SECTION DI
DRIVER INFORMATION SYSTEM

CONTENTS

PRECAUTIONS

PFP:00001

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

EKS006SM

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

EKS006SN

When reading wiring diagrams, refer to the following:

- GI-14, "How to Read Wiring Diagrams"
- PG-2, "POWER SUPPLY ROUTING" for power distribution circuit

When performing trouble diagnosis, refer to the following:

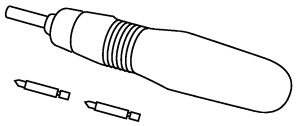
- GI-10, "HOW TO FOLLOW TEST GROUPS IN TROUBLE DIAGNOSES"
- GI-26, "How to Perform Efficient Diagnosis for an Electrical Incident"

PREPARATION

PFP:00002

Commercial Service Tools

EKS007AB

Tool name	Description
Power tool  PBIC0191E	Loosening bolts and nuts

COMBINATION METERS

PFP:24814

System Description

EKS00GCI

UNIFIED CONTROL METER

- Speedometer, odo/trip meter, tachometer, fuel gauge and water temperature gauge are controlled totally by control unit built in 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, A/T indicator and ICC system display segments can be checked in self-diagnosis mode.
- Meter/gauge can be checked in self-diagnosis mode.

POWER SUPPLY AND GROUND CIRCUIT

Power is supplied at all times

- through 10A fuse [No. 6, located in the fuse block (J/B) No. 1]
- to combination meter terminal 57.

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

- through 10A fuse [No. 9, located in the fuse block (J/B) No. 1]
- to combination meter terminal 59.

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

- through 10A fuse [No. 21, located in the fuse block (J/B) No. 1]
- to combination meter terminal 1.

Ground is supplied

- to combination meter terminals 60, 61 and 62
- through grounds M24 and M114.

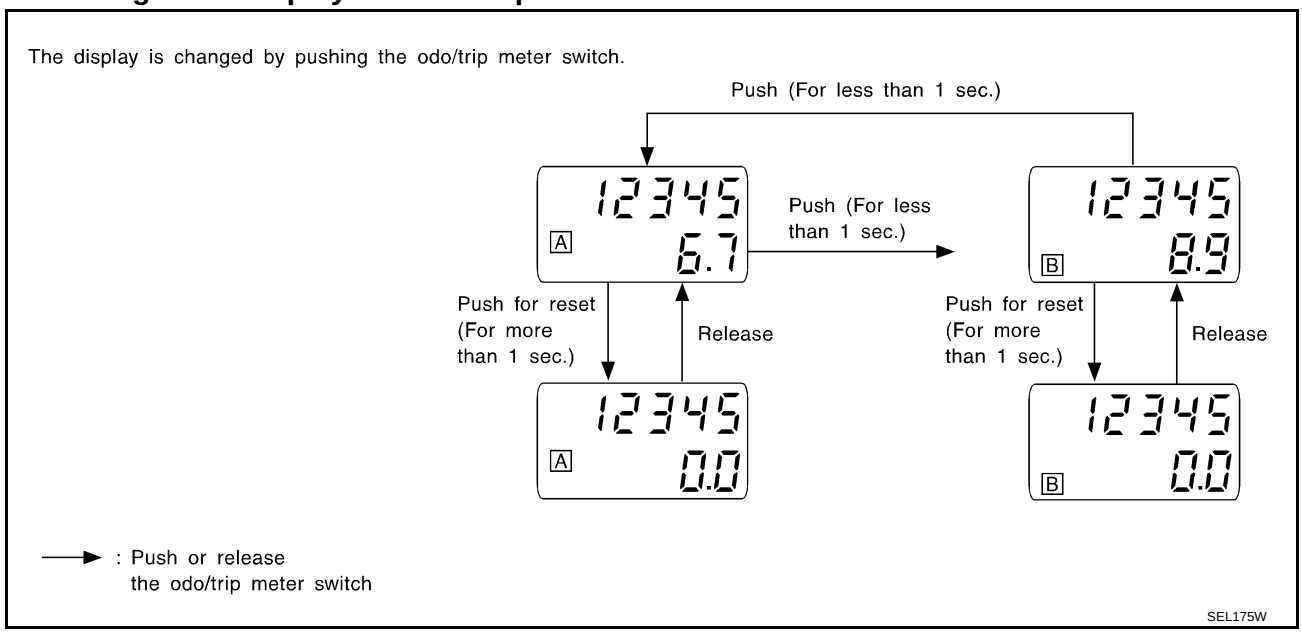
SPEEDOMETER

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

ODO/TRIP METER

- The combination meter processes the vehicle speed signal from VDC/TCS/ABS control unit with CAN communication line and the memory signals from the meter memory circuit. Then the mileage is displayed.
- Operating the odo/trip meter switch allows switching the mode in the following order.

How to Change The Display For Odo/trip Meter



- The odo/trip meter display switching and trip display resetting can be identified by the time from pressing the odo/trip meter switch to releasing it.
- When resetting with trip A displayed, only trip A display is reset. (The same way for trip B.)

TACHOMETER

The tachometer indicates engine speed in revolution per minutes (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 resistor signal supplied

- to combination meter terminal 30
- from terminal 5 of the fuel level sensor unit
- through terminal 6 of the fuel level sensor unit and
- through combination meter terminal 29.

CAN Communication

EKS00GCJ

SYSTEM DESCRIPTION

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.

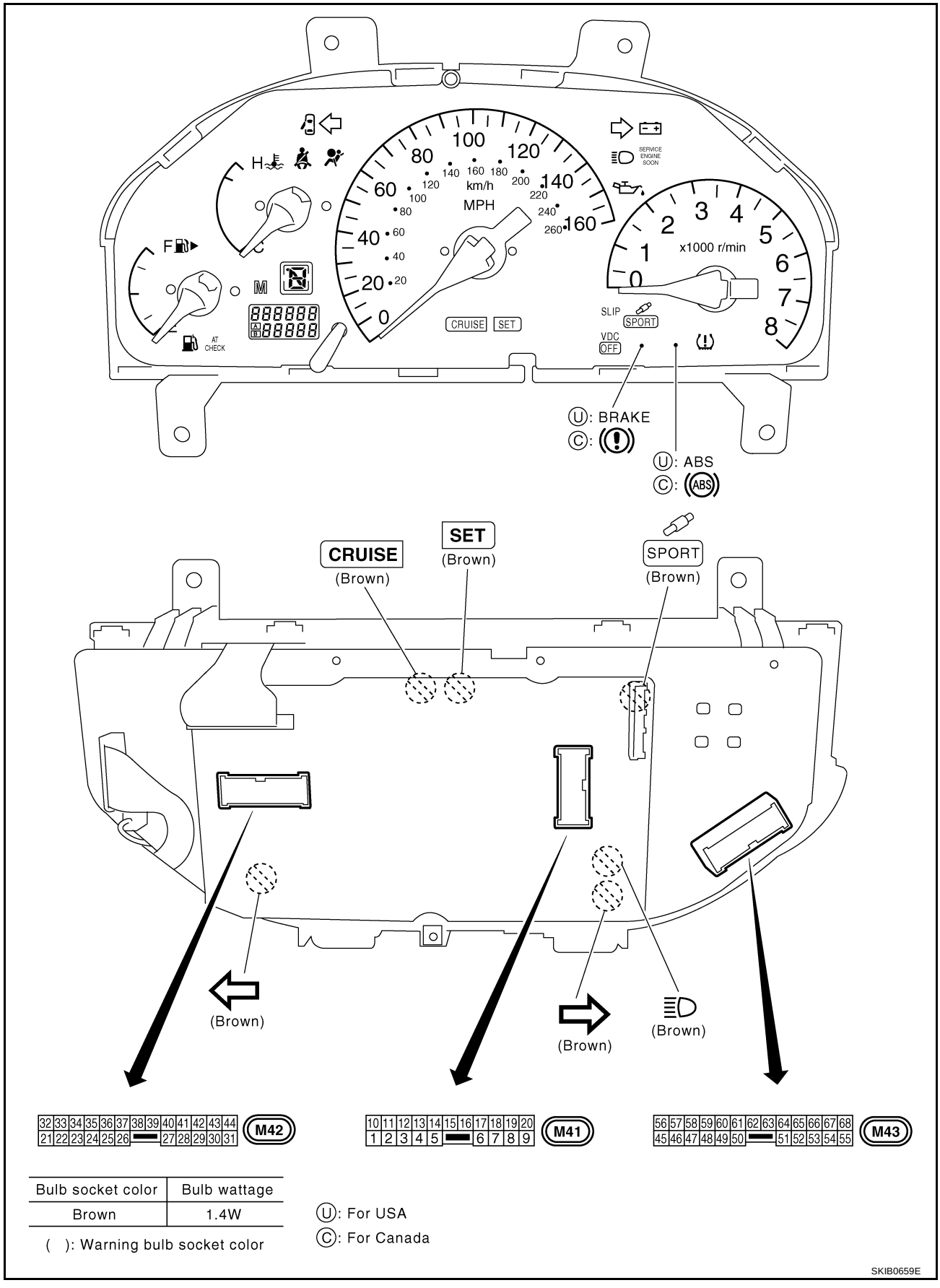
CAN COMMUNICATION UNIT

Refer to LAN-36, "CAN Communication Unit" in “LAN SYSTEM”.

Arrangement of Combination Meter

EKS00GCK

WITHOUT ICC SYSTEM



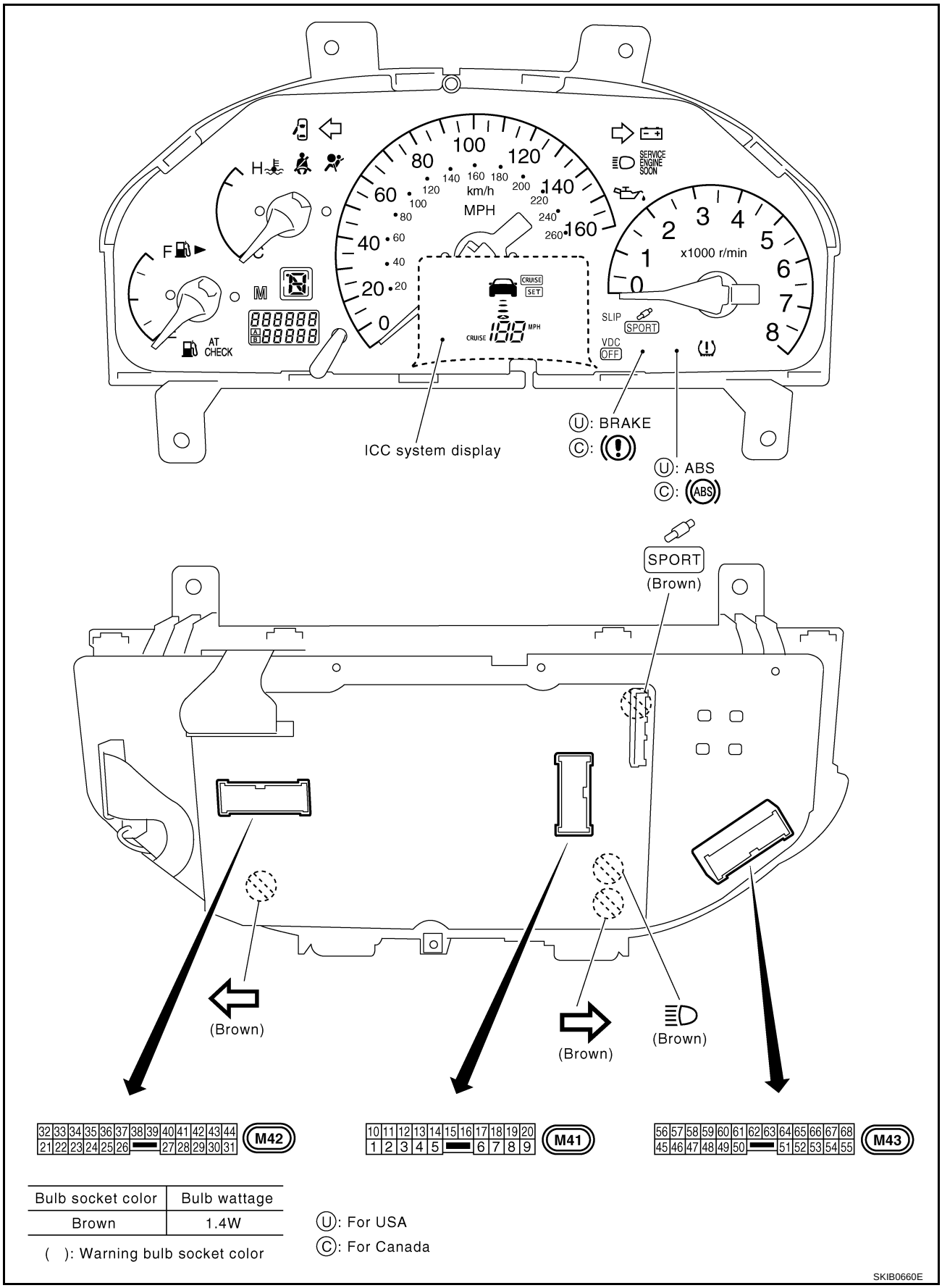
Bulb socket color	Bulb wattage
Brown	1.4W

