SECTION WHEELS & TIRES

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DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Repair Work Flow

DETAILED FLOW

1.VERIFY CUSTOMER COMPLAINTS

Interview the customer to obtain detailed information about the symptom.

>> GO TO 2.

2. DETERMINE REFERENCE ITEM RELATED TO SYMPTOM

Check the symptom on the vehicle from the information obtained. (cruise test, warning lamp illumination or blinking, etc.)

Is the symptom confirmed?

YES >> GO TO 3. NO >> GO TO 4.

3. PRELIMINARY INSPECTION

1. Check all tire pressures. Refer to WT-102, "Tire".

2. Check the low tire pressure warning lamp for illumination or blinking. Refer to <u>WT-81, "Symptom Table"</u>.

Is the malfunction finished?

YES >> INSPECTION END

NO >> GO TO 4.

4.PERFORM SELF-DIAGNOSIS

Perform self-diagnosis. Record any DTCs and data displayed on CONSULT-III.

Is there any DTC displayed?

YES >> GO TO 6. NO >> GO TO 5. **5.**CHECK SYMPTOM

Perform troubleshooting by symptom. Refer to <u>WT-81, "Symptom Table"</u>.

Is the causal factor identified?

YES >> GO TO 7. NO >> GO TO 9.

6.PERFORM THE SYSTEM DIAGNOSIS

Perform the diagnosis applicable to the displayed DTC. Refer to <u>WT-78, "DTC Index"</u>.

>> GO TO 7. 7.REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the applicable part.

>> GO TO 8.

8.CHECK SELF-DIAGNOSIS RESULT

1. Erase DTCs. Refer to WT-13, "AIR PRESSURE MONITOR : Diagnosis Description".

2. Perform self-diagnosis again.

Is any DTC displayed?

YES >> GO TO 6.

NO >> GO TO 9.

INFOID:000000004498628

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

< BASIC INSPECTION >	
9.FINAL CHECK	А
 Perform a cruise test. Check the warning lamp for illumination or blinking. 	2.6
Is the malfunction corrected?	В
YES >> INSPECTION END NO >> GO TO 4.	D
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INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

INSPECTION AND ADJUSTMENT TRANSMITTER WAKE UP OPERATION

TRANSMITTER WAKE UP OPERATION : Description

This procedure must be done after replacement of a transmitter, BCM, or rotation of wheels.

TRANSMITTER WAKE UP OPERATION : Special Repair Requirement

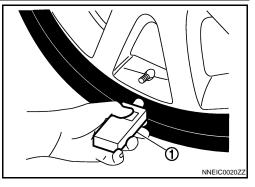
INFOID:000000004498630

INFOID-000000004498629

1.TRANSMITTER WAKE-UP PROCEDURE

- 1. Turn the ignition switch ON.
- 2. Contact the transmitter activation tool (J-45295) (1) to the side of the tire at the location to the transmitter.
- Press and hold the activation tool button while pushing the tool to the tire surface. (approximately for 5 seconds) CAUTION:

Perform the wake-up procedure starting from the vehicle front left wheel, then repeat the procedure in the order of the front right wheel, rear right wheel, and rear left wheel.



4. Check that the low tire pressure warning lamp blinks in the pattern shown as per the following. The pattern indicates that the transmitter wake-up procedure for the wheel is completed.

Low tire pressure warning lamp blinking	g timing	Activation tire position
ON a b	a : 0.3 sec. b : 1.3 sec.	Front LH
ON a a b	a : 0.3 sec. b : 1.3 sec.	Front RH
ON a a a a a b	a : 0.3 sec. b : 1.3 sec.	Rear RH
ON a a a a a b	a : 0.3 sec. b : 1.3 sec.	Rear LH
ON a b	a : 2 sec. b : 0.2 sec.	All tires

SEIA0762E

- 5. Check that the turn signal lamps blink twice when the transmitter wake-up procedure for all wheels is completed.
- 6. Check that the low tire pressure warning lamp turns OFF, after the transmitter wake-up procedure is completed for all wheels and turns OFF.

Is the transmitter wake-up procedure completed?

YES >> Perform the transmitter ID registration procedure. Refer to <u>WT-6, "ID REGISTRATION PROCE-</u> <u>DURE : Special Repair Requirement"</u>.

NO >> Perform trouble diagnosis for the transmitter. Refer to <u>WT-19, "Diagnosis Procedure"</u>. ID REGISTRATION PROCEDURE

ID REGISTRATION PROCEDURE : Description

This procedure must be done after replacing or rotating wheels, replacing transmitter or BCM.

ID REGISTRATION PROCEDURE : Special Repair Requirement

1.TRANSMITTER ID REGISTRATION PROCEDURE

With CONSULT-III.

Revision: 2009 October

2009 G37 Coupe

INFOID:000000004498631

INFOID:000000004498632

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INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

1. Display the "WORK SUPPORT" screen and select "ID REGIST".

Is the transmitter activation tool (J-45295) used for the transmitter ID registration procedure?

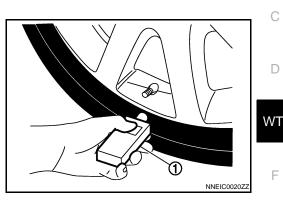
YES >> GO TO 2.

NO >> GO TO 3.

2.TRANSMITTER ID REGISTRATION PROCEDURE (WITH TRANSMITTER ACTIVATION TOOL)

- 1. Turn the ignition switch ON.
- 2. Select the start button on the "ID REGIST" screen.
- Contact the transmitter activation tool (J-45295) (1) to the side of the tire at the location to the transmitter.
- Press and hold the activation tool button while pushing the tool to the tire surface. (approximately for 5 seconds) CAUTION:

Perform the ID registration procedure starting from the vehicle front left wheel, then repeat the procedure in the order of the front right wheel, rear right wheel, and rear left wheel.



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5. When ID registration is completed, check the following pattern at each wheel.

Se- quence	ID registration position	Turn signal lamp	CONSULT-III	
1	Front left wheel			H
2	Front right wheel	2 blinks	"Red"	
3	Rear right wheel	2 DIITIKS	v "Green"	I
4	Rear left wheel			

6. After the ID registration procedure for all wheels is completed, press "END" to end ID registration, and check that ID registration for all wheels is completed.

Is the check result normal?

YES >> ID registration END.

NO	>> Performs trouble-diagnosis	of the	Tire Pressure	Monitoring	System	(TPMS).	Refer to	<u>WT-19,</u>	k
	<u>"Diagnosis Procedure"</u> .								

$\mathbf{3}$. TRANSMITTER ID REGISTRATION PROCEDURE (WITHOUT TRANSMITTER ACTIVATION TOOL)

1. Adjust the tire pressure for all wheels to match the list below.

Tire position	Tire pressure kPa (kg/cm ² , psi)	M
Front LH	240 (2.4, 35)	
Front RH	220 (2.2, 31)	
Rear RH	200 (2.0, 29)	N
Rear LH	180 (1.8, 26)	

 Drive the vehicle at a speed at more than 40 km/h (25 MPH) for 3 minutes or more, then perform the transmitter ID registration procedure.

3. After ID registration for all wheels is completed, press "END" to end ID registration.

		D
ID registration position	CONSULT-III	F
Front LH		
Front RH	"Red"	
Rear RH	"Green"	
Rear LH		

4. Adjust the tire pressures for all wheels to the specified value. Refer to WT-102, "Tire".

INSPECTION AND ADJUSTMENT

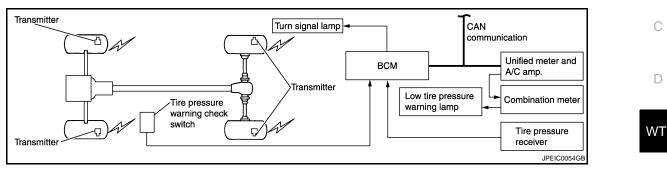
< BASIC INSPECTION >

Is ID registrations for all wheels completed?

- YES >> ID registration END.
- NO >> Performs trouble-diagnosis of the Tire Pressure Monitoring System (TPMS). Refer to <u>WT-19</u>, <u>"Diagnosis Procedure"</u>.

SYSTEM DESCRIPTION > SYSTEM DESCRIPTION TPMS System Diagram Image: system diagram Image: system diagram

TPMS



System Description

INFOID:000000004498634

DESCRIPTION

During driving, the TPMS (Tire Pressure Monitoring System) receives the signal transmitted from transmitter installed in each wheel. The BCM (Body Control Module) of this system has pressure judgment and trouble diagnosis functions. When the tire pressure monitoring system detects low inflation pressure or another unusual symptom, the low tire pressure warning lamps in the combination meter comes on.

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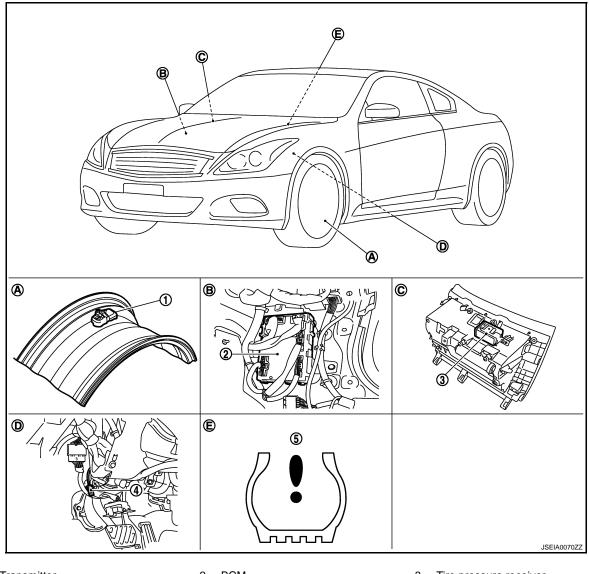
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Component Parts Location

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TPMS

- 1. Transmitter
- 4. Tire pressure warning check switch
- A. Wheel
- D. Behind instrument lower panel LH

Component Description

- 2. BCM
- 5. Low tire pressure warning lamp
- B. Dash side lower (passenger side)
- E. Inside combination meter
- 3. Tire pressure receiver
- C. Instrument lower panel RH

INFOID:000000004498636

Component parts	Function
BCM (Body Control Module)	WT-33, "Description".
Transmitter	WT-19, "Description".
Tire pressure receiver	WT-35, "Description".
Tire pressure warning check switch	WT-37, "Description".
Turn signal lamp	ID registration of each wheel has been completed, turn signal lamp flashes.

< SYSTEM DESCRIPTION >

Component parts	Function	
	Transmits the vehicle speed signal via CAN communication to BCM.	
Unified meter and A/C amp.	 Receives the following signals via CAN communication for BCM. Low tire pressure warning lamp signal Hazard lamp signal Buzzer signal 	
Low tire pressure warning lamp	Illuminates if malfunction is detected in electrical system of TPMS.	

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< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) COMMON ITEM

COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)

INFOID:000000004498709

APPLICATION ITEM

CONSULT-III performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM. Refer to CONSULT-III opera- tion manual.
Data Monitor	The BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Ecu Identification	The BCM part number is displayed.
Configuration	Read and save the vehicle specification.Write the vehicle specification when replacing BCM.

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

It can perform the diagnosis modes except the following for all sub system selection items.

Sustan	Cub sustan aslastica itam	Diagnosis mode			
System	Sub system selection item	Work Support	Data Monitor	Active Test	
Door lock	DOOR LOCK	×	×	×	
Rear window defogger	REAR DEFOGGER		×	×	
Warning chime	BUZZER		×	×	
Interior room lamp timer	INT LAMP	×	×	×	
Exterior lamp	HEAD LAMP	×	×	×	
Wiper and washer	WIPER		×	×	
Turn signal and hazard warning lamps	FLASHER	×	×	×	
_	AIR CONDITONER*1				
Intelligent Key systemEngine start system	INTELLIGENT KEY	×	×	×	
Combination switch	COMB SW		×		
Body control system	BCM	×			
IVIS - NATS	IMMU		×	×	
Interior room lamp battery saver	BATTERY SAVER	×	×	×	
Trunk lid open	TRUNK		×	×	
Vehicle security system	THEFT ALM	×	×	×	
RAP system	RETAINED PWR*2		×		
Signal buffer system	SIGNAL BUFFER		×	×	
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×	

NOTE:

• *1: This item is displayed, but is not used.

• *2: At models with sunroof this mode is displayed, but is not used.

FREEZE FRAME DATA (FFD)

< SYSTEM DESCRIPTION >

The BCM records the following vehicle condition at the time a particular DTC is detected, and displays on CONSULT-III.

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed of the mo	ment a particular DTC is detected
Odo/Trip Meter	km	Total mileage (Odomete	r value) of the moment a particular DTC is detected
	SLEEP>LOCK		While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK")
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)
	LOCK>ACC		While turning power supply position from "LOCK" to "ACC"
	ACC>ON		While turning power supply position from "ACC" to "IGN"
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Vehicle is stopping and selector lever is except P position.)
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)
	RUN>URGENT	-	While turning power supply position from "RUN" to "ACC" (Emer- gency stop operation)
	ACC>OFF		While turning power supply position from "ACC" to "OFF"
	OFF>LOCK		While turning power supply position from "OFF" to "LOCK"
Vehicle Condition	OFF>ACC	Power position status of the moment a particular DTC is detected	While turning power supply position from "OFF" to "ACC"
	ON>CRANK		While turning power supply position from "IGN" to "CRANKING"
	OFF>SLEEP		While turning BCM status from normal mode (Power supply posi- tion is "OFF".) to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is "LOCK".) to low power consumption mode
	LOCK		Power supply position is "LOCK" (Ignition switch OFF with steer- ing is locked.)
	OFF		Power supply position is "OFF" (Ignition switch OFF with steering is unlocked.)
	ACC		Power supply position is "ACC" (Ignition switch ACC)
	ON		Power supply position is "IGN" (Ignition switch ON with engine stopped)
	ENGINE RUN		Power supply position is "RUN" (Ignition switch ON with engine running)
	CRANKING		Power supply position is "CRANKING" (At engine cranking)
IGN Counter	0 - 39	 The number is 0 wher The number increases whenever ignition swit 	It ignition switch is turned ON after DTC is detected a malfunction is detected now. Is like $1 \rightarrow 2 \rightarrow 338 \rightarrow 39$ after returning to the normal condition the OFF \rightarrow ON.

AIR PRESSURE MONITOR

AIR PRESSURE MONITOR : Diagnosis Description

INFOID:000000004498711

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DESCRIPTION

During driving, the TPMS receives the signal transmitted from the transmitter installed in each wheel, when the tire pressure becomes low. The control unit (BCM) of this system has pressure judgment and trouble diagnosis functions.

When the TPMS detects low inflation pressure or another unusual symptom, the low tire pressure warning lamps in the combination meter comes on.

SELF DIAGNOSTIC PROCEDURE (WITH CONSULT-III)

(P) With CONSULT-III

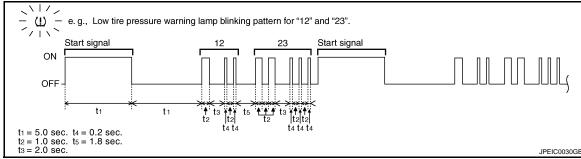
< SYSTEM DESCRIPTION >

Touch "SELF-DIAG RESULT" display shows malfunction experienced since the last erasing operation. Refer to <u>WT-78, "DTC Index"</u>.

SELF DIAGNOSTIC PROCEDURE (WITHOUT CONSULT-III)

Without CONSULT-III

To start the self-diagnostic results mode, ground terminal of the tire pressure warning check connector. The malfunction location is indicated by the low tire pressure warning lamp blinking.



NOTE:

When the low tire pressure warning lamp blinks 5 Hz and continues repeating it, the system is normal.

Blinking pattern	Items	Diagnostic items detected when	Check item
15	Tire pressure value (Front LH)	Front LH tire pressure drops to * kPa (* kg/cm ² , * psi) or less. [NOTE]	
16	Tire pressure value (Front RH)	Front RH tire pressure drops to * kPa (* kg/cm ² , * psi) or less. [NOTE]	
17	Tire pressure value (Rear RH)	Rear RH tire pressure drops to * kPa (* kg/cm ² , * psi) or less. [NOTE]	<u>WT-17</u>
18	Tire pressure value (Rear LH)	Rear LH tire pressure drops to * kPa (* kg/cm ² , * psi) or less. [NOTE]	
21	Transmitter no data (Front LH)	Data from front LH transmitter can not be receive.	
22	Transmitter no data (Front RH)	Data from front RH transmitter can not be receive.	WT-19
23	Transmitter no data (Rear RH)	Data from rear RH transmitter can not be receive.	<u>vv1-19</u>
24	Transmitter no data (Rear LH)	Data from rear LH transmitter can not be receive.	
31	Transmitter checksum error (Front LH)	Checksum data from front LH transmitter is malfunctioning.	
32	Transmitter checksum error (Front RH)	Checksum data from front RH transmitter is malfunctioning.	
33	Transmitter checksum error (Rear RH)	Checksum data from rear RH transmitter is malfunctioning.	<u>- WT-21</u>
34	Transmitter checksum error (Rear LH)	Checksum data from rear LH transmitter is malfunctioning.	_
35	Transmitter pressure data error (Front LH)	Air pressure data from front LH transmitter is malfunction.	
36	Transmitter pressure data error (Front RH)	Air pressure data from front RH transmitter is malfunction.	
37	Transmitter pressure data error (Rear RH)	Air pressure data from rear RH transmitter is malfunction.	<u>WT-24</u>
38	Transmitter pressure data error (Rear LH)	Air pressure data from rear LH transmitter is malfunction.	

< SYSTEM DESCRIPTION >

er function code error) er function code error) er function code error) er function code error	Function code data from front LH transmitter is malfunction. Function code data from front RH transmitter is malfunction. Function code data from rear RH transmitter is malfunction. Function code data from rear RH transmitter is malfunction.	<u>WT-26</u>	B
er function code error) er function code error)	Function code data from rear RH transmitter is malfunction.	<u>WT-26</u>	E
) er function code error)			С
)	Function code data from rear LH transmitter is malfunction.		
or botton woltogo low			
er battery voltage low)	Battery voltage of front LH transmitter drops.		C
er battery voltage low I)	Battery voltage of front RH transmitter drops.	WT-29	W
er battery voltage low)	Battery voltage of rear RH transmitter drops.		
er battery voltage low	Battery voltage of rear LH transmitter drops.		F
beed signal error	Vehicle speed signal error.	<u>WT-32</u>	-
nit	Tire pressure monitoring system malfunction in BCM.	<u>WT-33</u>	(
	Tire pressure warning switch circuit is open.	-	-
		it Tire pressure monitoring system malfunction in BCM.	Itic Tire pressure monitoring system malfunction in BCM. WT-33

• 182.7 kPa (1.9 kg/cm², 26 psi): Standard air pressure is for 230 kPa (2.3 kg/cm², 33 psi) vehicles.

• 189.6 kPa (1.9 kg/cm², 27 psi): Standard air pressure is for 240 kPa (2.4 kg/cm², 35 psi) vehicles.

ERASE SELF-DIAGNOSIS

(P)With CONSULT-III

- Perform applicable inspection of malfunctioning item and then repair or replace. 1.
- Turn ignition switch ON and select "SELF-DIAG RESULTS" mode for "AIR PRESSURE MONITOR" with 2. CONSULT-III.
- 3. Touch "ERASE" on CONSULT-III screen to erase memory.

