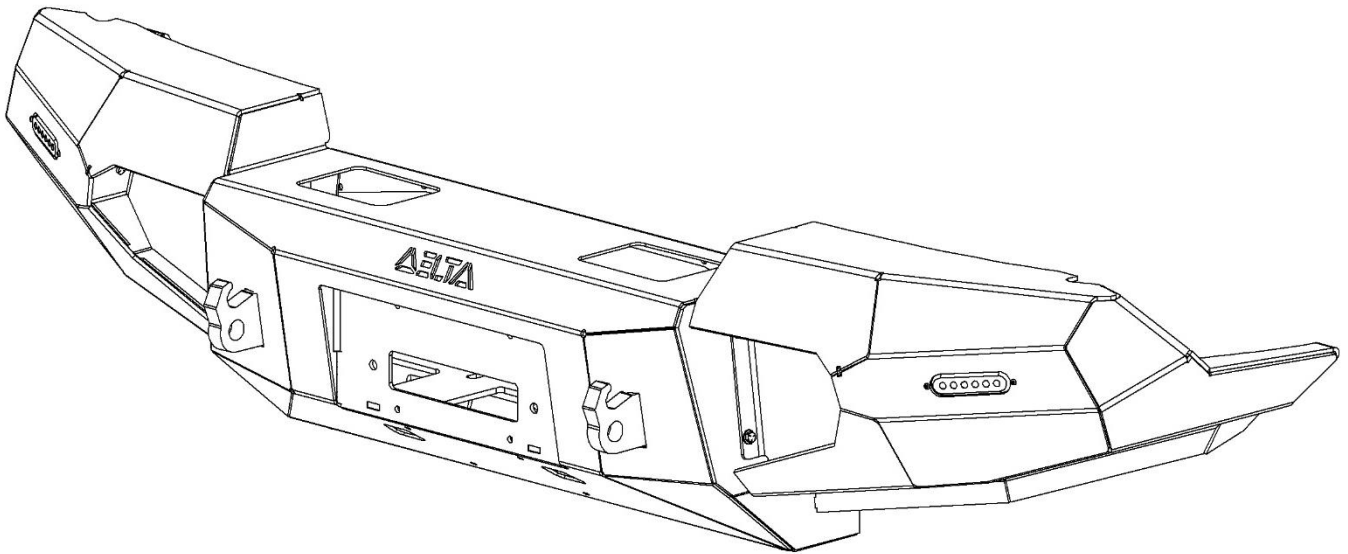


1995 - 1997 Land Cruiser and LX450 Front Bumper



Overview

Congratulations on your purchase of the Delta Vehicle Systems FJ80 Front Bumper. This bumper will protect the front of your vehicle as well as increase its off-road ability. An integral winch mount in the bumper accommodates most winches, and lighting can be added to the bumper as well via the accessory light mounts. The bumper has more clearance than stock, greatly increasing your vehicle's approach angle, allowing you to climb bigger, steeper obstacles.

Product Compatibility

1995-1997 Toyota FJ80 and FZJ80 Land Cruisers

1995-1997 Lexus LX450

Parts List



- Delta Front Bumper w/ turn signals and light brackets installed x1
 - Light shell style _____
- Shims x10
- M12x40L Hex Bolt x8
- M12 Flat Washer x8
- Heat Shrink Butt Connector x4
- License Plate hardware (qty4 ¼-20 bolts with washers, qty 2 brackets) x1

Packaged by _____ Date _____

Required Tools

- Socket wrench
- 10mm, 12mm, 14mm, 17mm, and 19mm sockets
- Socket extensions
- 10mm combination wrench (ratcheting end recommended)
- Phillips screw driver
- Penetrating lubricant (ex. WD-40)
- Wire cutter
- Wire Stripper
- Wire crimper
- Heat gun
- An extra set of hands for bumper mounting/removal

Optional Tools

- 19mm swivel (Wobble) socket, or universal joint for socket
- Ratcheting wire crimpers

1

Remove Turn Signals



With a Phillips screw driver, remove the screws that hold the turn signal in place.