( ): Warning bulb socket color

Ⓤ: For USA
Ⓒ: For Canada

SKIB0659E

WITH ICC SYSTEM



Bulb socket color	Bulb wattage
Brown	1.4W

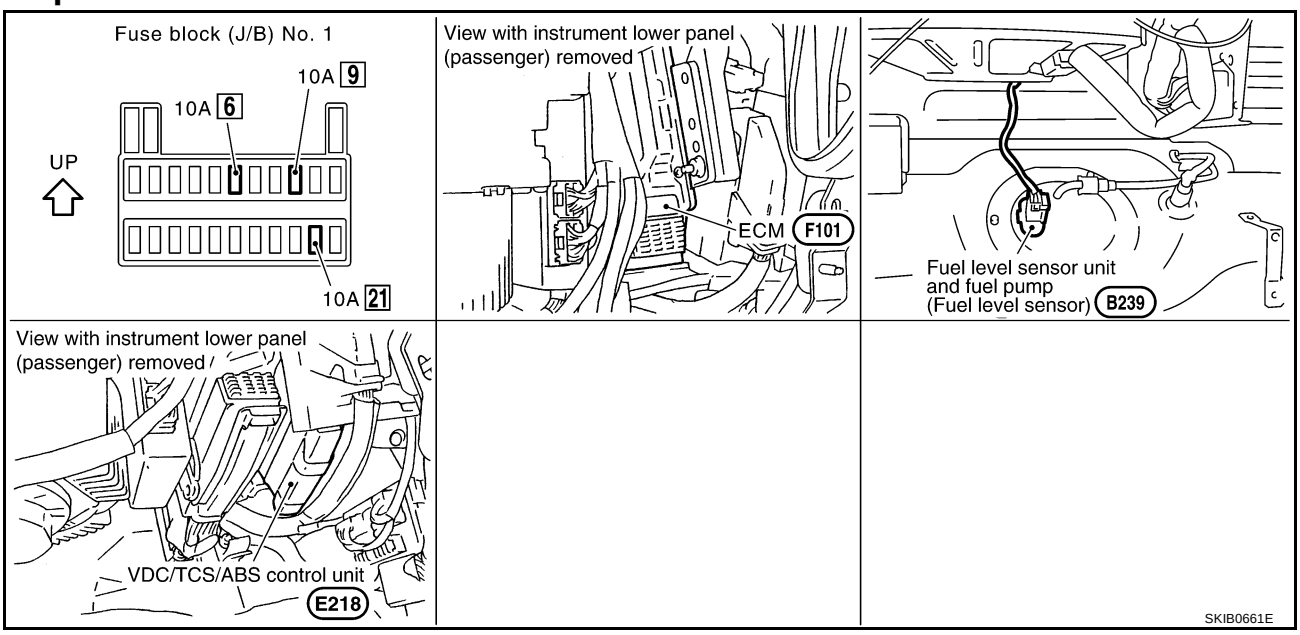
( ): Warning bulb socket color

Ⓤ: For USA
Ⓒ: For Canada

SKIB0660E

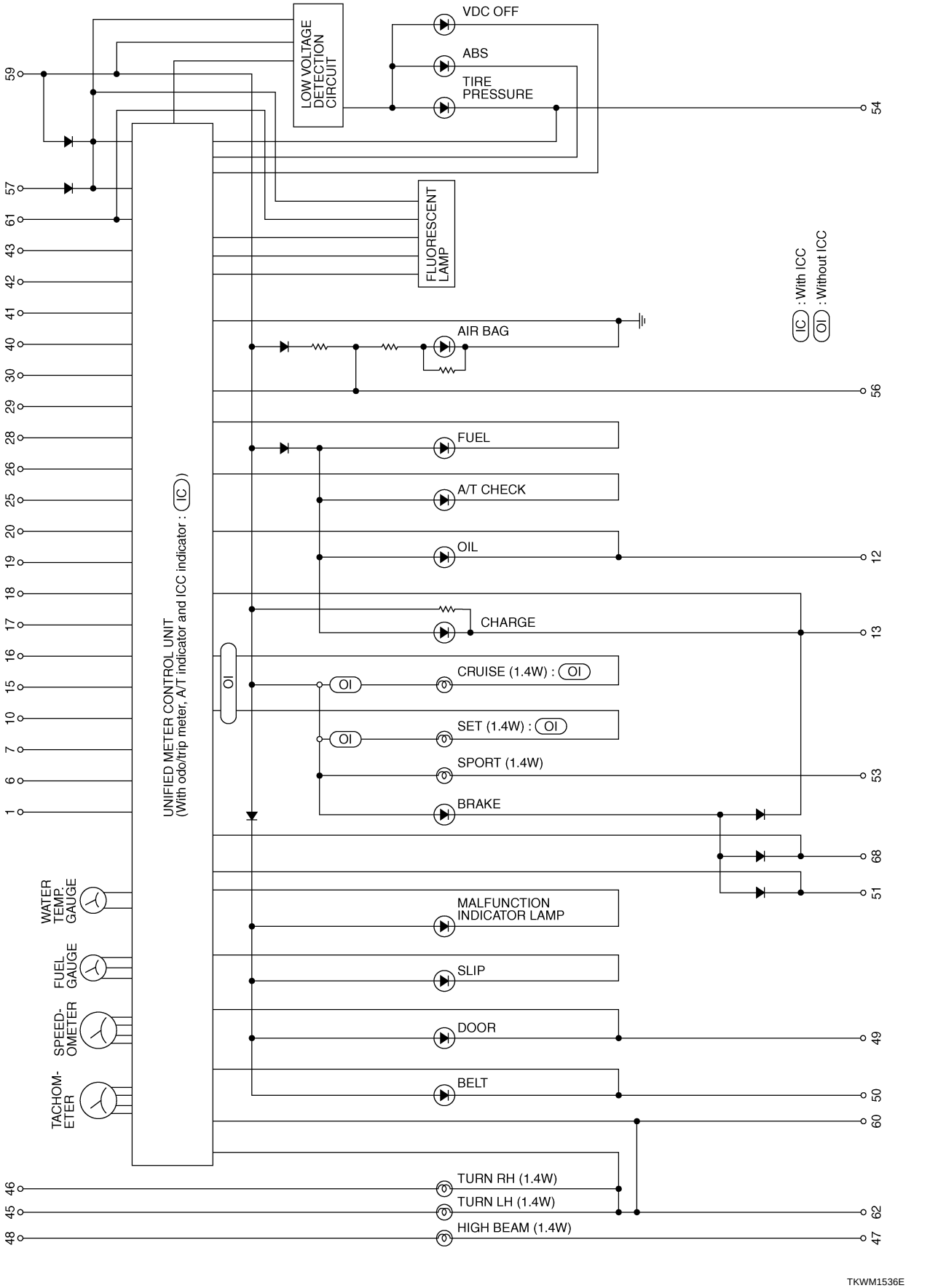
Component Parts and Harness Connector Location

