# upTOP ALPHA backPACK

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, power 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.

## ASSEMBLY 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)**

## INSTALLATION TOOLS REQUIRED

- **Power Drill**
- **1/8” Drill Bit**
- **1/2” Paddle Bit (For Toggles)**
- **5/32” Drill Bit (For Lag Anchors)**
- **Philips Head Driver**
- **Level Verification Device**
- **Tape Measure**
- **Sharpie marker**

***The dynamic (moving) weight capacity of your rack varies based on camper make/model as well as mounting method used.***

***Toggle Bolt: 150 Pounds***
***Lag Anchors: 125 Pounds***

You will need adequate floor space to assemble your roof rack prior to installing it to your vehicle. An area 80x80” 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.

***Installation of this product requires drilling the back wall of your camper. We provide two (2) different attachment methods (Lag Anchor and Toggle Bolt) and you can use any combination of the two. You are provided these two different options because some campers have physical studs inside the walls that will align with the pre-determined width of our feet (20.00” On Center) and some do not. If the feet align with a wooden stud you are encouraged to use the Lag Anchors in those locations. For hollow areas you would use the Butterfly Toggles. Both applications are covered in depth in this guide.***

| Part # | Quantity | Description |
|---|---|---|
| **1031** | 1 | Left grooveTEK |
| **1032** | 1 | Right grooveTEK |
| **1131** | 1 | Left Armor |
| **1132** | 1 | Right Armor |
| **LB24** | 6 | 24” Load Bar |
| **1324** | 6 | Mounting Foot |
| **8009** | 1 | Hardware Kit |

**The chart above names the major components used in the assembly of the backPACK. These numbers will be referenced in illustrations throughout this guide.**

## PREGAME

- **Any additional mounting accessories that you may have ordered will NOT be listed here or referenced in this installation guide. Each individual mounting accessory comes with all applicable hardware for attaching to upTOP products and instructions are available for download from our website under the instructions tab.**
- **The process of aligning and leveling the backPACK onto the rear of the camper requires two individuals to support and hold the unit steady while mounting hole locations are marked for drilling. You are encouraged to undertake the installation only with an extra set of hands to facilitate the alignment and final mounting of this product to your camper.**
- **Mounting of this product requires drilling into the rear wall structure of your camper. It is the sole responsibility of the installer to verify that hole locations are clear of electrical wiring, plumbing, or any other system critical components of the camper.**
- **Due to the universal nature of this product there are no measurements or reference points given throughout this guide in relation to physical mounting locations, hole alignment or drilling techniques. If at anytime during this process you are uncomfortable you are strongly encouraged to take your product to a professional camper service and/or accessory installation facility to have them complete the work.**
- **Any holes drilled for installation need to be properly sealed with an exterior grade silicone sealant to prevent damage to the interior structure of your camper or its contents.**
- **Do not install this product in a location that inhibits observation of vehicle lighting, license plates, or mechanisms that provide motion to the camper components.**
- **The assembled size of the backPACK is 55.5” Tall and 26” wide. Verify that the space is available in the area slated for installation prior to drilling any holes.**
- **Only use a fully assembled backPACK to serve as the template for foot/hole alignment and marking.**

## STEP 1
## FEET TO RACK

**The feet supplied with your kit are not location specific meaning that they can be used at any of the six (6) foot mounting locations on the rack assembly.**

### GATHER THE FOLLOWING
- 1031 Left grooveTEK
- 1032 Right grooveTEK
- Hardware Kit "Feet to Rack"
- VC3 thread Compound
- 1/2" Wrenches (2X)

**NOTE**
**The supplied thread locker needs to be applied to the fasteners and allowed to air dry for 15 minutes. The material will remain gummy when cured but NOT liquid. This material acts a shock absorber of sorts for your hardware.**

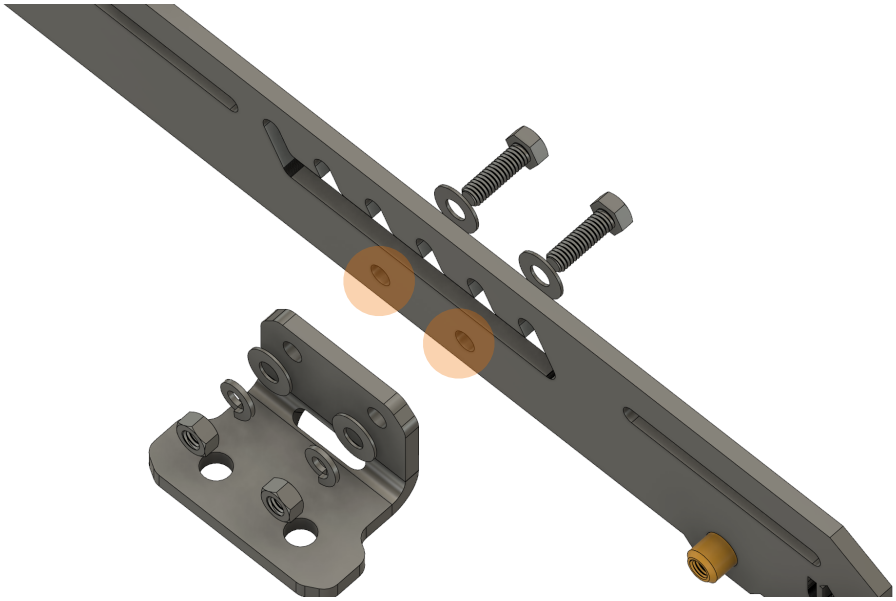

***Figure 1***
***1324 Foot Hardware Shown***
***Left grooveTEK (1031) Shown at TOP***

**Each foot will install into location with the same hardware assortment. Slide a flat washer over the bolt, push the bolt/washer through the hole(s) (Shown here in ORANGE). Install the foot so that it rests against the inside of the grooveTEK (1031) and then finish each bolt off with a flat washer, lock washer and finally a hex nut.**

