

SECTION **WCS**

WARNING CHIME SYSTEM

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PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

INFOID:000000011534382

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. Information necessary to service the system safely is included in the SR and SB section 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 SR section.
- 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 Airbag Diagnosis Sensor Unit or other Airbag 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 three minutes before performing any service.

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COMPONENT PARTS

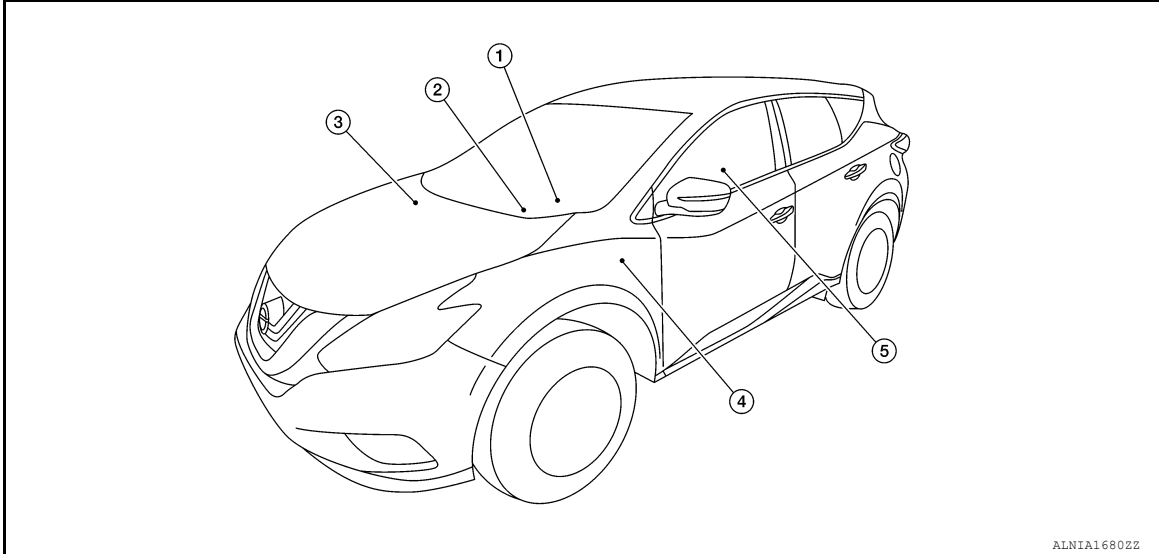
< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:000000011534940



ALNIA1680ZZ

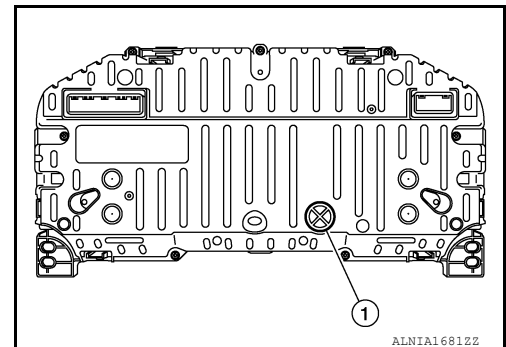
| No. | Component | Function |
|-----|---|---|
| 1. | Combination meter | <ul style="list-style-type: none"> Receives a buzzer output signal from the BCM via CAN communication and sounds the buzzer. Judges whether the parking brake is released using the vehicle speed signal and the parking brake switch signal, and sounds the buzzer if necessary. |
| 2. | BCM | Based on the signals received from various units and switches, transmits the buzzer output signal to the combination meter via CAN communication. Refer to BCS-4, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location. |
| 3. | ABS actuator and electric unit (control unit) | Transmits the vehicle speed signal to the combination meter via CAN communication. Refer to BRC-10, "Component Parts Location" for detailed installation location. |
| 4. | Parking brake switch | Transmits the parking brake switch signal to the combination meter. |
| 5. | Seat belt buckle switch LH | Transmits a seat belt buckle switch signal LH to the combination meter. |

Combination Meter

INFOID:000000011534941

The combination meter has a built-in buzzer (1) and sounds the following warnings, according to signals from each switch and unit:

- Light reminder warning
- Parking brake release warning chime
- Seat belt warning



ALNIA1681ZZ

SYSTEM

< SYSTEM DESCRIPTION >

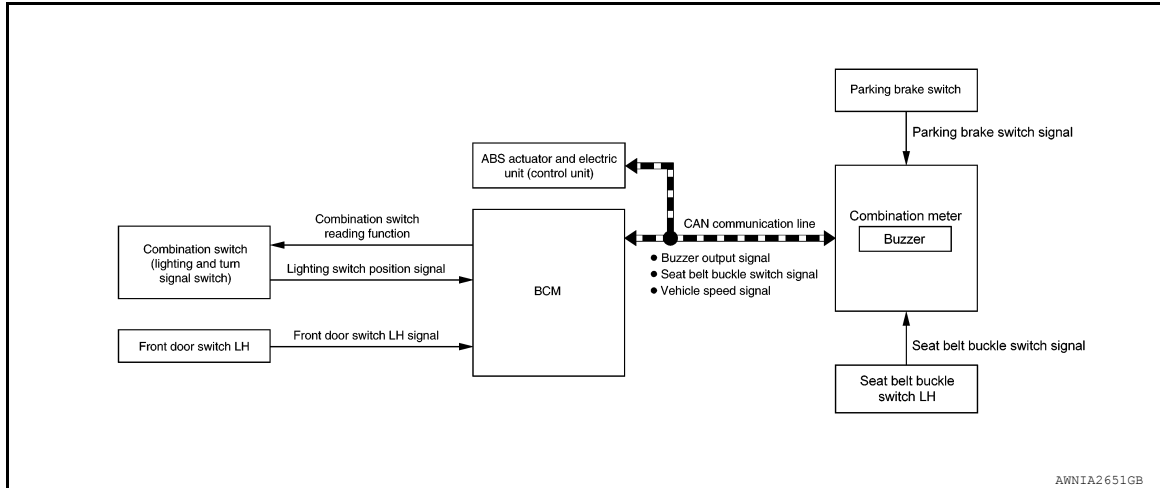
SYSTEM

WARNING CHIME SYSTEM

WARNING CHIME SYSTEM : System Description

INFOID:000000011517379

SYSTEM DIAGRAM



DESCRIPTION

Combination Meter

The combination meter sounds the alarm buzzer installed in the combination meter when receiving the buzzer output signal transmitted from each unit.

BCM

BCM receives signals from various units and transmits a buzzer output signal to the combination meter via CAN communication if it judges that the warning buzzer should be activated.

WARNING CHIME FUNCTION LIST

| Warning functions | Refer to |
|-------------------------------------|--|
| Light reminder warning | WCS-6, "WARNING CHIME : Light Reminder Warning" |
| Parking brake release warning chime | WCS-7, "WARNING CHIME : Parking Brake Release Warning Chime" |
| Seat belt warning | WCS-8, "WARNING CHIME : Seat belt Warning" |

COMBINATION METER INPUT/OUTPUT SIGNAL (CAN COMMUNICATION SIGNAL)

Input signal

| Signal name | Transmit unit |
|----------------------|---|
| Vehicle speed signal | ABS actuator and electric unit (control unit) |
| Buzzer output signal | BCM |

Output signal

| Signal name | Reception unit |
|----------------------|----------------|
| Vehicle speed signal | BCM |

BCM INPUT/OUTPUT SIGNAL (CAN COMMUNICATION SIGNAL)

Input signal

SYSTEM

< SYSTEM DESCRIPTION >

| Signal name | Transmit unit |
|----------------------|-------------------|
| Vehicle speed signal | Combination meter |

Output signal

| Signal name | Reception unit |
|----------------------|-------------------|
| Buzzer output signal | Combination meter |

WARNING CHIME SYSTEM : Fail-Safe

INFOID:000000011541444

The combination meter activates the fail-safe control, if CAN communication with each unit is malfunctioning.

