

2015+ Bronco, Ranger, F-150, F-250/350 Rear Light Kit Install instructions (All Model Lights)

Step 1:

Install your lights on their factory brackets as shown in fig 1 with the bracket facing back.

Under the back side on the outer side of each Bronco, F-150/250/350 and Ranger, there is at least one bolt on each side that holds the bumper to a mount. You will remove the bolt and slide the flat bracket between it and its mounting hole. As shown in the photos below. Figure 1 is an example of a Ranger or F-150. Fig 2 & 3 is the back underside of a Bronco. Notice in Fig 1, the bracket sits straight up and down. You can move the bracket up and down under the bolt to snug the light up tight to the bumper. Notice in Fig 3 (The Bronco), The bracket is swiveled to the outside. You can do this in any vehicle if you want to position a light further out. However, on the Bronco, it may be necessary because there is metal above that wont allow you to push the bracket straight up to tuck it up tight. So you would swivel it.

In addition (on the Bronco). For those concerned about departure angle with lights on the outer side of the tow hooks. Notice in Fig 3, there are 2 other bolts on the INNER side of the tow hooks that can be used. Using a low profile light like the Rigid SRL, Baja S2, S1 or Diode SSC2 will keep them up higher than the tow hooks and protected.

Figure 1:

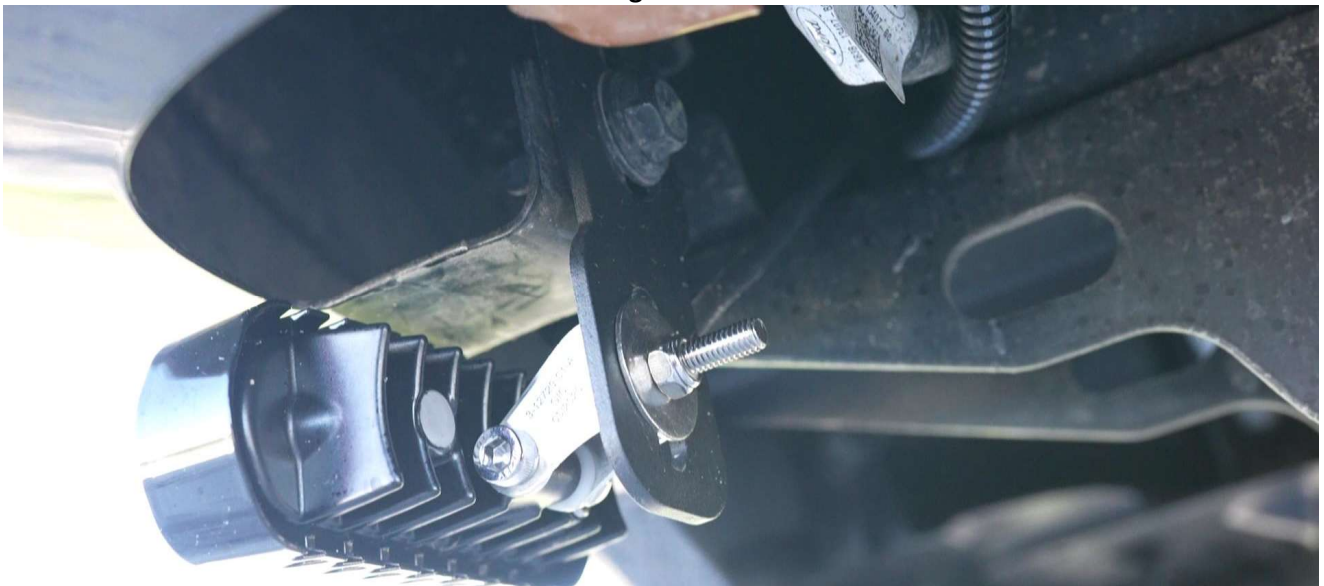
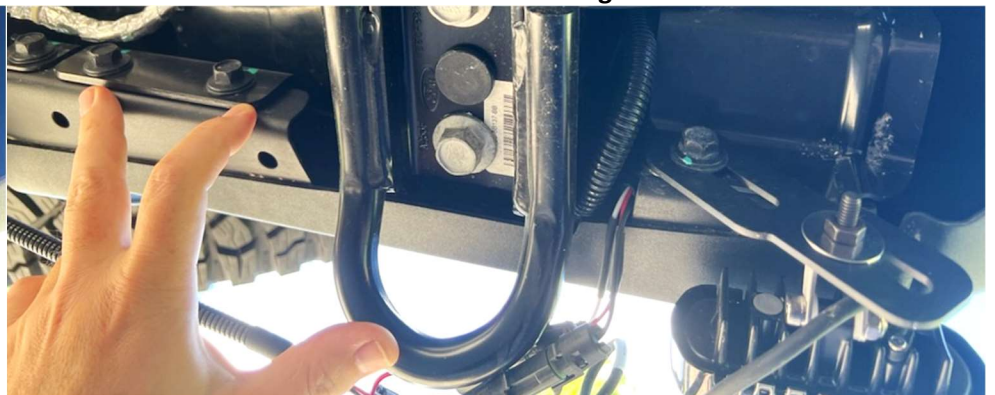