**Repeat the process at all six (6) locations with all twelve (12) hardware sets. Use a pair of 1/2" wrenches to tighten the hardware.**

**Final Torque specification is 35 Inch Pounds.**

## STEP 1 (CONT)
## FEET TO RACK

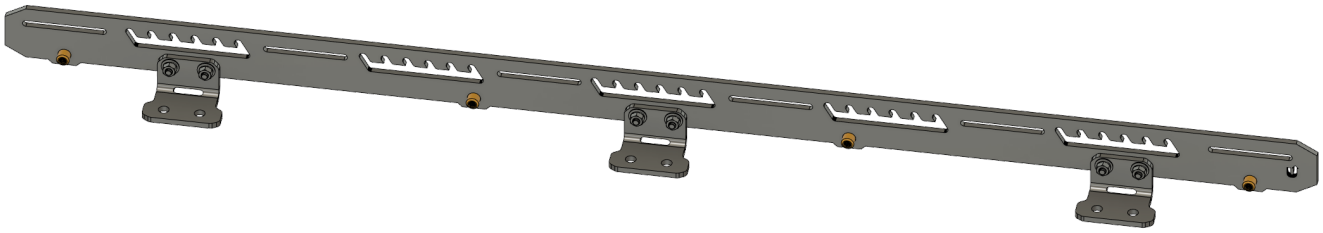

*Figure 2*
***1324 Feet (3/6) Shown Installed***
***Left grooveTEK (1031) Shown***
***Top of rack is at RIGHT of Image***

**This is the LEFT grooveTEK (1031) with all three (3) feet installed into location.**

**The RIGHT grooveTEK (1032) will be a mirror image of this.**

**On both grooveTEK the engraved "U" Logo and part number would be at the TOP of the rack when installed on the camper.**

## STEP 2
## TOP/BOTTOM LOAD BAR

**All six (6) load bars provided with your kit are the same length and not location specific to the rack assembly. Each one is 24.00" Long and has been powder coated black with UV stable coating to resist fading over time.**

**The TOP and BOTTOM load bar install into the rack assembly with different hardware than the remaining four (4) load bars.**

**The provided HEX bolts will be used on the TOP and BOTTOM load bar to facilitate location adjustment once the armor is installed by using a 7/16" wrench to gain access to the hardware.**

### GATHER THE FOLLOWING

- **7/16" Wrench**
- **Hardware Kit "Front/Rear Load Bars"**

**The label on the hardware carries over form our roof racks where the front and rear load bars install with the same hardware assortment for the same purpose.**

- **Load Bars (2)**

## STEP 2 (CONT)
## TOP/BOTTOM LOAD BARS

- **Position the 1031 and 1032 grooveTEK parts so that the feet (1324) face inwards, towards each other and space them about two feet apart.**

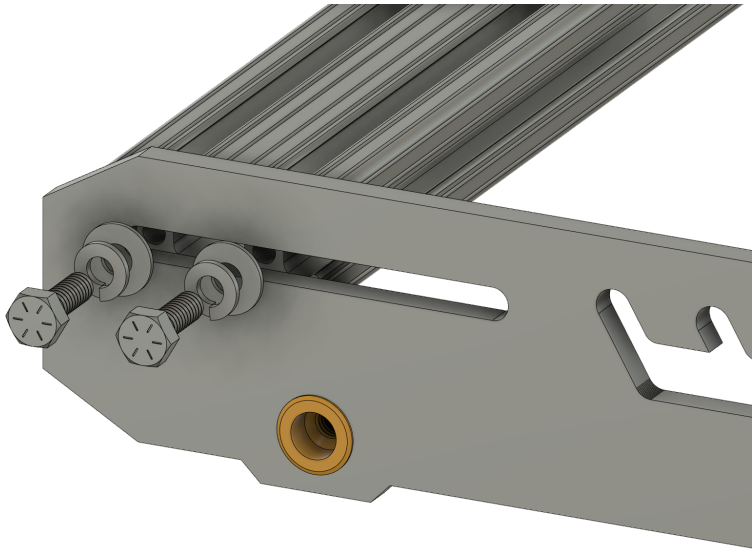

*Figure 3*
***1032 Right grooveTEK Shown***
***BOTTOM Load Bar Referenced***

**Note the location within the slot that the load bar is sitting in the illustration above. When you install the TOP and BOTTOM load bars you will want them fully seated, or pushed all the way into the slot at the TOP and BOTTOM of the grooveTEK during assembly. This will help to square the rack and make sure that the left and right sides (1031/1032) are even with one another.**

**Once the backPACK is mounted to the camper you can adjust these load bars to any position you wish to facilitate gear loading alignment.**

**Install the TOP and BOTTOM load bar into the rack assembly and tighten each fastener to with a 7/16" wrench. Final Torque Specification for these fasteners is 21 Inch Pounds.**

**Repeat the process on both sides/ends and move to Step 3.**

## STEP 3
## REMAINING LOAD BARS

**The remaining four (4) load bars will install into the slots of the grooveTEK (1031/1032) with the provided button head hardware.**

### GATHER THE FOLLOWING

- **5/32 Allen wrench**
- **Hardware Kit "Load Bars-All Other"**
- **Load Bars (4)**