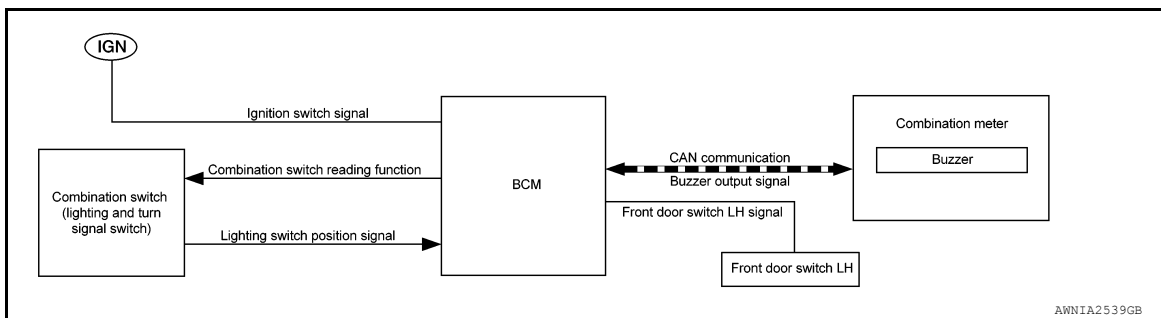
| Function | Specifications |
|----------|---|
| Buzzer | The buzzer turns OFF by suspending communication. |

WARNING CHIME

WARNING CHIME : Light Reminder Warning

INFOID:000000011517378

SYSTEM DIAGRAM



WARNING CHIME OPERATION CONDITIONS

If all of the following conditions are fulfilled:

| Operation conditions | |
|--------------------------------------|--------------------------------|
| Ignition switch | OFF |
| Combination switch (Lighting switch) | 1st or 2nd position |
| Driver side door | Open [front door switch LH ON] |

WARNING CHIME CANCEL CONDITIONS

Warning is canceled if any of the following conditions are fulfilled:

| Operation conditions | |
|--------------------------------------|----------------------------------|
| Ignition switch | ON |
| Combination switch (Lighting switch) | OFF or AUTO position |
| Driver side door | Close [front door switch LH OFF] |

SIGNAL PATH


1. BCM requires warning chime output to combination meter when it judges light reminder warning chime is necessary from signals below.

SYSTEM

< SYSTEM DESCRIPTION >

| Signal name | Signal source |
|---------------------------|--|
| Ignition switch signal | — |
| Combination switch signal | Combination switch (Lighting switch) → BCM |
| Driver door switch signal | Front door switch LH → BCM |

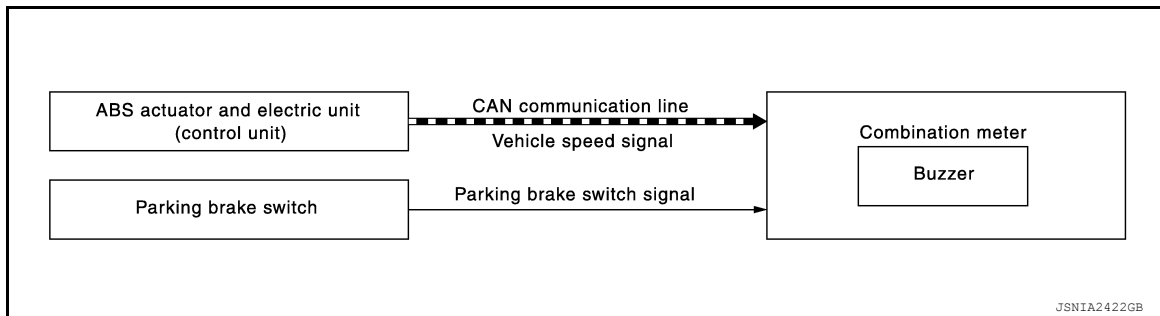
2. Combination meter sounds integrated buzzer, following the warning chime output requirement (below signal) from BCM.

| Signal name | Signal source |
|----------------------|---|
| Buzzer output signal | BCM  → Combination meter |

WARNING CHIME : Parking Brake Release Warning Chime

INFOID:000000011517377

SYSTEM DIAGRAM



WARNING OPERATION CONDITIONS

If all of the following conditions are fulfilled:

| Operation conditions | |
|----------------------|---|
| Ignition switch | ON |
| Parking brake | During the operation (parking brake switch ON). |
| Vehicle speed | Approximately 4.3 MPH (7 km/h) or more. |


WARNING CANCEL CONDITIONS

Warning is canceled if any of the following conditions are fulfilled:

| Operation conditions | |
|----------------------|---|
| Ignition switch | OFF |
| Parking brake | Release condition (parking brake switch OFF). |
| Vehicle speed | Approximately 1.9 MPH (3 km/h) or less. |

SIGNAL PATH

Combination meter sounds integrated buzzer when it judges that parking brake release warning chime is necessary from signals below.

| Signal name | Signal source |
|-----------------------------|--|
| Ignition switch signal | — |
| Parking brake switch signal | Parking brake switch → Combination meter |
| Vehicle speed signal | ABS actuator and electric unit (control unit)  → Combination meter |

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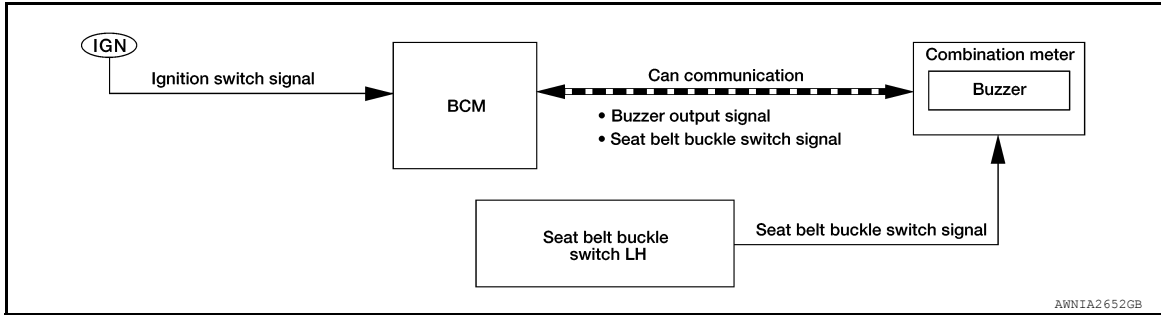
SYSTEM

< SYSTEM DESCRIPTION >

WARNING CHIME : Seat belt Warning

INFOID:000000011517376

SYSTEM DIAGRAM



WARNING OPERATION CONDITIONS

If all of the following conditions are fulfilled:

| Operation conditions | |
|----------------------------|--|
| Ignition switch | ON |
| Seat belt buckle switch LH | Unfastened [seat belt buckle switch LH ON] |

WARNING CANCEL CONDITIONS

Warning is canceled if any of the following conditions are fulfilled:

| Operation conditions | |
|---|---|
| Ignition switch | OFF |
| Seat belt buckle switch LH | Fastened (seat belt buckle switch LH OFF) |
| 6 seconds after the start of warning sound. | |

SIGNAL PATH

1. BCM requires warning chime output to combination meter, when it judges seat belt warning chime is necessary from signals below.

| Signal name | Signal source |
|-----------------------------------|--|
| Ignition switch signal | — |
| Seat belt buckle switch signal LH | Seat belt buckle switch LH → Combination meter → CAN → BCM |

2. Combination meter sounds integrated buzzer, following the warning chime output requirement (below signal) from BCM.

| Signal name | Signal source |
|----------------------|-------------------------------|
| Buzzer output signal | BCM → CAN → Combination meter |

DIAGNOSIS SYSTEM (COMBINATION METER)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (COMBINATION METER)

On Board Diagnosis Function

INFOID:000000011559083

COMBINATION METER SELF-DIAGNOSIS MODE

The following meter functions can be checked during Combination Meter Self-Diagnosis Mode:

- Pointer sweep of speedometer, tachometer and gauges
- Illumination of all LCD segments and color patterns for meter displays
- Illumination of all lamps/LEDs that are controlled by the combination meter (regardless of switch status)

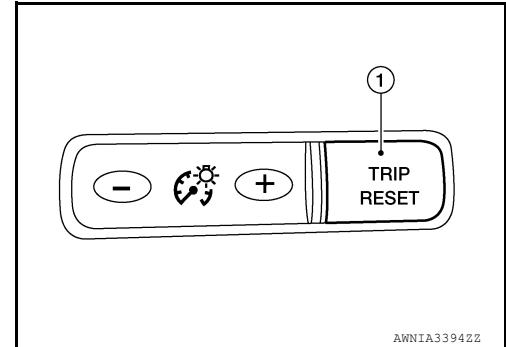
STARTING COMBINATION METER SELF-DIAGNOSIS MODE

NOTE:

- Check combination meter power supply and ground circuits if self-diagnosis mode does not start. Refer to [MWI-59, "COMBINATION METER : Diagnosis Procedure"](#). Replace combination meter if power supply and ground circuits are found to be normal and self-diagnosis mode does not start. Refer to [MWI-78, "Removal and Installation"](#).
- Combination meter self-diagnosis mode will function with the ignition switch in ON. Combination meter self-diagnosis mode will exit upon turning the ignition switch to OFF.

How to Initiate Self-Diagnosis Mode

1. Turn ignition switch OFF.
2. While pressing the trip reset switch (1), turn ignition switch ON.
3. Keep pressing the trip reset switch for 1 second or more.
4. Press the trip reset switch at least 3 times within 7 seconds after the ignition switch is turned ON.
5. "Work instruction code" is indicated in the top portion of information display and self-diagnosis is started.
6. The mode switches in the order shown below each time the trip reset switch is pressed.



