

TracVision® A5 Antenna Mounting Instructions for a Vehicle Without a Roof Rack

The instructions on the following pages explain how to mount the TracVision A5 antenna directly to a vehicle's roof.



WARNING!

PLEASE READ - VERY IMPORTANT!

This kit is designed for mounting the TracVision A5 antenna to a flat metal roof up to 3/16" thick. It is not intended to be a universal solution for all vehicles. Improper use of this kit could result in an unsafe installation.

This procedure is the only approved method for mounting the TracVision A5 antenna to a roof without a roof rack. Other installation techniques are not supported by KVH.

Materials and Equipment Required

To mount the antenna to the roof, you will need the following tools and materials:

- 1/4" driver
- Drill and 3/16" bit
- Light hammer and transfer punch *or* 2/4" bit
- 3/16" socket wrench
- Silicone sealant or RTV

Materials Provided

The following components are provided with the antenna mounting kit:

Part	Part #	Qty.
Rubber mounting blocks	24-0180	4
Rubber spacers	24-0181	4
Jack nuts	14-0384-25	8
Friction wrenches	14-0387	4
TORX® T27 bit	14-0378	1

Materials Provided (continued)

Part	Part #	Qty.
Antenna brackets	02-1347	4
Plastic clamp spacers	30-0180	4
¼"-20 x 3½" TORX screws	14-0362-56	8
¼"-20 x 1" hex head bolt	14-0250-16	1
¼"-20 x 1" TORX screws	14-0361-16	12
Clamp covers (front)	30-0190	2
Clamp covers (rear)	30-0191	2
#8-32 x 1" screws	14-0041-08	8

Mounting the Antenna

Please follow the steps below to mount the antenna to the vehicle's roof.

TORX Screw Head

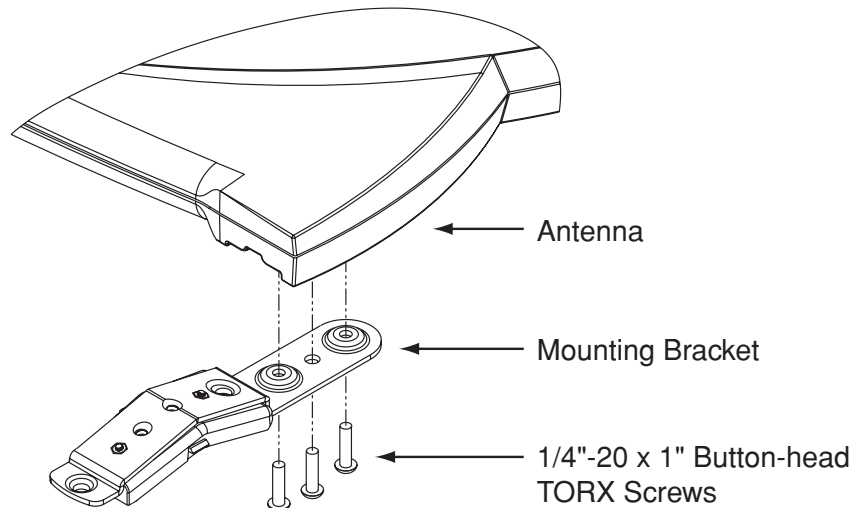


1. Underneath each of the antenna's four corners, attach a supplied mounting bracket using three ¼"-20 x 1" button-head TORX screws (supplied in the kitpack). Use a ¼" driver and the supplied T27 TORX bit to tighten the screws; do not overtighten.



For a safe installation, be sure to use **all three** TORX screws to attach each mounting bracket to the antenna. The TORX hardware is prepared with a thread-locking feature; do not use any substitute hardware.

Attaching Brackets to the Antenna Base

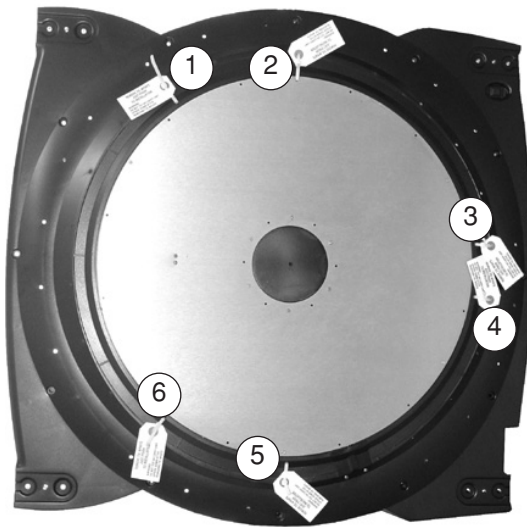


- Without tilting the antenna upside-down, cut and remove all of the shipping restraints located underneath the antenna. To remove these wire restraints, you will need to use heavy-duty wire cutters.