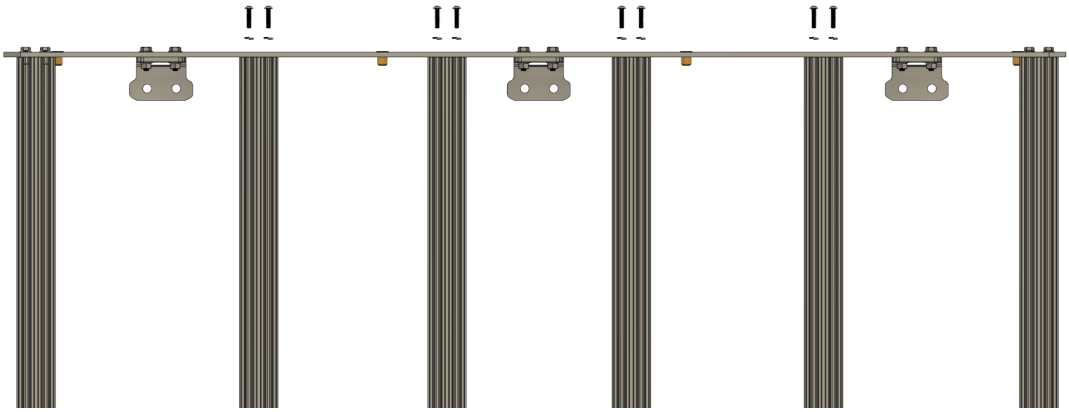

*Figure 4*
***1032 Right grooveTEK Shown***
***Top of Rack at LEFT of Image***

**Using the 5/32 Allen wrench install the four (4) remaining load bars into the rack assembly. Each load bar will use:**
**(4) 1/4-20x1 Button Head Bolts**
**(4) Lock Washers**

**Repeat the process for the same hardware assortment on the Left Side (1031).**

**The four (4) remaining load bars can be at any position within the slots. Just make sure they are even on both sides to prevent pushing the sides of the backPACK out of place.**

**Once installed to the camper they can be adjusted to any position within their respective mounting slot.**

## STEP 4
## ARMOR to grooveTEK

**The armor trim plates are designed to attach to the grooveTEK via the pre-installed rivNUTS pressed into the grooveTEK (1031/1032). You'll be placing plastic spacers in between each panel to provide clearance to access the hardware on the top and bottom load bar.**

**This design couples the inner .250" Aluminum to the outer .190" Aluminum for a compound structure that adds rigidity to the rack and helps to conceal the mounting feet giving the rack a low profile appearance on the rear of your camper.**

### GATHER THE FOLLOWING

- **1131 Left Armor**
- **1132 Right Armor**
- **Hardware Kit "Armor to grooveTEK"**
- **5mm Allen wrench**

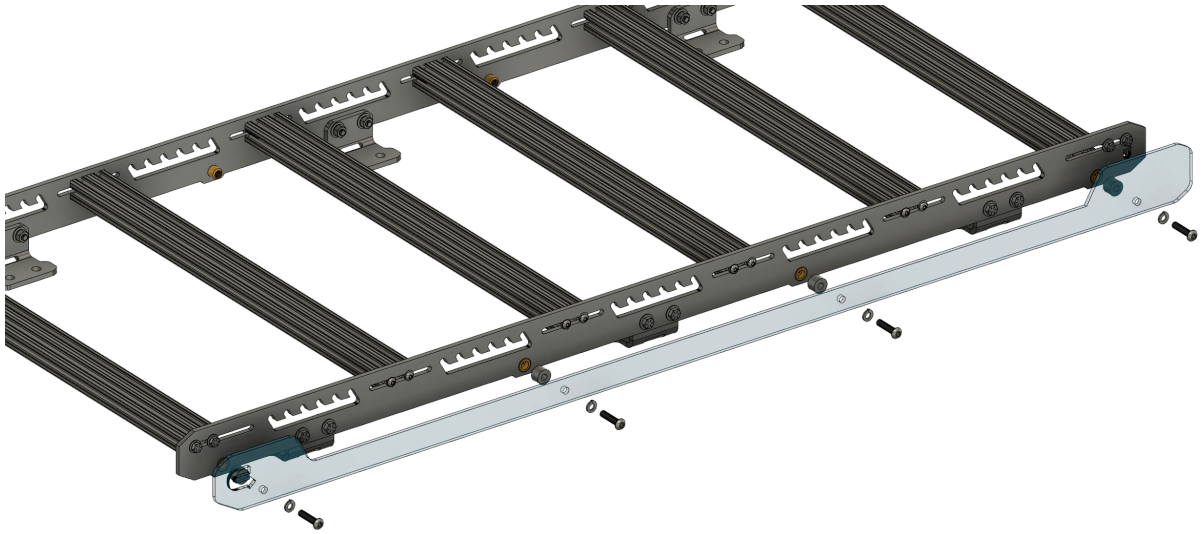

*Figure 5*
***Right Side (1032/1132) Shown***
***BOTTOM of Rack at LEFt of Image***

**At each attachment point you will use:**
**35mm M8x1.25 Button Head Bolt**
**8mm Lock Washer**
**HDPE Black Spacer**

**Place the spacers between the 1032/1132 and install the bolt/lock washer at each attachment point.**

**Repeat the process on the LEFT side (1031/1131) with the same hardware assortment and assembly order.**

**Final torque specification for this hardware is 35 Inch Pounds.**

## PRE-INSTALLATION NOTES

**It will be difficult to determine which hardware method (Lag Bolts or Toggles) by simply looking at the rear of your camper.**

