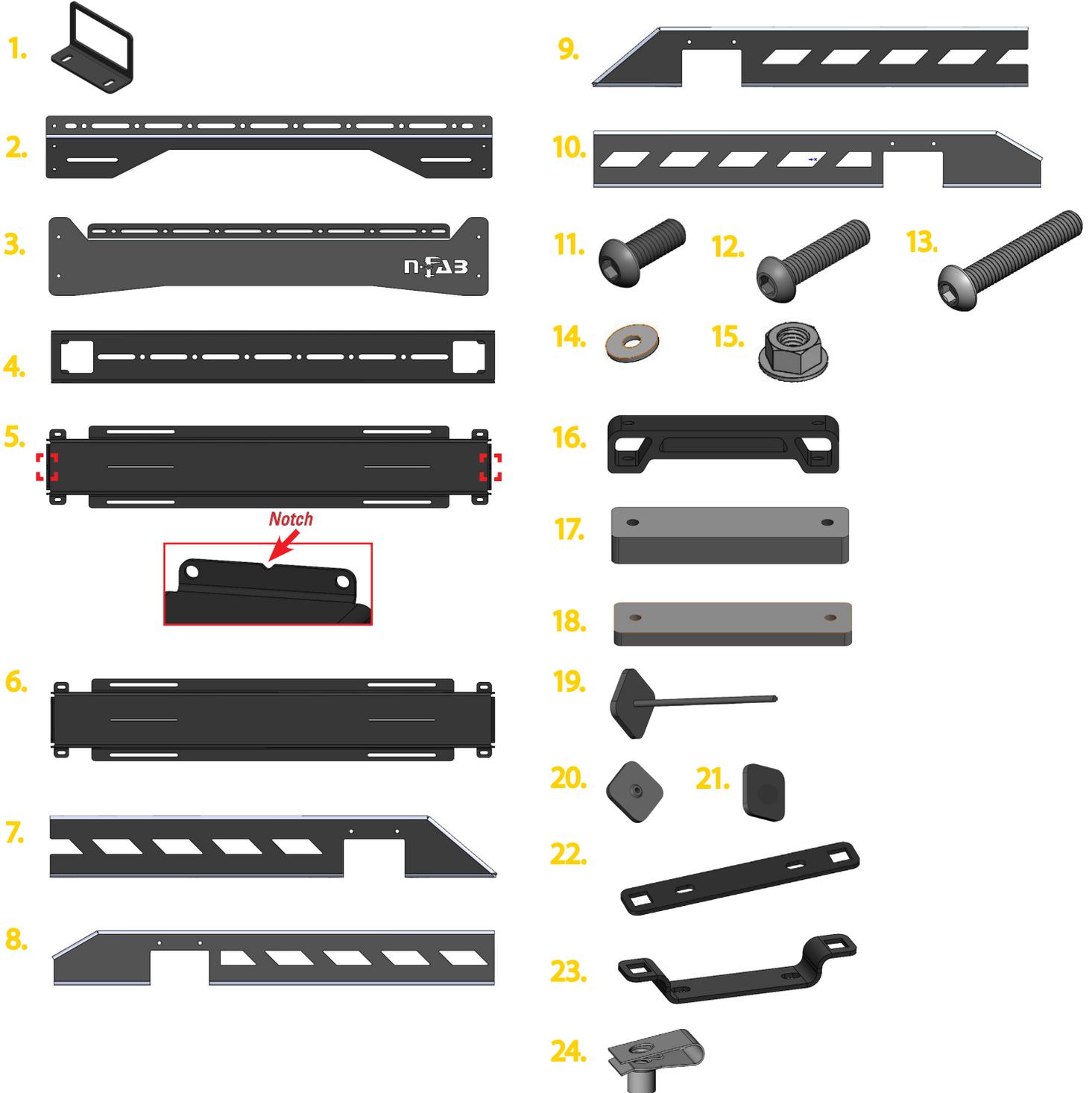


## Components and Hardware: HWKT-70STVA1407



**!** **WARNING:** Never exceed your vehicle manufacturer's recommended load limit.

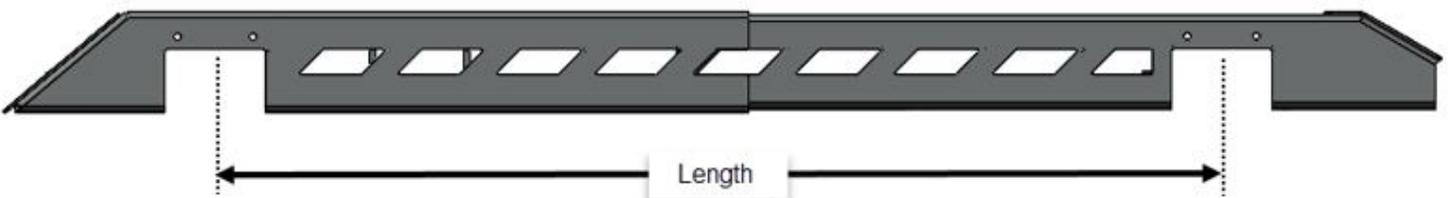
## Components and Hardware:

