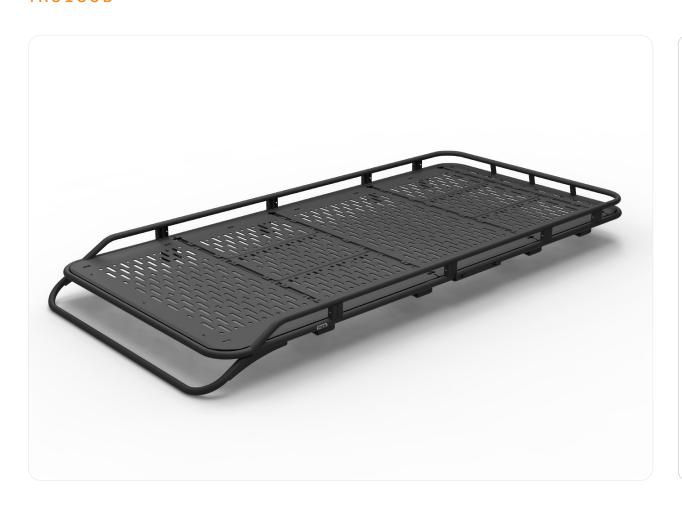


# TRANSIT VAN SAFARI RACK - 148" HIGH ROOF (DROP FRONT) TRO109B



#### TOOLS REQUIRED (NOT INCLUDED)

- + MEASURING TAPE
- + OWICK CLAMPS
- 3/8" WRENCH OR SOCKET
- + 7/16" WRENCH OR SOCKET
- + 9/16" WRENCH OR SOCKET
- + 5/32" ALLEN WRENCH

#### **INSTALL INFO**

TIME TO INSTALL THIS PRODUCT: 3-4 HOURS

Additional help is suggested for a few of the install steps.

#### **BEFORE YOU START**

Please inspect the product and packaging upon delivery to ensure there are no issues and that all parts and hardware are accounted for.