**We suggest that once you mark the locations for the mounting feet on the rear of your camper you probe the intended area with a small (1/8") drill bit in the center of each hole. Go to a depth of about 1". Most camper walls are constructed of material that add up to .750" (3/4") thick. Going to 1" gives you the ability to test the pilot hole with a small pick tool or similar to gauge whether or not there is anything at the bottom of that hole that the lag bolts could anchor into.**

**If you probe the hole and the pick tool goes all the way into the hole without hitting substrate or structure you are most likely in a hollow area and should mark that hole location for a Butterfly Toggle.**

**If you try and insert the pick tool and it goes in only to the depth that you drilled your pilot hole and stops you are most likely in a stud and can mark that location for a Lag Bolt.**

**Some installations will require a combination of lag bolts/ butterfly toggles. This is okay. Both fastener methods are capable of biting in and supporting the verified weights at the beginning of this guide.**

**If your camper has easily removable interior trim panels you are encouraged to remove as much as is necessary to gain visual verification of the mounting locations and that you have adequate structure as well as clearance from system critical components of the camper.**

**Many camper interiors use adhesive to hold the panels in and as such are not easily taken apart for this sort of visual reference. This is why we use the probe method listed above and have have great success with this process.**

**By starting with the smaller 1/8th bit you leave yourself enough purchase for the lag bolt as well as the larger hole required for a butterfly toggle. The lag bolts will not properly tighten in a hole drilled for a Butterfly toggle.**

**Areas marked for butterfly toggles require a 9/16" Hole for inserting the toggle into the wall of your camper.**

**Areas marked for Lag Bolt require a 5/32" pilot hole for the threads to properly seat and bite.**

## BUTTERFLY TOGGLE INSTALLATION

**The googles provided with your kit feature a pull tag on them to help seat them into place as a stand alone fastener as opposed to being attached to the bolt. In testing this method was easier to install the backPACK onto the camper wall because you didn't have to force the google through the hole in the 1324 foot and juggle the hardware around while trying to get a ratchet on the bolt head.**

**For locations with toggle mounts simply enlarge the hole with the 1/2" Paddle Bit and feed the toggle through the hole. One at a time tug the attached nylon pulls to seat the butterfly faster into position inside the camper wall and align itself with your mounting hole.**

**This type of fastener will hold itself in place should you ever need to remove the backPACK from the camper for any reason and are reusable.**

**For further information regarding the installation of toggles we've attached a PDF document from Toggler™ at the rear of this guide. For reference the toggles included with your kit are 1/4-20 thread pitch.**

## STEP 5
## backPACK ALIGNMENT

**The backPACK is intended to be installed vertically on the rear wall of your camper. The rectangular, flat design can be utilized in other orientations and positions but the following instructions are for the intended use of vertical on the rear of your camper. For other mounting locations use your best judgment.**

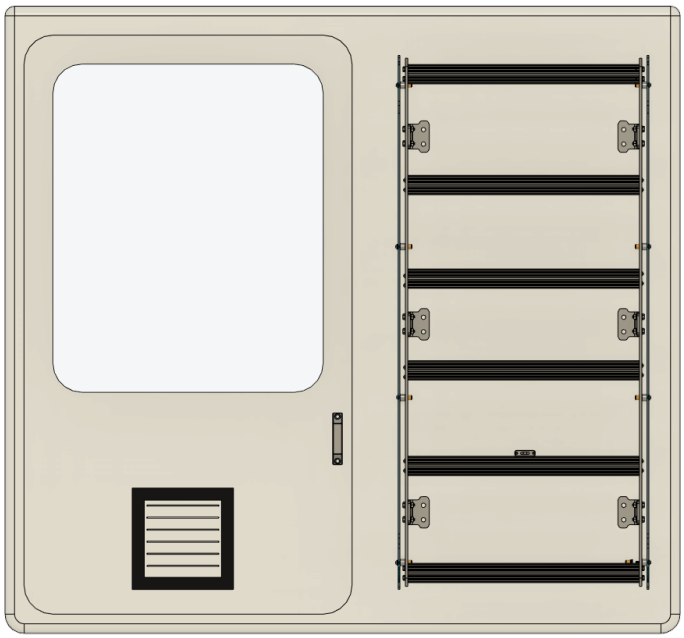

*Figure 6*
***backPACK shown vertical***

**Because the backPACK can be mounted on a variety of camper models there are no set parameters as to where the backPACK should be placed on your particular model. When deciding on the placement for the backPACK please take into account the following:**

- **Do NOT mount the backPACK in a location that will interfere with the operation of or come into contact with the rear door (if equipped) of your camper.**
- **Do NOT mount the backPACK in a location that blocks brake lights, running lights, license plates, or other DOT critical features.**
- **Do NOT mount the backPACK in a location that interferes with or prohibits the operation of the expandable top (if equipped) of your camper.**
- **Make sure that the surface that the backPACK will mount on is flat and level at all 6 foot contact locations.**
- **Try to line the backPACK up on existing structure studs/supports of the camper whenever possible.**
- **Verify clearance of plumbing connection points, electrical connection points, stairs, or other system critical access points of the camper.**

## STEP 5 (CONT)
## backPACK ALIGNMENT

**For positioning the backPACK into location you will require the assistance of another person. The backPACK was designed to be lightweight but it is critical that the rack is held in perfect position throughout the measuring and marking of the twelve (12 ) mount points to ensure that everything lines up when you are ready to bolt the rack into place.**

**Before proceeding with the step verify that the vehicle is Parker on level ground and that the camper is as level as you would have it when you were planning to sleep in it.**