NOTE:

If the trip reset switch is not operated for 20 seconds or more, the self-diagnosis mode is automatically canceled.

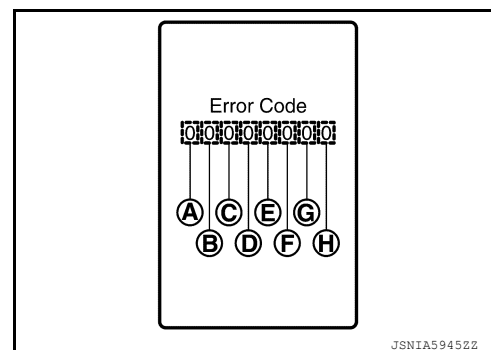
| Test order | Test item | Description |
|------------|------------------------------|--|
| 1 | Work instruction code | This item is displayed, but not used. |
| 2 | Part number | |
| 3 | Software code | |
| 4 | EEPROM code | |
| 5 | Hardware code | |
| 6 | P.C.B code | |
| 7 | Circuit check | <p>The pointer of the following items moves from 0 to MAX twice.</p> <ul style="list-style-type: none"> • Speedometer • Tachometer • Engine coolant temperature gauge • Fuel gauge <p>NOTE: If any of the pointers does not sweep, replace combination meter.</p> |
| 8 | Color check | Performs the color check of the information display. |
| 9 | Error code | <p>Displays the error code of the following items:</p> <ul style="list-style-type: none"> • Speedometer • Tachometer • Engine coolant temperature gauge • Fuel gauge • Meter control switch |
| 10 | Warning/indicator lamp check | All warning/indicator lamps illuminate. |

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DIAGNOSIS SYSTEM (COMBINATION METER)

< SYSTEM DESCRIPTION >



JSNIA59452Z

| Item | Code | Description | Action to take/Reference |
|------------------------------------|------|---|--|
| Ⓐ Speedometer | 0 | Normal | — |
| | 1 | A vehicle speed signal cannot be received from ABS actuator and electric unit (control unit). | Perform "Self Diagnostic Result" of "ABS." Refer to MWI-29, "DTC Index" . |
| | 2 | A vehicle speed signal received from the ABS actuator and electric unit (control unit) is abnormal. | |
| Ⓑ Tachometer | 0 | Normal | — |
| | 1 | An engine speed signal cannot be received from ECM. | Perform "Self Diagnostic Result" of "ECM." Refer to MWI-29, "DTC Index" . |
| Ⓒ Fuel gauge | 0 | Normal | — |
| | 1 | Fuel gauge circuit is shorted. | Refer to MWI-63, "Component Function Check" . |
| | 2 | Fuel gauge circuit is open. | |
| Ⓓ Engine coolant temperature gauge | 0 | Normal | — |
| | 1 | An engine coolant temperature signal cannot be received from ECM. | Perform "Self Diagnostic Result" of "ECM." Refer to MWI-29, "DTC Index" . |
| Ⓔ Meter control switch | 0 | Normal | — |
| | 1 | When judging that the illumination control switch signal circuit is shorted for 5 minutes or more. | Refer to MWI-61, "Diagnosis Procedure" . |
| | 2 | When judging that the trip reset switch signal circuit is shorted for 5 minutes or more. | |
| | 3 | When judging that both switch signal circuit are shorted for 5 minutes or more. | |
| Ⓕ — | 0 | Displays "0" constantly. | — |
| Ⓖ — | 0 | Displays "0" constantly. | — |
| Ⓗ — | 0 | Displays "0" constantly. | — |

How to Reset Error Code

Error codes stored in combination meter can be reset by following the instructions below:

1. Turn ignition switch OFF.
2. While pressing the trip reset switch, turn ignition switch ON.
3. Keep pressing the trip reset switch for 1 second or more.
4. Press the trip reset switch at least 3 times within 7 seconds after the ignition switch is turned ON.
5. Turn ignition switch OFF.
6. Perform self-diagnosis and check that the error codes are reset.

DIAGNOSIS SYSTEM (COMBINATION METER)

< SYSTEM DESCRIPTION >

CONSULT Function (METER/M&A)

INFOID:000000011559084

APPLICATION ITEMS

CONSULT can display each diagnostic item using the diagnostic test modes shown.

| METER/M&A Diagnosis mode | Description |
|--------------------------|--|
| Self Diagnostic Result | Displays combination meter self-diagnosis results. |
| Data Monitor | Displays combination meter input/output data in real time. |
| Work support | Displays diagnosis procedure of each work item. |
| Warning History | Lighting history of the warning lamp and indicator lamp can be checked. |
| CAN DIAG SUPPORT MNTR | The result of transmit/receive diagnosis of CAN communication can be read. |

SELF DIAG RESULT

Refer to [MWI-29, "DTC Index"](#).

DATA MONITOR

Display Item List

X: Applicable

| Display item [Unit] | MAIN SIGNALS | Description |
|-------------------------------|--------------|---|
| SPEED METER | X | Displays the value of vehicle speed signal. |
| SPEED OUTPUT [mph or km/h] | X | Vehicle speed signal value transmitted to other units via CAN communication. |
| ODO OUTPUT [mph or km/h] | | Odometer signal value transmitted to other units via CAN communication. |
| TACHO METER [rpm] | X | Value of the engine speed signal received from ECM via CAN communication. |
| FUEL METER [L] | X | Fuel level indicated on combination meter. |
| W TEMP METER [°F] or [°C] | X | Displays the value of engine coolant temperature signal, which is input from ECM. |
| ABS W/L [On/Off] | | Displays [ON/OFF] condition of ABS warning indicator. |
| VDC/TCS IND [On/Off] | | Displays [ON/OFF] condition of VDC OFF indicator lamp. |
| SLIP IND [On/Off] | | Displays [ON/OFF] condition of SLIP indicator lamp. |
| BRAKE W/L [On/Off] | | Displays [ON/OFF] condition of brake warning indicator. |
| DOOR W/L [On/Off] | | Displays [ON/OFF] condition of door or liftgate warning message in the information display. |
| HI-BEAM IND [On/Off] | | Displays [ON/OFF] condition of high beam indicator. |
| TURN IND [On/Off] | | Displays [ON/OFF] condition of turn indicator. |
| LIGHT IND [On/Off] | | Displays [ON/OFF] condition of light indicator. |
| FR FOG IND [On/Off] | | Displays [ON/OFF] condition of front fog lamp indicator. |
| OIL W/L [On/Off] | | Displays [ON/OFF] condition of low oil pressure warning message in the information display. |
| MIL [On/Off] | | Displays [ON/OFF] condition of malfunction indicator. |

DIAGNOSIS SYSTEM (COMBINATION METER)

< SYSTEM DESCRIPTION >

| Display item [Unit] | MAIN SIGNALS | Description |
|--|--------------|---|
| BA W/L [On/Off] | | Displays [ON/OFF] condition of FEB warning lamp indicator. |
| ATC/T-AMT W/L [On/Off] | | Displays [ON/OFF] condition of A/T check warning message in the information display. |
| CHAGE W/L [On/Off] | | Displays [ON/OFF] condition of charge warning indicator. |
| 4WD W/L [On/Off] | | Displays [ON/OFF] condition of AWD warning message in the information display. |
| FUEL W/L [On/Off] | | Displays [ON/OFF] condition of low-fuel warning message in the information display. |
| WASHER W/L [On/Off] | | Displays [ON/OFF] condition of low washer fluid warning message in the information display. |
| AIR PRES W/L [On/Off] | | Displays [ON/OFF] condition of tire pressure warning lamp. |
| KEY G/Y W/L [On/Off] | | Displays [ON/OFF] condition of key green warning lamp. |
| EPS W/L [On/Off] | | Displays [ON/OFF] condition of EPS warning indicator. |
| LCD | | Displays the value of Intelligent Key system message indication. |
| ACC TARGET [On/Off] | | Displays [ON/OFF] condition of vehicle ahead detection indicator in the information display. |
| ACC DISTANCE [Off, Short, Middle, Long] | | Displays [Off, Short, Middle, Long] condition of set distance indicator in the information display. |
| SHIFT IND [P, R, N, D, L] | | Displays shift selector position. |
| FUEL CAP W/L [On/Off] | | Displays [ON/OFF] condition of loose fuel cap warning message in the information display. |
| PKB SW [On/Off] | | Displays [ON/OFF] condition of parking brake switch. |
| BUCKLE SW [On/Off] | | Displays [ON/OFF] condition of seat belt buckle switch LH. |
| BRAKE OIL SW [On/Off] | | Displays [ON/OFF] condition of brake fluid level switch. |
| DISTANCE [Mi] or [km] | | Displays distance to empty. |
| OUTSIDE TEMP [°F or °C] | | Displays the ambient air temperature which is input from the ambient sensor. |
| FUEL LOW SIG [On/Off] | | Displays [ON/OFF] condition of low-fuel warning signal. |
| STRG SW INPUT [SW 1-SW 10, NOT INPUT] | | Displays [SW 1-SW 10, NOT INPUT] condition of steering switches. |
| BUZZER [On/Off] | X | Buzzer status (in the combination meter) is detected from the buzzer output signal received from each unit via CAN communication and the warning output condition of the combination meter. |
| BATTERY CIRCUIT STATUS [Normal/Open] | | Displays [Normal/Open] condition of battery power supply circuit. |
| TPMS PRESS L [On/Off] | | Displays [ON/OFF] condition of tire pressure low message in the information display. |
| BSW IND [On/Off] | | Displays [ON/OFF] condition of blind spot warning indicator. |
| BSW W/L [On/Off] | | Displays [ON/OFF] condition of blind spot warning in the information display. |

