

<b>Last Modified:</b> 4-17-2018	6.8:8.0.48	<b>Doc ID:</b> RM000000ZUQ008X
<b>Model Year Start:</b> 2007	<b>Model:</b> Camry	<b>Prod Date Range:</b> [01/2006 -       ]
<b>Title:</b> TIRE AND WHEEL: TIRE PRESSURE WARNING SYSTEM: C2121/21-C2125/25,C2181/81-C2185/85; No Signal from Transmitter ID1 in Main Mode; 2007 MY Camry [01/2006 -       ]		

<b>DTC</b>	<b>C2121/21</b>	<b>No Signal from Transmitter ID1 in Main Mode</b>
------------	-----------------	--

<b>DTC</b>	<b>C2122/22</b>	<b>No Signal from Transmitter ID2 in Main Mode</b>
------------	-----------------	--

<b>DTC</b>	<b>C2123/23</b>	<b>No Signal from Transmitter ID3 in Main Mode</b>
------------	-----------------	--

<b>DTC</b>	<b>C2124/24</b>	<b>No Signal from Transmitter ID4 in Main Mode</b>
------------	-----------------	--

<b>DTC</b>	<b>C2125/25</b>	<b>No Signal from Transmitter ID5 in Main Mode</b>
------------	-----------------	--

<b>DTC</b>	<b>C2181/81</b>	<b>Transmitter ID1 not Received (Test Mode DTC)</b>
------------	-----------------	---

<b>DTC</b>	<b>C2182/82</b>	<b>Transmitter ID2 not Received (Test Mode DTC)</b>
------------	-----------------	---

<b>DTC</b>	<b>C2183/83</b>	<b>Transmitter ID3 not Received (Test Mode DTC)</b>
------------	-----------------	---

<b>DTC</b>	<b>C2184/84</b>	<b>Transmitter ID4 not Received (Test Mode DTC)</b>
------------	-----------------	---

<b>DTC</b>	<b>C2185/85</b>	<b>Transmitter ID5 not Received (Test Mode DTC)</b>
------------	-----------------	---

## **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.

The tire pressure warning valve and transmitters constantly send radio waves to the tire pressure warning antenna and receiver.

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

- 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 51 minutes or more, a DTC is output.

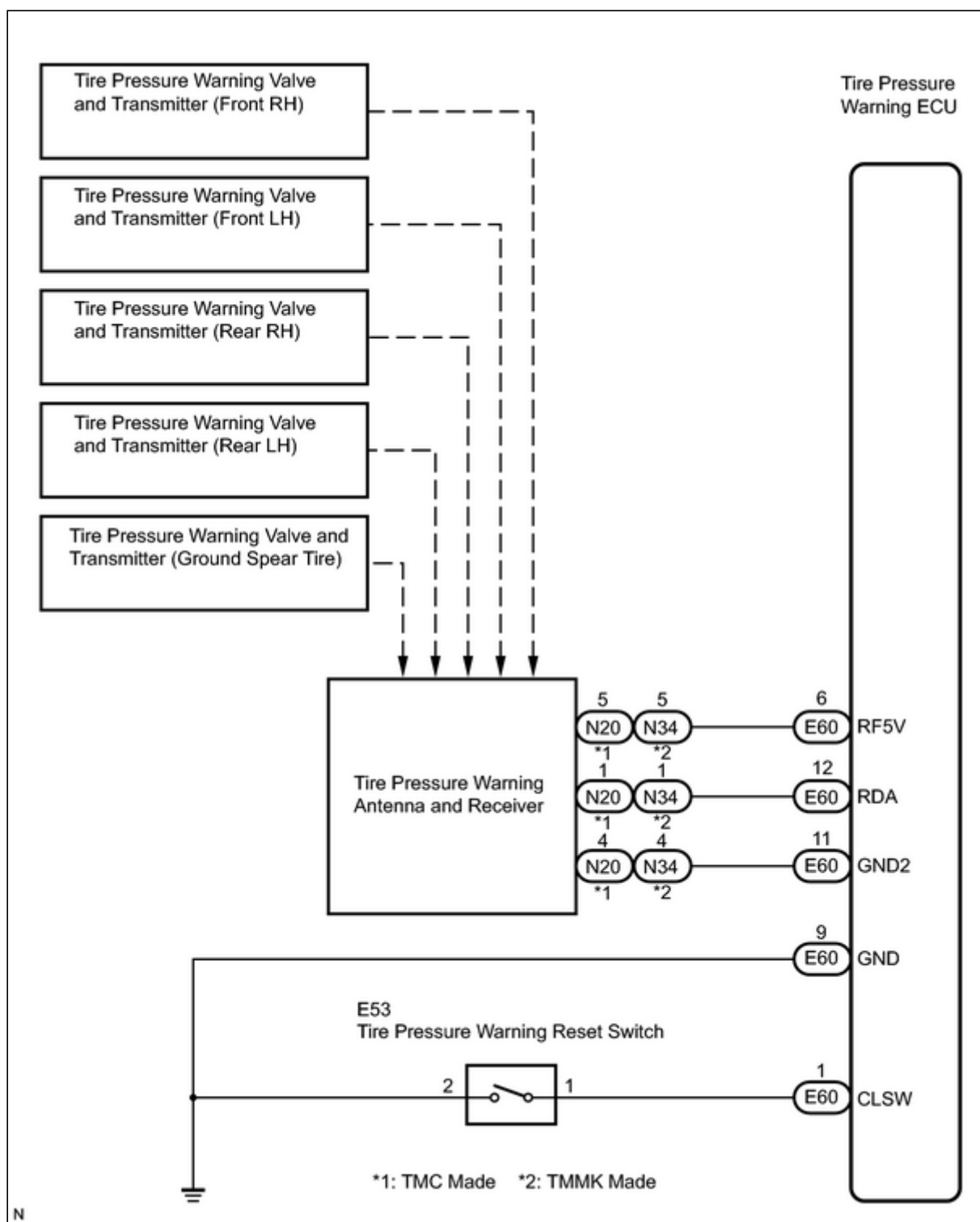
DTCs from C2121/21 to C2125/25 can only be cleared by using the tester. DTCs from C2181/81 to C2184/84 or C2185/85 can be cleared when the transmitter in the tire pressure warning valve and transmitter sends a forced transmission signal or test mode ends. DTCs from C2181/81 to C2184/84 or C2185/85 are output only in test mode.