Contact us ASAP if anything is missing at: support@flatlinevanco.com



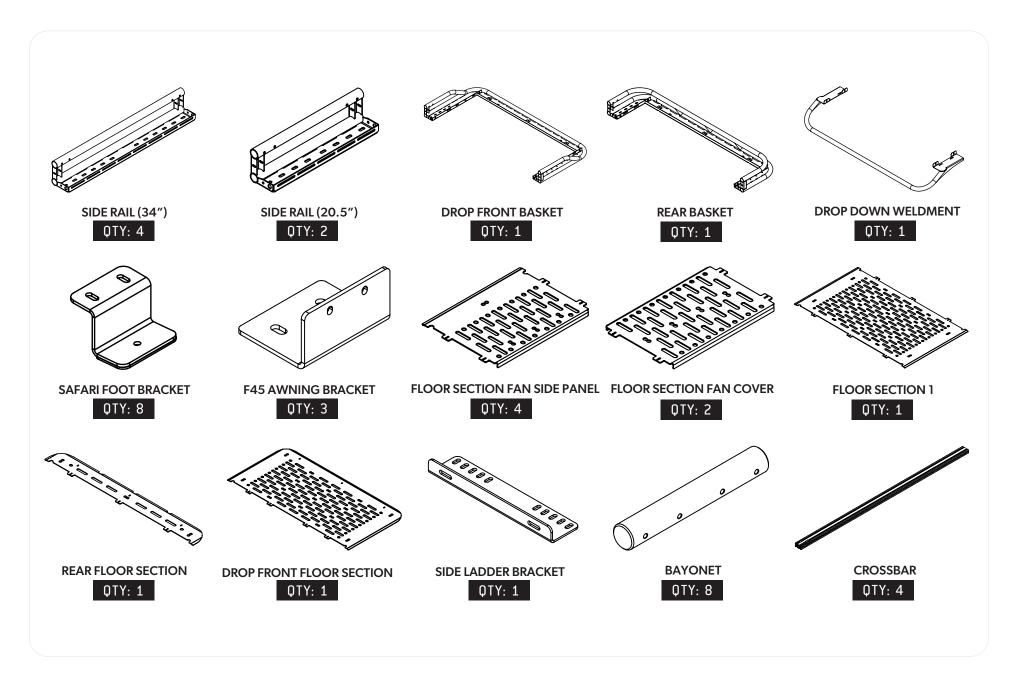
### **BEFORE YOU START**

All Flatline Van Co products must be properly assembled and secured before attaching to your vehicle. Improper attachment could result in an automobile accident, and could cause serious bodily injury or death to you or to others involved. You are responsible for assembling and securing Flatline Van Co products to your vehicle, checking the mounting points and attachments prior to use, and regularly inspecting the products for wear and or damage. We always recommend you use a professional to install any aftermarket accessories to your vehicle. If you have no mechanical experience and are not thoroughly familiar with the installation procedures, you must have the product installed by a professional installer or other qualified persons. The responsibility is yours and must be taken seriously for everyone's safety.





# **PACKAGE CONTENTS**

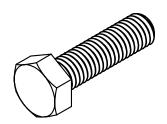




# **HARDWARE**



3/8-16 X 1 CARRIAGE BOLT QTY: 26



M8-1.25 HEX HEAD SCREW QTY: 8



1/4-20 T-NUT QTY: 37



3/8-16 NYLON LOCKNUT QTY: 26



5/16" BONDED SEALING **WASHERS** 

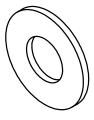
QTY: 8



1/4-20 X 0.75 FLANGED HEX **HEAD SCREW** 



1/4-20 X 0.75 FLANGED BUTTON **HEAD HEX DRIVE SCREW** 



3/8 SCREW FLAT WASHER



1/4-20 CLIP NUT

QTY: 6



1/4-20 X 0.5 FLANGED BUTTON **HEAD HEX DRIVE SCREW** 

QTY: 37

QTY: 34







1/4 SCREW FLAT WASHER



1/4-20 NYLON LOCKNUT

QTY: 18

QTY: 18

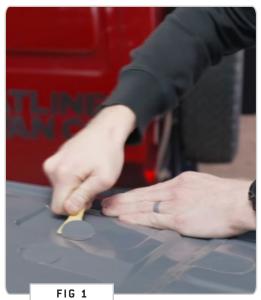
# **INSTALL**

TOOLS REQUIRED FOR THIS STEP: + CHISEI

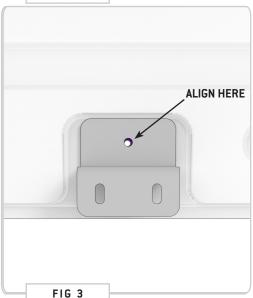
DIE GRINDER OR METAL FILE

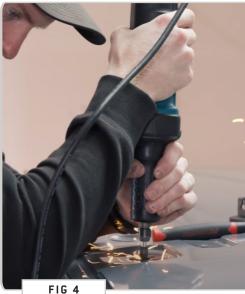
#### STEP | 01 LAYOUT AND INSTALL PREP

- 1.1 Remove Mounting Hole Caps: Use a heat gun on a low temperature setting to loosen up the adhesive that holds the mounting hole caps to the top of the van. There should be six total. Use a chisel or plastic pry tool to gently remove them from the mounting surface [FIG 1].
- **1.2 Clean Mounting Surface:** Clean the area using goo-gone and denatured alcohol to thoroughly remove any adhesive residue **(FIG 2)**.
- 1.3 Ensure Bolt Clearance: Dry fit the landing pads onto the mounting surface and ensure that bolts can pass through to the factory threaded slots (FIG 3). If there are clearance issues, use a die grinder to carefully enlarge the holes for access to threaded mounting holes (FIG 4).











TOOLS REQUIRED FOR THIS STEP: + 13MM BOX WRENCH OR SOCKET + CAULKING GUN

#### STEP | 02 FOOT BRACKET INSTALL

- 2.1 Install Foot Brackets: Secure the Foot Brackets to the roof by tightening down M8 Bolts with loctite and 5/16" Bonded Sealing Washers (FIG 5+6).
- **2.2 Apply Sealant:** Apply a small bead of exterior waterproof sealant around the outside of each landing pad **(FIG 7)**.

