

MWI

SECTION

METER, WARNING LAMP & INDICATOR

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

CONTENTS

| | | | |
|---|----|--|----|
| BASIC INSPECTION | 4 | ODO/TRIP METER | 19 |
| DIAGNOSIS AND REPAIR WORKFLOW | 4 | ODO/TRIP METER : System Diagram | 19 |
| Work flow | 4 | ODO/TRIP METER : System Description | 19 |
| SYSTEM DESCRIPTION | 6 | ODO/TRIP METER : Component Parts Location | 20 |
| METER SYSTEM | 6 | ODO/TRIP METER : Component Description | 20 |
| METER SYSTEM | 6 | SHIFT POSITION INDICATOR | 21 |
| METER SYSTEM : System Diagram | 6 | SHIFT POSITION INDICATOR : System Diagram | 21 |
| METER SYSTEM : System Description | 6 | SHIFT POSITION INDICATOR : System Description | 21 |
| METER SYSTEM : Component Parts Location | 10 | SHIFT POSITION INDICATOR : Component Parts Location | 22 |
| METER SYSTEM : Component Description | 10 | SHIFT POSITION INDICATOR : Component Description | 22 |
| SPEEDOMETER | 11 | WARNING LAMPS/INDICATOR LAMPS | 23 |
| SPEEDOMETER : System Diagram | 11 | WARNING LAMPS/INDICATOR LAMPS : System Diagram | 23 |
| SPEEDOMETER : System Description | 11 | WARNING LAMPS/INDICATOR LAMPS : System Description | 23 |
| SPEEDOMETER : Component Parts Location | 12 | WARNING LAMPS/INDICATOR LAMPS : Component Parts Location | 24 |
| SPEEDOMETER : Component Description | 12 | WARNING LAMPS/INDICATOR LAMPS : Component Description | 24 |
| TACHOMETER | 13 | METER ILLUMINATION CONTROL | 25 |
| TACHOMETER : System Diagram | 13 | METER ILLUMINATION CONTROL : System Diagram | 25 |
| TACHOMETER : System Description | 13 | METER ILLUMINATION CONTROL : System Description | 25 |
| TACHOMETER : Component Parts Location | 14 | METER ILLUMINATION CONTROL : Component Parts Location | 26 |
| TACHOMETER : Component Description | 14 | METER ILLUMINATION CONTROL : Component Description | 26 |
| ENGINE COOLANT TEMPERATURE GAUGE | 15 | INFORMATION DISPLAY | 27 |
| ENGINE COOLANT TEMPERATURE GAUGE : System Diagram | 15 | INFORMATION DISPLAY : System Diagram | 27 |
| ENGINE COOLANT TEMPERATURE GAUGE : System Description | 15 | INFORMATION DISPLAY : System Description | 27 |
| ENGINE COOLANT TEMPERATURE GAUGE : Component Parts Location | 16 | INFORMATION DISPLAY : Component Parts Location | 30 |
| ENGINE COOLANT TEMPERATURE GAUGE : Component Description | 16 | INFORMATION DISPLAY : Component Description | 30 |
| FUEL GAUGE | 17 | | |
| FUEL GAUGE : System Diagram | 17 | | |
| FUEL GAUGE : System Description | 17 | | |
| FUEL GAUGE : Component Parts Location | 18 | | |
| FUEL GAUGE : Component Description | 18 | | |

MWI

| | | | |
|--|-----------|--|-----------|
| COMPASS | 32 | BCM (BODY CONTROL MODULE) : Diagnosis Procedure | 51 |
| Description | 32 | BCM (BODY CONTROL MODULE) : Special Repair Requirement | 52 |
| Component Parts Location | 33 | | |
| Special Repair Requirement | 33 | | |
| CLOCK | 34 | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) | 52 |
| Component Parts Location | 34 | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) : Diagnosis Procedure | 52 |
| DIAGNOSIS SYSTEM (METER) | 35 | | |
| Diagnosis Description | 35 | | |
| DIAGNOSIS SYSTEM (UNIFIED METER AND A/C AMP.) | 37 | FUEL LEVEL SENSOR SIGNAL CIRCUIT | 54 |
| CONSULT-III Function (METER/M&A) | 37 | Description | 54 |
| | | Component Function Check | 54 |
| | | Diagnosis Procedure | 54 |
| | | Component Inspection | 55 |
| DTC/CIRCUIT DIAGNOSIS | 41 | | |
| U1000 CAN COMM CIRCUIT | 41 | METER CONTROL SWITCH SIGNAL CIRCUIT | 57 |
| Description | 41 | Description | 57 |
| DTC Logic | 41 | Diagnosis Procedure | 57 |
| Diagnosis Procedure | 41 | Component Inspection | 58 |
| U1010 CONTROL UNIT (CAN) | 42 | | |
| Description | 42 | OIL PRESSURE SWITCH SIGNAL CIRCUIT ... | 59 |
| DTC Logic | 42 | Description | 59 |
| Diagnosis Procedure | 42 | Component Function Check | 59 |
| | | Diagnosis Procedure | 59 |
| | | Component Inspection | 59 |
| B2201 COMMUNICATION ERROR 1 | 43 | | |
| Description | 43 | PARKING BRAKE SWITCH SIGNAL CIRCUIT | 60 |
| DTC Logic | 43 | Description | 60 |
| Diagnosis Procedure | 43 | Diagnosis Procedure (A/T model) | 60 |
| | | Diagnosis Procedure (M/T model) | 60 |
| | | Component Inspection | 61 |
| B2202 COMMUNICATION ERROR 2 | 45 | | |
| Description | 45 | WASHER LEVEL SWITCH SIGNAL CIRCUIT.. | 62 |
| DTC Logic | 45 | Description | 62 |
| Diagnosis Procedure | 45 | Diagnosis Procedure | 62 |
| | | Component Inspection | 62 |
| B2205 VEHICLE SPEED | 47 | | |
| Description | 47 | COMPASS | 63 |
| DTC Logic | 47 | Wiring Diagram - COMPASS - | 63 |
| Diagnosis Procedure | 47 | | |
| | | CLOCK | 65 |
| B2267 ENGINE SPEED | 48 | Wiring Diagram - CLOCK - | 65 |
| Description | 48 | | |
| DTC Logic | 48 | ECU DIAGNOSIS INFORMATION | 67 |
| Diagnosis Procedure | 48 | | |
| | | COMBINATION METER | 67 |
| B2268 WATER TEMP | 49 | Reference Value | 67 |
| Description | 49 | Wiring Diagram - METER - | 70 |
| DTC Logic | 49 | Fail-safe | 79 |
| Diagnosis Procedure | 49 | DTC Index | 80 |
| | | | |
| POWER SUPPLY AND GROUND CIRCUIT | 50 | UNIFIED METER AND A/C AMP. | 81 |
| | | Reference Value | 81 |
| COMBINATION METER | 50 | Wiring Diagram - METER - | 88 |
| COMBINATION METER : Diagnosis Procedure ... | 50 | Fail-safe | 97 |
| | | DTC Index | 98 |
| UNIFIED METER AND A/C AMP. | 50 | | |
| UNIFIED METER AND A/C AMP. : Diagnosis Procedure | 50 | BCM (BODY CONTROL MODULE) | 99 |
| | | | |
| BCM (BODY CONTROL MODULE) | 51 | | |

| | | | | |
|--|------------|--|------------|-----|
| Reference Value | 99 | Description | 153 | |
| Wiring Diagram - BCM - | 123 | Diagnosis Procedure | 153 | A |
| Fail-safe | 128 | | | |
| DTC Inspection Priority Chart | 130 | THE TRUNK OPEN WARNING CONTINUES | | |
| DTC Index | 132 | DISPLAYING, OR DOES NOT DISPLAY | 154 | B |
| | | Description | 154 | |
| | | Diagnosis Procedure | 154 | |
| IPDM E/R (INTELLIGENT POWER DISTRI- | | THE AMBIENT TEMPERATURE DISPLAY IS | | |
| BUTION MODULE ENGINE ROOM) | 134 | INCORRECT | 155 | C |
| Reference Value | 134 | Description | 155 | |
| Wiring Diagram - IPDM E/R - | 141 | Diagnosis Procedure | 155 | D |
| Fail Safe | 144 | | | |
| DTC Index | 146 | NORMAL OPERATING CONDITION | 156 | |
| SYMPTOM DIAGNOSIS | 147 | COMPASS | 156 | E |
| | | COMPASS : Description | 156 | |
| THE FUEL GAUGE POINTER DOES NOT | | INFORMATION DISPLAY | 156 | |
| MOVE | 147 | INFORMATION DISPLAY : Description | 156 | F |
| Description | 147 | | | |
| Diagnosis Procedure | 147 | PRECAUTION | 157 | |
| | | PRECAUTIONS | 157 | G |
| | | Precaution for Supplemental Restraint System | | |
| | | (SRS) "AIR BAG" and "SEAT BELT PRE-TEN- | | |
| | | SIONER" | 157 | H |
| THE METER CONTROL SWITCH IS INOPER- | | REMOVAL AND INSTALLATION | 158 | |
| ATIVE | 148 | COMBINATION METER | 158 | I |
| Description | 148 | Exploded View | 158 | |
| Diagnosis Procedure | 148 | Removal and Installation | 158 | |
| | | Disassembly and Assembly | 159 | J |
| THE OIL PRESSURE WARNING LAMP | | UNIFIED METER AND A/C AMP. | 160 | |
| DOES NOT TURN ON | 149 | Exploded View | 160 | K |
| Description | 149 | Removal and Installation | 160 | |
| Diagnosis Procedure | 149 | METER CONTROL SWITCH | 161 | L |
| | | Exploded View | 161 | |
| | | Removal and Installation | 161 | |
| THE OIL PRESSURE WARNING LAMP | | COMPASS | 162 | M |
| DOES NOT TURN OFF | 150 | Exploded View | 162 | |
| Description | 150 | Removal and Installation | 162 | |
| Diagnosis Procedure | 150 | CLOCK | 163 | MWI |
| | | Exploded View | 163 | |
| | | Removal and Installation | 163 | |
| THE PARKING BRAKE RELEASE WARNING | | | | O |
| CONTINUES DISPLAYING, OR DOES NOT | | | | |
| DISPLAY | 151 | | | |
| Description | 151 | | | |
| Diagnosis Procedure | 151 | | | P |
| | | | | |
| THE LOW WASHER FLUID WARNING CON- | | | | |
| TINUES DISPLAYING, or DOES NOT DIS- | | | | |
| PLAY | 152 | | | |
| Description | 152 | | | |
| Diagnosis Procedure | 152 | | | |
| | | | | |
| THE DOOR OPEN WARNING CONTINUES | | | | |
| DISPLAYING, OR DOES NOT DISPLAY | 153 | | | |

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

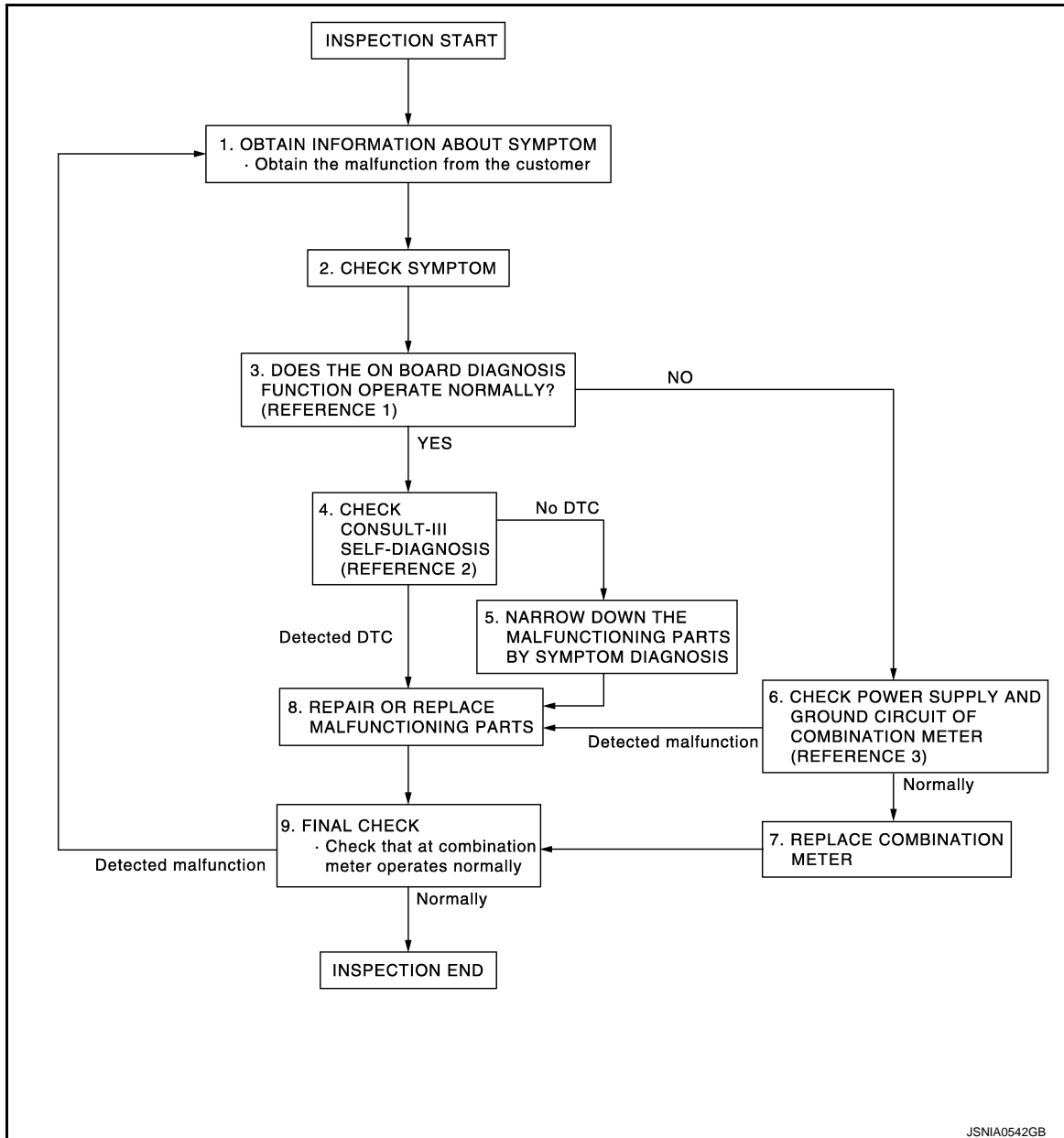
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work flow

INFOID:000000001835464

OVERALL SEQUENCE



- Reference 1...[MWI-35, "Diagnosis Description"](#).
- Reference 2...[MWI-98, "DTC Index"](#).
- Reference 3...[MWI-50, "COMBINATION METER : Diagnosis Procedure"](#).

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

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

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

>> GO TO 3.

3.CHECK ON BOARD DIAGNOSIS OPERATION

Check that the on board diagnosis function operates. Refer to [MWI-35, "Diagnosis Description"](#).

Does the on board diagnosis function operate normally?

YES >> GO TO 4.

NO >> GO TO 6.

4.CHECK CONSULT-III SELF-DIAGNOSIS RESULTS

Connect CONSULT-III and perform self-diagnosis. Refer to [MWI-37, "CONSULT-III Function \(METER/M&A\)"](#).

Are self-diagnosis results normal?

YES >> GO TO 5.

NO >> GO TO 8.

5.NARROW DOWN THE MALFUNCTIONING PARTS BY SYMPTOM DIAGNOSIS

Perform symptom diagnosis and narrow down the malfunctioning parts.

>> GO TO 7.

6.CHECK COMBINATION METER POWER SUPPLY AND GROUND CIRCUITS

Inspect combination meter power supply and ground circuits. Refer to [MWI-50, "COMBINATION METER : Diagnosis Procedure"](#).

Is inspection result OK?

YES >> GO TO 7.

NO >> GO TO 8.

7.REPLACE COMBINATION METER

Replace combination meter.

>> GO TO 9.

8.REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the malfunctioning parts.

NOTE:

If DTC is displayed, erase DTC after repair or replace malfunctioning parts.

>> GO TO 9.

9.FINAL CHECK

Check that the combination meter operates normally.

Do they operate normally?

YES >> INSPECTION END

NO >> GO TO 1.

A

B

C

D

E

F

G

H

I

J

K

L

M

MWI

O

P

METER SYSTEM

< SYSTEM DESCRIPTION >

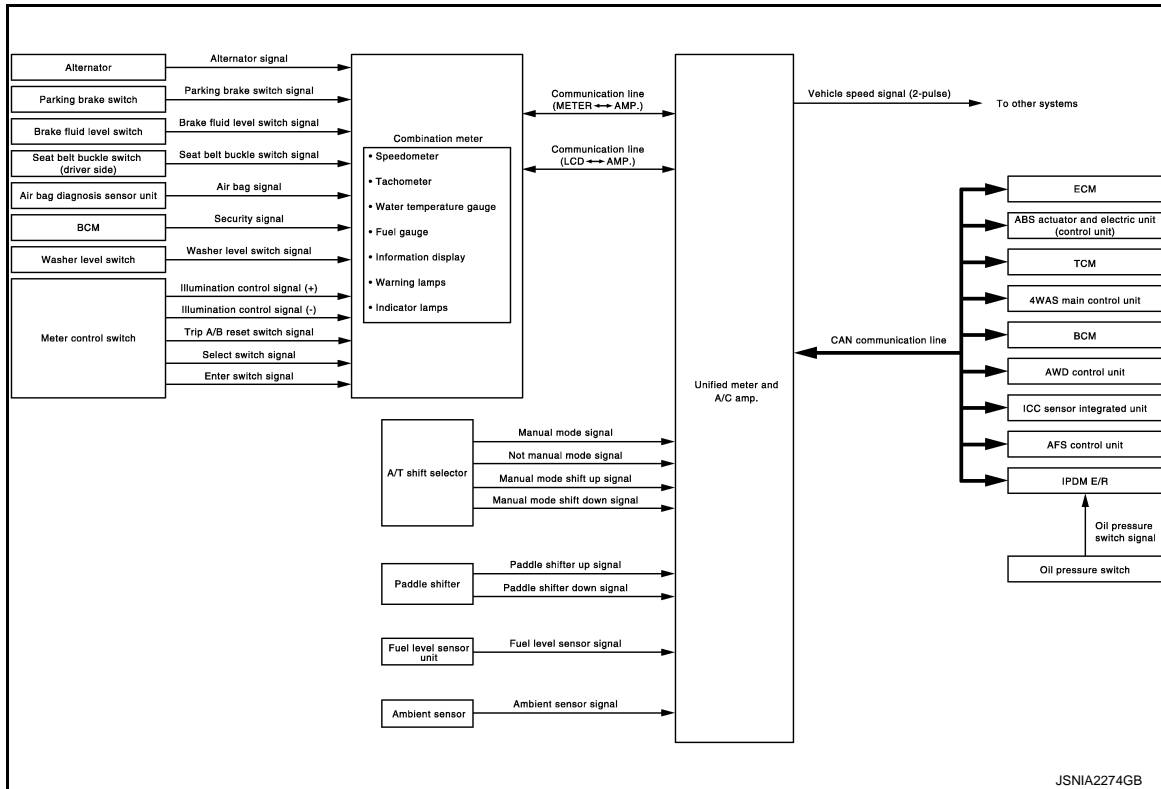
SYSTEM DESCRIPTION

METER SYSTEM

METER SYSTEM

METER SYSTEM : System Diagram

INFOID:000000001835465



METER SYSTEM : System Description

INFOID:000000001835466

COMBINATION METER

- The combination meter retrieves the information required for controlling the operations of the meters, indicator lamps/warning lamps and information display from the communication signals from the unified meter and A/C amp. and the signals from various switches and sensors.
- The combination meter incorporates a trip computer that displays warnings and messages on the information display according to the information received from various units.
- The combination meter incorporates a buzzer function that sounds an audible alarm with the integrated buzzer device. Refer to [WCS-5. "WARNING CHIME SYSTEM : System Description"](#) for further details.
- The combination meter integrates the meter circuit check function and the segment check function that checks the information display operation.

UNIFIED METER AND A/C AMP.

- Receives information required by the combination meter from various units via CAN communication line and transmits it to the combination meter with communication line.
- The unified meter and A/C amp. incorporates a power saving control function that reduces the power consumption according to the vehicle status. Refer to [BCS-10. "System Description"](#) for details.
- The unified meter and A/C amp. incorporates a diagnosis function that allows the technician to perform diagnoses with CONSULT-III.

METER SYSTEM

< SYSTEM DESCRIPTION >

Between unified meter and A/C amp. and combination meter.

| Unit | Communication line | Input from combination meter | Output to combination meter | |
|----------------------------|-------------------------------------|--|---|----------------------------|
| Unified meter and A/C amp. | Communication line (METER <-> AMP.) | <ul style="list-style-type: none"> • Parking brake switch signal • Washer level switch signal • Meter day/night condition signal • Illumination control switch signal • Refuel status signal • Low fuel warning lamp signal • Odo data signal | <ul style="list-style-type: none"> • Vehicle speed signal • Turn indicator signal • High beam request signal • Engine speed signal • Fuel level sensor signal • Engine coolant temperature signal • A/T CHECK indicator signal • Oil pressure switch signal • Door switch signal • Buzzer output signal • AFS OFF indicator lamp signal • Tire pressure signal • AWD warning lamp signal • VDC OFF indicator signal • ABS warning lamp signal • Brake warning lamp signal • Malfunction indicator lamp signal • 4WAS warning lamp signal • Master warning signal | A B C D E F |
| | Communication line (LCD <-> AMP.) | <ul style="list-style-type: none"> • Average fuel consumption reset signal • Travel time reset signal • Possible driving distance reset signal • Average vehicle speed reset signal • Select switch signal • Enter switch signal • Trip A/B reset switch signal • Ambient air temperature display signal | <ul style="list-style-type: none"> • Shift position signal • Meter display signal • Door switch signal • Trunk switch signal • Fuel level sensor signal • Parking brake switch signal • Washer level switch signal • Charge warning signal • Instantaneous fuel consumption display signal • Ambient air temperature display signal • Average fuel consumption display signal • Average vehicle speed display signal • Possible driving distance display signal • Engine speed signal • Vehicle speed signal | G H I J |

IPDM E/R

- IPDM E/R reads the ON/OFF signals of the oil pressure switch and transmits the oil pressure switch signal to the unified meter and A/C amp. via BCM with the CAN communication line.
- IPDM E/R is equipped with the diagnosis function. It can perform the operation check of oil pressure warning lamp with the auto active test and the diagnosis with CONSULT-III.

METER CONTROL FUNCTION LIST

X: Applicable

| System | | Description | Signal source | Via unified meter and A/C amp. |
|-----------------------------|----------------------------------|---|---|--------------------------------|
| Meter/gauge | Speedometer | Receives vehicle speed signal and indicates vehicle speed. | ABS actuator and electric unit (control unit) | X |
| | Tachometer | Receives engine speed signal and indicates engine speed. | ECM | X |
| | Fuel gauge | Receives fuel level sensor signal and indicates fuel level. | Fuel level sensor unit | X |
| | Engine coolant temperature gauge | Receives engine coolant temperature signal and indicates coolant temperature. | ECM | X |
| Warning lamp/indicator lamp | Oil pressure warning lamp | Receives oil pressure warning lamp signal and illuminates warning lamp. | IPDM E/R | X |
| | Master warning | Illuminates according to warning output on information display. | — | X |

METER SYSTEM

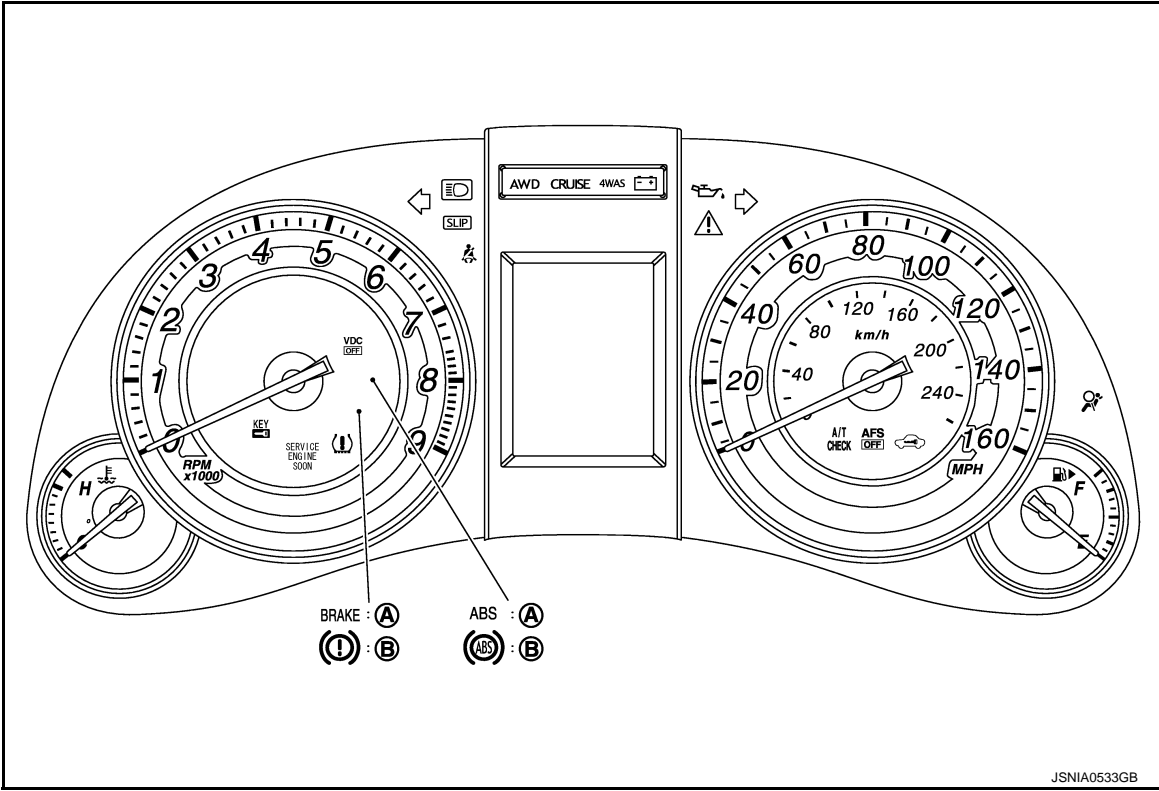
< SYSTEM DESCRIPTION >

| System | | Description | Signal source | Via unified meter and A/C amp. |
|---------------------------|--|---|---|--------------------------------|
| Information display | Door open warning | Receives door switch signals and displays warning. | BCM | X |
| | Trunk open warning | Receives trunk lid opener switch signal and displays warning. | BCM | X |
| | Parking brake release warning | Receives parking brake switch signal and vehicle speed signal and displays warnings. | Parking brake switch | |
| | | | ABS actuator and electric unit (control unit) | X |
| | Low fuel warning | Receives fuel gauge signal and displays warning if fuel level decreases to 12 ℓ (3-1/8 US gal, 2-5/8 Imp gal) or less. | Fuel level sensor unit | X |
| | Low washer fluid warning | Receives washer level switch signal and displays warning. | Washer level switch | |
| | Low outside temperature warning | Monitors ambient sensor signal and displays warning if ambient temperature decreases to 3°C (37°F) or less. (If enabled) | Ambient sensor | X |
| | Instantaneous fuel consumption | Calculates instantaneous fuel consumption based on received vehicle speed signals and fuel consumption monitor signal and displays it. | ECM | X |
| | | | ABS actuator and electric unit (control unit) | X |
| | Average fuel consumption | Calculates average fuel consumption in a reset-to-reset interval based on received vehicle speed signals and fuel consumption monitor signal and displays it. | ECM | X |
| | | | ABS actuator and electric unit (control unit) | X |
| | Average vehicle speed | Calculates average vehicle speed in a reset-to-reset interval based on received vehicle speed signals and displays it. | ABS actuator and electric unit (control unit) | X |
| | Travel time | Displays accumulated key switch ON time from reset to reset. | — | X |
| | Travel distance | Calculates accumulated travel distance in a reset-to-reset interval based on received vehicle speed signals and displays it. | ABS actuator and electric unit (control unit) | X |
| Possible driving distance | The unified meter and A/C amp. calculates the possible driving distance according to the vehicle speed signal and the fuel level sensor unit received with CAN communication line, and transmits it to the combination meter by means of communication line. | ABS actuator and electric unit (control unit) | X | |
| | | Fuel level sensor unit | X | |
| Ambient air temperature | Corrects ambient air temperature value based on received ambient sensor signals and displays it. | Ambient sensor | X | |

METER SYSTEM

< SYSTEM DESCRIPTION >

ARRANGEMENT OF COMBINATION METER



A. U.S.A.

B. Canada

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

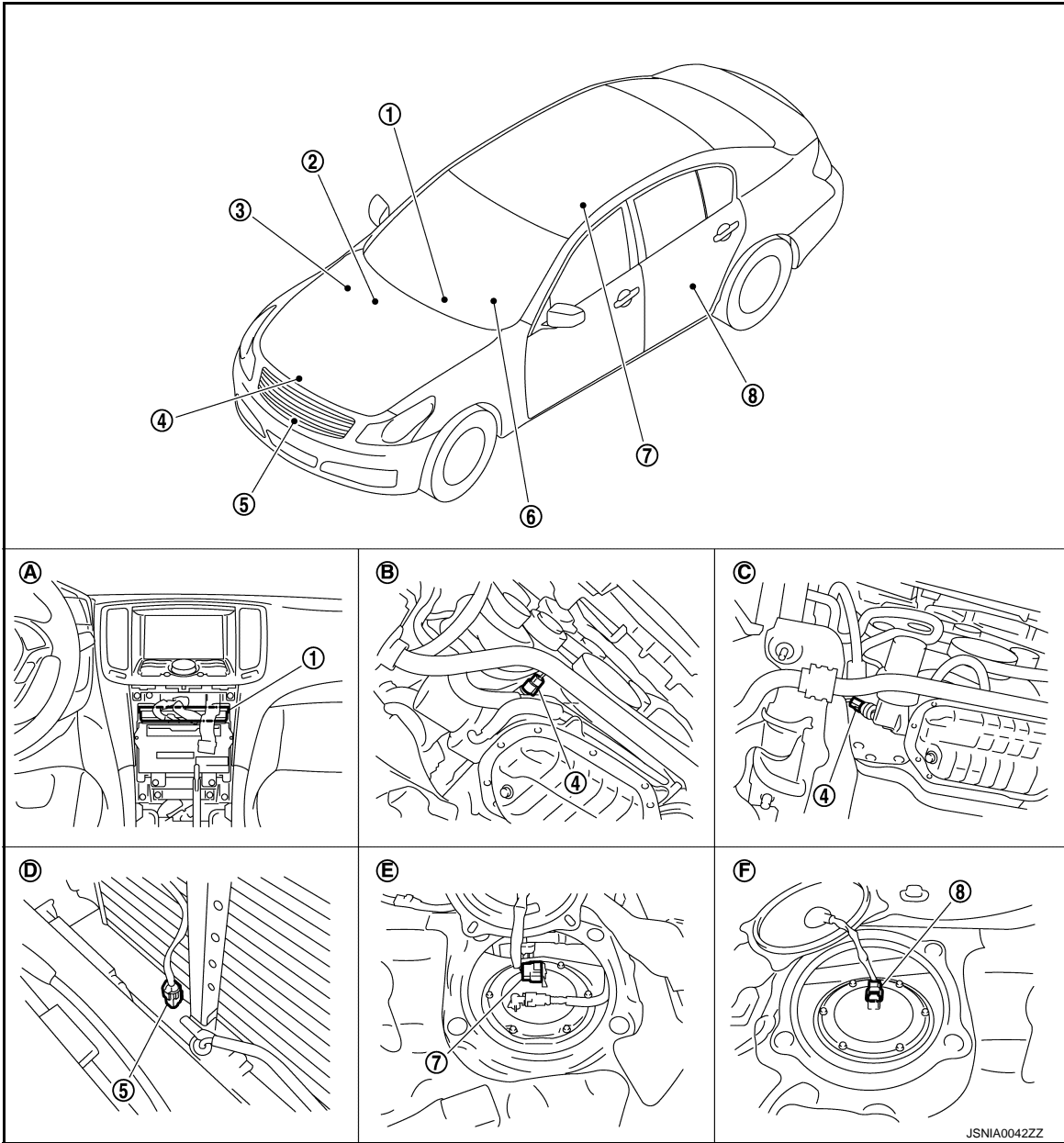
MWI

METER SYSTEM

< SYSTEM DESCRIPTION >

METER SYSTEM : Component Parts Location

INFOID:000000001835467



- | | | |
|--|----------------------------------|----------------------------------|
| 1. Unified meter and A/C amp. | 2. BCM | 3. IPDM E/R |
| 4. Oil pressure switch | 5. Ambient sensor | 6. Combination meter |
| 7. Fuel level sensor unit and fuel pump (main) | 8. Fuel level sensor unit (sub) | |
| A. Behind cluster lid C | B. 2WD [oil pan (upper) RH side] | C. AWD (oil filter bracket part) |
| D. Condenser (front) | E. Rear seat (lower right) | F. Rear seat (lower left) |

METER SYSTEM : Component Description

INFOID:000000001835468

| Unit | Description |
|-------------------|--|
| Combination meter | <p>Controls the following with the signals from the unified meter and A/C amp, switches and sensors.</p> <ul style="list-style-type: none"> • Speedometer • Engine coolant temperature gauge • Warning lamps • Information display • Tachometer • Fuel gauge • Indicator lamps • Warning chime |

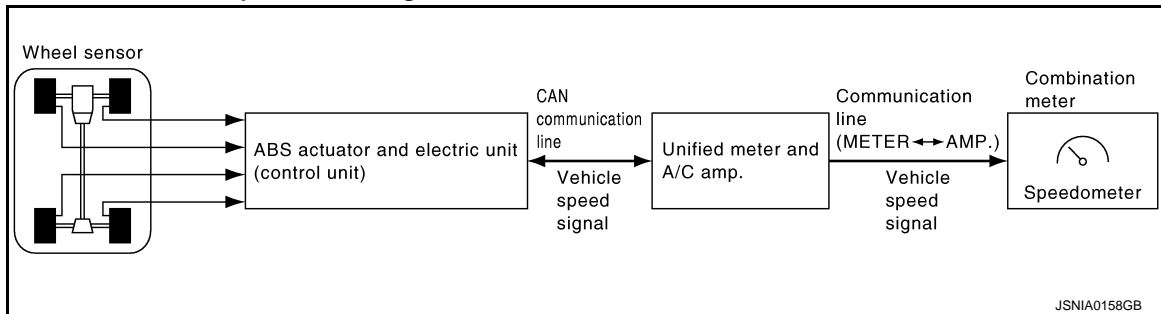
METER SYSTEM

< SYSTEM DESCRIPTION >

| Unit | Description |
|---|--|
| Unified meter and A/C amp. | <ul style="list-style-type: none"> The combination meter receives the necessary information from various units via CAN communication line and transmits them to the unified meter and A/C amp. with the communication line that connects both of them. Transmits the fuel gauge signal from the fuel gauge unit with the communication line that connects the unified meter and A/C amp. and the combination meter. Reads the signals from the A/T shift selector and paddle shifter and transmits them to TCM with CAN communication line. |
| IPDM E/R | IPDM E/R reads the ON/OFF signals of the oil pressure switch and transmits the oil pressure switch signal to the unified meter and A/C amp. via BCM with CAN communication line. |
| Fuel level sensor unit | Refer to MWI-54, "Description" . |
| Oil pressure switch | Refer to MWI-59, "Description" . |
| ECM | Transmits the following signals to the unified meter and A/C amp. with CAN communication line. <ul style="list-style-type: none"> Engine speed signal Engine coolant temperature signal Fuel consumption monitor signal |
| ABS actuator and electric unit (control unit) | Transmits the vehicle speed signal to the unified meter and A/C amp. with CAN communication line. |
| BCM | <ul style="list-style-type: none"> Transmits signals provided by various units to the unified meter and A/C amp. with CAN communication line. Transmits the security signal to the combination meter. |
| A/T shift selector | Transmits the following signals to the unified meter and A/C amp. <ul style="list-style-type: none"> Manual mode signal Manual mode shift up signal Not manual mode signal Manual mode shift down signal |
| Paddle shifter | Transmits the paddle shifter up signal and paddle shifter down signal to the unified meter and A/C amp. |
| TCM | Transmits shift position signal to the unified meter and A/C amp. |
| Meter control switch | Refer to MWI-57, "Description" . |
| Washer level switch | Transmits the washer level signal to the combination meter. |
| Brake fluid level switch | Transmits the brake fluid level switch signal to the combination meter. |
| Parking brake switch | Refer to MWI-60, "Description" . |

SPEEDOMETER

SPEEDOMETER : System Diagram



SPEEDOMETER : System Description

INFOID:000000001835470

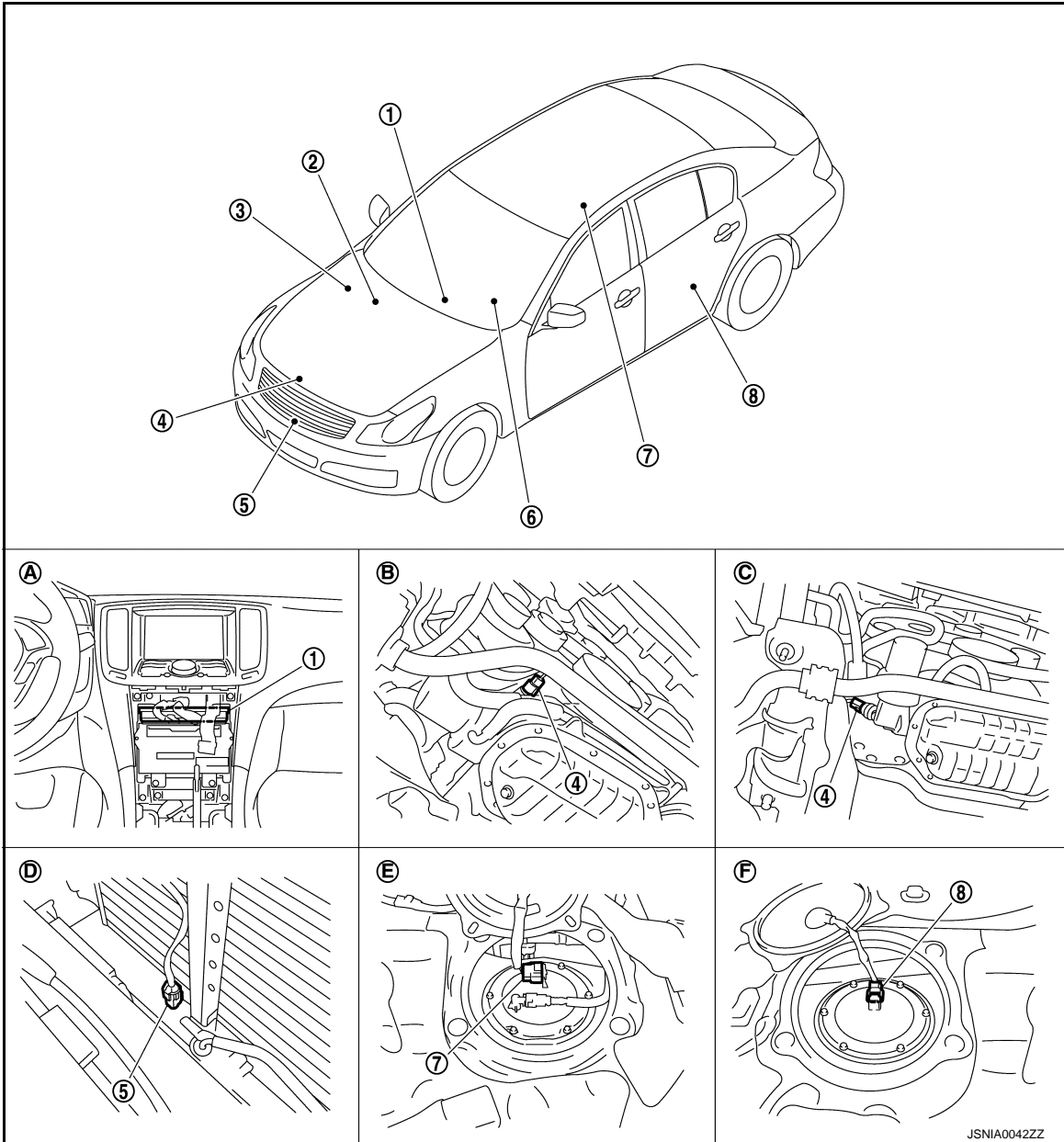
- The ABS actuator and electric unit (control unit) converts the pulse signal provided by the wheel sensor to a vehicle speed signal and transmits it to the unified meter and A/C amp. with CAN communication line.
- The unified meter and A/C amp. receives the vehicle speed signal from the ABS actuator and electric unit (control unit) with CAN communication line and transmits it to the combination meter by means of communication line.
- The combination meter indicates the vehicle speed according to the vehicle speed signal received from the unified meter and A/C amp. by means of communication line.

METER SYSTEM

< SYSTEM DESCRIPTION >

SPEEDOMETER : Component Parts Location

INFOID:000000001835471



- | | | |
|--|----------------------------------|----------------------------------|
| 1. Unified meter and A/C amp. | 2. BCM | 3. IPDM E/R |
| 4. Oil pressure switch | 5. Ambient sensor | 6. Combination meter |
| 7. Fuel level sensor unit and fuel pump (main) | 8. Fuel level sensor unit (sub) | |
| A. Behind cluster lid C | B. 2WD [oil pan (upper) RH side] | C. AWD (oil filter bracket part) |
| D. Condenser (front) | E. Rear seat (lower right) | F. Rear seat (lower left) |

SPEEDOMETER : Component Description

INFOID:000000001835472

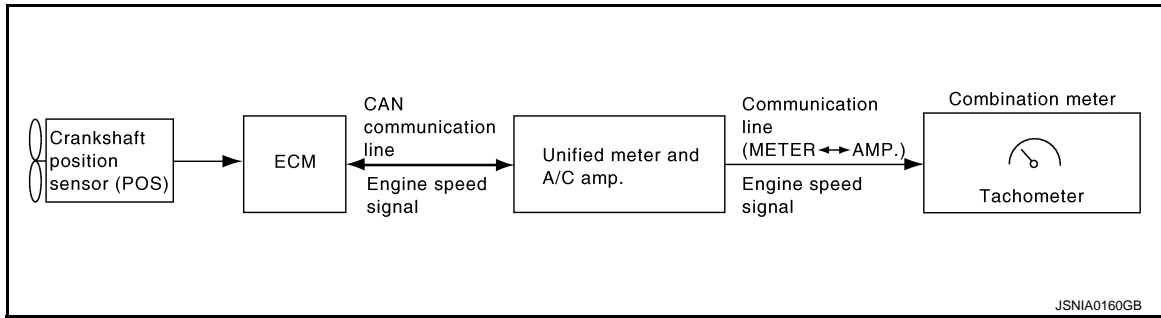
| Unit | Description |
|---|---|
| Combination meter | Indicates the vehicle speed according to the vehicle speed signal received from the unified meter and A/C amp. by means of communication line. |
| Unified meter and A/C amp. | Transmits the vehicle speed signal received from ABS actuator and electric unit (control unit) with CAN communication line to the combination meter by means of communication line. |
| ABS actuator and electric unit (control unit) | Transmits the vehicle speed signal to the unified meter and A/C amp. with CAN communication line. |

METER SYSTEM

< SYSTEM DESCRIPTION >

TACHOMETER

TACHOMETER : System Diagram



TACHOMETER : System Description

INFOID:000000001835474

- ECM converts the pulse signal provided by the crankshaft position sensor to an engine speed signal and transmits it to the unified meter and A/C amp. with CAN communication line.
- Unified meter and A/C amp. transmits engine speed signal to combination meter with communication line.
- The unified meter and A/C amp. receives the engine speed signal from ECM with CAN communication line and transmits it to the combination meter by means of communication line.
- Combination meter converses engine speed signal to the angle signal, and commands to tachometer.

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

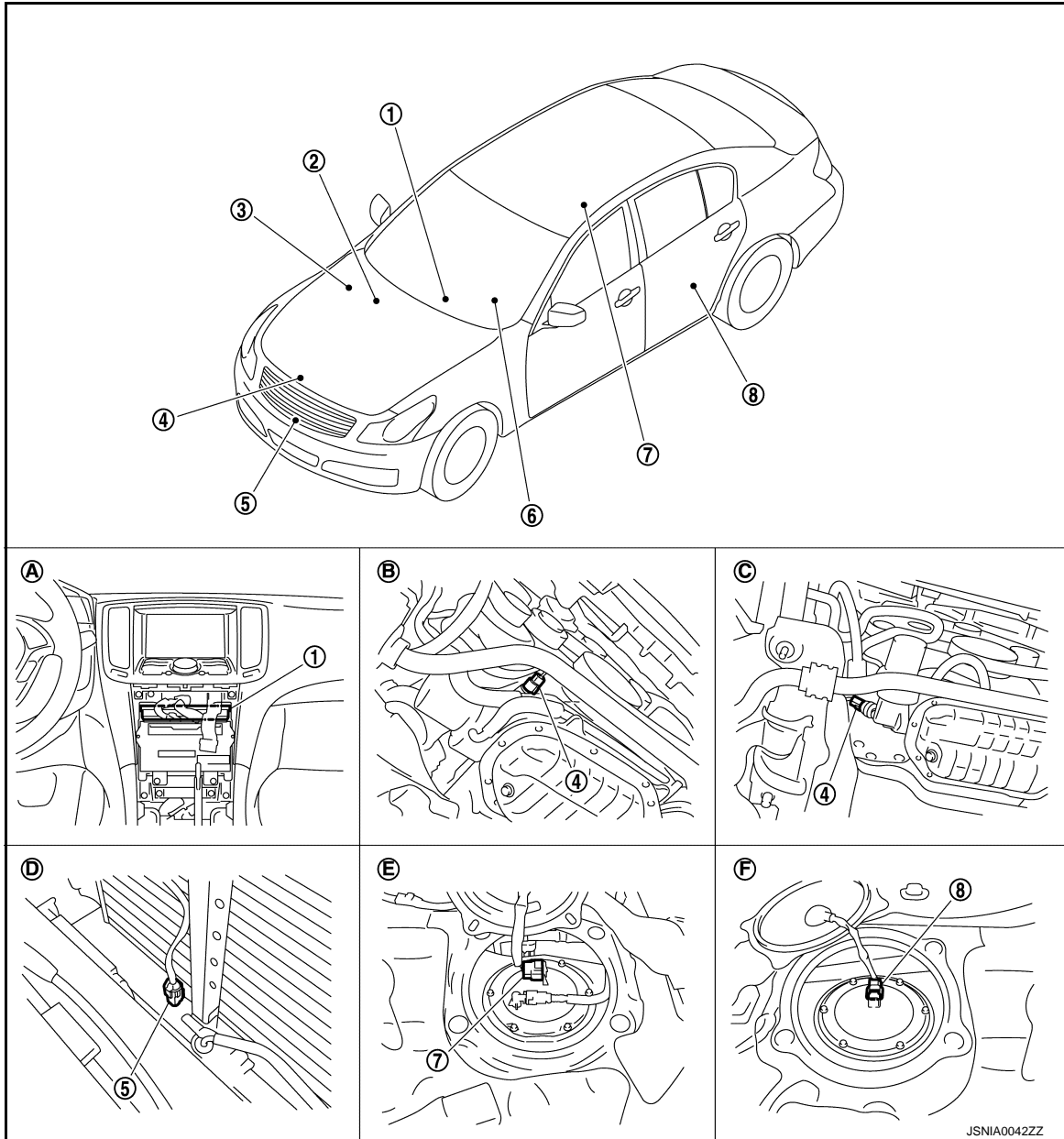
MWI

METER SYSTEM

< SYSTEM DESCRIPTION >

TACHOMETER : Component Parts Location

INFOID:000000001835475



- | | | |
|--|----------------------------------|----------------------------------|
| 1. Unified meter and A/C amp. | 2. BCM | 3. IPDM E/R |
| 4. Oil pressure switch | 5. Ambient sensor | 6. Combination meter |
| 7. Fuel level sensor unit and fuel pump (main) | 8. Fuel level sensor unit (sub) | |
| A. Behind cluster lid C | B. 2WD [oil pan (upper) RH side] | C. AWD (oil filter bracket part) |
| D. Condenser (front) | E. Rear seat (lower right) | F. Rear seat (lower left) |

TACHOMETER : Component Description

INFOID:000000001835476

| Unit | Description |
|----------------------------|--|
| Combination meter | Indicates the engine speed according to the engine speed signal received from the unified meter and A/C amp. by means of communication line. |
| Unified meter and A/C amp. | Transmits the engine speed signal received from ECM with CAN communication line to the combination meter by means of communication line. |
| ECM | Transmits the engine speed signal to the unified meter and A/C amp. with CAN communication line. |

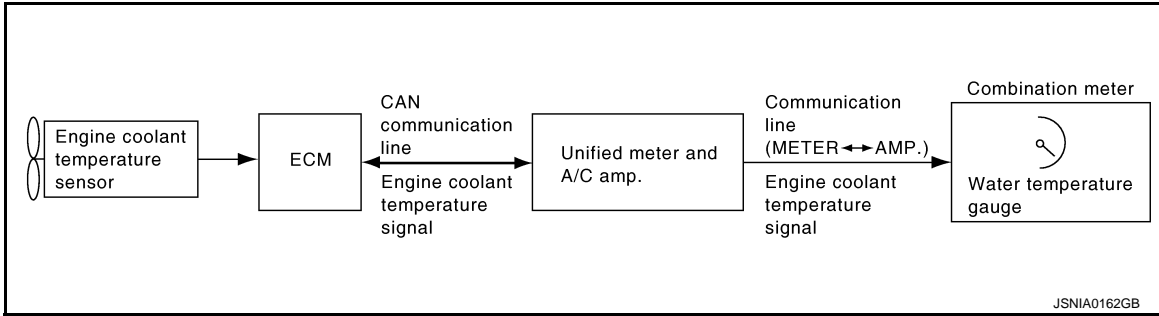
METER SYSTEM

< SYSTEM DESCRIPTION >

ENGINE COOLANT TEMPERATURE GAUGE

ENGINE COOLANT TEMPERATURE GAUGE : System Diagram

INFOID:000000001835477



ENGINE COOLANT TEMPERATURE GAUGE : System Description

INFOID:000000001835478

- ECM converts a signal from engine coolant temperature sensor to engine coolant temperature signal, and transmits to unified meter and A/C amp. with CAN communication line.
- Unified meter and A/C amp. transmits engine coolant temperature signal to combination meter with communication line.
- Combination meter converts engine coolant temperature signal to the angle signal, and commands to engine coolant temperature gauge.