EKS00GCL



Schematic

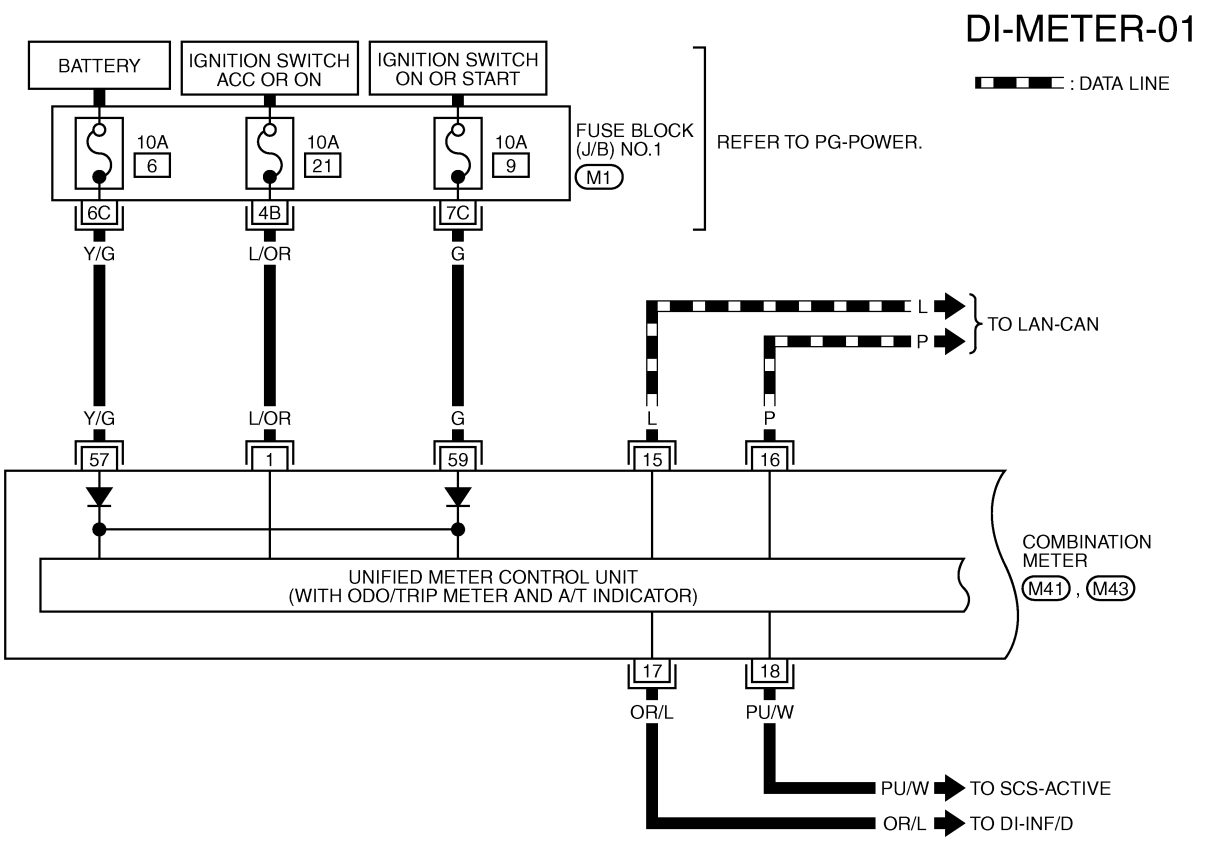
EKS00GCM

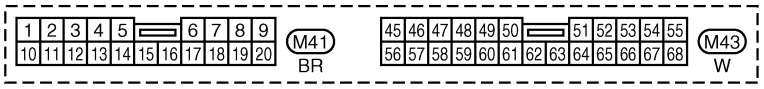


TKWM1536E

Wiring Diagram — METER —

EKS00GCN

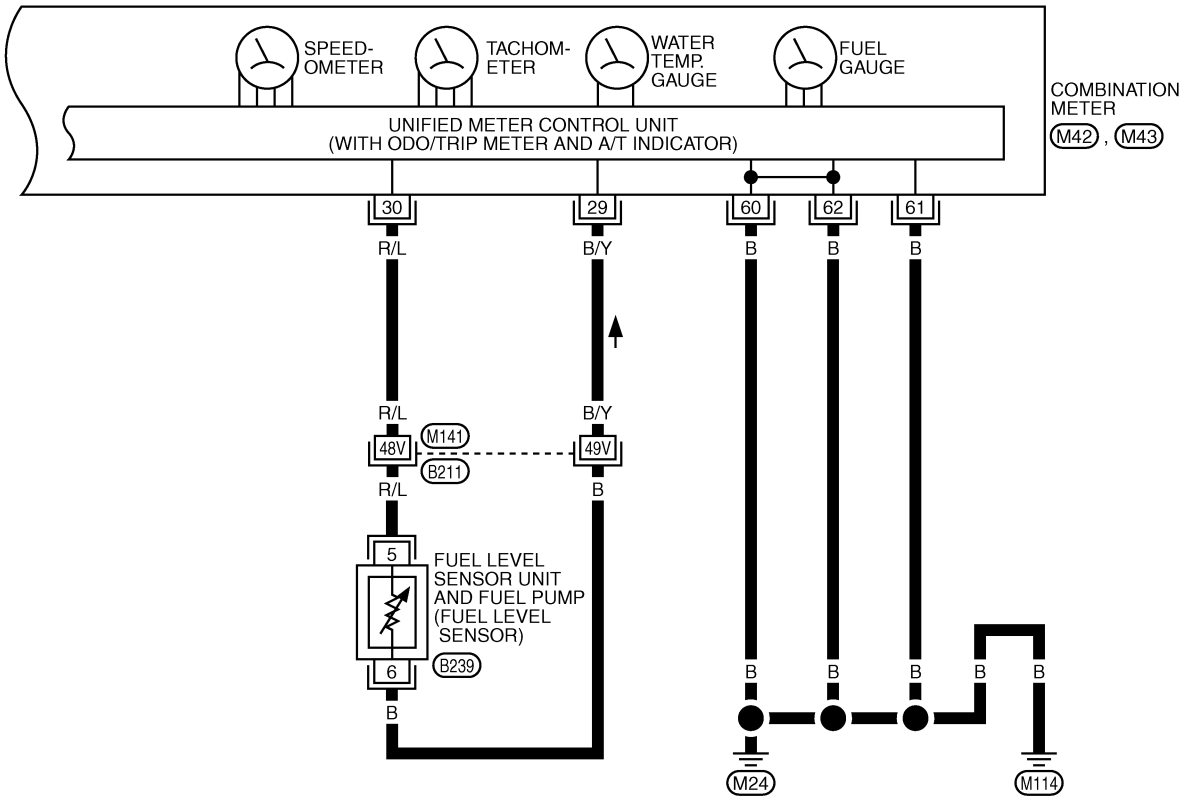


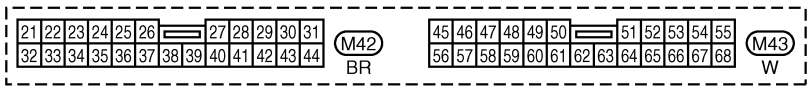


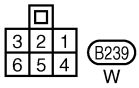
REFER TO THE FOLLOWING.
M1 -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

TKWM1537E

DI-METER-02





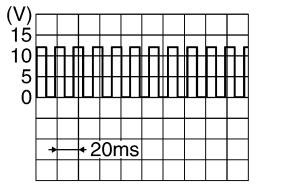
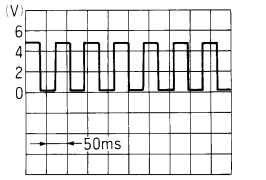


REFER TO THE FOLLOWING.
B211 -SUPER MULTIPLE JUNCTION (SMJ)

TKWM1538E

Terminals and Reference Value for Combination Meter

EKS00GCO

Terminal No.	Wire color	Item	Condition		Reference value (V)
			Ignition switch	Operation or condition	
1	L/OR	Ignition switch ACC or ON	ACC	–	Battery voltage
15	L	CAN H	–	–	–
16	P	CAN L	–	–	–
17	OR/L	Vehicle speed signal (8-pulse)	ON	Speedometer operated [When vehicle speed is approx. 40 km/h (25 MPH)]	 PKIA1935E
18	PU/W	Vehicle speed signal (2-pulse)	ON	Speedometer operated [When vehicle speed is approx. 40 km/h (25 MPH)].	 ELF1080D
29	B/Y	Fuel level sensor ground	–	–	–
30	R/L	Fuel level senor signal	ON	–	Refer to DI-22, "CHECK FUEL LEVEL SENSOR UNIT" .
57	Y/G	Battery power supply	OFF	–	Battery voltage
59	G	Ignition switch ON or START	ON	–	Battery voltage
60	B	Ground	ON	–	Approx. 0
61					
62					

Self-Diagnosis Mode of Combination Meter

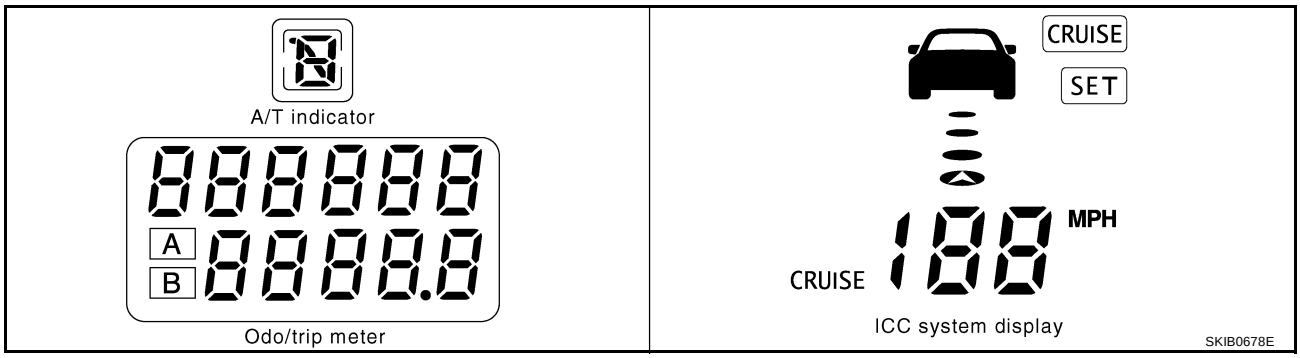
EKS00GCP

SELF–DIAGNOSIS MODE FUNCTION

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

OPERATION PROCEDURE

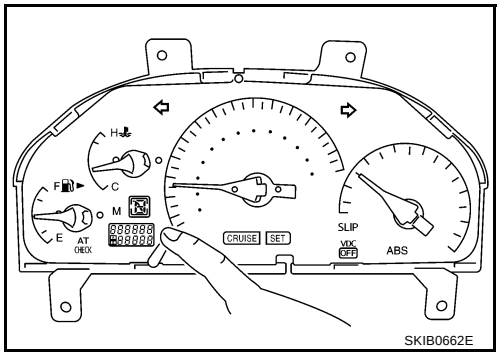
1. Turn ignition switch ON, and switch the odo/trip meter to “trip A” or “trip B”.
   NOTE:
   If the diagnosis function is activated with the trip meter A displayed, the mileage on the trip meter A is reset to 0.0 km. (The same way for trip B.)
2. Turn ignition switch OFF.
3. While pushing the odo/trip meter switch, turn ignition switch ON again.
4. 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, A/T indicator, ICC system display.
   And simultaneously the low-fuel warning lamp illuminate.
   At this time, the unified meter control unit is turned to diagnosis mode.



NOTE:

- If any of the segments is not displayed, replace combination meter.
- The following lamps may illuminate in self-diagnosis mode:
  Malfunction indicator lamp, ASCD indicator lamp (SET lamp, CRUSE lamp), A/T CHECK indicator lamp, ABS warning lamp, VDC OFF indicator lamp and SLIP indicator lamp.

7. Push the odo/trip meter switch. Indication of each meter/gauge should be as shown in the right during pushing odo/trip meter switch if there is no malfunctioning. (At this time, the low-fuel warning lamp goes off).



Trouble Diagnosis

EKS00GCQ

HOW TO PROCEED WITH TROUBLE DIAGNOSIS

1. Confirm the symptom or customer complaint.
2. Perform the preliminary check. Refer to DI-17, "PRELIMINARY CHECK" .
3. According to the trouble diagnosis chart, repair or replace the cause of the symptom. Refer to DI-18, "SYMPTOM CHART" .
4. Does the meter operate normally? If so, GO TO 5. If not, GO TO 2.
5. INSPECTION END

PRELIMINARY CHECK

1. CHECK WARNING LAMPS

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 >> GO TO 3.

2. CHECK SELF-DIAGNOSIS MODE OPERATION

Perform combination meter self-diagnosis. Refer to DI-16, "OPERATION PROCEDURE" .

Can diagnosis mode be activated?

OK >> GO TO 4.
NG >> GO TO 3.

3. CHECK POWER SUPPLY AND GROUND CIRCUIT

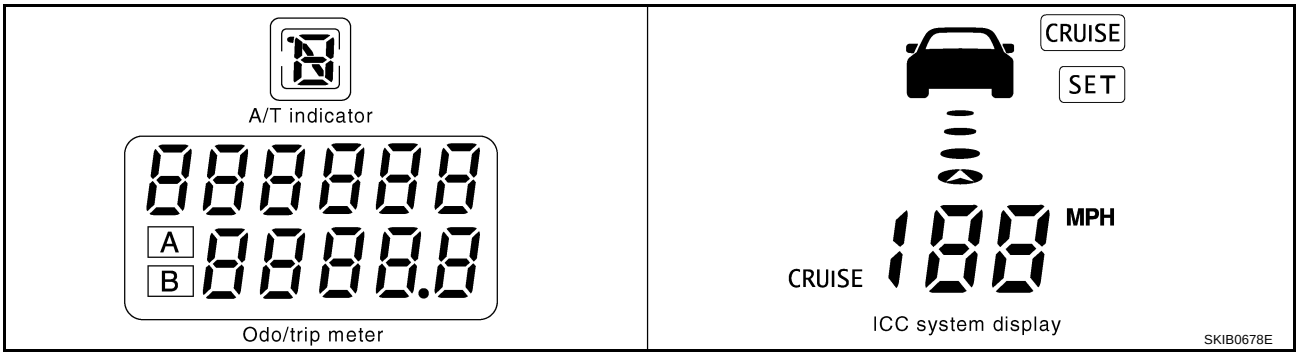
Check power supply and ground circuit. Refer to DI-18, "Power Supply and Ground Circuit Inspection" .

OK or NG

OK >> Replace combination meter.
NG >> Repair as need.

4. CHECK SEGMENTS

Check odo/trip meter segment, A/T indicator segment and ICC system display segment.



Do all segments illuminate?

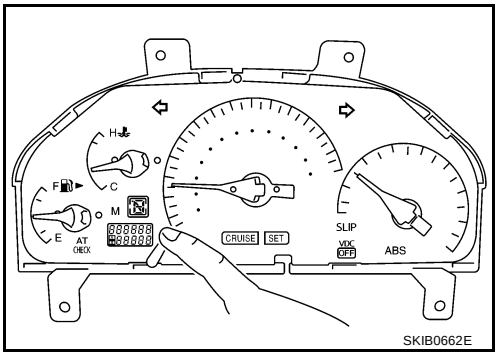
YES >> GO TO 5.
NO >> Replace combination meter.

5. CHECK SELF-DIAGNOSIS MODE

Check meter/gauge operation in self-diagnosis mode. Refer to DI-16, "OPERATION PROCEDURE" .

OK or NG

OK >> INSPECTION END
NG >> Replace combination meter.



SYMPTOM CHART

Symptom	Possible cause
Speedometer and odo/trip meter indication is irregular.	Refer to DI-19, "Vehicle Speed Signal Inspection" .
Tachometer indication is malfunction.	Refer to DI-19, "Engine Speed Signal Inspection" .
Water temperature gauge indication is malfunction.	Refer to DI-19, "Engine Coolant Temperature Signal Inspection" .
Low-fuel warning lamp indication is irregular.	Refer to DI-20, "Fuel Level Sensor Signal Inspection" .
Fuel gauge indication is malfunction.	
ICC system display is malfunction.	Refer to DI-22, "ICC System Display Does Not Illuminate" .
A/T indicator is malfunction.	Refer to DI-54, "A/T Indicator Does Not Illuminate" .

Power Supply and Ground Circuit Inspection

EKS00GCR

1. CHECK FUSE

Check for blown combination meter fuses.

