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SECTION

DRIVER INFORMATION SYSTEM

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PRECAUTION

PRECAUTION

PPF:00011

Precautions for Supplemental Restraint System (SRS) “AIR BAG” and “SEAT BELT PRE-TENSIONER”

AKS007VG

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 and SB section of this Service Manual.

WARNING:

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

Wiring Diagrams and Trouble Diagnosis

AKS0008S

When you read wiring diagrams, refer to the followings:

- Refer to [GI-14, "How to Read Wiring Diagrams"](#)
- Refer to [PG-3, "POWER SUPPLY ROUTING CIRCUIT"](#) for power distribution circuit

When you perform trouble diagnosis, refer to the followings:

- Refer to [GI-10, "HOW TO FOLLOW TEST GROUPS IN TROUBLE DIAGNOSES"](#)
- Refer to [GI-26, "How to Perform Efficient Diagnosis for an Electrical Incident"](#)

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COMBINATION METERS

COMBINATION METERS

PFP:24814

System Description

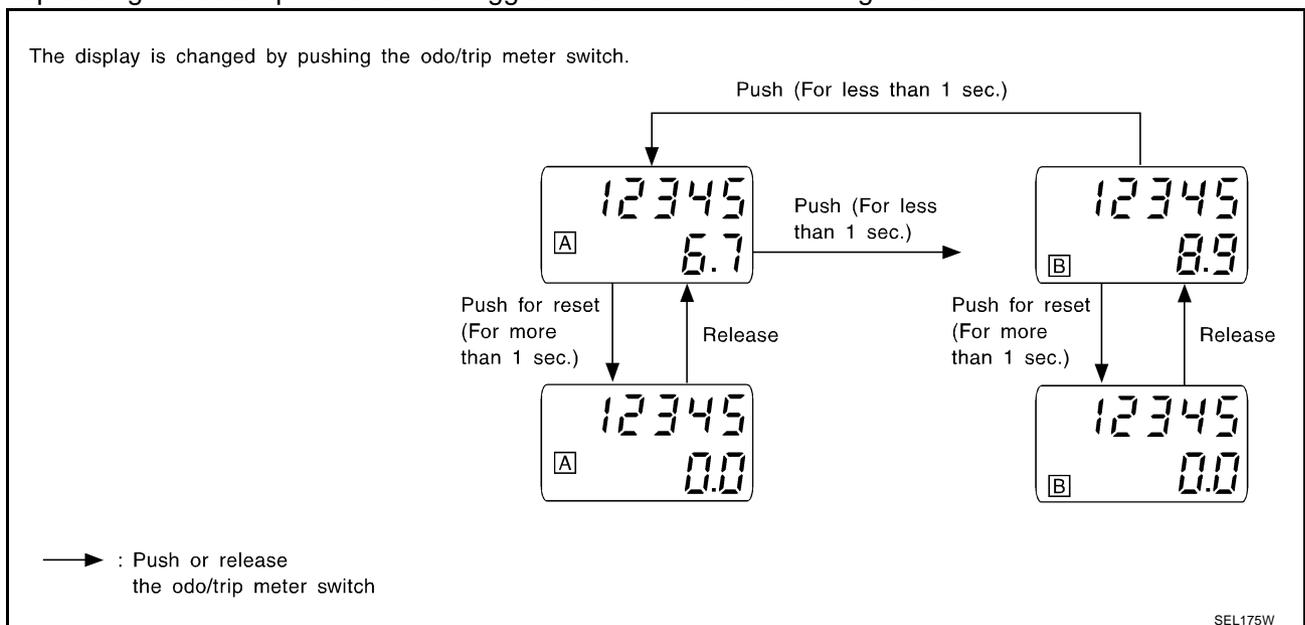
AKS0008U

UNIFIED METER CONTROL UNIT

- Speedometer, odo/trip meter, tachometer, fuel gauge and water temperature gauge are controlled by the unified meter control unit, which is built into the combination meter.
- Digital meter is adopted for odo/trip meter.*
*The record of the odo meter is kept even if the battery cable is disconnected. The record of the trip meter is erased when the battery cable is disconnected.
- Odo/trip meter and A/T indicator segments can be checked in diagnosis mode.
- Meter/gauge can be checked in diagnosis mode.

HOW TO CHANGE THE DISPLAY FOR ODO/TRIP METER

- The vehicle speed signal and the memory signals from the meter memory circuit are processed by the combination meter and the mileage is displayed.
- Depressing the odo/trip meter switch toggles the mode in the following order.



- The odo/trip meter display mode toggling and trip display resetting can be identified by the amount of time that elapses from pressing the odo/trip meter switch to releasing it.
- When resetting with trip A displayed, only trip A display is reset (Trip B operates the same way).

POWER SUPPLY AND GROUND CIRCUIT

Power is supplied at all times

- through 10A fuse [No. 19, located in the fuse block (J/B)]
- to combination meter terminal 43.

With the ignition switch in the ON or START position, power is supplied

- through 10A fuse [No. 14, located in the fuse block (J/B)]
- to combination meter terminals 41 and 42.

With the ignition switch in the ACC or ON position, power is supplied

- through 10A fuse [No. 6, located in the fuse block (J/B)]
- to combination meter terminal 40.

Ground is supplied

- to combination meter terminals 45 and 47
- through body grounds M30 and M66.

COMBINATION METERS

WATER TEMPERATURE GAUGE

The water temperature gauge indicates the engine coolant temperature. ECM provides an engine coolant temperature signal to combination meter for water temperature gauge with CAN communication line.

TACHOMETER

The tachometer indicates engine speed in revolutions per minute (rpm). ECM provides an engine speed signal to combination meter for tachometer with CAN communication line.

FUEL GAUGE

The fuel gauge indicates the approximate fuel level in the fuel tank. The fuel gauge is regulated by a variable ground signal supplied

- from body grounds M30 and M66
- through terminals 2 and 5 of the fuel level sensor unit and fuel pump (main)
- through terminals 1 and 2 of the fuel level sensor unit (sub) and
- to combination meter terminal 17 for the fuel gauge.

SPEEDOMETER

VDC/TCS/ABS control unit provides a vehicle speed signal to the combination meter for the speedometer with CAN communication line.

CAN Communication

AKS0008V

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 2 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.

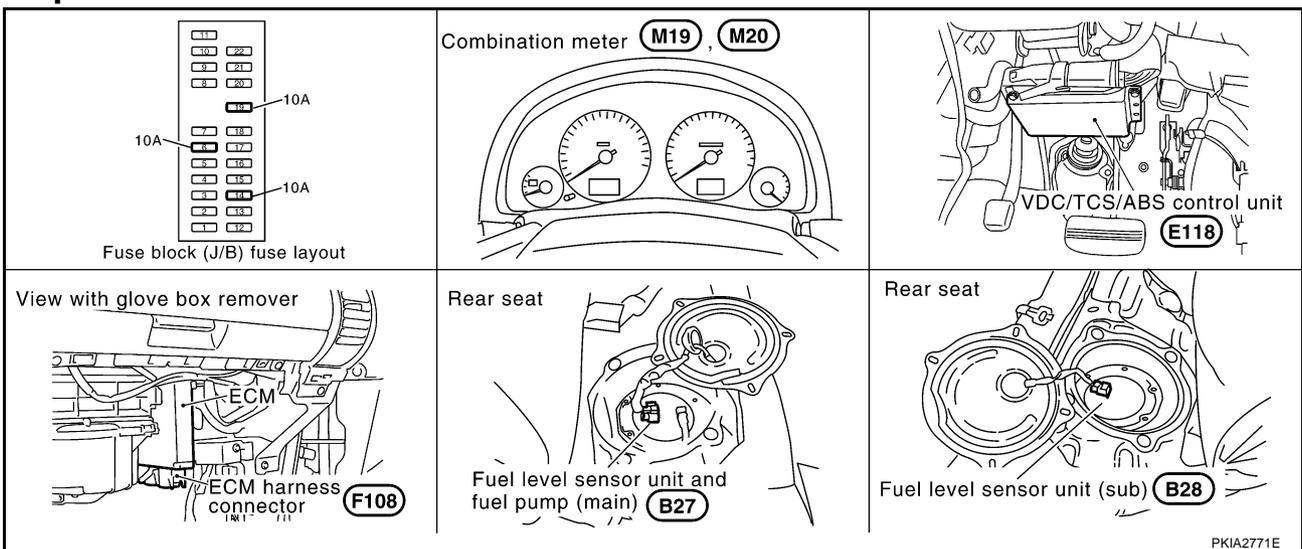
CAN Communication Unit

AKS0081B

Refer to [LAN-5, "CAN Communication Unit"](#) in "LAN SYSTEM".

Component Parts and Harness Connector Location

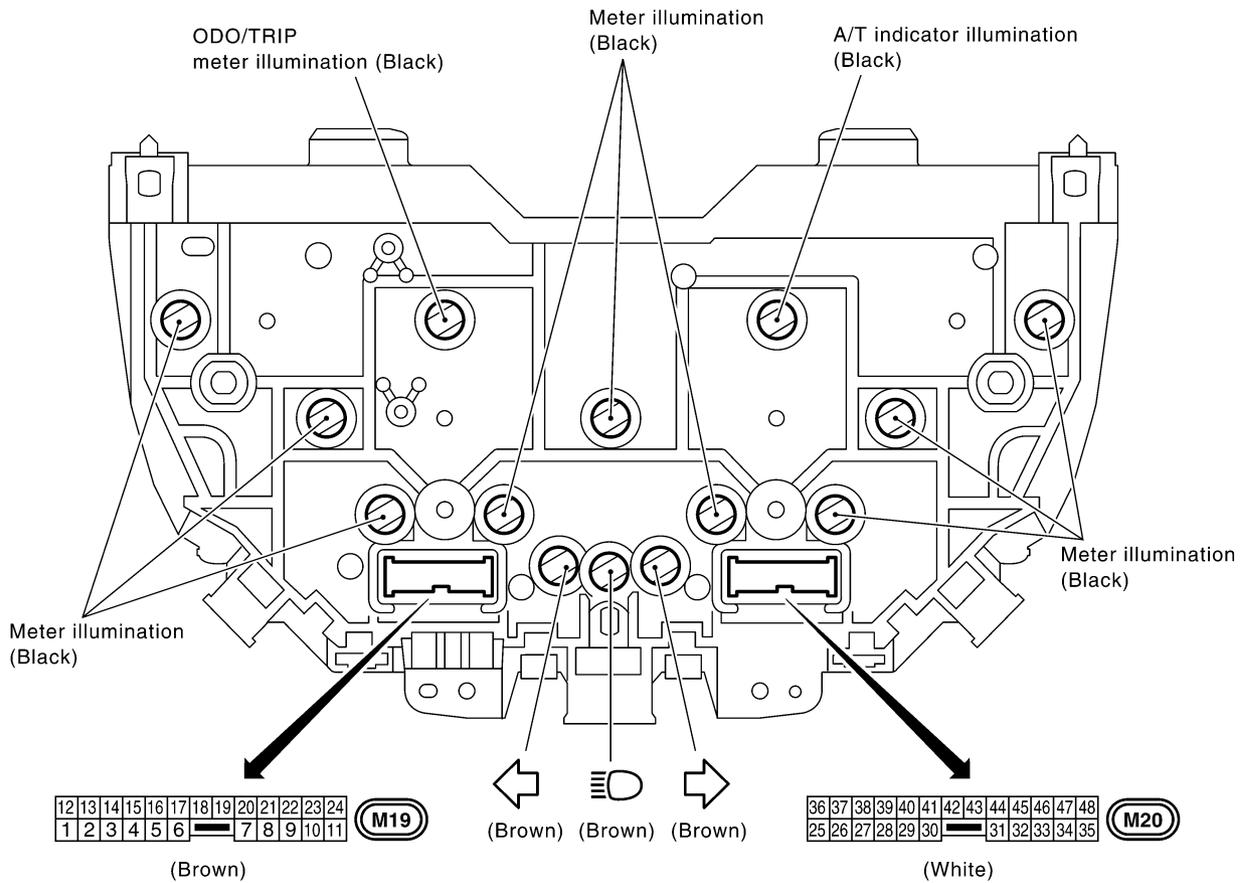
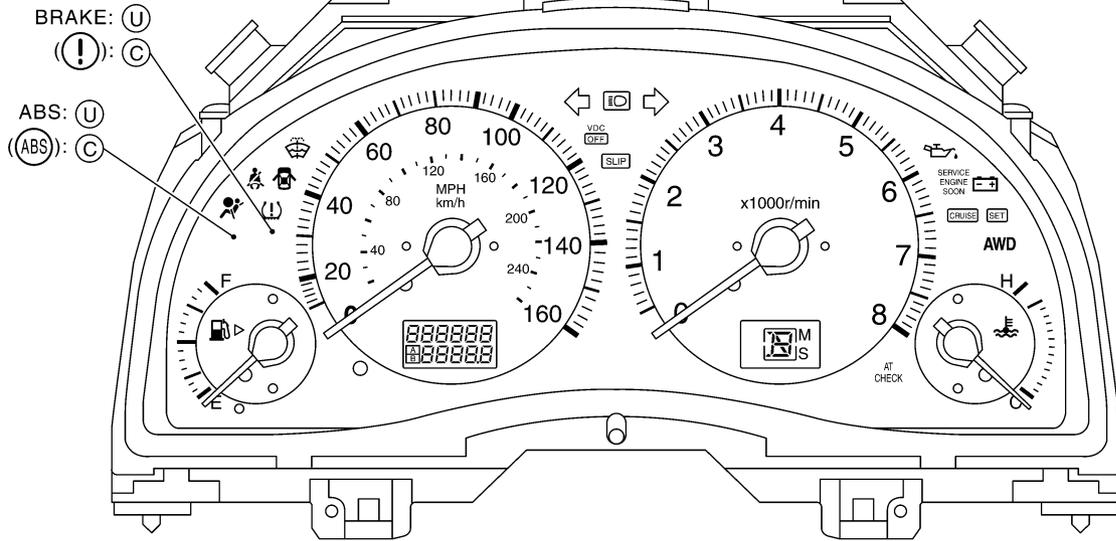
AKS0008T



COMBINATION METERS

AKS0008W

Combination Meter CHECK



Bulb socket color	Bulb wattage
Brown	1.4W
Black	3.0W

(U) : For U.S.A.
(C) : For Canada

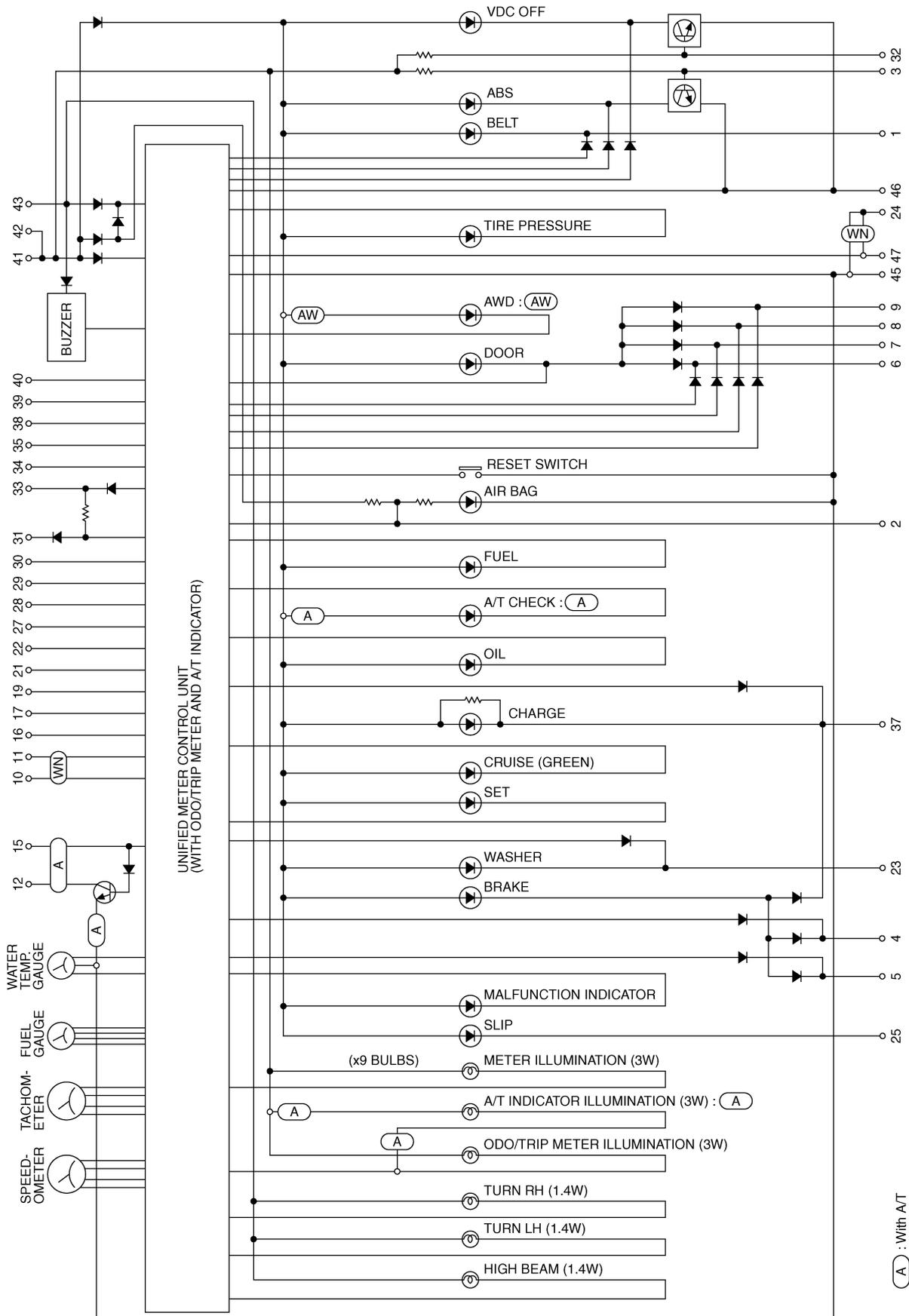
() : Bulb socket color

SKIB0022E

COMBINATION METERS

Schematic

AKS0008X



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(A) : With A/T
(AW) : AWD models
(WN) : With navigation system