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

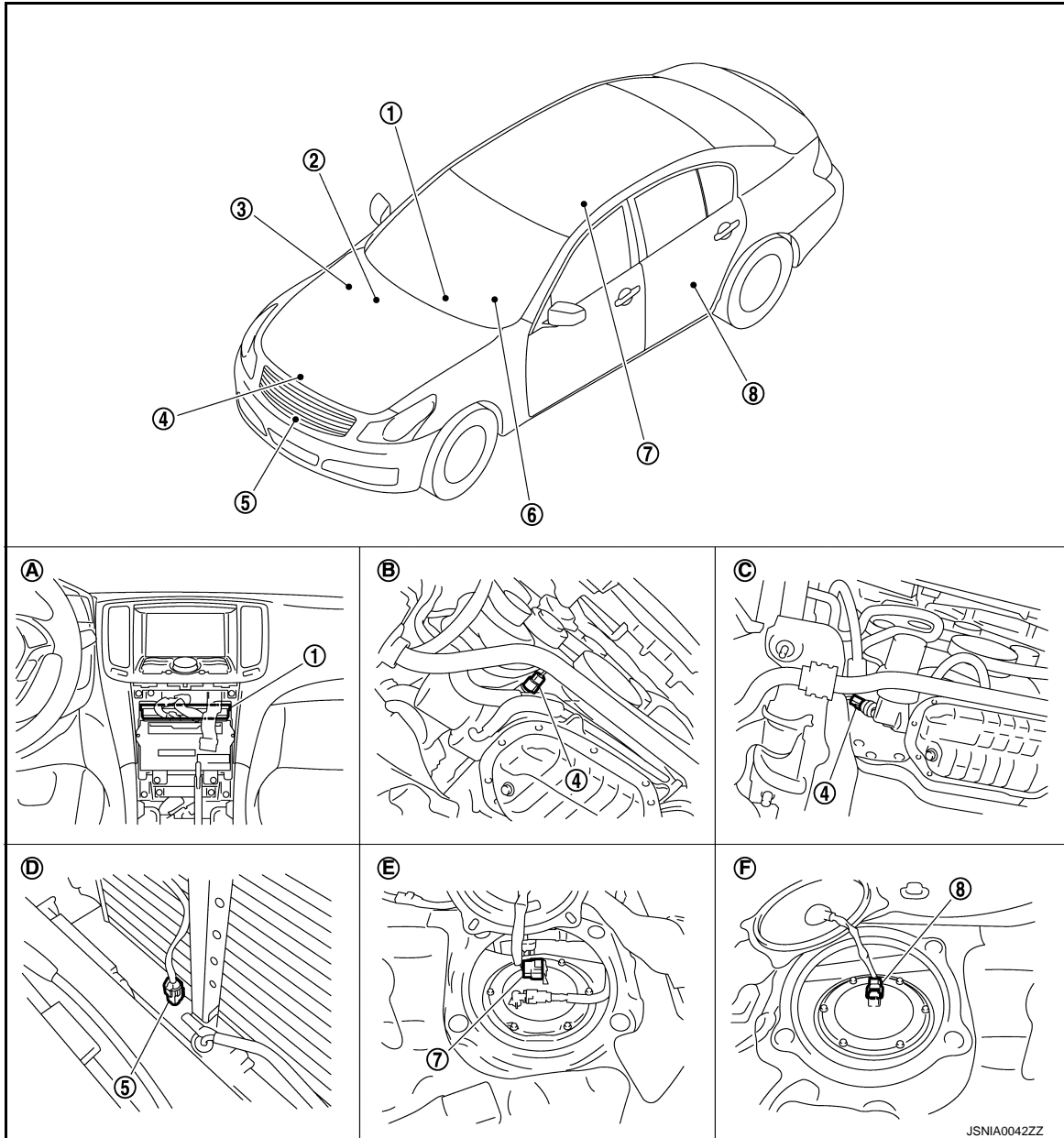
MWI

METER SYSTEM

< SYSTEM DESCRIPTION >

ENGINE COOLANT TEMPERATURE GAUGE : Component Parts Location

INFOID:000000001835479



- | | | |
|--|----------------------------------|----------------------------------|
| 1. Unified meter and A/C amp. | 2. BCM | 3. IPDM E/R |
| 4. Oil pressure switch | 5. Ambient sensor | 6. Combination meter |
| 7. Fuel level sensor unit and fuel pump (main) | 8. Fuel level sensor unit (sub) | |
| A. Behind cluster lid C | B. 2WD [oil pan (upper) RH side] | C. AWD (oil filter bracket part) |
| D. Condenser (front) | E. Rear seat (lower right) | F. Rear seat (lower left) |

ENGINE COOLANT TEMPERATURE GAUGE : Component Description

INFOID:000000001835480

| Unit | Description |
|-------------------|---|
| Combination meter | Indicates the water temperature gauge according to the engine coolant temperature signal received from the unified meter and A/C amp. by means of communication line. |

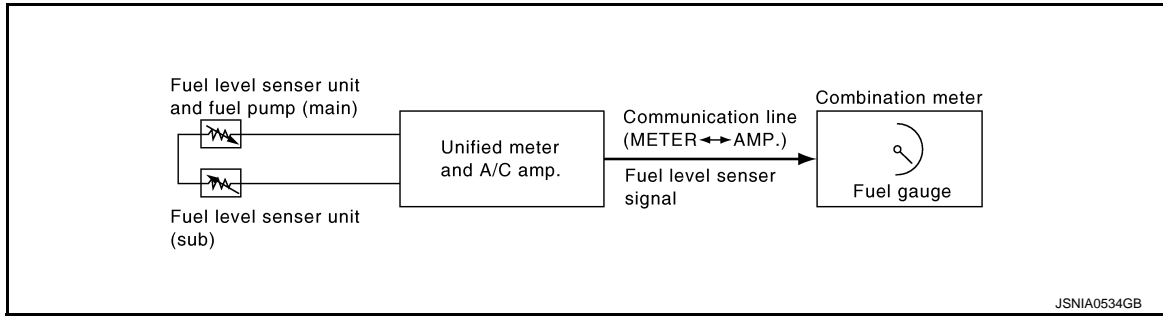
METER SYSTEM

< SYSTEM DESCRIPTION >

| Unit | Description |
|----------------------------|--|
| Unified meter and A/C amp. | Transmits the engine coolant temperature signal received from ECM with CAN communication line to the combination meter by means of communication line. |
| ECM | Transmits the engine coolant temperature signal to the unified meter and A/C amp. with CAN communication line. |

FUEL GAUGE

FUEL GAUGE : System Diagram



FUEL GAUGE : System Description

INFOID:000000001835482

CONTROL OUTLINE

- The unified meter and A/C amp. reads the fuel level sensor signal from the fuel gauge unit and transmits it to the combination meter with the communication line.
- The combination meter indicates the fuel level on the fuel gauge according to the received fuel level sensor signal.

REFUEL CONTROL

The unit judges that the driver is refueling the vehicle and accelerates the fuel gauge needle movement if the fuel level changes by 15 ℓ (4 US gal, 3-3/10 Imp gal) or more.

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

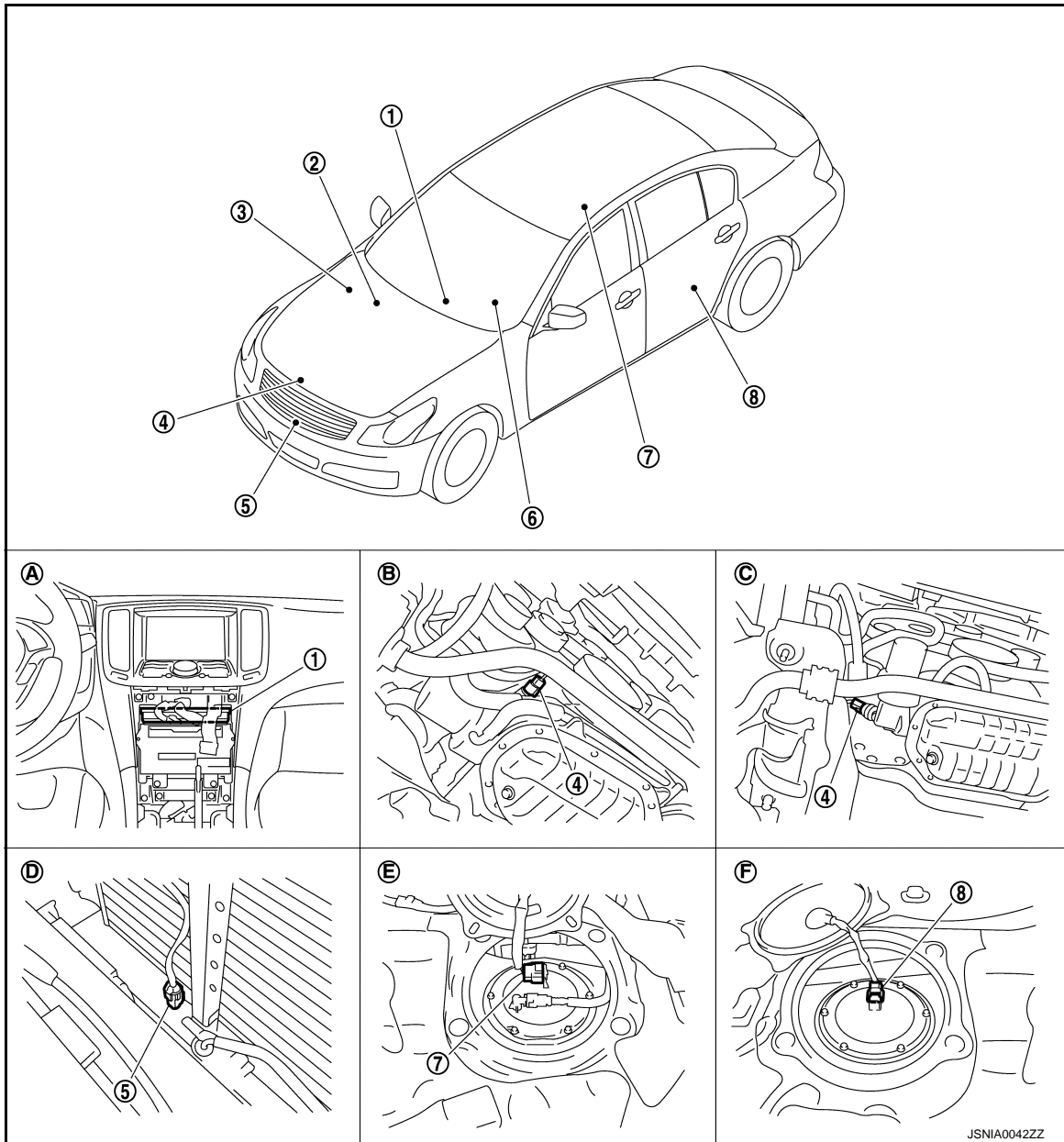
MWI

METER SYSTEM

< SYSTEM DESCRIPTION >

FUEL GAUGE : Component Parts Location

INFOID:000000001835483



- | | | |
|--|----------------------------------|----------------------------------|
| 1. Unified meter and A/C amp. | 2. BCM | 3. IPDM E/R |
| 4. Oil pressure switch | 5. Ambient sensor | 6. Combination meter |
| 7. Fuel level sensor unit and fuel pump (main) | 8. Fuel level sensor unit (sub) | |
| A. Behind cluster lid C | B. 2WD [oil pan (upper) RH side] | C. AWD (oil filter bracket part) |
| D. Condenser (front) | E. Rear seat (lower right) | F. Rear seat (lower left) |

FUEL GAUGE : Component Description

INFOID:000000001835484

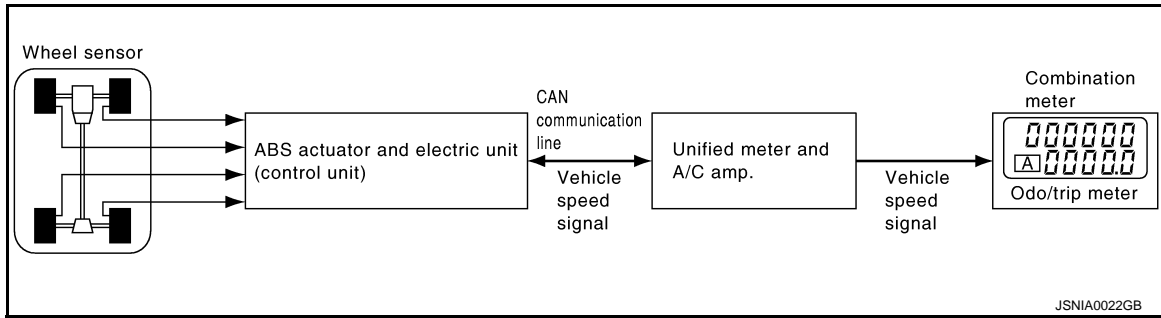
| Unit | Description |
|----------------------------|---|
| Combination meter | Indicates the fuel gauge according to the fuel level sensor signal received from the unified meter and A/C amp. by means of communication line. |
| Unified meter and A/C amp. | Transmits the fuel level sensor signal from the fuel level sensor unit to the combination meter by means of communication line. |
| Fuel level sensor unit | Refer to MWI-54, "Description" . |

METER SYSTEM

< SYSTEM DESCRIPTION >

ODO/TRIP METER

ODO/TRIP METER : System Diagram



ODO/TRIP METER : System Description

INFOID:000000001835486

- The unified meter and A/C amp. transmits the vehicle speed signal from ABS actuator and electric unit (control unit) to the combination meter.
- The combination meter calculates the vehicle distance according to the vehicle speed signal. The vehicle distance is displayed.

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

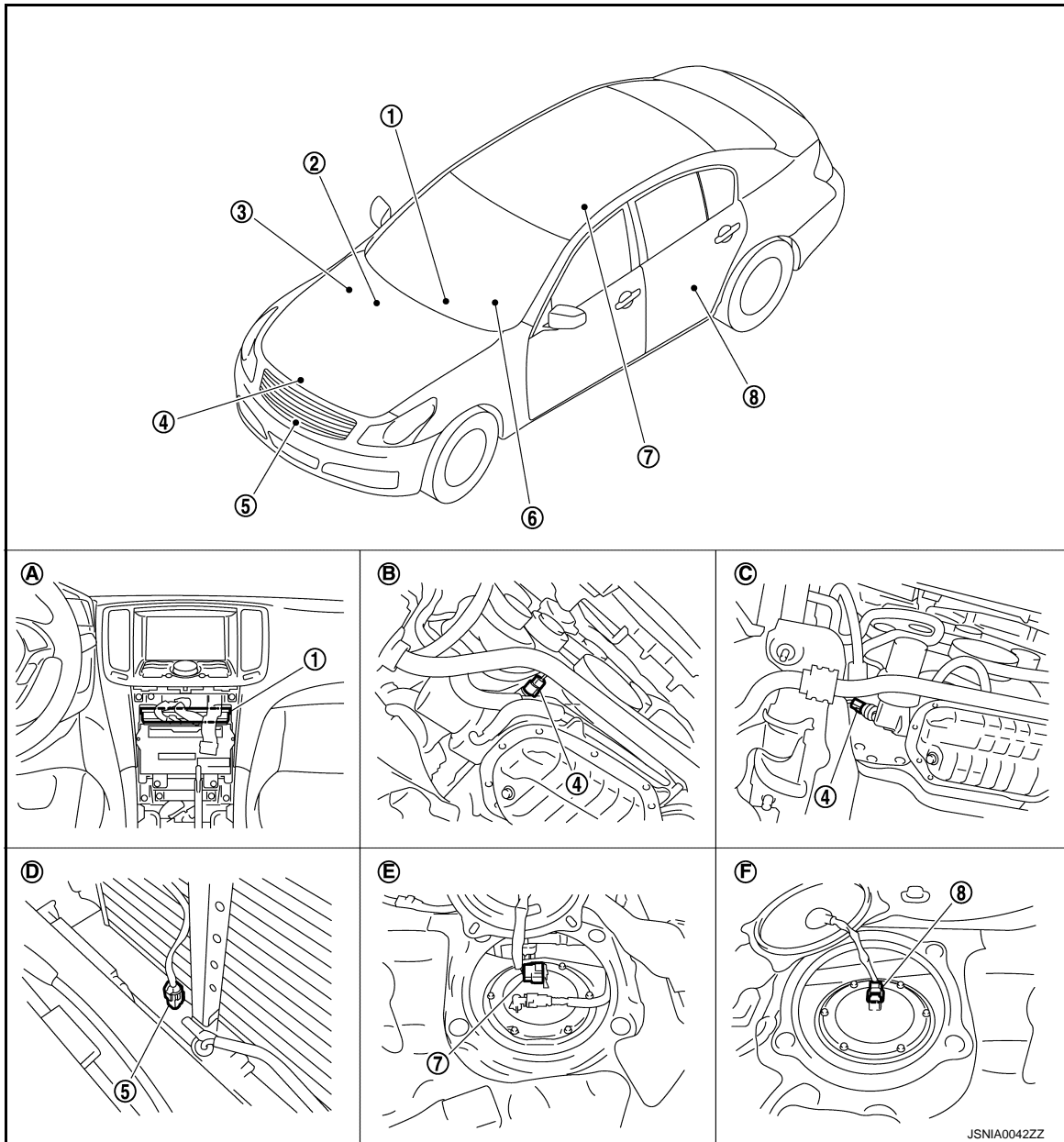
MWI

METER SYSTEM

< SYSTEM DESCRIPTION >

ODO/TRIP METER : Component Parts Location

INFOID:000000001835487



- | | | |
|--|----------------------------------|----------------------------------|
| 1. Unified meter and A/C amp. | 2. BCM | 3. IPDM E/R |
| 4. Oil pressure switch | 5. Ambient sensor | 6. Combination meter |
| 7. Fuel level sensor unit and fuel pump (main) | 8. Fuel level sensor unit (sub) | |
| A. Behind cluster lid C | B. 2WD [oil pan (upper) RH side] | C. AWD (oil filter bracket part) |
| D. Condenser (front) | E. Rear seat (lower right) | F. Rear seat (lower left) |

ODO/TRIP METER : Component Description

INFOID:000000001835488

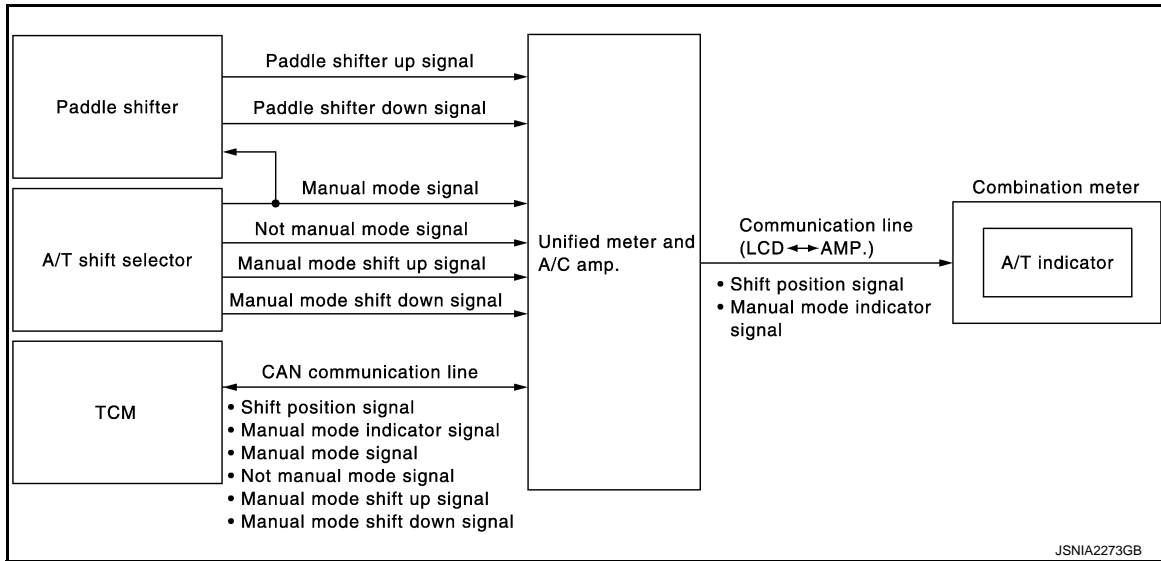
| Unit | Description |
|---|--|
| Combination meter | The combination meter calculates the vehicle distance according to the vehicle speed signal. The vehicle distance is displayed. |
| Unified meter and A/C amp. | The unified meter and A/C amp. transmits the vehicle speed signal from ABS actuator and electric unit (control unit) to the combination meter. |
| ABS actuator and electric unit (control unit) | Transmits the vehicle speed signal to the unified meter and A/C amp. with CAN communication line. |

METER SYSTEM

< SYSTEM DESCRIPTION >

SHIFT POSITION INDICATOR

SHIFT POSITION INDICATOR : System Diagram



SHIFT POSITION INDICATOR : System Description

INFOID:000000001835490

Shift position is displayed in the information display LCD in the combination meter.

MANUAL MODE

When Operated with A/T Shift Selector

- Unified meter and A/C amp. inputs manual mode signal and shift-up/down signal from A/T shift selector (manual mode switch), and transmits the signals to TCM with CAN communication line.
- TCM processes manual mode signal and shift-up/down signal, and transmits manual mode indicator signal and shift position signal to unified meter and A/C amp. with CAN communication line.
- Unified meter and A/C amp. transmits manual mode indicator signal and shift position signal to combination meter with the communication line.
- Combination meter indicates A/T gear position and manual mode indicator, when receiving manual mode indicator signal and shift position signal.

When Operated with Paddle Shifter

- The unified meter and A/C amp. receives the manual mode signal from the A/T shift selector (manual mode switch) or the shifter-up/down signal from the paddle shifter and transmits them to TCM via CAN communication line.
- TCM processes manual mode signal and paddle shifter-up/down signal, and transmits manual mode indicator signal and shift position signal to unified meter and A/C amp. with CAN communication line.
- Unified meter and A/C amp. transmits manual mode indicator signal and shift position signal to combination meter with the communication line.
- Combination meter indicates A/T gear position and manual mode indicator, when receiving manual mode indicator signal and shift position signal.

NOT MANUAL MODE

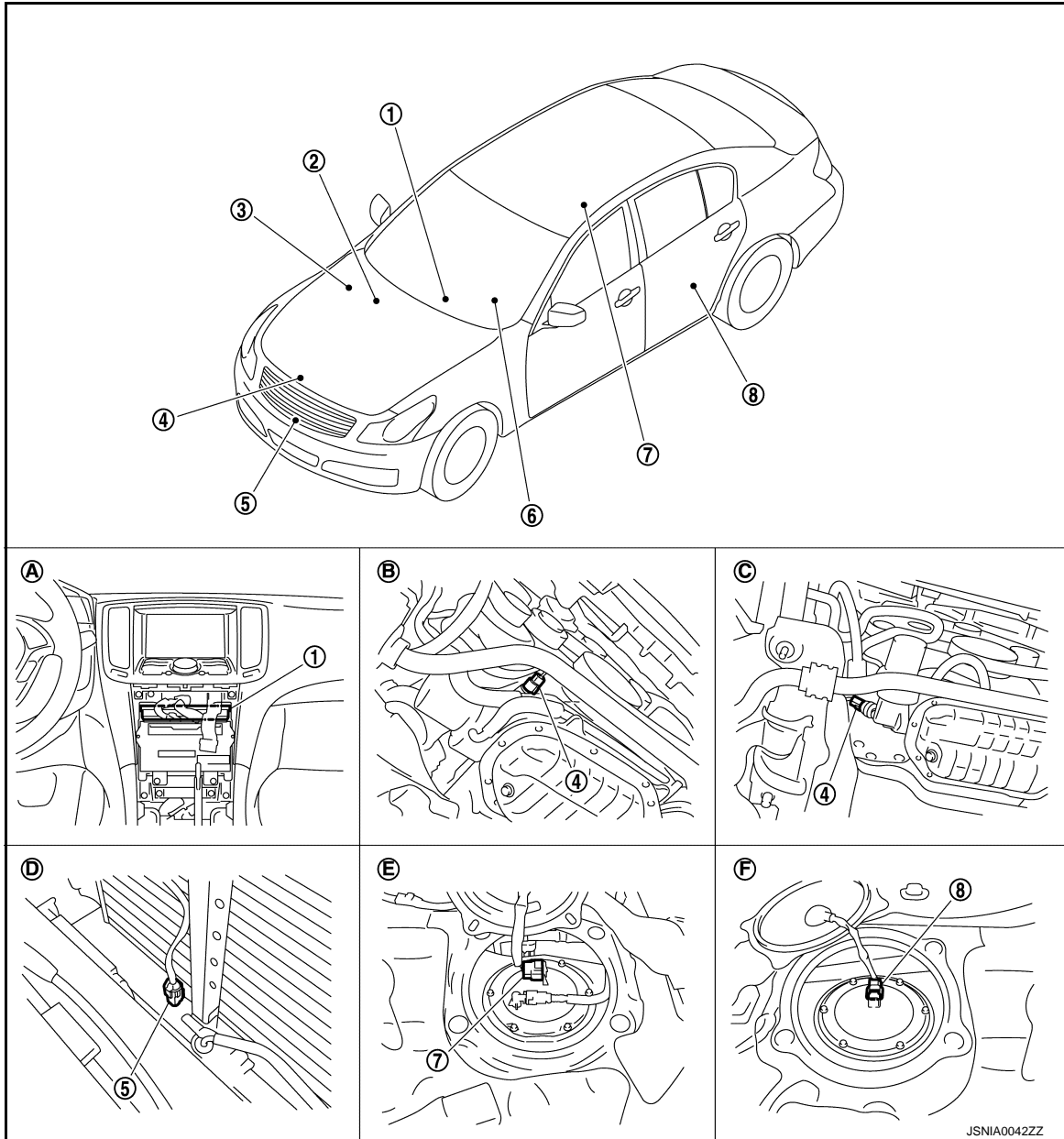
- Unified meter and A/C amp. inputs not manual mode signal from A/T shift selector (manual mode switch), and transmits the signals to TCM with CAN communication line.
- TCM transmits shift position signal to unified meter and A/C amp. with CAN communication line.
- Unified meter and A/C amp. transmits shift position signal to combination meter with the communication line.
- Combination meter indicates A/T shift position when receiving shift position signal.

METER SYSTEM

< SYSTEM DESCRIPTION >

SHIFT POSITION INDICATOR : Component Parts Location

INFOID:000000001835491



- | | | |
|--|----------------------------------|----------------------------------|
| 1. Unified meter and A/C amp. | 2. BCM | 3. IPDM E/R |
| 4. Oil pressure switch | 5. Ambient sensor | 6. Combination meter |
| 7. Fuel level sensor unit and fuel pump (main) | 8. Fuel level sensor unit (sub) | |
| A. Behind cluster lid C | B. 2WD [oil pan (upper) RH side] | C. AWD (oil filter bracket part) |
| D. Condenser (front) | E. Rear seat (lower right) | F. Rear seat (lower left) |

SHIFT POSITION INDICATOR : Component Description

INFOID:000000001835492

| Unit | Description |
|----------------------------|--|
| Combination meter | Displays the shift position on the information display with shift position signal and manual mode indicator signal received from unified meter and A/C amp. |
| Unified meter and A/C amp. | <ul style="list-style-type: none"> Transmits the signals from the A/T shift selector and paddle shifter switch to TCM with CAN communication line. Transmits shift position signal and manual mode indicator signal received from TCM with CAN communication line to the combination meter by means of communication line. |

METER SYSTEM

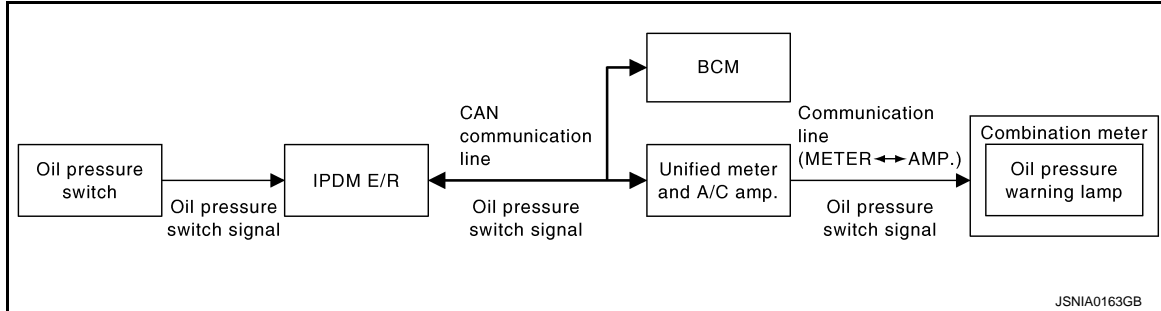
< SYSTEM DESCRIPTION >

| Unit | Description |
|--------------------|--|
| A/T shift selector | Transmits the following signals to the unified meter and A/C amp. <ul style="list-style-type: none"> • Manual mode signal • Not manual mode signal • Manual mode shift up signal • Manual mode shift down signal |
| Paddle shifter | Transmits the paddle shifter up signal and paddle shifter down signal to the unified meter and A/C amp. |
| TCM | Transmits shift position signal and manual mode indicator signal to the unified meter and A/C amp. |

WARNING LAMPS/INDICATOR LAMPS

WARNING LAMPS/INDICATOR LAMPS : System Diagram

INFOID:000000001835493



WARNING LAMPS/INDICATOR LAMPS : System Description

INFOID:000000001835494

OIL PRESSURE WARNING LAMP

- IPDM E/R inputs oil pressure switch signal from oil pressure switch, and transmits the signal to unified meter and A/C amp. through BCM with CAN communication line.
- Unified meter and A/C amp. transmits oil pressure switch signal to combination meter with communication line.
- Let the combination meter turn oil pressure warning lamp ON with received oil pressure switch signal.

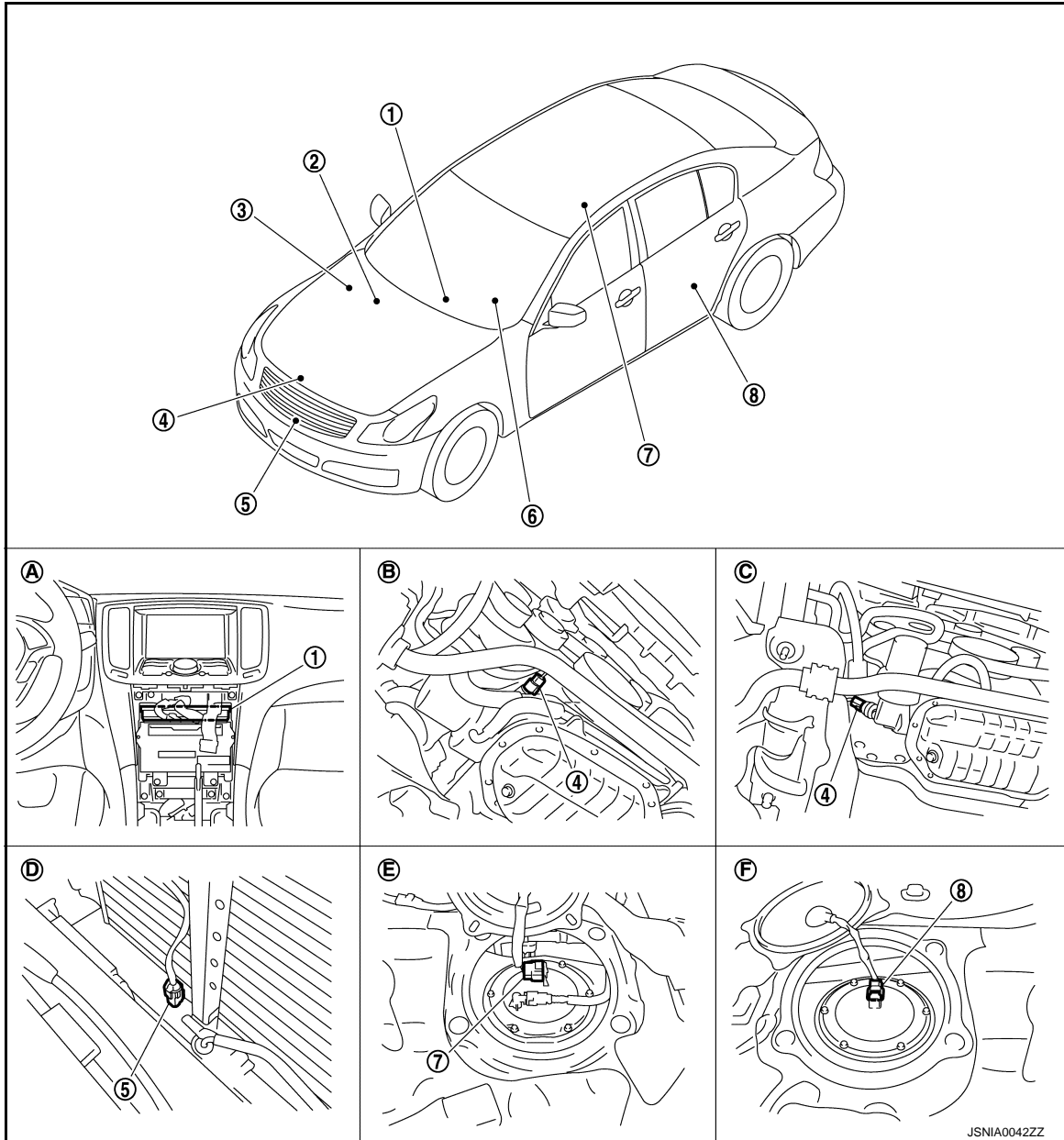
MWI

METER SYSTEM

< SYSTEM DESCRIPTION >

WARNING LAMPS/INDICATOR LAMPS : Component Parts Location

INFOID:000000001835495



- | | | |
|--|----------------------------------|----------------------------------|
| 1. Unified meter and A/C amp. | 2. BCM | 3. IPDM E/R |
| 4. Oil pressure switch | 5. Ambient sensor | 6. Combination meter |
| 7. Fuel level sensor unit and fuel pump (main) | 8. Fuel level sensor unit (sub) | |
| A. Behind cluster lid C | B. 2WD [oil pan (upper) RH side] | C. AWD (oil filter bracket part) |
| D. Condenser (front) | E. Rear seat (lower right) | F. Rear seat (lower left) |

WARNING LAMPS/INDICATOR LAMPS : Component Description

INFOID:000000001835496

| Unit | Description |
|----------------------------|--|
| Combination meter | Turns the oil pressure warning lamp ON/OFF according to the oil pressure switch signal received from the unified meter and A/C amp. by means of communication line. |
| Unified meter and A/C amp. | Transmits the oil pressure switch signal received from the IPDM E/R with BCM to the combination meter by means of communication line. |
| IPDM E/R | IPDM E/R reads the ON/OFF signals from the oil pressure switch and transmits the oil pressure switch signal to the unified meter and A/C amp. via BCM with the CAN communication line. |

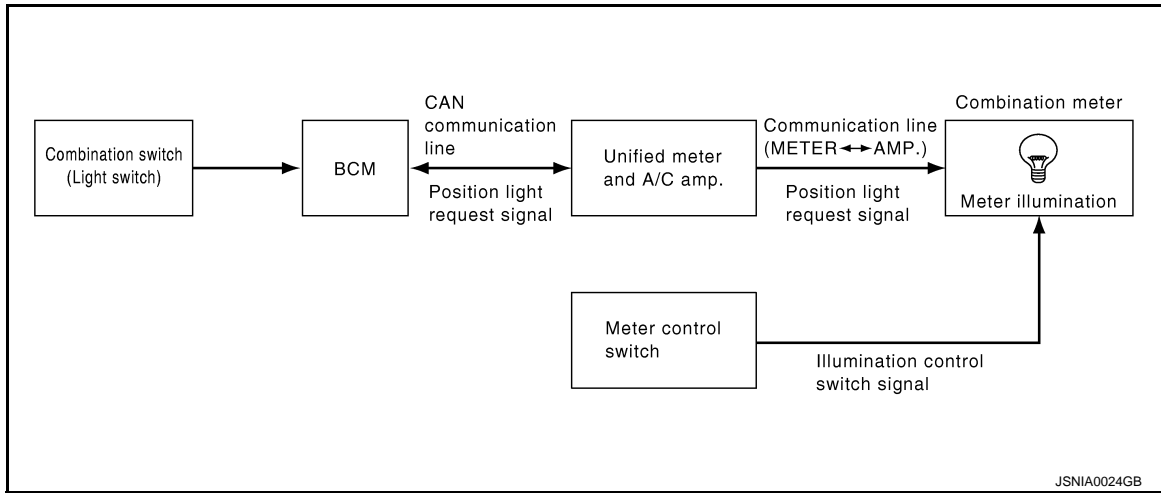
METER SYSTEM

< SYSTEM DESCRIPTION >

| Unit | Description |
|---------------------|---|
| Oil pressure switch | Refer to MWI-59, "Description" . |
| BCM | Transmits the oil pressure switch signal received from IPDM E/R via CAN communication to the unified meter and A/C amp. via CAN communication line. |

METER ILLUMINATION CONTROL

METER ILLUMINATION CONTROL : System Diagram



METER ILLUMINATION CONTROL : System Description

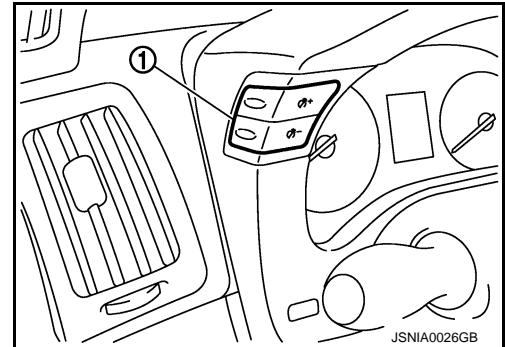
INFOID:000000001835498

SYSTEM DESCRIPTION

The combination meter controls the meter illumination by the illumination control switch signal from the meter control switch and the position light request signal transmitted by BCM with unified meter and A/C amp.

Daytime Mode

Meter illumination is adjusted to 5 steps by illumination control switch (1) in daytime mode.



Nighttime Mode

- Combination meter is transferred to nighttime mode with position light request signal from BCM with CAN communication line.
- Meter illumination is adjusted to 22 steps by illumination control switch in nighttime.

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

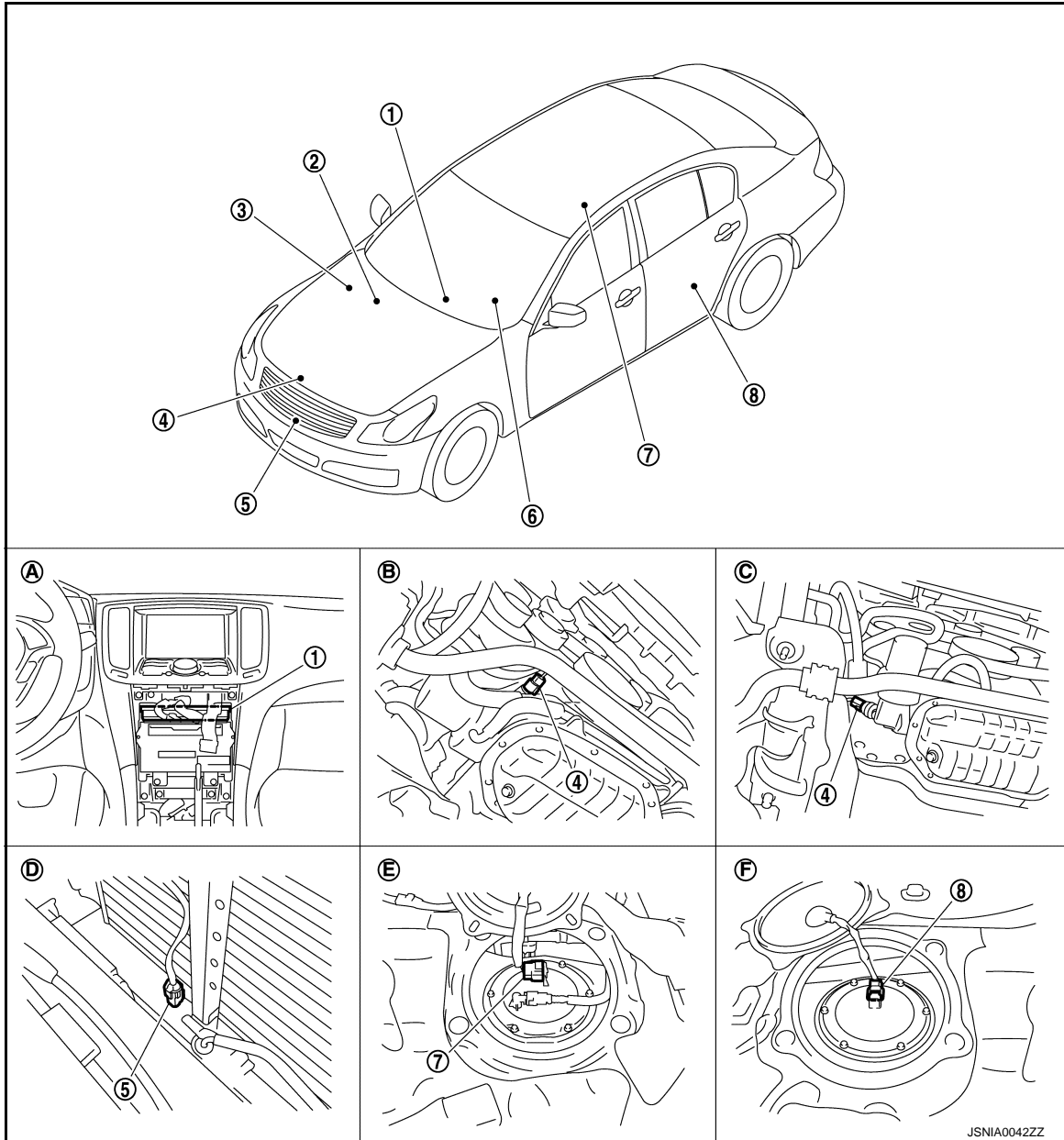
MWI

METER SYSTEM

< SYSTEM DESCRIPTION >

METER ILLUMINATION CONTROL : Component Parts Location

INFOID:000000001835499



- | | | |
|--|----------------------------------|----------------------------------|
| 1. Unified meter and A/C amp. | 2. BCM | 3. IPDM E/R |
| 4. Oil pressure switch | 5. Ambient sensor | 6. Combination meter |
| 7. Fuel level sensor unit and fuel pump (main) | 8. Fuel level sensor unit (sub) | |
| A. Behind cluster lid C | B. 2WD [oil pan (upper) RH side] | C. AWD (oil filter bracket part) |
| D. Condenser (front) | E. Rear seat (lower right) | F. Rear seat (lower left) |

METER ILLUMINATION CONTROL : Component Description

INFOID:000000001835500

| Unit | Description |
|----------------------------|---|
| Combination meter | Controls the meter illumination with the illumination control switch signal from the meter control switch and the position light request signal from unified meter and A/C amp. |
| Unified meter and A/C amp. | Transmits the position light request signal received from BCM via CAN communication to the combination meter by means of communication. |

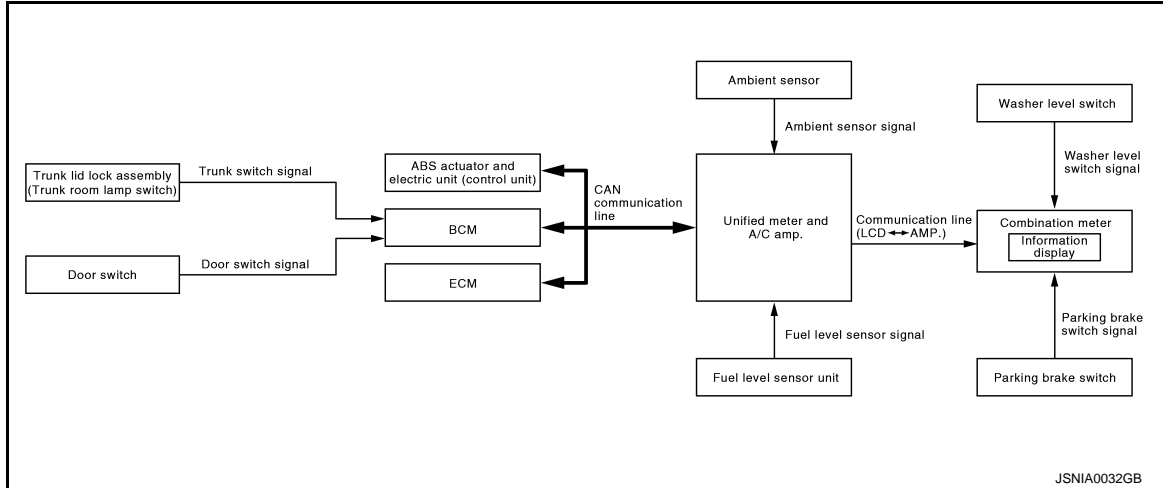
METER SYSTEM

< SYSTEM DESCRIPTION >

| Unit | Description |
|----------------------|--|
| Meter control switch | Transmits the following signals to the combination meter. <ul style="list-style-type: none"> • Illumination control switch signal (+) • Illumination control switch signal (-) |

INFORMATION DISPLAY

INFORMATION DISPLAY : System Diagram



INFORMATION DISPLAY : System Description

INFOID:000000001835502

DESCRIPTION

- The combination meter retrieves the information required for controlling the operations of the information display from the communication signals from the unified meter and A/C amp., etc.
- The combination meter incorporates a trip computer that displays the warning / information according to the information received from various units.

PARKING BRAKE RELEASE WARNING

The combination meter indicates parking brake release warning judged with the vehicle speed signal received from the unified meter and A/C amp. by means of communication line and the parking brake switch signal from the parking brake switch.

Warning Operation Condition

Parking brake release warning is judged if all of the following conditions are fulfilled

- Vehicle speed is 7 km/h (4.3 MPH) or higher
- Parking brake switch ON

LOW FUEL WARNING

The combination meter indicates low fuel warning judged with the fuel level sensor signal received from the unified meter and A/C amp.

