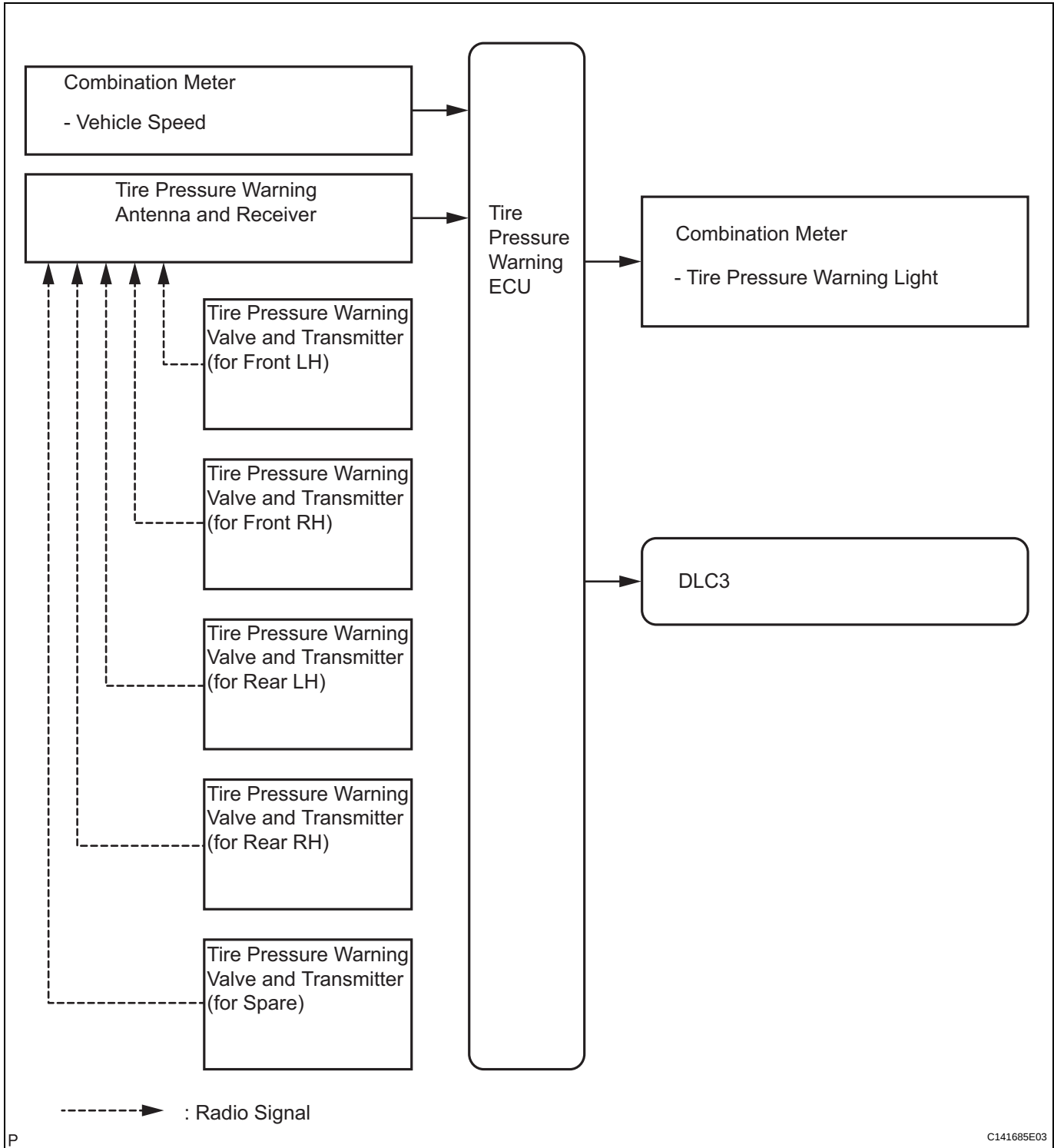


SYSTEM DIAGRAM



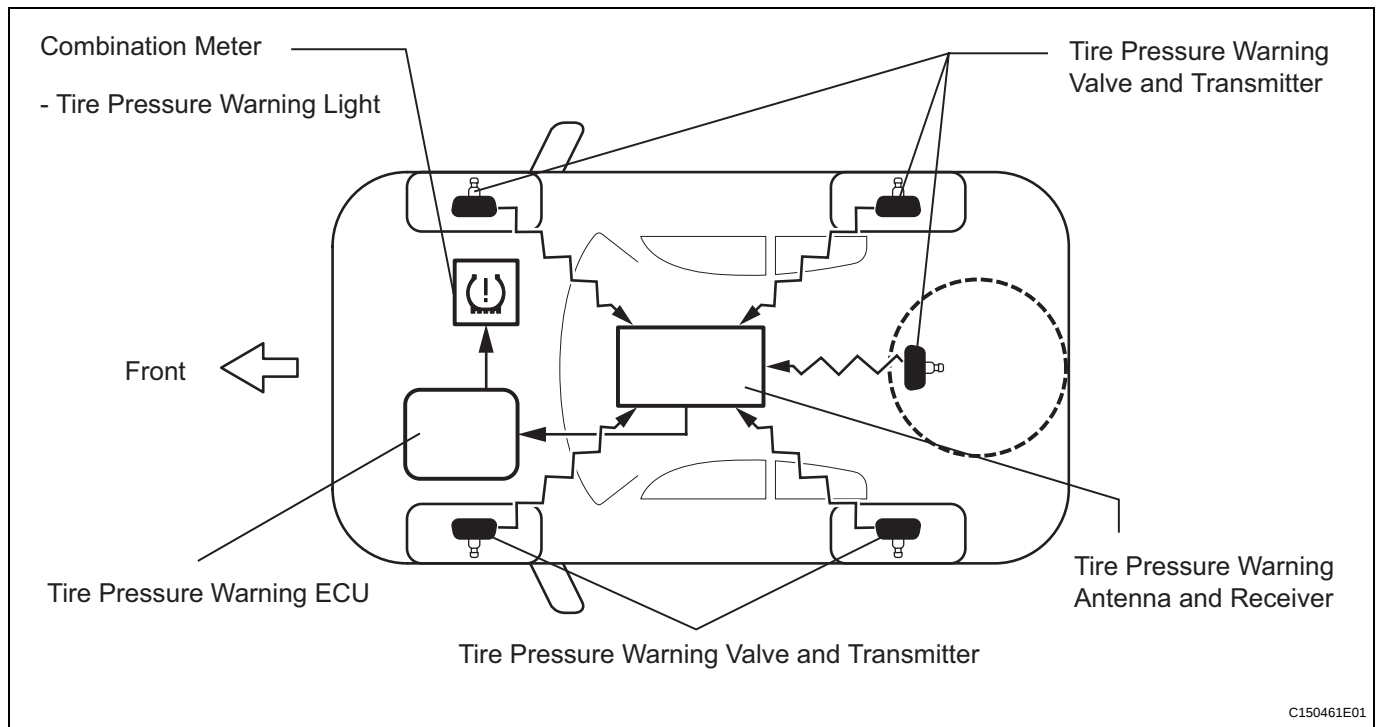
HINT:

The tire pressure warning valve and transmitter sends information on the temperature inside the tire, the ID, and the tire pressure.

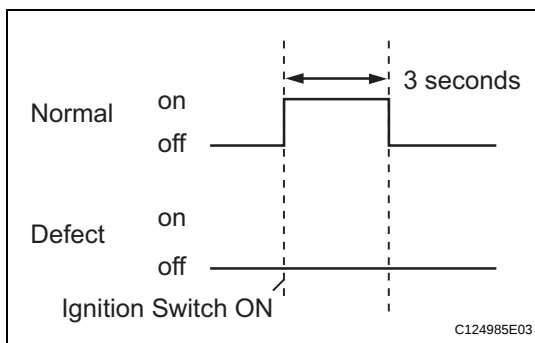
SYSTEM DESCRIPTION

1. DESCRIPTION OF SYSTEM

- (a) Each tire pressure warning valve and transmitter is equipped with a tire pressure sensor and a transmitter and is installed in each tire wheel assembly. The sensor measures the tire pressure. The measured value and transmitter ID 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 from the tire pressure warning antenna and receiver. If the transmitter ID has already been registered, the ECU compares the measured air pressure value with the standard value. When the value is less than the standard value registered in the tire pressure warning ECU, the warning light on the combination meter comes on.



TW



2. INITIAL CHECK

- (a) The tire pressure warning light turns on for 3 seconds after the ignition switch is turned ON, and then goes off.

HINT:

If the warning light does not turn on for 3 seconds, troubleshoot the pressure warning light circuit.

Trouble Area	Proceed to
Tire pressure warning light circuit	TW-58

3. WHEN TIRE PRESSURE WARNING LIGHT IS LIT

- (a) When the tire pressure warning light does not go off, or when it comes on during driving, check the tire pressure. If the tire pressure warning light comes on within several hours after adjusting the tire pressure, the tire may have a slow air leak.
- (b) Under the following conditions, the system may not function properly.
- Facilities or devices that use similar radio frequencies are located in the vicinity of the vehicle.
 - A radio device of similar frequency is used in the vehicle.
 - A large amount of snow or ice is stuck to the vehicle, especially onto the wheels and around the wheel houses.
 - The battery of the sensor has been depleted.
