DTC	B2796	NO COMMUNICATION IN IMMOBILISER SYSTEM

DTC	B2798	COMMUNICATION MALFUNCTION NO.2

CIRCUIT DESCRIPTION

This code is stored in memory when inserting the key that does not have transponder chip or if the communication between the key and transponder key ECU is impossible.

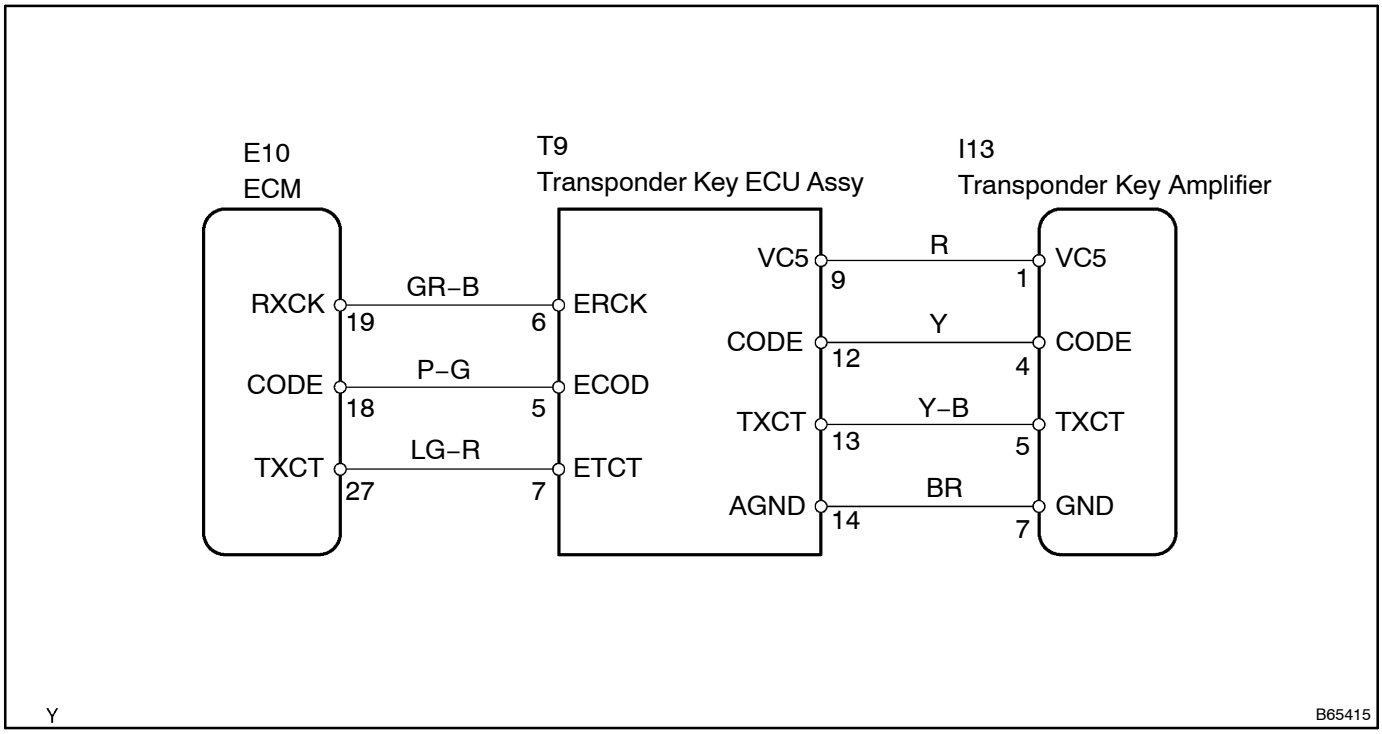
Transponder key ECU:

DTC No.	DTC Detection Condition	Trouble Area
B2796	No communication	• Key • Transponder key amplifier (Transponder key coil) • Wire harness • Transponder key ECU assy
B2798	Communication error	• Key • Transponder key amplifier (Transponder key coil) • Wire harness • Transponder key ECU assy

ECM:

DTC No.	DTC Detection Condition	Trouble Area
B2796	No communication	• ECM • Wire harness • Transponder key ECU assy
B2798	Communication error	• ECM • Wire harness • Transponder key ECU assy

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:
Start the inspection from step 1 when using the hand–held tester and start from step 2 when not using the hand–held tester.

