

DIAGNOSIS SYSTEM

1. CHECK BATTERY VOLTAGE

Standard voltage:

11 to 14 V

If the voltage is below 11 V, recharge the battery before proceeding.

2. CHECK DLC3

- (a) The vehicle's tire pressure warning ECU conforms to ISO 14230 and ISO 9141-2 for communication protocol. The terminals arrangement of the DLC3 complies with ISO 15031-3 and meets the ISO 14230 and ISO 9141-2 formats.

Verify the conditions listed in the table below

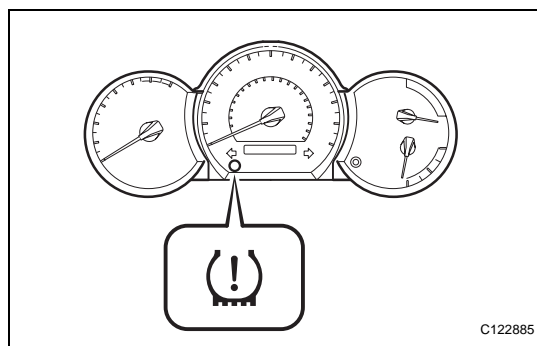
Terminal No. (Symbol)	Connection/ Voltage or Resistance	Condition
7 (SIL)	Bus + Line/ Pulse generation	During transmission
4 (CG)	Chassis Ground to Body Ground/ 1 Ω or less	Always
16 (BAT)	Battery Positive to Body Ground/ 11 to 14 V	Always

HINT:

If the intelligent tester display shows a communication error message when the cable of the intelligent tester is connected to the DLC3, the ignition switch is turned ON and the tester is turned ON, there is a problem on the vehicle side or tester side.

- If communication is normal when the tester is connected to another vehicle, inspect the DLC3 of the original vehicle.
- If communication is still not possible when the tester is connected to another vehicle, the problem may be in the tester itself. Consult the Service Department listed in the tester operator's manual.

TW



3. DIAGNOSIS SYSTEM

(a) Warning light

- (1) When there is a problem in the tire pressure warning system, the tire pressure warning light blinks at 0.5 second intervals (1Hz).

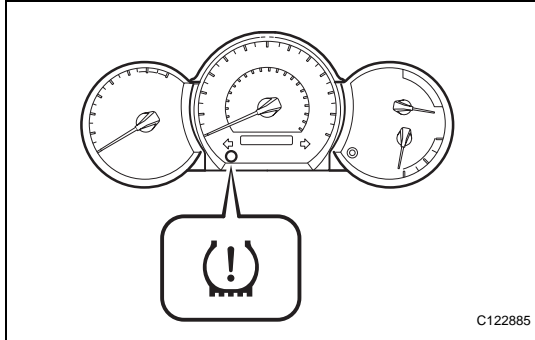
NOTICE:

When the malfunction has been repaired, the tire pressure warning light does not come on.

(b) Normal mode

- (1) DTCs are stored in the tire pressure warning ECU and can be read by observing the blinking patterns of the tire pressure warning light or by using the intelligent tester (See page [TW-26](#)).

- (c) Test mode
 - (1) By switching from normal mode to test mode (signal check), the tire pressure warning receiver, each tire pressure warning valve and transmitter and vehicle speed sensor can be inspected (See page TW-17).



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4. CHECK WARNING LIGHT

- (a) Turn the ignition switch to the ON position.
- (b) Check that the tire pressure warning light comes on for 3 seconds. If the warning light does not come on for 3 seconds, troubleshoot the tire pressure warning light circuit.

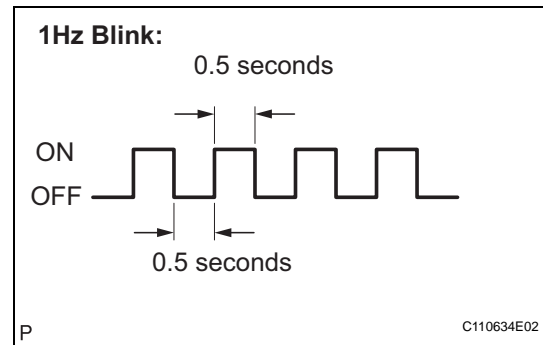
Trouble Area	See Procedure
Tire pressure warning light circuit	TW-61

5. TIRE PRESSURE WARNING LIGHT CHART

HINT:

The table below indicates the state of the tire pressure warning light after the ignition switch is turned on.