There are two screws per turn signal

2

Unplug Turn Signals



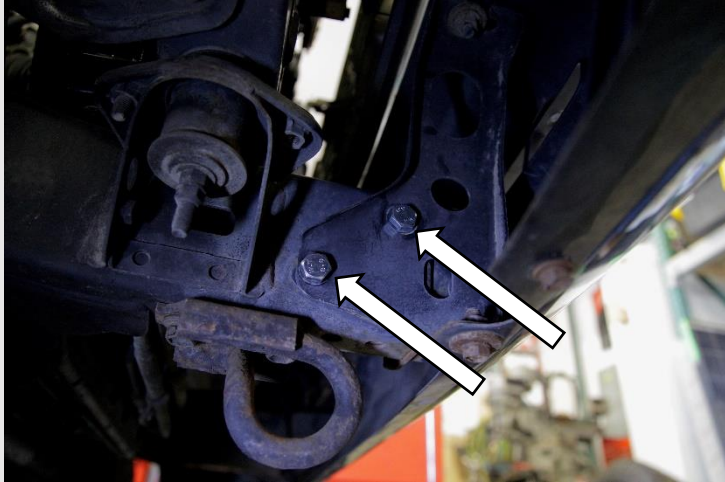
Unplug the turn signal from the chassis harness.

The plugs vary slightly depending on the model year of your vehicle.

Note: Be sure not to damage the plugs, as they will be used later.

3a

Remove Bumper



Using a 14mm socket, remove the four bolts that hold the bumper to the frame.

NOTE: Removal of stock components may require penetrating lubricant, as corrosion could make removing old fasteners difficult.

NOTE: Have someone support the bumper while these four bolts are removed, as to prevent the bumper falling onto someone.

3b

Frame Extensions

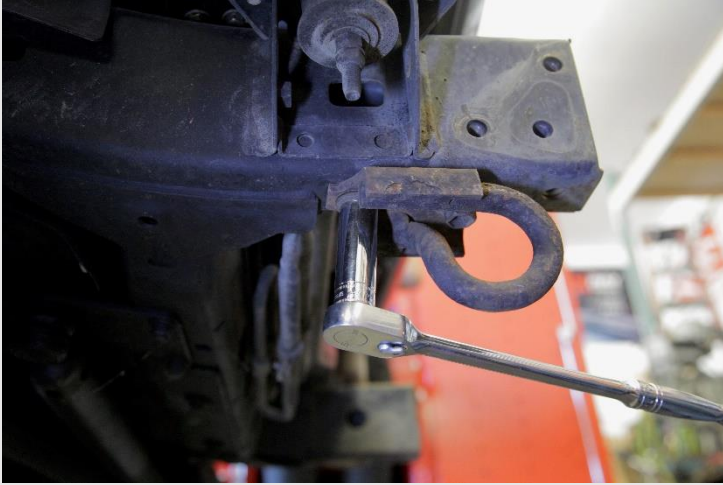


Later models of the Landcruiser and LX450 will have these frame extensions hanging on the ends of the frame rails.

They are only held on with a hook at the top and should lift off.

4

Remove Shipping Tie-Downs

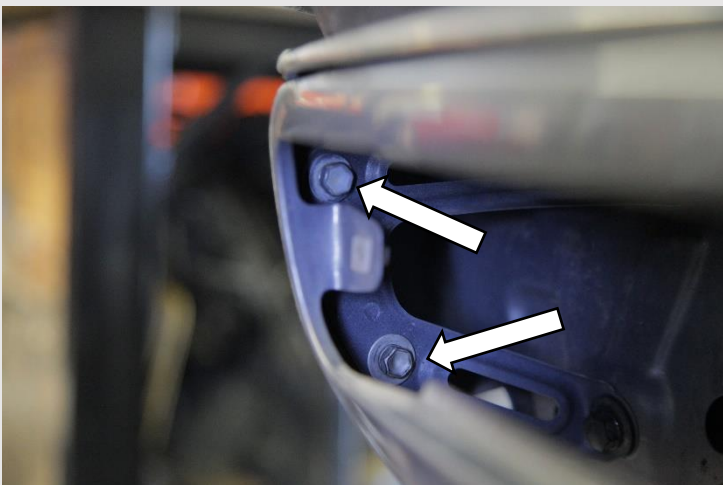


With a 17mm socket, remove the two bolts that hold the factory shipping tie-downs to the bottom of the frame.