Unit	Power source	Fuse No.
Combination meter	Battery	6
	Ignition switch ON or START	9
	Ignition switch ACC or ON	21

OK or NG

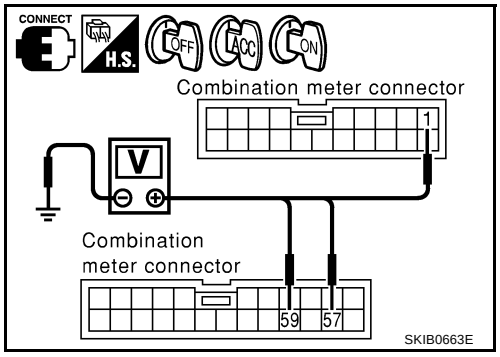
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to PG-2, "POWER SUPPLY ROUTING" .

2. CHECK POWER SUPPLY CIRCUIT

Check voltage between combination meter harness connector terminals and ground.

Terminals			Ignition switch position		
(+)		(–)	OFF	ACC	ON
Connector	Terminal (Wire color)				
M43	57 (Y/G)	Ground	Battery voltage	Battery voltage	Battery voltage
M41	1 (L/OR)		0 V	Battery voltage	Battery voltage
M43	59 (G)		0 V	0 V	Battery voltage



OK or NG

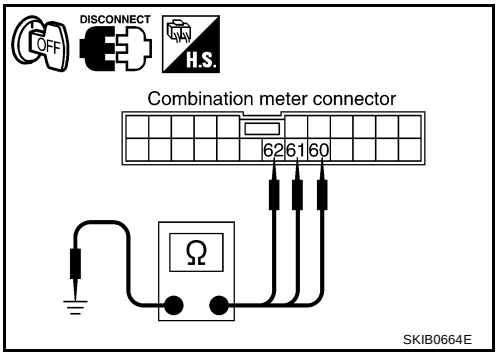
OK >> GO TO 3.

NG >> Check harness between combination meter and fuse.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter connector.
3. Check continuity between combination meter harness connector M43 terminals 60 (B), 61 (B), 62 (B) and ground.

60 (B) – Ground
61 (B) – Ground : Continuity should
62 (B) – Ground



OK or NG

OK >> Power supply and ground circuit are OK.
NG >> Check ground harness.

Vehicle Speed Signal Inspection

EKS00GCS

1. CHECK VDC/TCS/ABS CONTROL UNIT SYSTEM

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

OK or NG

OK >> Replace combination meter.
NG >> Check VDC/TCS/ABS control unit.

Engine Speed Signal Inspection

EKS00GCT

1. CHECK VISUAL

At the engine start, the pointer on the tachometer fluctuates.

Is the fluctuation acceptable?

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

2. CHECK ENGINE SPEED

Compare the engine speed and the values indicated in tachometer.

Does the engine speed correspond to the speed indicated?

YES >> Tachometer is OK.
NO >> Replace combination meter.

3. CHECK ECM SYSTEM

Perform ECM self-diagnosis. Refer to EC-126, "CONSULT-II Function (ENGINE)" .

OK or NG

OK >> Replace combination meter.
NG >> Perform “Diagnostic Procedure” for displayed DTC.

Engine Coolant Temperature Signal Inspection

EKS00GCU

1. CHECK ECM SYSTEM

Perform ECM self-diagnosis. Refer to EC-126, "CONSULT-II Function (ENGINE)" .

OK or NG

OK >> Replace combination meter.
NG >> Perform “Diagnostic Procedure” for displayed DTC.

Fuel Level Sensor Signal Inspection

EKS00GCV

NOTE:
The following symptoms do not indicate a malfunction.

Fuel level sensor unit

- Depending on vehicle posture or driving circumstance, the fuel level in the tank various, 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 posture or driving circumstance, the fuel level in the tank varies, and the warning lamp ON timing may be changed.

1. CHECK HARNESS CONNECTOR

Check combination meter, fuel level sensor unit and terminals (meter side, module side, lead side, and harness side) for poor connection and bend.

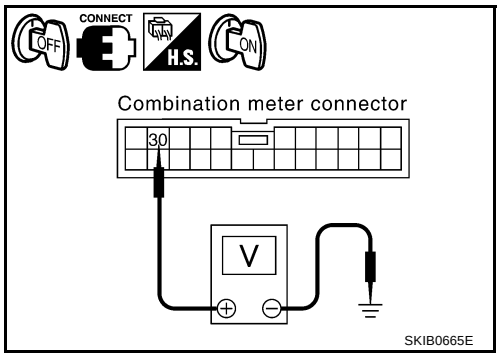
OK or NG

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

2. CHECK HARNESS CONNECTOR OUTPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect fuel level sensor unit connector.
3. Turn ignition switch ON.
4. Check voltage between combination meter harness connector M42 terminal 30 (R/L) and ground.

30 (R/L) – Ground : Approx. 5 V



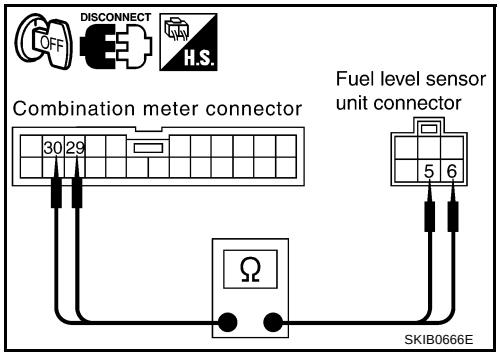
OK or NG

OK >> GO TO 3.
NG >> Replace combination meter.

3. CHECK FUEL LEVEL SENSOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter connector.
3. Check continuity between combination meter harness connector M42 terminals 29 (B/Y), 30 (R/L) and fuel level sensor unit harness connector B239 terminals 6 (B), 5 (R/L).

29 (B/Y) – 6 (B)
30 (R/L) – 5 (R/L) **: Continuity should exist.**



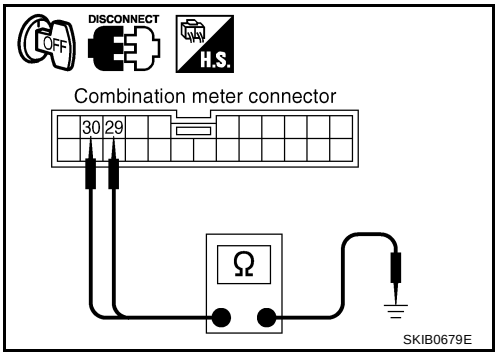
OK or NG

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

4. CHECK FUEL LEVEL SENSOR SHORT CIRCUIT

Check continuity between combination meter harness connector M42 terminals 29 (B/Y), 30 (R/L) and ground.

29 (B/Y) – Ground
30 (R/L) – Ground **: Continuity should not exist.**



OK or NG

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

5. CHECK FUEL LEVEL SENSOR UNIT

Check the components. Refer to DI-22, "CHECK FUEL LEVEL SENSOR UNIT" .

OK or NG

OK >> GO TO 6.
NG >> Replace fuel level sensor unit.

6. CHECK INSTALLATION CONDITION

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

OK or NG

OK >> Replace combination meter.
NG >> Install fuel level sensor unit properly.

Fuel Gauge Pointer Fluctuates, Indicator Wrong Value, or Varies

EKS00GCW

1. CHECK THE FUEL GAUGE POINTER FOR FLUCTUATION

Does the indication value fluctuate during driving or just before/after stop?

YES >> The pointer fluctuation may be caused by fuel level change in the fuel tank.
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

EKS00GCX

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 floor or the vehicle inclined?

YES >> It may not be filled fully.
NO >> GO TO 4.

4. QUESTION 4

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

YES >> Check the components. Refer to DI-22, "CHECK FUEL LEVEL SENSOR UNIT" .
NO >> The float arm may interfere or bind with any of the components in the fuel tank.

ICC System Display Does Not Illuminate

EKS00GE8

1. CHECK COMBINATION METER

Perform combination meter self-diagnosis. Refer to DI-16, "OPERATION PROCEDURE" .

Does all of ICC system display illumination?

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

2. CHECK ICC SYSTEM

Perform ICC system trouble diagnosis. Refer to ACS-30, "TROUBLE DIAGNOSIS — GENERAL DESCRIPTION" .

OK or NG

OK >> Replace combination meter.
NG >> Repair as need.

Electrical Components Inspection

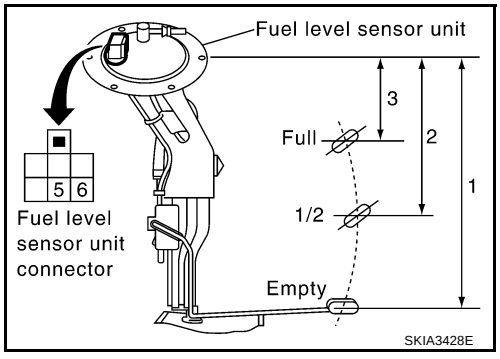
EKS00GCY

CHECK FUEL LEVEL SENSOR UNIT

- For removal, refer to FL-3, "FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY" .
- Check resistance between terminals 5 and 6.

Terminal		Float position [mm (in)]		Resistance value [Ω]
5	6	Full (3)*1	Approx. 78 (3.1)	Approx. 6
		1/2 (2)	Approx. 200 (7.87)	Approx. 33
		Empty (1)*2	Approx. 341 (13.43)	Approx. 90

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

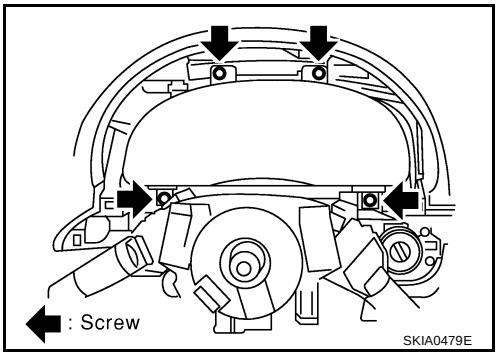


Removal and Installation for Combination Meter

EKS00GCZ

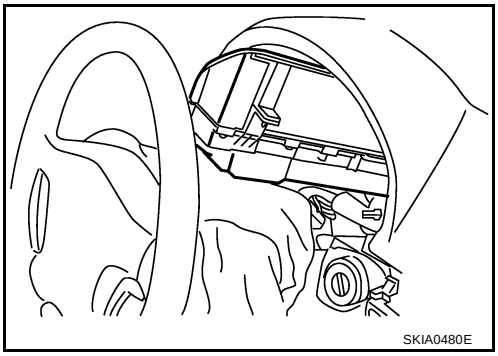
REMOVAL

1. Remove the cluster lid A. Refer toIP-10, "INSTRUMENT PANEL ASSEMBLY" .
2. Remove the screws (4), and disconnect connectors.

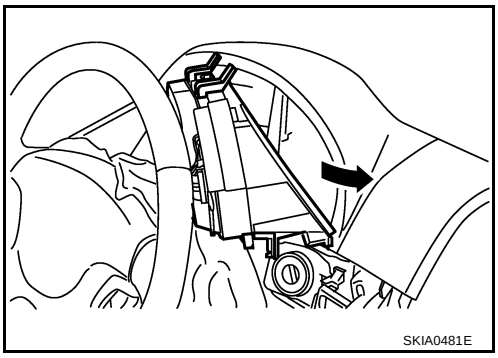


3. Rotating the combination meter so that the left side is in front, turn it until the meter face comes to the top.

   CAUTION:
   To prevent it from being damaged by interference with the meter bracket, protect the meter with waste rags.



