

# Injectronics

Remanufactured Automotive Electronics Components

## TECHNICAL BULLETIN

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*For further technical information regarding testing, repairs or to search for New or Remanufactured Automotive electronic products, please visit [www.injectronics.com.au](http://www.injectronics.com.au), call our office on (+613) 8792 6999, or email [sales@injectronics.com.au](mailto:sales@injectronics.com.au)*

**Make: Mazda 3**

**Model: BK – BL Series**

**Subject: Transmission control module fault**

The Mazda 3 BK and BL series, 2.0L, 2.3L and 2.5L are an extremely common vehicle on Australian roads, produced from 2004 to 2009 (BK) and 2009 - 2013 (BL).

### **Common faults include:**

The transmission control modules have been presented to IM Group with various conditions ranging from poor & erratic shifts, shift solenoid operation malfunction fault codes, and transmission in limp mode

### **Part numbers include:**

- LFAE189E
- L34N189E
- L552189E
- LFJS189E

### **Solution:**

The IM Group technicians have done extensive investigation into the cause of these faults, and have now devised a reliable remanufacturing process to enable repair of the units, avoiding expensive new replacement units having to be purchased. Each unit can be tested on the IM Groups Virtual Automobile Tester stations, with all terminals being fully function tested under vibration and heat simulation. Each test generates a function report of the unit.

### **Repair Process:**

The manufacturer of the transmission control module uses a silicone type resin after assembly to protect /seal the TCM from water/oil contamination. This material is extremely time consuming to remove by hand when units require repairs to the electronic circuit board that is submerged within it.

In order to reduce job turnaround time on repairs of these units, along with reducing the physical demands on technicians repairing them, the IM Group R&D team have designed a purpose built computer controlled robot which removes the resin covering the PCB, allowing technicians to get quicker access to the PCB and carry out the required repairs.

Once the IM Group technicians have undertaken the required repairs to the PCB, the unit is again retested by the technician and after passing all testing requirements, units are then resealed again with a far more pliable protective resin and are then returned to the customer

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