

Injectronics

TECHNICAL BULLETIN

SUBARU – LIBERTY

#T0021

Make: Subaru

Model: Liberty 2.2L SOHC

Subject: Number 1 injector problem

Subaru Liberty have had what people think is an intermittent engine management computer fault where the number one injector has a shortened duration. The engine develops a peculiar miss only at idle and if the injection duration is checked it can be found that the number one injector has a smaller duration. Injectronics has confirmed that testing the ECM on the bench or trying another ECM does not fix the problem. The ground, power and trigger circuits can be tested and prove to be within specification.

The ECM is actually compensating for an external fault condition. One of the two contacts in the ignition relay develops an intermittent fault (open circuit). Supply for the idle speed control valve and purge solenoid is then lost and the ECM cannot bring the idle speed down via normal control. The ECM enters a mode where the number one injector has its on time reduced, to control idle. Above idle the engine runs smooth. Replacing this relay fixes the problem. The relay is located on the driver's side under the dash, above the kick panel, near where the windscreen meets the body.

When testing the vehicle the problem may not be occurring, however the fault codes can be retrieved from memory by connecting the black male & female connections under the dash. If the ISC and canister purge fault codes (24 & 35) are stored it will mean that they have lost their supply at some time.

Relay part number: 25232AA000

Ignition Relay-under dash (RH side)