

This is a guide to installing flexible LED strip lights on a 2006 A4.



I got the LED strip from Amazon.com (http://www.amazon.com/2005-2010-White-Lights-HeadLight-Strips/dp/B003TXV3J2/ref=sr_1_4?s=automotive&ie=UTF8&qid=1278036474&sr=1-4) for \$50. I have recently found another post with a similar LED strip that may be a better quality. Search the forum.

As preparation work: I soldered about 15' of some cheap speaker wire I had lying around to the existing leads of each strip. In addition I soldered about 6' of the same wire to a small toggle switch that I had lying around. The switch will be used to turn the LEDs on independently from any other light controls. Also, I did not like how the exposed copper of the stock strip looked. So I masked each LED with a small strip of tape and sprayed the light strip with silver spray paint to match the lower portion of the headlights behind the lens.

The first step is to remove the headlight assemblies from the car. Each assembly is held on by one bolt on the top of radiator support rail and a bracket attached to the center of the headlight assembly. Next there are 2 torx screws that attach to adjustment nuts at each corner of the headlight. Take extra caution when removing these screws. The adjustment nut on mine came loose as I was removing these screws and I lost one in the process. In addition I took out the screws holding the grill to the radiator support rail. Before removing the headlight assembly tape the corner where the fender wraps around

the headlight with some tough tape between the headlight and the corner. If you don't do this there is a good chance you will scratch the clear lens during removal.

On the driver's side: If you pull the grill up you can finagle the lower bracket of the headlight past the plastic. Once you do this you can wedge the rest of the assembly out of its perch in the car. Disconnect the headlight connector and remove the assembly completely.

On the passenger's side: Remove the cold air piping by removing the two screws holding the plastic shroud to the radiator support rail. Now you can get to rear adjustment screw. Use the same removal process as the driver's side. However, the length of the wiring harness was shorter than on the driver's side. So before I could pry the assembly out of its perch I had to disconnect the connector. This is a real pain, as there is almost no room to maneuver.