DIAGNOSIS SYSTEM (COMBINATION METER)

< SYSTEM DESCRIPTION >

WORK SUPPORT

| Work support item | Description |
|---------------------------------------|--|
| Outside air temperature diagnosis | A possible malfunction can be narrowed down by following the displayed instructions. |
| Fuel meter diagnosis (Analog pointer) | |
| Warning/Indicator lamp diagnosis | |

WARNING HISTORY

Special menu

| Display item | Description |
|----------------|---|
| W/L ON HISTORY | Lighting history of warning lamp and indicator lamp can be checked. |

W/L ON HISTORY

- “W/L ON HISTORY” indicates the “TIME” when the warning/indicator lamp is turned on.
- The “TIME” above is:
 - 0: The condition that the warning/indicator lamp has been turned on 1 or more times after starting the engine and waiting for 30 seconds.
 - 1 - 39: The number of times the engine was restarted after the 0 condition.
 - NO W/L ON HISTORY: No warning/indicator lamp history is stored.

NOTE:

- “W/L ON HISTORY” is not stored for approximately 30 seconds after the engine starts.
- Brake warning lamp does not store any history when the parking brake is applied or the brake fluid level gets low.

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DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000011552613

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

| Direct Diagnostic Mode | Description |
|------------------------|--|
| ECU Identification | The BCM part number is displayed. |
| Self Diagnostic Result | The BCM self diagnostic results are displayed. |
| Data Monitor | The BCM input/output data is displayed in real time. |
| Active Test | The BCM activates outputs to test components. |
| Work support | The settings for BCM functions can be changed. |
| Configuration | <ul style="list-style-type: none"> The vehicle specification can be read and saved. The vehicle specification can be written when replacing BCM. |
| CAN Diag Support Mntr | The result of transmit/receive diagnosis of CAN communication is displayed. |

SYSTEM APPLICATION

BCM can perform the following functions:

| System | Sub System | Direct Diagnostic Mode | | | | | | |
|--------------------------------------|----------------------|------------------------|------------------------|--------------|-------------|--------------|---------------|-----------------------|
| | | ECU Identification | Self Diagnostic Result | Data Monitor | Active Test | Work support | Configuration | CAN Diag Support Mntr |
| Door lock | DOOR LOCK | | × | × | × | × | | |
| Rear window defogger | REAR DEFOGGER | | | × | × | × | | |
| Warning chime | BUZZER | | | × | × | | | |
| Interior room lamp timer | INT LAMP | | | × | × | × | | |
| Exterior lamp | HEADLAMP | | | × | × | × | | |
| Wiper and washer | WIPER | | | × | × | × | | |
| Turn signal and hazard warning lamps | FLASHER | | | × | × | × | | |
| Air conditioner | AIR CONDITIONER | | | × | | | | |
| Intelligent Key system | INTELLIGENT KEY | | × | × | × | × | | |
| Combination switch | COMB SW | | | × | | | | |
| BCM | BCM | × | × | | | × | × | × |
| Immobilizer | IMMU | | × | × | × | | | |
| Interior room lamp battery saver | BATTERY SAVER | | | × | × | | | |
| Back door open | TRUNK | | | × | | | | |
| Vehicle security system | THEFT ALM | | | × | × | × | | |
| RAP system | RETAINED PWR | | | × | | | | |
| Signal buffer system | SIGNAL BUFFER | | | × | × | | | |
| TPMS | AIR PRESSURE MONITOR | | × | × | × | | | |

FREEZE FRAME DATA (FFD)

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

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

| CONSULT screen item | Indication/Unit | Description |
|---------------------|--|--|
| Vehicle Speed | km/h | Vehicle speed at the moment a particular DTC is detected |
| Odo/Trip Meter | km | Total mileage (Odometer value) at the moment a particular DTC is detected |
| Vehicle Condition | 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 stopped and selector lever is in 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" (Emergency stop operation) |
| | ACC>OFF | While turning power supply position from "ACC" to "OFF" |
| | OFF>LOCK | While turning power supply position from "OFF" to "LOCK"* |
| | OFF>ACC | 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 position 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)* |
| | OFF | Power supply position is "OFF" (Ignition switch OFF) |
| | 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 | <p>The number of times that ignition switch is turned ON after DTC is detected</p> <ul style="list-style-type: none"> • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition is switched OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39. |

NOTE:

*: Power supply position shifts to "LOCK" from "OFF", when ignition switch is in the OFF position, selector lever is in the P position, and any of the following conditions are met:

- Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

The power supply position shifts to "ACC" when the push-button ignition switch (push switch) is pushed at "LOCK".

BUZZER

BUZZER : CONSULT Function (BCM - BUZZER)

INFOID:0000000011552614

DATA MONITOR

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

| Monitor Item [Unit] | Description |
|-----------------------|---|
| PUSH SW [On/Off] | Indicates condition of push-button ignition switch. |
| UNLK SEN -DR [On/Off] | Indicates condition of door unlock sensor. |
| VEH SPEED 1 [km/h] | Indicates vehicle speed signal received from ABS on CAN communication line. |
| TAIL LAMP SW [On/Off] | Indicates condition of combination switch. |
| FR FOG SW [On/Off] | Indicates condition of front fog lamp switch. |
| DOOR SW-DR [On/Off] | Indicates condition of front door switch LH. |
| CDL LOCK SW [On/Off] | Indicates condition of lock signal from door lock and unlock switch. |

ACTIVE TEST

| Test Item | Description |
|---------------------|--|
| SEAT BELT WARN TEST | This test is able to check seat belt warning chime operation [On/Off]. |
| LIGHT WARN ALM | This test is able to check light warning chime operation [On/Off]. |
| REVERSE WARNING | This test is able to check reverse warning chime operation [On/Off]. |

BCM, COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

BCM, COMBINATION METER

List of ECU Reference

INFOID:0000000011215236

| ECU | Reference |
|-------------------|---|
| BCM | BCS-30, "Reference Value" |
| | BCS-50, "Fail Safe" |
| | BCS-51, "DTC Inspection Priority Chart" |
| | BCS-52, "DTC Index" |
| COMBINATION METER | MWI-23, "Reference Value" |
| | MWI-28, "Fail-safe" |
| | MWI-29, "DTC Index" |

