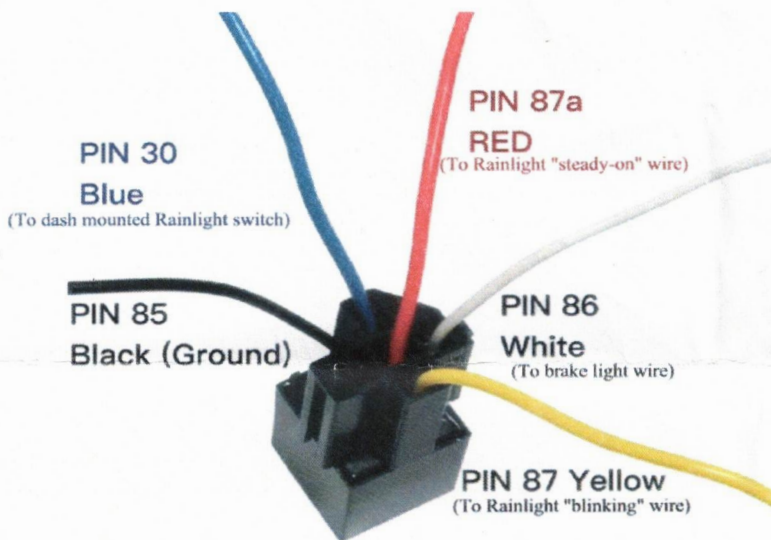


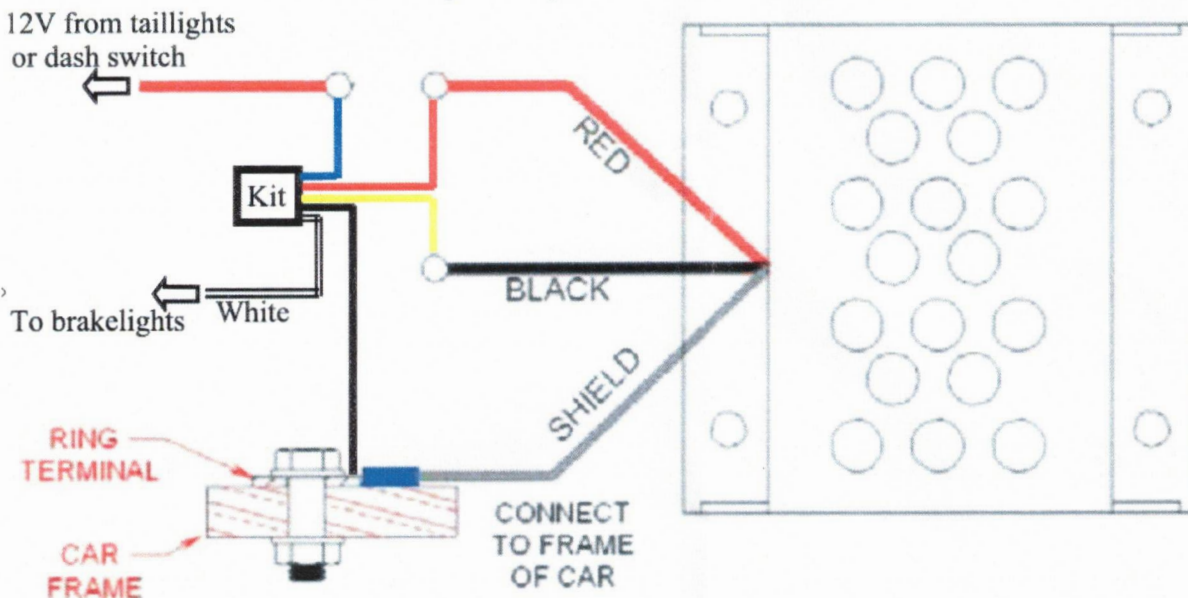
Rainlight installation instructions

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1. **Power.** Connect the blue wire to 12V either by connecting it to your taillights, or to a switch on your dash.
2. **Ground.** Connect the kit's black wire to any convenient ground on the car.
3. **Rainlight steady on wire.** Connect the kit's red wire to your Rainlight's "steady on" wire. For the popular "Afterburner" Rainlight, this is the light's red wire.
4. **Rainlight blinking wire.** Connect the kit's yellow wire to the Rainlight's "blinking" wire. For the popular "Afterburner" Rainlight, this is the light's black wire.
5. **Vehicle brake light wire.** Connect the kit's white wire (pin 86) to the vehicle's brake light wire. Consider putting a male/female spade connector in this connection. That will allow an easy change "Steady-on Always, no brake behavior" should some sanctioning organizations dislike "Blinking on Braking".



Wiring example with FIA Afterburner



QA and Troubleshooting.

Why do I need this kit? Most or all FIA Rainlights are designed to blink all the time and then go steady-on upon application of the brakes. Cognizant of the fact that NASA racers don't want to spend lap after lap disoriented by dozen blinking lights right in front of them, they've chosen to require the opposite behavior. Steady on all the time, blinking under braking. This kit provides the desired behavior. In the absence of the kit, you would get steady on all the time, but upon braking, there would be no blinking. Therefore the one light on the back of your car that everyone can see through the spray, would provide no indication that you're on your brakes.

I connected the blue wire to the taillights, but my Rainlight is on all the time. The 12V source you connected to the kit's blue wire might have 12V all the time, as opposed to just when the taillights are on. Often lights will have a "always on" 12V supply and it's actually the ground side of the light that goes to the switch. You may have connected the kit's blue wire to that "always on" wire. Use a multimeter to check the behavior of that taillight wire. It should be cold when your taillights are off, and hot (12V) when your taillights are on.

I connected the blue wire to the taillights, but my Rainlight doesn't go on. Blue wire might not be getting 12V. Use a multimeter to check the behavior of that taillight wire. It should be cold when your taillights are off, and hot (12V) when your taillights are on.