Figure 1 - Grill Mounting Screw and Headlight Adjustment Screw 1

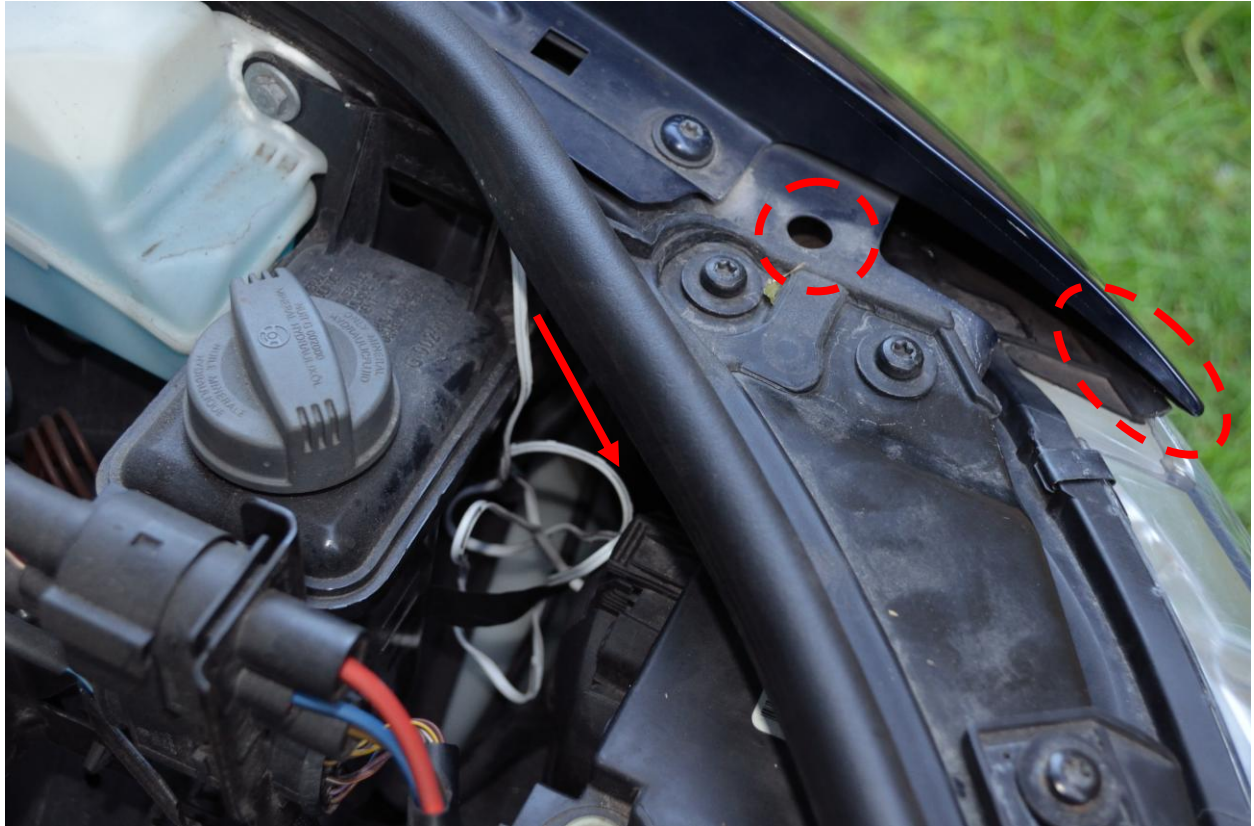
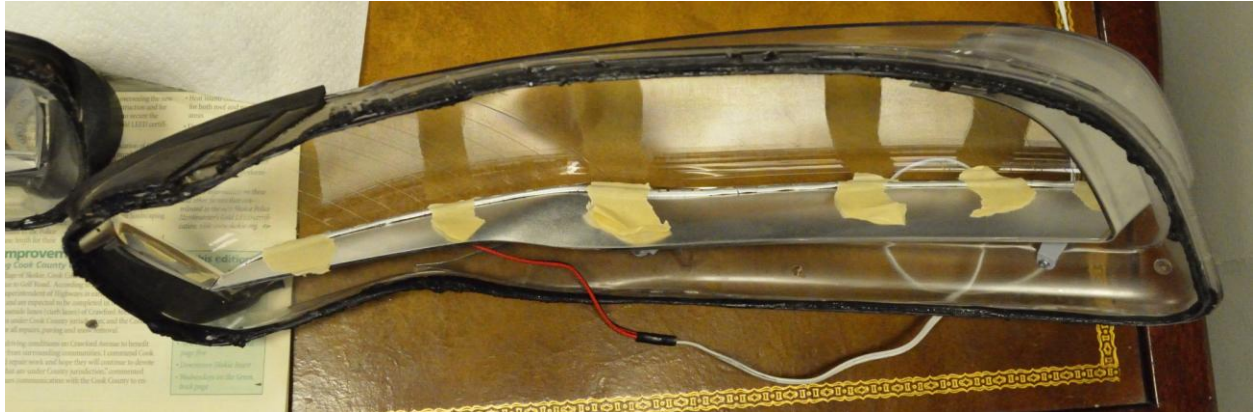


Figure 2 - Headlight Adjustment Screw 2, use a 6" extension through the access hole. Tape this corner on both sides to prevent scratching

Now that you have the assemblies out, remove the 5 or 6 metal clips holding the lens to the black rear molding. I marked each spot with a piece of tape so that I knew where to replace them. Now, you can carefully separate the lens from the rear plastic by slowly prying it using a screwdriver around the edges. The lens is sealed to the rear assembly using some type of sticky RTV.

With the lenses removed you can secure the strips to the silver inner lining. I chose to use some epoxy to help ensure adhesion over time, but I am not sure if this was completely necessary.





I drilled an additional hole in the back of each assembly and fished the new wires through the hole. Once I got to the correct length I wrapped the wire with electrical tape to match (a little larger than) the diameter of the drill hole. You can wedge the plug into the drill hole and create a pretty good seal, and then tape the wire down to the back of the assembly for strain relief and sealing.





Reinstall the lenses and reassemble the clips. Now you are ready to reinstall on the car.

Reinstall the headlight assemblies on the car in the reverse of how you took them out. (Yes this is a pain as well.) Again, take note of the adjustment clips and nuts to make sure they are in the right place and to not lose the adjustment nuts. I also found that I messed up the adjustment on one side, and needed to realign the height of the beams after the install.

I looped about 18" of wire right at the back of the light assembly in case I ever needed to remove the headlights again to replace bulbs.



I ran the wires behind the weather stripping along the sides of the engine compartment and underneath the weather stripping at the top of the compartment.



