

SECTION **DI**

DRIVER INFORMATION SYSTEM

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PRECAUTION

PRECAUTION

PFP:00011

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

AKS00CHS

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.

Precautions for Battery Service

AKS00AUP

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

Wiring Diagrams and Trouble Diagnosis

AKS003C7

When reading wiring diagrams, refer to the following:

- [GI-14, "How to Read Wiring Diagrams"](#)
- [PG-4, "POWER SUPPLY ROUTING CIRCUIT"](#) for power distribution circuit

When performing trouble diagnosis, refer to the following:

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

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COMBINATION METERS

COMBINATION METERS

PFP:24814

System Description

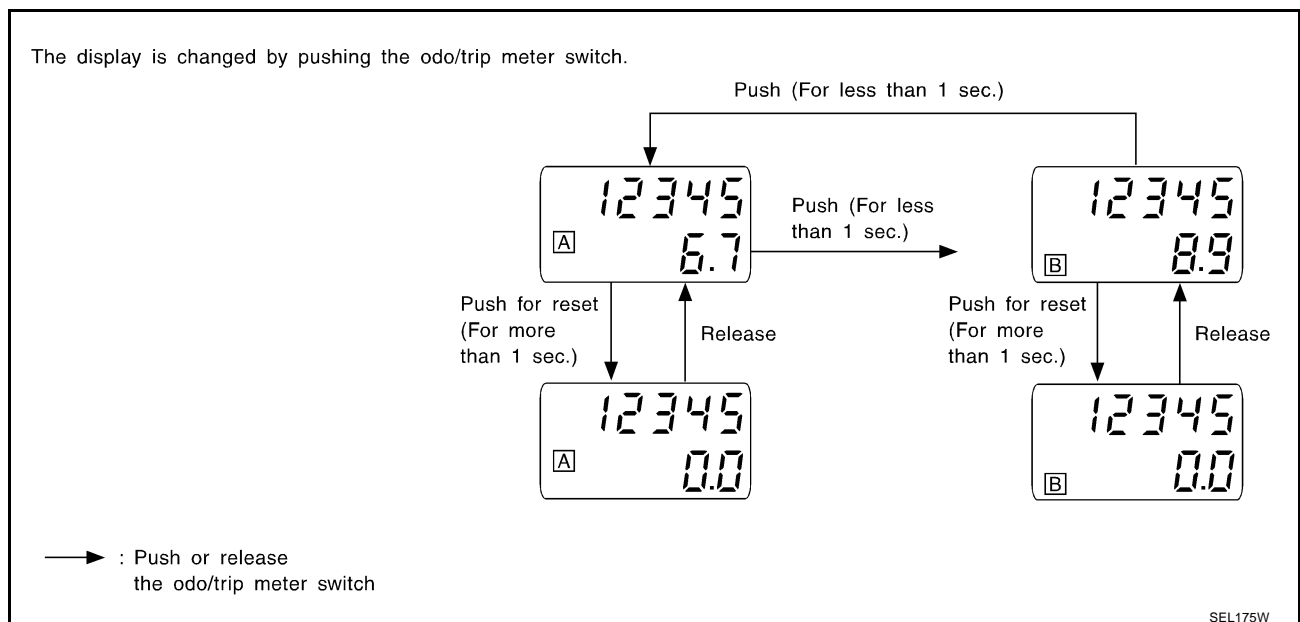
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UNIFIED METER CONTROL UNIT

- 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 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 21.

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 22 and 23.

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 18.

Ground is supplied

- to combination meter terminals 1, 24 and 25
- through grounds M30 and M66.

COMBINATION METERS

SPEEDOMETER

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

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.

FUEL GAUGE

The fuel gauge indicates the approximate fuel level in the fuel tank.

The fuel gauge is regulated by a variable resistance signal supplied

- through grounds M30 and M66
- through terminals 5 and 2 of the fuel level sensor unit and fuel pump (main) and
- through terminals 2 and 1 of the fuel level sensor unit (sub)
- to combination meter terminal 7 for the fuel gauge.

CAN Communication

AKS00AJM

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.

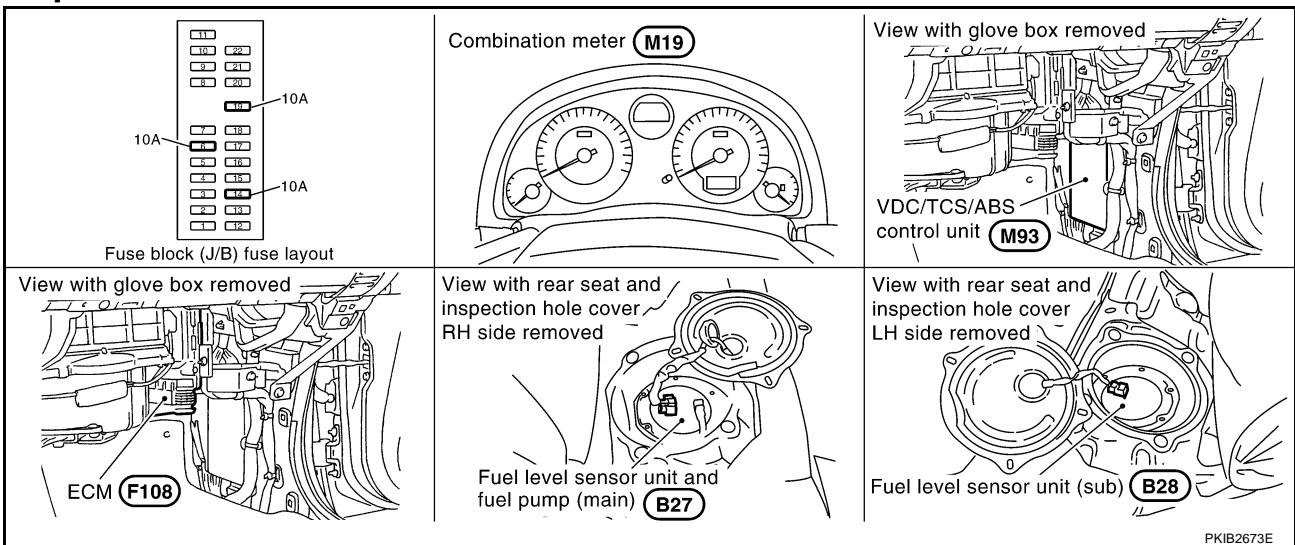
CAN Communication Unit

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Refer to [LAN-4. "CAN Communication Unit"](#) in "LAN SYSTEM".

Component Parts and Harness Connector Location

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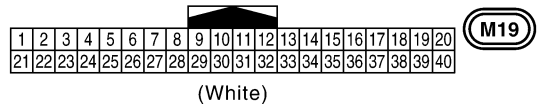
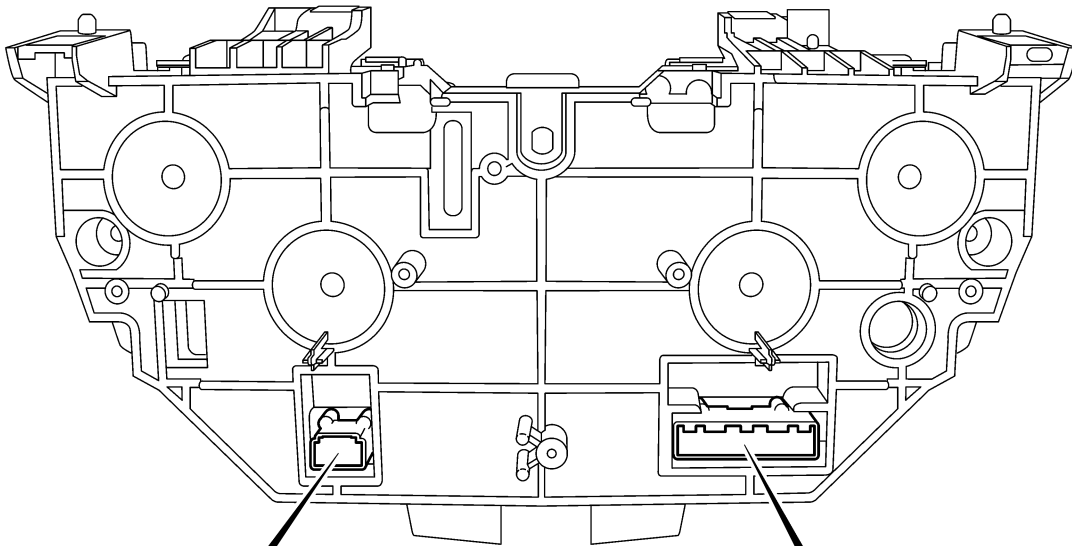
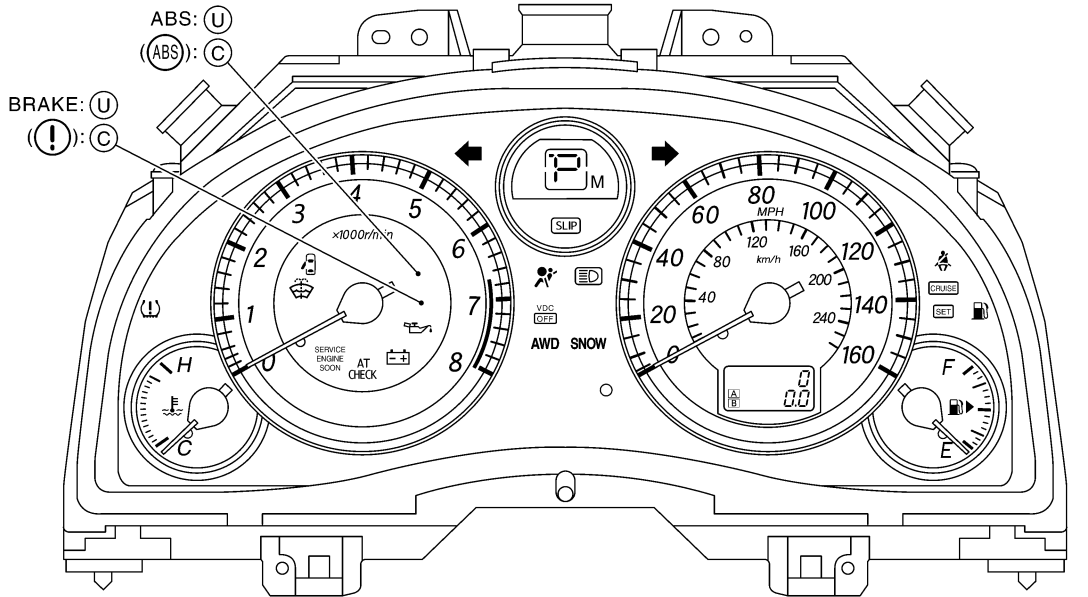
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COMBINATION METERS

Arrangement of Combination Meter

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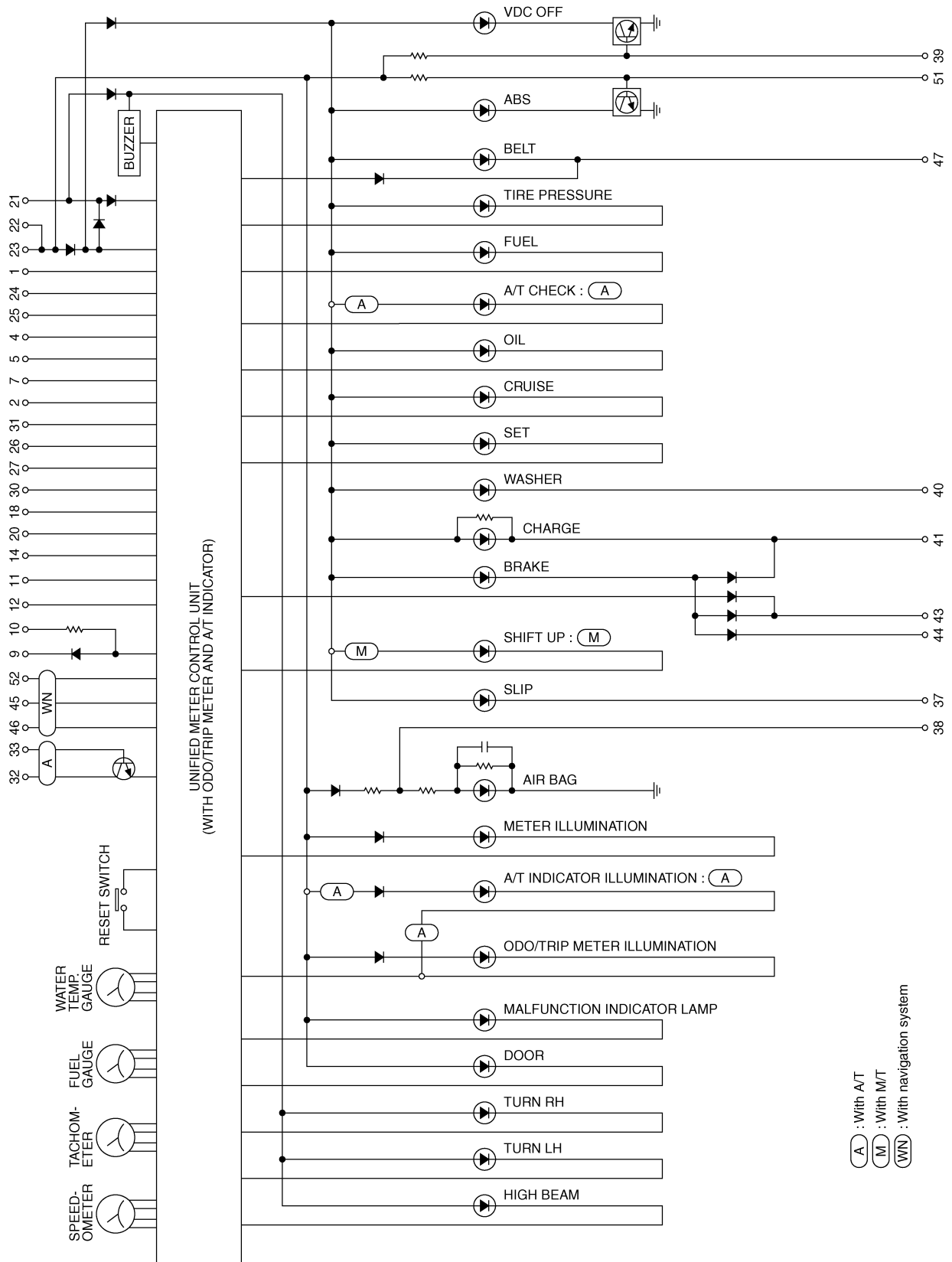
U : For U.S.A.
C : For Canada

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COMBINATION METERS

Schematic

AKS004VP



(A) : With A/T
(M) : With M/T
(WN) : With navigation system

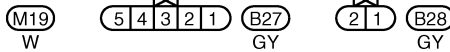
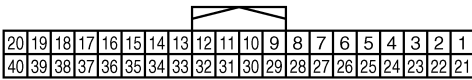
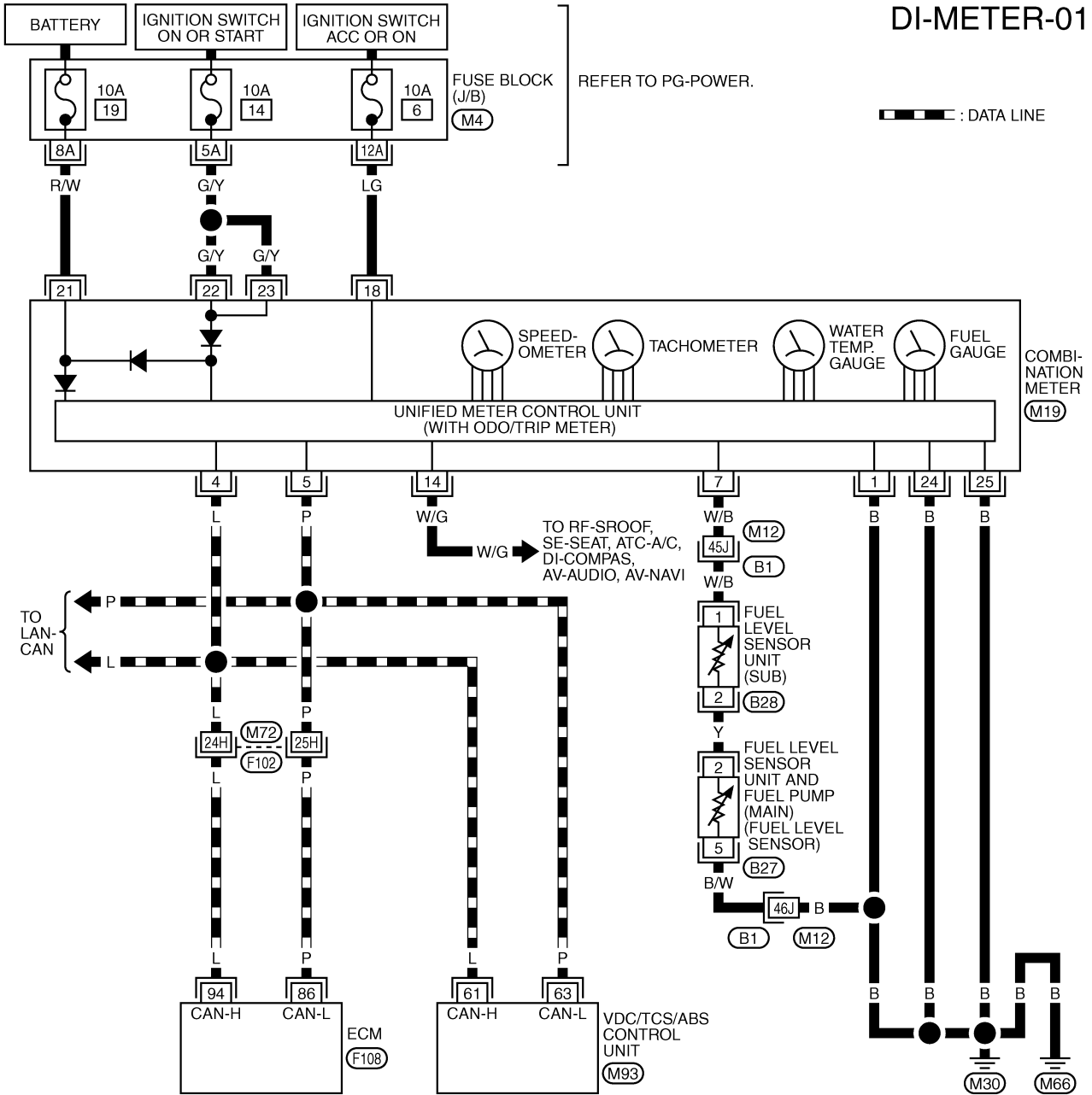
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COMBINATION METERS

AKS004VQ

Wiring Diagram — METER —

DI-METER-01



REFER TO THE FOLLOWING.

