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Model Year Start: 2008	Model: FJ Cruiser	Prod Date Range: [07/2007 -]
Title: 1GR-FE ENGINE CONTROL SYSTEM: SFI SYSTEM: P2610; ECM / PCM Internal Engine Off Timer Performance; 2008 MY FJ Cruiser [07/2007 -]		

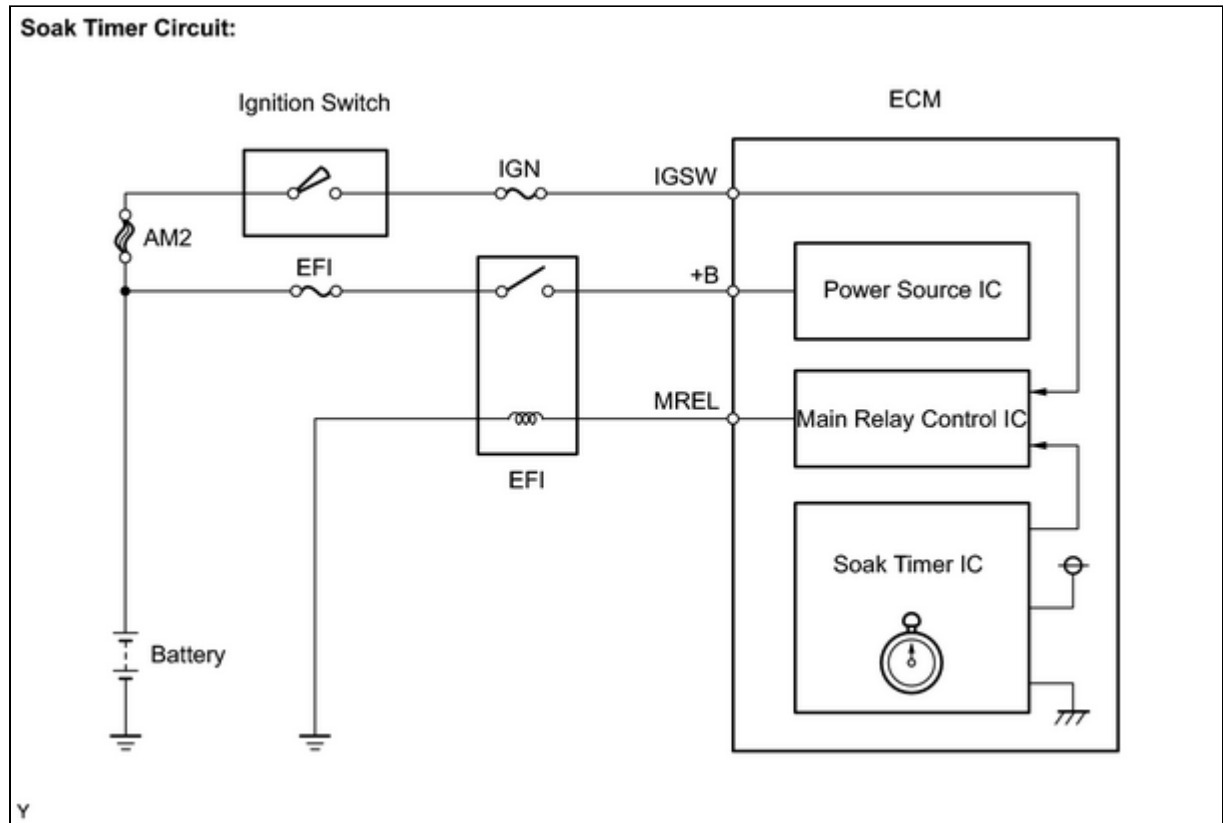
DTC	P2610	ECM / PCM Internal Engine Off Timer Performance
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DTC SUMMARY

DTC NO.	MONITORING ITEMS	MALFUNCTION DETECTION CONDITIONS	TROUBLE AREAS	DETECTION TIMINGS	DETECTION LOGIC
P2610	Soak timer (built into ECM)	ECM internal malfunction	ECM	Engine running	2 trip

DESCRIPTION

To ensure the accuracy of the EVAP (Evaporative Emission) monitor values, the soak timer, which is built into the ECM, measures 5 hours (+/-15 minutes) from when the ignition switch is turned OFF, before the monitor is run. This allows the fuel to cool down, which stabilizes the EVAP pressure. When 5 hours have elapsed, the ECM turns on.



MONITOR DESCRIPTION

5 hours after the ignition switch is turned OFF, the soak timer activates the ECM to begin the EVAP system monitor. While the engine is running, the ECM monitors the synchronization of the soak timer and the CPU clock. If these two are not synchronized, the ECM interprets this as a malfunction, illuminates the MIL and sets the DTC (2 trip detection logic).

MONITOR STRATEGY

Required Sensors/Components	ECM
Frequency of Operation	Once per driving cycle
Duration	10 minutes
MIL Operation	2 driving cycles
Sequence of Operation	None

TYPICAL ENABLING CONDITIONS

Monitor runs whenever following DTC not present	None
Ignition switch	ON
Engine	Running
Battery voltage	8 V or more
Starter	OFF

TYPICAL MALFUNCTION THRESHOLDS

Soak timer measurement when ECM CPU clock counts 10 minutes	Less than 7 minutes, or more than 13 minutes
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INSPECTION PROCEDURE

HINT:

- DTC P2610 is set if an internal ECM problem is detected. Diagnostic procedures are not required. ECM replacement is necessary.
- Read freeze frame data using a Techstream. Freeze frame data record the engine condition when malfunctions are detected. When troubleshooting, freeze frame data can help determine if the vehicle was moving or stationary, if the engine was warmed up or not, if the air-fuel ratio was lean or rich, and other data from the time the malfunction occurred.

PROCEDURE

1.	REPLACE ECM
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(a) Replace the ECM INFO .

NEXT

2.	CHECK WHETHER DTC OUTPUT RECURS (DTC P2610)
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(a) Connect a Techstream to the DLC3.

(b) Turn the ignition switch ON.

(c) Turn the tester ON.

(d) Clear DTCs INFO .

(e) Start the engine and wait for 10 minutes or more.

(f) Select the following menu items: Powertrain / Engine and ECT / Trouble Codes / Pending.

(g) If no pending DTC is displayed, the repair has been successfully completed.

NEXT  **END**