Without CONSULT-III

- In order to make it easier to find the cause of hard-to-duplicate malfunctions, malfunction information is L stored into the control unit as necessary during use by the user. This memory is not erased no matter how many times the ignition switch is turned ON and OFF.
- However, this information is erased by turning ignition switch OFF after performing self-diagnostic or by erasing the memory using the CONSULT-III.

AIR PRESSURE MONITOR : CONSULT-III Function (BCM - AIR PRESSURE MONI-TOR) INFOID:000000004498712

WORK SUPPORT MODE

ID Read

The registered ID number is displayed.

ID Regist

Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

SELF-DIAG RESULTS MODE

Operation Procedure Refer to WT-78, "DTC Index".

DATA MONITOR MODE Screen of data monitor mode is displayed. Κ

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< SYSTEM DESCRIPTION >

NOTE:

When malfunction is detected, CONSULT-III perform REAL-TIME DIAGNOSIS. Also, any malfunction detected while in this mode will be displayed at real time.

Monitor item (Unit)	Remark	
AIR PRESS FL (kPa/kg/cm ² /Psi)		
AIR PRESS FR (kPa/kg/cm ² /Psi)		
AIR PRESS FR (kPa/kg/cm ² /Psi) AIR PRESS RR (kPa/kg/cm ² /Psi) AIR PRESS RL (kPa/kg/cm ² /Psi) ID REGST FL1 (Green/Red) ID REGST FR1 (Green/Red)	Tire pressure	
AIR PRESS RL (kPa/kg/cm ² /Psi)		
ID REGST FL1 (Green/Red)		
ID REGST FR1 (Green/Red)	Registration ID	
ID REGST RR1 (Green/Red)		
ID REGST RL1 (Green/Red)		
WARNING LAMP (On/Off) Low tire pressure warning lamp		
BUZZER (On/Off)	Buzzer in combination meter	

NOTE:

Before performing the self-diagnosis, be sure to register the ID, or erase the actual malfunction location may be different from that displayed on CONSULT-III.

ACTIVE TEST MODE

NOTE:

Before performing the self-diagnosis, be sure to register the ID, or erase the actual malfunction may be different from that displayed on CONSULT-III.

TEST ITEM LIST

Test item	Content
WARNING LAMP	This test is able to check to check that the low tire pressure warning lamp turns on.
ID REGIST WARNING	This test is able to check to check that the buzzer sounds or the low tire pressure warning lamp turns on.
FLASHER	This test is able to check to check that each turn signal lamp turns on.
HORN	This test is able to check to check that the horn sounds.

C1704, C1705, C1706, C1707 LOW TIRE PRESSURE

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS C1704, C1705, C1706, C1707 LOW TIRE PRESSURE

Description

When the tire pressure monitoring system detects low inflation pressure, the low tire pressure warning lamps in the combination meter comes on.

DTC Logic

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INFOID:000000004498640

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DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible cause	
C1704	LOW PRESSURE FL	Front LH tire pressure drops to * kPa (* kg/cm ² , * psi) or less. [NOTE]		WT
C1705	LOW PRESSURE FR	Front RH tire pressure drops to * kPa (* kg/cm ² , * psi) or less. [NOTE]		
C1706	LOW PRESSURE RR	Rear RH tire pressure drops to * kPa (* kg/cm ² , * psi) or less. [NOTE]	Low tire pressure	F
C1707	LOW PRESSURE RL	Rear LH tire pressure drops to * kPa (* kg/cm ² , * psi) or less. [NOTE]		1
		ard air pressure is for 230 kPa (2.3 kg/cm ² , 33 psi) vehicles. ard air pressure is for 240 kPa (2.4 kg/cm ² , 35 psi) vehicles.		G
DTC CONF	FIRMATION PROC	EDURE		Н
1.DTC REI	PRODUCTION PRO	CEDURE		1
2. Perform Is DTC "C17 YES >>	t a speed of 40 km/h BCM self-diagnosis 704", "C1705", "C170	(25 MPH) or more, then drive normally for 10 minutes. <u>6", "C1707" detected?</u> nosis. Refer to <u>WT-17, "Diagnosis Procedure"</u> .		J
	s Procedure		INFOID:000000004498642	Κ
1.снеск	TIRE AIR PRESSUR	E		L
2. Adjust a <u>Does all tire</u> YES >> NO >>	pressure data meet GO TO 2. Inspect or replace m	Refer to <u>WT-102, "Tire"</u> . <u>the specification?</u> alfunctioning parts.		M
 Start the Select " 		ode for "AIR PRESSURE MONITOR" with CONSULT-III. PRESS FL", "AIR PRESS FR", "AIR PRESS RR", "AIR PF	RESS RL".	0

Monitored item	Condition	Display value	
AIR PRESS FL			
AIR PRESS FR	Start the engine and drive at a 40 km/h (25 MPH) or more for	Approximately equal to the indication on	
AIR PRESS RR	several minutes.	vehicle information display.	
AIR PRESS RL			

Is inspection result normal?

YES >> INSPECTION END

C1704, C1705, C1706, C1707 LOW TIRE PRESSURE

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace damaged parts (tire or wheel). Refer to WT-93, "Service Notice or Precautions".

Special Repair Requirement

INFOID:000000004498643

1.CHECK TIRE AIR PRESSURE

Check all tire air pressures. Refer to WT-102, "Tire".

Does all tire pressure data meet the specification?

YES >> GO TO 2.

NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

>> END

C1708, C1709, C1710, C1711 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

C1708, C1709, C1710, C1711 TRANSMITTER

Description

The transmitter integrated with a valve is installed on a wheel, and transmits a detected tire pressure signal by В radio wave.

DTC Logic

INFOID:000000004498645

INFOID:000000004498646

INFOID:000000004498644

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DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible cause	D
C1708	[NO DATA] FL	Data from front LH transmitter cannot received.	Harness or connector	
C1709	[NO DATA] FR	Data from front RH transmitter cannot received.	 (Tire pressure receiver, BCM) ID registration is not finished 	WТ
C1710	[NO DATA] RR	Data from rear RH transmitter cannot received.	Transmitter malfunction	
C1711	[NO DATA] RL	Data from rear LH transmitter cannot received.	BCM malfunction	
DTC CONF	IRMATION PROC	CEDURE		F
1.DTC REP	RODUCTION PRO	DCEDURE		

(P)With CONSULT-III

- Drive at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes. 1.
- 2. Perform BCM self-diagnosis.

Is DTC "C1708", "C1709", "C1710", "C1711" detected?

- YES >> Perform trouble diagnosis. Refer to WT-19, "Diagnosis Procedure". NO
 - >> INSPECTION END

Diagnosis Procedure

1.CHECK AIR PRESSURE SIGNAL

(I) With CONSULT-III

- Start the engine. 1.
- Select "DATA MONITOR" mode for "AIR PRESSURE MONITOR" with CONSULT-III. 2.
- Read out the value of "AIR PRESS FL", "AIR PRESS FR", "AIR PRESS RR", "AIR PRESS RL". 3.

Monitored item	Condition	Display value	
AIR PRESS FL			
AIR PRESS FR	Start the engine and drive at a 40 km/h (25 MPH) or more for	Approximately equal to the indication on	
AIR PRESS RR	several minutes.	vehicle information display.	ľ
AIR PRESS RL			1

<u>Are all tire pressures displayed 0 kPa?</u>

YES >> GO TO 2.

NO >> GO TO 4.

2.CHECK HARNESS BETWEEN BCM AND TIRE PRESSURE RECEIVER

- 1. Turn the ignition switch OFF.
- 2. Disconnect BCM harness connector and tire pressure receiver harness connector.
- Check the continuity between BCM harness connector and tire pressure receiver harness connector. 3.

E	BCM	Tire press	ure receiver	Continuity
Connector	Terminal	Connector	Terminal	Continuity
	137		1	
M123	138	M101	4	Existed
	139		2	

C1708, C1709, C1710, C1711 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

4. Check the continuity between BCM harness connector and ground.

B	СМ		Continuity
Connector	Terminal	—	Continuity
	137		
M123	138	Ground	Not existed
	139		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace damaged parts.

3.CHECK TIRE PRESSURE RECEIVER

Check tire pressure receiver. Refer to WT-35, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the BCM pin terminals for damage or loose connection with harness connector. If any items are damaged, repair or replace damaged parts.

NO >> Replace the tire pressure receiver.

4.CHECK ID REGISTRATION

Perform ID registration of all transmitters. Refer to <u>WT-6, "ID REGISTRATION PROCEDURE : Special Repair</u> Requirement".

Can ID registration of all transmitters be completed?

YES >> GO TO 5.

NO >> Replace malfunctioning transmitter.

5.CHECK TIRE PRESSURE MONITORING SYSTEM

(B)With CONSULT-III

- T. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
- 2. Check the all tire pressures with CONSULT-III "DATA MONITOR" within 15 minutes after stopped vehicle.

Monitored item	Condition	Display value
AIR PRESS FL		
AIR PRESS FR	Start the engine and drive at 40 km/h (25MPH) or more	Approximately equal to the indication on vehicle
AIR PRESS RR	for several minutes.	information display.
AIR PRESS RL		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace BCM.

Special Repair Requirement

INFOID:000000004498647

1.CHECK TIRE AIR PRESSURE

Check all tire air pressures. Refer to WT-102, "Tire".

Does all tire pressure data meet the specification?

YES >> GO TO 2.

NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

>> END

C1712, C1713, C1714, C1715 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

C1712, C1713, C1714, C1715 TRANSMITTER

Description

The transmitter integrated with a valve is installed on a wheel, and transmits a detected tire pressure signal by radio wave.

DTC Logic

INFOID:000000004498649

INFOID:000000004498650

INFOID:000000004498648

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DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible case	D
C1712	[CHECKSUM ERR] FL	Checksum data from front LH transmitter is malfunc- tioning.		
C1713	[CHECKSUM ERR] FR	Checksum data from front RH transmitter is malfunc- tioning.	Tire pressure receiver malfunc- tion Transmitter malfunction	WT
C1714	[CHECKSUM ERR] RR	Checksum data from rear RH transmitter is malfunc- tioning.	BCM malfunction Harness or connector	F
C1715	[CHECKSUM ERR] RL	Checksum data from rear LH transmitter is malfunc- tioning.		
				G

DTC CONFIRMATION PROCEDURE

1.DTC REPRODUCTION PROCEDURE

With CONSULT-III

- 1. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
- 2. Perform BCM self-diagnosis.

Is DTC "C1712", "C1713", "C1714", "C1715" detected?

YES >> Perform trouble diagnosis. Refer to <u>WT-21, "Diagnosis Procedure"</u>. NO >> INSPECTION END

Diagnosis Procedure

1.CHECK ID REGISTRATION

With CONSULT-III

- 1. Perform the ID registration of all transmitters. Refer to <u>WT-6, "ID REGISTRATION PROCEDURE : Special</u> <u>Repair Requirement"</u>.
- 2. Drive at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
- 3. Check all tire pressure with CONSULT-III "DATA MONITOR" within 5 minutes.

Monitored item	Condition	Display value
AIR PRESS FL		
AIR PRESS FR	Start the engine and drive at a 40 km/h (25 MPH) or	Approximately equal to the indication on vehicle
AIR PRESS RR	more for 10 minutes.	information display.
AIR PRESS RL		

Is the inspection result normal?

YES >> GO TO 6.

2.CHECK AIR PRESSURE SIGNAL

With CONSULT-III

- 1. Start the engine.
- 2. Select "DATA MONITOR" mode for "AIR PRESSURE MONITOR" with CONSULT-III.
- 3. Read out the value of "AIR PRESS FL", "AIR PRESS FR", "AIR PRESS RR" and "AIR PRESS RL".

C1712, C1713, C1714, C1715 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

Monitored item	Condition	Display value
AIR PRESS FL		
AIR PRESS FR	Start the engine and drive at a 40 km/h (25 MPH) or	Approximately equal to the indication on vehicle
AIR PRESS RR	more for several minutes.	information display.
AIR PRESS RL		

Are all tire pressures displayed 0 kPa?

YES >> GO TO 3.

NO >> GO TO 5.

$\mathbf{3.}$ CHECK HARNESS BETWEEN BCM AND TIRE PRESSURE RECEIVER

- 1. Turn the ignition switch OFF.
- 2. Disconnect BCM harness connector and tire pressure receiver harness connector.
- 3. Check the continuity between BCM harness connector and tire pressure receiver harness connector.

E	SCM	Tire pressu	ure receiver	Continuity
Connector	Terminal	Connector	Terminal	Continuity
	137		1	
M123	138	M101	4	Existed
	139		2	

4. Check the continuity between BCM harness connector and ground.

B	CM		Continuity
Connector	Terminal		Continuity
	137		
M123	138	Ground	Not existed
	139		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace damaged parts.

4.CHECK TIRE PRESSURE RECEIVER

Check the tire pressure receiver. Refer to WT-35. "Diagnosis Procedure".

Is the inspection result normal?

- YES >> Check BCM pin terminals for damage or loose connection with harness connector. If any items are damaged, repair or replace damaged parts.
- NO >> Replace the tire pressure receiver.

5.CHECK ID REGISTRATION

Perform ID registration of all transmitters. Refer to <u>WT-6, "ID REGISTRATION PROCEDURE : Special Repair</u> Requirement".

Can ID registration of all transmitters be completed?

YES >> GO TO 6.

NO >> Replace malfunctioning transmitter.

6.CHECK TIRE PRESSURE MONITORING SYSTEM

With CONSULT-III

- 1. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
- 2. Check the all tire pressure with CONSULT-III "DATA MONITOR" within 15 minutes after stopped vehicle.

C1712, C1713, C1714, C1715 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

AIR PRESS FL		Display value
AIR PRESS FR		
	Start the engine and drive at a 40 km/h (25 MPH) or	Approximately equal to the indication on vehicle
AIR PRESS RR	more for several minutes.	information display.
AIR PRESS RL		
the inspection result	normal?	
YES >> INSPECTION	ON END	
NO >> Replace B0	CM. Refer to <u>BCS-81, "Exploded View"</u> .	
pecial Repair Re	quirement	INFOID:000000004498651
.CHECK TIRE AIR P	RESSURE	
	ures. Refer to <u>WT-102, "Tire"</u> .	
	lata meet the specification?	
YES >> GO TO 2.		
	repair the tires or wheels and adjust the tire p	ressure to the specification.
PERFORM ID REGI	ISTRATION	
erform ID registration.	. Refer to WT-6, "ID REGISTRATION PROCE	DURE : Special Repair Requirement".
>> END		

C1716, C1717, C1718, C1719 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

C1716, C1717, C1718, C1719 TRANSMITTER

Description

The transmitter integrated with a valve is installed on a wheel, and transmits a detected tire pressure signal by radio wave.

DTC Logic

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INFOID:000000004498652

DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible case
C1716	[PRESSDATA ERR] FL	Air pressure data from front LH transmitter is malfunction.	
C1717	[PRESSDATA ERR] FR	Air pressure data from front RH transmitter is malfunction.	 ID registration is not fin- ished
C1718	[PRESSDATA ERR] RR	Air pressure data from rear RH transmitter is malfunction.	Transmitter malfunction
C1719	[PRESSDATA ERR] RL	Air pressure data from rear LH transmitter is malfunction.	

DTC CONFIRMATION PROCEDURE

1.DTC REPRODUCTION PROCEDURE

With CONSULT-III

Drive at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes. 1.

2. Perform BCM self- diagnosis.

Is DTC "C1716", "C1717", "C1718", "C1719" detected?

>> Perform trouble diagnosis. Refer to WT-24, "Diagnosis Procedure". YES NO

>> INSPECTION END

Diagnosis Procedure

INFOID:000000004498654

1.CHECK TIRE PRESSURE

(P)With CONSULT-III

- Adjust tire pressure to specified value. Refer to WT-102, "Tire". 1.
- Perform the ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special 2. Repair Requirement".
- 3. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
- Check the all tire pressure with CONSULT-III "DATA MONITOR" within 15 minutes after stopped vehicle. 4

Monitored item	Condition	Display value
AIR PRESS FL		
AIR PRESS FR	Start the engine and drive at a 40 km/h (25 MPH) or	Approximately equal to the indication on vehicle
AIR PRESS RR	more for several minutes.	information display.
AIR PRESS RL		

Is tire pressure indicated as 438.60 kPa (4.47kg/cm², 63.60 psi) on the "DATA MONITOR" screen?

YES >> Replace malfunctioning transmitter.

NO >> GO TO 2.

2.CHECK TIRE PRESSURE MONITORING SYSTEM

(R)With CONSULT-III

- Perform the ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special 1. Repair Requirement".
- 2. Drive at a speed of 40 km/h (25 MPH) or more for 10 minutes.
- 3. Check the all tire pressures with CONSULT-III "DATA MONITOR" within 5 minutes.

