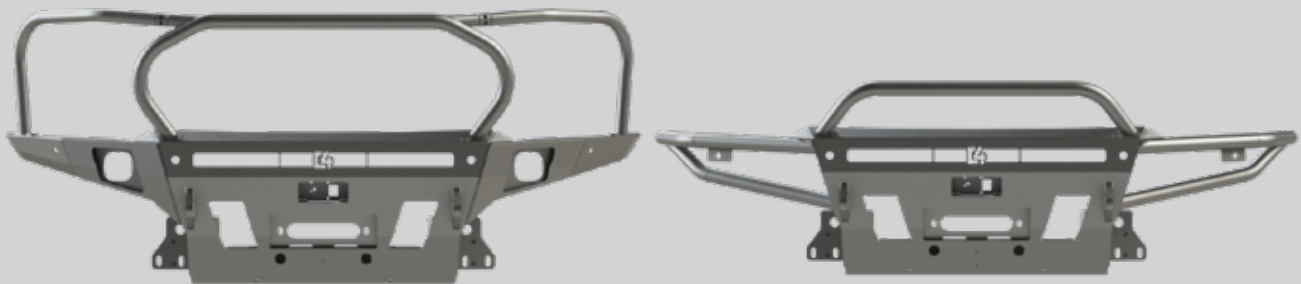




Installation Instructions

2024+ Tacoma Hybrid and Overland Series Front Bumper



Step 1

Begin by Placing a piece of masking tape roughly where the cut will be on each side of the truck, as shown in Figure 1. This tape will be used to mark the measurements on.

Hint: A flexible measuring tape is very helpful for this.



Figure 1: Place a piece of masking tape as shown. The circled point is where the measurements for the flare will start from.

Step 2

Measure for the cut beginning with the fender flare at the wheel well. These measurements all start at the same point where the bumper cover meets the fender and the fender flare as shown in Figure 1. Measure from the point to the edge of the flare 6- $\frac{1}{4}$ " with the tape angled downward as shown in Figure 2.



Figure 2: Measure downward to the edge of the flare.

The next measurement will be from the point down 4- $\frac{7}{8}$ " to the body line on the flare as shown in Figure 3.



Figure 3: Measure down to the sharp body line on the flare.

The third measurement will be 5-½” in a straight line from the point to where the flare meets the bumper cover as shown in Figure 4.



Figure 4: Measure from the point to where the flare and bumper cover meet.

The next measurement will be 5-¼” from the bottom of the headlight down the corner body line as shown in Figure 5.



Figure 5: Measure down the corner body line.

The final measurement will be 5" down the inside body line from the bottom of the headlight as shown in Figure 6.



Figure 6: Measure down the inside body line.

Repeat these measurements on the other side.

Step 3

Next take another piece of tape and connect all five marks made in the last step. Begin by placing a piece of tape across each of the measurements (Figure 7). We put our tape on the bottom side of our measurements but it does not matter as long as you know which side to cut on. Next, take another small piece of tape and put it on the small black insert underneath the headlights that connects from the cut line on the bumper cover to the lower corner of the grille where it meets the bumper, as shown in Figure 8.



Figure 7: Connect the measurements with a piece of tape.



Figure 8: Connect the corner tape line across the black plastic insert to the corner of the grille surround.

Step 4

Remove the radiator cover and the air intake duct (Figure 9) by removing all of the plastic clips. The clips can easily be removed by depressing the center portion and then lifting up on the clip.



Figure 9: Remove the radiator cover and the air intake duct.

Step 5

Disconnect the plugs at the top of the grille on the passenger side and remove the three screws across the top of the grille (Figure 10).



Figure 10: Disconnect the electrical connectors seen in the lower left of the image.

Step 6

Remove the screws and the plastic clips along the fender flare where it meets the bumper cover (Figure 11). You'll also need to remove the fender flare screw that attached the fender flare to the fender just above and to the rear of where the plastic bumper cover ends. Remove all screws and clips along the bottom of the bumper cover. If you have the plastic front skid plate, remove it now.



Figure 11: Remove the screws and clips along the front edge of the fender flare.

Step 7

Once all the screws and clips have been removed that attach the fender flare, the fender liner, and the bumper cover, pull the fender liner back out of the way enough so you can reach the clips on the fender flare, depress the tabs (Figure 12) and pop it free.



Figure 12: Tabs on the fender flare that need to be depressed to unclip.

Step 8

Next to remove the phillips head screw behind the flare that secures the bumper cover to the body seen in Figure 13.



Figure 13: Remove the screw behind the fender flare.

Step 9

Remove the lower center bumper cover bracket bolts using a 10 mm socket and long extension through the lower grille slots by the TSS sensor. There's one bracket on each side with two bolts each.



Figure 14: Remove the 2 bolts securing the lower bumper bracket on each side.



Figure 15: Lower brackets removed. (Bumper cover removed for view)

Step 10

Next remove the bumper cover starting at the sides under the fender flares, pull the bumper cover out away from the fender and then forward to pop the clips loose. Once the bumper cover is free, place it on a blanket face down.

Remove the 8 bolts securing the crash bar and remove it from the frame.

Remove the grille shutters by removing the six bolts using a 10 mm socket and set it aside (Figure 16).



Figure 16: Grille shutters to be removed.

Step 11

Remove the TSS sensor by removing the two 10 mm screws and the silver phillips head screw (Figure 17). Once the sensor has been removed from the bumper cover remove it from the bracket and replace the three Phillips head screws back into the sensor so they can be used later and set the sensor aside.



Figure 17: Remove the TSS sensor.

Step 12

Remove the plastic TSS lens cover by depressing the two tabs and carefully push the cover out and set it aside seen in Figure 18.



Figure 18: Remove the TSS sensor lens cover.

Step 13

Remove the small black trim pieces from the bumper cover by depressing the tabs shown in Figure 19.



