

Injectronics

TECHNICAL BULLETIN

MAZDA – RX7

#T0049

Make: Mazda

Model: RX7

Subject: Flooding / no injection

The Mazda RX7 series 4 started in approx. 1996 and has a 13B rotary engine. Injectronics is often asked to test ECM's for 2 particular faults, and usually the ECM is okay.

1. Engine flooding when starting

Customer's complaints are; vehicle will not start and when removing the spark plugs they are wet (flooded). Usually this is a sign that the apex seals on the rotors are worn and that the engine cannot produce good vacuum / compression. Because of this, a much lower air volume enters the engine however the fuel injection system is still providing as much fuel as when the engine was new. This then floods the spark plugs and the vehicle will not start.

If this occurs, remove the spark plugs, and dry. Add a small amount of oil to each rotor, crank engine and re-fit spark plugs. Usually the engine will start first crank as the oil helps seal the apex seals. Some technicians have provided temporary solutions such as cutting the crank signal from the starter motor to the ECM so not as much fuel is injected while cranking.

2. No injector pulse

There are 2 injectors for each rotor. A primary injector which is always operating (injecting fuel) and a secondary injector which only operates when the RPM and engine load increases over a certain level, such as accelerating or high RPM. Injectronics receives calls from customers who have a no start vehicle and state that the injectors are not operating, however after further investigation it is found that they are testing the secondary injectors and not the primary injectors which they should be checking.

The ECM is located under the front passenger's seat. The injector outputs are as follows;

- | | |
|-----------------------------|-------------|
| • Primary injector, rear | ECM pin #3C |
| • Primary injector, front | ECM pin #3E |
| • Secondary injector, rear | ECM pin #3F |
| • Secondary injector, front | ECM pin #3H |