Figure 2:



Figure 3:



Figures 4 and 5 below illustrate a low profile SRL and a standard size 3x3 light installed on a bumper.

Figure 4:



Figure 5:



Step 2: Wiring-

Notice the photo below. You can choose to just plug the short harness into your tail lights and connect to your lights for an automatic "ON" when in reverse. Or, the full harness to go to the engine bay to connect to auxillary switches... Or BOTH with the tail light adapter. Plug in adapters allow for these to be plug n play to ANY light and ANY connector.

Short Rear Harness (To Tail Light Adapter)



Tail Light Adapter (Works w/ EITHER harness)



FULL Harness to front/Switches



To install the tail light adapter (if chosen), depending on if it's a Bronco or The Ranger/F-150/250/350. Do the following. For a truck, (Fig 6/7) simply remove the 2 bolts inside the tailgate. Then wiggle the tail light out of the snaps. Then, unplug the factory harness and plug in the adapter between. The harness will then drop down behind the bumper and plug into either harness. Red to the red wire plug (For power for the reverse lights) and the white one is used if you have a light that has red backlights. (secondary lights, like parking lights) The white wire ties into that circuit and are then integrated with the lock unlock flashing feature and parking lights in the truck as well. You still plug the white in to close the circuit in either case. If it is difficult to disconnect the connector. Try PUSHING IT IN first while you push the tab down, then pull back. Some connectors have red LOCK tabs. Pull that back first.

Figure 6:



Figure 7:



In the Bronco, you do NOT need to remove the tail light. You will remove the panel on either side, inside the rear door as shown in Fig 8-11. Tail light adapter pugged into rear harness Fig 12 into the 2 ports. You can tape them up if no adapter is chosen.

Figure 8:



Figure 9:



Figure 10:



Figure 11:



Figure 12:



The Adapter shown below will plug into the lights to match the harnesses in fig 13. There are different adapters for different model lights, and you should have the one in your kit that is needed for your model light.

If you have Radiance/Scene or SR-L Lights, there are no connectors on your lights. Just bare wires. Your harness kit includes a matching connector kit. So you will install the pins and connectors on your lights as shown on the last page.

Fig 13:



Next run your harness. **THIS IS IMPORTANT.** Don't zip tie anything before it is run and connected.

If you have the short harness, it's simple to just connect each end to each light with the adapters shown in figure 13, or the add on connectors you will install on them (shown on the last page) and the tail light adapter shown above in Fig 12. If you only have the short harness, the only thing you need to reference here before skipping to the last page are the ground loop procedures in figures 7-9 below and the paragraph above that. **If you have the long harness, keep going.**

This next part can be confusing if you don't pay attention. Since this pertains to the Bronco, which may or may not have built in Aux switch wires. As well as the F-150, Ranger and Super Duty (F-250/350) that also may or may not have built in Aux switch wires, running the full harness may be different. So first, let's touch on the Bronco with switch wires, as well as a Ranger or F-150 Tremor which should have switch wires as well, and Some Super Duties that would have switch wires.

Trucks with BUILT IN SWITCH WIRES for LONG HARNESS-

On the Bronco, the Switch wires are on the Driver side under the hood on the fire wall. On the Ranger Tremor, they should be on the driver side behind the headlight. On the F-150 Tremor, on the passenger side behind the headlight. On the Super Duty, either behind the passenger side headlight or the passenger side fire wall depending on model year. The LONG harness (if selected) **MUST** be run along the frame rail on the side that you locate your switch wires. (or through the frame rail, which is easier) (**NOTE: ILLUSTRATIONS FOR RUNNING HARNESS FURTHER DOWN**) So locate the switch wire locations first. You will notice the long harness is L shaped when layed out as it would install. So the side where the long end would run up the frame would stop with a 3 pole connector at the back bumper with one side. Then you would feed the other end probably 3-4 feet long with a 3 pole connector to the other end. If you have switch wires built in, you will **NOT** need the relay mentioned below. You will simply install the pins and connectors included in your harness kit on your switch wires as illustrated on the last page. They then can just plug into your switch wires.

