

Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2007 LEXUS GS OEM Service and Repair Workshop Manual

[Go to manual page](#)

Last Modified: 10-07-2024	6.11:8.1.0	Doc ID: RM100000002HALX
Model Year Start: 2024	Model: GX550	Prod Date Range: [12/2023 -]
Title: TIRE PRESSURE MONITORING: TIRE PRESSURE WARNING SYSTEM: DIAGNOSIS SYSTEM; 2024 MY GX550 [12/2023 -]		

DIAGNOSIS SYSTEM

CHECK WARNING LIGHT

NOTICE:

- When there is a problem with the tire pressure warning system, the tire pressure warning light blinks at 0.5 second intervals, and illuminates after 1 minute.
- When the malfunction has been corrected, the tire pressure warning light goes off.
- When the tire pressure warning light illuminates, immediately check the tire pressure of the tires and adjust them to the specified value.
- After the ignition switch is turned to ON, the tire pressure warning light illuminates for 3 seconds and then goes off. If the warning light does not illuminate for 3 seconds, proceed to the troubleshooting for the tire pressure warning light circuit.

[Click here](#) INFO

- (a) Turn the ignition switch to ON.



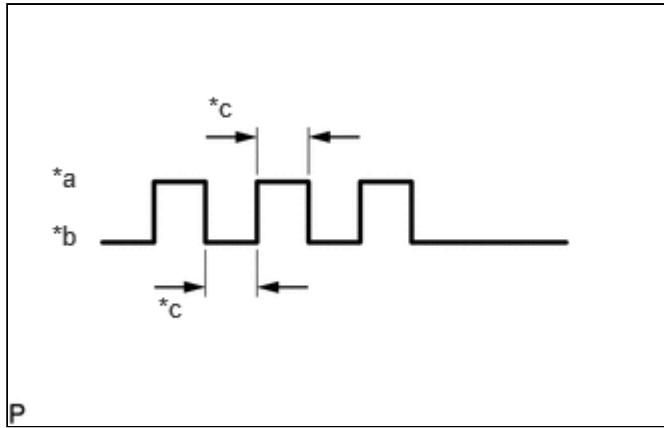
*1	Tire Pressure Warning Light
----	-----------------------------

- (b) Check that the tire pressure warning light illuminates for 3 seconds.

WHAT TO CONSIDER WHEN TIRE PRESSURE WARNING LIGHT ILLUMINATES

- (a) When the tire pressure warning light does not go off, or when it illuminates during driving, check the tire pressure. If the tire pressure warning light illuminates within several hours after adjusting the tire pressure, a tire may have a slow air leak.
- (b) The system is disabled under the following conditions (when the condition returns to normal, the system will work properly).
- (1) When all of the tire and wheel assemblies that have tire pressure warning valve and transmitters registered with the tire pressure warning ECU and receiver have not been installed.
 - (2) When all of the transmitter ID codes are not registered with the tire pressure warning ECU and receiver.
 - (3) When the tire pressure warning valve and transmitter battery is depleted.
- (c) The system may be disabled under the following conditions (when the condition returns to normal, the system will work properly).
- (1) When electric devices or facilities using similar radio frequencies are nearby.
 - (2) When a wireless device or other equipment operating at a similar frequency is in use in the vehicle.
 - (3) When a window tint that affects radio wave signals is installed.
 - (4) When there is a lot of snow or ice on the vehicle, in particular, around the wheels or wheel housing.
 - (5) When non-genuine wheels are used.

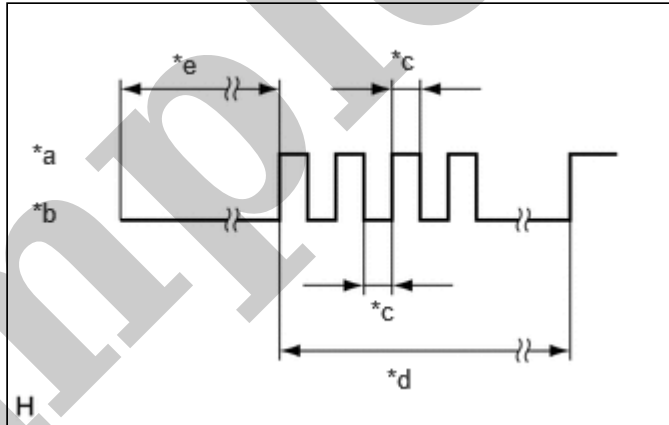
*c	0.5 sec.
*d	1 minute



*2: Blinks 3 times at 1 second intervals.