There are two bolts per side.

5a

Lower Panel Removal



The lower panel is the body panel just beneath the radiator grille, it housed the turn signals.

Using a 10mm socket and extension, remove the four bolts (two per side) that hold the lower panel to the fenders.

These can be accessed through the holes left by the turn signals.

5b

Lower Panel Removal cont.



With a short 10mm socket, remove the two bolts (1 per side) holding the lower panel to the core support.

We recommend accessing these bolts from the top side, using the gap in between the grille and radiator.

5c

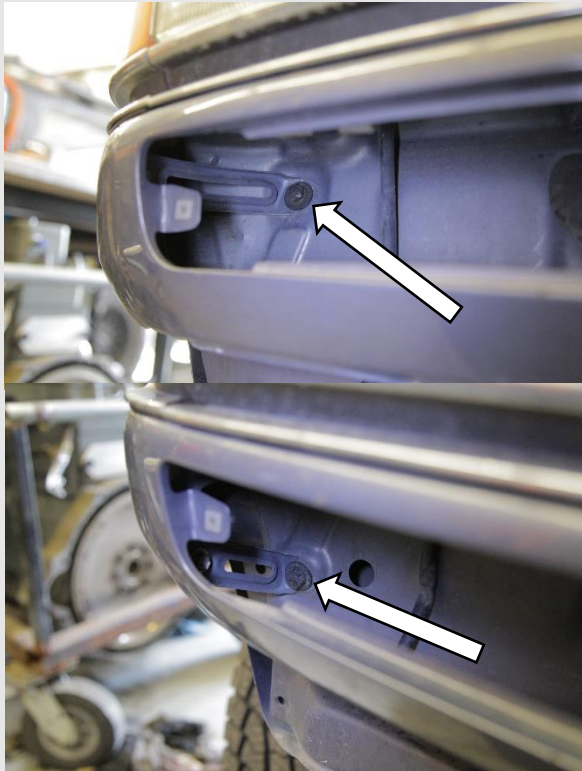
Lower Panel Removal cont.



With a 10mm combination, or ratcheting box end wrench, remove the central bolt.

5d

Lower Panel Removal cont.



With a 12mm socket and extension, remove the final four (two per side) bolts, these hold the lower pane to the core support.

The top bolt can be accessed through the turn signal hole.

Remove the lower panel.

6

Winch Installation (Optional)



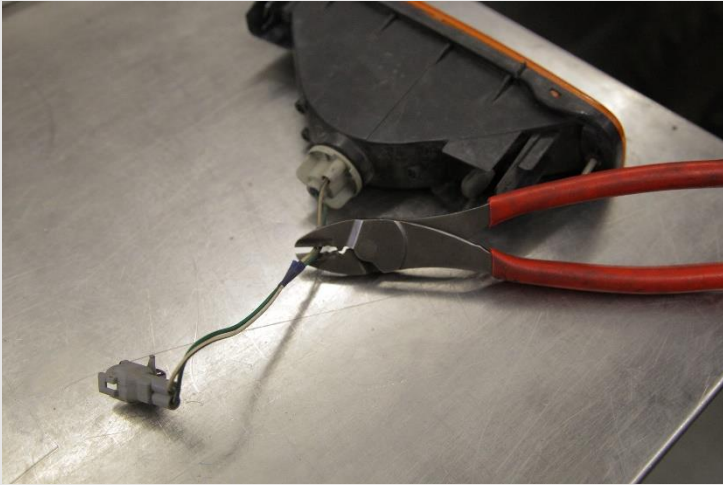
Winches must be installed with the Delta bumper removed from the vehicle.

7

Cut Factory Turn Signal Plug

With wire cutters, cut the factory plug off the factory turn signal.