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WCS

WARNING CHIME SYSTEM

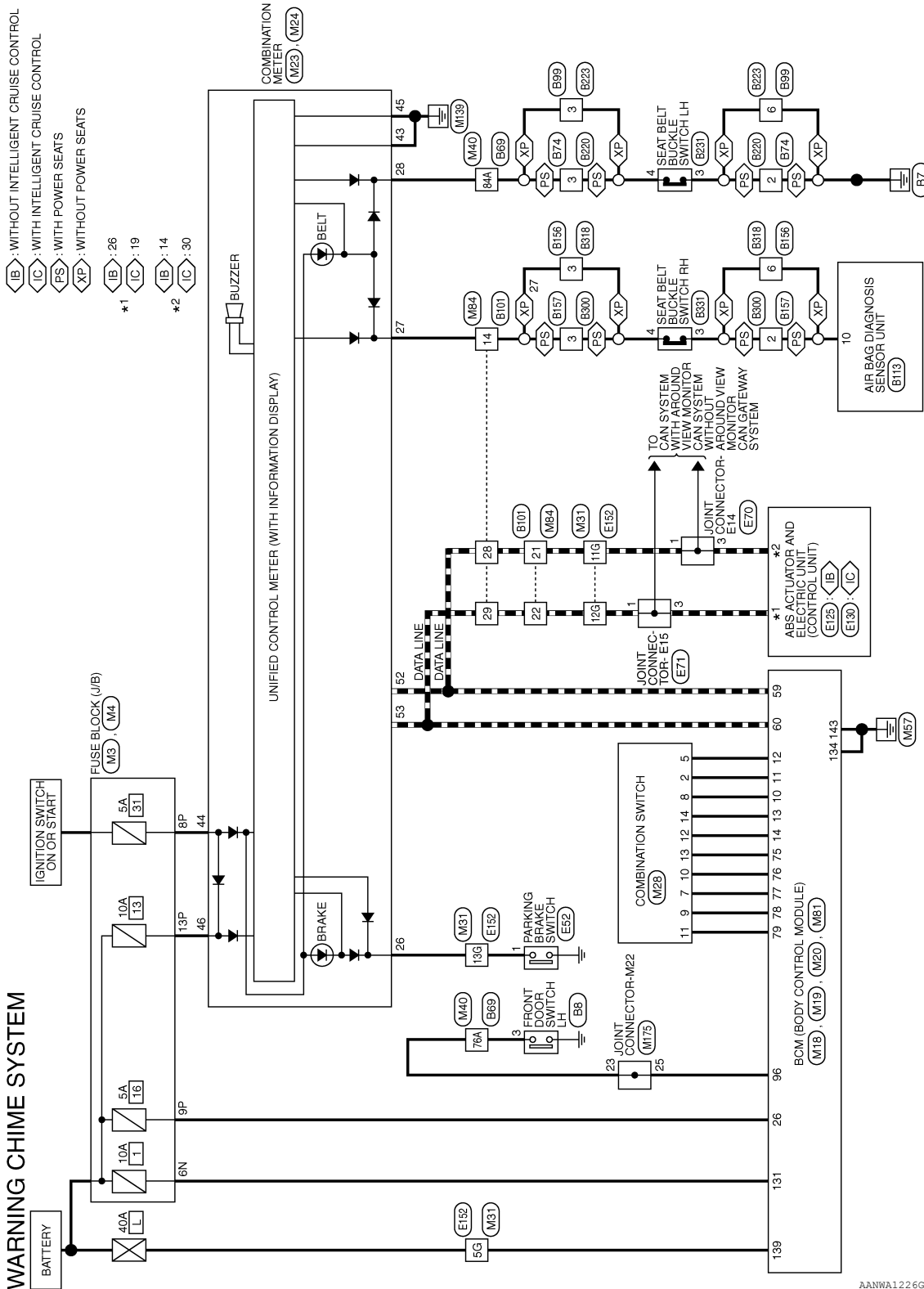
< WIRING DIAGRAM >

WIRING DIAGRAM

WARNING CHIME SYSTEM

Wiring Diagram

INFOID:000000011215237



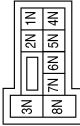
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WARNING CHIME SYSTEM

< WIRING DIAGRAM >

WARNING CHIME SYSTEM CONNECTORS

| | |
|-----------------|------------------|
| Connector No. | M3 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 6N | W | - |

| | |
|-----------------|------------------|
| Connector No. | M4 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Color | WHITE |



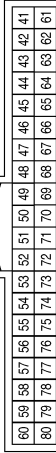
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 8P | BG | - |
| 9P | L | - |
| 13P | W | - |

| | |
|-----------------|---------------------------|
| Connector No. | M18 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Color | GREEN |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|----------------|
| 10 | W | COMBI SW IN 5 |
| 11 | BG | COMBI SW IN 4 |
| 12 | R | COMBI SW IN 3 |
| 13 | G | COMBI SW IN 2 |
| 14 | P | COMBI SW IN 1 |
| 26 | L | SHORTING INPUT |

| | |
|-----------------|---------------------------|
| Connector No. | M19 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Color | BLACK |



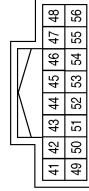
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|----------------|
| 59 | P | CAN-L |
| 60 | L | CAN-H |
| 75 | BG | COMBI SW OUT 5 |
| 76 | P | COMBI SW OUT 4 |
| 77 | R | COMBI SW OUT 3 |
| 78 | G | COMBI SW OUT 2 |
| 79 | W | COMBI SW OUT 1 |

| | |
|-----------------|---------------------------|
| Connector No. | M20 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Color | GRAY |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 96 | BG | DR DOOR SW |

| | |
|-----------------|-------------------|
| Connector No. | M23 |
| Connector Name | COMBINATION METER |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 43 | B | GND1 |
| 44 | BG | POWER (IGN) |
| 45 | B | GND2 |
| 46 | W | POWER (BAT) |
| 52 | P | CAN-L |
| 53 | L | CAN-H |

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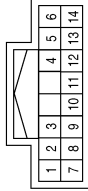
WCS

WARNING CHIME SYSTEM

< WIRING DIAGRAM >

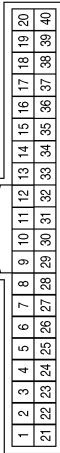
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 8 | W | - |
| 9 | G | - |
| 10 | P | - |
| 11 | W | - |
| 12 | P | - |
| 13 | BG | - |
| 14 | G | - |

| Connector No. | M28 |
|-----------------|--------------------|
| Connector Name | COMBINATION SWITCH |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 2 | BG | - |
| 5 | R | - |
| 7 | R | - |

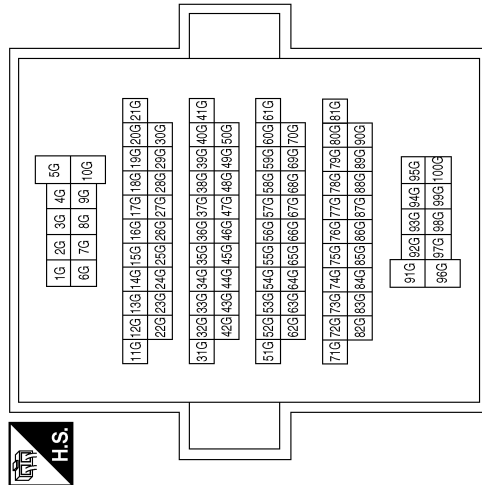
| Connector No. | M24 |
|-----------------|-------------------|
| Connector Name | COMBINATION METER |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------------|
| 26 | BR | PKB SW |
| 27 | BR | SEAT BELT SW (AS) |
| 28 | Y | SEAT BELT SW (DR) |

| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 5G | L | - |
| 11G | P | - |
| 12G | L | - |
| 13G | BR | - |

| Connector No. | M31 |
|-----------------|--------------|
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |

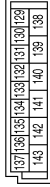


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WARNING CHIME SYSTEM

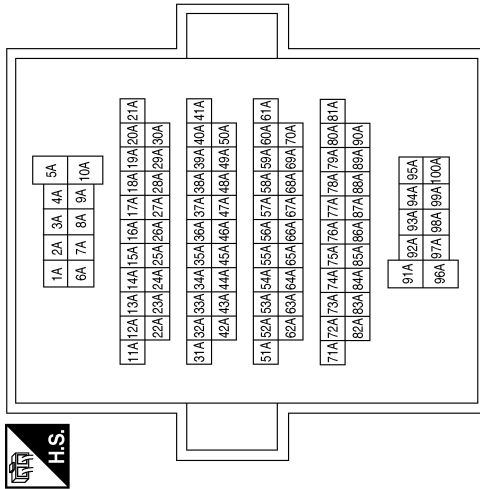
< WIRING DIAGRAM >

| | |
|-----------------|---------------------------|
| Connector No. | M81 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Color | WHITE |

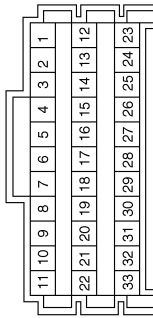


| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|---------------|
| 131 | W | BAT BCM FUSE |
| 134 | GR | GND2 |
| 139 | L | BAT POWER F/L |
| 143 | GR | GND1 |

| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 76A | BG | - |
| 84A | Y | - |



| | |
|-----------------|---------------------|
| Connector No. | M175 |
| Connector Name | JOINT CONNECTOR-M22 |
| Connector Color | WHITE |



| | |
|-----------------|---------------------|
| Connector No. | M175 |
| Connector Name | JOINT CONNECTOR-M22 |
| Connector Color | WHITE |

| | |
|-----------------|--------------|
| Connector No. | M84 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 14 | BR | - |
| 21 | P | - |
| 22 | L | - |
| 28 | P | - |
| 29 | L | - |

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WCS

WARNING CHIME SYSTEM

< WIRING DIAGRAM >

| | |
|-----------------|----------------------|
| Connector No. | E52 |
| Connector Name | PARKING BRAKE SWITCH |
| Connector Color | BLACK |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | LG | - |

| | |
|-----------------|---------------------|
| Connector No. | E70 |
| Connector Name | JOINT CONNECTOR-E14 |
| Connector Color | BLACK |



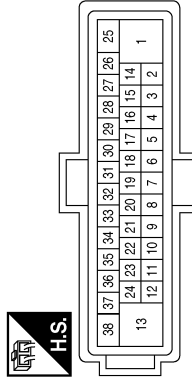
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | P | - |
| 3 | P | - |

| | |
|-----------------|---------------------|
| Connector No. | E71 |
| Connector Name | JOINT CONNECTOR-E15 |
| Connector Color | BLACK |



