

Headlight adjuster kit contents, in assemblies:

6 copper caps

6 white delrin ball-and-socket inserts for caps

12-18 red silicone spacers

4 ball head SS allen bolts (2 @ 20mm, 2 @ 30mm)

4 SS 8mm nuts

4 white delrin sliders (2 long, 2 short)

SS Safety wire

4 SS 5mm threaded adjusters with welded stops (2 @ 50mm, 2 @ 60mm)

8 o-rings

20 SS 5mm washers

4 SS 10mm hex adjusters

8 SS set screws (for hex adjusters)

1 allen wrench (for set screws)



Instructions for headlight removal and disassembly:

Remove headlight buckets from vehicle

1. Raise headlights via manual adjusters in front of headlights
 2. Remove (2) 10mm nuts at top rear of headlight and push out bolts
 - take care not to lose small bronze screen bushings (replacements available if needed)
 3. Tilt headlights forward to access lower mounts
 4. Remove (2) 13mm nuts from lower mounts, use narrow 15mm wrench to hold mount for nut removal
 - do not lose these nuts (they are an uncommon thread pitch)
 5. Inspect gas shock attached to lower mount (Lift shock is available separately if needed)
 6. Remove wiring from headlights
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- Take note/picture of headlight lens position in relation to bezel; this is important to insure correct alignment during reassembly

Remove bezel clips (4) and separate bezel from headlight

- Be careful not to damage bezel or headlight bucket. Better to pry the rear of the clip upwards, puts the least pressure on the bucket. If something is going to break, a bezel is cheaper than a bucket.



Turn headlight over and begin backing out the 6mm pivot point adjuster that threads directly into the headlight bucket. You remove by screwing "in", clockwise. Take about 8-10 turns; don't remove it completely all at once.



Move next to the two other adjusters, the gearwheels with the 10mm hex bosses. Often these OEM adjusters have fallen off; you can turn the shaft with a screwdriver anyway. Unscrew them out, CCW, about the same amount you loosened the first adjuster. The idea is to back them off equally so there's no stress on any one adjuster. Continue until the housing is separated from the bucket.



Next you need to separate the 2 main (gearwheel) adjuster shafts from the headlight bucket. These shafts can be machine thread or what looks like crude drywall screws/wood threads.

Many of the gearwheels are already loose, so first attempt to gently pry the external adjuster off the shaft with a flat-bladed screwdriver. If they won't come off, there are several options:

The top assembly has a separate cup that fits into the housing with a twist-lock motion. Use long needle nose pliers to twist left and push out.



The adjuster on the bottom doesn't have this separate cup, so if the gearwheel is still there it has been pushed onto the shaft splines such that the housing is captured between the shaft and the gear. You could just cut it off with a disc in a Dremel tool, or you can try this:

Clamp a long Philips screwdriver in a vise-



Fit the housing over the end of the screwdriver so that it catches under the gearwheel teeth, the way it was designed to allow adjustment-



Squirt some penetrating oil on the end of the splined shaft.



Using a proper punch 8^) tap the splined shaft out of the gearwheel-



If you can't knock it out this way, you'll have to figure out a way to get into the area of that rubber bushing with a Dremel tool and cut the shaft. Or you could fit a deep socket or length of pipe over the shaft from the inside, to bear against the plastic from underneath and give you a way to tap harder on the splined shaft than the screwdriver gives you.

Repeat the process with the top assembly that you twisted out earlier-



Put the twist-lock cup piece back in the housing-



Ready to bust up the old ball and socket joints on the housing-



There's no way to save the OEM ball and socket joints, or even to take them apart; they shatter. You could just snap them off, but that risks damaging the posts on the housing that the plastic cups are screwed to. Better to either crush them with big pliers or cut them off with a Dremel bit.