Do so as close to the turn signal as possible, leaving plenty of extra wire attached to the plug



8

Strip Wire Ends

With wire strippers, remove an approximate quarter inch of insulation from the cut end of the wires attached to the plug



9a

Crimp



We recommend a ratcheting crimp tool (top left), but a standard crimper (as pictured top right), will suffice.

Crimp the provided butt connectors to the stripped ends of the wires.

9b

Crimp cont.



Crimp the unused end of the butt connector to the turn signal wire on the Delta bumper

	Turn Signal Wire	Plug Wire
Connect	Red	Green
Connect	Black	White

NOTE: Ignore the green and white wires attached to the turn signal. They are used to program the turn signals. See turn signal programming instructions sheet if you wish to change the flashing pattern of the turn signal.

10

Shrink Connectors

With a heat gun, apply heat to the connectors to shrink them around the wires.

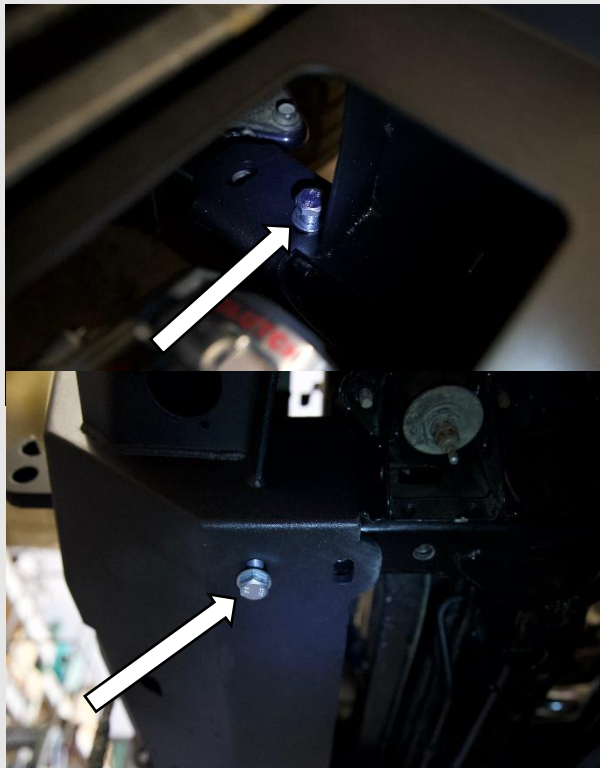


11

Place Bumper on Frame

With help, place the bumper on the frame.

Start the four (2 per side) forward most bolts. A few threads will do, do not tighten the bolts.



12a

Adjust Bumper height



Insert as many shims as will fit into the gap between the bottom of the frame and bumper mount (on each side).

Then tighten the bottom two bolts (finger tight will do).

12b

Adjust Bumper Height cont.



Note the size of the gap between the bumper and headlights.

Then remove shims until the gap is approximately $\frac{3}{8}$ of an inch on both sides. This may require a different number of shims on each side.

Note: Record the number of shims removed on each side.

12c

Adjust Bumper Height cont.

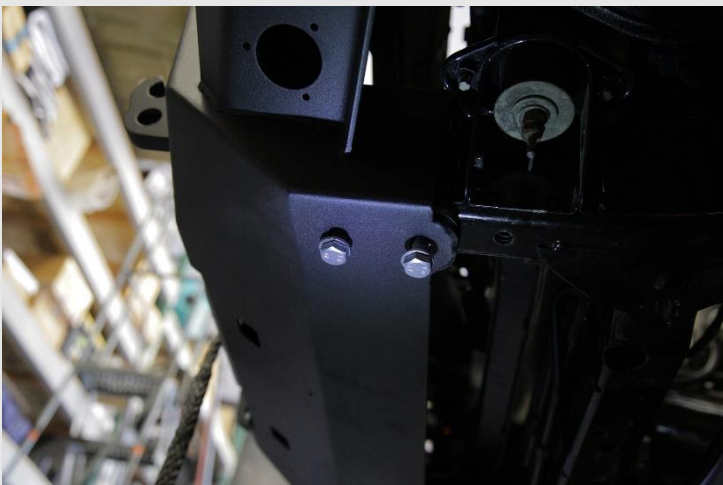


Take the shims removed from a given side and insert them into the gap between the top of the frame and the bumper mount.