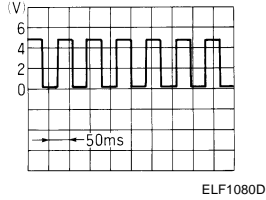
- (F102), (B1) -SUPER MULTIPLE JUNCTION (SMJ)
- (M4) -FUSE BLOCK-JUNCTION BOX (J/B)
- (M93), (F108) -ELECTRICAL UNITS

TKWM2156E

COMBINATION METERS

Terminals and Reference Value for Combination Meter

AKS004VR

Terminal	Wire Color	Item	Condition		Reference Value
			Ignition switch	Operation or condition	
1	B	Ground	ON	—	Approx. 0 V
4	L	CAN H	—	—	—
5	P	CAN L	—	—	—
7	W/B	Fuel level sensor signal	—	—	Refer to DI-17, "FUEL LEVEL SENSOR UNIT CHECK" .
14	W/G	Vehicle speed signal (2-pulse)	ON	Speedometer operated [When vehicle speed is approx. 40 km/h (25 MPH)]	
18	LG	Ignition switch (ACC)	ACC	—	Battery voltage
21	R/W	Battery power supply	OFF	—	Battery voltage
22	G/Y	Ignition switch (ON)	ON	—	Battery voltage
23					
24	B	Ground	ON	—	Approx. 0 V
25					

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COMBINATION METERS

AKS004VS

Self-Diagnosis Mode of Combination Meter SELF-DIAGNOSIS FUNCTION

- 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.

OPERATION PROCEDURE

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

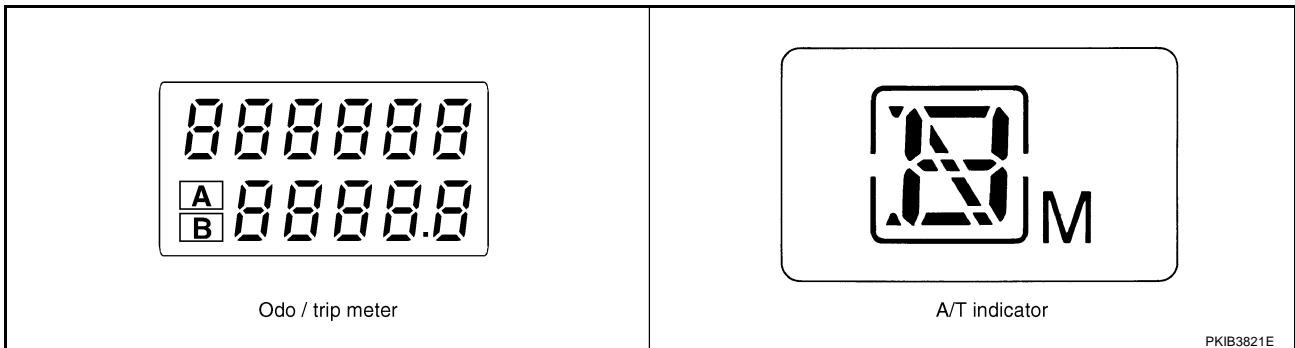
NOTE:

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. (Trip B operates the same way.)

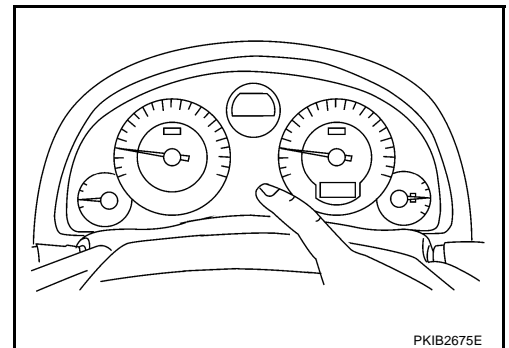
2. Turn the ignition switch OFF.
3. While pushing the odo/trip meter switch, turn the ignition switch ON again.
4. Make sure that the trip meter displays "0000.0".
5. Push the odo/trip meter switch at least 3 times. (Within 7 seconds after the ignition switch is turned ON.)
6. All the segments on the 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.



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).



Trouble Diagnosis

HOW TO PERFORM TROUBLE DIAGNOSIS

AKS004VT

1. Confirm the symptom or customer complaint.
2. Perform preliminary check. Refer to [DI-11, "PRELIMINARY CHECK"](#).
3. According to the symptom chart, repair or replace the cause of the symptom. Refer to [DI-12, "SYMPTOM CHART"](#).
4. Does the meter operate normally? If so, GO TO 5. If not, GO TO 2.
5. INSPECTION END

COMBINATION METERS

PRELIMINARY CHECK

1. CHECK WARNING LAMP ILLUMINATION

1. Turn ignition switch ON.
2. Make sure 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-12, "Power Supply and Ground Circuit Inspection"](#).

2. CHECK SELF-DIAGNOSIS OPERATION

Perform combination meter self-diagnosis. Refer to [DI-10, "OPERATION PROCEDURE"](#).

Does self-diagnosis function operate?

YES >> GO TO 4.

NO >> GO TO 3.

3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit. Refer to [DI-12, "Power Supply and Ground Circuit Inspection"](#)

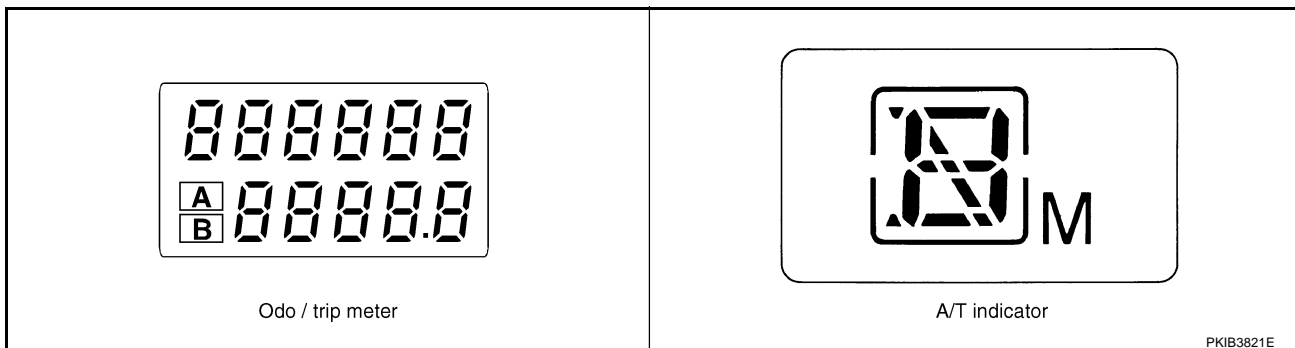
Do warning lamps illuminate?

YES >> Replace combination meter.

NO >> Raper as need.

4. CHECK ODO/TRIP METER OPERATION

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



Is the display normal?

YES >> GO TO 5.

NO >> Replace combination meter.

5. CHECK LOW-FUEL WARNING LAMP ILLUMINATION CONFIRMATION

During low-fuel warning lamp check, confirm illumination of low-fuel warning lamp.

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

OK or NG

OK >> GO TO 6.

NG >> Replace combination meter.

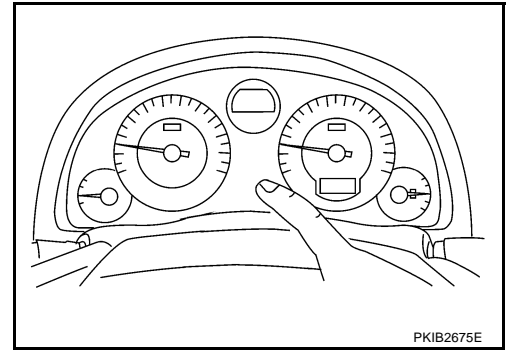
COMBINATION METERS

6. CHECK METER CIRCUIT

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

OK or NG

- OK >> Go to [DI-12, "SYMPTOM CHART"](#) .
- NG >> Replace combination meter.



SYMPTOM CHART

Symptom	Possible cause
Tachometer indication is malfunction.	Refer to DI-13, "Engine Speed Signal Inspection" .
Low-fuel warning lamp indication is irregular.	Refer to DI-14, "Fuel Level Sensor Signal Inspection" .
Fuel gauge indication is malfunction.	
Water temperature gauge indication is malfunction.	Refer to DI-13, "Engine Coolant Temperature Signal Inspection" .
Indication is irregular for the speedometer and odo/trip meter.	Refer to DI-13, "Vehicle Speed Signal Inspection" .
A/T position indicator is malfunction.	Refer to DI-37, "A/T Indicator Does Not Illuminate" .

Power Supply and Ground Circuit Inspection

AKS009/2

1. CHECK FUSE

Check for blown combination meter fuses.

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

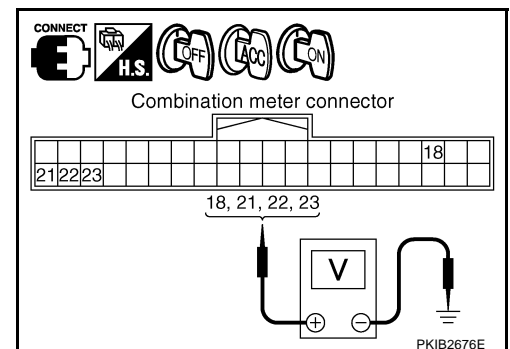
OK or NG

- OK >> GO TO 2.
- NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-4, "POWER SUPPLY ROUTING CIRCUIT"](#) .

2. CHECK POWER SUPPLY CIRCUIT

Check voltage between combination meter harness connector M19 terminals 18 (LG), 21 (R/W), 22 (G/Y), 23 (G/Y) and ground.

Terminals		Ignition switch position			
(+)	(-)	OFF	ACC	ON	
Connector	Terminal (Wire color)				
M19	18 (LG)	Ground	0 V	Battery voltage	Battery voltage
	21 (R/W)		Battery voltage	Battery voltage	Battery voltage
	22 (G/Y)		0 V	0 V	Battery voltage
	23 (G/Y)				



OK or NG

- OK >> GO TO 3.
- NG >> Check harness between combination meter and fuse.

COMBINATION METERS

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter connector.
3. Check continuity between combination meter harness connector M19 terminals 1 (B), 24 (B), 25 (B) and ground.

1 (B) – Ground

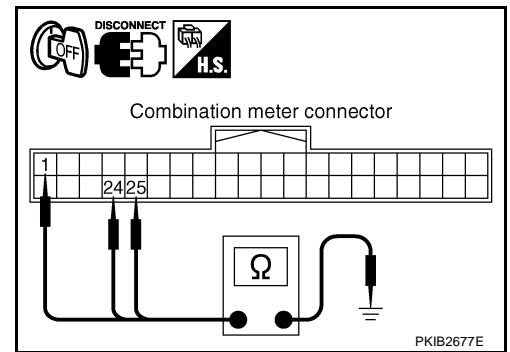
24 (B) – Ground : Continuity should exist.

25 (B) – Ground

OK or NG

OK >> INSPECTION END

NG >> Repair ground harness.



Vehicle Speed Signal Inspection

AKS004W0

Symptom: Indication is irregular for the speedometer and odo/trip meter.

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

Perform VDC/TCS/ABS control unit self-diagnosis. Refer to [BRC-25, "CONSULT-II Functions"](#) .

Self-diagnostic result content

No malfunction detected >> Replace combination meter.

Malfunction detected >> Check applicable parts, and repair or replace corresponding parts.

Engine Speed Signal Inspection

AKS004VY

Symptom: Tachometer indication is malfunction.

1. CHECK ECM SELF-DIAGNOSIS

Perform ECM self-diagnosis. Refer to [EC-124, "CONSULT-II Function \(ENGINE\)"](#) .

Self-diagnostic result content

No malfunction detected >> Replace combination meter.

Malfunction detected >> Perform "Diagnostic Procedure" in displayed DTC.

Engine Coolant Temperature Signal Inspection

AKS004VZ

Symptom: Water temperature gauge indication is malfunction.

1. CHECK ECM SELF-DIAGNOSIS

Perform the ECM self-diagnosis. Refer to [EC-124, "CONSULT-II Function \(ENGINE\)"](#) .

Self-diagnostic result content

No malfunction detected >> Replace combination meter.

Malfunction detected >> Perform "Diagnostic Procedure" in displayed DTC.

COMBINATION METERS

AKS004VX

Fuel Level Sensor Signal Inspection

Symptom:

- Fuel gauge indication is malfunction.
- Low-fuel warning lamp indication is irregular.

NOTE:

The following symptoms are not malfunction.

Fuel gauge

- Depending on vehicle position or driving circumstances, the fuel in the tank varies, and the pointer may fluctuate.
- If the vehicle is fueled with the ignition switch ON, the pointer moves slowly.

Low-fuel warning lamp

- Depending on vehicle position or driving circumstances, the fuel in the tank varies, 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. Turn ignition switch OFF.
2. Disconnect combination meter connector and fuel level sensor unit (sub) connector.
3. Check continuity between combination meter harness connector M19 terminal 7 (W/B) and fuel level sensor unit (sub) harness connector B28 terminal 1(W/B).

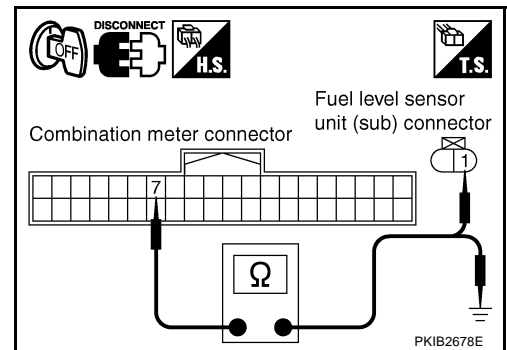
7 (W/B) – 1 (W/B) : Continuity should exist.

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

7 (W/B) – Ground : Continuity should not exist.

OK or NG

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



COMBINATION METERS

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).

2 (Y) – 2 (Y) : Continuity should exist.

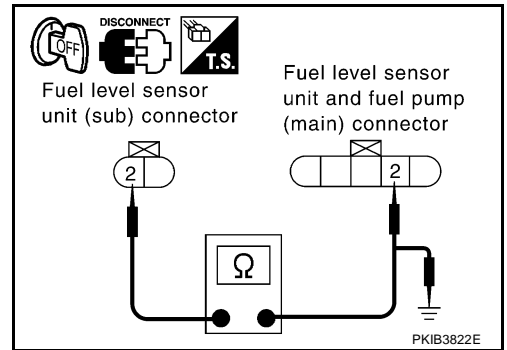
3. Check continuity between fuel level sensor unit (sub) harness connector B28 terminal 2 (Y) and ground.

2 (Y) – Ground : Continuity should not exist.

OK or NG

OK >> GO TO 4.

NG >> Repair harness or connector.



4. CHECK GROUND CIRCUIT

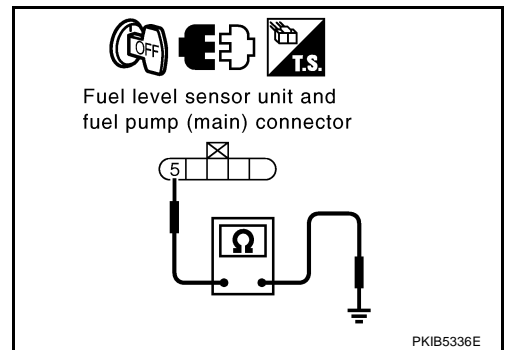
Check continuity between fuel level sensor unit and fuel pump (main) harness connector B27 terminal 5 (B/W) and ground.

5 (B/W) – 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-17, "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.

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COMBINATION METERS

Fuel Gauge Pointer Fluctuates, Indicator Wrong Value or Varies

AKS004W1

1. CHECK FUEL GAUGE FLUCTUATION

Test drive vehicle to see if gauge fluctuates only during driving or at the instant of stopping.

Does the indication value vary only during driving or at the instant of 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.

Fuel Gauge Does Not Move to FULL position

AKS004W2

1. QUESTION 1

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

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

2. QUESTION 2

Was the vehicle fueled with the ignition switch ON?

- 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 >> 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 >> Check the fuel level sensor unit. Refer to [DI-17, "FUEL LEVEL SENSOR UNIT CHECK"](#) .
NO >> The float arm may interfere or bind with any of the components in the fuel tank.

COMBINATION METERS

AKS004XN

Electrical Components Inspection FUEL LEVEL SENSOR UNIT CHECK

For removal, refer to [FL-5, "FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY"](#).

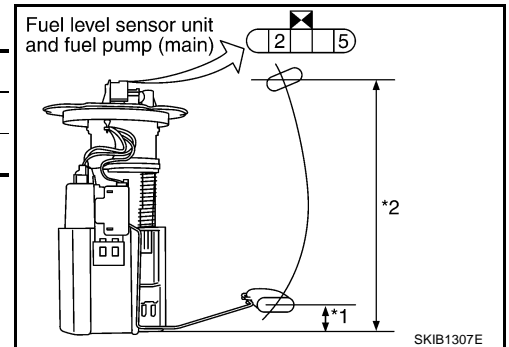
Fuel Level Sensor Unit and Fuel Pump (Main)

Check the resistance between terminals 2 and 5.

Terminal	Float position [mm (in)]	Resistance value [Ω]
2	*1 Empty 30 (1.18)	Approx. 80
	*2 Full 210 (8.27)	Approx. 3

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

- If the results of check are NG, check the fuel level sensor unit and fuel pump (main) harness. Refer to [DI-17, "Fuel Level Sensor Unit and Pump \(Main\) Harness"](#)



Fuel Level Sensor Unit and Pump (Main) Harness

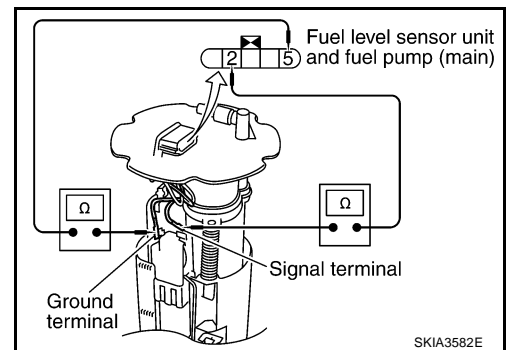
Check the continuity following terminals.

Terminal	Continuity
2 - Signal terminal	Yes
5 - Ground terminal	

- If the results of check are NG, replace fuel pump assembly.
- If the results of check are OK, replace fuel level sensor unit.

NOTE:

When replace fuel level sensor unit, refer to [FL-5, "FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY"](#) in FE section.