1. Side spacer.....(4)
2. Rear fairing.....(1)
3. Front fairing.....(1)
4. Center cross member.....(4)
5. Front cross member ( with Notch ).....(1)
6. Rear cross member.....(1)
7. RH front basket side.....(1)
8. RH rear basket side.....(1)
9. LH front basket side.....(1)
10. LH rear basket side.....(1)
11. M6x16mm button head screw.....(54)
12. M6x25mm button head screw.....(16)
13. M6x35mm button head screw.....(8)
14. M6 flat washer.....(54)
15. M6 flanged hex nut.....(46)
16. Rubber clamp.....(8)
17. 1/2" Rubber spacer.....(4)
18. 1/4" Rubber spacer.....(4)
19. 10" Plastic rod.....(16)
20. Plastic rod retainer.....(16)
21. Foam pad.....(16)
22. Flat bracket.....(4)
23. U-bracket.....(4)
24. M6 threaded nut clip.....(16)

## Tools for Installation:

- 4mm allen wrench
- Ratchet wrench
- 10mm wrench
- Protective cover/blanket

**Step 1. The roof rack is expandable from 24" to 41", measured from mount center to mount center. See (Figure A).**



**Figure A**

## INSTALL

The roof crossbar center-to-center distance is measured from the center of the front crossbar to the center of the rear crossbar (Figure B).

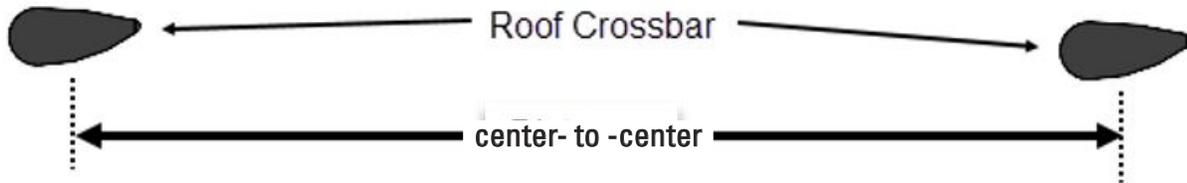


Figure B

If your roof crossbars are adjustable, adjust them to the desired center-to-center distance, within the range of the roof rack.

If your roof crossbars are not adjustable, measure the set center-to-center distance between them.

Note the final roof crossbar center-to-center distance as it will be used in the following steps. This distance sets the assembled length of your roof rack.

**CAUTION:** Before proceeding, place a protectant cloth across the top of your roof (under/around the cross bars) to help protect it against any potential scratches during installation.

Step 2. Dimension "D" in (Figure C) is equal to your roof crossbar center-to-center distance determined in Step 1. Loosely assemble (hand tight) #9 to #10 with #11, #14, and #15 at the top rear most hole on #9. If there is enough overlap of #9 & #10, loosely fasten a second set of hardware at the top rail on the opposite end of the first set of hardware. Check that you have set distance dimension "D" correctly.

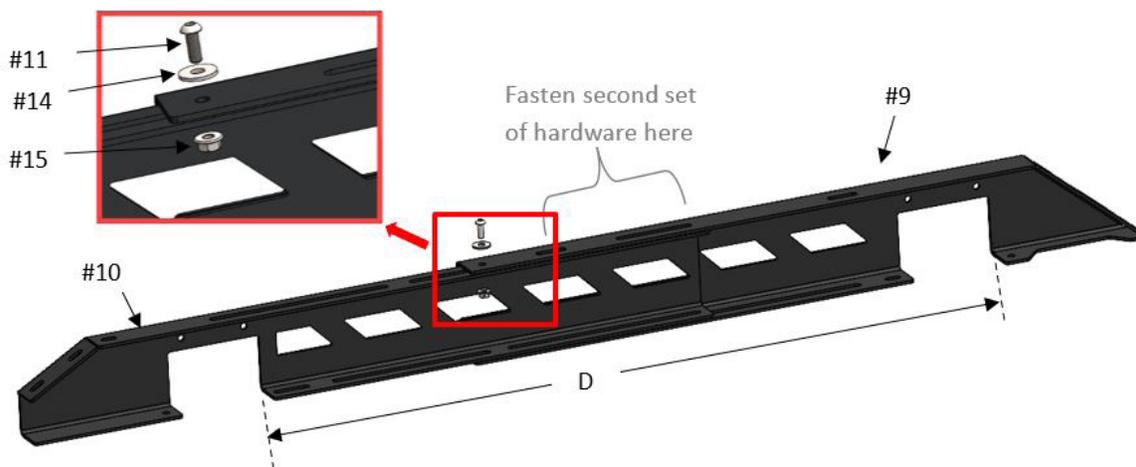


Figure C (LH Side)

## INSTALL

**Step 3.** Position the assembly from the previous step onto your vehicle's roof rails on the left (driver) side. Check that the assembly is spaced correctly to fit centered over the cross bars (Figure D). If not, slide the assembly longer or shorter to fit centered over the cross bars then tighten fastener(s) but do not fully tighten at this time.

