

DTC

B2784

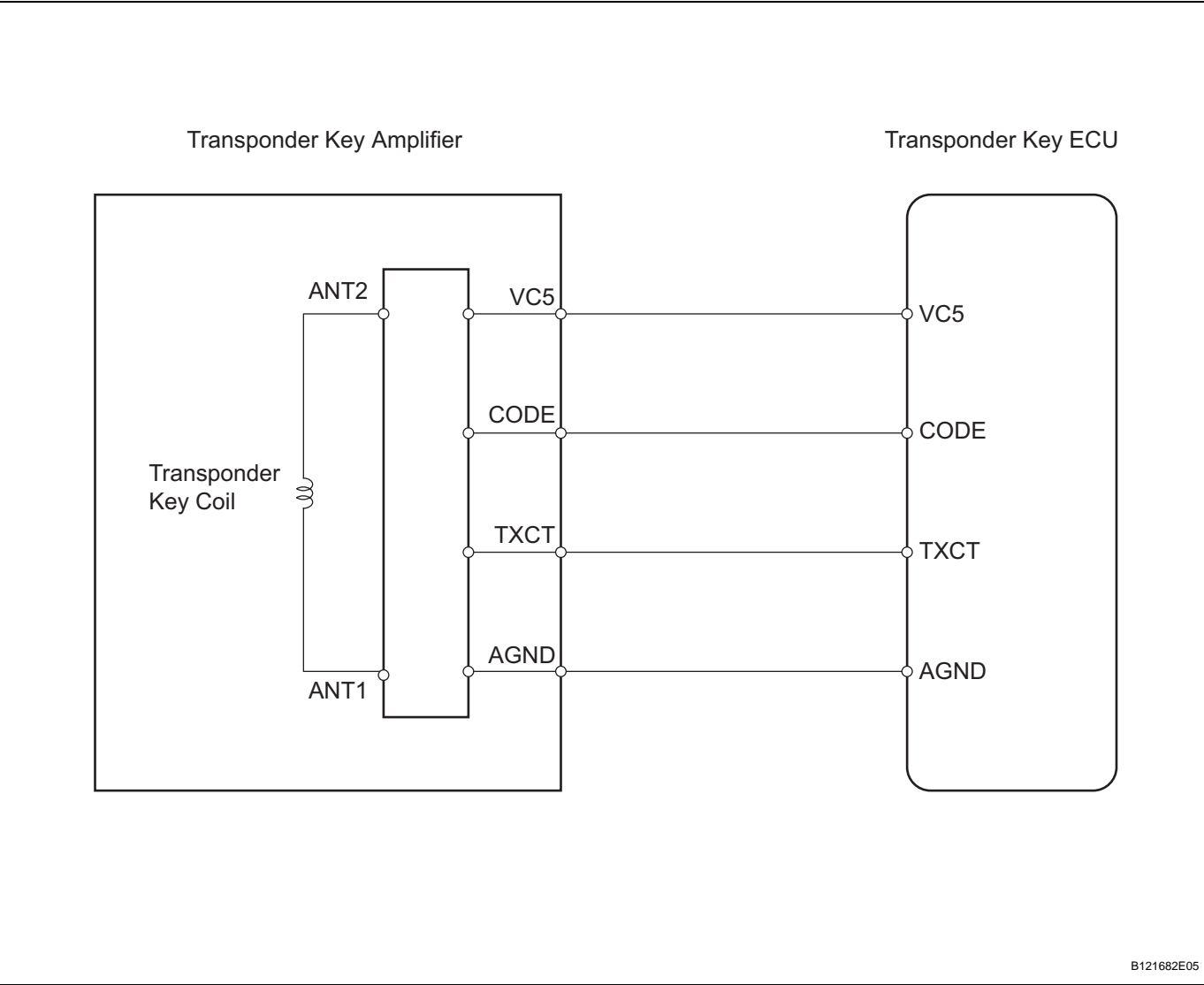
Antenna Coil Open / Short

DESCRIPTION

The transponder key coil receives key code signals from the transponder chip in the key grip. The coil built into the transponder key amplifier amplifies the key code signals and outputs the signal to the transponder key ECU.

DTC No.	DTC Detection Condition	Trouble Area
B2784	When transponder key coil is open or short	<ul style="list-style-type: none"> Transponder key ECU Transponder key amplifier Wire harness

WIRING DIAGRAM



EI

INSPECTION PROCEDURE

1

READ VALUE OF INTELLIGENT TESTER (TRANSPONDER KEY COIL)

- Connect the intelligent tester (with CAN VIM) to the DLC3.

- (b) Turn the ignition switch ON with a key that cannot start the engine.
- (c) On the intelligent tester, enter the following menus:
DIAGNOSIS / OBD/MOBD / IMMOBILISER / DATA LIST / ANTENNA COIL. Read the result.

Transponder key ECU:

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
ANTENNA COIL	Transponder key coil condition / NORMAL or FAIL	NORMAL: Transponder key coil is normal FAIL: Transponder key coil is malfunctioning	-

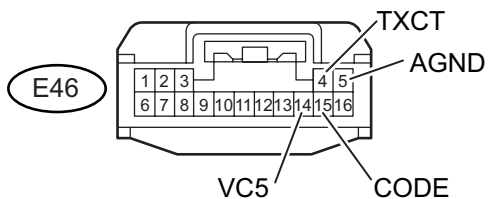
OK:

NORMAL (Transponder key coil is normal) appears on the screen.

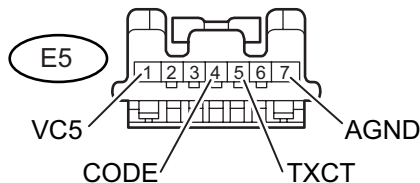
OK**REPLACE TRANSPONDER KEY ECU****NG****2****CHECK WIRE HARNESS (TRANSPONDER KEY ECU - TRANSPONDER KEY AMPLIFIER)**

Wire Harness Side

Transponder Key ECU



Transponder Key Amplifier



B110403E14

- (a) Disconnect the E46 ECU connector.
- (b) Disconnect the E5 amplifier connector.
- (c) Measure the resistance of the wire harness side connectors.

Standard resistance

Tester Connection	Specified Condition
E46-14 (VC5) - E5-1 (VC5)	Below 1 Ω
E46-15 (CODE) - E5-4 (CODE)	
E46-4 (TXCT) - E5-5 (TXCT)	
E46-5 (AGND) - E5-7 (AGND)	
E46-14 (VC5) or E5-1 (VC5) - Body ground	10 k Ω or higher
E46-15 (CODE) or E5-4 (CODE) - Body ground	
E46-4 (TXCT) or E5-5 (TXCT) - Body ground	
E46-5 (AGND) or E5-7 (AGND) - Body ground	

NG**REPAIR OR REPLACE HARNESS AND CONNECTOR****OK****REPLACE TRANSPONDER KEY AMPLIFIER**