



Tim Stock

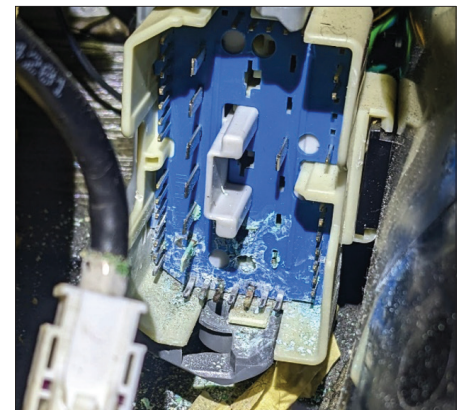
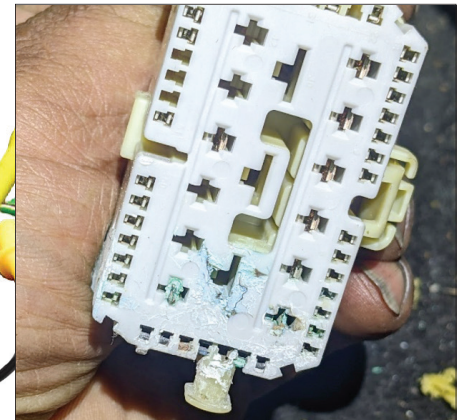
Park distance control problems on a Range Rover

A recent call to the Helpline was regarding an issue with the Parking Distance Control system on a Range Rover L322. The issue was with the front parking sensors and the original scan revealed multiple front sensor fault codes.

- B1B36-01 Front right outer sensor
- B1B38-01 Front right inner sensor
- B1B40-01 Front Left outer sensor
- B1B42-01 Front left inner sensor

The first step the technician took was to test the system by 'listening' to the sensor output. This test was performed with a Picoscope, and an ultrasonic probe designed to pickup the 40khz signal coming from the sensors. The expected signal from an operational sensor will be displayed on the scope and the amplitude and frequency can be checked. In this case, all of the sensors did not have any output signal activity. They were all "silent" and therefore "blind".

The wiring connector for all of the front sensors was located, and voltage tests were performed. A wiring diagram for the system was located and no voltages were present at the connector. The usual process would be to conduct a continuity test from the module connector to the bumper termination block, but this would only prove the circuit is open, short or had a high resistance. But to



A signal was along the wiring and a probe detected if the signal was still present

find the location of the circuit problem, a different approach would be needed.

So, we employed a signal injection technique, for this we used the Power Probe ECT2000 and Power Probe IV. Using the probe, a signal was sent from the bumper connector through the wiring, but did not arrive at the PDC control module under the driver's side of the dash. Working our way back down the loom, we located the signal at a connector as it passed through the bulkhead, and this was the issue, and the problem was solved

Corrosion in the connector had caused the wiring fault