1	**READ VALUE OF HAND–HELD TESTER (IMMOBILISER 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 with which the engine does not start.
(c) Select the item ”IMMOBILISER” on the hand–held tester.
OK:
SET → Ignition switch ON
UNSET → Without key

OK → **NORMAL**

NG

2	**CHECK WHETHER ENGINE STARTS WITH OTHER KEYS**

(a) Check whether the engine starts with the other keys for the vehicle.

OK → **RE–REGISTER OR REPLACE KEY WITH WHICH ENGINE DOES NOT START**

NG

HINT:
Start the inspection from step 3 when using the hand–held tester and start from step 4 when not using the hand–held tester.

3	**READ VALUE OF HAND–HELD TESTER (IMMOBILISER 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 with which the engine does not start.
(c) Select the item ”ANTENNA COIL” on the hand–held tester.
OK: NORMAL
NG: FAIL

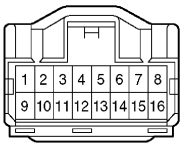
NG → **CHECK AND REPLACE TRANSPONDER KEY ECU ASSY**

OK

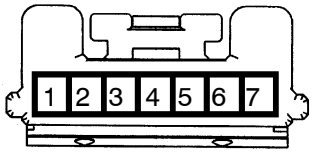
4	CHECK WIRE HARNESS (TRANSPONDER KEY ECU ASSY ⇔ TRANSPONDER KEY AMPLIFIER) (TRANSPONDER KEY ECU ASSY OR TRANSPONDER KEY AMPLIFIER ⇔ BODY GROUND)

Wire Harness Side

T9
Transponder Key ECU Assy



I13
Transponder Key Amplifier



B63405
B55013 B64982

(a) Disconnect the T9 ECU and I13 amplifier connectors.
(b) Check the continuity between the wire harness side connectors.
Standard:

Symbols (Terminal No.)	Specified Condition
VC5 (T9–9) ⇔ VC5 (I13–1)	Continuity
CODE (T9–12) ⇔ CODE (I13–4)	Continuity
TXCT (T9–13) ⇔ TXCT (I13–5)	Continuity
AGND (T9–14) ⇔ GND (I13–7)	Continuity

(c) Check the continuity between the T9 ECU or I13 amplifier wire harness side connector and body ground.
Standard:

Symbols (Terminal No.)	Specified Condition
VC5 (T9–9) or VC5 (I13–1) ⇔ Body ground	No continuity
CODE (T9–12) or CODE (I13–4) ⇔ Body ground	No continuity
TXCT (T9–13) or TXCT (I13–5) ⇔ Body ground	No continuity
AGND (T9–14) or GND (I13–7) ⇔ Body ground	No continuity

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

OK

5	CHECK OPERATION OF TRANSPONDER KEY AMPLIFIER

(a) After exchanging the transponder key ECU, check that the engine starts.

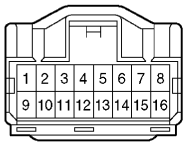
NG → **NORMAL**

OK

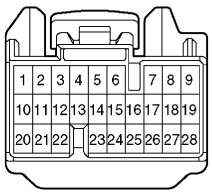
6 CHECK WIRE HARNESS (TRANSPONDER KEY ECU ASSY ⇔ ECM) (TRANSPONDER KEY ECU ASSY OR ECM ⇔ BODY GROUND)

Wire Harness Side

T9
Transponder Key ECU Assy



E10
ECM



B63405
B64968
B64983

(a) Disconnect the T9 ECU and E10 ECM connectors.
(b) Check the continuity between the wire harness side connectors.

Standard:

Symbols (Terminal No.)	Specified Condition
ERCK (T9–6) ⇔ RXCK (E10–19)	Continuity
ECOD (T9–5) ⇔ CODE (E10–18)	Continuity
ETCT (T9–7) ⇔ TXCT (E10–27)	Continuity

(c) Check the continuity between the T9 ECU or E10 ECM wire harness side connector and body ground.

Standard:

Symbols (Terminal No.)	Specified Condition
ERCK (T9–6) or RXCK (E10–19) ⇔ Body ground	No continuity
ECOD (T9–5) or CODE (E10–18) ⇔ Body ground	No continuity
ETCT (T9–7) or TXCT (E10–27) ⇔ Body ground	No continuity

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

OK

REPLACE TRANSPONDER KEY ECU ASSY