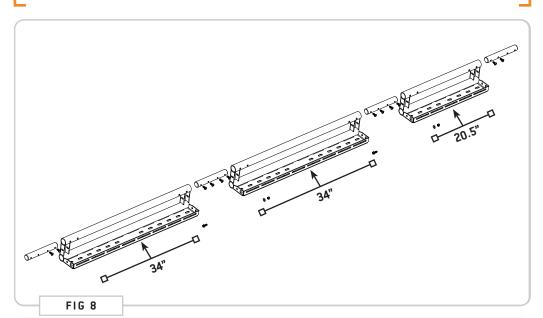




TOOLS REQUIRED FOR THIS STEP: + 5/32" ALLEN WRENCH 9/16" WRENCH OR SOCKET

#### STEP | 03 SIDE RAIL ASSEMBLY

- 3.1 Assemble Side Rails: Insert a Bayonet into the end of a 34" Side Rail (FIG 8+9) and use (2) 1/4-20 x 0.75 Flanged Button Head Screws (not the shorter ones) to loosely secure the Bayonet in place.
- **3.2 Assemble Side Rails:** Attach another **34" Side Rail** piece to the protruding end of the **Bayonet** and repeat the process on the other side with a **20.5" Side Rail**. See **FIG 8** for layout of components.







TOOLS REQUIRED FOR THIS STEP: + QWICK CLAMPS

3/8" WRENCH OR SOCKET

+ 7/16" WRENCH OR SOCKET

#### STEP | 04 SIDE RAIL ASSEMBLY

**4.1 Fasten Side Rails Together:** Secure the connection with a **1/4-20 Flanged Hex Bolt, Washer and Nylon Locknut.** Insert the bolt through the smaller hole inside the larger wire pass-through hole **(FIG 10)**.

**NOTE -** Use clamps to ensure the seams are tight while you tighten the bolts **(FIG 11).** 



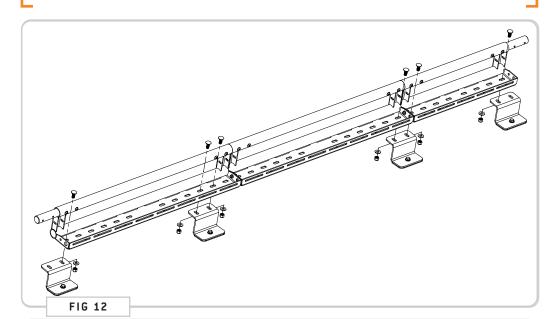


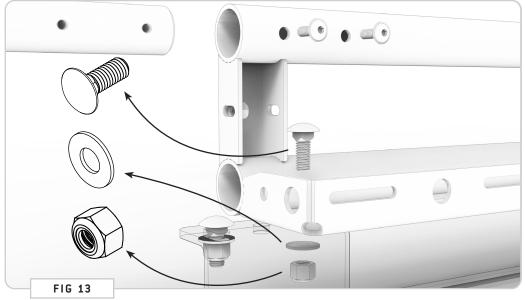


#### STEP | 05 SIDE RAIL INSTALL

5.1 Mount Side Rails to Van Rails: With assistance, lift the Side Rail Assembly onto the roof. Align the Side Rail Assembly with the mounting holes of the Foot Brackets and secure loosely using 3/8-16" Carriage Bolts, Flat Washers and Nylon Locknuts as shown in FIG 12+13.

**NOTE -** Leave these bolts loose; we'll come back and tighten them at a later step.







TOOLS REQUIRED FOR THIS STEP: +

5/32" ALLEN WRENCH

QWICK CLAMPS

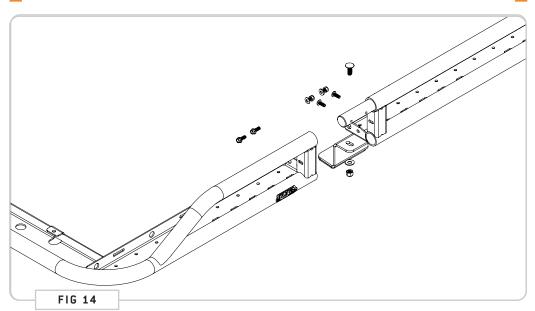
3/8" WRENCH OR SOCKET

+ 7/16" WRENCH OR SOCKET

#### STEP | 06 ATTACH BASKETS TO RAILS

6.1 Attach Front and Rear Baskets: With help, carefully attach the Front Basket to the protruding Bayonets and secure the connections using (2) 1/4-20 x 0.75 Flanged Button Head Screws (not the shorter ones) for the Bayonets and a 1/4-20 Flanged Hex Bolt, Washer and Nylon Locknut for the Side Rail connection.