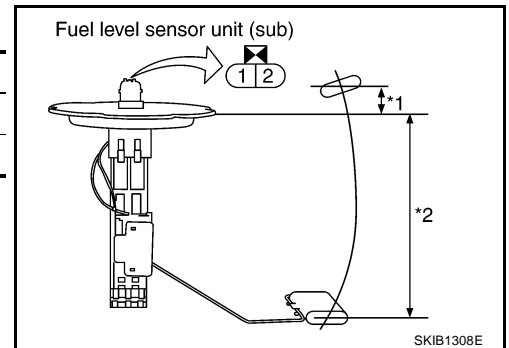


Fuel Level Sensor Unit (Sub)

Check the resistance between terminals 1 and 2.

Terminal	Float position [mm (in)]	Resistance value [Ω]
1	*1 Full 8 (0.31)	Approx. 3
	*2 Empty 175 (6.89)	Approx. 43

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



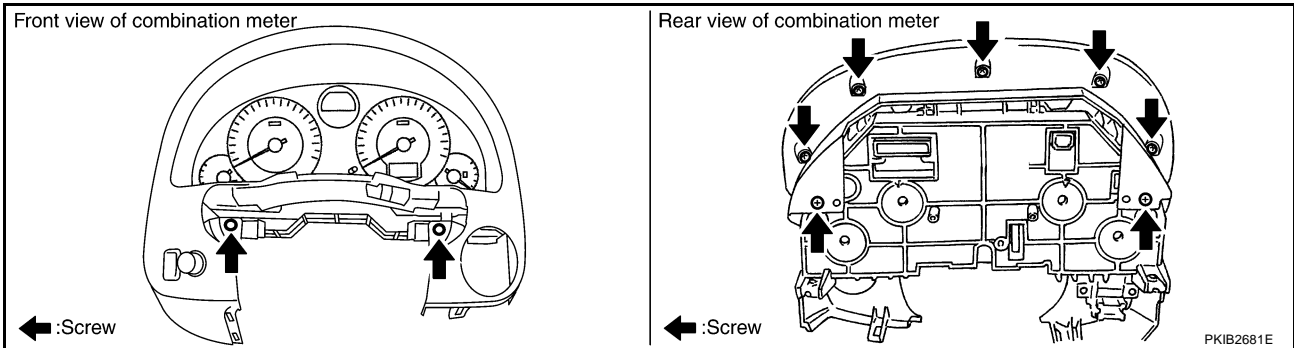
COMBINATION METERS

AKS004W6

Removal and Installation for Combination Meter

REMOVAL

1. Remove steering column cover. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#) .
2. Remove lighting and turn signal switch. Refer to [LT-128, "LIGHTING AND TURN SIGNAL SWITCH"](#) .
3. Remove front wiper and washer switch. Refer to [WW-37, "Removal and Installation of Front Wiper and Washer Switch"](#) .
4. Remove instrument lower driver panel. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#) .
5. Remove the screw (4) and remove cluster lid A and combination meter assembly. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#) .
6. Disconnect connectors and remove combination meter.
7. Remove the screw (9) and disassembly cluster lid A and combination meter.

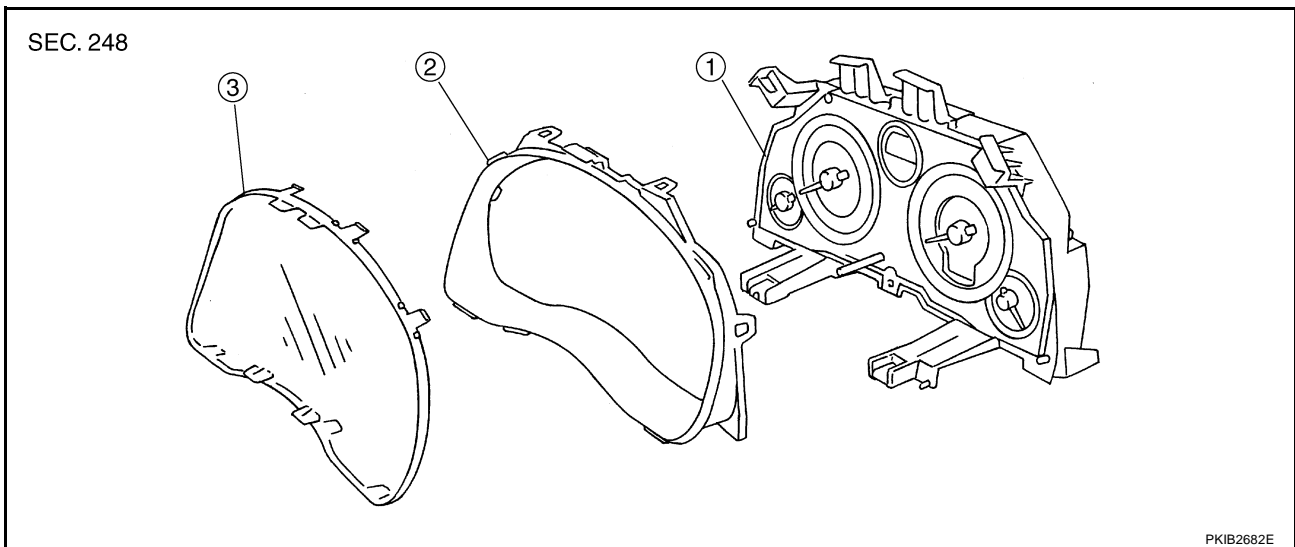


INSTALLATION

Installation is the reverse order of removal.

Disassembly and Assembly for Combination Meter

AKS004W7



1. Unified meter control unit assembly
2. Upper housing
3. Front cover

DISASSEMBLY

1. Disengaged the tabs (8) to separate front cover and upper housing assembly.
2. Disengaged the tabs (8) to separate front cover.

ASSEMBLY

Assembly is the reverse order of disassembly.

COMPASS

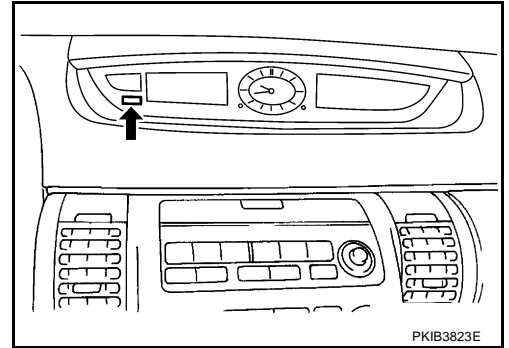
COMPASS

PF2:24835

System Description

AKS004W8

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.

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

DI

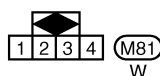
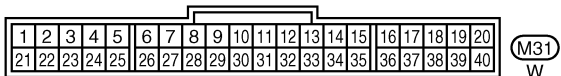
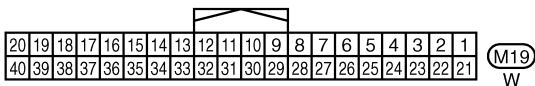
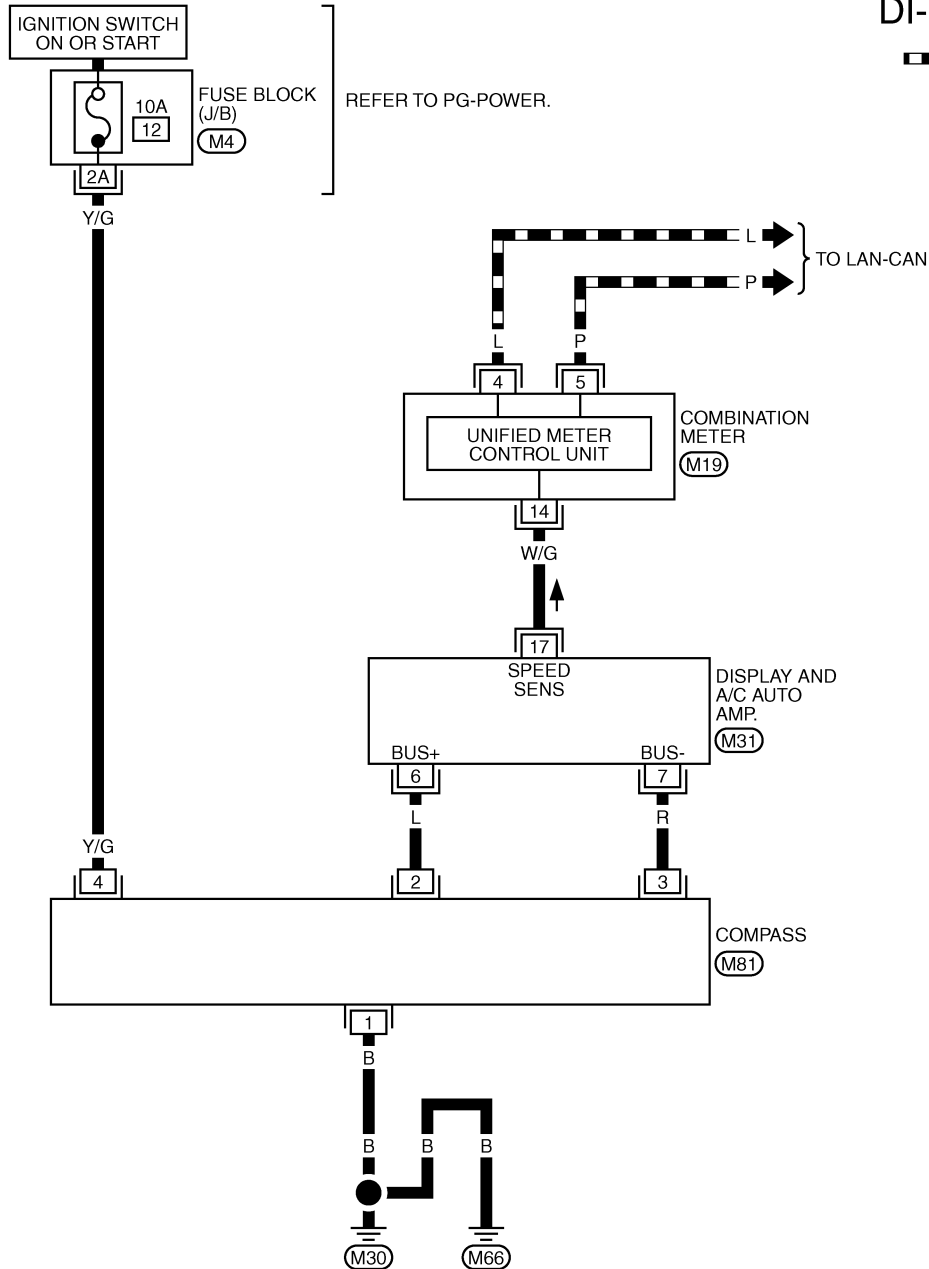
COMPASS

AKS004W9

Wiring Diagram — COMPASS —

DI-COMPAS-01

▬ : DATA LINE



REFER TO THE FOLLOWING.
 (M4) - FUSE BLOCK-JUNCTION BOX (J/B)

TKWM2157E

Fail-Safe System

AKS004WB

DESCRIPTION

- 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.

Power Supply and Ground Circuit Inspection

AKS004WA

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 case of malfunction before installing new fuse. Refer to [PG-4](#), "[POWER SUPPLY ROUTING CIRCUIT](#)".

2. CHECK POWER SUPPLY CIRCUIT

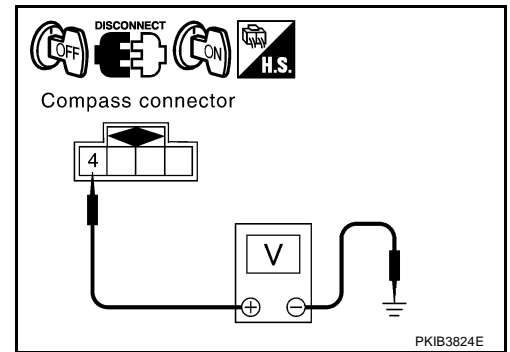
1. Disconnect compass connector.
2. Turn ignition switch ON.
3. Check voltage between compass harness connector M81 terminal 4 (Y/G) and ground.

4 (Y/G) – Ground : Battery voltage

OK or NG

OK >> GO TO 3.

NG >> Check harness between compass and fuse.



3. CHECK GROUND CIRCUIT

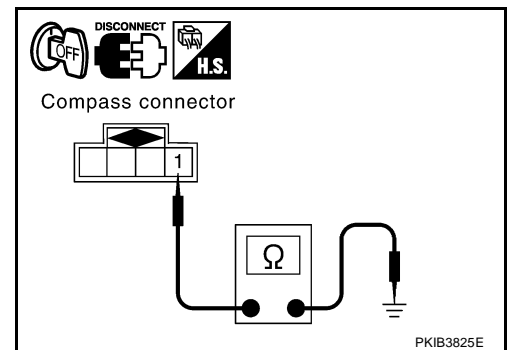
1. Turn ignition switch OFF.
2. Check continuity between compass harness connector M81 terminal 1 (B) and ground.

1 (B) – Ground : Continuity should exist.

OK or NG

OK >> INSPECTION END

NG >> Repair or replace harness for ground circuit.



Compass Does not Display

AKS004WC

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-21](#), "[Fail-Safe System](#)".

NO >> Replace the display and A/C auto amp.

Compass Display “- - -”

1. CHECK FAIL-SAFE MODE

Make sure that fail-safe mode is not activated. Refer to [DI-21, "Fail-Safe System"](#) .

Is fail-safe mode activated?

- 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 the display and A/C auto amp.

3. CHECK POWER AND GROUND CIRCUIT

Check power and ground circuit. Refer to [DI-21, "Power Supply and Ground Circuit Inspection"](#) .

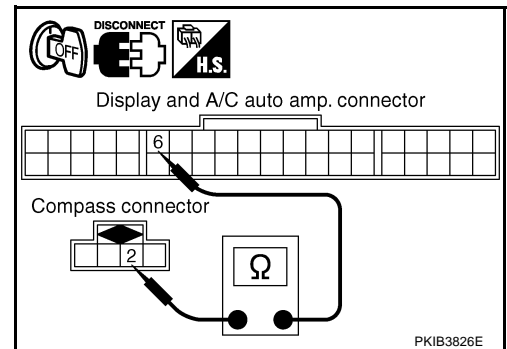
OK or NG

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

4. CHECK COMPASS CIRCUIT

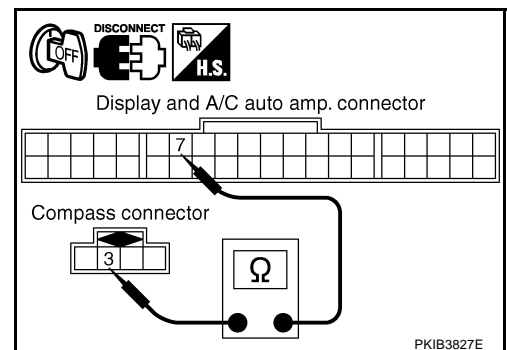
1. Turn ignition switch OFF.
2. Disconnect compass connector and display and A/C auto amp. connector.
3. Check continuity between compass harness connector M81 terminal 2 (L) and display and A/C auto amp. harness connector M31 terminal 6 (L).

2 (L) – 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).

3 (R) – 7 (R) : Continuity should exist.



OK or NG

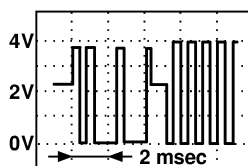
- OK >> GO TO 5.
- NG >> Repair harness or connector.

COMPASS

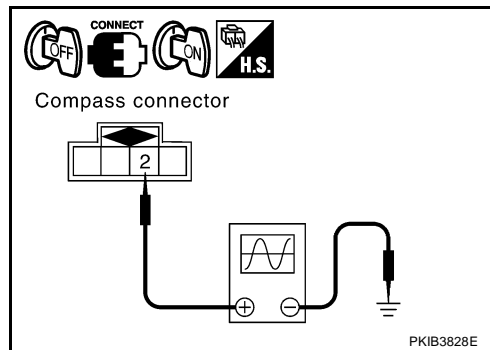
5. CHECK COMPASS SIGNAL

1. Connect compass connector and display and A/C auto amp. connector.
2. Turn ignition switch ON.
3. Check voltage signal between compass harness connector M81 terminal 2 (L) and ground.

2 (L) – Ground:



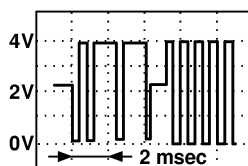
RJIA0867E



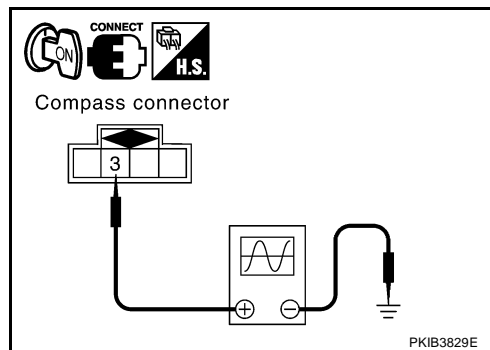
PKIB3828E

4. Check voltage signal between compass harness connector M81 terminal 3 (R) and ground.

3 (R) – Ground:



RJIA0868E



PKIB3829E

OK or NG

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

Forward Direction Indication Slips Off The Mark or Incorrect

AKS004WE

1. ZONE VARIATION CHANGE IS NOT DONE

Perform the zone variation change.

OK or NG

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

Compass Reading Remains Unchanged

AKS004WF

1. CHECK POWER AND GROUND CIRCUIT

Check power and ground circuit. Refer to [DI-21, "Power Supply and Ground Circuit Inspection"](#).