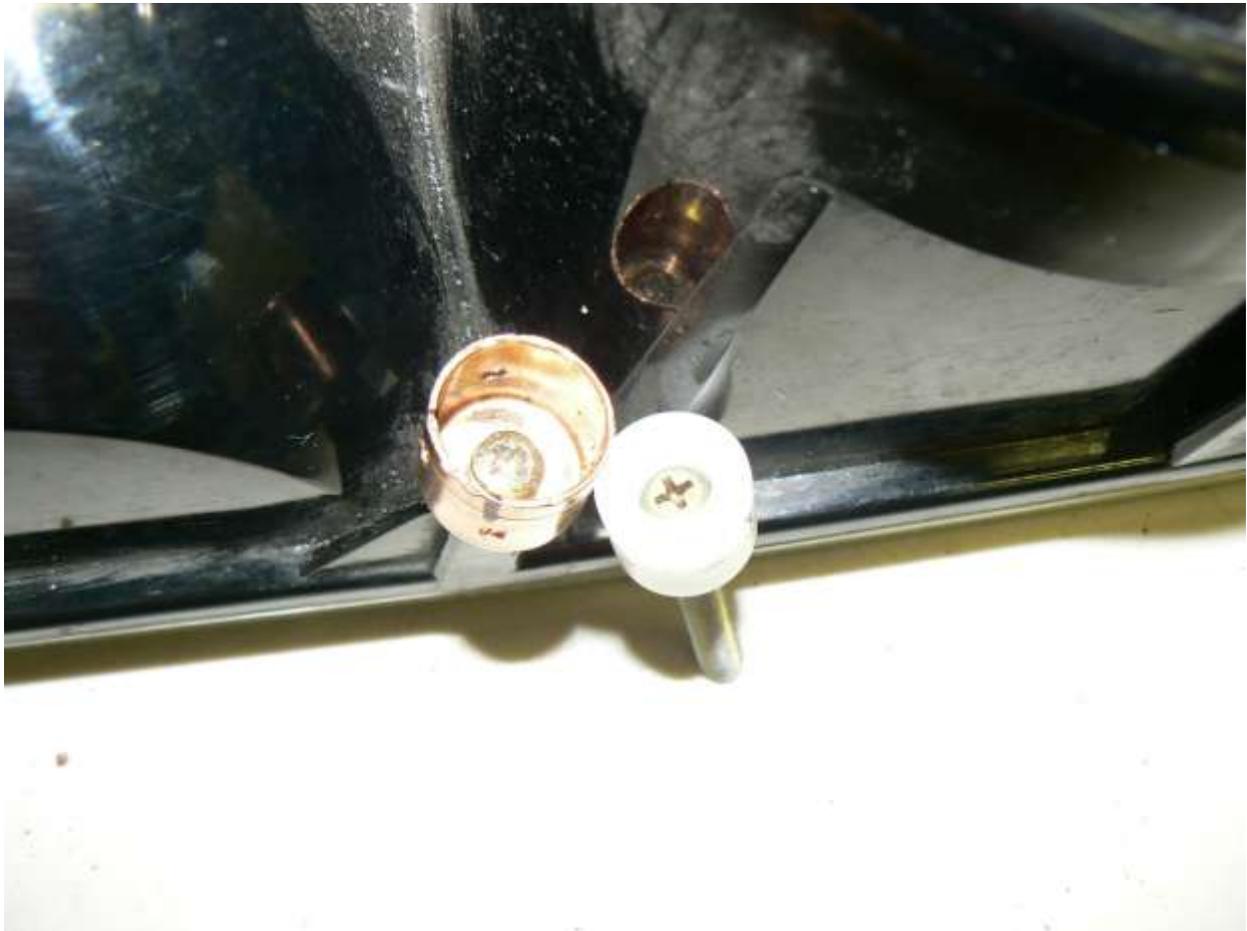
A spiral bit in a Dremel tool is probably the least hazardous option; watch out for the top of the screw. Remove the screws and the remains of the plastic cups.



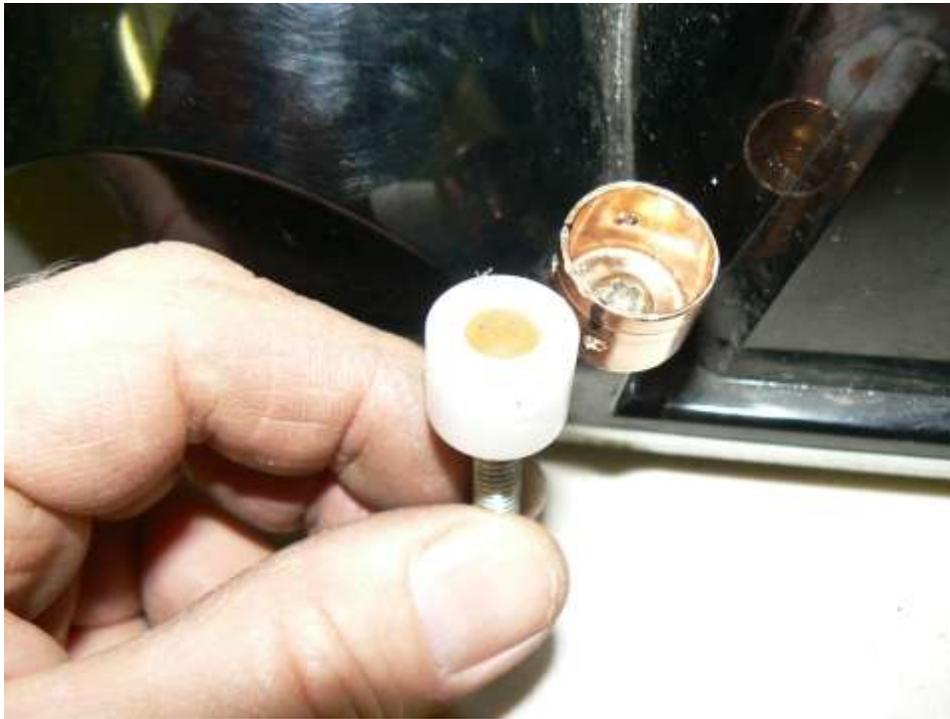
Clean up the 6mm post adjuster on a wire wheel; you need to re-use it.