TKWT2098E

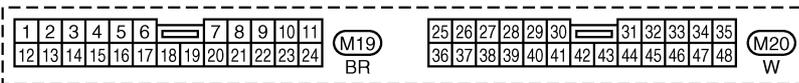
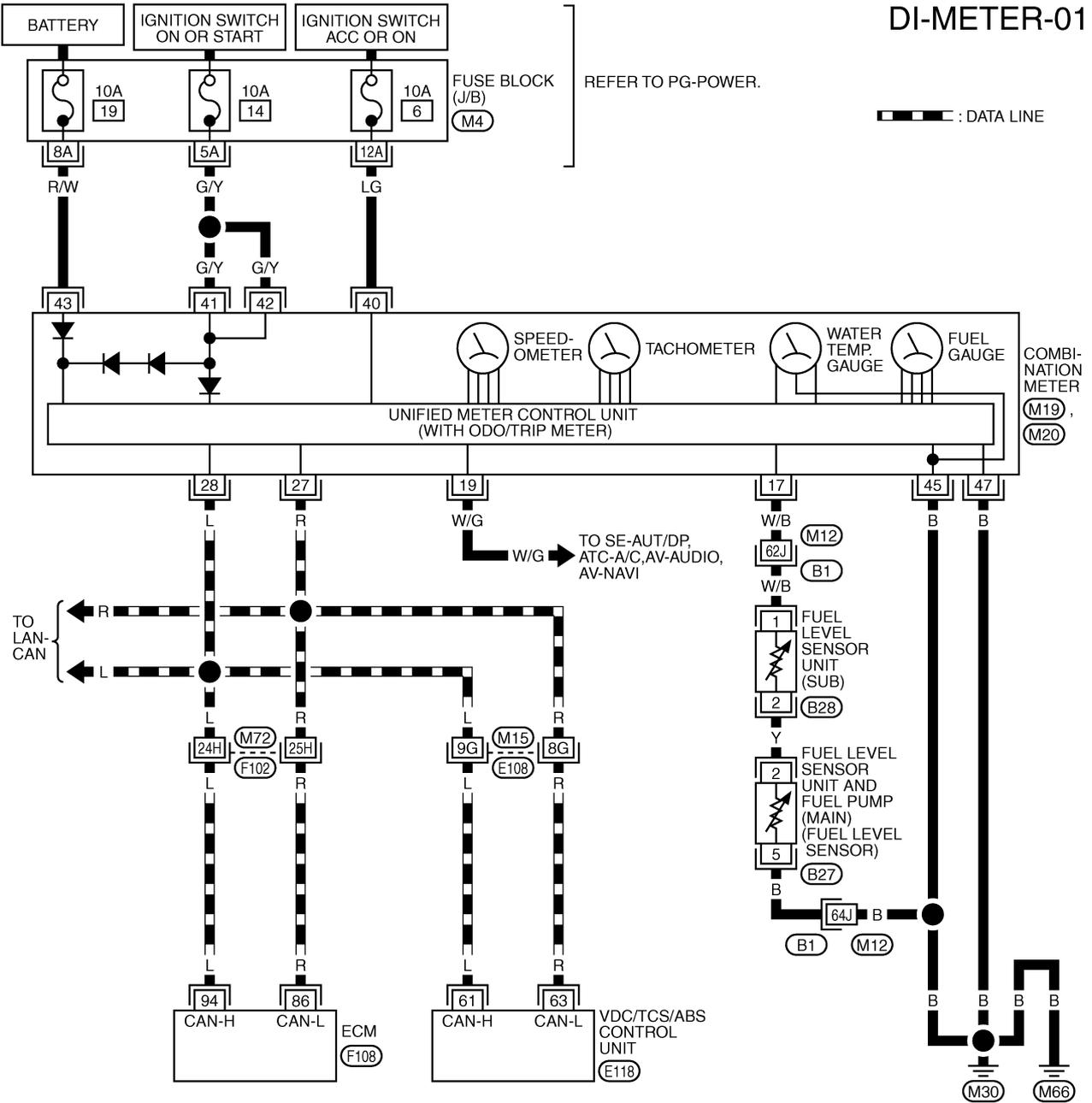
COMBINATION METERS

AKS007VH

Wiring Diagram — METER —

*:For further information, refer to "IDENTIFICATION NUMBER" in GI section.

DI-METER-01



REFER TO THE FOLLOWING.

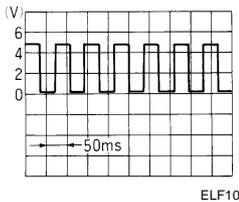
- (E108), (F102), (B1) -SUPER MULTIPLE JUNCTION (SMJ)
- (M4) -FUSE BLOCK-JUNCTION BOX (J/B)
- (E118), (F108) -ELECTRICAL UNITS

TKWT1444E

COMBINATION METERS

Terminals and Reference Value for Combination Meter

AKS0008Z

Terminal No.	Wire Color	Item	Condition		Reference Value
			Ignition switch	Operation or condition	
17	W/B	Fuel level sensor signal	—	—	Refer to DI-15. "FUEL LEVEL SENSOR UNIT CHECK" .
19	W/G	Vehicle speed signal (2-pulse)	ON	Speedometer operated [When vehicle speed is approx. 40 km/h (25 MPH)]	
27	R	CAN-L	—	—	—
28	L	CAN-H	—	—	—
40	LG	Ignition switch (ACC)	ACC	—	Battery voltage
41	G/Y	Ignition switch (ON)	ON	—	Battery voltage
42	G/Y	Ignition switch (ON)	ON	—	Battery voltage
43	R/W	Battery power supply	OFF	—	Battery voltage
45	B	Ground	ON	—	Approx. 0V
47					

Meter/Gauges Operation and Odo/Trip Meter SELF-DIAGNOSIS FUNCTION

AKS00090

- Odo/trip meter segment and A/T indicator segment operation can be checked in self-diagnosis mode.
- Meters/gauges can be checked in self-diagnosis mode.

HOW TO ALTERNATE DIAGNOSIS MODE

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

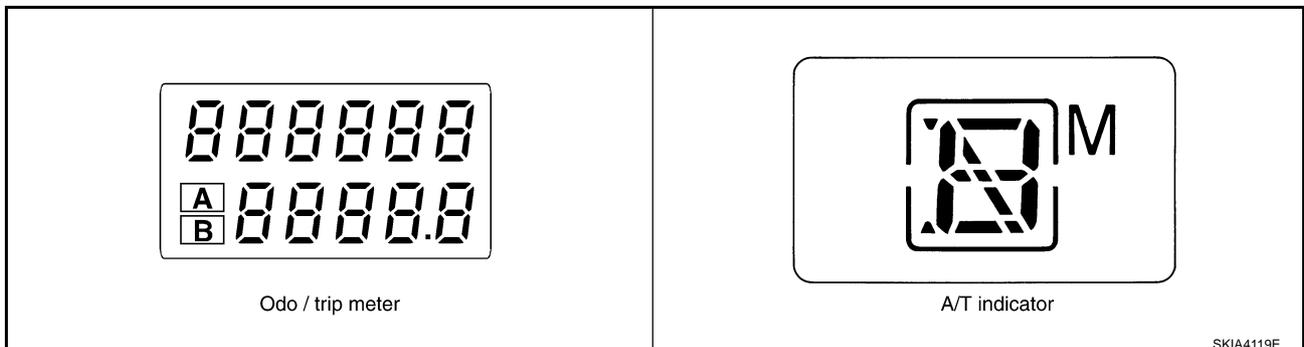
NOTE:

If the diagnosis function is activated with the trip meter A displayed, the mileage on the trip meter A will indicate 0000.0 miles, but the actual trip mileage will be retained. (The same way for trip B.)

2. Turn ignition switch OFF.
3. While pushing the odo/trip meter switch, turn ignition switch ON again.
4. Check that the trip meter displays "0000.0".
5. Push the odo/trip meter switch at least 3 times. (Within 7 seconds after the ignition switch is turned ON.)
6. All the segments on the odo/trip meter and A/T indicator illuminate, and simultaneously the low-fuel warning lamp indicator illuminates. At this time, the unified meter control unit is turned to diagnosis mode.

NOTE:

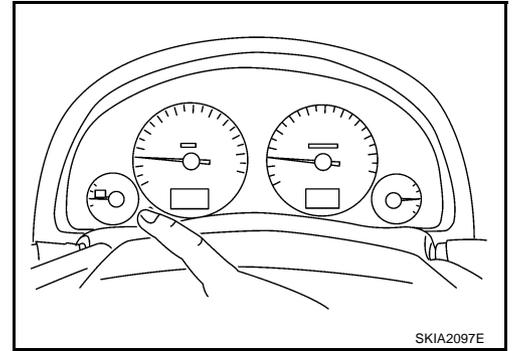
If any of the segments is not displayed, replace the combination meter.



SKIA4119E

COMBINATION METERS

7. Push the odo/trip meter switch. Each meter/gauge should indicate as shown in the figure while pushing odo/trip meter switch. (At this time, the low-fuel warning lamp goes off).



How to Proceed With Trouble Diagnosis

AKS00091

1. Confirm the symptom or customer complaint.
2. Perform diagnosis according to diagnosis flow. Refer to [DI-10, "Diagnosis Flow"](#).
3. According to the trouble diagnosis chart, repair or replace the cause of the trouble symptom. Refer to [DI-12, "Trouble Diagnosis Chart by Symptom"](#).
4. Does the meter operate normally? If so, go to 5. If not, go to 2.
5. INSPECTION END

Diagnosis Flow

AKS00092

1. CHECK WARNING LAMP ILLUMINATION

1. Turn ignition switch ON.
2. Check that warning lamps (such as MIL and oil pressure warning lamp) illuminate.

Do warning lamps illuminate?

YES >> GO TO 2.

NO >> Check power supply circuit of combination meter when ignition switch is ON. Refer to [DI-11, "Power Supply and Ground Circuit Check"](#).

2. CHECK SELF-DIAGNOSIS OPERATION

Perform combination meter self-diagnosis. Refer to [DI-9, "SELF-DIAGNOSIS FUNCTION"](#).

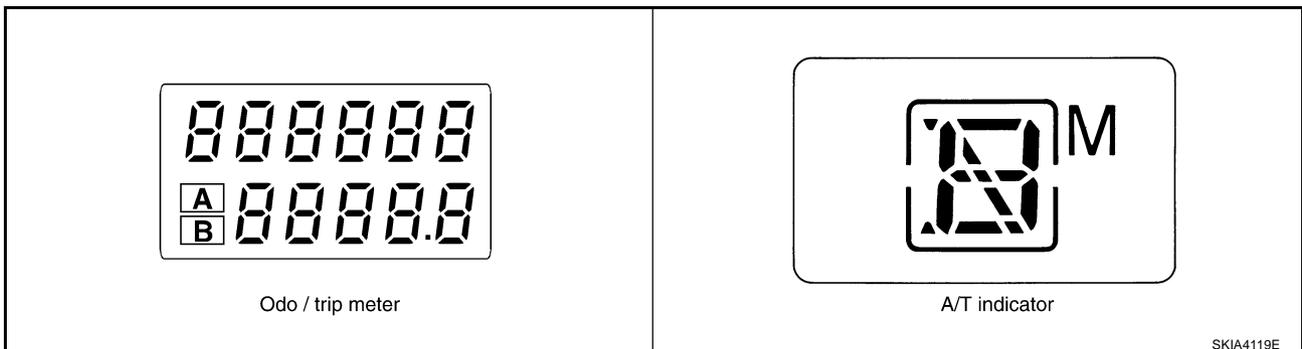
Does self-diagnosis function operate?

YES >> GO TO 3.

NO >> Check battery power supply circuit and ground circuit of combination meter. Refer to [DI-11, "Power Supply and Ground Circuit Check"](#).

3. CHECK ODO/TRIP METER OPERATION

Check segment display status of odo/trip meter and A/T indicator.



Is the display normal?

YES >> GO TO 4.

NO >> Replace combination meter.

COMBINATION METERS

4. CHECK FUEL WARNING LAMP ILLUMINATION

While checking fuel warning lamp, confirm illumination of fuel warning lamp.

Condition of odo/trip meter switch	Fuel warning lamp
Pushed	Does not illuminate.
Released	Illuminates.

OK or NG

OK >> GO TO 5.

NG >> Replace combination meter.

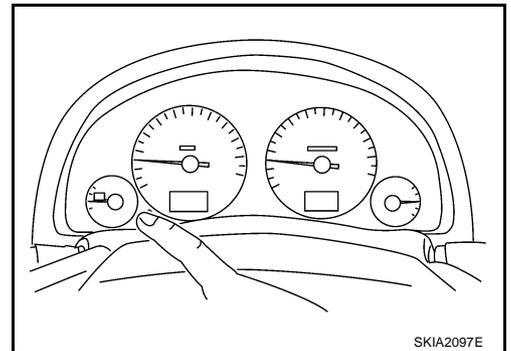
5. CHECK METER CIRCUIT

Check indication of each meter/gauge in self-diagnosis mode.

OK or NG

OK >> Go to diagnosis results. Refer to [DI-12, "DIAGNOSIS RESULTS"](#).

NG >> Replace combination meter.



AKS00093

Power Supply and Ground Circuit Check

1. CHECK FUSES

Check for blown combination meter fuses.

Unit	Power source	Fuse No.
Combination meter	Battery	19
	Ignition switch (ON)	14
	Ignition switch (ACC)	6

OK or NG

OK >> GO TO 2.

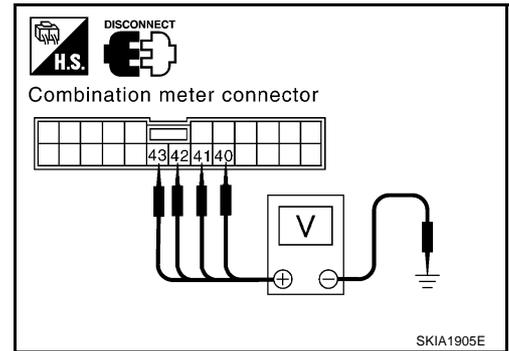
NG >> If fuse is blown, be sure to eliminate cause of problem before installing new fuse. Refer to [PG-3, "POWER SUPPLY ROUTING CIRCUIT"](#).

COMBINATION METERS

2. CHECK POWER SUPPLY CIRCUIT

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

Terminals		Ignition switch position			
(+)		(-)	OFF	ACC	ON
Connector	Terminal (Wire color)				
M20	40 (LG)	Ground	0V	Battery voltage	Battery voltage
	41 (G/Y)		0V	0V	Battery voltage
	42 (G/Y)		0V	0V	Battery voltage
	43 (R/W)		Battery voltage	Battery voltage	Battery voltage



OK or NG

OK >> GO TO 3.

NG >> Check harness for open or short between combination meter and fuse.

3. CHECK GROUND CIRCUIT

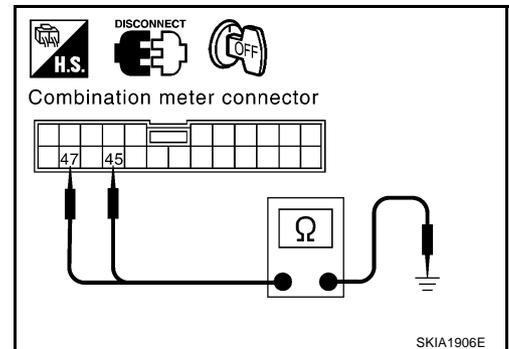
1. Turn ignition switch OFF.
2. Check continuity between combination meter harness connector M20 terminals 45 (B), 47 (B) and ground.

Continuity should exist.

OK or NG

OK >> INSPECTION END

NG >> Repair ground harness.



Trouble Diagnosis Chart by Symptom DIAGNOSIS RESULTS

AKS00094

Trouble phenomenon	Possible cause
Tachometer indication is malfunction.	Refer to DI-14, "Inspection/Engine Speed Signal" .
Fuel warning lamp indication is irregular.	Refer to DI-13, "Inspection/Fuel Level Sensor" .
Fuel gauge indication is malfunction.	
Water temperature gauge indication is malfunction.	Refer to DI-14, "Inspection/Water Temperature Signal" .
Indication is irregular for the speedometer and odo/trip meter.	Refer to DI-14, "Inspection/Vehicle Speed Signal" .
Indications are irregular for more than one gauge.	Replace combination meter.
A/T position indicator is malfunction.	Refer to DI-35, "A/T Indicator Does Not Illuminate" .

COMBINATION METERS

AKS00095

Inspection/Fuel Level Sensor

The following symptoms do not indicate a malfunction.

FUEL GAUGE

- Depending on vehicle position or driving circumstance, the fuel in the tank flows and the pointer may fluctuate.
- If the vehicle is fueled with the ignition switch ON, the pointer will move slowly.

LOW-FUEL WARNING LAMP

Depending on vehicle position or driving circumstance, the fuel in the tank flows and the warning lamp ON timing may change.

1. CHECK HARNESS CONNECTOR

Check combination meter and fuel level sensor unit terminals (meter-side, unit-side, harness-side) for looseness or bent terminals.

OK or NG

- OK >> GO TO 2.
- NG >> Repair terminal or connector.

2. CHECK COMBINATION METER CIRCUIT

1. Disconnect combination meter connector and fuel level sensor unit (sub) connector.
2. Check continuity between combination meter harness connector M19 terminal 17 (W/B) and fuel level sensor unit (sub) harness connector B28 terminal 1 (W/B).

Continuity should exist.

3. Check continuity between combination meter harness connector M19 terminal 17 (W/B) and ground.

Continuity should not exist.

OK or NG

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

3. CHECK FUEL LEVEL SENSOR CIRCUIT

1. Disconnect fuel level sensor unit and fuel pump (main) connector.
2. Check continuity between fuel level sensor unit (sub) harness connector B28 terminal 2 (Y) and fuel level sensor unit and fuel pump (main) harness connector B27 terminal 2 (Y).

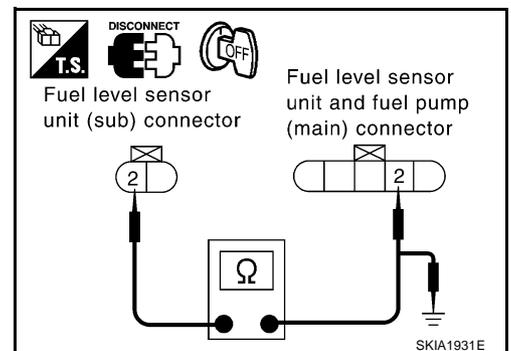
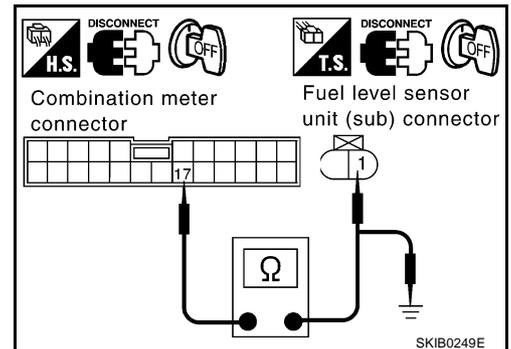
Continuity should exist.

3. Check continuity between fuel level sensor unit (sub) harness connector B28 terminal 2 (Y) and ground.

Continuity should not exist.

OK or NG

- OK >> GO TO 4.
- NG >> Repair harness or connector.



COMBINATION METERS

4. CHECK GROUND CIRCUIT

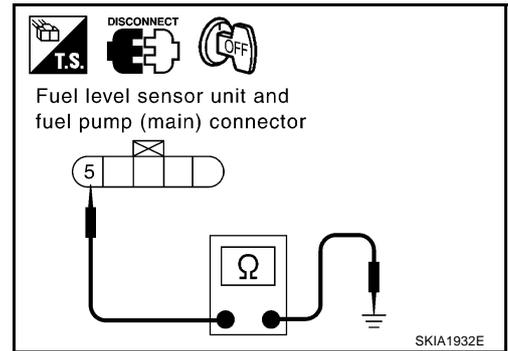
Check continuity between fuel level sensor unit and fuel pump (main) harness connector B27 terminal 5 (B) and ground.

Continuity should exist.

OK or NG

OK >> GO TO 5.

NG >> Repair harness or connector.



5. CHECK FUEL LEVEL SENSOR

Check fuel level sensor units. Refer to [DI-15, "FUEL LEVEL SENSOR UNIT CHECK"](#).

OK or NG

OK >> GO TO 6.

NG >> Replace fuel level sensor unit and fuel pump (main) or fuel level sensor unit (sub).

6. 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.

OK or NG

OK >> Replace combination meter.

