



upTOP ALPHA FJ Cruiser

Effective 2023 we are making some changes to our products that might not be reflected in this guide. Major changes for 2023 include:

- Removal of **lock washers** from hardware kits in some cases.
- Switching to through-bolt assembly on Alpha roof racks instead of rivet nuts.
- Revised slot array in grooveTEK on Alpha/Bravo roof racks.

Thank you for selecting upTOP™ as the choice for your vehicle. The Alpha roof rack designed for your platform requires competency with basic hand tools and assembly procedures. If you are not comfortable or you feel it is above your pay grade you are encouraged to seek professional installation of this product.

TOOLS REQUIRED

- 5/32 Allen wrench
- 5mm Allen wrench
- 13mm wrench
- 1/2" wrench (2X)
- 7/16" wrench
- Silicone Sealant
- VibraTITE VC-3 Threadlocker (Included)
- Torx T40 (For removal of factory roof rack only)

The dynamic (moving) weight capacity of your roof rack far exceeds the specifications set forth by Toyota. Please follow manufacturer recommendations for the safe roof load capacity for the your vehicle. Toyota recommends keeping evenly distributed cargo loads of 165 pounds on the FJ Cruiser when underway. Static (parked) weight restrictions of the upTOP roof rack are limited to 700 pounds when evenly distributed across the surface of the rack.

You will need adequate floor space to assemble your roof rack prior to installing it to your vehicle. An area 96x96" is recommended for this assembly.

You are encouraged to inspect the contents of your package prior to completing assembly and installation. For any missing/damaged parts email pictures and descriptions to support@uptopoverland.com with your order number as reference in the subject line. A specialist will assist you with the process for field repair or component replacement.

It is important to plan for any wiring that needs to be completed during the course

NOTE!!

Fairings cut for specific light bars as well as universal 40 cuts will experience significant wind noise when installed into the rack assembly and driven at speed with the light bar absent from the assembly. Wind passes through the open holes and/or slot and is intercepted by the front slot on the load bars.

The fairings are designed with this in mind and the angles/openings are engineered to work in unison with the light bars to limit or eliminate noise/vibration.

**MAJOR COMPONENTS
ALPHA FJ Cruiser 2005-2017**

PN#	Quantity	Description
1045	1	Driver Side grooveTEK
1046	1	Passenger Side grooveTEK
1145	1	Driver Side Armor
1146	1	Passenger Side Armor
1277-12XX	1	Fairing
1335	6	Mount Foot*
LB53	8	53.00" Load Bar
8008	1	Hardware Kit
11003	3	Grab Handle Kit

**Mount Feet are Ambidextrous. Not location specific.*

Optional mounting kits for light bars/fairings may be included with your kit but NOT listed in this chart.

FACTORY ROOF RACK REMOVAL

If equipped your factory roof rack will need to be removed prior to installation of the new upTOP product. The bolts securing the factory roof rack are TORX T40 for the FJ Cruiser. They are clearly visible and accessible without removing any covers or associated trim.

The bolts have thread locking compound applied from the factory. This material coupled with the age of most FJ Cruisers can make these bolts challenging to remove. They will be VERY TIGHT. Extreme care must be taken to ensure that you do not strip the bolts during removal. If this happens getting the lodged fasteners out can be very time consuming and might require drilling.

Additionally the factory threaded inserts are held in place by some not so sturdy plastic clips. These can be easily bumped during removal of the factory rack or installation of the new one causing the threaded inserts to fall out of place down inside the headliner of your vehicle. If this happens you will need to drop/remove the factory headliner to gain access to the threaded inserts to reinstall them into position.

Remove the factory roof rack. Catalog and store all hardware as it WILL NOT be repurposed for installation of your new upTOP product.

With the factory roof rack removed the factory threaded inserts will be open to the elements and could allow water to enter the cabin of the vehicle. You are encouraged to temporarily seal these holes if you think the installation of the new rack and any applicable electrical wiring might cause the threaded inserts to be open to the elements for longer than just a few hours.

STEP I FEET TO RACK

GATHER THE FOLLOWING

- 1045 Driver Side grooveTEK
- 1046-Passenger side grooveTEK
- 1335 Mount Feet (Qty 6)
- 1/2" Wrenches (Qty 2)
- Hardware Kit "Feet to Rack"

The feet designed for your FJ Cruiser allow any of the 1335 feet to be used in any location indicated in the instructions.