There are 2 loose copper caps with cups in the kit. The cups and caps aren't interchangeable, and you need to pay attention to the index marks that were made when they were drilled for the retaining wires. Screw one cap onto the housing; one for the 6mm post is shown. Make it snug but not too tight, and orient it so that the lock wires can be fed thru the holes.



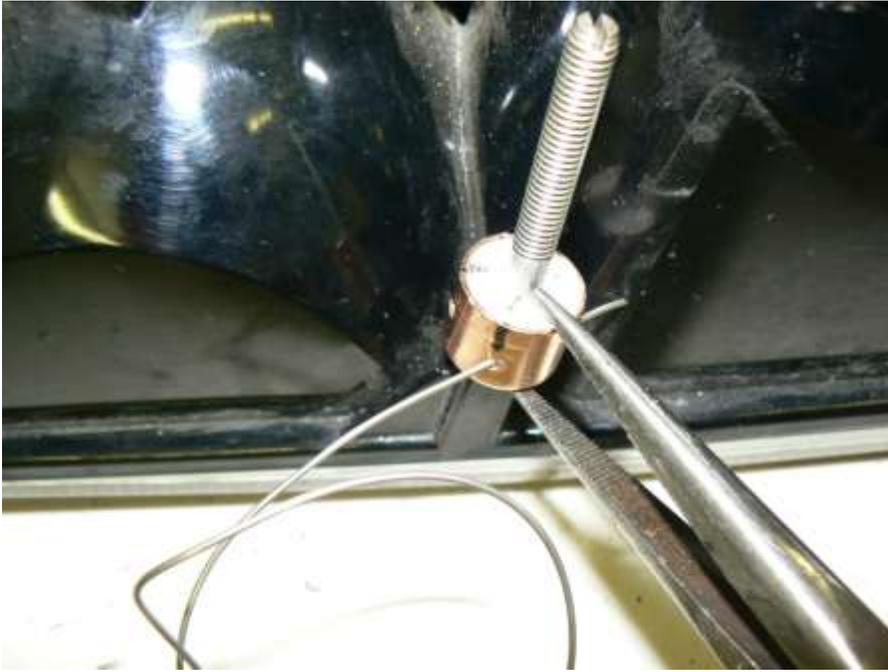
Feed the 6mm ball stud through the hole in the swivel cup. Place several of the 8mm round silicone gasket plugs in the hole over it, to take up any fore and aft slack that would leave the post free to move in the finished assembly. Fill the hole till there's just enough room left to accommodate the screw head in the cap. There are 2 thicknesses of plugs.



Put the cup in the cap, aligning the index marks.



Compress the cup slightly with pliers and feed the wire through the holes.



Repeat on the second holes, then cut and bend the wire over to secure.



Repeat the process for the other two adjusters with the nylon sliders. Thread the 5mm ball studs into the front of the sliders most of the way and lock them in place with the nut against the face of the slider.



Remove the 10mm adjuster nuts and the rear 5 washers from the shafts, leaving one washer and 2 o-rings as shown. (You could also leave just one o-ring and put the other one back on the shaft after it's through the housing, leaving an o-ring on either side of the housing, under the washers). Back the shafts most of the way out of the sliders, so that they will engage their holes easily while you're screwing the 6mm shaft back into the housing. The thin ridge on the sliders rides against the case of the housing. Thread the 6mm shaft in by "unscrewing" CCW, from the rear, with a long thin screwdriver.



Install 5 washers on the shaft, for spacers.



Thread the adjuster nut on till it's just snug and compressing the o-rings slightly, then tighten one set screw, rotate 180 degrees, and tighten the other one. On the bottom adjuster, you can reach the set screw from inside the housing or cut a notch in the outside shoulder.





I considered cutting a slot in the plastic over the adjuster so that you could reach from the top with a 10mm wrench for adjustment. However, it's easy enough to reach from the back with a socket and extension.

When tightening up the adjusters, do it evenly in stages so you aren't pulling any of them with excessive force. Don't worry about pulling the housing all the way to the back of the bucket; just shoot for even alignment across the front with the screws in the middle of their range. The screws were deliberately left long for strength in the nylon sliders, and it's probably possible to run out of adjustment range if the housings were pulled all the way back. It's easy enough to shorten the adjuster screws if you want to, but do it before you tighten the set screws on the adjuster hex head.





