



Step 1: Safety and Installation Notes

Please use proper tools and safety equipment when installing lights and bezel kit. Safety glasses or goggles are mandatory. Snap fit the bezel into place in the bumper cutouts. The bezels can be painted prior to installation. Note that the Ford Raptor bumper cutouts can have slight variations in size from truck to truck and from one side to the other. If too much force is needed to insert the bezels, very light sanding on the back of the bezel (tabs) will give you the clearance needed to easily insert the bezels.

Step 2: Hardware Notes

The light mounting hardware contained with each bezel kit is universal for several brands of LED cube lights. Please review the notes below for reference as to which hardware pieces may be omitted during the installation process.

Vision X (Optimus, Halo): You will have 4 extra Stainless Steel Washers and 2 extra Stainless Steel 8mm Nylon Lock Nuts. The outer most light on each side will be installed to the mounting bracket using the hardware supplied by VisionX. The inner lights on each side will be secured using the spacer and bolt kit provided by Ford Raptor Lights in the manner outlined below.

KC HiLiTES (C-Series): *The KC C-Series light bracket must be removed and turned 180° prior to installation on to the mounting plate. You will have 2 extra Stainless Steel 8mm Nylon Lock Nuts. The outer most light on each side will be installed to the mounting bracket using the hardware supplied by KC. The inner lights on each side will be secured using the spacer and bolt kit provided by Ford Raptor Lights in the manner outlined below.

Rigid Industries (Dually, D2): *The Rigid Industries Dually and D2 light brackets must be removed and turned 180° prior to installation on the mounting plate. You will have 4 extra Stainless Steel Washers. The outer most light on each side will be installed to the mounting bracket using the hardware supplied by Rigid. The inner lights on each side will be secured using the spacer and bolt kit provided by Ford Raptor Lights in the manner outlined below.

Baja Designs (Sport, Pro) and KC Flex: Use everything in the supplemental hardware packet and none of the hardware that is already supplied with the lights. The longer spacer is used on the inside lights. The shorter spacers on the outside.

Mount the four lights to the powder coated bracket. Starting with the driver's side, the bracket should face with the square notch toward the center of the vehicle. Flip the bracket over for the passenger's side. There are two lights that have spacers on the bolts. (unless you are mounting Baja Designs Squadrons or KC Flex. In these cases there are 4 spacers, the longer of which go with the inside lights) These should be mounted in the bracket hole closet to the center of the vehicle (see figure 1.0 and 1.1 both pictures are driver's side). Be sure to use three stainless steel washers on each of the lights with the spacers (a washer at each end of the spacer and one under the nut).



Figure 1.0



Figure 1.1

Dry Mount the bracket with attached lights onto the frame. (see figure 1.2) Hold the bracket in place with clamps. The back edge of the bracket should link up nicely with the stock frame. Mark the location on the frame of the four bracket mounting holes. Be sure that the lights are aligned inside the bezels – they can be adjusted later but it is easier to do so during this step. (see Figure 1.2)

Step 3: Bracket Mounting

There are three self-tapping bolts and one $\frac{1}{4}$ " regular bolt for each bracket. The $\frac{1}{4}$ " regular bolt, washer and nut should be located closest to the outside (closest to the tire) this will allow you to hold the nylon locking nut while tightening. This hole should be drilled with a $\frac{1}{4}$ " drill bit. The other three holes should be drilled with a $\frac{7}{32}$ " drill bit. Figure 1.2 shows driver's side bracket looking from the ground up. This shows the location of the $\frac{1}{4}$ " regular bolt.

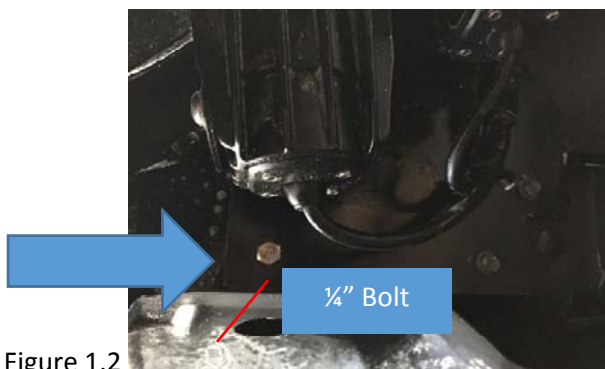


Figure 1.2

Step 4: Bracket Hardware

Mount each bracket using the three self-tapping bolts and one $\frac{1}{4}$ " bolt, washer and nut. (see Figure 1.2)

Step 5: Wiring

Install the wiring harness. The Ford Raptor auxiliary switch wires are located in the engine compartment near the firewall on the passenger's side (see Figure 1.3 top down view).