C1716, C1717, C1718, C1719 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

	Condition	Display value
AIR PRESS FL		
AIR PRESS FR	Start the engine and drive at a 40 km/h (25 MPH) of	or Approximately equal to the indication on vehicle
AIR PRESS RR	more for 10 minutes.	information display.
AIR PRESS RL		
s the inspection result n	ormal?	
YES >> INSPECTIO		
	self-diagnosis, inspect detected malfund	tion. Refer to WT-13, "AIR PRESSURE
MONITOR :	Diagnosis Description".	
Component Inspec	tion	INF0ID:000000004498655
CHECK TRANSMITT	ER	
With CONSULT-III		
. Adjust tire pressure	to specified value. Refer to WT-102, "Tire".	
	ion of all transmitters. Refer to <u>WT-6, "ID</u>	REGISTRATION PROCEDURE : Special
Repair Requirement Drive at a speed of	ے۔ 40 km/h (25 MPH) or more for several minu	ites without stopping.
	essure with CONSULT-III "DATA MONITOR	
- -		
Monitored item	Condition	Display value
AIR PRESSURE FL		
AIR PRESSURE FR	Start the engine and drive at a 40 km/h (25 MPH)	Approximately equal to the indication on vehicle in-
AIR PRESSURE RR	or more for several minutes.	formation display.
AIR PRESSURE RL		
AIR PRESSURE RL	l as 438.60 kPa (4.47 kg/cm ² , 63.60 psi) on	the "DATA MONITOR" screen?
AIR PRESSURE RL s tire pressure indicated YES >> Replace ma	Ifunctioning transmitter.	the "DATA MONITOR" screen?
AIR PRESSURE RL	Ifunctioning transmitter.	the "DATA MONITOR" screen?
AIR PRESSURE RL s tire pressure indicated YES >> Replace ma	lfunctioning transmitter. N END	the "DATA MONITOR" screen?
AIR PRESSURE RL <u>s tire pressure indicated</u> YES >> Replace ma NO >> INSPECTIO Special Repair Rec	lfunctioning transmitter. N END juirement	
AIR PRESSURE RL s tire pressure indicated YES >> Replace ma NO >> INSPECTIO Special Repair Rep .CHECK TIRE AIR PR	lfunctioning transmitter. N END Juirement RESSURE	
AIR PRESSURE RL s tire pressure indicated YES >> Replace ma NO >> INSPECTIO Special Repair Rec .CHECK TIRE AIR PR Check all tire air pressur	Ifunctioning transmitter. N END Juirement RESSURE es. Refer to <u>WT-102, "Tire"</u> .	
AIR PRESSURE RL s tire pressure indicated YES >> Replace ma NO >> INSPECTIO Special Repair Rec .CHECK TIRE AIR PR Check all tire air pressure da	lfunctioning transmitter. N END Juirement RESSURE	
AIR PRESSURE RL s tire pressure indicated YES >> Replace ma NO >> INSPECTIO Special Repair Rec CHECK TIRE AIR PR Check all tire air pressure Does all tire pressure da YES >> GO TO 2.	Ifunctioning transmitter. N END Juirement RESSURE res. Refer to <u>WT-102, "Tire"</u> . ta meet the specification?	INFOID:00000004498656
AIR PRESSURE RL s tire pressure indicated YES >> Replace ma NO >> INSPECTIO Special Repair Rec CHECK TIRE AIR PR Check all tire air pressure Does all tire pressure da YES >> GO TO 2. NO >> Inspect or rec	Ifunctioning transmitter. N END Juirement RESSURE es. Refer to <u>WT-102, "Tire"</u> . ta meet the specification? epair the tires or wheels and adjust the tire p	INFOID:00000004498656
AIR PRESSURE RL s tire pressure indicated YES >> Replace ma NO >> INSPECTIO Special Repair Rec CHECK TIRE AIR PR Check all tire air pressure Does all tire pressure da YES >> GO TO 2. NO >> Inspect or re PERFORM ID REGIS	Ifunctioning transmitter. N END Juirement RESSURE es. Refer to <u>WT-102, "Tire"</u> . ta meet the specification? epair the tires or wheels and adjust the tire p STRATION	INFOID:000000004498656
AIR PRESSURE RL s tire pressure indicated YES >> Replace ma NO >> INSPECTIO Special Repair Rec CHECK TIRE AIR PR Check all tire air pressure Does all tire pressure da YES >> GO TO 2. NO >> Inspect or re PERFORM ID REGIS	Ifunctioning transmitter. N END Juirement RESSURE es. Refer to <u>WT-102, "Tire"</u> . ta meet the specification? epair the tires or wheels and adjust the tire p	INFOID:000000004498656
AIR PRESSURE RL s tire pressure indicated YES >> Replace ma NO >> INSPECTIO Special Repair Req .CHECK TIRE AIR PR Check all tire air pressure Does all tire pressure da YES >> GO TO 2. NO >> Inspect or re .PERFORM ID REGIS Perform ID registration.	Ifunctioning transmitter. N END Juirement RESSURE es. Refer to <u>WT-102, "Tire"</u> . ta meet the specification? epair the tires or wheels and adjust the tire p STRATION	INFOID:000000004498656
AIR PRESSURE RL s tire pressure indicated YES >> Replace ma NO >> INSPECTIO Special Repair Rec CHECK TIRE AIR PR Check all tire air pressure Does all tire pressure da YES >> GO TO 2. NO >> Inspect or re PERFORM ID REGIS	Ifunctioning transmitter. N END Juirement RESSURE es. Refer to <u>WT-102, "Tire"</u> . ta meet the specification? epair the tires or wheels and adjust the tire p STRATION	INFOID:000000004498656
AIR PRESSURE RL s tire pressure indicated YES >> Replace ma NO >> INSPECTIO Special Repair Req .CHECK TIRE AIR PR Check all tire air pressure Does all tire pressure da YES >> GO TO 2. NO >> Inspect or re .PERFORM ID REGIS Perform ID registration.	Ifunctioning transmitter. N END Juirement RESSURE es. Refer to <u>WT-102, "Tire"</u> . ta meet the specification? epair the tires or wheels and adjust the tire p STRATION	INFOID:000000004498656

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C1720, C1721, C1722, C1723 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

C1720, C1721, C1722, C1723 TRANSMITTER

Description

The transmitter integrated with a valve is installed on a wheel, and transmits a detected tire pressure signal by radio wave.

DTC Logic

INFOID:000000004498658

INFOID:000000004498657

DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible case
C1720	[CODE ERR] FL	Function code data from front LH transmitter is malfunctioning.	Tire pressure receiver mal-
C1721	[CODE ERR] FR	Function code data from front RH transmitter is malfunctioning.	functionTransmitter malfunction
C1722	[CODE ERR] RR	Function code data from rear RH transmitter is malfunctioning.	BCM malfunction
C1723	[CODE ERR] RL	Function code data from rear LH transmitter is malfunctioning.	Harness or connector

DTC CONFIRMATION PROCEDURE

1.DTC REPRODUCTION PROCEDURE

(P)With CONSULT-III

- Driving at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes. 1.
- 2. Perform BCM self-diagnosis.

Is DTC "C1720", "C1721", "C1722", "C1723" detected?

>> Perform trouble diagnosis. Refer to WT-26, "Diagnosis Procedure". YES

NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000004498659

1.CHECK ID REGISTRATION

(P)With CONSULT-III

- Perform the ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special 1. Repair Requirement".
- Drive at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes. 2.
- 3. Check all tire pressure with CONSULT-III "DATA MONITOR" within 5 minutes.

Monitored item	Condition	Display value	
AIR PRESS FL			
AIR PRESS FR	Start the engine and drive at a 40 km/h (25 MPH) or	Approximately equal to the indication on vehicle	
AIR PRESS RR	more for 10 minutes.	information display.	
AIR PRESS RL			

Is the inspection result normal?

YES >> GO TO 6. NO >> GO TO 2.

2.CHECK ALL TIRE PRESSURE SIGNAL

With CONSULT-IIIStart the engine.

- Select "DATA MONITOR" mode for "AIR PRESSURE MONITOR" with CONSULT-III. 2.
- Read out the value of "AIR PRESS FL", "AIR PRESS FR", "AIR PRESS RR" and "AIR PRESS RL". 3.

C1720, C1721, C1722, C1723 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

Monitored item	Co	ondition		C	Display value
AIR PRESS FL					
AIR PRESS FR	Start the engine and drive at a 40 km/h (25 MPH) or Approximately equal to the			al to the indication on vehicle	
AIR PRESS RR			information display.		
AIR PRESS RL	_				
re all tire pressure di	splayed 0 kPa?				
YES >> GO TO 3.					
NO >> GO TO 5.					
5. CHECK HARNESS	BETWEEN BCM AN	D TIRE PR	ESSURE RE	CEIVER	
. Turn the ignition s		1.4			
	narness connector and between BCM harness				
		0011100101			
BC	M		Tire pressure	receiver	
Connector	Terminal	Conn	ector	Terminal	Continuity
	137			1	
M123	138	M1	01	4	Existed
-	139			2	
. Check continuity b	etween BCM harness	s connector	and ground.		
	DOM				
Connector	BCM	1		_	Continuity
Connector		Terminal			
M123	137		Ground		Not existed
10123	139				Not existed
s the inspection result					
YES >> GO TO 4.	<u>norman</u>				
	replace damage parts				
CHECK TIRE PRE	SSURE RECEIVER				
heck tire pressure re	ceiver. Refer to WT-3	5, "Diagnos	is Procedure)".	
s the inspection result	normal?	-			
				ction with harnes	s connector. If any items
	ged, repair or replace ne tire pressure receiv		arts.		
D. CHECK TIRE PRE	•				
		3 3131LIM			
With CONSULT-III Drive at a speed c	of 40 km/h (25 MPH) c	r more for s	soveral minu	tes without stopp	ina
	sures with CONSULT				
				1	
Monitored item	Co	ondition		E	Display value
AIR PRESS FL	_				
AIR PRESS FR	Start the engine and driv	ve at a 40 km/			al to the indication on vehicle
AIR PRESS RR	more for several minute	c		information display.	

Is the inspection result normal?

YES >> GO TO 6.

AIR PRESS RL

NO >> Replace BCM. Refer to <u>BCS-81, "Exploded View"</u>.

C1720, C1721, C1722, C1723 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

6.CHECK TRANSMITTER

() With CONSULT-III

- 1. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
- 2. Check all tire pressures with CONSULT-III "DATA MONITOR" within 5 minutes after stopped vehicle.

Monitored item	Condition	Display value	
AIR PRESS FL			
AIR PRESS FR	Start the engine and drive at a 40 km/h (25 MPH) or	Approximately equal to the indication on vehicle	
AIR PRESS RR	more for several minutes.	information display.	
AIR PRESS RL	1		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace malfunction transmitter.

Special Repair Requirement

INFOID:000000004498660

1.CHECK TIRE AIR PRESSURE

Check all tire air pressures. Refer to WT-102, "Tire".

Does all tire pressure data meet the specification?

YES >> GO TO 2.

NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

>> END

C1724, C1725, C1726, C1727 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

C1724, C1725, C1726, C1727 TRANSMITTER

Description

The transmitter integrated with a valve is installed on a wheel, and transmits a detected tire pressure signal by radio wave.

DTC Logic

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INFOID:000000004498661

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DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible case	D
C1724	[BATT VOLT LOW] FL	Battery voltage of front LH transmitter drops.	Transmitter malfunction	
C1725	[BATT VOLT LOW] FR	Battery voltage of front RH transmitter drops.	Tire pressure receiver mal-	\ <i>\\</i> /T
C1726	[BATT VOLT LOW] RR	Battery voltage of rear RH transmitter drops.	functionBCM malfunction	WT
C1727	[BATT VOLT LOW] RL	Battery voltage of rear LH transmitter drops.	Harness or connector	
	FIRMATION PROCEDU PRODUCTION PROCED	-		F
		5 MPH) or more, then drive normally for 10	minutes.	G
YES >>		<u>C1727" detected?</u> s. Refer to <u>WT-29, "Diagnosis Procedure"</u> .		Η
-	INSPECTION END S Procedure		INFOID:000000004498663	I
		transmitters. Refer to <u>WT-6, "ID REGISTRA</u>	TION PROCEDURE : Special	J
2. Drive at	<u>Requirement"</u> . : a 40 km/h (25 MPH) or r all tire pressure with CON	more, then drive normally for 10 minutes. ISULT-III "DATA MONITOR" within 5 minute	S.	K
YES >> NO >>	stration of all transmitters GO TO 2. GO TO 4.			L
	AIR PRESSURE SIGNAL	-		M

1. Start the engine.

- Select "DATA MONITOR" mode for "AIR PRESSURE MONITOR" with CONSULT-III.
- 3. Read out the value of "AIR PRESS FL", "AIR PRESS FR", "AIR PRESS RR" and "AIR PRESS RL".

Monitored item	Condition	Display value	
AIR PRESS FL			0
AIR PRESS FR	Start the engine and drive at a 40 km/h (25 MPH) or	Approximately equal to the indication on vehicle	
AIR PRESS RR	more for several minutes.	information display.	Ρ
AIR PRESS RL			

Are all tire pressures displayed 0 kPa?

YES >> GO TO 3.

NO >> GO TO 5.

3.CHECK HARNESS BETWEEN BCM AND TIRE PRESSURE RECEIVER

1. Turn the ignition switch OFF.

C1724, C1725, C1726, C1727 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

- 2. Disconnect BCM harness connector and tire pressure receiver harness connector.
- 3. Check the continuity between BCM harness connector and tire pressure receiver harness connector.

E	BCM	Tire pressure receiver		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
	137	M101	1		
M123	138		4	Existed	
	139		2		

4. Check continuity between BCM harness connector and ground.

B	CM		Continuity	
Connector	Terminal		Continuity	
	137	Ground	Not existed	
M123	138			
	139			

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace damaged parts.

4.CHECK TIRE PRESSURE RECEIVER

Check the tire pressure receiver. Refer to WT-35, "Diagnosis Procedure".

Is the inspection result normal?

- YES >> Check the BCM pin terminals for damage or loose connection with harness connector. If any items are damaged, repair or replace damaged parts.
- NO >> Replace the tire pressure receiver.

5.CHECK ID REGISTRATION

Perform ID registration of all transmitters. Refer to <u>WT-6, "ID REGISTRATION PROCEDURE : Special Repair</u> <u>Requirement"</u>.

Can ID registration of all transmitters be completed?

YES >> GO TO 6.

NO >> Replace malfunctioning transmitter.

6.CHECK TIRE PRESSURE MONITORING SYSTEM

With CONSULT-III

- 1. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
- 2. Check the all tire pressures with CONSULT-III "DATA MONITOR" within 15 minutes after stopped vehicle.

Monitored item	Condition	Display value	
AIR PRESS FL		Approximately equal to the indication on vehicle	
AIR PRESS FR	Start the engine and drive at a 40 km/h (25 MPH) or		
AIR PRESS RR	more for several minutes.	information display.	
AIR PRESS RL			

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace BCM. Refer to <u>BCS-81, "Exploded View"</u>.

Special Repair Requirement

1.CHECK TIRE AIR PRESSURE

Check all tire air pressures. Refer to WT-102, "Tire".

Does all tire pressure data meet the specification?

INFOID:000000004498664

C1724, C1725, C1726, C1727 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >	_
YES >> GO TO 2. NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification. 2.PERFORM ID REGISTRATION	А
Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".	B
>> END	
	С
	D
	WT
	F
	G
	Н
	I
	J
	K
	L
	Μ
	Ν
	0
	Р

< DTC/CIRCUIT DIAGNOSIS >

C1729 VEHICLE SPEED SIGNAL

Description

BCM detects no vehicle speed signal.

DTC Logic

INFOID:000000004498666

INFOID:000000004498667

INFOID:000000004498668

INFOID:000000004498665

DTC DETECTION LOGIC

DTC number	Trouble diagnosis name	DTC detecting condition	Possible case
C1729	VHCL SPEED SIG ERR	Vehicle speed signal error.	 CAN communication error Unified meter and A/C amp. mal- function

DTC CONFIRMATION PROCEDURE

1.DTC REPRODUCTION PROCEDURE

With CONSULT-III

- 1. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
- 2. Perform BCM self-diagnosis.

Is DTC "C1729" detected?

- YES >> Perform trouble diagnosis. Refer to <u>WT-32, "Diagnosis Procedure"</u>.
- NO >> INSPECTION END

Diagnosis Procedure

1.CHECK UNIFIED METER AND A/C AMP. SELF-DIAGNOSIS

With CONSULT-III

Perform unified meter and A/C amp. self-diagnosis.

Is any DTC detected?

- YES >> Check the DTC.
- NO >> Check unified meter and A/C amp. <u>MWI-50, "COMBINATION METER : Diagnosis Procedure"</u>.

Special Repair Requirement

1.CHECK TIRE AIR PRESSURE

Check all tire air pressures. Refer to WT-102, "Tire".

Does all tire pressure data meet the specification?

YES >> GO TO 2.

NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

>> END

< DTC/CIRCUIT DIAGNOSIS >

C1734 BCM

Description

The BCM reads the tire pressure signal received by the tire pressure receiver, and controls the low tire pres-В sure warning lamp and the buzzer operations. It also has a judgment function to detect a system malfunction.

DTC Logic

DTC DETECTION LOGIC

DTC	DTC Display item Malfunction detected condition Possible case					
C1734	CONTROL UNIT	Tire pressure monit	oring system malfunction in BCM	BCM malfunction		
DTC CONFIR	MATION PROC	EDURE				
1.DTC REPR	ODUCTION PRO	CEDURE				
	speed of 40 km/h CM self-diagnosis		several minutes without stop TA MONITOR" within 15 mir			
	rform trouble dia SPECTION END	gnosis. Refer to <u>WT-33</u>	<u>, "Diagnosis Procedure"</u> .			
Diagnosis F	Procedure			INFOID:00000004498671		
1.CHECK SE	LF-DIAGNOSTIC	RESULTS				
With CONSU						
		select the "SELF-DIAG elf-diagnostic results.	RESULT Screen.			
Does self-diagi	nostic results indi	cate any malfunction?				
	rform trouble dia O TO 2.	gnosis. Refer to <u>WT-78</u>	<u>, "DTC Index"</u> .			
-	M POWER SUPP	PLY CIRCUIT				
2. Disconnec	nition switch OFI t BCM harness c age between BC		erminals and ground.			
	BCM			Valtara		
Conne	ctor	Terminal	_	Voltage		
M11		1	Ground	Battery voltage		
M11	-	11		, ,		
l <u>s the power su</u> YES >> G0	<u>upply normal?</u> D TO 3.					
• 2 <u>/</u>	IOA fusible link <u>Arrangement"</u> .	No. K located in the	naged, repair or replace dam fuse block]. Refer to <u>PG-95</u> ck (J/B)]. Refer to <u>PG-94, "F</u>	5. "Fuse and Fusible Link		
<u>r</u>	hal Arrangement					

- nal Arrangement".
- Harness for short or open between battery and BCM harness connector M118 terminal 1.
- Harness for short or open between battery and BCM harness connector M119 terminal 11.
- Check the Battery voltage.

3. CHECK BCM GROUND CIRCUIT

Check the continuity between BCM harness connector and ground.

Revision: 2009 October

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INFOID:000000004498669

INFOID:000000004498670

C1734 BCM

< DTC/CIRCUIT DIAGNOSIS >

BCM			Continuity
Connector	Terminal		Continuity
M119	13	Ground	Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair open circuit or short to power in harness or connectors.

4.CHECK HARNESS BETWEEN BCM AND TIRE PRESSURE RECEIVER

1. Disconnect tire pressure receiver harness connector.

2. Check the continuity between BCM harness connector and tire pressure receiver harness connector.

BCM		Tire pressure receiver		
Connector	Terminal	Connector	Terminal	Continuity
	137		1	
M123	138	M101	4	Existed
	139		2	

3. Check the continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal		Continuity
	137	Ground	Not existed
M123	138		
	139		

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace damaged parts.

5.CHECK BCM

Check the BCM input/output signal. Refer to <u>BCS-44, "Reference Value"</u>.

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 6.

6.CHECK BCM HARNESS CONNECTOR

Check the BCM pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-81, "Exploded View"</u>.

NO >> Repair or replace damaged parts.

Special Repair Requirement

1.CHECK TIRE AIR PRESSURE

Check all tire air pressures. Refer to WT-102, "Tire".

Does all tire pressure data meet the specification?

YES >> GO TO 2.

NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

2. PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6. "ID REGISTRATION PROCEDURE : Special Repair Requirement".

>> END

INFOID-000000004498672

TIRE PRESSURE RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

TIRE PF	RESSUF	RE REC	EIVER		٨	
Descripti	on			INF0/D:000000004498673	А	
The tire pre	essure recei	ver receive	es the tire pressure signal transmitte	ed by the transmitter in each wheel.	В	
-	ent Funct			- INFOID:000000004498674	D	
1. TIRE PF		IONITORI	NG SYSTEM OPERATION		С	
(P)With CO						
1. Drive a	at a speed 4		5 MPH) or more, then drive normally NSULT-III "DATA MONITOR" within		D	
Mon	itored item		Condition	Display value		
AIR	PRESS FL				WT	
AIR	PRESS FR		engine and drive at a 40 km/h (25MPH) or			
-	PRESS RR	more	for 10 minutes.	information display.	F	
	PRESS RL					
	ection result INSPECTI				G	
NO-1 >>	> Perform B	CM self-dia	agnosis. Refer to <u>WT-78, "DTC_Ind</u>		0	
NO-2 >>	Perform tree	ouble diag	nosis. Refer to <u>WT-35, "Diagnosis F</u>	Procedure".		
Diagnosi	s Proced	ure		INFOID:000000004498675	Н	
1.снеск	TIRE PRES	SSURE RE	ECEIVER SIGNAL			
1. Turn th	e ignition s	witch ON.				
CAUTI	ON:					
	start the er tire pressur		connector and ground signal with o	scilloscope.	J	
	ure receiver	—	Condition	Voltage (Approx.)	К	
Connector	Terminal				I X	
				(V)		
					L	
			Standby state			
				• • 0.2s	M	
				OCC3881D		
M101	2	Ground				
					Ν	
			When receiving the signal from the trans-			
			mitter		0	
				+ 0.2s		
				OCC3880D		
Is the inspe	ection result	normal?	1	I	Р	
YES >>	> INSPECTI					
_	• GO TO 2.	. . – -				
∠.CHECK	TIRE PRES	SSURE RE	ECEIVER INPUT VOLTAGE			

1. Disconnect tire pressure receiver connector.

2. Check voltage between tire pressure receiver connector and ground.

TIRE PRESSURE RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

Tire pressure receiver			Voltage (Approx.)
Connector	Terminal		vollage (Applox.)
M101	4	Ground	5.0 V

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check BCM harness and connector.