### GATHER THE FOLLOWING

- **Level Verification Device**
- **Tape Measure**
- **Sharpie Marker**
- **Lift buddy**

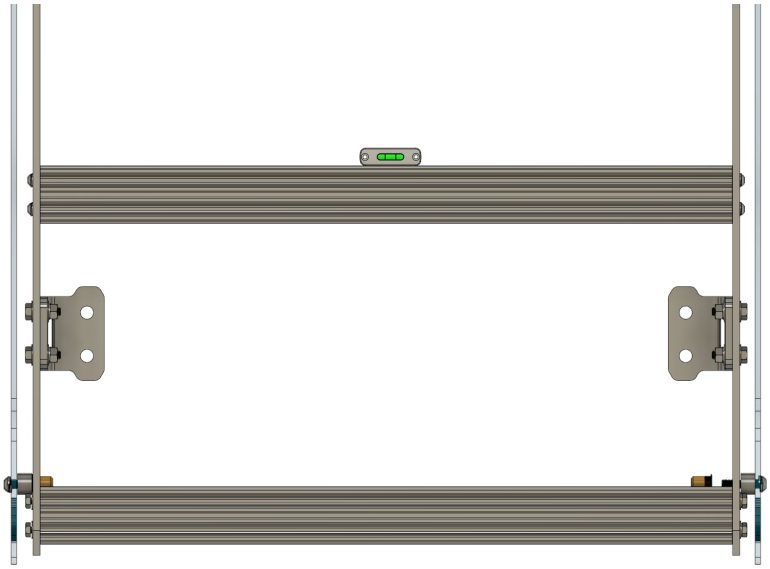

*Figure 7*
***Level Verification***

- ***With the help of a friend lift the backPACK into position on the rear of the camper.***
- ***Place a level on one of the load bars and skew the rack into position until it is level.***
- ***Use a tape measure to verify that the rack is evenly spaced to visual appeal on the rear of the camper.***
- ***Double check your level and adjust as necessary.***
- ***Mark all twelve (12) hole locations through the feet (1324) onto the rear wall of the camper.***
- ***Remove the backPACK from the camper and sit to the side.***

## STEP 6
## DRILLING PROBE HOLES

**It will be difficult to determine which hardware method (Lag Bolts or Toggles) by simply looking at the rear of your camper.**

**We suggest that once you mark the locations for the mounting feet on the rear of your camper you probe the intended area with a small (1/8”) drill bit in the center of each hole. Go to a depth of about 1”. Most camper walls are constructed of material that add up to .750” (3/4”) thick. Going to 1” gives you the ability to test the pilot hole with a small pick tool or similar to gauge whether or not there is anything at the bottom of that hole that the lag bolts could anchor into.**

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**Some installations will require a combination of lag bolts/ butterfly toggles. This is okay. Both fastener methods are capable of biting in and supporting the verified weights at the beginning of this guide.**

**If your camper has easily removable interior trim panels you are encouraged to remove as much as is necessary to gain visual verification of the mounting locations and that you have adequate structure as well as clearance from system critical components of the camper.**

**Many camper interiors use adhesive to hold the panels in and as such are not easily taken apart for this sort of visual reference. This is why we use the probe method listed above and have have great success with this process.**

**By starting with the smaller 1/8th bit you leave yourself enough purchase for the lag bolt as well as the larger hole required for a butterfly toggle. The lag bolts will not properly tighten in a hole drilled for a Butterfly toggle.**

**Areas marked for butterfly toggles require a 9/16” Hole for inserting the toggle into the wall of your camper.**

**Areas marked for Lag Bolt require a 5/32” pilot hole for the threads to properly seat and bite.**

### GATHER THE FOLLOWING

- **Power Drill**
- **1/8” Drill Bit**
- **1/2” Paddle Bit**
- **5/32” Drill Bit**

- **Complete the probing outline above and determine the fastener method to be used for each hole.**
- **Enlarge any probe holes in the camper wall to 1/2” with the paddle bit for TOGGLE ANCHOR LOCATIONS.**
  **For locations using the butterfly toggle refer to PDF guide at rear of manual and insert a toggle into each 1/2” hole at this time.**
- **Enlarge any probe holes in the camper wall to 5/32” with the drill bit for LAG BOLT LOCATIONS.**
- **Apply a generous amount of sealant in and around any hole you’ve drilled.**

## STEP 7
## MOUNTING METHODS

*Figure 8*
***Lag Bolt Hardware Assembly Order***

**Holes that use the lag bolts will get the following:**
**(1) Lag Bolt (requires 7/16” wrench to tighten)**
**(1) 1/4” Lock Washer**
**(1) 1” Fender Washer**

*Figure 9*
***Butterfly Toggle Hardware Assembly Order***

**Holes that use the butterfly toggle will get the following:**
**(1) 1/4-20x2.5” (requires Philips head driver to tighten)**
**(1) 1/4” Lock Washer**
**(1) 1” Fender Washer**

## STEP 8
## backPACK MOUNTING

### GATHER THE FOLLOWING
- Butterfly Toggle Hardware
- Lag Bolt Hardware
- 7/16” Wrench
- Philips Head Driver

### PROCEED WITH INSTALLATION
- Verify sealant present at all twelve (12) mounting locations.
- With the help of a friend lift the back pack into position.
- Install the hardware into each location one at a time. Leave loose.
- Verify level against a load bar again.
- Fully Tighten the fasteners.
  - 50 Inch Pounds for Lag Bolts
  - 35 Inch Pounds for Butterfly Toggles