Warning Operation Condition

- Fuel level: Approx. 12 ℓ (3 - 1/8 US gal, 2 - 5/8 Imp gal) or less

LOW WASHER FLUID WARNING

The combination meter indicates low washer fluid warning judged with the signal from the washer level switch.

Warning Operation Condition

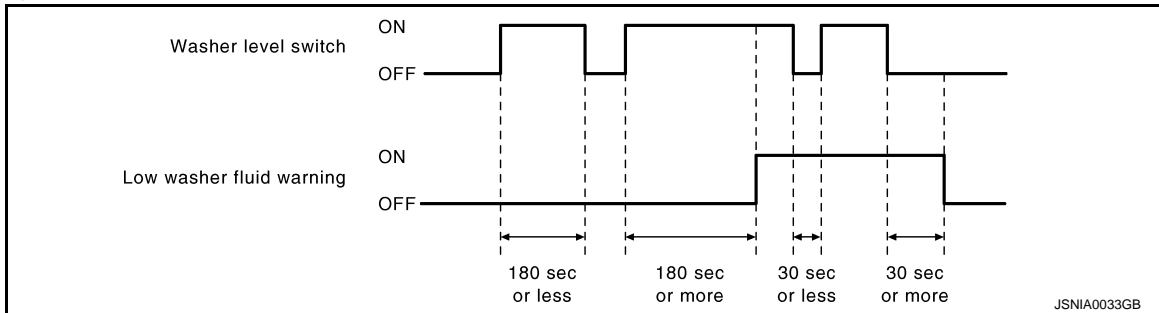
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P



METER SYSTEM

< SYSTEM DESCRIPTION >

- Indicates the warning when it is in washer level switch ON condition for 180 seconds or more. Release the warning when it is in washer level switch OFF condition for 30 seconds or more.



DOOR/TRUNK OPEN WARNING

- The combination meter indicates door open warning judged with each door switch signal received from the unified meter and A/C amp. by means of communication line.
- The combination meter indicates trunk open warning judged with the trunk switch signal received from the unified meter and A/C amp. by means of communication line.

INSTANTANEOUS FUEL CONSUMPTION (MPG)

- The unified meter and A/C amp. receives the fuel consumption monitor signal from ECM and the vehicle speed signal from the ABS actuator and electric unit (control unit) with CAN communication line.
- The unified meter and A/C amp. calculates the instantaneous fuel consumption according to the fuel consumption monitor signal and the vehicle speed signal received with CAN communication line, and transmits it to the combination meter.

AVERAGE FUEL CONSUMPTION (MPG)

- The unified meter and A/C amp. receives the fuel consumption monitor signal from ECM and the vehicle speed signal from the ABS actuator and electric unit (control unit) with CAN communication line.
- The unified meter and A/C amp. calculates the average fuel consumption according to the fuel consumption monitor signal and the vehicle speed signal received with CAN communication line, and transmits it to the combination meter.
- The average fuel consumption displayed on the information display is uploaded at approximately 30-second intervals.

NOTE:

“—” is displayed for approximately 30 seconds just after the reset operation and after the ignition switch is OFF → ON. It is displayed simultaneously until the vehicle drives approximately 500 m (0.31 mile).

AVERAGE VEHICLE SPEED (MPH)

- The unified meter and A/C amp. receives the vehicle speed signal from the ABS actuator and electric unit (control unit) via CAN communication line.
- Measures the time during the ignition switch ON with the unified meter and A/C amp.
- The unified meter and A/C amp. calculates the average vehicle speed according to the above signals. These signals are transmitted to the combination meter with the communication line.
- The average vehicle speed displayed on the information display is uploaded at approximately 30-second intervals.

NOTE:

“—” is displayed for 30 seconds just after the reset operation and after the ignition switch is OFF → ON. It is displayed simultaneously until the vehicle drives approximately 500 m (0.31 mile).

TRAVEL TIME (TIME)

Measures the time during the ignition switch ON with the unified meter and A/C amp, and transmits it to the combination meter by means of communication line.

TRAVEL DISTANCE (MILES)

- The unified meter and A/C amp. transmits the vehicle speed signal from ABS actuator and electric unit (control unit) to the combination meter.
- The combination meter calculates the vehicle distance according to the vehicle speed signal. The vehicle distance is displayed.

POSSIBLE DRIVING DISTANCE (RANGE)

METER SYSTEM

< SYSTEM DESCRIPTION >

The unified meter and A/C amp. calculates possible driving distance according to the vehicle speed signal transmitted through CAN communication and the fuel level sensor signal transmitted from the fuel level sensor. These signals are transmitted to the combination meter with the communication line.

NOTE:

- “—” is displayed for 30 seconds after the ignition switch is OFF → ON. It is displayed simultaneously until the vehicle drives approximately 500 m (0.31 mile).
- The indicated values may not match each other when filling the fuel with the ignition switch ON. Refer to [MWI-156, "INFORMATION DISPLAY : Description"](#).

AMBIENT AIR TEMPERATURE

- The unified meter and A/C amp. receives the ambient sensor signal from the ambient sensor.
- The unified meter and A/C amp. calculates the ambient temperature according to the ambient sensor signal, and transmits it to the combination meter.
- The indicated temperature does not increase if the vehicle speed is less than 20 km/h (12 MPH).

NOTE:

- The ambient sensor input value that is displayed on “Data Monitor” of CONSULT-III is the value before the correction. It may not match the indicated temperature on the information display.
- Ambient temperature may be indicated higher than an actual temperature, depending on heat in the engine, a road surface temperature, and so on.

SETTING

Setting item list

| Items | | Setting range | Setting unit | Description |
|-------------|--------------|--|---|--|
| ALERT | TIME TO REST | No setting - 6 hours | 30 minutes, [60 minutes]* | Time to rest is displayed on the information display if the vehicle reached the set travel distance. |
| | ICY | ON/OFF | — | Low outside temp is displayed on the information display if the ambient temperature is 3°C (37°F) or less. |
| MAINTENANCE | ENGINE OIL | No setting - 18,500 miles, (No setting - 30,000 km) | 250 miles (500 km), [500 miles (1000 km)]* | The engine oil replacement interval is displayed on the information display if the vehicle reached the set distance. |
| | OIL FILTER | No setting - 18,500 miles, (No setting - 30,000 km) | 250 miles (500 km), [500 miles (1000 km)]* | The oil filter replacement interval is displayed on the information display if the vehicle reached the set distance. |
| | TIRE | No setting - 18,500 miles, (No setting - 30,000 km) | 250 miles (500 km), [500 miles (1000 km)]* | The tire replacement interval is displayed on the information display if the vehicle reached the set distance. |
| | OTHER | No setting - 18,500 miles, (No setting - 30,000 km) | 250 miles (500 km), [500 miles (1000 km)]* | The other replacement interval is displayed on the information display if the vehicle reached the set distance. |
| DISPLAY | LANGUAGE | ENGLISH/FRANCAIS | — | Changing the language setting can be performed. |
| | UNIT | US/METRIC | — | Changing the unit setting can be performed. |

* : Press and hold the switch (1 second or more).

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

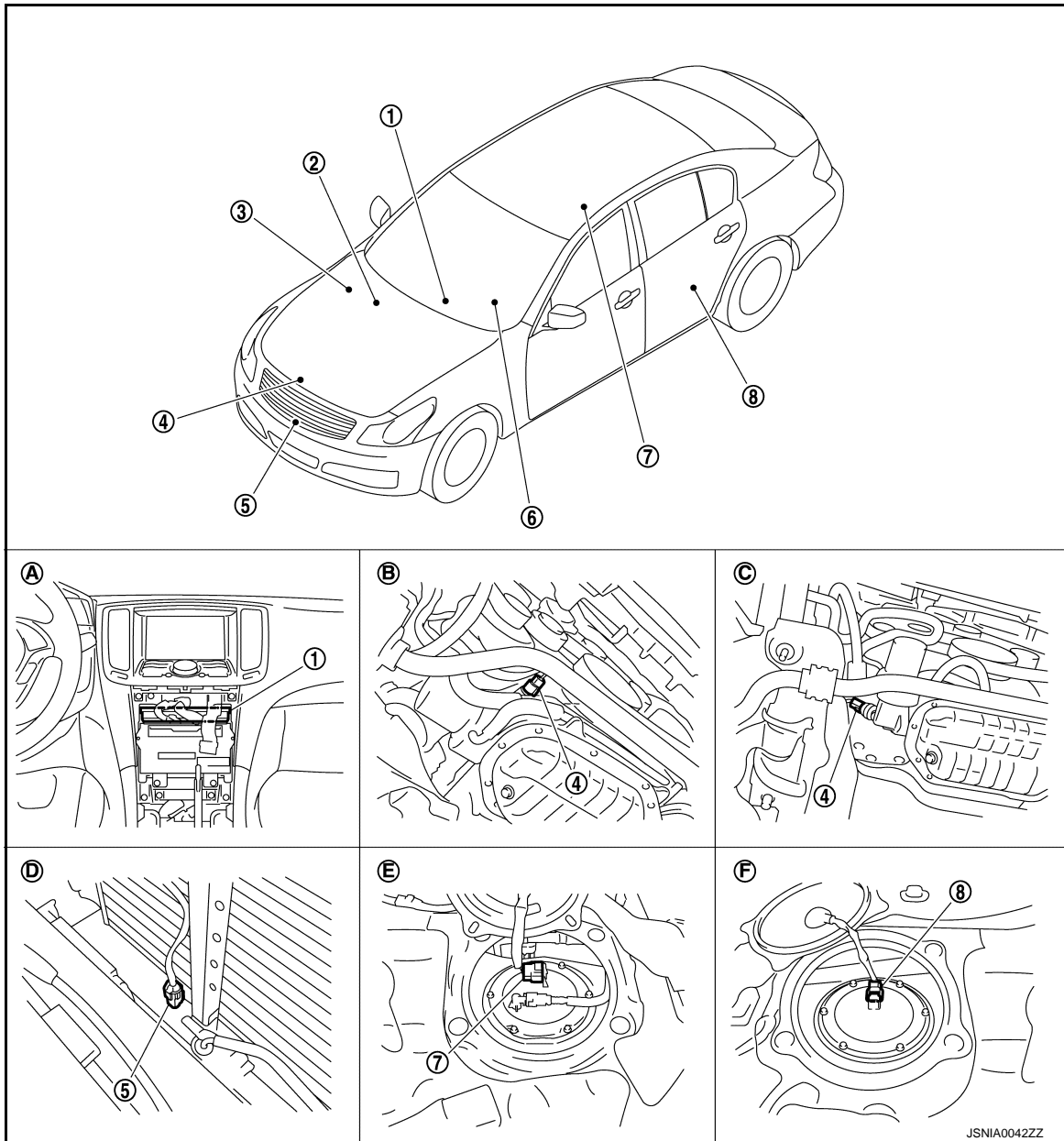
MWI

METER SYSTEM

< SYSTEM DESCRIPTION >

INFORMATION DISPLAY : Component Parts Location

INFOID:000000001835503



- | | | |
|--|----------------------------------|----------------------------------|
| 1. Unified meter and A/C amp. | 2. BCM | 3. IPDM E/R |
| 4. Oil pressure switch | 5. Ambient sensor | 6. Combination meter |
| 7. Fuel level sensor unit and fuel pump (main) | 8. Fuel level sensor unit (sub) | |
| A. Behind cluster lid C | B. 2WD [oil pan (upper) RH side] | C. AWD (oil filter bracket part) |
| D. Condenser (front) | E. Rear seat (lower right) | F. Rear seat (lower left) |

INFORMATION DISPLAY : Component Description

INFOID:000000001835504

| Unit | Description |
|----------------------------|---|
| Combination meter | Controls the information display with the signals received from the unified meter and A/C amp. by means of communication and the signals from various switches and sensors. |
| Unified meter and A/C amp. | Transmits signals received from various units to the combination meter by means of communication. |
| Fuel level sensor unit | Refer to MWI-54, "Description" . |

METER SYSTEM

< SYSTEM DESCRIPTION >

| Unit | Description |
|---|---|
| ECM | Transmits the following signals to the unified meter and A/C amp. via CAN communication. <ul style="list-style-type: none"> • Engine speed signal • Fuel consumption monitor signal |
| ABS actuator and electric unit (control unit) | Transmits the vehicle speed signal to the unified meter and A/C amp. via CAN communication. |
| BCM | Transmits signals provided by various units to the unified meter and A/C amp. via CAN communication. |
| Meter control switch | Transmits the following signals to the combination meter. <ul style="list-style-type: none"> • Enter switch signal • Select switch signal |
| Washer level switch | Transmits the washer level signal to the combination meter. |
| Parking brake switch | Refer to MWI-60. "Description" . |
| Door switch | Transmits the door switch signals to BCM. |
| Trunk room lamp switch | Transmits the trunk room lamp switch signal to BCM. |
| Ambient sensor | Detects the ambient air temperature and transmits the ambient sensor signal to the unified meter and A/C amp. |

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

COMPASS

< SYSTEM DESCRIPTION >

COMPASS

Description

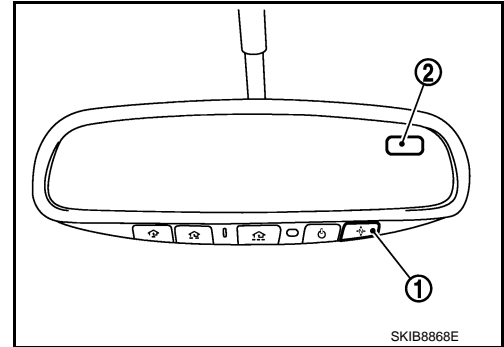
INFOID:000000001835505

DESCRIPTION

- This electronic compass is able to display 8 primary directions: N, NE, E, SE, S, SW, W, NW.
- The compass switch (1) is used to operate the compass.

Switch Operation

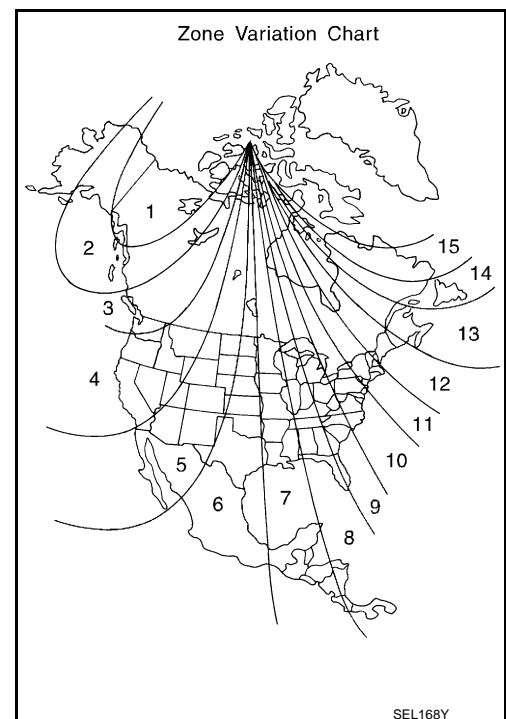
| | |
|---------------------------------------|---|
| Press | Compass is turned ON/OFF |
| Press and hold (for 3- 9 sec.) | Compass display (2) turns to zone variation change mode |
| Press and hold (for more than 9 sec.) | Compass display turns to calibration mode |



- All standard compasses determine direction relative to Magnetic North; however, this electronic compass is designed to display direction relative to True North.
- The difference between Magnetic North and True North varies from place to place across the surface of the earth.
- This electronic compass must be “told” approximately where it is on the earth’s surface so that the Magnetic North reading can be properly converted into a True North display.
- To tell the electronic compass where it’s at, the earth is separated into numbered “Zone Variances”. The Zone Variance number in which the compass is to function must be entered into this electronic compass.
- Each zone is magnetically about 4.2° wide. Typically, anything under 22.5° total zone change is not noticed on the electronic compass display. However, over 22.5°, a reading may be off by one or more primary directions.
- On long trips, a vehicle may leave its original zone and enter one or more new zones. Generally, you do not need to reset the compass zone if you travel between 3 or 4 zones, such as business travel or vacation. The typical driver will not notice any difference on the display within 3 or 4 zones. However, if the vehicle is “permanently” moved to a new location, it is recommended that the compass zone be reset.

ZONE VARIATION SETTING PROCEDURE

1. Press and hold the compass switch for 3 – 9 seconds.
2. The current zone setting appears on the compass display.
3. Find the current geographical location number in the Zone Variation Chart.
4. Select the new zone number. (Press the compass switch until the new zone number appears on the compass display.)
5. After select the new zone number, the compass display will automatically shows a direction within a few seconds.
6. Perform the following Calibration Procedure for more accurate indications.



COMPASS

< SYSTEM DESCRIPTION >

CALIBRATION PROCEDURE

NOTE:

The compass calibrates itself under normal driving conditions. However, occasional circumstances may cause the compass to operate inaccurately. Example: Driving from rural (wide open) areas to crowded city areas, or if an aftermarket (i.e., non original equipment) antenna with a magnetic base is attached to the vehicle. Calibrate the mirror compass if the display shows only one direction or a limited number of directions.

NOTE:

- If “magnetic hats” are used in the dealership for vehicle identification, remove the hat from the vehicle before performing the following steps. Do not put the hat back on the vehicle after the procedure is completed.
- Drive the vehicle to an open level area; away from large metallic objects, structures, and overhead power lines.
- Turn off “non-essential” electrical accessories (rear window defrost, heater/air conditioning, wipers) and close the doors.

1. Verify the correct compass zone setting for the geographical location.
2. Press and hold the compass switch for more than 9 seconds.
3. “C” is displayed on the compass display, when calibration starts.
4. Drive slowly [less than 8 km/h (5 MPH)] in a circle until the “C / CAL” is replaced with primary headings (N, NE, E, SE, S, SW, W, or NW).

NOTE:

This will require driving at least 2 complete 360 degree circles; 3 complete circles may be required.

5. The compass calibration procedure is now complete. The compass should operate normally.

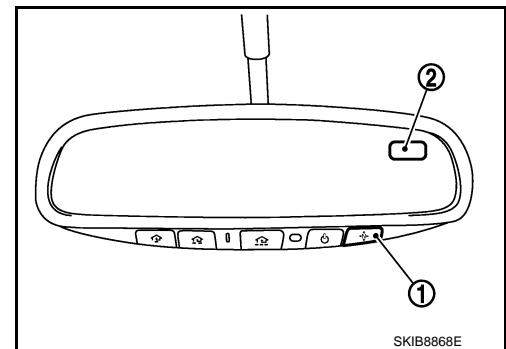
NOTE:

If at any time the compass continually displays the incorrect direction or the reading is erratic or locked, repeat the calibration procedure.

Component Parts Location

INFOID:000000001835506

- 1 : Compass switch
- 2 : Compass display



Special Repair Requirement

INFOID:000000001835507

1.PERFORM ZONE VARIATION SETTING

Perform the zone variation setting. Refer to [MWI-32, "Description"](#).

>> GO TO 2.

2.PERFORM CALIBRATION

Perform the calibration. Refer to [MWI-32, "Description"](#).

>> Setting completion

CLOCK

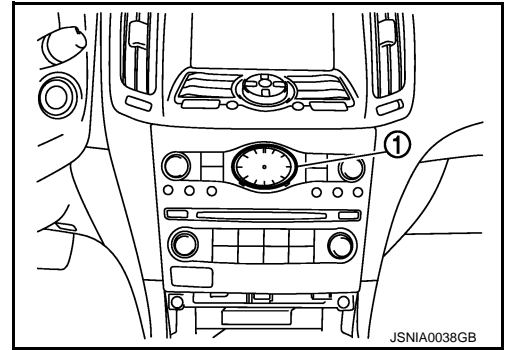
< SYSTEM DESCRIPTION >

CLOCK

Component Parts Location

INFOID:000000001835508

1 : Clock



DIAGNOSIS SYSTEM (METER)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (METER)

Diagnosis Description

INFOID:000000001835509

SELF-DIAGNOSIS MODE

- Information display LCD segment operation can be checked in self-diagnosis mode.
- Meters/gauges can be checked in self-diagnosis mode.

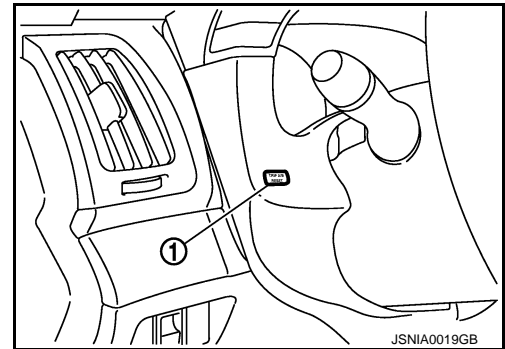
OPERATION PROCEDURE

1. Turn ignition switch ON, and switch the trip meter to "trip A" or "trip B".

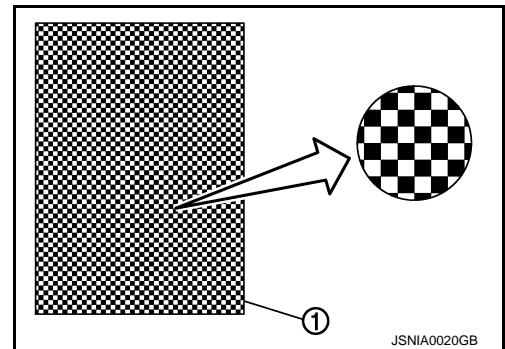
NOTE:

If the diagnosis function is activated with "trip A" displayed, the mileage on "trip A" is reset to "0000.0". (The same way for "trip B".)

2. Turn ignition switch OFF.
3. While pressing the trip A/B reset switch (1), turn ignition switch ON again.
4. Make sure that the trip meter displays "0000.0".
5. Press the trip A/B reset switch at least 3 times. (Within 7 seconds after the ignition switch is turned ON.)



6. The unified meter control unit is turned to self-diagnosis mode.
 - Displays "888888" and "8888.8" in the information display LCD (1) for approximately 5 seconds and then blinks the segment dots of the information display LCD alternately.
 - Water temperature gauge and fuel gauge return to zero, and at the same time.



NOTE:

- Check combination meter power supply and ground circuit when self-diagnosis mode of combination meter does not start. Replace combination meter if normal.
- If any of the segments is not displayed, replace combination meter.

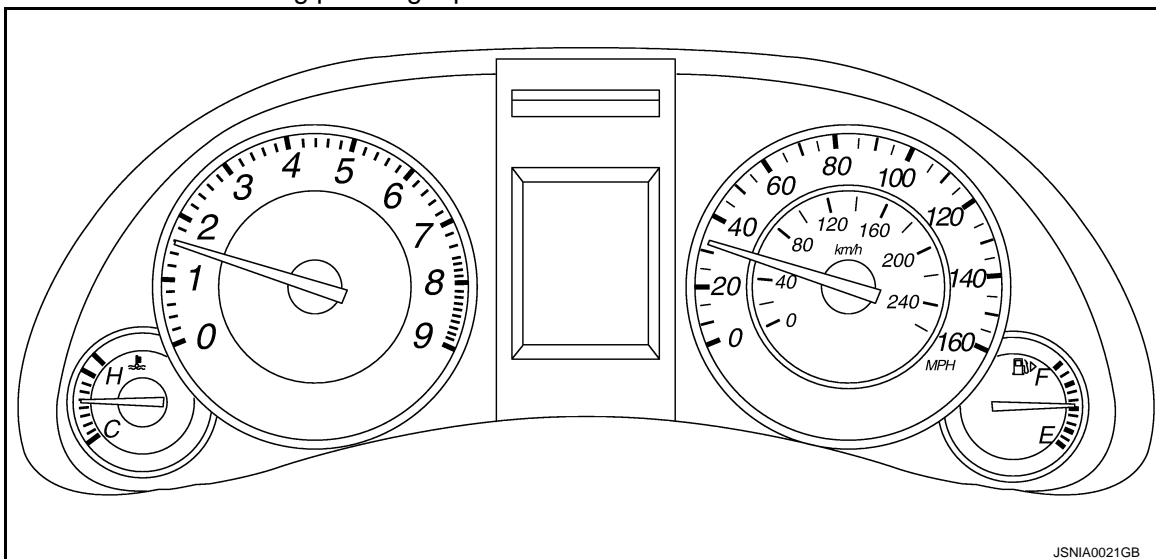
A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

DIAGNOSIS SYSTEM (METER)

< SYSTEM DESCRIPTION >

7. Each meter activates during pressing trip A/B reset switch.



NOTE:

- If any of the meter and gages is not activated, replace combination meter.
- The figure is reference.

DIAGNOSIS SYSTEM (UNIFIED METER AND A/C AMP.)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (UNIFIED METER AND A/C AMP.)

CONSULT-III Function (METER/M&A)

INFOID:000000001835510

CONSULT-III APPLICATION ITEMS

CONSULT-III can perform the following diagnosis modes with CAN communication with the unified meter and A/C amp.

| System | Diagnosis mode | Description |
|-----------|------------------------|--|
| METER/M&A | Self Diagnostic Result | Unified meter and A/C amp. checks the conditions and displays memorized error. |
| | Data Monitor | Displays unified meter and A/C amp. input/output data in real time. |

SELF DIAG RESULT

Refer to [MWI-98, "DTC Index"](#).

DATA MONITOR

Display Item List

X: Applicable

| Display item [Unit] | MAIN SIGNALS | Description |
|-----------------------------|--------------|---|
| SPEED METER [km/h] | X | Value of vehicle speed signal received from ABS actuator and electric unit (control unit) with CAN communication line. NOTE: 655.35 is displayed when the malfunction signal is received. |
| SPEED OUTPUT [km/h] | X | Vehicle speed signal value transmitted to other units with CAN communication line. NOTE: 655.35 is displayed when the malfunction signal is received. |
| ODO OUTPUT [km/h or mph] | | Odometer signal value transmitted to other units with CAN communication line. |
| TACHO METER [rpm] | X | Value of the engine speed signal received from ECM with CAN communication line. NOTE: 8191.875 is displayed when the malfunction signal is received. |
| FUEL METER [lit.] | X | Fuel level indicated on combination meter. |
| W TEMP METER [°C] | X | Value of engine coolant temperature signal received from ECM with CAN communication line. NOTE: 215 is displayed when the malfunction signal is input. |
| ABS W/L [On/Off] | | Status of ABS warning lamp judged from ABS warning lamp signal received from ABS actuator and electric unit (control unit) with CAN communication line. |
| VDC/TCS IND [On/Off] | | Status of VDC OFF indicator lamp judged from VDC OFF indicator lamp signal received from ABS actuator and electric unit (control unit) with CAN communication line. |
| SLIP IND [On/Off] | | Status of SLIP indicator lamp judged from slip indicator lamp signal received from ABS actuator and electric unit (control unit) with CAN communication line. |
| BRAKE W/L [On/Off] | | Status of brake warning lamp judged from brake warning lamp signal received from ABS actuator and electric unit (control unit) with CAN communication line. NOTE: Displays "Off" if the brake warning lamp is illuminated when the valve check starts, the parking brake switch is turned ON or the brake fluid level switch is turned ON. |
| DOOR W/L [On/Off] | | Status of door warning judged from door switch signal received from BCM with CAN communication line. |
| TRUNK/GLAS-H [On/Off] | | Status of trunk warning judged from trunk switch signal received from BCM with CAN communication line. |

DIAGNOSIS SYSTEM (UNIFIED METER AND A/C AMP.)

< SYSTEM DESCRIPTION >

| Display item [Unit] | MAIN SIGNALS | Description |
|---------------------------|--------------|--|
| HI-BEAM IND [On/Off] | | Status of high beam indicator lamp judged from high beam request signal received from BCM with CAN communication line. |
| TURN IND [On/Off] | | Status of turn indicator lamp judged from turn indicator signal received from BCM with CAN communication line. |
| FR FOG IND [Off] | | This item is displayed, but cannot be monitored. |
| RR FOG IND [Off] | | This item is displayed, but cannot be monitored. |
| LIGHT IND [On/Off] | | Status of light indicator lamp judged from position light request signal received from BCM with CAN communication line. |
| OIL W/L [On/Off] | | Status of oil pressure warning lamp judged from oil pressure switch signal received from IPDM E/R with CAN communication line. |
| MIL [On/Off] | | Status of malfunction indicator lamp judged from malfunctioning indicator lamp signal received from ECM with CAN communication line. |
| GLOW IND [Off] | | This item is displayed, but cannot be monitored. |
| C-ENG2 W/L [Off] | | This item is displayed, but cannot be monitored. |
| CRUISE IND [On/Off] | | Status of CRUISE indicator judged from ASCD status signal received from ECM with CAN communication line. |
| SET IND [On/Off] | | Status of set indicator judged from ASCD SET indicator signal received from ECM with CAN communication line. |
| CRUISE W/L [On/Off] | | Status of CRUISE warning lamp judged from ASCD status signal received from ECM with CAN communication line. |
| BA W/L [Off] | | This item is displayed, but cannot be monitored. |
| ATC/T-AMT W/L [On/Off] | | Status of A/T check warning lamp judged from A/T check indicator signal received from TCM with CAN communication line. |
| 4WD W/L [On/Off] | | Status of AWD warning lamp judged from AWD warning lamp signal received from AWD control unit with CAN communication line. |
| 4WD LOCK IND [Off] | | This item is displayed, but cannot be monitored. |
| FUEL W/L [On/Off] | | Low-fuel warning lamp status judged by the identified fuel level. |
| WASHER W/L [On/Off] | | Status of washer warning lamp judged from washer level switch input to combination meter. |
| AIR PRES W/L [On/Off] | | Status of low tire pressure warning lamp judged from tire pressure signal received from BCM with CAN communication line. |
| KEY G/Y W/L [On/Off] | | Status of key warning lamp (G/Y) judged from key warning signal received from BCM with CAN communication line. |
| AFS OFF IND [On/Off] | | Status of AFS OFF indicator lamp judged from AFS OFF indicator lamp signal received from AFS control unit with CAN communication line. |
| 4WAS/RAS W/L [On/Off] | | Status of 4WAS warning lamp judged from 4WAS warning lamp signal received from 4WAS main control unit with CAN communication line. |
| DDS W/L [Off] | | This item is displayed, but cannot be monitored. |
| LANE W/L [Off] | | This item is displayed, but cannot be monitored. |
| LDP IND [Off] | | This item is displayed, but cannot be monitored. |

DIAGNOSIS SYSTEM (UNIFIED METER AND A/C AMP.)

< SYSTEM DESCRIPTION >

| Display item [Unit] | MAIN SIGNALS | Description | A |
|--|--------------|---|-----|
| LCD [B&P N, B&P I, ID NG, ROTAT, SFT P, INSRT, BATT, NO KY,OUTKY, LK WN, C&P N,C&P I] | | Displays status of Intelligent Key system warning judged from meter display signal received from BCM with CAN communication line. | B |
| ACC TARGET [On/Off] | | Status of vehicle ahead detection indicator judged from meter display signal received from ICC sensor integrated unit with CAN communication line. | C |
| ACC DISTANCE [Off, SHOR, MID, LONG] | | Status of set distance indicator judged from meter display signal received from ICC sensor integrated unit with CAN communication line. | D |
| ACC OWN VHL [On/Off] | | Status of own vehicle indicator judged from meter display signal received from ICC sensor integrated unit with CAN communication line. | E |
| ACC SET SPEED [On/Off] | | Status of set vehicle speed indicator judged from meter display signal received from ICC sensor integrated unit with CAN communication line. | F |
| ACC UNIT [On/Off] | | Status of display unit judged from meter display signal received from ICC sensor integrated unit with CAN communication line. | G |
| O/D OFF SW [On/Off] | | This item is displayed, but cannot be monitored. | H |
| SHIFT IND [P, R, N, D, M1, M2, M3, M4, M5] | | Status of A/T position indicator judged from shift position signal and manual mode indicator signal received from TCM with CAN communication line. | I |
| AT S MODE SW [On/Off] | | Status of snow mode switch. | J |
| AT P MODE SW [On/Off] | | This item is displayed, but cannot be monitored. | K |
| M RANGE SW [On/Off] | | Status of manual mode switch. | L |
| NM RANGE SW [On/Off] | | Status of not manual mode switch. | M |
| AT SFT UP SW [On/Off] | | Status of A/T shift up switch. | MWI |
| AT SFT DWN SW [On/Off] | | Status of A/T shift down switch. | O |
| ST SFT UP SW [On/Off] | | Status of paddle shifter up switch. | P |
| ST SFT DWN SW [On/Off] | | Status of paddle shifter down switch. | |
| COMP FB SIG [On/Off] | | A/C compressor activation condition that ECM judges according to the water temperature and the acceleration degree. | |
| 4WD LOCK SW [Off] | | This item is displayed, but cannot be monitored. | |
| PKB SW [On/Off] | | Status of parking brake switch. | |
| BUCKLE SW [On/Off] | | Status of seat belt buckle switch. | |
| BRAKE OIL SW [On/Off] | | Status of brake fluid level switch. | |
| DISTANCE [km] | | Value of possible driving distance calculated by unified meter and A/C amp. | |
| OUTSIDE TEMP [°C or °F] | | Ambient air temperature value converted from ambient sensor signal received from ambient sensor. NOTE: This may not match with the temperature value indicated on the information display. (Because the information display value is a corrected value from the ambient sensor input value.) | |

DIAGNOSIS SYSTEM (UNIFIED METER AND A/C AMP.)

< SYSTEM DESCRIPTION >

| Display item [Unit] | MAIN SIGNALS | Description |
|--------------------------|--------------|---|
| FUEL LOW SIG [On/Off] | | Status of fuel level low warning signal to output to AV control unit with CAN communication line. |
| BUZZER [On/Off] | X | Buzzer status (in the combination meter) is judged with the buzzer output signal received from each unit with CAN communication line and the warning output condition of the combination meter. |

NOTE:

Some items are not available according to vehicle specification.

U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:000000001835511

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with two communication lines (CAN-H line, CAN-L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Signal Chart. Refer to [LAN-18, "How to Use CAN Communication Signal Chart"](#).

DTC Logic

INFOID:000000001835512

DTC DETECTION LOGIC

| DTC | Display contents of CONSULT-III | Diagnostic item is detected when ... | Probable malfunction location |
|-------|---------------------------------|--|-------------------------------|
| U1000 | CAN COMM CIRCUIT | When unified meter and A/C amp. is not transmitting or receiving CAN communication signal for 2 seconds or more. | CAN communication system |

Diagnosis Procedure

INFOID:000000001835513

1. PERFORM SELF DIAGNOSTIC

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check "Self Diagnostic Result" of "METER/M&A".

Is "CAN COMM CIRCUIT" displayed?

- YES >> Refer to [LAN-19, "Trouble Diagnosis Flow Chart"](#).
NO >> Refer to [GI-39, "Intermittent Incident"](#).

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

U1010 CONTROL UNIT (CAN)

Description

INFOID:000000001835514

Initial diagnosis of unified meter and A/C amp.

DTC Logic

INFOID:000000001835515

DTC DETECTION LOGIC

| DTC | Display contents of CONSULT-III | Diagnostic item is detected when ... | Probable malfunction location |
|-------|---------------------------------|--|-------------------------------|
| U1010 | CONTROL UNIT (CAN) | If any malfunction is detected during initial diagnosis of unified meter and A/C amp. CAN controller | Unified meter and A/C amp. |

Diagnosis Procedure

INFOID:000000001835516

1. REPLACE UNIFIED METER AND A/C AMP.

When DTC "U1010" is detected, replace unified meter and A/C amp.

>> INSPECTION END

B2201 COMMUNICATION ERROR 1

< DTC/CIRCUIT DIAGNOSIS >

B2201 COMMUNICATION ERROR 1

Description

INFOID:000000001835517

The communication line (LCD <-> AMP.) is used to communicate signals between the combination meter and the unified meter and A/C amp. in order to control the information display.

DTC Logic

INFOID:000000001835518

DTC DETECTION LOGIC

| DTC | Display contents of CONSULT-III | Diagnostic item is detected when ... | Probable malfunction location |
|-------|---------------------------------|--|---|
| B2201 | COMM ERROR 1 | If a communication error is present in the communication line (LCD <-> AMP.) for 2 seconds or more | Communication line (LCD <-> AMP.) circuit |

Diagnosis Procedure

INFOID:000000001835519

1. CHECK CONNECTOR

Check combination meter, unified meter and A/C amp. and terminals (combination meter side, unified meter and A/C amp. side, and harness side) for looseness or bent.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair terminal or connector.

2. CHECK CONTINUITY COMMUNICATION CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter connector and unified meter and A/C amp. connector.
3. Check continuity between combination meter harness connector M53 terminals 24, 25 and unified meter and A/C amp. harness connector M66 terminals 14, 34.

24 - 14 : Continuity should exist.

25 - 34 : Continuity should exist.

4. Check continuity between combination meter harness connector M53 terminals 24, 25 and ground.

24, 25 - Ground : Continuity should not exist.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK UNIFIED METER AND A/C AMP. OUTPUT VOLTAGE

1. Connect unified meter and A/C amp. connector.
2. Turn ignition switch ON.
3. Check voltage between unified meter and A/C amp. harness connector M66 terminal 14 and ground.

14 - Ground : Approx 12 V

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace unified meter and A/C amp.

4. CHECK COMBINATION METER OUTPUT VOLTAGE

1. Turn ignition switch OFF.
2. Disconnect unified meter and A/C amp. connector.
3. Connect combination meter connector.
4. Turn ignition switch ON.
5. Check voltage between combination meter harness connector M53 terminal 25 and ground.

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

B2201 COMMUNICATION ERROR 1

< DTC/CIRCUIT DIAGNOSIS >

25 - Ground

: Approx. 5 V

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace combination meter.

B2202 COMMUNICATION ERROR 2

< DTC/CIRCUIT DIAGNOSIS >

B2202 COMMUNICATION ERROR 2

Description

INFOID:000000001835520

The communication line (METER <-> AMP.) is used to communicate signals between the combination meter and the unified meter and A/C amp. in order to control the information display.

DTC Logic

INFOID:000000001835521

DTC DETECTION LOGIC

| DTC | Display contents of CONSULT-III | Diagnostic item is detected when ... | Probable malfunction location |
|-------|---------------------------------|--|---|
| B2202 | COMM ERROR 2 | If a communication error is present in the communication line (METER <-> AMP.) for 2 seconds or more | Communication line (METER <-> AMP.) circuit |

Diagnosis Procedure

INFOID:000000001835522

1. CHECK CONNECTOR

Check combination meter, unified meter and A/C amp. and terminals (combination meter side, unified meter and A/C amp. side, and harness side) for looseness or bent.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair terminal or connector.

2. CHECK CONTINUITY COMMUNICATION CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter connector and unified meter and A/C amp. connector.
3. Check continuity between combination meter harness connector M53 terminals 2, 3 and unified meter and A/C amp. harness connector M66 terminals 27, 7.

2 - 27 : Continuity should exist.

3 - 7 : Continuity should exist.

4. Check continuity between combination meter harness connector M53 terminals 2, 3 and ground.

2, 3 - Ground : Continuity should not exist.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK UNIFIED METER AND A/C AMP. OUTPUT VOLTAGE

1. Turn ignition switch OFF.
2. Disconnect combination meter connector.
3. Connect unified meter and A/C amp. connector.
4. Turn ignition switch ON.
5. Check voltage between unified meter and A/C amp. harness connector M66 terminal 27 and ground.

27 - Ground : Approx. 5 V

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace unified meter and A/C amp.

4. CHECK COMBINATION METER OUTPUT VOLTAGE

1. Turn ignition switch OFF.
2. Disconnect unified meter and A/C amp. connector.
3. Connect combination meter connector.

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

B2202 COMMUNICATION ERROR 2

< DTC/CIRCUIT DIAGNOSIS >

4. Turn ignition switch ON.
5. Check voltage between combination meter harness connector M53 terminal 3 and ground.

3 - Ground : Approx. 5 V

Is the inspection result normal?

- YES >> INSPECTION END
NO >> Replace combination meter.

B2205 VEHICLE SPEED

< DTC/CIRCUIT DIAGNOSIS >

B2205 VEHICLE SPEED

Description

INFOID:000000001835523

Vehicle speed signal is transmitted from ABS actuator and electric unit (control unit) via CAN communication to unified meter and A/C amp.

DTC Logic

INFOID:000000001835524

DTC DETECTION LOGIC

| DTC | Display contents of CONSULT-III | Diagnostic item is detected when ... | Probable malfunction location |
|-------|---------------------------------|--|--|
| B2205 | VEHICLE SPEED | If the abnormal vehicle speed signal is input from ABS actuator and electric unit (control unit) for 2 seconds or more | <ul style="list-style-type: none">• Wheel sensor• ABS actuator and electric unit (control unit) |

Diagnosis Procedure

INFOID:000000001835525

1. PERFORM SELF-DIAGNOSIS OF ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

Perform "Self Diagnostic Result" of ABS actuator and electric unit (control unit), and repair or replace malfunctioning parts.

>> Refer to [BRC-26, "CONSULT-III Function"](#).

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

B2267 ENGINE SPEED

< DTC/CIRCUIT DIAGNOSIS >

B2267 ENGINE SPEED

Description

INFOID:000000001835526

The engine speed signal is transmitted from ECM to the unified meter and A/C amp. with CAN communication.

DTC Logic

INFOID:000000001835527

DTC DETECTION LOGIC

| DTC | Display contents of CONSULT-III | Diagnostic item is detected when ... | Probable malfunction location |
|-------|---------------------------------|---|--|
| B2267 | ENGINE SPEED | If ECM continuously transmits abnormal engine speed signals for 2 seconds or more | <ul style="list-style-type: none">• Crankshaft position sensor (POS)• ECM |

Diagnosis Procedure

INFOID:000000001835528

1. PERFORM SELF-DIAGNOSIS OF ECM

Perform "Self Diagnostic Result" of ECM, and repair or replace malfunctioning parts.

>> Refer to [EC-113. "CONSULT-III Function"](#).

B2268 WATER TEMP

< DTC/CIRCUIT DIAGNOSIS >

B2268 WATER TEMP

Description

INFOID:000000001835529

The engine coolant temperature signal is transmitted from ECM to the unified meter and A/C amp. via CAN communication.

DTC Logic

INFOID:000000001835530

DTC DETECTION LOGIC

| DTC | Display contents of CONSULT-III | Diagnostic item is detected when ... | Probable malfunction location |
|-------|---------------------------------|--|---|
| B2268 | WATER TEMP | If ECM continuously transmits abnormal engine coolant temperature signals for 60 seconds or more | <ul style="list-style-type: none">• Engine coolant temperature sensor• ECM |

Diagnosis Procedure

INFOID:000000001835531

1. PERFORM SELF-DIAGNOSIS OF ECM

Perform "Self Diagnosis Result" of ECM, and repair or replace malfunctioning parts.

>> Refer to [EC-113. "CONSULT-III Function"](#).

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT COMBINATION METER

COMBINATION METER : Diagnosis Procedure

INFOID:000000001835532

1.CHECK FUSE

Check for blown fuses.

| Power source | Fuse No. |
|-----------------------------|----------|
| Battery | 11 |
| Ignition switch ON or START | 4 |

Is the inspection result normal?

YES >> GO TO 2.

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

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between combination meter harness connector M53 terminals 1, 21 and ground.

| Terminal No. | Signal name | Ignition switch position | Value (Approx.) |
|--------------|----------------------|--------------------------|-----------------|
| 1 | Battery power supply | OFF | Battery voltage |
| 21 | Ignition signal | ON | Battery voltage |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check harness between combination meter and fuse.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter connector.
3. Check continuity between combination meter harness connector M53 terminals 5, 15, 22 and ground.

5, 15, 22 - Ground : Continuity should exist.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

UNIFIED METER AND A/C AMP.

UNIFIED METER AND A/C AMP. : Diagnosis Procedure

INFOID:000000001835533

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 |

Is the inspection result normal?

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 M67 terminals 54, 41, 53 and ground.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

| Terminal No. | Signal name | Ignition switch position | Value (Approx.) |
|--------------|----------------------|--------------------------|-----------------|
| 54 | Battery power supply | OFF | Battery voltage |
| 41 | ACC power supply | ACC | Battery voltage |
| 53 | Ignition signal | ON | Battery voltage |

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

- Turn ignition switch OFF.
- Disconnect unified meter and A/C amp. connector.
- Check continuity between unified meter and A/C amp. harness connector M67 terminals 55, 71 and ground.

55, 71 - Ground : Continuity should exist.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:000000003038041

1.CHECK FUSE AND FUSIBLE LINK

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

| Signal name | Fuse and fusible link No. |
|----------------------|---------------------------|
| Battery power supply | M |
| | 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

- Turn ignition switch OFF.
- Disconnect BCM connectors.
- Check voltage between BCM harness connector and ground.

| Terminals | | Voltage (Approx.) |
|-----------|----------|---------------------------|
| (+) | (-) | |
| BCM | | Ground Battery voltage |
| Connector | Terminal | |
| M118 | 1 | |
| M119 | 11 | |

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.

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

| BCM | | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | | Existed |
| M119 | 13 | | |

Does continuity exist?

- YES >> INSPECTION END
NO >> Repair harness or connector.

BCM (BODY CONTROL MODULE) : Special Repair Requirement

INFOID:000000001835535

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to CONSULT-III operation manual NATS-IVIS/NVIS.

>> Work end.

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) : Diagnosis Procedure

INFOID:000000003038042

1. CHECK FUSES AND FUSIBLE LINK

Check that the following IPDM E/R fuses or fusible links are not blown.

| Signal name | Fuses and fusible link No. |
|----------------------|----------------------------|
| Battery power supply | C |
| | 50 |
| | 51 |

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 IPDM E/R connector.
3. Check voltage between IPDM E/R harness connector and ground.

| Terminals | | Voltage (Approx.) |
|-----------|----------|-------------------|
| (+) | (-) | |
| IPDM E/R | | Battery voltage |
| Connector | Terminal | |
| E4 | 1 | |
| | 2 | |

Is the measurement value normal?

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

3. CHECK GROUND CIRCUIT

Check continuity between IPDM E/R harness connectors and ground.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

| IPDM E/R | | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | | |
| E5 | 12 | | Existed |
| E6 | 41 | | |

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

A

B

C

D

E

F

G

H

I

J

K

L

M

MWI

O

P

FUEL LEVEL SENSOR SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

FUEL LEVEL SENSOR SIGNAL CIRCUIT

Description

INFOID:000000001835537

The fuel level sensor unit and fuel pump (main) and the fuel level sensor unit (sub) detect the fuel level in the fuel tank and transmit the fuel gauge signal to the unified meter and A/C amp.

Component Function Check

INFOID:000000001835538

1. CHECK UNIFIED METER AND A/C AMP. OUTPUT SIGNAL

Select the "Data Monitor" for the "METER/M&A" and compare the "FUEL METER" monitor value with the fuel gauge reading on the combination meter.

| Fuel gauge pointer | Reference value of data monitor [lit.] |
|--------------------|--|
| Full | Approx. 68.8 |
| Three quarters | Approx. 60 |
| Half | Approx. 39.2 |
| A quarter | Approx. 20.8 |
| Empty | Approx. 5.6 |

Does monitor value match fuel gauge reading?

- YES >> INSPECTION END
NO >> Replace combination meter.

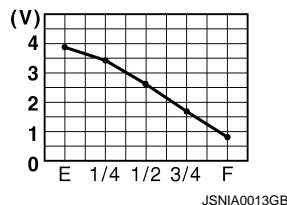
Diagnosis Procedure

INFOID:000000001835539

1. CHECK UNIFIED METER AND A/C AMP. INPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between unified meter and A/C amp. harness connector M67 terminal 42 and ground.

42 - Ground:



Does it match fuel gauge reading?

- YES >> GO TO 2.
NO >> Replace the unified meter and A/C amp.

2. CHECK FUEL LEVEL SENSOR (SUB) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect unified meter and A/C amp. connector and fuel level sensor unit (sub) connector.
3. Check continuity between unified meter and A/C amp. harness connector M67 terminal 42 and fuel level sensor unit (sub) harness connector B21 terminal 1.

42 - 1 : Continuity should exist.

4. Check continuity between unified meter and A/C amp. harness connector M67 terminal 42 and ground.

42 - Ground : Continuity should not exist.

Is the inspection result normal?

- OK >> GO TO 3.
NG >> Repair harness or connector.

3. CHECK FUEL LEVEL SENSOR (MAIN-SUB) CIRCUIT

FUEL LEVEL SENSOR SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

1. Disconnect fuel level sensor unit and fuel pump (main) connector.
2. Check continuity between fuel level sensor unit (sub) harness connector B21 terminal 2 and fuel level sensor unit and fuel pump (main) harness connector B22 terminal 2.

2 - 2 : Continuity should exist.

