

DIAGNOSTIC TROUBLE CODE CHART

1. TRANSPONDER KEY ECU DTC CHART

DTC No.	Detection Item	Trouble Area	See page
B2780	Push Switch / Key Unlock Warning Switch Malfunction	1. Un-lock warning switch assembly 2. Wire harness 3. Transponder key ECU assembly	EI-20
B2784	Antenna Coil Open / Short	1. Wire harness 2. Transponder key amplifier 3. Transponder key ECU assembly	EI-23
B2793	Transponder Chip Malfunction	Key	EI-25
B2794	Unmatched Encryption Code	Key	EI-26
B2795	Unmatched Key Code	Key	EI-27
B2796	No Communication in Immobiliser System	1. Key 2. Transponder key amplifier 3. Wire harness 4. Transponder key ECU assembly	EI-28
B2797	Communication Malfunction No. 1	1. Key 2. Wire harness 3. Transponder key amplifier 4. Transponder key ECU assembly	EI-31
B2798	Communication Malfunction No. 2	1. Key 2. Wire harness 3. Transponder key amplifier 4. Transponder key ECU assembly	EI-28

2. ECM DTC CHART

DTC No.	Detection Item	Trouble Area	See page
B2799	Engine Immobiliser System	1. Wire harness 2. Transponder key ECU assembly 3. ECM	EI-34

NOTICE:

The DTCs for the immobiliser system are specified above. If other codes are output, check the DTCs chart for the engine control system.

DTC

B2780

Push Switch / Key Unlock Warning Switch Malfunction

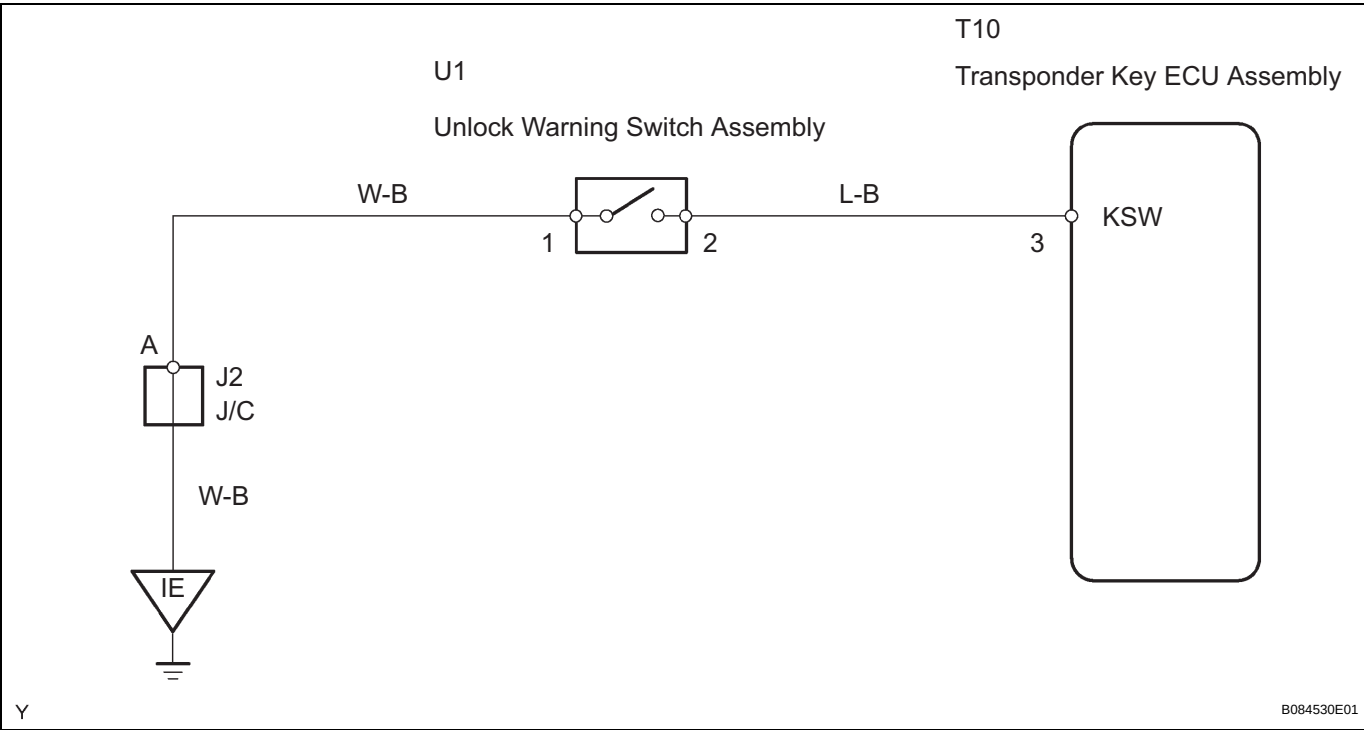
DESCRIPTION

This DTC will be output if the transponder key ECU assembly does not detect that the un-lock warning switch is ON even when the ignition switch is ON. Under normal conditions, the un-lock warning switch assembly is ON when the ignition switch is ON.