Trucks WITHOUT BUILT IN SWITCH WIRES for LONG HARNESS-

If your truck does **NOT** have built in switch wires, you will run your long harness up or through the frame rail on either side where the battery is located. (**NOTE: ILLUSTRATIONS FOR RUNNING HARNESS FURTHER DOWN**) This is because you will need to add our plug in relay with fuse to the end of our harness and then to your battery. You can see how the relay installs in the illustration below. From there, you will have a single blue wire with a connector on the end. This is the trigger that will run to your custom switch you install. You may install a small round rocker switch, or some other switch. If you install an aftermarket switch panel that has fuses and relays built in, you won't need to use the add on relay.

Grounding the harness- (All models, short or long harness)

In the example photos below. Notice you will locate a bolt that is attached to the body and install the ground loop through it. Depending on model, locations may vary, but any body bolt should serve as a good ground. So find a good location. It is important to connect your lights to the harness before tying it down so you have enough slack!

Fig 14:



Fig 15:



Fig 16:



In Figure 17, you can see one of many holes in the frame rail at the back where you can insert the long end of the harness and push it forward. In figure 11, you can see a hole in the frame at the front wheel well where you can bring the harness out, then slide it up behind the plastic inner wheel well liner to the fire wall. Be sure it never rests on anything hot like the engine, transmission or exhaust! You can also run along the outside of the frame rail if you prefer.

Fig 17:

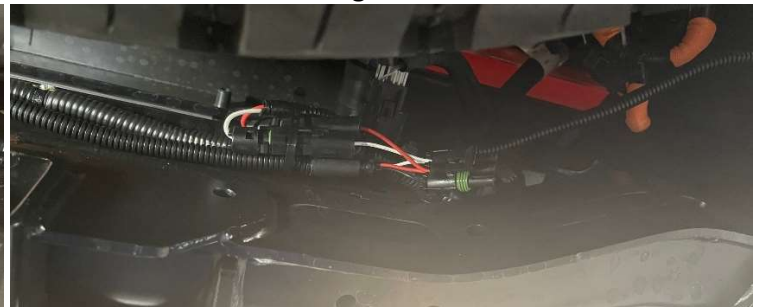


Next zip up the loose wires behind the bumper, and along the frame rail and engine bay. You can always find the existing wires harnesses on the truck & secure it to them as well as you go along. Be sure as you go, your harness isn't between any moving or flexing parts and not touching anything that will get hot! (Fig 18-19)

Figure 18:



Figure 19:



In fig 20 & 21 below, the white wire on the LONG harness is shown that comes out in the engine bay. There are some very versatile things you can do with these harnesses. If you get the tail light adapter, this white wire is LIVE from the parking/marker light/tail light circuit. Do not ground it. If you don't have any lights up front that have amber backlights, like the Rigid Radiance for example, then you don't connect it to anything. If you have a set of lights up front that have a low power backlight that you want tied into the parking/marker light circuit. You can add and install a coupler as shown in Fig 22 between that rear harness and the white wire of a fog, light bar or a-pillar/ditch light harness from SPVparts.

The second option is this. In Fig 21, an example of a parking/marker light adapter is shown. It would plug into the back of one headlight in a Bronco, Ranger or F-150. It would access and give you that same power from the parking/marker/tail light circuit. You would plug that adapter into the white wire of your full rear harness. Again, this is ONLY if you did not get the tail light adapter with the full rear harness and didn't want the reverse trigger... and you have lights with the red backlight such as the Radiance, SRL or Diode.

