

# upTOP BRAVO 50 4Runner

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 Bravo roof rack designed for your platform requires competency with basic handle 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
- · 6mm Allen wrench
- · 13mm wrench
- · Silicone Sealant
- VibraTITE VC-3 Thread-locker (Included)

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 Toyota Tacoma. upTOP recommends keeping evenly distributed cargo loads of 300 pounds on the Toyota 4Runner. Static (parked) weight restrictions are limited to 1150 pounds.

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 <a href="mailto:support@uptopoverland.com">support@uptopoverland.com</a> 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 of rack installation. Incorporate these tasks into the steps in this guide at points that reduce additional disassembly of the rack while it is installed on the vehicle.

These instructions supersede all documentation and/or video tutorials prior to Feb.1, 2021 and contain the latest information regarding component identification, design, and assembly/installation regarding the upTOP Bravo 5th Generation 4Runner.

Verified fitment for vehicle years 2009-Present

#### MAJOR COMPONENTS

Part #	Quantity	Description
2005.3	1	Driver Side Plate
2006.3	1	Passenger Side Plate
2201-2212	1	Fairing
1309.2	2	Pressure Foot
1311.2	2	Middle Foot
1313.2	2	Rear Feet

Additional components will be included with the kit not listed here. Handles, hardware, or any accessories shipped with order are not included in the major component list.

#### PRECAME

This rack system will assemble on the ground and install onto the vehicle as an assembly. The final assembled weight of the rack (without lighting) is 64 pounds.

You are encouraged to complete the assembly and installation of the roof rack with an additional person to assist in lifting, positioning and placing the roof rack onto the vehicle.

If your 5th Generation 4Runner is equipped with a factory roof rack you will need to remove that product before proceeding with installation of your new upTOP roof rack. Factory covers, hardware and cross bars will not be reused and should be catalogued and stored for reinstallation at a later date.

Unlike previous versions this kit includes spacers compatible with the nylon sleeves around the factory bolt locations on your vehicle. DO NOT MODIFY OR TRIM the nylon sleeves as they are used as a centering guide for spacer/bolt alignment for the supplied hardware.

The STEEL feet included with your kit have been finished in a three stage process to provide protection against oxidation and/or corrosion. The feet included with your rack are considered a low wear interface item and as such require no general maintenance over the course of ownership. If the feet are damaged/scratched beyond the powder coat/primer you should repair them in the same manner that you would repair the painted finish of your vehicle and ensure that bare steel surfaces are sealed from the elements.

Plan for any wiring that will be completed during rack installation and perform those tasks in conjunction with rack assembly and installation.

# STEP I FEET TO RACK

The supplied feet are location specific (Front/Middle/Rear) but are NOT indexed left and right meaning a rear foot can be used on either side of the rack, etc...

#### GATHER THE FOLLOWING

- · 2005.2 Driver Side Plate
- · 2006.2 Passenger Side Plate
- 1309 (Pressure Foot QTY 2)
- · 1311 (Middle Foot QTY 2)
- 1313 (Rear Foot QTY 2)
- 5mm Allen wrench/13mm Wrench
- · vibraTITE Thread compound
- · Hardware Kit "Feet To Rack"



#### Figure 1

Foot Identification Driver Side (2005.2) Shown

In this illustration the front of the rack is on the RIGHT hand side.

You will notice that the 1311/1313 feet are very similar in design. To discern the difference note the 1313 REAR FEET ARE SLIGHTLY LONGER THAN THE 1311 middle feet.

1313 REAR Foot Shown in RED.

1311 MIDDLE Foot Shown in BLUE.

1309 FRONT PRESSURE Foot Shown in ORANGE.

We will start with the 1309 FRONT PRESSURE FOOT and work backwards.

#### **THREAD COMPOUND**

Apply a small amount of VC3 thread compound to each of the ten(10) fasteners used to attach the feet to the grooveTEK.

Allow this material to air dry for 10-15 minutes. The material will remain gummy but NOT liquid. This compound acts as a shock absorber for your fasteners and allows you to make adjustments to the fasteners without the need to reapply the compound.