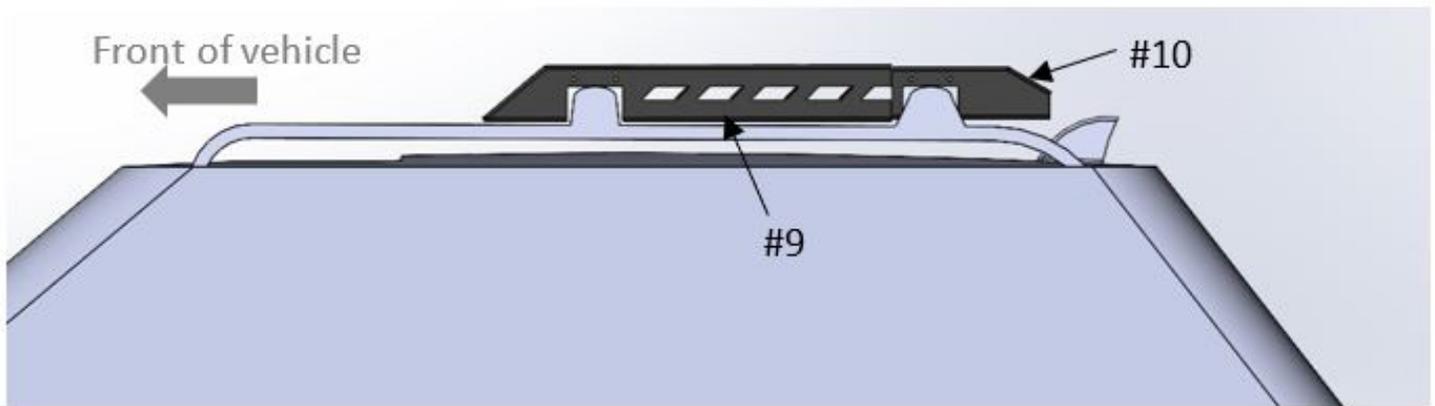


Figure D

**Step 4.** Remove assembly from roof and set aside.

**Step 5.** Similar to Step 2, loosely assemble (hand tight) #7 to #8 with #11, #14, and #15 at the top rear most hole on #7.

**Step 6.** Using the left-side assembly (#9 & #10) as a guide, align the front and rear of the right-side assembly (#7 & #8) with the left-side assembly to set proper length, then tighten fastener(s), but do not fully tighten at this time. See (Figure E).



Figure E



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## INSTALL

Step 7. Loosely install Front Cross Member (#5) to #7 with #11, #14, and #15. Similarly, loosely install Rear Cross Member (#6) to #8. See (Figure F).

