



INSTALLATION INSTRUCTIONS

IMPORTANT:

Please read all instructions before beginning installation. These guidelines are provided in good faith to help prevent any issues arising from errors during installation. The manufacturer of this product shall not be held responsible for any user actions taken or not taken during installation. There are many details of the installation that are assumed to be general mechanical knowledge to experienced installers; which are not detailed in these instructions. These installation guidelines are intended to serve as professional recommendations and not as a step-by-step, fail-safe installation checklist. Selection of an experienced installer is the sole responsibility of the project owner.



Parts Included: (Lights are sold separately)

KC M-Rack:	Front Light Bar:	Chase Bar:	Side Lights:
A - Driver side - Support Rail (1)	A - KC Led Light Bar (1)	A - 28" KC Rear Chase Bar	A - 10" KC LED Side Light
B - Pass. Side - Support Rail (1)	B - M8 Socket cap (2)	B - 1/4-20 Carriage Bolts (4)	B - 1/4-20 Carriage Bolts (4)
C - Extruded Cross Bars (5)	C - M8 washer (2)	C - 1/4-20 Hex Bolts (4)	C - 1/4-20 nut (4)
D - M-Racks Logo Plate (2)		D - 1/4-20 nut (8)	D - Side light bracket (2)
E - Blind Rivets (4)		E - Rear light bracket (2)	
F - M6 Rivnut (6)			*can hold a total of 4 side lights
G - Button Head Allen Cap Screw (20)			
H - 1/4" Washer flat (30)			
I - M6 Button cap screw (10)			
J - Black Aluminum Spacers (6)			

KC M-RACK RANGER INSTALLATION GUIDELINES

TOOLS NEEDED FOR INSTALLATION

Painters Tape



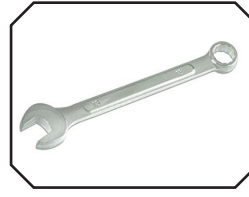
Drill Bits



Sockets



Box End Wrench



Socket Extension



Allen Wrench



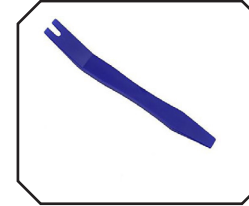
Center Punch



Nutsert Tool



Panel Remover



Torx Bits



INSTALLATION INSTRUCTIONS

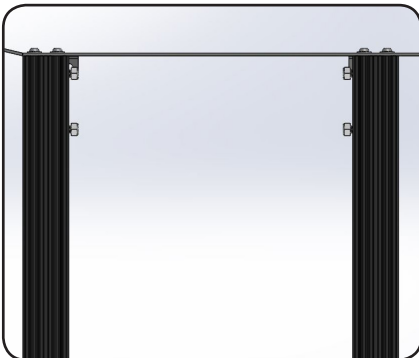
1.



Support Rail to Cross Bar Assembly *(It is recommended that the assembly be done off the vehicle, "up-side-down" on a flat surface.)*

Starting with either Support Rail, begin by loosely fastening the extruded cross bars using the supplied 1/4 -20 button head allen-cap screws and 1/4" washers (2x screws & washers per cross bar). With the cross bars square to the top of the rail, torque down until tight. (Blue thread-locker is recommended)

2.

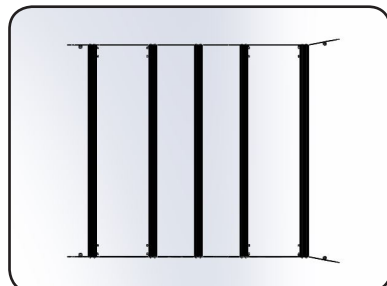


Side Light Mounting Option

Whether or not Side Lights are being installed, doing this step will save a lot of time for future installs. The rear chase bar also uses 4 carriage bolts on the rear-most extrusion channel.

Each Side Light Mounting Bracket will require (2) carriage bolts to mount into position. Begin by sliding the carriage bolts into position from the open end of the extruded cross bars, as shown in the image. *Due to manufacturing tolerances of the hardware, some of the carriage bolts will slide easier than the others. One side will slide easier than the other.*

3.



Attach the Second Support Rail

After all the desired carriage bolts have been installed, fasten the remaining side rail to the extruded cross bars, as done in Step #1. Once attached, ensure all screws are securely fastened. See Step 11 for mounting the LED light bar. Once the light bar is installed and both side rails are attached the rack is fully assembled.