3.CHECK TIRE PRESSURE RECEIVER GROUND CIRCUIT

1. Disconnect BCM harness connector.

2. Check continuity between BCM harness connector and tire pressure receiver connector.

B	СМ	Tire press	ure receiver	Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M123	137	M101	1	Existed	

3. Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal		Continuity
M123	137	Ground	Not existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace damaged parts.

4.CHECK BCM CIRCUIT

Inspect the BCM circuit. Refer to WT-33, "Diagnosis Procedure".

Is the BCM circuit normal?

YES >> Replace tire pressure receiver.

NO >> Repair or replace BCM circuit. Replace BCM. Refer to <u>BCS-81, "Exploded View"</u>.

TIRE PRESSURE WARNING CHECK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

TIRE PRESSURE WARNING CHECK SWITCH

Description

Self-diagnosis can be performed by short-circuiting the tire pressure warning check switch to the ground.(Selfdiagnosis indicates the location of the malfunction by the blinking of the low tire pressure warning lamp on the combination meter.)

NOTE:

If low tire pressure warning lamp blinks as shown in the figure, the system is normal. This mode shows transmitter status is in OFF-mode. Mode A D Perform transmitter wake up operation. Refer to WT-6, "TRANS-MITTER WAKE UP OPERATION : Special Repair Requirement". Low tire pressure warning lamp WΤ ON 2sec OFF 况 0.2sec JPEIC0031GE **Component Function Check** INFOID:000000004498677 1. CHECK LOW TIRE PRESSURE WARNING LAMP OPERATION Н Check if low tire pressure warning lamp blinks 1 second and then goes off after turning ignition switch ON. Is inspection result normal? YES >> GO TO 2. NO >> Check the low tire pressure warning lamp. Refer to WT-39, "Diagnosis Procedure". 2.CHECK TIRE PRESSURE WARNING CHECK SWITCH OPERATION 1. Ground the tire pressure warning check switch harness connector terminal. 2. Check the low tire pressure warning lamp blinks. Is the inspection result normal? Κ YES >> INSPECTION END NO >> Perform trouble diagnosis. Refer to WT-37, "Diagnosis Procedure". **Diagnosis** Procedure INFOID:000000004498678 1.CHECK TIRE PRESSURE WARNING CHECK SWITCH POWER SUPPLY CIRCUIT M 1. Turn the ignition switch ON. CAUTION: Never start the engine. 2. Check voltage between tire pressure warning check switch connector and ground. Ν Tire pressure warning check switch Voltage (Approx.) Connector Terminal M23 1 5 V Ground Is the inspection result normal? YES >> Repair or replace BCM circuit. Replace BCM. Refer to BCS-81, "Exploded View". NO >> GO TO 2. 2.CHECK TIRE PRESSURE WARNING CHECK SWITCH CIRCUIT 1. Turn the ignition switch OFF.

2. Disconnect BCM harness connector

3. Check the continuity between BCM harness connector and tire pressure warning check switch connector.

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INFOID:000000004498676

TIRE PRESSURE WARNING CHECK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

BCM		Tire pressure warning check switch		Continuity	
Connector	Terminal	Connector	Terminal	Existed	
M123	149	M23	1	LAISIEU	

4. Check the continuity between BCM harness connector and ground.

B	BCM		Continuity	
Connector	Connector Terminal		Continuity	
M123	149	Ground	Not existed	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace damaged parts.

3. СНЕСК ВСМ

Check the BCM input/output signal. Refer to WT-46, "Reference Value".

Is the inspection result normal?

YES >> INSPECTION END

NO >> Check the BCM pin terminals for damage or loose connection with harness connector. If any items are damaged, repair or replace damaged parts. Replace BCM. Refer to <u>BCS-81</u>, "Exploded <u>View</u>".

LOW TIRE PRESSURE WARNING LAMP

< DTC/CIRCUIT DIAGNOSIS >

LOW TIRE PRESSURE WARNING LAMP

Description

The combination meter receives tire pressure status from the unified meter and A/C amp. via CAN communication. When BCM judges from a transmitter signal that tire pressure is insufficient, BCM transmits a signal to unified meter and A/C amp. via CAN communication. unified meter and A/C amp. turns on the low tire pressure warning lamp mounted on the combination meter.

Condition	Low tire pressure warning lamp	
Ignition switch OFF	OFF	
Ignition switch ON	Warning lamp turns on for 1second, then turns off.	
Less than * kPa (* kg/cm ² , * psi) [NOTE]	ON	
Tire pressure monitoring system malfunction [Other diagnostic item]	Warning lamp blinks 1 min, then turns on.	
NOTE:		
 182.7 kPa (1.9 kg/cm², 26 psi): Standard air pressure is for 230 kPa (2. 	3 kg/cm ² , 33 psi) vehicles.	
 189.6 kPa (1.9 kg/cm², 27 psi): Standard air pressure is for 240 kPa (2. 	4 kg/cm ² , 35 psi) vehicles.	
Component Function Check	INFOID:000000004498680	
1. CHECK LOW TIRE PRESSURE WARNING LAMP		
Check if low tire pressure warning lamp blinks for 1 second ON.	and then goes off after turning the ignition switch	
Is inspection result normal?		
YES >> INSPECTION END		
NO >> Perform trouble diagnosis. Refer to WT-39, "Dia	agnosis Procedure".	
Diagnosia Drasadura		
Diagnosis Procedure	INFOID:00000004498681	
1. CHECK SELF DIAGNOSTIC RESULTS	INFOID:00000004498681	
	INFOID:00000004498681	
1. CHECK SELF DIAGNOSTIC RESULTS Perform self-diagnosis of tire pressure monitoring system. Is inspection result normal?	INFOID:00000004498681	
1. CHECK SELF DIAGNOSTIC RESULTS Perform self-diagnosis of tire pressure monitoring system. <u>Is inspection result normal?</u> YES >> GO TO 2.	INFOID:00000004498681	
1.CHECK SELF DIAGNOSTIC RESULTS Perform self-diagnosis of tire pressure monitoring system. Is inspection result normal? YES >> GO TO 2. NO >> Check the DTC.	INFOID:000000004498681	
1.CHECK SELF DIAGNOSTIC RESULTS Perform self-diagnosis of tire pressure monitoring system. Is inspection result normal? YES >> GO TO 2. NO >> Check the DTC. 2.CHECK LOW TIRE PRESSURE WARNING LAMP		
1.CHECK SELF DIAGNOSTIC RESULTS Perform self-diagnosis of tire pressure monitoring system. Is inspection result normal? YES >> GO TO 2. NO >> Check the DTC. 2.CHECK LOW TIRE PRESSURE WARNING LAMP Check if low tire pressure warning lamp blinks 1 second and		
1.CHECK SELF DIAGNOSTIC RESULTS Perform self-diagnosis of tire pressure monitoring system. Is inspection result normal? YES >> GO TO 2. NO >> Check the DTC. 2.CHECK LOW TIRE PRESSURE WARNING LAMP Check if low tire pressure warning lamp blinks 1 second and ls inspection result normal?		
1.CHECK SELF DIAGNOSTIC RESULTS Perform self-diagnosis of tire pressure monitoring system. Is inspection result normal? YES >> GO TO 2. NO >> Check the DTC. 2.CHECK LOW TIRE PRESSURE WARNING LAMP Check if low tire pressure warning lamp blinks 1 second and ls inspection result normal? YES >> INSPECTION END		
1.CHECK SELF DIAGNOSTIC RESULTS Perform self-diagnosis of tire pressure monitoring system. Is inspection result normal? YES >> GO TO 2. NO >> Check the DTC. 2.CHECK LOW TIRE PRESSURE WARNING LAMP Check if low tire pressure warning lamp blinks 1 second and ls inspection result normal?		
1.CHECK SELF DIAGNOSTIC RESULTS Perform self-diagnosis of tire pressure monitoring system. Is inspection result normal? YES >> GO TO 2. NO >> Check the DTC. 2.CHECK LOW TIRE PRESSURE WARNING LAMP Check if low tire pressure warning lamp blinks 1 second and ls inspection result normal? YES >> INSPECTION END		
1.CHECK SELF DIAGNOSTIC RESULTS Perform self-diagnosis of tire pressure monitoring system. Is inspection result normal? YES >> GO TO 2. NO >> Check the DTC. 2.CHECK LOW TIRE PRESSURE WARNING LAMP Check if low tire pressure warning lamp blinks 1 second and ls inspection result normal? YES >> INSPECTION END		

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INFOID:000000004498679

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:000000004498682

1.CHECK FUSE AND FUSIBLE LINK

Check that the following fuse and fusible link are not blown.

Signal name	Fuse and fusible link No.	
Pottory power supply	К	
Battery power supply	10	

Is the fuse fusing?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit if a fuse or fusible link is blown.

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect BCM connectors.
- 3. Check voltage between BCM harness connector and ground.

(+	+)	(-)	Voltage
BC	CM		(Approx.)
Connector	Terminal	Ground	
M118	1	Ground	Potton voltage
M119	11		Battery voltage

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

B	CM		Continuity
Connector Terminal		Ground	Continuity
M119	13	Ť	Existed

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

UNIFIED METER AND A/C AMP.

UNIFIED METER AND A/C AMP. : Diagnosis Procedure

INFOID:000000004498683

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	6
Ignition switch ACC or ON	19
Ignition switch ON or START	3

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

2

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2. CHECK POWER SUPPLY CIRCUIT

Check voltage between unified meter and A/C amp. harness connector and ground.

	Term	inals				
(+)			()	Ignition switch position	Value (Approx.)	
Unified meter and A/C amp.	Terminal	Signal name	(-)			
	54	Battery power supply		OFF	Battery voltage	-
M67	41	ACC power supply	Ground	ACC	Battery voltage	-
	53	Ignition signal		ON	Battery voltage	V

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check harness between unified meter and A/C amp. and fuse.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect unified meter and A/C amp. connector.

3. Check continuity between unified meter and A/C amp. harness connector and ground.

Unified meter and A/C amp.			
Connector	Terminal	Continuity	
MCZ	55	Ground	Existed
M67	71	-	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

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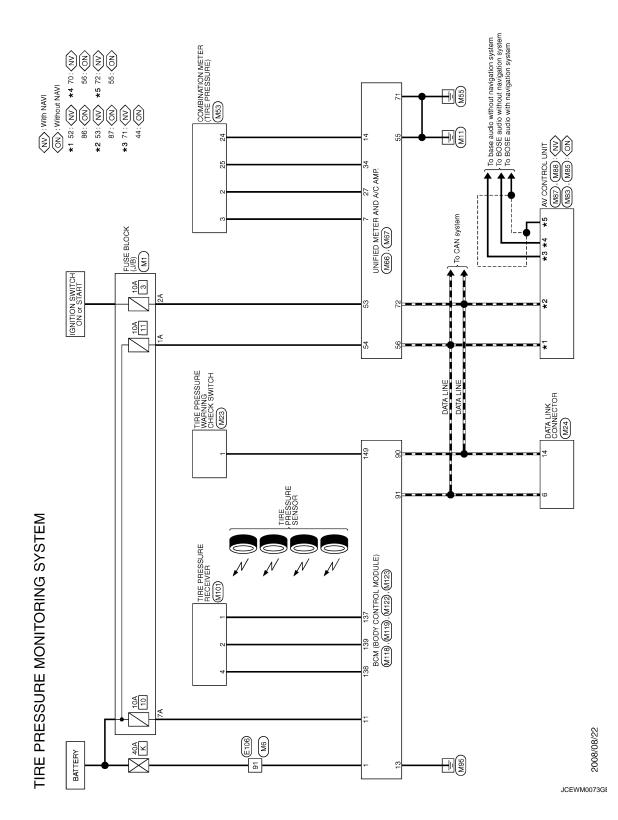
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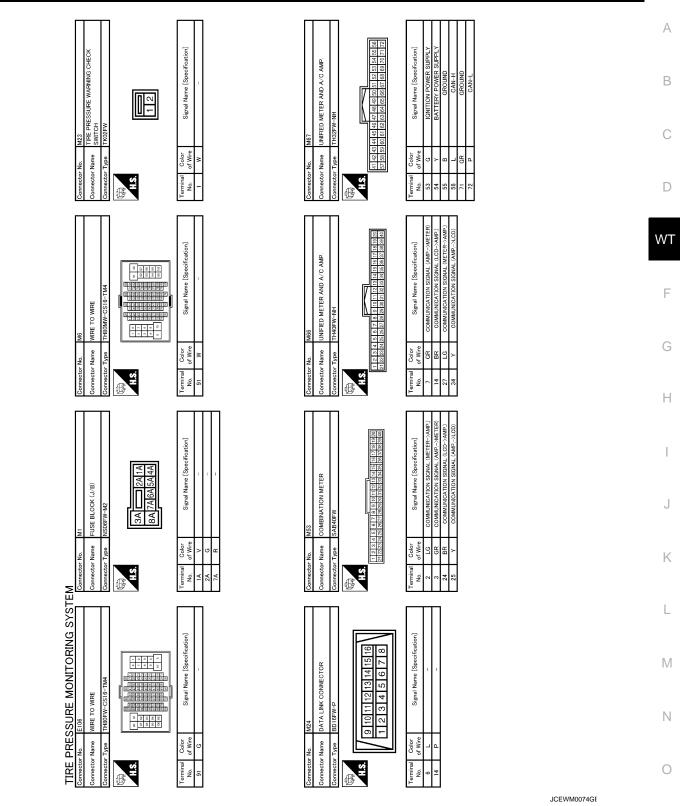
Wiring Diagram - TIRE PRESSURE MONITORING SYSTEM -

INFOID:000000004498684



TPMS

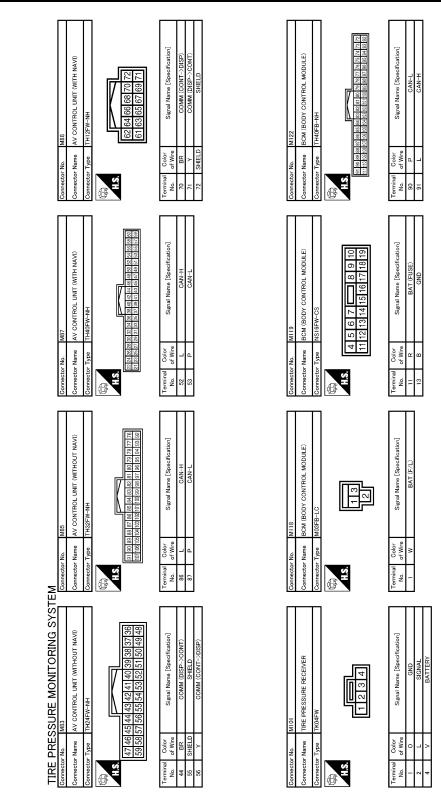
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ECU DIAGNOSIS INFORMATION BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000004498713

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT	Off
	Front wiper switch INT	On
	Front wiper is not in STOP position	Off
FR WIPER STOP	Front wiper is in STOP position	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dia position
	Other than turn signal switch RH	Off
TURN SIGNAL R	Turn signal switch RH	On
	Other than turn signal switch LH	Off
TURN SIGNAL L	Turn signal switch LH	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
	Lighting switch 1ST or 2ND	On
	Other than lighting switch HI	Off
HI BEAM SW	Lighting switch HI	On
	Other than lighting switch 2ND	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
	Other than lighting switch 2ND	Off
HEAD LAMP SW 2	Lighting switch 2ND	On
	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On
	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off
	Driver door closed	Off
DOOR SW-DR	Driver door opened	On
	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
DOOR SW-RR	NOTE: The item is indicated, but not monitored.	Off

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
DOOR SW-RL	NOTE: The item is indicated, but not monitored.	Off
DOOR SW-BK	NOTE: The item is indicated, but not monitored.	Off
	Other than power door lock switch LOCK	Off
CDL LOCK SW	Power door lock switch LOCK	On
	Other than power door lock switch UNLOCK	Off
CDL UNLOCK SW	Power door lock switch UNLOCK	On
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	Off
NET CTL LK-SW	Driver door key cylinder LOCK position	On
	Other than driver door key cylinder UNLOCK position	Off
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	On
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
	Hazard switch is OFF	Off
HAZARD SW	Hazard switch is ON	On
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off
H/L WASH SW	NOTE: The item is indicated, but not monitored.	Off
	Trunk lid opener cancel switch OFF	Off
TR CANCEL SW	Trunk lid opener cancel switch ON	On
TR/BD OPEN SW	Trunk lid opener switch OFF	Off
	While the trunk lid opener switch is turned ON	On
	Trunk lid closed	Off
TRNK/HAT MNTR	Trunk lid opened	On
RKE-LOCK	LOCK button of the Intelligent Key is not pressed	Off
RRE-LOCK	LOCK button of the Intelligent Key is pressed	On
RKE-UNLOCK	UNLOCK button of the Intelligent Key is not pressed	Off
RRE-UNLOCK	UNLOCK button of the Intelligent Key is pressed	On
	TRUNK OPEN button of the Intelligent Key is not pressed	Off
RKE-TR/BD	TRUNK OPEN button of the Intelligent Key is pressed	On
RKE-PANIC	PANIC button of the Intelligent Key is not pressed	Off
	PANIC button of the Intelligent Key is pressed	On
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is not pressed	Off
	UNLOCK button of the Intelligent Key is pressed and held	On
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simulta- neously	Off
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On
	Bright outside of the vehicle	Close to 5 V
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0 V
	Driver door request switch is not pressed	Off
REQ SW -DR	Driver door request switch is pressed	On
	Passenger door request switch is not pressed	Off
REQ SW -AS	Passenger door request switch is pressed	On
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off