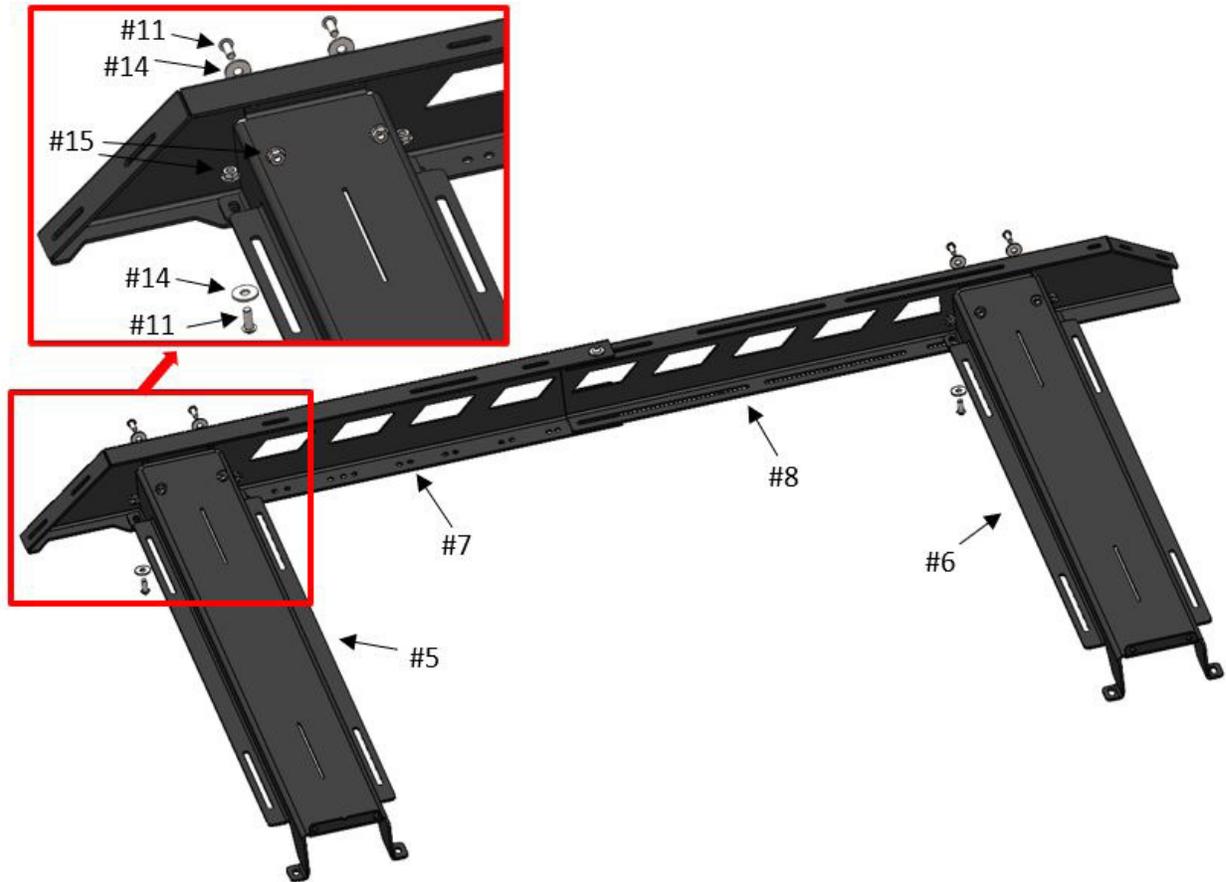


Figure F

# INSTALL

Step 8. Loosely install center cross members (#4) to the left-side assembly (#7 & #8) with #11, #12, #14, and #15. The number of center cross members that will be installed depends on the length the rack assembly was expanded to fit. It is recommended that the distance between center cross members should be less than 6 inches. For any center cross member (#4) installed across #7, also install side spacer (#1) on both ends of the cross member. See (Figure G).

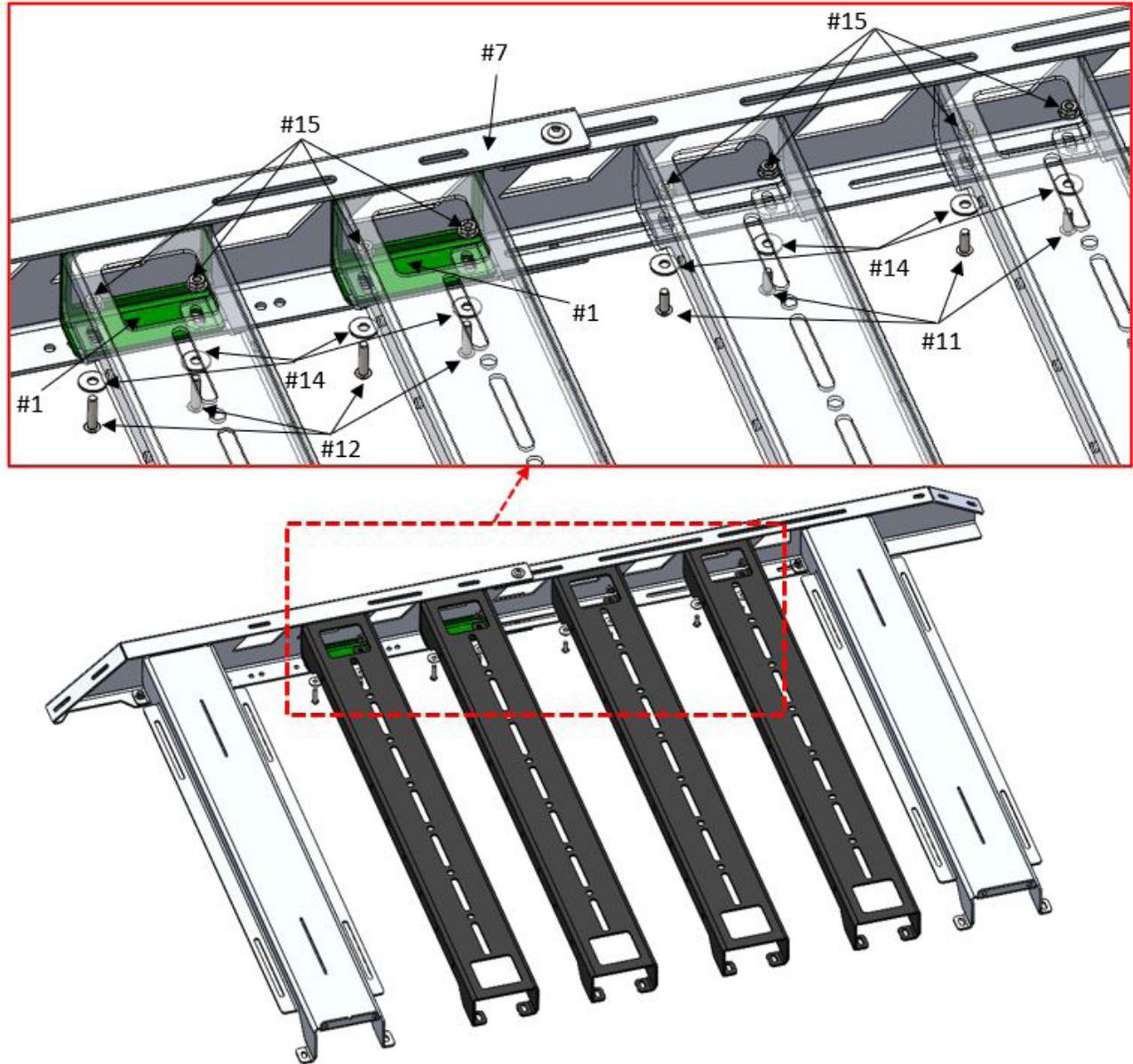


Figure G

## INSTALL

Step 9. Loosely attach the left-side assembly (#9 & #10) to the main assembly, using the same procedure as step 8 with (#11, #12, #14, #15). Next, install side spacer (#1) on the driver side where used on the passenger side. See (Figure H).

