Inline fuse protection for the V8 overdrive

I have heard that the lack of an inline fuse on the ignition power feed to the overdrive switch on an MGB and its derivatives is something that has always been a significant oversight in terms of protecting the wiring from a burn out should a short develop. How do you do this modification? (Dec 12)

An inline fuse in the ignition power feed to the overdrive switch is something that has always been seen as a significant oversight by the Factory. The Club's archivist Peter Neal, who worked at the MG Factory for many years before the closure in 1979, was involved in auto-electrics there and recently mentioned how the V8 development and production project was an extraordinarily low budget exercise. He said "there were several cases where additions to the loom and wiring would have been desirable but the cost pressures were real, they simply had to keep both development expenditures and production costs for amended components for the V8 to a minimum."

These days, adding that protection is recommended by many specialists because if the power supply to the overdrive solenoid is shorted to earth, the engine will cut out as it shares the same connection on the ignition switch. The high current that can flow when shorted to earth could also melt a wire inside the loom, burn the loom or damage the ignition switch itself. This is a particular concern with an ageing wiring loom but it can occur even with a new installation should a short develop.

With any MGB or a derivative fitted with a Laycock D or LH overdrive, there is a surge current when the overdrive solenoid is switched on. Barrie Jones says "the initial current is about 16 amps but once latched, the holding current is only 3 amps." The fuse rating needs to be sufficient to cope with that surge current so Barrie recommends a 20 amp slow-blow fuse. At Brown & Gammons at Baldock, their workshop manager Mike Penny has experience of fitting fuses to the overdrive harness and he normally uses a 30 amp modern type fuse which is adequate. To some extent it shouldn't matter what fuse you fit since a direct short will blow it anyway which is what one is trying to guard against!

On the earlier MGB models the overdrive switch is on the righthand side of the dashboard but on the early rubber bumper MGB and all V8 models it was part of a multi-function lever switch, incorporating the wiper stalk switch, mounted on the lefthand side of the steering column. On the last rubber bumper MGBs the overdrive switch was located on top of the gear knob. That modification has also been retro-fitted to some earlier cars. Ron Gammons notes that where the wires run up the gear lever inside the gear lever gaiter to an overdrive switch in the gear knob, "the wires get trapped between the gearbox and the tunnel cutting through them or, if you are unlucky, shorting out the loom and burning out the main harness."

The easiest way to add an extra fuse is to disconnect the black bullet connector on the bulkhead flat section between the pedal box and heater unit, just behind the offside rocker cover, and insert an inline fuse holder. The connector is easy to identify because it has yellow wires going to it.

Brown & Gammons supply a kit (illustrated alongside) using a modern blade type fuse for £6.75 plus VAT plus postage. The kit consists of the fitting itself, a 30amp fuse and two single bullet connectors.

Fitting couldn't be easier on a V8 as the relevant yellow wire from the overdrive manual control switch to the connector block and on to the gearbox switch is disconnected on both sides of the connector block and then fed into either side of the fuse fitting. On an MGB the connector is nearby but the wire is still yellow, however on the later MGB (1977 on) the wire becomes white with a brown trace. Full instructions are available with every kit. The blade fuse unit has the advantage that the cover waterproofs the fuse and it is neat so does not look out of place in the engine bay.