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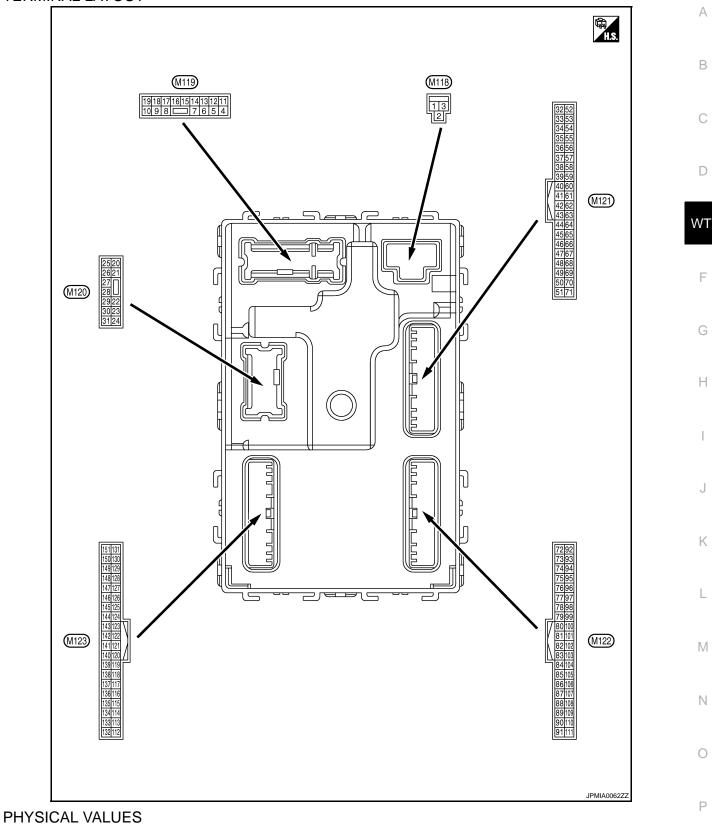
Monitor Item	Condition	Value/Status
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off
	Trunk lid opener request switch is not pressed	Off
REQ SW -BD/TR	Trunk lid opener request switch is pressed	On
	Push-button ignition switch (push switch) is not pressed	Off
PUSH SW	Push-button ignition switch (push switch) is pressed	On
GN RLY2 -F/B	Ignition switch in OFF or ACC position	Off
GN KLTZ -F/D	Ignition switch in ON position	On
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off
	The clutch pedal is not depressed	Off
CLUCH SW	The clutch pedal is depressed	On
	The brake pedal is depressed when No. 7 fuse is blown	Off
BRAKE SW 1	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is nor- mal	On
	The brake pedal is not depressed	Off
3RAKE SW 2	The brake pedal is depressed	On
	 Selector lever in P position (Except M/T models) The clutch pedal is depressed (M/T models) 	Off
DETE/CANCL SW	 Selector lever in any position other than P (Except M/T models) The clutch pedal is not depressed (M/T models) 	On
	Selector lever in any position other than P and N	Off
SFT PN/N SW	Selector lever in P or N position	On
	Steering is unlocked	Off
S/L -LOCK	Steering is locked	On
	Steering is locked	Off
S/L -UNLOCK	Steering is unlocked	On
	Ignition switch in OFF or ACC position	Off
S/L RELAY-F/B	Ignition switch in ON position	On
	Driver door is unlocked	Off
JNLK SEN -DR	Driver door is locked	On
	Push-button ignition switch (push-switch) is not pressed	Off
PUSH SW -IPDM	Push-button ignition switch (push-switch) is pressed	On
	Ignition switch in OFF or ACC position	Off
GN RLY1 -F/B	Ignition switch in ON position	On
	Selector lever in any position other than P	Off
DETE SW -IPDM	Selector lever in P position	On
	 Selector lever in any position other than P and N (Except M/T models) The clutch pedal is not depressed (M/T models) 	Off
SFT PN -IPDM	Selector lever in P or N positionThe clutch pedal is depressed	On
	Selector lever in any position other than P	Off
SFT P -MET	Selector lever in P position	On
	Selector lever in any position other than N	Off
SFT N -MET	Selector lever in N position	On

Monitor Item	Condition	Value/Status	
	Engine stopped	Stop	
ENGINE STATE	While the engine stalls	Stall	
ENGINE STATE	At engine cranking	Crank	
	Engine running	Run	
	Steering is unlocked	Off	
S/L LOCK-IPDM	Steering is locked	On	
	Steering is locked	Off	
S/L UNLK-IPDM	Steering is unlocked	On	
	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK	Off	
S/L RELAY-REQ	Steering lock system are not the LOCK condition or the changing condition from LOCK to UNLOCK	On	Ň
VEH SPEED 1	While driving	Equivalent to speed- ometer reading	
/EH SPEED 2	While driving	Equivalent to speed- ometer reading	
	Driver door is locked	LOCK	
DOOR STAT-DR	Wait with selective UNLOCK operation (60 seconds)	READY	
	Driver door is unlocked	UNLOCK	
	Passenger door is locked	LOCK	
DOOR STAT-AS	Wait with selective UNLOCK operation (60 seconds)	READY	
	Passenger door is unlocked	UNLOCK	
D OK FLAG	Steering is locked	Reset	
DORTERG	Steering is unlocked	Set	
PRMT ENG STRT	The engine start is prohibited	Reset	
	The engine start is permitted	Set	
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset	
KEY SW -SLOT	The Intelligent Key is not inserted into key slot	Off	
(L 1 300-3LOT	The Intelligent Key is inserted into key slot	On	
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key	
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_	
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet	
	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done	
CONFIRM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet	
	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done	
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet	
	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done	

Monitor Item	Condition	Value/Status
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID reg- istered to BCM.	Yet
CONFIRMIDZ	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done
	The key ID that the key slot receives is not recognized by the first key ID regis- tered to BCM.	Yet
CONFIRM ID1	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
	The ID of fourth Intelligent Key is not registered to BCM	Yet
TP 4	The ID of fourth Intelligent Key is registered to BCM	Done
TDO	The ID of third Intelligent Key is not registered to BCM	Yet
TP 3	The ID of third Intelligent Key is registered to BCM	Done
TDO	The ID of second Intelligent Key is not registered to BCM	Yet
TP 2	The ID of second Intelligent Key is registered to BCM	Done
	The ID of first Intelligent Key is not registered to BCM	Yet
TP 1	The ID of first Intelligent Key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	ID of front LH tire transmitter is registered	Done
ID REGST FLT	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
ID REGOT FRI	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
ID REGOT KRT	ID of rear RH tire transmitter is not registered	Yet
	ID of rear LH tire transmitter is registered	Done
ID REGST RL1	ID of rear LH tire transmitter is not registered	Yet
	Tire pressure indicator OFF	Off
WARNING LAMP	Tire pressure indicator ON	On
	Tire pressure warning alarm is not sounding	Off
BUZZER	Tire pressure warning alarm is sounding	On

< ECU DIAGNOSIS INFORMATION >

TERMINAL LAYOUT



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	nal No. color)	Description				Value		
(vvire +	-	Signal name	Input/ Output		Condition	(Approx.)		
1 (W)	Ground	Battery power supply	Input	Ignition switch (DFF	Battery voltage		
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch (DFF	12 V		
3 (O)	Ground	P/W power supply (RAP)	Output	Ignition switch (NC	12 V		
					mp battery saver is activated. or room lamp power supply)	0 V		
4 (LG)	Ground	Interior room lamp power supply	Output	vated.	mp battery saver is not acti- erior room lamp power sup-	12 V		
5	Oneverd	Passenger door UN-	Quitaut	Passenger	UNLOCK (Actuator is activated)	12 V		
(P)	Ground	LOCK	Output	door	Other than UNLOCK (Ac- tuator is not activated)	0 V		
7	Onesia	Otan Jama	Quatariat	Otan Jaman	ON	0 V		
(SB)	Ground	Step lamp	Output	Step lamp	OFF	12 V		
8	Crownd	All doors, fuel lid	Outrout	All doors, fuel lid	LOCK (Actuator is activated)	12 V		
(V)	Ground	LOCK	Output		Other than LOCK (Actuator is not activated)	0 V		
9	Crownd	Driver door, fuel lid	Output	Driver door,	UNLOCK (Actuator is activated)	12 V		
(G)	Ground	UNLOCK	Output	fuel lid	Other than UNLOCK (Actuator is not activated)	0 V		
11 (R)	Ground	Battery power supply	Input	Ignition switch (DFF	Battery voltage		
13 (B)	Ground	Ground	_	Ignition switch (NC	0 V		
					OFF	0 V		
		Push-button ignition						NOTE: When the illumination brighten- ing/dimming level is in the neutral position.
14 (W)	Ground	switch illumination ground	Output	Tail lamp	ON	(V) 10 0 2 ms JSNIA0010GB		
15 (O)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage		
(\mathbf{O})					ACC	0 V		

	nal No.	Description				Value	Λ
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	A
			•		Turn signal switch OFF	0 V	
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 0 5 0 1 s FKID0926E 6.5 V	B C D
					Turn signal switch OFF	0 V	WT
18 (O)	Ground	Turn signal LH (Front)	Output	lgnition switch ON	Turn signal switch LH	(V) 15 0 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5	F
19	Ground	Room lamp timer	Output	Interior room	OFF	12 V	Н
(V)	Ground	control	Output	lamp	ON	0 V	
					Turn signal switch OFF	0 V	
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch RH	(V) 10 0 1 1 1 1 1 1 1 1 1 1 1 1 1	l J K
23		T	0.1.1	T 1 F 1	OPEN (Trunk lid opener actuator is activated)	12 V	L
(L)	Ground	Trunk lid open	Output	Trunk lid	Other than OPEN (Trunk lid opener actuator is not activated)	0 V	Μ
					Turn signal switch OFF	0 V	
25 (Y)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 10 0 1 1 1 1 1 1 1 1 1 1 1 1 1	N O P
30	Groupel	Trunk room lows	0	Trunk room	ON	0 V	
(P)	Ground	Trunk room lamp	Output	lamp	OFF	12 V	

	nal No.	Description				Value	
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	
34	Ground	Ground Trunk room antenna Output Ignition s		Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	
(SB)		()		OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 0 1 s JMKIA0063GB	
35	Ground	Trunk room antenna		utput Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 0 0 1 s JMKIA0062GB	
(V)		(+)			When Intelligent Key is not in the passenger compart- ment	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1	
38	Ground	Rear bumper anten-			When the trunk lid opener re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(B)	Ground	na (–)	Output	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s 1 5 0 5 0 5 0 5 0 5 0 5 1 5 0 5 0 5 0 5	

	nal No. color)	Description	1		0	Value	A
+	-	Signal name	Input/ Output	Condition		(Approx.)	~
39		Rear bumper anten-		When the trunk lid opener re-	When Intelligent Key is in the antenna detection area	(V) 15 0 10 10 10 10 10 10 10 10 10	
(W)	Ground	na (+)	Output	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 1 1 1 1 1 1 1 1 1 1 1 1 1	W
47		Ignition relay (IPDM			OFF or ACC	12 V	0
(Y)	Ground	E/R) control	Output	Ignition switch	ON	0 V	
50 (R)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk lid is closed)	(V) 15 0 10 ms JPMA0011GB 11.8 V	ŀ
					ON (Trunk lid is opened)	0 V	
				Ignition switch ON (A/T mod-	When selector lever is in P or N position	12 V	ł
52	Oneveral	Otenten neleu en trel	Quitaut	els)	When selector lever is not in P or N position	0 V	
(SB)	Ground	Starter relay control	Output	Ignition switch	When the clutch pedal is depressed	Battery voltage	
				ON (M/T mod- els)	When the clutch pedal is not depressed	0 V	ľ
					ON (Pressed)	0 V	1
61 (SB)	Ground	Trunk lid opener re- quest switch	Input	Trunk lid open- er request switch	OFF (Not pressed)	(V) 15 10 5 10 10 ms JPMA0016GB	(
		Intelligent Key warn-		Intelligent Key	Sounding	1.0 V 0 V	
64 (L)	Ground	ing buzzer (Engine	Output	warning buzzer	Not sounding	12 V	
(-)		room)		(Engine room)	Not sounding	IZ V	

< ECU DIAGNOSIS INFORMATION > Terminal No. Description Value (Wire color) Condition Input/ (Approx.) Signal name + _ Output 0 V Pressed 15 10 67 Trunk lid opener Trunk lid open-Ground Input (GR) switch er switch Ō Not pressed 10 ms JPMIA0011GB 11.8 V (V 15 10 When Intelligent Key is in 50 the passenger compartment 1 s JMKIA0062GB 72 Room antenna 2 (-) Ignition switch Ground Output (R) (Center console) OFF 15 10 When Intelligent Key is not in the passenger compartn ment 1 s JMKIA0063GB 15 10 When Intelligent Key is in ŏ the passenger compartment 1 s JMKIA0062GB 73 Room antenna 2 (+) Ignition switch Ground Output (G) (Center console) OFF 15 10 When Intelligent Key is not ñ in the passenger compartment 1 s

BCM (BODY CONTROL MODULE)

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JMKIA0063GB

	nal No.	Description				Value				
(Wire +	color)	Signal name	Input/ Output		Condition	Value (Approx.)	А			
74	0	Passenger door an-	0.444	When the pas- senger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	B C D			
(SB)	Ground	tenna (-)		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	WT				
75	Ground	Passenger door an-	Output	When the pas- senger door re- quest switch is	When Intelligent Key is in the antenna detection area	(V) 15 0 15 0 15 0 15 15 15 15 15 15 15 15 15 15	G H I			
(BR)		tenna (+)	ignition switch OFF V ir	operated with ignition switch	operated with ignition switch	ignition switch	ignition switch	When Intelligent Key is not in the antenna detection area	(V) 15 0 15 0 15 15 15 15 15 15 15 15 15 15	J K L
76	Ground	Driver door antenna	Output	When the driv- er door request switch is oper-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	M			
(V)		(-)	Cupu	ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 0 1 s JMKIA0063GB	P			

	nal No.	Description				Value	
(vvire +	color)	Signal name	Input/ Output		Condition	(Approx.)	
77	Ground	Driver door antenna	Output	When the driv- er door request switch is oper-	When Intelligent Key is in the antenna detection area	(V) 15 0 1 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 1 5	
(LG)		(+)	Guipur	ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 0 1 s JMKIA0063GB	
78	Ground	Room antenna 1 (–)	Output Ignition switch OFF	Output Ignition switch OFF	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 0 1 s JMKIA0062GB
(Y)		(Instrument panel)			When Intelligent Key is n	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1
79	Ground	Room antenna 1 (+)	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 1 s JMKIA0062GB	
(BR)	Glound	(Instrument panel)	Output	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	

	nal No.	Description		_		Value						
(vvire +	color)	Signal name	Input/ Output		Condition	(Approx.)						
80 (GR)	Ground	NATS antenna amp (Built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.						
81 (W)	Ground	NATS antenna amp (Built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.						
82 (R)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC ON	0 V 12 V						
83		Remote keyless entry		During waiting		(V) 15 0 0 10 10 10 10 10 10 10 10						
83 (Y)	Ground	receiver communica- tion	Input/ Output	When operating gent Key	either button on the Intelli-	(V) 15 10 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
					All switches OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4 V						
87 (Y)	Ground	Combination switch INPUT 5	Input	Input	Input	Input	Input	Input	Input	Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0037GB 1.3 V
					Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	(V) 15 0 2 ms 10 2 ms 10 10 10 10 10 10 10 10 10 10 10 10 10						

Terminal No. Description Value (Wire color) Condition Input/ (Approx.) Signal name + _ Output (V 15 10 5 All switches OFF Õ (Wiper intermittent dial 4) 2 ms JPMIA0041GB 1.4 V (V 15 10 Lighting switch HI 0 (Wiper intermittent dial 4) 2 ms JPMIA0036GB 1.3 V 88 Combination switch Combination Ground Input (O) **INPUT 3** switch 15 10 Lighting switch 2ND n (Wiper intermittent dial 4) 2 ms JPMIA0037GB 1.3 V 15 Any of the conditions be-10 low with all switches OFF 5 0 • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 2 ms JPMIA0040GB 1.3 V Push-button ig-0 V Pressed 89 Push-button ignition Ground Input nition switch (BR) switch (Push switch) Not pressed Battery voltage (push switch) 90 Input/ Ground CAN-L (P) Output 91 Input/ CAN-H Ground (L) Output OFF 0 V (V 15 10 92 Key slot illumin Ground Key slot illumination Output Blinking (LG) nation 1 s JPMIA0015GB 6.5 V ON 12 V

BCM (BODY CONTROL MODULE)

	nal No. color)	Description			Condition	Value		
+	-	Signal name	Input/ Output		Condition	(Approx.)		
93 (Y)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage		
(1)					ON	0 V		
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V		
(O)	Ground	Acc relay control	Output	ignition switch	ACC or ON	12 V		
96 (GR)	Ground	A/T shift selector (De- tention switch) power supply	Output		_	12 V		
97	Ground	Steering lock condi-	Input	Steering lock	LOCK status	0 V		
(L)	Croana	tion No. 1	mpar	Clocking look	UNLOCK status	12 V		
98	Ground	Steering lock condi-	Input	Steering lock	LOCK status	12 V		
(P)	Croana	tion No. 2	mpat	Cleening look	UNLOCK status	0 V		
		Selector lever P posi-		Selector lever	P position	0 V		
		tion switch			Any position other than P	12 V		
		ASCD clutch switch (M/T models without		ASCD clutch	OFF (Clutch pedal is depressed)	0 V		
99 (R)	Ground	ICC)	Input	Input	Input	switch	ON (Clutch pedal is not depressed)	12 V
		ICC clutch switch (M/		ICC clutch	OFF (Clutch pedal is de- pressed)	0 V		
		T models with ICC)		switch	ON (Clutch pedal is not depressed)	12 V		
					ON (Pressed)	0 V		
100 (Y)	Ground	Passenger door re- quest switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 0 10 ms JPMA0016GB 1.0 V		
					ON (Pressed)	0 V		
101 (P)	Ground	Driver door request switch	Input	Driver door re- quest switch	OFF (Not pressed)	(V) 15 0 10 ms JDMA0016GB 1.0 V		
102	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0 V		
(O)	Sround	lay control	Supul	ignition switch	ON	12 V		
103 (LG)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch C)FF	12 V		
106	0	Steering lock unit	0	Invition of 101	OFF or ACC	12 V		
(W)	Ground	power supply	Output	Ignition switch	ON	0 V		

	nal No. color)	Description				Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
					Turn signal switch LH	(V) 15 0 2 ms JPMIA0037GB 1.3 V
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	Turn signal switch RH	(V) 15 0 2 ms JPMIA0036GB 1.3 V
					Front wiper switch LO	(V) 15 0 2 ms JPMIA0038GB 1.3 V
					Front washer switch ON	(V) 15 0 2 ms JPMIA0039GB 1.3 V

Terminal No. (Wire color)		Description				Value	٨
(Wire +	color) –	Signal name	Input/ Output		Condition	(Approx.)	А
					All switches OFF (Wiper intermittent dial 4)	(V) 15 0 2.ms. JPMIA0041GB 1.4 V	B C D
108	Ground	Combination switch	Input	Combination	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 0 2.ms. JPMIA0038GB 1.3 V	WT F
(R)	Clound	INPUT 4	input	switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 0 2.ms. JPMIA0036GB 1.3 V	G
					Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	(V) 15 10 5 0 2 ms JPMIA0039GB	J
						1.3 V	L

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Terminal No. Description Value (Wire color) Condition Input/ (Approx.) Signal name + _ Output (V) 15 10 5 Õ All switches OFF 2 ms JPMIA0041GB 1.4 V (V 15 10 5 õ Lighting switch PASS 2 ms JPMIA0037GB 1.3 V (V 15 10 Combination 109 Combination switch switch Ō Lighting switch 2ND Ground Input INPUT 2 (W) (Wiper intermittent dial 4) 2 ms JPMIA0036GB 1.3 V (V 15 10 5 0 Front wiper switch INT 2 ms JPMIA0038GB 1.3 V (V 15 10 ŏ Front wiper switch HI 2 ms JPMIA0040GB 1.3 V ON 0 V 110 Ground Hazard switch Input Hazard switch (G) ŏ OFF 10 ms JPMIA0012GB 1.1 V

