DTC	C2121/21	No Signal from Transmitter ID1
DTC	C2122/22	No Signal from Transmitter ID2
DTC	C2123/23	No Signal from Transmitter ID3
DTC	C2124/24	No Signal from Transmitter ID4
DTC	C2125/25	No Signal from Transmitter ID5
DTC	C2181/81	Transmitter ID1 not Received (Test Mode DTC)
DTC	C2182/82	Transmitter ID2 not Received (Test Mode DTC)
DTC	C2183/83	Transmitter ID3 not Received (Test Mode DTC)
DTC	C2184/84	Transmitter ID4 not Received (Test Mode DTC)
DTC	C2185/85	Transmitter ID5 not Received (Test Mode DTC)

DESCRIPTION

TW

Tire pressure warning valve and transmitters that are installed in the tire and wheel assemblies measure the air pressures 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 values are less than this threshold, the warning light in the combination meter comes on. The tire pressure warning valve and transmitter constantly sends radio waves to the tire pressure warning antenna and receiver.

Under the following conditions, the tire pressure warning antenna and receiver is unable to receive the signals from the tire pressure warning valve and transmitters, and a DTC is output.

– Areas, facilities, or devices that use similar radio frequencies are located in the vicinity of the vehicle.
– Devices using similar radio frequencies are used in the vehicle.

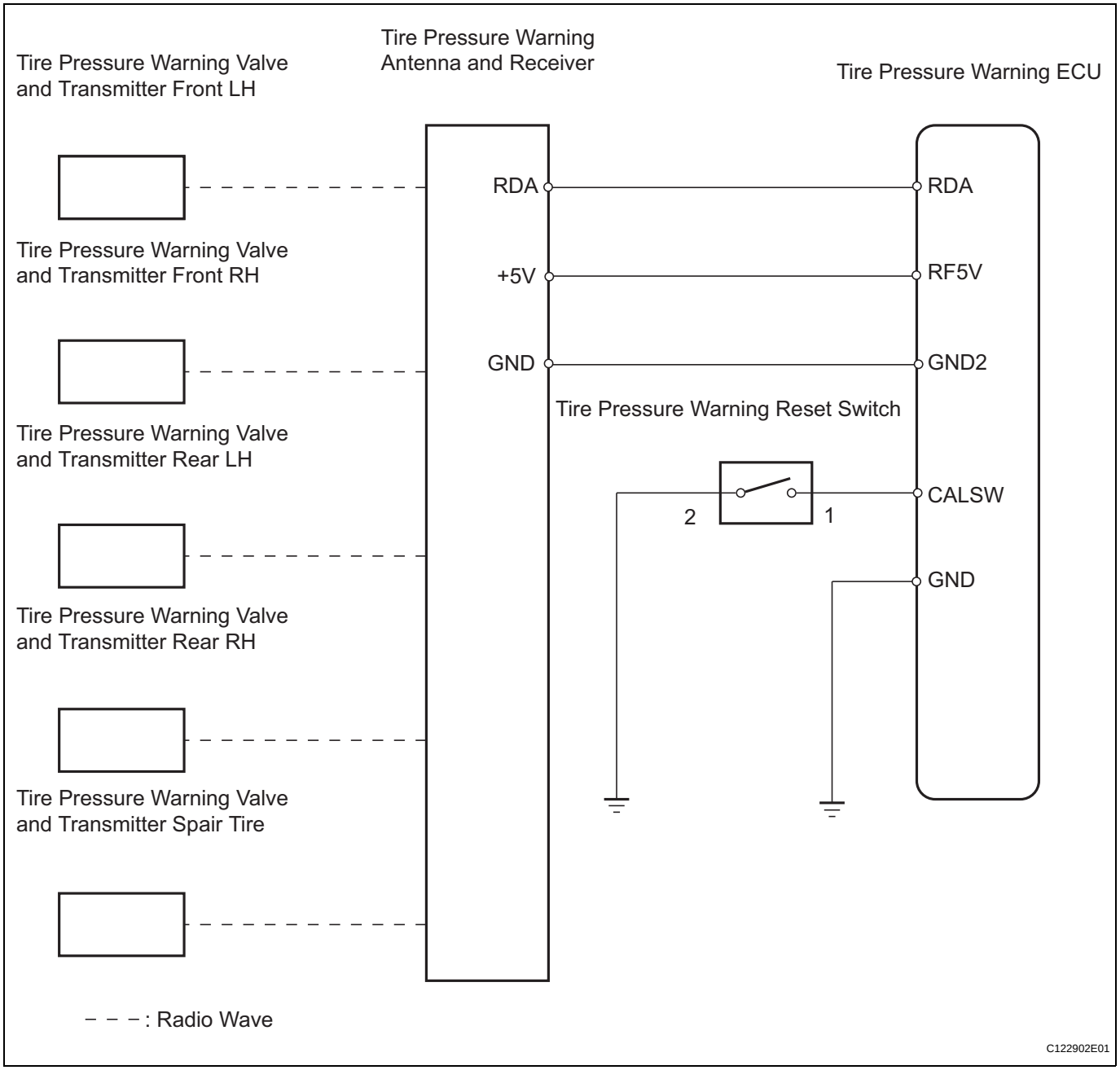
HINT:

When no signals are received for 30 minutes or more, a DTC is output.

DTCs C2121/21 to C2125/25 can only be cleared by using the tester. DTCs C2181/81 to C2185/85 can be cleared when the transmitter in the tire pressure warning valve and transmitter sends a forced transmission signal or test mode ends. DTCs C2181/81 to C2185/85 are output only in test mode.

DTC No.	DTC Detection Condition	Trouble Area
C2121/21 C2122/22 C2123/23 C2124/24 C2125/25	When no signals received for 30 minutes or more, vehicle speed of 5 mph (8 km/h) or more detected and still no signals received for 12 minutes or more.	• Tire pressure warning antenna and receiver • Tire pressure warning valve and transmitter • Tire pressure warning ECU
C2181/81 C2182/82 C2183/83 C2184/84 C2185/85	Malfunction in transmission / reception circuit	• Tire pressure warning antenna and receiver • Tire pressure warning valve and transmitter • Tire pressure warning ECU • Wire harness or connector

WIRING DIAGRAM



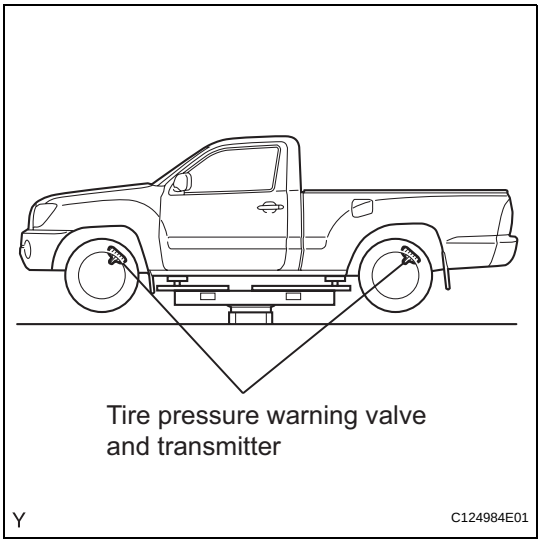
NOTICE:

- **Tires and wheels without tire pressure warning valves and transmitters are used.**
- **When replacing the tire pressure warning ECU, read the IDs stored in the ECU using the intelligent tester and note them down before removal (See page TW-28).**
- **It is necessary to perform initialization (See page TW-15) after registration (See page TW-11) the transmitter IDs into the tire pressure warning ECU after the tire pressure warning ECU and/or tire pressure warning valve and transmitter have been replaced.**

1	**IDENTIFY TRANSMITTER (CORRESPONDING TO DTC)**

(a) Set the tire pressures to the appropriate specified values.

TW



(b) Jack up the vehicle.
(c) Select TIREPRESS by following the prompts displayed on the intelligent tester.