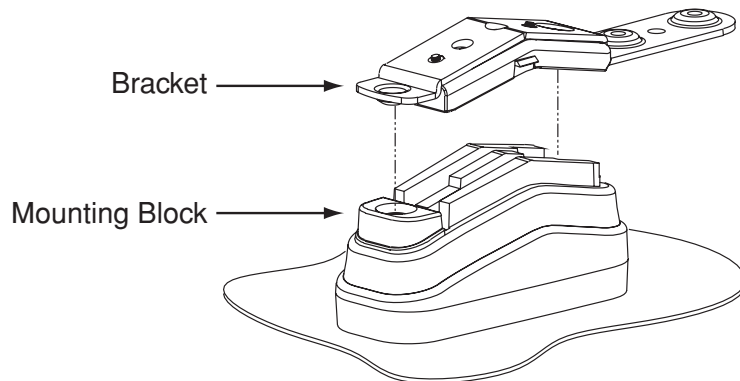
Do **NOT** tilt the antenna on its side or upside-down once the shipping restraints are removed. Damage caused by improper handling is not covered under the KVH warranty.

Shipping Restraint Locations



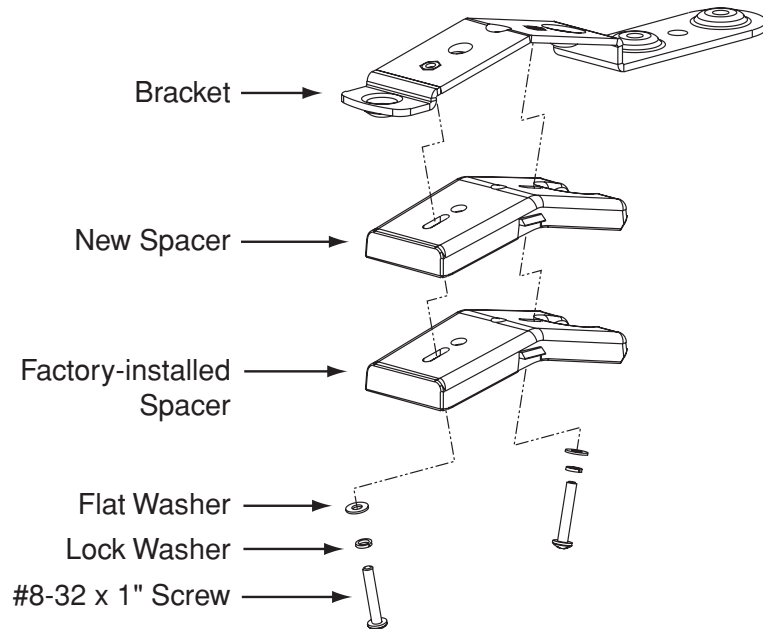
- Position the antenna onto the center of the vehicle's roof with a rubber mounting block under each bracket.

