

2002 Golf Retrofit

Parts list:

Hella E55 bi-xenon projectors with ZKW replica clear lenses (purchased from Retrofit Source – projectors \$125/pair, lenses \$70/pair)

Phillips 85122 D2S capsules (purchased from Retrofit Source - \$50/pair)

Cheapo Ebay plug and play ballasts with AMP to D2S adaptors (roughly \$70/pair)

3" PVC Caps (any hardware store - \$2 each)

Funnel I turned into a shroud (grocery store - \$3 each)

Krylon spray paint (\$8)

Various #8 bolts & nuts (\$5ish)

JB Kwik, Silicone, GOOP, Loctite (\$20ish)

Metal access cover from my water heater (priceless)

Total cost: \$360ish...not including shipping.

Alright, first things first. Remove the metal clips holding the lens on.



Next place headlight in oven at 200F for about 3 minutes. Once warm, pull off lens, but remember it's warm so wear gloves or something. The glue is very sticky and stretchy, be careful it gets everywhere.



Then remove the chrome trim (it's just held in by the glue that held the lens on), and the reflector assembly. The reflector is held in by the two adjusters (white things on the top) and the pivot point (black round thing on bottom) as seen in the picture below. They will snap out but be careful they're in there pretty tight.



The next part is cutting out the reflector to make room for the projector. I don't have a whole lot of pictures but it's basically trial and error anyways and will depend of what projector you have. The E55 is quite big so most of the low beam reflector got cut out. I made custom "L" brackets out of thin gauge steel that I cut out of the access cover on my 2 day old water heater. Why? Well because I live out of town and didn't have any other thin gauge steel lying around. And it was easy to cut with some hefty scissors I had. So the next pictures you see are with the projector mounted to the reflector with my brackets.



This process also involves a lot of testing to insure that the projector is mounted straight ahead and that the cutoff is horizontal. Fortunately, when the headlight housing is sitting on something level, the two mounting tabs on the bottom that hold the headlight to the car keep the housing horizontal and you can adjust the projector position this way, rather than having to do it on the car. Also, since I'm attaching to the reflector and not to the housing, I will still be able to use the stock headlight adjusters – which is a good thing. But remember, there's only so much vertical and horizontal adjustment built into the headlight so the more you can aim it now, the better.

