DTC	C2141/41	Transmitter ID1 Error

DTC	C2142/42	Transmitter ID2 Error

DTC	C2143/43	Transmitter ID3 Error

DTC	C2144/44	Transmitter ID4 Error

DESCRIPTION

The tire pressure warning valve and transmitters that are installed in the tire and wheel assemblies measure the air pressure of the tires. The measured values are transmitted to the tire pressure warning antenna and receiver on the body as radio waves and then sent to the tire pressure warning ECU. The ECU compares the measured air pressure values with the air pressure threshold. When the measured air pressure value is less than this threshold, the warning light in the combination meter comes on.
When the internal circuit of the tire pressure warning valve and transmitter is malfunctioning, this DTC is output.

DTC No.	DTC Detection Condition	Trouble Area
C2141/41 C2142/42 C2143/43 C2144/44	The battery of the valve and transmitter is expired.	• Tire pressure warning valve and transmitter • Tire pressure warning ECU

HINT:
It is necessary to perform the procedure to identify the tire pressure warning valve and transmitter that is malfunctioning because it cannot be identified by the output DTC.

INSPECTION PROCEDURE

NOTICE:

- **When replacing the tire pressure warning ECU, read the IDs stored in the ECU using the intelligent tester and write them down before removal.**
- **It is necessary to perform initialization (See page TW-23) after registration (See page TW-20) of the transmitter IDs into the tire pressure warning ECU after the ECU and/or valve and transmitter have been replaced.**

1	IDENTIFY TRANSMITTER CORRESPONDING TO DTC

(a) Set the tire pressure to the specified value.

Cold tire inflation pressure

Tire Size	kPa (kgf/cm^2, psi)
P215/65R16	240 (2.4, 35)
P225/60R17	

(b) Make sure that the ignition switch is off.
(c) Connect the intelligent tester to the DLC3.
(d) Turn the ignition switch to the ON position.
(e) Display the "TIREPRESS" data for each wheel using the intelligent tester.

(f) Rapidly reduce the tire pressure for each wheel at least 40 kPa (0.41 kg/cm^2, 5.8 psi) within 30 seconds. If "TIREPRESS" displayed on the tester (ID1 to ID4) does not change, the tire pressure warning valve and transmitter corresponds to the DTC that was detected.
HINT:
- Identify the malfunctioning tire pressure warning valve and transmitter by repeatedly decreasing the tire pressure for each tire.
- Record which "TIREPRESS" data (ID1 to ID4) corresponds to each tire.

TIRE PRESSURE:

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
TIREPRESS1	ID1 tire inflation pressure (Absolute pressure) / min.: 100 kPa (1 kgf/cm^2, 14 psi) max.: 449.35 kPa (4.5 kgf/cm^2, 63 psi)	Actual tire inflation pressure	If 100 kPa (1 kgf/cm^2, 14 psi) for absolute pressure is displayed, the data has not been received.*
TIREPRESS2	ID2 tire inflation pressure (Absolute pressure) / min.: 100 kPa (1 kgf/cm^2, 14 psi) max.: 449.35 kPa (4.5 kgf/cm^2, 63 psi)	Actual tire inflation pressure	If 100 kPa (1 kgf/cm^2, 14 psi) for absolute pressure is displayed, the data has not been received.*
TIREPRESS3	ID3 tire inflation pressure (Absolute pressure) / min.: 100 kPa (1 kgf/cm^2, 14 psi) max.: 449.35 kPa (4.5 kgf/cm^2, 63 psi)	Actual tire inflation pressure	If 100 kPa (1 kgf/cm^2, 14 psi) for absolute pressure is displayed, the data has not been received.*
TIREPRESS4	ID4 tire inflation pressure (Absolute pressure) / min.: 100 kPa (1 kgf/cm^2, 14 psi) max.: 449.35 kPa (4.5 kgf/cm^2, 63 psi)	Actual tire inflation pressure	If 100 kPa (1 kgf/cm^2, 14 psi) for absolute pressure is displayed, the data has not been received.*

HINT:
*: It may take about 5 to 6 minutes until the values are displayed. If the values are not displayed after a few minutes, perform troubleshooting according to the inspection procedure for DTCs C2121/21 to C2124/24 (See page TW-42).