DTC NO.	DTC DETECTING CONDITION	TROUBLE AREA
C2121/21 C2122/22 C2123/23 C2124/24 C2125/25	These DTCs are detected when no signals are received for 51 minutes or more.	<ul style="list-style-type: none"><li>• Tire pressure warning valve and transmitter</li><li>• Tire pressure warning antenna and receiver</li><li>• Wire harness or connector</li><li>• Tire pressure warning ECU</li></ul>
C2181/81 C2182/82 C2183/83 C2184/84 C2185/85	Malfunction in the transmitting/receiving circuit	<ul style="list-style-type: none"><li>• Tire pressure warning valve and transmitter</li><li>• Tire pressure warning antenna and receiver</li><li>• Wire harness or connector</li><li>• Tire pressure warning ECU</li></ul>

**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.
- DTCs C2125/25 and C2185/85 are used only when the vehicle is equipped with a full-size spare tire.

## **WIRING DIAGRAM**



## 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 **INFO** after registration **INFO** of the transmitter IDs into the tire pressure warning ECU after the ECU and/or valve and transmitter has been replaced.

### HINT:

Set the tire pressure to the specified value.

## PROCEDURE

## 1. CHECK FREQUENCY RECEIVING CONDITION

(a) Check if the vehicle is not located in areas such as described below:

- (1) Facilities or devices that use similar radio frequencies are located in the vicinity of the vehicle.

### HINT:

If the vehicle is located in areas described above, the tire pressure warning light may come on only in a particular area.

- (2) Devices using similar radio frequencies are used in the vehicle.

OK:

Facilities, or devices that use similar radio frequencies are not located in the vicinity of the vehicle.

### HINT:

Radio frequency may be interrupted due to surroundings or devices installed by user.

**NG**  **CHECK IF ANY DEVICE IS INSTALLED BY USER**

**OK**



## 2. IDENTIFY TRANSMITTER CORRESPONDING TO DTC

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

Cold tire inflation pressure:

TIRE SIZE	FRONT KPA (KGF/CM <sup>2</sup> , PSI)	REAR KPA (KGF/CM <sup>2</sup> , PSI)
P215/60R16 94V	210 (2.1, 31)	210 (2.1, 31)
P215/55R17 93V	220 (2.2, 32)	220 (2.2, 32)

(b) Select "TIREFPRESS" by following the prompts displayed on the intelligent tester.

