

<b>Last Modified:</b> 4-17-2018	6.8:8.0.48	<b>Doc ID:</b> RM000000Z81008X
<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: C2177/77; Initialization not Completed; 2007 MY Camry [01/2006 - ]		

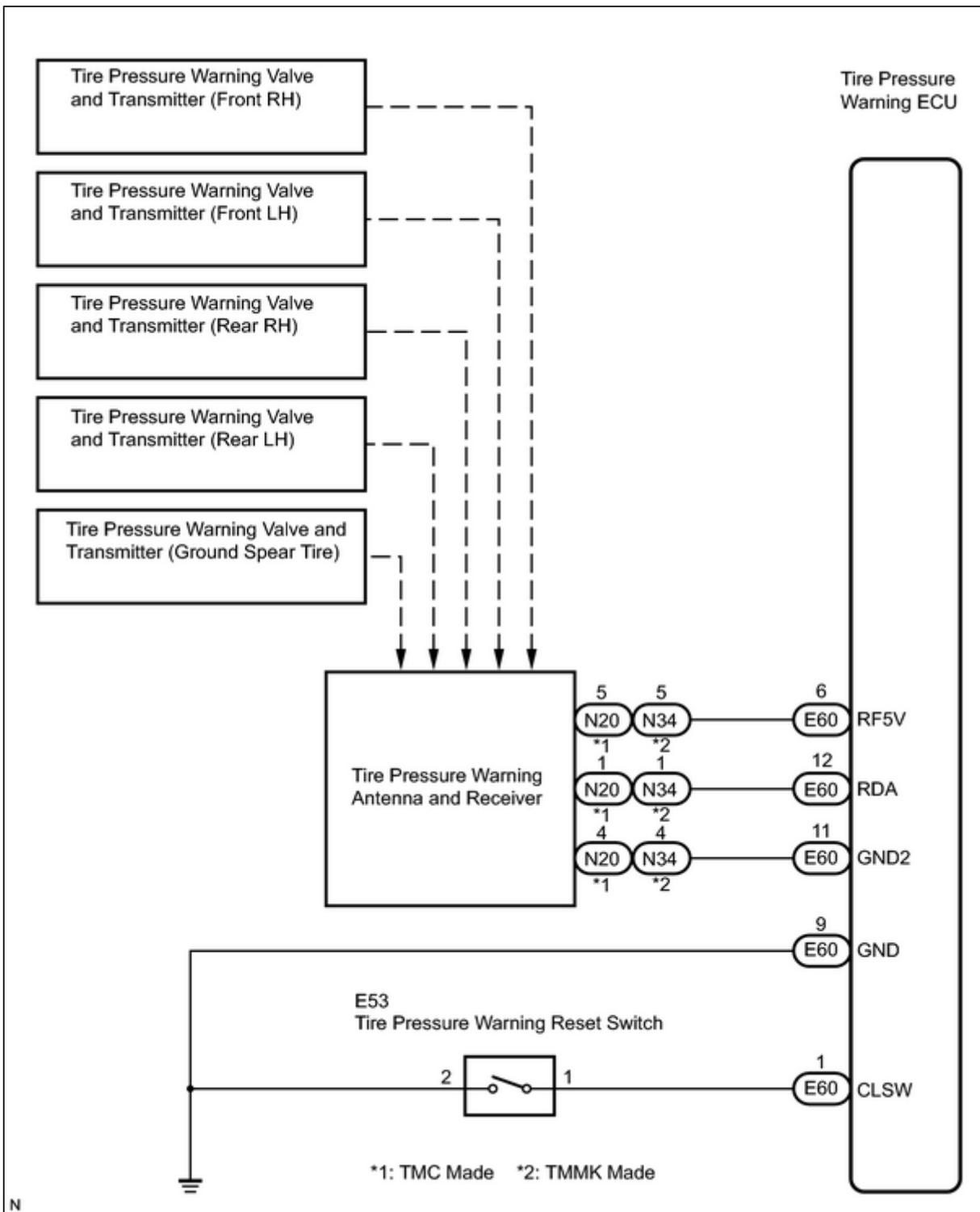
<b>DTC</b>	<b>C2177/77</b>	<b>Initialization not Completed</b>
------------	-----------------	-------------------------------------

## DESCRIPTION

Initialization is necessary after replacing any of the ECU, tires with different tire pressure, or tire pressure warning valve and transmitter, after rotating the tires or when a new vehicle is delivered.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
C2177/77	Initialization is not completed after vehicle speed of 5 mph (8 km/h) or more continues for 20 minutes or more (total).	<ul style="list-style-type: none"> <li>• Tire pressure warning valve and transmitter</li> <li>• Tire pressure warning ECU</li> <li>• Tire pressure warning antenna and receiver</li> <li>• Tire pressure warning reset switch</li> <li>• Wire harness or connector</li> </ul>

## WIRING DIAGRAM



## INSPECTION PROCEDURE

### NOTICE:

- When replacing the tire pressure warning ECU, read the IDs stores in the old 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.