3. Check continuity between fuel level sensor unit (sub) harness connector B21 terminal 2 and ground.

2 - Ground : Continuity should not exist.

Is the inspection result normal?

OK >> GO TO 4.

NG >> Repair harness or connector.

4. CHECK FUEL LEVEL SENSOR (MAIN) CIRCUIT

Check continuity between fuel level sensor unit and fuel pump (main) harness connector B22 terminal 5 and unified meter and A/C amp. harness connector M67 terminal 58.

5 - 58 : Continuity should exist.

Is the inspection result normal?

OK >> GO TO 5.

NG >> Repair harness or connector.

5. CHECK INSTALLATION CONDITION

Check fuel level sensor unit installation, and check whether the float arm interferes or binds with any of the internal components in the fuel tank.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Install the fuel level sensor unit properly.

Component Inspection

INFOID:000000001835540

1. REMOVE FUEL LEVEL SENSOR UNIT

Remove the fuel level sensor unit. Refer to [FL-5, "Removal and Installation"](#).

>> GO TO 2.

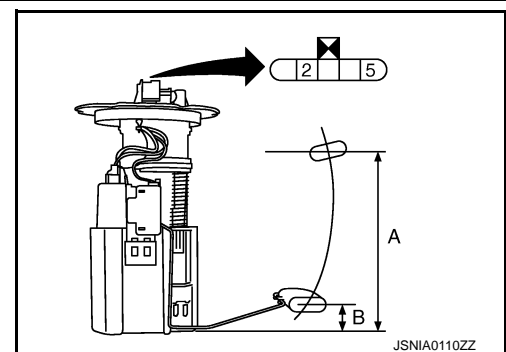
2. CHECK FUEL LEVEL SENSOR UNIT AND FUEL PUMP (MAIN)

Check the resistance between fuel level sensor unit and fuel pump (main).

2 - 5

Full : Approx. 3 Ω

Empty : Approx. 80 Ω



Standard float position

Full (A) [mm (in)] : Approx. 210 (8.27)

Empty (B) [mm (in)] : Approx. 30 (1.18)

Is inspection result OK?

YES >> GO TO 3.

NO >> Replace fuel level sensor unit and fuel pump (main).

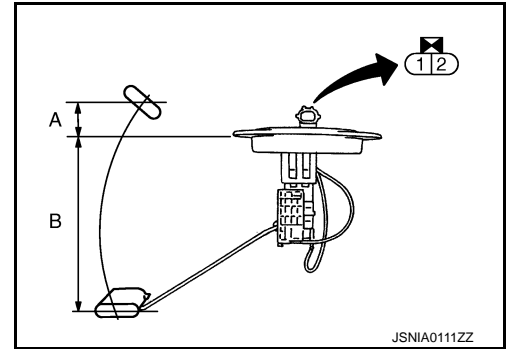
3. CHECK FUEL LEVEL SENSOR UNIT (SUB)

FUEL LEVEL SENSOR SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Inspect the resistance of fuel level sensor unit (sub).

| | |
|-------|-----------------------|
| 1 - 2 | |
| Full | : Approx. 3 Ω |
| Empty | : Approx. 43 Ω |



| | |
|-------------------------|----------------------|
| Standard float position | |
| Full (A) [mm (in)] | : Approx. 9 (0.35) |
| Empty (B) [mm (in)] | : Approx. 179 (7.05) |

Is inspection result OK?

- YES >> INSPECTION END
- NO >> Replace fuel level sensor unit (sub).

METER CONTROL SWITCH SIGNAL CIRCUIT





< DTC/CIRCUIT DIAGNOSIS >

METER CONTROL SWITCH SIGNAL CIRCUIT

Description

INFOID:000000001835541

Transmits the following signals to the combination meter.





-  (Illumination control) switch signal (+)
-  (Illumination control) switch signal (-)
- Trip A/B reset switch signal
-  (select) switch signal
-  (enter) switch is pressed

Diagnosis Procedure

INFOID:000000001835542

1. CHECK METER CONTROL SWITCH INPUT SIGNAL

1. Turn the ignition switch ON.
2. Measure voltage between the following terminals of the combination meter.

| Terminal No. | Condition | Voltage |
|--------------|---|---------|
| 36 - 16 | When  (select) switch is pressed | 0 V |
| | Other than the above | 5 V |
| 37 - 16 | When  (enter) switch is pressed | 0 V |
| | Other than the above | 5 V |
| 38 - 16 | When trip A/B reset switch is pressed | 0 V |
| | Other than the above | 5 V |
| 39 - 16 | When  (illumination control) switch is pressed | 0 V |
| | Other than the above | 5 V |
| 40 - 16 | When  (illumination control) switch is pressed | 0 V |
| | Other than the above | 5 V |

Is the inspection result normal?

- YES >> INSPECTION END
NO >> GO TO 2.

2. CHECK METER CONTROL SWITCH SIGNAL CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect the combination meter and meter control switch connectors.
3. Check continuity between combination meter harness connector M53 terminals 16, 36, 37, 39, 40, 38 and meter control switch harness connector M54 terminals 7, 2, 1, 10, 9, 5.

- 16 - 7 : Continuity should exist.
- 36 - 2 : Continuity should exist.
- 37 - 1 : Continuity should exist.
- 39 - 10 : Continuity should exist.
- 40 - 9 : Continuity should exist.
- 38 - 5 : Continuity should exist.

4. Check continuity between combination meter harness connector M53 terminals 16, 36, 37, 39, 40, 38 and ground.

- 16 - Ground : Continuity should not exist.
- 36 - Ground : Continuity should not exist.

METER CONTROL SWITCH SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

37 - Ground : Continuity should not exist.
 39 - Ground : Continuity should not exist.
 40 - Ground : Continuity should not exist.
 38 - Ground : Continuity should not exist.

Is the inspection result normal?





YES >> INSPECTION END
 NO >> Repair harness or connector.

Component Inspection

INFOID:000000001835543

1. CHECK METER CONTROL SWITCH UNIT

1. Turn the ignition switch OFF.
2. Disconnect the meter control switch connector.
3. Check continuity between the following terminals of the meter control switch.

| Connector | Terminal No. | | Operation and status | Continuity |
|-----------|--------------|---|---|-------------|
| M54 | 2 | 7 | Press  (select) switch | Existed |
| | | | Other than the above | Not existed |
| | 1 | 7 | Press  (enter) switch | Existed |
| | | | Other than the above | Not existed |
| | 5 | 7 | Press the trip A/B reset switch. | Existed |
| | | | Other than the above | Not existed |
| | 10 | 7 | Press  - (illumination control) switch | Existed |
| | | | Other than the above | Not existed |
| | 9 | 7 | Press  + (illumination control) switch | Existed |
| | | | Other than the above | Not existed |

Is inspection result OK?

YES >> INSPECTION END
 NO >> Replace the meter control switch.

OIL PRESSURE SWITCH SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

OIL PRESSURE SWITCH SIGNAL CIRCUIT

Description

INFOID:000000001835544

Detects the engine oil pressure and transmits the oil pressure switch signal to IPDM E/R.

Component Function Check

INFOID:000000001835545

1. CHECK UNIFIED METER AND A/C AMP. INPUT SIGNAL

Select the "Data Monitor" for the "METER/M&A" and check the "OIL W/L" monitor value.

"OIL W/L"

Ignition switch ON : ON
Engine running : OFF

>> INSPECTION END

Diagnosis Procedure

INFOID:000000001835546

1. CHECK OIL PRESSURE SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector and oil pressure switch connector.
3. Check continuity between IPDM E/R harness connector E6 terminal 75 and oil pressure switch harness connector F37 terminal 1.

75 - 1 : Continuity should exist.

4. Check continuity between IPDM E/R harness connector E6 terminal 75 and ground.

75 - Ground : Continuity should not exist.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair harness or connector.

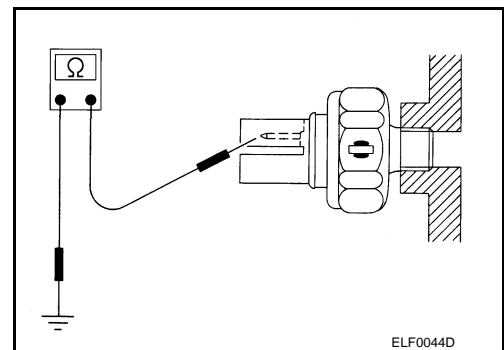
Component Inspection

INFOID:000000001835547

1. CHECK OIL PRESSURE SWITCH UNIT

Check continuity between oil pressure switch and ground.

| Condition | Oil pressure [kPa (kg/cm ² , psi)] | Continuity |
|----------------|---|-------------|
| Engine stopped | Less than 29 (0.3, 4) | Existed |
| Engine running | 29 or more (0.3, 4) | Not existed |



Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the oil pressure switch.

PARKING BRAKE SWITCH SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

PARKING BRAKE SWITCH SIGNAL CIRCUIT

Description

INFOID:000000001835548

Transmits the parking brake switch signal to the combination meter.

Diagnosis Procedure (A/T model)

INFOID:000000001835549

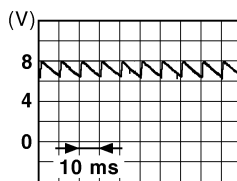
1. CHECK COMBINATION METER INPUT SIGNAL

1. Turn ignition switch ON.
2. Check the voltage and waveform between combination meter harness connector M53 terminal 27 and ground.

27 - Ground

Parking brake ON: Approx. 0 V

Parking brake OFF:



JSNIA0007GB

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2. CHECK PARKING BRAKE SWITCH SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter connector and parking brake switch connector.
3. Check continuity between combination meter harness connector M53 terminal 27 and parking brake switch harness connector E107 terminal 1.

27 - 1 : Continuity should exist.

4. Check continuity between combination meter harness connector M53 terminal 27 and ground.

27 - Ground : Continuity should not exist.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

Diagnosis Procedure (M/T model)

INFOID:000000001835550

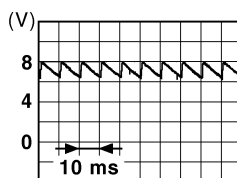
1. CHECK COMBINATION METER INPUT SIGNAL

1. Turn ignition switch ON.
2. Check the voltage and waveform between combination meter harness connector M53 terminal 27 and ground.

27 - Ground

Parking brake ON : Approx. 0 V

Parking brake OFF :



JSNIA0007GB

PARKING BRAKE SWITCH SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

- YES >> INSPECTION END
NO >> GO TO 2.

A

2.CHECK PARKING BRAKE SWITCH SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter connector and parking brake switch connector.
3. Check continuity between combination meter harness connector M53 terminal 27 and parking brake switch harness connector B14 terminal 1.

B

27 - 1 : Continuity should exist.

C

4. Check continuity between combination meter harness connector M53 terminal 27 and ground.

D

27 - Ground : Continuity should not exist.

Is the inspection result normal?

- YES >> INSPECTION END
NO >> Repair harness or connector.

E

Component Inspection

INFOID:000000001835551

F

1.CHECK PARKING BRAKE SWITCH

Check parking brake switch. Refer to [BRC-72. "Component Inspection"](#).

G

Is the inspection result normal?

- YES >> INSPECTION END
NO >> Replace parking brake switch.

H

I

J

K

L

M

MWI

O

P

WASHER LEVEL SWITCH SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

WASHER LEVEL SWITCH SIGNAL CIRCUIT

Description

INFOID:000000001835552

Transmits the washer level switch signal to the combination meter.

Diagnosis Procedure

INFOID:000000001835553

1. CHECK WASHER LEVEL SWITCH SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter connector and washer level switch connector.
3. Check continuity between combination meter harness connector M53 terminal 31 and washer level switch harness connector E32 terminal 1.

31 - 1 : Continuity should exist.

4. Check continuity between combination meter harness connector M53 terminal 31 and ground.

31 - Ground : Continuity should not exist.

Is the inspection result normal?

- YES >> INSPECTION END
NO >> Repair harness or connector.

Component Inspection

INFOID:000000001835554

1. CHECK WASHER LEVEL SWITCH

1. Turn ignition switch OFF.
2. Disconnect washer level switch connector.
3. Check washer level switch.

| Terminal | Washer level switch | Continuity |
|----------|---------------------|-------------|
| 1 - 2 | ON | Existed |
| | OFF | Not existed |

Is the inspection result normal?

- YES >> INSPECTION END
NO >> Replace washer level switch. Refer to [WW-87, "Removal and Installation"](#).

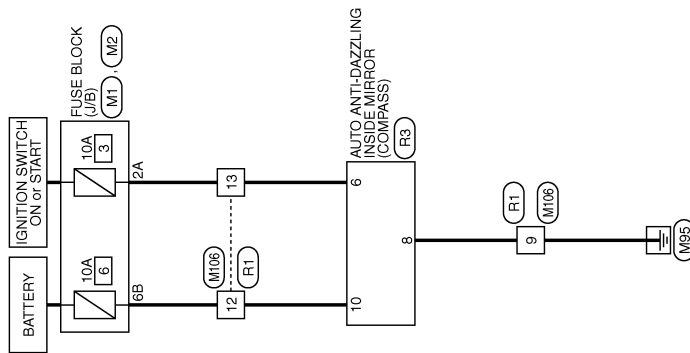
COMPASS

< DTC/CIRCUIT DIAGNOSIS >

COMPASS

Wiring Diagram - COMPASS -

INFOID:000000001835555



COMPASS

2006/09/15

JCNWA0012GB

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

MWI

COMPASS

< DTC/CIRCUIT DIAGNOSIS >

COMPASS

| | |
|----------------|------------------|
| Connector No. | M1 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NSJ06FW-M2 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 2A | G | - |

| | |
|----------------|------------------|
| Connector No. | M2 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NSJ06FW-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 6B | Y | - |

| | |
|----------------|--------------|
| Connector No. | M106 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TK10MW-NS5 |



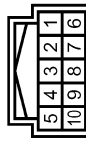
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 9 | B | - |
| 12 | Y | - |
| 13 | P | - |

| | |
|----------------|--------------|
| Connector No. | R1 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TK10FW-NS5 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 9 | B | - |
| 12 | G | - |
| 13 | BR | - |

| | |
|----------------|----------------------------------|
| Connector No. | R3 |
| Connector Name | AUTO ANTI-DAZZLING INSIDE MIRROR |
| Connector Type | THJ0FB-NH1 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 6 | BR | IGN |
| 8 | B | GND |
| 10 | G | BAT |

JCNWA0509GB

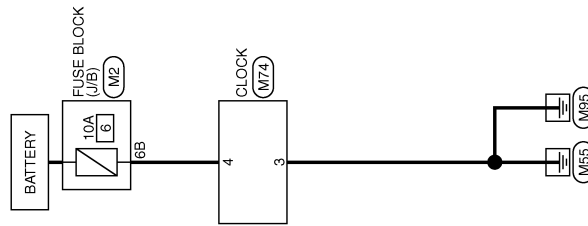
CLOCK

< DTC/CIRCUIT DIAGNOSIS >

CLOCK

Wiring Diagram - CLOCK -

INFOID:000000001835556



CLOCK

2006/09/15

JCNWA0014GB

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

CLOCK

< DTC/CIRCUIT DIAGNOSIS >

CLOCK

| | |
|----------------|------------------|
| Connector No. | M2 |
| Connector Name | FUSE BLOCK (L/E) |
| Connector Type | HS10FW-GS |



| | | | |
|-----------------------------|----|---|---|
| Terminal No. | 6B | Y | — |
| Color of Wire | Y | — | — |
| Signal Name [Specification] | | | |

| | |
|----------------|-----------|
| Connector No. | M74 |
| Connector Name | CLOCK |
| Connector Type | TH04FW-NH |



| | | | |
|-----------------------------|-----|---|-----|
| Terminal No. | 3 | B | |
| Color of Wire | B | | |
| Signal Name [Specification] | GND | | |
| Terminal No. | 4 | Y | BAT |
| Color of Wire | Y | | |
| Signal Name [Specification] | BAT | | |

JCNWA0510GB

COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

COMBINATION METER

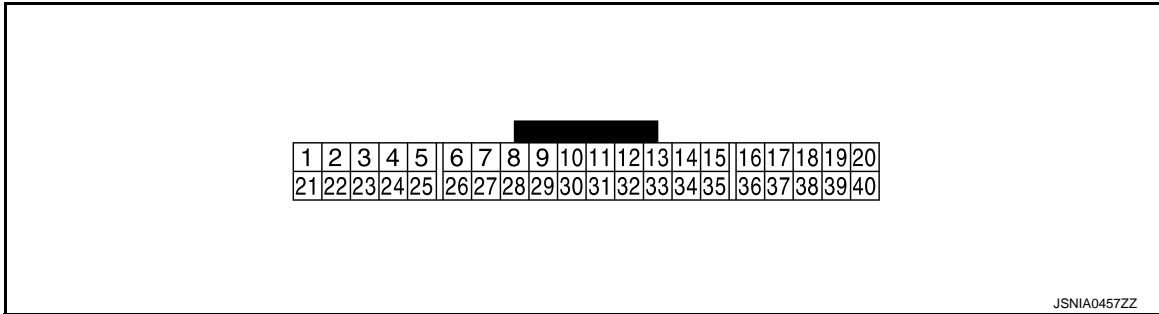
Reference Value

INFOID:000000001835557

VALUES ON THE DIAGNOSIS TOOL

Refer to [MWI-81, "Reference Value"](#).

TERMINAL LAYOUT



PHYSICAL VALUES

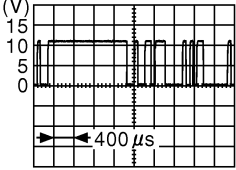
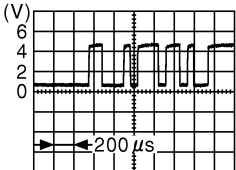
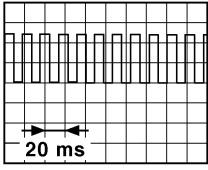
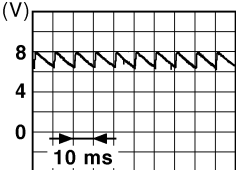
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|--|--------|---------------------------------------|------------------|---------------------------|---------------------------|---|
| + | - | Signal name | Input/ Output | | | |
| 1 (GR) ^{*1} (V) ^{*2} | Ground | Battery power supply | Input | Ignition switch OFF | — | Battery voltage |
| 2 (LG) | Ground | Communication signal (METER→ AMP.) | Output | Ignition switch ON | — | <p style="text-align: right; font-size: x-small;">JSNIA0027GB</p> |
| 3 (GR) | Ground | Communication signal (AMP.→ METER) | Input | Ignition switch ON | — | <p style="text-align: right; font-size: x-small;">JSNIA0027GB</p> |
| 5 (B) | Ground | Ground | — | Ignition switch ON | — | 0 V |
| 6 (W) | Ground | Alternator signal | Input | Ignition switch ON | Charge warning lamp ON | 0 V |
| | | | | | Charge warning lamp OFF | 12 V |
| 7 (LG) | Ground | Air bag signal | Input | Ignition switch ON | Air bag warning lamp ON | 4 V |
| | | | | | Air bag warning lamp OFF | 0 V |
| 10 (G) | Ground | Security signal | Input | Ignition switch OFF | Security warning lamp ON | 0 V |
| | | | | | Security warning lamp OFF | 12 V |

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

MWI

COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|--|--------|-------------------------------------|------------------|--------------------------|---|---|
| + | - | Signal name | Input/ Output | | | |
| 15 (B) | Ground | Ground | — | Ignition switch ON | — | 0 V |
| 16 (B) | Ground | Meter control switch ground | — | Ignition switch ON | — | 0 V |
| 21 (R) | Ground | Ignition signal | Input | Ignition switch ON | — | 12 V |
| 22 (B) | Ground | Ground | — | Ignition switch ON | — | 0 V |
| 24 (BR) | Ground | Communication signal (LCD→ AMP.) | Output | Ignition switch ON | — |  <small>JSNIA0028GB</small> |
| 25 (Y) | Ground | Communication signal (AMP.→ LCD) | Input | Ignition switch ON | — |  <small>JSNIA0027GB</small> |
| 26 (R) | Ground | Vehicle speed signal (8-pulse) | Input | Ignition switch ON | Speedometer operated [When vehicle speed is ap- prox. 40 km/h (25 MPH)] | <p>NOTE: The maximum voltage varies de- pending on the specification (destination unit).</p>  <small>JSNIA0012GB</small> |
| 27 (V) ^{*1} (O) ^{*2} | Ground | Parking brake switch signal | Input | Ignition switch ON | Parking brake ON | 0 V |
| | | | | | Parking brake OFF |  <small>JSNIA0007GB</small> |

COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|-----------|---|------------------|--------------------|--|---|
| + | - | Signal name | Input/ Output | | | |
| 28 (W) ^{*1} (SB) ^{*2} | Ground | Brake fluid level switch signal | Input | Ignition switch ON | Brake fluid level is normal. | |
| | | | | | The brake fluid level is lower than the low level | 0 V |
| 29 (SB) ^{*1} (L) ^{*2} | Ground | Seat belt buckle switch signal (driver side) | Input | Ignition switch ON | When driver seat belt is fastened | 12 V |
| | | | | | When driver seat belt is unfastened | 0 V |
| 30 (G) | Ground | Seat belt buckle switch signal (passenger side) | Input | Ignition switch ON | <ul style="list-style-type: none"> • When getting in the passenger seat • When passenger seat belt is fastened | 12 V |
| | | | | | <ul style="list-style-type: none"> • When getting in the passenger seat • When passenger seat belt is unfastened | 0 V |
| 31 (L) | Ground | Washer level switch signal | Input | Ignition switch ON | Washer level switch ON | 0 V |
| | | | | | Washer level switch OFF | 5 V |
| 34 (R) | Ground | Illumination control signal | Output | Ignition switch ON | Lighting switch ON, then operate the illumination control switch. | <p>NOTE: When brightness level is midway</p> |
| 36 (LG) | 16 (B) | Select switch signal | Input | Ignition switch ON | When is pressed | 0 V |
| | | | | | Other than the above | 5 V |
| 37 (SB) | 16 (B) | Enter switch signal | Input | Ignition switch ON | When is pressed | 0 V |
| | | | | | Other than the above | 5 V |
| 38 (L) | 16 (B) | Trip A/B reset switch signal | Input | Ignition switch ON | When trip A/B reset switch is pressed | 0 V |
| | | | | | Other than the above | 5 V |
| 39 (P) | 16 (B) | Illumination control switch signal (-) | Input | Ignition switch ON | When switch is pressed | 0 V |
| | | | | | Other than the above | 5 V |
| 40 (O) | 16 (B) | Illumination control switch signal (+) | Input | Ignition switch ON | When switch is pressed | 0 V |
| | | | | | Other than the above | 5 V |

- *1: M/T models
- *2: A/T models

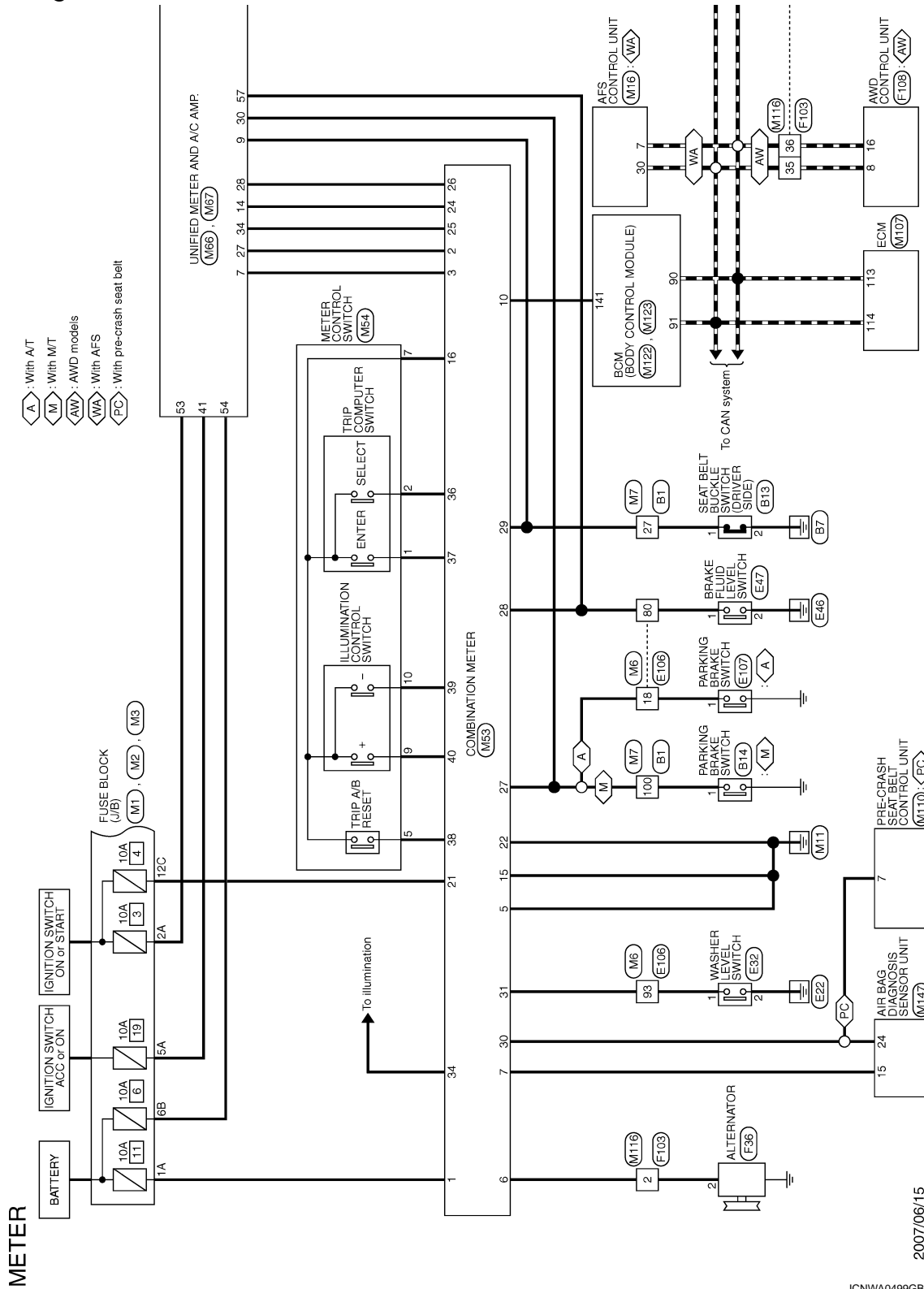
A
B
C
D
E
F
G
H
I
J
K
L
M
MWI
O
P

COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

Wiring Diagram - METER -

INFOID:000000001835558



2007/06/15

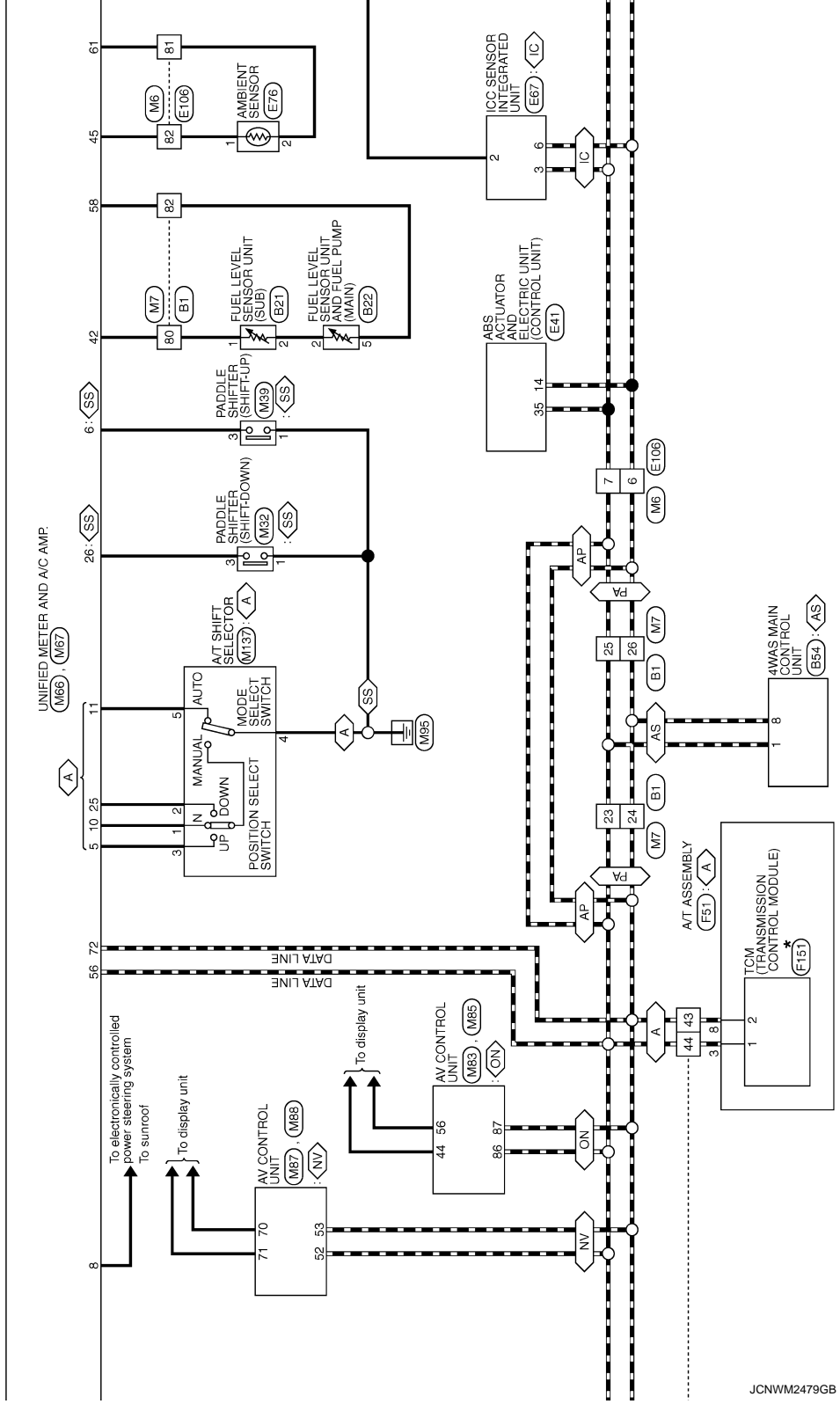
JCNWA0499GB

COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

- : With A/T
- : With NAVI
- : Without NAVI
- : With ICC
- : With 4WAS
- : With automatic drive positioner or 4WAS
- : Without automatic drive positioner and 4WAS
- : With paddle shifter switch

*: This connector is not shown in "Harness Layout".



JCNWM2479GB

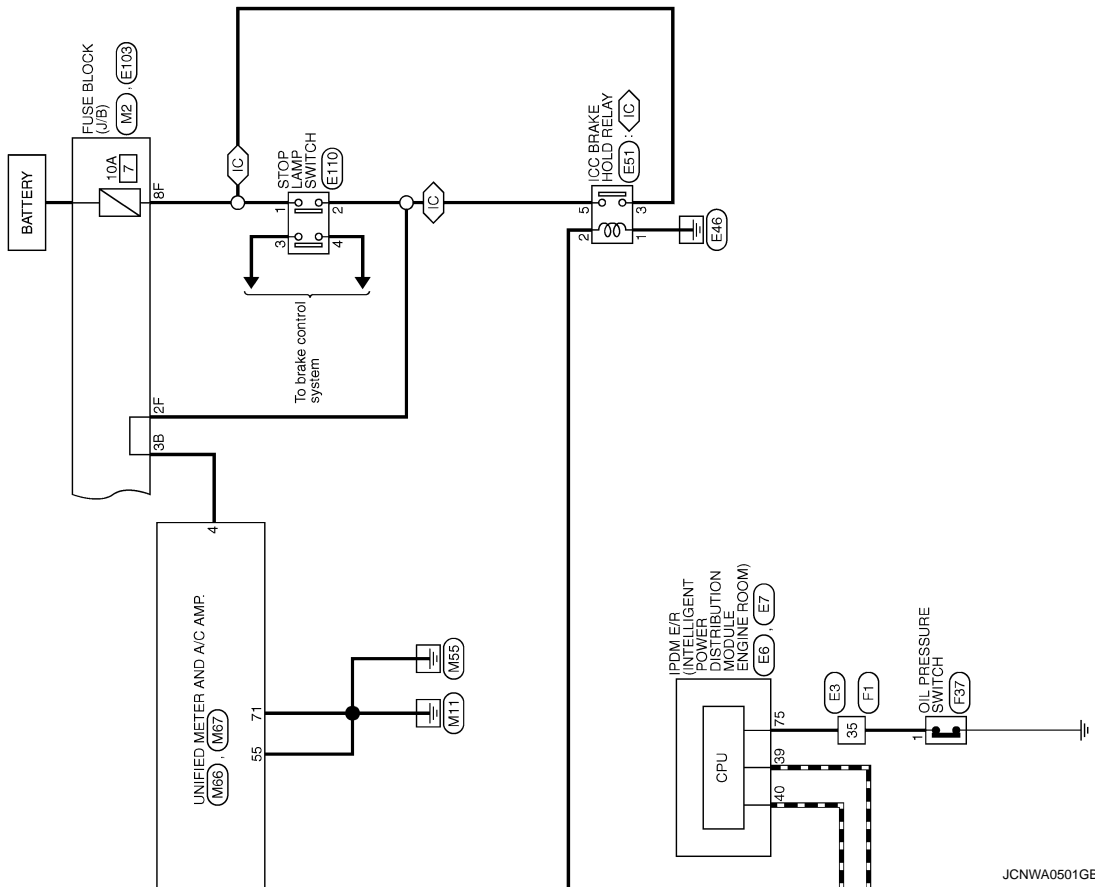
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

MWI

COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

◊ : With ICC


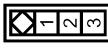



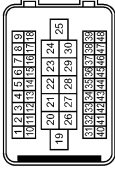





JCNWA0501GB

COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

METER

| | | | | | |
|----------------------|--|---|--------------|---------------|-----------------------------|
| Connector No. BI | WIRE TO WIRE TH8DFW-GS16-TM4 |  | Terminal No. | Color of Wire | Signal Name [Specification] |
| Connector Name | | | 23 | L | - |
| Connector Type | | | 24 | P | - |
| | | | 25 | L | - |
| | | | 26 | P | - |
| | | | 27 | SB | - |
| | | | 80 | Y | - |
| | | | 82 | B | - |
| | | | 100 | V | - |
| Connector No. B1 | SEAT BELT BUCKLE SWITCH (DRIVER SIDE) A03FW |  | Terminal No. | Color of Wire | Signal Name [Specification] |
| Connector Name | | | 1 | SB | - |
| Connector Type | | | 2 | B | - |
| | | | 3 | - | - |
| Connector No. B13 | PARKING BRAKE SWITCH (M/T) P01FB-A |  | Terminal No. | Color of Wire | Signal Name [Specification] |
| Connector Name | | | 1 | V | - |
| Connector Type | | | | | |
| Connector No. B21 | FUEL LEVEL SENSOR UNIT (SUB) E02FGY-RS |  | Terminal No. | Color of Wire | Signal Name [Specification] |
| Connector Name | | | 1 | Y | - |
| Connector Type | | | 2 | W | - |
| Connector No. B22 | FUEL LEVEL SENSOR UNIT AND FUEL PUMP (MAIN) E03FGY-RS |  | Terminal No. | Color of Wire | Signal Name [Specification] |
| Connector Name | | | 2 | W | - |
| Connector Type | | | 5 | B | - |
| Connector No. E3 | WIRE TO WIRE SAA38MB-RS10-SJ22 |  | Terminal No. | Color of Wire | Signal Name [Specification] |
| Connector Name | | | 35 | Y | - |
| Connector Type | | | | | |
| Connector No. E6 | INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM) TH8DFW-NH |  | Terminal No. | Color of Wire | Signal Name [Specification] |
| Connector Name | | | 39 | P | - |
| Connector Type | | | 40 | L | - |
| Connector No. E8 | 4WAS MAIN CONTROL UNIT A38FW-M4 |  | Terminal No. | Color of Wire | Signal Name [Specification] |
| Connector Name | | | 1 | L | CAN-H |
| Connector Type | | | 8 | P | CAN-L |
| Connector No. E8 | FUEL LEVEL SENSOR UNIT AND FUEL PUMP (MAIN) E03FGY-RS |  | Terminal No. | Color of Wire | Signal Name [Specification] |
| Connector Name | | | 2 | W | - |
| Connector Type | | | 5 | B | - |

JCNWA0502GB

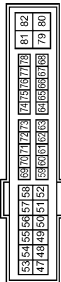
A
B
C
D
E
F
G
H
I
J
K
L
M
MWI
O
P

COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

METER

| | |
|----------------|--|
| Connector No. | E7 |
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | TH02FW-GS12-44 |



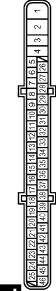
| | | | |
|---------------|----|---|-----------------------------|
| Terminal No. | 75 | Y | Signal Name [Specification] |
| Color of Wire | | | |
| | | | |

| | |
|----------------|---------------------|
| Connector No. | E32 |
| Connector Name | WASHER LEVEL SWITCH |
| Connector Type | Z02EBR |



| | | | |
|---------------|---|----|-----------------------------|
| Terminal No. | 1 | LG | Signal Name [Specification] |
| Color of Wire | | | |
| | 2 | B | |

| | |
|----------------|---|
| Connector No. | E41 |
| Connector Name | ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) |
| Connector Type | BA442FB-AH24-LH |



| | | | |
|---------------|----|---|-----------------------------|
| Terminal No. | 14 | P | Signal Name [Specification] |
| Color of Wire | | | |
| | 35 | L | CAN-L |
| | | | CAN-H |

| | |
|----------------|--------------------------|
| Connector No. | E47 |
| Connector Name | BRAKE FLUID LEVEL SWITCH |
| Connector Type | Y102EGY |



| | | | |
|---------------|---|-----|-----------------------------|
| Terminal No. | 1 | W | Signal Name [Specification] |
| Color of Wire | | | |
| | 2 | B/W | |

| | |
|----------------|----------------------|
| Connector No. | E51 |
| Connector Name | ICC BRAKE HOLD RELAY |
| Connector Type | MS02FL-M2 |



| | | | |
|---------------|---|---|-----------------------------|
| Terminal No. | 1 | B | Signal Name [Specification] |
| Color of Wire | | | |
| | 2 | V | |
| | 3 | R | |
| | 5 | P | |

| | |
|----------------|----------------------------|
| Connector No. | E67 |
| Connector Name | ICC SENSOR INTEGRATED UNIT |
| Connector Type | RS06FB-PR |



| | | | |
|---------------|---|---|-----------------------------|
| Terminal No. | 2 | V | Signal Name [Specification] |
| Color of Wire | | | |
| | 3 | L | BRK LMP RLY |
| | 6 | P | CAN-H |
| | | | CAN-L |

| | |
|----------------|----------------|
| Connector No. | E76 |
| Connector Name | AMBIENT SENSOR |
| Connector Type | RS02FB |



| | | | |
|---------------|---|---|-----------------------------|
| Terminal No. | 1 | G | Signal Name [Specification] |
| Color of Wire | | | |
| | 2 | P | |

| | |
|----------------|------------------|
| Connector No. | E103 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS16FY-CS |



| | | | |
|---------------|----|---|-----------------------------|
| Terminal No. | 2F | W | Signal Name [Specification] |
| Color of Wire | | | |
| | 8F | L | |

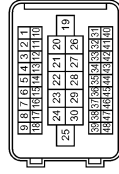
JCNWA0503GB

COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

METER

| | |
|----------------|-------------------|
| Connector No. | F1 |
| Connector Name | WIRE TO WIRE |
| Connector Type | SAA36FB-7S10-SJZZ |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 35 | Y | - |

| | |
|----------------|------------------|
| Connector No. | E110 |
| Connector Name | STOP LAMP SWITCH |
| Connector Type | MDAFW-LC |



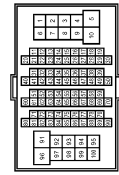
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | L | - |
| 2 | W | - |
| 3 | L | - |
| 4 | SB | - |

| | |
|----------------|----------------------------|
| Connector No. | E107 |
| Connector Name | PARKING BRAKE SWITCH (A/T) |
| Connector Type | TB01FW |



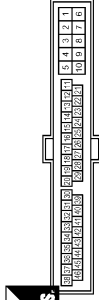
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | O | - |

| | |
|----------------|-----------------|
| Connector No. | E106 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH00FW-GS16-TM4 |



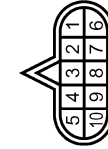
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 6 | P | - |
| 7 | L | - |
| 18 | O | - |
| 80 | W | - |
| 81 | P | - |
| 82 | G | - |
| 93 | LG | - |

| | |
|----------------|--------------|
| Connector No. | F103 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TK36FW-NS10 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 2 | G | - |
| 35 | L | - |
| 36 | P | - |
| 43 | P | - |
| 44 | L | - |

| | |
|----------------|--------------|
| Connector No. | F51 |
| Connector Name | A/T ASSEMBLY |
| Connector Type | PK10FG-DGY |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 3 | L | - |
| 8 | P | - |

| | |
|----------------|---------------------|
| Connector No. | F37 |
| Connector Name | OIL PRESSURE SWITCH |
| Connector Type | ED1FGY-7S-AR |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | Y | - |

| | |
|----------------|------------|
| Connector No. | F36 |
| Connector Name | ALTERNATOR |
| Connector Type | 7S03FB |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 2 | G | L |

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P



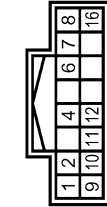
JCNWA0504GB

COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

METER

| | |
|----------------|------------------|
| Connector No. | F108 |
| Connector Name | AWD CONTROL UNIT |
| Connector Type | TH16FW-NH |



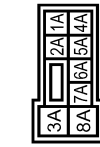
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 8 | L | CAN-H |
| 16 | P | CAN-L |

| | |
|----------------|-----------------------------------|
| Connector No. | F151 |
| Connector Name | TOM (TRANSMISSION CONTROL MODULE) |
| Connector Type | SPT0FEGY |



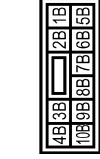
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | BR | CAN-H |
| 2 | L/Y | CAN-L |

| | |
|----------------|------------------|
| Connector No. | M1 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS30FW-M2 |



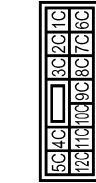
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1A | V | - |
| 2A | G | - |
| 5A | L | - |

| | |
|----------------|------------------|
| Connector No. | M2 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS10FY-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 3B | P | - |
| 6B | Y | - |

| | |
|----------------|------------------|
| Connector No. | M3 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS12FW-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 12C | R | - |

| | |
|----------------|-----------------|
| Connector No. | M6 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH60MW-CS16-TM4 |



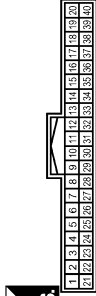
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 6 | P | - |
| 7 | L | - |
| 16 | O | - |
| 80 | SB | - |
| 81 | R | - |
| 82 | V | - |
| 93 | L | - |

| | |
|----------------|-----------------|
| Connector No. | M7 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH60MW-CS16-TM4 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 23 | L | - |
| 24 | P | - |
| 25 | L | - |
| 26 | P | - |
| 27 | L | - |
| 80 | Y | - [With A/T] |
| 82 | BR | - [With M/T] |
| 83 | B | - |
| 100 | O | - |

| | |
|----------------|------------------|
| Connector No. | M16 |
| Connector Name | AFS CONTROL UNIT |
| Connector Type | TH40FY-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 7 | P | CAN-L |
| 30 | L | CAN-H |

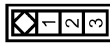
JCNWA0505GB

COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

METER

| | |
|----------------|-----------------------------|
| Connector No. | M32 |
| Connector Name | PADDLE SHIFTER (SHIFT-DOWN) |
| Connector Type | A03FW |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | - |
| 3 | G | - |

| | |
|----------------|---------------------------|
| Connector No. | M39 |
| Connector Name | PADDLE SHIFTER (SHIFT-UP) |
| Connector Type | A04FW |



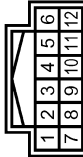
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | P | - |
| 3 | O | - |

| | |
|----------------|-------------------|
| Connector No. | M33 |
| Connector Name | COMBINATION METER |
| Connector Type | SAB09FW |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | V | BAT |
| 2 | LG | COMM (METER->AMP.) |
| 3 | GR | COMM (AMP->METER) |
| 5 | B | GND |
| 6 | W | ALTERNATOR |
| 7 | LG | AIR BAG |
| 10 | G | SECURITY |
| 15 | B | GND |
| 16 | BR | METER CONTROL SW GND |
| 21 | R | IGN |
| 22 | B | GND |

| | |
|----------------|----------------------|
| Connector No. | M34 |
| Connector Name | METER CONTROL SWITCH |
| Connector Type | TH12FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | SB | - |
| 2 | LG | - |
| 5 | L | - |
| 7 | BR | - |
| 9 | O | - |
| 10 | P | - |

| | |
|----------------|----------------------------|
| Connector No. | M36 |
| Connector Name | UNIFIED METER AND A/C AMP. |
| Connector Type | TH40FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------------|
| 4 | G | STOP LAMP SW |
| 5 | L | SHIFT UP SW |
| 6 | O | PADDLE UP |
| 7 | GR | COMM (AMP->METER) |
| 8 | L | VEHICLE SPEED (2-PULSE) |
| 9 | SR | SEAT BELT BUCKLE SW (DRIVER SIDE) |
| 10 | W | MANUAL MODE SW |
| 11 | C | AUTO MODE SW |
| 14 | BR | COMM (LCD->AMP) |
| 25 | V | SHIFT DOWN SW |
| 26 | G | PADDLE DOWN |

| | | | |
|--------------|----|-------------------------|--------------------|
| Terminal No. | 27 | LG | COMM (METER->AMP.) |
| 28 | R | VEHICLE SPEED (3-PULSE) | |
| 30 | V | PARKING BRAKE SW | |
| 34 | Y | COMM (AMP->LCD) | |

| | | |
|----|----|-----------------------------------|
| 24 | BR | COMM (LCD->AMP.) |
| 25 | Y | COMM (AMP->LCD) |
| 26 | R | VEHICLE SPEED (3-PULSE) |
| 27 | O | PARKING BRAKE SW |
| 28 | SB | BRAKE FLUID LEVEL SW |
| 29 | L | SEAT BELT BUCKLE SW (DRIVER SIDE) |
| 30 | G | SEAT BELT |
| 31 | L | WASHER LEVEL SW |
| 34 | R | ILLUMINATION CONTROL |
| 36 | LG | SELECT SW |
| 37 | SB | ENTER SW |
| 38 | L | TRIP A/B RESET SW |
| 39 | P | ILLUMINATION CONTROL SW (-) |
| 40 | O | ILLUMINATION CONTROL SW (+) |

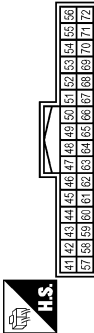
A
B
C
D
E
F
G
H
I
J
K
L
M
MWI
O
P

COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

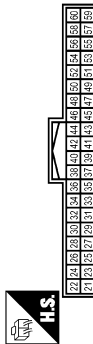
METER

| | |
|----------------|----------------------------|
| Connector No. | M87 |
| Connector Name | UNIFIED METER AND A/C AMP. |
| Connector Type | TH32FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|--------------------------------|
| 41 | L | ACC |
| 42 | Y | FUEL LEVEL SENS |
| 45 | V | AMB SENS |
| 53 | W | IGN |
| 54 | Y | BAT |
| 55 | B | GND |
| 56 | L | CAN-H |
| 57 | LG | BRAKE FLUID LEVEL SW |
| 58 | BR | FUEL LEVEL SENS GND [With A/T] |
| 58 | B | FUEL LEVEL SENS GND [With M/T] |
| 61 | R | AMB SENS GND |

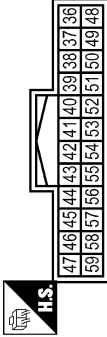
| | |
|----------------|-----------------------------|
| Connector No. | M87 |
| Connector Name | AV CONTROL UNIT (WITH NAVI) |
| Connector Type | TH40FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 52 | L | CAN-H |
| 53 | P | CAN-L |

| | | |
|----|----|-------|
| 71 | GR | GND |
| 72 | P | CAN-L |

| | |
|----------------|--------------------------------|
| Connector No. | M83 |
| Connector Name | AV CONTROL UNIT (WITHOUT NAVI) |
| Connector Type | TH24FW-NH |



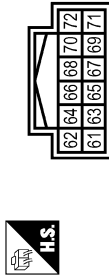
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 44 | L | COMM (DISP->CONT) |
| 56 | LG | COMM (CONT->DISP) |

| | |
|----------------|--------------------|
| Connector No. | M107 |
| Connector Name | ECM |
| Connector Type | RH24FGY-R25-R-LH-Z |



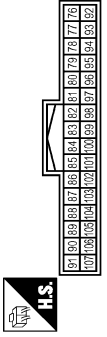
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 113 | P | VEHCAN-LI |
| 114 | L | VEHCAN-HI |

| | |
|----------------|-----------------------------|
| Connector No. | M88 |
| Connector Name | AV CONTROL UNIT (WITH NAVI) |
| Connector Type | TH12FW-NH |



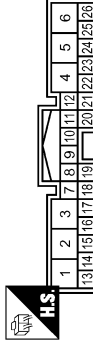
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 70 | L | COMM (CONT->DISP) |
| 71 | LG | COMM (DISP->CONT) |

| | |
|----------------|--------------------------------|
| Connector No. | M85 |
| Connector Name | AV CONTROL UNIT (WITHOUT NAVI) |
| Connector Type | TH32FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 86 | L | CAN-H |
| 87 | P | CAN-L |

| | |
|----------------|----------------------------------|
| Connector No. | M110 |
| Connector Name | PRE-CRASH SEAT BELT CONTROL UNIT |
| Connector Type | TH20FW-TB6 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 7 | G | INDICATOR |

JCNWA0507GB

COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

METER

| | |
|----------------|--------------------|
| Connector No. | M137 |
| Connector Name | A/T SHIFT SELECTOR |
| Connector Type | TH12FY-NH |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | - |
| 2 | V | - |
| 3 | L | - |
| 4 | BR | - |
| 5 | G | - |

| | |
|----------------|---------------------------|
| Connector No. | M123 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FG-NH |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 141 | G | SECURITY INDICATOR OUTPUT |

| | |
|----------------|---------------------------|
| Connector No. | M122 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 90 | P | CAN-L |
| 91 | L | CAN-H |

| | |
|----------------|--------------|
| Connector No. | M116 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TK38MW-NS10 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 2 | W | - |
| 35 | L | - |
| 36 | P | - |
| 43 | P | - |
| 44 | L | - |

| | |
|----------------|-------------------------------|
| Connector No. | M147 |
| Connector Name | AIR BAG DIAGNOSIS SENSOR UNIT |
| Connector Type | TK28FY-EX-SC |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 15 | LG | AIR BAG W/L |
| 24 | G | SEAT BELT |

Fail-safe

FAIL-SAFE

Combination meter performs fail-safe operation when unified meter and A/C amp. communication is malfunction.

