



V8

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Replacement for an Otter switch

Tony Head provided information on a Febi Bilstein switch as an alternative part he had used as a replacement for the Otter switch on his MGBGT V8. He was fed up with the high cost of replacement Otter radiator fan switches so when his last one failed about four years ago he substituted a **Febi Bilstein 28675 radiator switch**, as fitted to early VW Golfs and many other cars. It's readily available for £8 to £10 pounds on eBay. This has a usefully small boss thread size of M10x1 and is

rated to switch ON at 90C. The "ON-OFF" switching temperatures of the original Otter switch are: **ON at 92C** and **OFF at 88C** (Source: BL Product Training Department 'Student's Technical Notes').

Fitting a Febi Bilstein Switch

Tony Head explained he had "used the triangular mounting plate from the old Otter switch to mark off, saw, file and drill a new mounting plate using 5mm (3/16 inch) thick brass - aluminium or steel would do just as well. A circular disc will do the trick and may be easier to find or make. The plate needs to be thick enough to provide an adequate depth of thread for the switch (5mm is probably about the sensible minimum). Slightly longer mounting screws also may be needed to attach the plate to the top of the inlet manifold in the standard position. The central hole to take the Febi switch needs to be drilled (9mm) then tapped M10x1.

Care should be taken not to over-tighten the switch in the mounting plate which can strip the fine threads of the plate, especially if aluminium is used for the plate. The probe of the Febi switch is quite short and some may think that it doesn't protrude far enough into the

coolant flow or could be vulnerable to an air pocket collecting around it. In practice he has not found this to be a problem as the switch has operated the radiator fans reliably for four years now. He thinks as the coolant heats up, the aluminium manifold, the mounting plate and switch boss conduct heat easily and follow any temperature rise quite quickly so causing the switch to operate even if there is an air pocket.

Tony found that with the Febi switch and a standard 82C thermostat, the fans **cut in at "5 o'clock"** on the temperature gauge and **cut out at "7 o'clock"**, during a consistent cycle of about 7 minutes "On" and 4 minutes "Off". He later removed the Febi switch and boiled it in a pan on the kitchen stove with a precision thermometer and found it switched **ON at 93C and OFF at 83C**. From memory, he feels this is probably a slightly "tighter" and "earlier" range than the original Otter switch (when it worked!), but finds it suits his car and general town and country driving, without excessive fan running time. If ever the switch fails, it will be easy and inexpensive to change.

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