Item	Measurement Item/ Range (Display)
TIREPRESS1	ID1 tire pressure/ minimum: 0 kPa (0 kgf/cm^2, 0 psi) maximum: 637.5 kPa (6.5 kgf/cm^2, 92.5 psi)
TIREPRESS2	ID2 tire pressure/ minimum: 0 kPa (0 kgf/cm^2, 0 psi) maximum: 637.5 kPa (6.5 kgf/cm^2, 92.5 psi)
TIREPRESS3	ID3 tire pressure/ minimum: 0 kPa (0 kgf/cm^2, 0 psi) maximum: 637.5 kPa (6.5 kgf/cm^2, 92.5 psi)
TIREPRESS4	ID4 tire pressure/ minimum: 0 kPa (0 kgf/cm^2, 0 psi) maximum: 637.5 kPa (6.5 kgf/cm^2, 92.5 psi)
TIREPRESS5	ID5 tire pressure/ minimum: 0 kPa (0 kgf/cm^2, 0 psi) maximum: 637.5 kPa (6.5 kgf/cm^2, 92.5 psi)

(d) Rapidly release the tire pressure from any tire to 40 kPa (0.4 kgf/cm^2, 5.8 psi)/ 30 seconds or more.
(e) Check the DATA LIST.

TW

Result

Condition	Detection Condition
One of TIREPRESS data (ID1 to ID5) changed	Normal
No TIREPRESS data changed	Transmitter corresponding to DTC

NOTICE:
- **It may take up to 1 minute to display the updated tire pressure data.**
- **When none of the TIREPRESS data (IDs 1 to 5) change, reset the tire pressure to the appropriate specified value and rotate the tires 90 to 270 degrees and recheck.**
- **When the transmitter is normal, record the tire location and the transmitter ID.**

(f) When one of TIREPRESS data (IDs 1 to 5) changes, repeat the same procedure on the rest of tires one by one to identify which tire pressure warning valve and transmitter the DTC corresponds to.
(g) Inspect all transmitters of the tires.

Result

Result	Proceed to
One or more of transmitters abnormal	A
All normal	B
All abnormal	C

B → END

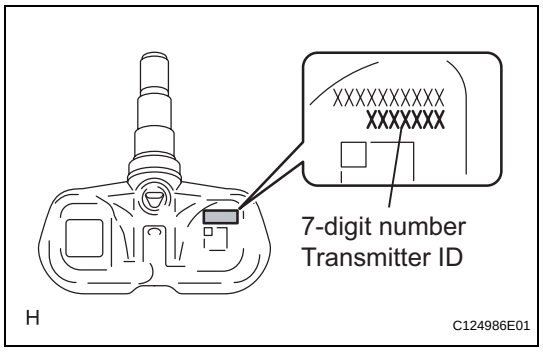
C → Go to step 3

A

2 INSPECT TIRE PRESSURE WARNING VALVE AND TRANSMITTER

(a) Select REGIT ID CODE by following the prompts displayed on the intelligent tester.

Item	Measurement Item/ Range (Display)
REGIT ID1 CODE	Registered ID1 code/ minimum: 0 maximum: FFFFFFF
REGIT ID2 CODE	Registered ID2 code/ minimum: 0 maximum: FFFFFFF
REGIT ID3 CODE	Registered ID3 code/ minimum: 0 maximum: FFFFFFF
REGIT ID4 CODE	Registered ID4 code/ minimum: 0 maximum: FFFFFFF
REGIT ID5 CODE	Registered ID5 code/ minimum: 0 maximum: FFFFFFF



(b) Remove the identified tire pressure warning valve and transmitter from the tire, and check its ID number (See page TW-95).

(c) Check whether the recorded transmitter ID and the actual transmitter ID match.