Solution for communication error between the unified meter and A/C amp. and combination meter.

A
B
C
D
E
F
G
H
I
J
K
L
M
MWI
O
P

JCNWM2480GB

INFOID:000000001835559

COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

| Function | | Specifications |
|-----------------------------|--------------------------------|--|
| Speedometer | | Reset to zero by suspending communication. |
| Tachometer | | |
| Fuel gauge | | |
| Water temperature gauge | | |
| Illumination control | | When suspending communication, change to nighttime mode. |
| Information display | | The display turns off by suspending communication. |
| Buzzer | | The buzzer turns off by suspending communication. |
| Warning lamp/indicator lamp | ABS warning lamp | The lamp turns on by suspending communication. |
| | VDC OFF indicator lamp | |
| | SLIP indicator lamp | |
| | Brake warning lamp | |
| | CRUISE warning lamp | |
| | BA warning lamp | |
| | High beam indicator | The lamp turns off by suspending communication. |
| | Turn signal indicator lamp | |
| | Oil pressure warning lamp | |
| | Malfunction indicator lamp | |
| | A/T CHECK warning lamp | |
| | AWD warning lamp | |
| | Low tire pressure warning lamp | |
| | Key warning lamp | |
| | AFS OFF indicator lamp | |
| | 4WAS warning lamp | |
| Master warning lamp | | |

DTC Index

INFOID:000000001835560

Refer to [MWI-98, "DTC Index"](#).

UNIFIED METER AND A/C AMP.

< ECU DIAGNOSIS INFORMATION >

UNIFIED METER AND A/C AMP.

Reference Value

INFOID:000000001835561

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

| Monitor Item | Condition | | Value/Status |
|-------------------------------|-----------------------|--|---|
| SPEED METER [km/h] | Ignition switch ON | While driving | Equivalent to speedometer reading NOTE: 655.35 is displayed when the malfunction signal is received |
| SPEED OUTPUT [km/h] | Ignition switch ON | While driving | Equivalent to speedometer reading NOTE: 655.35 is displayed when the malfunction signal is received |
| ODO OUTPUT [km/h] or [mph] | Ignition switch ON | — | Equivalent to odometer reading in combination meter |
| TACHO METER [rpm] | Ignition switch ON | While driving | Equivalent to tachometer reading NOTE: 8191.875 is displayed when the malfunction signal is received |
| FUEL METER [lit.] | Ignition switch ON | — | Values according to fuel level |
| W TEMP METER [°C] | Ignition switch ON | — | Values according to engine coolant temperature NOTE: 215 is displayed when the malfunction signal is input |
| ABS W/L | Ignition switch ON | ABS warning lamp ON | On |
| | | ABS warning lamp OFF | Off |
| VDC/TCS IND | Ignition switch ON | VDC OFF indicator lamp ON | On |
| | | VDC OFF indicator lamp OFF | Off |
| SLIP IND | Ignition switch ON | SLIP indicator lamp ON | On |
| | | SLIP indicator lamp OFF | Off |
| BRAKE W/L | Ignition switch ON | Brake warning lamp ON | On |
| | | Brake warning lamp OFF | Off |
| DOOR W/L | Ignition switch ON | Door warning displayed | On |
| | | Door warning not displayed | Off |
| TRUNK/GLAS-H | Ignition switch ON | Trunk warning displayed | On |
| | | Trunk warning not displayed | Off |
| HI-BEAM IND | Ignition switch ON | Hi-beam indicator lamp ON | On |
| | | Hi-beam indicator lamp OFF | Off |
| TURN IND | Ignition switch ON | Turn indicator lamp ON | On |
| | | Turn indicator lamp OFF | Off |
| FR FOG IND | Ignition switch ON | NOTE: This item is displayed, but cannot be monitored. | Off |
| RR FOG IND | Ignition switch ON | NOTE: This item is displayed, but cannot be monitored. | Off |
| LIGHT IND | Ignition switch ON | Light indicator lamp ON | On |
| | | Light indicator lamp OFF | Off |

UNIFIED METER AND A/C AMP.

< ECU DIAGNOSIS INFORMATION >

| Monitor Item | Condition | | Value/Status |
|---------------|--------------------|--|--------------|
| OIL W/L | Ignition switch ON | Oil pressure warning lamp ON | On |
| | | Oil pressure warning lamp OFF | Off |
| MIL | Ignition switch ON | Malfunction warning lamp ON | On |
| | | Malfunction warning lamp OFF | Off |
| GLOW IND | Ignition switch ON | NOTE: This item is displayed, but cannot be monitored. | Off |
| C-ENG2 W/L | Ignition switch ON | NOTE: This item is displayed, but cannot be monitored. | Off |
| CRUISE IND | Ignition switch ON | Cruise indicator displayed | On |
| | | Cruise indicator not displayed | Off |
| SET IND | Ignition switch ON | Set indicator lamp ON | On |
| | | Set indicator lamp OFF | Off |
| CRUISE W/L | Ignition switch ON | Cruise warning lamp ON | On |
| | | Cruise warning lamp OFF | Off |
| BA W/L | Ignition switch ON | NOTE: This item is displayed, but cannot be monitored. | Off |
| ATC/T-AMT W/L | Ignition switch ON | A/T check warning lamp ON | On |
| | | A/T check warning lamp OFF | Off |
| 4WD W/L | Ignition switch ON | AWD warning lamp ON | On |
| | | AWD warning lamp OFF | Off |
| 4WD LOCK IND | Ignition switch ON | NOTE: This item is displayed, but cannot be monitored. | Off |
| FUEL W/L | Ignition switch ON | Low-fuel warning lamp displayed | On |
| | | Low-fuel warning lamp not displayed | Off |
| WASHER W/L | Ignition switch ON | Washer warning displayed | On |
| | | Washer warning not displayed | Off |
| AIR PRES W/L | Ignition switch ON | Low tire pressure lamp ON | On |
| | | Low tire pressure lamp OFF | Off |
| KEY G/Y W/L | Ignition switch ON | Key warning lamp ON | On |
| | | Key warning lamp OFF | Off |
| AFS OFF IND | Ignition switch ON | AFS OFF indicator lamp ON | On |
| | | AFS OFF indicator lamp OFF | Off |
| 4WAS/RAS W/L | Ignition switch ON | 4WAS warning lamp ON | On |
| | | 4WAS warning lamp OFF | Off |
| DDS W/L | Ignition switch ON | NOTE: This item is displayed, but cannot be monitored. | Off |
| LDP R IND | Ignition switch ON | NOTE: This item is displayed, but cannot be monitored. | Off |
| LDP G Y IND | Ignition switch ON | NOTE: This item is displayed, but cannot be monitored. | Off |

UNIFIED METER AND A/C AMP.

< ECU DIAGNOSIS INFORMATION >

| Monitor Item | Condition | | Value/Status | |
|---------------|-----------------------------|--|--------------|-----|
| LCD | Ignition switch ON | Engine start information display (A/T model) | B&P I | A |
| | | Engine start information display (M/T model) | C&P I | |
| | Ignition switch LOCK or ACC | Engine start information display (A/T model) | B&P N | B |
| | | Engine start information display (M/T model) | C&P N | |
| | Ignition switch LOCK | Key ID warning display | ID NG | C |
| | Ignition switch LOCK | Steering lock information display | ROTAT | |
| | Ignition switch LOCK | P position warning display | SFT P | D |
| | Ignition switch LOCK | Intelligent Key insert information display | INSRT | E |
| | Ignition switch LOCK | Intelligent Key low battery warning display | BATT | |
| | Ignition switch ON | Take away warning display | NO KY | F |
| | Ignition switch LOCK | Key warning display | OUTKY | G |
| ACC TARGET | Ignition switch ON | Vehicle ahead detection indicator displayed | On | H |
| | | Vehicle ahead detection indicator not displayed | Off | |
| ACC DISTANCE | Ignition switch ON | When following distance set to "LONG" | LONG | I |
| | | When following distance set to "MIDDLE" | MID | |
| | | When following distance set to "SHORT" | SHORT | J |
| | | Set distance indicator not displayed | Off | |
| ACC OWN VHL | Ignition switch ON | Own vehicle indicator displayed | On | |
| | | Own vehicle indicator not displayed | Off | K |
| ACC SET SPEED | Ignition switch ON | Set vehicle speed indicator not displayed | Off | |
| | | Set vehicle speed indicator displayed | On | L |
| ACC UNIT | Ignition switch ON | Set vehicle speed indicator unit display ON | On | |
| | | Set vehicle speed indicator unit display OFF | Off | M |
| O/D OFF SW | Ignition switch ON | NOTE: This item is displayed, but cannot be monitored. | Off | |
| SHIFT IND | Ignition switch ON | Shift position indicator P display | P | MWI |
| | | Shift position indicator R display | R | |
| | | Shift position indicator N display | N | |
| | | Shift position indicator D display | D | O |
| | | Shift position indicator M1 display | M1 | |
| | | Shift position indicator M2 display | M2 | |
| | | Shift position indicator M3 display | M3 | P |
| | | Shift position indicator M4 display | M4 | |
| AT S MODE SW | Ignition switch ON | Snow mode switch ON | On | |
| | | Snow mode switch OFF | Off | |

UNIFIED METER AND A/C AMP.

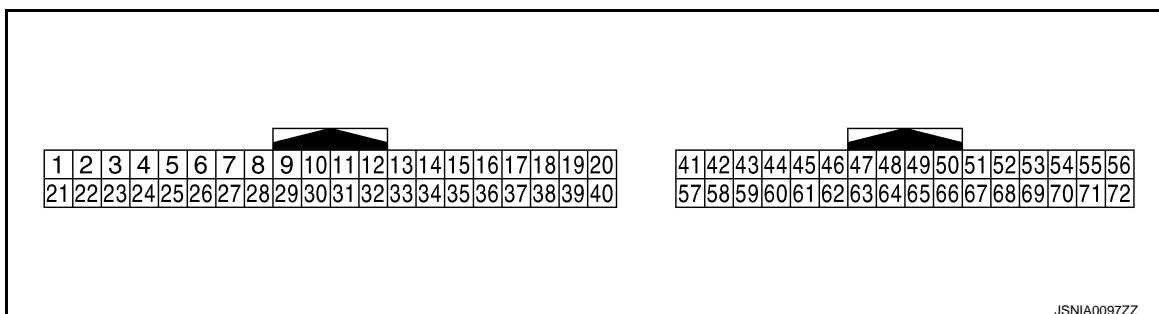
< ECU DIAGNOSIS INFORMATION >

| Monitor Item | Condition | | Value/Status |
|---------------------------|--------------------|--|---|
| AT P MODE SW | Ignition switch ON | NOTE: This item is displayed, but cannot be monitored. | Off |
| M RANGE SW | Ignition switch ON | Selector lever manual mode position | On |
| | | Other than the above | Off |
| NM RANGE SW | Ignition switch ON | Selector lever manual mode position | Off |
| | | Other than the above | On |
| AT SFT UP SW | Ignition switch ON | Selector lever + position | On |
| | | Other than the above | Off |
| AT SFT DWN SW | Ignition switch ON | Selector lever – position | On |
| | | Other than the above | Off |
| ST SFT UP SW | Ignition switch ON | Paddle shifter switch up operation | On |
| | | Other than the above | Off |
| ST SFT DWN SW | Ignition switch ON | Paddle shifter switch down operation | On |
| | | Other than the above | Off |
| COMP F/B SIG | Ignition switch ON | A/C compressor activation condition | On |
| | | A/C compressor deactivation condition | Off |
| 4WD LOCK SW | Ignition switch ON | NOTE: This item is displayed, but cannot be monitored. | Off |
| PKB SW | Ignition switch ON | Parking brake switch ON | On |
| | | Parking brake switch OFF | Off |
| BUCKLE SW | Ignition switch ON | Seat belt not fastened | On |
| | | Seat belt fastened | Off |
| BRAKE OIL SW | Ignition switch ON | Brake fluid level switch ON | On |
| | | Brake fluid level switch OFF | Off |
| DISTANCE [km] | Ignition switch ON | — | Possible driving distance calculated by unified meter and A/C amp. |
| OUTSIDE TEMP [°C] or [°F] | Ignition switch ON | — | Equivalent to ambient temperature NOTE: This may not match the indicated value on the information display. |
| FUEL LOW SIG | Ignition switch ON | Low-fuel warning displayed | |
| BUZZER | Ignition switch ON | Buzzer ON | On |
| | | Buzzer OFF | Off |

NOTE:

Some items are not available according to vehicle specification.

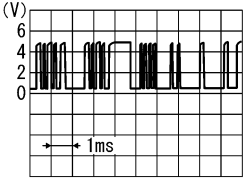
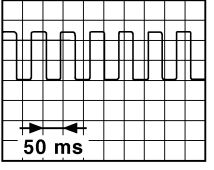
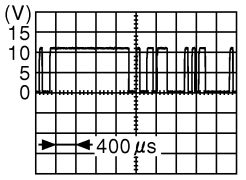
TERMINAL LAYOUT



UNIFIED METER AND A/C AMP.

< ECU DIAGNOSIS INFORMATION >

PHYSICAL VALUES

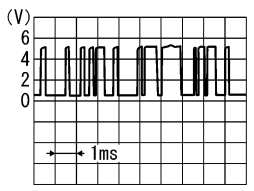
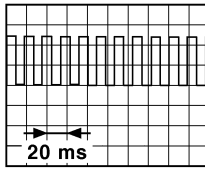
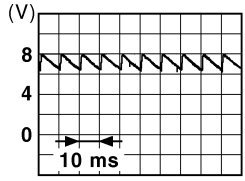
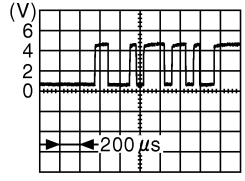
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|--------|--|------------------|---------------------|---|---|
| + | - | Signal name | Input/ Output | | | |
| 4 (P) ^{*1} (G) ^{*2} | Ground | Stop lamp switch signal | Input | Ignition switch OFF | Brake pedal is depressed | 12 V |
| | | | | | Other than the above | 0 V |
| 5 (L) | Ground | Manual mode shift up signal | Input | Ignition switch ON | Selector lever UP operation | 0 V |
| | | | | | Other than the above | 12 V |
| 6 (O) | Ground | Paddle shifter up signal | Input | Ignition switch ON | <ul style="list-style-type: none"> • Selector lever DS position • Paddle shift up operation | 0 V |
| | | | | | | Other than the above |
| 7 (GR) | Ground | Communication signal (AMP. → METER) | Output | Ignition switch ON | — |  <p style="text-align: right; font-size: small;">SKIA3362E</p> |
| 8 (L) | Ground | Vehicle speed signal output (2-pulse) | Output | Ignition switch ON | Speedometer operated [When vehicle speed is approx. 40 km/h (25 MPH)] | <p>NOTE: The maximum voltage varies depending on the specification (destination unit).</p>  <p style="text-align: right; font-size: small;">JSNIA0015GB</p> |
| 9 (SB) | Ground | Seat belt buckle switch signal (driver side) | Input | Ignition switch ON | When seat belt is fastened | 12 V |
| | | | | | When seat belt is not fastened | 0 V |
| 10 (W) | Ground | Manual mode signal | Input | Ignition switch ON | Selector lever DS position | 0 V |
| | | | | | | Other than the above |
| 11 (G) | Ground | Not manual mode signal | Input | Ignition switch ON | Selector lever DS position | 12 V |
| | | | | | | Other than the above |
| 14 (BR) | Ground | Communication signal (LCD → AMP.) | Input | Ignition switch ON | — |  <p style="text-align: right; font-size: small;">JSNIA0028GB</p> |
| 23 (Y) | Ground | A/T snow switch signal | Input | Ignition switch ON | Snow mode switch ON | 12 V |
| | | | | | | Snow mode switch OFF |

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

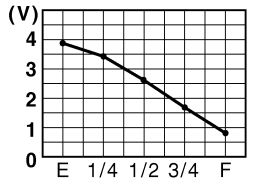
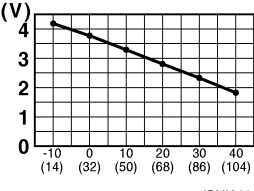
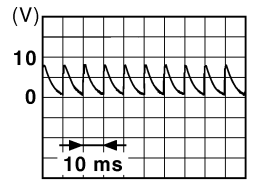
UNIFIED METER AND A/C AMP.

< ECU DIAGNOSIS INFORMATION >

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|--|--------|---------------------------------------|------------------|---------------------|---|--|
| + | - | Signal name | Input/ Output | | | |
| 25 (V) | Ground | Manual mode shift down signal | Input | Ignition switch ON | Selector lever down operation | 0 V |
| | | | | | Other than the above | 12 V |
| 26 (G) | Ground | Paddle shift down signal | Input | Ignition switch ON | <ul style="list-style-type: none"> Selector lever DS position Paddle shift down operation | 0 V |
| | | | | | Other than the above | 12 V |
| 27 (LG) | Ground | Communication signal (METER → AMP.) | Input | Ignition switch ON | — |  <p style="text-align: right; font-size: small;">SKIA3361E</p> |
| 28 (R) | Ground | Vehicle speed signal output (8-pulse) | Output | Ignition switch ON | Speedometer operated [When vehicle speed is approx. 40 km/h (25 MPH)] | <p>NOTE: The maximum voltage varies depending on the specification (destination unit).</p>  <p style="text-align: right; font-size: small;">JSNIA0012GB</p> |
| 30 (V) | Ground | Parking brake switch signal | Input | Ignition switch ON | Parking brake ON | 0 V |
| | | | | | Parking brake OFF |  <p style="text-align: right; font-size: small;">JSNIA0007GB</p> |
| 34 (Y) | Ground | Communication signal (AMP. → LCD) | Output | Ignition switch ON | — |  <p style="text-align: right; font-size: small;">JSNIA0027GB</p> |
| 41 (V) ^{*1} (L) ^{*2} | Ground | ACC power supply | Input | Ignition switch ACC | — | Battery voltage |

UNIFIED METER AND A/C AMP.

< ECU DIAGNOSIS INFORMATION >

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|--------|---------------------------------|------------------|---------------------------|---|---|
| + | - | Signal name | Input/ Output | | | |
| 42 (Y) | Ground | Fuel level sensor signal | Input | Ignition switch ON | — |  <p style="text-align: right; font-size: small;">JSNIA0013GB</p> |
| 45 (V) | Ground | Ambient sensor signal | Input | Ignition switch ON | — |  <p style="text-align: right; font-size: small;">JSNIA0014GB</p> |
| 53 (G) ^{*1} (W) ^{*2} | Ground | Ignition signal | Input | Ignition switch ON | — | Battery voltage |
| 54 (Y) | Ground | Battery power supply | Input | Ignition switch OFF | — | Battery voltage |
| 55 (B) | Ground | Ground | — | Ignition switch ON | — | 0 V |
| 56 (L) | Ground | CAN-H | — | — | — | — |
| 57 (LG) | Ground | Brake fluid level switch signal | Input | Ignition switch ON | Brake fluid level is normal. |  <p style="text-align: right; font-size: small;">JSNIA0008GB</p> |
| | | | | | The brake fluid level is lower than the low level | 0 V |
| 58 (B) ^{*1} (BR) ^{*2} | Ground | Fuel level sensor signal ground | — | Ignition switch ON | — | 0 V |
| 61 (BR) ^{*1} (R) ^{*2} | Ground | Ambient sensor signal ground | — | Ignition switch ON | — | 0 V |
| 71 (B) ^{*1} (GR) ^{*2} | Ground | Ground | — | Ignition switch ON | — | 0 V |
| 72 (P) | Ground | CAN-L | — | — | — | — |

- *1: M/T models
- *2: A/T models

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

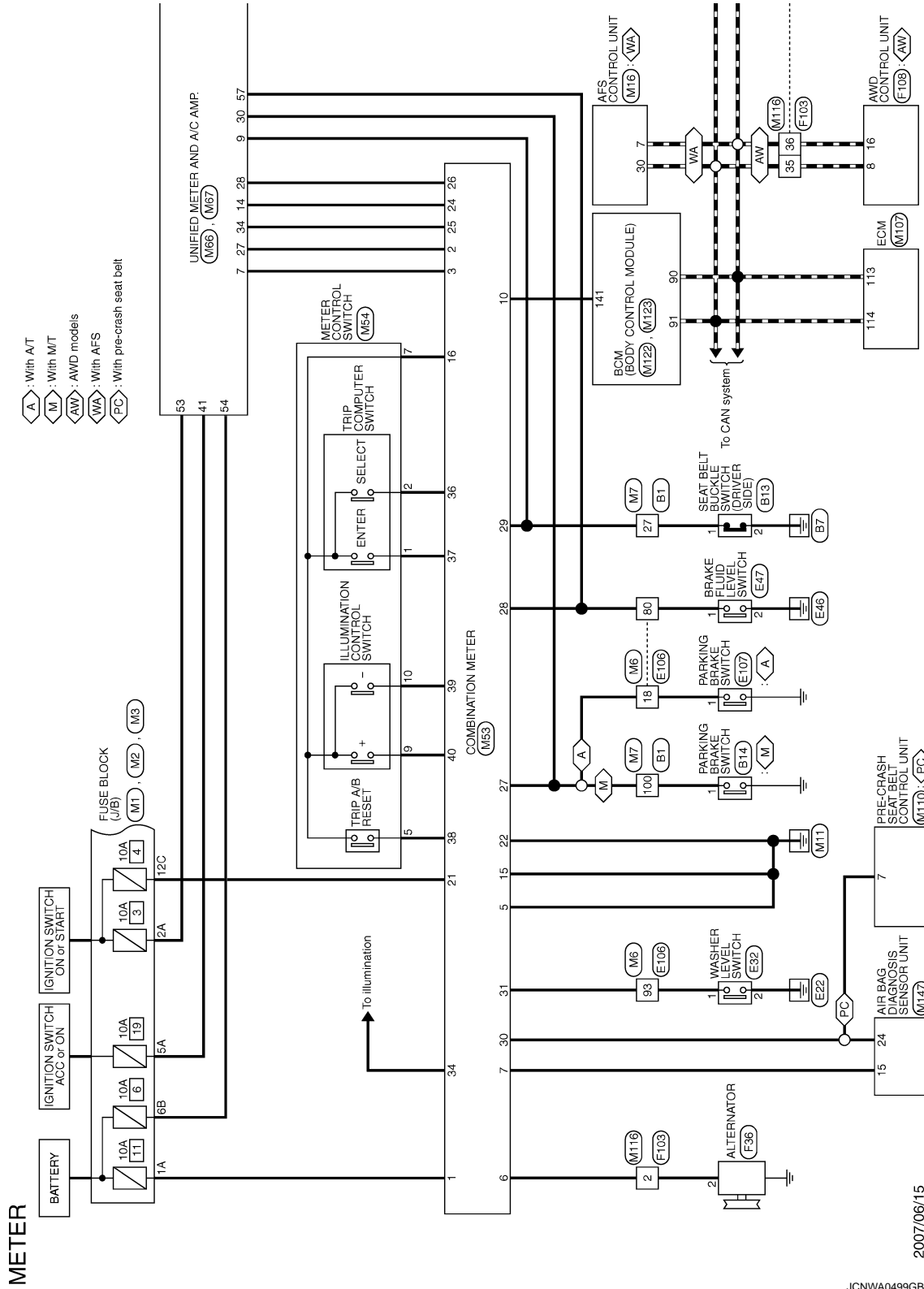
MWI

UNIFIED METER AND A/C AMP.

< ECU DIAGNOSIS INFORMATION >

Wiring Diagram - METER -

INFOID:000000003038036



2007/06/15

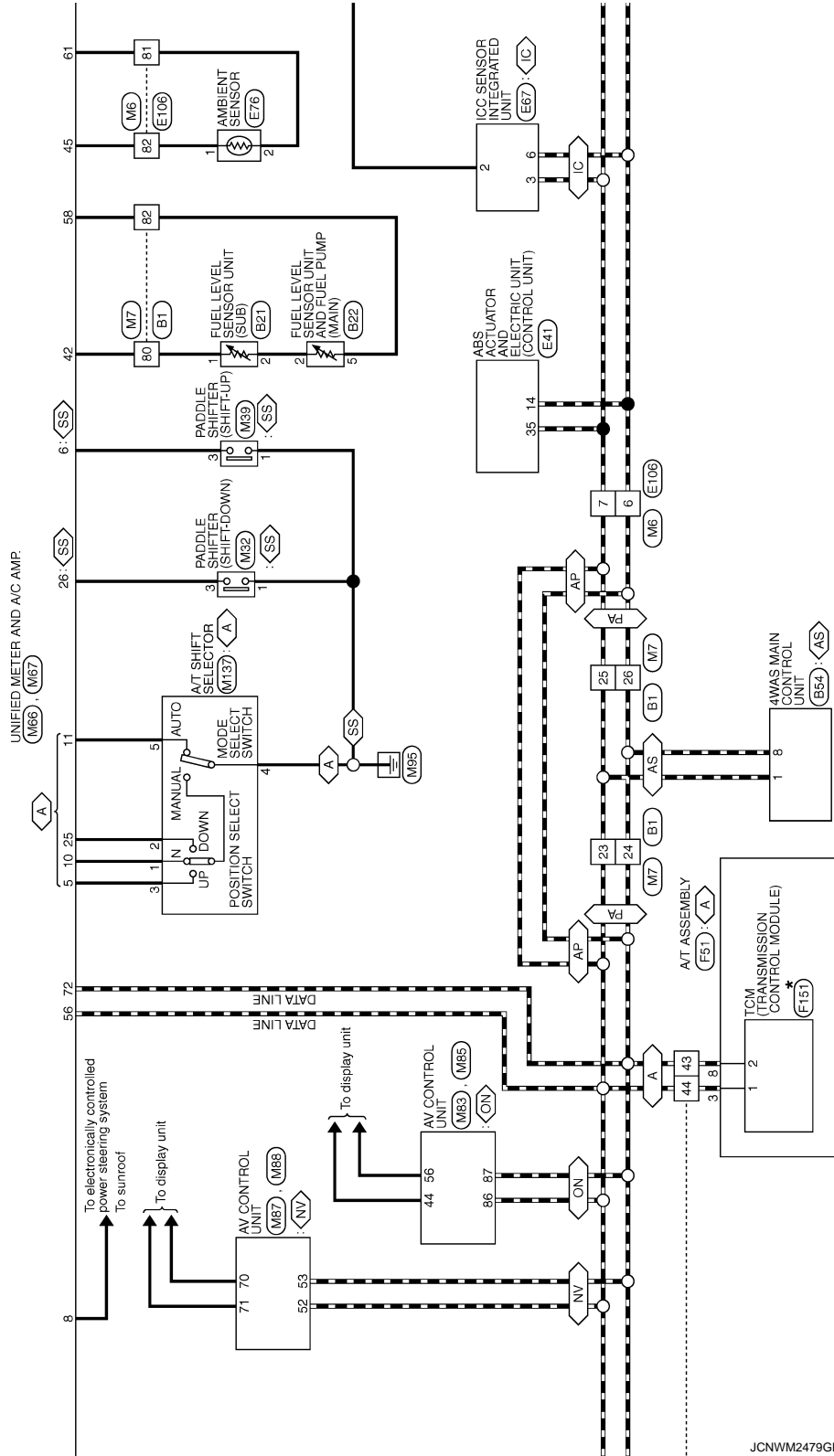
JCNWA0499GB

UNIFIED METER AND A/C AMP.

< ECU DIAGNOSIS INFORMATION >

- : With A/T
- : With NAVI
- : Without NAVI
- : With ICC
- : With 4WAS
- : With automatic drive positioner or 4WAS
- : Without automatic drive positioner and 4WAS
- : With paddle shifter switch

*: This connector is not shown in "Harness Layout".



JCNWM2479GB

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

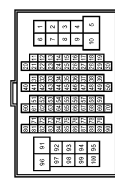
MWI

UNIFIED METER AND A/C AMP.

< ECU DIAGNOSIS INFORMATION >

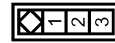
METER

| | |
|----------------|-----------------|
| Connector No. | B1 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH8DFW-GS16-TM4 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 23 | L | - |
| 24 | P | - |
| 25 | L | - |
| 26 | P | - |
| 27 | SB | - |
| 80 | Y | - |
| 82 | B | - |
| 100 | V | - |

| | |
|----------------|---------------------------------------|
| Connector No. | B13 |
| Connector Name | SEAT BELT BUCKLE SWITCH (DRIVER SIDE) |
| Connector Type | A03FW |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | SB | - |
| 2 | B | - |

| | |
|----------------|----------------------------|
| Connector No. | B14 |
| Connector Name | PARKING BRAKE SWITCH (M/T) |
| Connector Type | P01FB-A |



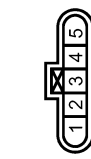
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | V | - |

| | |
|----------------|------------------------------|
| Connector No. | B21 |
| Connector Name | FUEL LEVEL SENSOR UNIT (SUB) |
| Connector Type | E02FGY-RS |



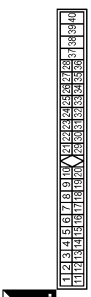
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | Y | - |
| 2 | W | - |

| | |
|----------------|---|
| Connector No. | B22 |
| Connector Name | FUEL LEVEL SENSOR UNIT AND FUEL PUMP (MAIN) |
| Connector Type | E03FGY-RS |



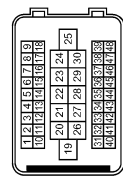
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 2 | W | - |
| 5 | B | - |

| | |
|----------------|------------------------|
| Connector No. | B54 |
| Connector Name | AWAS MAIN CONTROL UNIT |
| Connector Type | A38FW-M4 |



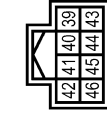
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | L | CAN-H |
| 8 | P | CAN-L |

| | |
|----------------|-------------------|
| Connector No. | E3 |
| Connector Name | WIRE TO WIRE |
| Connector Type | SAA38MB-RS10-SJ22 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 35 | Y | - |

| | |
|----------------|--|
| Connector No. | E6 |
| Connector Name | IGNITION (INTELLIGENT POWER) DISTRIBUTION MODULE (ENGINE ROOM) |
| Connector Type | TH8DFW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 39 | P | - |
| 40 | L | - |

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

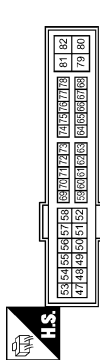
MWI

UNIFIED METER AND A/C AMP.

< ECU DIAGNOSIS INFORMATION >

METER

| | |
|----------------|--|
| Connector No. | E7 |
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | TH02FW-GS12-44 |



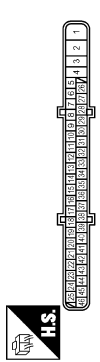
| | | | |
|---------------|----|---|-----------------------------|
| Terminal No. | 75 | Y | Signal Name [Specification] |
| Color of Wire | | | |

| | |
|----------------|---------------------|
| Connector No. | E32 |
| Connector Name | WASHER LEVEL SWITCH |
| Connector Type | Z02EBR |



| | | | |
|---------------|---|----|-----------------------------|
| Terminal No. | 1 | LG | Signal Name [Specification] |
| Color of Wire | | | |
| | 2 | B | |

| | |
|----------------|---|
| Connector No. | E41 |
| Connector Name | ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) |
| Connector Type | BA442FB-AH24-LH |



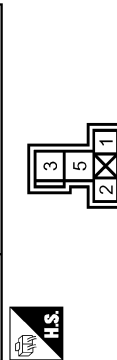
| | | | |
|---------------|----|---|-----------------------------|
| Terminal No. | 14 | P | Signal Name [Specification] |
| Color of Wire | | | |
| | 35 | L | CAN-H |
| | | | CAN-H |

| | |
|----------------|--------------------------|
| Connector No. | E47 |
| Connector Name | BRAKE FLUID LEVEL SWITCH |
| Connector Type | Y102EGY |



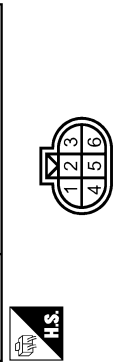
| | | | |
|---------------|---|-----|-----------------------------|
| Terminal No. | 1 | W | Signal Name [Specification] |
| Color of Wire | | | |
| | 2 | B/W | |

| | |
|----------------|----------------------|
| Connector No. | E51 |
| Connector Name | ICC BRAKE HOLD RELAY |
| Connector Type | MS02FL-M2 |



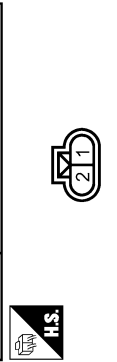
| | | | |
|---------------|---|---|-----------------------------|
| Terminal No. | 1 | B | Signal Name [Specification] |
| Color of Wire | | | |
| | 2 | V | |
| | 3 | R | |
| | 5 | P | |

| | |
|----------------|----------------------------|
| Connector No. | E67 |
| Connector Name | ICC SENSOR INTEGRATED UNIT |
| Connector Type | RS06FB-PR |



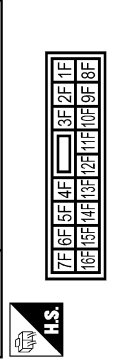
| | | | |
|---------------|---|---|-----------------------------|
| Terminal No. | 2 | V | Signal Name [Specification] |
| Color of Wire | | | |
| | 3 | L | BRK LMP RLY |
| | 6 | P | CAN-H |
| | | | CAN-L |

| | |
|----------------|----------------|
| Connector No. | E76 |
| Connector Name | AMBIENT SENSOR |
| Connector Type | RS02FB |



| | | | |
|---------------|---|---|-----------------------------|
| Terminal No. | 1 | G | Signal Name [Specification] |
| Color of Wire | | | |
| | 2 | P | |

| | |
|----------------|------------------|
| Connector No. | E103 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS16FY-CS |



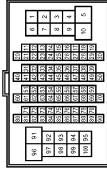

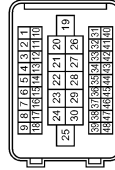











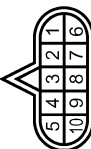

| | | | |
|---------------|----|---|-----------------------------|
| Terminal No. | 2F | W | Signal Name [Specification] |
| Color of Wire | | | |
| | 8F | L | |

JCNWA0503GB

UNIFIED METER AND A/C AMP.

< ECU DIAGNOSIS INFORMATION >

METER

| | | | | | | |
|-----------------------|----------------------------|-------------------|---|--------------|---------------|-----------------------------|
| Connector No. E106 | WIRE TO WIRE | TH80FW-GS16-TM4 |  | Terminal No. | Color of Wire | Signal Name [Specification] |
| Connector Name | WIRE TO WIRE | | | 6 | P | - |
| Connector Type | | | | 7 | L | - |
| | | | | 18 | O | - |
| | | | | 80 | W | - |
| | | | | 81 | P | - |
| | | | | 82 | G | - |
| | | | | 93 | LG | - |
| | | |  | | | |
| Connector No. F1 | WIRE TO WIRE | SAA36FB-RS10-SJZZ |  | Terminal No. | Color of Wire | Signal Name [Specification] |
| Connector Name | WIRE TO WIRE | | | 35 | Y | - |
| Connector Type | | | | | | |
| | | |  | | | |
| Connector No. E110 | STOP LAMP SWITCH | MDAFW-LC |  | Terminal No. | Color of Wire | Signal Name [Specification] |
| Connector Name | STOP LAMP SWITCH | | | 1 | L | - |
| Connector Type | | | | 2 | W | - |
| | | | | 3 | L | - |
| | | | | 4 | SB | - |
| | | |  | | | |
| Connector No. E107 | PARKING BRAKE SWITCH (A/T) | TB01FW |  | Terminal No. | Color of Wire | Signal Name [Specification] |
| Connector Name | PARKING BRAKE SWITCH (A/T) | | | 1 | O | - |
| Connector Type | | | | | | |
| | | |  | | | |
| Connector No. F37 | OIL PRESSURE SWITCH | ED1FGY-RS-AR |  | Terminal No. | Color of Wire | Signal Name [Specification] |
| Connector Name | OIL PRESSURE SWITCH | | | 1 | Y | - |
| Connector Type | | | | | | |
| | | |  | | | |
| Connector No. F36 | ALTERNATOR | FS03FB |  | Terminal No. | Color of Wire | Signal Name [Specification] |
| Connector Name | ALTERNATOR | | | 2 | G | L |
| Connector Type | | | | | | |
| | | |  | | | |
| Connector No. F103 | WIRE TO WIRE | TK36FW-NS10 |  | Terminal No. | Color of Wire | Signal Name [Specification] |
| Connector Name | WIRE TO WIRE | | | 2 | G | - |
| Connector Type | | | | 35 | L | - |
| | | | | 36 | P | - |
| | | | | 43 | P | - |
| | | | | 44 | L | - |
| | | |  | | | |
| Connector No. F51 | A/T ASSEMBLY | PK10FG-DGY |  | Terminal No. | Color of Wire | Signal Name [Specification] |
| Connector Name | A/T ASSEMBLY | | | 3 | L | - |
| Connector Type | | | | 8 | P | - |
| | | |  | | | |

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

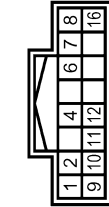
MWI

UNIFIED METER AND A/C AMP.

< ECU DIAGNOSIS INFORMATION >

METER

| | |
|----------------|------------------|
| Connector No. | F108 |
| Connector Name | AWD CONTROL UNIT |
| Connector Type | TH16FW-NH |



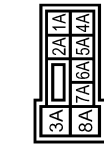
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 8 | L | CAN-H |
| 16 | P | CAN-L |

| | |
|----------------|-----------------------------------|
| Connector No. | F151 |
| Connector Name | TOM (TRANSMISSION CONTROL MODULE) |
| Connector Type | SPT0FEGY |



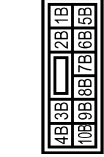
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | BR | CAN-H |
| 2 | L/Y | CAN-L |

| | |
|----------------|------------------|
| Connector No. | M1 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS30FW-M2 |



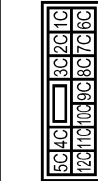
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1A | V | - |
| 2A | G | - |
| 5A | L | - |

| | |
|----------------|------------------|
| Connector No. | M2 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS10FY-CS |



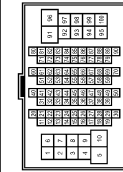
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 3B | P | - |
| 6B | Y | - |

| | |
|----------------|------------------|
| Connector No. | M3 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS12FW-CS |



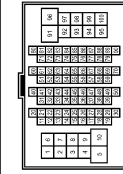
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 12C | R | - |

| | |
|----------------|-----------------|
| Connector No. | M6 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH60MW-CS16-TM4 |



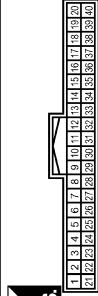
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 6 | P | - |
| 7 | L | - |
| 16 | O | - |
| 80 | SB | - |
| 81 | R | - |
| 82 | V | - |
| 93 | L | - |

| | |
|----------------|-----------------|
| Connector No. | M7 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH60MW-CS16-TM4 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 23 | L | - |
| 24 | P | - |
| 25 | L | - |
| 26 | P | - |
| 27 | L | - |
| 80 | Y | - [With A/T] |
| 82 | BR | - [With M/T] |
| 82 | B | - |
| 100 | O | - |

| | |
|----------------|------------------|
| Connector No. | M16 |
| Connector Name | AFS CONTROL UNIT |
| Connector Type | TH40FY-NH |



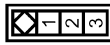
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 7 | P | CAN-L |
| 30 | L | CAN-H |

UNIFIED METER AND A/C AMP.

< ECU DIAGNOSIS INFORMATION >

METER

| | |
|----------------|-----------------------------|
| Connector No. | M32 |
| Connector Name | PADDLE SHIFTER (SHIFT-DOWN) |
| Connector Type | A03FW |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | |
| 3 | G | |

| | |
|----------------|---------------------------|
| Connector No. | M39 |
| Connector Name | PADDLE SHIFTER (SHIFT-UP) |
| Connector Type | A04FW |



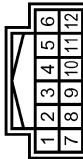
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | P | |
| 3 | O | |

| | |
|----------------|-------------------|
| Connector No. | M33 |
| Connector Name | COMBINATION METER |
| Connector Type | SAB09FW |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | V | BAT |
| 2 | LG | COMM (METER->AMP.) |
| 3 | GR | COMM (AMP->METER) |
| 5 | B | GND |
| 6 | W | ALTERNATOR |
| 7 | LG | AIR BAG |
| 10 | G | SECURITY |
| 15 | B | GND |
| 16 | BR | METER CONTROL SW GND |
| 21 | R | IGN |
| 22 | B | GND |

| | |
|----------------|----------------------|
| Connector No. | M34 |
| Connector Name | METER CONTROL SWITCH |
| Connector Type | TH12FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | SB | |
| 2 | LG | |
| 5 | L | |
| 7 | BR | |
| 9 | O | |
| 10 | P | |

| | |
|----------------|----------------------------|
| Connector No. | M36 |
| Connector Name | UNIFIED METER AND A/C AMP. |
| Connector Type | TH40FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------------|
| 4 | G | STOP LAMP SW |
| 5 | L | SHIFT UP SW |
| 6 | O | PADDLE UP |
| 7 | GR | COMM (AMP->METER) |
| 8 | L | VEHICLE SPEED (2-PULSE) |
| 9 | SR | SEAT BELT BUCKLE SW (DRIVER SIDE) |
| 10 | W | MANUAL MODE SW |
| 11 | C | AUTO MODE SW |
| 14 | BR | COMM (LCD->AMP) |
| 25 | V | SHIFT DOWN SW |
| 26 | G | PADDLE DOWN |

| | | | | | |
|--------------|----|---------------|----|-----------------------------|-------------------------|
| Terminal No. | 27 | Color of Wire | LG | Signal Name [Specification] | COMM (METER->AMP.) |
| | 28 | R | | | VEHICLE SPEED (3-PULSE) |
| | 30 | V | | | PARKING BRAKE SW |
| | 34 | Y | | | COMM (AMP->LCD) |

| | | |
|----|----|-----------------------------------|
| 24 | BR | COMM (LCD->AMP.) |
| 25 | Y | COMM (AMP->LCD) |
| 26 | R | VEHICLE SPEED (3-PULSE) |
| 27 | O | PARKING BRAKE SW |
| 28 | SB | BRAKE FLUID LEVEL SW |
| 29 | L | SEAT BELT BUCKLE SW (DRIVER SIDE) |
| 30 | G | SEAT BELT |
| 31 | L | WASHER LEVEL SW |
| 34 | R | ILLUMINATION CONTROL |
| 36 | LG | SELECT SW |
| 37 | SB | ENTER SW |
| 38 | L | TRIP A/B RESET SW |
| 39 | P | ILLUMINATION CONTROL SW (-) |
| 40 | O | ILLUMINATION CONTROL SW (+) |

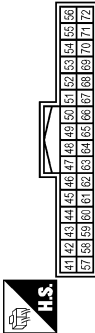
A
B
C
D
E
F
G
H
I
J
K
L
M
MWI
O
P

UNIFIED METER AND A/C AMP.

< ECU DIAGNOSIS INFORMATION >

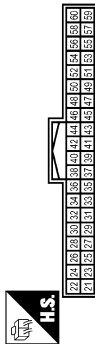
METER

| | |
|----------------|----------------------------|
| Connector No. | M87 |
| Connector Name | UNIFIED METER AND A/C AMP. |
| Connector Type | TH32FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|--------------------------------|
| 41 | L | ACC |
| 42 | Y | FUEL LEVEL SENS |
| 45 | V | AMB SENS |
| 53 | W | IGN |
| 54 | Y | BAT |
| 55 | B | GND |
| 56 | L | CAN-H |
| 57 | LG | BRAKE FLUID LEVEL SW |
| 58 | BR | FUEL LEVEL SENS GND [With A/T] |
| 58 | B | FUEL LEVEL SENS GND [With M/T] |
| 61 | R | AMB SENS GND |

| | |
|----------------|-----------------------------|
| Connector No. | M87 |
| Connector Name | AV CONTROL UNIT (WITH NAVI) |
| Connector Type | TH40FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 52 | L | CAN-H |
| 53 | P | CAN-L |

| | | |
|----|----|-------|
| 71 | GR | GND |
| 72 | P | CAN-L |

| | |
|----------------|--------------------------------|
| Connector No. | M83 |
| Connector Name | AV CONTROL UNIT (WITHOUT NAVI) |
| Connector Type | TH24FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 44 | L | COMM (DISP->CONT) |
| 56 | LG | COMM (CONT->DISP) |

| | |
|----------------|--------------------|
| Connector No. | M107 |
| Connector Name | ECM |
| Connector Type | RH24FGY-R25-R-LH-Z |



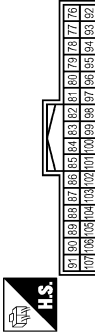
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 113 | P | VEHCAN-L |
| 114 | L | VEHCAN-H |

| | |
|----------------|-----------------------------|
| Connector No. | M88 |
| Connector Name | AV CONTROL UNIT (WITH NAVI) |
| Connector Type | TH12FW-NH |



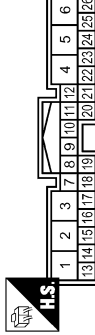
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 70 | L | COMM (CONT->DISP) |
| 71 | LG | COMM (DISP->CONT) |

| | |
|----------------|--------------------------------|
| Connector No. | M85 |
| Connector Name | AV CONTROL UNIT (WITHOUT NAVI) |
| Connector Type | TH32FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 86 | L | CAN-H |
| 87 | P | CAN-L |

| | |
|----------------|----------------------------------|
| Connector No. | M110 |
| Connector Name | PRE-CRASH SEAT BELT CONTROL UNIT |
| Connector Type | TH20FW-TB6 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 7 | G | INDICATOR |

JCNWA0507GB

UNIFIED METER AND A/C AMP.