NG >> Install fuel level sensor unit properly.

Inspection/Engine Speed Signal

AKS00096

1. CHECK ECM SELF-DIAGNOSIS

Perform ECM self-diagnosis. Refer to [EC-105, "CONSULT-II Function"](#).

OK or NG

OK >> Replace combination meter.

NG >> Perform "Diagnostic Procedure" in displayed DTC.

Inspection/Water Temperature Signal

AKS00098

1. CHECK ECM SELF-DIAGNOSIS

Perform the ECM self-diagnosis. Refer to [EC-105, "CONSULT-II Function"](#).

OK or NG

OK >> Replace combination meter.

NG >> Perform "Diagnostic Procedure" in displayed DTC.

Inspection/Vehicle Speed Signal

AKS00099

1. CHECK VDC/TCS/ABS CONTROL UNIT SELF-DIAGNOSIS

Perform VDC/TCS/ABS control unit self-diagnosis. Refer to [BRC-24, "CONSULT-II Functions"](#).

OK or NG

OK >> Replace combination meter.

NG >> Check applicable parts.

COMBINATION METERS

The Fuel Gauge Pointer Fluctuates, Indicator Wrong Value or Varies

AKS0009B

1. CHECK FUEL GAUGE FLUCTUATION

Test drive vehicle to see if gauge fluctuates only during driving or before or after stopping.

Does the indication value vary only during driving or before or after stopping?

- YES >> The pointer fluctuation may be caused by fuel level change in the fuel tank. Condition is normal.
 NO >> Ask the customer about the situation when the symptom occurs in detail, and perform the trouble diagnosis.

The Fuel Gauge Does Not Move to FULL position

AKS0009C

1. QUESTION 1

Does it take a long time for the pointer to move to FULL position?

YES or NO

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

2. QUESTION 2

Was the vehicle fueled with the ignition switch ON?

YES or NO

- YES >> Be sure to fuel the vehicle with the ignition switch OFF. Otherwise, it will take a long time to move to FULL position because of the characteristic of the fuel gauge.
 NO >> GO TO 3.

3. QUESTION 3

Is the vehicle parked on an incline?

YES or NO

- YES >> Check the fuel level indication with vehicle on a level surface.
 NO >> GO TO 4.

4. QUESTION 4

During driving, does the fuel gauge pointer move gradually toward EMPTY position?

YES or NO

- YES >> Check fuel level sensor unit. Refer to [DI-15, "FUEL LEVEL SENSOR UNIT CHECK"](#).
 NO >> The float arm may interfere or bind with any of the components in the fuel tank.

Electrical Components Inspection

AKS000EA

FUEL LEVEL SENSOR UNIT CHECK

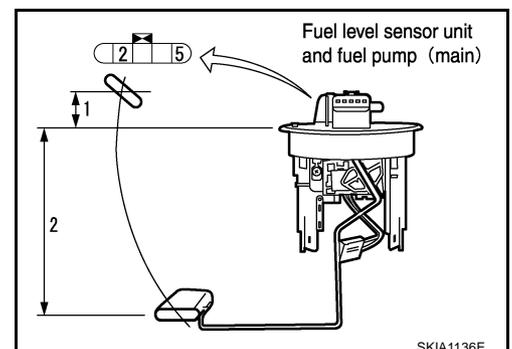
For removal, refer to [FL-4, "FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY"](#).

Fuel Level Sensor Unit and Fuel Pump (Main)

Check the resistance between terminals 2 and 5.

Terminal		Float position		mm (in)	Resistance value Ω
(+)	(-)	*1	*2		
2	5	*1	Full	9.0 (0.35)	Approx. 3
		*2	Empty	175 (6.89)	Approx. 80

*1 and *2: When float rod is in contact with stopper.



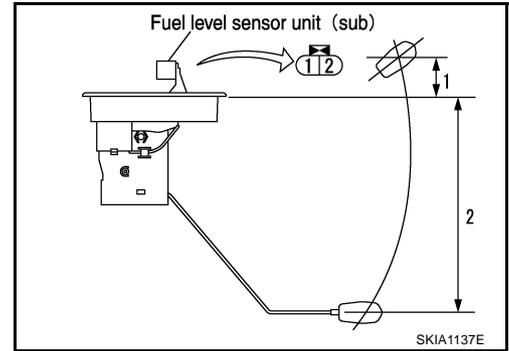
COMBINATION METERS

Fuel Level Sensor Unit (Sub)

Check the resistance between terminals 1 and 2.

Terminal		Float position mm (in)			Resistance value Ω
(+)	(-)				
1	2	*1	Full	9.4 (0.37)	Approx. 3
		*2	Empty	179 (7.05)	Approx. 42.5

*1 and *2: When float rod is in contact with stopper.

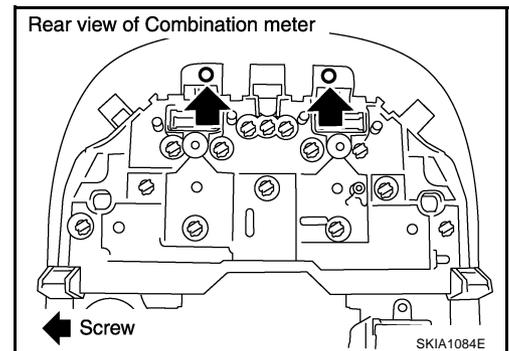
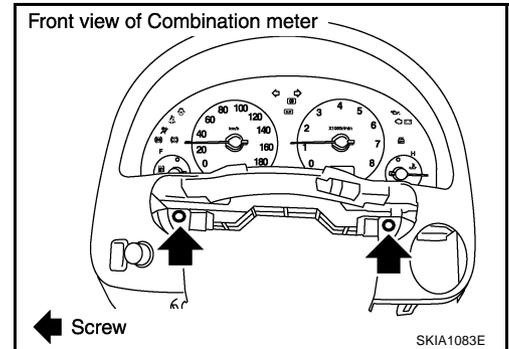


AKS000EV

Removal and Installation for Combination Meter

REMOVAL

1. Remove column cover. Refer to [PS-10, "STEERING COLUMN"](#).
2. Remove combination switch. Refer to [LT-123, "LIGHTING AND TURN SIGNAL SWITCH"](#) and [WW-38, "Removal and Installation of Front Wiper and Washer Switch"](#).
3. Remove instrument lower cover. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#).
4. Remove the screw (4) and remove cluster lid A and combination meter assembly. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#).
5. Disconnect connectors and remove combination meter.
6. Disassembly cluster lid A and combination meter.



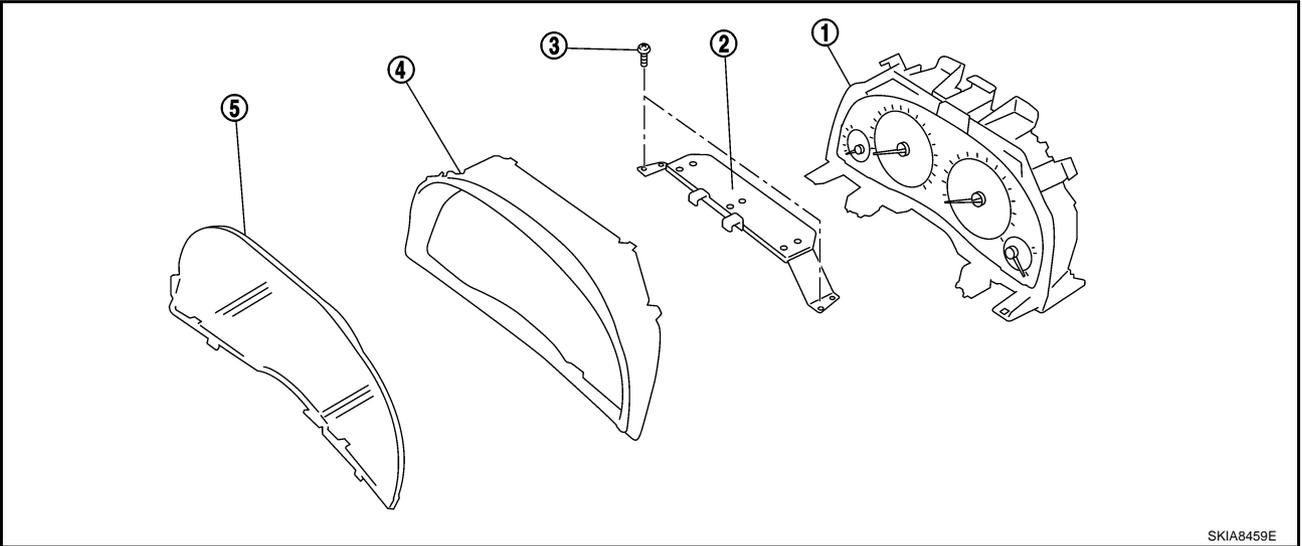
INSTALLATION

Install in the reverse order of removal.

COMBINATION METERS

Disassembly and Assembly for Combination Meter

AKS000EW



- | | | |
|--|----------------|--------------|
| 1. Unified meter control unit assembly | 2. Plate | 3. Screw (2) |
| 4. Upper housing | 5. Front cover | |

DISASSEMBLY

1. Disengaged the tabs (8) to separate front cover.
2. Remove screw (2) and remove plate.
3. Disengaged the tabs (8) to separate upper housing.
4. Remove bulbs.

ASSEMBLY

Assembly in the reverse order of disassembly.

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

COMPASS

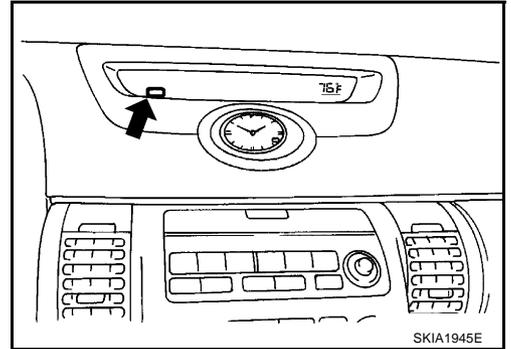
COMPASS

PFP:24835

System Description

AKS004FE

This unit displays earth magnetism and heading direction of vehicle.



DIRECTION DISPLAY

Push the switch when the ignition key is "ON" or "START". The direction will be displayed.

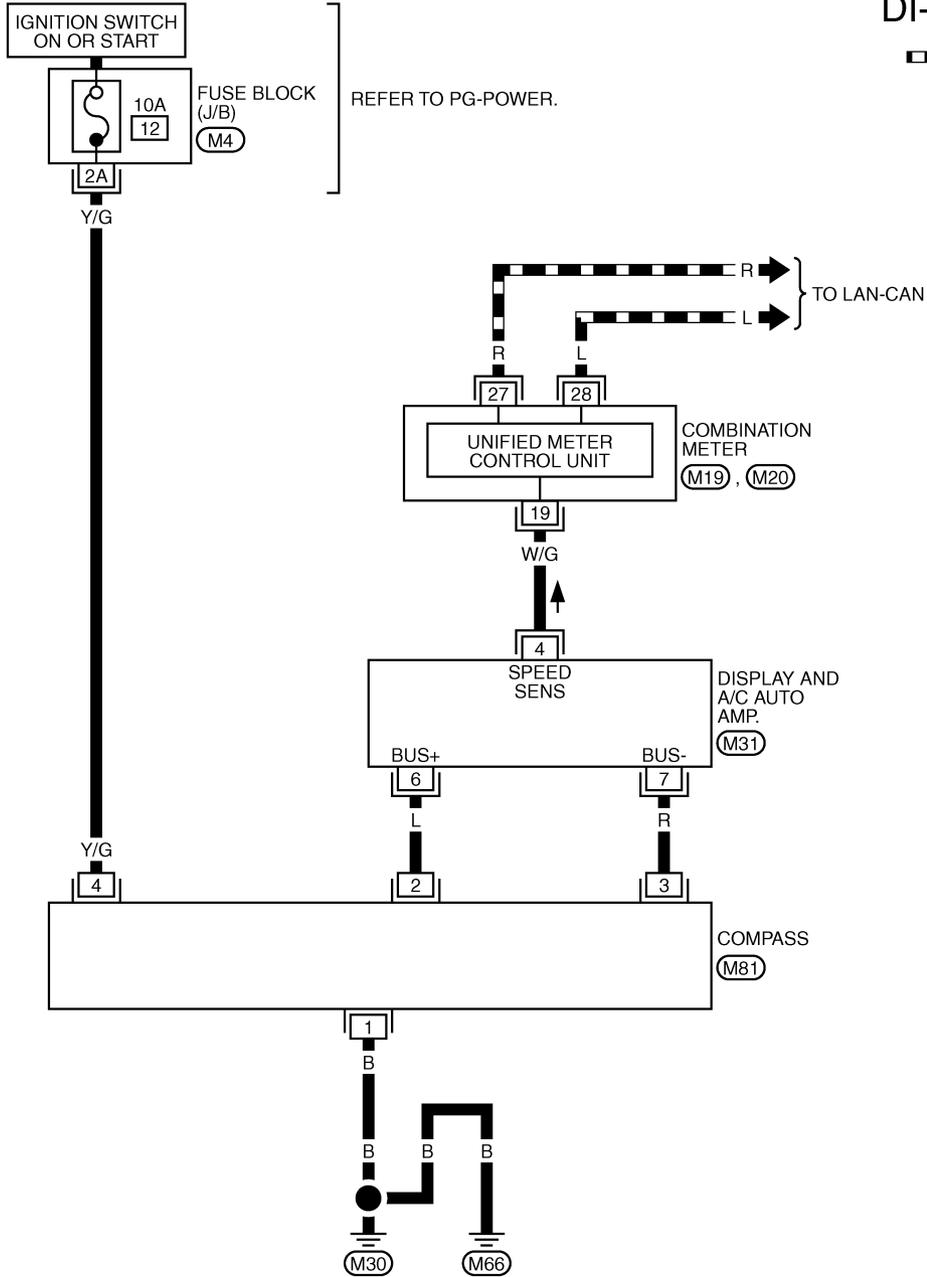
COMPASS

Wiring Diagram — COMPASS —

AKS004FF

DI-COMPAS-01

▬ : DATA LINE



REFER TO THE FOLLOWING.

M4 - FUSE BLOCK-JUNCTION BOX (J/B)

A
B
C
D
E
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J
DI
L
M

COMPASS

AKS004FG

Power Supply and Ground Circuit Check for Compass

1. CHECK FUSE

Check 10A fuse [No. 12, located in fuse block (J/B)].

OK or NG

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of problem before installing new fuse. Refer to [PG-3](#). "[POWER SUPPLY ROUTING CIRCUIT](#)".

2. CHECK POWER SUPPLY CIRCUIT

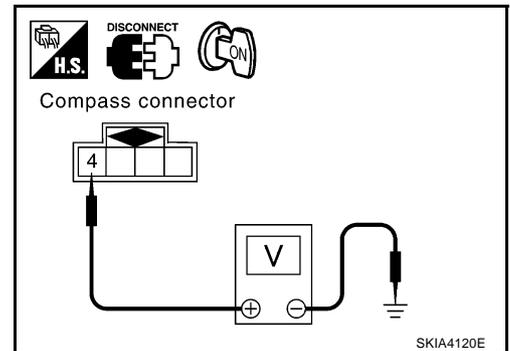
1. Disconnect compass connector.
2. Turn ignition switch ON.
3. Check voltage between compass harness connector M81 terminal 4 (Y/G) and ground.

Battery voltage should exist.

OK or NG

OK >> GO TO 3.

NG >> Check harness for open or short between compass and fuse.



3. CHECK GROUND CIRCUIT

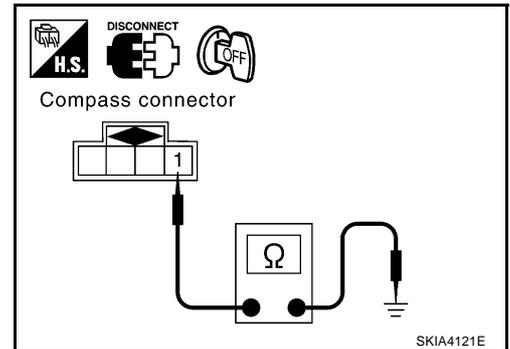
1. Turn ignition switch OFF.
2. Check continuity between compass harness connector M81 terminal 1 (B) and ground.

Continuity should exist.

OK or NG

OK >> INSPECTION END

NG >> Repair or replace harness for ground circuit.



Fail-Safe System DESCRIPTION

AKS004FH

- If there is no response from display and A/C auto amp., previous display is kept for 10 minutes. After 10 minutes, "---" is displayed. (Only when there is no response continuously for 10 minutes.)
- If display and A/C auto amp. receives normal data within 10 minutes, normal operation will be recovered.
- If display and A/C auto amp. receives normal data while "---" is being displayed, normal operation will be recovered.
- If ignition switch is turned OFF within 10 minutes: Previously retained data is displayed when ignition switch is turned ON again. Then after 10 minutes, "---" is displayed.
- If response is never received after battery is turned ON, no data is retained. Therefore nothing is displayed for 10 minutes.

Compass Does not Display

AKS004FI

1. CHECK DISPLAY AND A/C AUTO AMP. SELF-DIAGNOSIS

Check display and A/C auto amp. self-diagnosis. Refer to [ATC-54, "FUNCTION CONFIRMATION PROCEDURE"](#).

Does display and A/C auto amp. segments all displayed?

- YES >> Check fail safe system. refer to [DI-20, "Fail-Safe System"](#).
- NO >> Replace display and A/C auto amp.

Compass Display "--"

AKS004FJ

1. CHECK FAIL-SAFE MODE

Check that fail-safe mode is not activated. Refer to [DI-20, "Fail-Safe System"](#).

Does be activated Fail-safe mode?

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

2. CHECK DISPLAY AND A/C AUTO AMP. SELF-DIAGNOSIS

Check display and A/C auto amp. self-diagnosis. Refer to [ATC-54, "FUNCTION CONFIRMATION PROCEDURE"](#).

Does display and A/C auto amp. segments all displayed?

- YES >> INSPECTION END
- NO >> Replace display and A/C auto amp.

3. CHECK POWER AND GROUND CIRCUIT

Check power and ground circuit. Refer to [DI-20, "Power Supply and Ground Circuit Check for Compass"](#).

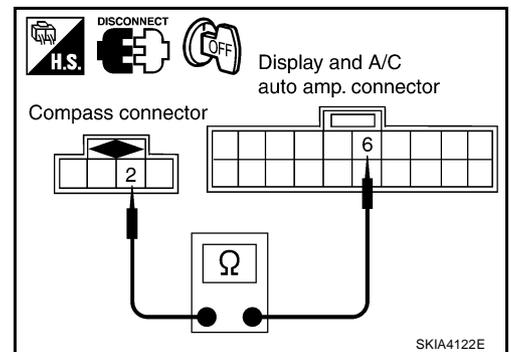
OK or NG

- OK >> GO TO 4.
- NG >> Repair power and ground circuit.

4. CHECK COMPASS CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect compass connector and display and A/C auto amp. connector.
3. Check continuity between compass harness connector M81 terminal 2 (L) and display and A/C auto amp. harness connector M31 terminal 6 (L).

Continuity should exist.