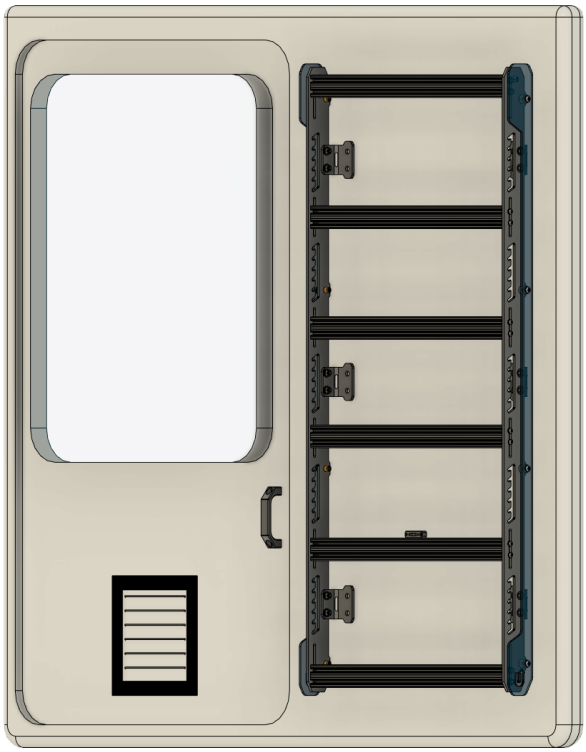


*Figure 10*
***Completed Installation***

**Once the backPACK is anchored to the rear of the camper you can plan your gear load out and begin installing accessories to the backPACK. Refer to front of guide for weight restrictions. Always load the rack evenly.**

**NEVER USE THE RACK AS A LADDER.**

## 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.**

# SNAPTOGGLE® Heavy-Duty Toggle Bolts

TOGGLER® HIGH-PERFORMANCE ANCHORS®

## Description

SNAPTOGGLE heavy-duty toggle bolts carry twice the load in a smaller hole than standard wing anchors. A patented strap design with sturdier straps and smaller ratchet interval adjusts more precisely and snaps off flush to the surface.
SNAPTOGGLE heavy-duty toggle bolts do NOT spin when installed with a screw gun and provide superior holding with metal-to-metal fastening.

## Key Features & Benefits

- **Strong** – up to **2x the load** of an old-fashioned wing toggle
- Solid metal channel **resists vibration and shock**
  - bolt is centered in channel and positioned for precise installation
  - bolt threads never touch interior surface of hole and so can't saw through substrate
- **Save time** – at least **6 minutes** per anchor versus wing toggles
- Can use a screw gun – anchor **does not spin**
- **Save money** – turn a 2-person job into a 1-person job
- Use a **shorter bolt** – no need to carrry a wing through the wall
- Patented strap design with sturdier straps and smaller ratchet interval:
  - adjusts more precisely and **snaps off flush** to wall, ceiling, or floor
  - does not break prematurely
  - pushes aside insulation
- **Smallest installation hole** for each bolt size:
  - maintains integrity of wall, ceiling, or floor, strengthening the anchoring
  - ends the need to patch an oversized hole [a 1/4" wing toggle requires a 3/4" diameter hole: 50% larger than the 1/2" diameter hole used by the 1/4" SNAPTOGGLE anchor]

USA MADE

RoHS COMPLIANT

## Specifications, Listings and Approvals

**Materials:**
***Metal channel:*** trivalent zinc-plated cold rolled steel or 304 stainless steel
***Straps and handle:*** high-impact polystyrene
***Cap:*** translucent polypropylene copolymer

**Plating:** Plating: ASTM B633, SC1, Type III, (Fe/Zn 5)

**Federal Specifications:** FF-B-588D, Type V

**Minimum screw length:** thickness of wall or ceiling + thickness of item being fastened + 1/2"

**Minimum clearance behind wall:** 1-7/8"

**Grip Range:**
3/8" - 3-5/8" = BA & BB
3/8" - 2-1/2" = BC, BD & BE
2" - 9-1/2" = BAL & BBL

**Specs:**
– No MSDS required
– ADA Compliant
– OSHPD Compliant

# SNAPTOGGLE® Heavy-Duty Toggle Bolts

TOGGLER HIGH-PERFORMANCE ANCHORS

## Key Features & Benefits (continued)

- New plating is **7x more corrosion-resistant** than B633-85 Type III/SC 1 government spec high quality zinc plating [350 hours to red rust in salt spray test versus only 48 hours for government spec]
- **Pre-installs without the bolt** to make handling of fixture easier
- **Reusable** in the same hole – remove the bolt without losing the anchor
- New **ergonomic design** – fingers grip straps more naturally and more easily with no slipping

## Applications

- Cinder block
- Concrete block
- Gypsum board
- Drywall
- Tile over drywall
- Plasterboard
- Composite panels
- Cement board
- Greenboard
- Plaster
- Stucco
- Fiberglass
- Plywood
- Steel plate
- Plastic
- Wood studs/beams

## Benefits Compared To Wing Toggles:

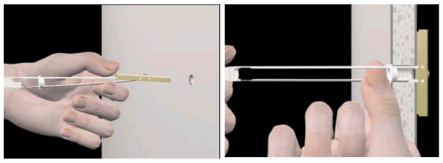
– Holds up to 2x the load
– Solid metal channel resists vibration & shock
– Pre-assembled and ready for immediate use
– Pre-installs without fixture or bolt
– Installs in a significantly smaller hole
– Automatically adjusts to thickness of wall, ceiling, or floor
– Does NOT spin—bolt installs with a screw gun
– Uses a shorter bolt—no need to carry a wing
– New plating is 7 times more corrosion-resistant
– Does NOT fall behind wall when bolt is removed; fixture can be removed and reinstalled as often as desired