Condition	Immediately after IG turned ON	Always						
	Comes on for 3 seconds	Goes off	Comes on	Blinks (*1)	Blinks (*2)	Blinks (*3)	Outputs DTC	Comes on 3 times (1 second intervals)
Normal	○	○	-	-	-	-	-	-
Low tire pressure	○	-	○	-	-	-	-	-
System failure	○	-	-	○	-	-	-	-
ECU connector connection poor	-	-	○	-	-	-	-	-
TC grounded (no DTCs output)	○	-	-	-	○	-	-	-
TC grounded (DTCs output)	○	-	-	-	-	-	○	-
Test mode	○	-	-	-	-	○	-	-
Entering initialization	○	-	-	-	-	-	-	○

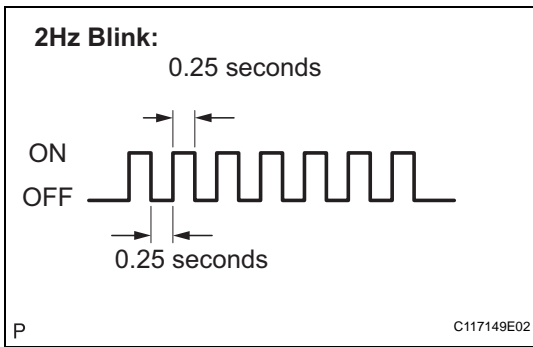


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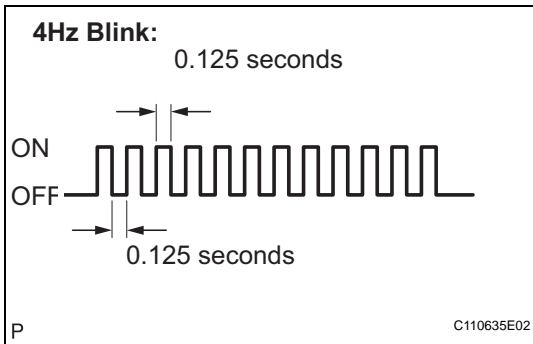
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*1: Blinks at 0.5 second intervals (1Hz).

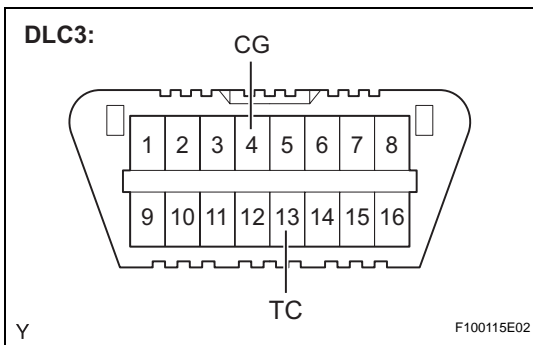
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*2: Blinks at 0.25 second intervals (2Hz).



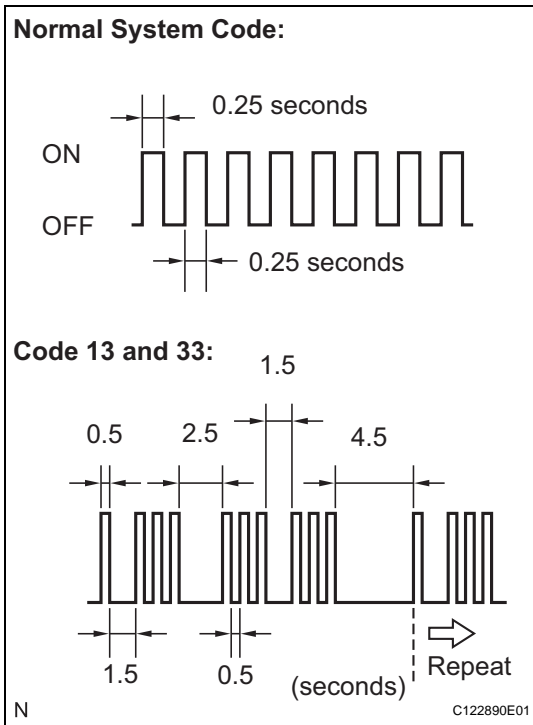
*3: Blinks at 0.125 second intervals (4Hz).



DTC CHECK / CLEAR

1. CHECK DTC (USING SST CHECK WIRE)

- (a) Check DTCs.
 - (1) Using SST, connect terminals TC and CG of the DLC3.
SST 09843-18040
 - (2) Turn the ignition switch to the ON position.



- (3) Read and record any DTCs indicated by the tire pressure warning light in the combination meter. Refer to the illustration for examples of the normal system code and DTCs 13 and 33.