The provided tube of VC3 MAY be slightly pressured due to the change in elevation during shipping from our location to yours. You are encouraged to complete this process in a well ventilated area away from children/pets.

# STEP I (CONT) 1309 Front Pressure Foot



## Figure 2

1309 Pressure Foot Driver Side (2005.2) Shown

The Pressure Foot arrives to you preassembled with the rubber contact pad installed. When placed on the vehicle the rubber contact pad will align with the front weather stripping to prevent damage to the finish of your vehicle.

After the rack is installed ,with the help from another person, you will push up on the front of the rack while pushing down on the pressure foot and tighten the hardware into place. When properly adjusted the foot will apply upward force on the rack assembly against the weather stripping to support the front of the rack without the need to drill additional holes during installation.

Install a M8x1.25x25mm bolt through the hole in the grooveTEK as pictured above. Align the slot in the 1309 over the threaded studs and complete the fastener with an additional flange nut.

Snug the fasteners but DO NOT fully tighten as these will need to be readjusted after rack installation.

Repeat the process for the remaining 1309 on the Passenger Side plate (2006.2).

Final Torque Specification is 40 Inch Pounds.

If you would prefer a drill mount kit for the front feet please contact customer support and we will provide one to you.

## **CONTACT PAD ADJUSTMENT (IF NEEDED)**

If minor adjustment is needed to align the rubber contact pad to your weather stripping you will need: 3mm Allen wrench
8mm Wrench

Loosen the hardware. Align the rubber contact pads to the weather stripping on your vehicle. Tighten the fasteners back to 15 Inch Pounds.

# STEP I (CONT) I3II Middle Feet



Figure 3 1311 Middle Foot Driver Side (2005.2) Shown

Locate the two (2) holes near the middle of the grooveTEK that align with the holes in the 1311 Middle Feet.

Slide an M8x1.25x25mm through each of the holes. Align the 1311 Middle Foot onto the studs of the bolts. Finish the assembly with a flange nut.

Using a 5mm Allen wrench/13mm wrench tighten the fasteners to 40 Inch Pounds.

Repeat the process on the Passenger Side (2006.2) with the remaining 1311 Middle Foot.

To discern the difference between 1311 and 1313 feet you can sit them on top of one another. The foot with the longer protrusion (slot further away from the bend) is the 1313 REAR FOOT.



# Figure 4 1311 Middle Foot Driver Side (2005.6) Shown

Larger illustration for locating position of 1311 Middle Foot.

# STEP I (CONT) I3I3 Rear Foot



Figure 5 1313 Rear Foot Driver Side (2005.2) Shown

Locate the two (2) holes along the bottom of the grooveTEK at the rear of the piece as shown above.

Slide the M8x1.25x25mm bolts through each of the holes. Slide the 1313 Rear Foot onto the stude of the bolts.

Complete the assembly with a flange nut.

Using a 5mm Allen wrench/13mm wrench tighten the bolts to 40 inch pounds.

Repeat the process with the remaining 1313 Foot on the Passenger Side (2006.2).



Figure 6 1313 Rear Foot Driver Side (2005.2) Shown

1313 Rear Foot shown from outer side of 2005.2

## STEP 2 LOAD BARS

The side components are machined to allow for two different orientations of the REAR Load Bar. Given the extended production cycle of the 5th Generation 4Runner the roof mounted antennas locations have changed over the years with the evolution of technology.

To account for these different positions we've given you some options when mounting the REAR load bar to allow proper clearance for the roof mounted antenna without the need for additional parts or antenna body modification.

If your 5th Generation 4Runner does not have a roof mounted antenna at the rear of the vehicle you can configure the rear load bar in any of the available slots/holes to suit your needs. If your vehicle DOES have an antenna on the roof at the REAR of the vehicle you will need to configure the REAR load bar according to Figure 8.