< ECU DIAGNOSIS INFORMATION >

METER

| | |
|----------------|--------------|
| Connector No. | M116 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TK38AW-NS10 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 2 | W | - |
| 35 | L | - |
| 36 | P | - |
| 43 | P | - |
| 44 | L | - |

| | |
|----------------|---------------------------|
| Connector No. | M122 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 90 | P | CAN-L |
| 91 | L | CAN-H |

| | |
|----------------|---------------------------|
| Connector No. | M123 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FG-NH |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 141 | G | SECURITY INDICATOR OUTPUT |

| | |
|----------------|--------------------|
| Connector No. | M137 |
| Connector Name | A/T SHIFT SELECTOR |
| Connector Type | TH12FY-NH |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | W | - |
| 2 | V | - |
| 3 | L | - |
| 4 | BR | - |
| 5 | G | - |

| | |
|----------------|-------------------------------|
| Connector No. | M147 |
| Connector Name | AIR BAG DIAGNOSIS SENSOR UNIT |
| Connector Type | TK28FY-EX-SC |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 15 | LG | AIR BAG W/L |
| 24 | G | SEAT BELT |

Fail-safe

FAIL-SAFE

The unified meter and A/C amp. activates the fail-safe control if CAN communication with each unit is malfunctioning.

JCNWM2480GB

INFOID:000000001835563

A
B
C
D
E
F
G
H
I
J
K
L
M
MWI
O
P

UNIFIED METER AND A/C AMP.

< ECU DIAGNOSIS INFORMATION >

| Function | Specifications | |
|-----------------------------|--|---|
| Speedometer | Reset to zero by suspending communication. | |
| Tachometer | | |
| Fuel gauge | | |
| Water temperature gauge | | |
| Illumination control | When suspending communication, change to nighttime mode. | |
| Information display | The display turns off by suspending communication. | |
| Buzzer | The buzzer turns off by suspending communication. | |
| Warning lamp/indicator lamp | ABS warning lamp | The lamp turns on by suspending communication. |
| | VDC OFF indicator lamp | |
| | SLIP indicator lamp | |
| | Brake warning lamp | |
| | CRUISE warning lamp | |
| | BA warning lamp | |
| | AWD warning lamp | |
| | Low tire pressure warning lamp | |
| | 4WAS warning lamp | The lamp blinking caused by communication malfunction |
| | AFS OFF indicator lamp | |
| | High beam indicator | The lamp turns off by suspending communication. |
| | Turn signal indicator lamp | |
| | Oil pressure warning lamp | |
| | Malfunction indicator lamp | |
| | A/T CHECK warning lamp | |
| Key warning lamp | | |
| Master warning lamp | | |

DTC Index

INFOID:000000001835564

| Display contents of CONSULT-III | Time | Diagnostic item is detected when ... | Refer to |
|---------------------------------|--------------|---|------------------------|
| CAN COMM CIRCUIT [U1000] | CRNT, 1 - 39 | When unified meter and A/C amp. is not transmitting or receiving CAN communication signal for 2 seconds or more. | MWI-41 |
| CONTROL UNIT (CAN) [U1010] | CRNT, 1 - 39 | When detecting error during the initial diagnosis of CAN controller of unified meter and A/C amp. | MWI-42 |
| COMM ERROR 1 [B2201] | CRNT, 1 - 39 | If a communication error is present in the communication line between unified meter and A/C amp. and combination meter for 2 seconds or more. | MWI-43 |
| COMM ERROR 2 [B2202] | CRNT, 1 - 39 | If a communication error is present in the communication line between unified meter and A/C amp. and combination meter for 2 seconds or more. | MWI-45 |
| VEHICLE SPEED [B2205] | CRNT, 1 - 39 | The abnormal vehicle speed signal is input from ABS actuator and electric unit (control unit) for 2 seconds or more. | MWI-47 |
| ENGINE SPEED [B2267] | CRNT, 1 - 39 | If ECM continuously transmits abnormal engine speed signals for 2 seconds or more. | MWI-48 |
| WATER TEMP [B2268] | CRNT, 1 - 39 | If ECM continuously transmits abnormal engine coolant temperature signals for 60 seconds or more. | MWI-49 |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000004743915

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

A

B

C

D

E

F

G

H

I

J

K

L

M

MWI

O

P

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

| Monitor Item | Condition | Value/Status | |
|---------------|---|--------------|-----|
| PUSH SW | Push-button ignition switch (push switch) is not pressed | Off | A |
| | Push-button ignition switch (push switch) is pressed | On | |
| IGN RLY2 -F/B | Ignition switch in OFF or ACC position | Off | B |
| | Ignition switch in ON position | On | |
| ACC RLY -F/B | Ignition switch in OFF position | Off | C |
| | Ignition switch in ACC or ON position | On | |
| CLUCH SW | The clutch pedal is not depressed | Off | D |
| | The clutch pedal is depressed | On | |
| BRAKE SW 1 | The brake pedal is depressed when No. 7 fuse is blown | Off | E |
| | The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal | On | |
| BRAKE SW 2 | The brake pedal is not depressed | Off | F |
| | The brake pedal is depressed | On | |
| DETE/CANCL SW | <ul style="list-style-type: none"> • Selector lever in P position (Except M/T models) • The clutch pedal is depressed (M/T models) | Off | G |
| | <ul style="list-style-type: none"> • Selector lever in any position other than P (Except M/T models) • The clutch pedal is not depressed (M/T models) | On | |
| SFT PN/N SW | Selector lever in any position other than P and N | Off | H |
| | Selector lever in P or N position | On | |
| S/L -LOCK | Steering is unlocked | Off | I |
| | Steering is locked | On | |
| S/L -UNLOCK | Steering is locked | Off | J |
| | Steering is unlocked | On | |
| S/L RELAY-F/B | Ignition switch in OFF or ACC position | Off | K |
| | Ignition switch in ON position | On | |
| UNLK SEN-DR | Driver door is unlocked | Off | L |
| | Driver door is locked | On | |
| PUSH SW -IPDM | Push-button ignition switch (push-switch) is not pressed | Off | M |
| | Push-button ignition switch (push-switch) is pressed | On | |
| IGN RLY1 -F/B | Ignition switch in OFF or ACC position | Off | MWI |
| | Ignition switch in ON position | On | |
| DETE SW -IPDM | Selector lever in any position other than P | Off | O |
| | Selector lever in P position | On | |
| SFT PN -IPDM | <ul style="list-style-type: none"> • Selector lever in any position other than P and N (Except M/T models) • The clutch pedal is not depressed (M/T models) | Off | P |
| | <ul style="list-style-type: none"> • Selector lever in P or N position (Except M/T models) • The clutch pedal is depressed (M/T models) | On | |
| SFT P -MET | Selector lever in any position other than P | Off | |
| | Selector lever in P position | On | |
| SFT N -MET | Selector lever in any position other than N | Off | |
| | Selector lever in N position | On | |
| ENGINE STATE | Engine stopped | Stop | |
| | While the engine stalls | Stall | |
| | At engine cranking | Crank | |
| | Engine running | Run | |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

| Monitor Item | Condition | Value/Status |
|----------------|---|--|
| S/L LOCK-IPDM | Steering is unlocked | Off |
| | Steering is locked | On |
| S/L UNLK-IPDM | Steering is locked | Off |
| | Steering is unlocked | On |
| S/L RELAY-REQ | Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK | Off |
| | Steering lock system are not the LOCK condition or the changing condition from LOCK to UNLOCK | On |
| VEH SPEED 1 | While driving | Equivalent to speedometer reading |
| VEH SPEED 2 | While driving | Equivalent to speedometer reading |
| DOOR STAT-DR | Driver door is locked | LOCK |
| | Wait with selective UNLOCK operation (5 seconds) | READY |
| | Driver door is unlocked | UNLK |
| DOOR STAT-AS | Passenger door is locked | LOCK |
| | Wait with selective UNLOCK operation (5 seconds) | READY |
| | Passenger door is unlocked | UNLK |
| ID OK FLAG | Steering is locked | Reset |
| | 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 | Intelligent Key is not inserted into key slot | Off |
| | Intelligent Key is inserted into key slot | On |
| RKE OPE COUN1 | During the operation of Intelligent Key | Operation frequency of Intelligent Key |
| RKE OPE COUN2 | NOTE: The item is indicated, but not monitored. | — |
| CONFIRM 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 |
| CONFIRM ID2 | The key ID that the key slot receives is not recognized by the second key ID registered to BCM. | Yet |
| | The key ID that the key slot receives is recognized by the second key ID registered to BCM. | Done |
| CONFIRM ID1 | The key ID that the key slot receives is not recognized by the first key ID registered to BCM. | Yet |
| | The key ID that the key slot receives is recognized by the first key ID registered to BCM. | Done |
| TP 4 | The ID of fourth Intelligent Key is not registered to BCM | Yet |
| | The ID of fourth Intelligent Key is registered to BCM | Done |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

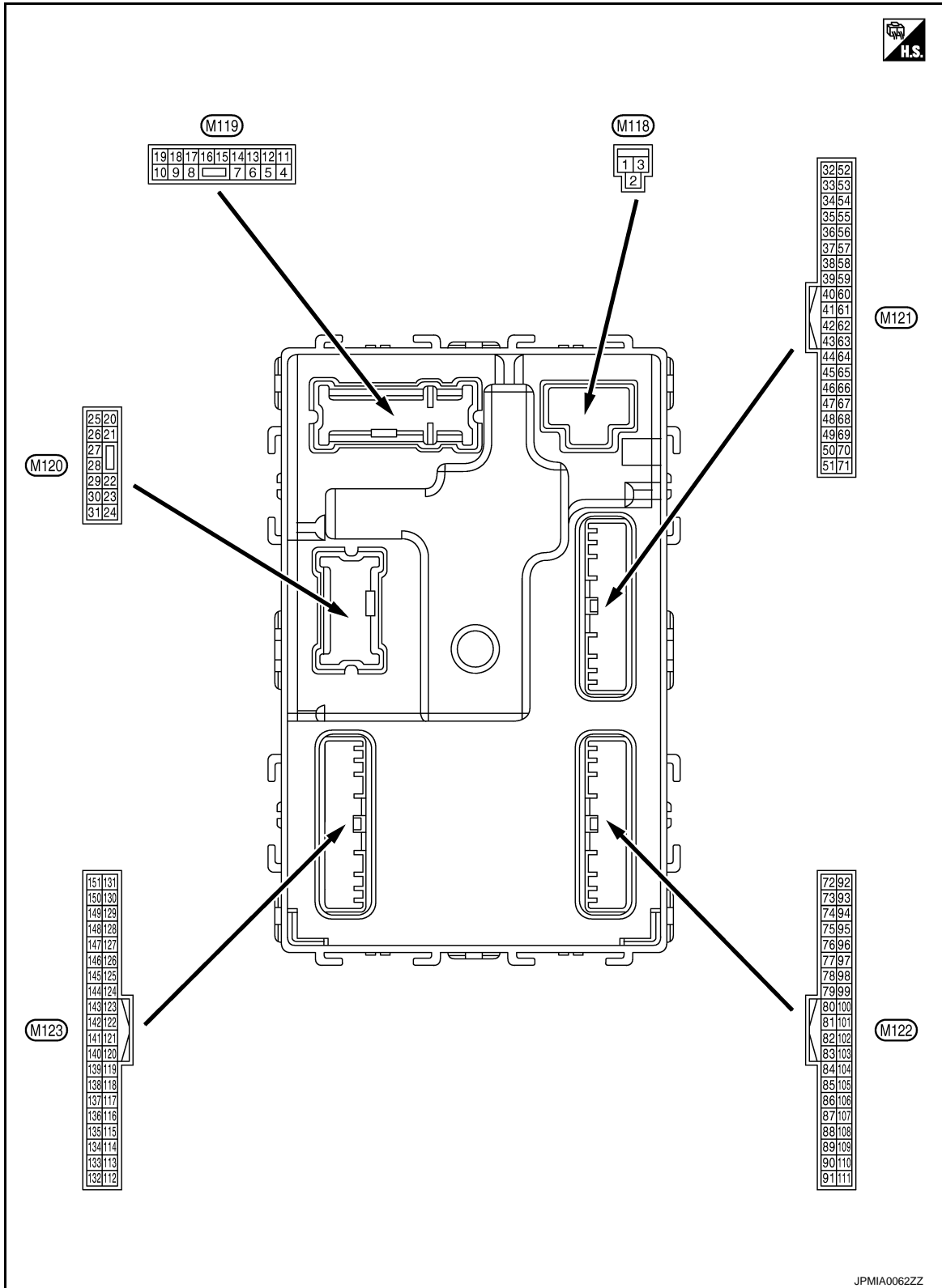
| Monitor Item | Condition | Value/Status | |
|--------------|--|-------------------------------|---|
| TP 3 | The ID of third Intelligent Key is not registered to BCM | Yet | A |
| | The ID of third Intelligent Key is registered to BCM | Done | |
| TP 2 | The ID of second Intelligent Key is not registered to BCM | Yet | B |
| | The ID of second Intelligent Key is registered to BCM | Done | |
| TP 1 | The ID of first Intelligent Key is not registered to BCM | Yet | C |
| | 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 | D |
| 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 | E |
| 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 | F |
| | ID of front LH tire transmitter is not registered | Yet | |
| ID REGST FR1 | ID of front RH tire transmitter is registered | Done | G |
| | ID of front RH tire transmitter is not registered | Yet | |
| ID REGST RR1 | ID of rear RH tire transmitter is registered | Done | H |
| | ID of rear RH tire transmitter is not registered | Yet | |
| ID REGST RL1 | ID of rear LH tire transmitter is registered | Done | I |
| | ID of rear LH tire transmitter is not registered | Yet | |
| WARNING LAMP | Tire pressure indicator OFF | Off | J |
| | Tire pressure indicator ON | On | |
| BUZZER | Tire pressure warning alarm is not sounding | Off | |
| | Tire pressure warning alarm is sounding | On | |

MWI

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

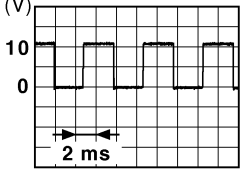
TERMINAL LAYOUT



PHYSICAL VALUES

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

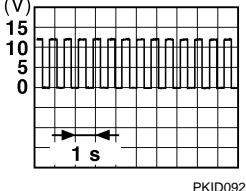
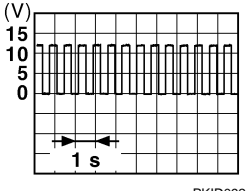
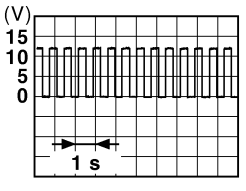
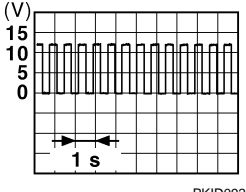
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|---|--------|--|---|--|
| | | | | | | |
| + | - | | | | | |
| 1 (W) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage |
| 2 (Y) | Ground | P/W power supply (BAT) | Output | Ignition switch OFF | | Battery voltage |
| 3 (O) | Ground | P/W power supply (RAP) | Output | Ignition switch ON | | Battery voltage |
| 4 (LG) | Ground | Interior room lamp power supply | Output | After passing the interior room lamp battery saver operation time | | 0 V |
| | | | | Any other time after passing the interior room lamp battery saver operation time | | Battery voltage |
| 5 (V) | Ground | Passenger door UN- LOCK | Output | Passenger door | UNLOCK (Actuator is activated) | Battery voltage |
| | | | | | Other than UNLOCK (Actuator is not activated) | 0 V |
| 7 (Y) | Ground | Step lamp | Output | Step lamp | ON | 0 V |
| | | | | | OFF | Battery voltage |
| 8 (V) | Ground | All doors, fuel lid LOCK | Output | All doors, fuel lid | LOCK (Actuator is activated) | Battery voltage |
| | | | | | Other than LOCK (Actuator is not activated) | 0 V |
| 9 (G) | Ground | Driver door, fuel lid UNLOCK | Output | Driver door, fuel lid | UNLOCK (Actuator is activated) | Battery voltage |
| | | | | | Other than UNLOCK (Actuator is not activated) | 0 V |
| 10 (BR) | Ground | Rear RH door and rear LH door UN- LOCK | Output | Rear RH door and rear LH door | UNLOCK (Actuator is activated) | Battery voltage |
| | | | | | Other than UNLOCK (Actuator is not activated) | 0 V |
| 11 (R) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage |
| 13 (B) | Ground | Ground | — | Ignition switch ON | | 0 V |
| 14 (W) | Ground | Push-button ignition switch illumination ground | Output | Tail lamp | OFF | 0 V |
| | | | | | ON | <p>NOTE: When the illumination brightening/dimming level is in the neutral position</p>  <p style="text-align: right; font-size: small;">JSNIA0010GB</p> |
| 15 (Y) | Ground | ACC indicator lamp | Output | Ignition switch | OFF | Battery voltage |
| | | | | | ACC or ON | 0 V |

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|-------------------------|------------------|--|--|
| + | - | Signal name | Input/ Output | | |
| 17 (W) | Ground | Turn signal (Front RH) | Output | | |
| | | | | Turn signal switch RH | 0 V |
| | | | | |  <p style="text-align: center;">6.5 V</p> |
| 18 (O) | Ground | Turn signal (Front LH) | Output | Ignition switch ON | Turn signal switch OFF |
| | | | | Turn signal switch LH | 0 V |
| | | | | |  <p style="text-align: center;">6.5 V</p> |
| 19 (V) | Ground | Room lamp timer control | Output | Interior room lamp | OFF |
| | | | | ON | Battery voltage |
| | | | | | 0 V |
| 20 (V) | Ground | Turn signal (Rear RH) | Output | Ignition switch ON | Turn signal switch OFF |
| | | | | Turn signal switch RH | 0 V |
| | | | | |  <p style="text-align: center;">6.5 V</p> |
| 23 (G) | Ground | Trunk lid opening | Output | Trunk lid | Open (Trunk lid opener actuator is activated) |
| | | | | Close (Trunk lid opener actuator is not activated) | Battery voltage |
| | | | | | 0 V |
| 25 (G) | Ground | Turn signal (Rear LH) | Output | Ignition switch ON | Turn signal switch OFF |
| | | | | Turn signal switch LH | 0 V |
| | | | | |  <p style="text-align: center;">6.5 V</p> |
| 30 (R) | Ground | Trunk room lamp | Output | Trunk room lamp | ON |
| | | | | OFF | Battery voltage |
| | | | | | 0 V |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|------------------------------|------------------|--|---|
| + | - | Signal name | Input/ Output | | |
| 34 (SB) | Ground | Trunk room antenna 1 (-) | Output | Ignition switch OFF | <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | When Intelligent Key is not in the passenger compart- ment | <p style="text-align: right; font-size: small;">JMKIA0063GB</p> |
| 35 (V) | Ground | Trunk room antenna 1 (+) | Output | Ignition switch OFF | <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | When Intelligent Key is not in the passenger compart- ment | <p style="text-align: right; font-size: small;">JMKIA0063GB</p> |
| 38 (B) | Ground | Rear bumper anten- na (-) | Output | When the trunk lid request switch is operated with ignition switch OFF | <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | When Intelligent Key is not in the antenna detection area | <p style="text-align: right; font-size: small;">JMKIA0063GB</p> |

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P



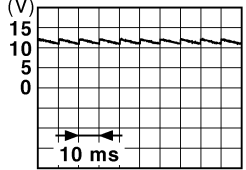
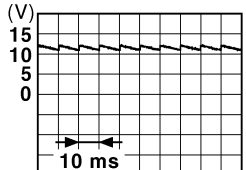
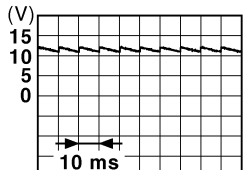
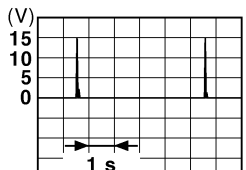
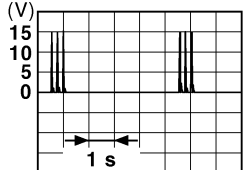
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|-----------------------------------|------------------|---|--|
| + | - | Signal name | Input/ Output | | |
| 39 (W) | Ground | Rear bumper antenna (+) | Output | When Intelligent Key is in the antenna detection area | |
| | | | | When Intelligent Key is not in the antenna detection area | |
| 47 (Y) | Ground | Ignition relay (IPDM E/R) control | Output | Ignition switch | OFF or ACC Battery voltage ON 0 V |
| | | | | | |
| 50 (R) | Ground | Trunk room lamp switch | Input | Trunk room lamp switch | 11.8 V |
| | | | | ON (Trunk is open) | 0 V |
| 52 (SB) | Ground | Starter relay control | Output | Ignition switch OFF (M/T models) | When the clutch pedal is depressed Battery voltage When the clutch pedal is not depressed 0 V |
| | | | | Ignition switch ON (Except M/T models) | When selector lever is in P or N position and the brake is depressed Battery voltage |
| | | | | | When selector lever is in P or N position and the brake is not depressed 0 V |
| | | | | | |
| 61 (W) | Ground | Trunk request switch | Input | Trunk request switch | ON (Pressed) 0 V OFF (Not pressed) |
| | | | | 1.0 V | |
| 64 (V) | Ground | Request switch buzzer | Output | Request switch buzzer | Sounding 0 V Not sounding Battery voltage |
| | | | | | |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

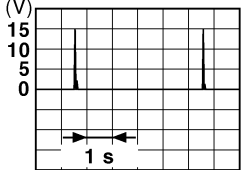
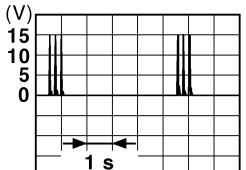
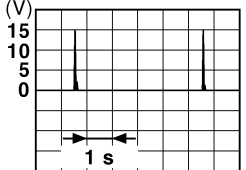
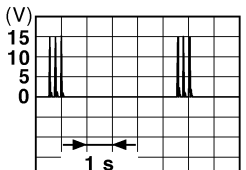
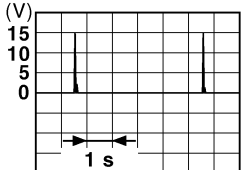
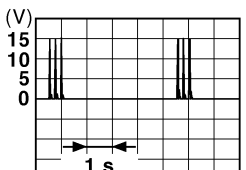
| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|--|------------------|--|--|---|
| + | - | Signal name | Input/ Output | | | |
| 67 (GR) | Ground | Trunk lid opener switch | Input | Trunk lid opener switch | Pressed | 0 V |
| | | | | Not pressed |  <p style="text-align: right; font-size: small;">JPMIA0011GB 11.8 V</p> | |
| 68 (BR) | Ground | Rear RH door switch | Input | Rear RH door switch | OFF (When rear RH door closes) |  <p style="text-align: right; font-size: small;">JPMIA0011GB 11.8 V</p> |
| | | | | ON (When rear RH door opens) | 0 V | |
| 69 (R) | Ground | Rear LH door switch | Input | Rear LH door switch | OFF (When rear LH door closes) |  <p style="text-align: right; font-size: small;">JPMIA0011GB 11.8 V</p> |
| | | | | ON (When rear LH door opens) | 0 V | |
| 72 (R) | Ground | Room antenna 2 (-) (Center console) | Output | Ignition switch OFF | When Intelligent Key is in the passenger compart- ment |  <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | When Intelligent Key is not in the passenger compart- ment |  <p style="text-align: right; font-size: small;">JMKIA0063GB</p> | |

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|--|------------------|--|--|
| + | - | Signal name | Input/ Output | | |
| 73 (G) | Ground | Room antenna 2 (+) (Center console) | Output | Ignition switch OFF | <p>When Intelligent Key is in the passenger compartment</p>  <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | <p>When Intelligent Key is not in the passenger compartment</p>  <p style="text-align: right; font-size: small;">JMKIA0063GB</p> | |
| 74 (SB) | Ground | Passenger door antenna (-) | Output | When the passenger door request switch is operated with ignition switch OFF | <p>When Intelligent Key is in the antenna detection area</p>  <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | <p>When Intelligent Key is not in the antenna detection area</p>  <p style="text-align: right; font-size: small;">JMKIA0063GB</p> | |
| 75 (BR) | Ground | Passenger door antenna (+) | Output | When the passenger door request switch is operated with ignition switch OFF | <p>When Intelligent Key is in the antenna detection area</p>  <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | <p>When Intelligent Key is not in the antenna detection area</p>  <p style="text-align: right; font-size: small;">JMKIA0063GB</p> | |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

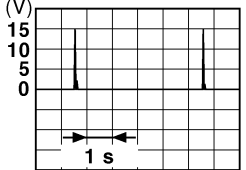
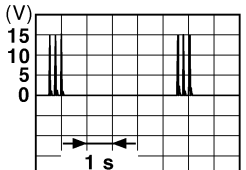
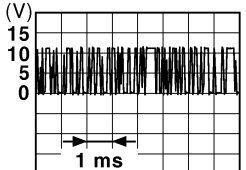
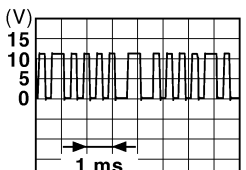
| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|--|------------------|--|--------------------|
| + | - | Signal name | Input/ Output | | |
| 76 (V) | Ground | Driver door antenna (-) | Output | When Intelligent Key is in the antenna detection area | |
| | | | | When the driver door request switch is operat- ed with ignition switch OFF | |
| 77 (LG) | Ground | Driver door antenna (+) | Output | When Intelligent Key is in the antenna detection area | |
| | | | | When the driver door request switch is operat- ed with ignition switch OFF | |
| 78 (Y) | Ground | Room antenna (-) (In- strument panel) | Output | Ignition switch OFF | |
| | | | | When Intelligent Key is not in the passenger compart- ment | |

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

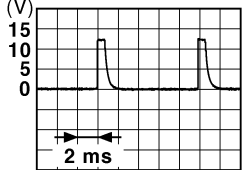
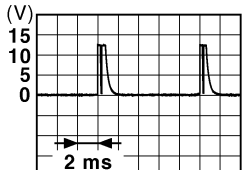
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|--|------------------|--|---|---|
| + | - | Signal name | Input/ Output | | | |
| 79 (BR) | Ground | Room antenna (+) (Instrument panel) | Output | Ignition switch OFF |  | |
| | | | | When Intelligent Key is not in the passenger compart- ment |  | |
| 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 | 0 V |
| | | | | | ON | Battery voltage |
| 83 (Y) | Ground | Remote keyless entry receiver signal | Input/ Output | During waiting | |  |
| | | | | When operating either button on Intelligent Key |  | |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

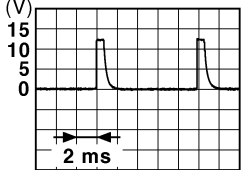
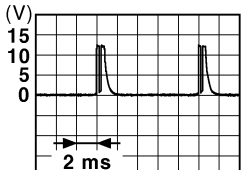

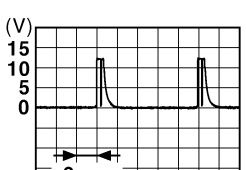
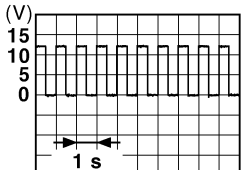
| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|-------------------------------|------------------|-----------------------|---|--|
| + | - | Signal name | Input/ Output | | | |
| 87 (BR) | Ground | Combination switch INPUT 5 | Input | Combination switch | All switch OFF (Wiper intermittent dial 4) |  <p style="text-align: right; margin-right: 50px;">1.4 V</p> |
| | | | | | Front fog lamp switch ON (Wiper intermittent dial 4) |  <p style="text-align: right; margin-right: 50px;">1.3 V</p> |
| | | | | | Any of the conditions below with all switch OFF | <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7 |

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

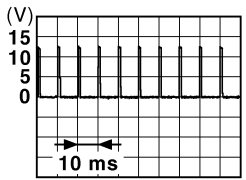
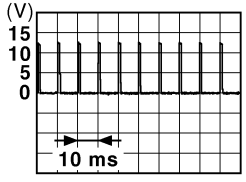
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|--|------------------|---|--|--|
| | | Signal name | Input/ Output | | | |
| + | - | | | | | |
| 88 (V) | Ground | Combination switch INPUT 3 | Input | Combination switch | All switch OFF (Wiper intermittent dial 4) |  <small>JPMIA0041GB</small> 1.4 V |
| | | | | | Lighting switch HI (Wiper intermittent dial 4) |  <small>JPMIA0036GB</small> 1.3 V |
| | | | | | Lighting switch 2ND (Wiper intermittent dial 4) |  <small>JPMIA0037GB</small> 1.3 V |
| | | | | | Any of the conditions below with all switch OFF <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 |  <small>JPMIA0040GB</small> 1.3 V |
| 89 (BR) | Ground | Push-button ignition switch (Push switch) | Input | Push-button igni- tion switch (push switch) | Pressed | 0 V |
| | | | | | Not pressed | Battery voltage |
| 90 (P) | Ground | CAN - L | Input/ Output | — | — | |
| 91 (L) | Ground | CAN - H | Input/ Output | — | — | |
| 92 (LG) | Ground | Key slot illumination | Output | Key slot illumina- tion | OFF | 0 V |
| | | | | | Blinking |  <small>JPMIA0015GB</small> 6.5 V |
| | | | | | ON | Battery voltage |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

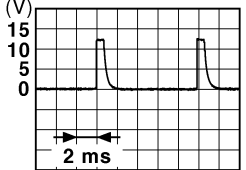

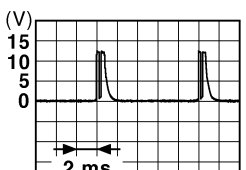
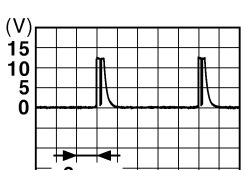
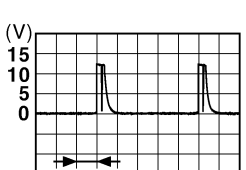
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|---|------------------|-------------------------------|------------------------------------|--|
| | | Signal name | Input/ Output | | | |
| + | - | | | | | |
| 93 (V) | Ground | ON indicator lamp | Output | Ignition switch | OFF or ACC | 0 V |
| | | | | | ON | Battery voltage |
| 95 (O) | Ground | ACC relay control | Output | Ignition switch | OFF | 0 V |
| | | | | | ACC or ON | Battery voltage |
| 96 (GR) | Ground | A/T device (Detention switch) power supply | Output | — | Battery voltage | |
| 97 (L) | Ground | Steering lock condition No. 1 | Input | Steering lock | LOCK status | 0 V |
| | | | | | UNLOCK status | Battery voltage |
| 98 (P) | Ground | Steering lock condition No. 2 | Input | Steering lock | LOCK status | Battery voltage |
| | | | | | UNLOCK status | 0 V |
| 99 (R) | Ground | Selector lever P position switch | Input | Selector lever | P position | 0 V |
| | | | | | Any position other than P | Battery voltage |
| | | ASCD clutch switch (M/T models without ICC) | | ASCD clutch switch | OFF (Clutch pedal is depressed) | 0 V |
| | | | | | ON (Clutch pedal is not depressed) | Battery voltage |
| | | ICC clutch switch (M/T models with ICC) | | ICC clutch switch | OFF (Clutch pedal is depressed) | 0 V |
| | | | | | ON (Clutch pedal is not depressed) | Battery voltage |
| 100 (G) | Ground | Passenger door request switch | Input | Passenger door request switch | ON (Pressed) | 0 V |
| | | | | | OFF (Not pressed) |  1.0 V |
| 101 (SB) | Ground | Driver door request switch | Input | Driver door request switch | ON (Pressed) | 0 V |
| | | | | | OFF (Not pressed) |  1.0 V |
| 102 (O) | Ground | Blower fan motor relay control | Output | Ignition switch | OFF or ACC | 0 V |
| | | | | | ON | Battery voltage |
| 103 (LG) | Ground | Remote keyless entry receiver power supply | Output | Ignition switch OFF | | Battery voltage |
| 106 (W) | Ground | Steering wheel lock unit power supply | Output | Ignition switch | OFF or ACC | Battery voltage |
| | | | | | ON | 0 V |

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

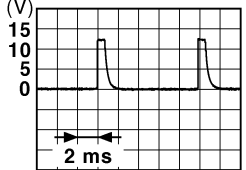
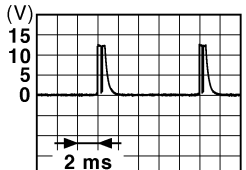
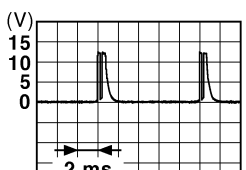
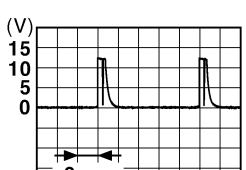
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|-------------------------------|------------------|--|------------------------|---|
| + | - | Signal name | Input/ Output | | | |
| 107 (LG) | Ground | Combination switch INPUT 1 | Input | Combination switch (Wiper intermittent dial 4) | All switch OFF |  <p style="text-align: right; font-size: small;">JPMA0041GB</p> <p style="text-align: center;">1.4 V</p> |
| | | | | | Turn signal switch LH |  <p style="text-align: right; font-size: small;">JPMA0037GB</p> <p style="text-align: center;">1.3 V</p> |
| | | | | | Turn signal switch RH |  <p style="text-align: right; font-size: small;">JPMA0036GB</p> <p style="text-align: center;">1.3 V</p> |
| | | | | | Front wiper switch LO |  <p style="text-align: right; font-size: small;">JPMA0038GB</p> <p style="text-align: center;">1.3 V</p> |
| | | | | | Front washer switch ON |  <p style="text-align: right; font-size: small;">JPMA0039GB</p> <p style="text-align: center;">1.3 V</p> |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

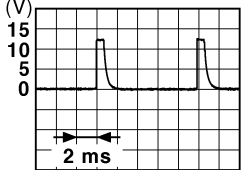

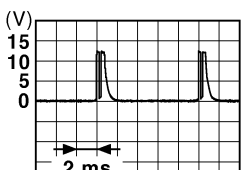
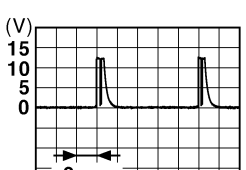
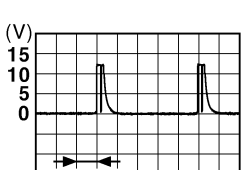
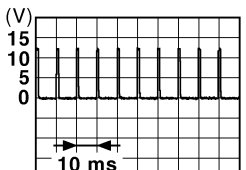
| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|-------------------------------|------------------|-----------------------|---|--|
| | | Signal name | Input/ Output | | | |
| + | - | | | | | |
| 108 (R) | Ground | Combination switch INPUT 4 | Input | Combination switch | All switch OFF (Wiper intermittent dial 4) |  1.4 V |
| | | | | | Lighting switch AUTO (Wiper intermittent dial 4) |  1.3 V |
| | | | | | Lighting switch 1ST (Wiper intermittent dial 4) |  1.3 V |
| | | | | | Any of the conditions below with all switch OFF |  1.3 V |

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

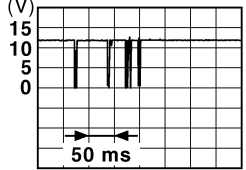
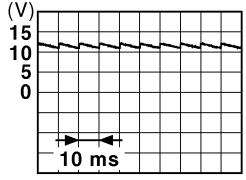
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|-------------------------------|------------------|---|------------------------|--|
| + | - | Signal name | Input/ Output | | | |
| 109 (Y) | Ground | Combination switch INPUT 2 | Input | Combination switch (Wiper intermit- tent dial 4) | All switch OFF |  <p style="text-align: right; font-size: small;">JPMIA0041GB</p> <p style="text-align: center;">1.4 V</p> |
| | | | | | Lighting switch PASS |  <p style="text-align: right; font-size: small;">JPMIA0037GB</p> <p style="text-align: center;">1.3 V</p> |
| | | | | | Lighting switch 2ND |  <p style="text-align: right; font-size: small;">JPMIA0036GB</p> <p style="text-align: center;">1.3 V</p> |
| | | | | | Front wiper switch INT |  <p style="text-align: right; font-size: small;">JPMIA0038GB</p> <p style="text-align: center;">1.3 V</p> |
| | | | | | Front wiper switch HI |  <p style="text-align: right; font-size: small;">JPMIA0040GB</p> <p style="text-align: center;">1.3 V</p> |
| | | | | | Pressed | 0 V |
| 110 (G) | Ground | Hazard switch | Input | Hazard switch | Not pressed |  <p style="text-align: right; font-size: small;">JPMIA0012GB</p> <p style="text-align: center;">1.1 V</p> |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

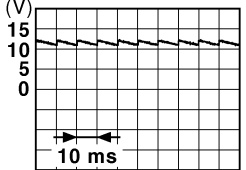
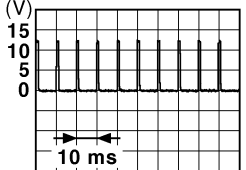
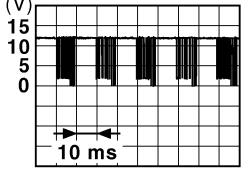
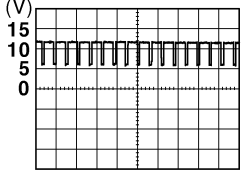
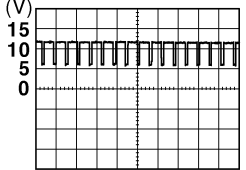
| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|--|------------------|--|--|---|
| | | Signal name | Input/ Output | | | |
| + | - | | | | | |
| 111 (Y) | Ground | Steering lock unit communication | Input/ Output | Steering lock | LOCK status | Battery voltage |
| | | | | | LOCK or UNLOCK |  <p style="text-align: right; font-size: small;">JMKIA0066GB</p> |
| | | | | | For 15 seconds after UN- LOCK | Battery voltage |
| | | | | | 15 seconds or later after UNLOCK | 0 V |
| 113 (P) | Ground | Optical sensor signal | Input | Ignition switch ON | When bright outside of the vehicle | Close to 5 V |
| | | | | When dark outside of the vehicle | Close to 0 V | |
| 114 (R) | Ground | Clutch interlock switch | Input | Clutch interlock switch | OFF (Clutch pedal is not depressed) | 0 V |
| | | | | | ON (Clutch pedal is de- pressed) | Battery voltage |
| 116 (SB) | Ground | Stop lamp switch 1 | Input | — | Battery voltage | |
| 118 (P) | Ground | Stop lamp switch 2 | Input | Stop lamp switch | OFF (Brake pedal is not depressed) | 0 V |
| | | | | | ON (Brake pedal is de- pressed) | Battery voltage |
| | | | | ICC brake hold relay (With ICC) | OFF | 0 V |
| | | | | | ON | Battery voltage |
| 119 (SB) | Ground | Front door lock as- sembly driver side (Unlock sensor) | Input | Driver door | LOCK status |  <p style="text-align: right; font-size: small;">JPMIA0011GB</p> <p style="text-align: center;">11.8 V</p> |
| | | | | | UNLOCK status | 0 V |
| | | | | | When Intelligent Key is inserted into key slot | Battery voltage |
| 121 (R) | Ground | Key slot switch | Input | When Intelligent Key is not inserted into key slot | 0 V | |
| 122 (V) | Ground | ACC feedback signal | Input | Ignition switch | OFF | 0 V |
| | | | | | ACC or ON | Battery voltage |
| 123 (W) | Ground | IGN feedback signal | Input | Ignition switch | OFF or ACC | 0 V |
| | | | | | ON | Battery voltage |

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

MWI

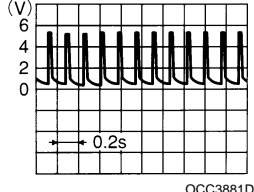
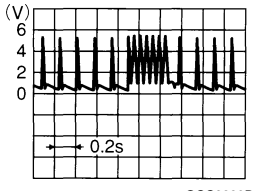
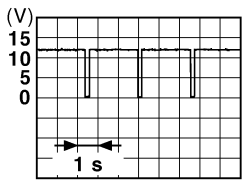
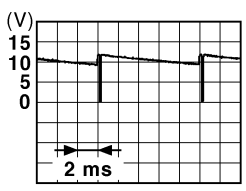
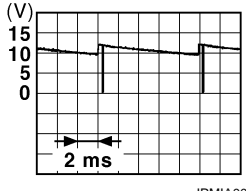
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|---|------------------|--|--|
| + | - | Signal name | Input/ Output | | |
| 124 (LG) | Ground | Passenger door switch | Input | Passenger door switch |  <p style="text-align: right; font-size: small;">JPMA0011GB</p> <p style="text-align: center;">11.8 V</p> |
| | | | | OFF (When passenger door closes) | 0 V |
| 129 (O) | Ground | Trunk lid opener cancel switch | Input | Trunk lid opener cancel switch |  <p style="text-align: right; font-size: small;">JPMA0012GB</p> <p style="text-align: center;">1.1 V</p> |
| | | | | CANCEL | 0 V |
| 132 (V) | Ground | Power window switch communication | Input/ Output | Ignition switch ON |  <p style="text-align: right; font-size: small;">JPMA0013GB</p> <p style="text-align: center;">10.2 V</p> |
| | | | | Ignition switch OFF or ACC | 0 V |
| 133 (W) | Ground | Push-button ignition switch illumination | Output | Push-button igni- tion switch illumi- nation | <p>NOTE: The pulse width of this wave is varied by the illumination bright- ening/dimming level.</p>  <p style="text-align: right; font-size: small;">JPMA0159GB</p> |
| | | | | ON (When tail lamps OFF) | 5.5 V |
| | | | | ON (When tail lamps ON) | <p>NOTE: The pulse width of this wave is varied by the illumination bright- ening/dimming level.</p>  <p style="text-align: right; font-size: small;">JPMA0159GB</p> |
| OFF | 0 V | | | | |
| 134 (GR) | Ground | LOCK indicator lamp | Output | LOCK indicator lamp | 0 V |
| | | | | OFF | Battery voltage |
| 137 (O) | Ground | Receiver and sensor ground | Input | Ignition switch ON | 0 V |
| 138 (V) | Ground | Receiver and sensor power supply output | Output | Ignition switch | OFF |
| | | | | ACC or ON | 5.0 V |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

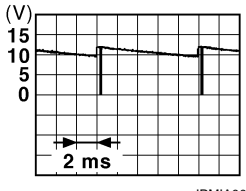
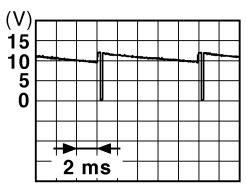
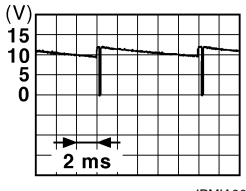
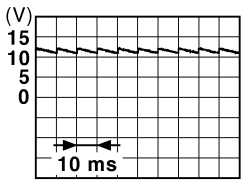
| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|--|------------------|--|--|
| | | Signal name | Input/ Output | | |
| + | - | | | | |
| 139 (L) | Ground | Tire pressure receiver signal | Input/ Output | Ignition switch ON | Standby state  OCC3881D |
| | | | | | When receiving the signal from the transmitter  OCC3880D |
| 140 (GR) | Ground | Selector lever P/N position signal | Input | Selector lever | P or N position: 12.0 V Except P and N positions: 0 V |
| | | | | | ON: 0 V |
| 141 (G) | Ground | Security indicator signal | Output | Security indicator | Blinking  JPMA0014GB 11.3 V |
| | | | | | OFF: Battery voltage |
| 142 (O) | Ground | Combination switch OUTPUT 5 | Output | Combination switch (Wiper intermittent dial 4) | All switch OFF: 0 V |
| | | | | | Lighting switch 1ST |
| | | | | | Lighting switch HI |
| | | | | | Lighting switch 2ND |
| | | Turn signal switch RH  JPMA0031GB 10.7 V | | | |
| 143 (P) | Ground | Combination switch OUTPUT 1 | Output | Combination switch | All switch OFF (Wiper intermittent dial 4): 0 V |
| | | | | | Front wiper switch HI (Wiper intermittent dial 4) |
| | | | | | Any of the conditions below with all switch OFF <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7  JPMA0032GB 10.7 V |

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

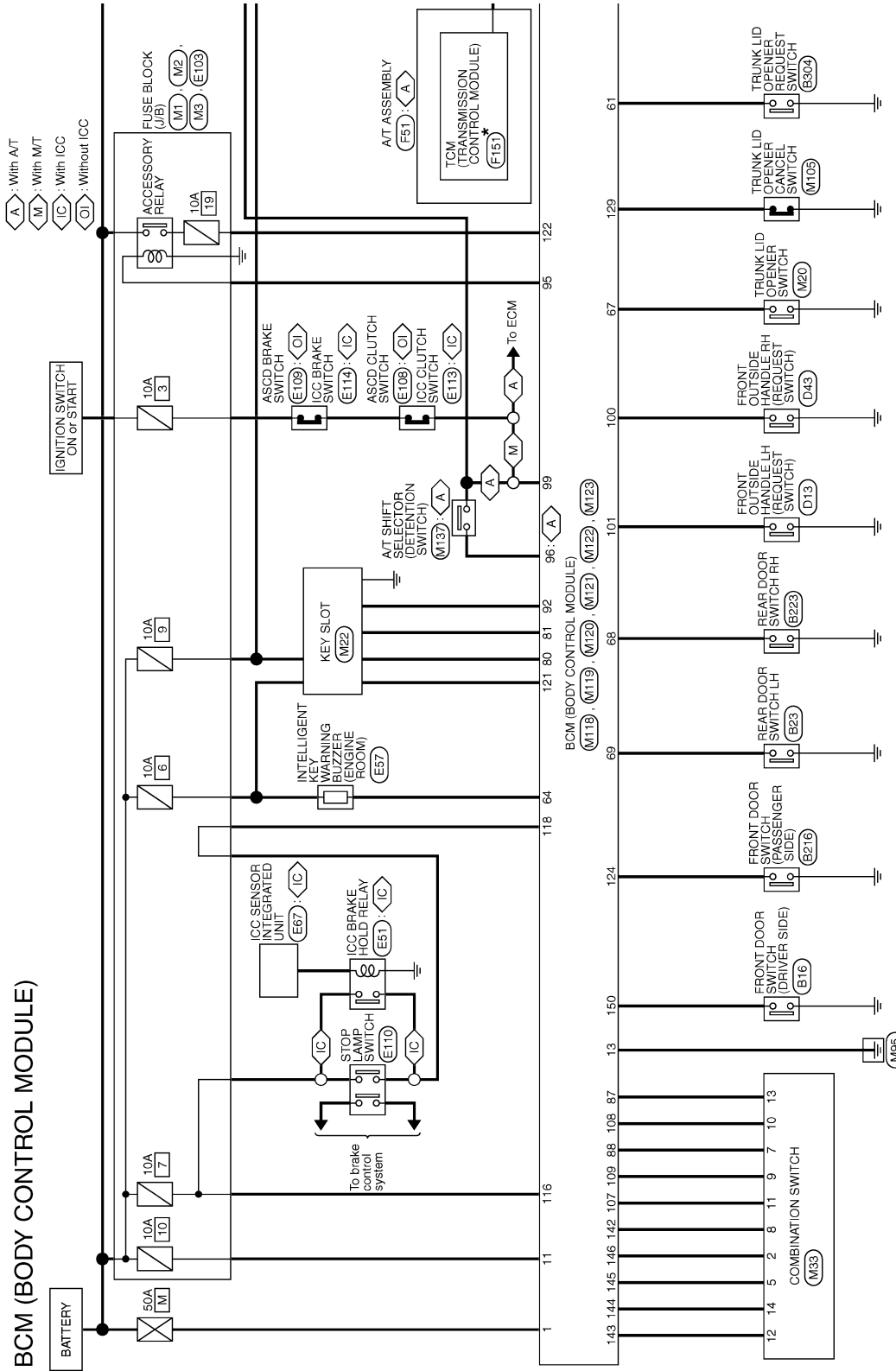
| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|---|--------|---|------------------|---|---|---|
| + | - | Signal name | Input/ Output | | | |
| 144 (G) | Ground | Combination switch OUTPUT 2 | Output | Combination switch | All switch OFF (Wiper intermittent dial 4) | 0 V |
| | | | | | Front washer switch ON (Wiper intermittent dial 4) |  |
| Any of the conditions below with all switch OFF | | | | | 10.7 V | |
| <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 | | | | | | |
| 145 (L) | Ground | Combination switch OUTPUT 3 | Output | Combination switch (Wiper intermit- tent dial 4) | All switch OFF | 0 V |
| | | | | | Front wiper switch INT |  |
| | | | | | Front wiper switch LO | |
| | | | | | Lighting switch AUTO | |
| Lighting switch AUTO | | | | | | |
| 146 (SB) | Ground | Combination switch OUTPUT 4 | Output | Combination switch (Wiper intermit- tent dial 4) | All switch OFF | 0 V |
| | | | | | Front fog lamp switch ON |  |
| | | | | | Lighting switch 2ND | |
| | | | | | Lighting switch PASS | |
| | | | | | Turn signal switch LH | |
| Turn signal switch LH | | | | | | |
| 149 (W) | Ground | Tire pressure warn- ing check switch | Input | — | 5 V | |
| 150 (GR) | Ground | Driver door switch | Input | Driver door switch | OFF (When driver door closes) |  |
| | | | | | ON (When driver door opens) | |
| 151 (G) | Ground | Rear window defog- ger relay | Output | Rear window de- fogger | Active | 0 V |
| | | | | | Not activated | Battery voltage |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Wiring Diagram - BCM -

INFOID:000000004743916



*: This connector is not shown in "Harness Layout".