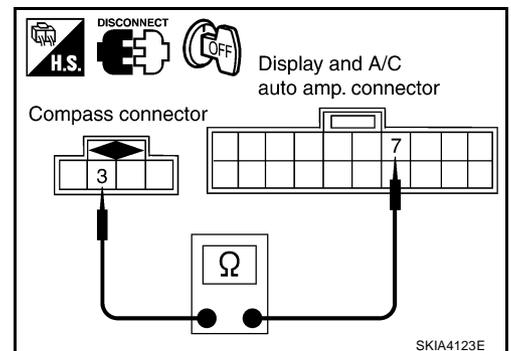


4. Check continuity between compass harness connector M81 terminal 3 (R) and display and A/C auto amp. harness connector M31 terminal 7 (R).

Continuity should exist.

OK or NG

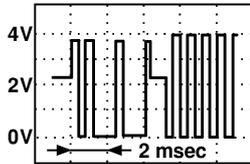
- OK >> GO TO 5.
- NG >> Repair harness or connector.



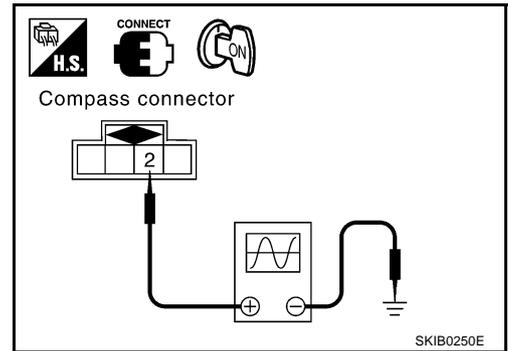
COMPASS

5. CHECK COMPASS SIGNAL

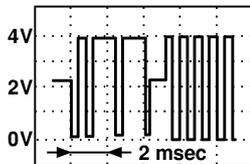
1. Connect compass connector and display and A/C auto amp. connector.
2. Turn ignition switch ON.
3. Check the signal between compass harness connector M81 terminal 2 (L) and ground with CONSULT-II or oscilloscope.



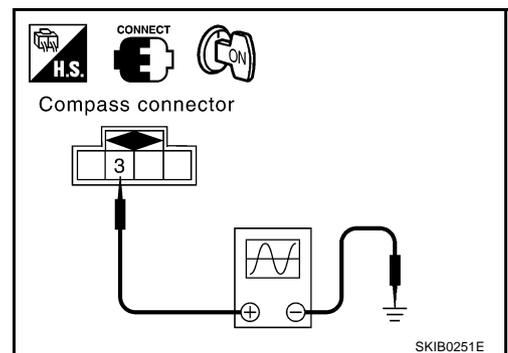
RJIA0867E



4. Check the signal between compass harness connector M81 terminal 3 (R) and ground with CONSULT-II or oscilloscope.



RJIA0868E



OK or NG

- OK >> Replace display and A/C auto amp.
- NG >> Replace compass.

Forward Direction Indication Slips Off The Mark or Incorrect

AKS004FK

1. ZONE VARIATION CHANGE IS NOT DONE

Perform the zone variation change.

OK or NG

- OK >> INSPECTION END
- NG >> Replace compass.

Compass Reading Remains Unchanged

AKS004FL

1. CHECK POWER AND GROUND CIRCUIT

Check power and ground circuit. Refer to [DI-20, "Power Supply and Ground Circuit Check for Compass"](#).

OK or NG

- OK >> Replace compass.
- NG >> Repair power and ground circuit.

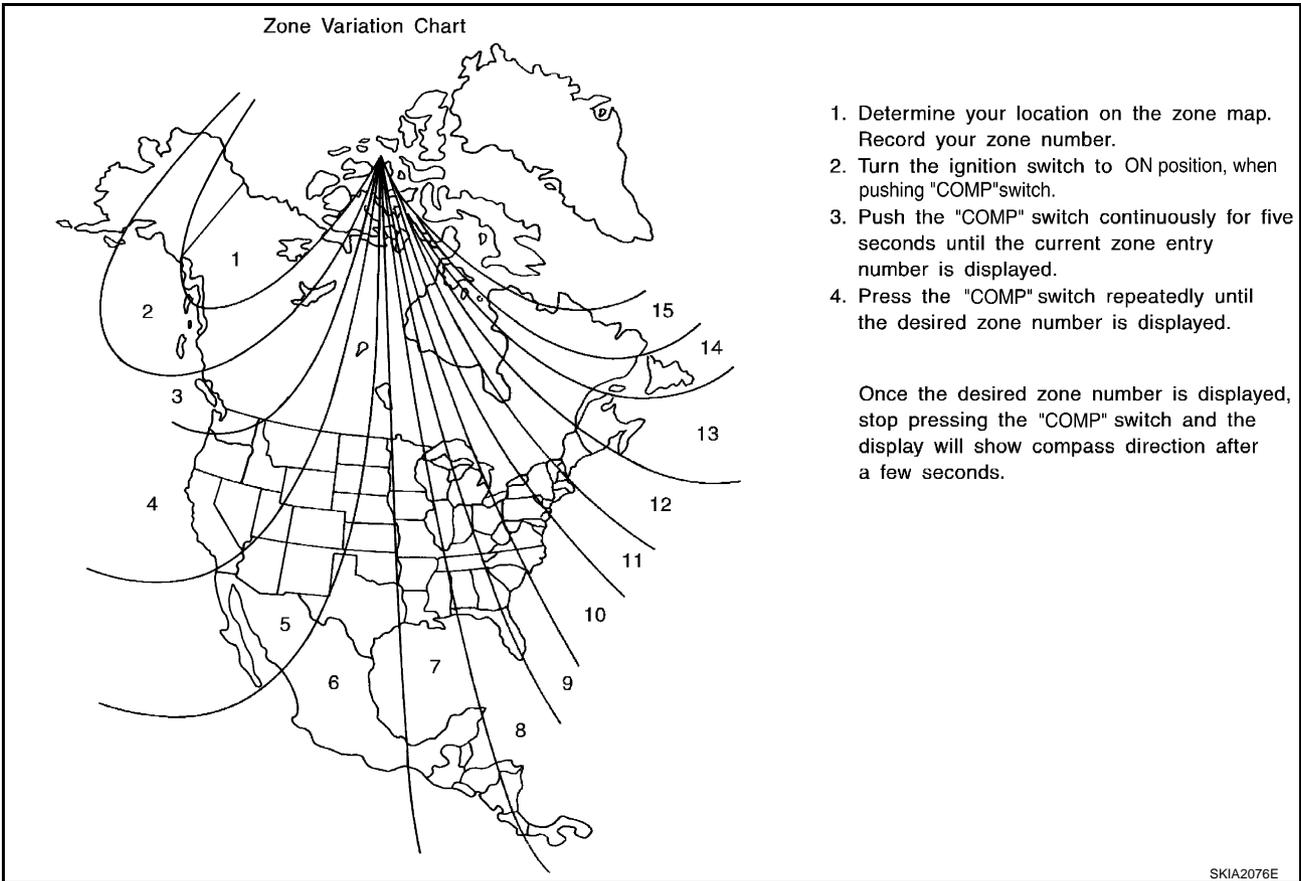
COMPASS

AKS004FM

Calibration Procedure for Compass

The difference between magnetic North and geographical North can sometimes be great enough to cause false compass readings.

In order for the compass to operate accurately in a particular zone, it must be calibrated using the following procedure.



1. Determine your location on the zone map. Record your zone number.
2. Turn the ignition switch to ON position, when pushing "COMP" switch.
3. Push the "COMP" switch continuously for five seconds until the current zone entry number is displayed.
4. Press the "COMP" switch repeatedly until the desired zone number is displayed.

Once the desired zone number is displayed, stop pressing the "COMP" switch and the display will show compass direction after a few seconds.

CORRECTION FUNCTIONS OF COMPASS

If the direction is not shown correctly, carry out initial correction.

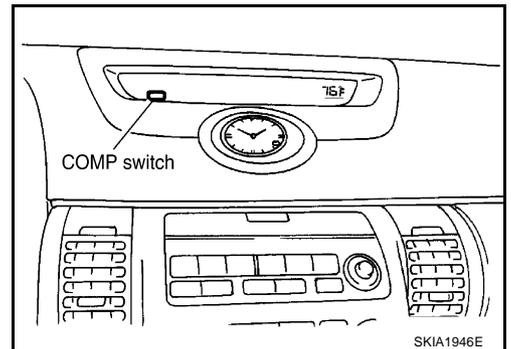
INITIAL CORRECTION PROCEDURE FOR COMPASS

1. Pushing the "COMP" switch for about 10 seconds will enter the initial correction mode. The direction bar starts blinking.
2. Turn off all electrical equipment (turn signals, hazard signal, A/C, lights, etc.). In a broad, flat, and safe location, drive the vehicle slowly [approximately 5 km/h (3 MPH) or less], and turn the vehicle 360° or more several times. When the direction appears on the display, correction is complete.

NOTE:

The correct direction may not be shown in locations where the earth's magnetic field is disrupted, such as those listed below.

- Elevated bridges
- Railroad crossings
- Streets lined with large buildings
- Iron bridges
- Tunnels
- Locations above subways
- Underground parking areas
- Near large vehicles
- Electric power substations



COMPASS

If display correction is performed in any of the above locations, accurate correction may not be possible.

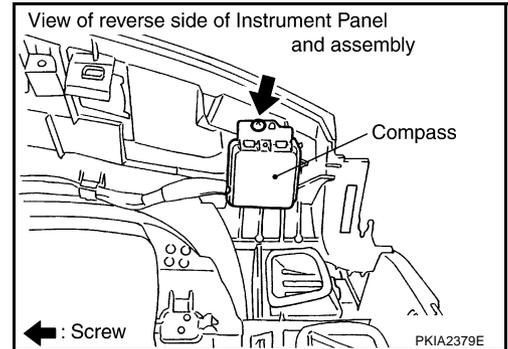
- When heater or A/C fan speed is at maximum, the direction indicator display may move. This is not a malfunction. It will return to normal when the heater or A/C fan speed is reduced.

Removal and Installation of Compass

AKS004D4

REMOVAL

1. Remove instrument panel and pad. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#).
2. Remove screw (1), and remove compass.



INSTALLATION

Install in the reverse order of removal.

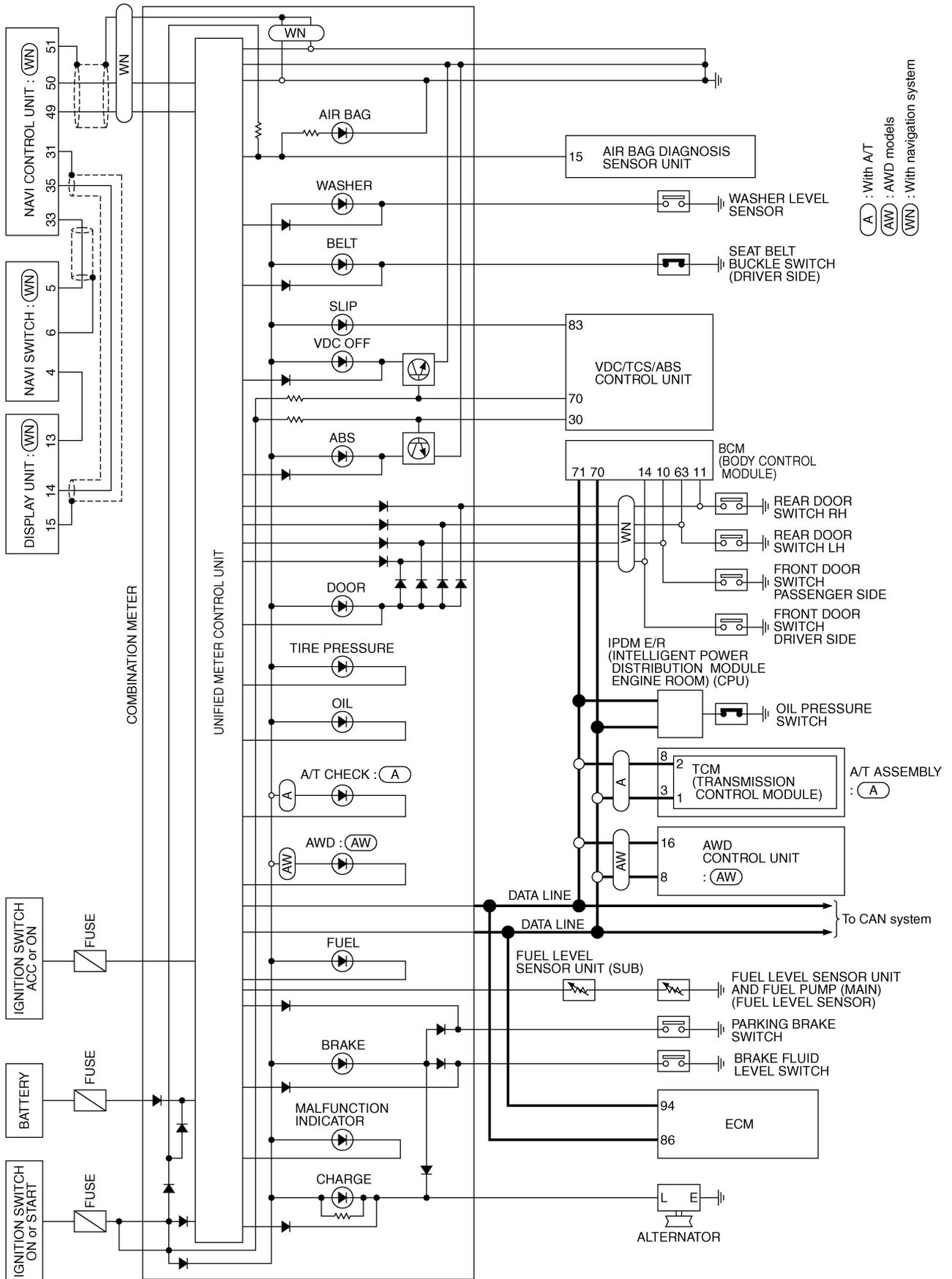
WARNING LAMPS

PPF:24814

AKS0009J

WARNING LAMPS

Schematic



A
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K
L
M

DI

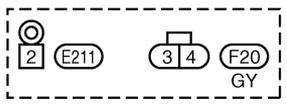
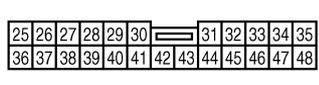
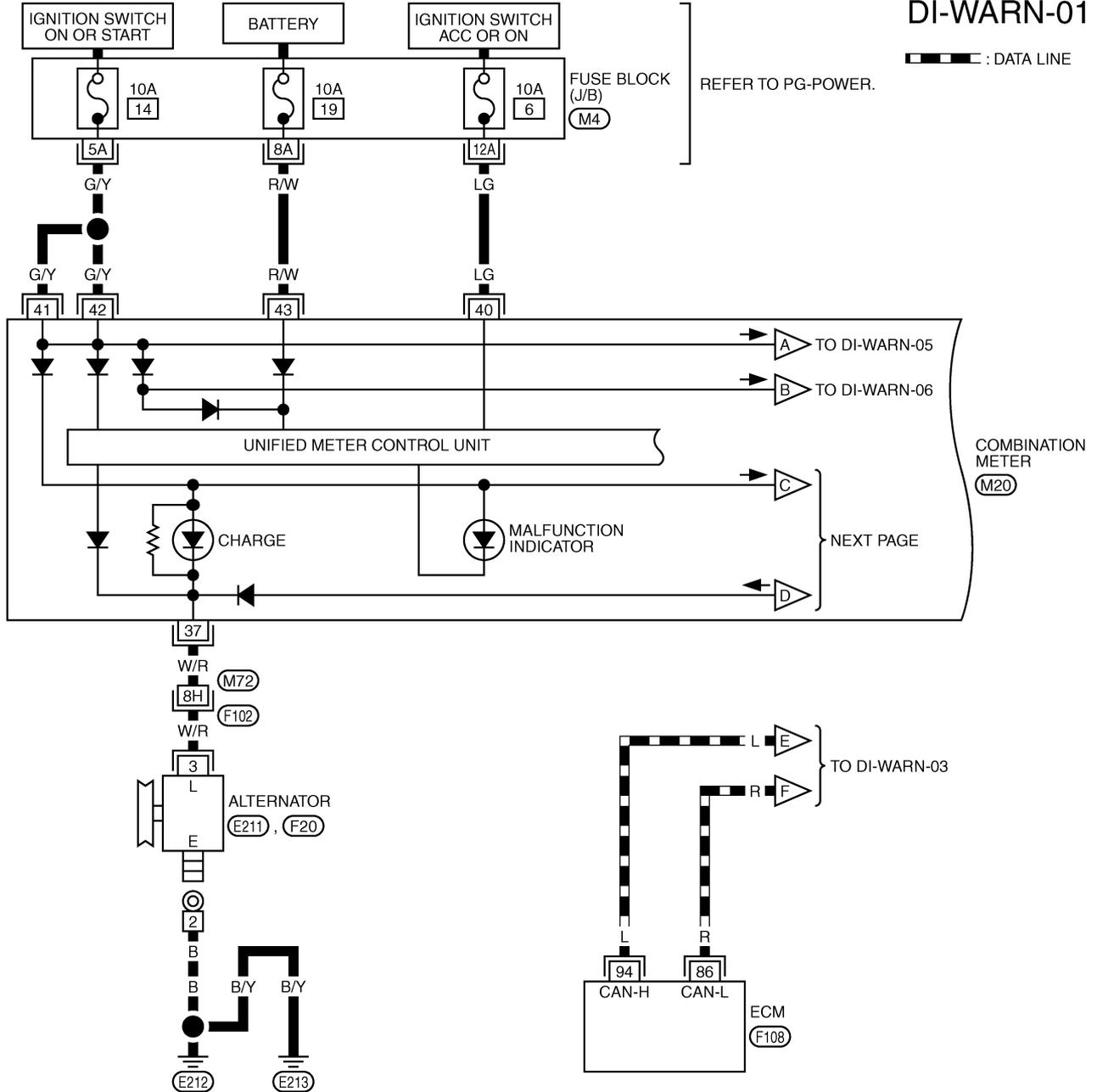
WARNING LAMPS