Next I fished a coat hanger through the cabin into the engine compartment. There is an existing pass-through below the ECU that you can use without having to remove the ECU cover (need to remove the windshield wiper first!) The pass-through is above the brake pedal and up towards the fuse box. There was a pretty large power cable and another few wires coming through here. Pull your wires through to the cabin and fish them up towards the fuse box.



Figure 3 - Pass through hole above here

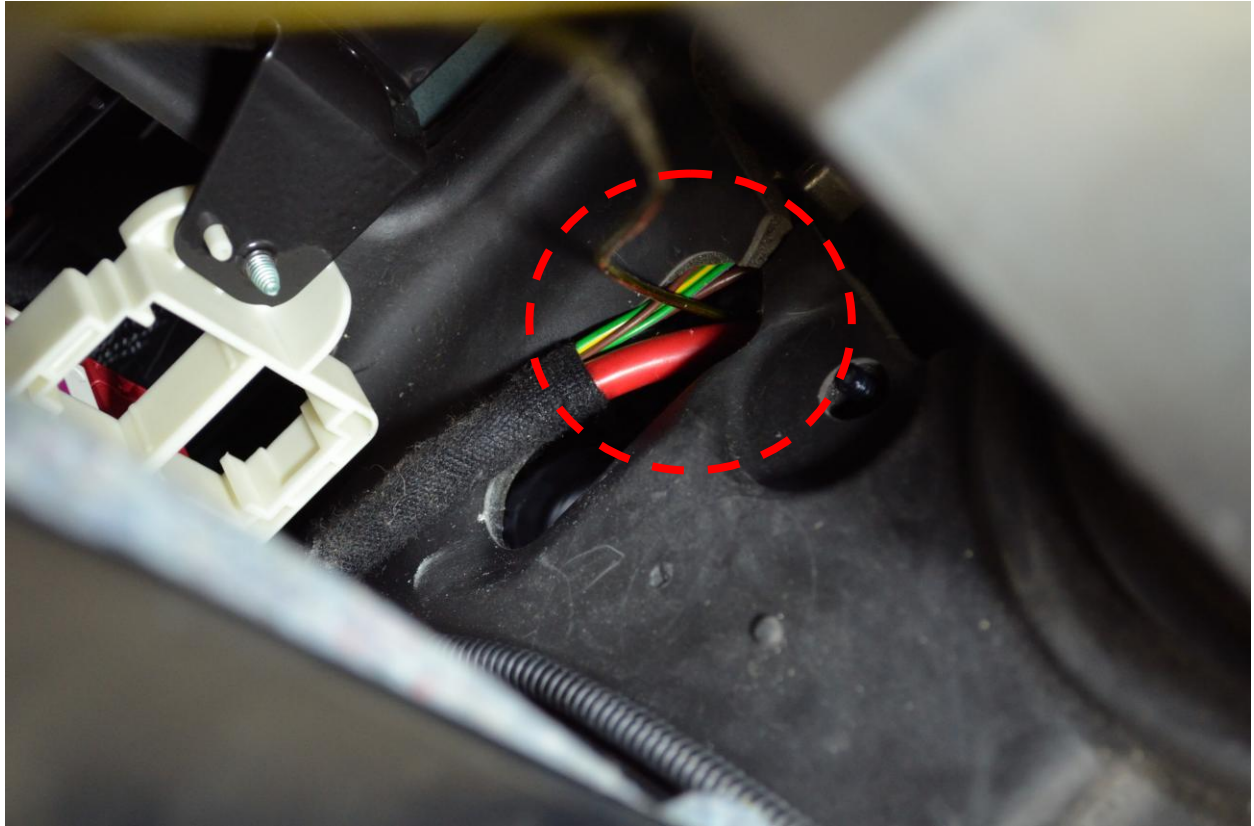


Figure 4 - From inside the cabin, looking up