Figure 19: Remove the black inserts

Step 14

Next remove all of the silver screws around the grill. Once all of the screws have been removed, remove the grille surround by depressing the tabs and carefully working around pushing the tabs out as you go. Note, some tabs hold the grille surround and some tabs are for the grille itself. If your truck is not black, it's easier to tell which ones are for the grille surround. Once the grille surround has been removed, repeat the process with all of the grille clips and push the grille out.



Figure 20: Place the bumper face down to access screws and tabs.



Figure 21: Depress the tabs then push through.

Step 15

Remove the screw on the front side that holds the bumper cover to the inner grille frame (Figure 22).



Figure 22: Remove the screw on the front on each side.

Step 16

Remove the wiring harness from the grille frame by depressing the tabs on each of the wiring harness clips.



Figure 23: Remove the wiring harness from the bumper cover.

Step 17

Mark the grille frame for cutting as shown below and repeat on the other side and cut the grille frame. There is no need to remove the bumper cover from the grille frame for this.



Figure 24: Mark the grille frame on each side as shown.

Step 18

Once cut, reinstall the grille and the grille surround piece onto the along with all of the philips head screws. The grille frame should be completely hidden by the grille surround as shown in Figure 25.



Figure 25: Cut edge hidden by grille surround.



Figure 26: Grille completely reassembled after cutting.

Step 19

Reattach the top of the grille shutters to the grille frame using the three factory bolts. Next grab the shutter support brackets and install them using the 1/4" bolts washers and nylock nuts as shown below in Figure 27. Align as shown and drill a 1/4" hole through the plastic grille shutter frame and bolt it together using the 1/4" hardware.



Figure 27: Install the shutter frame support brackets as shown.



Figure 28: Drill a hole in the shutter frame and bolt the brackets to it.

Step 20

If you will be installing a winch you'll need to trim the bottom of the shutters in order for the winch to fit. Start by removing the lowest fin on each side by pushing the tab on the outside and popping it loose. Next, lift the tab on the inside to remove it from the mechanism and remove the fin.



Figure 29: Remove the bottom shutter fin on each side.

Step 21

Mark the shutter mechanism and cut off the bottom portion where the fins that were previously removed snap in (Figure 30). Make this cut flush as shown below in Figure 31.



Figure 30: Mark the shutter mechanism to cut off the lowest tabs.



Figure 31: Bottom of the shutter mechanism trimmed flush.

Step 22

Next, the lower shutter brace must be installed. Align it as shown below and place the flat tab between the two fins that you can see the outline of on the front side of the shutters as shown below in Figure 32. You can see the location of the fins on the backside as the light colored lines on each side of the bracket. Once properly aligned, drill a $\frac{1}{4}$ " hole on each side. Do not drill the center hole yet.



Figure 32: Align the lower support brace as shown and drill the side holes.

Step 23

Mark the shutter frame to cut off the portion where the lowest shutter fins attached. Make this cut flush with the existing bracing fin on the side of the frame as shown below in Figure 33. Repeat on the other side. Mark the center support and cut as shown in Figure 34.



Figure 33: Mark the sides and cut here.



Figure 34: Mark and cut the center just above the pivot point of the fins that were removed.

Step 24

Install the grille shutter brace using the $\frac{1}{4}$ " bolts, washers, and nylock nuts through the holes previously drilled in the last step. Once the brace is in place, drill a $\frac{1}{4}$ " hole in the center support and install the hardware (Figure 35). Note, your bracket will not need a bolt in the center of the brace since the center flange will be part of the brace.



Figure 35: Install the lower grille shutter brace.

Step 25

Next prepare to trim the lower inner fender sections on each side. On the driver's side there's a ground wire that must be removed and the lock beeper. Mark and cut the inner fender structure as shown in Figure 36. After cutting, paint the edge to prevent rust and install the lock beeper in the slotted hole above the cut and reattach the ground wires using the bolt that passes through from the back side and secure it using the supplied 6 mm nut.



Figure 36: Left, mark and cut the structure. Right, reattach the ground wires and lock beeper.

Step 26

On the passenger side there is an electrical connector that is bolted to the inner fender section that must be removed. Mark and cut as shown. After cutting, paint the edge and replace the electrical connector using the factory bolt in the threaded hole right above where the cut was made. Note, the small tab on the electrical connector must be bent flat first.



Figure 37: Left, mark and cut the structure. Right, reattach the electrical connector.

Step 27

Cut the bumper cover and black inserts along the cut line using an angle grinder with a cutoff wheel or a tool of your choice.

Hint: If you are not confident in your line you can cut the cover slightly lower in trim it up higher later it is better to not cut enough then to cut too much.

The only portions that you'll be using are the very corner that attaches by the fender flare and the black inserts under the headlights.

Next, trim the fender flares. Note, there's a backing piece that must also be cut through (Figure 38). Be careful not to cut into the body. Again, if you are not confident with your cut line you can cut it lower and trim it up higher later.

Clean up your cut with a sanding disc or scotchbrite pad on the grinder.



Figure 38: Cut the bumper cover and the fender flares.

Step 28

If your truck has parking sensors, remove them from the bumper cover with the mounting clip using a utility knife or razor blade. You'll need to cut through the double-sided tape to remove them. Mark the sensors for the driver or passenger side as they are removed as they are specific to each side. Once the sensors are removed, carefully remove the rest of the double-sided tape from their mounting clips as seen in Figure 39.



Figure 39: Label the location of each park sensor and remove the old double sided tape.

Step 29

Now, it is time to assemble the bumper. Follow the instructions below for Overland and Hybrid specific instructions. Make sure to start all hardware before tightening any.

Overland Plate Sides

Bolt the wings on by starting the four $\frac{3}{8}$ " carriage bolts in the upper holes and use a washer and flange nut on the back side as shown in Figure 40.