AKS0009K

Wiring Diagram — WARN —

DI-WARN-01

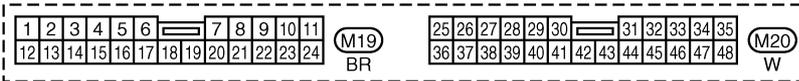
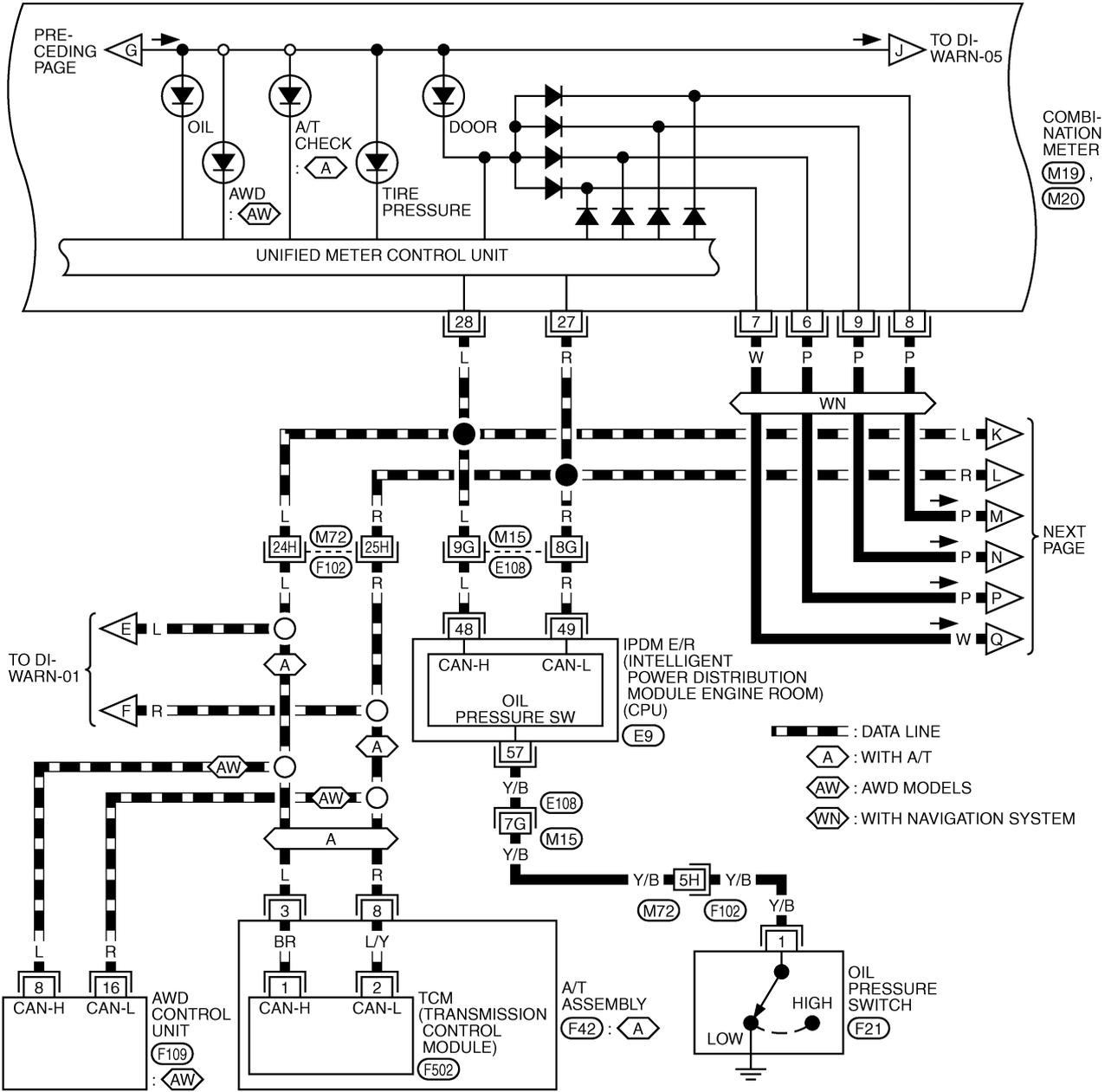
▬ : DATA LINE



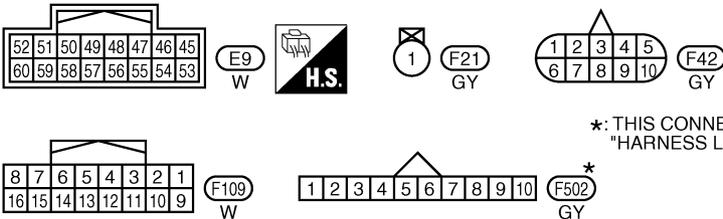
REFER TO THE FOLLOWING.
 (F102) -SUPER MULTIPLE JUNCTION (SMJ)
 (M4) -FUSE BLOCK-JUNCTION BOX (J/B)
 (F108) -ELECTRICAL UNITS

WARNING LAMPS

DI-WARN-03



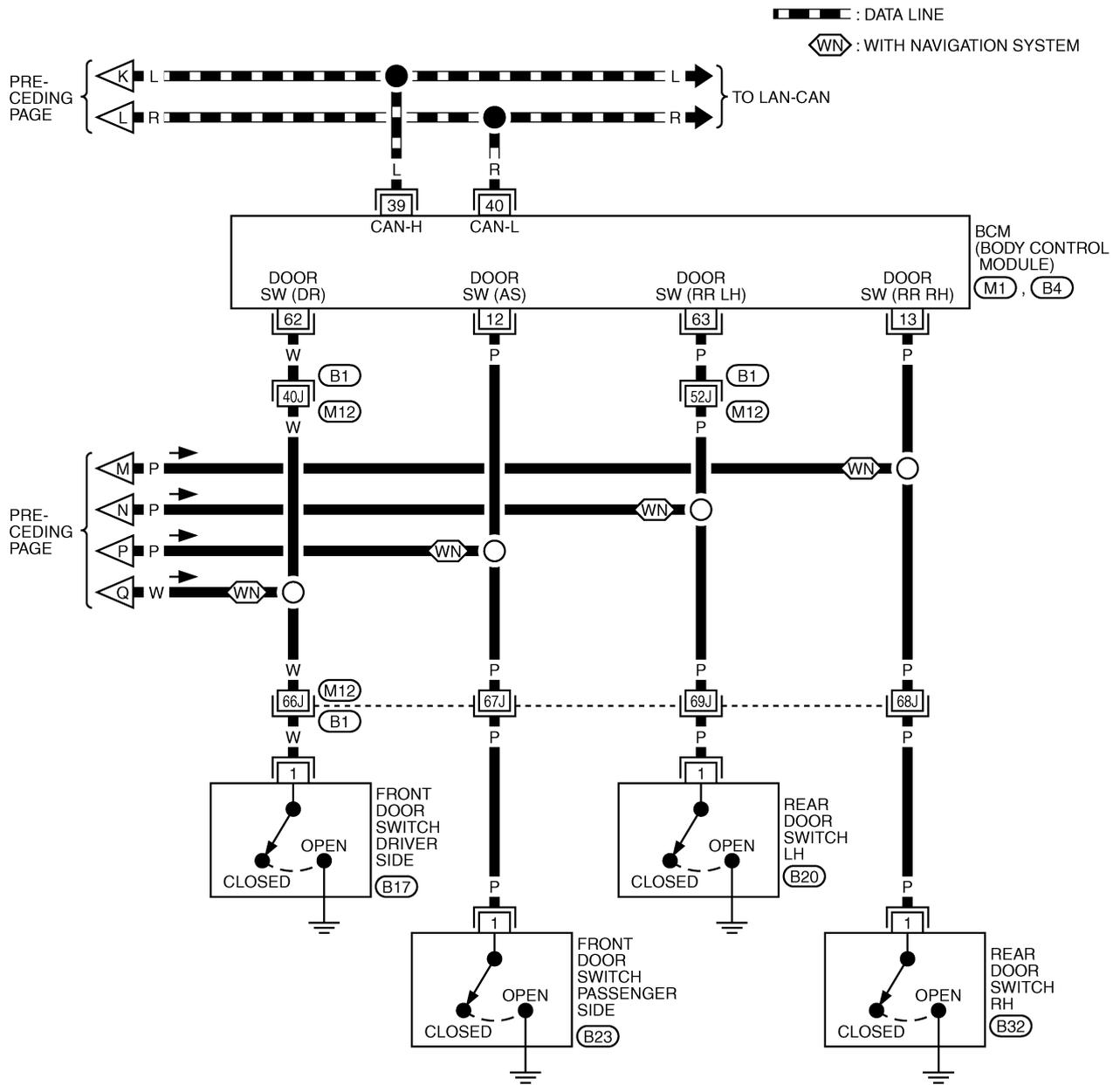
REFER TO THE FOLLOWING.
 (E108), (F102) -SUPER MULTIPLE JUNCTION (SMJ)



TKWM1417E

WARNING LAMPS

DI-WARN-04



1	
2	(B17), (B20), (B23), (B32)
3	W W W W

REFER TO THE FOLLOWING.

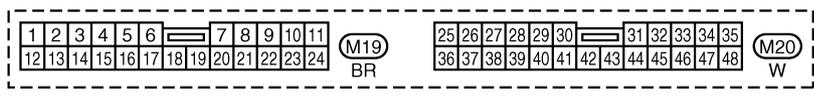
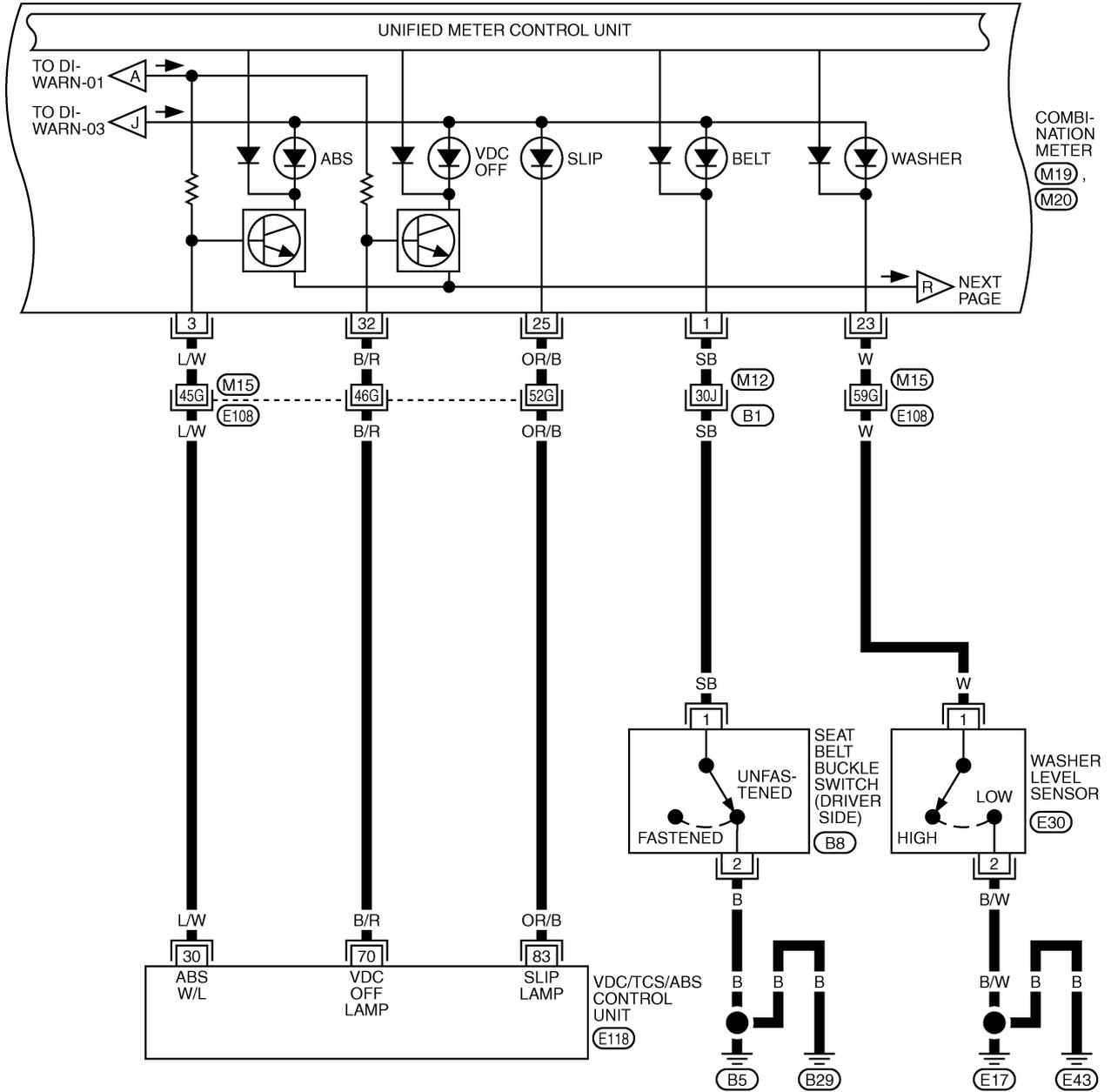
(B1) -SUPER MULTIPLE JUNCTION (SMJ)

(M1), (B4) -ELECTRICAL UNITS

TKWT1449E

WARNING LAMPS

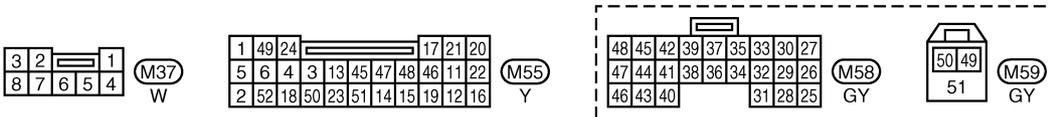
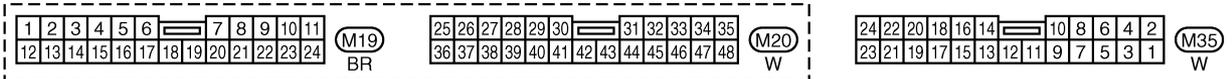
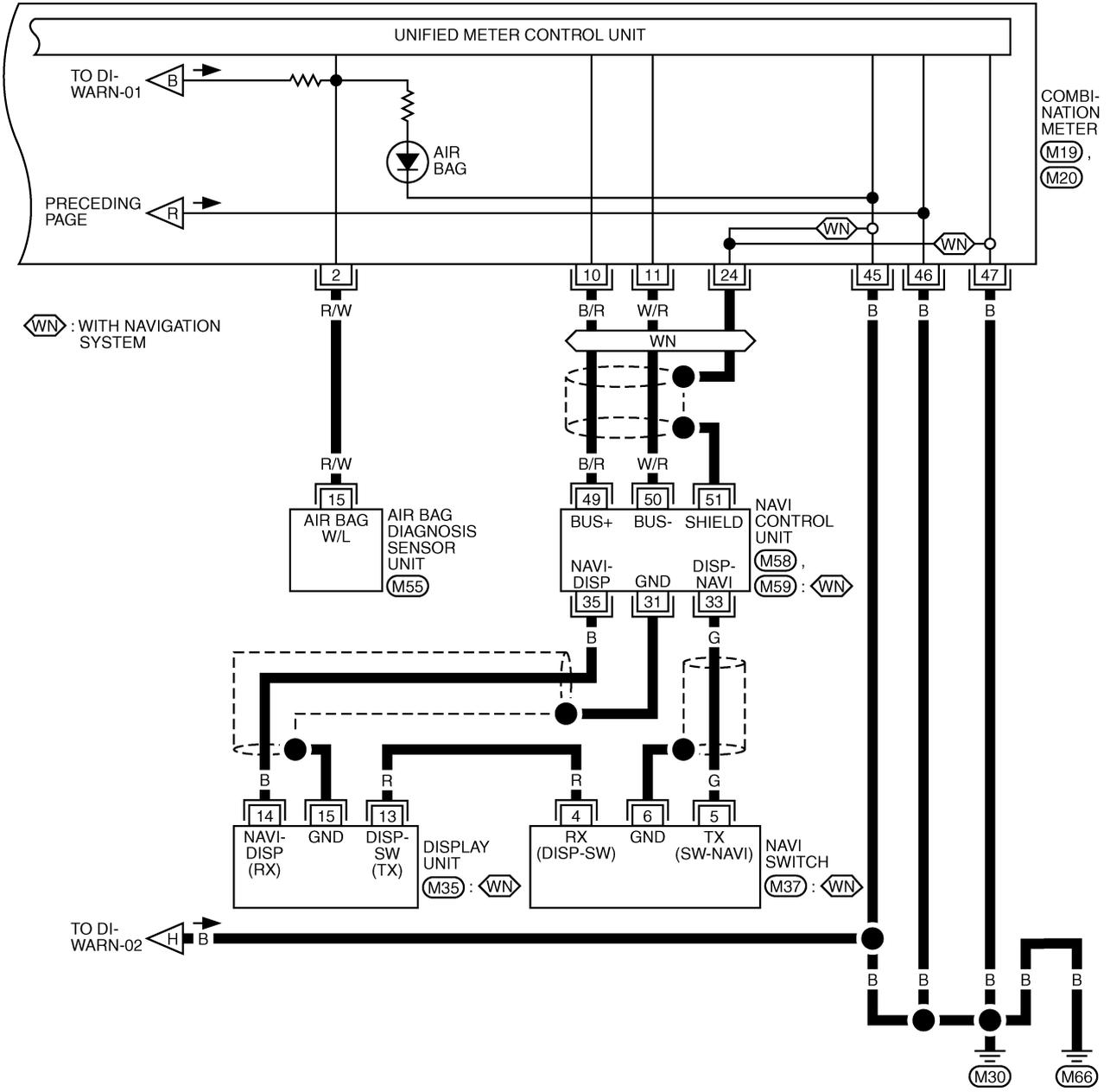
DI-WARN-05



REFER TO THE FOLLOWING.
 (E108) , (B1) -SUPER MULTIPLE-JUNCTION (SMJ)
 (E118) -ELECTRICAL UNITS

WARNING LAMPS

DI-WARN-06



TKWT0949E

WARNING LAMPS

AKS009HD

Oil Pressure Warning Lamp Stays Off (Ignition Switch ON)

1. CHECK IPDM E/R OUTPUT SIGNAL

Activate IPDM E/R auto active test. Refer to [PG-22, "Auto Active Test"](#) .

Does oil pressure warning lamp is blinking?

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

2. CHECK SELF-DIAGNOSTIC RESULTS OF IPDM E/R

Select "IPDM E/R" on CONSULT-II, and perform self-diagnosis of IPDM E/R. Refer to [PG-18, "CONSULT-II"](#) .

Self-diagnostic results content

- No malfunction detected>> GO TO 3.
- Malfunction detected>> Go to [PG-19, "SELF-DIAG RESULTS"](#) in "IPDM E/R".

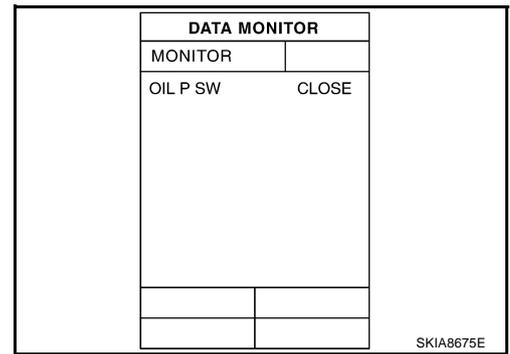
3. CHECK IPDM E/R INPUT SIGNAL

Select "IPDM E/R" on CONSULT-II. Operate ignition switch with "OIL P SW" of "DATA MONITOR" and check operation status.

- When ignition switch is in ON position (Engine stopped) : OIL P SW CLOSE**
- When engine running : OIL P SW OPEN**

OK or NG

- OK >> Replace combination meter.
- NG >> Replace IPDM E/R. Refer to [PG-28, "Removal and Installation of IPDM E/R"](#) .



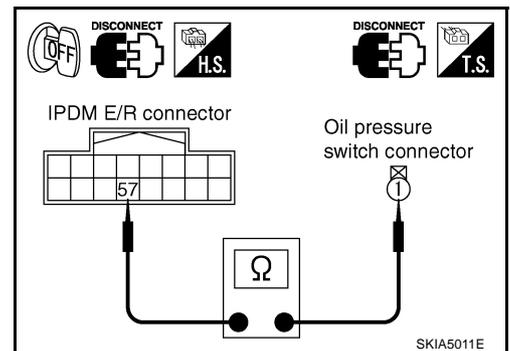
4. CHECK OIL PRESSURE SWITCH CIRCUIT

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 E9 terminal 57 (Y/B) and oil pressure switch harness connector F21 terminal 1 (Y/B).

Continuity should exist.

OK or NG

- OK >> GO TO 5.
- NG >> Repair harness or connector.



