

TROUBLESHOOTING TROUBLESHOOTING HINTS

1. Engine troubles are usually not caused by the EFI system.
When troubleshooting, always first check the condition of the other systems.

(a) Electronic source

- Battery
- Fusible links
- Fuses

(b) Body ground

(c) Fuel supply

- Fuel leakage
- Fuel filter
- Fuel pump

(d) Ignition system

- Spark plugs
- High-tension cords
- Distributor
- Ignition coil
- Igniter

(e) Air induction system

- Vacuum leaks

(f) Emission control system

- PCV system
- EGR system
- AI system

(g) Others

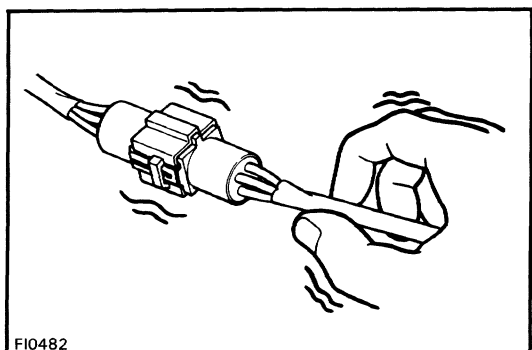
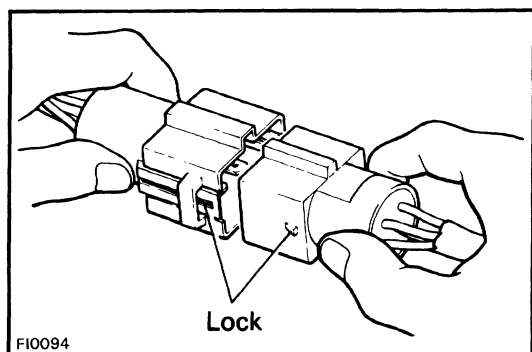
- Ignition timing (ESA system)
- Idle speed (ISC system)
- etc.

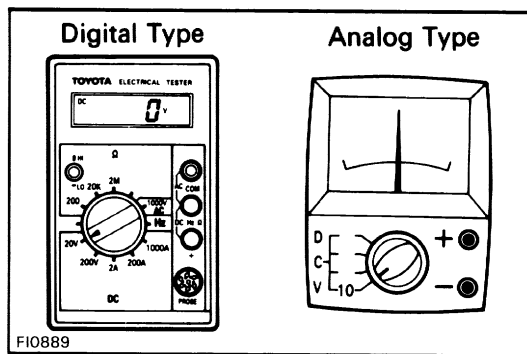
2. The most frequent cause of problems is simply a bad contact in wiring connectors. Always check that connections are secure.

When inspecting the connector, pay particular attention to the following points:

- (a) Check to see that the terminals are not bent.
- (b) Check to see that the connector is pushed in completely and locked.
- (c) Check to see that there is no signal change when the connector is slightly tapped or wiggled.

3. Sufficiently troubleshoot for other causes before replacing the ECU, as the ECU is of high quality and it is expensive.