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4. Removing the Gutter Channel



The gutter channel is made from aluminum extrusion. There are two bolts holding down the gutter channel. One towards the front of the vehicle and one towards the rear. Removing these bolts requires you to drop the headliner.

DROPPING THE HEADLINER

5. Remove the Sun Visors

Remove the folding sun shades using a T15 torx bit and a 7mm socket. The bolts are hidden underneath a plastic clip that can be removed with a flat panel remover or flat head screw driver (Figure 1). Do this for both sides

6. Remove the Weather Strip

Remove the weather strip by carefully working it off of the door frame (Figure 2). Do this for all 4 doors.

7. Remove A-Pillar Interior covers

Driver side is held in place with three clips shown in (Figure 3). Passenger side requires you to first remove the grab handle. The grab handle can be removed with a 6mm socket after removing the bolt head covers with a panel remover (Figure 4). The clips holding the cover in place are similar to the driver side. When removing the panels use slow even pressure. Try to feel where the clips are located and pull out as closely as possible.

8. Remove B-Pillar Interior covers

Remove the bolt cover for the seat belt (Figure 5). Remove the seat belt bolt using a T50 torx bit (Figure 6). Carefully pull the panel off there are four clips holding the panel to the B-Pillar (Figure 7). Repeat this process for both driver side and passenger side.

9. Remove C-Pillar Interior covers

To remove the C-Pillar Interior covers follow the same process as the b-pillar. Do this for both sides.

10. Remove the Rear Grab handles

Remove the rear seat grab handles by prying open the plastic screw cover with a flat head screw driver. Use a T20 torx bit to remove the bolts holding the rear grab handles.

Figure 1



Figure 2



Figure 3

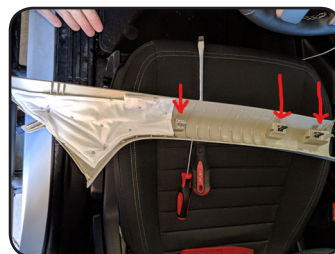
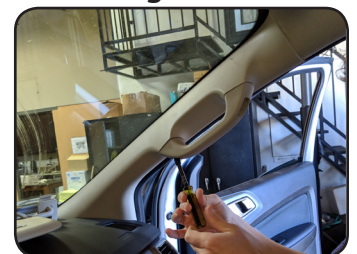


Figure 4



KC M-RACK RANGER INSTALLATION GUIDELINES

Figure 5



Figure 6

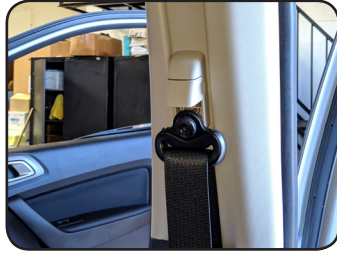


Figure 7

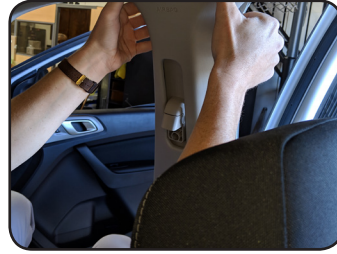


Figure 8



11. Remove the Gutter Extrusion Bolts

Remove the front gutter extrusion nut with a 10mm socket and a 6in extension. Figure 9 shows the location of the nut. To remove the rear gutter extrusion nut use a 10mm box end wrench. Figures 10 and 11 show the location of the nut. Do this for both sides of the vehicle. Once the nuts are removed from the bolts the extrusion should come off without resistance. Set the extrusion aside and save for later. If you ever want to remove the roof rack the extrusion can completely cover any holes that were made in the roof. The rack will use all 4 holes from the gutter extrusion to mount.

Figure 9



Figure 10



Figure 11



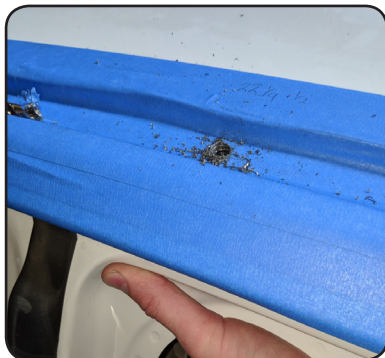
12. Mask off Roof of the Vehicle

Carefully mask off the area where the M-Rack is going to be installed. Provide plenty of coverage to prevent any surfaces of the vehicle from getting damaged during rack placement. Be sure to select tape that will not damage the paint or leave behind any excess adhesive residue.