*a	ON
*b	OFF
*c	1 sec.

*3: Goes off for 10 seconds to check the connection of the ECU connector, and then blinks at 0.5 second



intervals, and stays illuminated after 1 minute.

*a	ON
*b	OFF
*c	0.5 sec.
*d	1 minute
*e	10 sec.

NORMAL MODE DTC

(a) DTCs are stored in the tire pressure warning ECU and receiver and output by using the GTS.

Last Modified: 10-07-2024	6.11:8.1.0	Doc ID: RM100000002HALZ
Model Year Start: 2024	Model: GX550	Prod Date Range: [12/2023 -]
Title: TIRE PRESSURE MONITORING: TIRE PRESSURE WARNING SYSTEM: DIAGNOSTIC TROUBLE CODE CHART; 2024 MY GX550 [12/2023 -]		

DIAGNOSTIC TROUBLE CODE CHART

Tire Pressure Warning System

DTC NO.	DETECTION ITEM	DTC OUTPUT FROM	PRIORITY	LINK
C214187	Tire Pressure Monitor Transmitter ID 1 Missing Message	Tire Pressure Monitor	A	INFO
C214196	Tire Pressure Monitor Transmitter ID 1 Component Internal Failure	Tire Pressure Monitor	A	INFO
C214287	Tire Pressure Monitor Transmitter ID 2 Missing Message	Tire Pressure Monitor	A	INFO
C214296	Tire Pressure Monitor Transmitter ID 2 Component Internal Failure	Tire Pressure Monitor	A	INFO
C214387	Tire Pressure Monitor Transmitter ID 3 Missing Message	Tire Pressure Monitor	A	INFO
C214396	Tire Pressure Monitor Transmitter ID 3 Component Internal Failure	Tire Pressure Monitor	A	INFO
C214487	Tire Pressure Monitor Transmitter ID 4 Missing Message	Tire Pressure Monitor	A	INFO
C214496	Tire Pressure Monitor Transmitter ID 4 Component Internal Failure	Tire Pressure Monitor	A	INFO
C214587	Tire Pressure Monitor Transmitter ID 5 Missing Message	Tire Pressure Monitor	A	INFO
C214596	Tire Pressure Monitor Transmitter ID 5 Component Internal Failure	Tire Pressure Monitor	A	INFO
C217604	Tire Pressure Monitor Module System Internal Failure	Tire Pressure Monitor	A	INFO
U012987	Lost Communication With Brake System Control Module Missing Message	Tire Pressure Monitor	B	INFO