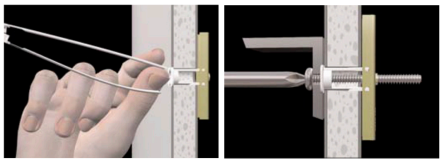
## Installation Information

**Instructions**

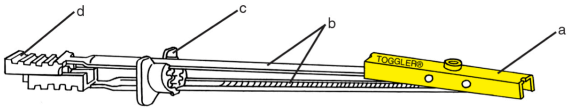
1. Drill appropriate size hole. Hold metal channel flat alongside plastic straps & slide channel through the hole. Minimum clearance behind wall: only 1-7/8".
2. Hold ends of straps together between thumb & forefinger and pull toward you until channel rests behnd wall. Ratchet cap along straps with other hand until flange of cap is flush with wall.
3. Place thumb between straps at wall. Push thumb side to side, snapping off straps level with flange of cap.
4. Place item over flange. Insert bolt and tighten until snug against item, then stop. Use machine screw or bolt to match thread in metal channel.

   **Note:** Maximum torque on screw or rod is 5 ft-lb.



## Installation Data




a = anchoring channel / zinc-plated cold rolled steel or 304 series stainless steel
b = straps / high-impact polystyrene / locking ratchet
c = cap / translucent polypropylene copolymer
d = ergonomic handle / same as straps

### UNC - Imperial

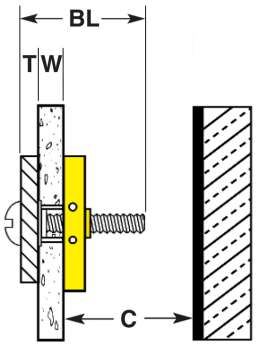
| Steel Style | Stainless Style | Drill Bit Dia. | Thread Size (UNC) | Threads Per Anchor | Grip Range | Minimum Clearance |
|---|---|---|---|---|---|---|
| BA | BAS | 1/2" | 3/16 - 24 | 2.8 | 3/8" - 3-5/8" | 1-7/8" |
| BB | BBS | 1/2" | 1/4 - 20 | 2.5 | 3/8" - 3-5/8" | 1-7/8" |
| BE | | 3/4" | 5/16 - 18 | 2.8 | 3/8" - 2-1/2" | 1-7/8" |
| BC | BCS | 3/4" | 3/8 - 16 | 2.4 | 3/8" - 2-1/2" | 1-7/8" |
| BD | BDS | 3/4" | 1/2 - 13 | 2.25 | 3/8" - 2-1/2" | 1-7/8" |
| BAL* | BALS* | 1/2" | 3/16 - 24 | 2.8 | 2" - 9-1/2" | 1-7/8" |
| BBL* | BBLS* | 1/2" | 1/4 - 20 | 2.5 | 2" - 9-1/2" | 1-7/8" |

*Long straps (L) for roofing and very thick walls or ceilings

### Metric

| Steel Style | Stainless Style | Drill Bit Dia. | Thread Size (ISO) | Threads Per Anchor | Grip Range | Minimum Clearance |
|---|---|---|---|---|---|---|
| BM5 | BM5S | 13mm | M5 x 0.8 | 3.8 | 10-92mm | 48mm |
| BM6 | BM6S | 13mm | M6 x 1.0 | 3.1 | 10-92mm | 48mm |
| BM8 | BM8S | 19mm | M8 x 1.25 | 3.1 | 10-64mm | 48mm |
| BM10 | BM10S | 19mm | M10 x 1.5 | 2.75 | 10-64mm | 48mm |
| BM5L* | BM5LS* | 13mm | M5 x 0.8 | 3.8 | 51-240mm | 48mm |
| BM6L* | BM6LS* | 13mm | M6 x 1.0 | 3.1 | 51-240mm | 48mm |

*Long straps (L) for roofing and very thick walls or ceilings




**C = 1-7/8" (48mm)**
**BL = T + W + 1/2" (13mm)**
[For min. W & max. W, see "Grip Range" at left]

## Performance Data

### Ultimate Tensile Pull-Out Values (lbs.)

| Anchor Type | Thread Size (UNC) | Drill Bit Dia. | 1/2" Drywall | 5/8" Drywall | *1/2" With 25 Gauge Stud | *5/8" With 25 Gauge Stud | Concrete Block | 1/2" Steel Plate | Stainless In 1/2" Steel[3] |
|---|---|---|---|---|---|---|---|---|---|
| BA | 3/16 - 24 | 1/2" | 238 | 356 | 412 | 462 | 802 | 918[1] | 1,193[1] |
| BB | 1/4 - 20 | 1/2" | 265 | 356 | 425 | 464 | 1,080 | 1,288[2] | 1,735[1] |
| BE | 5/16 - 18 | 3/4" | 270 | 480 | 439 | 480 | 1,400 | 1,680 | 2,118 |
| BC | 3/8 - 16 | 3/4" | 275 | 576 | 466 | 576 | 1,745 | 1,692 | 2,523[1] |
| BD | 1/2 - 13 | 3/4" | 275 | 576 | 468 | 576 | **2,038[2] | 2,605 | 3,150 |

* Failure measured as breakage of drywall portion
** Failure of block

[1] Stainless steel bolts used
[2] Hardened bolts used
[3] Stainless steel channel tested with stainless bolts in 1/2" steel plate