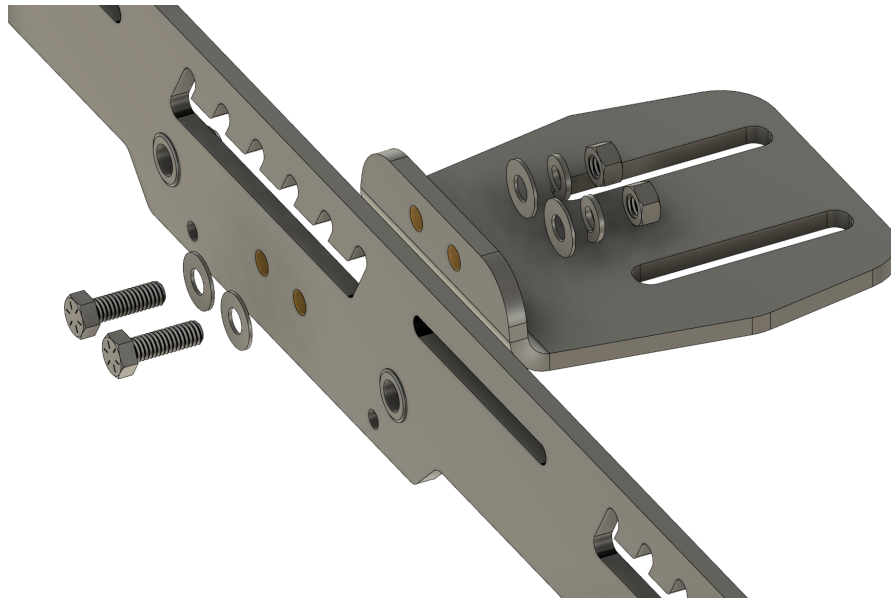


Figure 1

**Alpha FJ Cruiser Hardware Detail
Driver(1045) Middle Foot (1335) Shown**

This illustration shows the assembly order for the "Feet to Rack" hardware. This is the same for all six (6) locations in your grooveTEK.

Apply the **VC3** thread locking compound to the threads of all twelve (12) bolts used to attach the feet to the grooveTEK and allow it to air dry. This takes 15 minutes or so. The material will remain gummy when dry but NOT liquid. The provided thread locking compound acts as a damper against vibration during heavy Offroad use.

The illustrations on the following page outline the exact locations for the feet on the DRIVER side grooveTEK. The passenger side will simply mirror these locations.

You'll use two (2) 1/2" wrenches to tighten the feet. Final torque specification is **35 Inch Pounds** for this hardware.

STEP I (CONT) FEET TO RACK

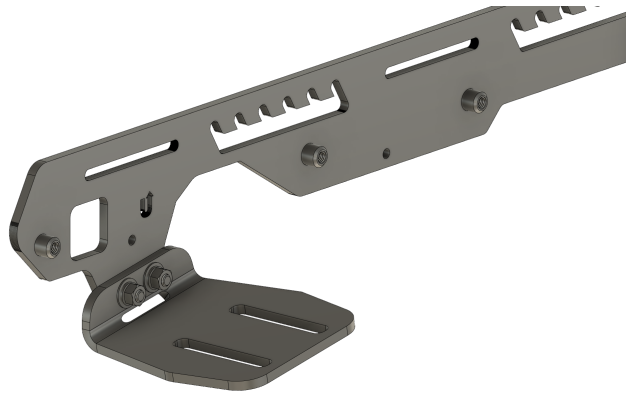


Figure 2
Alpha FJ Cruiser
Rear Foot (1335)
Driver Side (1045) INNER Shown

The rear foot installed into the two (2) lower holes on the tab below the square opening at the REAR of the grooveTEK. The remaining smaller, open hole(s) visible are anchor points for an optional quickWIRE™ wiring harness. Install the foot (1335) to this location and torque the fasteners to **35 inch pounds**. Repeat the process with another foot (1335) to the passenger side (1046) grooveTEK at the rear.

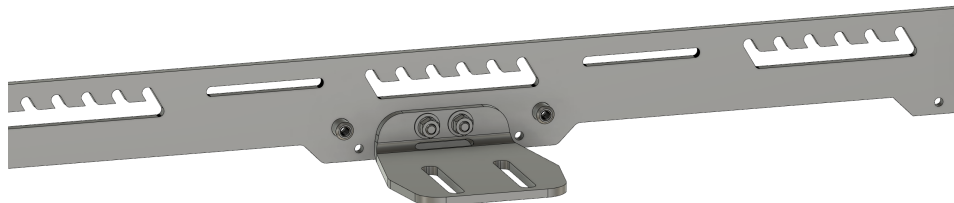


Figure 3
Alpha FJ Cruiser
Middle Foot (1335)
Driver Side (1045) INNER Shown

The middle foot installed into the two (2) holes centered between the rivNUTS near the center of the grooveTEK. The two smaller open holes in this illustration are optional quickWIRE™ anchor points. Install the foot (1335) to this location and torque the fasteners to **35 inch pounds**. Repeat the process with another foot (1335) to the passenger side (1046) grooveTEK in the middle.

STEP 1 (CONT)
FEET TO RACK



Figure 4
Alpha FJ Cruiser
Front Foot (1335)
Driver Side (1045) INNER Shown

The front foot installed into the two (2) holes centered between the rivNUTS near the center of the grooveTEK. The two smaller open holes along the bottom of the grooveTEK in this illustration are optional quickWIRE™ anchor points. Install the foot (1335) to this location and torque the fasteners to **35 inch pounds**. Repeat the process with another foot (1335) to the passenger side (1046) grooveTEK at the front.



Figure 5
1045/1046 Shown with FRONT of rack at LEFT of image.

All six (6) feet installed. Proceed to step 2, load bars.

STEP 2 FRONT/REAR LOAD BARS

Alpha racks are designed such that the hardware that secure the front and rear load bars are not accessible with the armor installed. In order to maintain adjustability (horizontal) of the front and rear load bars at any time you'll be using HEX bolts for these load bars. The remaining load bars will install to the rack assembly with button head bolts as they can be reached with the armor installed.