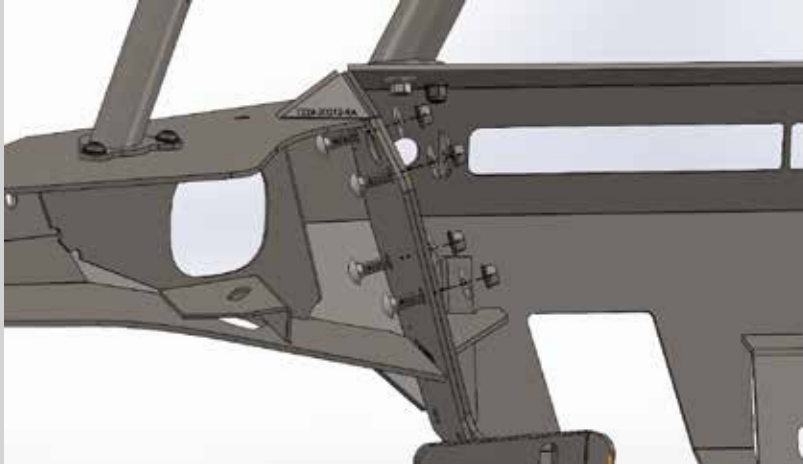


Figure 40: Start the carriage bolts in the upper holes of the side.

Next, start the lower two bolts with the black $\frac{3}{8}$ "x1" button head bolts with black washers on the bolt side and on the inside with nylock nuts as shown in Figure 41.

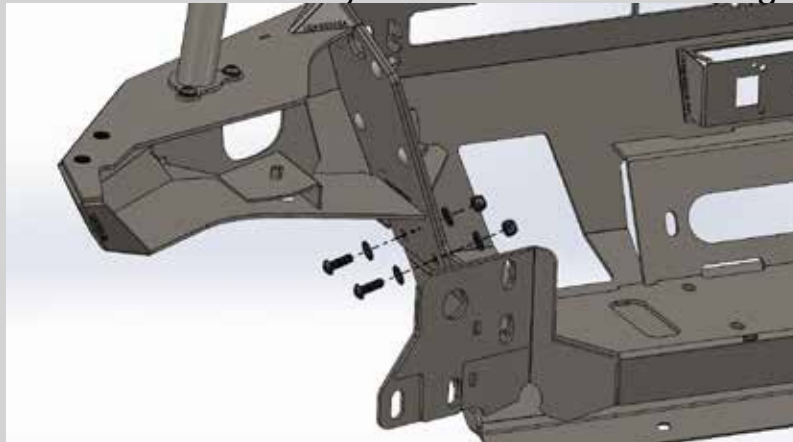


Figure 41: Lower plate side hardware.

Hybrid Tube Sides

Bolt the wings on by starting the $\frac{3}{8}$ " flange bolt with washer in the upper front corner as shown in Figure 42.

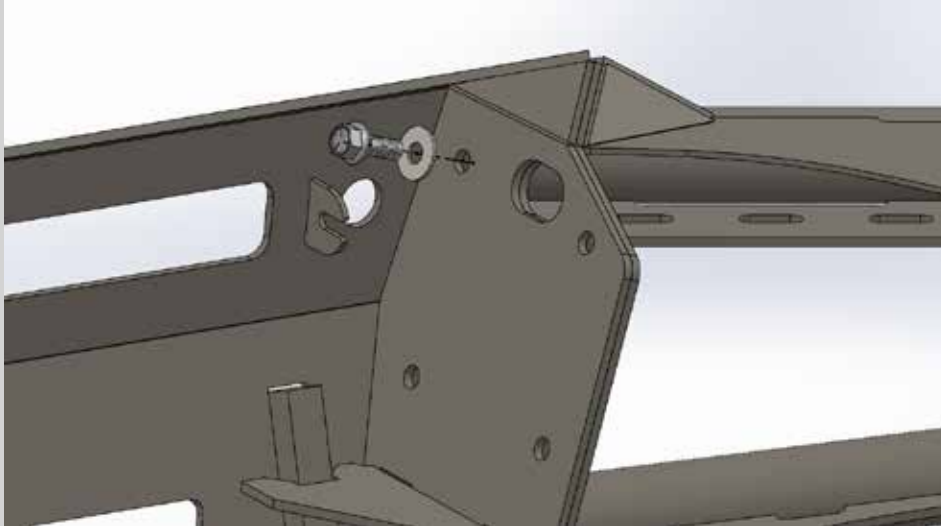


Figure 42: Start the $\frac{3}{8}$ " flange bolt in the upper front corner.

Start the rest of the side hardware using the black $\frac{3}{8}$ " bolts, washers, and lock nuts as shown in Figure 43.