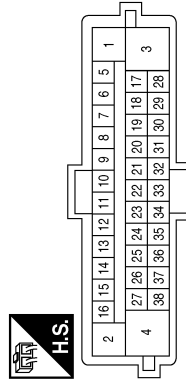
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | L | - |
| 3 | L | - |

| | |
|-----------------|--|
| Connector No. | E125 |
| Connector Name | ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) (WITHOUT INTELLIGENT CRUISE CONTROL) |
| Connector Color | BLACK |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 14 | P | CAN-L |
| 26 | L | CAN-H |

| | |
|-----------------|---|
| Connector No. | E130 |
| Connector Name | ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) (WITH INTELLIGENT CRUISE CONTROL) |
| Connector Color | BLACK |

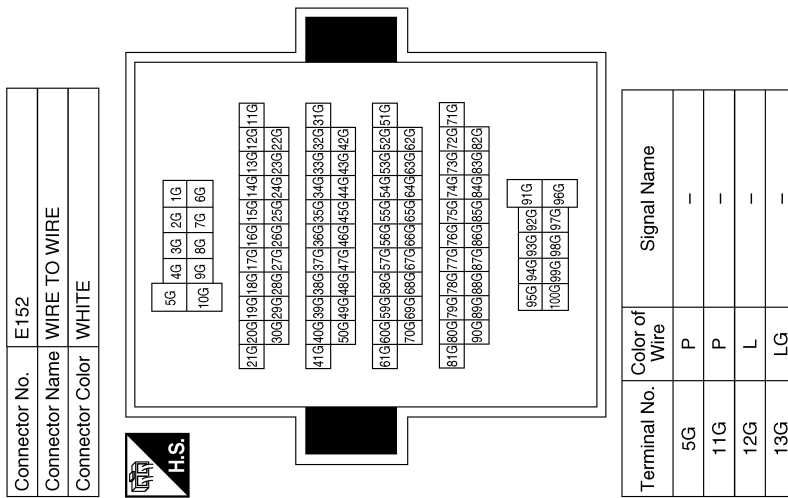
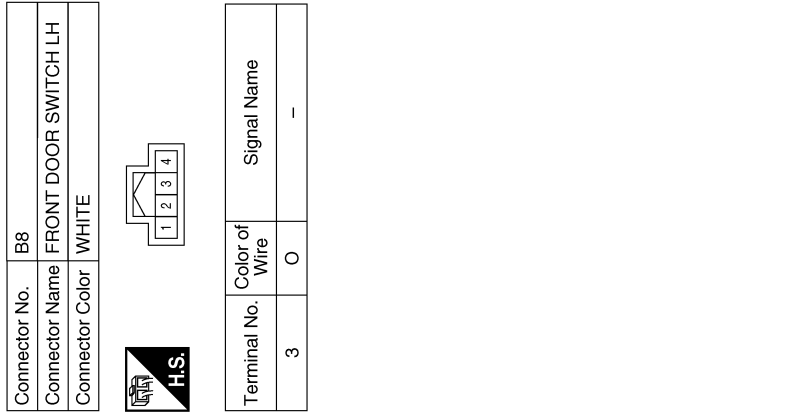
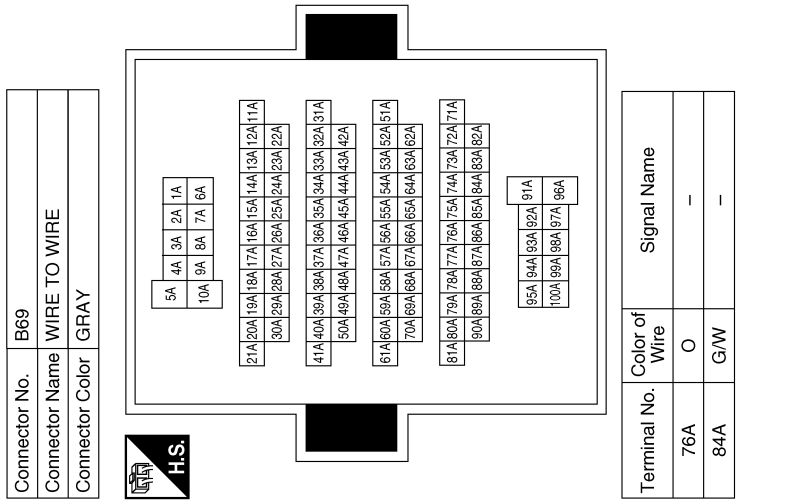


| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 19 | L | CAN-H |
| 30 | P | CAN-L |

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WARNING CHIME SYSTEM

< WIRING DIAGRAM >

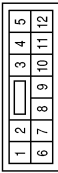


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WARNING CHIME SYSTEM

< WIRING DIAGRAM >

| | |
|-----------------|---------------------------------|
| Connector No. | B74 |
| Connector Name | WIRE TO WIRE (WITH POWER SEATS) |
| Connector Color | WHITE |



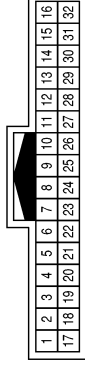
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 2 | B/V | - |
| 3 | G/W | - |

| | |
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| Connector No. | B99 |
| Connector Name | WIRE TO WIRE (WITHOUT POWER SEATS) |
| Connector Color | WHITE |



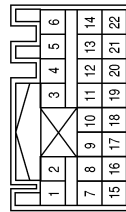
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 3 | G/W | - |
| 6 | B/V | - |

| | |
|-----------------|--------------|
| Connector No. | B101 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 14 | BR | - |
| 21 | P | - |
| 22 | L | - |
| 28 | P | - |
| 29 | L | - |

| | |
|-----------------|-------------------------------|
| Connector No. | B113 |
| Connector Name | AIR BAG DIAGNOSIS SENSOR UNIT |
| Connector Color | YELLOW |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|------------------|
| 10 | B | BUCKLE SW FR RH- |

| | |
|-----------------|------------------------------------|
| Connector No. | B156 |
| Connector Name | WIRE TO WIRE (WITHOUT POWER SEATS) |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 3 | BR | - |
| 6 | B | - |

| | |
|-----------------|---------------------------------|
| Connector No. | B157 |
| Connector Name | WIRE TO WIRE (WITH POWER SEATS) |
| Connector Color | WHITE |

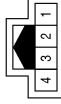


| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 2 | B | - |
| 3 | BR | - |

WARNING CHIME SYSTEM

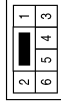
< WIRING DIAGRAM >

| | |
|-----------------|----------------------------|
| Connector No. | B231 |
| Connector Name | SEAT BELT BUCKLE SWITCH LH |
| Connector Color | WHITE |



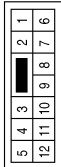
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 3 | P | - |
| 4 | BR | - |

| | |
|-----------------|------------------------------------|
| Connector No. | B223 |
| Connector Name | WIRE TO WIRE (WITHOUT POWER SEATS) |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 3 | BR | - |
| 6 | P | - |

| | |
|-----------------|---------------------------------|
| Connector No. | B220 |
| Connector Name | WIRE TO WIRE (WITH POWER SEATS) |
| Connector Color | WHITE |



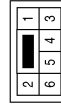
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 2 | P | - |
| 3 | BR | - |

| | |
|-----------------|----------------------------|
| Connector No. | B331 |
| Connector Name | SEAT BELT BUCKLE SWITCH RH |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 3 | P | - |
| 4 | BR | - |

| | |
|-----------------|------------------------------------|
| Connector No. | B318 |
| Connector Name | WIRE TO WIRE (WITHOUT POWER SEATS) |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 3 | BR | - |
| 6 | P | - |

| | |
|-----------------|---------------------------------|
| Connector No. | B300 |
| Connector Name | WIRE TO WIRE (WITH POWER SEATS) |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 2 | P | - |
| 3 | BR | - |