GATHER THE FOLLOWING

- Hardware Kit "Front/Rear Load Bars"
- 7/16" Wrench
- 53" Load Bars (2/8 supplied for this step)

NOTE

To facilitate a larger range of load bar mounting options the FRONT load bar can be mounted VERTICALLY as well as HORIZONTALLY. A vertical orientation takes advantage of the strength of the load bar across a span to lessen load bar deflection which can eliminate vibration during Offroad use with larger, heavier load bar options. When mounted in the VERTICAL position you can choose between four (4) fixed positions that utilize the slot for the upper bolt and one of four (4) holes for the lower bolt.

The front load bar orientation makes no structural change or alteration to the load capacity of the rack system and is the sole discretion of the end user as to which orientation best fits your needs.



Figure 6
Front Load Bar
Horizontal Orientation Shown

The FRONT and REAR load bar will install with: (each)

- (4) 1/4-20x.750" Hex Bolts
- (4) 1/4 Lock Washers
- (4) 1/4 Flat Washers

Notice that the load bar in the image is pushed all the way forward. During assembly this will help to keep the rack square and aide with foot alignment during installation. After the rack is secured to the roof the Front and rear load bars can be adjusted to any position you wish. The same position should be used for the rear load bar during rack assembly as well.

Install the FRONT and REAR load bars into position and torque the fasteners to **21 Inch Pounds** using a 7/16" wrench.

STEP 2 (CONT) FRONT/REAR LOAD BARS

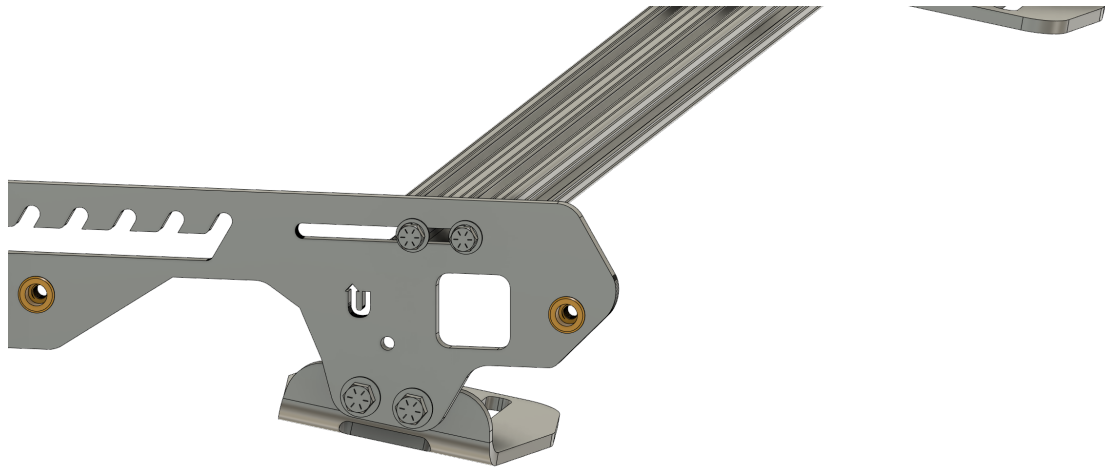


Figure 7
Rear Load Bar
Driver Side Shown

Notice that the load bar in the image is pushed all the way backwards. During assembly this will help to keep the rack square and aide with foot alignment during installation. After the rack is secured to the roof the rear load bar can be adjusted to any position you wish.

The square opening shown in this image is the pass through location for the 8 pin connector for the optional quickWIRE™ wiring harness.

STEP 3 REMAINING LOAD BARS

The remaining load bars will install into the rack assembly using button head bolts and lock washers. They will install into the slots along the top of your grooveTEK allowing them to be adjusting to aide in aligning with various gear mounts.

During installation the position within the slot is not important however **MAKE SURE EACH LOAD BAR IS EVEN** within the slot on the driver and passenger side during installation.

Your 53" load bar is longer than that when measured diagonally and a load bar installed unevenly on the driver and passenger side can make it very difficult to start and seat the hardware for each load bar.

GATHER THE FOLLOWING

- Remaining Load Bars (6 Total)
- 5/32 Allen wrench
- Hardware Kit "All Other Load Bars"

