

Injectronics

TECHNICAL BULLETIN

FORD RANGER / MAZDA BT50

#T0149

Make: Ford / Mazda

Model: Ranger / BT50

Subject: No left hand side low beam

Vehicles are being presented to repairers for no left-hand side low beam and/or high beams inoperative. In many instances the globe had been replaced but the fault remained. Our customers have come across a common fault with these vehicles being a no left-hand side low beam. This affects the following vehicles:

- Ford Ranger PX 3.2L P5AT (2011-on)
- Mazda BT50 UP 3.2L P5AT (2011-on)

Common faults:

- Headlight inoperative
- High beam inoperative
- Unable to communicate with Body Control Module (BCM) using a scan tool
- No left-hand side low beam
- B1470 Headlamp input circuit failure
- B1471 Lamp Headlamp Input Circuit Open
- B1472 Lamp Headlamp Input Circuit Short To Ground
- B1568 Lamp Headlamp High-Beam Circuit Open
- B1570 Lamp Headlamp High-Beam Circuit Short To Ground
- B1795 Low Beam Headlamp circuit open
- B1797 Lamp Headlamp Low-Beam Circuit Short To Ground

Diagnosis:

The Body Control Module (BCM) detects a fault when the resistance is outside its normal tolerances, this can be caused by an open circuit in the system such as, a faulty globe, broken wire (short to ground) or has aftermarket LED OR HID globes fitted or accessories such as light bars being fitted to the vehicle without the proper circuit protection being added to the system.

After a complete check of the vehicles wiring is completed and any faults such as burnt or exposed wiring, broken or water damaged connector plug's /wiring rectified & the correct globes fitted as per manufactures specifications.

The technician is directed to complete a scan of the vehicles diagnostic system to confirm the fault has been rectified by completing the activation test of the lighting system with a suitable scan tool. If the vehicle still has no left-hand side headlight or high beam function the fault can be in the BCM itself.

Solution:

The BCM in the Ford Ranger / Mazda BT50 runs a solid-state circuit protection system that monitors the load and resistances of the vehicles electrical system. If an abnormality is detected the BCM cuts any circuit outside its tolerance. When a fault is detected it triggers a counter in the BCM that can only happen a limited amount of times before the BCM cuts out the left-hand side low beam and or high beams permanently and in some cases, communication with the BCM is lost. In the case where the BCM has been identified as the issue the only option for the technician is to replace the BCM, This would require programming to the vehicle using an appropriate dealer scan tool, up until now this was a dealer only operation.

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Part numbers include:

- AB3914A073BE
- AB3914A073BG
- AB3914A073BH
- AB3914A073BJ
- AB3914A073BK
- AB3914A073BL
- AB3914A073CE
- AB3914A073CG
- AB3914A073CL
- AB3914A073CH
- AB3914A073CJ
- DB3914A073BB
- DB3914A073BC
- DB3914A073BD
- DB3914A073BE

Injectronics can provide the following solutions:

- Repair of the customers own unit
- Supply a fully programmed exchange unit (customer must provide the original unit)

Injectronics only require the BCM for testing and repair of the above listed faults. The BCM is located on the driver's side of the vehicle underneath the dash panel.

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