

## F56 Hardtop (2014+) Auxiliary Light Kit

THANK YOU for purchasing the Rally Light Kit for MINI Cooper F56 (2014-2019). This product is made from the highest grade materials, and is guaranteed to be free from defects.



### Parts Included:

- 1 x PIAA 5" LP550 High Intensity LED Driving Lamp Kit (two lights)
- 2 x F56 Aux Light Brackets
- 2 x Threaded "Dog Bone" Clamps
- 8 x 1/4-20 x 1.25" Stainless Steel Socket Head Cap Screws
- 1 x M6 Locknut
- 1 x Flat Washer
- 1 x Add-a-Circuit Fuse Holder w/1mA Mini Fuse
- 5 x Zipties

### Tools Required:

- Ratchet w/ 8mm, 10mm & 13mm sockets
- 19mm standard wrench
- T20 and T30 Torx drivers
- Pliers
- 3/16" Hex Key Wrench
- Cordless Drill
- 1/4" Drill Bit
- Wire Stripper/Cutter/Crimper
- Trim Panel Removal Tool
- Soldering Iron
- Heat Shrink Tubing
- Electrical Tape

**NOTE:**The installation of this mount is very simple, but we always recommend reading through the entire instructions before you begin. It's good to have an understanding the whole process while performing any installation.

## Procedure

### Install the brackets on your MINI.

1. First we need to disconnect the negative battery terminal. To do so, you'll need to remove the rain tray on the driver's side. There are 3 fasteners and two 10mm nuts holding the tray down. The release the fasteners, simply turn them 1/4 turn to the left.

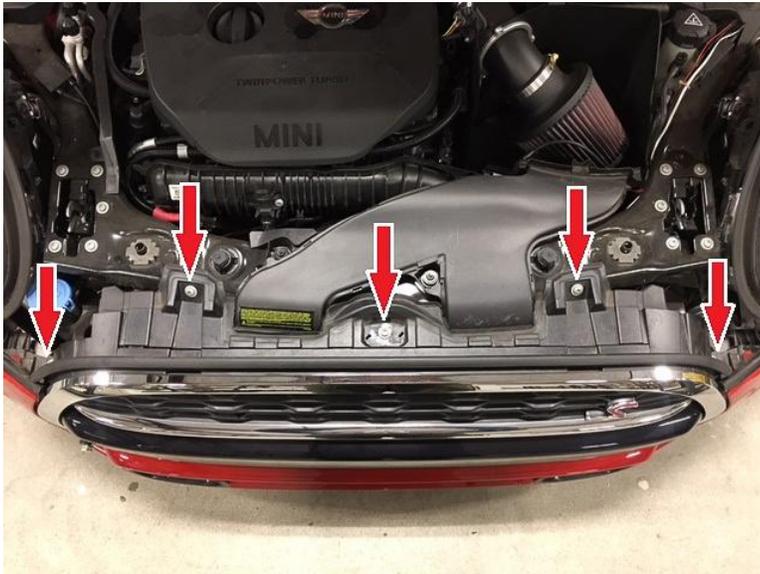


2. With the rain tray gone you can now get to the battery box. It is secured with 3 8mm screws. Take the lid off and then disconnect the negative terminal with a 10mm wrench. It's a good idea to secure the cable to make sure it can't touch the negative terminal.



3. We won't need to remove the entire grill for this install, but we do need to loosen some stuff up to make room to work. Remove the 5 T30 torx screws across the top of the grill and you should be able to flex the grill forward just enough so that you can access the v-brace support bars behind it.

**Note:** If you can remove the top trim panel, go ahead and do so as you'll have much better access behind the grill. However, with some MINIs this panel is glued together at the clip sections and will be virtually impossible to disconnect.



4. Now we're ready to install the brackets. The brackets are side-specific to the MINI and the images below show their intended orientation once installed.



Here's the opening that the bracket will protrude through once installed:



5. Grab a bracket in hand and enter behind the grill, placing the light mounting tab through the slot below the grill. The four-holed mounting portion of the bracket should lie flat against the v-brace core support bar.



6. Insert the 1/4-20 x 1.25" stainless cap screws through the bar mounting portion of the light brackets with the cap heads facing up. Place the 'dog bone' shaped clamp on the backside and tighten the cap screws evenly with your 3/16" hex key wrench. Ensure that the light mounting tabs that come through the slots under the grill are level before performing a final tightening. Hand-tight is fine.. do not crush or deform the core support bars.



7. Do the same thing on the other side and we can move on to the next step.



### **Install the auxiliary lights**

1. Open the PIAA 5" LP550 high intensity LED driving lamp kit and lay out it's contents. You should have (2) driving lamps w/ their respective hardware, a wiring harness, and a set of installation instructions. Please read through the PIAA instructions in addition to what is presented here to have a broader scope of the process.
2. Mount the PIAA lights to the brackets utilizing your 19mm box wrench. We left off the rectangular rubber pads on the bottom of the PIAA light mounts to minimize any vibrations and make for a more solid attachment. Insert the short PIAA light wiring plugs through the grill in preparation for the wiring harness.