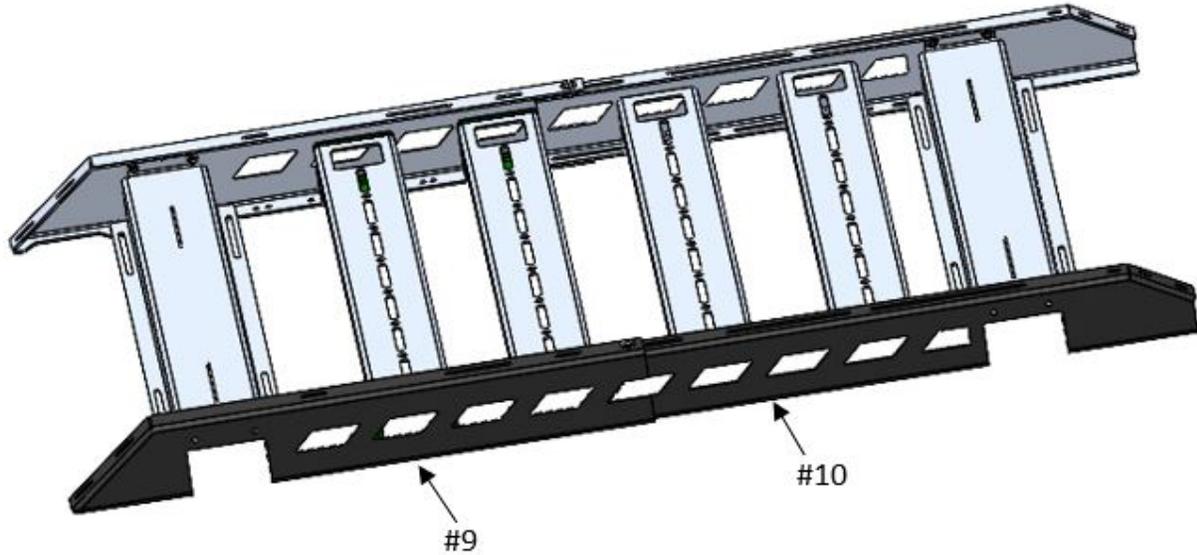


Figure H

Step 10. Install front fairing (#3) and rear fairing (#2) with #11, #14, and #15 (Figure I). Tighten all hardware to (7.5 ft-lbs).

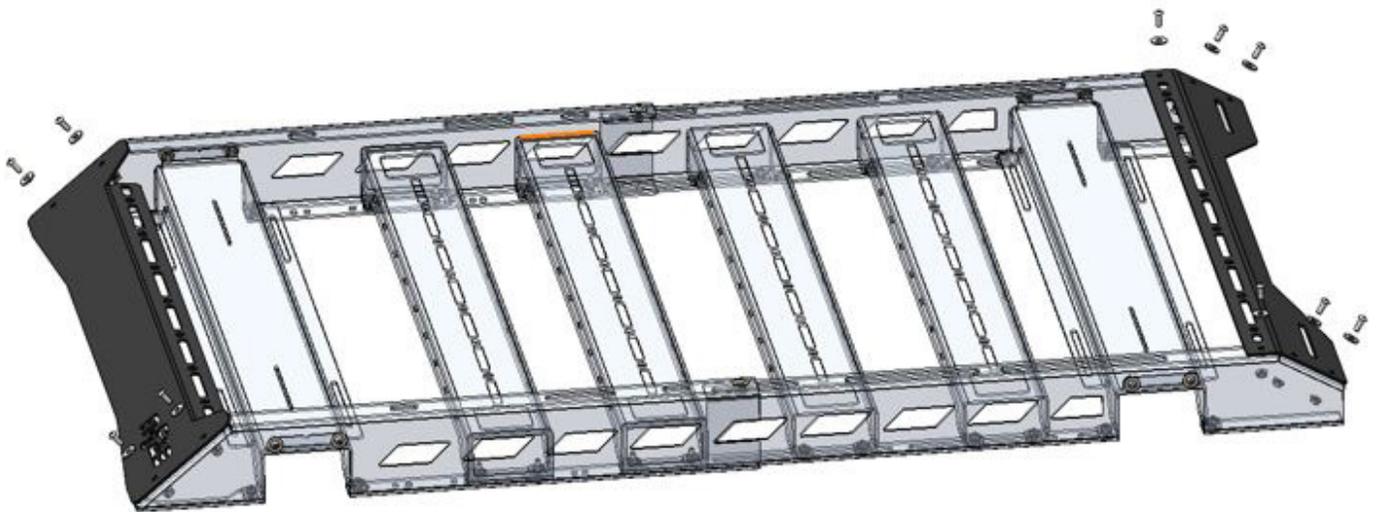


Figure I

## INSTALL

**Step 11.** At the overlap of the front and rear basket side sections, fasten one to two sets of hardware (#11, #14, and #15) to the lower flange to secure the front and rear basket side sections. Do this on the right and left sides. See (Figure J).