STEP 3 (CONT) REMAINING LOAD BARS

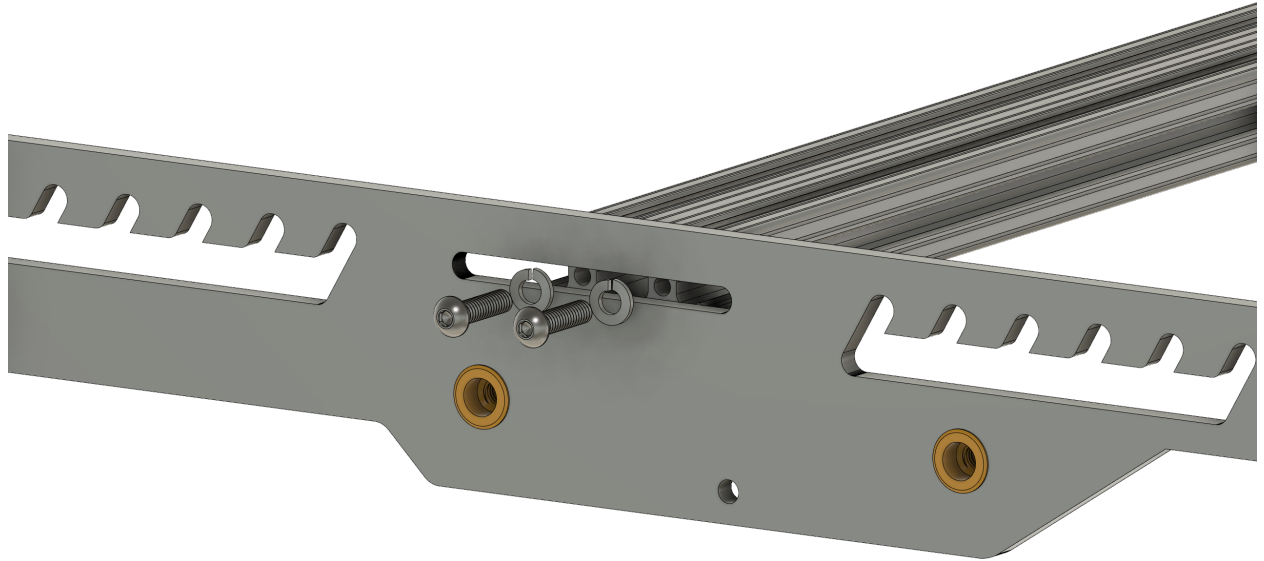


Figure 8
“Other” Load Bar Hardware Shown

The remaining load bars use the slots along the top of your grooveTEK allowing for adjustment **AFTER** installation is complete.

Each load bar will use the following (each):

- (4) 1/4-20x1 Button Head Bolt
- (4) 1/4 Lock Washers

Install each of the remaining six (6) load bars into the rack assembly and tighten all the hardware to **21 Inch Pounds**.



Figure 9
Progress Image
All Feet and Load Bars Installed to grooveTEK.
Driver Side Prominent / Front of Rack at LEFT of Image

NOTE

If you are installing any wiring/lighting (Optional/not included) you are encouraged to do so now before proceeding as it will be easier to install/attach to the rack assembly at this point of assembly.

STEP 4 FAIRING

The fairing for your roof rack utilizes a splitter design that cuts through the air at speed and splits the wind. This patent pending design is the result of hundreds of hours of design, engineering and testing. The end result is a design that cuts through the air forcing air under the rack taking advantage of the aerodynamic signature of your vehicle as well as pushing air up and over the rack giving the roof rack a smaller aerodynamic profile that results in the least amount of wind noise possible with an aftermarket roof rack. The large upper face serves to cut air up and over any gear that you might have attached to it.

*If your fairing is cut for lighting you are encouraged to install the light bar(s) prior to installing the roof rack on the vehicle. This will add some weight during the process of lifting the roof rack onto the vehicle but it is far easier to install the light bars into the fairing whilst it is off the vehicle and at a good working height. **The rear of this guide contains information on mating a light bar to your fairing.***

GATHER THE FOLLOWING

- Fairing specified in your order*
- Hardware kit labeled "Fairing"
- 5mm Allen wrench
- 13mm wrench

Apply VC3 Thread locking compound to the threads of all eight (8) feet to rack bolts and allow to dry. 15-20 minutes. Compound will remain gummy.

**If your fairing is cut for a specific light bar you will also been delivered a kit of hardware for that task that is NOT listed in the parts for this step. Refer to rear of guide for lighting installation.*

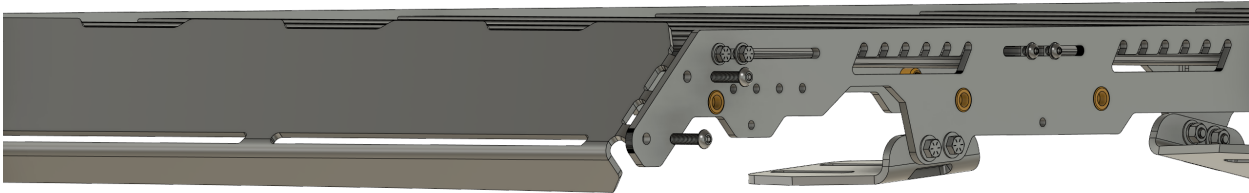


Figure 10

Fairing Installation

Driver Side OUTSIDE Shown

The fairing mounting tabs go to the INSIDE of the grooveTEK parts.

- Align the holes on the rack side to the holes on the tab of your fairing.
- Slip the hardware through both sets of holes.
- Slide a spacer over each of the bolts between the armor and the fairing.
- REPEAT THE PROCESS on the passenger side.