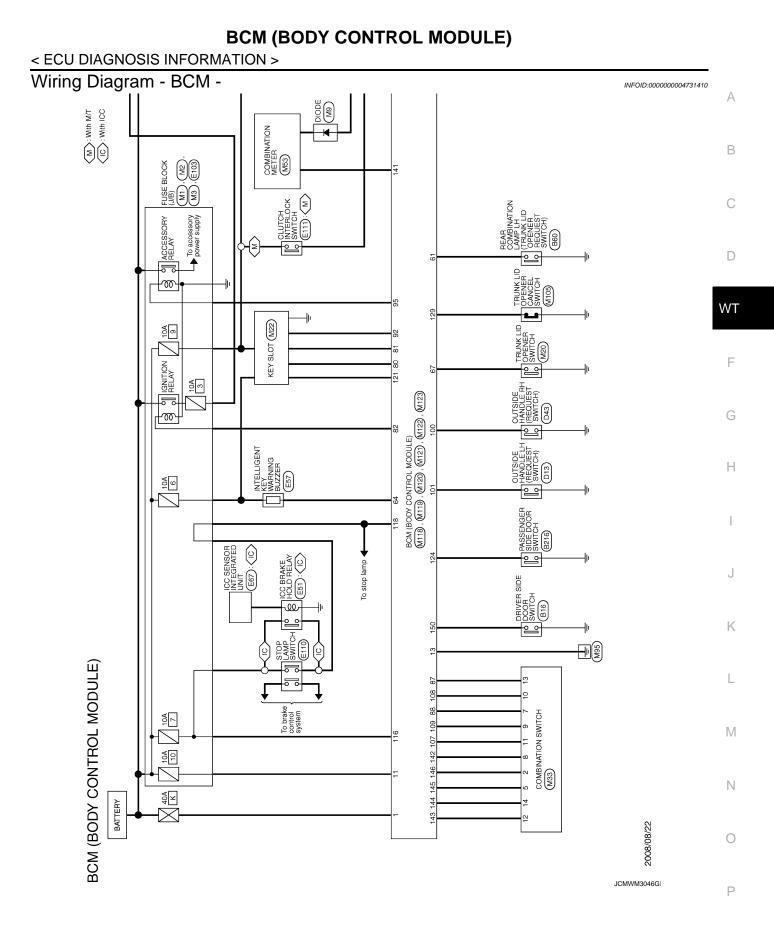
BCM (BODY CONTROL MODULE)

Terminal No.		Description				Value
(Wire color) + –		Signal name	Input/ Output	Condition		(Approx.)
					LOCK status	12 V
111 (Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK or UNLOCK	(V) 15 10 50 50 ms JMKIA0066GB
					For 15 seconds after UN- LOCK	12 V
					15 seconds or later after UNLOCK	0 V
113	Ground			Ignition switch	When bright outside of the vehicle	Close to 5 V
(O) Ground	Optical sensor	Input	ON	When dark outside of the vehicle	Close to 0 V	
114	Ground	Clutch interlock	Input	t Clutch interlock depressed)	OFF (Clutch pedal is not depressed)	0 V
(R)	Ground	switch	input		ON (Clutch pedal is de- pressed)	Battery voltage
116 (SB)	Ground	Stop lamp switch 1	Input	_		Battery voltage
		Stop lamp switch 2 (Without ICC) Stop lamp switch 2 (With ICC)	— Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
118	Ground				ON (Brake pedal is de- pressed)	Battery voltage
(BR)				Stop lamp switch OFF (Brake pedal is not depressed) and ICC brake hold relay OFF		0 V
					h ON (Brake pedal is de- brake hold relay ON	Battery voltage
119 (SB) G	Ground	Driver side door lock round assembly (Unlock Inpu sensor)	Input E	Input Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 0 10 ms JDMIA0012GB 1.1 V
					UNLOCK status (Unlock switch sensor ON)	0 V
121	Ground	d Key slot switch	Innut	When the Intelligent Key is inserted into key slot		12 V
(SB)	Ground		Input	When the Intellig key slot	gent Key is not inserted into	0 V
123 G	Ground	round IGN feedback In	Input	Input Ignition switch	OFF or ACC	0 V
(W)					ON	Battery voltage

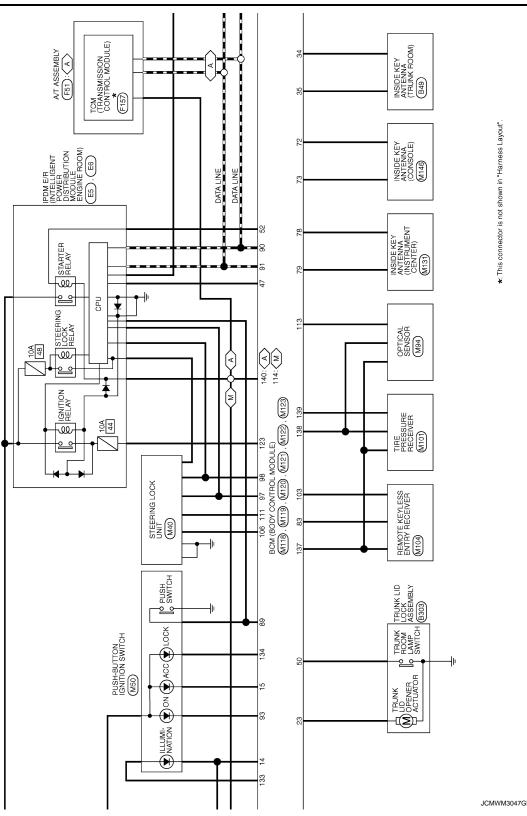
Terminal No. (Wire color)		Description				Value	
(VVire +	color)	Signal name	Input/ Output	Condition		(Approx.)	
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V	
					ON (Door open)	0 V	
129 (O)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid open- er cancel switch	CANCEL	(V) 15 10 10 10 10 10 11 11 11 11 11	
					ON	0 V	
132 (V)	Ground	Power window switch communication	Input/ Output	Ignition switch ON Ignition switch OFF or ACC		(V) 15 10 10 ms JPMIA0013GB 10.2 V	
						12 V	
				Push-button ig-	ON (Tail lamps OFF)	9.5 V NOTE: The pulse width of this wave is varied by the illumination bright- ening/dimming level. (V)	
133 (L)	Ground	Push-button ignition switch illumination	Output	nition switch il- lumination	ON (Tail lamps ON)	15 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
					OFF	0 V	
134 (LG)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage	
137 (O)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V	
138	Crossed	Receiver and sensor	0	1	OFF	0 V	
(V)	Ground	power supply	Output	Ignition switch	ACC or ON	5.0 V	

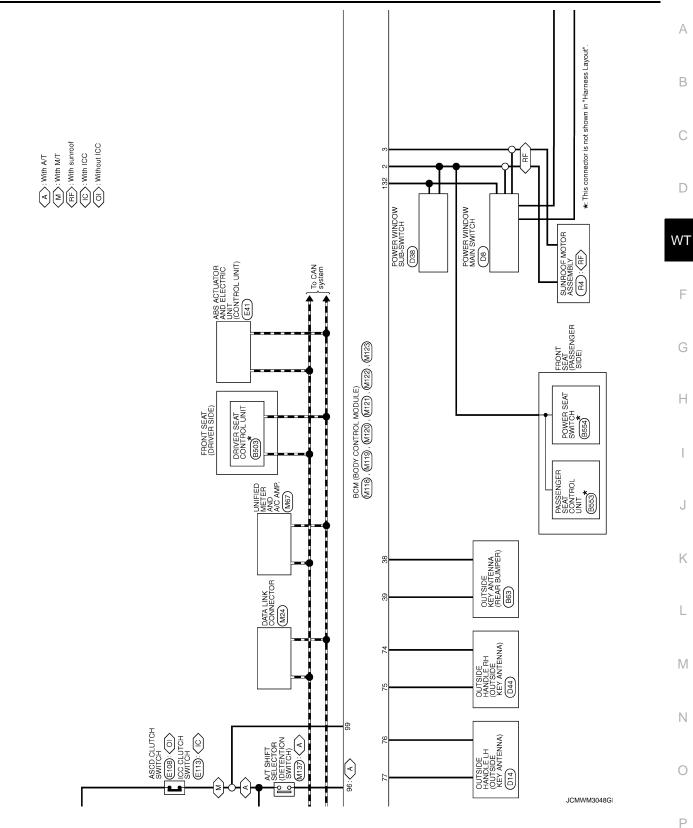
	nal No. color)	Description		Que dition		Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	A
139	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 • • 0.2s OCC3881D	B
(L)	Ground	er communication	Output	ŎN	When receiving the signal from the transmitter	(V) 4 2 0 + 0.2s OCC3860D	D WT F
140		Selector lever P/N	-		P or N position	12 V	
(GR)	Ground	position (A/T models)	Input	Selector lever	Except P and N positions	0 V	G
					ON	0 V	
141 (R)	Ground	Security indicator	Output	Security indica- tor	Blinking	(V) 15 10 5 0 1 s JPMIA0014GB	H
						11.3 V	J
					OFF	12 V	
					All switches OFF Lighting switch 1ST	0 V	K
				Combination	Lighting switch HI	(V) 15	
142 (BR)	Ground	Combination switch OUTPUT 5	Output	switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	10 5 0 2 ms 10.7 V	L
					All switches OFF (Wiper intermittent dial 4)	0 V	Ν
143 (V)	Ground	Combination switch OUTPUT 1	Output	Combination switch	Front wiper switch HI (Wiper intermittent dial 4) Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2	(V) 15 10 5 0	0
					 Wiper intermittent dial 2 Wiper intermittent dial 3 Wiper intermittent dial 6 Wiper intermittent dial 7 	2 ms JPMIA0032GB	Ρ

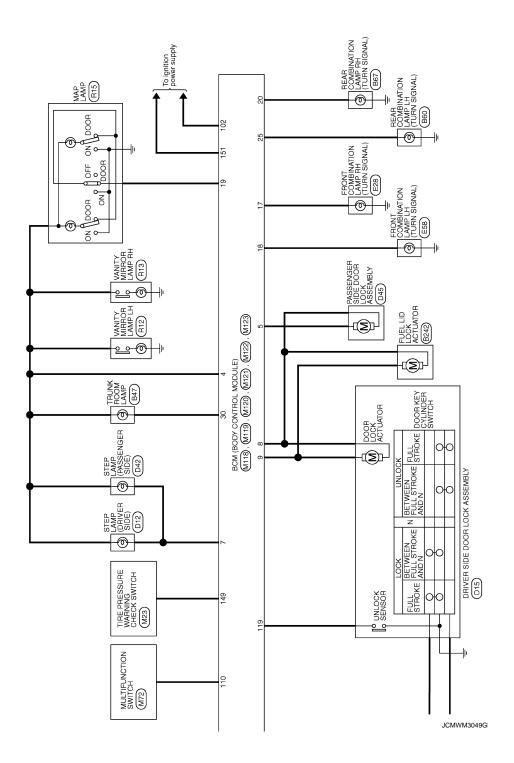
Terminal No. (Wire color)		Description		-		Value
(vvire +		Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper intermittent dial 4)	0 V
	Ground	Combination switch OUTPUT 2	Output	Combination switch	Front washer switch ON (Wiper intermittent dial 4)	(V) 15
144 (G)					Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	10 0 2 ms 10.7 V
					All switches OFF	0 V
			Output	Combination switch (Wiper intermit- tent dial 4)	Front wiper switch INT	
					Front wiper switch LO	(V) 15
145 (L)	Ground	Combination switch OUTPUT 3			Lighting switch AUTO	10 0 2 ms 10.7 V
					All switches OFF	0 V
	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	Front fog lamp switch ON	
					Lighting switch 2ND	(V) 15
146					Lighting switch PASS	
(SB)					Turn signal switch LH	о
149 (W)	Ground	Tire pressure warning check switch	Input		_	12 V
150 (R)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 0 10 ms JPMIA0011GB 11.8 V
					ON (Door open)	0 V
151	Ground	ound Rear window defog- ger relay control	Output	Rear window	Active	0 V
(G)				defogger	Not activated	Battery voltage



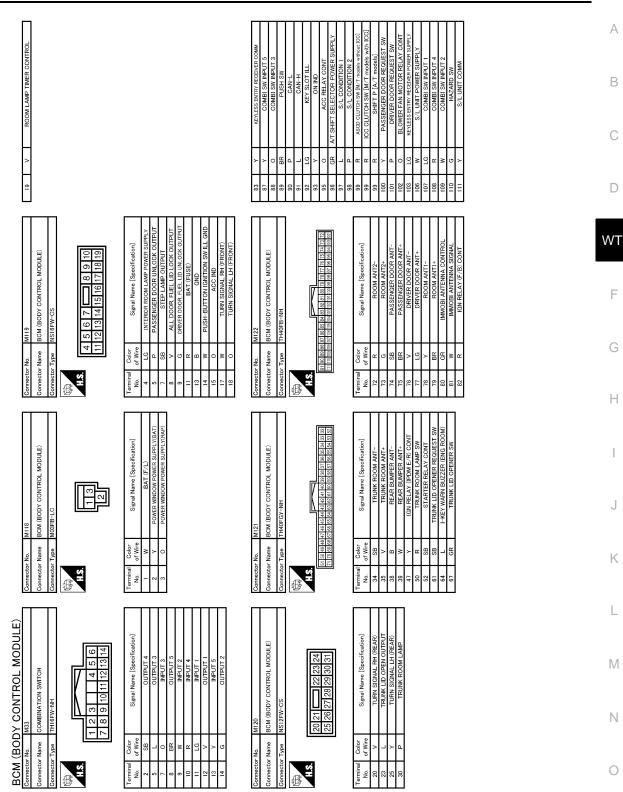








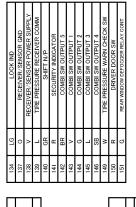
< ECU DIAGNOSIS INFORMATION >

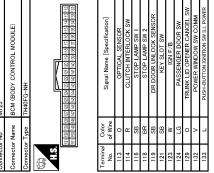


JCMWM3050G

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< ECU DIAGNOSIS INFORMATION >





Fail-safe

JCMWM3051G

INFOID:000000004731411

FAIL-SAFE CONTROL BY DTC

BCM (BODY CONTROL MODULE)

BCM performs fail-safe control when any DTC are detected.

< ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI SCANNING	Inhibit engine cranking	Ignition switch $ON \rightarrow OFF$
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals are received from ABS actua- tor and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status be- comes consistent Starter control relay signal Starter relay status signal
B2601: SHIFT POSITION	Inhibit steering lock	 500 ms after the following signal reception status becomes consistent Selector lever P position switch signal P range signal (CAN)
B2602: SHIFT POSITION	Inhibit steering lock	 5 seconds after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Vehicle speed: 4 km/h (2.5 MPH) or more
B2603: SHIFT POSI STATUS	Inhibit steering lock	 500 ms after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Selector lever P/N position signal: Except P and N positions (0 V)
B2604: PNP SW	Inhibit steering lock	 500 ms after any of the following BCM recognition conditions are fulfilled Status 1 Ignition switch is in the ON position Selector lever P/N position signal: P and N position (battery voltage) P range signal or N range signal (CAN): ON Status 2 Ignition switch is in the ON position Selector lever P/N position signal: Except P and N positions (0 V) P range signal and N range signal (CAN): OFF
B2605: PNP SW	Inhibit steering lock	 500 ms after any of the following BCM recognition conditions are fulfilled Status 1 Ignition switch is in the ON position Selector lever P/N position signal: Except P and N positions (0 V) Interlock/PNP switch signal (CAN): OFF Status 2 Ignition switch is in the ON position Selector lever P/N position signal: P or N position (battery voltage) PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status becomes consistent Steering lock relay signal (Request signal) Steering lock relay signal (Condition signal)

< ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
B2607: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status has becomes consistent Steering lock relay signal (Request signal) Steering lock relay signal (Condition signal)
B2608: STARTER RELAY	Inhibit engine cranking	 500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN)
B2609: S/L STATUS	Inhibit engine crankingInhibit steering lock	 When the following steering lock conditions agree BCM steering lock control status Steering lock condition No. 1 signal status Steering lock condition No. 2 signal status
B260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilledPower position changes to ACCReceives engine status signal (CAN)
B2612: S/L STATUS	Inhibit engine crankingInhibit steering lock	 When any of the following conditions are fulfilled Steering lock unit status signal (CAN) is received normally The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM be- comes normal
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control in- side BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E8: CLUTCH SW	Inhibit engine cranking	 When any of the following BCM recognition conditions are fulfilled Status 1 Clutch switch signal (CAN from ECM): ON Clutch interlock switch signal: OFF (0 V) Status 2 Clutch switch signal (CAN from ECM): OFF Clutch interlock switch signal: ON (Battery voltage)
B26E9: S/L STATUS	Inhibit engine crankingInhibit steering lock	 When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled Steering condition No. 1 signal: LOCK (0 V) Steering condition No. 2 signal: LOCK (Battery voltage)

HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status by the current value.

BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

NOTE:

The blinking speed is normal while activating the hazard warning lamp.

DTC Inspection Priority Chart

INFOID:000000004731412

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

< ECU DIAGNOSIS INFORMATION >

Priority	DTC	
1	B2562: LOW VOLTAGE	
2	U1000: CAN COMMU1010: CONTROL UNIT(CAN)	
3	 B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING 	
	 B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM B2553: IGNITION RELAY B2555: STOP LAMP B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY 	
	 B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSI STATUS B2604: PNP SW B2605: PNP SW 	
4	 B2606: S/L RELAY B2607: S/L RELAY B2608: STARTER RELAY B2609: S/L STATUS B2608: IGNITION RELAY B260B: STEERING LOCK UNIT B260C: STEERING LOCK UNIT 	
	 B260C: STEERING LOCK UNIT B260D: STEERING LOCK UNIT B260F: ENG STATE SIG LOST B2612: S/L STATUS B2614: ACC RELAY CIRC 	
	 B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2617: STARTER RELAY CIRC B2618: BCM 	
	 B2619: BCM B261A: PUSH-BTN IGN SW B261E: VEHICLE TYPE B26E8: CLUTCH SW 	
	 B26E9: S/L STATUS B26EA: KEY REGISTRATION C1729: VHCL SPEED SIG ERR U0415: VEHICLE SPEED SIG 	

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< ECU DIAGNOSIS INFORMATION >

Priority	DTC	
5	 C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL C1708: [NO DATA] FL C1709: [NO DATA] FR C1710: [NO DATA] RR C1711: [NO DATA] RR C1712: [CHECKSUM ERR] FL C1713: [CHECKSUM ERR] FR C1714: [CHECKSUM ERR] RR C1715: [CHECKSUM ERR] RR C1716: [PRESSDATA ERR] RR C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] FR C1719: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RR C1712: [CODE ERR] FR C1720: [CODE ERR] FR C1721: [CODE ERR] FR C1722: [CODE ERR] FR C1722: [CODE ERR] RR C1723: [CODE ERR] RR C1724: [BATT VOLT LOW] FL C1725: [BATT VOLT LOW] FR C1726: [BATT VOLT LOW] RR C1727: [BATT VOLT LOW] RR C1727: [BATT VOLT LOW] RL C1727: [BATT VOLT LOW] RL C1726: [CONTROL UNIT 	
6	B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA	

DTC Index

NOTE:

The details of time display are as follows.

