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BMW E39 (5 Series) September 1999-2003 Headlight Adjuster Repair (version 1)

A special thank you to Trent Cole of Lone Star Bavarian in TX for the great write up. Here are his words verbatim.

Earlier model E39 headlight adjusters are available from BMW: Part # 63 12 0 027 924

From: "Trent Cole"

CC: <sales@odometergears.com>

Subject: Late E39 Headlight Adjusters , Inst Instructions

Hey Gang,

I have now performed my first E39 Xenon with Angel Eyes, Headlight adjuster extraction and replacement. Just as a refresher, these are the adjusters that are not available from BMW but Jeff Caplan over at Odometer Gears Ltd. created. The Adjusters from Jeff are very similar to the originals but according to him they are made from better materials and should last longer.

The replacement procedure is not difficult but time consuming since you have to take your time prying the plastic lens from the back plate assembly. I started by first removing the headlight from the car (duh!). The rest of the directions I will number.

1. After removing, place on a clean soft work surface, like a towel. Have a place to keep all of your parts that are off from your general work area since you will be doing a lot of turning and pivoting of the light assembly.
2. Remove the remaining bulb sockets from the housing.
3. Remove the Xenon Transformer.
4. Remove the two tiny torx screws in the back of the assembly behind the lens where it sweeps into the fender area when mounted in the car. These two are easy to forget but it is critical to get these out.

NOTE: The next process is time consuming and requires patience so if you are a fumble fingers or a spaz find someone else in the shop to do this. You now ready to separate the lens from the housing. It is glued in with a non-hardening product like gorilla snot.

5. I start this process with a large flathead screwdriver. You will need to separate the lens from the assembly enough to get the clips over the keeper. To do this work your screwdriver down between the clear plastic lens and the black housing and firmly twist and hold. You will note that it will start to move and return back to its original place. You will continue doing this around the outer edge until you have successfully gotten at least a few clips beyond their keepers. You won't get all the first time.

OF NOTE: I have tried heat from a heat gun and although it works well on assembly I haven't really noticed it helping on disassembly.

6. Once you have achieved some space in the contact point between front and rear portions you will now be able to get to flat head screwdrivers sandwiched together into the gap and use those prying against each other. Once again the rubber contact glue will want to pull it back together as you release but eventually it lets will stretch and hold. Continue this process around the outer edge in even increments until you have separated enough to see the gorilla snot pulling.

7. Once you have separated the front from the back enough to get a screwdriver or flat bar between them, you will see the gorilla snot, not wanted to let go. At this point I use a razor blade to slit the bond and continue that process all of the way around.

8. By the time you get this far you will have figured out the general routine. Once you get both halves apart you will now be able to see inside the assembly. If you successfully separated the two without pulling the inner "Angel eyes" with the lens then you now have to remove it from the backing plate assembly. It has 4-6 contact points that hold it in place. Pull gently and evenly at all of the points until it let's go.

9. Remove the 3 torx holding the self leveling adjuster and from the front side you will need to reach in with a long screw driver and push the ball contact in the direction of the opening in the keeper so that it can be removed and put it aside.

10. If both adjusters were broken you will now be able to pull the reflector assembly out, there will be a ground wire still attached, disconnect that.

11. If one is still intact then turn the adjustment screw on the opposite side until the adjuster releases.

12. After you have the reflector out of the way remove all of the debris from the housing.

13. After dabbing a bit of Würth Glide or a similar product on the hole to be threaded in the new adjusters, thread them onto the adjuster screw and run them to the bottom and back out. Remove from the housing.

14. Now clean the old adjuster ball out of the socket it is broken off in. I use a pair of needle nose pliers and pinch the tab that is holding the ball. Then I pry upwards with a pick which usually dislodges the ball

sending it airborne if you are lucky.

15. Install the new adjuster ball in the appropriate socket and reinstall back into the housing.

16. Obviously installation is the opposite of dismantling with one twist. I spend some time removing and cleaning up the rubber sealant that was holding in the lens to the housing.

17. Before sliding the lens back onto the housing I have found that heating the housing where contact is made makes sealing it back up easier. It slides into place easier. I heat it with a paint removing heater/blower. This is not necessary but helpful. Don't forget to apply some liberal amounts of gorilla snot/Würth trim adhesive in the groove of the housing before pushing the lens in. This way it will be good and water tight.

18. That's all I got, good luck!

First time though you will spend approx. 4 hours on a set but should get quicker as you have done a couple and know what you are doing.

For reference:
Odometer Gears LTD.
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Lone Star Bavarian, inc
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BMW E39 (5 Series) September 1999-2003 Headlight Adjuster Repair (version 2)

***When the clear lens does not separate from the housing.
This style has brown glue securing the lens.***

A special thank you to Trent Cole of Lone Star Bavarian in TX for the great write up. Here are his words verbatim.

Hey Gang;

In the past we have all come to the conclusion that the later (2002-2003) E39 headlight adjusters that are contained in the assembly with lenses that CAN'T be removed were not replaceable. These assemblies have a lens epoxy or bonding agent that is not breakable without damaging the assembly. I have noted that the glue or bonding agent is usually gray or brown in color and does not give, even if heated.

I recently found a way to replace these adjusters via cutting a strategically cut hole for the high beam side (see picture below). The low beam side can be replaced through the low beam access hole. I had to remove the adjuster receiving end (torx) before removing the respective adjuster. I utilized a couple of surgical clamps (see picture below) and appropriate torx driver. After you are finished you will need to cut another piece of plastic that is oversized to epoxy back down to the headlight to cover the hole you cut. We are currently using Wurth's Replast Plastic Repair for this type of epoxy job. This stuff sets quickly and permanently. See the photos attached. I didn't take as many photos as I should have because my time was limited and I wasn't sure if this would work. I am satisfied that it will work for the future and plan to use this, with the clients permission, to fix the assemblies in question.



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