Result

Result	Proceed to
Matched	A
Unmatched	B

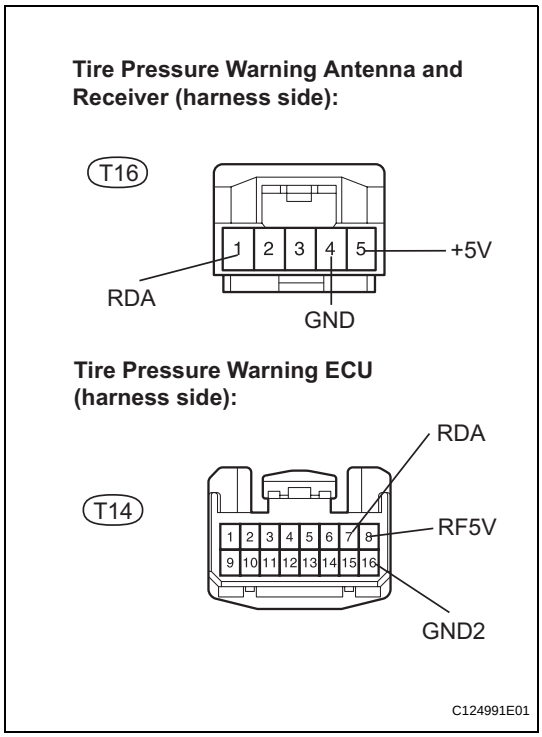
A → REPLACE TIRE PRESSURE WARNING VALVE AND TRANSMITTER

B

PERFORM REGISTRATION (TRANSMITTER ID)

TW

3	CHECK HARNESS AND CONNECTOR (TIRE PRESSURE WARNING RECEIVER - TIRE PRESSURE WARNING ECU)



(a) Disconnect the connectors from the tire pressure warning ECU and tire pressure warning antenna and receiver.

(b) Measure the resistance.

Standard resistance

Tester Connection	Specified Condition
RDA (T14-7) - RDA (T16-1)	Below 1 Ω
RF5V (T14-8) - +5V (T16-5)	Below 1 Ω
GND2 (T14-16) - GND (T16-4)	Below 1 Ω
RDA (T14-7) - Body ground	10 kΩ or higher
RF5V (T14-8) - Body ground	10 kΩ or higher
GND2 (T14-16) - Body ground	10 kΩ or higher

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

OK

4	READ VALUE OF DATA LIST (TIREPRESS)

(a) Turn the ignition switch to the OFF position, and then turn it to the ON position.

(b) Read the TIREPRESS data on the intelligent tester screen.

OK:

All tire pressures readings are equal to the specified values.

NOTICE:

It may take up to 1 minute to display the data.

OK → **END**

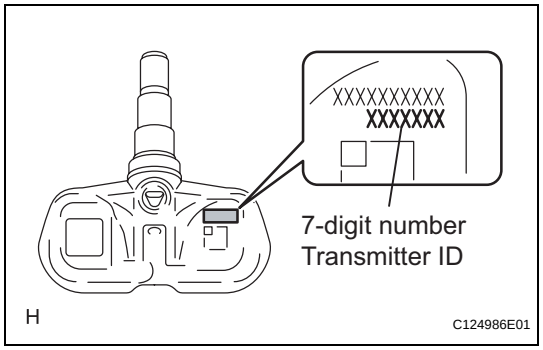
NG

5	CHECK ID CODE (TIRE PRESSURE WARNING VALVE AND TRANSMITTER)

(a) Select REGIT ID CODE by following the prompts displayed on the intelligent tester.

Item	Measurement Item/ Range (Display)
REGIT ID1 CODE	Registered ID1 code/ minimum: 0 maximum: FFFFFFF

Item	Measurement Item/ Range (Display)
REGIT ID2 CODE	Registered ID2 code/ minimum: 0 maximum: FFFFFFF
REGIT ID3 CODE	Registered ID3 code/ minimum: 0 maximum: FFFFFFF
REGIT ID4 CODE	Registered ID4 code/ minimum: 0 maximum: FFFFFFF
REGIT ID5 CODE	Registered ID5 code/ minimum: 0 maximum: FFFFFFF



(b) Remove tire pressure warning valve and transmitter from any of tire, and check its ID number (See page TW-95).

(c) Check whether the recorded transmitter ID and the actual transmitter ID match.

Result

Result	Proceed to
Matched	**A**
Unmatched	**B**

A → **REPLACE TIRE PRESSURE WARNING ANTENNA AND RECEIVER**

B

PERFORM REGISTRATION (TRANSMITTER ID)