#### **NOTE**

Great care was taken in design and testing to make the roof rack system as quiet as possible while driving. Given the multitude of lighting configurations and the adjustability of the FRONT load bar it is important to observe the following tip:

When installing the roof rack without a light cut option it is important to ensure the FRONT load bar is mounted horizontally and pushed as far forward (as close to the wind screen) as possible. This allows the wind screen to split the oncoming air and diffuse the air before it can get trapped in the front slot on your FRONT load bar.

When installing auxiliary gear to the rack i.e. storage boxes, roof top tents, etc...you can adjust the FRONT load bar to any position that you see fit. The added gear will serve to break the oncoming wind and diffuse it in such a way that the front load bar location becomes less prone to oscillation from wind.

The provided load bars are 50" Long x 2" Wide x 1" Tall and feature extrusion slots for gear attachment points along all four (4) sides. Each load bar is capable of supporting up to 90 pounds of direct contact weight at any point. It is common for the load bars to deflect (bow) slightly under intense weight loads and is not a cause for concern. The extrusion process commits the load bar shape to memory and they will spring back to their original shape when unloaded. This feature helps the load bar shoulder intense weight on the trail and acts as a suspension of sorts for heavy cargo.

upTOP offers proprietary drop-in and slide-in hardware for a variety of mounting options for all of your gear.

The included load bars are compatible with most Thule<sup>™</sup>, Yakima<sup>™</sup> and certain Front Runner<sup>™</sup> products. Contact our technical support team by emailing <u>support@uptopoverland.com</u> for compatibility questions, additional mounting hardware, or additional load bars.

The ends of each load bar are tapped (threaded) 1/4-20 at a depth of 1.0" (25.4mm). These threaded holes will serve as the mounting locations for the load bars.

#### **CATHER THE FOLLOWING**

- Hardware Kit "Load Bars"
- 5/32 Allen Wrench
- · (7) Load Bars



Figure 7
Rear Load Bar Configuration Option 1
Driver Side (2005.2) Shown

#### **NO ROOF MOUNTED ANTENNA ONLY**

Configuration 1 uses the slot shown in the illustration above. The rear load bar can be mounted at any point along the provided slot to provide adjustment aiding in alignment for various pieces of gear you will carry on your rack.

This configuration can be utilized on vehicles without a roof mounted antenna. For vehicles with a roof mounted antenna proceed to Figure 8.

Each end of your load bars will receive the following: (2) 1/4-20x1 (25.4mm) Button Head Bolt (2) Lock Washers

Install the rear load bar into position using a 5/32" Allen wrench.

Repeat the process on the passenger side (2006.2).

Final Torque Specification for this fastener is 21 Inch Pounds.



Figure 8
Rear Load Bar Configuration Option 2
Driver Side grooveTEK (1011.3) Shown

# USE THIS CONFIGURATION IF YOU HAVE A ROOF MOUNTED ANTENNA.

This option places the REAR load bar in a position that will fall behind the shark fin antenna mounted to the roof of your vehicle.

In this configuration the REAR Load Bar will use the rear of the slot for one bolt and the last upper hole at the rear of side component..

The FRONT Load bar has several mounting options for more versatile mounting of front lighting (if equipped) and can be installed vertically or horizontally using any combination of the slots/holes at the FRONT of your grooveTEK.



Figure 9 Front Load Bar Driver Side (2005.2) Shown

The front load bar will install into the forward most slot at the front of your rack assembly.

\*See the NOTE section on Page 7 for information on FRONT load bar position in an unloaded roof rack.

Each end of your load bar will receive the following: (2) 1/4-20x1 (25.4mm) Button Head Bolts (2) Lock Washers

Install front rear load bar into position using a 5/32" Allen wrench.

Repeat the process on the passenger side (2006.2).

Final Torque Specification for this fastener is 21 Inch Pounds.

Load Bar 2 and 6 (From the front of the rack) are fixed position to facilitate squaring the rack assembly. The other remaining load bars will install into the slots along the top of your side components (2005.2/2006.2).