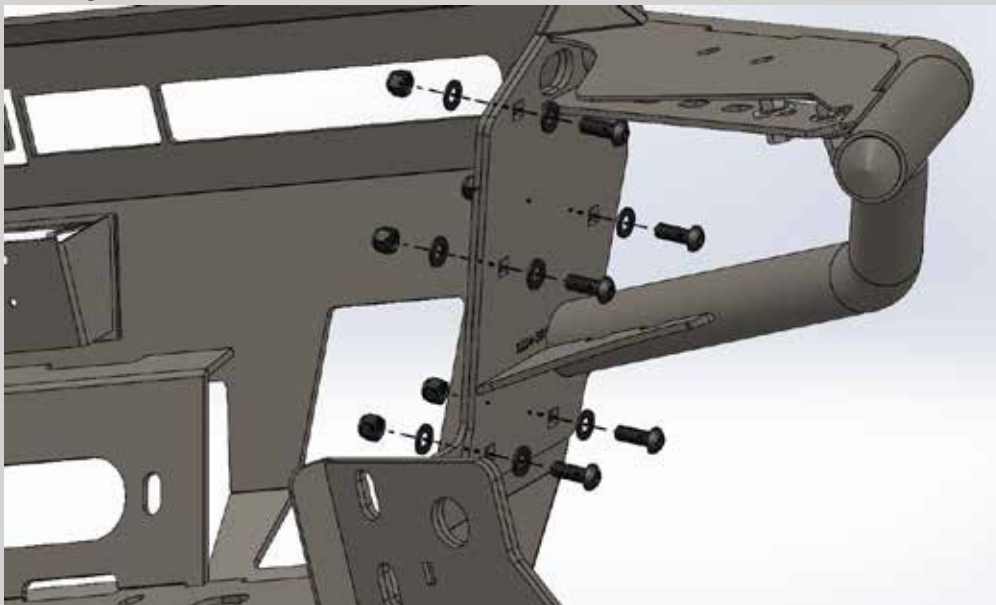


Figure 43: Start the other five bolts on the side.

Step 30

Install new double-sided tape on the sensor brackets so they can be installed into the C4 Fabrication bumper. On the outer park sensors, the plug should point towards the center of the bumper.

The inner park sensor plugs should be facing downwards as shown below. If your truck does not have parking sensors, insert the supplied plastic plugs into the park sensor holes. See below for orientation in the Overland plate sides.



Figure 44: Outer park sensors with plugs facing the bumper center and inner park sensors with plugs facing downward.

On the Hybrid bumper, install the park sensor bracket using the $\frac{3}{8}$ " flange bolts with washers and flange nuts as shown in Figure 45. Note, the hole for the park sensor is offset to help hide the plug on the sensor.

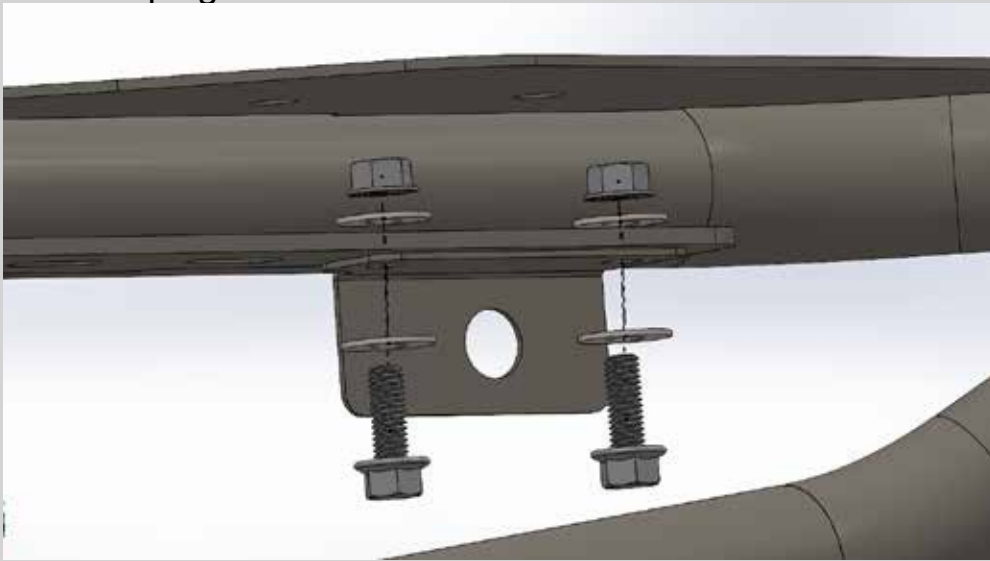


Figure 45: Park sensor bracket for the hybrid tube sides.

Step 30

Next, install the bull bar if you have one. The installation is the same process for each bull bar. The full-height bull bar is used for reference here. You will want to get all of the hardware for the bull bar started before tightening any of it.

Begin by bolting the center hoop on using the $\frac{3}{8}$ " flange bolts and washers as shown in Figure 46.

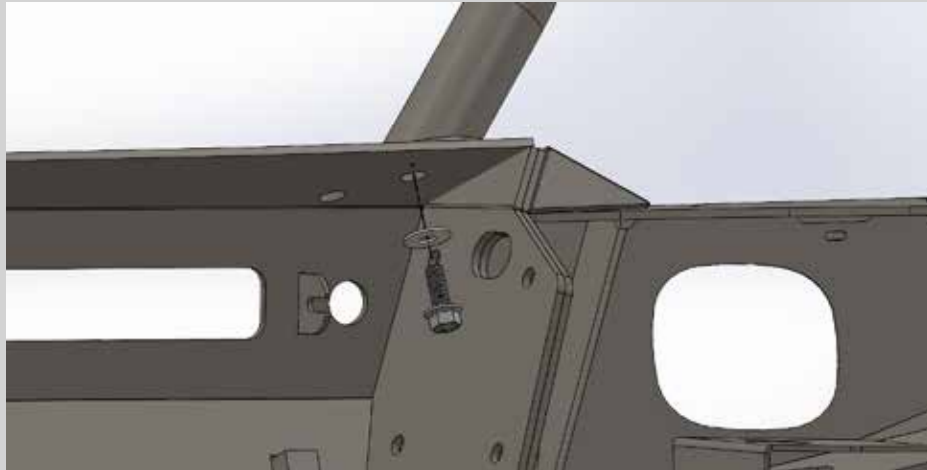


Figure 46: Start the $\frac{3}{8}$ " flange bolts that thread into the bull bar tube.

Next, start the other bolts for the center hoop. Use the black $\frac{3}{8}$ " button head bolts, washers, and lock nuts for these and the rest of the bull bar hardware.

