



2001 thru 2003 E39 Headlight Adjusters Replacement DIY

Problem: 01+ headlight (made by Hella) adjusters become brittle and break, resulting in the headlights aiming down. Pre 01, you could replace the adjusters for around \$20 from your local BMW dealer. 2001 – 2003 headlights were changed and are “sealed” with no replacement parts available. Your only option was a complete new assembly from BMW or go aftermarket. Costs were in the \$1000+ range. Through forums searches I found replacement parts at www.odometergears.com for \$85/side.

This is what your adjusters should look like when they are new.



This is what they look like when broken.



Tools you will need.

8mm nut driver, 10mm nut driver, thin blade screwdriver, T10 torx, T20 torx, something with a wide blade, oven, hairdryer or heat gun.



Remove the headlights from the car. There are (4) 8mm screws. Disconnect all electrical plugs. Pull headlight out the front of car.



Complete headlight assembly.

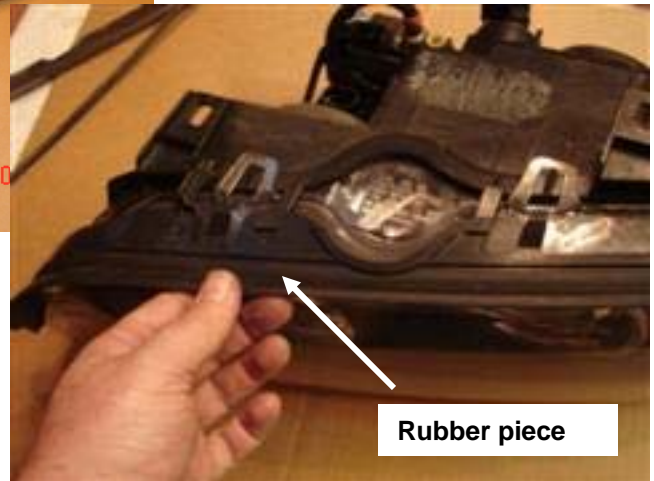


back



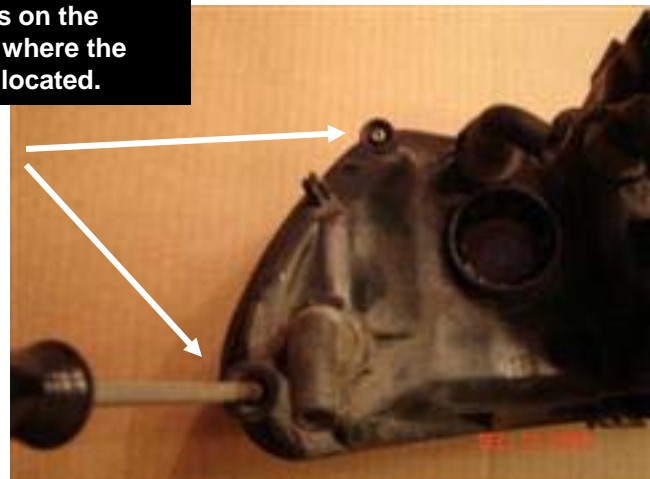
front

Remove beauty trim and rubber piece.



**Heat the oven to 200° F.
That's right, I said heat up
the oven ! or find a good
hairdryer or heat gun.
Leave the oven on, you will
need to use it again during
reassembly.**

**Remove the 2 screws on the
backside of the lens where the
amber turn signal is located.**



Part 1 of 2

NOTE: The following information is to be used at your own risk, and should only serve as a procedural reference.

Remove the ballast.
Held on by (3) 8mm
screws. Also remove the
halogen bulb and amber
turn signal bulb.



**Now its time to loosen the
“glue” that holds the front
lens cover to the body, Place
in the oven for 5 minutes @
200°F.**



Start at one end with a screwdriver or flat blade and separate the clear front cover from the main body. You will need to lift the clear tabs over their holding post as you go. You will see the “black” goop start to give up its hold. Take your time and go a little at a time. Work your way around the entire lens.

Separate front
clear lens from
body



I used a wide flat
blade to wedge
between lens
and body



Here is what you
are after !!! Now
we are inside
and can get to
the adjusters



Remove the black bezel that contains the AE rings. This is also held on by the black goop. If the goop is not pliable enough, put the lens back in the oven for a few minutes to soften.



Remove the 3 screws holding the Height adjuster motor. At the end of the shaft is a ball that slides into a track on the back of the inner headlight assembly. **DO NOT PULL THIS STRAIGHT OUT.** You need to push in and slide the ball to the right to remove. You are essentially working blind. It took me an hour to figure this move out!



Here is the track the ball slides into from the side



Slide ball out to the right.

Next you need to remove the rubber boots from the back of the lights chassis (low and high beams). You should be able to pull the bulb assembly out through the front. The boots will stay attached to the bulb assembly and be pulled through to the front.



**Here is what we are after.
THE BULB ASSEMBLY IS OUT !!!!**

Ball socket on bulb assembly. You will need to get the broken "ball" out from this piece. I removed the socket from the bulb then inserted a small flat blade screwdriver to depress the tab and push the ball out from the from side.



Broken piece on chassis. Use the adjuster on the back side to turn the screw to release what left of the original piece.





The new pieces are very tight and need to be run in and out a few times using the 10mm nut on the back instead of the adjuster screw on top to avoid breaking any teeth.

I used a 10mm nut driver to turn the headlight adjustment screw to remove the broken pieces that were still attached. The new pieces are of excellent quality and look as though they should last a long time. I did notice that they are very tight and when using the white adjusting knob, it started to skip teeth due to the torque required to thread the new pieces on the existing screw. I suggest you use the 10mm nut on the back to run the new piece on and off a few times to “loosen” the torque requirements as you cut the new threads. I added a little lithium grease to the new pieces to help cut the new threads as I ran them up and down. On the second light, I saved a lot of time by attaching the 10mm nut to a drill to speed things up.

Look for any broken “balls” that remain in the holders on the headlight. I used a thin blade screw driver to hold the tab down and pushed the “ball” out from the backside.



Pop the light assembly into the new pieces and reverse the disassembly order. Use the oven to heat up the lens and body to “glue” the two pieces together. Go out and enjoy your new headlights.



The first light took about 1.5 hours, the second about 30 minutes.

Good luck and repair at your own risk I take no responsibility for your work.