**NOTE** - Use clamps to ensure the seams are tight while you tighten the bolts (FIG 15).





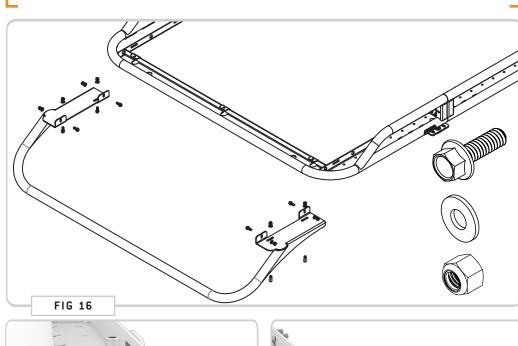


TOOLS REQUIRED FOR THIS STEP: + 3/8" WRENCH OR SOCKET + 7/16" WRENCH OR SOCKET

#### STEP | 07 ATTACH DROP FRONT

**7.1 Attach Drop Front:** The Drop Front mounts to the underside tray of the Front Basket Weldment. You will need to maneuver it around your antenna to get it in place, so having a second person helps immensely for this step. **FIG 17 and 18** details how the **Drop Front** fastens to the **Front Basket.** Use a **1/4-20 Flanged Hex Bolt, Washer and Nylon Locknut** in the locations shown.

**NOTE -** We recommend installing your lighting setup to the Drop Front weldment prior to installing it on the rack. This makes adjustments and placement a bit easier.







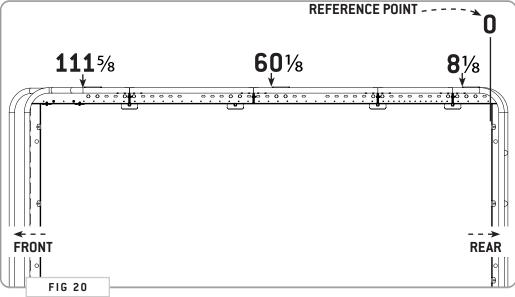


TOOLS REQUIRED FOR THIS STEP: + MEASURING TAPE 9/16" WRENCH OR SOCKET

**STEP | 08 INSTALL AWNING BRACKETS** 

8.1 F45 Awning Brackets (optional): If you purchased a Fiamma F45 Awning with your rack, install the (3) Awning Brackets at this time using (2ea) 3/8-16" Carriage Bolts, Flat Washers and Nylon Locknuts. See FIG 20 for locations.



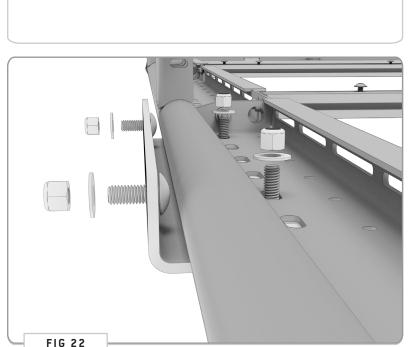


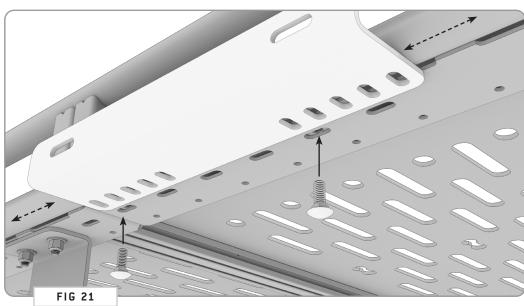


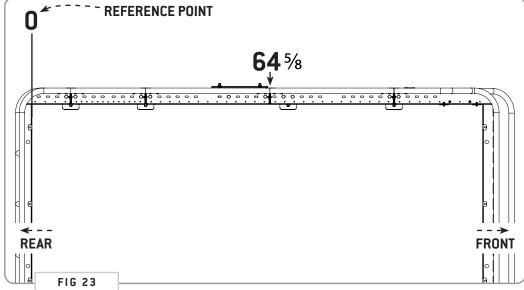
#### STEP | 09 INSTALL LADDER BRACKET

9.1 Side Ladder Bracket (optional): If you purchased a Side Ladder with your rack, install the Side Ladder Bracket at this time using (2ea) 3/8-16" Carriage Bolts, Flat Washers and Nylon Locknuts. See FlG 21+22 for available locations. Notice that there are multiple slots available to choose from that allow for adjustability.