OK or NG

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

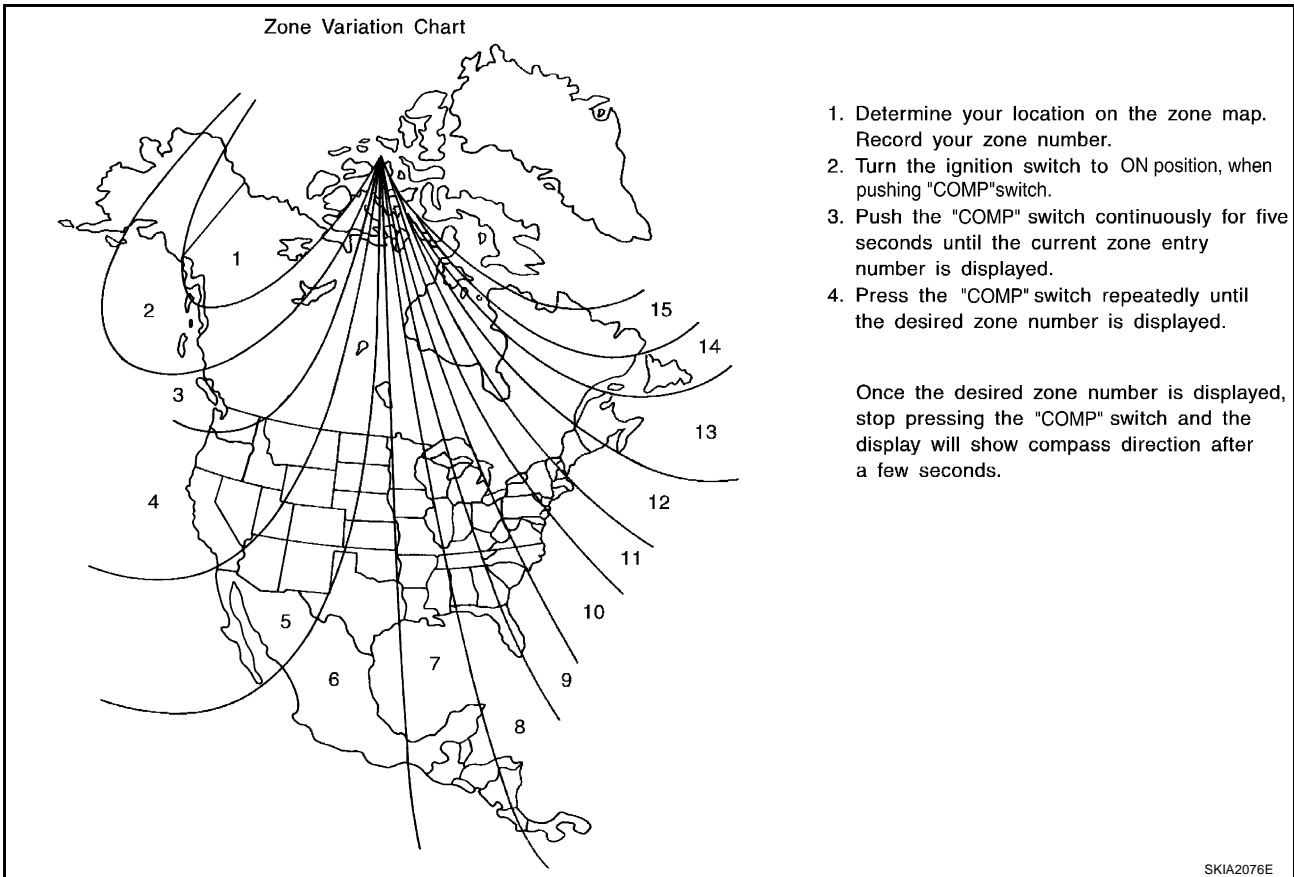
COMPASS

AKS004WG

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.

SKIA2076E

CORRECTION FUNCTIONS OF COMPASS

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

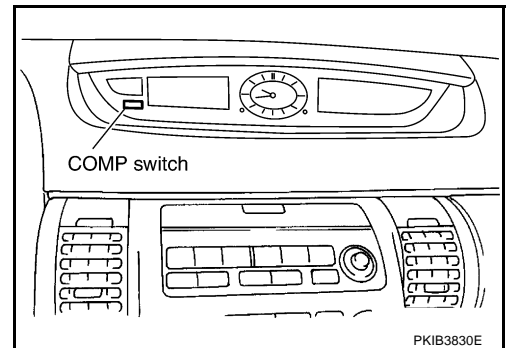
INITIAL CORRECTION PROCEDURE FOR COMPASS

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



PKIB3830E

COMPASS

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

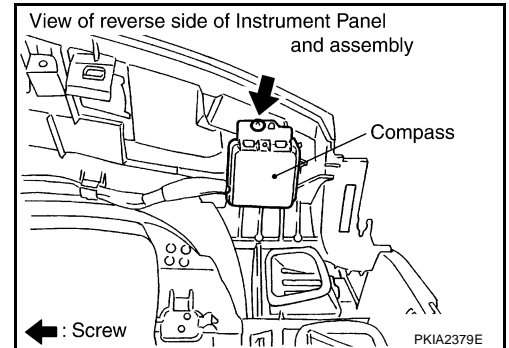
- When heater or A/C fan speed is at maximum, the direction indicator display may move. This is not a malfunction. It will return to normal when the heater or A/C fan speed is reduced.

Removal and Installation of Compass

AKS004WH

REMOVAL

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



INSTALLATION

Installation is the reverse order of removal.

A
B
C
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DI
L
M

DI

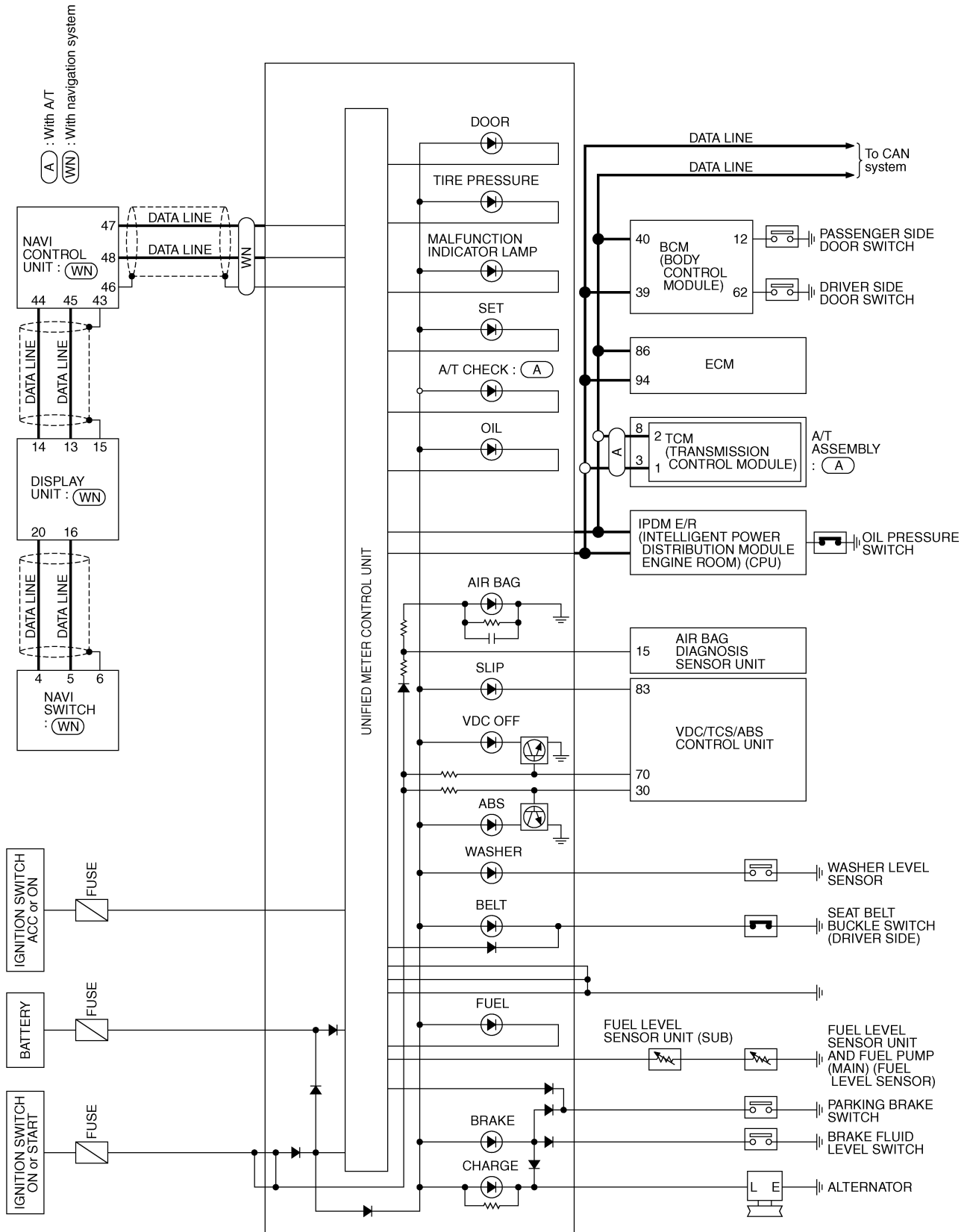
WARNING LAMPS

PFP:24814

AKS004W1

WARNING LAMPS

Schematic



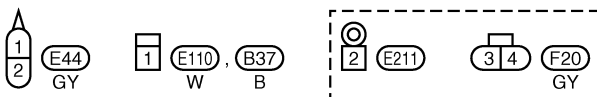
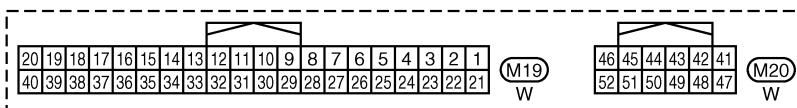
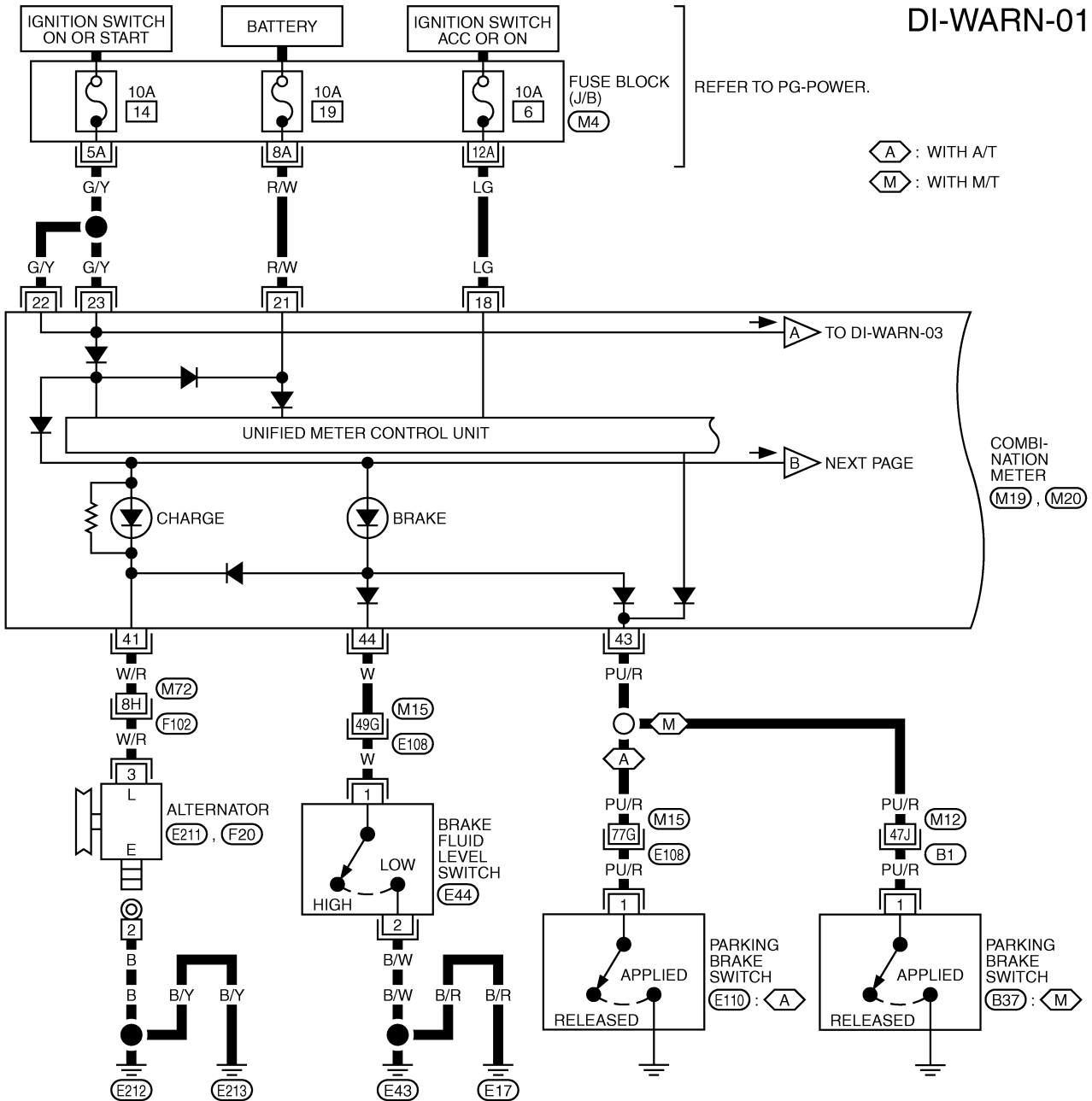
TKWM2158E

WARNING LAMPS

Wiring Diagram — WARN —

AKS004WJ

DI-WARN-01



REFER TO THE FOLLOWING.

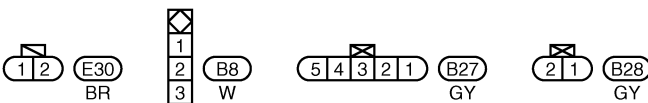
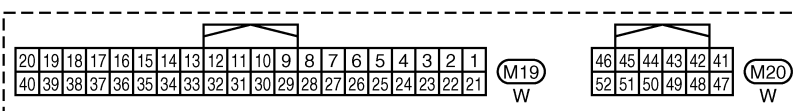
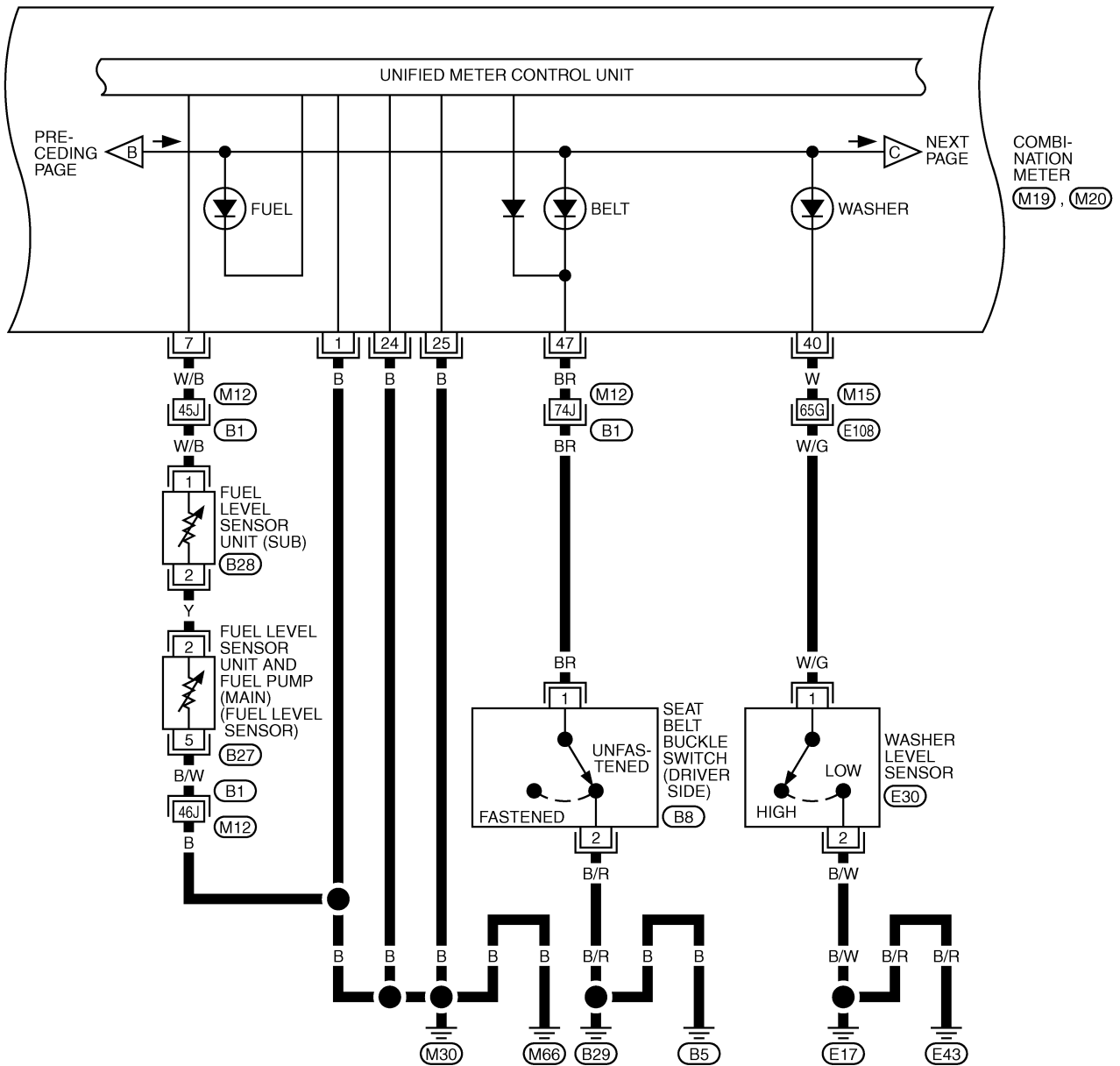
(E108, F102, B1) -SUPER MULTIPLE JUNCTION (SMJ)

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

TKWM2159E

WARNING LAMPS

DI-WARN-02

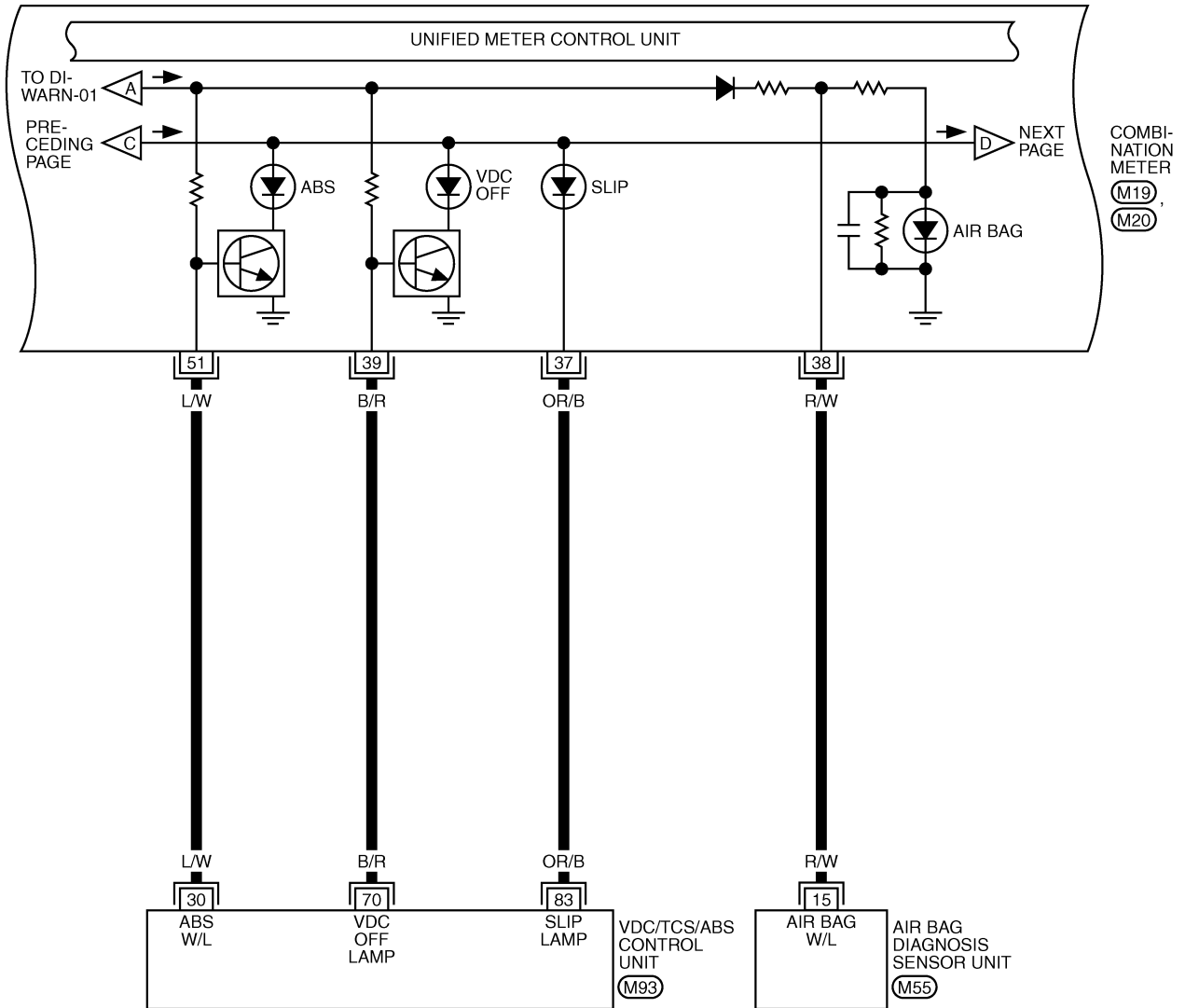


REFER TO THE FOLLOWING.
 (E108), (B1) -SUPER MULTIPLE JUNCTION (SMJ)