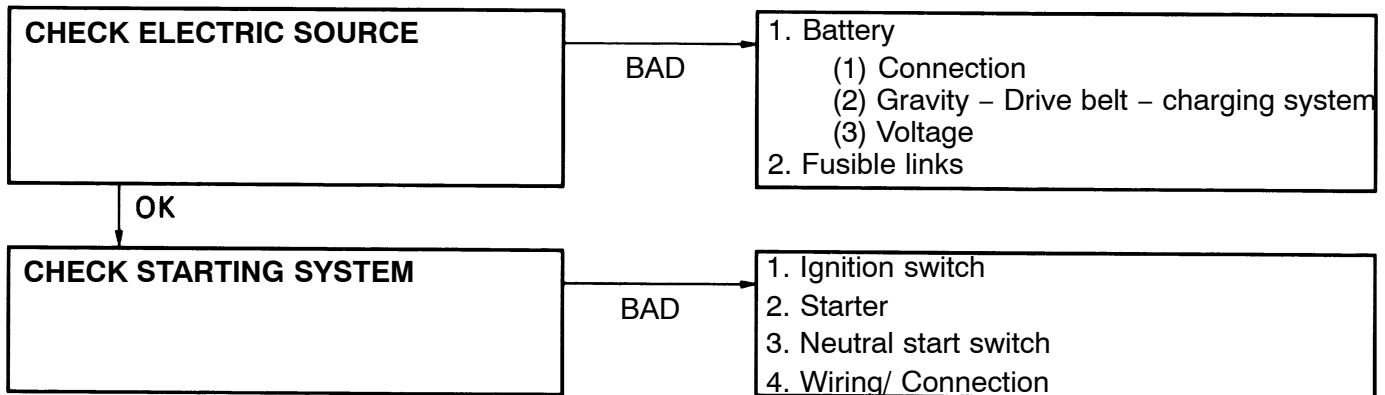




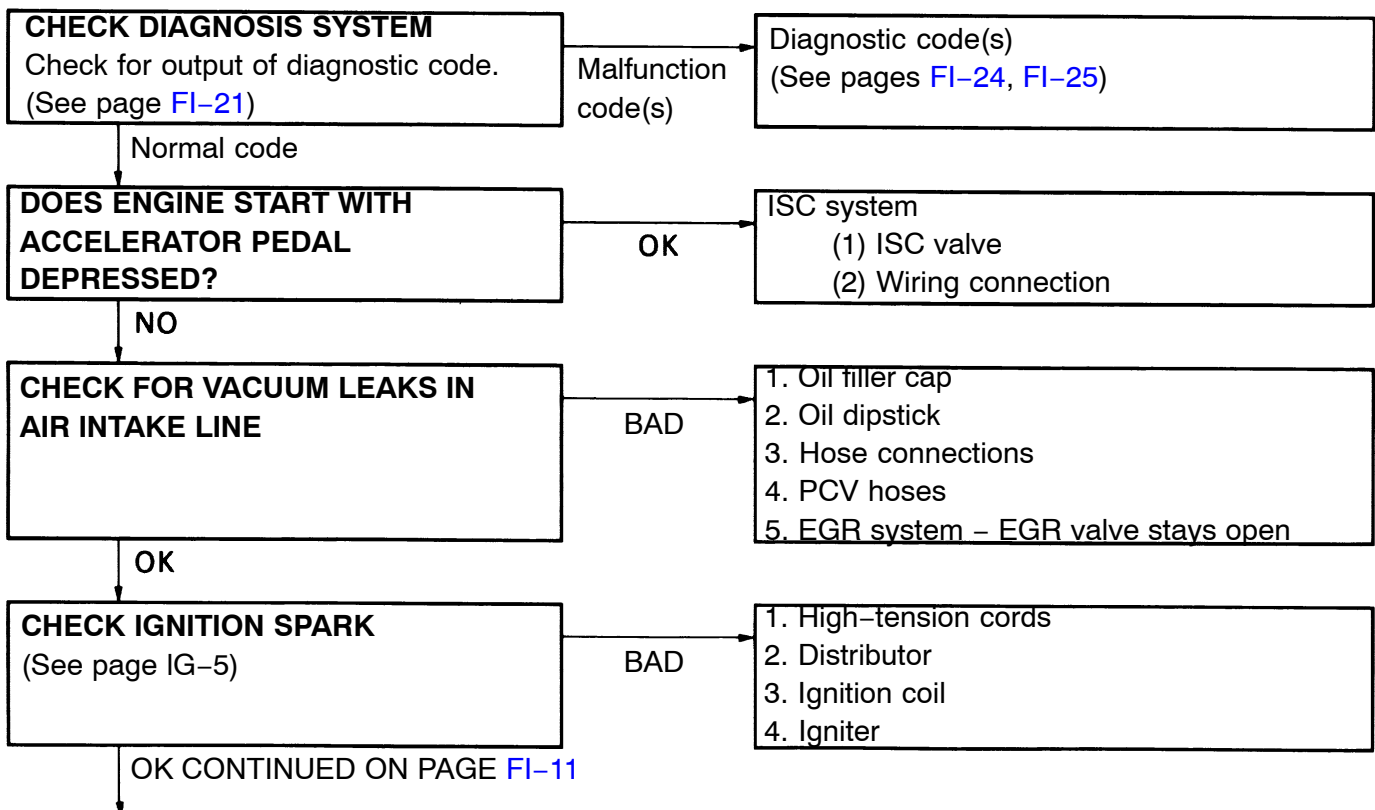
4. Use a volt/ohmmeter with high impedance (10 kΩ / V minimum) for troubleshooting of the electrical circuit.
(See page [FI-31](#))

TROUBLESHOOTING PROCEDURES

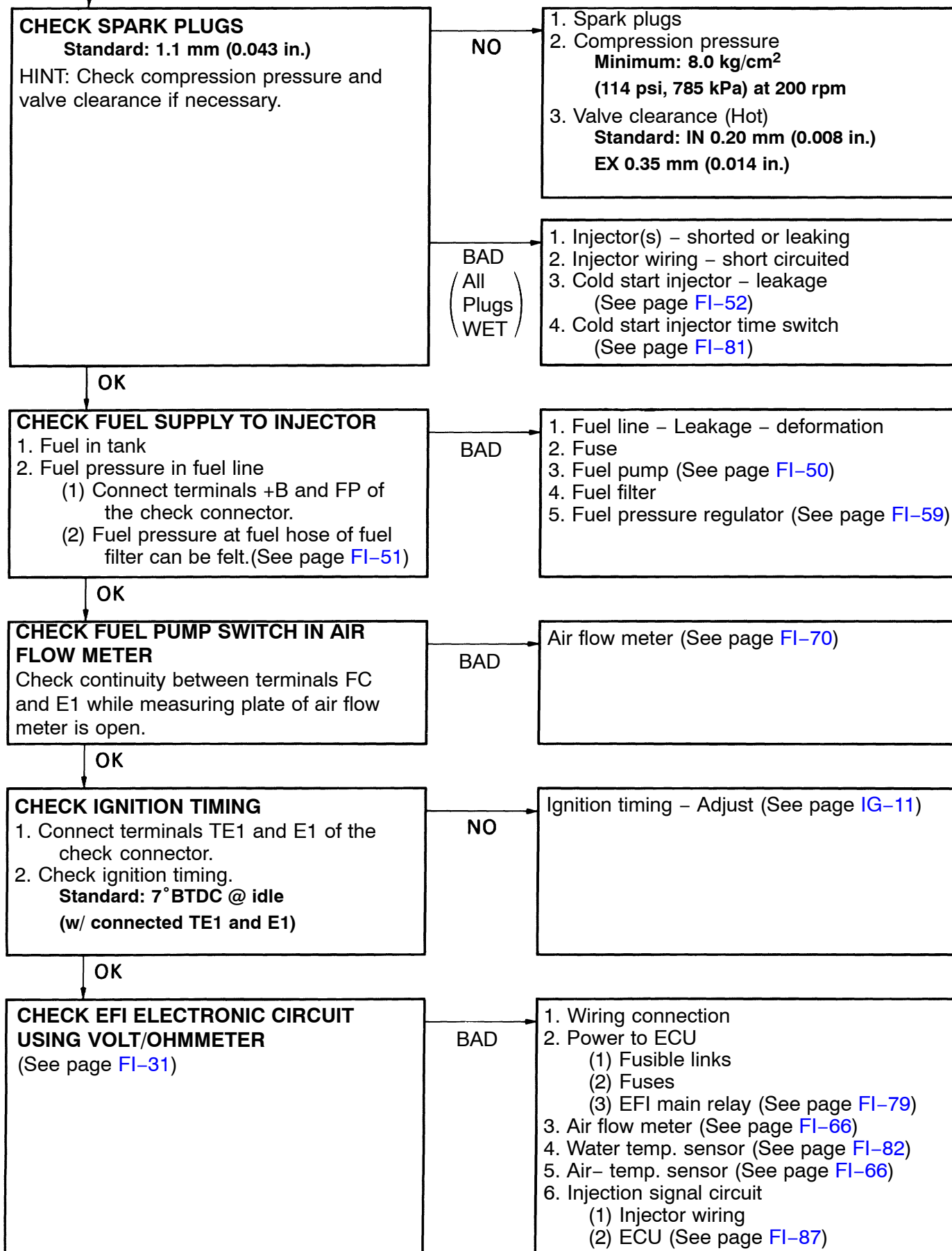
SYMPTOM – DIFFICULT TO START OR NO START (ENGINE WILL NOT CRANK OR CRANKS SLOWLY)