FFD GROUP	CODE	TESTER DISPLAY	MEASUREMENT ITEM	TIRE PRESSURE WARNING LIGHT	DIAGNOSTIC NOTE
		Stop	transmitter	minutes	transmitters of all wheels are in the started status, the tire pressure warning light turns off
-	X20F2	TPMS ID3 Transmitter Stop	Transmission stopped status of tire pressure warning valve and transmitter	Illuminates after blinking for 1 minutes	When the tire pressure warning valve and transmitters of all wheels are in the started status, the tire pressure warning light turns off
-	X20F3	TPMS ID4 Transmitter Stop	Transmission stopped status of tire pressure warning valve and transmitter	Illuminates after blinking for 1 minutes	When the tire pressure warning valve and transmitters of all wheels are in the started status, the tire pressure warning light turns off
-	X20F4	TPMS ID5 Transmitter Stop	Transmission stopped status of tire pressure warning valve and transmitter	Illuminates after blinking for 1 minutes	When the tire pressure warning valve and transmitters of all wheels are in the started status, the tire pressure warning light turns off
-	X20F5	TPMS ID1 Tire Low-pressure	Status where the value is lower than the low air pressure threshold of the set air pressure	Illuminated	When the set air pressure is adjusted, the tire pressure warning light turns off
-	X20F6	TPMS ID2 Tire Low-pressure	Status where the value is lower than the low air pressure threshold of the set air pressure	Illuminated	When the set air pressure is adjusted, the tire pressure warning light turns off
-	X20F7	TPMS ID3 Tire Low-pressure	Status where the value is lower than the low air pressure threshold of the set air pressure	Illuminated	When the set air pressure is adjusted, the tire pressure warning light turns off
-	X20F8	TPMS ID4 Tire Low-pressure	Status where the value is lower than the low air pressure threshold of the set air pressure	Illuminated	When the set air pressure is adjusted, the tire pressure warning light turns off
-	X20F9	PMS ID5 Tire Low-pressure	Status where the value is lower than the low air pressure threshold of the set air pressure	Illuminated	When the set air pressure is adjusted, the tire pressure warning light turns off
-	X20FA	TPMS ID Codes Not Registered	When all the tire pressure warning valve and transmitter IDs are not registered in the tire pressure warning ECU and receiver for 3 minutes or more	Illuminates after blinking for 1 minutes	-
-	X20FB	TPMS ID Codes Auto Registering	Automatic ID registration status	Illuminates after blinking for 1 minutes	-

TPMS is an abbreviation for Tire Pressure Monitoring System.

Last Modified: 10-07-2024	6.11:8.1.0	Doc ID: RM100000002HAM1
Model Year Start: 2024	Model: GX550	Prod Date Range: [12/2023 -]
Title: TIRE PRESSURE MONITORING: TIRE PRESSURE WARNING SYSTEM: C214187-C214587; Tire Pressure Monitor Transmitter ID 1 Missing Message; 2024 MY GX550 [12/2023 -]		

DTC	C214187	Tire Pressure Monitor Transmitter ID 1 Missing Message
DTC	C214287	Tire Pressure Monitor Transmitter ID 2 Missing Message
DTC	C214387	Tire Pressure Monitor Transmitter ID 3 Missing Message
DTC	C214487	Tire Pressure Monitor Transmitter ID 4 Missing Message
DTC	C214587	Tire Pressure Monitor Transmitter ID 5 Missing Message