• CRNT: A malfunction is detected now.

• PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to <u>BCS-14, "COM-MON ITEM : CONSULT-III Function (BCM - COMMON ITEM)"</u>.

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page
No DTC is detected. further testing may be required.	_	_	_	_	_
U1000: CAN COMM	—	—	—	_	BCS-35
U1010: CONTROL UNIT(CAN)	—	—	—	—	BCS-36
U0415: VEHICLE SPEED SIG	—	—	—	_	BCS-37
B2013: ID DISCORD BCM-S/L	×	×	_		<u>SEC-55</u>
B2014: CHAIN OF S/L-BCM	×	×	_	_	<u>SEC-56</u>
B2190: NATS ANTENNA AMP	×	—	—	_	<u>SEC-47</u>
B2191: DIFFERENCE OF KEY	×	—	—	_	<u>SEC-50</u>
B2192: ID DISCORD BCM-ECM	×	—	—	_	<u>SEC-51</u>
B2193: CHAIN OF BCM-ECM	×	—	_	_	<u>SEC-53</u>
B2195: ANTI SCANNING	×	—	—	—	<u>SEC-54</u>
B2553: IGNITION RELAY	—	×	—	—	PCS-48
B2555: STOP LAMP	—	×			<u>SEC-59</u>

INFOID:000000004731413

< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page	A
B2556: PUSH-BTN IGN SW	—	×	×	—	<u>SEC-61</u>	В
B2557: VEHICLE SPEED	×	×	×	—	<u>SEC-63</u>	
B2560: STARTER CONT RELAY	×	×	×	—	<u>SEC-64</u>	
B2562: LOW VOLTAGE	—	×	—	—	BCS-38	С
B2601: SHIFT POSITION	×	×	×	—	<u>SEC-65</u>	
B2602: SHIFT POSITION	×	×	×	—	<u>SEC-68</u>	D
B2603: SHIFT POSI STATUS	×	×	×	—	<u>SEC-70</u>	
B2604: PNP SW	×	×	×	—	<u>SEC-73</u>	
B2605: PNP SW	×	×	×	—	<u>SEC-75</u>	WT
B2606: S/L RELAY	×	×	×	—	<u>SEC-77</u>	
B2607: S/L RELAY	×	×	×	_	<u>SEC-78</u>	F
B2608: STARTER RELAY	×	×	×	_	<u>SEC-80</u>	Г
B2609: S/L STATUS	×	×	×	_	<u>SEC-82</u>	
B260A: IGNITION RELAY	×	×	×	_	PCS-50	G
B260B: STEERING LOCK UNIT	—	×	×	—	<u>SEC-86</u>	
B260C: STEERING LOCK UNIT	—	×	×	—	<u>SEC-87</u>	
B260D: STEERING LOCK UNIT	_	×	×	_	<u>SEC-88</u>	Н
B260F: ENG STATE SIG LOST	×	×	×	_	<u>SEC-89</u>	
B2612: S/L STATUS	×	×	×	—	<u>SEC-94</u>	I
B2614: ACC RELAY CIRC	—	×	×	—	PCS-52	
B2615: BLOWER RELAY CIRC	_	×	×	_	PCS-54	
B2616: IGN RELAY CIRC	—	×	×	—	PCS-56	J
B2617: STARTER RELAY CIRC	×	×	×	_	<u>SEC-98</u>	
B2618: BCM	×	×	×	—	PCS-58	K
B2619: BCM	×	×	×	_	<u>SEC-100</u>	
B261A: PUSH-BTN IGN SW	—	×	×	_	PCS-59	
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	_	<u>SEC-101</u>	L
B2621: INSIDE ANTENNA	_	×	—	—	DLK-55	
B2622: INSIDE ANTENNA	—	×	—	—	DLK-57	M
B2623: INSIDE ANTENNA	—	×	—	—	DLK-59	
B26E8: CLUTCH SW	×	×	×	—	<u>SEC-90</u>	Ν
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	_	<u>SEC-92</u>	
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	—	<u>SEC-93</u>	0
C1704: LOW PRESSURE FL	—	—	—	×		
C1705: LOW PRESSURE FR	—	—	—	×		Ρ
C1706: LOW PRESSURE RR	—	—	—	×	<u>WT-17</u>	
C1707: LOW PRESSURE RL	—	_	—	×	1	

< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page
C1708: [NO DATA] FL	—	—	—	×	
C1709: [NO DATA] FR	—	—	—	×	M/T 40
C1710: [NO DATA] RR	—	—	_	×	<u>WT-19</u>
C1711: [NO DATA] RL	—	_		×	
C1712: [CHECKSUM ERR] FL	—	_		×	
C1713: [CHECKSUM ERR] FR	—	—	—	×	
C1714: [CHECKSUM ERR] RR	—	—	—	×	<u>WT-21</u>
C1715: [CHECKSUM ERR] RL	—	_		×	
C1716: [PRESSDATA ERR] FL	—	_		×	
C1717: [PRESSDATA ERR] FR	—	—	_	×	
C1718: [PRESSDATA ERR] RR	—	_		×	<u>WT-24</u>
C1719: [PRESSDATA ERR] RL	—	_		×	
C1720: [CODE ERR] FL	_	—		×	
C1721: [CODE ERR] FR	—	—	_	×	
C1722: [CODE ERR] RR	—	_		×	<u>WT-26</u>
C1723: [CODE ERR] RL	—	—	—	×	
C1724: [BATT VOLT LOW] FL	—	—	_	×	
C1725: [BATT VOLT LOW] FR	—	_		×	
C1726: [BATT VOLT LOW] RR	—	—	—	×	<u>WT-29</u>
C1727: [BATT VOLT LOW] RL	—	—	—	×	
C1729: VHCL SPEED SIG ERR	—	—		×	<u>WT-32</u>
C1734: CONTROL UNIT	—	—	—	×	<u>WT-33</u>

< SYMPTOM DIAGNOSIS >		
SYMPTOM DIAGNOSIS		٨
TPMS		А
Symptom Table	INFOID:0000000004498690	В
LOW TIRE PRESSURE WARNING LAMP SYMPTOM CHART		
		С
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TPMS

< SYMPTOM DIAGNOSIS >

Diagnosis items	Symptom (Ignition switch ON)	Low tire pressure warning lamp	Cause	Action
	The low tire pres- sure warning lamp illuminates for 1 second, then turns OFF.	ON 1 sec > stays OFF SEIA0592E	Wake-up operation for all transmitters at wheels is completed.	No system malfunctions
	The low tire pres- sure warning lamp repeats blinking ON for 2 seconds and OFF for 0.2 seconds.	Blinks: ON 2 sec > OFF 0.2 sec	Wake-up operation for all transmitters at wheels is not completed.	Perform the wake-up oper- ation for all transmitters at wheels. Refer to <u>WT-6,</u> <u>"TRANSMITTER WAKE</u> <u>UP OPERATION : Special</u> <u>Repair Requirement"</u> .
	The low tire pres- sure warning lamp blinks once.	Blinks 1 time ON 0.3 sec > OFF 1.3 sec SEIA0594E	The front left transmitter is not activated.	Perform the wake-up oper- ation for the transmitter at front left wheel. Refer to WT-6. "TRANSMITTER WAKE UP OPERATION : Special Repair Require- ment".
Low tire pres- sure warning lamp	The low tire pres- sure warning lamp repeats blinking twice.	Blinks 2 times ON 0.3 sec > OFF 0.3 sec SEIA0595E	The front right transmit- ter is not activated.	Perform the wake-up oper- ation for the transmitter at front right wheel. Refer to WT-6. "TRANSMITTER WAKE UP OPERATION : Special Repair Require- ment".
	The low tire pres- sure warning lamp repeats blinking for 3 times.	Blinks 3 times ON 0.3 sec > OFF 0.3 sec SEIA0596E	The rear right transmit- ter is not activated.	Perform the wake-up oper- ation for the transmitter at rear right wheel. Refer to WT-6. "TRANSMITTER WAKE UP OPERATION : Special Repair Require- ment".
	The low tire pres- sure warning lamp repeats blinking for 4 times.	Blinks 4 times ON 0.3 sec > OFF 0.3 sec SEIA0597E	The rear left transmitter is not activated.	Perform the wake-up oper- ation for the transmitter at rear left wheel. Refer to WT-6. "TRANSMITTER WAKE UP OPERATION : Special Repair Require- ment".
	The low tire pres- sure warning lamp turns ON and stays illuminated.	Comes ON and stays ON SEIA0598E	Low tire pressure	Check with CONSULT-III the tire pressure values. Refer to <u>WT-15, "AIR</u> <u>PRESSURE MONITOR :</u> <u>CONSULT-III Function</u> (<u>BCM - AIR PRESSURE</u> <u>MONITOR)"</u> .

TPMS

< SYMPTOM DIAGNOSIS >

Diagnosis items	Symptom (Ignition switch ON)	Low tire pressure warning lamp	Cause	Action
			The combination meter fuse is open or removed (or pulled out).	Check and install the com- bination meter fuse. If nec- essary, replace the fuse.
The low tire pres-	The low tire pres-		The low tire pressure warning control unit har- ness connector is re- moved.	Check the connection con- ditions of the low tire pres- sure warning control unit harness connector, and re- pair if necessary.
Low tire pres- sure warning amp	sure warning lamp repeats blinking at 0.5-second inter- vals for 1 minute, and then stays illu- minated.	Blinks 1 min ON 0.5 sec > OFF 0.5 sec and stays ON	Tire Pressure Monitor-	Perform CONSULT-III self-diagnosis. Refer to WT-15, "AIR PRES- SURE MONITOR : CON- SULT-III Function (BCM - AIR PRESSURE MONI-
	SEIA0788E	ing System (TPMS) mal- function.	 If necessary, perform transmitter ID registra- tion. Refer to <u>WT-6, "ID</u> <u>REGISTRATION PRO- CEDURE : Special Re-</u> 	
			 The transmitter ac- tivation tool (J- 45295) does not 	pair Requirement". 1. Replace the battery in the transmitter activa-
Turn signal lamp lamp Turn signal lamp Turn signal lamp twice when the transmitter is acti- vated. Or the buzzer does not sound.	lamps do not blink twice when the	 activate. 2. The ignition switch is OFF when the transmitter wake-up operation is per- 	tion tool (J-45295). 2. Turn the ignition switch ON when per- forming the transmit- ter wake-up operation.	
	vated. Or the buzzer does not	ted. Or the zzer does not	formed. 3. The transmitter ac- tivation tool (J- 45295) is not used in the correct posi-	 Operate the transmit- ter activation tool (J- 45295) in the correct position when per- forming the wake-up
			tion. 4. The transmitter is already waked up.	operation. 4. No procedure.

NOTE:

If transmitter wake-up operation is not completed for two or more transmitters, the applicable low tire pressure warning lamp blinking patterns are displayed continuously.

(Example: Blinks once/OFF/blinks 3 times = Wake-up operation is not completed at the front left wheel and Μ rear right wheel transmitters.)

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LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN ON

< SYMPTOM DIAGNOSIS >

LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN ON

Description

INFOID:000000004498691

DESCRIPTION

The low tire pressure warning lamp illuminates for approximately 1 second and then turns OFF when the ignition switch is turned ON. This is to check that no abnormal condition is present in the tire pressure monitoring system.

The lamp bulb may be burnt out or the tire pressure monitoring system may be malfunctioning if the low tire pressure warning lamp does not illuminate when the ignition switch is turned ON.

Diagnosis Procedure

INFOID:000000004498692

1.CHECK SELF-DIAGNOSIS RESULTS

(D)With CONSULT-III

1. On the "SELECT DIAG" mode, select the "SELF-DIAG RESULTS" screen.

2. Check the display contents in self-diagnostic results.

Is "CAN COMM CIRCUIT" displayed in the self-diagnosis display items?

YES >> Perform trouble diagnosis for CAN communication system. Refer to <u>LAN-27, "CAN System Spec-ification Chart"</u>.

NO >> GO TO 2.

2. CHECK COMBINATION METER

Check the combination meter function. Refer to MWI-37, "CONSULT-III Function (METER/M&A)".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace damaged parts.

3.CHECK LOW TIRE PRESSURE WARNING LAMP

1. Turn the ignition switch OFF.

- 2. Disconnect BCM harness connectors.
- 3. Turn the ignition switch ON.

CAUTION: Never start the engine.

Does low tire pressure warning lamp turn ON?

YES >> GO TO 4.

NO >> Check the combination meter and repair or replace. Refer to <u>MWI-35, "Diagnosis Description"</u>.

4.CHECK SYMPTOM

Check the symptom again.

Is the inspection result normal?

YES >> INSPECTION END NO >> GO TO 5.

5.CHECK BCM

Check the BCM input/output signal. Refer to WT-46, "Reference Value".

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 6.

6.CHECK BCM HARNESS CONNECTOR

Check the BCM pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-81, "Exploded View"</u>.

NO >> Repair or replace damaged parts.

LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN OFF

< SYMPTOM DIAGNOSIS >

LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN OFF

Description

Description	004498693
DESCRIPTION The tire pressure monitoring system is checked and the warning lamp is illuminated for approximately 1 ond when the ignition switch is turned ON. The low tire pressure warning lamp turns OFF after the sy check finishes. The system may be malfunctioning if the low tire pressure warning lamp does not turn off approximately 1 ond after the ignition switch is turned ON.	/stem
Diagnosis Procedure	004498694
1.CHECK SYSTEM FOR BCM	W
 With CONSULT-III On "SELF-DIAG" mode, select the "SELF-DIAG RESULTS" screen. Check the display contents in self-diagnostic results. 	vv
Does self-diagnostic results indicate any malfunction?	F
 YES >> Perform trouble diagnosis. Refer to <u>WT-15, "AIR PRESSURE MONITOR : CONSULT-III Fun</u> (<u>BCM - AIR PRESSURE MONITOR)"</u>. NO >> GO TO 2. 	<u>nction</u>
2. CHECK ID REGISTRATION	
Perform ID registration of all transmitters. Refer to <u>WT-6, "ID REGISTRATION PROCEDURE : Special R</u> Requirement".	<u>epair</u> ⊦

Does low tire pressure warning lamp turn OFF?

YES	>> INSPECTION END

NO >> GO TO 3.

3.CHECK BCM POWER SUPPLY CIRCUIT

Turn the ignition switch OFF. 1.

- 2. Disconnect BCM harness connector.
- 3. Check the voltage between BCM harness connector and ground.

BO	CM			K
Connector	Terminal		Voltage (Approx.)	
M118	1	Ground	Battery voltage	L
M119	11	Ground	Dattery voltage	

Is the inspection result normal?

YES >> GO TO 4. NO

- >> Check the following. If any items are damaged, repair or replace damaged parts.
 - 40 A fusible link [No. K located in the fuse block]. Refer to PG-95, "Fuse and Fusible Link Ν Arrangement".
 - 10 A fuse [No. 10 located in the fuse block (J/B)]. Refer to PG-94, "Fuse, Connector and Terminal Arrangement".
 - Harness for short or open between battery and BCM harness connector M118 terminal 1.
 - Harness for short or open between battery and BCM harness connector M119 terminal 11. Check the battery voltage.

4.CHECK BCM GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

В	СМ	_	Continuity		
Connector	Terminal	—	Continuity		
M119	13	Ground	Existed		

Is the inspection result normal?

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LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN OFF

< SYMPTOM DIAGNOSIS >

YES >> GO TO 5. NO >> Repair or replace damaged parts.

5.CHECK SYMPTOM

Check the symptom again.

Is the inspection result normal?

YES >> INSPECTION END NO >> GO TO 6.

6.CHECK BCM

Check the BCM input/output signal. Refer to BCS-44, "Reference Value".

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 7.

7. CHECK BCM HARNESS CONNECTOR

Check the BCM pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-81, "Exploded View"</u>.

NO >> Repair or replace damaged parts.

LOW TIRE PRESSURE WARNING LAMP BLINKS

< SYMPTOM DIAGNOSIS >

LOW TIRE PRESSURE WARNING LAMP BLINKS

Description

DESCRIPTION

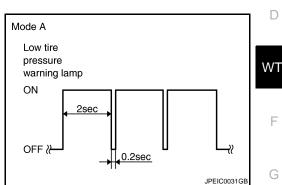
The low tire pressure warning lamp illuminates or blinks.

However, a check is necessary because the symptom may not be caused by a system malfunction. For example, the transmitter may not be initialized.

NOTE:

If low tire pressure warning lamp blinks as shown in the figure, the system is normal.

Blink Mode A
This mode shows transmitter status is in OFF- mode.
Perform transmitter wake up operation. Refer to <u>WT-6, "TRANS-MITTER WAKE UP OPERATION : Special Repair Requirement"</u>.



Diagnosis Procedure

INFOID:000000004498696

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INFOID:000000004498695

1.CHECK TIRE PRESSURE WARNING CHECK SWITCH POWER SUPPLY

 Turn the ignition switch ON. CAUTION: Never start the engine.

2. Check voltage between tire pressure warning check switch connector and ground.

Tire pressure wa	rning check switch		Voltage (Approx)		
Connector	Terminal		Voltage (Approx.)		
M23	1	Ground	5 V	K	

Is the inspection result normal?

YES >> GO TO 2.

NO >> Riper or replace error-detected damaged parts.

2.check tire pressure warning check switch circuit

1. Turn the ignition switch OFF.

2. Disconnect BCM harness connector.

3. Check the continuity between BCM harness connector and tire pressure warning check switch connector.

_						. N
	B	СМ	Tire pressure war	ning check switch	Continuity	
	Connector	Terminal	Connector	Terminal	Continuity	
	M123	149	M23	1	Existed	0

4. Check the continuity between BCM harness connector and ground.

B	СМ		Continuity	
Connector	Terminal		Continuity	
M123	149	Ground	Not existed	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Riper or replace error-detected damaged parts.

LOW TIRE PRESSURE WARNING LAMP BLINKS

< SYMPTOM DIAGNOSIS >

3. СНЕСК ВСМ

Check the BCM input/output signal. Refer to <u>WT-46, "Reference Value"</u>.

Is the inspection result normal?

- YES >> Check the tire pressure warning check switch. Refer to <u>WT-37, "Diagnosis Procedure"</u>.
- NO >> Repair or replace the BCM.

TURN SIGNAL LAMP BLINKS

SYMPTOM DIAGNOSI TURN SIGNAL LA	_	(9		
		10		A
Description				INFOID:000000004498697
DESCRIPTION The turn signal lamp blinks The BCM connector or circ			urned ON.	В
Diagnosis Procedure	•			INF0ID:000000004498698
1. CHECK TIRE PRESSU	RE WARNING	CHECK SWI	TCH POWER SUPPLY C	IRCUIT
 Turn the ignition switch CAUTION: Never start the engin Check voltage betwee 	e.	warning chec	k switch connector and g	round. WT
Tire pressure wa	rning check switc	h	_	Voltage (Approx.)
Connector		minal		
M23 Is the inspection result nor		1	Ground	5 V
 NO >> Repair or repla 2.CHECK TIRE PRESSU 1. Turn the ignition switch 2. Disconnect BCM harn 3. Check the continuity b 	RE WARNING	CHECK SWI		ning check switch connector.
BCM		Tire pres	sure warning check switch	Continuity
Connector M123	Terminal	Connecto M23	or Terminal	Existed
4. Check the continuity b	etween BCM I	harness conne	ector and ground.	K
В	СМ			
Connector	Teri	minal	—	Continuity
M123	1	49	Ground	Not existed
Is the inspection result norYES>> Check the turrtion (BCM - SINO>> Repair or replace	n signal lamp o GNAL BUFFE	<u>R)"</u> .	er to <u>BCS-31, "SIGNAL B</u>	UFFER : CONSULT-III Func-
				0

ID REGISTRATION CANNOT BE COMPLETED

< SYMPTOM DIAGNOSIS >

ID REGISTRATION CANNOT BE COMPLETED

Description

INFOID:000000004498699

DESCRIPTION

The ID of the transmitter installed in each wheel cannot be registered in the tire pressure monitoring system. Inspect the transmitter or the tire pressure monitoring system circuit.