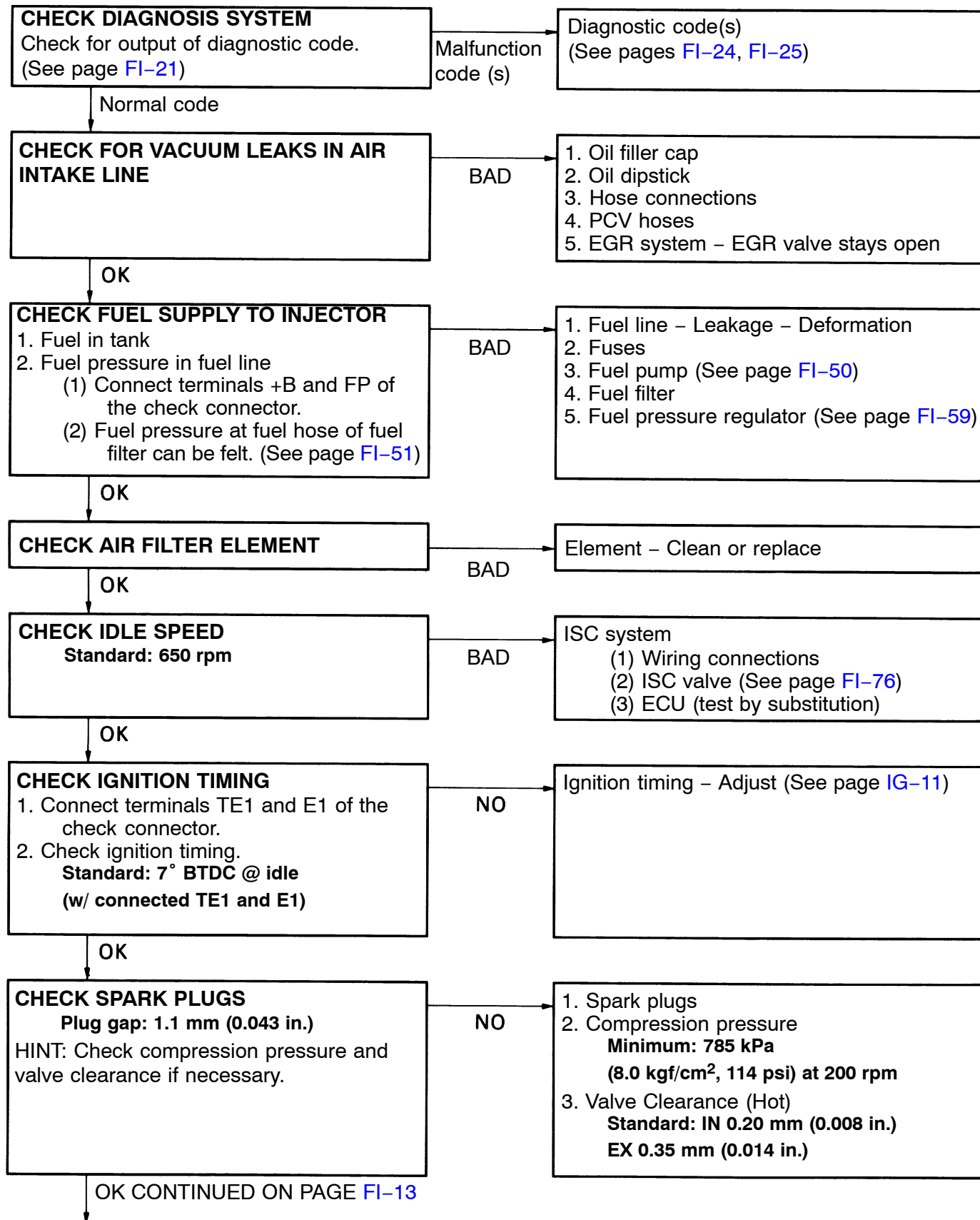
SYMPTOM – DIFFICULT TO START OR NO START (CRANKS OK)

