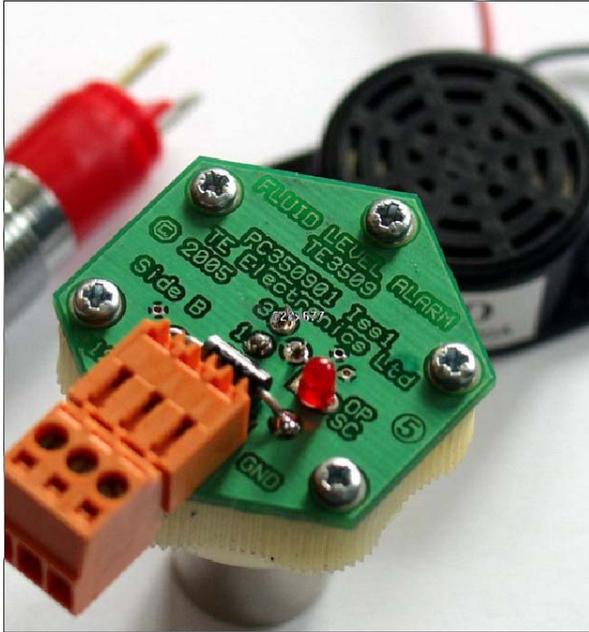
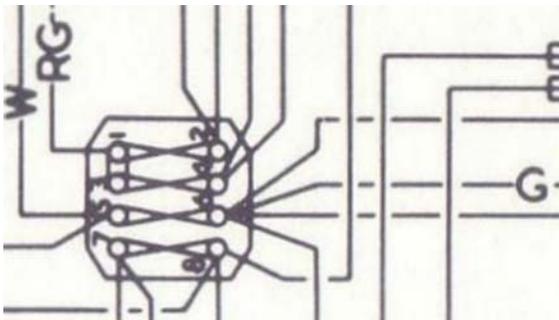


Fitting your TE Low Brake Fluid Sensor and Alarm to an MGBGTV8

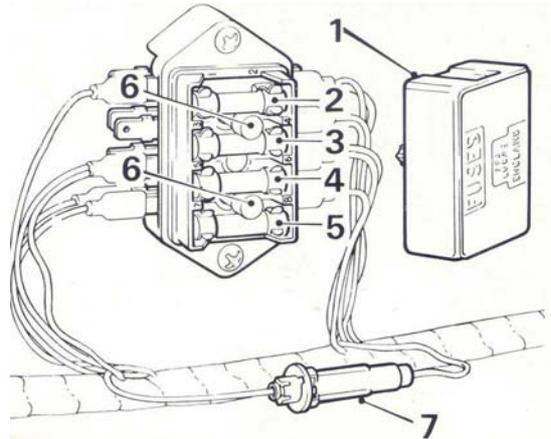


The installation described here is for a TE Low Brake Fluid Sensor (or LBFS) fitted to a chrome bumper MGBGTV8 which is of course negative earth. The battery should be isolated as a precaution before starting the installation by removing one of the battery terminal clamps. The stages are set out in some detail to assist V8 enthusiasts who are not too familiar with autoelectrics.

- **Establish which terminal on the under bonnet fuse box is both fused and ignition switched.** On the V8 this is usually terminal 6 which has green wires connected to it – see the extract from the circuit diagram below where terminal 6 is the second up from the bottom on the RHS.