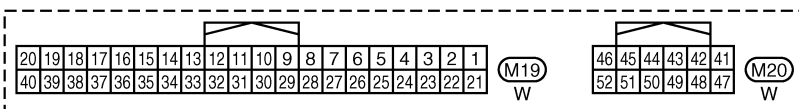
TKWM2160E

WARNING LAMPS

DI-WARN-03



A
B
C
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I
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DI
L
M

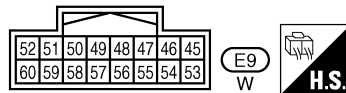
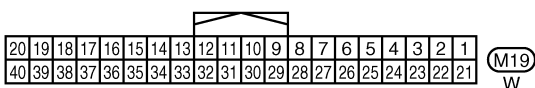
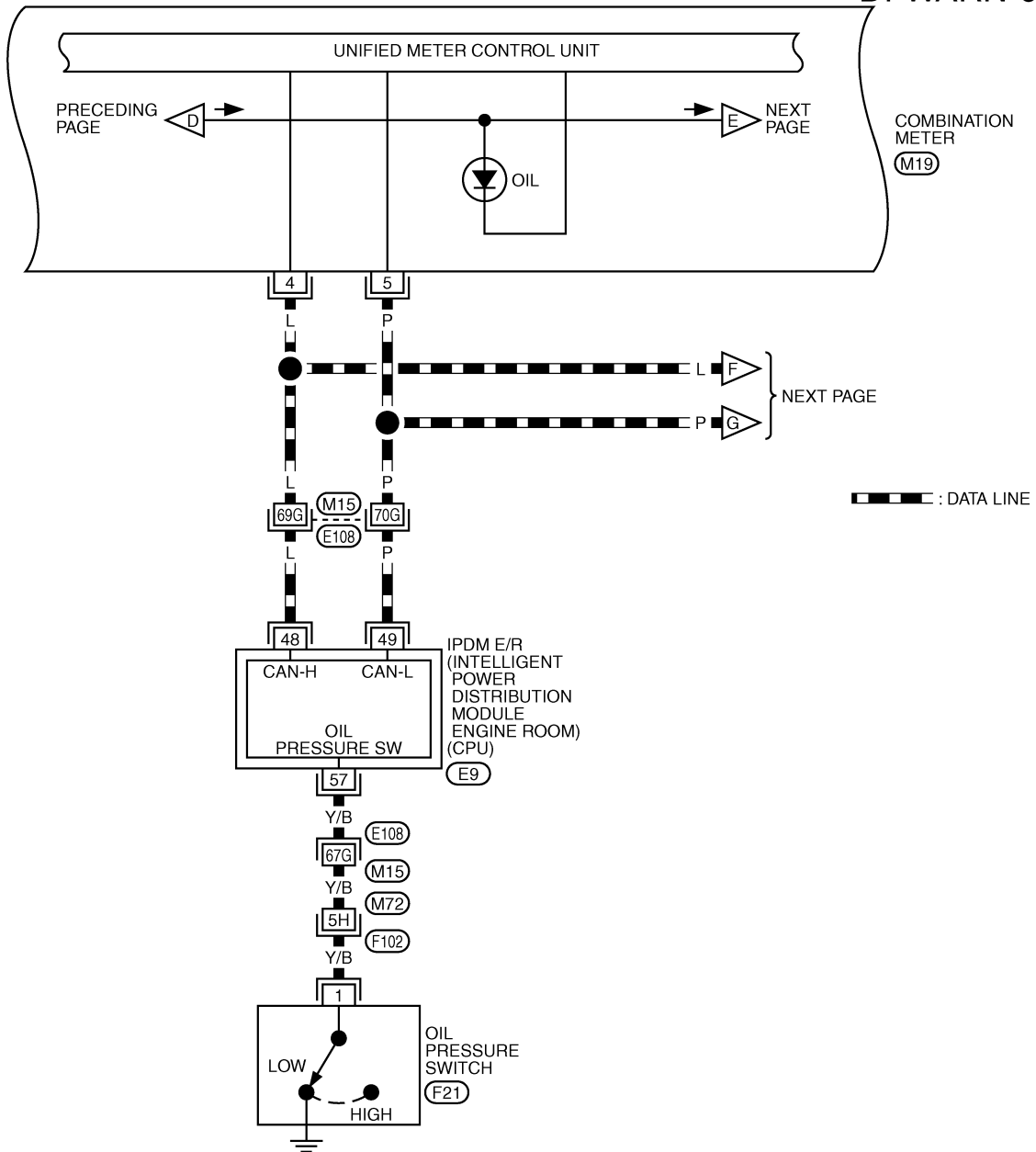


REFER TO THE FOLLOWING.
M93 -ELECTRICAL UNITS

TKWM2609E

WARNING LAMPS

DI-WARN-04



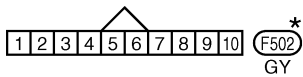
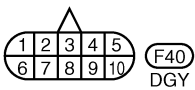
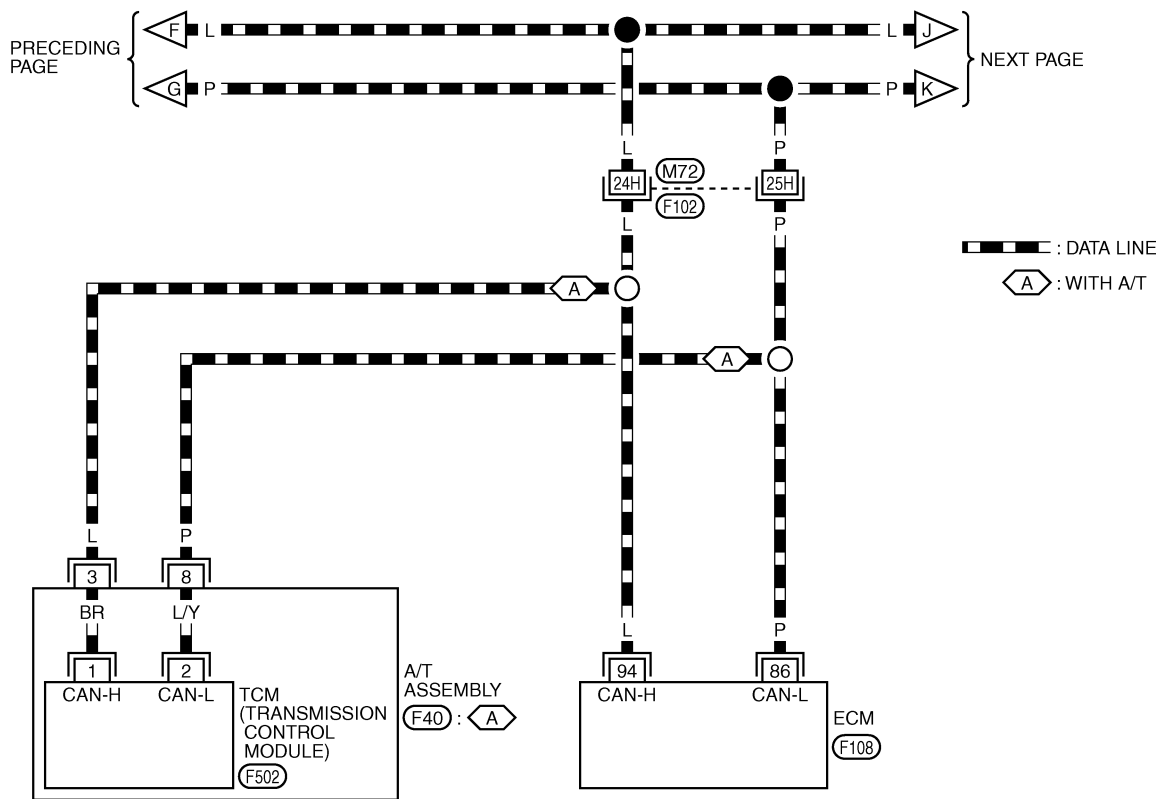
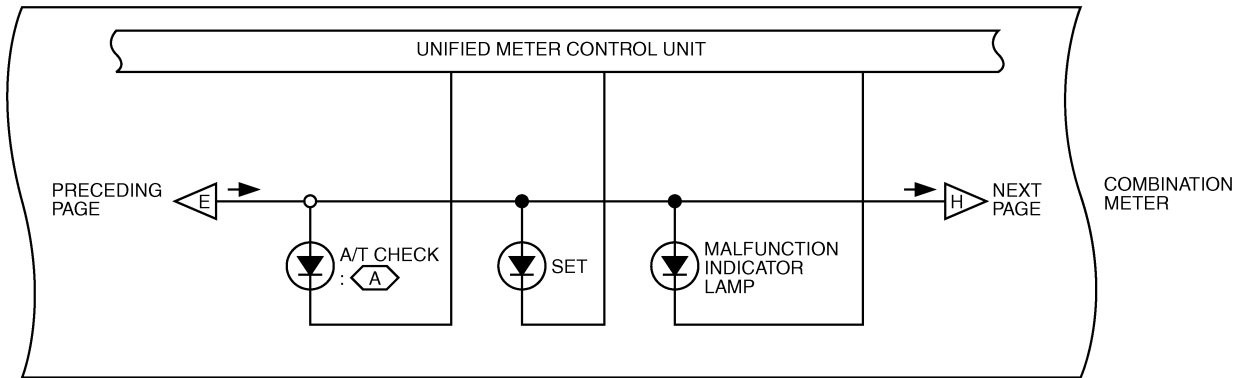
REFER TO THE FOLLOWING.
 (E108), (F102) -SUPER MULTIPLE JUNCTION (SMJ)



TKWM2161E

WARNING LAMPS

DI-WARN-05



REFER TO THE FOLLOWING.

F102 -SUPER MULTIPLE JUNCTION (SMJ)

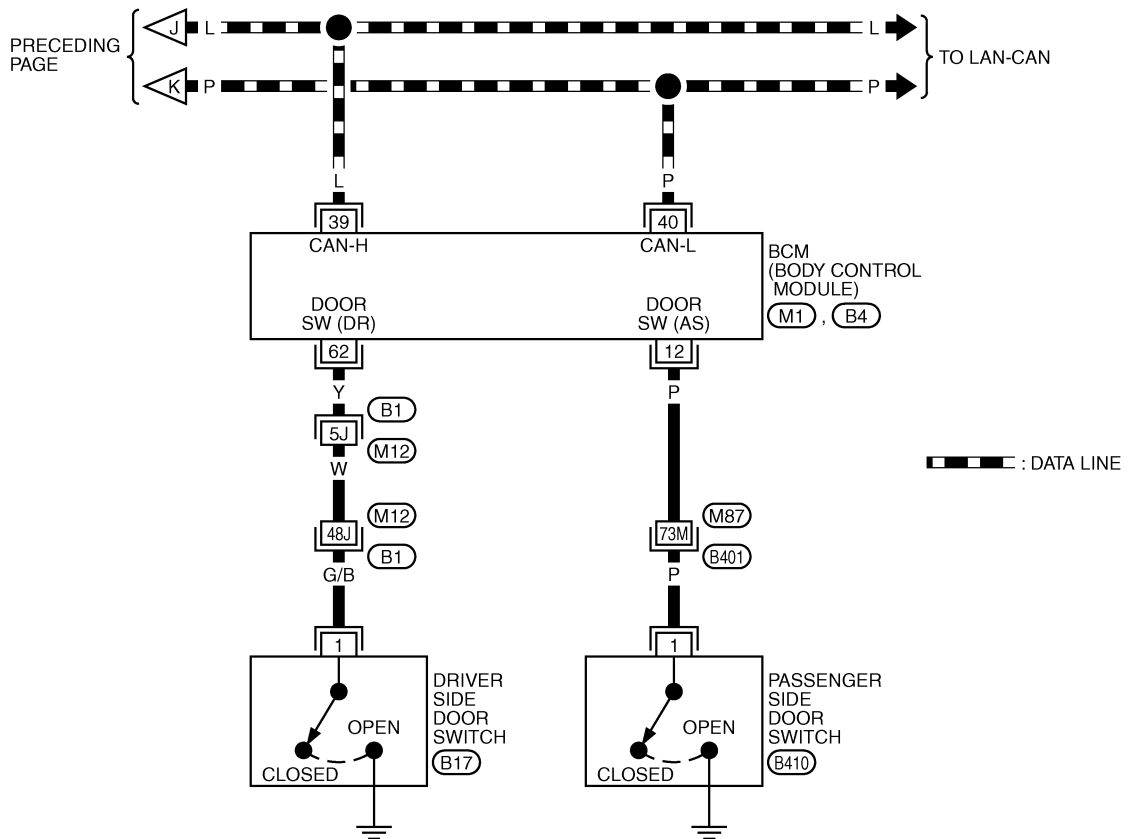
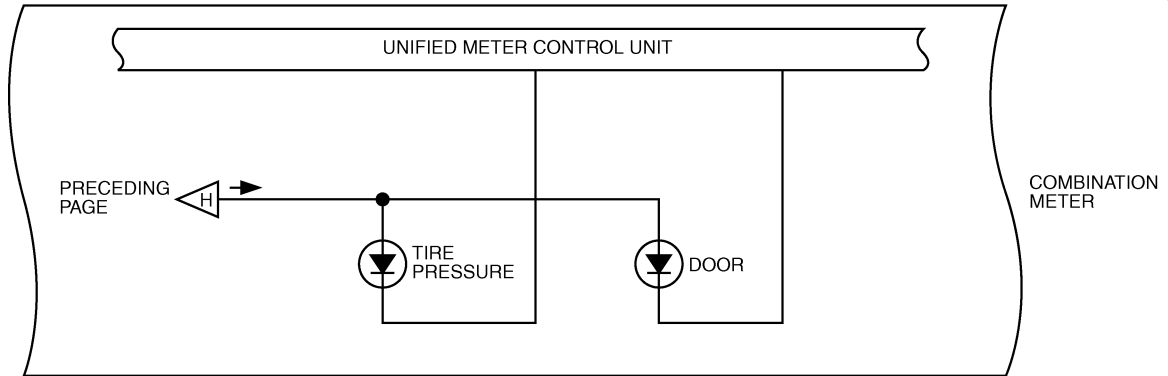
F108 -ELECTRICAL UNITS

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

TKWM2162E

WARNING LAMPS

DI-WARN-06



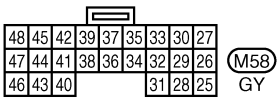
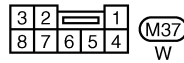
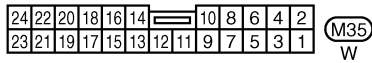
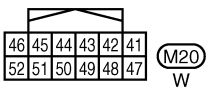
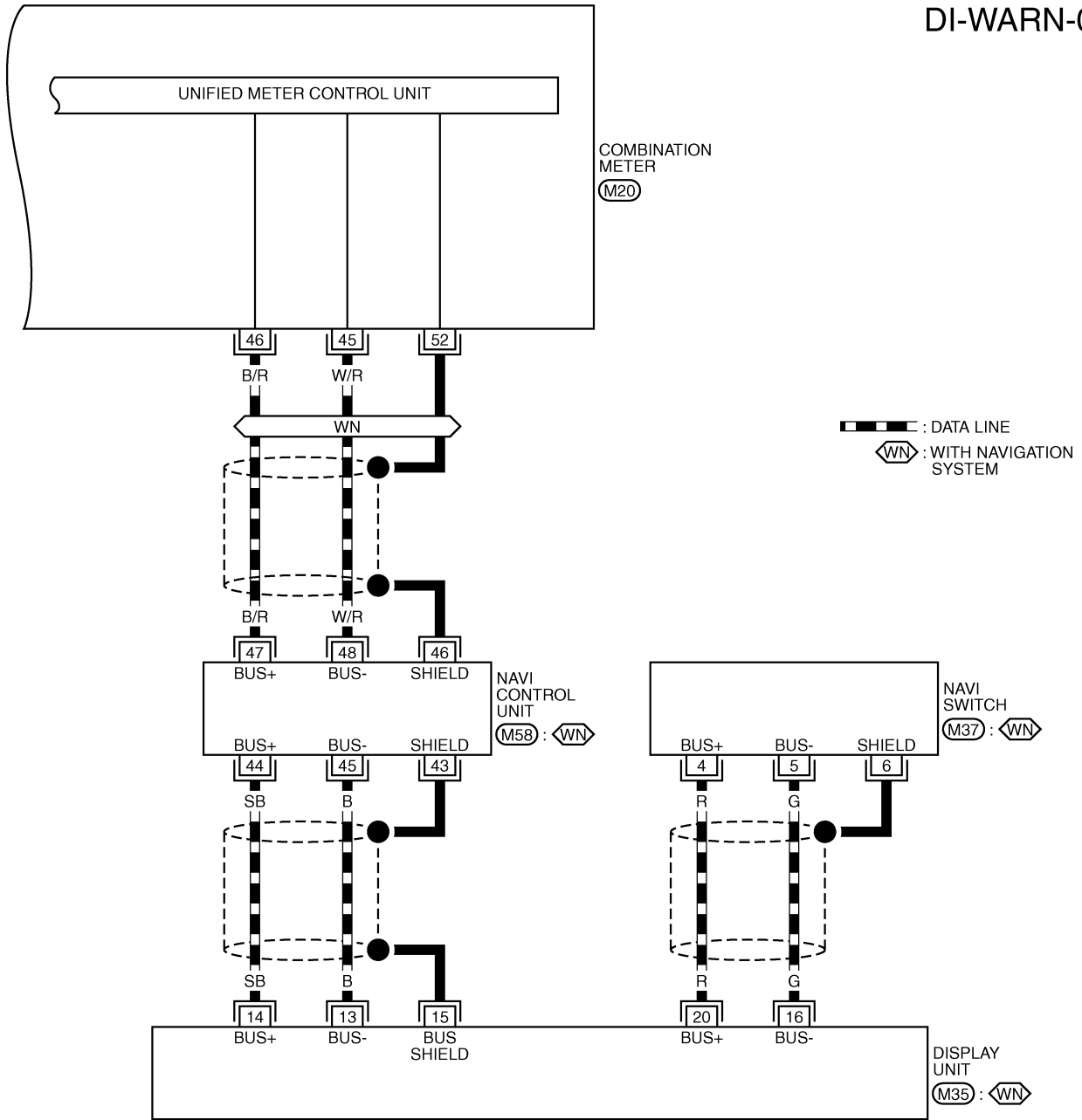
1	
2	(B17), (B410)
3	W W

REFER TO THE FOLLOWING.
 (B1), (B401) -SUPER MULTIPLE JUNCTION (SMJ)
 (M1), (B4) -ELECTRICAL UNITS

TKWM2163E

WARNING LAMPS

DI-WARN-07



TKWM2164E

WARNING LAMPS

Oil Pressure Warning Lamp Stays Off (Ignition Switch ON)

AKS00913

1. CHECK IPDM E/R OUTPUT SIGNAL

Activate IPDM E/R auto active test. Refer to [PG-23, "Auto Active Test"](#).