DTC No.	DTC Detection Condition	Trouble Area
B2780	Un-lock warning switch ON is not detected when ignition switch is ON	- Un-lock warning switch assembly - Wire harness - Transponder key ECU assembly

EI

WIRING DIAGRAM



INSPECTION PROCEDURE

1

READ VALUE OF INTELLIGENT TESTER

- Connect the intelligent tester to the Controller Area Network Vehicle Interface Module (CAN VIM). Then connect the CAN VIM to the DLC3.
- Turn the ignition switch ON with a key that cannot start the engine.
- Read the DATA LIST according to the display on the tester.

Transponder key ECU:

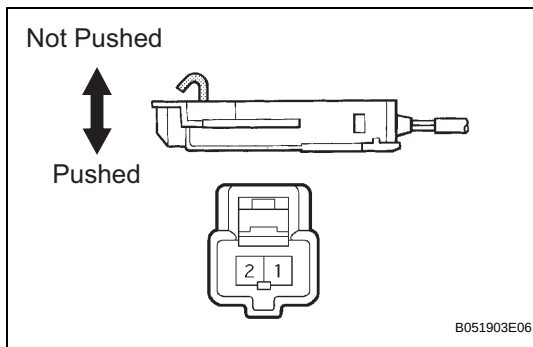
Item	Measurement Item/ Display (Range)	Normal Condition	Diagnostic Note
KEY SW	Un-lock warning switch signal / ON or OFF	ON: Key is in ignition key cylinder OFF: No key is in ignition key cylinder	-

OK:

"ON" (Key is in ignition key cylinder) appears on the screen.

OK

REPLACE TRANSPONDER KEY ECU ASSEMBLY

EI**NG****2****INSPECT UNLOCK WARNING SWITCH ASSEMBLY**

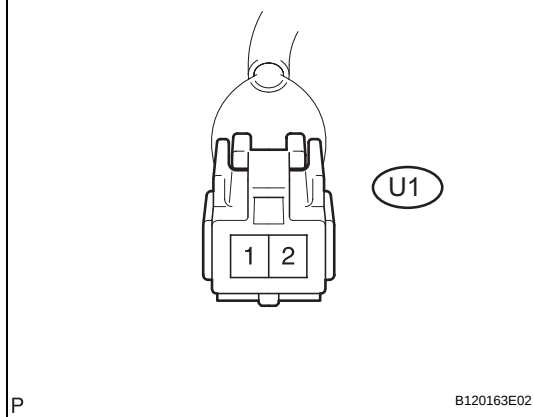
- (a) Remove the un-lock warning switch assembly.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Switch Position	Specified Condition
1 - 2	Pushed	Below 1 Ω
1 - 2	Not pushed	10 k Ω or higher

NG

REPLACE UNLOCK WARNING SWITCH ASSEMBLY

OK**3****CHECK HARNESS AND CONNECTOR (UNLOCK WARNING SWITCH - BODY GROUND)****Unlock Warning Switch Assembly:****Wire Harness Front View:**

- (a) Disconnect the U1 switch connector.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
U1-1 - Body ground	Always	Below 1 Ω

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

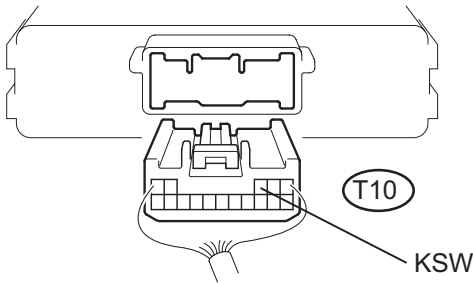
OK

4

CHECK HARNESS AND CONNECTOR (TRANSPONDER KEY ECU - UNLOCK WARNING SWITCH)

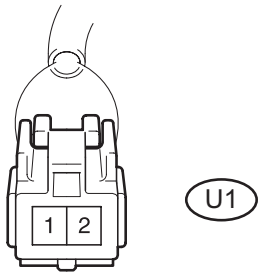
Transponder Key ECU Assembly:

Wire Harness Rear View:



Unlock Warning Switch Assembly:

Wire Harness Front View:



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- (a) Disconnect the T10 ECU and U1 switch connectors.
- (b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
T10-3 (KSW) - U1-2	Always	Below 1 Ω
U1-2 - Body ground	Always	10 k Ω or higher

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

REPLACE TRANSPONDER KEY ECU ASSEMBLY

EI