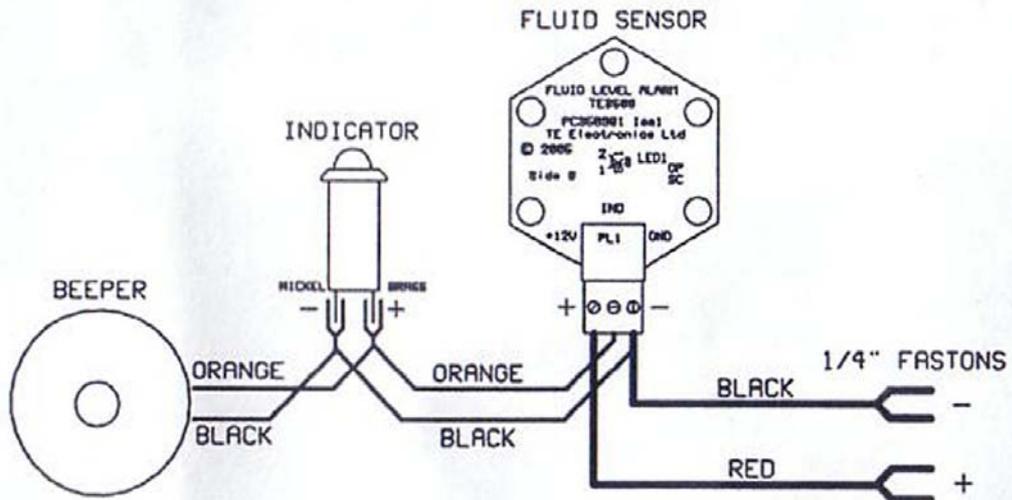


In the diagram of the fuse box from page 39 of the MGBGTV8 Driver's Handbook AKMD 8423, the fuse between terminals 5 and 6 is marked with a 4. Terminal 6 is on the RHS of that fuse.

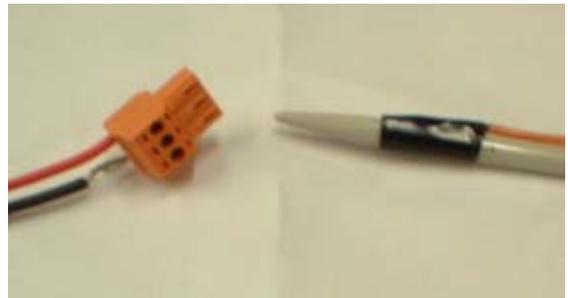


- **Examine the wiring kit** by laying it out so you can see the bleeper, LED, orange LBFS plug and the wiring with two Faston connectors. The bleeper and LED go inside the cockpit and the orange LBFS plug and Faston connectors go in the engine bay, so the first thing to do is to split the two parts. Then the small cables from the bleeper and LED can be pushed through the wiring grommet in the bulkhead from the cockpit to a point alongside the brake fluid reservoir in the engine bay. Do not attempt to push the orange LBFS plug still attached to the wiring through the grommet as it is too large and after 30 years and more, the grommet will be soft and will simply pop out of the hole in the bulkhead – you will then have to struggle to get the grommet back into place.
 - **Disconnect the wiring for the bleeper and LED from the orange coloured LBFS plug.** For this you can use the small flat bladed screwdriver supplied with the kit. Undo the grub screws holding the cable clamping plates in the plug; you can see the recessed screw holes in the top of the plug in the photo at the head of these notes. The two cables you need to disconnect from the plug are the small “orange” and the small “black” cables both leading to the LED and bleeper – see the LBFS wiring diagram below.

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transition, and then gently push the needle through a small gap in the grommet alongside the point where the main wiring harness passes through. Then move round to the engine bay and with a pair of long nose pliers, reach into the narrow gap and carefully pull the head of the needle up so you can remove the two small cables and pull them through. Remove the knitting needle and return it to your wife or partner's workbox before she notices!



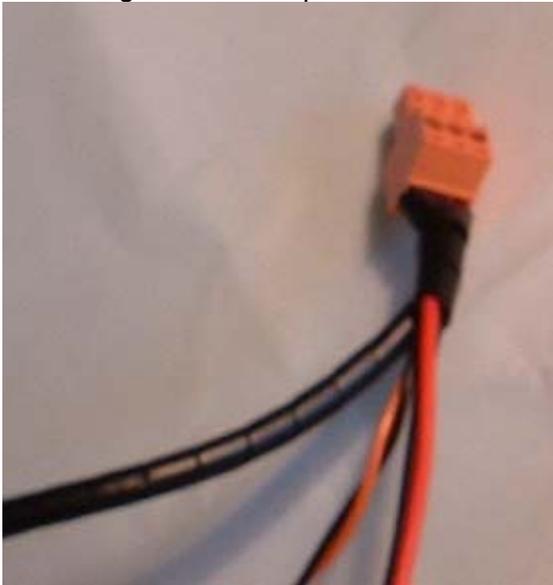
- **Locate the grommet** – you will find it by placing your head on the driver's seat squab and looking to the right and slightly above where the driver's right leg would be when sitting in the car. From the engine bay, you can see the other side of this grommet by looking down the side of the black brake master cylinder cover box into the narrow gap with offside wing.
- **Attach the two small cables to a knitting needle with some insulating tape, ensuring a smooth**

- **The cable ends are normally fitted with "Bootlace" ferrules, but if they have been cut and stripped, carefully wind the wire strands of each small cable and insert them in the orange LBFS plug.** First the orange cable in the centre position. Make sure the clamping screws are sufficiently undone to allow the cable to go fully home in the small cable clamp and then tighten down the screw firmly. Next wind the small black cable with the black negative cable with the earthing Faston on the other

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end to create a neat combined cable end, and push it fully home in the small cable clamp and tighten up firmly. Make sure that the clamp is tightening on the wire and not the insulation. Check the integrity of the connections by giving each wire a tug.