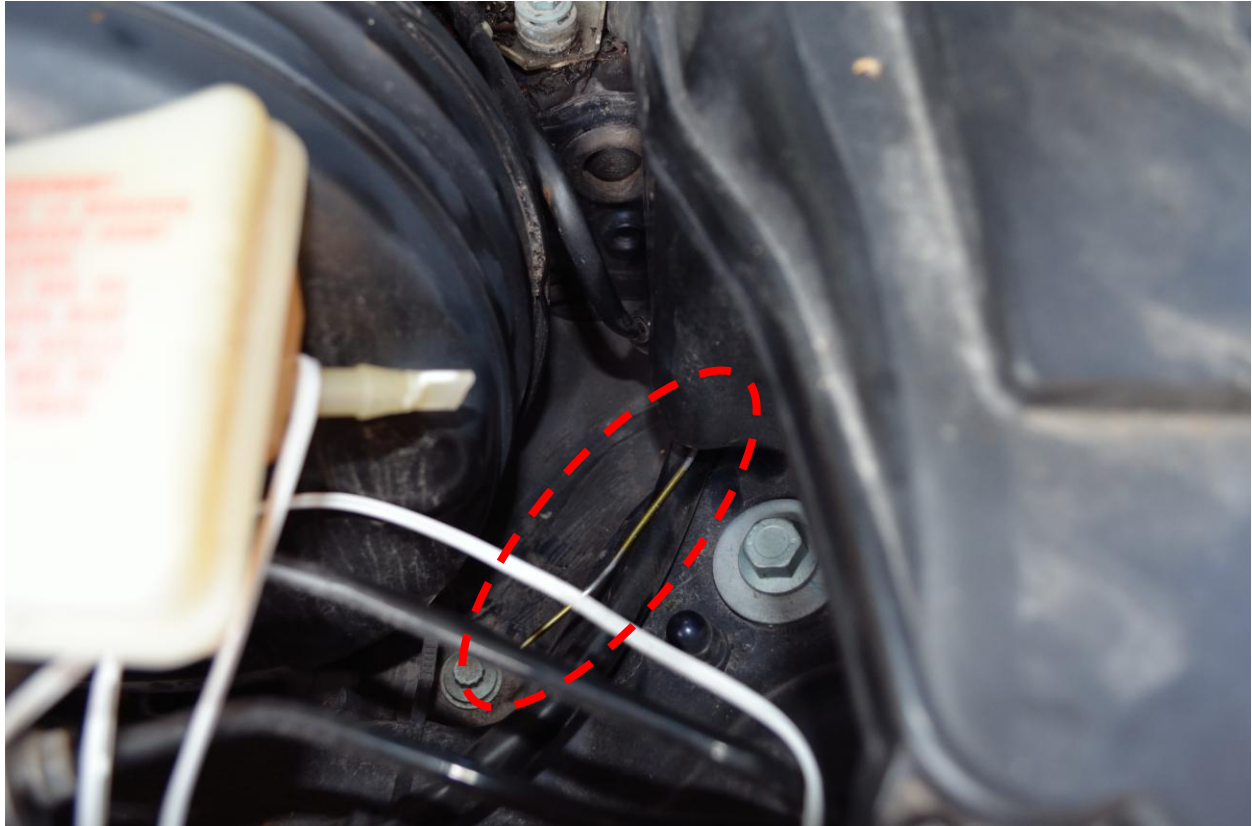


Figure 5 - From above engine bay, between brake reservoir and ECU housing

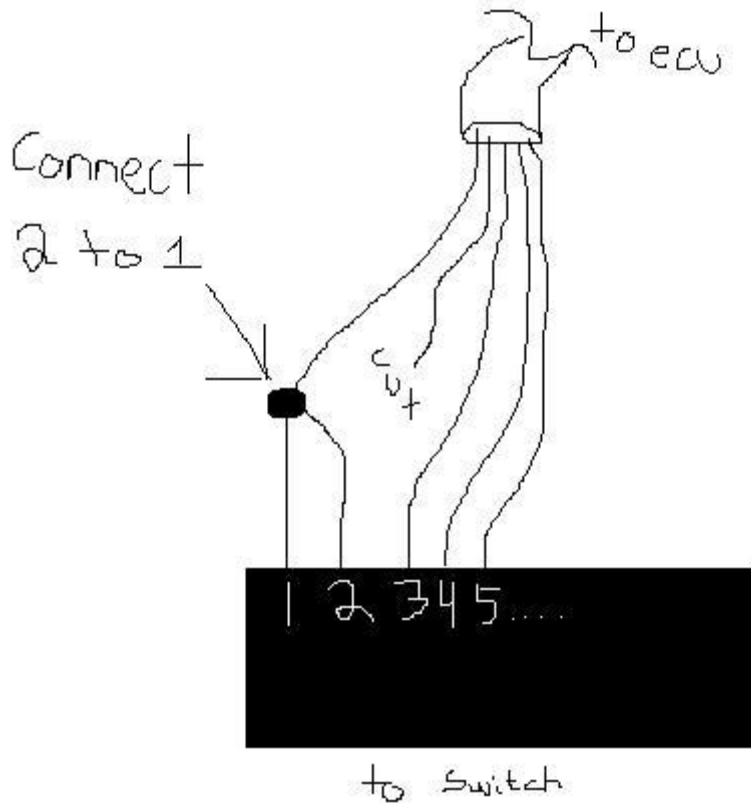
I wound up doing the fog light mod at the same time that I installed the LED switch. The fog light mod allows the fog lights to come on whenever the master switch is pulled upward, whether the headlights are on or not. (Fogs and headlights at the same time defeat the point of fog lights in my opinion.) To do the mod remove the light control switch. Push the rotary dial in and rotate slightly clockwise, then pull the switch out.