Positioning an Antenna Bracket Onto a Mounting Block



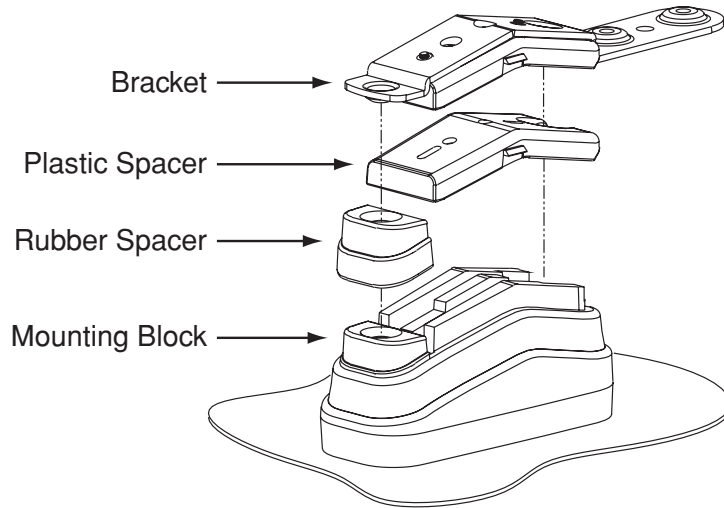
4. The bottom of the antenna should rest higher than $\frac{1}{2}$ " above the vehicle's roof. If the antenna's base is less than $\frac{1}{2}$ " from the roof, you will need to add a spacer under each bracket to raise the antenna higher. If spacers are needed, follow the steps below to install a spacer under each bracket:
 - a. Remove the #8-32 x $\frac{3}{8}$ " screws and washers securing the factory-installed plastic spacer to the metal bracket.
 - b. Insert a second spacer from the kitpack between the original spacer and the bracket. Secure both spacers to the bracket using the #8-32 x 1" screws supplied in the kitpack and the original washers that you removed in Step a.

Adding a Second Spacer to the Bracket (If Needed)



- c. Place a rubber spacer onto the end of each rubber mounting block. *The figures below show how the spacers are used to raise the antenna higher off the roof.*

Adding a Rubber Spacer to the Mounting Block (If Needed)

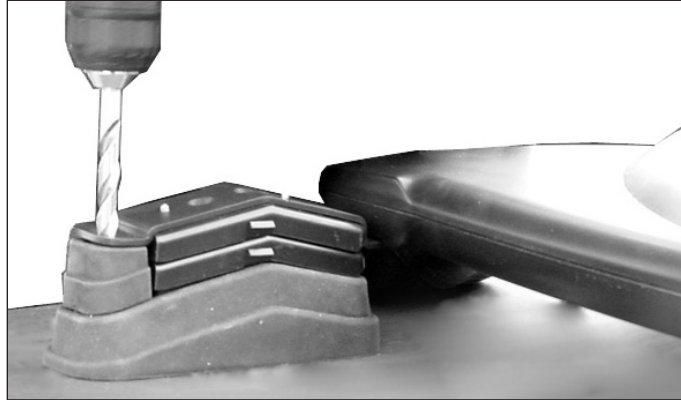


Spacers Installed



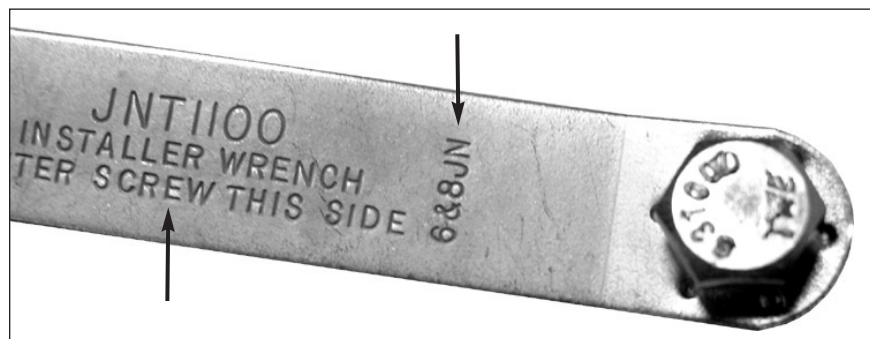
5. With the antenna centered on the vehicle's roof and resting on the four mounting blocks, mark the eight mounting hole locations. To mark the holes, you may use either a transfer punch or a $\frac{21}{64}$ " drill bit as shown below.