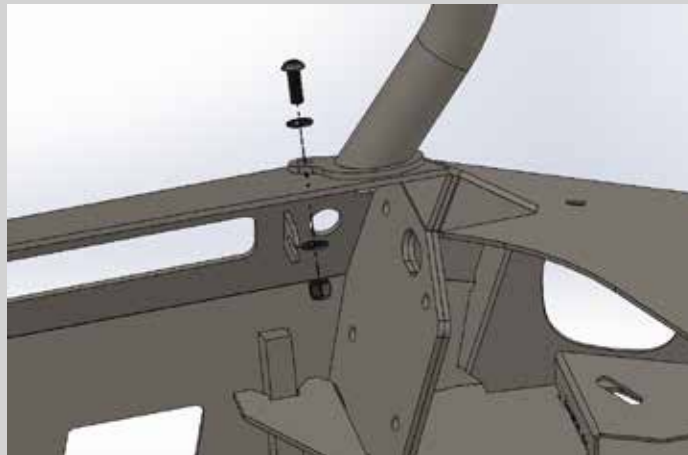


Figure 47: Start the other hardware in the center hoop.

If you have headlight hoops, attach them to the center hoop using the ¼" socket head bolts and the thin nylock nuts as shown in Figure 48. The bolts should be on the front and the nuts on the back.

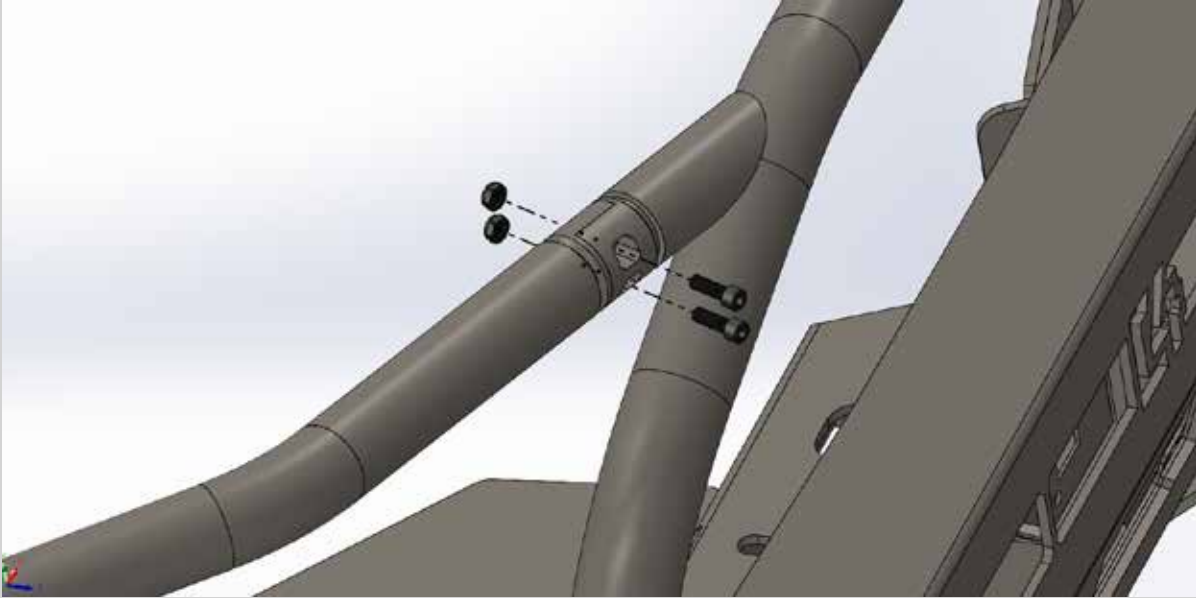


Figure 48: Headlight hoop hardware

Next, start the bolts where the side tubes meet the bumper (Figure 49).

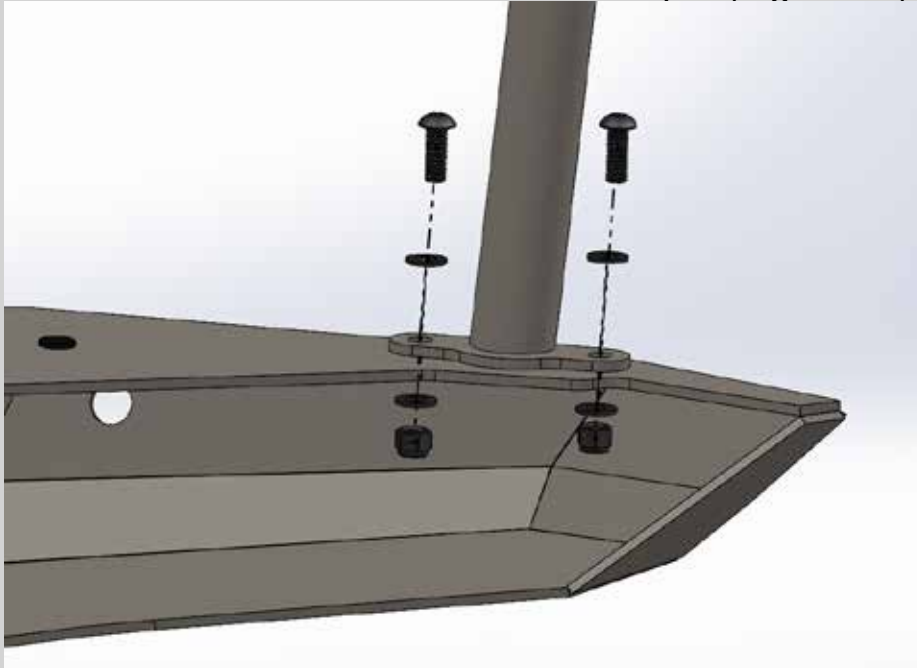


Figure 49: Hardware for headlight hoops or tube gussets to bumper.

Finally, insert the small plastic plugs in the unused holes in the top of the bumper. If you do not have a bull bar, insert plugs in all the holes in the top of the bumper.