My kit's blue wire has 12V, but my Rainlight does not go on. Could be a bad ground connection. Confirm that the Black wire (pin 85) has a good ground connection. Use a multimeter to confirm continuity. Closely inspect the fastening point of the black wire to the car's chassis ground. Paint or tarnish on the metal can easily prevent a ground connection. Try abrading the surfaces of your ground connection with some sandpaper so you can see bright steel where you are attempting to connect the black wire.

My Rainlight goes steady on, but when I step on the brakes, the Rainlight fails to start blinking. The kit might not be getting 12V from the brake light wire. Check with a multimeter that the "brake light wire" you selected really does go to 12V when you press your brake pedal.

My Rainlight isn't the Afterburner. It has a "brake wire" and a "rain wire", not a "steady on wire" and a "blinking wire". The best way to figure out which wire is which is to test them. Briefly brush your battery with the wires and see how the light behaves. Alternately, guess. Worst case is you have to redo a couple connectors. Chances are your light's "brake wire" is the "steady on" in these instructions.

I don't have working taillights. What kind of switch should I install on my dash? Most of the 12V switches at your local auto parts store should work just fine in this role. But if you want to see a wider variety look around the web for a 12V SPST (single pole single throw) switch. Rainlights pull very little current so it does not need to be a beefy switch.

How waterproof is the kit? Getting a little wet infrequently won't hurt it. The kit uses an automotive grade relay that is quite tolerant of water and moisture, but it's not water proof. Don't let it get immersed in water. Frequent exposure to water will lead to premature failure because contacts will tarnish.

How/where should I fasten the kit? The automotive grade relay in the kit will tolerate significant temperature swings, vibration, and moisture. But the relay is a mechanical device and so will fail if subject to enough abuse. I would use some duct tape or a zip tie to fasten the kit down, out of the weather, so it isn't repeatedly banging on something and exposed to the worst of the elements.

How can I change the kit's behavior to "Steady-on always"? Disconnect white wire from car's brake light wire.

Support: Contact Scott@Gress.org