



Image 1: fuse box

Overhauling the fusebox in an MGB

Jim Livingstone had found the fusebox on his MGBGT V8 has had intermittent problems with the glass fuses since he acquired the car a few years ago. He decided to give originality and glass fuses a last chance with the purchase of a new box from a reputable supplier. On receipt he found the tension in the fuse holders to be all over the place and the procedure he sets out here describes how he corrected this. The overhauled fuse box is above. Jim says he hasn't had time to test the longevity of the 'fix'.

Introduction

The Lucas fusebox and its glass fuses are not the most reliable components in the MGB. The same glass fuses seem to perform satisfactorily in the line fuses fitted to some circuits and the external spade terminals are generally reliable elsewhere so one is forced to the conclusion that it is the internal contacts in the box that are responsible. This is confirmed by the fact that an open circuit can frequently be rectified by rotating the fuse in its holder. Further confirmation is obtained by the occasional desoldering of a fuse by overheating rather than overload indicating poor contact in the holder.

As reported elsewhere in the V8NOTES series extended periods of reliable operation can be obtained by regular maintenance with cleaning and protecting with contact spray. All this had been tried on the subject car, a 1974 V8, but reliability remained an issue and it increasingly looked like the fusebox had exceeded its serviceable life. Anxious to retain some originality in the engine compartment a replacement claiming to be a genuine Lucas part was purchased. On receipt the critical fuse to holder contact was checked in each position. This proved to be very inconsistent varying from satisfactory to downright loose. It is difficult to confirm the fit in individual holders and it was decided to disassemble the box and check more thoroughly. The following process was conducted on a new box but is equally applicable old boxes.

Procedure

1. Remove the fusebox noting the connections to each terminal.
2. Examine the fusebox for loose terminals, rivets, cracks in plastic. Check the fit in the holder with a dimensionally correct fuse (1/4" x 1 15/32"). See **Image 1**.

3. The spade terminals are rivetted to the fuse holders and the resulting assembly can be removed from the plastic body by pressing the holder blades together and pushing downwards. The holders are secured in the body by barbs formed in the blades. See **Image 2**.

Note: terminals 1 and 3 are bridged and need to be removed together.



Image 2: fuse holder and terminals

4. Using long nose pliers bend each holder blade where indicated by the top arrow until the opening gap is approximately 1.5 mm. See **Image 3**. Bending at the base of the holder will result in a less stiff blade and loses the reinforcement offered by the plastic housing.

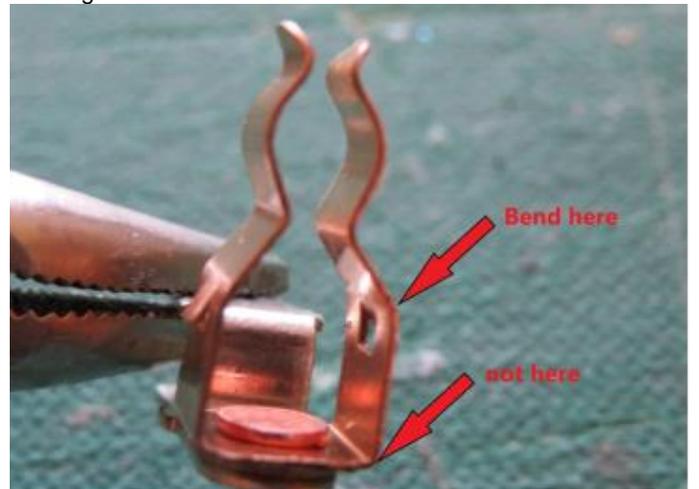


Image 3: fuse holder bending (arrowed)

5. Check that the securing barbs are properly formed. They can be extended using a thin screwdriver.
6. Reassemble the fuse holders and check the fuse fit. The reduced gap may cause some initial fitting difficulty which can be overcome using a thin blade but avoid over deflecting the holder. **See Image 4.**
7. Refit the fusebox to the car and reconnect the harness terminals.

Conclusions

The Lucas 7FU fusebox and its glass fuses are an obsolete design which has been superseded by more modern and reliable blade fuses. However, if originality is important, it is possible with modification and maintenance to maximise reliability within the limits imposed by the design.



Completed fuse box installed on the offside inner wing.