STEP 4 (CONT)
FAIRING

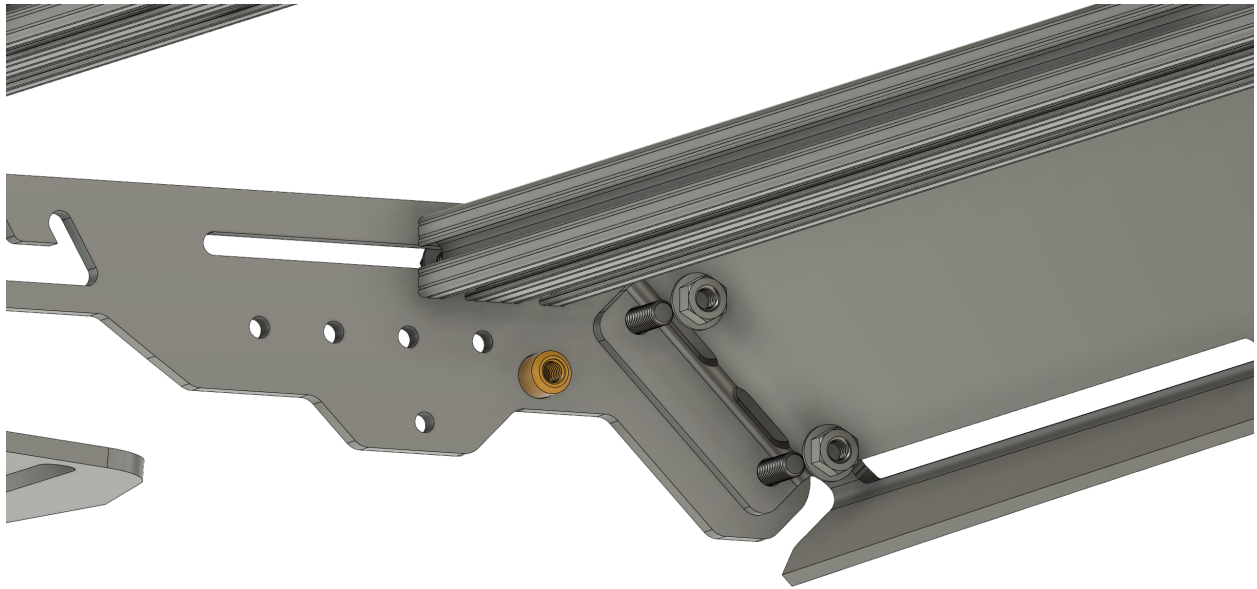


Figure 11
Fairing Installation
Driver Side INSIDE Shown

The flange nuts will thread onto the studs at each attachment point on the driver and passenger side.

Using a 5mm Allen wrench and 13mm wrench tighten all four (4) bolts/nuts that secure the fairing to the grooveTEK. Torque specification for this hardware is **35 Inch Pounds**.

STEP 5 GRAB HANDLE TYING

TOOLS REQUIRED

- Needle Nose Pliers
- Lighter
- Crimp Tool
- Side Cutting Pliers

As the grab handles are installed to the rack as a completed assembly the next step is to tie and complete the safety wire installation for the grab handles of your rack. The installation of the armor to your roof rack requires the grab handle lace plate as part of the final attachment.

The grab handles and their required components are packaged by themselves. Locate the bag and proceed with tying the handles.

Our process for handle tying is outlined in a video on our website under the instructions tab and linked below.

Feel free to follow our method or get creative with your paracord knots and go your own route. The kits are shipped with standard black 550 paracord but you can order any color that you like from paracord planet or other online sources.

The included safety wire and crimp replacements are available on our website or by calling our technical support Monday-Friday from 8am-4pm MST.



STEP 6 ARMOR TO grooveTEK



Figure 12
*Driver Side Armor (1145) Shown Mating to Driver Side grooveTEK (1045)
Front of Rack at LEFT of Image*

GATHER THE FOLLOWING

- 1145 Driver Side Armor
- 1146 Passenger Side Armor
- Handle assemblies completed in step 3
- Hardware Kit “Grab Handles” (55mm Bolts)
- Hardware Kit “Armor to grooveTEK” (35mm Bolts)
- 5mm Allen wrench

NOTE

If you are installing our quickWIRE™ (optional) or other wiring (not included) into the rack assembly you are strongly encouraged to complete those tasks before proceeding. Instructions are available on our website under the instructions tab.

If you are installing our scenePOD™ (optional) products into your rack you are strongly encouraged to trim the tabs on the scenePOD knockouts prior to installing the armor to the grooveTEK. Instructions for this task are available on our website under the instructions tab.

The hardware kit includes two (2) different length bolts:

- 35mm (used for front and rear attachment points)
- 55mm (used for grab handle attachment points)

The spacers and lock washers are of common size and will be used throughout the process.

The spacers provide a space in between the armor and grooveTEK to allow wiring to pass and remain protected on the trail. There are machined attachment points for completing this task outlined in the quickWIRE installation guide.

STEP 6 (CONT)
ARMOR TO grooveTEK

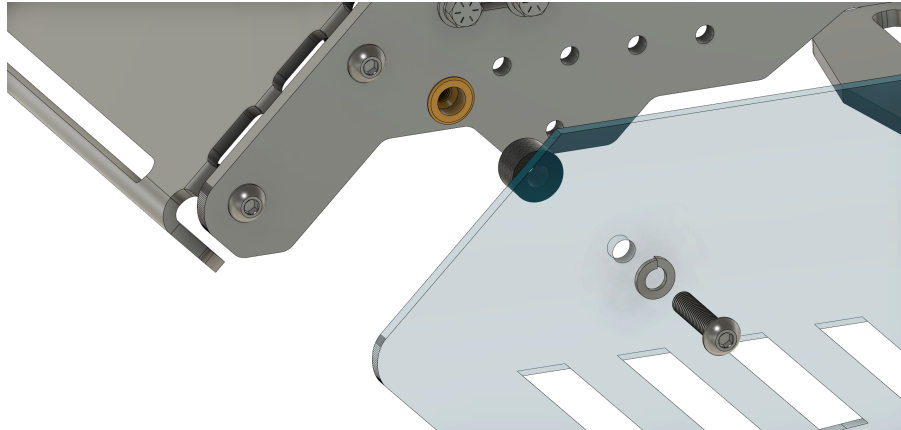


Figure 13
Driver Side (1145) Shown
Front Armor Attachment Point

Pass a 35mm M8x1.25 Bolt/8mm lock washer through the armor (1145). Slip a plastic spacer over the threads and align to the rivNUT (shown in gold) in the grooveTEK (1045). Using a 5mm Allen wrench tighten the fastener to **25 Inch Pounds**.