DESCRIPTION

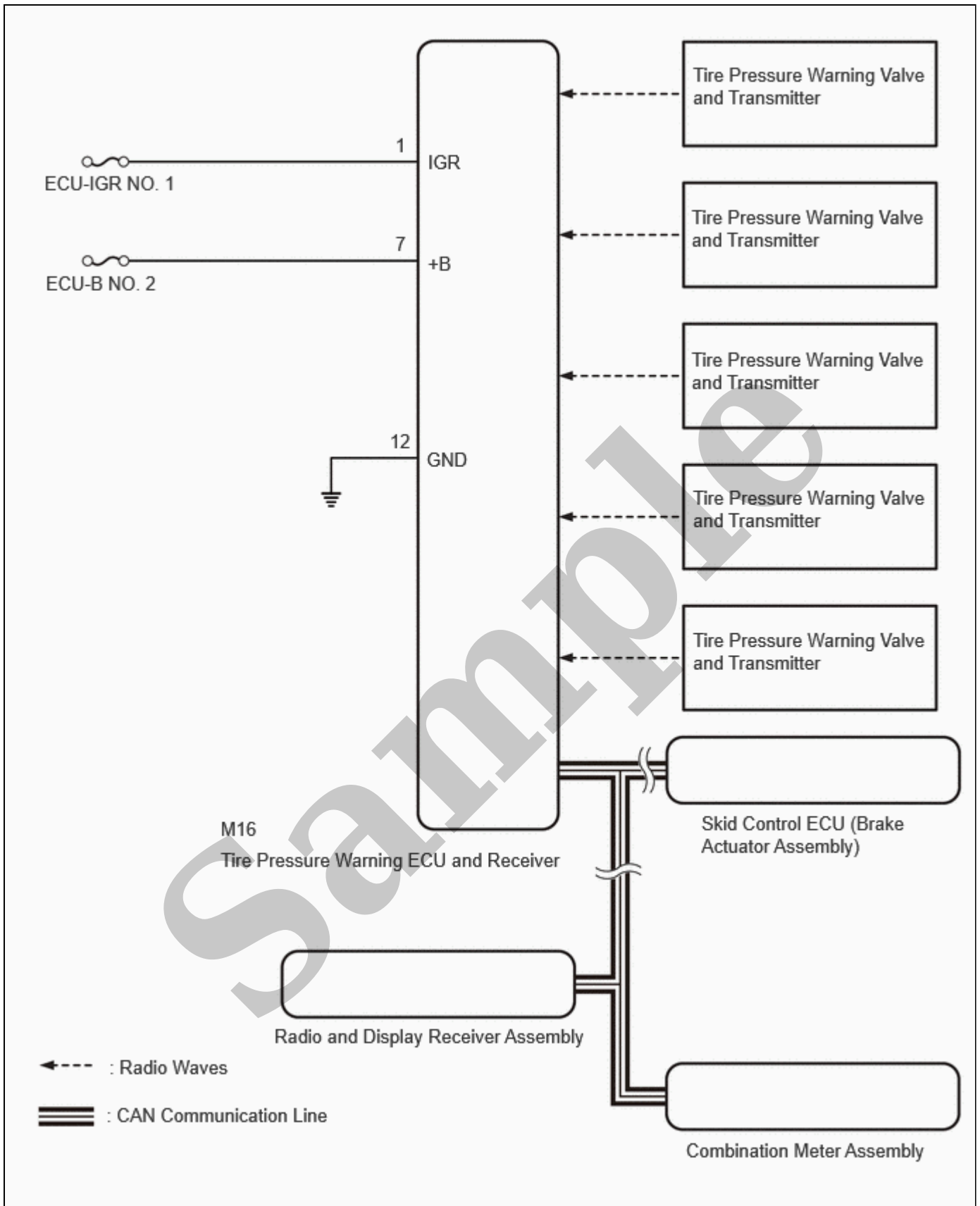
The tire pressure warning valve and transmitters that are installed in the tire and wheel assemblies measure the tire pressure of each wheel. The measured values are transmitted to the tire pressure warning ECU and receiver in the vehicle as radio waves. The ECU compares the measured tire pressure values with the tire pressure threshold. When the measured tire pressure value is less than this threshold, the warning light in the combination meter assembly illuminates.

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

Under the conditions below, the tire pressure warning ECU and receiver is unable to receive the signals from the tire pressure warning valve 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.
- The ID of a tire pressure warning valve and transmitter is mistyped during registration.
- A tire, wheel and/or transmitter from a different vehicle is installed.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY
C214187	Tire Pressure Monitor Transmitter ID 1 Missing Message	When driving at 40 km/h (25 mph) or higher, the tire pressure warning ECU and receiver cannot receive electrical waves from the tire pressure warning valve and transmitter for a total of approximately 20 minutes	<ul style="list-style-type: none"> • Tire pressure warning valve and transmitter • Tire pressure warning ECU and receiver 	Tire Pressure Monitor	A
C214287	Tire Pressure Monitor Transmitter ID 2 Missing Message	When driving at 40 km/h (25 mph) or higher, the tire pressure warning ECU and receiver cannot receive electrical waves from the tire pressure warning valve and transmitter for a total of approximately 20 minutes	<ul style="list-style-type: none"> • Tire pressure warning valve and transmitter • Tire pressure warning ECU and receiver 	Tire Pressure Monitor	A



CAUTION / NOTICE / HINT

NOTICE:

- When replacing the tire pressure warning ECU and receiver, first use the GTS to record all of the current IDs and registered tires with transmitters (4 or 5 tires) of the tire pressure warning valve and transmitter registered to the tire pressure warning ECU and receiver.