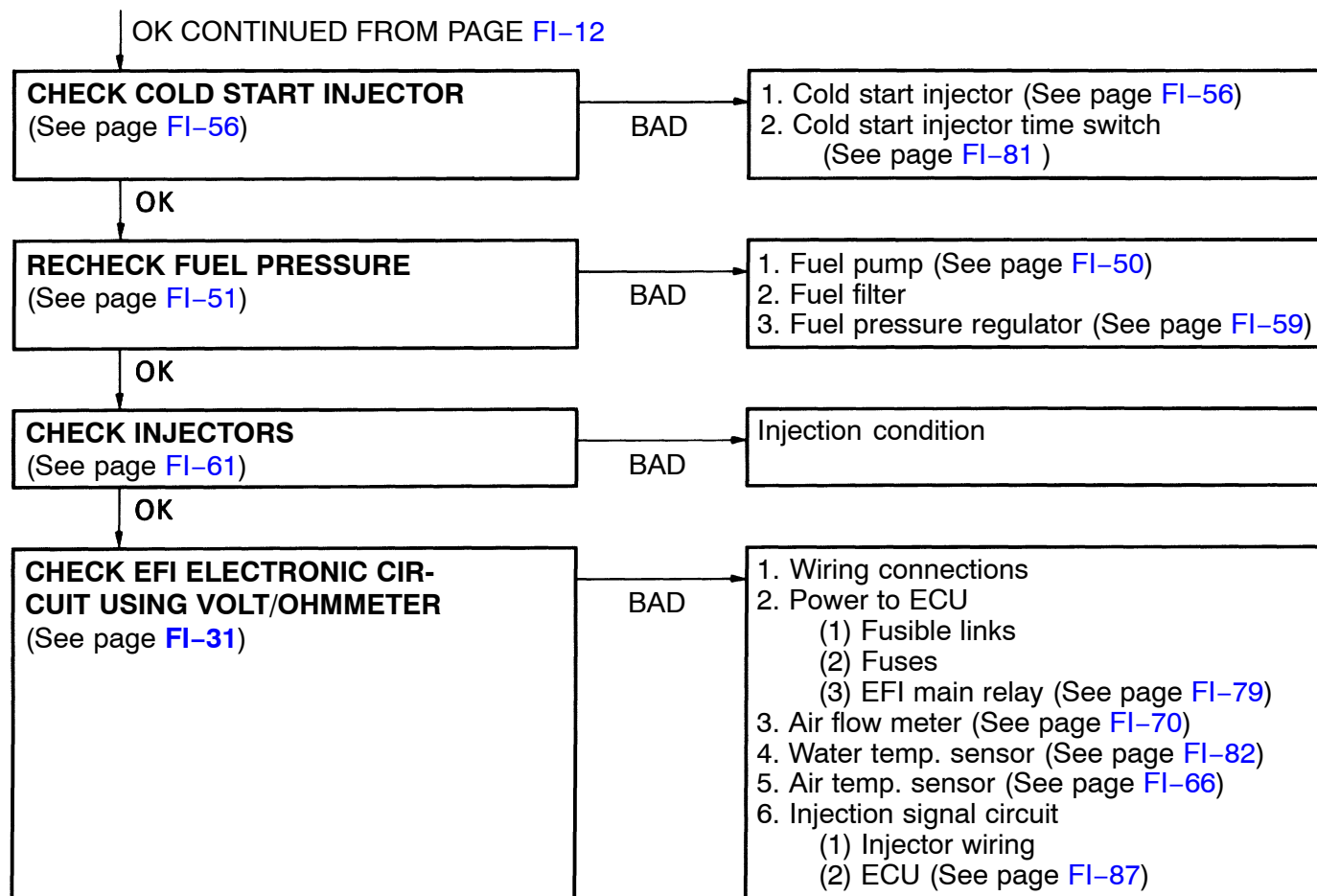


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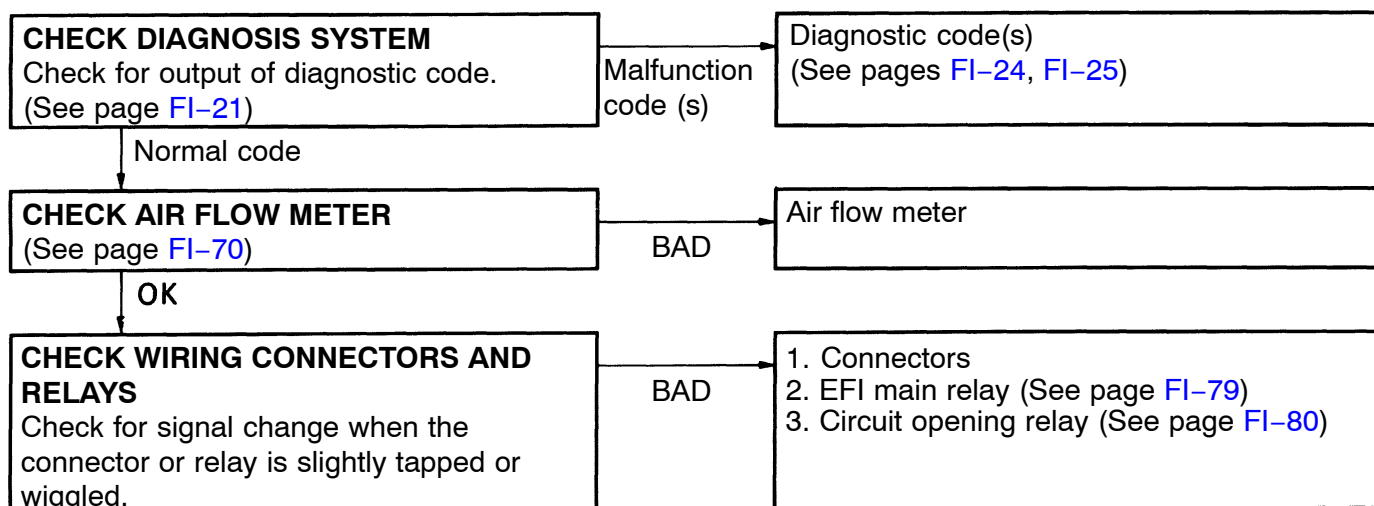