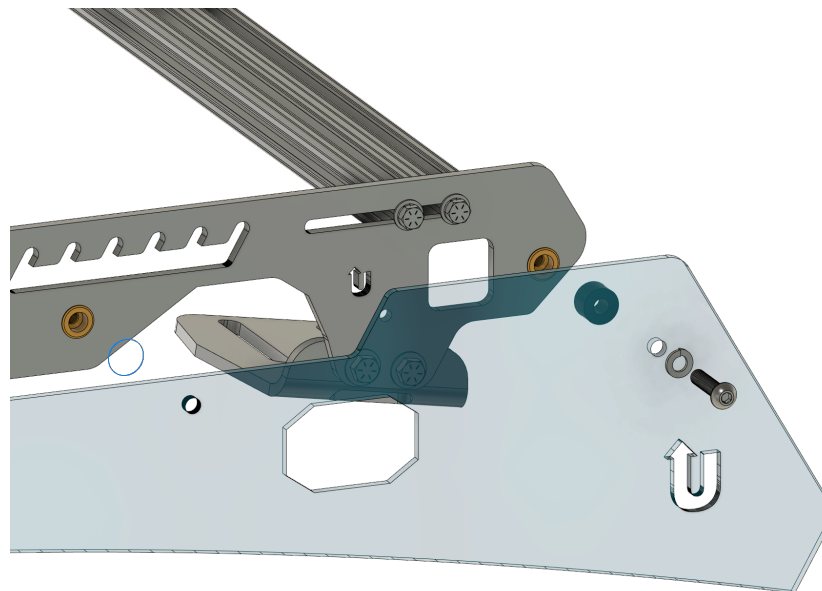


Figure 14
Driver Side (1145) Shown
Rear Armor Attachment Point

Pass a 35mm M8x1.25 Bolt/8mm lock washer through the armor (1145). Slip a plastic spacer over the threads and align to the rivNUT (shown in gold) in the grooveTEK (1045). Using a 5mm Allen wrench tighten the fastener to **25 Inch Pounds**.

Repeat the process on the passenger side (1146 to 1046) at the front and rear locations.

STEP 6 (CONT)
ARMOR TO grooveTEK

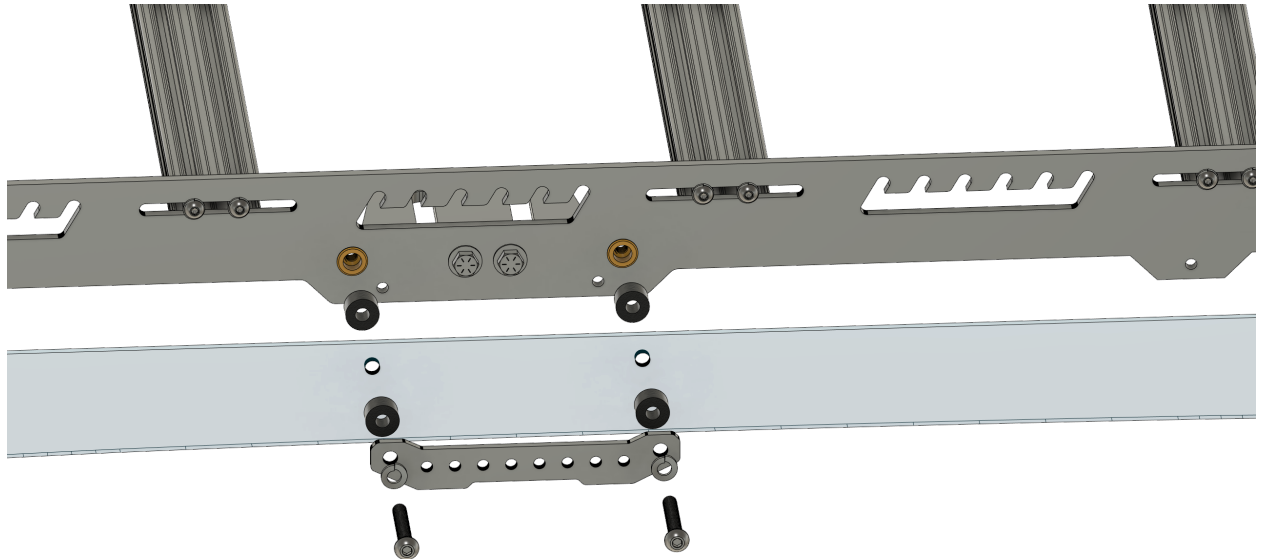


Figure 15
Driver Side (1145) Shown
Grab Handle Attachment Point

Pass a 55mm M8x1.25 Bolt/8mm lock washer through the lace plate you tied each grab handle to in Step 5 (Page 11). Slip a plastic spacer over the threads and slide through the holes in the armor (1145). Slip a second plastic spacer over the exposed threads of the 55mm bolt(s) and align each piece of hardware to the rivNUT (shown in gold) in the grooveTEK (1045). Using a 5mm Allen wrench tighten the fasteners to **25 Inch Pounds**.