13. Marking Drill Hole Positions

Align and center the rack into place on the vehicle by loosely installing the front most mounting bolt through the holes in the roof that held on the gutter extrusion on both sides. **Be sure to place the spacers under the tabs on the side rails.** Once the placement of the rack is satisfactory, mark the mounting locations onto the masking tape by tracing the spacer and the hole. Remove the rack from the vehicle and set aside. Make sure the light bar is installed when marking the hole locations. (Remember: "Measure Twice, Cut Once") Double-check that the rack is centered and that the marks are in the correct location. The side rails will sit on top of the spacers in the gutter of the vehicle.

14. Drill The mounting Holes



Before drilling, use a center punch to pin-point your pilot hole position. Use a 1/16" drill bit (or similar size) to start a pilot hole in the center of each tab mark. **Be careful not to drill beyond the outer roof skin;** a drill stop can be used to set the depth. Open up the pilot holes using a "Q" size drill bit. **When drilling if you are not careful it is possible to puncture the air bag. Do not puncture the air bag.** The center hole is thicker than the rest for additional strength. There are a total of 6 holes to drill. The rear most holes on the rack should line up with the holes from the gutter extrusion.

KC M-RACK RANGER INSTALLATION GUIDELINES

15. Riv-nut Installation

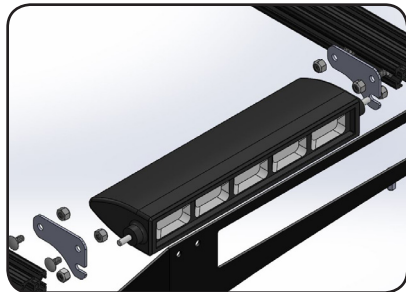
After clearing holes of extra burrs, place the self-sealing riv-nut inserts into the newly created holes. Using a riv-nut tool with an M6 die, set the riv-nuts, and ensure that they are securely fastened. The riv-nuts will self-seal so long as they are seated and crushed properly. There a total of 6 riv-nuts to install.

16. Fasten the Rack



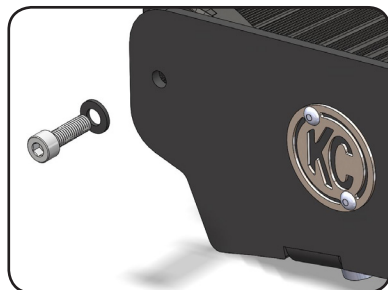
Set the rack back into position atop the vehicle. Using the supplied M6-1.0 button head cap-screws and washers. Place a Hershey kiss sized dollop of silicone on the base of the spacer then place over the newly installed riv-nut or factory mounting holes. Place the rack on top of the spacers and fasten to the vehicle using the M6 Mounting bolts. Use the nuts that were removed from the gutter extrusion to fasten the front and rear most bolts on the m-rack.

17. Attach the Side Lights (Optional)



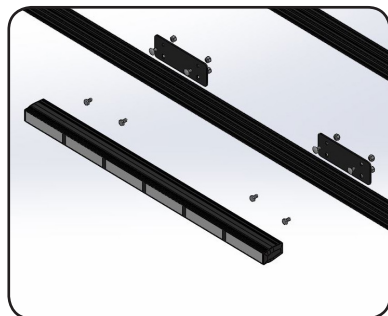
Attach the side light mounting plates onto the carriage bolts that were previously installed on the side channels of the extrusion. Thread the nuts onto the stud that is attached to the 10" light. Aim and position the lights to the desired location, and securely tighten the hardware to lock the lights in place.

18. Attach the Light Bar (Optional)



Holding the light bar in place, thread the socket cap screw and fasten the light into position. Be sure to aim the lights to the desired location before tightening down (this works best at night). For a Pro6 Installation, please refer to the Pro6 instruction manual.

19. KC Rear Chase Bar (Optional)



Fit the Rear Chase Bar bracket onto the previously installed carriage bolts on the rear extruded cross bar. Hand-tighten the 1/4-20 nuts to hold the brackets in position. Install the 1/4" hex bolts into the KC Rear Chase Bar by removing the end cap and sliding the hex head into the extruded channel. Re-install the end cap and position the 1/4" hex bolts into the Chase Bar brackets. Once the light is in the desired position, securely fasten the Rear Chase Bar.

PRODUCT REGISTRATION

Thank you for becoming part of the KC HiLiTES family and purchasing one of our premium KC products! With over 45 years of history in the auxiliary lighting market, you have become a part of our ever growing family, and we encourage you to register your product online at [HTTP://REGISTER.KCHILITES.COM](http://register.kchilites.com) to ensure you get all the benefits of owning a KC HiLiTES product.