SYMPTOM – ENGINE OFTEN STALLS

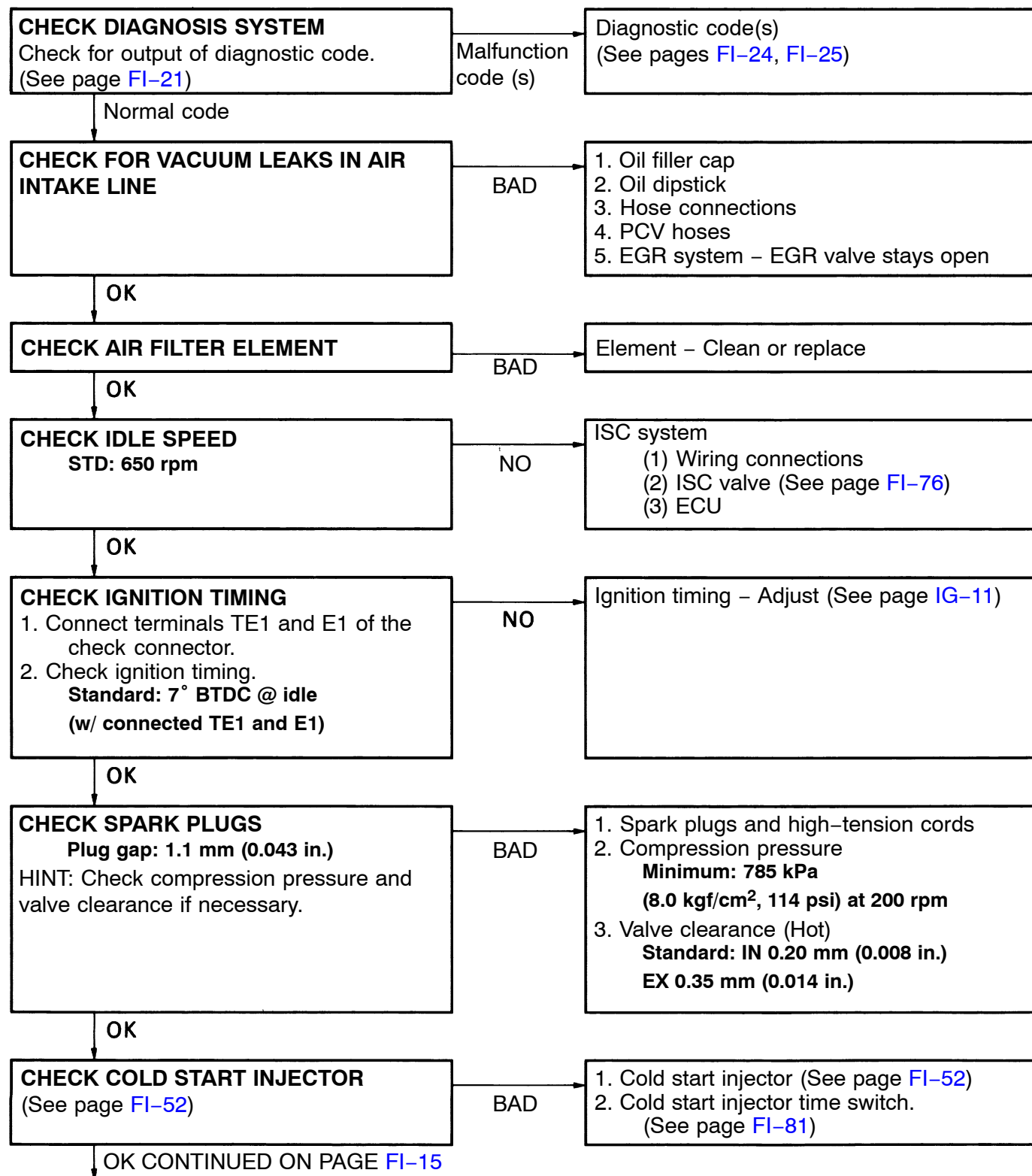


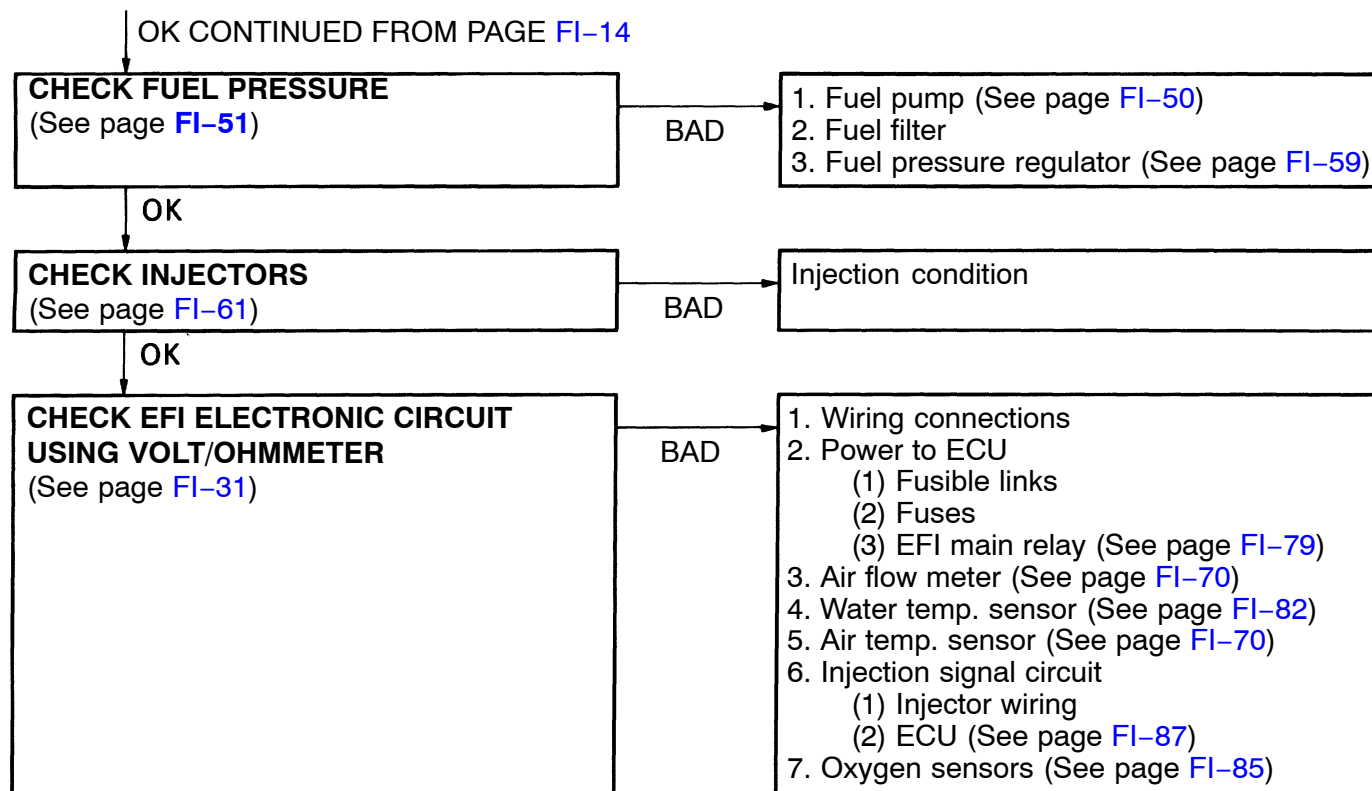