Repeat the process for the remaining two (2) grab handles on the driver side (1145).

Repeat the process for all three (3) grab handles for the passenger side (1146).

STEP 7 VEHICLE PREPERATION

At this point if you have not already done so you need to remove (if equipped) the factory roof rack. See page 2 for a brief synopsis of how to accomplish this. If you are still in doubt a quick Google™ search will net results for accomplishing this task.

- Be sure the area around the vehicle is accessible and free of trip hazards. Remove all pets, tricycles, marbles, thumb tacks, children or other trip hazards from the area.
- You will be focused on lifting the rack up over your head and resting it on top of the vehicle so having things strewn about to trip over would be less than desirable.
- Inspect all the threads from the factory roof rack mounting locations and ensure they are clean, undamaged, and ready for new hardware.
- Place a moving blanket or other heavy covering over the roof of the vehicle to protect the painted surfaces from damage while you get the rack located over the spacers.
- Enlist a friend to help with lifting and moving the rack assembly. Although we've taken a lot of steps to keep the weight of the rack to a minimum it still weighs 50-60 pounds without any lighting/wiring installed and can be rather cumbersome to lift overhead. **DO NOT TRY THIS ON YOUR OWN.**

GATHER THE FOLLOWING

- Silicone Sealant
- 6mm Allen wrench
- Hardware Kit "Rack to Roof"
- Hardware Kit "Mid/Rear Spacers"
- Hardware Kit "Front Spacers"

SEALANT

Use a good quality RTV outdoor rated silicone sealant. Color is irrelevant as the sealant should not be visible once the rack is installed. We use a 25 year exterior grade RTV silicone sealant/Gasket Maker in clear so that we can achieve visual verification that the sealant is in the areas we need it in the amounts that will keep the elements out of the cabin of your vehicle. This product can be obtained at virtually any hardware store in squeeze tube or the fancier versions that use a hand cannon to dispense.

You will be applying the sealant at EVERY FACTORY BOLT LOCATION on the roof of the vehicle. Dispense the sealant down into the threads of each hole and work your way out of the hole making a "Hershey Kiss" sized puddle at the top of each one for the spacers to seat into.

COMPLETE THE SEALANT STEP WITHIN 15 MINUTES OF INSTALLING THE HARDWARE. Silicone is an air dry product and the outer surfaces can flash cure (especially in warmer weather) and will cause the sealant to "knot" as you install the hardware and can cause seal failure.

STEP 8 RACK TO ROOF

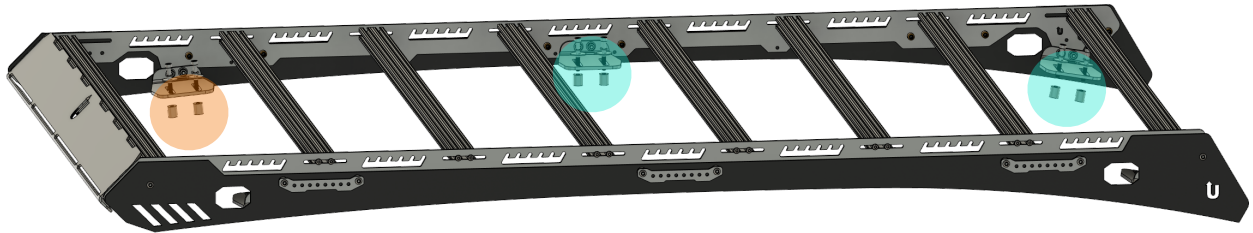


Figure 16
Spacer Placement
Passenger Side Feet Highlighted
Front of Rack at LEFT of Image

The Alpha FJ uses two (2) different size spacers during installation.

*The FRONT spacers are 1.00" (25.4mm) shown here in **ORANGE**.*

*The MIDDLE and REAR spacers are .875" (22.2mm) shown here in **GREEN**.*

- Apply the sealant as described in Step 7 (Page 15) to each of the twelve (12) locations.
- Seat the spacers into the sealant puddles paying attention to the lengths described above.

RACK LIFT

With the help of another person (or two) lift the rack up over the FRONT of the vehicle and onto the roof. Carefully place the mounting feet over the top of the spacers and GENTLY sit the rack into position.

Have someone hold the roof rack in position while you start to install the hardware.

- Install each hardware assembly one at a time BY HAND. DO NOT FORCE the hardware. If the threads feel tight try and clean the threads with one of the factory bolts or an M8x1.25 Tap. Slight resistance can be overcome by working the fastener in/out with the Allen wrench in small turns until they begin to thread easily.
- DO NOT FULLY TIGHTEN ANY FASTENER UNTIL ALL TWELVE (12) have been inserted/started.

STEP 8 (CONT)
RACK TO ROOF



Figure 17
Passenger Front Foot (1335) Shown

Each foot (1335) will receive the following:

- (2) M8x1.25 55mm Cap Bolts
- (2) 8mm Lock Washers
- (2) 8x25mm Fender Washers

- Start the hardware in all twelve (12) locations.
- Visually inspect the rack to ensure it is square on the vehicle.
 - The 1335 Feet feature left/right slot adjustability to center the rack on the vehicle. For reference the “U” Logo in the front of your fairing is DEAD CENTER of the rack assembly and the REAR VIEW MIRROR in the cabin of your vehicle is also always DEAD CENTER of the windshield.
- Once you have all the hardware started and have visually verified the rack is centered on the vehicle you can tighten all the hardware. Start at the FRONT and work your way to the REAR of the vehicle.
- Final Torque Specifications for the hardware is **16 Foot Pounds**.