5. CHECK OIL PRESSURE SWITCH

Check oil pressure switch. Refer to [DI-33, "OIL PRESSURE SWITCH"](#) .

OK or NG

- OK >> Replace IPDM E/R. Refer to [PG-28, "Removal and Installation of IPDM E/R"](#) .
- NG >> Replace oil pressure switch.

WARNING LAMPS

Oil Pressure Warning Lamp Does Not Turn Off (Oil Pressure Is Normal)

AKS0009S

NOTE:

For oil pressure inspection, refer to [LU-7, "OIL PRESSURE CHECK"](#).

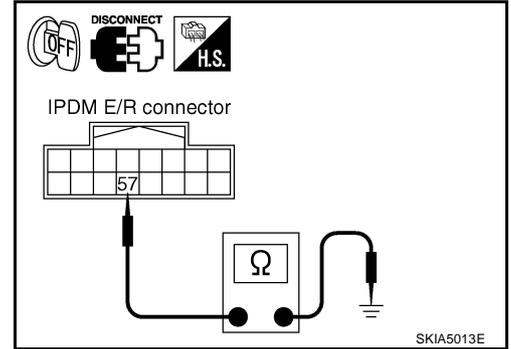
1. CHECK OIL PRESSURE SWITCH CIRCUIT

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 E9 terminal 57 (Y/B) and ground.

Continuity should not exist.

OK or NG

- OK >> GO TO 2.
 NG >> Repair harness or connector.



2. CHECK OIL PRESSURE SWITCH

Check oil pressure switch. Refer to [DI-33, "OIL PRESSURE SWITCH"](#)

OK or NG

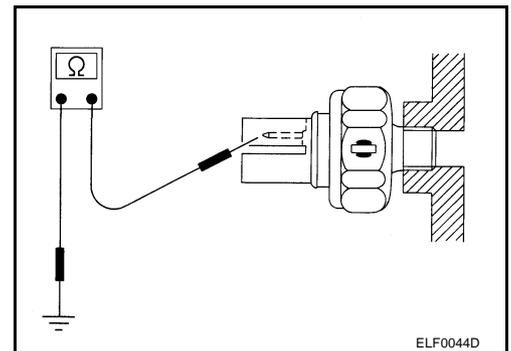
- OK >> Replace IPDM E/R. Refer to [PG-28, "Removal and Installation of IPDM E/R"](#).
 NG >> Replace oil pressure switch.

Component Inspection OIL PRESSURE SWITCH

AKS0009T

Check continuity between the oil pressure switch and body ground.

Condition	Oil pressure kPa (kg/cm ² , psi)	Continuity
Engine stopped	Less than 29 (0.3, 4)	Yes
Engine running	More than 29 (0.3, 4)	No



A/T INDICATOR

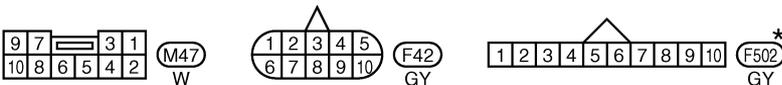
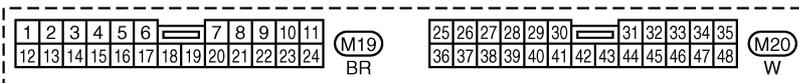
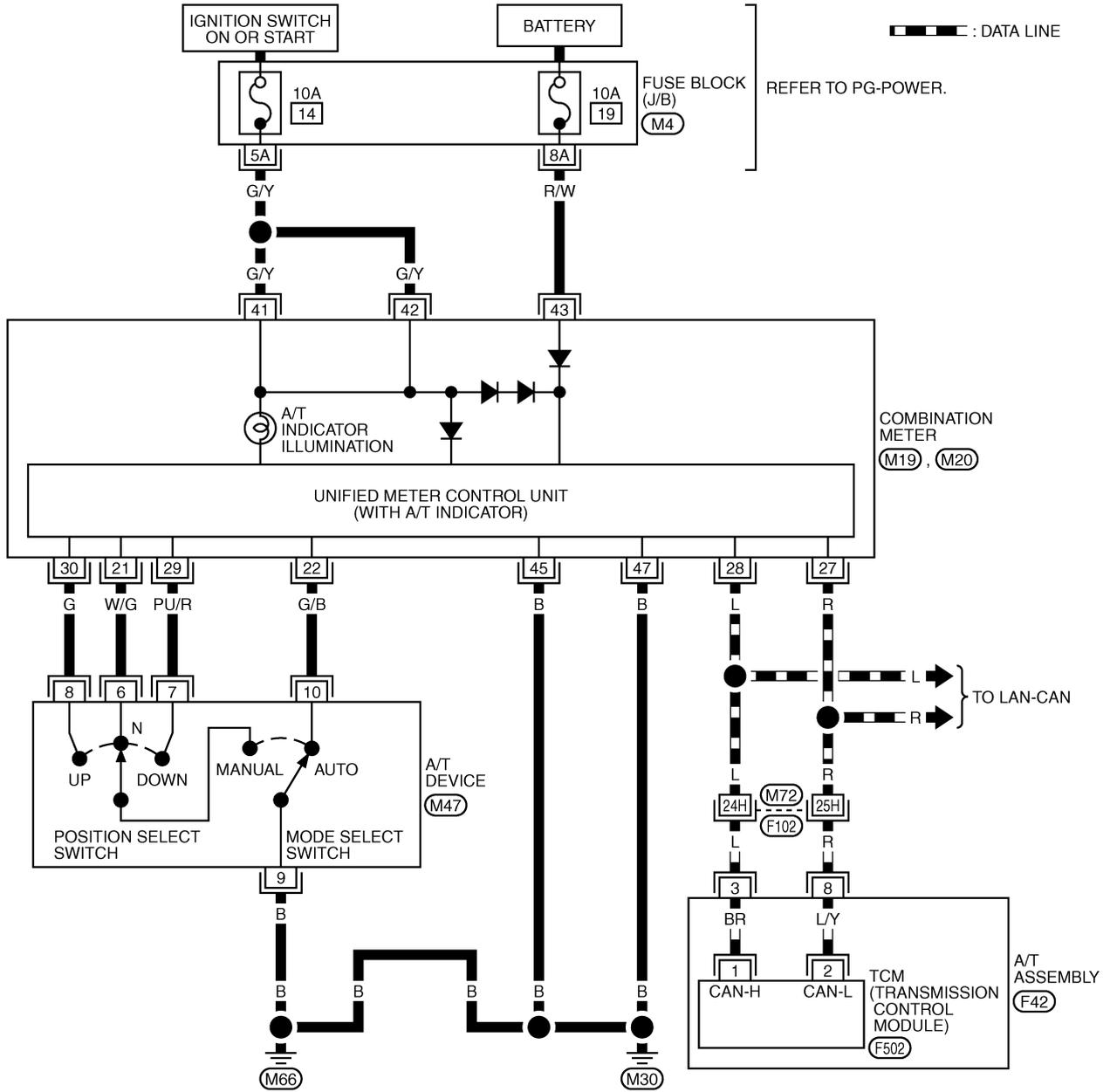
PFP:24814

A/T INDICATOR

Wiring Diagram — AT/IND —

AKS0009U

DI-AT/IND-01



*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

REFER TO THE FOLLOWING.

(F102) -SUPER MULTIPLE JUNCTION (SMJ)

(M4) -FUSE BLOCK-JUNCTION BOX (J/B)

A/T INDICATOR

A/T Indicator Does Not Illuminate

AKS0009W

1. CHECK COMBINATION METER SELF-DIAGNOSIS

Perform combination meter self-diagnosis. Refer to [DI-9, "Meter/Gauges Operation and Odo/Trip Meter"](#) .

Does all segments displayed?

YES or NO

YES >> GO TO 2.

NO >> Replace combination meter.

2. CHECK TCM SELF-DIAGNOSIS

Perform TCM self-diagnosis. Refer to [AT-87, "CONSULT-II"](#) .

OK or NG

OK >> Replace combination meter.

NG >> Go to TCM trouble diagnosis.

A

B

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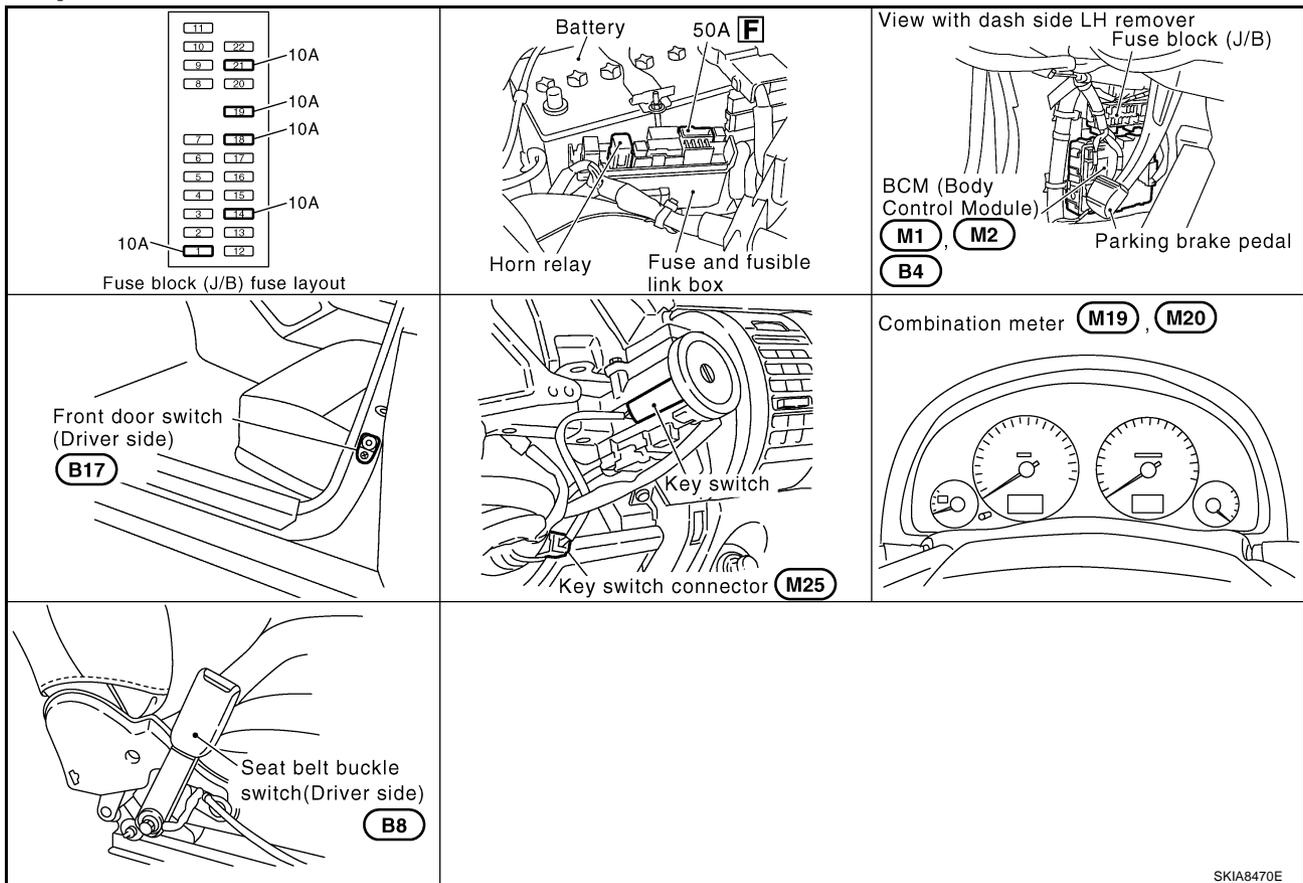
WARNING CHIME

WARNING CHIME

PFP:24814

Component Parts and Harness Connector Location

AKS0009X



System Description

AKS0009Y

The warning chime is controlled by the BCM.

The warning chime is located in the combination meter.

Combination meter is received buzzer signal from BCM with CAN communication line, the warning chime will sound.

FUNCTION

Power is supplied at all times

- through 50A fusible link (letter F, located in the fuse and fusible link box)
- to BCM terminal 55
- through 10A fuse [No. 18, located in the fuse block (J/B)]
- to BCM terminal 42
- through 10A fuse [No. 21, located in the fuse block (J/B)]
- to key switch terminal 2
- through 10A fuse [No. 19, located in the fuse block (J/B)]
- to combination meter terminal 43.

When ignition switch ON or START position, power is supplied

- through 10A fuse [No. 1, located in the fuse block (J/B)]
- to BCM terminal 38
- through 10A fuse [No. 14, located in the fuse block (J/B)]
- to combination meter terminals 41 and 42.

Ground is supplied

- to BCM terminal 52
- through body grounds M30 and M66 and

WARNING CHIME

- to combination meter terminal 45
- through body grounds M30 and M66.

A

IGNITION KEY WARNING CHIME

With the key inserted into the ignition key cylinder, and the driver's door open, the warning chime will sound. Power is supplied

B

- through key switch terminal 1
- to BCM terminal 37.

C

Ground is supplied (with navigation system)

- to combination meter terminal 7
- through front door switch driver side terminal 1.

D

Front door switch driver side is case grounded.

Combination meter send door switch signal (door open signal) to BCM with CAN communication system.

Ground is supplied (without navigation system)

E

- to BCM terminal 62
- through front door switch driver side terminal 1.

Front door switch driver side is case grounded.

BCM detects key inserted into the ignition key cylinder, and sends buzzer output signal (key warning signal) to combination meter with CAN communication line.

F

When combination meter receives buzzer output signal (key warning signal), it sounds warning chime.

G

LIGHT WARNING CHIME

With the key removed from the ignition key cylinder, the driver's door open, and the lighting switch in 1ST or 2ND position, the warning chime will sound. [Except when headlamp battery saver control operates (for 5 minutes after ignition switch is turned to OFF or ACC position) and headlamps do not illuminate.]

H

Signal is supplied

- from combination switch (lighting switch) terminals 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10
- to BCM terminals 2, 3, 4, 5, 6, 32, 33, 34, 35 and 36.

I

NOTE:

BCM detected lighting switch in 1ST or 2ND position, refer to [BCS-3, "COMBINATION SWITCH READING FUNCTION"](#).

J

Ground is supplied (with navigation system)

- to combination meter terminal 7
- through front door switch driver side terminal 1.

DI

Front door switch driver side is case grounded.

Combination meter send door switch signal (door open signal) to BCM with CAN communication system.

L

Ground is supplied (without navigation system)

- from front door switch driver side terminal 1
- to BCM terminal 62.

M

BCM detects headlamps are illuminated, and sends buzzer output signal (light warning signal) to combination meter with CAN communication line.

When combination meter receives buzzer output signal (light warning signal), it sounds warning chime.

SEAT BELT WARNING CHIME

With ignition switch turned ON and seat belt unfastened [seat belt buckle switch (driver side) ON], warning chime will sound for approximately 6 seconds.

Ground is supplied

- from seat belt buckle switch (driver side) terminal 1
- to combination meter terminal 1.

Seat belt buckle switch (driver side) terminal 2 is grounded through body grounds B5 and B29.

BCM receives buzzer output signal (seat belt unfastened signal) from combination meter over CAN communication line, and sends buzzer output signal (seat belt warning signal) to combination meter with CAN communication line.

When combination meter receives buzzer output signal (seat belt warning signal), it sounds warning chime.

WARNING CHIME

CAN Communication

AKS0009Z

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 2 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 Unit

AKS0081C

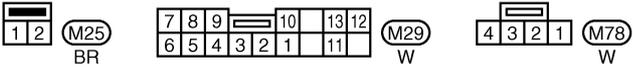
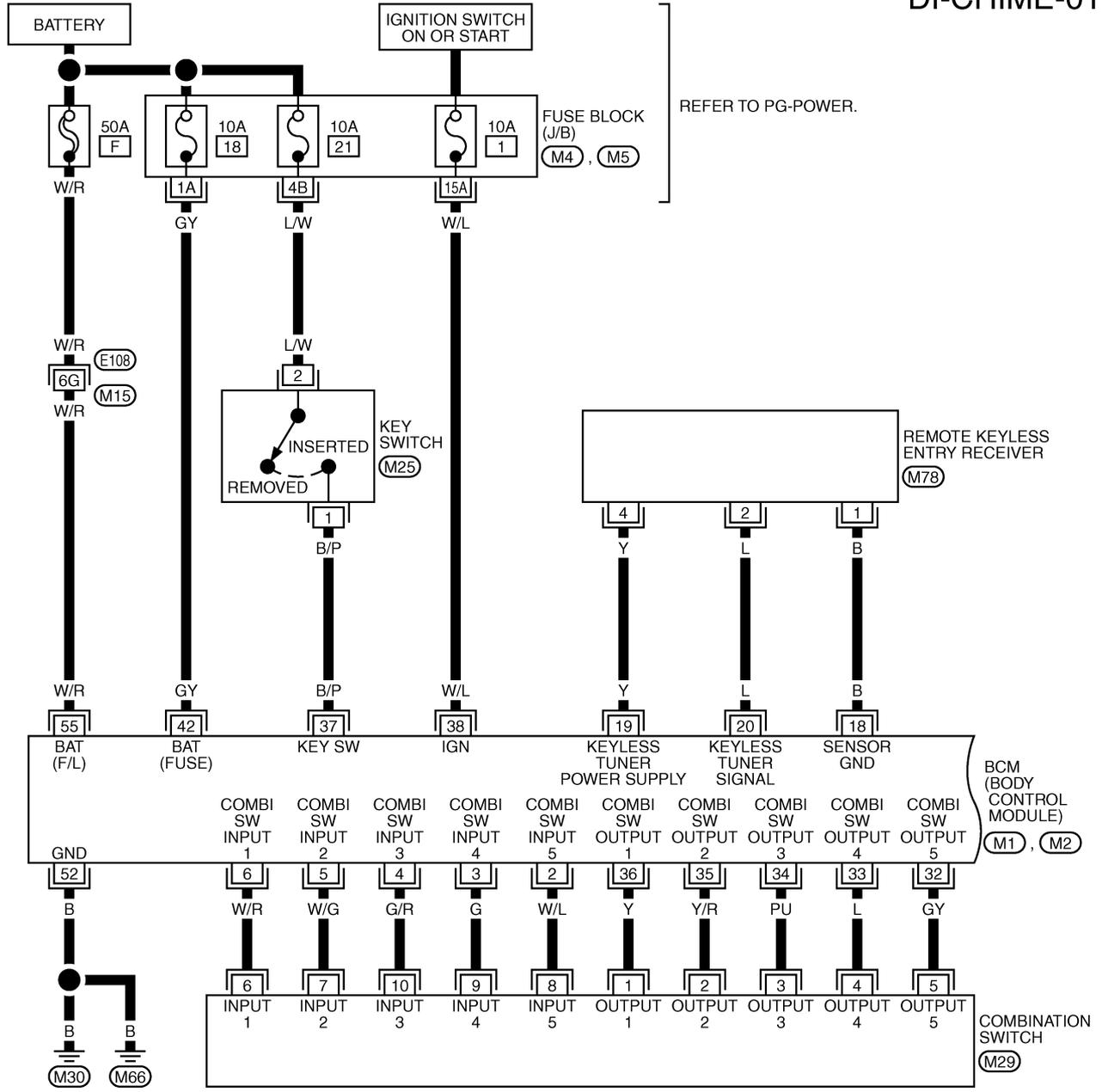
Refer to [LAN-5. "CAN Communication Unit"](#) in LAN section.