SYMPTOM – ENGINE SOMETIMES STALLS

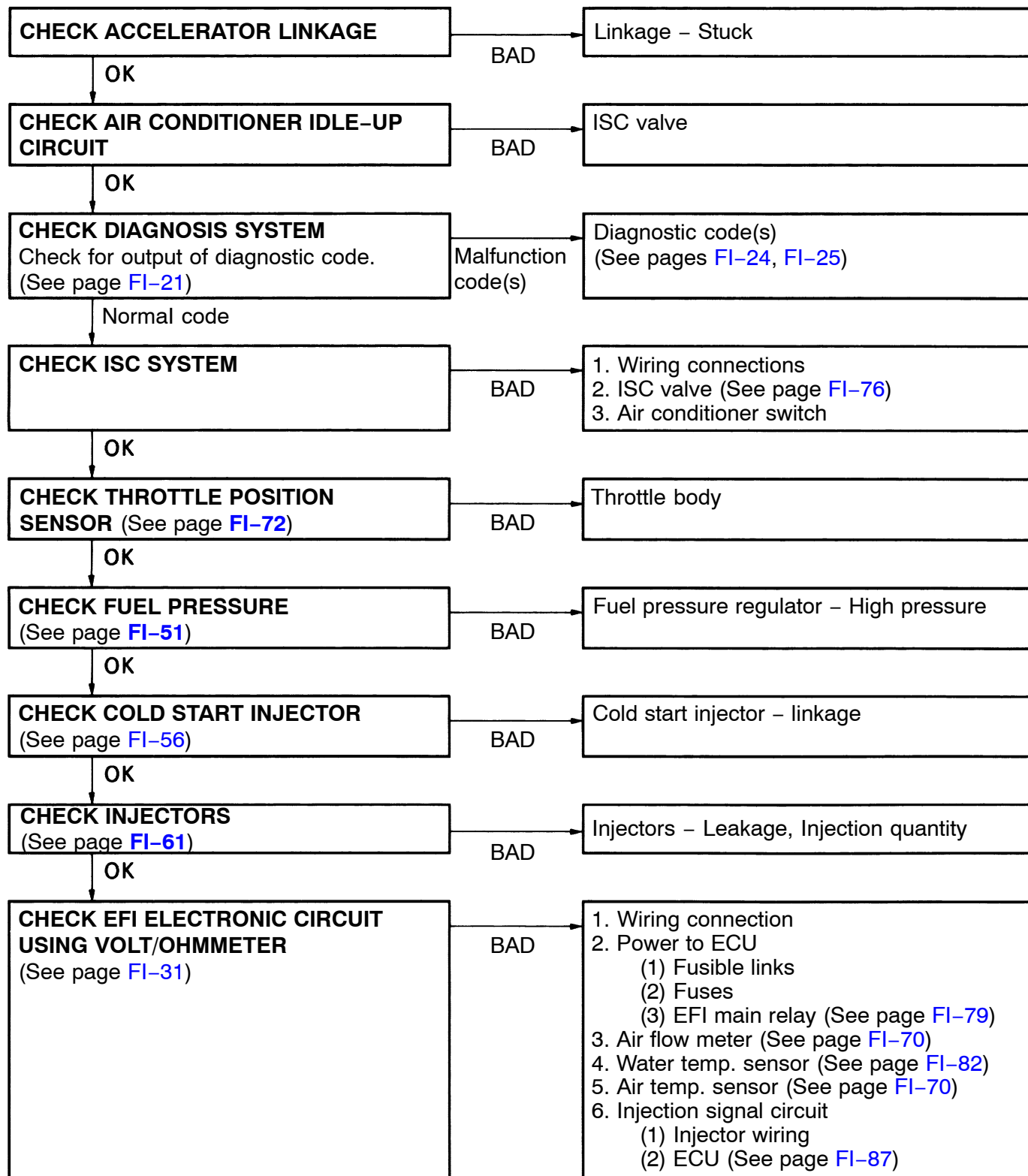


SYMPTOM – ROUGH IDLING AND/OR MISSING

