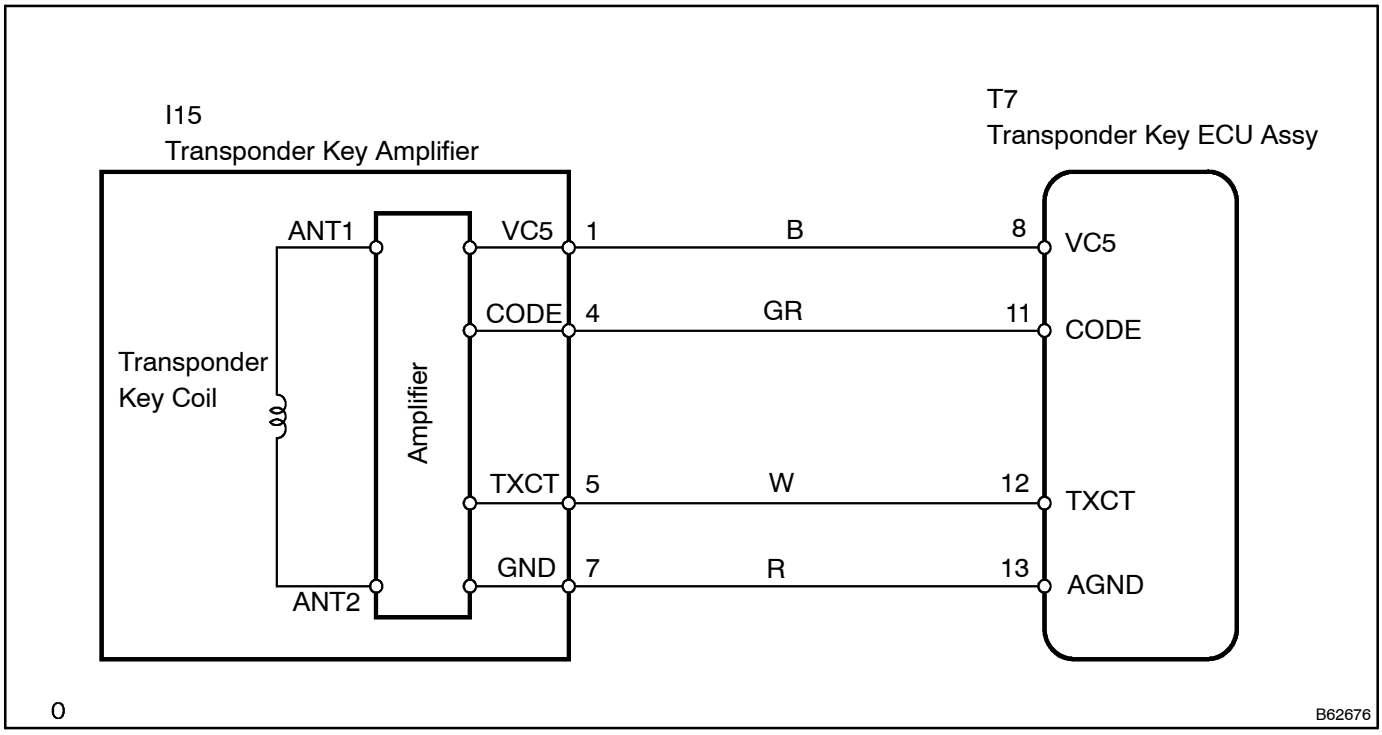
DTC	B2784	ANTENNA COIL OPEN/SHORT

CIRCUIT DESCRIPTION

The transponder key coil is built into the transponder key amplifier and receives a key code signal from the transponder chip in the key. This signal is amplified by the amplifier, and then it is output to the transponder key ECU.

DTC No.	DTC Detection Condition	Trouble Area
B2784	Antenna coil is open/short	• Wire harness • Transponder key amplifier • Transponder key ECU assy

WIRING DIAGRAM



INSPECTION PROCEDURE

1	READ VALUE OF HAND–HELD TESTER (IMMOBILIZER ECU (TRANSPONDER KEY ECU ASSY) (SWITCH CONDITION))

(a) Connect the hand–held tester to the DLC3.
(b) Turn the ignition switch ON with the key that does not start the engine.
(c) Select the item ”ANTENNA COIL” on the hand–held tester. Read the value.

Item	Measurement Item/ Display (Range)	Normal Condition	Diagnostic Note
ANTENNA COIL	Antenna coil condition /NORMAL or FAIL	NORMAL: Antenna coil is normal FAIL: Antenna coil is abnormal	–

OK: ”NORMAL” (antenna coil is normal) appears on the screen.

NG → **Go to step 2**

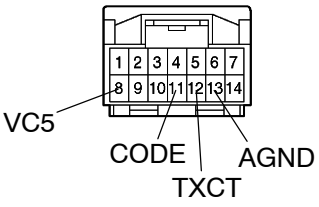
OK

REPLACE TRANSPONDER KEY ECU ASSY

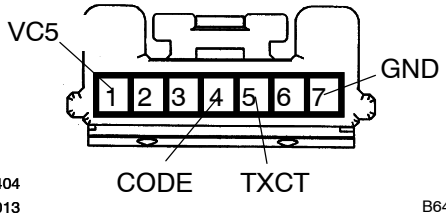
2	CHECK WIRE HARNESS (TRANSPONDER KEY ECU ASSY – TRANSPONDER KEY AMPLIFIER)

Wire Harness Side

T7
Transponder Key ECU Assy



I15
Transponder Key Amplifier



B63404
B55013
B64974

(a) Disconnect the T7 ECU and I15 amplifier connectors.
(b) Measure the resistance of the wire harness side connectors.

Standard:

Tester Connection	Specified Condition
T7–8 (VC5) – I15–1 (VC5)	Below 1 Ω
T7–11 (CODE) – I15–4 (CODE)	Below 1 Ω
T7–12 (TXCT) – I15–5 (TXCT)	Below 1 Ω
T7–13 (AGND) – I15–7 (GND)	Below 1 Ω
T7–8 (VC5) or I15–1 (VC5) – Body ground	10 kΩ or higher
T7–11 (CODE) or I15–4 (CODE) – Body ground	10 kΩ or higher
T7–12 (TXCT) or I15–5 (TXCT) – Body ground	10 kΩ or higher
T7–13 (AGND) or I15–7 (GND) – Body ground	10 kΩ or higher

NG → **REPAIR OR REPLACE HARNESS AND CONNECTOR**

OK

REPLACE TRANSPONDER KEY AMPLIFIER