Fig 20:

Fig 21:

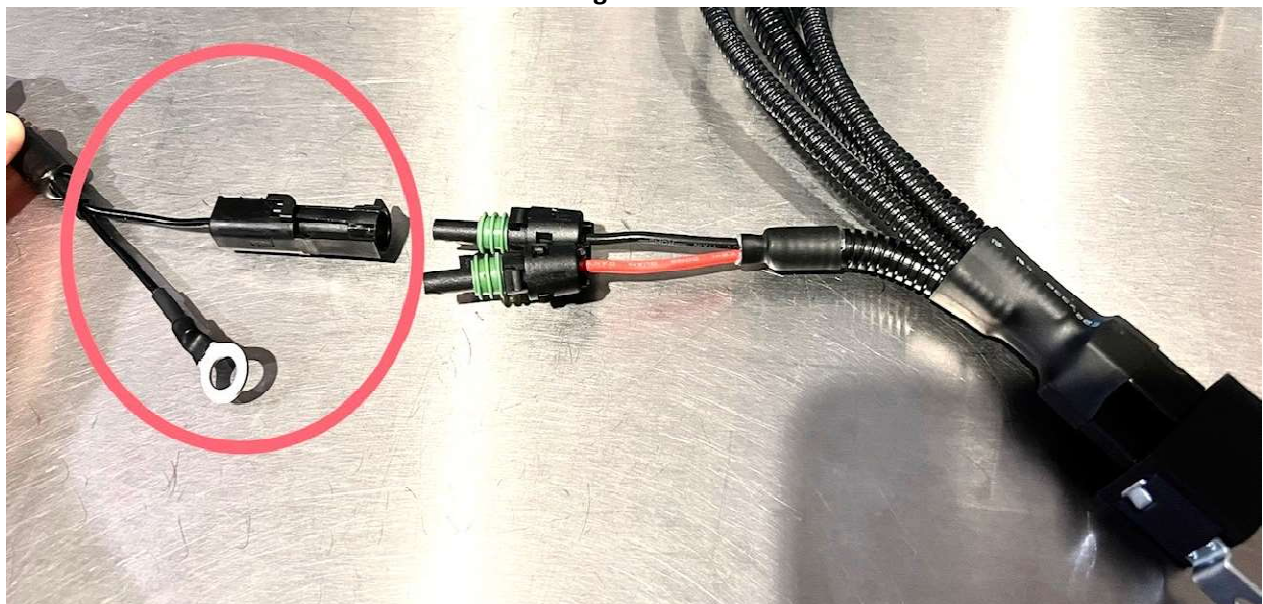


Fig 22:



If you are using our custom Plug n Play harness, notice In figure 23, below. You will see that there are 2 connections for the ground on most of our harnesses. This is the SAME ground. There are just 2 different ways to connect it. The ring is the most common and normal way. However, in the event you need higher amperage than your built in switches/fuses can handle, or you don't have built in switches. You can plug the harness into one of our relay adapters where the ground and power run through the relay. So if you don't have a plug in relay, just ignore the connector. The red wire with connector plugs into the red, and black to black matching wire colors.

Figure 23:



Installing connectors on your switch wires

PAY VERY CLOSE ATTENTION TO THESE DIRECTIONS! The pins are **SPECIFIC** for each connector.

These connectors and pins go on the **LIGHTS** bare wires.
(You won't use these for lights that have adapters)

Pointed Pins on these!!!



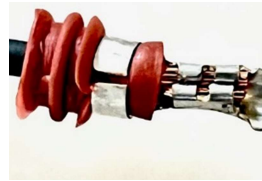
These go on the **SWITCH WIRES**, on the truck.
(You will use these in any case)

Tubular open end pins on these!!!



INSTALLATION OF TERMINALS AND PINS.

Use Crimping Pliers to crimp pins on wires (Don't use generic pliers). Be sure to strip off insulation on wire so you crimp OVER the wire, not the insulation. In the below left/middle photo, you crimp over the BARE WIRE in the center where the tabs are. You slide the rubber seal (Shown below) on the wire before crimping the pin on the wire. Then crimp the outer wings over it. **DO NOT INSERT THE BARE WIRE INTO THE PIN TUBE!** The Wings on the PIN are to be crimped on bare wire like a staple. It won't get connection if you put the wire in the tube and crimp on the insulation



IMPORTANT! Pay attention to where the different color wires are inserted!

BEFORE you slide the pins into the connectors on the switch end, make sure the proper colors line up in the right holes with the harness colors in the connector. If you use the adapters, this is already done. You just connect and plug them in.

Black Wire to A, Red Wire to B, White Wire to C



If you need crimpers and don't know what to get, here is a QR Code for a cheap set on Amazon **(Right QR Code)**



If you mess up.

You will need a PIN RELEASE TOOL. To the **left is a QR Code** For a CHEAP set on Amazon. These are only examples for your convenience.

We have no affiliation with these in any way.



If you are unfamiliar with how to use these QR codes, you simply open the camera on your phone like you are going to take a photo. Aim it at the code and focus. A window will pop up with a link. You touch it, it will take you there.