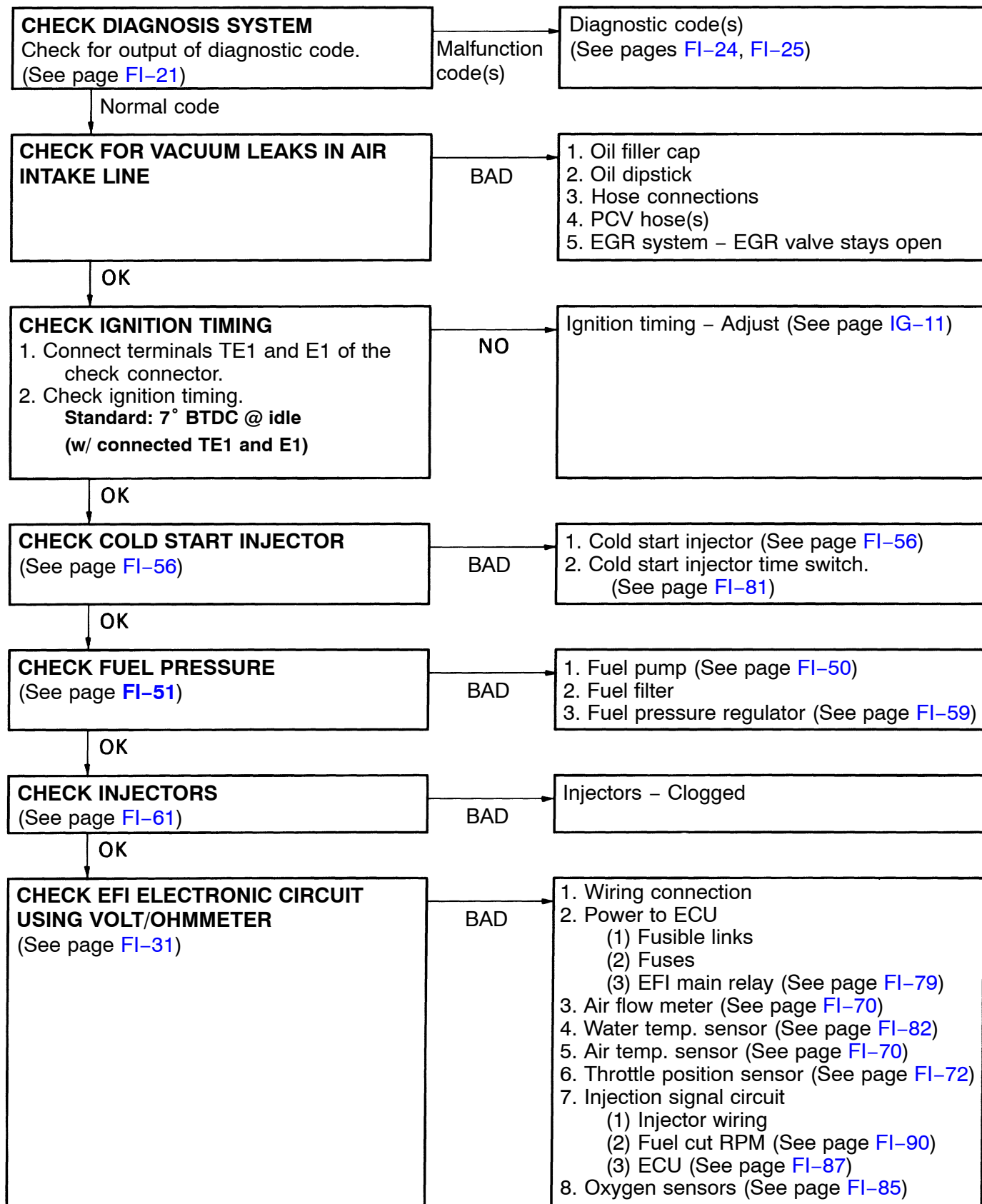




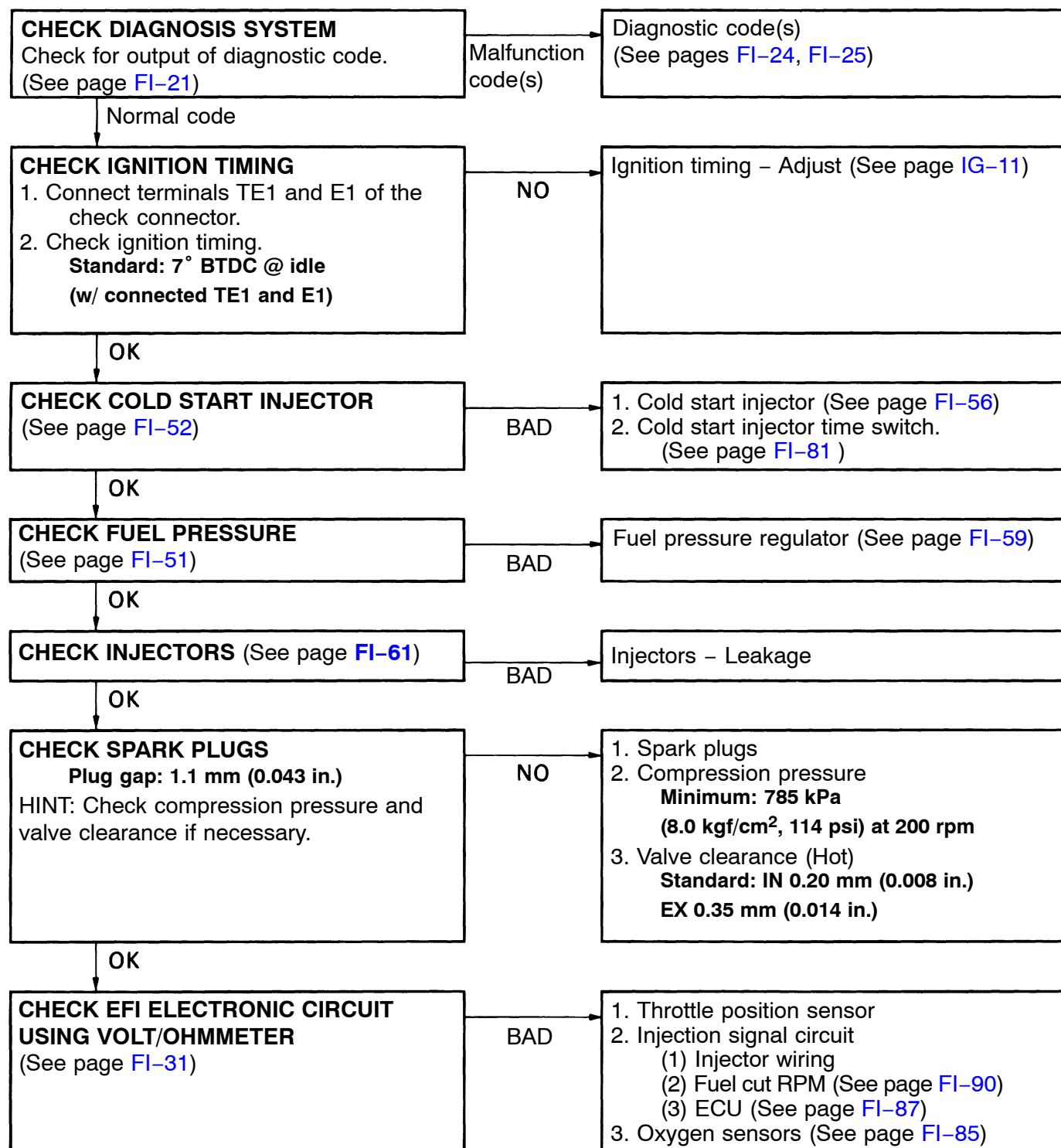
SYMPTOM – HIGH ENGINE IDLE SPEED (NO DROP)