**NOTE -** If you haven't purchased your ladder yet, or intend on installing at a different time, you should install the bracket now and attach the hardware. This will save you time later.





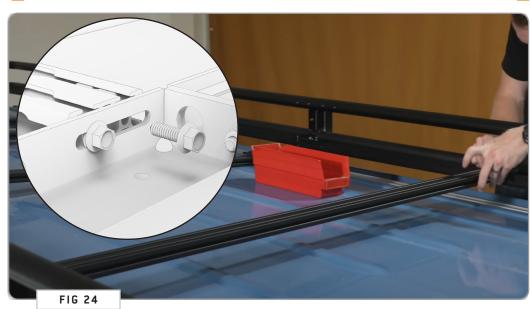


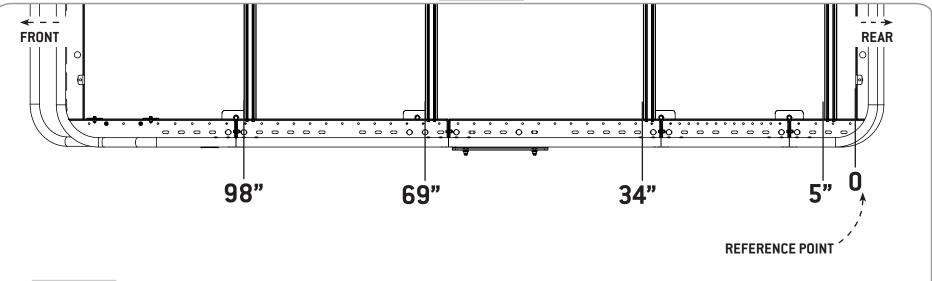


TOOLS REQUIRED FOR THIS STEP: + MEASURING TAPE + 7/16" WRENCH OR SOCKET

#### **STEP | 10 INSTALL CROSSBARS**

10.1 Attach Crossbars: Using (4ea) 1/4-20 Flanged Hex Bolts with Loctite (FIG 24), attach Crossbars to the rack in the locations shown in FIG 25. Be sure to measure both sides to ensure that the crossbars are square.







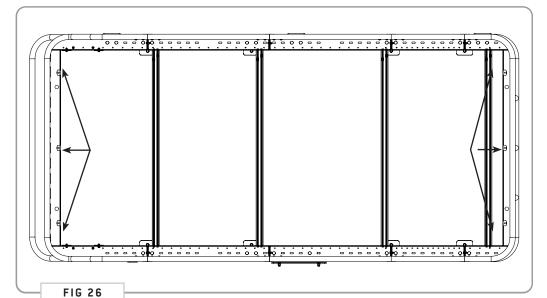
**FIG 25** 

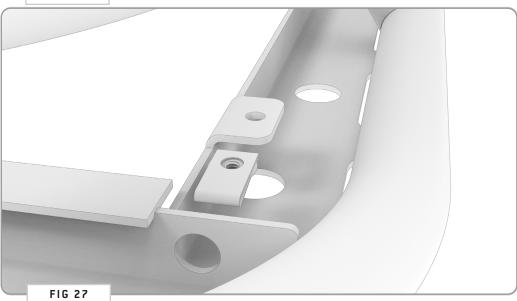
TOOLS REQUIRED FOR THIS STEP:

#### **STEP | 11 PREP FOR PANELS**

11.1 Attach Clip Nuts to Baskets: Install the Clip Nuts to the Front and Rear Basket locations as shown in FIG 26.

**NOTE -** The flat side of the **Clip Nut** should be facing upwards **(FIG 27)** 







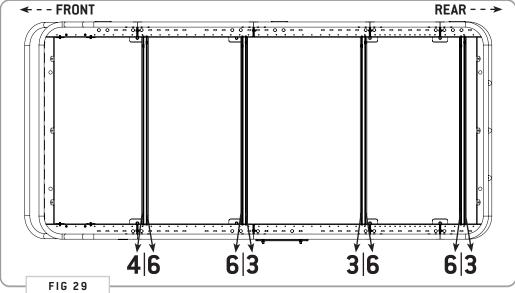
TOOLS REQUIRED FOR THIS STEP:

#### **STEP | 11 PREP FOR PANELS**

**11.2 Layout T-Nuts:** Consider the layout plan of your roof accessories and install T-Nuts into the available slots of the Crossbars as shown in **FIG 28.** See **FIG 29** for amounts of T-Nuts needed per slot if using exclusively decking panels.