Here is the instruction stolen from FatAuto's post. Works like a charm. I did not VAG the car and it still worked.

"Fist VAG the car to RDW (Rest of world). This enables the ECU to let the fogs work with the parking lights but we still need the power. See [Ross Tech](#) for more directions. Side note, I also found that RDW sets the parking light markers that come on when the blinkers are engaged without the key to work for each side independently rather than all 4 at once like mine used to when set to USA.

Now remove the headlight switch, to do so push the selector IN then turn clockwise about 10 degrees then pull the entire unit out towards you. GO EASY, it will come. Once removed you will see an electrical connector attached to the back of the switch. Remove this connector by pressing the two tabs on each side of the connector in and pull the connector off.

The electrical connector is marked with numbers for each of the wires. Our goal is to cut wire #2 and jump it to wire #1 IMPORTANT: THE WIRE FROM THE CONNECTOR HAS TO BE JUMPED TO #1 NOT THE WIRE THAT COMES FROM THE WIRE HARNESS. See picture below for my kick ass diagram.

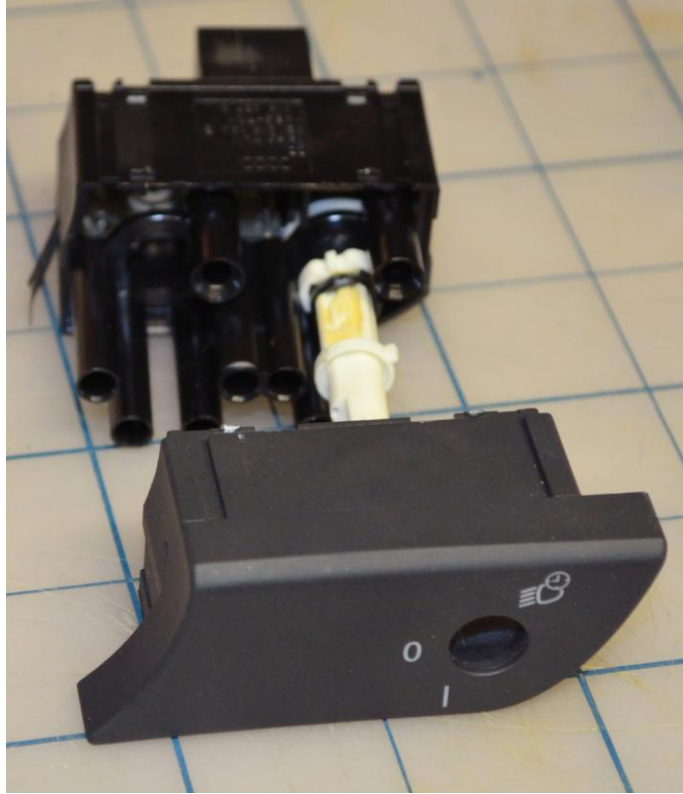


Here is an explanation of why we do this. Pin #2 feeds the internal switches of the headlight switch 12V to tell the ECU when to fire the front and rear fogs. On our US cars pin 2 is only powered with 12V when the headlights are on. So we steal 12V from the main 12V supply for the switch (pin #1) and feed it to pin #2 all the time. If you don't cut the wire to the ECU from pin #2 it back feeds 12V to the ECU and lights flicker and go crazy! So make sure its cut BEFORE you connect pin #2 to pin#1."