4. While pulling combination meter forward, pull it out to the right (combination meter back side shall be in front).



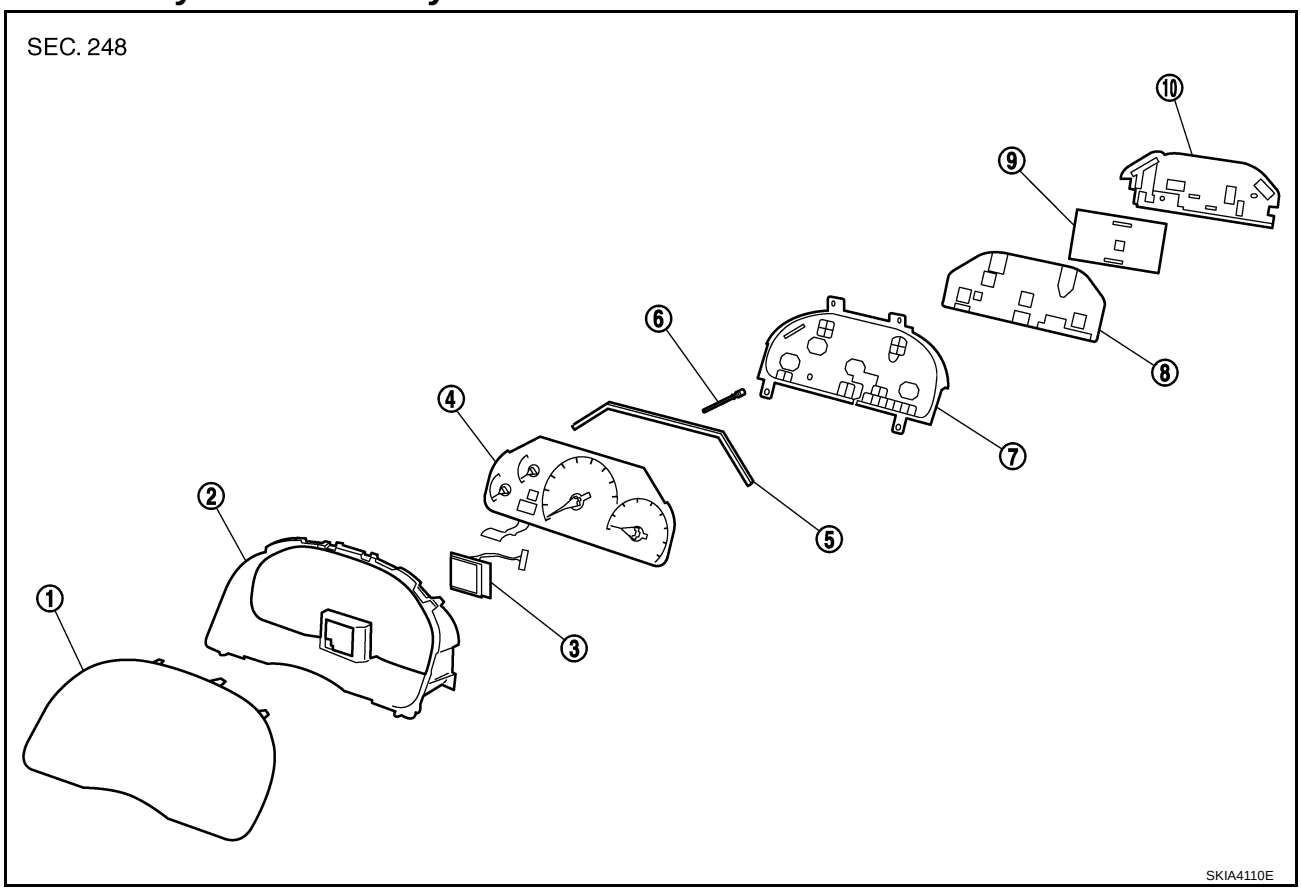
INSTALLATION

Installation is the reverse order of removal.

Disassembly and Assembly for Combination Meter

EKS00GD0

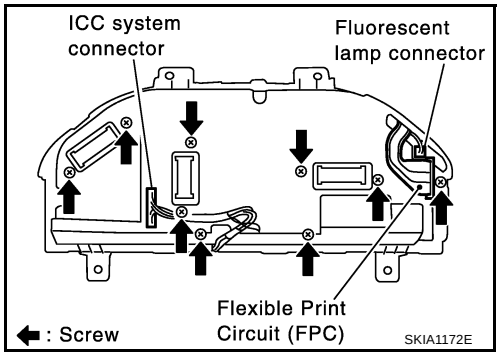
SEC. 248



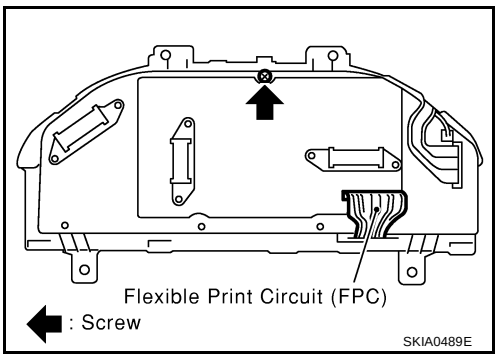
1. Front cover
2. Upper housing
3. ICC system display
4. Meter and gauge assembly
5. Fluorescent lamp
6. Odo/trip meter switch shaft
7. Lower housing
8. Unified meter control unit (main)
9. Unified meter control unit (sub)
10. Meter cover

DISASSEMBLY

1. Disconnect ICC system display connector if equipped.
2. Remove the screws (9) to separate meter cover.
3. Separate the connectors for fluorescent lamp connector and flexible print circuit for fluorescent lamp.
4. Separate the flexible print circuit for odo/trip meter.



5. Remove the screw (1) to separate unified meter control unit (main and sub).
6. Disengage the tabs (8) to separate upper housing.
7. Remove the screw (1) to separate meter and gauge assembly.
8. Disengage the tabs (7) to separate front cover.
9. Separate unified meter control unit (main) from unified meter control unit (sub).



ASSEMBLY

Assembly is the reverse order of disassembly.

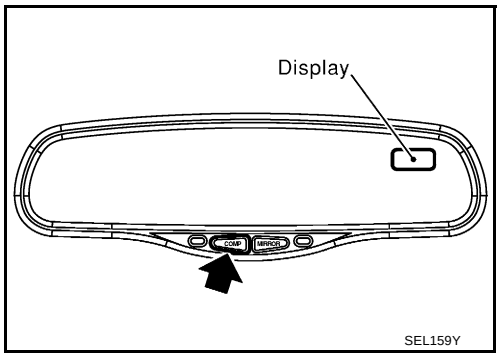
COMPASS

PFP:24835

System Description

EKS00GD1

This unit displays earth magnetism and heading direction of vehicle.



DIRECTION DISPLAY

Push the switch when the ignition key is in the “ON” or “START” position. The direction will be displayed. Pushing the “COMP” switch a second time will turn off the display.

1. If the display reads “C” calibrate the compass by driving the vehicle in 3 complete circles at less than 8 km/h (5 MPH).
2. To adjust for compass variance:

a. Press the “COMP” switch for more than 3 seconds. The current zone number will appear in the display.

b. Find your current location and variance zone number on the zone map.

c. Press the “COMP” switch until the new zone number appears in the display. After you stop pressing the button in, the display will show a compass direction within a few seconds.

NOTE:

1. Do not install the ski rack, antenna, etc. which are attached to the vehicle by means of a magnet. They affect the operation of the compass.
2. If the compass deviates from the correct indication soon after repeated adjustment, have the compass checked at an authorized dealer.
3. The compass may not indicate the correct compass point in tunnels or while driving up or down a steep hill. (The compass returns to the correct compass point when the vehicle moves to an area where the geomagnetism is stabilized.)

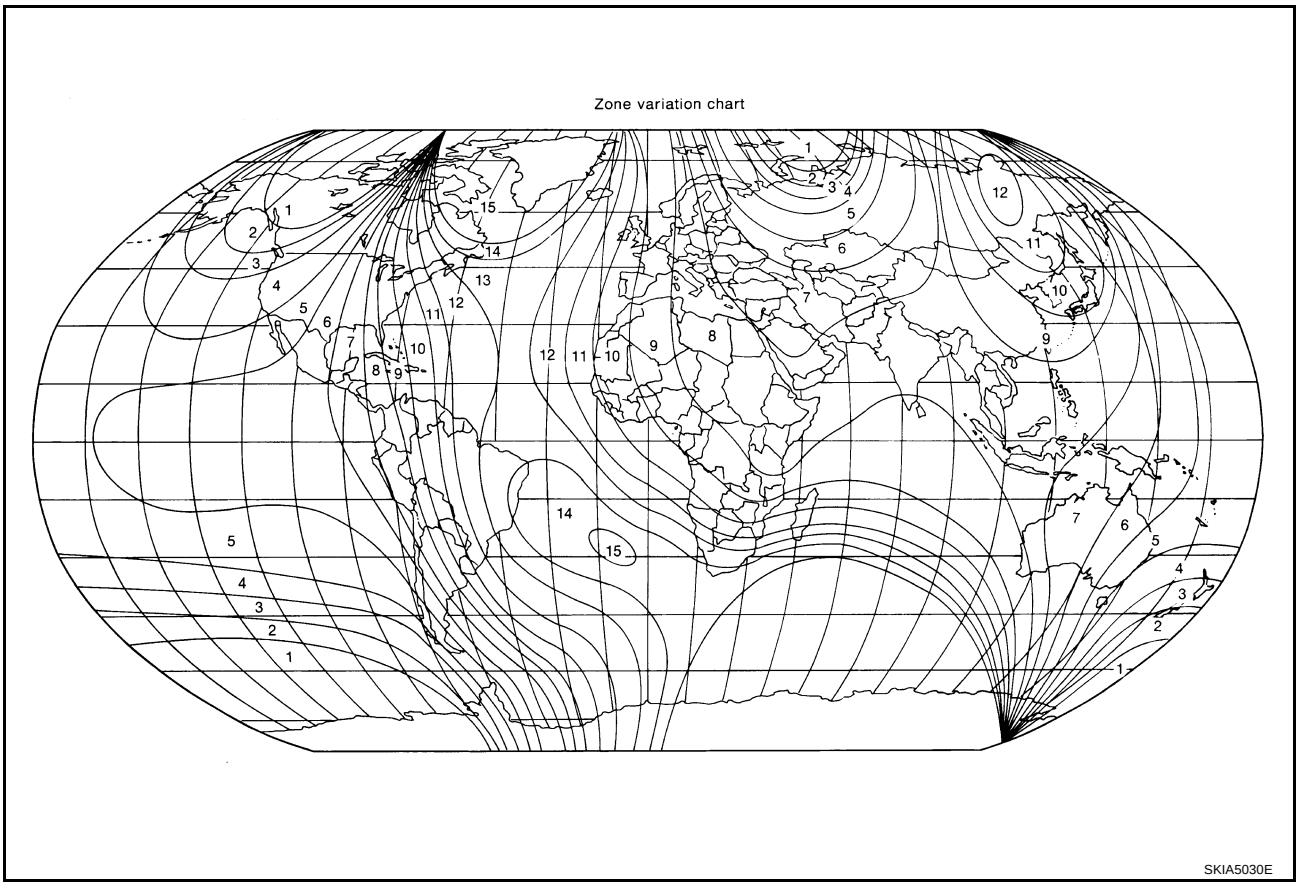
3. Cleaning the Mirror
   When cleaning the mirror, use a paper towel or similar material dampened with glass cleaner. Do not spray glass cleaner directly on the mirror as that may cause the liquid cleaner to enter the mirror housing.

“C” is Displayed in the Compass Window

The compass needs to be calibrated. Drive the vehicle in 3 circles at 8 km/h (5 MPH) or less until the display reads a direction. You can also calibrate the compass by driving your vehicle on your everyday routine. The compass will be calibrated once it has tracked 3 complete circles.