Does oil pressure warning lamp blink?

- 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-19, "CONSULT-II Function \(IPDM E/R\)"](#).

Self-diagnostic results content

- No malfunction detected>> GO TO 3.
- Malfunction detected>> Go to [PG-20, "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.

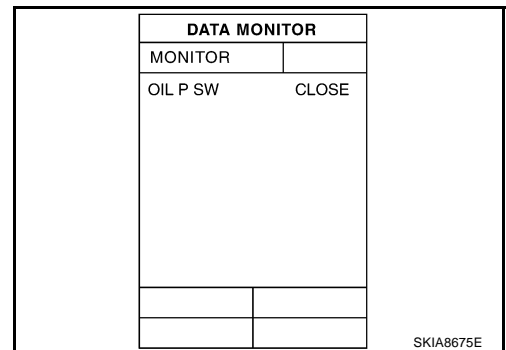
"OIL P SW"

When ignition switch is in ON position : CLOSE
(Engine stopped)

When engine running : OPEN

OK or NG

- OK >> Replace combination meter.
- NG >> Replace IPDM E/R. Refer to [PG-29, "Removal and Installation of IPDM E/R"](#).



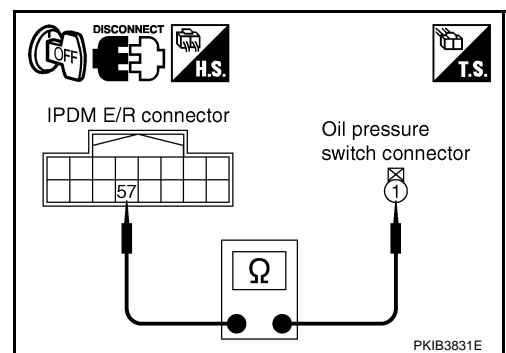
4. CHECK OIL PRESSURE SWITCH CIRCUIT

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).

57 (Y/B) – 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-35, "OIL PRESSURE SWITCH"](#).

OK or NG

- OK >> Replace IPDM E/R. Refer to [PG-29, "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)

AKS00914

NOTE:

For oil pressure inspection, refer to [LU-8, "Changing Engine Oil"](#) .

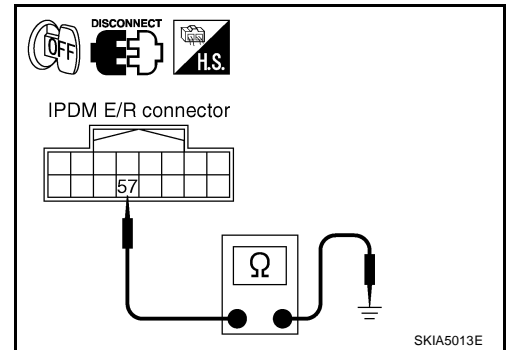
1. CHECK OIL PRESSURE SWITCH CIRCUIT

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.

57 (Y/B) – 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-35, "OIL PRESSURE SWITCH"](#) .

OK or NG

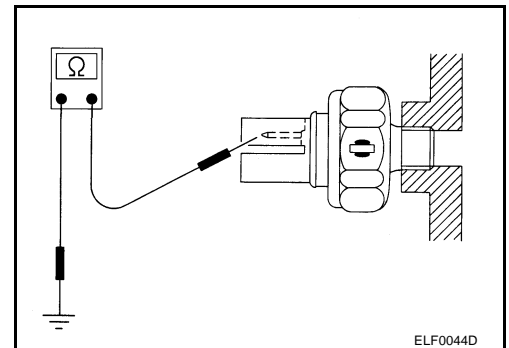
- OK >> Replace IPDM E/R. Refer to [PG-29, "Removal and Installation of IPDM E/R"](#) .
 NG >> Replace oil pressure switch.

Component Inspection OIL PRESSURE SWITCH

AKS004WM

Check continuity between the oil pressure switch and 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



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A/T INDICATOR

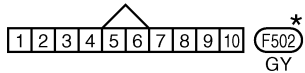
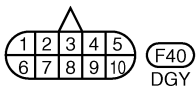
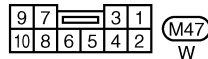
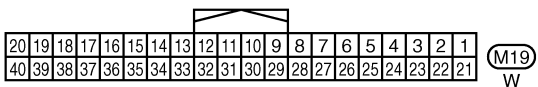
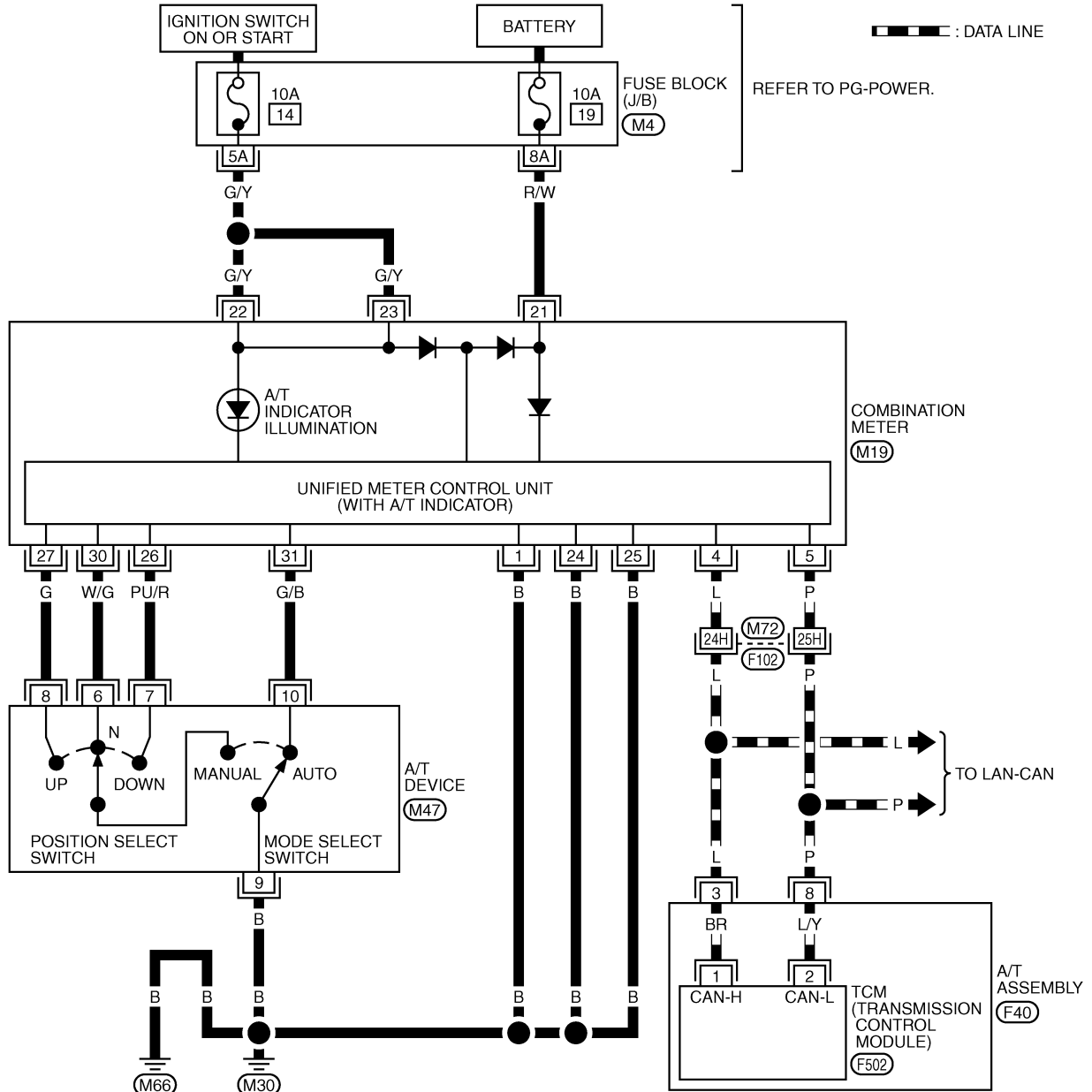
PFP:24814

AKS004WN

A/T INDICATOR

Wiring Diagram — AT/IND —

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)

TKWM2165E

A/T INDICATOR

A/T Indicator Does Not Illuminate

AKS004WO

1. CHECK COMBINATION METER SELF-DIAGNOSIS

Perform combination meter self-diagnosis. Refer to [DI-10, "Self-Diagnosis Mode of Combination Meter"](#) .

Are all segments displayed?

YES >> GO TO 2.

NO >> Replace combination meter.

2. CHECK TCM SELF-DIAGNOSIS

Perform TCM self-diagnosis. Refer to [AT-93, "CONSULT-II Function \(A/T\)"](#) .

Self-diagnostic results content

No malfunction detected >> Replace combination meter.

Malfunction detected >> Check applicable parts, and repair or replace corresponding parts.

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WARNING CHIME

PF2:24814

System Description

AKS004WQ

The warning chime is controlled by the BCM.

The warning chime is located in the combination meter.

When combination meter receives 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 block)
- 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 21.

When ignition switch is in 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 22 and 23.

Ground is supplied

- to BCM terminal 52
- through grounds M30 and M66,
- to combination meter terminals 1, 24 and 25
- through grounds M30 and M66.

NOTE:

When ignition key warning chime, light warning chime, and seat belt warning chime should be performed at the same time, the priorities for each chime are the following.

1. Seat belt warning chime
2. Light warning chime
3. Ignition key warning chime

IGNITION KEY WARNING CHIME

With the key inserted into the ignition key cylinder, and the ignition switch OFF or ACC, when driver's door is opened, the warning chime will sound.

Power is supplied

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

Ground is supplied

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

Driver side door switch is case grounded.

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

When combination meter receives key warning signal, it sounds warning chime.

LIGHT WARNING CHIME

With the key removed from the ignition key cylinder, the driver's door is opened, 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.]

Signal is supplied

WARNING CHIME

- 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.

NOTE:

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

Ground is supplied

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

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

When combination meter receives 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 47.

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

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

When combination meter receives seat belt warning signal, it sounds warning chime.

CAN Communication

AKS00915

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

AKS00916

Refer to [LAN-4, "CAN Communication Unit"](#) in "LAN SYSTEM".

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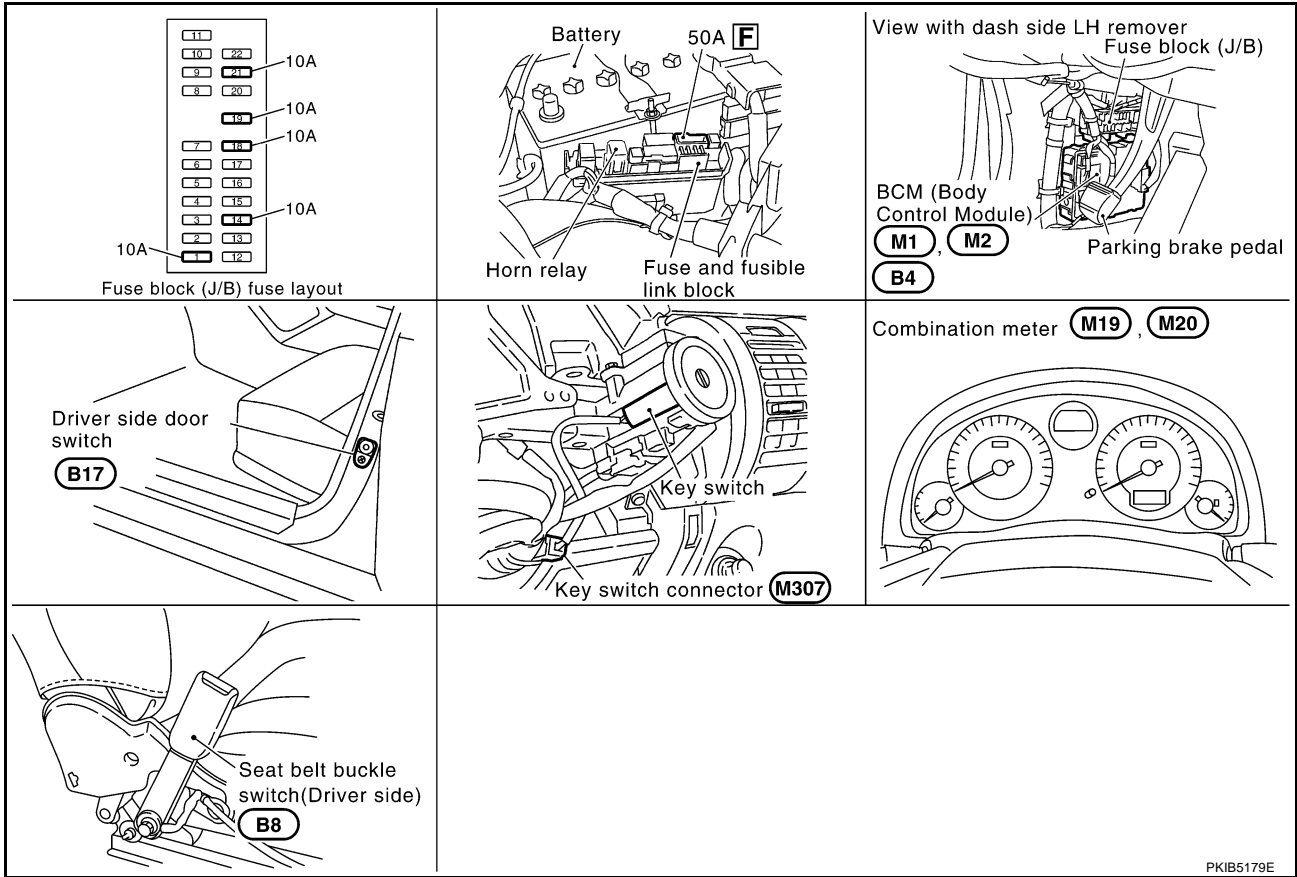
L

