

ENGINE IMMOBILIZER SYSTEM

HOW TO PROCEED WITH TROUBLESHOOTING

0521A-27

HINT:

Use this procedure to troubleshoot the engine immobilizer system.

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| 1 | VEHICLE BROUGHT TO WORKSHOP |
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| 2 | CUSTOMER PROBLEM ANALYSIS CHECK AND SYMPTOM CHECK (see page 05-1987) |
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| 3 | CRANK ENGINE FOR MORE THAN 10 SECONDS |
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| 4 | CHECK DTC |
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- (a) Check for DTCs and note any codes that are output.
- (b) Delete the DTC.
- (c) Recheck for DTCs. Try to prompt the DTC (SFI system and engine immobilizer system) by simulating the original activity that the DTC suggested.
 - (1) If the DTC does not reoccur, proceed to A.
 - (2) If the DTC (SFI system) reoccurs, proceed to B.
 - (3) If the DTC (engine immobilizer system) reoccur, proceed to C.

B

Go to SFI SYSTEM
(2AZ-FE engine: See page [05-1](#))
(3MZ-FE engine: See page [05-362](#))

C

Go to step 8

A

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| 5 | READ VALUE OF HAND-HELD TESTER (IMMOBILIZER ECU (TRANSPONDER KEY ECU ASSY) (SWITCH CONDITION)) |
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- (a) Connect the hand-held tester to the DLC3.
- (b) Turn the ignition switch ON and push the hand-held tester main switch ON.
- (c) Select the item "KEY SW" in the "DATA LIST" and read its value displayed on the hand-held tester.

Transponder key ECU assy:

| Item | Measurement Item/ Display (Range) | Normal Condition | Diagnostic Note |
|------------|--|--|-----------------|
| KEY Switch | Unlock warning switch signal /ON or OFF | ON: Key is in ignition key cylinder OFF: No key is in ignition key cylinder | - |

NG

Go to DTC B2780 (see page [05-1998](#))

OK**6 | PROBLEM SYMPTOMS TABLE (see page 05-1997)**

- (a) When the problem is not listed on the problem symptoms table, proceed to A.
(b) When the problem is listed on the problem symptoms table, proceed to B.

B**Go to step 8****A****7 | PERFORM TROUBLESHOOTING ACCORDING TO MALFUNCTION SYMPTOM**

- (a) Pre-check (see page 05-1988)
 (1) Inspect with the hand-held tester (ECU data monitor).
 (2) Inspect with the hand-held tester (ACTIVE TEST).
(b) Terminals of ECU (see page 05-1993)

8 | ADJUST, REPAIR OR REPLACE**END**