Figure 10

Remaining Load Bars Driver Side (2005.2) Shown FRONT of rack at LEFT of Illustration

The remaining five (5) load bars will use the following hardware at each end:

- (2) 1/4-20x1 (25.4mm) Button Head Bolts
- (2) Lock Washers



Figure 11

Fixed Position Load Bars 2/6 Driver Side (2005.2) Shown Slot Alignment

Install the load bars into the slots using a 5/32" Allen wrench. Repeat the process on the passenger side (2006.2). Final Torque Specification is 21 Inch Pounds.

# STEP 3 FAIRING/WIND SCREEN

#### **WARNING**

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.

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.

For more comprehensive information on fairing lighting options/mounting download the upTOP™ Lighting Guide from our website under the instructions tab.

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.



Figure 12
Fairing Installation
Driver Side (2005.2) Shown

The fairing of your roof rack is designed to mate with the sides (2005.2/2006.2) of your rack and will align with machined holes on both sides as pictured.

#### GATHER THE FOLLOWING

- · Fairing/Wind Screen specified on your order
- · Hardware Kit "Fairing"
- 5mm Allen wrench
- · 13mm wrench
- VC3 Thread Locking Compound

Align the holes in the flange of the fairing to the holes located at the FRONT of your rack.

Slide the provided M8x1.25 25mm Button Head fasteners through the side AND the holes in the FAIRING.

Repeat the process on the passenger side (2006.2).

Proceed to the next page for the completion of this step.

# STEP 3 (CONT) FAIRING/WIND SCREEN



Figure 13
Fairing Hardware-INNER
Driver Side (2005.2) Shown

With the M8x1.25 25mm Button Head Bolts inserted you will reach inside the rack assembly and install the provided flange nuts onto the studs of each bolt.

Using an 5mm Allen wrench and 13mm wrench tighten the fasteners. Final torque specification for these fasteners is 35 Inch Pounds.

Repeat the process on the passenger side (2006.2).

#### STEP 7

#### VEHICLE PREPERATION

If your vehicle is equipped with a factory roof rack you will need to remove that prior to proceeding with installation of your upTOP roof rack.

The factory roof rack is secured to the truck with eight (8) 12mm bolts that are concealed under plastic trim caps at the front and rear of the factory rack.

Using a pry tool GENTLY work the plastic covers out of the way to gain access to the bolt locations.

WITH HAND TOOLS carefully remove the eight (8) factory bolts and sit them aside. They will not be reused.

Clean the areas around the factory bolt locations to remove debris and provide a clean surface for your sealant.

# GATHER THE FOLLOWING

- · Silicone Sealant
- · Hardware Kit "Spacers"

You will find that each bolt location has a nylon sleeve in place around the threaded hole. DO NOT REMOVE those nylon sleeves. The spacers provided in your kit are gauged to slide over them and they are used to center the spacers over the factory holes and ensure proper alignment.

With the areas clean and dry apply sealant into the threaded holes and work your way out forming a puddle approximately .750" (19mm) in diameter around the nylon sleeve to create a sealant base for the space3r to sit in. This ensures a proper seal.

#### **NOTE**

An exterior grade pure silicone sealant is required (NOT INCLUDED) for this step. DAP, 3M, PermaTEX, etc.. are brand names. Ensure that the product you've purchased is a PURE SILICONE SELANT rated for EXTERIOR USE. This product is available at most hardware stores as well as online and can be purchased in press tube (tool/gun required) as well as squeeze tube (no tools required). You will require approximately 3.5-4 ounces of sealant to complete this process.

With the sealant applied install one (1) spacer into location by sliding them onto the nylon sleeves and centering over the factory threaded holes.

#### **NOTE**

There are multiple videos online about removing the factory roof rack from your 4Runner. We recommend searching BY MODEL YEAR and proceeding with the video that best covers your specific year. Year model changes, copyright rules, and links that expire or get removed make it difficult for us to provide video links Specific to this task however the information is easy to find with a simple Google search.

Remove any obstructions from around the vehicle to ensure a safe work area free of trip hazards. Children, bicycles, pets, skateboards, etc...should be removed form the immediate area while lifting the roof rack onto the vehicle.