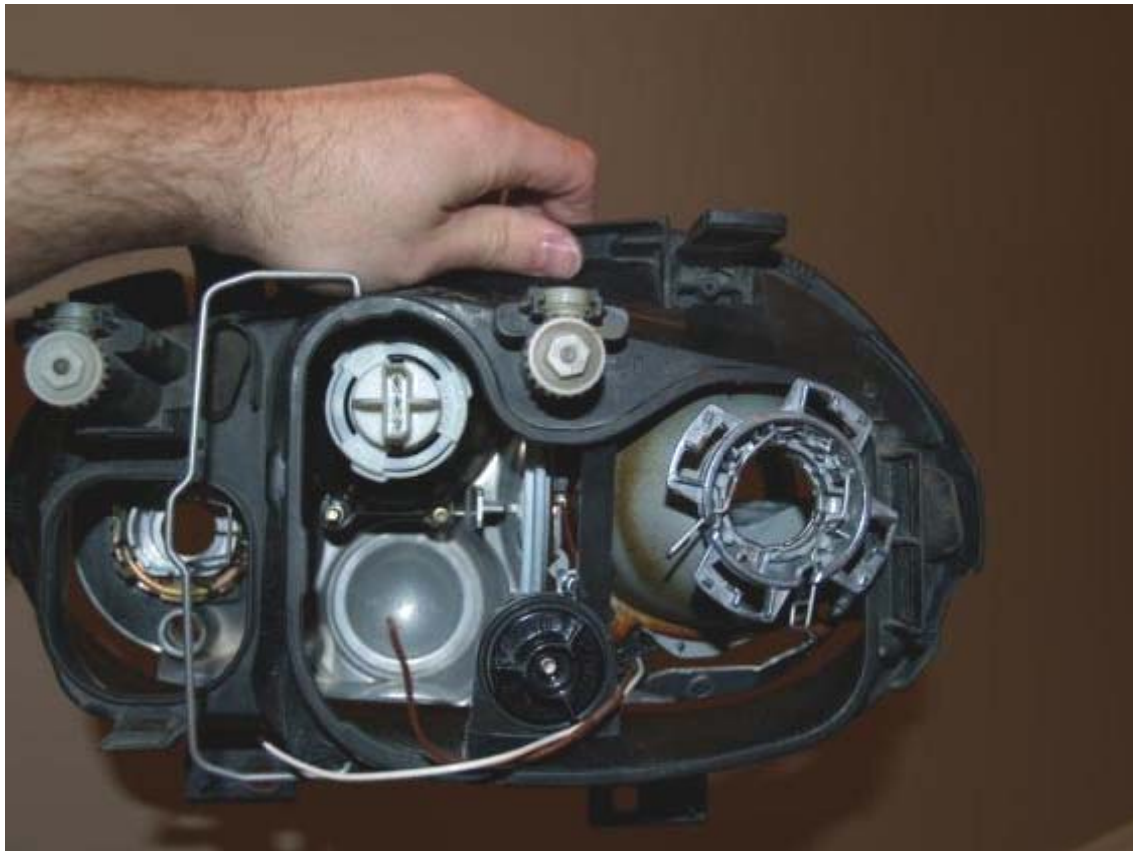


Ok once you're satisfied with how the projectors are mounted you can "pretty" things up. I would recommend removing the projectors if you're going to paint. I used "Krylon Fusion" for Plastic, Satin color (I wanted flat black but this was the closest they had) spray paint. It worked awesome. You don't have to prep the plastic and you only have to wait like 30sec between coats. I bought it at Canadian Tire. Also, a work of **caution**. The chrome coating comes off very easy, and even masking tape will peel it right off. Once painted, start assembling.





In my case, the metal tabs sticking out around the back of the projector had to be trimmed off in order to get the cover back on.



This picture shows the back with the bulb inserted and the connector attached. Obviously it sticks out further than the halogen bulb so it was necessary to modify the rear cover.



What I did was cut out enough of the cover so that I could fit it over the bulb and connector and snap it back into place, and then cut up a 3" PVC cap to fill in the giant gaping hole. At first I had such big gaps that I didn't know how I was going to fill them, but JB Kwik saved the day. I tell you, that stuff is amazing. It fills gaps like a mo-fo.



Inside view of the rear cover.



This is what they look like partially assembled, but with no shrouds yet. Also, remember I mentioned that the chrome peels off easy? Well you can see where I taped over the high beams that it all peeled off. But I just touched it up with a brush at the end.



Now because I had planned on mounting things differently before I undertook this process I didn't have any shrouds to cover things up with. So after a trip to the local Coop, I had in my possession two big red plastic funnels. After chopping off the handle and the spout, and painting them, I came up with this. Sorry I have no before pictures. Just picture a funnel and you should be fine.



Shroud now mounted. I used Goop to secure the shrouds to the reflector assembly. Notice the peeled chrome around the high beam.



At this point all I had left to do was touch up the high beam reflector, and reattach the lens. I used clear silicone II to glue it back on, even though I was warned that silicon may give off fumes when curing and fog up the housing. Also I had to wire in the high beam solenoids. All I did for this was splice directly into the two wires going to the high beam bulb. Simple enough. And also I had to run the AMP-D2S adaptor ends through the back cover. I used the grommet that came with the plug and play hid kit to seal it up. I'm not going to get into detail on how I wired these besides the fact that I used a relay to power the ballasts, and I already mentioned how I hooked up the solenoids.

I don't have any great finished product pictures but these will have to do. Enjoy!



Low beams (yes that's Woodstock hanging on my mirror)





High beams.



And now for the output shots – aiming is not 100% complete, but it’s very close. Also I should note, the color is much more white than it appears in the photos.

Low beams sitting in the car, roughly 25ft from garage.



Low beams standing outside car.



Cutoff/step. Again, I don't know why these look so yellow in the pictures. They are much whiter in person.



High beams. This doesn't really show how bright they are but they light up a long way down the road.





And that's all she wrote! Hope this helps anyone considering a retrofit. This was my first retrofit, but I have been researching it for a long time. I've gotta say thanks to everyone at HID Planet forums. I couldn't have done this without them!