2009/03/17

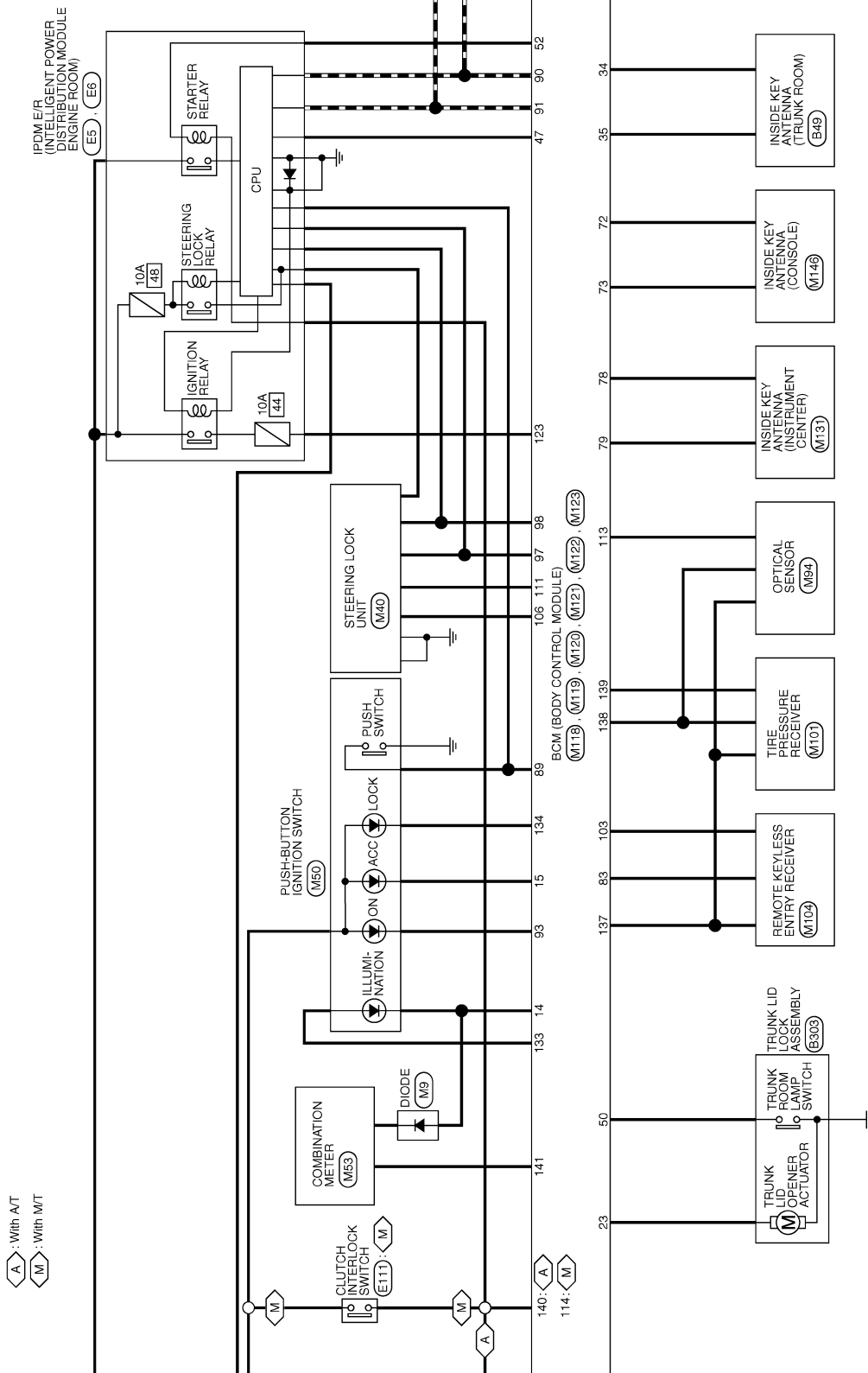
JCMWM4257GB

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

MWI

BCM (BODY CONTROL MODULE)

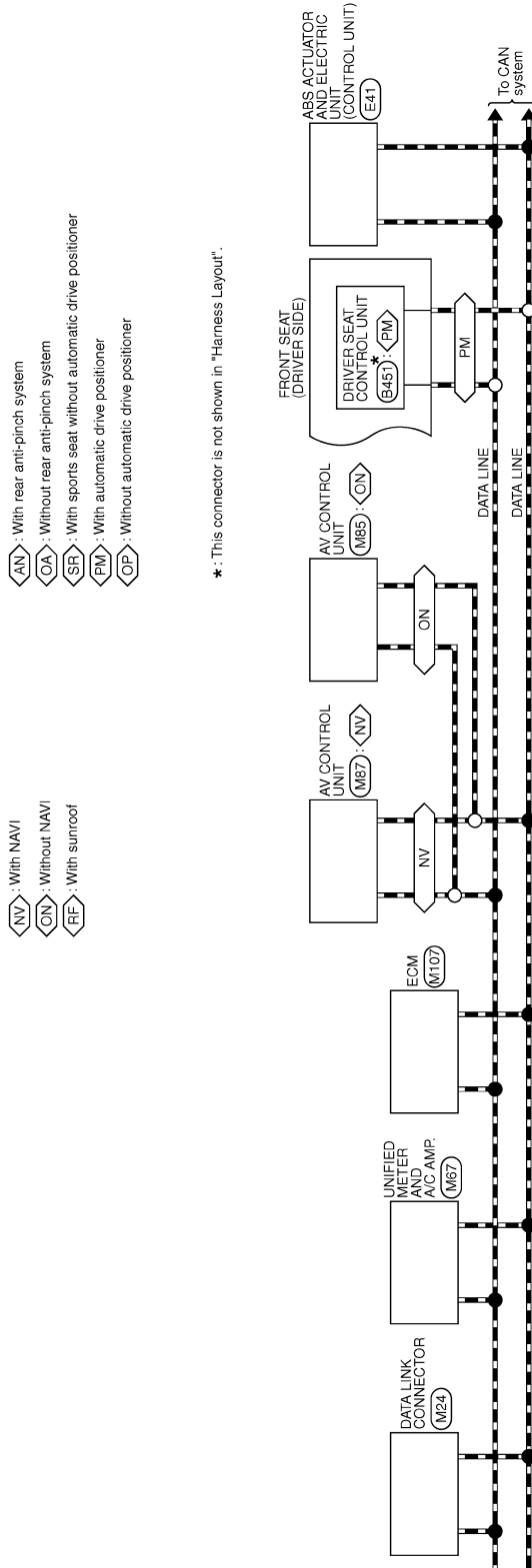
< ECU DIAGNOSIS INFORMATION >



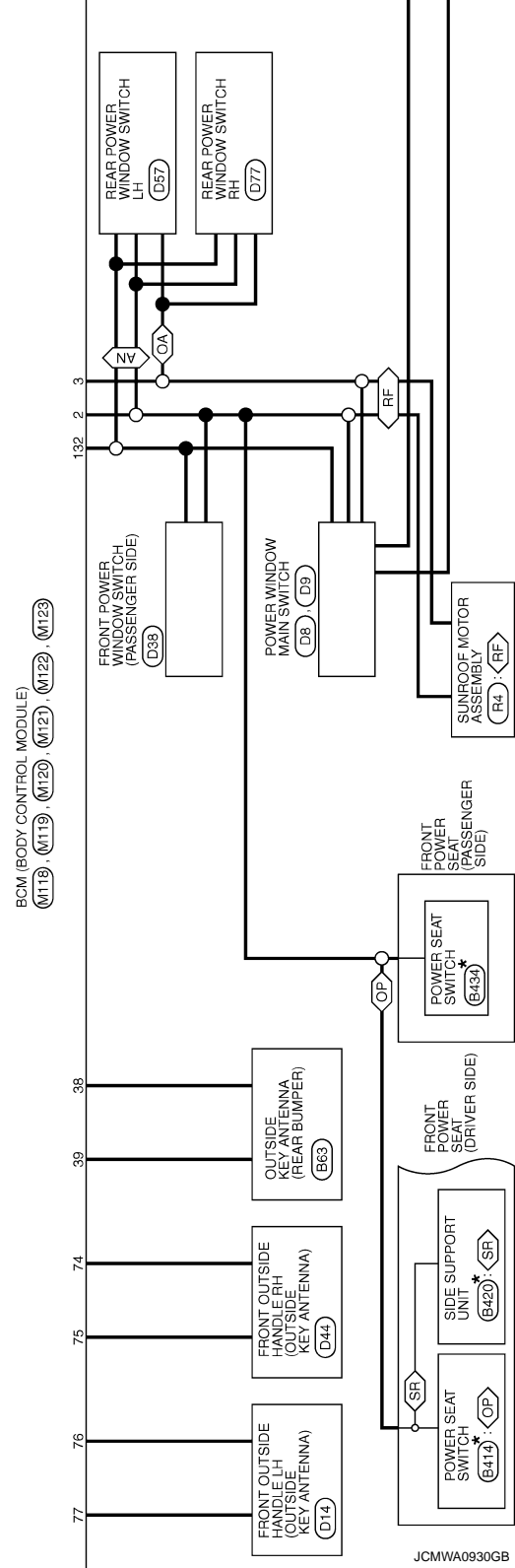
JCMWA0929GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >



*: This connector is not shown in "Harness Layout".

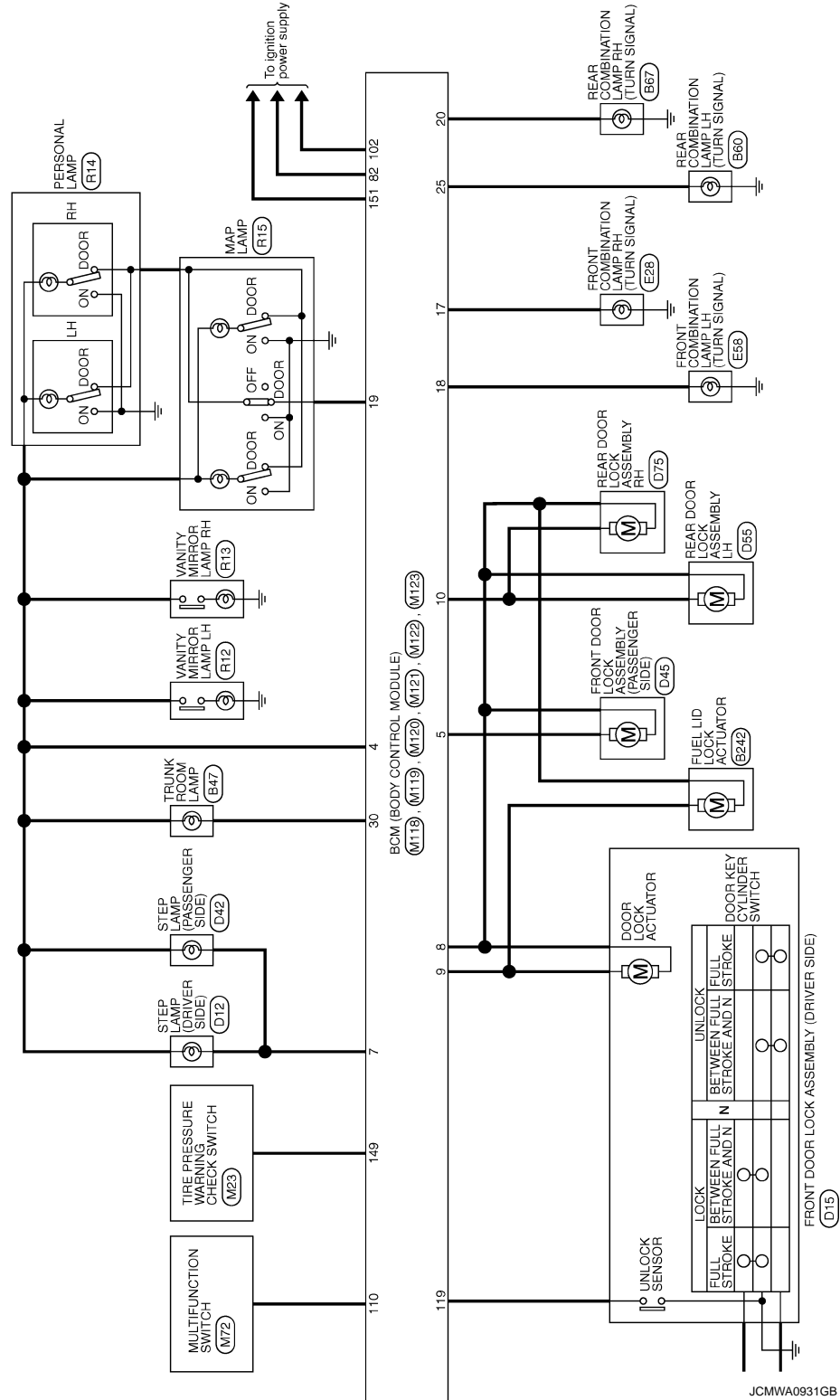


A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

MWI

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

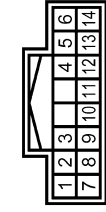


BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

| | |
|----------------|--------------------|
| Connector No. | M33 |
| Connector Name | COMBINATION SWITCH |
| Connector Type | TH16FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 2 | SB | OUTPUT 4 |
| 5 | L | OUTPUT 3 |
| 7 | V | INPUT 3 |
| 8 | O | OUTPUT 5 |
| 9 | Y | INPUT 2 |
| 10 | R | INPUT 4 |
| 11 | LG | INPUT 1 |
| 12 | P | OUTPUT 1 |
| 13 | BR | INPUT 5 |
| 14 | G | OUTPUT 2 |

| | |
|----------------|---------------------------|
| Connector No. | M120 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | MS12FW-CS |



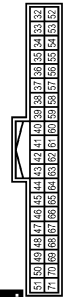
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 20 | V | REAR FLASHER OUTPUT(RIGHT) |
| 23 | L | TRUNK OPENER OUTPUT |
| 25 | Y | REAR FLASHER OUTPUT(LEFT) |
| 30 | P | TRUNK LAMP OUTPUT |

| | |
|----------------|---------------------------|
| Connector No. | M118 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | MG3FB-LC |



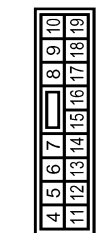
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|--------------------------------|
| 1 | W | BAT (E/L) |
| 2 | Y | POWER WINDOW POWER SUPPLY(BAT) |
| 3 | O | POWER WINDOW POWER SUPPLY(RAP) |

| | |
|----------------|---------------------------|
| Connector No. | M121 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FGY-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 34 | SB | TRUNK ANTI- |
| 35 | V | TRUNK ANTI+ |
| 38 | B | BACK ANTI- |
| 39 | W | BACK ANTI+ |
| 47 | Y | RLG USM CONT1 |
| 50 | O | TRUNK SW |
| 52 | SB | ST CONT USM |
| 61 | SB | TRUNK RECLEAST SW |
| 64 | G | BUZZER |
| 67 | GR | INTERIOR TRUNK SW |
| 68 | BR | DOOR SW (RR RH) |

| | |
|----------------|---------------------------|
| Connector No. | M119 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | NS16FW-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 4 | LG | BAT SAVER OUTPUT |
| 5 | V | DOOR UNLOCK OUTPUT (AS) |
| 7 | SB | STEP LAMP OUTPUT |
| 8 | V | DOOR LOCK OUTPUT (ALL) |
| 9 | G | DOOR UNLOCK OUTPUT (DR) |
| 10 | BR | DOOR UNLOCK OUTPUT (RR) |
| 11 | R | BAT (FUSE) |
| 13 | B | GND |
| 14 | W | RING/SW LED GND |
| 15 | O | ACC LED |
| 17 | W | FRONT FLASHER OUTPUT(RIGHT) |

| | | |
|----|---|-----------------|
| 69 | R | DOOR SW (RR LH) |
|----|---|-----------------|

| | | |
|----|---|----------------------------|
| 18 | O | FRONT FLASHER OUTPUT(LEFT) |
| 19 | V | ROOM LAMP OUTPUT |

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

MWI

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

| | | |
|-----|----|--------------------------------|
| 133 | L | RING/SW LED |
| 134 | LG | LOCK LED |
| 137 | O | SENSOR GND |
| 138 | V | AUTO LIGHT SENSOR POWER SUPPLY |
| 139 | L | RECEIVER SIGNAL |
| 140 | GR | SHIFT N/P |
| 141 | G | SECURITY INDICATOR OUTPUT |
| 142 | O | COMBI SW OUTPUT 5 |
| 143 | P | COMBI SW OUTPUT 1 |
| 144 | G | COMBI SW OUTPUT 2 |
| 145 | L | COMBI SW OUTPUT 3 |
| 146 | SB | COMBI SW OUTPUT 4 |
| 148 | W | MODE TRG SW |
| 149 | GR | DOOR SW (DR) |
| 150 | GR | REAR DEFROGGER OUTPUT |
| 151 | G | |

| | |
|----------------|---------------------------|
| Connector No. | M123 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40F8-NH |



| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 113 | O | AUTO LIGHT SENSOR INPUT |
| 114 | R | CLUTCH SW |
| 116 | SB | STOP LAMP LOW |
| 118 | BR | STOP LAMP HIGH |
| 119 | SB | DR CONDITION SW |
| 121 | SB | KEY SWITCH SIGNAL |
| 122 | V | ACC F/B |
| 123 | W | IGN F/B |
| 124 | LG | DOOR SW (AS) |
| 129 | O | TRUNK CANCEL SW |
| 132 | V | POWER WINDOW SERIAL LINK |

| | | |
|-----|----|----------------------------|
| 83 | Y | KEYLESS TUNER SIGNAL |
| 87 | BR | COMBI SW INPUT 5 |
| 88 | V | COMBI SW INPUT 3 |
| 89 | BR | ENG SW |
| 90 | P | CAN-L |
| 91 | L | CAN-H |
| 92 | LG | KEY SLOT ILL |
| 93 | V | ON LED |
| 95 | O | ACC CONT |
| 96 | GR | A/T SHIFT SELECTOR |
| 97 | L | S/L CONDITION 1 |
| 98 | P | S/L CONDITION 2 |
| 99 | R | SHIFT P (With A/T) |
| 99 | BR | SHIFT P (With M/T) |
| 100 | Y | AS REQUEST SW |
| 101 | P | DR REQUEST SW |
| 102 | O | IGN2 CONT |
| 103 | L | KEYLESS TUNER POWER SUPPLY |
| 106 | W | S/L I2V (CPU) |
| 107 | LG | COMBI SW INPUT 1 |
| 108 | R | COMBI SW INPUT 4 |
| 109 | Y | COMBI SW INPUT 2 |
| 110 | G | HAZARD SW |
| 111 | Y | S/L (K LINE) |

BCM (BODY CONTROL MODULE)

| | |
|----------------|---------------------------|
| Connector No. | M122 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40F8-NH |



| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 72 | R | ROOM ANT2- |
| 73 | G | ROOM ANT2+ |
| 74 | SB | AS DOOR ANT- |
| 75 | BR | AS DOOR ANT+ |
| 76 | V | DR DOOR ANT- |
| 77 | LG | DR DOOR ANT+ |
| 78 | Y | ROOM ANTI- |
| 79 | BR | ROOM ANTI+ |
| 80 | GR | IMMOBI ANTENNA CONTROL |
| 81 | W | IMMOBI ANTENNA SIGNAL |
| 82 | R | IGN ELEG CONT |

JCMWM4258GB

INFOID:000000004743917

Fail-safe

FAIL-SAFE CONTROL BY DTC

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

| Display contents of CONSULT | Fail-safe | Cancellation | A |
|-----------------------------|--|---|---|
| B2013: ID DISCORD BCM-S/L | Inhibit engine cranking | Erase DTC | A |
| B2014: CHAIN OF S/L-BCM | Inhibit engine cranking | Erase DTC | B |
| B2190: NATS ANTenna AMP | Inhibit engine cranking | Erase DTC | B |
| B2191: DIFFERENCE OF KEY | Inhibit engine cranking | Erase DTC | C |
| B2192: ID DISCORD BCM-ECM | Inhibit engine cranking | Erase DTC | C |
| B2193: CHAIN OF BCM-ECM | Inhibit engine cranking | Erase DTC | D |
| B2195: ANTI SCANNING | Inhibit engine cranking | Ignition switch ON → OFF | D |
| B2557: VEHICLE SPEED | Inhibit steering lock | When normal vehicle speed signals are received from ABS actuator and electric unit (control unit) for 500 ms | E |
| B2560: STARTER CONT RELAY | Inhibit engine cranking | 500 ms after the following CAN signal communication status becomes consistent <ul style="list-style-type: none"> • Starter control relay signal • Starter relay status signal | E |
| B2563: HI VOLTAGE | <ul style="list-style-type: none"> • Inhibit engine cranking • Inhibit steering lock | 500 ms after the power supply voltage decreases to less than 18 V | F |
| B2601: SHIFT POSITION | Inhibit steering lock | 500 ms after the following signal reception status becomes consistent <ul style="list-style-type: none"> • Selector lever P position switch signal • P range signal (CAN) | G |
| B2602: SHIFT POSITION | Inhibit steering lock | 5 seconds after the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> • 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 | H |
| B2603: SHIFT POSI STATUS | Inhibit steering lock | 500 ms after the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> • 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) | J |
| B2604: PNP SW | Inhibit steering lock | 500 ms after any of the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> • Status 1 <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> - 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 | K |
| B2605: PNP SW | Inhibit steering lock | 500 ms after any of the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> • Ignition switch is in the ON position <ul style="list-style-type: none"> - Power position: IGN - Selector lever P/N position signal: Except P and N positions (0 V) - Interlock/PNP switch signal (CAN): OFF • Status 2 <ul style="list-style-type: none"> - Ignition switch is in the ON position - Selector lever P/N position signal: P or N position (battery voltage) - PNP switch signal (CAN): ON | M |
| B2606: S/L RELAY | Inhibit engine cranking | 500 ms after the following CAN signal communication status becomes consistent <ul style="list-style-type: none"> • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal) | O |

BCM (BODY CONTROL MODULE)

< 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 becomes consistent <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> Starter motor relay control signal Starter relay status signal (CAN) |
| B2609: S/L STATUS | <ul style="list-style-type: none"> Inhibit engine cranking Inhibit steering lock | When the following steering lock conditions agree <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 fulfilled <ul style="list-style-type: none"> Power position changes to ACC Receives engine status signal (CAN) |
| B2612: S/L STATUS | <ul style="list-style-type: none"> Inhibit engine cranking Inhibit steering lock | When any of the following conditions are fulfilled <ul style="list-style-type: none"> 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 becomes normal |
| B2619: BCM | Inhibit engine cranking | 1 second after the steering lock unit power supply output control inside BCM becomes normal |
| B261E: VEHICLE TYPE | Inhibit engine cranking | BCM initialization |
| B26E1: ENG STATE NO RES | Inhibit engine cranking | When any of the following conditions are fulfilled <ul style="list-style-type: none"> Power position changes to ACC Receives engine status signal (CAN) |

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:000000004743918

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

| Priority | DTC |
|----------|--|
| 1 | <ul style="list-style-type: none"> B2562: LOW VOLTAGE B2563: HI VOLTAGE |
| 2 | <ul style="list-style-type: none"> U1000: CAN COMM U1010: CONTROL UNIT(CAN) |
| 3 | <ul style="list-style-type: none"> B2190: NATS ANTENA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

| Priority | DTC | | | |
|----------|---|---|---|-----|
| 4 | <ul style="list-style-type: none"> • 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 • B2606: S/L RELAY • B2607: S/L RELAY • B2608: STARTER RELAY • B2609: S/L STATUS • B260A: IGNITION RELAY • B260B: STEERING LOCK UNIT • B260C: STEERING LOCK UNIT • B260D: STEERING LOCK UNIT • B260F: ENG STATE SIG LOST • B2611: ACC RELAY • 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 • B26E1: ENG STATE NO RES • C1729: VHCL SPEED SIG ERR • U0415: VEHICLE SPEED SIG | A | | |
| | B | | | |
| | C | | | |
| | D | | | |
| | E | | | |
| | F | | | |
| | G | | | |
| | H | | | |
| | I | | | |
| | J | | | |
| | 5 | <ul style="list-style-type: none"> • 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] RL • C1712: [CHECKSUM ERR] FL • C1713: [CHECKSUM ERR] FR • C1714: [CHECKSUM ERR] RR • C1715: [CHECKSUM ERR] RL • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1720: [CODE ERR] FL • C1721: [CODE ERR] FR • C1722: [CODE ERR] RR • C1723: [CODE ERR] RL • C1724: [BATT VOLT LOW] FL • C1725: [BATT VOLT LOW] FR • C1726: [BATT VOLT LOW] RR • C1727: [BATT VOLT LOW] RL • C1734: CONTROL UNIT | K | |
| | | L | | |
| | | M | | |
| | | O | | |
| | | P | | |
| | | 6 | <ul style="list-style-type: none"> • B2621: INSIDE ANTENNA • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA | MWI |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

DTC Index

INFOID:000000004743919

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 and IGN Counter, refer to [BCS-13, "COMMON ITEM : CONSULT-III Function \(BCM - COMMON ITEM\)"](#).

| CONSULT display | Fail-safe | Freeze Frame Data | Intelligent Key warning lamp ON | Tire pressure monitor warning lamp ON | Reference page |
|--|-----------|-------------------|---------------------------------|---------------------------------------|------------------------|
| No DTC is detected. further testing may be required. | — | — | — | — | — |
| U1000: CAN COMM | — | — | — | — | BCS-33 |
| U1010: CONTROL UNIT(CAN) | — | — | — | — | BCS-34 |
| U0415: VEHICLE SPEED SIG | — | — | — | — | BCS-35 |
| B2013: ID DISCORD BCM-S/L | × | × | — | — | SEC-54 |
| B2014: CHAIN OF S/L-BCM | × | × | — | — | SEC-55 |
| B2190: NATS ANTENA AMP | × | — | — | — | SEC-46 |
| B2191: DIFFERENCE OF KEY | × | — | — | — | SEC-49 |
| B2192: ID DISCORD BCM-ECM | × | — | — | — | SEC-50 |
| B2193: CHAIN OF BCM-ECM | × | — | — | — | SEC-52 |
| B2195: ANTI SCANNING | × | — | — | — | SEC-53 |
| B2553: IGNITION RELAY | — | × | — | — | PCS-50 |
| B2555: STOP LAMP | — | × | — | — | SEC-58 |
| B2556: PUSH-BTN IGN SW | — | × | × | — | SEC-60 |
| B2557: VEHICLE SPEED | × | × | × | — | SEC-62 |
| B2560: STARTER CONT RELAY | × | × | × | — | SEC-63 |
| B2562: LOW VOLTAGE | — | × | — | — | BCS-36 |
| B2563: HI VOLTAGE | × | × | × | — | BCS-37 |
| B2601: SHIFT POSITION | × | × | × | — | SEC-64 |
| B2602: SHIFT POSITION | × | × | × | — | SEC-67 |
| B2603: SHIFT POSI STATUS | × | × | × | — | SEC-69 |
| B2604: PNP SW | × | × | × | — | SEC-72 |
| B2605: PNP SW | × | × | × | — | SEC-74 |
| B2606: S/L RELAY | × | × | × | — | SEC-76 |
| B2607: S/L RELAY | × | × | × | — | SEC-77 |
| B2608: STARTER RELAY | × | × | × | — | SEC-79 |
| B2609: S/L STATUS | × | × | × | — | SEC-81 |
| B260A: IGNITION RELAY | × | × | × | — | PCS-52 |
| B260B: STEERING LOCK UNIT | — | × | × | — | SEC-85 |
| B260C: STEERING LOCK UNIT | — | × | × | — | SEC-86 |
| B260D: STEERING LOCK UNIT | — | × | × | — | SEC-87 |
| B260F: ENG STATE SIG LOST | × | × | × | — | SEC-88 |
| B2611: ACC RELAY | — | × | — | — | PCS-54 |
| B2612: S/L STATUS | × | × | × | — | SEC-90 |
| B2614: ACC RELAY CIRC | — | × | × | — | PCS-57 |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

| CONSULT display | Fail-safe | Freeze Frame Data | Intelligent Key warning lamp ON | Tire pressure monitor warning lamp ON | Reference page | |
|---------------------------|-----------|-------------------|---------------------------------|---------------------------------------|-------------------------|-----|
| B2615: BLOWER RELAY CIRC | — | × | × | — | PCS-60 | A |
| B2616: IGN RELAY CIRC | — | × | × | — | PCS-63 | B |
| B2617: STARTER RELAY CIRC | × | × | × | — | SEC-94 | |
| B2618: BCM | × | × | × | — | PCS-66 | C |
| B2619: BCM | × | × | × | — | SEC-96 | |
| B261A: PUSH-BTN IGN SW | — | × | × | — | SEC-97 | |
| B261E: VEHICLE TYPE | × | × | × (Turn ON for 15 seconds) | — | SEC-100 | D |
| B2621: INSIDE ANTENNA | — | × | — | — | DLK-61 | |
| B2622: INSIDE ANTENNA | — | × | — | — | DLK-63 | E |
| B2623: INSIDE ANTENNA | — | × | — | — | DLK-65 | |
| B26E1: ENG STATE NO RES | × | × | × | — | SEC-89 | F |
| C1704: LOW PRESSURE FL | — | — | — | × | WT-15 | |
| C1705: LOW PRESSURE FR | — | — | — | × | WT-15 | |
| C1706: LOW PRESSURE RR | — | — | — | × | WT-15 | G |
| C1707: LOW PRESSURE RL | — | — | — | × | WT-15 | |
| C1708: [NO DATA] FL | — | — | — | × | WT-17 | |
| C1709: [NO DATA] FR | — | — | — | × | WT-17 | H |
| C1710: [NO DATA] RR | — | — | — | × | WT-17 | |
| C1711: [NO DATA] RL | — | — | — | × | WT-17 | I |
| C1712: [CHECKSUM ERR] FL | — | — | — | × | WT-20 | |
| C1713: [CHECKSUM ERR] FR | — | — | — | × | WT-20 | J |
| C1714: [CHECKSUM ERR] RR | — | — | — | × | WT-20 | |
| C1715: [CHECKSUM ERR] RL | — | — | — | × | WT-20 | |
| C1716: [PRESSDATA ERR] FL | — | — | — | × | WT-23 | K |
| C1717: [PRESSDATA ERR] FR | — | — | — | × | WT-23 | |
| C1718: [PRESSDATA ERR] RR | — | — | — | × | WT-23 | |
| C1719: [PRESSDATA ERR] RL | — | — | — | × | WT-23 | L |
| C1720: [CODE ERR] FL | — | — | — | × | WT-25 | |
| C1721: [CODE ERR] FR | — | — | — | × | WT-25 | M |
| C1722: [CODE ERR] RR | — | — | — | × | WT-25 | |
| C1723: [CODE ERR] RL | — | — | — | × | WT-25 | |
| C1724: [BATT VOLT LOW] FL | — | — | — | × | WT-28 | MWI |
| C1725: [BATT VOLT LOW] FR | — | — | — | × | WT-28 | |
| C1726: [BATT VOLT LOW] RR | — | — | — | × | WT-28 | |
| C1727: [BATT VOLT LOW] RL | — | — | — | × | WT-28 | O |
| C1729: VHCL SPEED SIG ERR | — | — | — | × | WT-31 | |
| C1734: CONTROL UNIT | — | — | — | × | WT-32 | P |

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Reference Value

INFOID:000000003038027

VALUES ON THE DIAGNOSIS TOOL

| Monitor Item | Condition | | Value/Status |
|---------------|---|---|--------------|
| RAD FAN REQ | Engine idle speed | Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc. | 0 - 100 % |
| AC COMP REQ | Engine running | A/C switch OFF | Off |
| | | A/C switch ON (Compressor is operating) | On |
| TAIL&CLR REQ | Lighting switch OFF | | Off |
| | Lighting switch 1ST, 2ND, HI or AUTO (Light is illuminated) | | On |
| HL LO REQ | Lighting switch OFF | | Off |
| | Lighting switch 2ND HI or AUTO (Light is illuminated) | | On |
| HL HI REQ | Lighting switch OFF | | Off |
| | Lighting switch HI | | On |
| FR FOG REQ | Lighting switch 2ND or AUTO (Light is illuminated) | Front fog lamp switch OFF | Off |
| | | <ul style="list-style-type: none"> • Front fog lamp switch ON • Daytime running light activated (Only for Canada) | On |
| FR WIP REQ | Ignition switch ON | Front wiper switch OFF | Stop |
| | | Front wiper switch INT | 1LOW |
| | | Front wiper switch LO | Low |
| | | Front wiper switch HI | Hi |
| WIP AUTO STOP | Ignition switch ON | Front wiper stop position | STOP P |
| | | Any position other than front wiper stop position | ACT P |
| WIP PROT | Ignition switch ON | Front wiper operates normally | Off |
| | | Front wiper stops at fail-safe operation | BLOCK |
| IGN RLY1 -REQ | Ignition switch OFF or ACC | | Off |
| | Ignition switch ON | | On |
| IGN RLY | Ignition switch OFF or ACC | | Off |
| | Ignition switch ON | | On |
| PUSH SW | Release the push-button ignition switch | | Off |
| | Press the push-button ignition switch | | On |
| INTER/NP SW | Ignition switch ON | A/T selector lever in any position other than P or N (A/T models) | Off |
| | | Release clutch pedal (M/T models) | |
| | Ignition switch ON | A/T selector lever in P or N position (A/T models) | On |
| | | Depress clutch pedal (M/T models) | |
| ST RLY CONT | Ignition switch ON | | Off |
| | At engine cranking | | On |

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

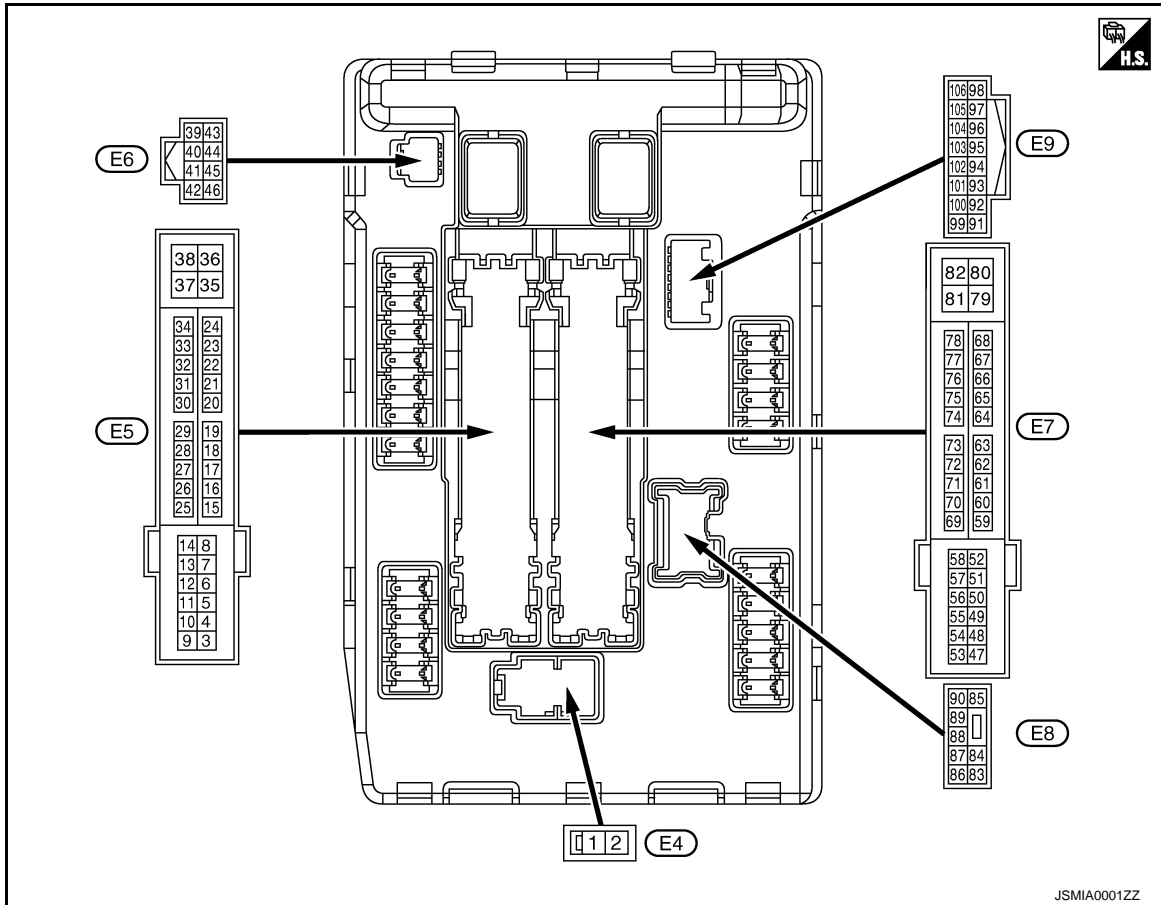
< ECU DIAGNOSIS INFORMATION >

| Monitor Item | Condition | Value/Status | |
|----------------|---|--------------|-----|
| IHBT RLY -REQ | Ignition switch ON | Off | A |
| | At engine cranking | On | |
| ST/INHI RLY | Ignition switch ON | Off | B |
| | At engine cranking | INHI → ST | |
| | The status of starter relay or starter control relay cannot be recognized by the battery voltage malfunction, etc. when the starter relay is ON and the starter control relay is OFF | UNKWN | C |
| DETENT SW | Ignition switch ON | Off | D |
| | Release the A/T selector button with A/T selector lever in P position NOTE: Fixed On for M/T models | On | E |
| S/L RLY -REQ | None of the conditions below are present | Off | F |
| | <ul style="list-style-type: none"> Open the driver door after the ignition switch is turned OFF (for a few seconds) Press the push-button ignition switch when the steering lock is activated Depress the clutch pedal when the steering lock is activated | On | G |
| S/L STATE | Steering lock is activated | LOCK | |
| | Steering lock is deactivated | UNLK | H |
| | [DTC: B210A] is detected | UNKWN | |
| DTRL REQ | NOTE: The item is indicated, but not monitored. | Off | I |
| OIL P SW | Ignition switch OFF, ACC or engine running | Open | |
| | Ignition switch ON | Close | J |
| HOOD SW | Close the hood | Off | |
| | Open the hood | On | |
| HL WASHER REQ | NOTE: The item is indicated, but not monitored. | Off | K |
| THFT HRN REQ | Not operation | Off | |
| | <ul style="list-style-type: none"> Panic alarm is activated Horn is activated with VEHICLE SECURITY (THEFT WARNING) SYSTEM | On | L |
| HORN CHIRP | Not operating | Off | M |
| | Door locking with Intelligent Key (horn chirp mode) | On | |
| CRNRNG LMP REQ | NOTE: The item is indicated, but not monitored. | Off | MWI |

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

TERMINAL LAYOUT



PHYSICAL VALUES

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|--|------------------|---------------------------|---|--------------------|
| + | - | Signal name | Input/ Output | | | |
| 1 (W) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage |
| 2 (L) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage |
| 4 (V) | Ground | Front wiper LO | Output | Ignition switch OFF | Front wiper switch OFF | 0 V |
| | | | | Ignition switch ON | Front wiper switch LO | Battery voltage |
| 5 (L) | Ground | Front wiper HI | Output | Ignition switch OFF | Front wiper switch OFF | 0 V |
| | | | | Ignition switch ON | Front wiper switch HI | Battery voltage |
| 7 (R) | Ground | Tail, license plate lamps & interior lamps | Output | Ignition switch OFF | Lighting switch OFF | 0 V |
| | | | | Ignition switch ON | Lighting switch 1ST | Battery voltage |
| 11 (BR) | Ground | Steering lock unit power supply | Output | Ignition switch OFF | A few seconds after opening the driver door | Battery voltage |
| | | | | Ignition switch LOCK | Press the push-button ignition switch | Battery voltage |
| | | | | Ignition switch ACC or ON | | 0 V |
| 12 (B/W) | Ground | Ground | — | Ignition switch ON | | 0 V |

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|--------------------------------|------------------|---|---|-----------------|
| + | - | Signal name | Input/ Output | | | |
| 13 (Y) | Ground | Fuel pump power supply | Output | Approximately 1 second or more after turning the ignition switch ON | 0 V | |
| | | | | <ul style="list-style-type: none"> Approximately 1 second after turning the ignition switch ON Engine running | Battery voltage | |
| 16 (LG) | Ground | Front wiper auto stop | Input | Ignition switch ON | Front wiper stop position | 0 V |
| | | | | | Any position other than front wiper stop position | Battery voltage |
| 19 (W) | Ground | Ignition relay power supply | Output | Ignition switch OFF | 0 V | |
| | | | | Ignition switch ON | Battery voltage | |
| 25 (G) | Ground | Ignition relay power supply | Output | Ignition switch OFF | 0 V | |
| | | | | Ignition switch ON | Battery voltage | |
| 26*1 (R) | Ground | Ignition relay power supply | Output | Ignition switch OFF | 0 V | |
| | | | | Ignition switch ON | Battery voltage | |
| 27 (O) | Ground | Ignition relay monitor | Input | Ignition switch OFF or ACC | Battery voltage | |
| | | | | Ignition switch ON | 0 V | |
| 28 (L) | Ground | Push-button ignition switch | Input | Press the push-button ignition switch | 0 V | |
| | | | | Release the push-button ignition switch | Battery voltage | |
| 30 (GR) | Ground | Starter relay control | Input | A/T models | A/T selector lever in any position other than P or N (Ignition switch ON) | 0 V |
| | | | | | A/T selector lever P or N (Ignition switch ON) | Battery voltage |
| | | | | M/T models | Release the clutch pedal | 0 V |
| | | | | | Depress the clutch pedal | Battery voltage |
| 32 (L) | Ground | Steering lock unit condition-1 | Input | Steering lock is activated | 0 V | |
| | | | | Steering lock is deactivated | Battery voltage | |
| 33 (P) | Ground | Steering lock unit condition-2 | Input | Steering lock is activated | Battery voltage | |
| | | | | Steering lock is deactivated | 0 V | |
| 36 (G) | Ground | Battery power supply | Input | Ignition switch OFF | Battery voltage | |
| 39 (P) | — | CAN - L | Input/ Output | — | — | |
| 40 (L) | — | CAN - H | Input/ Output | — | — | |
| 41 (B/W) | Ground | Ground | — | Ignition switch ON | 0 V | |
| 42 (Y) | Ground | Cooling fan relay control | Input | Ignition switch OFF or ACC | 0 V | |
| | | | | Ignition switch ON | 0.7 V | |
| 43*2 (SB) | Ground | A/T device (Detention switch) | Input | Ignition switch ON | Press the A/T selector button (A/T selector lever P) | Battery voltage |
| | | | | | <ul style="list-style-type: none"> A/T selector lever in any position other than P Release the A/T selector button (A/T selector lever P) | 0 V |
| 44 (W) | Ground | Horn relay control | Input | The horn is deactivated | Battery voltage | |
| | | | | The horn is activated | 0 V | |

A

B

C

D

E

F

G

H

I

J

K

L

M

MWI

O

P

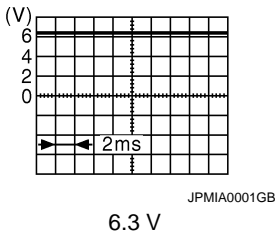
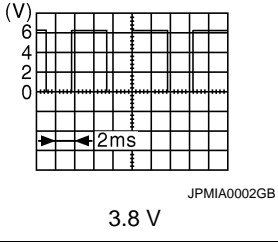
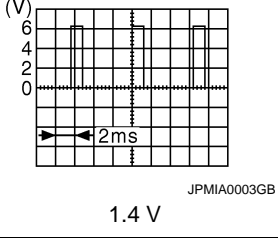
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|---|------------------|---|---|--------------------|
| + | - | Signal name | Input/ Output | | | |
| 45 (G) | Ground | Anti theft horn relay control | Input | The horn is deactivated | | Battery voltage |
| | | | | The horn is activated | | 0 V |
| 46 (BR) | Ground | Starter relay control | Input | A/T models | A/T selector lever in any position other than P or N (Ignition switch ON) | 0 V |
| | | | | | A/T selector lever P or N (Ignition switch ON) | Battery voltage |
| | | | | M/T models | Release the clutch pedal | 0 V |
| | | | | | Depress the clutch pedal | Battery voltage |
| 48 (L) | Ground | A/C relay power supply | Output | Engine running | A/C switch OFF | 0 V |
| | | | | | A/C switch ON (A/C compressor is operating) | Battery voltage |
| 49 (R) | Ground | ECM relay power supply | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | | 0 V |
| | | | | <ul style="list-style-type: none"> Ignition switch ON Ignition switch OFF (For a few seconds after turning ignition switch OFF) | | Battery voltage |
| 51 (G) | Ground | Ignition relay power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 53 (W) | Ground | ECM relay power supply | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | | 0 V |
| | | | | <ul style="list-style-type: none"> Ignition switch ON Ignition switch OFF (For a few seconds after turning ignition switch OFF) | | Battery voltage |
| 54 (R) | Ground | Throttle control motor relay power supply | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | | 0 V |
| | | | | <ul style="list-style-type: none"> Ignition switch ON Ignition switch OFF (For a few seconds after turning ignition switch OFF) | | Battery voltage |
| 55 (BR) | Ground | ECM power supply | Output | Ignition switch OFF | | Battery voltage |
| 56 (V) | Ground | Ignition relay power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 57 (R) | Ground | Ignition relay power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 58*2 (P) | Ground | Ignition relay power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 69 (W) | Ground | ECM relay control | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | | Battery voltage |
| | | | | <ul style="list-style-type: none"> Ignition switch ON Ignition switch OFF (For a few seconds after turning ignition switch OFF) | | 0 - 1.5 V |

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|---|------------------|---|---------------------|--|
| + | - | Signal name | Input/ Output | | | |
| 70 (O) | Ground | Throttle control motor re- lay control | Output | Ignition switch ON → OFF | | 0 -1.0 V ↓ Battery voltage ↓ 0 V |
| | | | | Ignition switch ON | | 0 - 1.0 V |
| 73*3 (P) | Ground | Ignition relay power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 74 (G) | Ground | Ignition relay power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 75 (Y) | Ground | Oil pressure switch | Input | Ignition switch ON | Engine stopped | 0 V |
| | | | | | Engine running | Battery voltage |
| 76 (V) | Ground | Power generation com- mand signal | Output | Ignition switch ON | |  6.3 V |
| | | | | 40% is set on "ACTIVE TEST", "AL- TERNATOR DUTY" of "ENGINE" | |  3.8 V |
| | | | | 80% is set on "ACTIVE TEST", "AL- TERNATOR DUTY" of "ENGINE" | |  1.4 V |
| 77 (L) | Ground | Fuel pump relay control | Output | <ul style="list-style-type: none"> Approximately 1 second after turning the ignition switch ON Engine running | | 0 - 1.0 V |
| | | | | Approximately 1 second or more after turning the ignition switch ON | | Battery voltage |
| 80 (W) | Ground | Starter motor | Output | At engine cranking | | Battery voltage |
| 83 (R) | Ground | Headlamp LO (RH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | Lighting switch 2ND | Battery voltage |
| 84 (P) | Ground | Headlamp LO (LH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | Lighting switch 2ND | Battery voltage |