- **Wind on the black plastic spiral sleeve over the four small cables from the orange LBFS plug back along the length of the sleeve.** By arranging the cables so they are neatly packed together over the length of the sleeve, it makes a very neat cover for those cables. Gently pull any excess cable (orange and black cables to the bleeper and LED) through to the cockpit.



- **Run those small orange and black cables along the narrow horizontal rail** under the righthand side of the dashboard and fix with two ty-raps – one at each end. Cut off any surplus length of ty-strap to around a centimetre of the ty-strap non slip fixing point.
- **Fix the bleeper on the flat vertical panel** just to the right of the steering column using the double sided tape. If you prefer the bleeper can be fixed with two No 4 ST screws which will of course involve drilling the metal surface.
- **Next fix the LED.** Here you have a choice – first the easiest is to attach the LED to a convenient section of wiring adjacent to the steering column

so the LED can be seen just above your knees when in the driving position, second you can fix the LED housing to the upper righthand side of the radio console, or you can drill the crackle finish dashboard on the extreme righthand side (see photo) and mount it flush in the surface.



LED mounted in the crackle finish dashboard alongside a cooling fan override switch and green LED

- **Route the black and red cables in the engine bay** from next to the black master cylinder cover box down and alongside the main wiring harness to a point just under the fuse box but before the line fuse. Tuck the LBFS cables under the main harness and fix at three points along that cable route with the ty-raps to leave the wiring looking neat and concealed under the main harness.
- **Use the lefthand fixing screw of the fan relay to clamp the angled earthing Faston tab to the inner wing,** then run the black earth cable up and push the negative Faston connector at the end of that cable onto the earth tab.
- **Pull off a convenient spade connector from terminal 6 of the fuse box** - note green cables are attached to that spade connector. You can check this on the extract of the MGBGTV8 wiring diagram.

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- **Run up the red cable with the piggy back Faston connector at the end, and attach to terminal 6.** Replace the original spade connector to the tab on the piggy back Faston.



- **Thoroughly check you installation** before reconnecting the battery terminal clamp and testing.
- **Attach the orange plug to the LBFS unit and position next to the brake fluid reservoir.** Do make sure that you insert the plug correctly – ie screws uppermost. At this stage you have **not** removed the existing plastic cap from the reservoir and have **not** put the metal body of the LBFS into the brake fluid.
- **Turn on the ignition key whereupon the bleeper will sound once and simultaneously the LED will flash once.** This is the reassuring sign or “LBFS Armed Signal” that your LBFS unit and alarm are operating correctly.
- **With ignition still on, after around half a minute the low brake fluid alarm should sound – a series of simultaneous bleeps and LED flashes.** Of course this is a correct alarm as the unit under test is positioned outside the reservoir and is not immersed in brake fluid - so the level is very low, in fact non existent!
- **Turn off the ignition and remove the plug from the LBFS.**
- **Remove the existing plastic reservoir cap** and ensure that the brake fluid level is at the correct level. **Screw on the LBFS mounted on its plastic cap in place of the existing cap.** Then connect up the orange plug to the socket on the top of the LBFS. Do make sure the plug is up the right way – the screw holes for the cable

clamps on the orange plug should be uppermost.



- **Turn on the ignition again** whereupon the bleeper will sound once and simultaneously the red LED will flash once giving you a reassuring confirmation the unit is working correctly. If the fluid is at the correct level, the alarm should remain silent indefinitely.
- **Wrap the existing plastic cap in a piece of kitchen paper and pop the bundle into one of the sealable plastic bags provided with the kit** and place it in the glove box.

Fault checking. If on testing your LBFS unit either before or after immersion in the brake fluid, the unit fails to give a reassuring LBFS armed signal, the most likely cause is you have pushed the orange plug into the LBFS unit the wrong way up. Fortunately the unit is reverse polarity protected so no damage will have been caused but you do need to remove the plug and replace it correctly!

Note: Users of this TE Low Brake Fluid Sensor must continue to make the regular physical checks of the brake fluid level recommended in the MGBGTV8 handbook. Do also note the unit takes up to a minute to respond to sensor non-immersion in brake fluid and set off the bleeper and LED alarm and so will not immediately detect the very rapid loss of brake fluid seen in some reported serious brake servo failures on MGBGTV8s.