Marking the Mounting Holes Using a $\frac{21}{64}$ " Bit



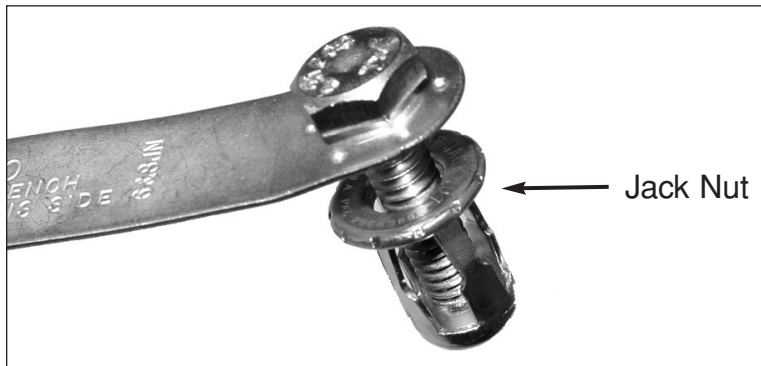
6. Keeping the antenna level at all times, carefully remove the antenna and mounting blocks from the vehicle's roof and set them aside in a safe place.
7. Using a $\frac{7}{16}$ " drill bit, drill the eight mounting holes in the vehicle's roof. **Be careful to drill through just the metal roof, and not through the headliner beneath it.**
8. At each of the eight mounting holes in the roof, follow the steps below to install a jack nut.
 - a. Insert the supplied $\frac{1}{4}$ "-20 x 1" hex head bolt into a friction wrench, using the large hole marked "6&8JN." Be sure to insert the bolt into the correct side of the wrench (marked "Enter Screw This Side"). *Four friction wrenches are provided in the kitpack.*

Friction Wrench



- b. Screw the bolt into a jack nut.

Screwing the Bolt into a Jack Nut



- c. Apply silicone sealant or RTV along the edges of the mounting hole in the roof.



If the vehicle's roof has a thick vinyl covering, trim the vinyl around each mounting hole to allow the head of the jack nut to fully contact the metal roof.

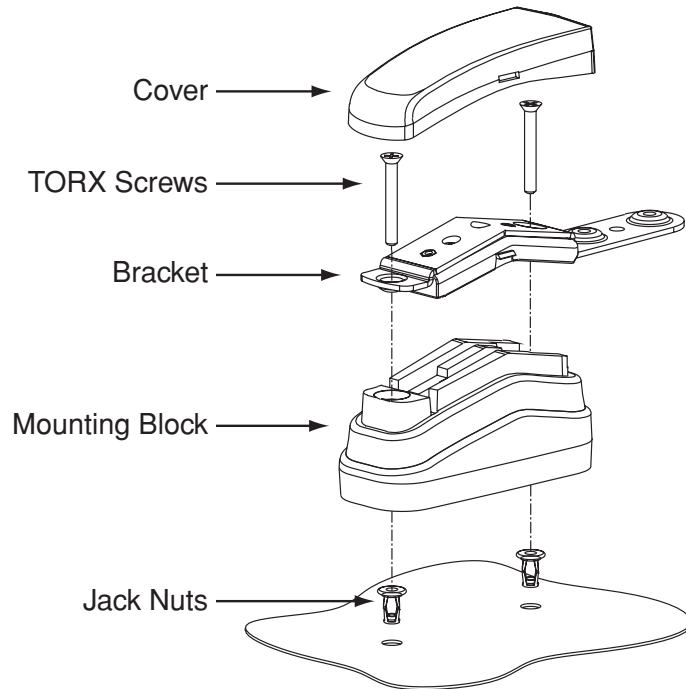
- d. Insert the jack nut into the mounting hole.
- e. While holding the friction wrench in place, tighten the bolt. This forces the side tabs of the jack nut to compress against the underside of the roof.
- f. Loosen and remove the bolt, leaving the jack nut secured to the roof.

Jack Nut Secured to Roof



9. Position the mounting blocks back onto the roof, aligning their holes with the jack nuts.
10. Place the antenna onto the mounting blocks, aligning the bracket holes with the mounting block holes.
11. At each mounting hole, insert a $\frac{1}{4}$ "-20 x $3\frac{1}{2}$ " TORX screw through the antenna bracket and mounting block and into the jack nut. Tighten to secure in place.

Securing the Antenna to the Roof



Securing Brackets to the Roof (Additional Spacers Shown)



**WARNING!**

The TORX mounting screws are prepared with a thread-locking patch. If these screws are removed after their initial installation, the patch's locking capacity will be degraded. Therefore, before reusing the mounting screws, you **MUST** apply threadlocker (Loctite 425) to the screw threads to avoid a potentially dangerous condition. Failure to apply threadlocker to the screw threads can result in unsecure mounting.

12. Attach a protective cover onto each bracket. The covers simply snap into place at the sides of the brackets.



Two different sizes of covers are provided in the kitpack. Install the two larger covers on the rear brackets and the smaller covers on the front brackets.

Attaching the Cover



13. Complete the TracVision A5 installation process as directed in the *TracVision A5 Installation Guide*.