

## TR3 Headlight Switch Project - Jeff Fetner

Jeff originally posted this tip on [Triumph Experience](#), and it is reproduced here with his permission.

While working on my TR3 gauges I took the original headlight switch out to check its operation. The posts could be rotated a little and each light position showed about 0.5 Ohm of resistance on the multi-meter. There is a small nut on the back that allows all the internals to be removed out the back; then the shaft can be pulled out the front.

**NOTE:** There is a tiny ball bearing that provides the Side and Head position detents. Unscrew the setscrew (See Photo 1) from the side to remove it and the spring that holds it against the shaft. If you don't do that first, the spring will shoot it into the switch when the shaft is pulled out (and you'll spend an hour looking for it).



**Photo 1:** Pay particular attention to the small spring and ball bearing.

Note the order so it can all go back in the same way (with a little silicone grease). The shaft goes in from the front, then the rest of the pieces are pushed onto it from the back. There were remains of a small rubber ring at the very front between the rear of the switch 'nose' and the metal tab that slides in the side groove. It was probably there to cushion the internals if pulled rapidly to the 'Head' position. I substituted a thin rubber ring, but it would probably work fine without it.

The barrel goes in with the brass part to the rear of the switch with the narrow section for headlight contact is just visible below the guide slot on the side. Note that the 'jigsaw' piece has a tab for the guide slot and a hole for a small piece that fits into its center. This keeps it aligned when the barrel rotates

between the Side and Head positions. You can see it just beside the jigsaw piece in Photo 1.

I cleaned all brass contact surfaces and used Q-tips with electronic cleaner to clean inside the switch. Don't forget to clean the three 'fingers' that push against the barrel (See Photo 2). The Bakelite in an area on the contact 'barrel' had worn away right next to the narrow brass section. I used JB Weld to fill it in, then smoothed it to the barrel contour with fine sandpaper so it would move smoothly. You can see the repaired barrel in Photo 3.



**Photo 2:** The inside of the switch and the contact fingers.



**Photo 3:** Barrel repaired with JB Weld.

I used a small file to expose a clean area to solder where the inner contacts are riveted to the wiring connection post; didn't take much solder. The wire is for a fuse holder I put in the circuit, as there was none originally (Photo 4).



**Photo 4:** Solder for inner contacts and wire added for fuse.

After reassembly the resistance across the contacts read a solid '0' Ohms every time.

Flushed with success, I rebuilt another switch with the same results. This one had a chip at the Bakelite stop that provides the pull-twist-pull action. I reinforced it with JB Weld to provide a definite stop when pulled to the 'Side' position (Photo 5).



**Photo 5:** Groove repaired with JB Weld to provide Side light stop.

This switch was not as simple as I thought but is well made and responds well to refurbishment. A later Lucas replacement switch (31126) was made in the 60-70s but was riveted together and would be difficult to reassemble if you drilled the rivet out (Photo 6).



**Photo 6:** NOS Lucas 31126 replacement switch, which is riveted together.

It was simplified a bit and only has a forward tab in the guide slot (Photo 7).



**Photo 7:** Forward tab on later switch; note there is no rear tab.

There is a reproduction switch available that looks like a copy of the Lucas 31126 switch; maybe someone has fitted one to their car and can report. Anyway, why not take a shot at giving your Lucas original another 60+ years of life!