### Ultimate Shear (lbs.)

| Anchor Type | Thread Size (UNC) | Drill Bit Dia. | 1/2" Drywall | 5/8" Drywall |
|---|---|---|---|---|
| BA | 3/16 - 24 | 1/2" | 247 | 298 |
| BB | 1/4 - 20 | 1/2" | 241 | 324 |
| BC | 3/8 - 16 | 3/4" | 292 | 406 |

**Notes:**

- Industry standards recommend 1/4 of ultimate test load.
- Holding strength for a SNAPTOGGLE heavy-duty hollow-wall anchor varies directly with the strength and condition of the substrate and the bolt size—and inversely with variations in hole diameter and the distance of the load from the wall.
- All figures in pounds. Pull-out values based on independent laboratory tests done according to U.S. Government standards. They should be used as guides only and cannot be guaranteed. The age, condition, and capacity of the substrate must be considered.

# SNAPTOGGLE® Heavy-Duty Toggle Bolts

TOGGLER HIGH-PERFORMANCE ANCHORS

## Order Information

| Zinc-Plated Carbon Steel** | | | | | | |
|---|---|---|---|---|---|---|
| **Catalog No.** | **Style** | **Drill Bit Dia.** | **Thread Size** | **Bolts Included** | **Box/Bag (pcs. )** | **Master Carton (pcs.)** |
| 24013 | BA | 1/2" | 3/16 - 24 | – | 100 | 1000 |
| 25013 | BA | 1/2" | 3/16 - 24 | – | 50 | 500 |
| 50375 | BA | 1/2" | 3/16 - 24 | 3/16 - 24 x 2-1/2" | 10 | 120 |
| 50350 | BA | 1/2" | 3/16 - 24 | 3/16 - 24 x 2-1/2" | 2 | 200 |
| 24014 | BB | 1/2" | 1/4 - 20 | – | 100 | 1000 |
| 25014 | BB | 1/2" | 1/4 - 20 | – | 50 | 500 |
| 50425 | BB | 1/2" | 1/4 - 20 | 1/4 - 20 x 2-1/2" | 10 | 120 |
| 50400 | BB | 1/2" | 1/4 - 20 | 1/4 - 20 x 2-1/2" | 2 | 200 |
| 21017 | BE | 3/4" | 5/16 - 18 | – | 25 | 250 |
| 21015 | BC | 3/4" | 3/8 - 16 | – | 25 | 250 |
| 21016 | BD | 3/4" | 1/2 - 13 | – | 25 | 250 |
| 25029 | BM5 Metric | 13mm | M5 x 0.8 | – | 50 | 500 |
| 25024 | BM6 Metric | 13mm | M6 x 1.0 | – | 50 | 500 |
| 21031 | BM8 Metric | 19mm | M8 x 1.25 | – | 25 | 250 |
| 21035 | BM10 Metric | 19mm | M10 x 1.5 | – | 25 | 250 |
| 21049 | BAL Long | 1/2" | 3/16 - 24 | – | 50 | 500 |
| 21050 | BBL Long | 1/2" | 1/4" - 20 | – | 50 | 500 |
| 21064 | BM5L Metric Long | 13mm | M5 x 0.8 | – | 50 | 500 |
| 21025 | BM6L Metric Long | 13mm | M6 x 1.0 | – | 50 | 500 |

** All bags and boxes must be purchased in master carton quantities, except for stainless steel boxes, long toggle bolts and metric sizes.

| Type 304 Stainless Steel** | | | | | | |
|---|---|---|---|---|---|---|
| Catalog No. | Style | Drill Bit Dia. | Thread Size | Bolts Included | Box/Bag (pcs. ) | Master Carton (pcs.) |
| 24020 | BAS | 1/2" | 3/16 - 24 | – | 100 | 1000 |
| 25020 | BAS | 1/2" | 3/16 - 24 | – | 50 | 500 |
| 50435 | BAS | 1/2" | 3/16 - 24 | 3/16 - 24 x 2-1/2" | 2 | 200 |
| 24021 | BBS | 1/2" | 1/4 - 20 | – | 100 | 1000 |
| 25021 | BBS | 1/2" | 1/4 - 20 | – | 50 | 500 |
| 50440 | BBS | 1/2" | 1/4 - 20 | 1/4 - 20 x 2-1/2" | 2 | 200 |
| 21022 | BCS | 3/4" | 3/8 - 16 | – | 25 | 250 |
| 21023 | BDS | 3/4" | 1/2 - 13 | – | 25 | 250 |
| 25030 | BM5S Metric | 13mm | M5 x 0.8 | – | 50 | 500 |
| 25026 | BM6S Metric | 13mm | M6 x 1.0 | – | 50 | 500 |
| 21032 | BM8S Metric | 19mm | M8 x 1.25 | – | 25 | 250 |
| 21036 | BM10S Metric | 19mm | M10 x 1.5 | – | 25 | 250 |
| 21059 | BALS Long | 1/2" | 3/16 - 24 | – | 50 | 500 |
| 21060 | BBLS Long | 1/2" | 1/4 - 20 | – | 50 | 500 |
| 21065 | BM5LS Metric Long | 13mm | M5 x 0.8 | – | 50 | 500 |
| 21061 | BM6LS Metric Long | 13mm | M6 x 1.0 | – | 50 | 500 |

** All bags and boxes must be purchased in master carton quantities, except for stainless steel boxes, long toggle bolts and metric sizes.

**For more information, please contact:**

TOGGLER® HIGH-PERFORMANCE ANCHORS® wej-it HIGH-PERFORMANCE ANCHORS

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