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WCS

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

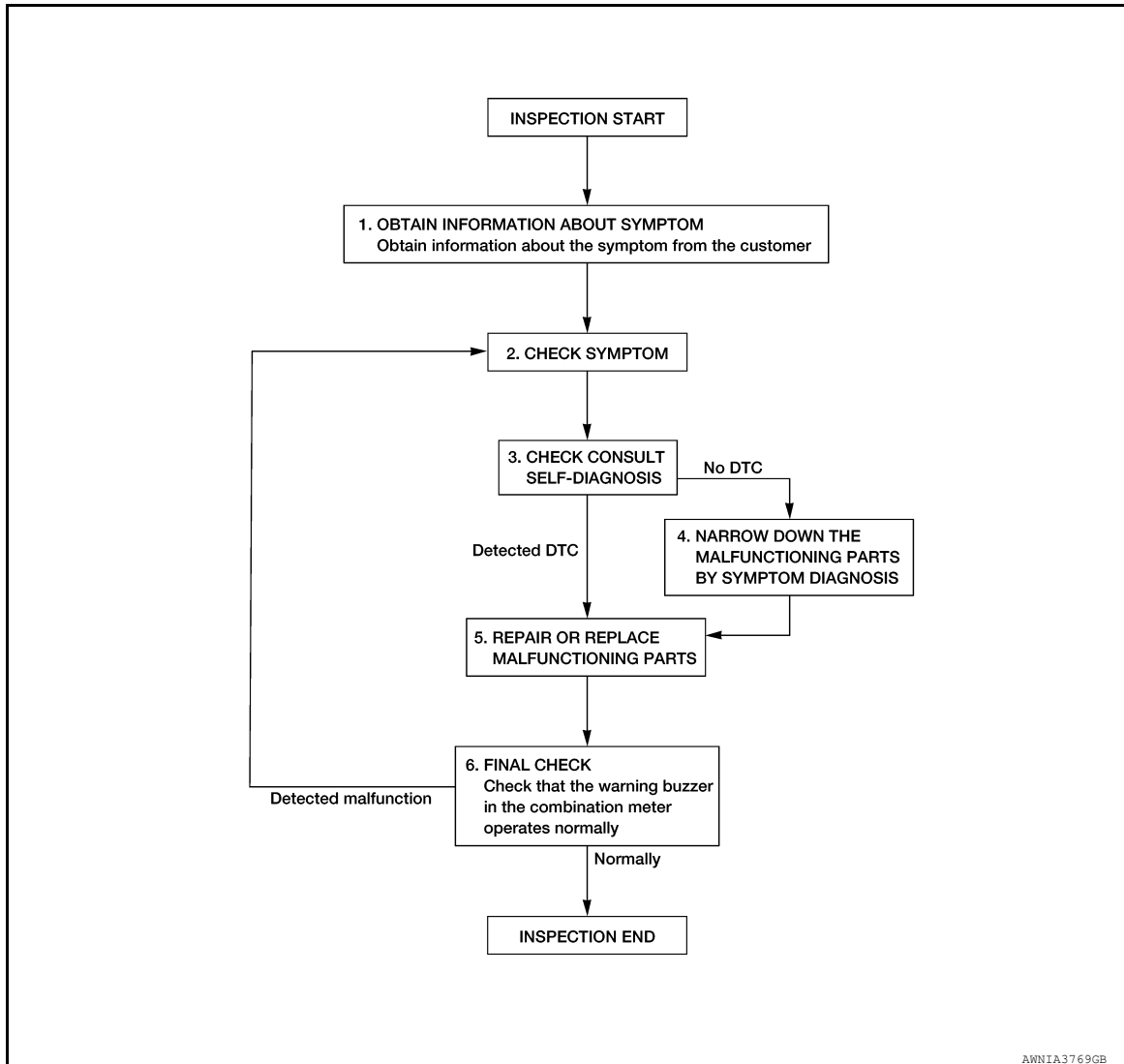
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000011215238

OVERALL SEQUENCE



DETAILED FLOW

1. OBTAIN INFORMATION ABOUT SYMPTOM

Interview the customer to obtain as much information as possible about the conditions and environment under which the malfunction occurred.

>> GO TO 2.

2. CHECK SYMPTOM

- Check the symptom based on the information obtained from the customer.
- Check if any other malfunctions are present.

>> GO TO 3.

3. CHECK CONSULT SELF-DIAGNOSIS RESULTS

Perform self-diagnosis. Refer to [MWI-29, "DTC Index"](#).

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 5.

4.NARROW DOWN MALFUNCTIONING PARTS BY SYMPTOM DIAGNOSIS

Perform symptom diagnosis. Refer to [WCS-34, "Symptom Table"](#).

>> GO TO 5.

5.REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace malfunctioning parts.

NOTE:

If DTC is displayed, erase DTC after repairing or replacing malfunctioning parts.

>> GO TO 6.

6.FINAL CHECK

Check that the warning buzzer in the combination meter operates normally.

Is the inspection result normal?

YES >> Inspection End.

NO >> GO TO 2.

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WCS

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT COMBINATION METER

COMBINATION METER : Diagnosis Procedure

INFOID:000000011559085

Regarding Wiring Diagram information, refer to [MWI-31, "Wiring Diagram"](#).

1. CHECK FUSES

Check that the following fuses are not blown:

| Unit | Power source | Fuse No. |
|-------------------|-----------------------------|----------|
| Combination meter | Battery | 13 |
| | Ignition switch ON or ACC | 21 |
| | Ignition switch ON or START | 31 |

Is the fuse blown?

- YES >> Replace the blown fuse after repairing the affected circuit.
NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

1. Disconnect combination meter harness connector M24.
2. Check voltage between combination meter harness connector M24 and ground.

| Combination meter | | Ground | Ignition switch position | | |
|-------------------|----------|--------|--------------------------|-----------------|-----------------|
| Connector | Terminal | | OFF | ON or ACC | START |
| M24 | 14 | (-) | 0 V | Battery voltage | Battery voltage |
| | 44 | | 0 V | Battery voltage | Battery voltage |
| | 46 | | Battery voltage | Battery voltage | Battery voltage |

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Repair or replace harness or connector.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between combination meter harness connector M23, M24 and ground.

| Combination meter | | Ground | Continuity |
|-------------------|----------|--------|------------|
| Connector | Terminal | | |
| M24 | 10 | (-) | Yes |
| M23 | 43 | | |
| | 45 | | |

Is the inspection result normal?

- YES >> Inspection End.
NO >> Repair or replace harness or connector.

BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:000000011552616

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Regarding Wiring Diagram information, refer to [BCS-55. "Wiring Diagram"](#).

1. CHECK FUSE AND FUSIBLE LINK

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

| Signal name | Fuse and fusible link No. |
|----------------------------|---------------------------|
| Fusible link battery power | L (40A) |
| BCM battery fuse | 1 (10A) |

Is the fuse or fusible link blown?

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

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

1. Disconnect BCM connector M81.

2. Check voltage between BCM connector M81 terminals 131, 139 and ground.

| BCM | | Ground | Voltage (Approx.) |
|-----------|----------|--------|-------------------|
| Connector | Terminal | | |
| M81 | 131 | — | Battery voltage |
| | 139 | | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK GROUND CIRCUIT

Check continuity between BCM connector M81 terminals 134, 143 and ground.

| BCM | | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | | |
| M81 | 134 | — | Yes |
| | 143 | | |

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

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WCS

METER BUZZER CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

METER BUZZER CIRCUIT

Component Function Check

INFOID:000000011517381

1. CHECK OPERATION OF METER BUZZER

ⓅCONSULT

1. Select "BUZZER" of "BCM".
2. Select "LIGHT WARN ALM" in "Active Test" mode.

Is the inspection result normal?

- YES >> Inspection End.
NO >> Refer to [WCS-30. "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000011517382

1. CHECK POWER SUPPLY OF COMBINATION METER

Check power supply of combination meter. Refer to [WCS-28. "COMBINATION METER : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> Replace combination meter. Refer to [MWI-78. "Removal and Installation"](#).
NO >> Repair power supply circuit of combination meter.

SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

Component Function Check

INFOID:0000000011517384

1. CHECK COMBINATION METER INPUT SIGNAL

CONSULT

1. Select "Data Monitor" mode of "METER/M&A".
2. Select "BUCKLE SW".
3. Check that the function operates normally according to the following conditions:

| Monitor item | Condition | Status |
|--------------|---------------------------------|--------|
| BUCKLE SW | When seat belt LH is fastened | OFF |
| | When seat belt LH is unfastened | ON |

Is the inspection result normal?

- YES >> Inspection End.
 NO >> Refer to [WCS-31, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011536023

Regarding Wiring Diagram information, refer to [WCS-18, "Wiring Diagram"](#).

1. CHECK COMBINATION METER INPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between combination meter harness connector M24 terminal 28 and ground.

| Combination meter | | | Condition | Voltage (Approx.) |
|-------------------|-----------|--------|-------------------------------------|-------------------|
| Connector | Terminals | | | |
| M24 | 28 | Ground | When driver seat belt is fastened | Battery voltage |
| | | | When driver seat belt is unfastened | 0 V |

Is the inspection result normal?

- YES >> Replace combination meter. Refer to [MWI-78, "Removal and Installation"](#).
 NO >> GO TO 2.

