test the operation of the swing arm at full extension and locked closed. Ensure cable doesn't get pinched or stretched.

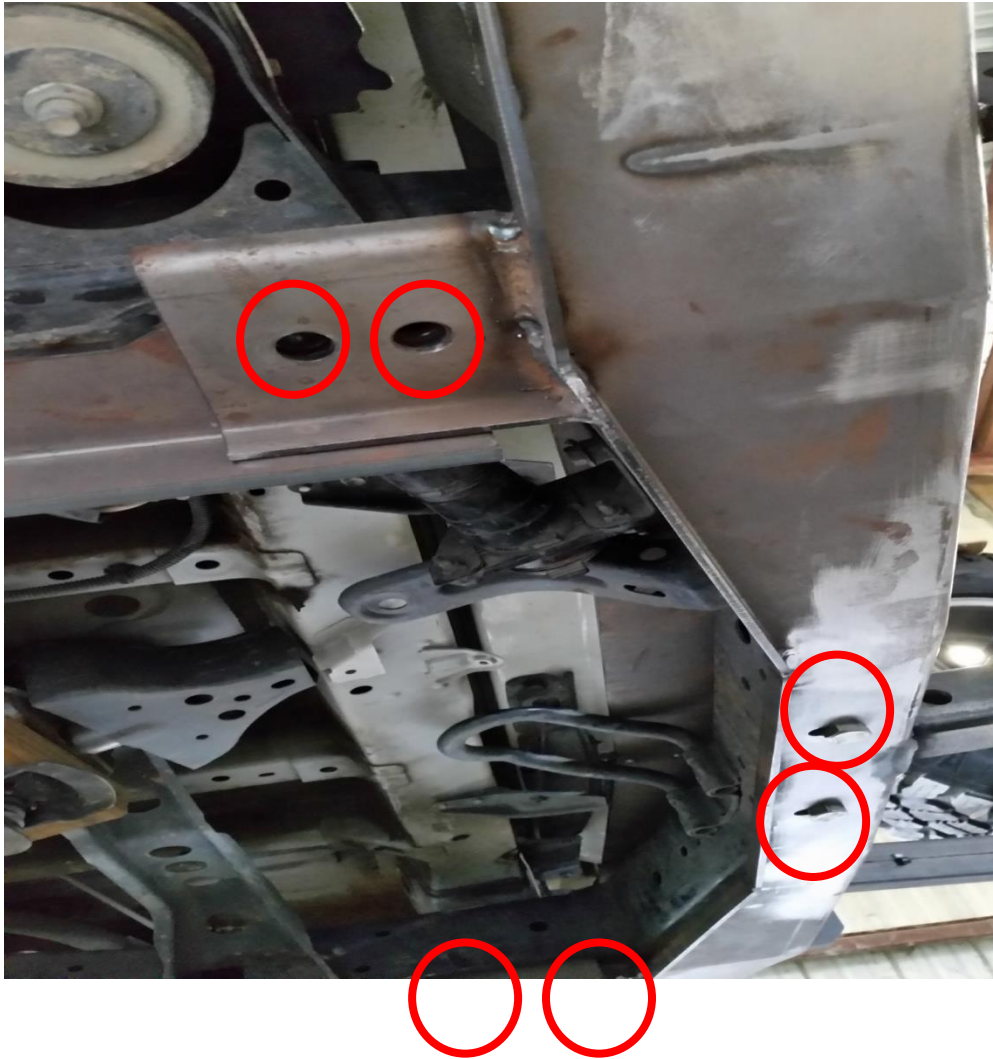
Using the help from at least 1 person (3 people total is best, 2 to hold the bumper and 1 to install bolts), carefully slide the bumper into position. Be certain the swing arm is



in the locked position before trying to move the bumper. The bumper brackets underneath install to the outside edges of the frame brackets we installed earlier.

Install all supplied m12 bolts LOOSELY. You still need some wiggle room for final alignment. You may choose to use a car jack and a short 2x4 to help with alignment at this point. Once the proper alignment is found, tighten all bolts exactly as they are.

General alignment shown:







Trim your fender plastic to roughly match the outline of your new steel bumper, tuck the remaining fender liner behind the steel lip.



Reinstall locking door arm with or without plastic trim. The bumper was not specifically designed to reaccept the black plastic trim but it does still fit and fill the gap nicely.



**CONGRATULATIONS! You've just successfully installed your Southern Style OffRoad GX470 rear steel bumper. There should be some gap between the bumper and the body of the truck to allow for flex during extreme trail riding. This is normal.**

Have a beer and enjoy your work!

Questions? Call (225) 381-5351 Monday through Saturday 9am-6pm