Inaccurate Compass Direction

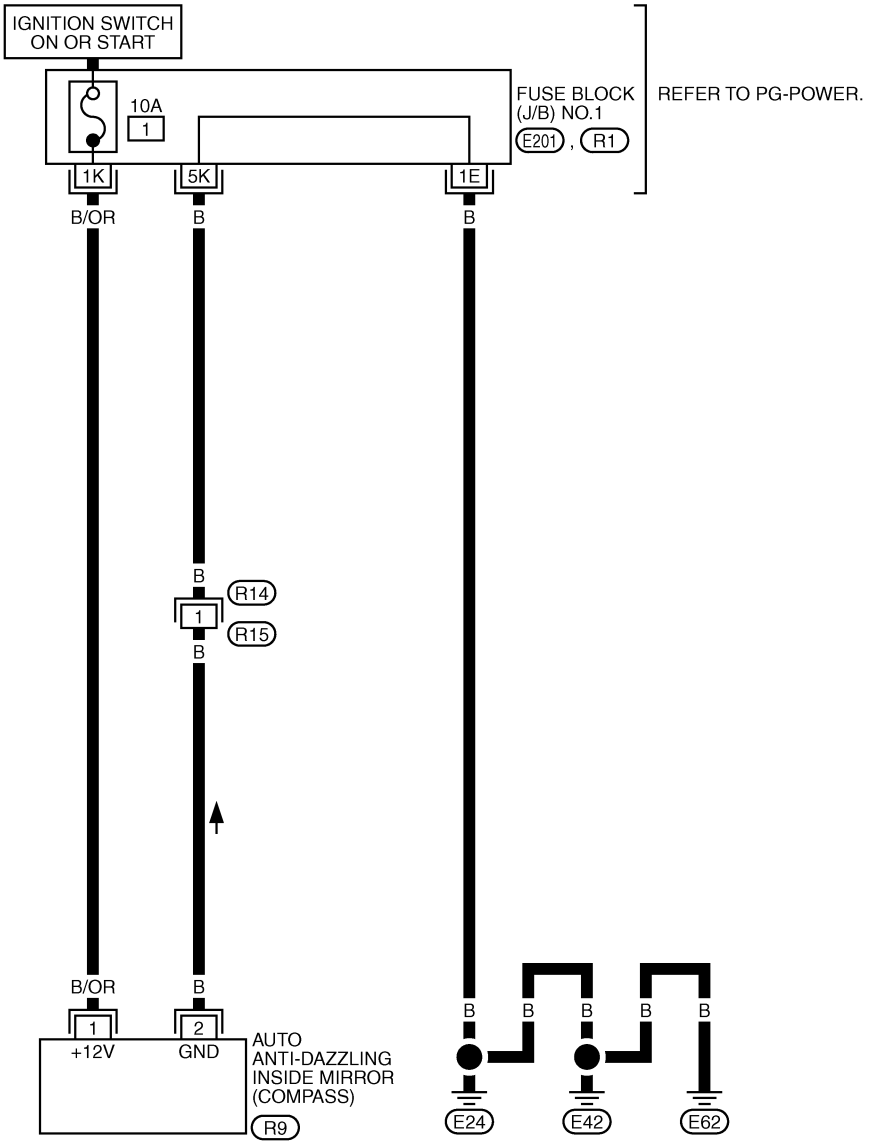
1. With the display turned on, push the “COMP” switch for 3 seconds, until the zone selection comes up (a number will be displayed in the mirror compass window).
2. Toggle until correct zone is found and release switch.
3. The display will show all segments, and return to the normal compass mode within 10 seconds of no switch activity.
4. If the vehicle changes zone, repeat steps 1 through 3. See map.

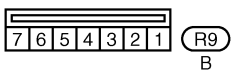


Wiring Diagram — COMPAS —

EKS00GD2

DI-COMPAS-01





REFER TO THE FOLLOWING.
E201 , R1 -FUSE BLOCK-
JUNCTION BOX (J/B) NO.1

TKWM1539E

Removal and Installation of Compass

EKS00GD3

Refer to GW-60, "AUTO ANTI–DAZZLING INSIDE MIRROR" .

WARNING LAMPS

PFP:24814

System Description

EKS00GD4

OUTLINE

Power is supplied at all times

- through 10A fuse [No. 6, located in the fuse block (J/B) No. 1]
- to combination meter terminal 57.

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

- through 10A fuse [No. 9, located in the fuse block (J/B) No. 1]
- to combination meter terminal 59.

Ground is supplied

- to combination meter terminals 60, 61 and 62
- through grounds M24 and M114.

AIR BAG WARNING LAMP

When an air bag malfunction occurs, the ground circuit is interrupted

- from the air bag diagnosis sensor unit terminal 15
- to combination meter terminal 56.

Ground is supplied

- through combination meter terminals 60, 61 and 62.

When power and ground are supplied, the air bag warning lamp (LED) illuminates.

NOTE:
The air bag warning lamp stays on when air bag diagnosis sensor unit has malfunction or the circuit is open. For further information, refer to SRS-8, "TROUBLE DIAGNOSIS" .

DOOR WARNING LAMP

Door waning lamp is controlled by BCM.
When one of the doors is opened, ground is supplied to the BCM terminals 33, 37, 142 and 143.
And then ground is supplied

- to combination meter terminal 49
- from BCM terminal 111.

When power and ground are supplied, the door warning lamp illuminates.

DOOR WARNING MESSAGE ON DISPLAY

When a door warning lamp illuminate, signal is sent

- from combination meter terminals 6 and 7
- through AV control unit terminals 35 and 34 (without NAVI)
- through AV and NAVI control unit terminals 32 and 33 (with NAVI)
- to display.

Then warning message appears display.

ACTIVE DAMPER INDICATOR LAMP (SPORT)

When an active damper suspension system malfunction occurs, or “SPORT” mode is selected by active damper suspension select switch, ground is supplied at signal

- to combination meter terminal 53
- from active damper suspension control unit terminal 16.

When power and ground are supplied, the active damper indicator lamp (SPORT) blinks or illuminates.

LOW OIL PRESSURE WARNING LAMP

Low oil pressure causes oil pressure switch terminal 1 to provide ground to combination meter terminal 12.
When power and ground are supplied, the low oil pressure warning lamp illuminates.

CHARGE WARNING LAMP

When an alternator malfunction occurs, ground is supplied at signal

- to combination meter terminal 13
- from alternator terminal 3.

When power and ground are supplied, the charge warning lamp illuminate.

LOW WASHER LEVEL WARNING MESSAGE ON DISPLAY

When the washer fluid level is low, ground is supplied at signal

- to combination meter terminal 26
- from washer level switch terminal 1.

When power and ground are supplied, the signal is sent

- from combination meter terminals 6 and 7
- through AV control unit terminals 35 and 34 (without NAVI)
- through AV and NAVI control unit terminals 32 and 33 (with NAVI)
- to display.

Then warning message appears display.

A/T CHECK INDICATOR LAMP

When an A/T system malfunction occurs, signal is sent

- to combination meter terminals 15 and 16
- from TCM (transmission control module) with CAN communication line.

When signal is received, the A/T CHECK indicator lamp blinks or illuminates.
For further information, refer to AT-191, "A/T INDICATOR CIRCUIT" .

LOW-FUEL WARNING LAMP

The amount of fuel in the fuel tank is determined by the fuel level sensor in the fuel tank. A signal is sent

- from fuel level sensor unit terminal 5
- to combination meter terminal 30
- through fuel level sensor unit terminal 6
- to combination meter terminal 29.

After receiving the signal, if the combination meter judges that the fuel level is low, the combination meter illuminates the low-fuel warning lamp.

ABS WARNING LAMP

When an ABS malfunction occurs, signal is sent

- to combination meter terminals 15 and 16
- from VDC/TCS/ABS control unit with CAN communication line.

When signal is received, the ABS warning lamp illuminates.

NOTE:
The ABS warning lamp stays on when combination meter does not receive CAN communication signal.
For further information, refer to BRC-34, "ON and OFF Timing for ABS Warning Lamp, VDC OFF Indicator Lamp, and SLIP Indicator Lamp" .

VDC OFF INDICATOR LAMP

When VDC OFF switch is in OFF position, or a VDC/TCS/ABS malfunction occurs, signal is sent

- to combination meter terminals 15 and 16
- from VDC/TCS/ABS control unit with CAN communication line.

When signal is received, the VDC OFF indicator lamp illuminates.

NOTE:
The VDC OFF indicator lamp stays on when combination meter does not receive CAN communication signal. For further information, refer to BRC-34, "ON and OFF Timing for ABS Warning Lamp, VDC OFF Indicator Lamp, and SLIP Indicator Lamp" .

SLIP INDICATOR LAMP

When VDC is in operation, or a VDC malfunction occurs, signal is sent

- to combination meter terminals 15 and 16
- from VDC/TCS/ABS control unit with CAN communication line.

When signal is received, the SLIP indicator lamp illuminates.

NOTE:
The SLIP indicator lamp stays on when combination meter does not receive CAN communication signal. For further information, refer to BRC-34, "ON and OFF Timing for ABS Warning Lamp, VDC OFF Indicator Lamp, and SLIP Indicator Lamp" .

SEAT BELT WARNING LAMP

When the driver seat belt is unfastened, ground is supplied

- to combination meter terminal 50
- from pre-crash seat belt control unit terminal 7.

When power and ground are supplied, the seat belt warning lamp illuminates.

BRAKE WARNING LAMP

When one of the following conditions causing,

- When the parking brake is applied, ground is supplied
  - to combination meter terminal 68
  - from parking brake switch terminal 1
- When the brake fluid level is low, ground is supplied
  - to combination meter terminal 51
  - from brake fluid level switch terminal 1
- When the alternator malfunction occurs, ground is supplied
  - to combination meter terminal 13
  - from alternator terminal 3

power and ground are supplied, and then the brake warning lamp illuminates.

MALFUNCTION INDICATOR LAMP

When an engine control malfunction occurs, signal is sent

- to combination meter terminals 15 and 16
- from ECM with CAN communication line.

When signal is received, the malfunction indicator lamp illuminates.
For further information, refer to EC-768, "MIL AND DATA LINK CONNECTOR" .

LOW TIRE PRESSURE WARNING LAMP

When a low tire pressure warning control malfunction occurs, ground is supplied

- to combination meter terminal 54
- from low tire pressure warning control unit terminal 3.

When power and ground are supplied, the low tire pressure warning lamp illuminates.

NOTE:
The low tire pressure warning lamp stays on when air bag diagnosis sensor unit has malfunction or the circuit is open.
For further information, refer to WT-22, "TROUBLE DIAGNOSIS FOR SYMPTOMS" .

ASCD INDICATOR LAMP (SET LAMP)

When an ASCD malfunction occurs, signal is sent

- to combination meter terminals 15 and 16
- from ECM with CAN communication line.

When signal is received, the SET lamp will blink quickly.

ICC SYSTEM DISPLAY (ICC SYSTEM WARNING LAMP)

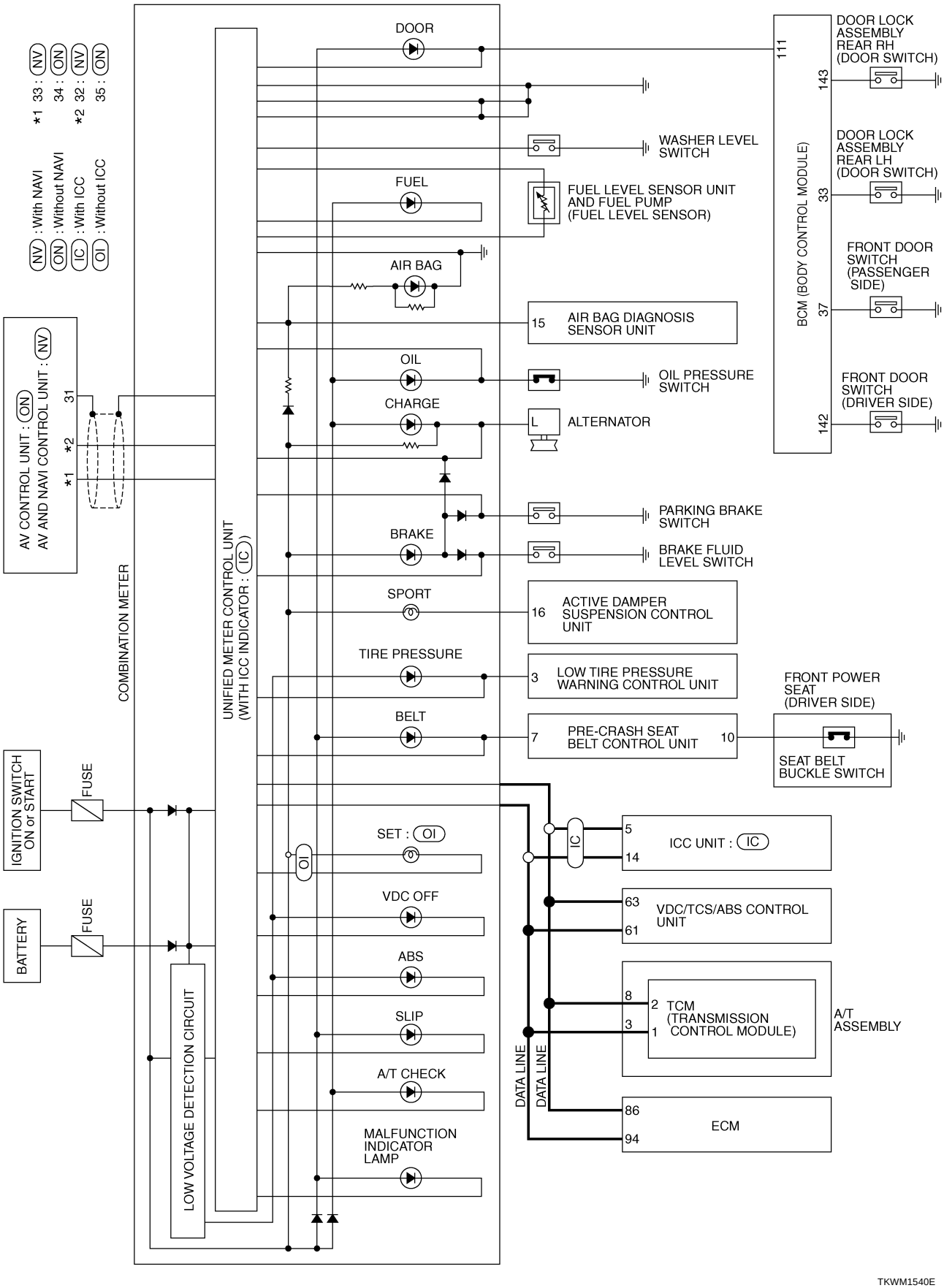
When an ICC system malfunction occurs, signal is sent

- to combination meter terminals 15 and 16
- from ICC unit with CAN communication line.