NOTE - The flat side of the **T-Nuts** should be facing upwards when installing to **Crossbar**.



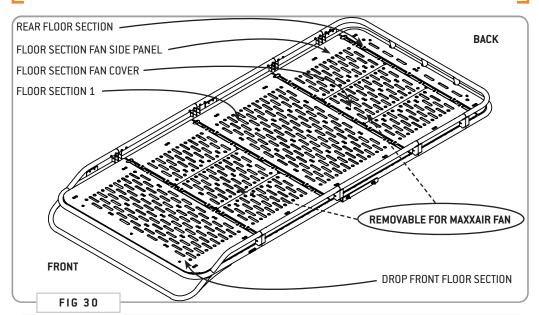




#### **TOOLS REQUIRED FOR THIS STEP:**

#### **STEP | 12 INSTALL FLOOR PANELS**

12.1 Install Floor Panels: Begin to layout your Decking Panels along the locations shown in FIG 30. Adjust the T-Nuts as necessary to line up with the available pill slots of the Decking Panels (FIG 31).



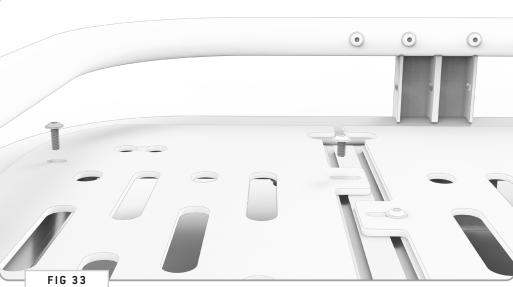




#### **STEP | 12 INSTALL FLOOR PANELS**

12.2 Install Floor Panels: Note that the front and rear-most panels have pill slots for attaching to the Clip Nuts installed earlier (FIG 32). Use the 1/4-20 x 0.5" Flanged Button Head Screws for the Decking Panels that attach to Crossbars, and the longer 0.75" Screws for the ones that attach to the Clip Nuts (FIG 33).







TOOLS REQUIRED FOR THIS STEP: + 3/8" WF

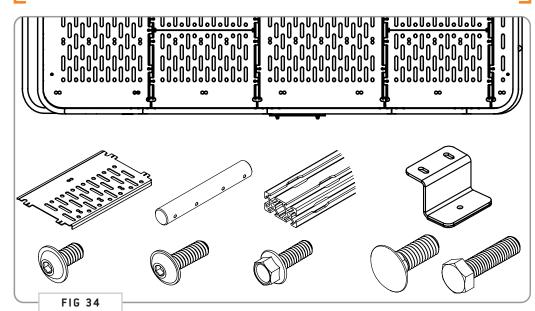
3/8" WRENCH OR SOCKET 7/16" WRENCH OR SOCKET

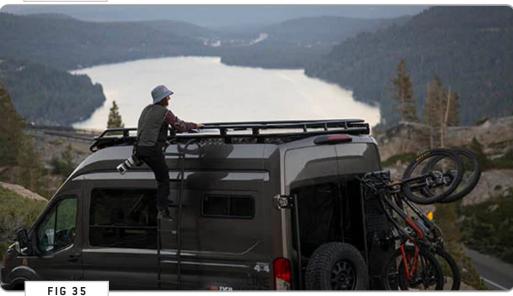
+ 9/16" WRENCH OR SOCKET

5/32" ALLEN WRENCH

#### **STEP | 13 FINAL ADJUSTMENTS**

**13.1 Tighten Fasteners:** Once you've got all of the floor sections bolted down, do a once-over of all fasteners on the rack to ensure they are tight and secure. Install is now complete, and you're ready for adventure!







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