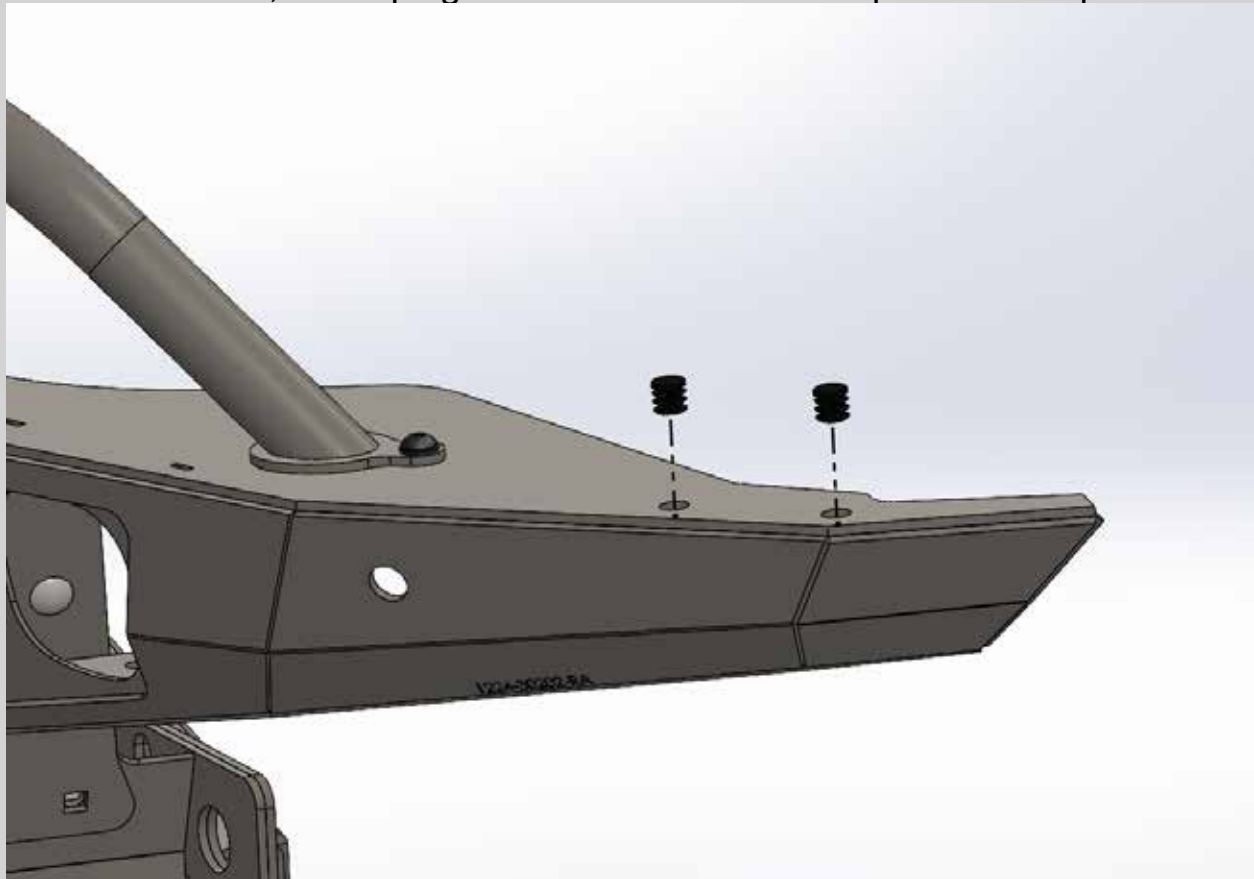


Figure 50: Insert plastic plugs in unused holes.

Step 31

If your truck does not have park sensors, skip this step. If your truck has park sensors, the wiring harness for it will need to be extended for the two driver's side park sensors. Use the supplied wire and wire splices to extend the driver's side center park sensor wiring by 15 inches. The outer driver side park sensor wiring will need to be extended 20 inches. To use the wire splices insert both wires into the splice and crimp it using a pair of pliers. You should hear it click into place once it has seated. Figure 51 shows a connector that has been properly crimped. Note, do not strip the wires.



Figure 51: Wire splice properly crimped.

Step 32

Next install the TSS sensor into the bumper using the three factory screws. Then install the TSS lens cover from the front side. If it does not clip into place, you may need to bend the holding tab on the bumper down a little for it to hold the cover.



Figure 52: Install the TSS sensor and lens cover.

Step 33

If you are installing a winch you will need to mount the winch control pack on the supplied bracket. Start by removing the passenger side horn and set it on top of the radiator. Align the bracket with the slotted hole and drill the lower two $\frac{1}{4}$ " holes in the lower core support. Next, attach the control pack to the bracket using the small fender washers that are included with the bumper. Install the bracket with control pack and feed the wires behind the core support. Use the $\frac{1}{4}$ " bolts, washers, and nylock nuts to bolt the bracket to the body of the truck. Reinstall the horn. It may need to be rotated in order to fit.