When signal is received, the ICC system warning lamp illuminates.

Schematic

EKS00GD5

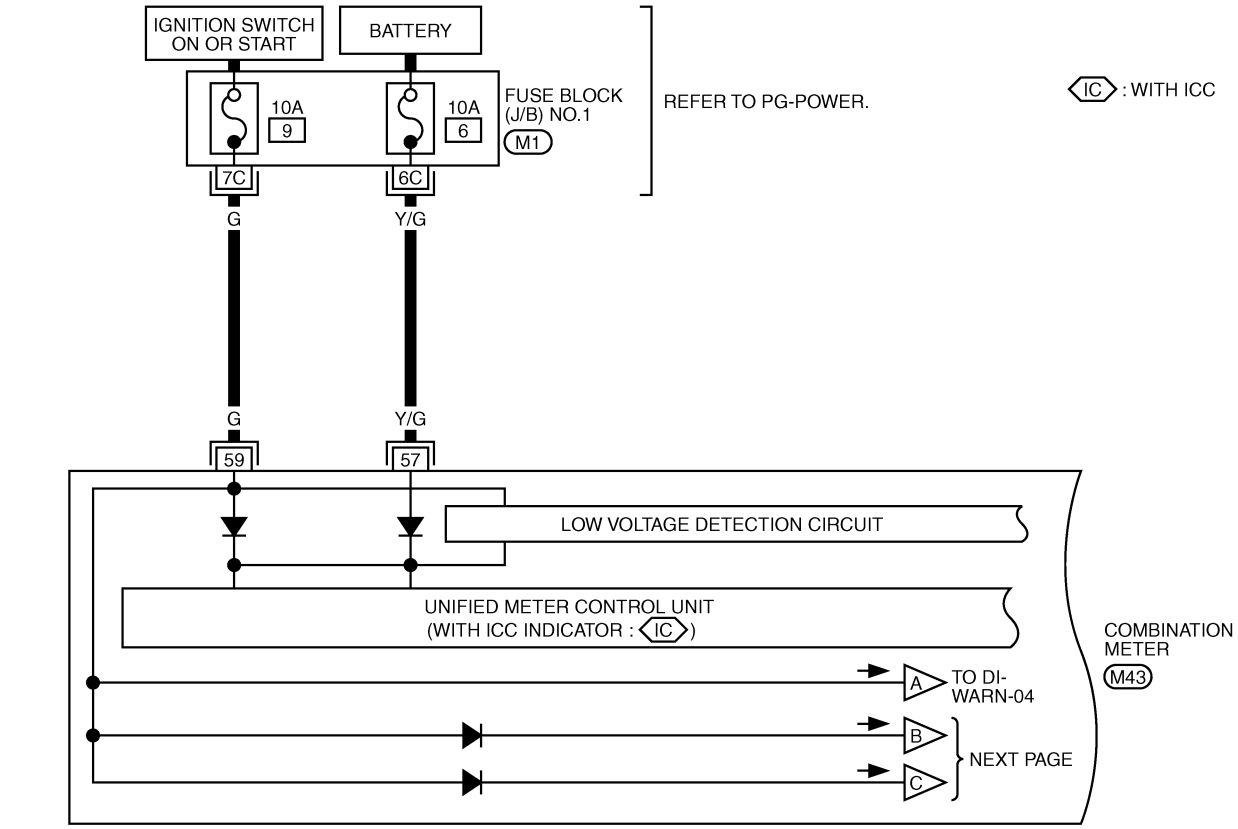


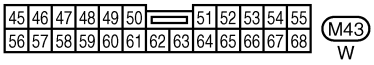
TKWM1540E

Wiring Diagram — WARN —

EKS00GD6

DI-WARN-01

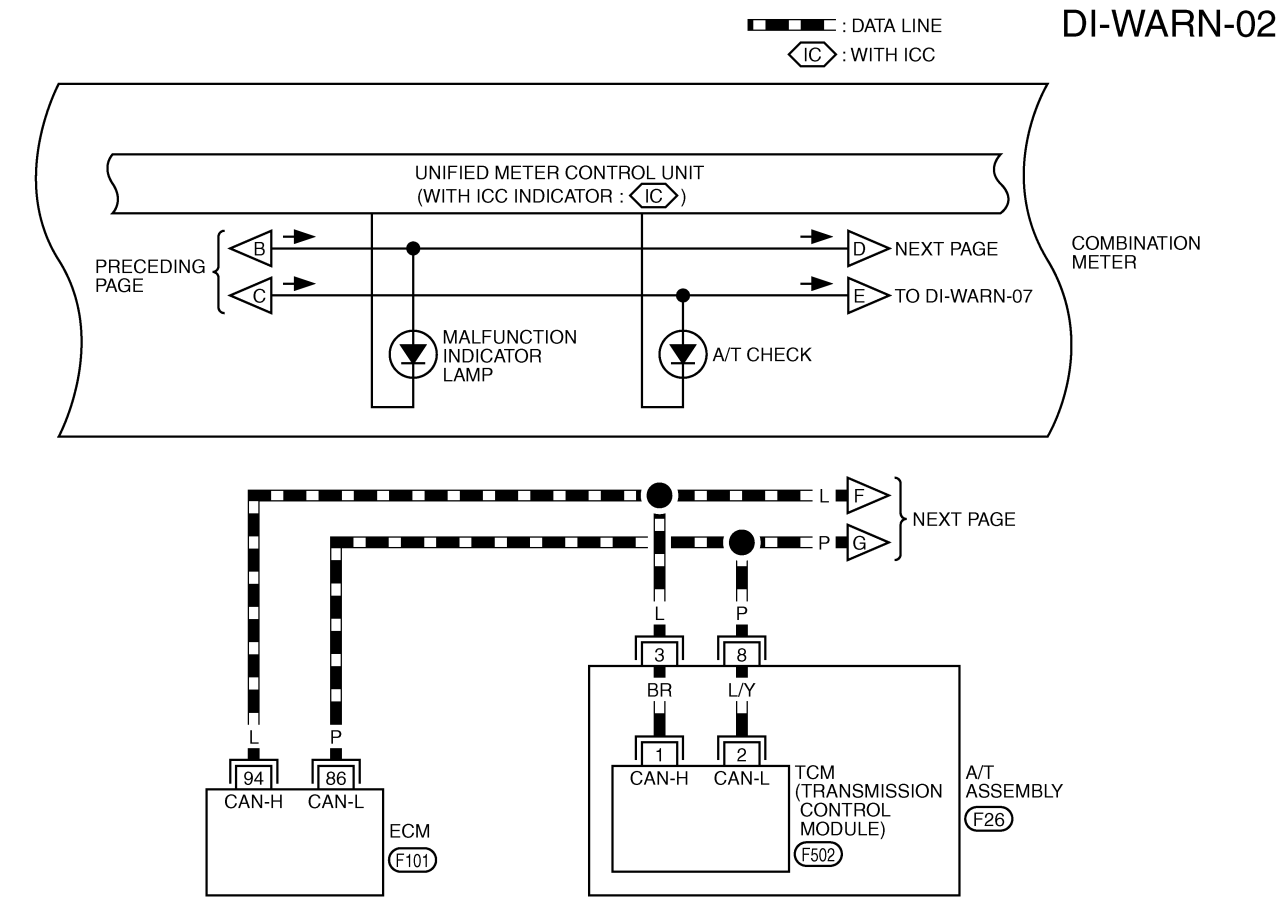


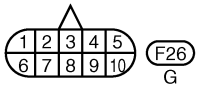


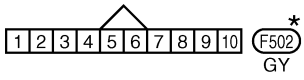
REFER TO THE FOLLOWING.
M1 -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

TKWM1541E

DI-WARN-02





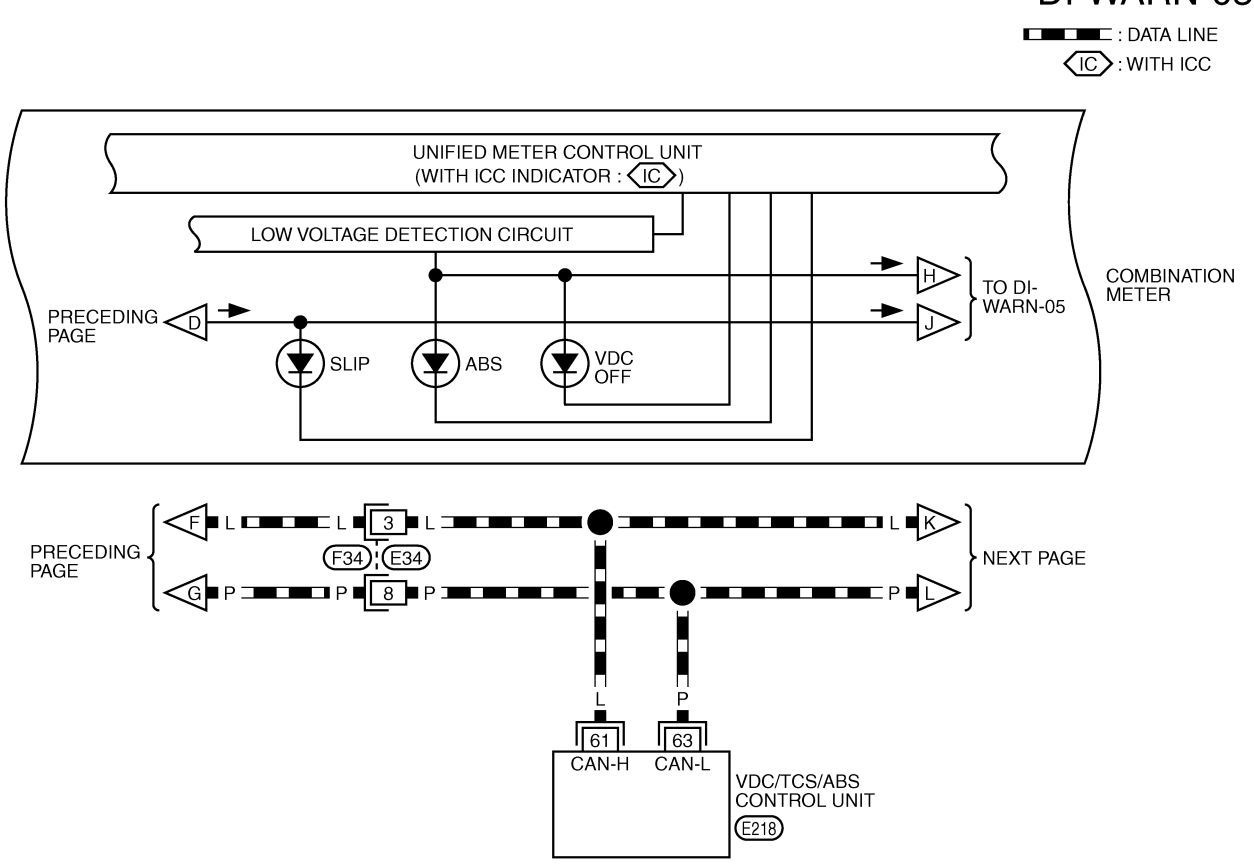


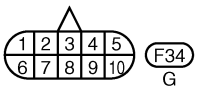
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