Diagnosis Procedure

INFOID:000000004498700

1.CHECK ID REGISTRATION

- 1. Perform ID registration of all transmitters. Refer to <u>WT-6, "ID REGISTRATION PROCEDURE : Special</u> <u>Repair Requirement"</u>.
- 2. Drive at a speed of 40 km/h (25 MPH) or more for 3 minutes, and then drive the vehicle at any speed for 10 minutes.
- 3. Check the all tire pressures with CONSULT-III "DATA MONITOR" within 5 minutes.

Monitored item	Condition	Display value			
AIR PRESS FL					
AIR PRESS FR	Start the engine and drive at 40 km/h (25 MPH) or more	Approximately equal to the indication on vehicle			
AIR PRESS RR	for several minutes.	information display.			
AIR PRESS RL					
Is the inspection result normal?					

YES >> INSPECTION END

NO >> GO TO 2.

2. CHECK TRANSMITTER

- 1. Perform trouble diagnosis for transmitters. Refer to <u>WT-19, "Diagnosis Procedure"</u>.
- 2. Perform ID registration of all transmitters. Refer to <u>WT-6, "ID REGISTRATION PROCEDURE : Special</u> <u>Repair Requirement"</u>.

Can ID registration of all transmitters be completed?

- YES >> INSPECTION END
- NO >> Replace the transmitter. Refer to <u>WT-99, "Exploded View"</u>.

< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

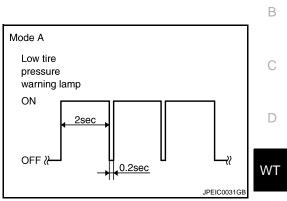
Description

LOW TIRE PRESSURE WARNING LAMP BLINKS

The tire pressure monitoring system is not malfunctioning if the low tire pressure warning lamp blinks in the pattern as shown in the figure.

The incident occurs because the transmitter of each wheel is not wake up.

Perform transmitter wake up operation. Refer to <u>WT-6. "TRANSMIT-</u> <u>TER WAKE UP OPERATION : Special Repair Requirement"</u>.



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INFOID:000000004498701

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING < SYMPTOM DIAGNOSIS >

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

INFOID:000000004498702

Use chart below to find the cause of the symptom. If necessary, repair or replace these parts.

Reference	page		2WD models: <u>FSU-9</u> , <u>FSU-12</u>	AWD models: FSU-31, FSU-34	WT-95, "Inspection"	WT-96, "Adjustment"	<u>WT-102, "Tire"</u>	WT-96, "Adjustment"	I	I	<u>WT-102, "Tire"</u>	NVH in DLN section.	NVH in DLN section.	NVH in FAX and FSU sections.	NVH in RAX and RSU sections.	Refer to TIRES in this chart.	Refer to ROAD WHEEL in this chart.	NVH in FAX, RAX section.	NVH in BR section.	NVH in ST section.
Possible ca	use and S	USPECTED PARTS	e e e e e e e e e e e e e e e e e e e		Out-of-round	unbalance	Incorrect tire pressure	Uneven tire wear	Deformation or damage	Non-uniformity	Incorrect tire size	PROPELLER SHAFT	DIFFERENTIAL	FRONT AXLE AND FRONT SUSPENSION	REAR AXLE AND REAR SUSPENSION	TIRES	ROAD WHEELS	DRIVE SHAFT	BRAKE	STEERING
		Noise		×	×	×	×	×	×	×		×	×	×	×		×	×	×	×
		Shake		×	×	×	×	×	×		×	×		×	×		×	×	×	×
		Vibration					×				×	×		×	×			×		×
	TIRES	Shimmy		×	×	×	×	×	×	×	×			×	×		×		×	×
		Judder		×	×	×	×	×	×		×			×	×		×		×	×
Symptom	Poor quality ride or handling		×	×	×	×	×	×		×			×		×	×				
		Noise		×	×	×			×			×	×	×	×	×		×	×	×
	ROAD	Shake		×	×	×			×			×		×	×	×		×	×	×
	WHEEL	Shimmy, Judder		×	×	×			×					×	×	×			×	×
		Poor quality ride or handling		×	×	×			×					×	×	×				

×: Applicable

< PRECAUTION >

PRECAUTION PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the "SRS AIR BAG".
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Service Notice or Precautions

- Low tire pressure warning lamp blinks for 1min, then turns ON when occurring any malfunction except low tire pressure. Delete the memory with CONSULT-III, or register the ID to turn low tire pressure warning lamp OFF. Refer to <u>WT-13</u>, "<u>AIR PRESSURE MONITOR</u> : <u>Diagnosis Description</u>", <u>WT-6</u>, "<u>ID REGISTRATION</u> <u>PROCEDURE</u> : <u>Special Repair Requirement</u>".
- ID registration is required when replacing or rotating wheels, replacing transmitter or BCM. Refer to <u>BCS-81</u>, <u>"Exploded View"</u>.
- Replace grommet seal, valve core and cap of transmitter in TPMS every tire replacement by reaching wear M limit of tire. Refer to <u>WT-99, "Exploded View"</u>.
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INFOID:000000004498704

< PREPARATION >

PREPARATION PREPARATION

Special Service Tool

INFOID:000000004498705

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name		Description
– (J-45295) Transmitter activation tool	SEIA0462E	ID registration

Commercial Service Tool

INFOID:000000004498706

Tool name	Description
Power tool	Loosening wheel nuts
	PBIC0190E

ROAD WHEEL

< PERIODIC MAINTENANCE > PERIODIC MAINTENANCE ROAD WHEEL

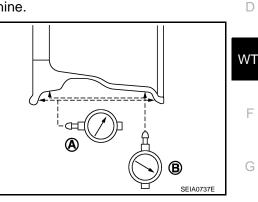
Inspection

ALUMINUM WHEEL

- 1. Check tires for wear and improper inflation.
- 2. Check wheels for deformation, cracks and other damage. If deformed, remove wheel and check wheel runout.
- a. Remove tire from aluminum wheel and mount on a tire balance machine.
- b. Set dial indicator as shown in the figure.
- c. If the lateral deflection (A) or vertical deflection (B) for radial runout value exceeds the limit, replace aluminum wheel.

Limit

- A: Refer to WT-102, "Road Wheel".
- B: Refer to WT-102, "Road Wheel".



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INFOID:000000004498718

STEEL WHEEL

- 1. Check tires for were and improper inflation.
- 2. Check wheels for deformation, clacks and other damage. If deformed, remove wheel and check wheel runout.
- a. Remove tire from steel wheel and mount wheel on a tire balance machine.
- b. Set two dial indicators as shown in the illustration.
- c. Set each dial indicator to "0".
- Rotate wheel and check dial indicators at several points around the circumference of the wheel.
- e. Calculate runout at each point as shown below.

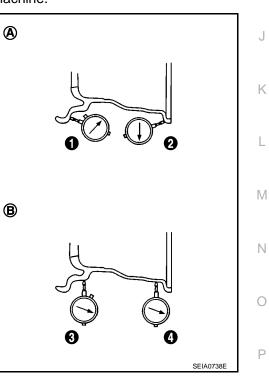
Lateral runout limit (A): ((+2)/2 Radial runout limit (B): ((+4)/2

f. Select maximum positive runout value and the maximum negative value. Add the two values to determine total runout. CAUTION:

In case a positive or negative value is not available, use the maximum value (negative or positive) for total runout.

Limit

- A: Refer to WT-102, "Road Wheel".
- B: Refer to WT-102, "Road Wheel".
- g. If the total runout value exceeds limit, replace steel wheel.



< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION ROAD WHEEL TIRE ASSEMBLY

Adjustment

INFOID:000000004257451

BALANCING WHEELS (BONDING WEIGHT TYPE)

Preparation Before Adjustment

Using releasing agent, remove double-faced adhesive tape from the road wheel. **CAUTION:**

- Be careful not scratch the road wheel during removal.
- After removing double-faced adhesive tape, wipe clean traces of releasing agent from the road wheel.

Wheel Balance Adjustment

- If a tire balance machine has adhesion balance weight mode settings and drive-in weight mode setting, select and adjust a drive-in weight mode suitable for road wheels.
- 1. Set road wheel on tire balance machine using the center hole as a guide. Start the tire balance machine.
- 2. When inner and outer unbalance values are shown on the tire balance machine indicator, multiply outer unbalance value by 5/3 to determine balance weight that should be used. Select the outer balance weight with a value closest to the calculated value above and install in to the designated outer position of, or at the designated angle in relation to the road wheel. CAUTION:

• Never install the inner balance weight before installing the outer balance weight.

- Before installing the balance weight, be sure to clean the mating surface of the road wheel.
- a. Indicated un balance value \times 5/3 = balance weight to be installed

Calculation example:

23 g $(0.81 \text{ oz}) \times 5/3 = 38.33 \text{ g} (1.35 \text{ oz}) \Rightarrow 37.5 \text{ g} (1.32 \text{ oz})$ balance weight (closer to calculated balance weight value) **NOTE:** Note that balance weight value must be closer to the calculated balance weight value. **Example:** $36.2 \Rightarrow 35 \text{ g} (1.23 \text{ oz})$

 $36.3 \Rightarrow 37.5 \text{ g} (1.32 \text{ oz})$

Inner side 20 Under side 23 SMA054D

b. Installed balance weight in the position.

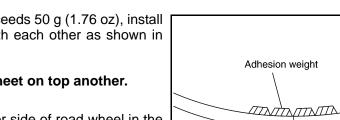
ROAD WHEEL TIRE ASSEMBLY

< REMOVAL AND INSTALLATION >

• When installing balance weight (1) to road wheels, set it into the grooved area (A) on the inner wall of the road wheel as shown in the figure so that the balance weight center (B) is aligned with the tire balance machine indication position (angle) (C).

CAUTION:

- Always use genuine NISSAN adhesion balance weights.
- Balance weights are non-reusable; always replace with new ones.
- Never install more than three sheets of balance weight.



A

 c. If calculated balance weight value exceeds 50 g (1.76 oz), install two balance weight sheets in line with each other as shown in the figure.
 CAUTION:

Never install one balance weight sheet on top another.

- 3. Start tire balance machine again.
- Install drive-in balance weight on inner side of road wheel in the tire balance machine indication position (angle).
 CAUTION:

Never install more than two balance weight.

- 5. Start tire balance machine. Make sure that inner and outer residual unbalance values are 5 g (0.17 oz) each or below.
- 6. If either residual unbalance value exceeds 5 g (0.17 oz), repeat installation procedures.

Wheel balance	Dynamic (At flange)	Static (At flange)
Maximum allowable un- balance	Refer to WT-102	2, "Road Wheel".

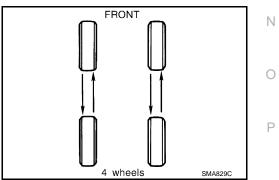
TIRE ROTATION (for 18 inch wheel models)

- Follow the maintenance schedule for tire rotation service intervals. Refer to <u>MA-4</u>, "Explanation of General Maintenance".
- When installing the wheel, tighten wheel nuts to the specified torque.

CAUTION:

- Never include the T-type spare tire when rotating the tires.
- When installing wheels, tighten them diagonally by dividing the work two to three times in order to prevent the wheels from developing any distortion.
- Be careful not to tighten wheel nut at torque exceeding the criteria for preventing strain of disc rotor.
- Use NISSAN genuine wheel nuts for aluminum wheels.

Wheel nuts tighting torque : Refer to <u>WT-102, "Wheel</u> <u>Nut"</u>.



Wheel balancer indication position (angle)

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ROAD WHEEL TIRE ASSEMBLY

< REMOVAL AND INSTALLATION >

• Perform the ID registration, after tire rotation. Refer to <u>WT-6, "ID REGISTRATION PROCEDURE : Special</u> <u>Repair Requirement"</u>.

TIRE ROTATION (for 19 inch wheel models)

• Tire cannot be rotated in vehicle, as front tire are different size from rear tire is fixed in each tire.

Wheel nuts tighting torque : Refer to <u>WT-102, "Road</u> <u>Wheel"</u>.

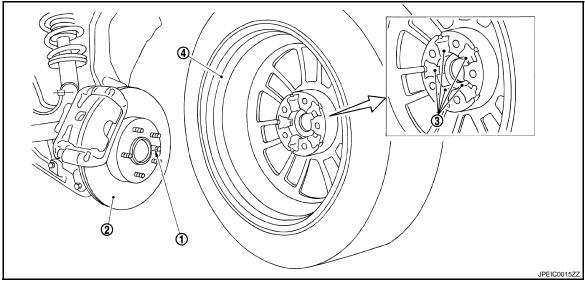
CAUTION:

- Never include the T-type spare tire when rotating the tires.
- Use NISSAN genuine wheel nuts for aluminum wheels.

Safety Device Preventing from Being Incorrectly installed

FRONT BRAKE DISC ROTOR AND FRONT WHEEL

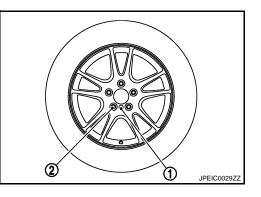
• Front and rear wheel size for this model differs, therefore special pin (1) is adopted to the front brake disc rotor (2). And a hole (3) that matches to this pin is adopted to the front wheel (4) (the rear wheel does not have this wheel). This structure prevents the rear wheel from being mistakenly installed on the front.



T-TYPE SPARE TIRE WHEEL

 Regarding spare tire (for emergency) wheel, wrong assembly protection pin through hole (1) has been set in addition to regular bolt holes (2) in order to enable installation to front wheel.
 NOTE:

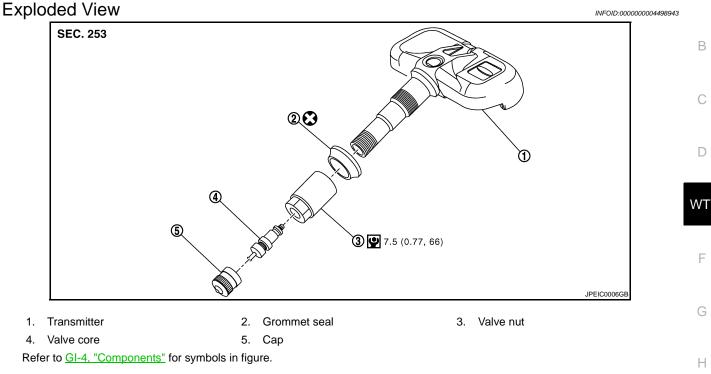
Protection pin through hole of 18 inch spare wheel is non-through type.



TRANSMITTER

< REMOVAL AND INSTALLATION >

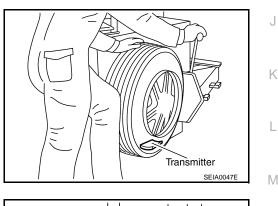
TRANSMITTER



Removal and Installation

REMOVAL

- 1. Deflate tire. Unscrew transmitter retaining nut and allow transmitter to fall into tire.
- 2. Gently bounce tire so that transmitter falls to bottom of tire. Place on tire changing machine and break both tire beads ensuring that the transmitter remains at the bottom of the tire.



INFOID:000000004257453

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- 3. Turn tire so that valve hole is at bottom and bounce so that transmitter (1) is near valve hole. Carefully lift tire onto turntable and position valve hole (and transmitter) 270 degree from mounting/dismounting head (2).
- 4. Lubricate tire well and remove first side of the tire. Reach inside the tire and remove the transmitter.

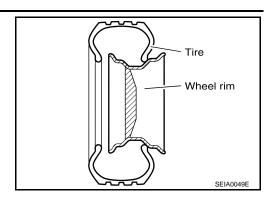
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INSTALLATION

TRANSMITTER

< REMOVAL AND INSTALLATION >

1. Put first side of tire onto rim.

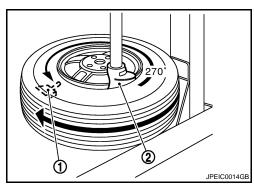


Mount transmitter on rim and tighten nut. CAUTION: Speed for tightening nut should be less than 15 rpm.

 Place wheel on turntable of tire machine. Ensure that transmitter (1) is 270 degree from mounting head (2) when second side of tire is fitted.
 NOTE:

Do not touch transmitter at mounting head.

- 4. Lubricate tire well and fit second side of tire as normal. Ensure that tire does not rotate relative to rim.
- 5. Inflate tire and fit to appropriate wheel position.



TIRE PRESSURE RECEIVER

< REMOVAL AND INSTALLATION >

TIRE PRESSURE RECEIVER

А Exploded View INFOID:000000004498720 **SEC. 253** В С D ന WΤ F JPEIC0053ZZ 1. Tire pressure receiver \triangleleft Vehicle front **Removal and Installation** INFOID:000000004498721 Н REMOVAL Remove the instrument lower cover. Refer to IP-11, "Exploded View". 1. 2. Remove the glove box assembly. 3. Remove the instrument lower panel RH. 4. Disconnect tire pressure receiver harness connector. 5. Remove Tire pressure receiver mounting screw. Remove tire pressure receiver. 6. INSTALLATION Κ Install is the reverse order of removal. L Μ Ν

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SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS) SERVICE DATA AND SPECIFICATIONS (SDS)

Road Wheel

INFOID:000000004257454

ALUMINUM WHEEL (CONVENTIONAL)

Item		Limit		
Radial runout	Lateral deflection	Less than 0.3 mm (0.012 in)		
Radial fundut	Vertical deflection			
Allowable unbalance	Dynamic (At flange)	Less than 5 g (0.17 oz) (one side)		
Allowable unbalance	Static (At flange)	Less than 10 g (0.35 oz)		

STEEL WHEEL (FOR EMERGENCY USE)

Item		Limit	
Radial runout	Lateral deflection	Less than 1.5 mm (0.059 in)	
	Vertical deflection		
Allowable unbalance	Dynamic (At flange)	Less than 5 g (0.17 oz) (one side)	
	Static (At flange)	Less than 10 g (0.35 oz)	

Wheel Nut

INFOID:000000004498722

Item	Standard	
Wheel nut tighting torque	108 N⋅m (11 kg-m, 80 ft-lb)	

Tire

INFOID:000000004257455

Unit: kPa (kg/cm², psi)

Tire size	Air pressure		
The Size	Front	Rear	
P225/50R18 94V	230 (2.3, 33)	230 (2.3, 33)	
225/45R19 92W	240 (2.4, 35)	_	
245/40R19 94W	-	240 (2.4, 35)	
T145/80D17	420 (4.2, 60)	420 (4.2, 60)	
T145/70R18	420 (4.2, 60)	420 (4.2, 60)	