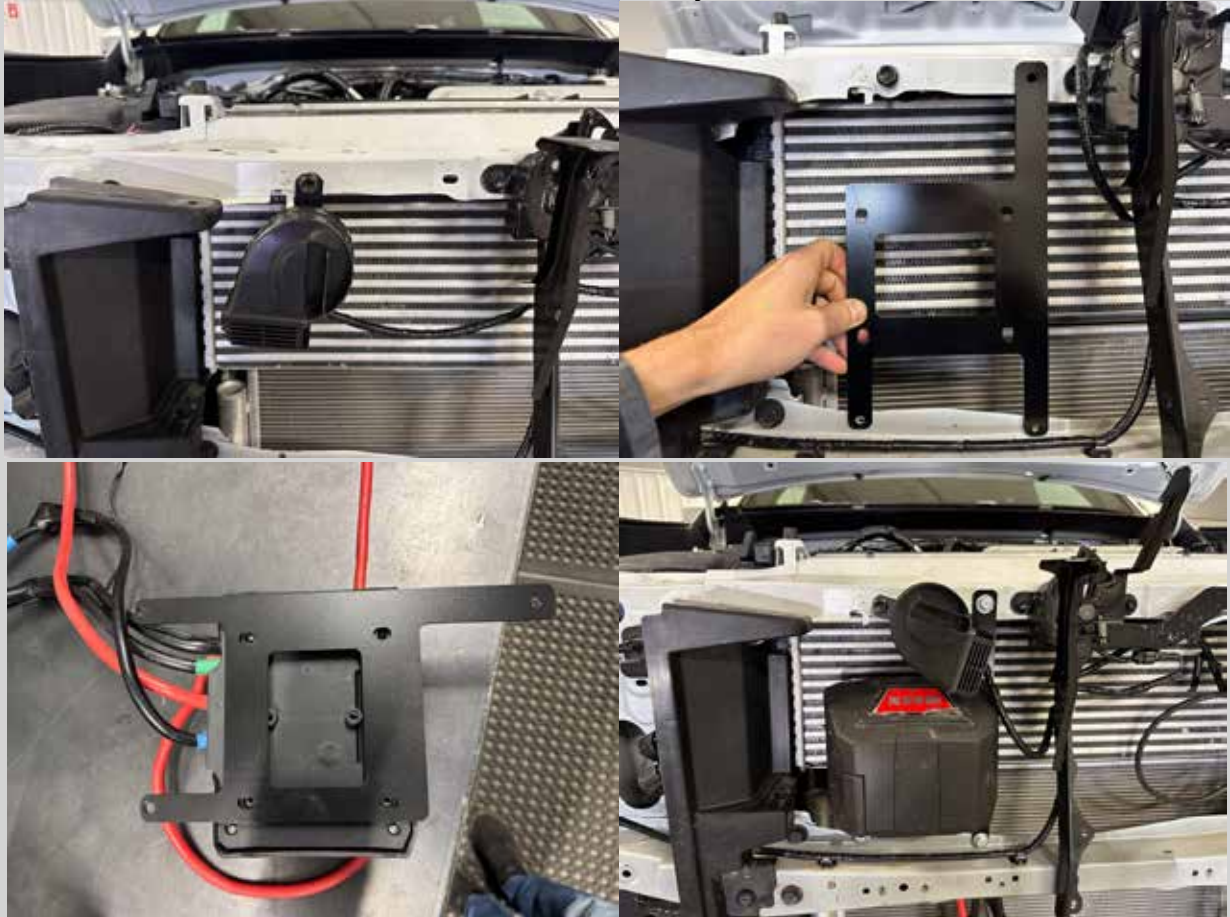


Figure 53: Winch control pack relocation bracket.

Step 34

If you are installing a winch, light bar, and fog lights, install them into the bumper now. Brackets are not needed for mounting common light bars such as the Baja Designs S8 and Rigid SR-30 light bars.

With all of your accessories mounted in the bumper, route the wiring harness for the park sensors, TSS sensor, and fog lights. Pass the harness for the outer park sensors and fog lights through the slotted hole in the upper corner of the bumper center. Make sure to plug everything in and secure the harness.



Figure 54: Route the wiring harness to the sensors and fog lights.

Step 35

Prepare the hardware for the new lower grille support brackets. Loosely install a ¼" bolt with a washer on each side with lock nut through the upper hole in the headlight support sheet metal shown in Figure 55. You will want to make sure the washer is spaced out from the sheet metal for the next step. Repeat on the other side.



Figure 55: Start the hardware for the lower grille support.

Now it is time to reinstall the grille and bumper cover. Begin by clipping the black inserts that have been trimmed into the grille frame and then clip the bumper cover portions to those. Next, install the lower grille L-brackets using the same hole/hardware as the shutter support brackets where they bolt onto the grille frame. The short flange of the L-bracket will attach to the grille frame with the flange facing outward. See Figure 56 for proper orientation.

Next, reinstall the assembly back onto the truck making sure the lower grille support brackets slide between the washer and sheet metal, then secure it with the 3 bolts across the top of the grille. Snap the corners of the bumper cover into place. Tighten the $\frac{1}{4}$ " bolts to secure the bottom of the grille.



Figure 56: Lower grille support L-bracket installed.

Step 36

The bumper is now ready to be installed onto the truck. The hardware from the crash bar is used to secure the bumper. Lift the bumper into place and set it on the studs while you start one of the outside bolts with a $\frac{1}{2}$ " washer on each side. You will want to connect the wires to your winch at this time. You may be able to remove the bolt from one side of the bumper to rotate that side out to get enough room to connect the winch control pack wires to the winch. With the winch wiring connected, start the second outer bolt. Snug these bolts down so you can start the inner hardware.

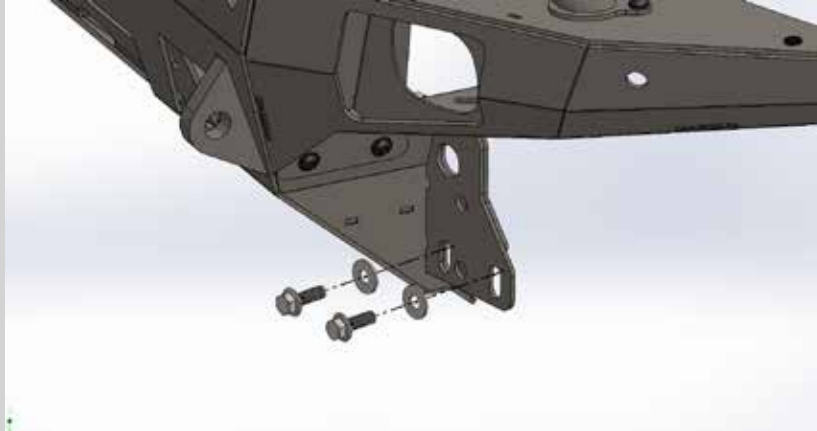


Figure 57: Start the outer frame bolts.