 - Tires without a tire pressure warning valve and transmitter are used.
 - Tire chains are used.
 - When the full-size spare tire is not within the receivable range of the electric wave, a signal may not be received because the spare tire is fixed. Accordingly, the system may not function properly. If there is a possibility that the tire pressure warning system does not receive a signal from the spare tire, rotate the tire 90°.
 - If any wheels other than the specified ones are used, the system may not function properly because interference may prevent the radio waves from being correctly transmitted from the tire pressure sensor.
 - Depending on the tire type, the system may not function properly even though the specified wheels are used.
- (c) The average usage life of the grommet of the tire pressure warning valve and transmitter is approximately 5 years, at which time it must be replaced.
If air is leaking from the tire but the tire is less than 5 years old and there is no problem with grommets, retighten the valve nut.
- (d) After removing and installing the ECU or a sensor, check for a diagnostic trouble code and verify that it is a normal code.

4. FUNCTION OF COMPONENTS

Components	Function
Tire pressure warning valve and transmitter	Combined as a single unit with a disc wheel air valve, it measures tire pressure and temperature and transmits an ID number for measurement value and identification. Has a built-in battery.
Tire pressure warning antenna and receiver	Receives and transmits a necessary signal from the transmitter to the tire pressure warning ECU.
Tire pressure warning ECU	Receives the signal from the receiver and identifies it as vehicle's own signal. If the measured value is equal to or lower than the specified value, it transmits a signal so that the tire pressure warning light on the combination meter comes on.

Components	Function
Tire pressure warning light	Located in the combination meter, it informs the driver of lowered tire air pressure and system failure.