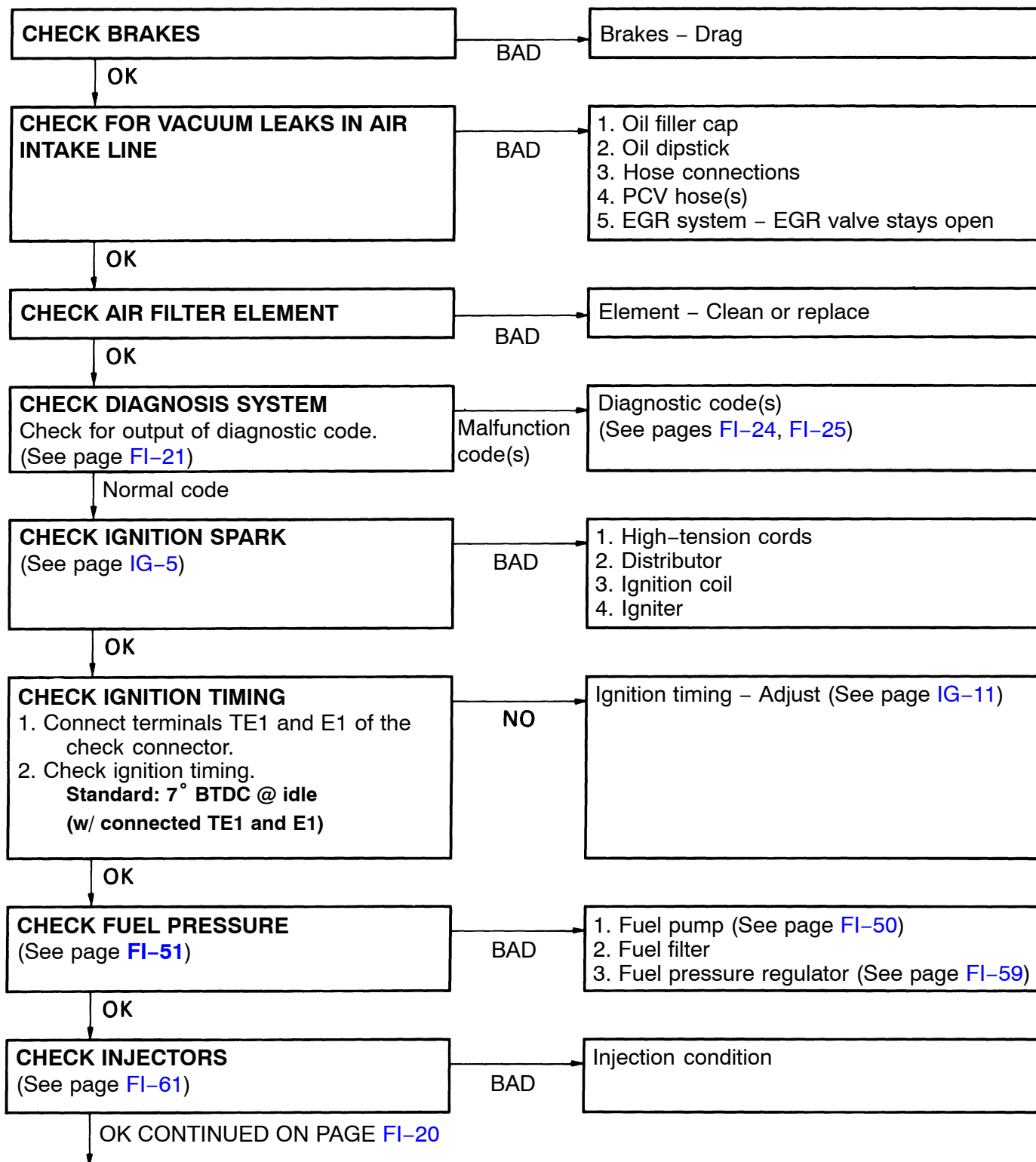
SYMPTOM – ENGINE BACKFIRES – Lean Fuel Mixture



SYMPTOM – MUFFLER EXPLOSION (AFTER FIRE) – Rich Fuel Mixture – Misfire



SYMPTOM – ENGINE HESITATES AND/OR POOR ACCELERATION



OK CONTINUED FROM PAGE [FI-19](#)

CHECK SPARK PLUGS

Plug gap: 1.1 mm (0.043 in.)

HINT: Check compression pressure and valve clearance if necessary.

NO

1. Spark plugs
2. Compression pressure
**Minimum: 785 kPa
(8.0 kgf/cm², 114 psi)
at 200 rpm**
3. Valve clearance (Hot)
**Standard: IN 0.20 mm (0.008 in.)
EX 0.35 mm (0.014 in.)**

OK

**CHECK EFI ELECTRONIC CIRCUIT
USING VOLT/OHMMETER**

(See page [FI-31](#))

BAD

1. Wiring connections
2. Power to ECU
 - (1) Fusible links
 - (2) Fuses
 - (3) EFI main relay (See page [FI-79](#))
3. Air flow meter (See page [FI-70](#))
4. Water temp. sensor (See page [FI-82](#))
5. Air temp. sensor (See page [FI-70](#))
6. Throttle position sensor (See page [FI-72](#))
7. Injection signal circuit
 - (1) Injector wiring
 - (2) ECU (See page [FI-87](#))