05HSX-01

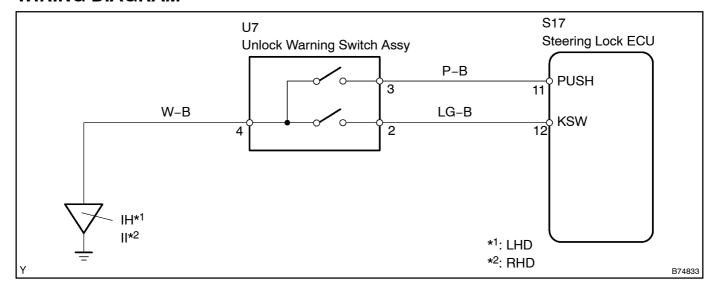
DTC	B2780	PUSH SWITCH/KEY UNLOCK WARNING SWITCH MALFUNCTION	
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## **CIRCUIT DESCRIPTION**

This DTC will be output if the steering lock ECU does not detect that the unlock warning switch is ON even when the ignition switch is ON. Under the normal conditions, the unlock warning switch is ON when the ignition switch is ON.

DTC No.	DTC Detection Condition	Trouble Area
	Unlock warning switch ON is not detected when ignition switch is ON	Unlock warning switch assy
B2780		Wire harness
		Steering lock ECU

## **WIRING DIAGRAM**



## 1 READ VALUE OF INTELLIGENT TESTER II

- (a) Connect the intelligent tester II to the DLC3.
- (b) Turn the ignition switch ON with the key that cannot start the engine.
- (c) Read the DATA LIST according to the display on the intelligent tester II.

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

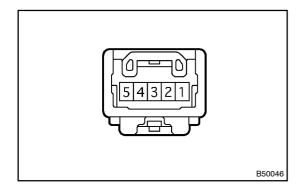
Item	Measurement Item/ Display (Range)	Normal Condition	Diagnostic Note
Key SW	Unlock warning switch signal /ON or OFF	ON: Key is in ignition key cylinder OFF: No key is in ignition key cylinder	-

NG > Go to step 2

OK

#### **REPLACE STEERING LOCK ECU**

## 2 INSPECT UNLOCK WARNING SWITCH ASSY



- (a) Remove the unlock warning switch.
- (b) Measure the unlock warning switch resistance.

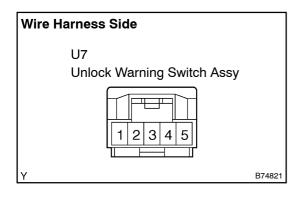
#### Standard:

Tester Connection	Switch Position	Specified Condition
3 – 4	Ignition switch pushed	Below 1 Ω
3 – 4	Ignition switch not pushed	10 k $\Omega$ or higher
2 - 4	Key inserted in ignition key cylinder	Below 1 Ω
2 – 4	No key in ignition key cyl- inder	10 kΩ or higher

NG REPLACE UNLOCK WARNING SWITCH ASSY

OK

## 3 CHECK WIRE HARNESS (UNLOCK WARNING SWITCH ASSY – BODY GROUND)



- (a) Disconnect the U7 switch connector.
- (b) Measure the resistance between the wire harness side connector and body ground.

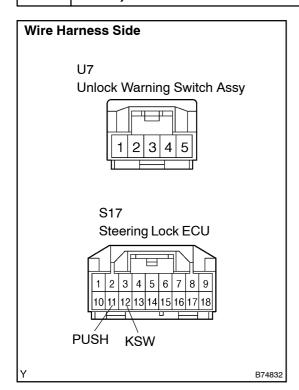
#### Standard:

Tester Connection	Specified Condition
U7-4 – Body ground	Below 1 Ω

NG REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

# 4 CHECK WIRE HARNESS (STEERING LOCK ECU – UNLOCK WARNING SWITCH ASSY)



- (a) Disconnect the S17 ECU connector.
- (b) Disconnect the U7 switch connector.
- (c) Measure the resistance of the wire harness side connectors.

#### Standard:

Tester Connection	Specified Condition
S17-12 (KSW) - U7-2	Below 1 Ω
S17-11 (PUSH) - U7-3	Below 1 Ω

NG REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

**REPLACE STEERING LOCK ECU**