A
B
C
D
E
F
G
H
I
J
K
L
M

MWI

O
P

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|--------------------------|------------------|---------------------------|---|--------------------|
| + | - | Signal name | Input/ Output | | | |
| 86 (W) | Ground | Front fog lamp (RH) | Output | Lighting switch 2ND | <ul style="list-style-type: none"> • Front fog lamp switch ON • Daytime running light activated (Only for Canada) | Battery voltage |
| | | | | | Front fog lamp switch OFF | 0 V |
| 87 (L) | Ground | Front fog lamp (LH) | Output | Lighting switch 2ND | <ul style="list-style-type: none"> • Front fog lamp switch ON • Daytime running light activated (Only for Canada) | Battery voltage |
| | | | | | Front fog lamp switch OFF | 0 V |
| 88 (G) | Ground | Washer pump power supply | Output | Ignition switch ON | | Battery voltage |
| 89 (BR) | Ground | Headlamp HI (RH) | Output | Ignition switch ON | <ul style="list-style-type: none"> • Lighting switch HI • Lighting switch PASS | Battery voltage |
| | | | | | Lighting switch OFF | 0 V |
| 90 (P) | Ground | Headlamp HI (LH) | Output | Ignition switch ON | <ul style="list-style-type: none"> • Lighting switch HI • Lighting switch PASS | Battery voltage |
| | | | | | Lighting switch OFF | 0 V |
| 91 (P) | Ground | Parking lamp (RH) | Output | Ignition switch ON | Lighting switch 1ST | Battery voltage |
| | | | | | Lighting switch OFF | 0 V |
| 92 (O) | Ground | Parking lamp (LH) | Output | Ignition switch ON | Lighting switch 1ST | Battery voltage |
| | | | | | Lighting switch OFF | 0 V |
| 97 (V) | Ground | Cooling fan control | Output | Engine idling | | 0 - 5 V |
| 104 (LG) | Ground | Hood switch | Input | Close the hood | | Battery voltage |
| | | | | Open the hood | | 0 V |

*1: Only for the models with ICC system

*2: A/T models only

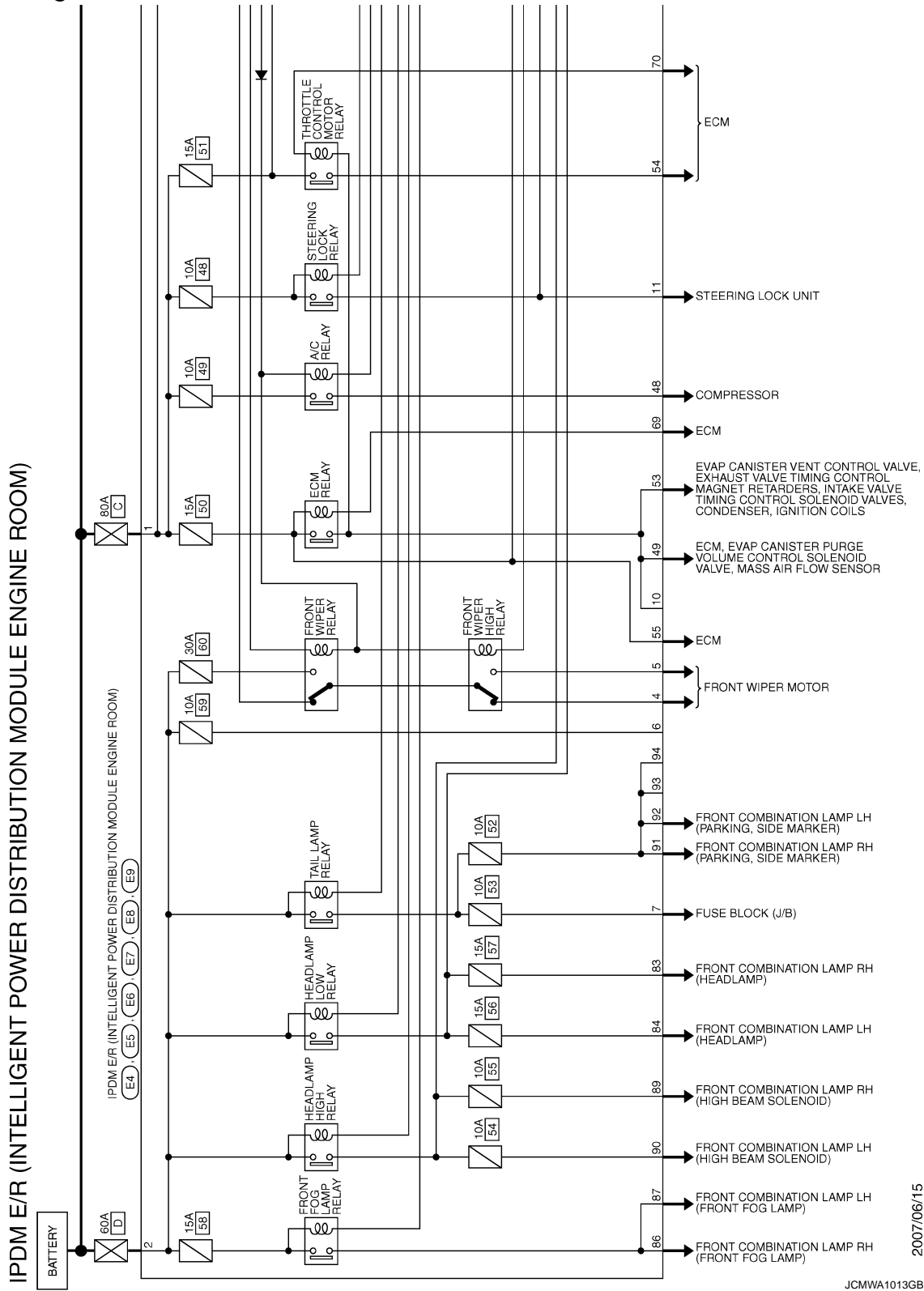
*3: M/T models only

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

Wiring Diagram - IPDM E/R -

INFOID:000000003038028

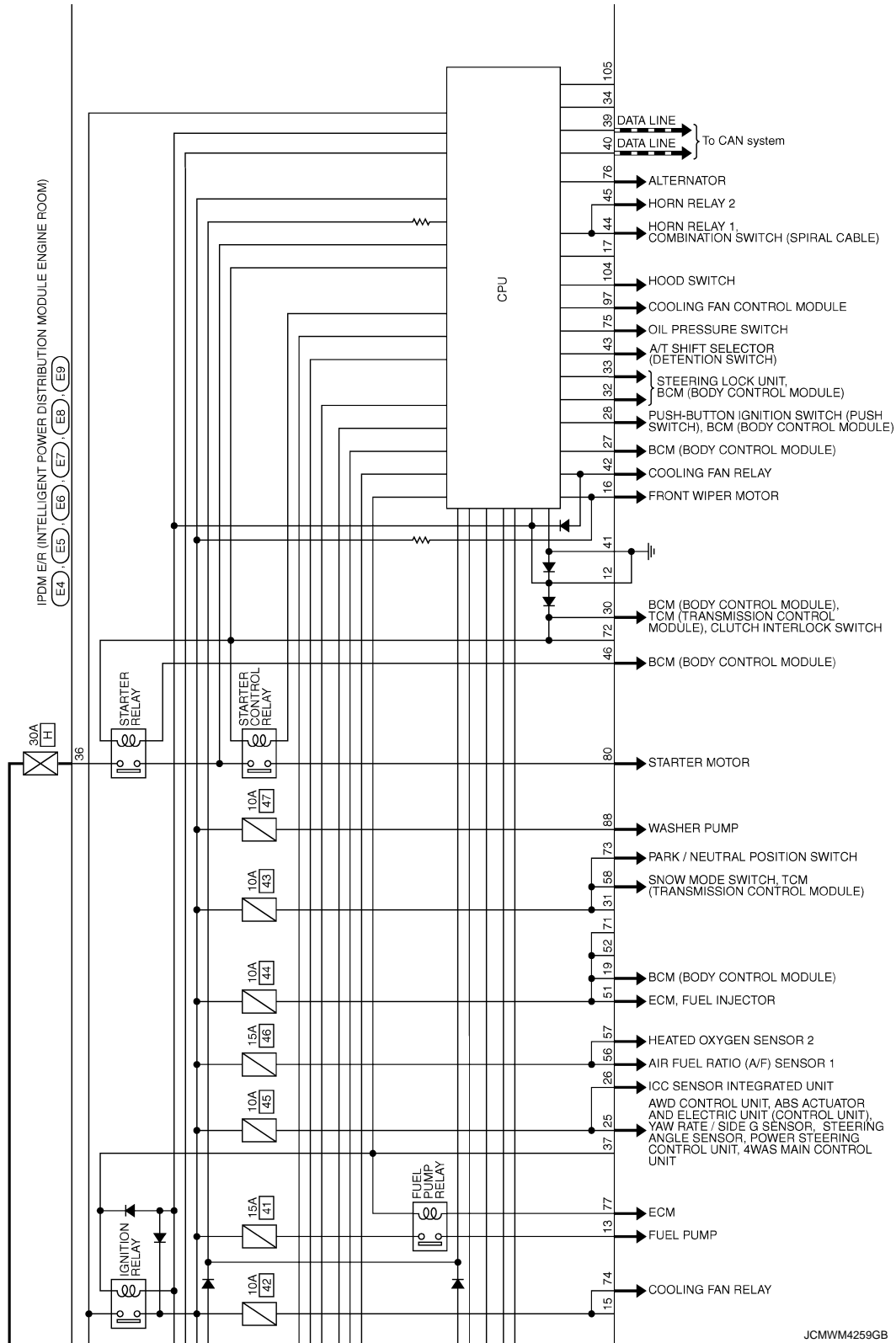


A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

MWI

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

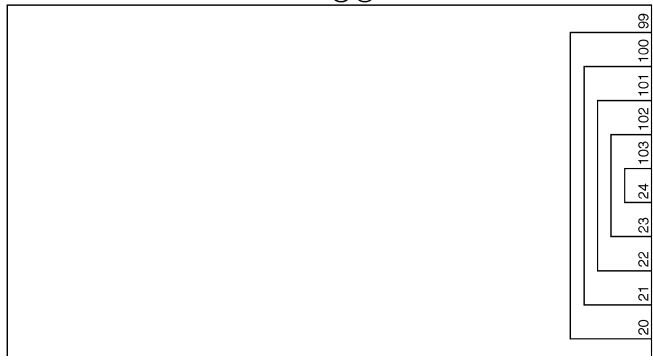


IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

IPDM E/R
(INTELLIGENT POWER
DISTRIBUTION MODULE
ENGINE ROOM)



MWI

JCMWA1015GB

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

| Connector No. | Terminal No. | Color of Wire | Signal Name [Specification] |
|---|--------------|---------------|-----------------------------|
| E4 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) L02FB-MC | 1 | W | - |
| | 2 | L | - |
| | | | |
| | | | |
| E5 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) TH20FW-CS12-M4-TV | 3 | 4 | 9 |
| | 4 | 5 | 10 |
| | 5 | 6 | 11 |
| | 6 | 7 | 12 |
| E6 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) TH48FW-NH | 39 | P | - |
| | 40 | L | - |
| | 41 | B/W | - |
| | 42 | Y | - |
| E7 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) TH20FW-CS12-M4 | 43 | SB | - |
| | 44 | W | - |
| | 45 | G | - |
| | 46 | BR | - |
| E8 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) NS30FP-CS | 83 | R | - |
| | 84 | P | - |
| | 86 | W | - |
| | 87 | L | - |
| E9 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) TH10FP-NH | 97 | V | - |
| | 99 | LG | - |
| | | | |
| | | | |
| E5 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) TH20FW-CS12-M4-TV | 9 | 10 | 11 |
| | 12 | 13 | 14 |
| | 15 | 16 | 17 |
| | 18 | 19 | 20 |
| E5 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) TH20FW-CS12-M4-TV | 21 | 22 | 23 |
| | 24 | 25 | 26 |
| | 27 | 28 | 29 |
| | 30 | 31 | 32 |
| E5 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) TH20FW-CS12-M4-TV | 33 | 34 | 35 |
| | 36 | 37 | 38 |
| | 39 | 40 | 41 |
| | 42 | 43 | 44 |
| E5 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) TH20FW-CS12-M4-TV | 45 | 46 | 47 |
| | 48 | 49 | 50 |
| | 51 | 52 | 53 |
| | 54 | 55 | 56 |
| E5 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) TH20FW-CS12-M4-TV | 57 | 58 | 59 |
| | 60 | 61 | 62 |
| | 63 | 64 | 65 |
| | 66 | 67 | 68 |
| E5 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) TH20FW-CS12-M4-TV | 69 | 70 | 71 |
| | 72 | 73 | 74 |
| | 75 | 76 | 77 |
| | 78 | 79 | 80 |
| E5 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) TH20FW-CS12-M4-TV | 81 | 82 | 83 |
| | 84 | 85 | 86 |
| | 87 | 88 | 89 |
| | 90 | 91 | 92 |
| E5 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) TH20FW-CS12-M4-TV | 93 | 94 | 95 |
| | 96 | 97 | 98 |
| | 99 | 100 | 101 |
| | 102 | 103 | 104 |
| E5 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) TH20FW-CS12-M4-TV | 105 | 106 | 107 |
| | 108 | 109 | 110 |
| | 111 | 112 | 113 |
| | 114 | 115 | 116 |

Fail Safe

CAN COMMUNICATION CONTROL

When CAN communication with ECM and BCM is impossible, IPDM E/R performs fail-safe control. After CAN communication recovers normally, it also returns to normal control.

If No CAN Communication Is Available With ECM

JCMWA0940GB

INFOID:000000003038029

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

| Control part | Fail-safe operation |
|----------------|---|
| Cooling fan | <ul style="list-style-type: none"> Outputs the pulse duty signal (PWM signal) 100% when the ignition switch is turned ON Outputs the pulse duty signal (PWM signal) 0% when the ignition switch is turned OFF |
| A/C compressor | A/C relay OFF |
| Alternator | Outputs the power generation command signal (PWM signal) 0% |

If No CAN Communication Is Available With BCM

| Control part | Fail-safe operation |
|---|--|
| Headlamp | <ul style="list-style-type: none"> Turns ON the headlamp low relay when the ignition switch is turned ON Turns OFF the headlamp low relay when the ignition switch is turned OFF Headlamp high relay OFF |
| <ul style="list-style-type: none"> Parking lamps License plate lamps Side maker lamps Illuminations Tail lamps | <ul style="list-style-type: none"> Turns ON the tail lamp relay when the ignition switch is turned ON Turns OFF the tail lamp relay when the ignition switch is turned OFF |
| Front wiper | <ul style="list-style-type: none"> The status just before activation of fail-safe control is maintained until the ignition switch is turned OFF while the front wiper is operating at LO or HI speed. The wiper is operated at LO speed until the ignition switch is turned OFF if the fail-safe control is activated while the front wiper is set in the INT mode and the front wiper motor is operating. |
| Front fog lamps | Front fog lamp relay OFF |
| Horn | Horn OFF |
| Ignition relay | The status just before activation of fail-safe is maintained. |
| Starter motor | Starter control relay OFF |
| Steering lock unit | Steering lock relay OFF |

IGNITION RELAY MALFUNCTION DETECTION FUNCTION

- IPDM E/R monitors the voltage at the contact circuit and excitation coil circuit of the ignition relay inside it.
- IPDM E/R judges the ignition relay error if the voltage differs between the contact circuit and the excitation coil circuit.
- If the ignition relay cannot turn OFF due to contact seizure, it activates the tail lamp relay for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

| DTC | Ignition switch | Ignition relay | Tail lamp relay |
|----------------------|-----------------|----------------|-----------------|
| — | ON | ON | — |
| — | OFF | OFF | — |
| B2098: IGN RELAY ON | OFF | ON | ON (10 minutes) |
| B2099: IGN RELAY OFF | ON | OFF | — |

NOTE:

The tail lamp turns OFF when the ignition switch is turned ON.

FRONT WIPER CONTROL

IPDM E/R detects front wiper stop position by a front wiper auto stop signal.

When a front wiper auto stop signal is in the conditions listed below, IPDM E/R stops power supply to wiper after repeating a front wiper 10 seconds activation and 20 seconds stop five times.

| Ignition switch | Front wiper switch | Front wiper auto stop signal |
|-----------------|--------------------|--|
| ON | OFF | The front wiper auto stop signal (stop position) cannot be input for 10 seconds. |
| | ON | The front wiper auto stop signal does not change for 10 seconds. |

NOTE:

A
B
C
D
E
F
G
H
I
J
K
L
M
MWI

MWI

O
P

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

This operation status can be confirmed on the IPDM E/R “Data Monitor” that displays “BLOCK” for the item “WIP PROT” while the wiper is stopped.

STARTER MOTOR PROTECTION FUNCTION

IPDM E/R turns OFF the starter control relay to protect the starter motor when the starter control relay remains active for 90 seconds.

DTC Index

INFOID:000000003038030

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 FFD (Freeze Frame data).
 - The number is 0 when is detected now
 - The number increases like 1 → 2 ... 38 → 39 after returning to the normal condition whenever IGN OFF → ON.
 - The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.

×: Applicable

| CONSULT display | Fail-safe | Refer to |
|--|-----------|-------------------------|
| No DTC is detected. further testing may be required. | — | — |
| U1000: CAN COMM CIRCUIT | × | PCS-16 |
| B2098: IGN RELAY ON | × | PCS-17 |
| B2099: IGN RELAY OFF | — | PCS-18 |
| B2108: STRG LCK RELAY ON | — | SEC-101 |
| B2109: STRG LCK RELAY OFF | — | SEC-102 |
| B210A: STRG LCK STATE SW | — | SEC-103 |
| B210B: START CONT RLY ON | — | SEC-107 |
| B210C: START CONT RLY OFF | — | SEC-108 |
| B210D: STARTER RELAY ON | — | SEC-109 |
| B210E: STARTER RELAY OFF | — | SEC-110 |
| B210F: INTRLCK/PNP SW ON | — | SEC-113 |
| B2110: INTRLCK/PNP SW OFF | — | SEC-117 |

THE FUEL GAUGE POINTER DOES NOT MOVE

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

THE FUEL GAUGE POINTER DOES NOT MOVE

Description

INFOID:000000001835574

Fuel gauge needle will not move from a certain position.

Diagnosis Procedure

INFOID:000000001835575

1. CHECK UNIFIED METER AND A/C AMP. OUTPUT SIGNAL

1. Connect CONSULT-III.
2. Select the "Data Monitor" for the "METER/M&A" and compare the "FUEL METER" monitor value with the fuel gauge reading on the combination meter. Refer to [MWI-54, "Component Function Check"](#).

Does monitor value match fuel gauge reading?

- YES >> GO TO 2.
NO >> Replace combination meter.

2. CHECK FUEL LEVEL SENSOR SIGNAL CIRCUIT

Check the fuel level sensor signal circuit. Refer to [MWI-54, "Diagnosis Procedure"](#).

Is the inspection result normal?

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

3. CHECK FUEL LEVEL SENSOR UNIT

Perform a unit check for the fuel level sensor unit. Refer to [MWI-55, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Replace fuel level sensor unit. Refer to [FL-5, "Removal and Installation"](#).

4. CHECK FLOAT INTERFERENCE

Check that the float arm interferes with or binds to other components in the fuel tank.

Is the inspection result normal?

- YES >> Replace unified meter and A/C amp.
NO >> Repair or replace malfunctioning parts.

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

THE METER CONTROL SWITCH IS INOPERATIVE

< SYMPTOM DIAGNOSIS >

THE METER CONTROL SWITCH IS INOPERATIVE

Description

INFOID:000000001835576

If any of the following malfunctions is found for the meter control switch operation.

- All switches are inoperative.
- The specified switch cannot be operated.

Diagnosis Procedure

INFOID:000000001835577

1. CHECK METER CONTROL SWITCH SIGNAL CIRCUIT

Check the meter control switch signal circuit. Refer to [MWI-57, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

2. CHECK METER CONTROL SWITCH UNIT

Perform a unit check for the meter control switch. Refer to [MWI-58, "Component Inspection"](#).

Is the inspection result normal?

YES >> Replace combination meter.

NG >> Replace meter control switch.

THE OIL PRESSURE WARNING LAMP DOES NOT TURN ON

< SYMPTOM DIAGNOSIS >

THE OIL PRESSURE WARNING LAMP DOES NOT TURN ON

Description

INFOID:000000001835578

The oil pressure warning lamp stays off when the ignition switch is turned ON.

Diagnosis Procedure

INFOID:000000001835579

1.CHECK OIL PRESSURE WARNING LAMP

Perform auto active test. Refer to [PCS-11, "Diagnosis Description"](#).

Is oil pressure warning lamp illuminated?

- YES >> GO TO 2.
- NO >> GO TO 4.

2.CHECK OIL PRESSURE SWITCH SIGNAL CIRCUIT

Check the oil pressure switch signal circuit. Refer to [MWI-59, "Diagnosis Procedure"](#).

Is the inspection result normal?

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

3.CHECK OIL PRESSURE SWITCH UNIT

Perform a unit check for the oil pressure switch. Refer to [MWI-59, "Component Inspection"](#).

Is the inspection result normal?

- YES >> Replace IPDM E/R.
- NO >> Replace oil pressure switch.

4.CHECK UNIFIED METER AND A/C AMP. INPUT SIGNAL

Connect CONSULT-III and perform an input signal check for the unified meter and A/C amp.

Is the inspection result normal?

- YES >> Replace combination meter.
- NO >> Replace IPDM E/R. Refer to [PCS-34, "Removal and Installation"](#).

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

THE OIL PRESSURE WARNING LAMP DOES NOT TURN OFF

< SYMPTOM DIAGNOSIS >

THE OIL PRESSURE WARNING LAMP DOES NOT TURN OFF

Description

INFOID:000000001835580

The oil pressure warning lamp remains illuminated while the engine is running (normal oil pressure).

Diagnosis Procedure

INFOID:000000001835581

1. CHECK OIL PRESSURE WARNING LAMP

Perform auto active test. Refer to [PCS-11, "Diagnosis Description"](#).

Is oil pressure warning lamp illuminated?

- YES >> GO TO 2.
- NO >> GO TO 5.

2. CHECK IPDM E/R OUTPUT VOLTAGE

-
1. Disconnect the oil pressure switch connector.
 2. Turn ignition switch ON.
 3. Check voltage between the oil pressure switch harness connector terminal 1 and ground.

1- Ground : Approx. 12 V

Is the inspection result normal?

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

3. CHECK OIL PRESSURE SWITCH UNIT

Perform a unit check for the oil pressure switch. Refer to [MWI-59, "Component Inspection"](#).

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-34, "Removal and Installation"](#).
- NO >> Replace oil pressure switch.

4. CHECK OIL PRESSURE SWITCH SIGNAL CIRCUIT

Check the oil pressure switch signal circuit. Refer to [MWI-59, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Repair harness or connector.

5. CHECK UNIFIED METER AND A/C AMP. INPUT SIGNAL

Connect CONSULT-III and perform an input signal check for the unified meter and A/C amp. Refer to [MWI-59, "Component Function Check"](#).

Is the inspection result normal?

- YES >> Replace combination meter.
- NO >> Replace IPDM E/R. Refer to [PCS-34, "Removal and Installation"](#).

THE PARKING BRAKE RELEASE WARNING CONTINUES DISPLAYING, OR DOES NOT DISPLAY

< SYMPTOM DIAGNOSIS >

THE PARKING BRAKE RELEASE WARNING CONTINUES DISPLAYING, OR DOES NOT DISPLAY

Description

INFOID:000000001835582

- The parking brake warning is displayed during vehicle travel even though the parking brake is released.
- The parking brake warning is not displayed even though driving the vehicle with the parking brake applied.

Diagnosis Procedure

INFOID:000000001835583

1. CHECK PARKING BRAKE WARNING LAMP OPERATION

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

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

Is the inspection result normal?

- YES >> Replace combination meter.
NO >> GO TO 2.

2. CHECK PARKING BRAKE SWITCH SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Check the parking brake switch signal circuit. Refer to [MWI-60. "Diagnosis Procedure \(A/T model\)"](#) or [MWI-60. "Diagnosis Procedure \(M/T model\)"](#).

Is the inspection result normal?

- YES >> GO TO 3.
NG >> Repair harness or connector.

3. CHECK PARKING BRAKE SWITCH UNIT

Perform a unit check for the parking brake switch. Refer to [BRC-72. "Component Inspection"](#).

Is the inspection result normal?

- YES >> Replace combination meter.
NO >> Replace parking brake switch.

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

THE LOW WASHER FLUID WARNING CONTINUES DISPLAYING, OR DOES NOT DISPLAY

< SYMPTOM DIAGNOSIS >

THE LOW WASHER FLUID WARNING CONTINUES DISPLAYING, OR DOES NOT DISPLAY

Description

INFOID:000000001835584

- The warning is still displayed even after washer fluid is added.
- The warning is not displayed even though the washer tank is empty.

Diagnosis Procedure

INFOID:000000001835585

1. CHECK WASHER LEVEL SWITCH SIGNAL CIRCUIT

Check the washer level switch signal circuit. Refer to [MWI-62. "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> GO TO 2.
- NO >> Repair harness or connector.

2. CHECK WASHER LEVEL SWITCH UNIT

Perform a unit check for the washer level switch. Refer to [MWI-62. "Component Inspection"](#).

Is the inspection result normal?

- YES >> Replace combination meter.
- NO >> Replace washer level switch. Refer to [WW-87. "Removal and Installation"](#).

THE DOOR OPEN WARNING CONTINUES DISPLAYING, OR DOES NOT DISPLAY

< SYMPTOM DIAGNOSIS >

THE DOOR OPEN WARNING CONTINUES DISPLAYING, OR DOES NOT DISPLAY

Description

INFOID:000000001835586

- The door ajar warning is displayed even though all of the doors are closed.
- The door ajar warning is not displayed even though a door is ajar.

Diagnosis Procedure

INFOID:000000001835587

1. CHECK BCM INPUT/OUTPUT SIGNAL

Connect CONSULT-III and check the BCM input signals. Refer to [DLK-68, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

2. CHECK UNIFIED METER AND A/C AMP. INPUT SIGNAL

Select the "Data Monitor" for the "METER/M&A" and check the "DOOR W/L" monitor value.

"DOOR W/L"

Door open : ON

Door closed : OFF

Is the inspection result normal?

YES >> Replace combination meter.

NO >> Replace BCM. Refer to [BCS-80, "Removal and Installation"](#).

3. CHECK DOOR SWITCH SIGNAL CIRCUIT

Check the door switch signal circuit. Refer to [DLK-68, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

4. CHECK DOOR SWITCH UNIT

Perform a unit check for the door switch. Refer to [DLK-70, "Component Inspection"](#).

Is the inspection result normal?

YES >> Replace combination meter.

NO >> Replace applicable door switch. Refer to [DLK-252, "Removal and Installation"](#).

A
B
C
D
E
F
G
H
I
J
K
L
M

MWI

O
P

THE TRUNK OPEN WARNING CONTINUES DISPLAYING, OR DOES NOT DISPLAY

< SYMPTOM DIAGNOSIS >

THE TRUNK OPEN WARNING CONTINUES DISPLAYING, OR DOES NOT DISPLAY

Description

INFOID:000000001835588

- The trunk ajar warning is displayed continuously even though the trunk lid is closed.
- The trunk ajar warning is not displayed even though the trunk lid is open.

Diagnosis Procedure

INFOID:000000001835589

1. CHECK BCM INPUT/OUTPUT SIGNAL

Connect CONSULT-III and check the BCM input signals. Refer to [DLK-82. "Component Function Check"](#).

Is the inspection result normal?

- YES >> GO TO 2.
- NO >> GO TO 3.

2. CHECK UNIFIED METER AND A/C AMP. INPUT SIGNAL

Select the "Data Monitor" for the "METER/M&A" and check the "TRUNK/GLAS-H" monitor value.

"TRUNK/GLAS-H"

| | |
|------------------|-------|
| Trunk lid open | : ON |
| Trunk lid closed | : OFF |

Is the inspection result normal?

- YES >> Replace combination meter.
- NO >> Replace BCM.

3. CHECK TRUNK LID OPENER SWITCH SIGNAL CIRCUIT

Check the trunk lid opener switch signal circuit. Refer to [DLK-82. "Diagnosis Procedure"](#).

Is the inspection result normal?

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

4. CHECK TRUNK LID OPENER SWITCH UNIT

Perform a unit check for the trunk lid opener switch. Refer to [DLK-83. "Component Inspection"](#).

Is the inspection result normal?

- YES >> Replace combination meter.
- NO >> Replace the trunk lid switch. Refer to [DLK-259. "Removal and Installation"](#).

THE AMBIENT TEMPERATURE DISPLAY IS INCORRECT

< SYMPTOM DIAGNOSIS >

THE AMBIENT TEMPERATURE DISPLAY IS INCORRECT

Description

INFOID:000000001835590

- The displayed ambient air temperature is higher than the actual temperature.
- The displayed ambient air temperature is lower than the actual temperature.

Diagnosis Procedure

INFOID:000000001835591

NOTE:

Check that the symptom is not applicable to the normal operating condition before starting diagnosis. Refer to [MWI-156, "INFORMATION DISPLAY : Description"](#).

1.CHECK AMBIENT SENSOR SIGNAL CIRCUIT

Check the ambient sensor signal circuit. Refer to [HAC-93, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK AMBIENT SENSOR UNIT

Perform a unit check for the ambient sensor. Refer to [HAC-94, "Component Inspection"](#).

Is the inspection result normal?

YES >> Replace unified meter and A/C amp.

NO >> Replace ambient sensor. Refer to [VTL-26, "Removal and Installation"](#).

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION COMPASS

COMPASS : Description

INFOID:000000001835592

COMPASS

- The electronic compass is highly protected from changes in most magnetic fields. However, some large changes in magnetic fields can affect it. Some examples are (but not limited to): high tension power lines, large steel buildings, subways, steel bridges, automatic car washes, large piles of scrap metal, etc. While this does not happen very often, it is possible.
- During normal operation, the Compass Mirror will continuously update the compass calibration to adjust for gradual changes in the vehicle's magnetic "remnant" field. If the vehicle is subjected to high magnetic influences, the compass may appear to indicate false headings, become locked, or appear that it is unable to be calibrated. If this occurs, perform the calibration procedure.
- If at any time the compass continually displays the incorrect direction or the reading is erratic or locked, verify the correct zone variance.

Symptom Chart

| Symptom | Cause | Solution / Reference |
|---|---|---|
| The compass display reads "C". | <ul style="list-style-type: none">• Compass is not calibrated.• Incorrect zone variance setting.• Large change in magnetic field (Steel bridges, subways, concentrations of metal, carwashes, etc.)• Compass was calibrated incorrectly or in the presence of a strong magnetic field. | Perform Calibration. Refer to MWI-32, "Description" . |
| Compass shows the wrong direction. | | |
| Compass does not change direction appears "Locked". | | |
| Compass does not show all the directions, one or more is missing. | | |
| The compass was calibrated but it "loses" calibration. | | |
| On long trips the compass shows the wrong direction. | Perform Zone Variation Setting if correct reading is desired in that location. Refer to MWI-32, "Description" . | |

INFORMATION DISPLAY

INFORMATION DISPLAY : Description

INFOID:000000001835593

AMBIENT AIR TEMPERATURE

The displayed ambient air temperature on the information display may differ from the actual temperature because it is a corrected value calculated from the ambient sensor signal by the unified meter and A/C amp. Refer to [MWI-27, "INFORMATION DISPLAY : System Description"](#) for details on the correction process.

POSSIBLE DRIVING DISTANCE

The calculated possible driving distance may differ from the actual distance to empty if the refueling amount is approximately 15 ℓ (4 US gal, 3-3/10 Imp gal) or less. This is because the refuel control (moves the fuel gauge needle quicker than normal judging that the driver is refueling the vehicle) is not performed in such a case.

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

INFOID:000000003038040

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.

A
B
C
D
E
F
G
H
I
J
K
L
M
O
P

MWI

COMBINATION METER

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

COMBINATION METER

Exploded View

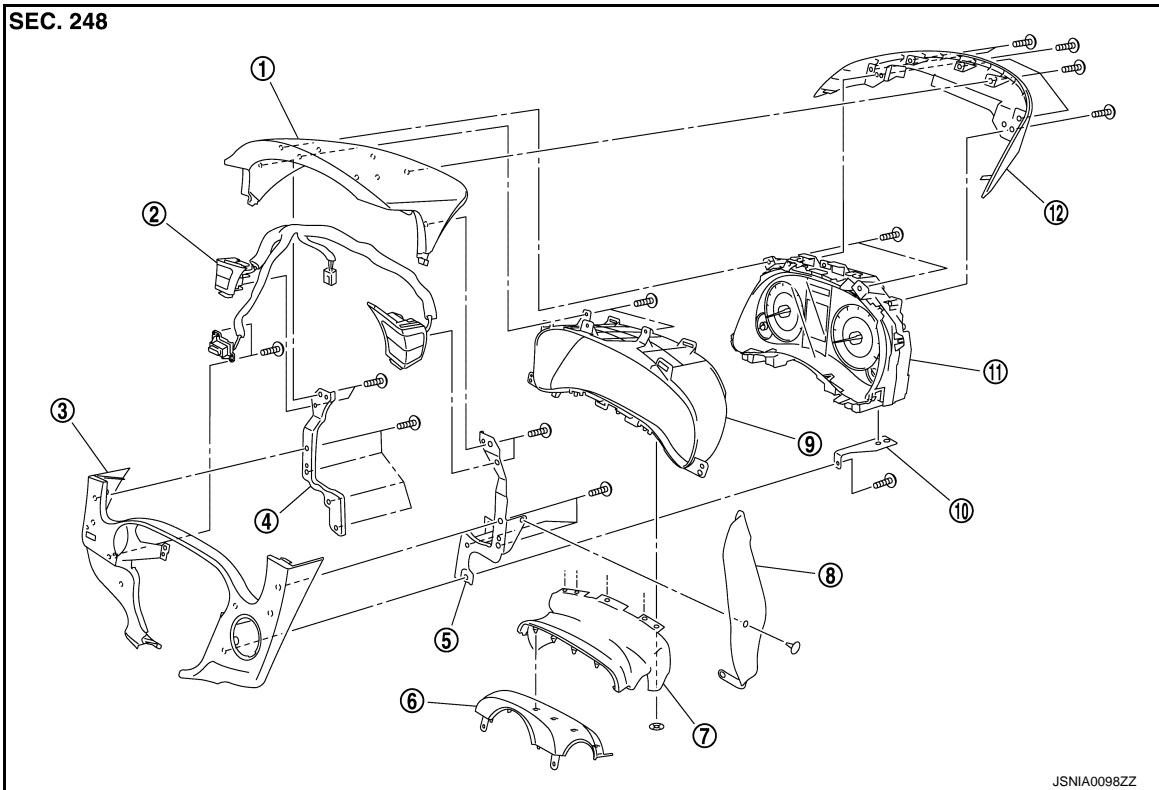
INFOID:000000001835595

REMOVAL

Cluster lid A assembly

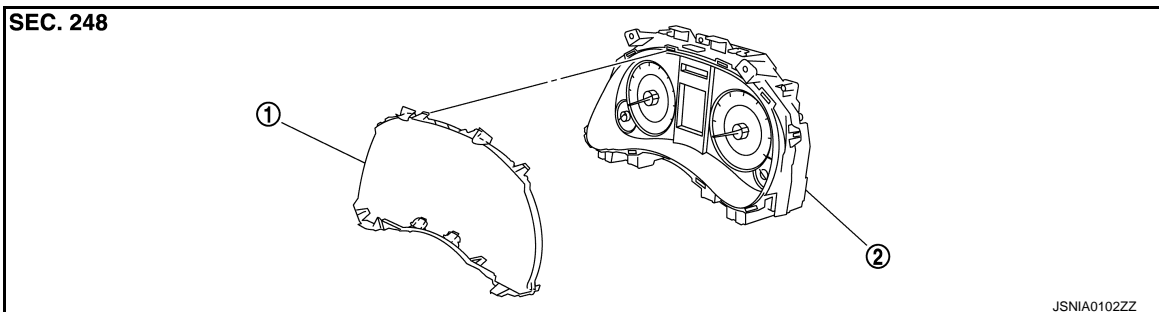
Refer to [IP-11. "Exploded View"](#).

Combination meter



- | | | |
|----------------------------|-------------------------|--------------------------------|
| 1. Cluster lid A | 2. Meter control switch | 3. Cluster lid A under cover |
| 4. Bracket (LH) | 5. Bracket (RH) | 6. Steering column cover upper |
| 7. Steering column blind | 8. Blind | 9. Meter housing |
| 10. Combination meter stay | 11. Combination meter | 12. Cluster lid A cover |

DISASSEMBLY



- | | |
|----------------|-------------------------------|
| 1. Front cover | 2. Unified meter control unit |
|----------------|-------------------------------|

Removal and Installation

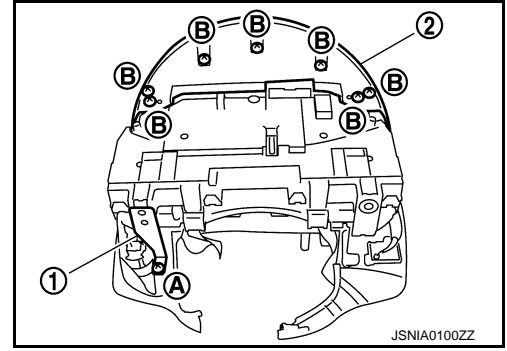
INFOID:000000001835596

REMOVAL

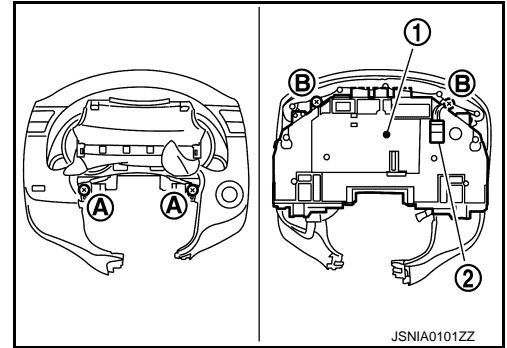
COMBINATION METER

< REMOVAL AND INSTALLATION >

1. Remove cluster lid A assembly. Refer to [IP-12, "Removal and Installation"](#).
2. Remove screw (A) and remove combination meter stay (1).
3. Remove screws (B) and remove cluster lid A cover (2).



4. Remove screws (A), (B) and remove combination meter (1).
5. Remove meter control switch connector (2) from combination meter (1).



INSTALLATION

Install in the reverse order of removal.

Disassembly and Assembly

INFOID:000000001835597

DISASSEMBLY

Disengage the tabs to separate front cover.

ASSEMBLY

Assemble in the reverse order of disassembly.

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

MWI

UNIFIED METER AND A/C AMP.

< REMOVAL AND INSTALLATION >

UNIFIED METER AND A/C AMP.

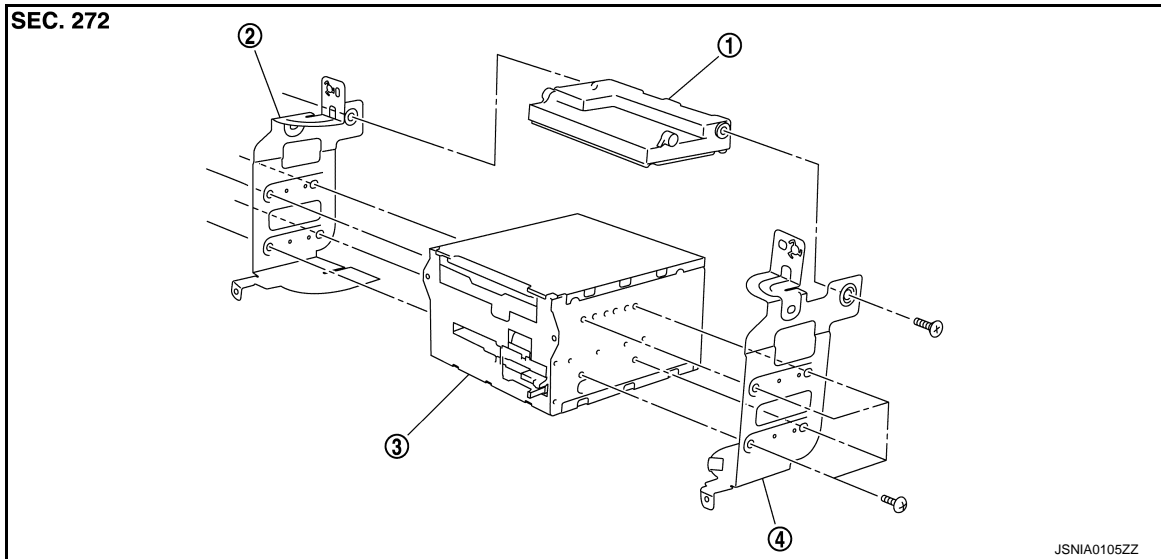
Exploded View

INFOID:000000001835598

REMOVAL

Refer to [IP-11, "Exploded View"](#).

DISASSEMBLY



1. Unified meter and A/C amp.
2. Bracket (LH)
3. AV control unit
4. Bracket (RH)

Removal and Installation

INFOID:000000001835599

REMOVAL

1. Remove the display unit. Refer to [AV-114, "Removal and Installation"](#).
2. Remove the unified meter and A/C amp and AV control unit as an assembly.
3. Remove the bracket screws and remove the unified meter and A/C amp.

INSTALLATION

Install in the reverse order of removal.

NOTE:

- Unified meter and A/C amp. screws are different from other screws. Never confuse them when installing.
- Since AV control unit connector and unified meter and A/C amp. connector have the same form, be careful not to insert them wrongly.

METER CONTROL SWITCH

< REMOVAL AND INSTALLATION >

METER CONTROL SWITCH

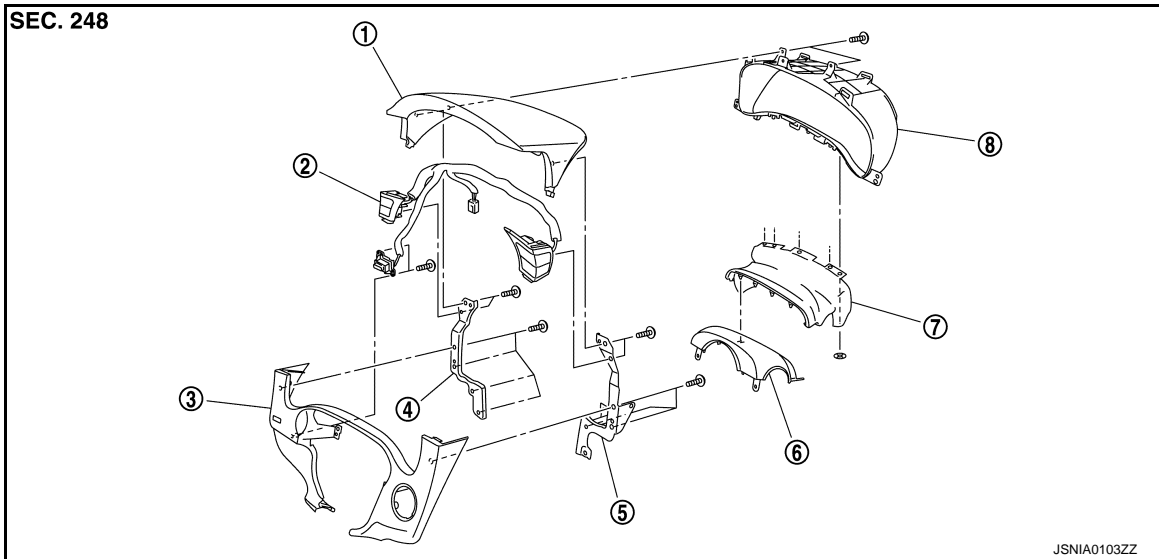
Exploded View

INFOID:000000001835600

REMOVAL

Refer to [JP-11, "Exploded View"](#).

DISASSEMBLY



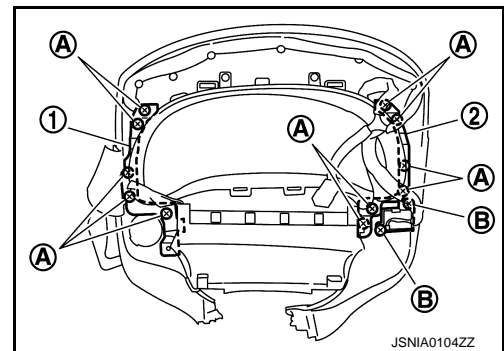
- | | | |
|--------------------------|-------------------------|--------------------------------|
| 1. Cluster lid A | 2. Meter control switch | 3. Cluster lid A under cover |
| 4. Bracket (LH) | 5. Bracket (RH) | 6. Steering column cover upper |
| 7. Steering column blind | 8. Meter housing | |

Removal and Installation

INFOID:000000001835601

REMOVAL

1. Remove combination meter.
2. Remove screws (A) and remove bracket RH (1), LH (2).
3. Remove screws (B) and remove meter control switch.



INSTALLATION

Install in the reverse order of removal.

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

MWI

COMPASS

< REMOVAL AND INSTALLATION >

COMPASS

Exploded View

INFOID:000000001835602

Refer to [MIR-46. "Exploded View"](#).

Removal and Installation

INFOID:000000001835603

Refer to [MIR-46. "Removal and Installation"](#).

CLOCK

< REMOVAL AND INSTALLATION >

CLOCK

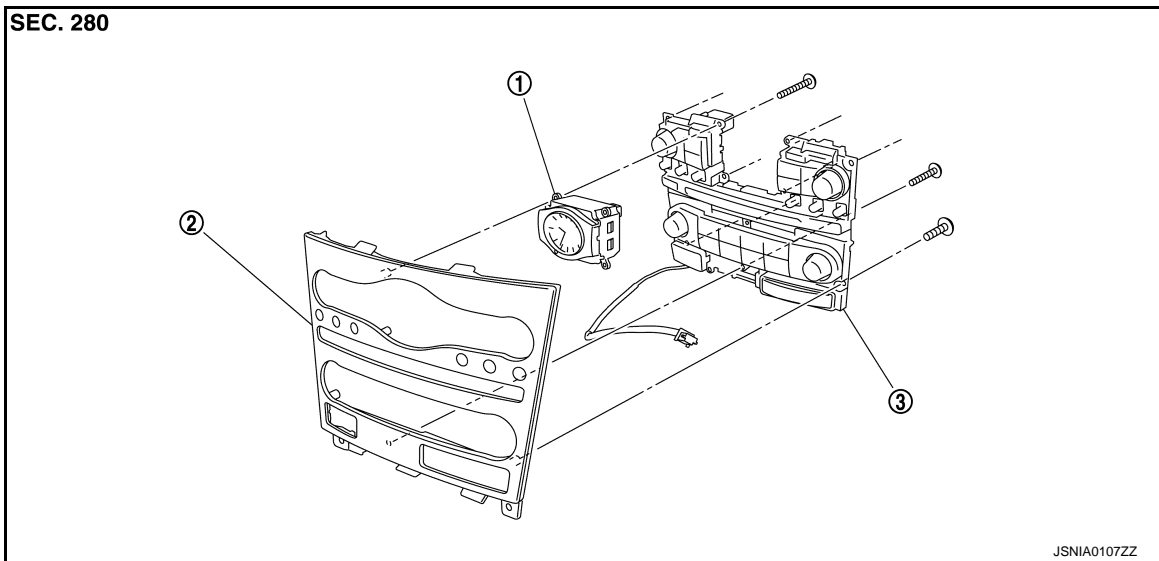
Exploded View

INFOID:000000001835604

REMOVAL

Refer to [IP-11, "Exploded View"](#).

DISASSEMBLY



1. Clock

2. Cluster lid C

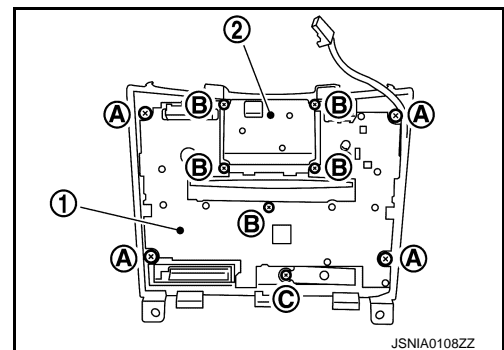
3. Preset switch

Removal and Installation

INFOID:000000001835605

REMOVAL

1. Remove cluster lid C assembly. Refer to [IP-12, "Removal and Installation"](#).
2. Remove screws (A), (B), (C) and remove clock (2) in conjunction with preset switch (1) from cluster lid C.
3. Disengage the tabs to separate clock.



INSTALLATION

Install in the reverse order of removal.

NOTE:

Never confuse screws when installing.

A
B
C
D
E
F
G
H
I
J
K
L
M
MWI
O
P