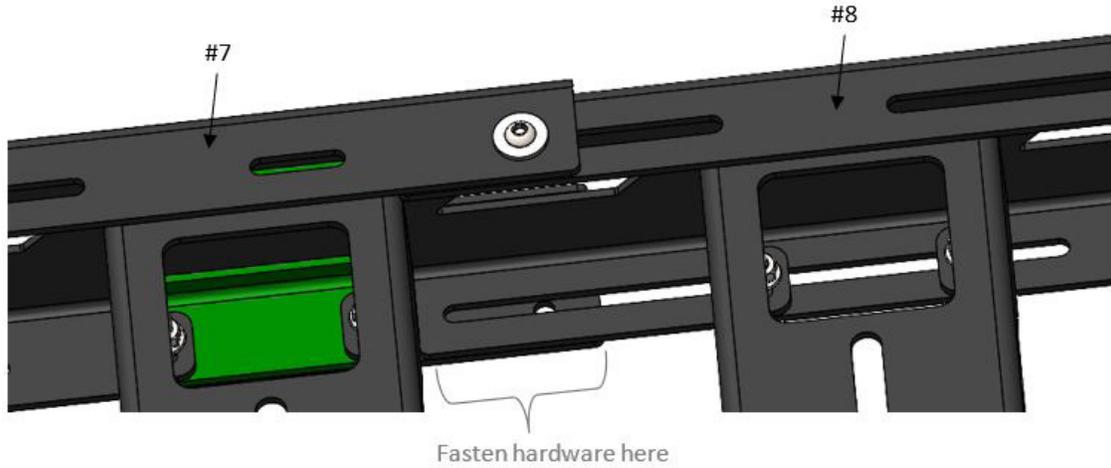


Figure J

**Step 12.** Measure the width of your front cross bar from a common point on both the left and right sides, then mark the center with a pencil. Place a small piece of tape on the cross bar 10" from the center mark on both sides. Repeat this process for the rear crossbar. See (Figure K). The tape represents the four locations for the mounting system.

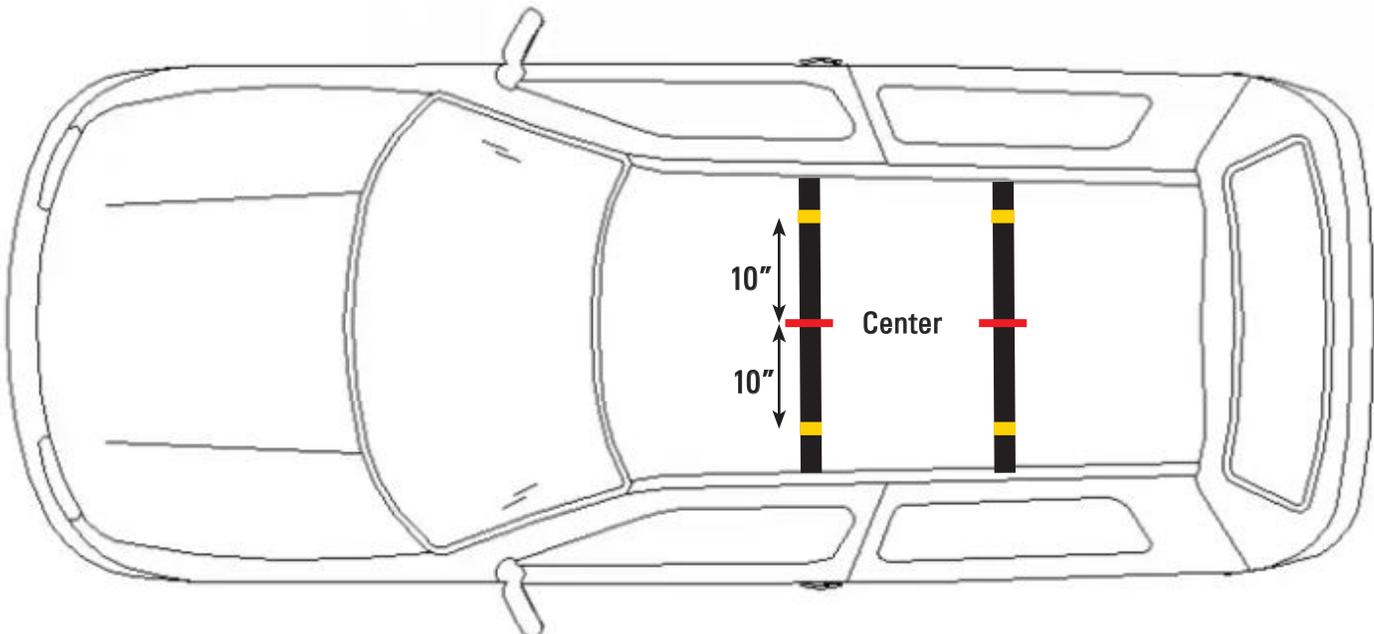
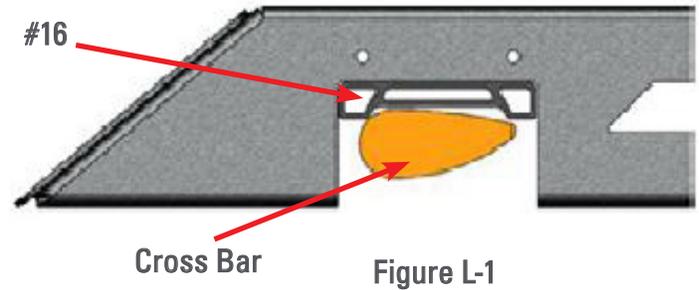