Chassis > Tire Pressure Monitor > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
ID 1 Tire Position	ID1 tire position	No Information / FL / FR / RL / RR / Spare / Judging	ID1 tire position is displayed	If no tire position information is stored, "No Information" will be displayed.
ID 2 Tire Position	ID2 tire position	No Information / FL / FR / RL / RR / Spare / Judging	ID2 tire position is displayed	If no tire position information is stored, "No Information" will be displayed.
ID 3 Tire Position	ID3 tire position	No Information / FL / FR / RL / RR / Spare / Judging	ID3 tire position is displayed	If no tire position information is stored, "No Information" will be displayed.
ID 4 Tire Position	ID4 tire position	No Information / FL / FR / RL / RR / Spare / Judging	ID4 tire position is displayed	If no tire position information is stored, "No Information" will be displayed.
ID 5 Tire Position	ID5 tire position	No Information / FL / FR / RL / RR / Spare / Judging	ID5 tire position is displayed	If no tire position information is stored, "No Information" will be displayed.

Chassis > Tire Pressure Monitor > Data List

TESTER DISPLAY
ID 1 Tire Position
ID 2 Tire Position
ID 3 Tire Position
ID 4 Tire Position
ID 5 Tire Position

NEXT



4. CHECK TRANSMITTER ID

Pre-procedure1

(a) Refer to the following chart and record the tire pressure warning valve and transmitter ID of the output DTC.

Chassis > Tire Pressure Monitor > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Registered ID 1 Code	Registered ID1 code	Min.: 0 Max.: FFFFFFFF*	ID No. registered for transmitter ID1 displayed	-
Registered ID 2 Code	Registered ID2 code	Min.: 0 Max.: FFFFFFFF*	ID No. registered for transmitter ID2 displayed	-

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

RESULT	PROCEED TO
Match	A
Do not match	B

Post-procedure1

(d) None

A ▶ REPLACE CORRESPONDING TIRE PRESSURE WARNING VALVE AND TRANSMITTER

B ▶ GO TO STEP 6

5. CHECK TIRE PRESSURE WARNING VALVE AND TRANSMITTER

Pre-procedure1

(a) Refer to the following chart and record all of the tire pressure warning valve and transmitter IDs.

Chassis > Tire Pressure Monitor > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Registered ID 1 Code	Registered ID1 code	Min.: 0 Max.: FFFFFFFF*	ID No. registered for transmitter ID1 displayed	-
Registered ID 2 Code	Registered ID2 code	Min.: 0 Max.: FFFFFFFF*	ID No. registered for transmitter ID2 displayed	-
Registered ID 3 Code	Registered ID3 code	Min.: 0 Max.: FFFFFFFF*	ID No. registered for transmitter ID3 displayed	-
Registered ID 4 Code	Registered ID4 code	Min.: 0 Max.: FFFFFFFF*	ID No. registered for transmitter ID4 displayed	-
Registered ID 5 Code	Registered ID5 code	Min.: 0 Max.: FFFFFFFF*	ID No. registered for transmitter ID5 displayed	-

HINT:

- *: Displayed only when the ID No. is not registered.
- The wheel position cannot be determined from ID1 through ID5 on the Data List.

Chassis > Tire Pressure Monitor > Data List

TESTER DISPLAY
Registered ID 1 Code
Registered ID 2 Code
Registered ID 3 Code
Registered ID 4 Code
Registered ID 5 Code



7. PERFORM INITIALIZATION

(a) Perform initialization.

HINT:

Click here [INFO](#)



8. CLEAR DTC

(a) Clear the DTCs.

Chassis > Tire Pressure Monitor > Clear DTCs

NEXT ► **END**

9. CLEAR DTC

(a) Clear the DTCs.

Chassis > Tire Pressure Monitor > Clear DTCs

NEXT ► **END**

Explain to the customer that there is a high possibility that a device (located near or inside the vehicle) or facility using electrical waves of approximately the same frequency is causing electrical wave interference.