This can be done by reaching through the winch access holes.

12d

Adjust Bumper Height cont.

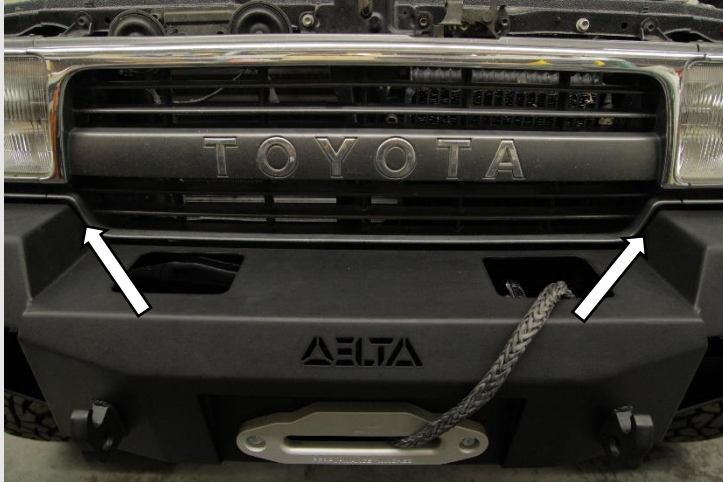


Start the remaining four (rearward) M12 bolts holding the bumper to the frame.

NOTE: The rearward bolts should go through the hole in the shims, securing them in place.

13

Align Bumper

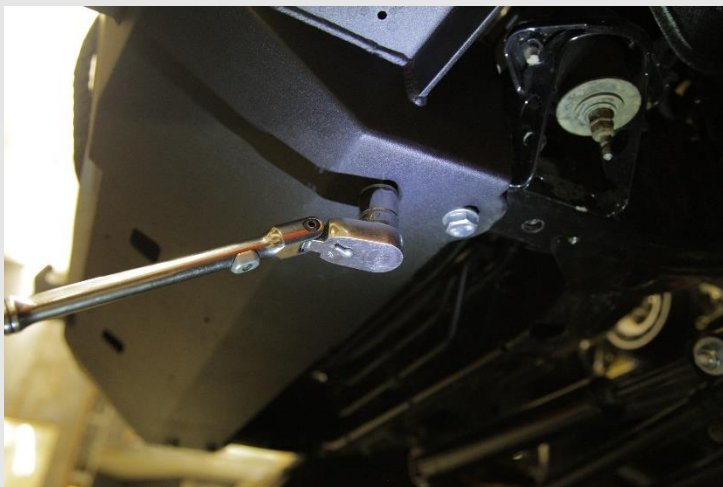


Check that all eight mounting bolts are loose so the bumper can move side to side slightly.

Using the indicated gaps between the grille and bumper, align the bumper on the vehicle.

14

Tighten Bottom Mounting Bolts



With a 19mm socket, tighten all four of the bottom bolts first.

15a

Tighten Top Mounting Bolts
(Recommended)



The rearward top two bolts can be reached with two long extensions and a 19mm swivel socket.

From the top, run the socket down the gap between the radiator and grille to tighten the bolts.

15b

Tighten Top Mounting Bolts cont.
(Recommended)



The two forward top bolts can be reached with one long extension and a 19mm swivel socket.

Run the socket through the winch access holes to tighten the bolts.

16

Tightening Top Mounting Bolts (Alt.)



If step 15 has been completed, this step can be skipped.

If you do not have the tools for step 15, complete the following.

Reach through the winch access ports with a 19mm socket to tighten the top mounting bolts.

17

Plug in Turn Signals



Plug the Delta Bumper turn signals into the factory harness.

18

Auxiliary Lighting Adjustment



If you choose to add auxiliary light using the light mounts in the Delta bumper, it should be noted that there is a slotted bolt hole in the light mount, allowing for the light beams to be aimed as desired.