Figure K

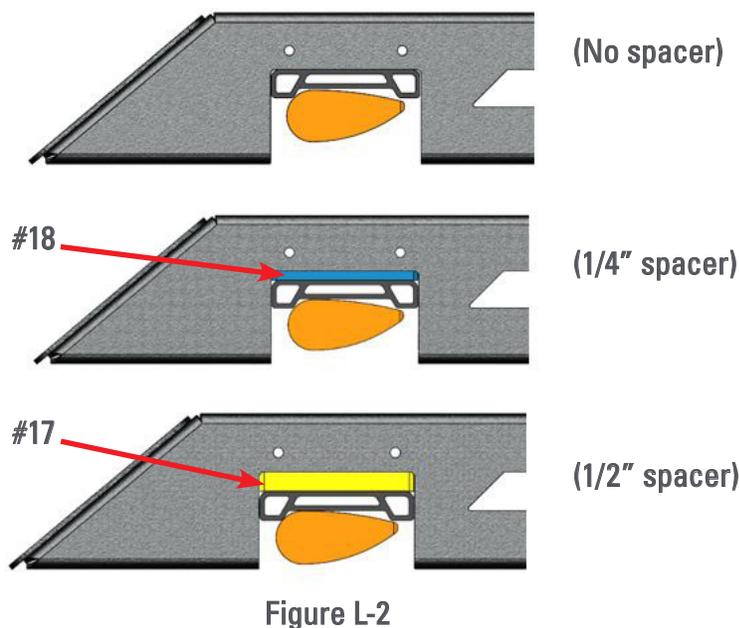
## INSTALL

**Step 13.** Place a moving blanket or protective layer over the roof to protect the vehicle's paint. It is advised to get assistance from another person to lift the rack into place. With assistance, carefully place the assembled rack onto your vehicle's cross bars, centered side to side. If the rack length needs to be adjusted to avoid contact, loosen hardware, adjust the length, and re-tighten hardware. Lift one side of the rack and place rubber clamp (#16) between the rack and the cross bar, at the two tape marks, see (Figure L-1).



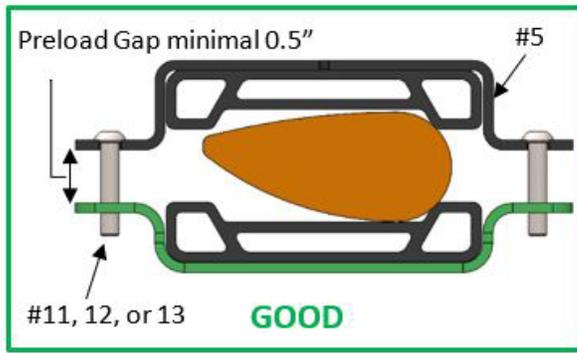
Repeat this process to add rubber clamp (#16) on the opposite side. Check that there is no contact with the roof, the moon roof (in any open or closed positions), any roof mounted antenna, or the lift gate/hatch (in any open or closed positions). If any contact occurs, adjust the height of the rack from the roof, the expanded length of the rack, or both. ***If no adjustments are needed skip to Step 15. Otherwise, continue to next step.***

**Step 14.** To eliminate the rack contacting the roof, lift one side of the rack and continue to stack rubber spacer (#17) and/or rubber spacer (#18) between the rack and rubber clamp (#16), until the contact is eliminated. See (Figure L-2). Each of the four mounting locations should have the same stack-up.