### Install the wiring harness

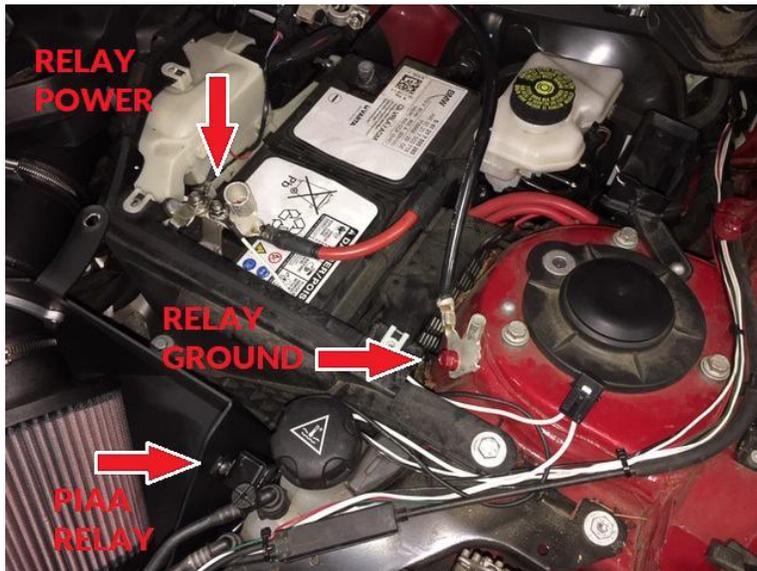
1. Unbox the PIAA light wiring harness, uncoil it, and take note of its various components. Snake the two light power leads behind the grill, plug them into the PIAA lights, and then ziptie the leads to the core support bars to keep them tidy and out of the way. The longer of the two leads will go to the passenger side light.



2. Next, we need to locate a suitable location for the PIAA light harness relay. It will need to be mounted vertically so that water cannot collect inside of it, and the driver side headlight has a mounting point that will fit the bill nicely. Remove the 10mm screw from the headlight mount and pull off the clip-nut with a set of pliers. Replace the 10mm screw and affix the relay to the inboard side using the supplied M6 locknut and flat washer.



3. Coil up any excess wiring between the relay and the lights and ziptie it out of the way. With your 13mm socket and ratchet, connect the relay ground to the battery ground bolt attached to the body of the vehicle and the relay power to the accessory post on the positive battery terminal.



4. We'll now need to send the PIAA on/off switch leads through the firewall of your MINI. There are a couple of ways to accomplish this depending on your situation. Your first option is to remove a small plastic cap above the driver side wiring loom firewall plug and feed the PIAA wiring through it. Getting to this plug from the inside is tricky, so you may choose to try the other method in step 5 below.



5. The second option is to use the rubber wiring loom plug fitting on the driver side firewall. You will need to drill a 1/4" hole in this plug to pass the wires through. When fishing the wire through, you'll notice that the plug for the switch will not fit through the hole. There are specialty tools available to depin this plug, but we chose to simply cut the plug off, fish the wires through, and then solder the plug back onto the loom once it's through. The MINI we used for this install already had a couple holes drilled through the wiring loom firewall plug, so we just utilized one of those holes. The plug is approx 1/2" thick rubber with a plastic core and it can be a bit of a struggle getting your cordless drill down to it due to the limited amount of space available. The plug has a flat section just to the right and down from the hood release cable that you'll need to drill the hole through.



6. Open your driver side door and use a trim panel tool to pop off the side dash panel. Shine a light inside and back towards the hole you drilled through the firewall plug, locate the PIAA wires and pull them through. Resolder the two wires back together and heat shrink/wrap them.

7. Next we need to tap into a switched (ignition) power source from the MINI to power the PIAA relay only when the car is running. There is an extra white wire lead coming out of the PIAA on/off switch plug lead that will reach over to the interior fuse panel located above the passenger footwell and against the firewall. You'll need to tap into a switched power source and we've included an 'Add-a-Circuit' with a 1mA mini fuse that should simplify this procedure.
8. Take the extra white wire lead coming off the PIAA on/off switch plug and feed the length of wire behind the dash and over to the interior fuse panel. The route we utilized was; under the steering column>(remove driver side kick panel)>down behind kick panel (avoid the heater core tubes)>through the center console>(remove pass side kick panel) up behind kick panel>over to the fuse panel behind glove box.
9. Head around to the passenger side and empty out your glove box. Located on the back wall will be an access hatch to the interior fuse panel. Take a look at the image below and take note of the switched (ignition) power locations.



10. Feed your white wire up and through the opening in the back of the glove box and utilizing your crimp tool, fasten the 'Add-a-Circuit' to the end of the wire. Place the 1mA mini fuse into the top section of the 'Add-a-Circuit' and then plug it into one of the designated switched (ignition) power sources.



11. Loop any excess wiring together and secure it under the dash with a couple zipties.



12. Plug the PIAA on/off switch into the wire harness connector, locate a suitable spot for the switch and affix with the included double-sided tape. Reconnect your MINI's battery and test the functionality of the lights. If everything checks out and your driving lights function normally, button everything back up and proceed to aiming your beam patterns as shown in the PIAA instruction manual. If it doesn't light up on the first try, double check your connections and ensure that you have proper ground for the PIAA relay.



PIAA lamps are intended for use solely as auxiliary lighting. Lighting laws vary from state to state. PIAA makes no representation or warranty, either expressed or implied, as to the legality of its products for street use on any vehicle or in any location. PIAA lamps are designed to improve visibility during night time motoring and inclement weather conditions. However, irresponsible use of any auxiliary light can be dangerous and illegal.



Thanks again for purchasing this Driving Light Kit. Included with this part is a lifetime warranty and our world class customer support.