## 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**



<b>2.</b>	<b>IDENTIFY TRANSMITTER CORRESPONDING TO DTC</b>
-----------	--------------------------------------------------

(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 "TIREPRESS" by following the prompts displayed on the intelligent tester.

**TIRE PRESSURE:**

TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	DIAGNOSTIC CODE
TIREPRESS1	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	-
TIREPRESS2	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	-
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	-

TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	DIAGNOSTIC CODE
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 minutes 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**

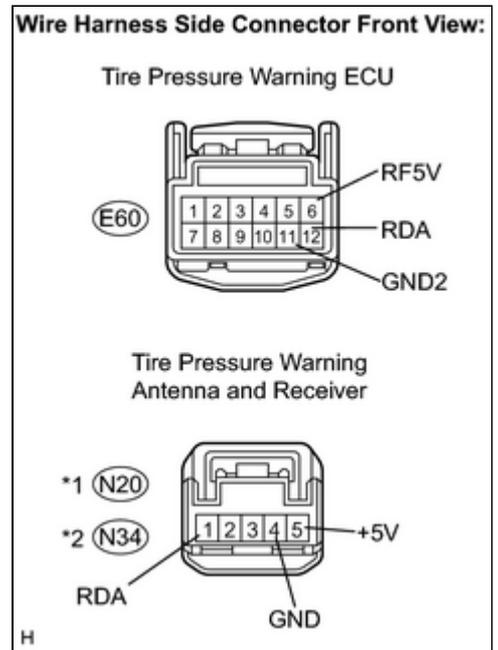
**B ► END**

**C**



<b>3.</b>	<b>CHECK HARNESS AND CONNECTOR (ECU - RECEIVER)</b>
-----------	-----------------------------------------------------

(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) - N34-11 (RDA) *2	Below 1Ω
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) *2	

**HINT:**

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

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

**OK**



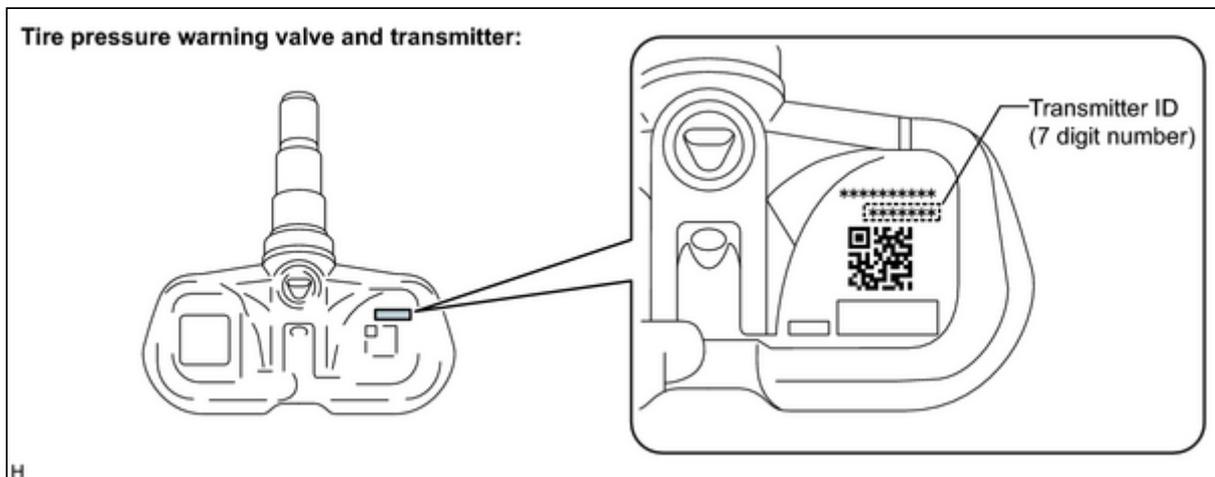
**4. INSPECT TIRE PRESSURE WARNING ECU**

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

## TIRE PRESSURE:

TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	DIAGNOSTIC CODE
TIREPRESS1	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	-
TIREPRESS2	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	-
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	-

(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 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)

**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 for 1 minute or 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 tier pressure readings equal to specified value.	A
Tire pressure values are not displayed.	B

**B ▶ REPLACE TIRE PRESSURE WARNING ECU**

**A ▶ END**