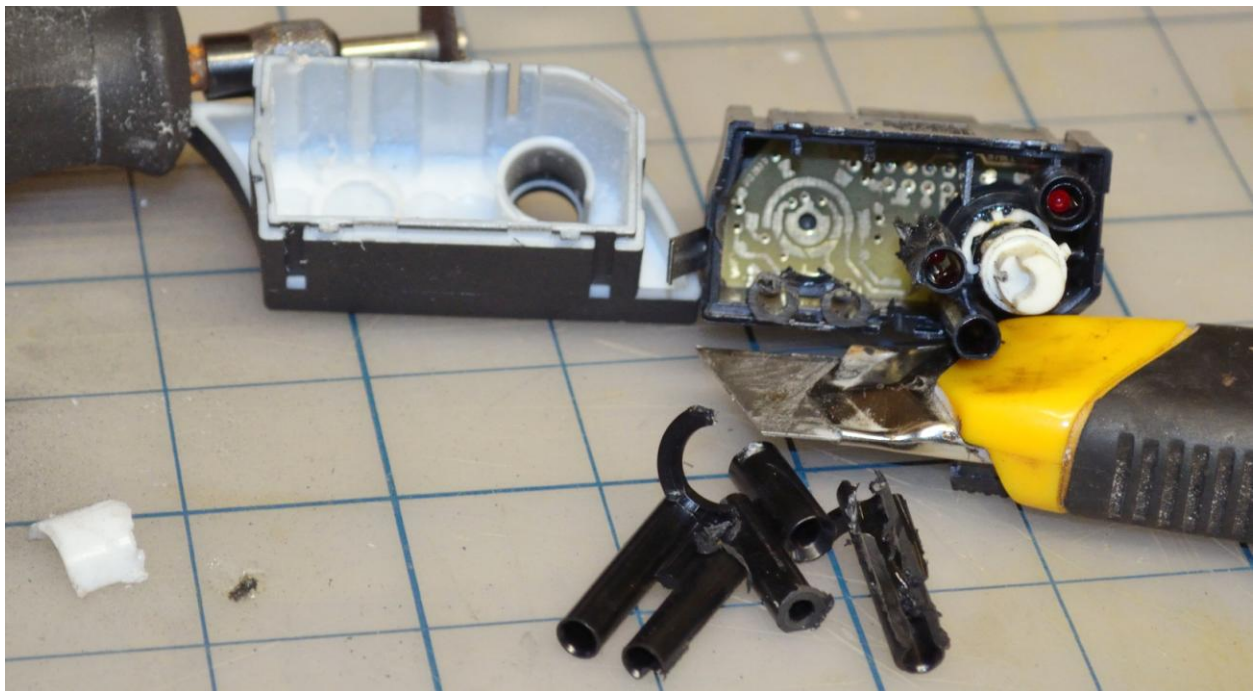
<http://forums.audiworld.com/showthread.php?t=2567399&highlight=headlight+switch&page=4>

I added a toggle switch next to the light timer switch. To pull the module is easy with the fuse box cover pulled off and the headlight switch removed. There are two metal clips on each side of the module holding it in the car. Disconnect the connector and remove the module from the car.

The module is in two pieces held together with 4 clips, press in the clips using a small screwdriver and separate the halves.



I used a dremmel and a utility knife to remove the half moon sticking out of the dash piece, and remove the unused pods on the second half of the module.



I drilled one hole in the dash piece in order to mount the toggle switch. I drilled a small hole in the upper corner of the back of the module to pass the wires through.



Put it all back together and install it in the car. A nice clean install.



Okay, so I chose to use the toggle as a power switch. Since I spliced into the wire for terminal 1 for power for the fog lights, I also spliced into this for power for the LED lights. Of course you can use any other power source. The nice thing about this source is that it will turn off automatically after a period of time when the car is turned off even if you accidentally leave the LED switch on. So one lead of the toggle switch is now power. Hook this up to the two power leads for the LED strips. Connect the other two leads of the LED strips to a good ground source. (Of course if you want you can reverse this and make the switch the ground and wire the other two leads to power.) Now turn the key to the accessory state to activate the switch power and use the toggle to turn the LEDs on and off.

For \$50 and a few hours this install looks pretty slick. And you can fix your fogs all at once!