2. CHECK SEAT BELT BUCKLE SWITCH LH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter harness connector M24 and seat belt buckle switch LH harness connector B231.
3. Check continuity between combination meter harness connector M24 terminal 28 and seat belt buckle switch LH harness connector B231 terminal 4.

| Combination meter | | Seat belt buckle switch LH | | Continuity |
|-------------------|----------|----------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| M24 | 28 | B231 | 4 | Yes |

4. Check continuity between combination meter harness connector M24 terminal 28 and ground.

| Combination meter | | Ground | Continuity |
|-------------------|----------|--------|------------|
| Connector | Terminal | | |
| M24 | 28 | | No |

Is the inspection result normal?

- YES >> GO TO 3.
 NO >> Repair or replace harness or connector.

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WCS

SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

3. CHECK SEAT BELT BUCKLE SWITCH LH GROUND CIRCUIT

Check harness continuity between seat belt buckle switch LH harness connector B231 terminal 3 and ground.

| Seat belt buckle switch LH | | Ground | Continuity |
|----------------------------|----------|--------|------------|
| Connector | Terminal | | |
| B231 | 3 | | Yes |

Is the inspection result normal?

- YES >> Inspection End.
NO >> Repair or replace harness or connector.

Component Inspection

INFOID:000000011517386

1. CHECK SEAT BELT BUCKLE SWITCH LH

1. Turn ignition switch OFF.
2. Disconnect the seat belt buckle switch LH connector.
3. Check continuity between the seat belt buckle switch LH terminals 3 and 4.

| Condition | Terminal | Continuity |
|--|----------|------------|
| When seat belt buckle LH is fastened | 3- 4 | No |
| When seat belt buckle LH is unfastened | | Yes |

Is the inspection result normal?

- YES >> Inspection End.
NO >> Replace the seat belt buckle switch LH. Refer to [SR-32, "Removal and Installation"](#).

PARKING BRAKE SWITCH SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

PARKING BRAKE SWITCH SIGNAL CIRCUIT

Component Function Check

INFOID:0000000011534320

1.COMBINATION METER INPUT SIGNAL

CONSULT

1. Select "Data Monitor" mode of "METER/M&A".
2. Select "PKB SW".
3. Check that the function operates normally according to the following conditions:

| Monitor item | Condition | Status |
|--------------|--------------------------------|--------|
| PKB SW | When parking brake is applied | ON |
| | When parking brake is released | OFF |

Is the inspection result normal?

- YES >> Inspection End.
NO >> Refer to [WCS-33, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011535382

Regarding Wiring Diagram information, refer to [WCS-18, "Wiring Diagram"](#).

1.CHECK PARKING BRAKE SWITCH CIRCUIT

1. Disconnect combination meter harness connector M24 and parking brake switch harness connector E52.
2. Check continuity between combination meter harness connector M24 terminal 26 and parking brake switch harness connector E52 terminal 1.

| Combination meter | | Parking brake switch | | Continuity |
|-------------------|----------|----------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| M24 | 26 | E52 | 1 | Yes |

3. Check continuity between combination meter harness connector M24 terminal 26 and ground.

| Combination meter | | Ground | Continuity |
|-------------------|----------|--------|------------|
| Connector | Terminal | | |
| M24 | 26 | | No |

Is the inspection result normal?

- YES >> Inspection End.
NO >> Repair or replace harness or connector.

Component Inspection

INFOID:0000000011534322

WCS

1.CHECK PARKING BRAKE SWITCH

Check continuity between parking brake switch terminal 1 and switch case ground.

| Component | Terminal | Condition | Continuity |
|----------------------|----------|------------------------|------------|
| Parking brake switch | 1 | Parking brake applied | Yes |
| | | Parking brake released | No |

Is the inspection result normal?

- YES >> Inspection End.
NO >> Replace parking brake switch. Refer to [PB-7, "Exploded View"](#).

WARNING CHIME SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

WARNING CHIME SYSTEM SYMPTOMS

Symptom Table

INFOID:000000011535383

CAUTION:

Perform the self-diagnosis with CONSULT before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.

| Symptom | Possible cause | Inspection item |
|---|---|-----------------------------------|
| The light reminder warning does not sound. | <ul style="list-style-type: none">• Harness between BCM and front door switch LH.• Front door switch LH.• BCM• Combination meter | Refer to WCS-35 . |
| The parking brake release warning continues sounding or does not sound. | <ul style="list-style-type: none">• Harness between combination meter and parking brake switch.• Parking brake switch• BCM• Combination meter | Refer to WCS-37 . |
| The seat belt warning continues sounding or does not sound. | <ul style="list-style-type: none">• Harness between combination meter and seat belt buckle switch LH.• Seat belt buckle switch LH.• BCM• Combination meter | Refer to WCS-36 . |
| Warning chime does not sound at all. | Combination meter | Refer to WCS-30 . |

THE LIGHT REMINDER WARNING DOES NOT SOUND

< SYMPTOM DIAGNOSIS >

THE LIGHT REMINDER WARNING DOES NOT SOUND

Description

INFOID:000000011517392

Light reminder warning does not sound even though headlamp is illuminated.

Diagnosis Procedure

INFOID:000000011534326

1.CHECK COMBINATION SWITCH (LIGHTING SWITCH) OPERATION

Check that the headlamps operate normally by operating the combination switch (lighting switch).

Do they operate normally?

YES >> GO TO 2.

NO >> Refer to [WCS-26, "Work Flow"](#).

2.CHECK FRONT DOOR SWITCH LH SIGNAL CIRCUIT

Check the front door switch LH signal circuit. Refer to [DLK-179, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

3.CHECK FRONT DOOR SWITCH LH

Check the front door switch LH. Refer to [DLK-180, "Component Inspection"](#).

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

NO >> Replace front door switch LH. Refer to [DLK-303, "Removal and Installation"](#).

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THE SEAT BELT WARNING CONTINUES SOUNDING, OR DOES NOT SOUND

< SYMPTOM DIAGNOSIS >

THE SEAT BELT WARNING CONTINUES SOUNDING, OR DOES NOT SOUND

Description

INFOID:000000011517390

- Seat belt warning does not sound even though driver seat belt is not fastened.
- Seat belt warning sounds even though driver seat belt is fastened.

Diagnosis Procedure

INFOID:000000011534325

1. CHECK WARNING CHIME OPERATION

CONSULT

1. Select "BUZZER" of "BCM".
2. Select "SEAT BELT WARN TEST" in "Active Test" mode.
3. Touch "ON/OFF" to check that the function operates normally.

| Component | CONSULT | Condition |
|-----------|---------------------|-----------|
| Buzzer | SEAT BELT WARN TEST | ON |
| | | OFF |

Is the inspection result normal?

- YES >> GO TO 2.
NO >> Replace combination meter. Refer to [MWI-78, "Removal and Installation"](#).

2. CHECK COMBINATION METER INPUT SIGNAL

Check the combination meter input signal. Refer to [WCS-31, "Component Function Check"](#).

Is the inspection result normal?

- YES >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).
NO >> GO TO 3.

3. CHECK SEAT BELT BUCKLE SWITCH LH CIRCUIT

Check the seat belt buckle switch LH circuit. Refer to [WCS-31, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Repair or replace harness or connector.

4. CHECK SEAT BELT BUCKLE SWITCH LH

Check the seat belt buckle switch LH. Refer to [WCS-32, "Component Inspection"](#).

Is the inspection result normal?

- YES >> Replace the combination meter. Refer to [MWI-78, "Removal and Installation"](#).
NO >> Replace the seat belt buckle switch LH. Refer to [SR-32, "Removal and Installation"](#).

THE PARKING BRAKE RELEASE WARNING CONTINUES SOUNDING, OR DOES NOT SOUND

< SYMPTOM DIAGNOSIS >

THE PARKING BRAKE RELEASE WARNING CONTINUES SOUNDING, OR DOES NOT SOUND

Description

INFOID:0000000011534323

- The parking brake warning buzzer sounds continuously during vehicle travel, even though the parking brake is released.
- The parking brake warning buzzer does not sound at all, even while driving the vehicle with the parking brake applied.

Diagnosis Procedure

INFOID:0000000011534324

1. CHECK PARKING BRAKE WARNING LAMP

1. Start the engine.
2. Check the operation of the brake warning lamp by operating the parking brake.

| Condition | Warning lamp status |
|------------------------|---------------------|
| Parking brake applied | ON |
| Parking brake released | OFF |

Is the inspection result normal?

- YES >> Replace the combination meter. Refer to [MWI-78, "Removal and Installation"](#).
NO >> GO TO 2.

2. CHECK PARKING BRAKE SWITCH SIGNAL CIRCUIT

Check the parking brake switch signal circuit. Refer to [WCS-33, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Repair or replace harness or connector.

3. CHECK PARKING BRAKE SWITCH UNIT

Check the parking brake switch. Refer to [WCS-33, "Component Inspection"](#).

Is the inspection result normal?

- YES >> Replace the combination meter. Refer to [MWI-78, "Removal and Installation"](#).
NO >> Replace the parking brake switch. Refer to [PB-7, "Exploded View"](#).

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