Next, start the inner frame plate bolts using the factory bolts with supplied $\frac{1}{2}$ " washers and M12 nuts.

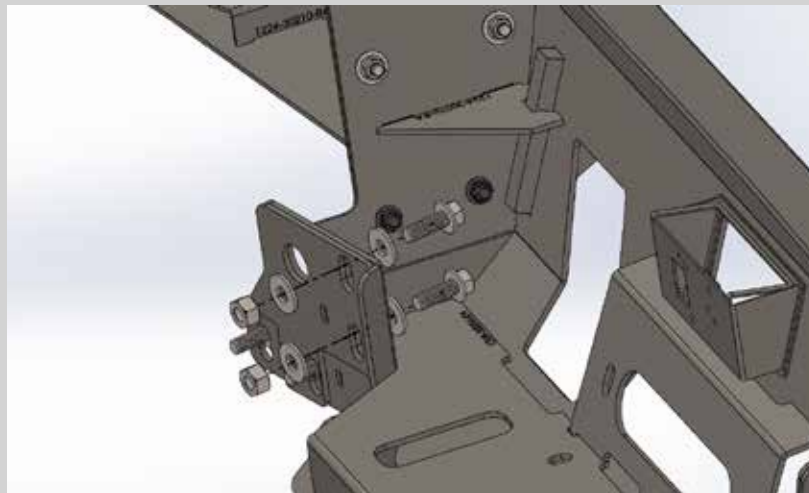


Figure 58: Start in inner frame bolts.

Step 37

Once all of the mounting hardware has been started, loosen all of it so the bumper can be adjusted. Adjust the bumper so there is about a $\frac{3}{8}$ "- $\frac{1}{2}$ " gap between the bumper and the body of the truck. Once the gap is set, tighten all of the hardware.

Step 38

Next, feed the wiring harness up the passenger side behind the grille and reconnect the connectors at the top of the grille. Secure the harness in place and away from the shutters with zip-ties.

Step 39

Finally, reinstall the air box duct and the radiator cover. The plastic clips can easily be reset by pressing the point of it on a hard surface to push the center portion up. Wire any lights and the winch per the manufacturers' recommendations.

Step 40

If your Tacoma is NOT a Trail Hunter, TRD Pro, or TRD Off-Road, and you selected the “Anything Else” option on our website, it is now time to install the skid plate. Install the skid by sliding it behind the lower bumper flange and secure it to the bumper with the black $\frac{1}{4}$ ” button head bolts and washers. Bolt the bottom of the skid to the frame using the factory bolts and supplied $\frac{3}{8}$ ” washers.

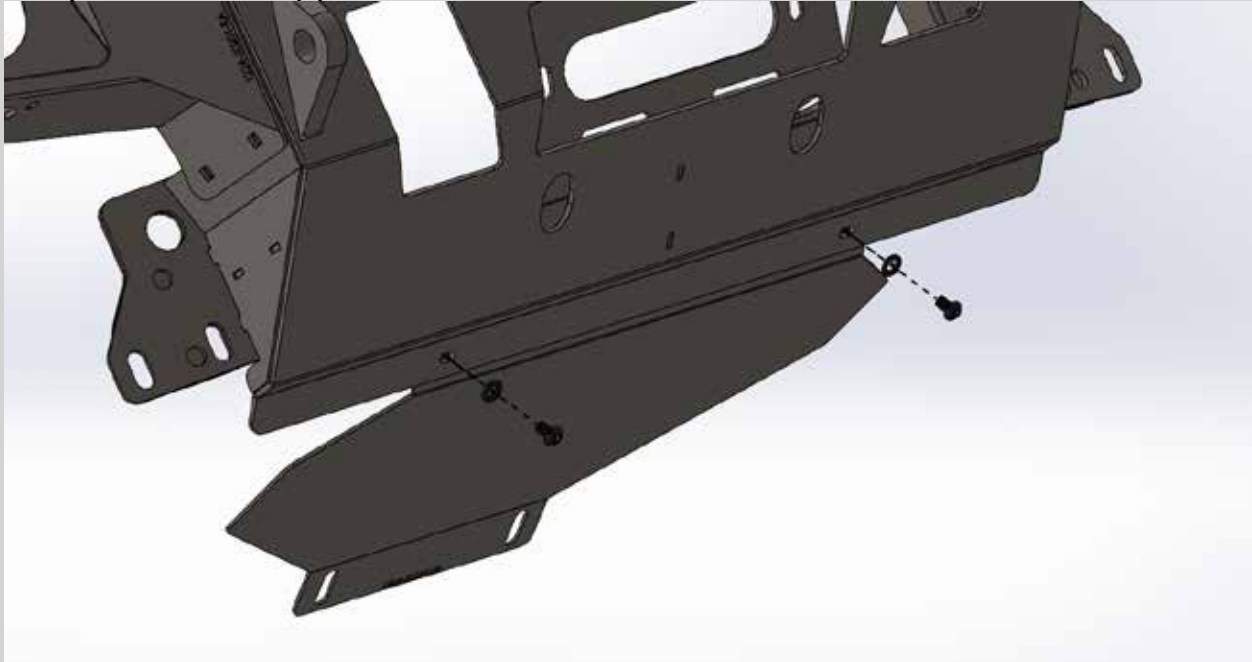


Figure 59: Attach the skid plate to the bumper and the frame.

The installation is now complete.

If you have any questions during the installation or about our products, please email info@c4fabrication.com.

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**44
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