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WARNING CHIME

Component Parts and Harness Connector Location

AKS004WP

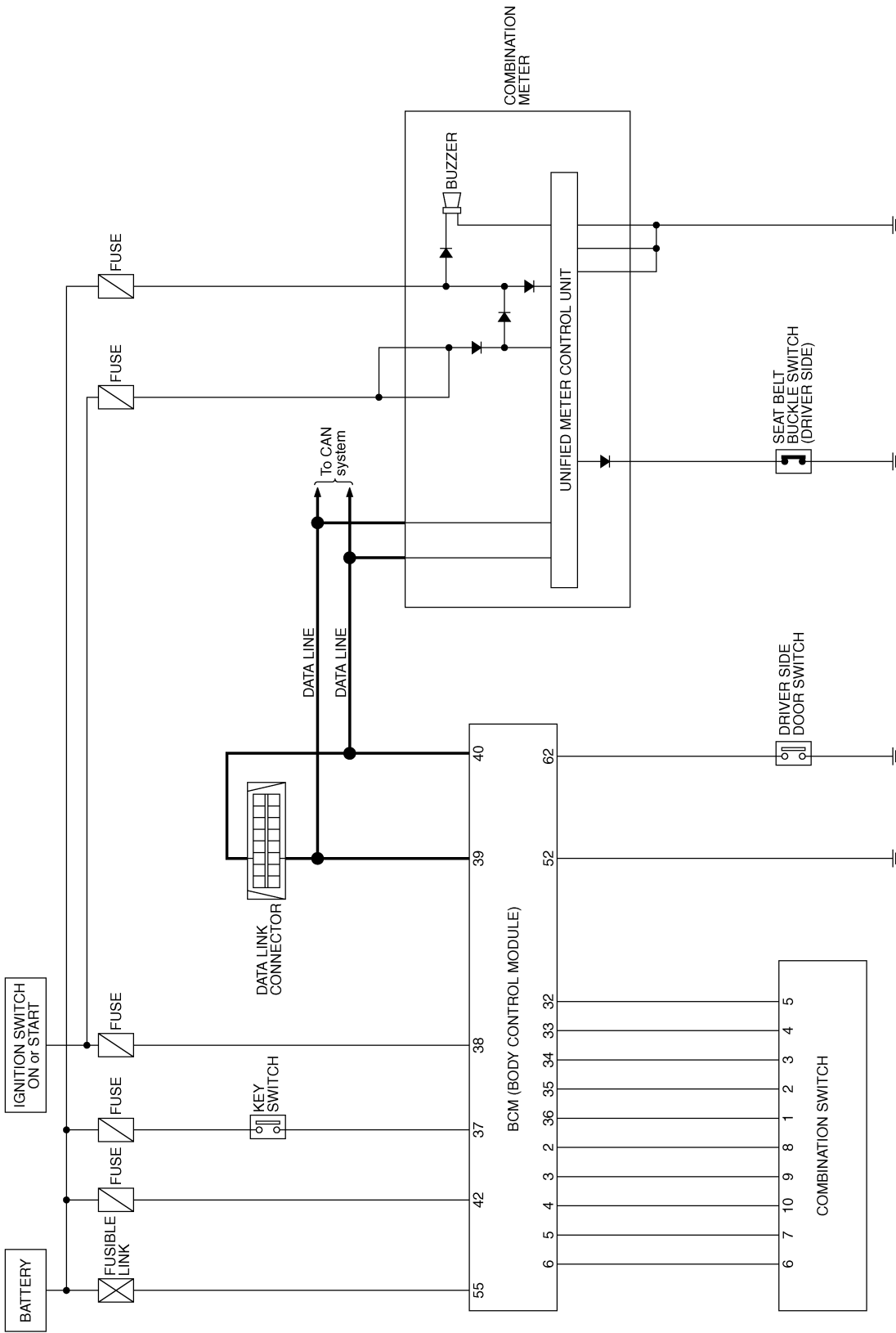


PKIB5179E

WARNING CHIME

Schematic

AKS005H5



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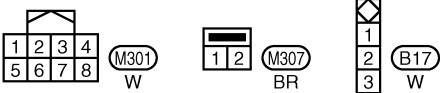
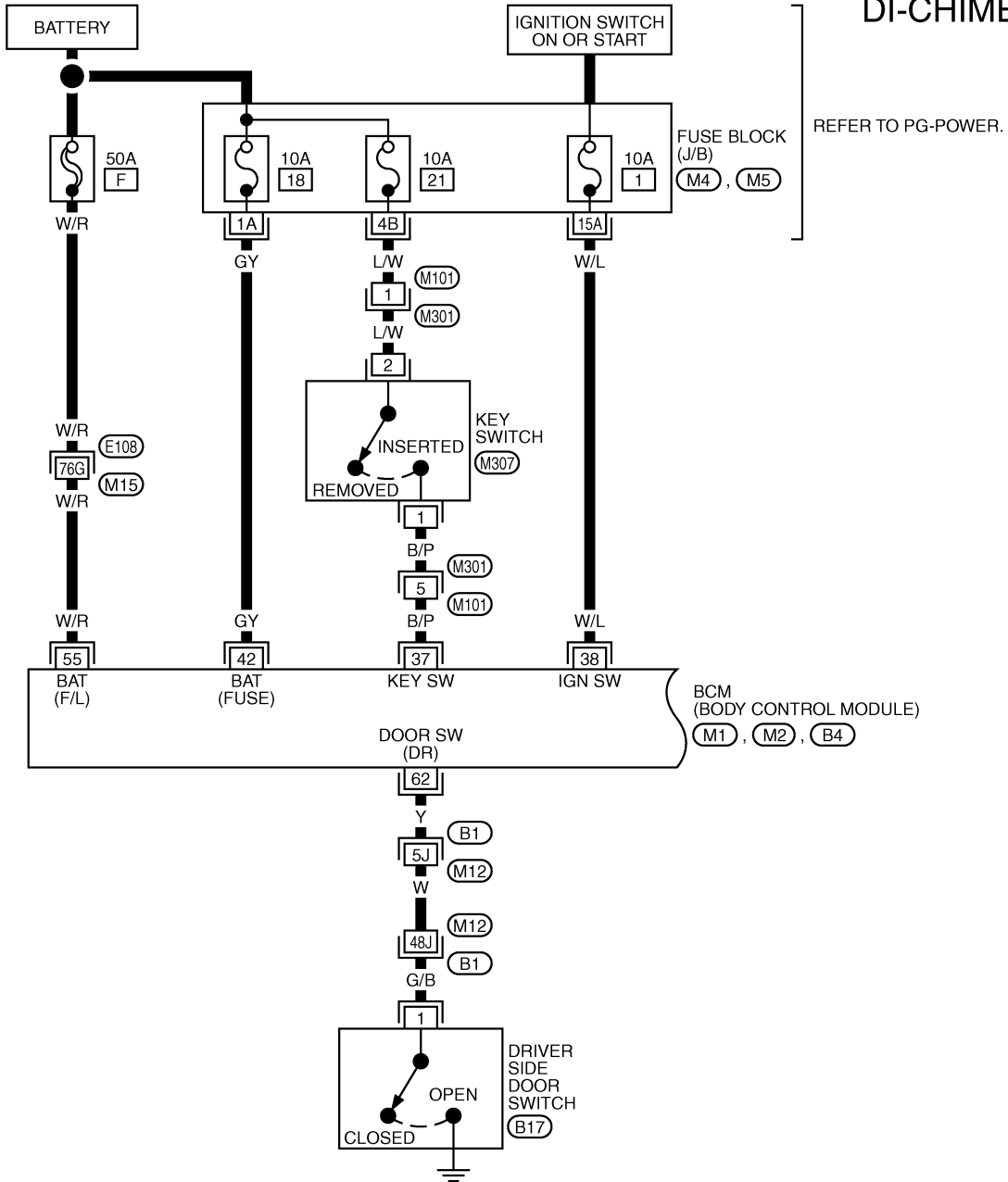
TKWM2166E

WARNING CHIME

Wiring Diagram — CHIME —

AKS004WS

DI-CHIME-01



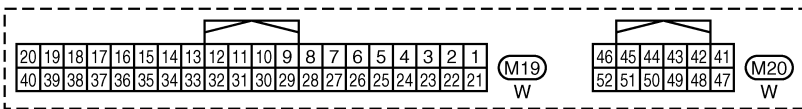
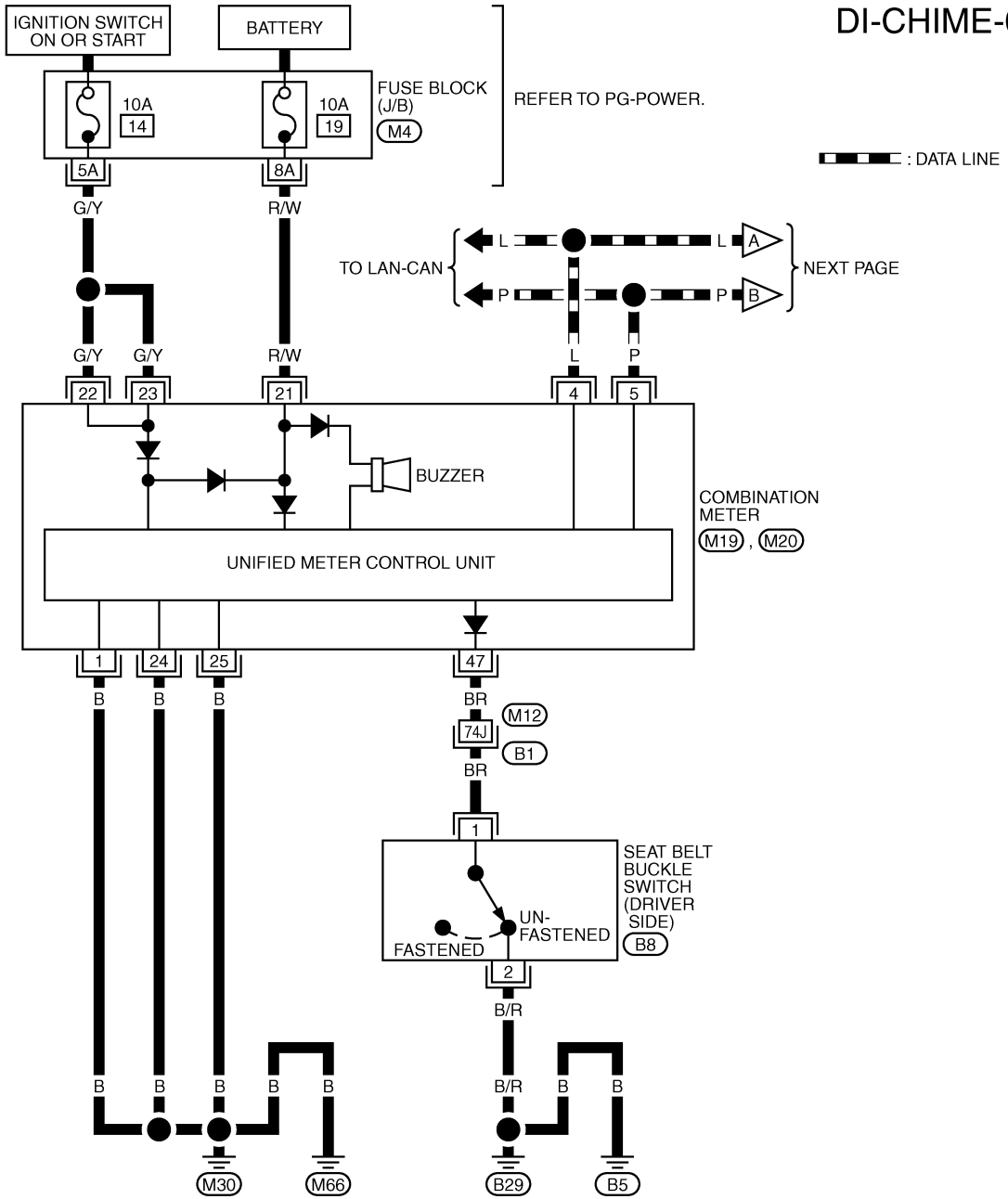
REFER TO THE FOLLOWING.
 (E108), (B1) -SUPER MULTIPLE JUNCTION (SMJ)
 (M4), (M5) -FUSE BLOCK-JUNCTION BOX (J/B)
 (M1), (M2), (B4) -ELECTRICAL UNITS

TKWM2167E

WARNING CHIME

DI-CHIME-02

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REFER TO THE FOLLOWING.

(B1) -SUPER MULTIPLE JUNCTION (SMJ)

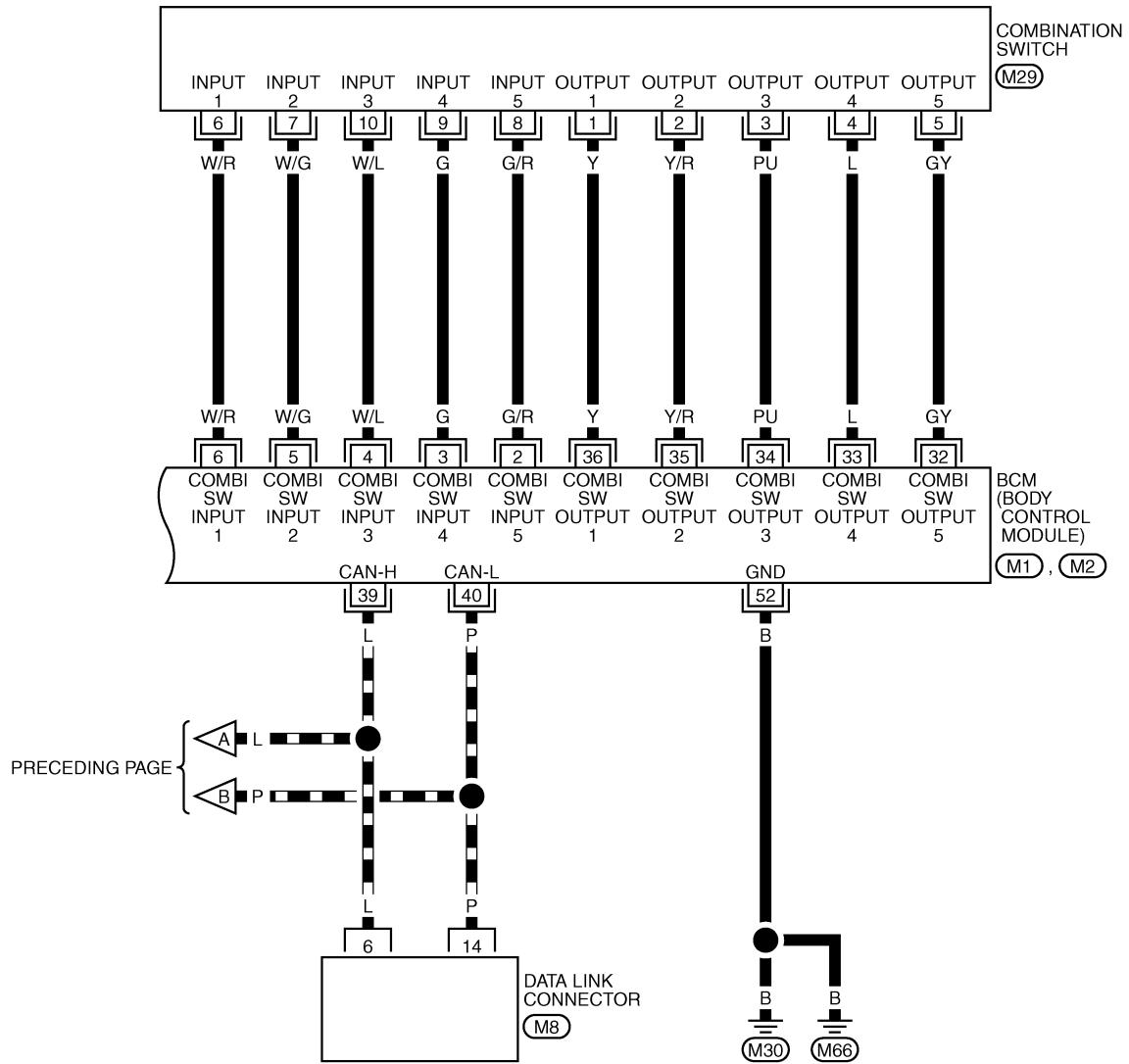
(M4) -FUSE BLOCK-JUNCTION BOX (J/B)

TKWM2168E

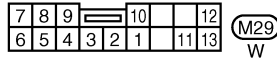
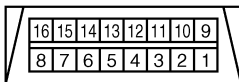
WARNING CHIME

DI-CHIME-03

▬ : DATA LINE



PRECEDING PAGE



REFER TO THE FOLLOWING.
 (M1), (M2) -ELECTRICAL UNITS

WARNING CHIME

Terminals and Reference Value for BCM

AKS004WT

Terminal No.	Wire color	Signal name	Measuring condition		Reference value	
			Ignition switch	Operation or condition		
2	G/R	Combination switch input 5	ON	Lighting, turn, wiper OFF Wiper dial position 4	<p style="text-align: right;">PKIB3468E</p>	
3	G	Combination switch input 4	ON	Lighting, turn, wiper OFF Wiper dial position 4	<p style="text-align: right;">PKIB3469E</p>	
4	W/L	Combination switch input 3				
5	W/G	Combination switch input 2				
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;">PKIB3470E</p>	
33	L	Combination switch output 4	ON	Lighting, turn, wiper OFF Wiper dial position 4	<p style="text-align: right;">PKIB3471E</p>	
34	PU	Combination switch output 3				
35	Y/R	Combination switch output 2				
36	Y	Combination switch output 1				
37	B/P	Key switch signal	OFF	Key is removed	Approx. 0 V	
				Key is inserted	Approx. 12 V	
38	W/L	Ignition switch (ON)	ON	—	Battery voltage	
39	L	CAN H	—	—	—	
40	P	CAN L	—	—	—	
42	GY	Battery power supply (FUSE)	OFF	—	Battery voltage	
52	B	Ground	ON	—	Approx. 0 V	
55	W/R	Battery power supply (F/L)	OFF	—	Battery voltage	
62	Y	Driver side door switch signal	OFF	Driver's door	ON (open)	Approx. 0 V
					OFF (close)	Approx. 12 V

Trouble Diagnosis

AKS004WU

HOW TO PERFORM TROUBLE DIAGNOSIS

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to [DI-38, "System Description"](#) .
3. Referring to trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to [DI-12, "SYMPTOM CHART"](#) .
4. Does the warning chime operate normally? If so, GO TO 5. If not, GO TO 3.
5. INSPECTION END

WARNING CHIME

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

OK or NG

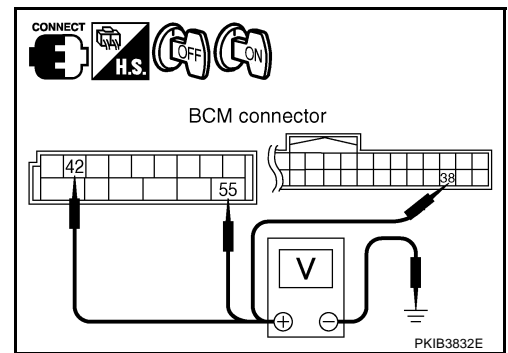
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-4, "POWER SUPPLY ROUTING CIRCUIT"](#).

2. CHECK POWER SUPPLY CIRCUIT

Check voltage between BCM connector and ground.

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



OK or NG

OK >> GO TO 3.

NG >> Check harness between BCM and fuse.

3. CHECK GROUND CIRCUIT

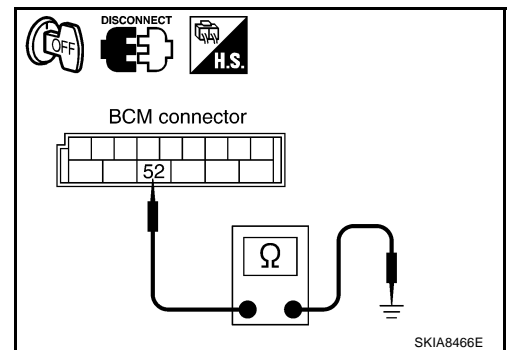
1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between BCM harness connector M2 terminal 52 (B) and ground.

52 (B) – Ground : Continuity should exist.

OK or NG

OK >> INSPECTION END

NG >> Repair harness or connector.



WARNING CHIME

AKS00918

CONSULT-II Function (BCM)

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

DIAGNOSTIC ITEMS DESCRIPTION

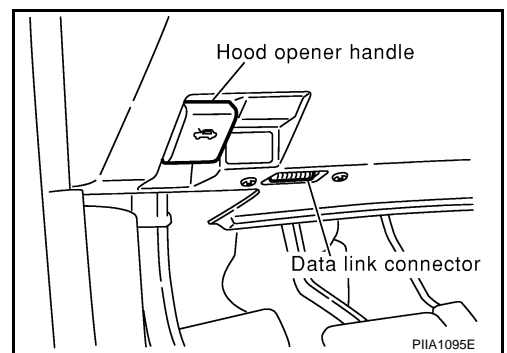
BCM diagnosis position	Diagnosis mode	Description	Reference page
BUZZER	Data monitor	The input data to the BCM control unit is displayed in real time.	DI-48
	Active test	Operation of electrical loads can be checked by sending driving signal to them.	DI-48
BCM	Self-diagnostic	BCM performs self-diagnosis of CAN communication.	DI-49

CONSULT-II BASIC OPERATION PROCEDURE

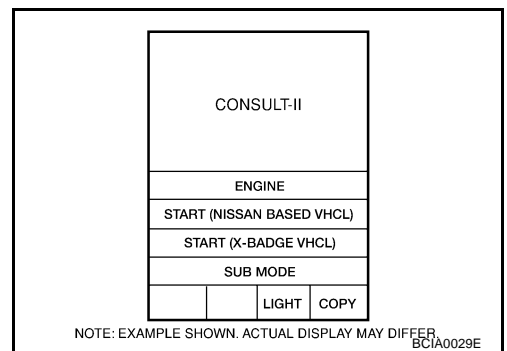
CAUTION:

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.