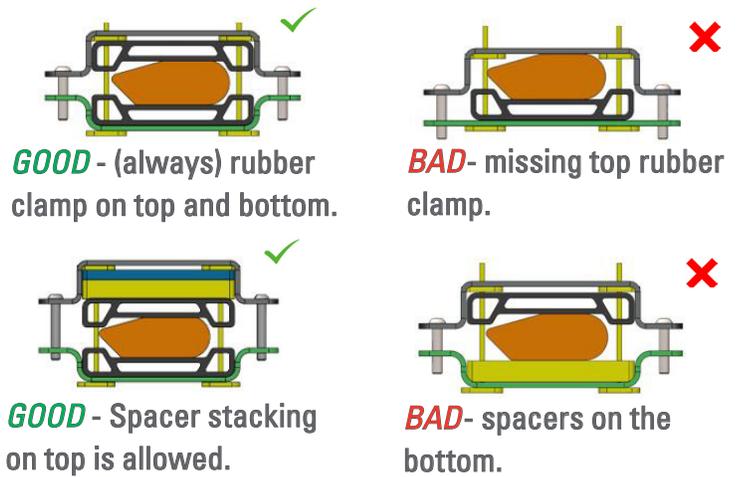
# INSTALL

**Step 15. For final assembly, the correct combination of metal bracket and fastener length needs to be identified.** Start by inserting two of the shortest fasteners (#11) through the top of the front cross member (#5), one each on the front and rear side. Next, align the bottom rubber clamp (#16) and one bracket (#22 or 23) under the crossbar and check the preload gap and thread engagement, see (Figure M). The preload gap should be  $\geq 0.5"$  and there should be at least three threads protruding through the square holes in the lower bracket. If (#11) is too short, replace your bracket (#22 or 23) and/or fasteners (#11, 12 or 13) as needed until you achieve these requirements.



(Figure M)

(Examples)



**Step 16.** Now that the mounting stack-up and fasteners have been determined, carefully remove rack. Install nut clip (#24) to the square hole on each side of your bracket (#22 or 23). See (Figure N). Repeat this for the other three brackets.

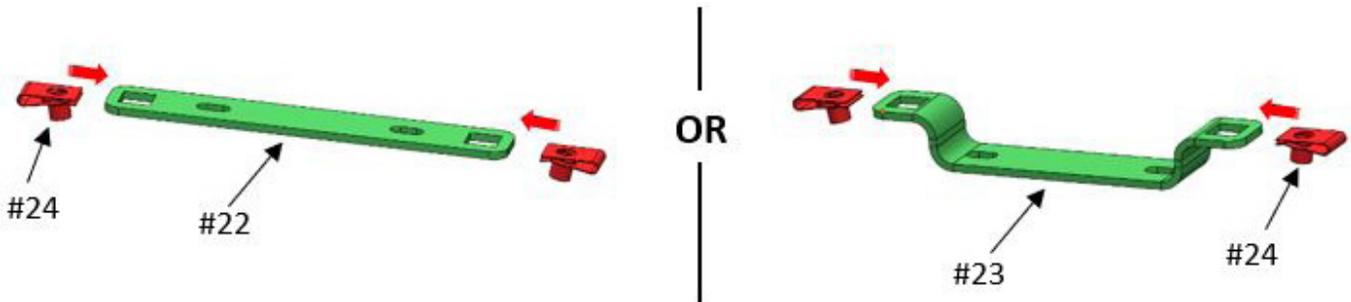


Figure N

## INSTALL

**Step 17.** Reassemble your stack-up around the crossbars by inserting two plastic rods (#19) from the bottom up through the aligning holes in each of the components of your stack-up. Next, install one plastic rod retainer (#20) onto each plastic rod end and press down in an alternating fashion (evenly) until the stack-up is held into place. see (Fig O-1). Clip off the extending ends of the plastic rod. Next, peel off the liner of foam pad (#21) and stick one foam pad over each clipped plastic rod end. See (Figure O-2) . Repeat this process with the three remaining mounting assemblies.

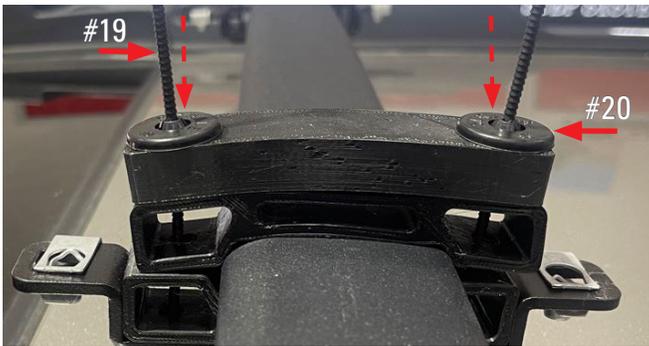


Figure O-1



Figure O-2

**Step 18.** Carefully place the rack onto the roof, resting on the mounting stack-ups and centered side to side. Ensure all nut clips (#24) are aligned under the slots in the front and rear crossmembers (#5 and 6) and rubber clamps are in proper orientation.

**Step 19.** Starting on one corner of the rack, insert both fasteners determined for your stack-up (#11, 12, or 13) from the top through the slot in the front cross member (#5) into the nut clip (#22). Hand start fasteners into both nut clips (#22) before fully tightening to keep the bracket balanced and avoid pulling to one side. Repeat this installation at the other three corners. Fully tighten both fasteners in each corner in a criss-cross pattern to evenly secure rack to the cross-bars as shown in (Figure P).

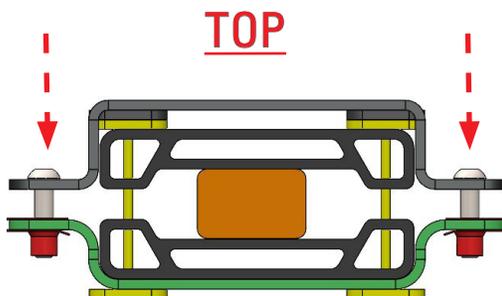


Figure P



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