TESTER DISPLAY	MEASUREMENT ITEM/DISPLAY	NORMAL CONDITION	DIAGNOSTIC NOTE
TIREFPRESS1	ID1 tire inflation pressure/ min.: 0 kPa (0 kgf/cm <sup>2</sup> , 0 psi), max.: 637.5 kPa (6.48 kgf/cm <sup>2</sup> , 92.2 psi)	Actual tire inflation pressure	-
TIREFPRESS2	ID2 tire inflation pressure/ min.: 0 kPa (0 kgf/cm <sup>2</sup> , 0 psi), max.: 637.5 kPa (6.48 kgf/cm <sup>2</sup> , 92.2 psi)	Actual tire inflation pressure	-

TESTER DISPLAY	MEASUREMENT ITEM/DISPLAY	NORMAL CONDITION	DIAGNOSTIC NOTE
TIREPRESS3	ID3 tire inflation pressure/ min.: 0 kPa (0 kgf/cm <sup>2</sup> , 0 psi), max.: 637.5 kPa (6.48 kgf/cm <sup>2</sup> , 92.2 psi)	Actual tire inflation pressure	-
TIREPRESS4	ID4 tire inflation pressure/ min.: 0 kPa (0 kgf/cm <sup>2</sup> , 0 psi), max.: 637.5 kPa (6.48 kgf/cm <sup>2</sup> , 92.2 psi)	Actual tire inflation pressure	-
TIREPRESS5	ID5 tire inflation pressure/ min.: 0 kPa (0 kgf/cm <sup>2</sup> , 0 psi), max.: 637.5 kPa (6.48 kgf/cm <sup>2</sup> , 92.2 psi)	Actual tire inflation pressure	-

(c) Rapidly reduce the tire pressure for each wheel at least 40 kPa (0.41 kg/cm<sup>2</sup>, 5.8 psi) within 30 seconds.

(d) Check the DATA LIST.

**NOTICE:**

- It takes about 1 minute or more to display the updated tire pressure data.
- When no "TIREPRESS" data has changed, reset the tire pressure to the appropriate specified value and rotate the tire 90 to 270 degrees. Then rapidly release the tire pressure and recheck it.
- Record the transmitter ID of which "TIREPRESS" data corresponds to each tire.

(e) After confirming that one of "TIREPRESS" data for one tire (ID1 to ID4 or ID5) has changed, repeat this procedure one by one. Identify the transmitter that corresponds to DTC.

CONDITION	PROCEED TO
One or more of transmitters abnormal	A
All normal	B
All abnormal	C

**A ► GO TO STEP 4**

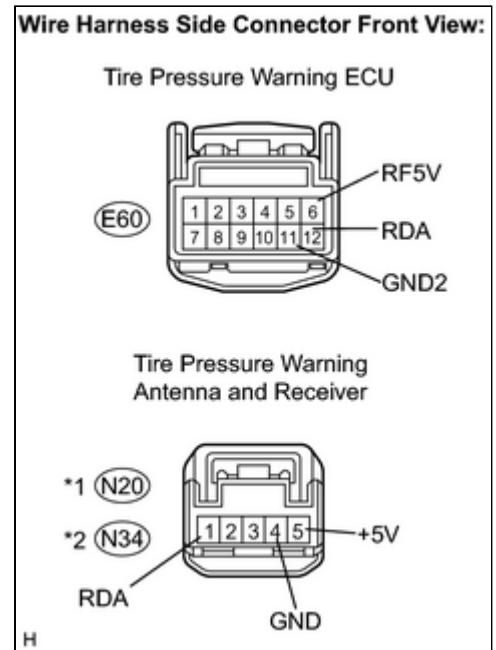
**B ► END**

**C**



### 3. CHECK HARNESS AND CONNECTOR (ECU - RECEIVER)

(a) Disconnect the E60 ECU connector.



- (b) Disconnect the N20 receiver connector. \*1
- (c) Disconnect the N34 receiver connector. \*2
- (d) Measure the resistance according to the value(s) in the table below.
- Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
E60-12 (RDA) - N20-1 (RDA) *1 E60-12 (RDA) - N34-1 (RDA) *2	Below 1 $\Omega$
E60-11 (GND2) - N20-4 (GND) *1 E60-11 (GND2) - N34-4 (GND) *2	
E60-6 (RF5V) - N20-5 (+5V) *1 E60-6 (RF5V) - N34-5 (+5V)	