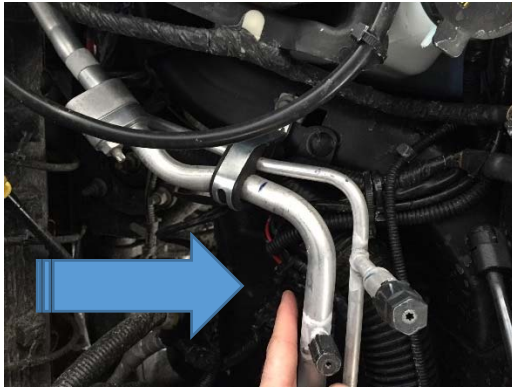


Figure 1.3

The Ford Raptor auxiliary switches are not connected from the factory and must be connected under the dash. Access the wires by removing the glove box and the panel on the passenger's side dash (open the door – it is located on the side of the dash behind the door) (See figure 1.4 and 1.5)



Figure 1.4

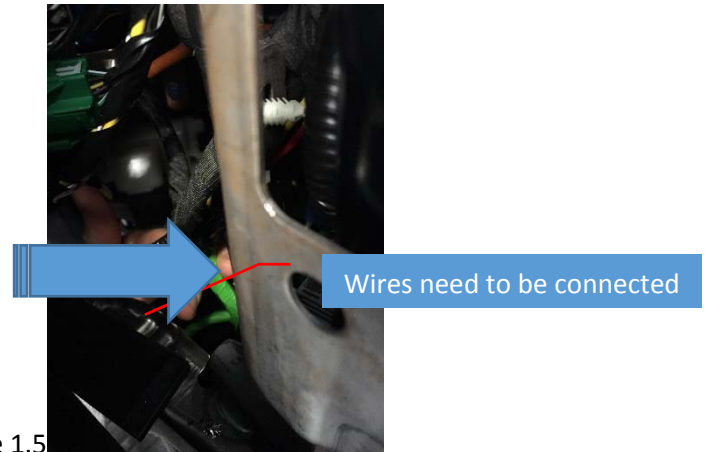


Figure 1.5

The chart below describes which wires behind the glove box correspond to each switch, and the amp rating of the circuit. The other 4 wires you will see - Green, Blue, Purple and Red are the "pass through wires". One end of the wires is behind the glove box, the other end is under the hood near the firewall on the passenger side. These wires are "passed through" the firewall for your convenience. They do not directly correspond with any switches, they are just there to use. You simply pick one of the wires, connect your corresponding AUX switch wire to it with a crimp connector (or solder, but this can be difficult based on the limited space), and move to under the hood. The chosen pass through wire is now energized by the selected switch. For a more comprehensive review of how to wire the Raptor's auxiliary switches, visit <http://www.fordraptorforum.com/f170/wire-raptor-aux-upfitter-switches-20335/> or search YouTube for one of several video tutorials.

AMP	Auxiliary Switch #	Colors	Fuse #
30	SW1	Yellow	18 (suggested for this kit)
30	SW2	Green with Brown tracer	19
15	SW3	Purple with Green tracer	44
10	SW4	Brown	28

Note: If your light kit came supplied with a universal wiring harness that contains a relay and/or fuse, you will not make use of the fuse or relay or associated wiring if connecting to the factory Raptor upfitter (AUX) switches. Each light will have a positive lead connected to a line energized by the chosen upfitter (AUX) switch, and a ground wire secured to the vehicle's chassis using good automotive wiring practices. No additional wiring, relays or fuses are necessary.

Step 6:

Once everything is installed, turn on and adjust the lights. Remember to firmly tighten all bolts once adjusted to your liking.

Note: It is extremely important to ensure that all light bracket and mounting plate hardware is completely tight, especially for those owners who off-road their Raptor. With proper installation, the hardware kit supplied with each bezel kit is robust enough to withstand moderate off-roading. It is necessary to completely tighten the brackets on the lights themselves, and we recommend the use of thread locker to prevent the factory supplied light brackets loosening from the light due to extreme vibration. For extreme/abusive off-roading environments, we recommend removing the bezels prior to aggressive off road driving to prevent potential damage or loss to the bezels. Like anything else on your truck, the Ford Raptor Lights brackets and bezels are not impervious to abuse.



Questions? Feel free to contact Jeff at jeff@fordraptorlights.com or call 781-603-8182 for further assistance.