(g) Check the DATA LIST.

Result

Condition	Detection Condition
One of "TIREPRESS" data (ID1 to ID4) changed.	**Normal**
"TIREPRESS" data did not change.	**Transmitter corresponding to DTC**

NOTICE:
- **When "TIREPRESS" data has not changed, reset the tire pressure to the appropriate specified value and rotate the tire 90 to 270 degrees. Then forcibly transmit the transmitter ID and recheck it.**
- **Record the transmitter ID and position of transmitters that are normal.**

(h) When the "TIREPRESS" data (ID1 to ID4) has changed, repeat this procedure to identify the tire pressure warning valve and transmitter that corresponds to a DTC.

(i) When all of the "TIREPRESS" data (ID1 to ID4) have changed, identify the malfunctioning tire pressure warning valve and transmitter using recorded ID numbers and output DTC.
(j) Set the tire pressures to the appropriate specified values.

NEXT

2	REPLACE TIRE PRESSURE WARNING VALVE AND TRANSMITTER

(a) Replace the identified tire pressure warning valve and transmitter with a new one (See page TW-84).
HINT:
- Before installing a new tire pressure warning valve and transmitter, read and write down its transmitter ID.
- The IDs for the tire pressure warning valve and transmitter which are not replaced should be checked using the tester and recorded.

NEXT

3	REGISTRATION OF TRANSMITTER ID

(a) Register the transmitter ID for all wheels (See page TW-20).

NEXT

4	PERFORM INITIALIZATION

(a) Perform initialization (See page TW-23).

NEXT

5	READ VALUE ON INTELLIGENT TESTER

(a) Make sure that the ignition switch is off.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch to the ON position.
(d) Select "TIREPRESS" by following the prompts displayed on the intelligent tester.

TIRE PRESSURE:

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
TIREPRESS1	ID1 tire inflation pressure (Absolute pressure) / min.: 100 kPa (1 kgf/cm^2, 14 psi) max.: 449.35 kPa (4.5 kgf/cm^2, 63 psi)	Actual tire inflation pressure	If 100 kPa (1 kgf/cm^2, 14 psi) for absolute pressure is displayed, the data has not been received.*
TIREPRESS2	ID2 tire inflation pressure (Absolute pressure) / min.: 100 kPa (1 kgf/cm^2, 14 psi) max.: 449.35 kPa (4.5 kgf/cm^2, 63 psi)	Actual tire inflation pressure	If 100 kPa (1 kgf/cm^2, 14 psi) for absolute pressure is displayed, the data has not been received.*

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
TIREPRESS3	ID3 tire inflation pressure (Absolute pressure) / min.: 100 kPa (1 kgf/cm^2, 14 psi) max.: 449.35 kPa (4.5 kgf/cm^2, 63 psi)	Actual tire inflation pressure	If 100 kPa (1 kgf/cm^2, 14 psi) for absolute pressure is displayed, the data has not been received.*
TIREPRESS4	ID4 tire inflation pressure (Absolute pressure) / min.: 100 kPa (1 kgf/cm^2, 14 psi) max.: 449.35 kPa (4.5 kgf/cm^2, 63 psi)	Actual tire inflation pressure	If 100 kPa (1 kgf/cm^2, 14 psi) for absolute pressure is displayed, the data has not been received.*

HINT:
*: It may take about 5 to 6 minutes until the values are displayed. If the values are not displayed after a few minutes, perform troubleshooting according to the inspection procedure for DTCs C2121/21 to C2124/24 (See page TW-35).

Result

Condition	Proceed to
Tire pressure values are not displayed.	**A**
All tire pressure readings are equal to specified values.	**B**

B → **END**

A

REPLACE TIRE PRESSURE WARNING ECU (See page TW-87)