Code 6/12

Problem Area: RPM signal
Description: ECU has no "NE" or "G" signal within 2 seconds of cranking

Areas to investigate:

1. Alarm/immobiliser
2. CPS/distributor (or circuits)
3. signal circuit

Code 13

Problem Area: RPM signal
Description: ECU has no "Ne" signal with revs >1000rpm

Areas to investigate:

1. CPS/distributor (or circuits)

Code 3/14

Problem Area: Ignition
Description: ECU has no "IGF" signal

Areas to investigate:

1. Alarm/immobiliser
2. Igniter + coil (or circuits)

Code 5/21

Problem Area: O2 sensor
Description: O2 (lambda) sensor problem in closed loop operation

Areas to investigate:

1. Lambda sensor / circuit

7MGTE ONLY:

Description: 7MGTE: Open or short circuit in heater wiring for sensor

1. Lambda sensor heater / circuit

Code 4/22

Problem Area: Water temp
Description: Open or short circuit in water temp sensor signal

Areas to investigate:

1. Water temp sensor / circuit

Code 8/24

Problem Area: Intake temp
Description: Open or short circuit in intake air temp sensor signal

Areas to investigate:

1. Air temp sensor / circuit
2. AFM, connector and wiring

Code 25

Problem Area: AFR lean
Description: Problem with mixture detected (excessive lean)

Areas to investigate:

1. Fuel injector / circuit
2. Fuel pressure
3. AFM
4. Air intake system
5. O2 sensor / circuit
6. Ignition system
7. Water temp sensor

Code 26

Problem Area: AFR rich
Description: Problem with mixture detected (excessive rich)

Areas to investigate:

1. See above (code 25)
2. Ignition sensor

Code 27

Problem Area: Sub-O2 sensor
Description: California 7MGE: Problem with sub-oxygen signal

Areas to investigate:

1. Sensor / circuit
2. Heater / circuit

Code 28

Problem Area: O2 sensor
Description: See code 21

Areas to investigate:

1. See code 21

Code 2/31

Problem Area: AFM signal
Description:
7MGE: VC open circuit/short circuit between VS and E2 when idle contacts closed
7MGTE: Open or short circuit in AFM signal

Areas to investigate:

1. AFM, connector and wiring

Code 32

Problem Area: AFM signal
Description: 7MGE: Open circuit in E2 or short circuit between VC and VS

Areas to investigate:

1. AFM, connector and wiring

Code 14/34

Problem Area: Turbo pressure
Description: 7MGTE: Turbo pressure abnormal (could be fuel cut, check for boost leaks and bleed valves/shims/boost controller)

Areas to investigate:

1. Turbo
2. AFM
3. Turbo pressure sensor
4. Intercooler

Code 35
Problem Area: HAC signal
Description: 7MGTE: Open or short circuit in HAC circuit

Areas to investigate:

1. Turbo pressure sensor
2. ECU

Code 7/41
Problem Area: TPS signal
Description: Open or short circuit in TPS signal (VTA)

Areas to investigate:

1. TPS sensor / circuit / wiring

Code 9/42

Problem Area: Speed sensor
Description:

1. No "SPD" signal to ECU for 8 seconds between 2500rpm and 400rpm (7MGTE) or 4500rpm (7MGE)
2. Coolant temp < 80ºC
3. Neutral start switch is off

Areas to investigate:

1. Speed sensor / circuit
2. On imports, this can be due to improperly delimited vehicles

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Code 10/43

Problem Area: Starter signal
Description: ECU has no "STA" signal when stationary and <=800rpm

Areas to investigate:

1. Ignition switch / circuit

Code 11/51
Problem Area: Switch state
Description: ECU has no "IDL" (TPS), "NSW" (Neutral start switch) or "A/C" during diagnostics

Areas to investigate:

1. TPS most likely-see code 41
2. A/C switch / circuit
3. A/C amplifier
4. NSW switch circuit

Code 12/52

Problem Area: Knock sensor
Description: Open or short circuit in knock sensor signal

Note: Heat/age can cause the wiring to deteriorate. You can rewire the sensor to the ECU using the old co-axial cable for networks or shielded speaker cable. You do not need to ground the shield

Areas to investigate:

1. Knock sensor / circuit
2. Check connector plugs

Code 13/53

Problem Area: Knock control
Description: Knock control signal fault

Areas to investigate:

1. ECU

Code 71

Problem Area: EGR fault
Description: California: EGR gas temp low during operation or gas temp signal open circuit

Areas to investigate:

1. EGR system, sensors or VSV

Code 72
Problem Area: A/C
Description: Compressor relay/signal fault

Areas to investigate:

1. Compressor/relay circuit