**HINT:**

- \*1: TMC Made
- \*2: TMMK Made

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

**OK**

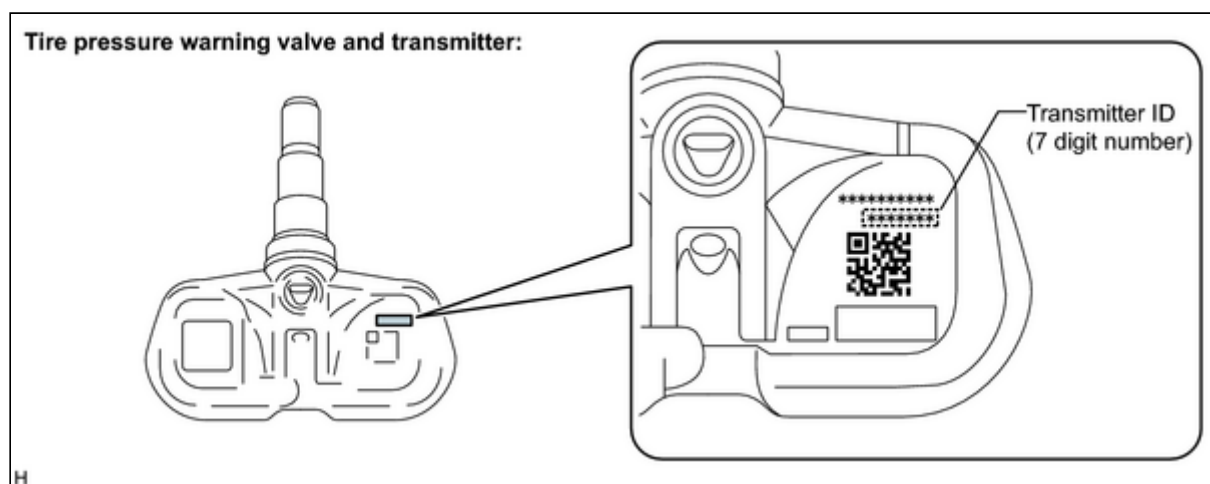


**4. INSPECT TIRE PRESSURE WARNING ECU**

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

TESTER DISPLAY	MEASUREMENT ITEM/DISPLAY	NORMAL CONDITION	DIAGNOSTIC NOTE
REGIT ID1 CODE	Registered ID1 code/ min.: 0, max.: FFFFFFF*	The ID No. registered in the transmitter ID1 is displayed	*: Displayed only when the ID No. is not registered.
REGIT ID2 CODE	Registered ID2 code/ min.: 0, max.: FFFFFFF*	The ID No. registered in the transmitter ID2 is displayed	*: Displayed only when the ID No. is not registered.
REGIT ID3 CODE	Registered ID3 code/ min.: 0, max.: FFFFFFF*	The ID No. registered in the transmitter ID3 is displayed	*: Displayed only when the ID No. is not registered.
REGIT ID4 CODE	Registered ID4 code/ min.: 0, max.: FFFFFFF*	The ID No. registered in the transmitter ID4 is displayed	*: Displayed only when the ID No. is not registered.
REGIT ID5 CODE	Registered ID5 code/ min.: 0, max.: FFFFFFF*	The ID No. registered in the transmitter ID5 is displayed	*: Displayed only when the ID No. is not registered.

(b) Check the ID number on the identified transmitter by removing it from the tire and wheel.



(c) Confirm that the ID number on the transmitter and recorded transmitter ID match.

RESULT	PROCEED TO
Match	A
Do not match	B

**B** ► **GO TO STEP 6**

**A**  
▼


## 5. REPLACE TIRE PRESSURE WARNING VALVE AND TRANSMITTER

HINT: 

NEXT



## 6. REGISTRATION OF TRANSMITTER ID

- (a) Perform registration  .
- (b) Set the tire air pressure of all wheels to the specified value (For the specified value, See step 2).

NEXT



## 7. PERFORM INITIALIZATION

- (a) Perform initialization  .

NEXT



## 8. READ VALUE USING DATA LIST

- (a) Turn the ignition switch off, and then turn it on (IG).
- (b) Select "TIREPRESS" by following the prompts displayed on the intelligent tester.

**HINT:**

It may take up to 1 minute or more to display the tire pressure data.

CONDITION	PROCEED TO
All tire pressure readings are equal to specified values.	A
Tire pressure values are not displayed.	B


**A**  **END**

**B**





## 9. REPLACE TIRE PRESSURE WARNING ANTENNA AND RECEIVER

(a) Replace the tire pressure warning antenna and receiver  .

### NEXT



## 10. READ VALUE USING DATA LIST

- (a) Turn the engine switch off, and then turn it on(IG).  
(b) Select "TIREPRESS" by following the prompts displayed on the intelligent tester.

### HINT:

It may take for 1 minute or more to display the tire pressure data.

CONDITION	PROCEED TO
All tire pressure readings are equal to specified values.	A
Tire pressure values are not displayed.	B

**B**  REPLACE TIRE PRESSURE WARNING ECU

**A**  END