WARNING CHIME

Wiring Diagram — CHIME —

AKS000A1

DI-CHIME-01

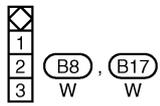
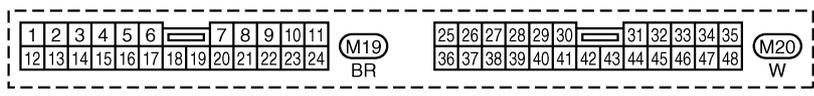
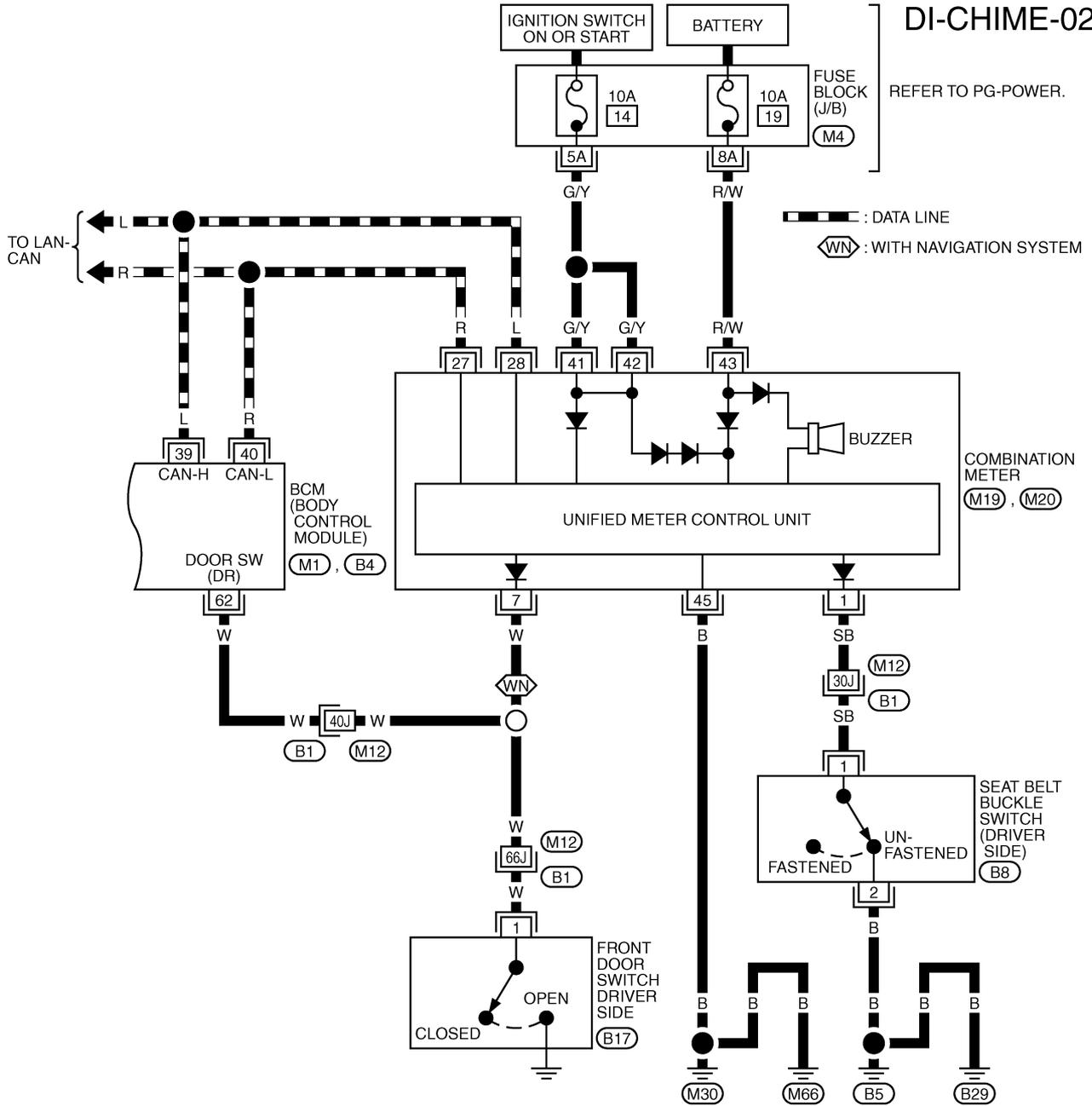


REFER TO THE FOLLOWING.
 (E108) -SUPER MULTIPLE JUNCTION (SMJ)
 (M4), (M5) -FUSE BLOCK-JUNCTION BOX (J/B)
 (M1), (M2) -ELECTRICAL UNITS

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

WARNING CHIME

DI-CHIME-02



REFER TO THE FOLLOWING.

(B1) -SUPER MULTIPLE JUNCTION (SMJ)

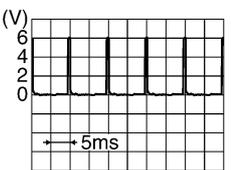
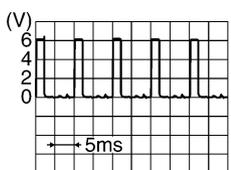
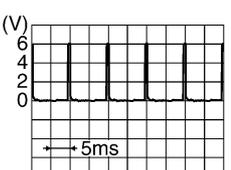
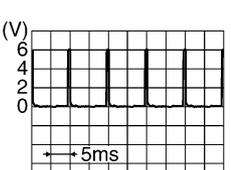
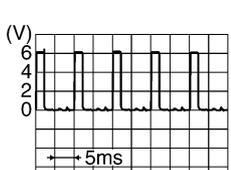
(M4) -FUSE BLOCK-JUNCTION BOX (J/B)

(M1), (B4) -ELECTRICAL UNITS

WARNING CHIME

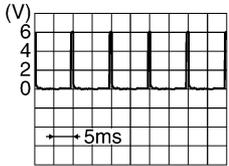
Terminals and Reference Value for BCM

AKS009BA

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
2	W/L	Combination switch input 5	ON	Lighting, turn, wiper OFF Wiper dial position 4	 <p style="text-align: right;">SKIA5291E</p>
3	G	Combination switch input 4	ON	Lighting, turn, wiper OFF Wiper dial position 4	 <p style="text-align: right;">SKIA5292E</p>
4	G/R	Combination switch input 3	ON	Lighting, turn, wiper OFF Wiper dial position 4	 <p style="text-align: right;">SKIA5291E</p>
5	W/G	Combination switch input 2	ON	Lighting, turn, wiper OFF Wiper dial position 4	 <p style="text-align: right;">SKIA5292E</p>
6	W/R	Combination switch input 1			
32	GY	Combination switch output 5	ON	Lighting, turn, wiper OFF Wiper dial position 4	 <p style="text-align: right;">SKIA5291E</p>
33	L	Combination switch output 4	ON	Lighting, turn, wiper OFF Wiper dial position 4	 <p style="text-align: right;">SKIA5292E</p>
34	PU	Combination switch output 3	ON	Lighting, turn, wiper OFF Wiper dial position 4	 <p style="text-align: right;">SKIA5291E</p>

A
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D
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DI
L
M

WARNING CHIME

Terminal No.	Wire color	Signal name	Measuring condition		Reference value	
			Ignition switch	Operation or condition		
35	Y/R	Combination switch output 2	ON	Lighting, turn, wiper OFF Wiper dial position 4		
36	Y	Combination switch output 1				
37	B/P	Key switch signal	OFF	Key is removed	Approx. 0V	
				Key is inserted	Approx. 12V	
38	W/L	Ignition switch (ON)	ON	—	Battery voltage	
39	L	CAN- H	—	—	—	
40	R	CAN- L	—	—	—	
42	GY	Battery power supply (FUSE)	OFF	—	Battery voltage	
52	B	Ground	ON	—	Approx. 0V	
55	W/R	Battery power supply (F/L)	OFF	—	Battery voltage	
62	W	Front door switch signal	OFF	Driver's door	ON (open)	Approx.0V
					OFF (close)	Approx.5V

How to Proceed With Trouble Diagnosis

AKS000A3

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to [DI-36, "System Description"](#) .
3. Carry out the Preliminary Check. Refer to [DI-43, "Preliminary Check"](#) .
4. Check symptom and repair or replace the cause of malfunction.
5. Does the warning chime operate normally? If so, go to 6. If not, go to 4.
6. INSPECTION END

WARNING CHIME

AKS009BB

Preliminary Check INSPECTION FOR POWER SUPPLY AND GROUND CIRCUIT

1. CHECK FUSE AND FUSIBLE LINK

Check for blown fuse and fusible link of BCM.

Unit	Power source	Fuse and fusible link No.
BCM	Battery	F
		18
	Ignition switch (ON)	1

Refer to [DI-39, "Wiring Diagram — CHIME —"](#).

OK or NG

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of problem before installing new fuse. Refer to [PG-3, "POWER SUPPLY ROUTING CIRCUIT"](#).

2. CHECK POWER SUPPLY CIRCUIT

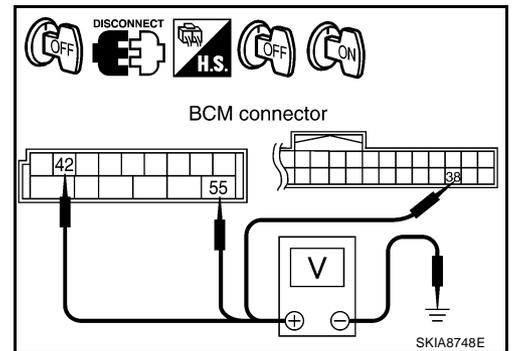
1. Disconnect BCM connector.
2. Check voltage between BCM connector and ground.

Terminals		Ignition switch position	
(+)		(-)	
Connector	Terminal (Wire color)	OFF	ON
M2	55 (W/R)	Ground	Battery voltage
	42 (GY)		Battery voltage
M1	38 (W/L)	0V	Battery voltage

OK or NG

OK >> GO TO 3.

NG >> Check harness for open or short between BCM and fuse.



3. CHECK GROUND CIRCUIT

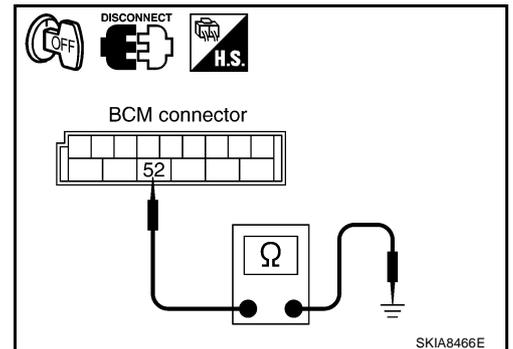
1. Turn ignition switch OFF.
2. Check continuity between BCM harness connector M2 terminal 52 (B) and ground.

Continuity should exist.

OK or NG

OK >> INSPECTION END

NG >> Repair harness or connector.



WARNING CHIME

AKS009HA

CONSULT-II Function

CONSULT-II performs the following functions communicating with the BCM.

DIAGNOSTIC ITEMS DESCRIPTION

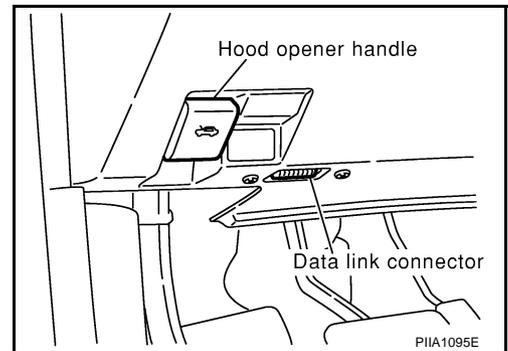
BCM diagnosis position	Diagnosis mode	Description
BUZZER	Data monitor	The input data to the BCM control unit is displayed in real time.
	Active test	Operation of electrical loads can be checked by sending driving signal to them.
BCM	Self-diagnostic	BCM performs self-diagnosis of CAN communication.

CONSULT-II BASIC OPERATION PROCEDURE

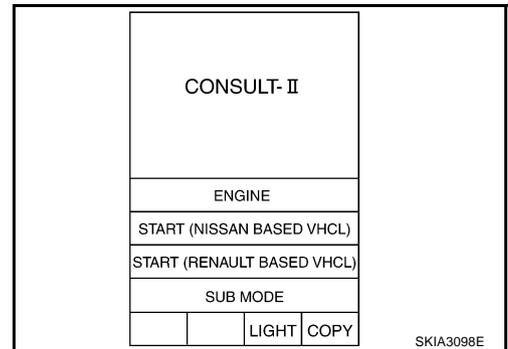
CAUTION:

If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carry out CAN communication.

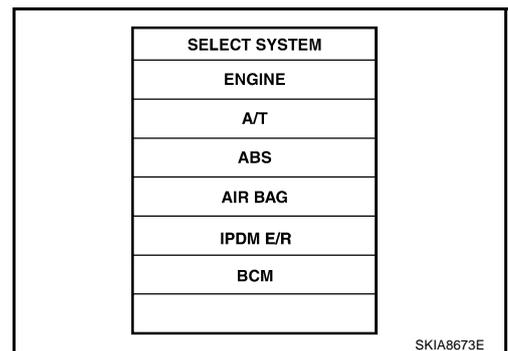
1. With the ignition switch OFF, connect "CONSULT-II" and "CONSULT-II CONVERTER" to the data link connector, and turn the ignition switch ON.



2. Touch "START (NISSAN BASED VHCL)".

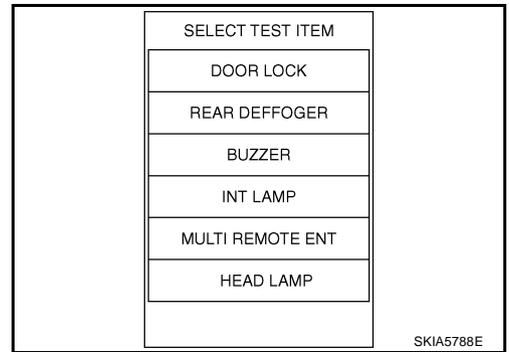


3. Touch "BCM" on "SELECT SYSTEM" screen. If "BCM" is not indicated, go to [GI-38, "CONSULT-II Data Link Connector \(DLC\) Circuit"](#).



WARNING CHIME

4. Touch "BUZZER" or "BCM".
5. Select "DATA MONITOR", "ACTIVE TEST" or "SELF-DIAG RESULTS".



DATA MONITOR

Operation Procedure

1. Touch "BUZZER" on "SELECT TEST ITEM" screen.
2. Touch "DATA MONITOR" on "SELECT DIAG MODE" screen.
3. Touch "ALL SIGNALS" or "SELECTION FROM MENU" on "DATA MONITOR" screen.

ALL SIGNALS	Monitors main items.
SELECTION FROM MENU	Selects and monitors items.

4. If "SELECTION FROM MENU" is selected, touch the desired monitor item. If "ALL SIGNALS" is selected, all items required to control are monitored.
5. Touch "START".
6. During monitoring, touching "RECORD" can start recording the monitored item status.

Data Monitor Item

Monitored item	Description
IGN ON SW	Indicates [ON/OFF] condition of ignition switch.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch (driver side).
TAIL LAMP SW	Indicates [ON/OFF] condition of lighting switch.
BUCKLE SW	Indicates [ON/OFF] condition of seat belt buckle switch.

ACTIVE TEST

Operation Procedure

1. Touch "BUZZER" on "SELECT TEST ITEM" screen.
2. Touch "ACTIVE TEST" on "SELECT DIAG MODE" screen.
3. Touch the item to be tested, and check the operation.
4. During the operation check, touching "OFF" deactivates the operation.

Active Test Item

Test item	Malfunction is detected when...
LIGHT WARN ALM	This test is able to check light warning chime operation. Light warning chime sounds for 2 seconds after touching "ON" on CONSULT-II screen.
IGN KEY WARN ALM	This test is able to check key warning chime operation. Key warning chime sounds for 2 seconds after touching "ON" on CONSULT-II screen.
SEAT BELT WARN	This test is able to check seat belt warning chime operation. Seat belt warning chime sounds for 2 seconds after touching "ON" on CONSULT-II screen.

SELF-DIAGNOSTIC RESULTS

Operation Procedure

1. Touch "BCM" on "SELECT TEST ITEM" screen.
2. Touch "SELF-DIAG RESULTS" on "SELECT DIAG MODE" screen.
3. Self-diagnostic results are displayed.

WARNING CHIME

Display Item List

Monitored Item	CONSULT-II display	Description
CAN communication	CAN communication [U1000]	Malfunction is detected in CAN communication.

NOTE:

If "CAN communication [U1000]" is indicated, after printing the monitor item, go to "CAN system". Refer to [LAN-3, "Precautions When Using CONSULT-II"](#).

All Warnings Are Not Operated

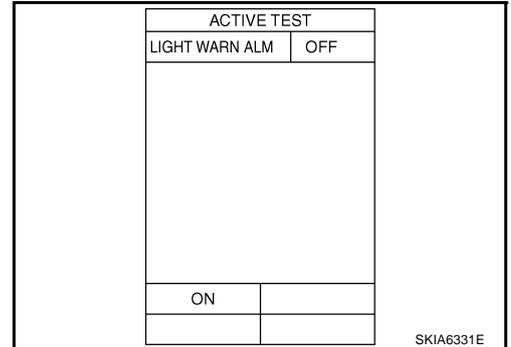
AKS009HB

1. CHECK CHIME OPERATION

Select "BUZZER" on CONSULT-II, and perform "LIGHT WARN ALM", "IGN KEY WARN ALM" or "SEAT BELT WARN" of "ACTIVE TEST".

Does chime sound?

- YES >> Replace BCM.
NO >> GO TO 2.



2. BCM SELF-DIAGNOSIS

Select BCM on CONSULT-II, and perform "BCM" self-diagnosis.

Self-diagnostic result content.

No malfunction detected>>Replace combination meter.

CAN communication>>Check BCM CAN communication system. Go to [BCS-14, "CAN Communication Inspection Using CONSULT-II \(Self-Diagnosis\)"](#).

Key Warning Chime and Light Warning Chime Does Not Operate (Seat Belt Warning Chime Does Operate)

AKS009HC

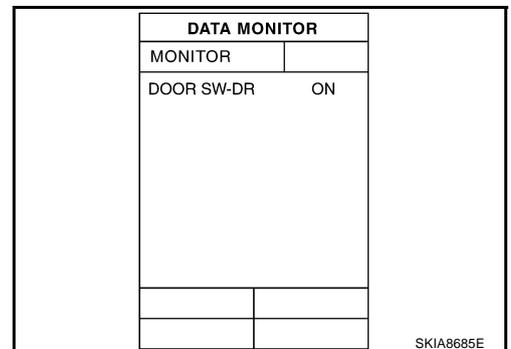
1. CHECK BCM INPUT SIGNAL

Ⓟ With CONSULT-II

- Select "BCM".
- With "DATA MONITOR" of "BUZZER", confirm "DOOR SW-DR" when the driver side door is operated.

When driver side door is opened : DOOR SW-DR ON

When driver side door is closed : DOOR SW-DR OFF



ⓧ Without CONSULT-II

Check voltage between BCM harness connector B4 terminal 62 (W) and ground.