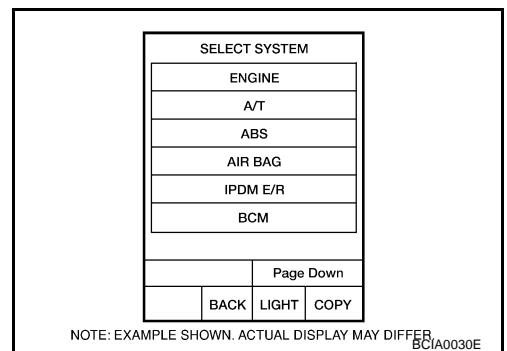
1. With the ignition switch OFF, connect "CONSULT-II" and "CONSULT-II CONVERTER" to the data link connector, and turn the ignition switch ON.



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

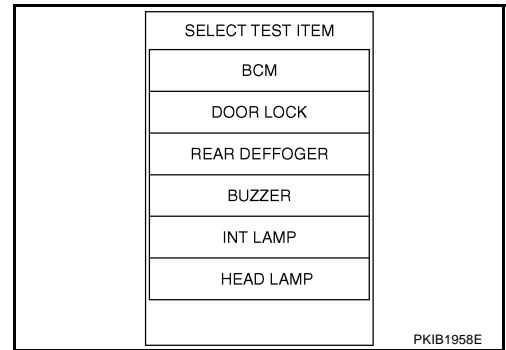


3. Touch "BCM" on "SELECT SYSTEM" screen. If "BCM" is not indicated, go to [GI-38, "CONSULT-II Data Link Connector \(DLC\) Circuit"](#).

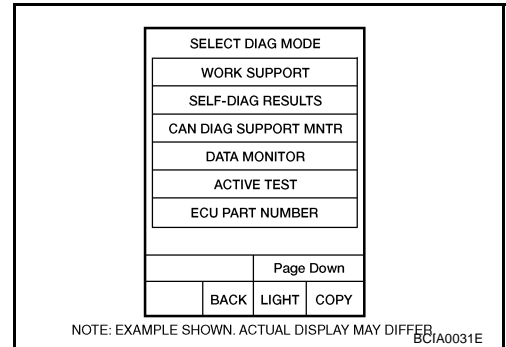


WARNING CHIME

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.

Display Item List

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).
LIGHT SW 1ST	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.

WARNING CHIME

Display Item List

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 TEST	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.

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-2, "Precautions When Using CONSULT-II"](#).

All Warnings Are Not Operated

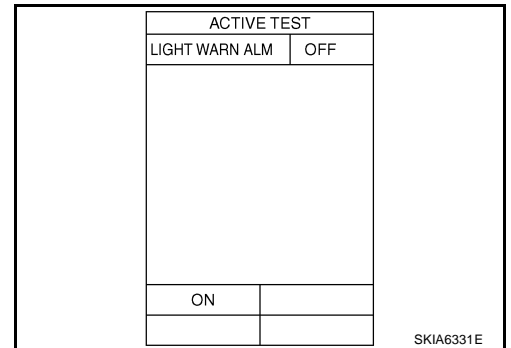
AKS00919

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>>GO TO 3.
 CAN communication>>Check BCM CAN communication system. Go to [BCS-14, "CAN Communication Inspection Using CONSULT-II \(Self-Diagnosis\)"](#)

3. CHECK BATTERY POWER SUPPLY CIRCUIT OF COMBINATION METER

Check battery power supply circuit of combination meter. Refer to [DI-12, "Power Supply and Ground Circuit Inspection"](#).

OK or NG

- OK >> Replace combination meter.
 NG >> Check harness between combination meter and fuse.

WARNING CHIME

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

AKS009IA

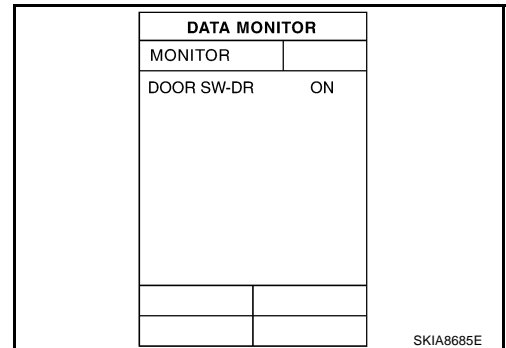
1. CHECK BCM INPUT SIGNAL

① With CONSULT-II

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

"DOOR SW-DR"

When driver side door is opened : ON
When driver side door is closed : OFF

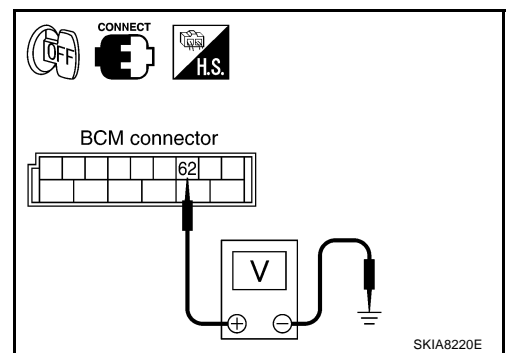


② Without CONSULT-II

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

62 (Y) – Ground

When driver side door is opened : Approx. 0 V
When driver side door is closed : Approx. 12 V



OK or NG

- OK >> Replace BCM. Refer to [BCS-15, "Removal and Installation of BCM"](#).
- NG >> GO TO 2.

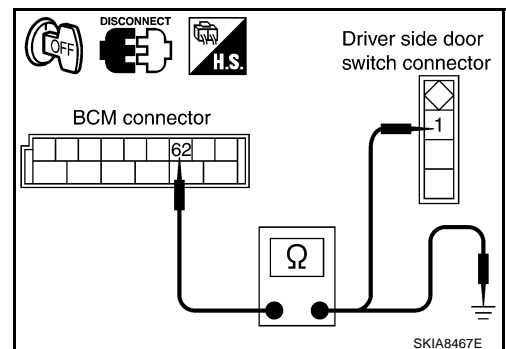
2. CHECK DOOR SWITCH CIRCUIT

1. Disconnect BCM connector and driver side door switch connector.
2. Check harness continuity between BCM harness connector B4 terminal 62 (Y) and driver side door switch harness connector B17 terminal 1 (G/B).

62 (Y) – 1 (G/B) : Continuity should exist.

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

62 (Y) – Ground : Continuity should not exist.



OK or NG

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

3. CHECK DOOR SWITCH

Check driver side door switch.

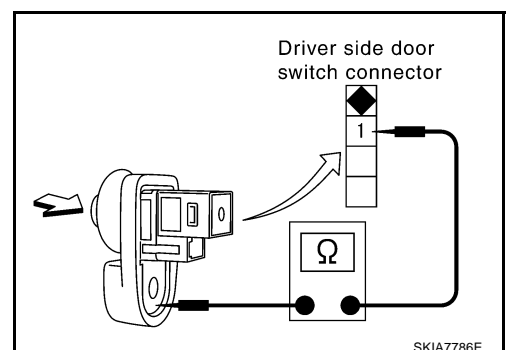
1 – Door switch case ground

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 driver side door switch.



WARNING CHIME

AKS0091B

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-42, "Wiring Diagram — CHIME —"](#).

Is the fuse blown?

YES >> Replace fuse. Be sure to repair the cause of the malfunction 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-49, "All Warnings Are Not Operated"](#) or [DI-50, "Key Warning Chime and Light Warning Chime Does Not Operate \(Seat Belt Warning Chime Does Operate\)"](#).

3. CHECK KEY SWITCH INPUT SIGNAL

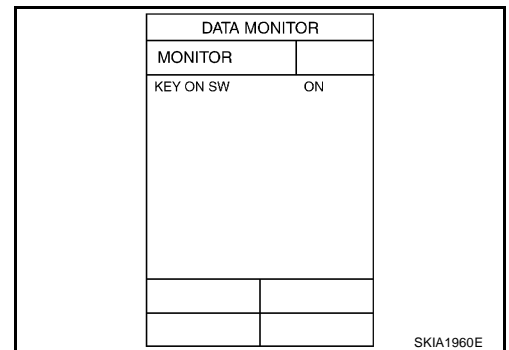
 With CONSULT-II

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

"KEY ON SW"

**When key is inserted to ignition key : ON
cylinder**

**When key is removed from ignition key : OFF
cylinder**



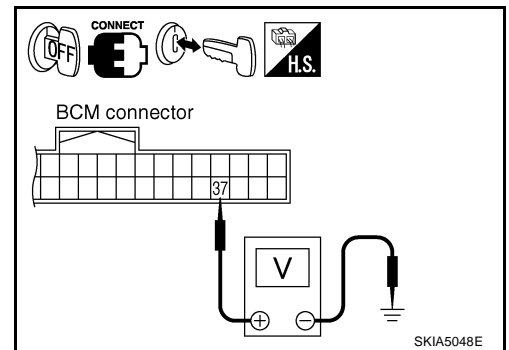
 Without CONSULT-II

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

37 (B/P) – Ground

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

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



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 M307 terminals 1 and 2.

1 – 2

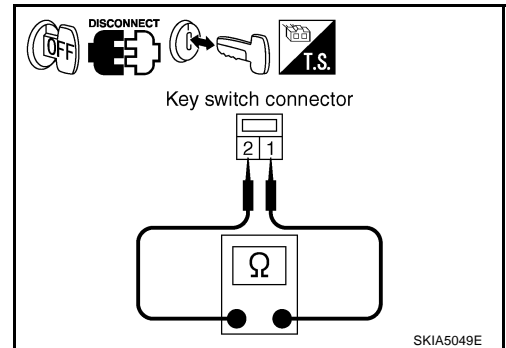
When key is inserted to ignition key cylinder : Continuity should exist.

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 M307 terminal 1 (B/P).

37 (B/P) – 1 (B/P) : Continuity should exist.

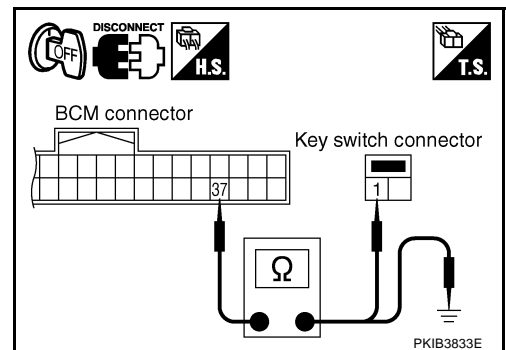
3. Check continuity between BCM harness connector M1 terminal 37 (B/P) and ground.

37 (B/P) – Ground : Continuity should not exist.

OK or NG

OK >> GO TO 6.

NG >> Repair harness or connector.



6. CHECK KEY SWITCH INPUT SIGNAL

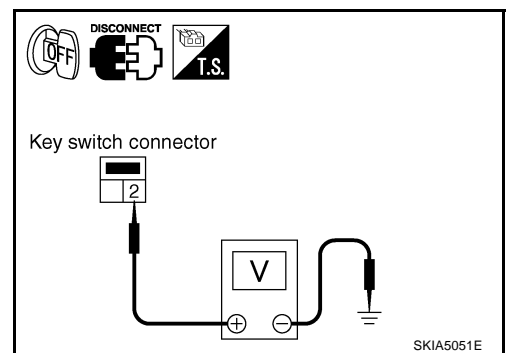
Check voltage between key switch harness connector M307 terminal 2 (L/W) and ground.

2 (L/W) – Ground : Battery voltage

OK or NG

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

NG >> Check continuity between key switch and fuse.



Light Warning Chime Does Not Operate

1. CHECK WARNING CHIME OPERATION

Check except for headlamp warning chime operation.

Does warning chime sound?

YES >> GO TO 2.

NO >> Go to [DI-49, "All Warnings Are Not Operated"](#). Check the chime under conditions in exception of light warning chime operation. Refer to [DI-50, "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 "LIGHT SW 1ST" when the lighting switch is operated.

"LIGHT SW 1ST"

Lighting switch (1st position) : ON

Lighting switch (OFF) : OFF

OK or NG

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

NG >> Check lighting switch. Refer to [LT-133, "Combination Switch Inspection"](#).

DATA MONITOR	
MONITOR	
LIGHT SW 1ST	OFF

PKIB1956E

Seat Belt Warning Chime Does Not Operate

AKS009D

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-49, "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.

"BUCKLE SW"

When seat belt is fastened : OFF

When seat belt is unfastened : ON

OK or NG

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

NG >> GO TO 3.

DATA MONITOR	
MONITOR	
BUCKLE SW	ON

SKIA8674E

3. COMBINATION METER INPUT SIGNAL

1. Turn ignition switch ON.

2. Check voltage between combination meter harness connector M20 terminal 47 (BR) and ground.

47 (BR) – Ground

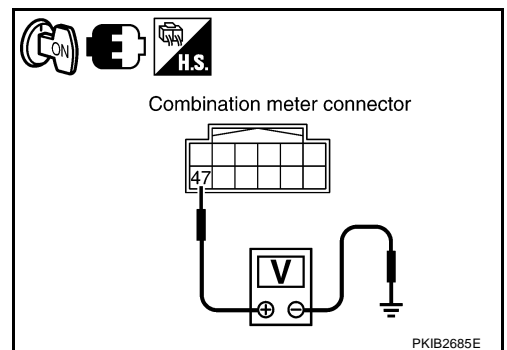
When seat belt is fastened : Approx. 12 V

When seat belt is unfastened : Approx. 0 V

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.

1 – 2

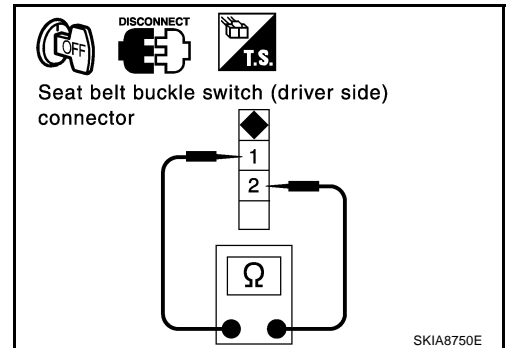
When seat belt is fastened : Continuity should not exist.

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 M20 terminal 47 (BR) and seat belt buckle switch (driver side) harness connector B8 terminal 1 (BR).

47 (BR) – 1 (BR) : Continuity should exist.

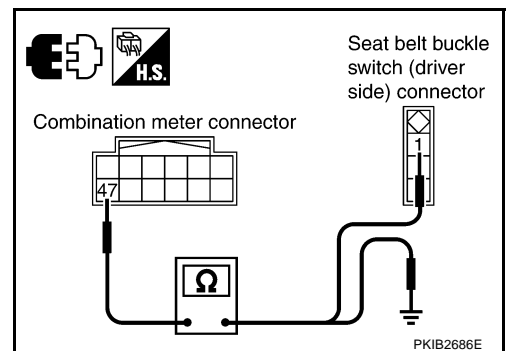
3. Check continuity between combination meter harness connector M19 terminal 1 (BR) and ground.

47 (BR) – 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

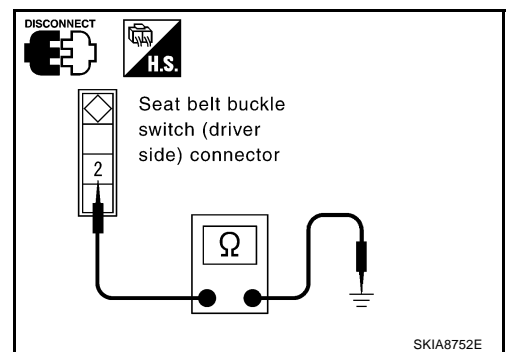
Check continuity between seat belt buckle switch (driver side) harness connector B8 terminal 2 (B/R) and ground.

2 (B/R) – Ground : Continuity should exist.

OK or NG

OK >> Replace combination meter.

NG >> Repair harness or connector.



CLOCK

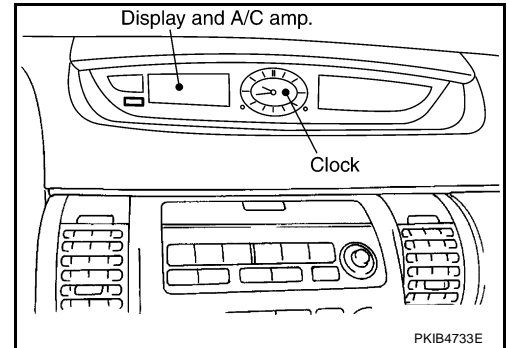
CLOCK

PPF:25820

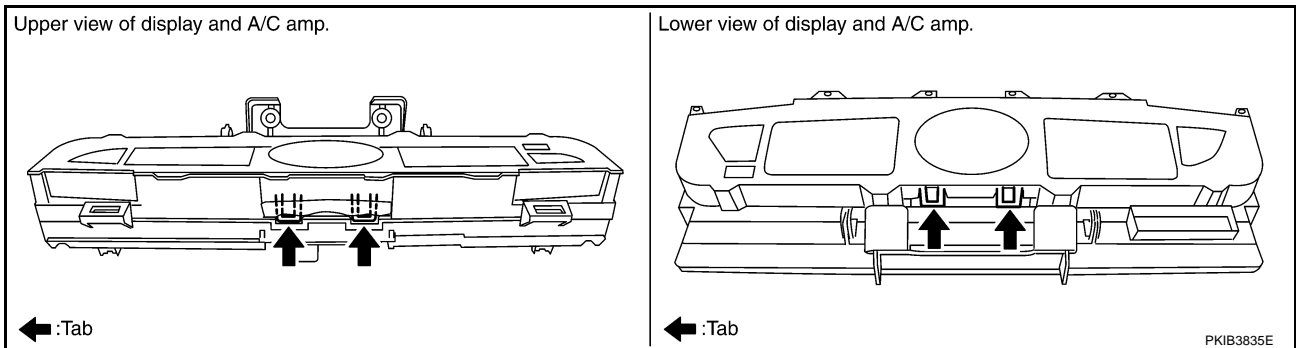
Removal and Installation of Clock REMOVAL

AKS004X2

1. Remove the display and A/C amp. and clock assembly. Refer to [ATC-119, "Removal and Installation of Display and A/C Auto Amp."](#) .



2. Disconnect clock connector.
3. Disengage tabs (4), and remove clock.



INSTALLATION

Installation is the reverse order of removal.

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

CLOCK
