DTC	B2799	ENGINE IMMOBILIZER SYSTEM MALFUNCTION

CIRCUIT DESCRIPTION

This DTC is output when the ECM detects errors in the communication between the steering lock ECU and the ECM, and in the communication lines.
This is also output if engine start is attempted when the COMMUNICATION ID between the steering lock ECU and the ECM is different.
Before troubleshooting for this DTC, make sure that there is no DTC detected in the theft deterrent ECU and the steering lock ECU. If there is any interior verification–related DTC (B1242, B2775) or key code–related DTC (B279#) detected in the theft deterrent ECU and the steering lock ECU, repair them first.
In some cases, interior verification may fail due to misuse of the smart key function. In such cases, permission to start the engine is not given from the communication between the steering lock ECU and the ECM, resulting in the output of this DTC. If this DTC is output, confirm with the user whether or not the following conditions occurred in the past.

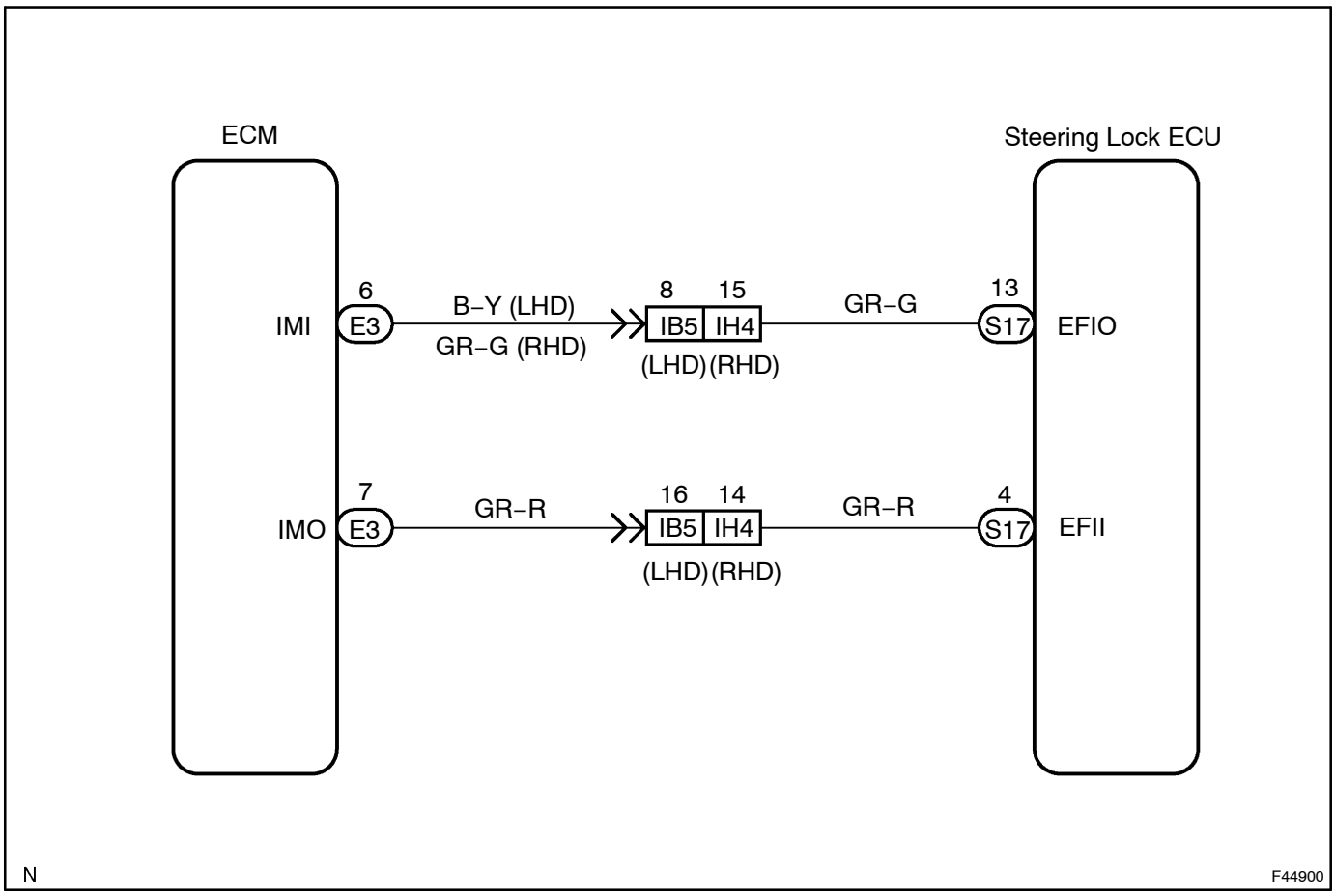
Case1	Carrying the smart key, the driver turned the starter switch to the ACC position and left it that way for 60 seconds or more. The driver then left the car, carrying the smart key, and engine start was attempted afterwards.
Case2	Carrying the smart key, the driver turned the starter switch to the ON position and left it that way for 5 minutes or more. The driver then left the car, carrying the smart key, and engine start was attempted afterwards.
Case3	Carrying the smart key, the driver turned the starter switch back to the ACC position from the ON position. The driver then left the car, carrying the smart key, and engine start was attempted afterwards.
Case4	With the starter SW in the ACC or the ON (engine stopped) position, the shift lever is not in the P position and the driver's door is open. After that, engine start was attempted with the shift lever still not in the P position.