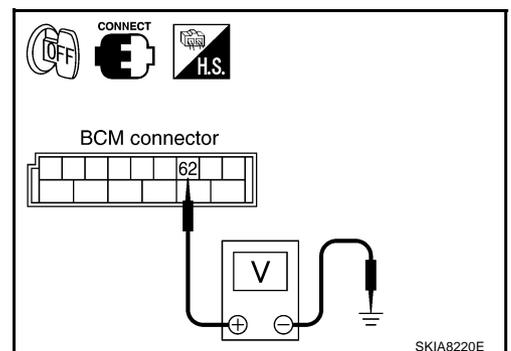
When driver side door is opened : Approx. 0V

When driver side door is closed : Approx. 5V

OK or NG

OK >> Replace BCM. Refer to [BCS-15, "Removal and Installation of BCM"](#).

- NG >>
- GO TO 2. (With navigation system)
 - GO TO 3. (Without navigation system)



WARNING CHIME

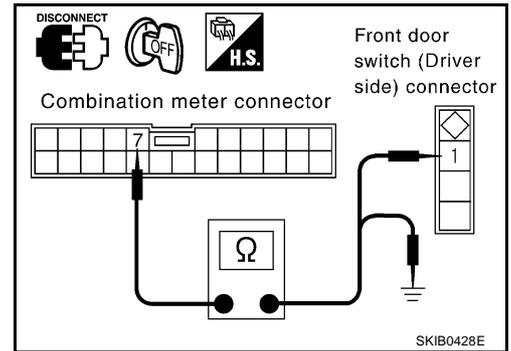
2. CHECK DOOR SWITCH CIRCUIT (WITH NAVIGATION SYSTEM)

1. Disconnect combination meter connector and front door switch (driver side) connector.
2. Check continuity between combination meter harness connector M19 terminal 7 (W) and front door switch (driver side) harness connector B17 terminal 1 (W).

Continuity should exist.

3. Check continuity between combination meter harness connector M19 terminal 7 (W) and ground.

Continuity should not exist.



OK or NG

- OK >> GO TO 4.
NG >> Repair harness or connector.

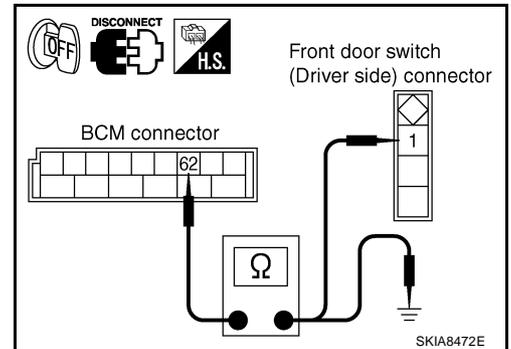
3. CHECK DOOR SWITCH CIRCUIT (WITHOUT NAVIGATION SYSTEM)

1. Disconnect BCM connector and front door switch (driver side) connector.
2. Check continuity between BCM harness connector B4 terminal 62 (W) and front door switch (driver side) harness connector B17 terminal 1 (W).

Continuity should exist.

3. Check continuity between BCM harness connector B4 terminal 62 (W) and ground.

Continuity should not exist.



OK or NG

- OK >> GO TO 4.
NG >> Repair harness or connector.

4. CHECK DOOR SWITCH

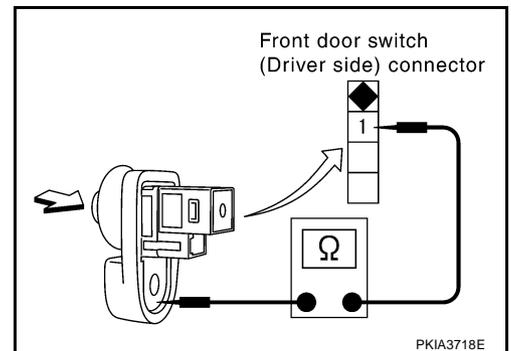
Check front door switch (driver side).

When door switch is released : Continuity should exist.

When door switch is pushed : Continuity should not exist.

OK or NG

- OK >> Replace BCM. Refer to [BCS-15, "Removal and Installation of BCM"](#).
- NG >> Replace front door switch (driver side).



WARNING CHIME

AKS009BC

Key Warning Chime Does Not Operate

1. CHECK FUSE

Check if the key switch 10A fuse [No.21, located in the fuse block (J/B)] is blown. Refer to [DI-39, "Wiring Diagram — CHIME —"](#).

Is the fuse blown?

YES >> Replace fuse. Be sure to repair the cause of the problem before installing new fuse.

NO >> GO TO 2.

2. CHECK WARNING CHIME OPERATION

Check the chime under conditions in exception of key warning chime operation.

Does warning chime sound?

YES >> GO TO 3.

NO >> Go to [DI-46, "All Warnings Are Not Operated"](#) or [DI-46, "Key Warning Chime and Light Warning Chime Does Not Operate \(Seat Belt Warning Chime Does Operate\)"](#).

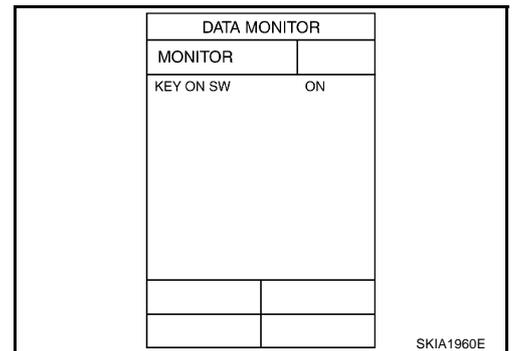
3. CHECK KEY SWITCH INPUT SIGNAL

 With CONSULT-II

1. Select "BCM".
2. With "DATA MONITOR" of "BUZZER", confirm "KEY ON SW" when the key switch is operated.

When key is inserted to ignition key cylinder : KEY ON SW ON

When key is removed from ignition key cylinder : KEY ON SW OFF

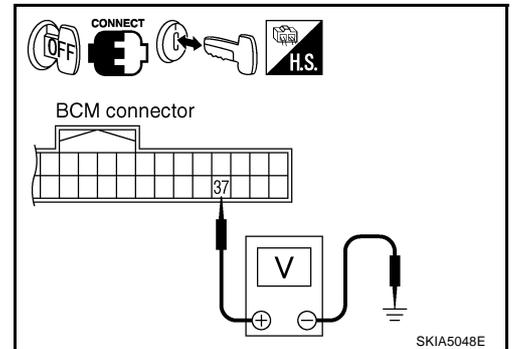


 Without CONSULT-II

Check voltage between BCM harness connector M1 terminal 37 (B/P) and ground.

When key is inserted to ignition key cylinder : Approx. 12V

When key is removed from ignition key cylinder : Approx. 0V



OK or NG

OK >> Replace BCM. Refer to [BCS-15, "Removal and Installation of BCM"](#).

NG >> GO TO 4.

WARNING CHIME

4. CHECK KEY SWITCH

1. Disconnect key switch connector.
2. Check continuity between key switch connector terminal 1 and 2.

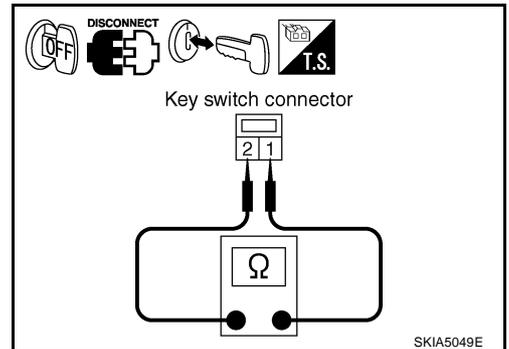
When key is inserted to ignition key cylinder : Continuity should exist.

When key is removed from ignition key cylinder : Continuity should not exist.

OK or NG

OK >> GO TO 5.

NG >> Replace key switch.



5. CHECK KEY SWITCH CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector M1 terminal 37 (B/P) and key switch harness connector M25 terminal 1 (B/P).

Continuity should exist.

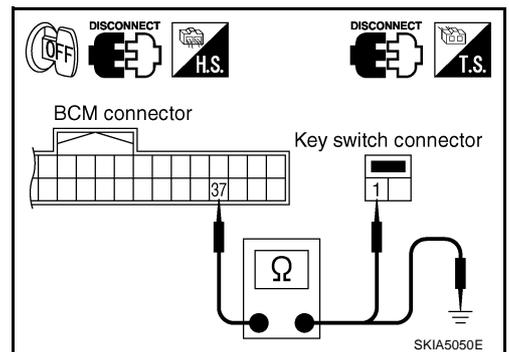
3. Check continuity between BCM harness connector M1 terminal 37 (B/P) and ground.

Continuity should not exist.

OK or NG

OK >> GO TO 6.

NG >> Repair harness or connector.



6. CHECK KEY SWITCH INPUT SIGNAL

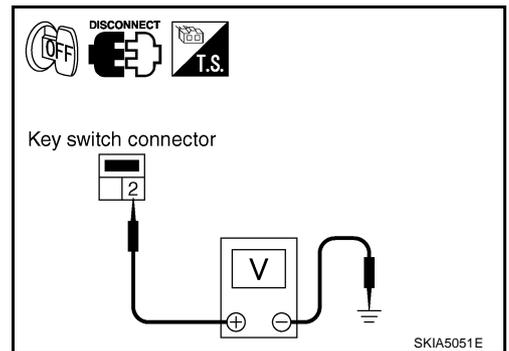
Check voltage between key switch harness connector M25 terminal 2 (L/W) and ground.

Battery voltage should exist.

OK or NG

OK >> Replace BCM. Refer to [BCS-15, "Removal and Installation of BCM"](#).

NG >> Check continuity open or short between key switch and fuse.



Light Warning Chime Does Not Operate

1. CHECK WARNING CHIME OPERATION

Check except for headlamp warning chime operation.

Dose warning chime sound?

YES >> GO TO 2.

NO >> Go to [DI-46, "All Warnings Are Not Operated"](#) or [DI-46, "Key Warning Chime and Light Warning Chime Does Not Operate \(Seat Belt Warning Chime Does Operate\)"](#).

WARNING CHIME

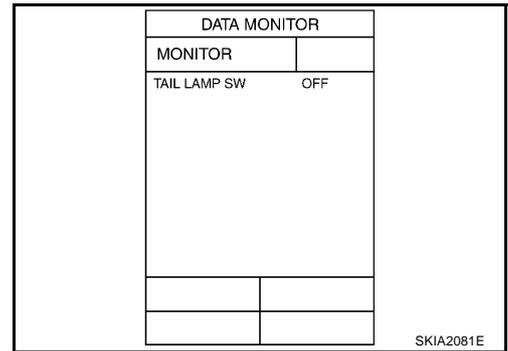
2. CHECK DATA MONITOR

With "DATA MONITOR" of "BUZZER", confirm "TAIL LAMP SW" when the lighting switch is operated.

- Lighting switch (1st position) :TAIL LAMP SW ON**
Lighting switch (OFF) :TAIL LAMP SW OFF

OK or NG

- OK >> Replace BCM. Refer to [BCS-15, "Removal and Installation of BCM"](#) .
NG >> Check lighting switch. Refer to [LT-128, "Combination Switch Inspection"](#) .



Seat Belt Warning Chime Does Not Operate

1. CHECK WARNING CHIME OPERATION

Check the chime under conditions in exception of seat belt warning chime operation.

Does warning chime sound?

- YES >> GO TO 2.
NO >> Go to [DI-46, "All Warnings Are Not Operated"](#) .

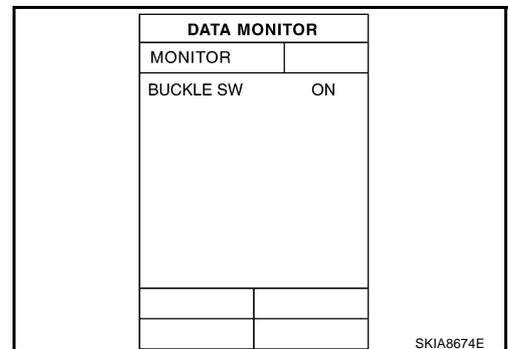
2. SEAT BELT WARNING CHIME INPUT SIGNAL

1. Select "BCM" on CONSULT-II.
2. With "DATA MONITOR" of "BUZZER", confirm "BUCKLE SW" when the seat belt buckle switch (driver side) is operated.

- When seat belt is fastened : BUCKLE SW OFF**
When seat belt is unfastened : BUCKLE SW ON

OK or NG

- OK >> Replace BCM. Refer to [BCS-15, "Removal and Installation of BCM"](#) .
NG >> GO TO 3.



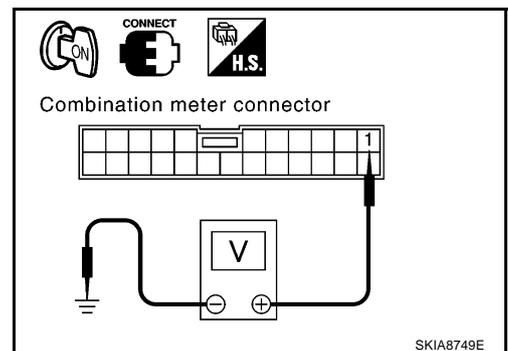
3. COMBINATION METER INPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between combination meter harness connector M19 terminal 1 (SB) and ground.

- When seat belt is fastened : Approx. 12V**
When seat belt is unfastened : Approx. 0V

OK or NG

- OK >> Replace combination meter.
NG >> GO TO 4.



WARNING CHIME

4. CHECK SEAT BELT BUCKLE SWITCH

1. Turn ignition switch OFF.
2. Disconnect seat belt buckle switch (driver side) connector
3. Check continuity seat belt buckle switch (driver side) connector terminals 1 and 2.

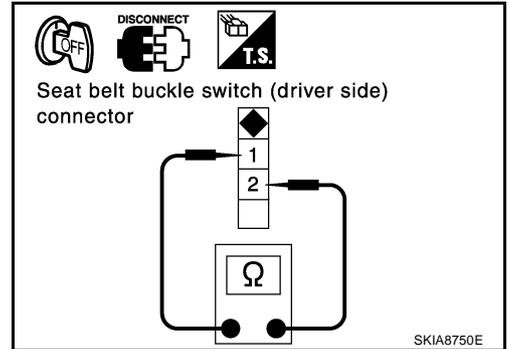
When seat belt is fastened : Continuity should not exist.

When seat belt is unfastened : Continuity should exist.

OK or NG

OK >> GO TO 5.

NG >> Replace seat belt buckle switch (driver side).



5. CHECK SEAT BELT BUCKLE SWITCH CIRCUIT

1. Disconnect combination meter connector.
2. Check continuity between combination meter harness connector M19 terminal 1 (SB) and seat belt buckle switch (driver side) harness connector B8 terminal 1 (SB).

Continuity should exist.

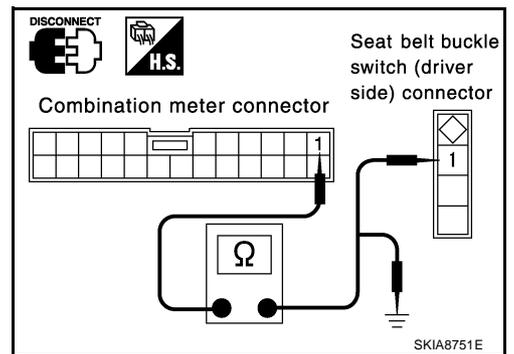
3. Check continuity between combination meter harness connector M19 terminal 1 (SB) and ground.

Continuity should not exist.

OK or NG

OK >> GO TO 6.

NG >> Repair harness or connector.



6. CHECK SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

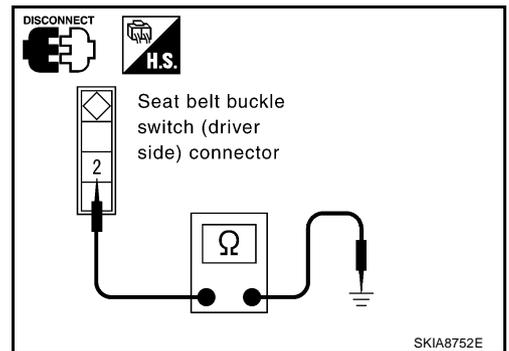
Check continuity between seat belt buckle switch (driver side) harness connector B8 terminal 2 (B) and ground.

Continuity should exist.

OK or NG

OK >> Replace combination meter.

NG >> Repair harness or connector.



CLOCK

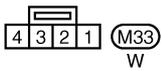
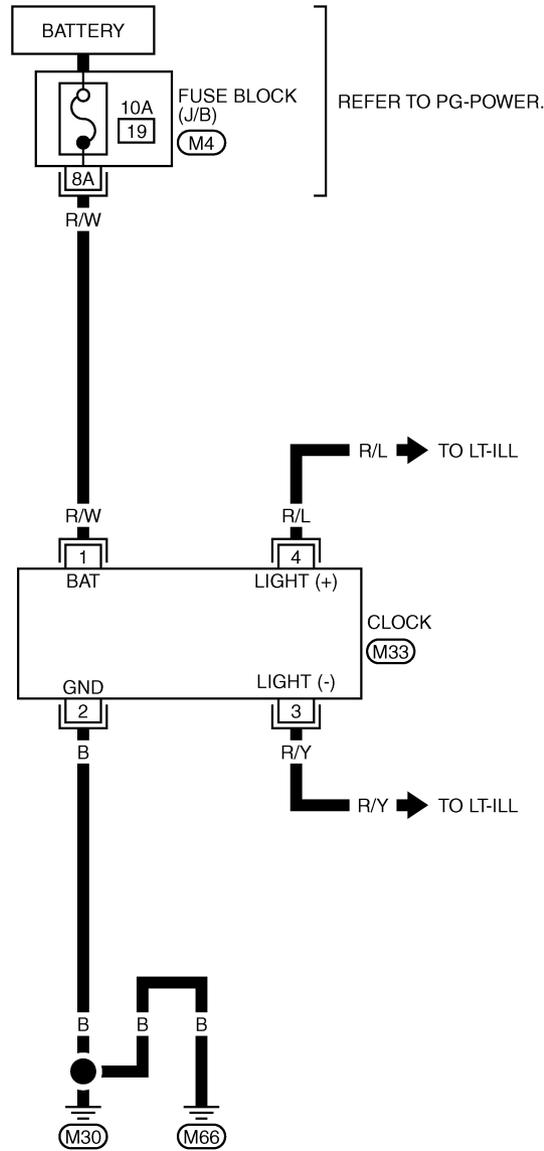
PFP:25820

CLOCK

Wiring Diagram — CLOCK —

AKS000IM

DI-CLOCK-01



REFER TO THE FOLLOWING.

(M4) - FUSE BLOCK-JUNCTION BOX (J/B)

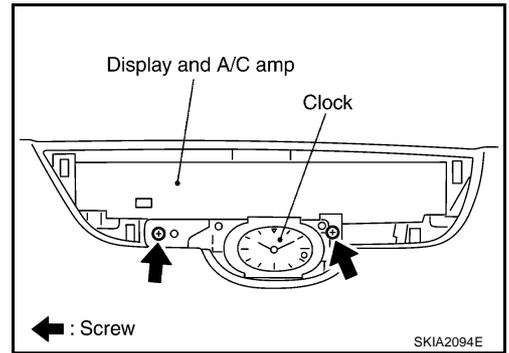
CLOCK

Removal and Installation of Clock

AKS000IN

REMOVAL

1. Remove the cluster lid finisher, refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#).
2. Remove the screws (2), and remove clock.



INSTALLATION

Install in the reverse order of removal.

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

DI