Fold the side view mirrors for more clearance around the vehicle.

# STEP 8 RACK TO ROOF

#### GATHER THE FOLLOWING

- · Hardware Kit "Rack to Roof"
- · 6mm Allen wrench
- A friend that will help you lift this exceptionally large piece of roof rack art onto the roof of your beloved 4Runner

#### **NOTE**

We recommend that you take the roof rack onto the vehicle from the FRONT as it is easier to clear the hood first and then gently sit the rack into position over the spacers installed in STEP 7.

This is a TWO PERSON task. DO NOT ATTEMPT to lift this roof rack onto your vehicle alone. Damage to the vehicle, injury to yourself or both will likely occur.

- · Lift the roof rack into the air with a person on both the DRIVER AND PASSENGER SIDE of the rack.
- · Slowly raise the rack up over your head and walk it onto the vehicle.
- · GENTLY sit the rack down into position aligning the feet with the spacers.
- · Have your lift buddy hold the rack in position while you gather the hardware/Allen wrench.

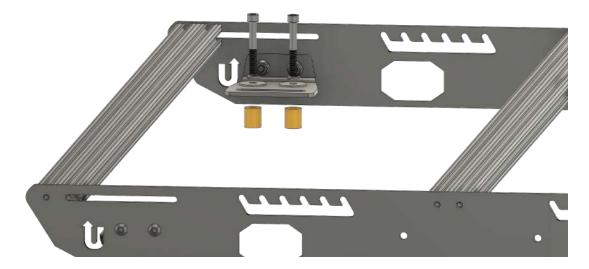


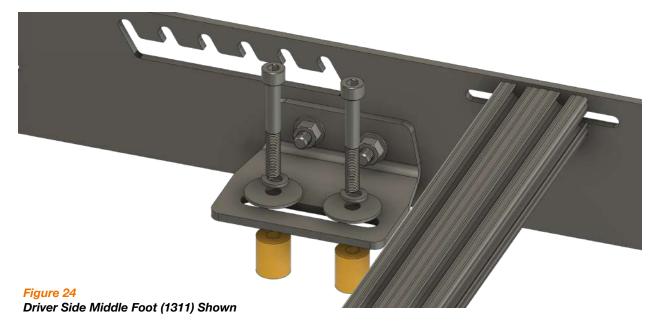
Figure 14
Driver Side Rear Foot (1313) Shown

Each bolt location will receive the following:

- (1) M8x1.25x55mm Cap Bolt
- (1) Lock Washer
- (1) Fender Washer

BY HAND with the Allen wrench start each fastener for both (Driver/Passenger) rear feet. DO NOT FULLY TIGHTEN ANY FASTENER AT THIS TIME.

# STEP 8 (CONT) RACK TO ROOF



Each bolt location will receive the following:

- (1) M8x1.25x55mm Cap Bolt
- (1) Lock Washer
- (1) Fender Washer

BY HAND with the Allen wrench start each fastener for both (Driver/Passenger) middle feet.

Once all eight (8) bolts are started tighten them into place with the 6mm Allen wrench.

If at anytime you encounter resistance in the threads STOP and inspect the threads. If necessary repair the threads with an M8x1.25 tap.

Final torque specification for these fasteners is 65 inch pounds.



Figure 25
Completed Rack Assembly

# STEP 9 PRESSURE FOOT ADJUSTMENT

With the rack assembly tightened to the vehicle you can now set the pressure foot (1309) tension and tighten the bolts for them.

Have your lift buddy push up on the front of the rack (towards the sky).

Push the pressure foot (1309) down until it is in contact with the rubber weather seal on your vehicle.

Using a 5mm Allen wrench and 13mm wrench tighten the hardware for the front pressure foot to 40 inch pounds.

Repeat the process on both sides of the vehicle at the FRONT of the rack.

If you encounter wind noise or vibration at highway speeds at any time check the tension on the pressure feet and adjust as needed.

# 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.