HINT:

- In cases 1 and 2, when engine start is attempted, the smart key system performs interior verification again. However, because the smart key is outside the interior verification area, the interior verification fails and permission to start the engine is not given, which results in the DTC output.
  At this time the steering lock ECU also detects B2775.
- In case 3, when the starter SW is turned back to the ACC position and then turned to the IG ON position again, interior verification fails and permission to start the engine is not given, which results in the DTC output.
  At this time the steering lock ECU also detects B2775.

DTC No.	DTC Detecting Condition	Trouble Area
B2799	• Error in communication between ECM and steering lock ECU, and on communication line • COMMUNICATION ID is different in communication with steering lock ECU	• Wire harness • Steering Lock ECU • ECM

WIRING DIAGRAM



INSPECTION PROCEDURE

1	CHECK SMART KEY SYSTEM

(a) Clear the stored DTCs in the memory (see page 05–737).
(b) Check whether or not all smart keys the user has can start the engine.
Result:

A	All keys start the engine.
B	A specific key does not start the engine. In this case, the ECU detects DTC (B2799).
C	All keys do not start the engine. In this case, ECU detects DTC (B2799).

A → **NO PROBLEM AT THIS TIME**

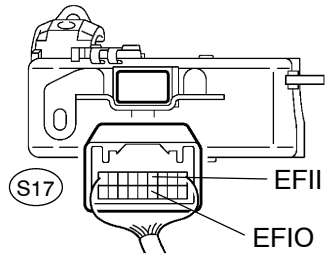
HINT:
It is suspected that engine start was attempted in the past when interior verification had failed or when the key code was different between the steering lock ECU and the key.

B → **A SPECIFIC KEY IS FAULTY OR UNREGISTERED**

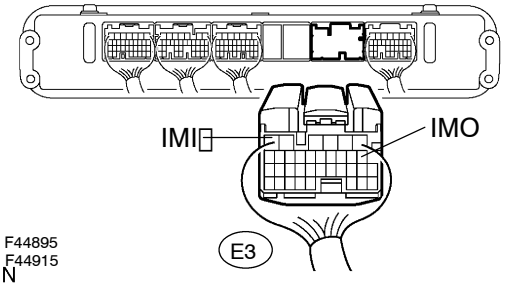
C

2	CHECK HARNESS AND CONNECTOR (STEERING LOCK ECU – ECM)

Steering Lock ECU:



ECM:



F44895
F44915
F44918

(a) Disconnect the S17 connector from the steering lock ECU.
(b) Disconnect the E3 connector from the ECM.
(c) Measure the resistance according to the value(s) in the table below.
Standard:

Tester connection (Symbols)	Condition	Specified condition
S17–13 – E3–6 (EFIO – IMI)	Always	Below 1 Ω
S17–4 – E3–7 (EFII – IMO)	Always	Below 1 Ω
S17–13 (EFIO) – Body ground	Always	10 kΩ or higher
S17–4 (EFII) – Body ground	Always	10 kΩ or higher

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

OK

REPLACE ECM (SEE PAGE 10–21)