

LUMEN HALO RING INSTALLATION INSTRUCTIONS

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TOOLS AND MATERIALS

- Heat gun (a hair dryer is not enough) or oven
- Drill and drill bits (various sizes, see text)
- Silicone adhesive, exterior quality
- Various flat blade screwdrivers
- Dremel type rotary tool, or file
- (4) 3M Scotch-Loks or similar electrical quick connects
- Electrical tape
- 12 Volt test light or voltmeter/multimeter
- Wire cutter/stripper
- Pliers
- 28-gauge picture wire



DISASSEMBLY

If you are not comfortable with any of these steps, professional installation is recommended

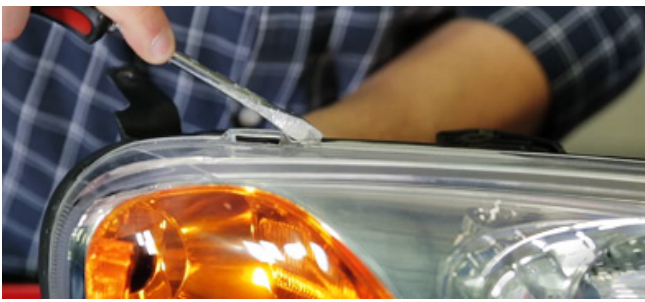
Installing the halo rings requires removal of the front (clear) lens of the headlight assembly. You will most likely want to remove the headlamp assemblies from the vehicle. Even if not required, you may find it more comfortable to perform this operation with the lamps on a work table. Refer to the appropriate service literature for your vehicle for headlamp assembly removal.

Separating the lens from the housing requires heat. One method is to put the lenses in an oven at about 225-250 degrees F. If you want to go this route, look at YouTube for videos which detail the process.



We prefer the use of heat gun to separate the two halves of the lamp assembly. This can take a bit longer, but we have found it is more effective, and more user friendly than baking the lights in a conventional oven. You will want to use gloves because the lamp will get fairly hot in the area you are working. We used a heat gun with a variable control between 212 degrees and 1,000 degrees, and set it about halfway. Hold the heat gun about 3-4 inches away from the area you are working on, and move the heat gun back and forth along the seam in a sweeping motion. Cover a length of 6 to 8 inches at a time. Once you have heated

it to a sufficient temperature use a flat blade screw driver as a wedge between the lens and the housing. The screwdriver will cut through the adhesive nicely once the edge has been warmed with a heat gun.



required. Once the lens has been separated from the housing, put the lens someplace safe where it will not get scratched or damaged.

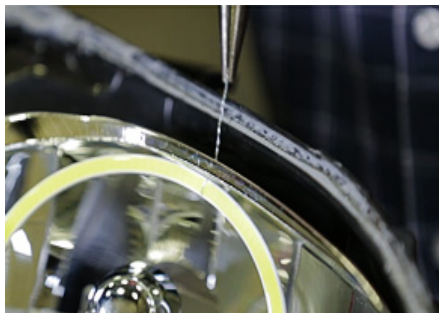
SELECTION OF HALO RING

Once the lens is removed, you can examine your headlamp assembly and decide on halo ring location, and more importantly, halo ring size. Select a halo ring diameter which will sit fairly flat, keeping in mind that you will be attaching the ring with picture hanging wire.

Once you obtain your Lumen halos, test the halo rings to the battery. The white wire is the ground wire and the red wire is the positive connection. If the halo rings light, then you can proceed. ***Pay careful attention to the points where the wires are soldered to the ring. These are VERY fragile.***



MECHANICAL INSTALLATION



Test-fit the ring to the surface you are planning on attaching the halo ring to. Once you have decided where exactly you want the halo to sit, tape it down using some masking tape. ***Be sure you have oriented the wires so that you will be able to route them to the rear.*** Using a thumb tack, or push pin, mark 2 spots on either side of the ring in 3 separate locations (ideally you want them spaced equally). Follow up using a small drill bit comparable to the push pin in size. Once the holes have been drilled make sure to dust off any excess material. Then cut 3 strips of picture wire about 3-4 inches in length (We recommend 3 wires to hold the ring in place, but you can use more if you feel that it is necessary). Install the wire into the drilled holes so that it runs perpendicular across the ring. Pull the wires tight through the back, and twist them together with pliers to finish the mounting. The wire will not be visible at all when the lights are operating.



It may be necessary to use a Dremel tool or file to make a notch in the housing to allow the tang extending off the bottom of the halo to fit. This will vary depending on the application.

Test the light again at a 12V source to ensure it operates.

Route the wires through the back of the housing, and drill a 1/2 inch hole to allow the connector to pass through. Do not drill through the top of the light for the wires. Ideally you want to be on the upper side of the back of the light if possible. Once you have pulled the slack out of the wires and are happy with the routing (make sure that the wires are not in the way of any adjustments you may need to make at a later time), you can seal the area where the wires pass through the hole using silicone.

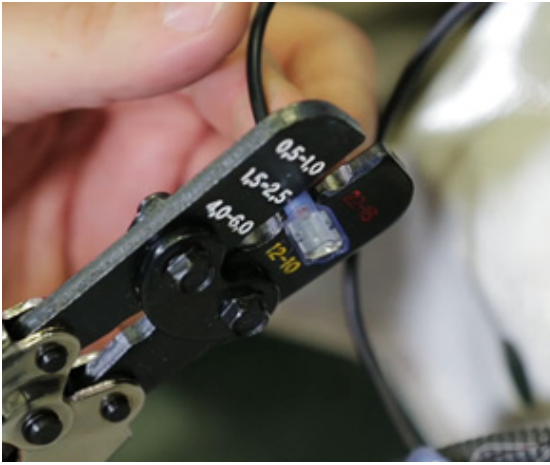
REASSEMBLY

Run a bead of silicone along the edge of the housing, and press the lens back into place. Once the lens is in place, make sure to reattach any clips that were removed before, or during the installation process. Once you have applied the silicone, the light must be reassembled within 5-10 minutes. If the temperature you are working in is at least 75 degrees, the silicone will cure within 20 minutes, but just to be on the safe side we recommend allowing at least 1 hour of curing time in a warm work environment. Depending on the design of your lamp assembly, you may use masking tape, locking pliers, or spring clamps to hold the 2 pieces together while the silicone dries.



Test the light again at a 12V source to ensure it operates.

ELECTRICAL INSTALLATION



Once the silicone has had ample time to cure, reinstall the headlights back into place on the vehicle. The next step will be to tap into the vehicle's electrical circuit which will provide power to your newly installed halo rings. The halo rings can be connected to any "hot" wire. Most people will want the halo rings to illuminate with either the parking lights or low beam headlights. The metal terminals on the end of each wire will need to be cut off before the connections are made.

Turn on and locate your parking lamp or headlamp, then back probe using a test lamp, or meter to find the 12 volt constant. Once the 12 volt constant has been identified, slip the scotch lock over that wire on the harness, then take the red wire, and slip that into the other side of the scotch lock. Firmly press down with pliers, and close the safety on the scotch lock. You can then run the white wire to any good ground on the body, battery, or to the ground wire on that same circuit using another scotch lock. We recommend the use of electrical tape to weatherproof all of the connections you make. Once this has been completed go out and enjoy the fruits of your labor!