STEP 8 (CONT)
RACK TO ROOF

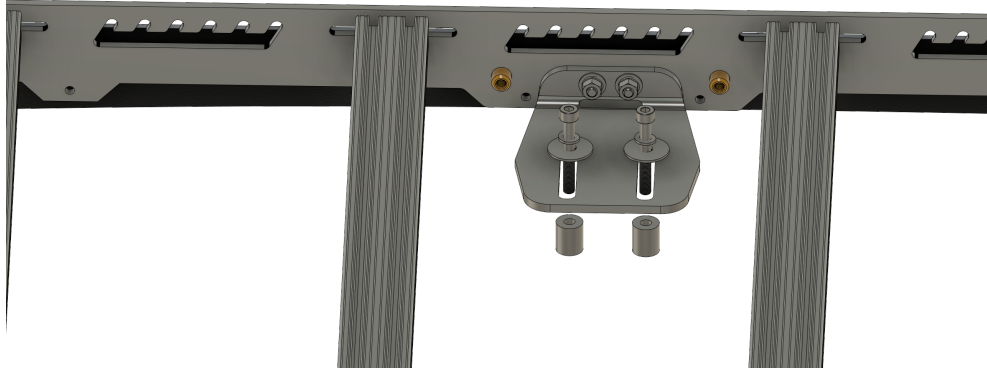


Figure 18
Passenger Side Shown
Middle Foot (1335)

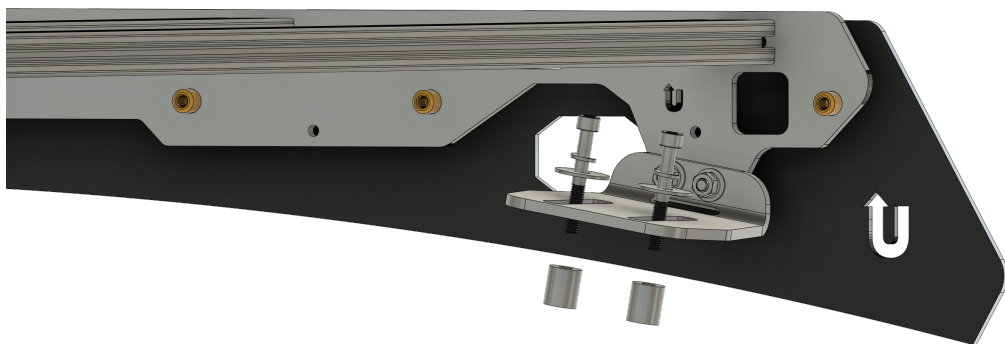


Figure 19
Passenger Side Shown
Rear Foot (1335)

OPTIONAL Fairing Lighting Tutorial

A brief tutorial on the layout of spacers and hardware is available on our website by using this link:



NOTE

The light bar shown in the video is an Extreme LED brand. The spacer inserted between the light bar and the mounting bracket (NOT THE BRACKET AND THE FAIRING) is NOT required or included with fairings cut for Baja Designs Light Bars.

The spacer is required on Extreme LED products to provide clearance for the cable gland where the wiring exits the light bar.

- *Align the light bar so that the lenses are unobstructed by the openings in your fairing.*
- *Aim the light bar so as to eliminate hood glare.*

upTOP finePRINT

- It is recommended to inspect the rack hardware at regular intervals to ensure fasteners are tight. If the rack ever needs to be removed and reinstalled you will need to repeat the silicone sealant steps before reinstallation of the rack to roof hardware.
- The powder coated finish on your rack uses a chemical compound to maintain UV stability for years to come. Wash the roof rack at regular intervals to keep the load bar channels, drip rails and mounting components free of dirt and debris. Foreign objects (mud) can dry and cause noise and vibration.
- If your color matched components are painted care for them in the same manner as you care for the exterior finish of your vehicle.
- Repair or replace worn parts with expediency. All hardware is available for purchase by calling our technical support line at 720.730.6381 Monday-Friday 8am to 4pm MDT or by email 24/7 364 (we don't answer email on Christmas-get over it) support@uptopverland.com
- It is the responsibility of the end user to ensure all electrical connections are secured and fused properly for the circuit load they are carrying.
- upTOP Roof Rack dynamic (moving) weight capacity can often exceed the OEM vehicle manufacturers specification. In all cases the OEM specifications supersede the upTOP dynamic rated load capacity.
- DO NOT use the upTOP product in a manner inconsistent with its design intention. This will void your warranty.
- DO NOT modify or alter structural components of upTOP roof rack assemblies. This will void your warranty.
- Excessive speeds over rough terrain can exceed dynamic weight loads causing structural fatigue or failure of aluminum and steel components. Use your best judgement and common sense before committing to full send with an overloaded rack product.
- Component damage or failure due to negligence will result in voided warranty claims. Any failed component must be returned to upTOP with a properly submitted RMA request. Any product received without authorized RMA request will be returned to sender at their expense.
- Leave. No. Trace. Our planet is fragile. Some parts of it have been undisturbed for generations. Stay on trails and designated routes. DO NOT LITTER. Pack it in Pack it out. Basically be a decent human and protect our culture, wild lands and ecosystems.