

## *Reverse light installation*

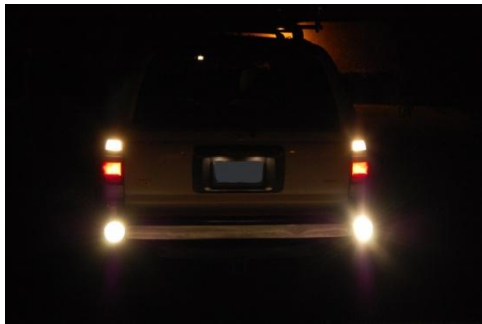
Ever backed down a dark driveway or narrow path and wished you could see better? Like other SUV's, my 4Runner has factory tinted windows so backing up at night is an adventure. The stock reverse lights are more for warning someone than actually providing light. I've had driving lights on the rear of previous vehicles, but wanted more of a flood light. For this project, I purchased 2 Hella round work lights which turned out to work perfectly.

I didn't want to drill into my chrome bumper or mount them too low, so the actual mounting took a little planning. Using some metal roofing brackets from a home improvement store, I was able to mount the lights flush with the rear bumper and out of harm's way.



To keep the installation simple, I wanted the lights to turn on/off just like the factory reverse lights. The easy solution is a relay mounted behind a trim panel near the driver's side rear seat. The relay requires: power, ground, a trigger source, and an output. A wire with a fusible link from the battery provides the 12volts of power; the trigger source is a wire connected directly to the reverse light plug in the rear lens housing; ground is done via bare metal body screw and the output is to the 2 work lights. Aside from choosing a mounting location, running the wires cleanly behind the trim panels was the hardest part of the project.

After a few weeks of use, the setup continues to work smoothly; switch into reverse and the lights come on, shift out of reverse, they turn off. The flood pattern provides a continuous illuminated area behind and to the sides of the 4Runner. It's like have headlights on the back of the 4Runner!!



Here's my parts list: Most of these items can be purchased locally & I included a couple of web links for pictures and part numbers. If you buy a complete light kit, it should have all the necessary parts.

- Hella work lights: <http://www.summitracing.com/parts/HLA-H15986001/>
- Wiring Relay: <http://www.jcwhitney.com/30-amp-350-watt-capacity-relay-kits/p2001333.jcwx?filterid=j1>
- 14gauge wire
- Fusible link
- Misc connectors
- Electrical tape
- Wire strippers/crimping tool
- Light mounts