REFER TO THE FOLLOWING.
F101 -ELECTRICAL UNITS

TKWM1542E

DI-WARN-03

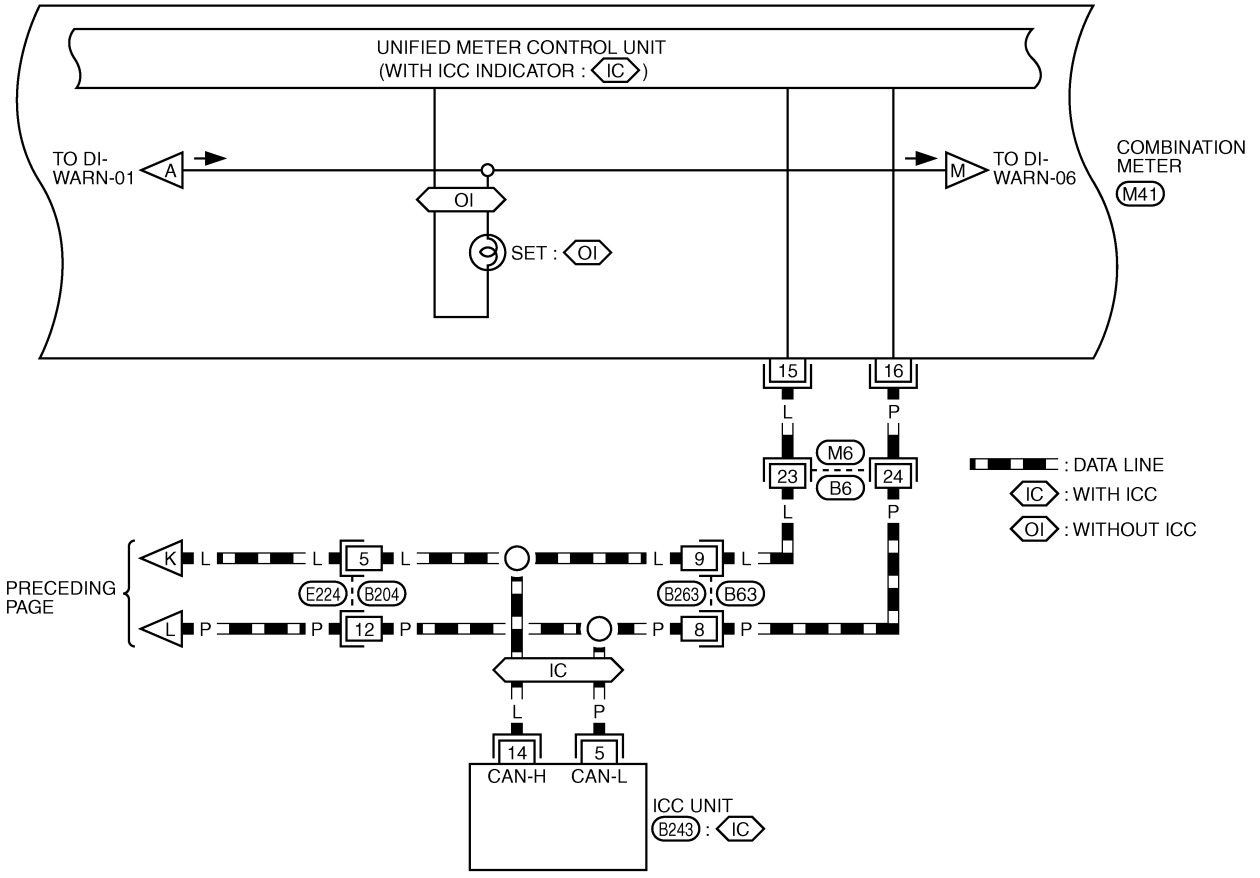


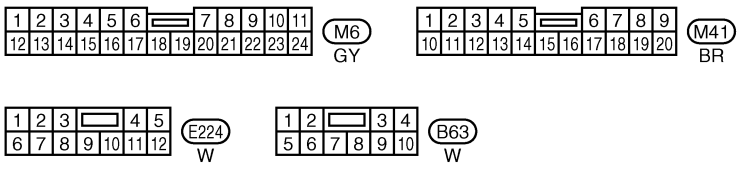


REFER TO THE FOLLOWING.
E218 -ELECTRICAL UNITS

TKWM1543E

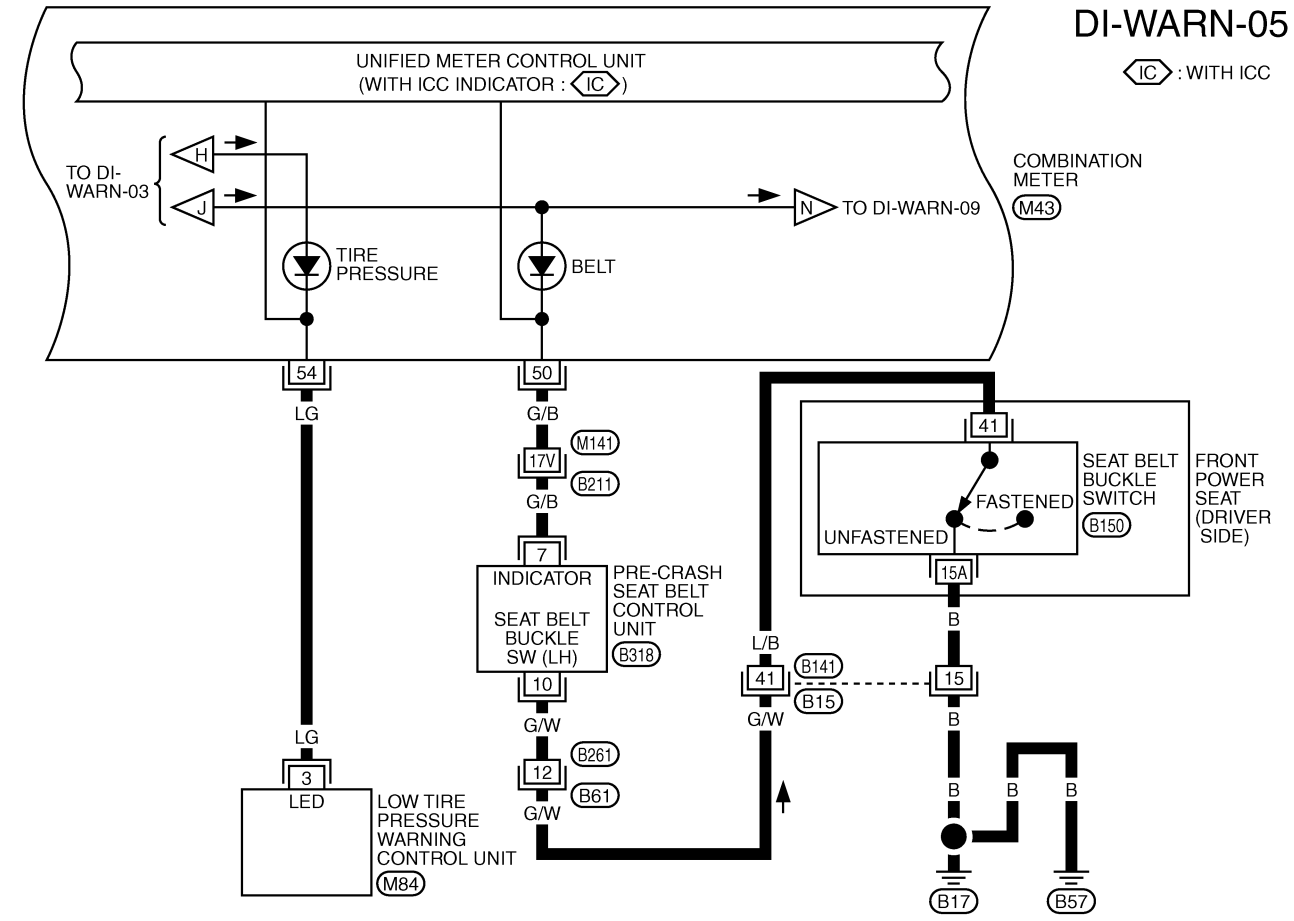
DI-WARN-04

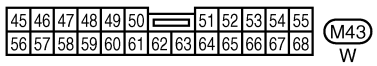


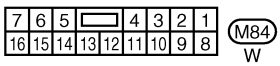


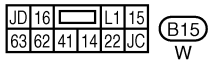
REFER TO THE FOLLOWING.
B243 -ELECTRICAL UNITS

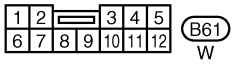
TKWM1544E

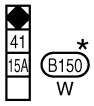


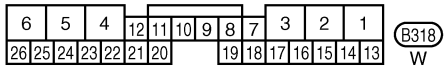












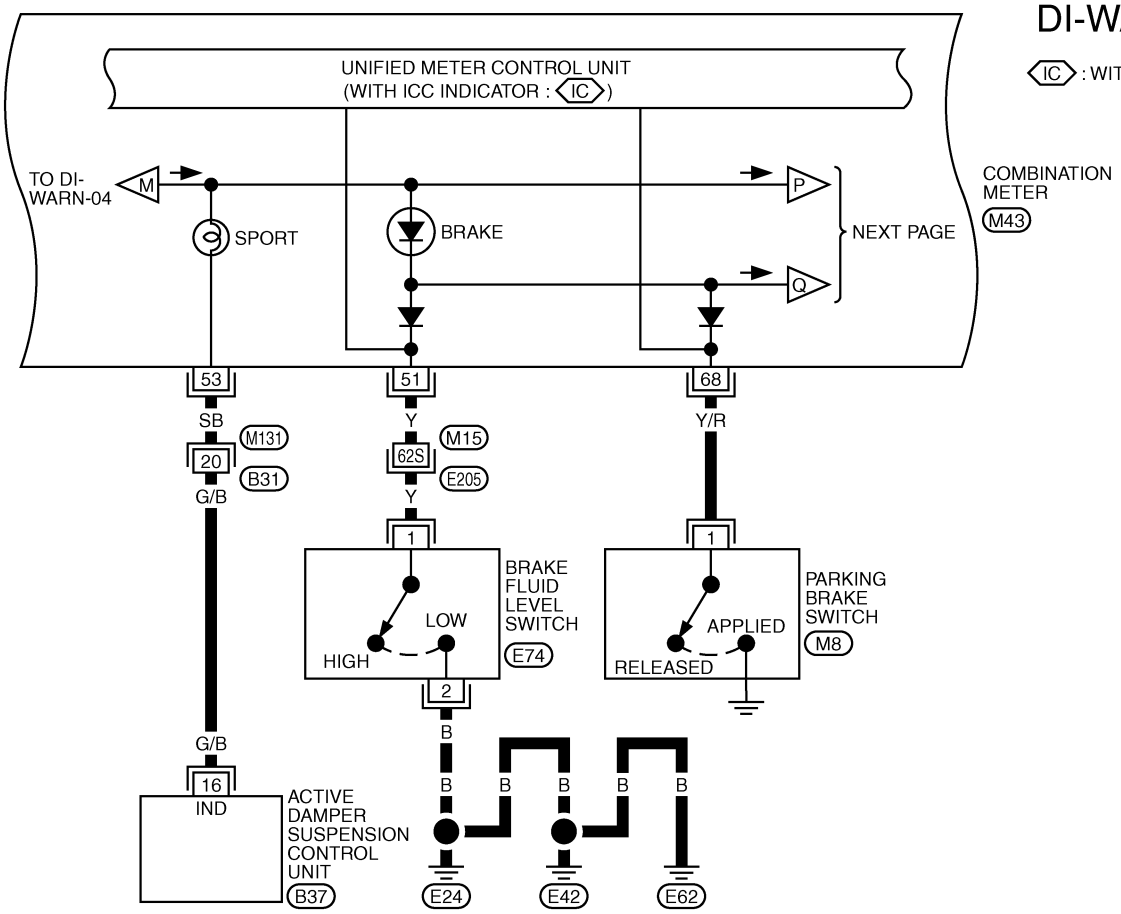
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

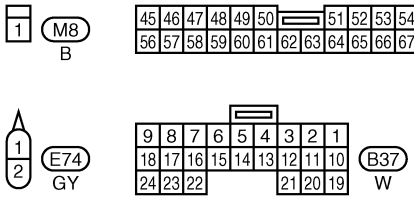
REFER TO THE FOLLOWING.
B211 -SUPER MULTIPLE JUNCTION (SMJ)

TKWM1545E

DI-WARN-06

IC : WITH ICC

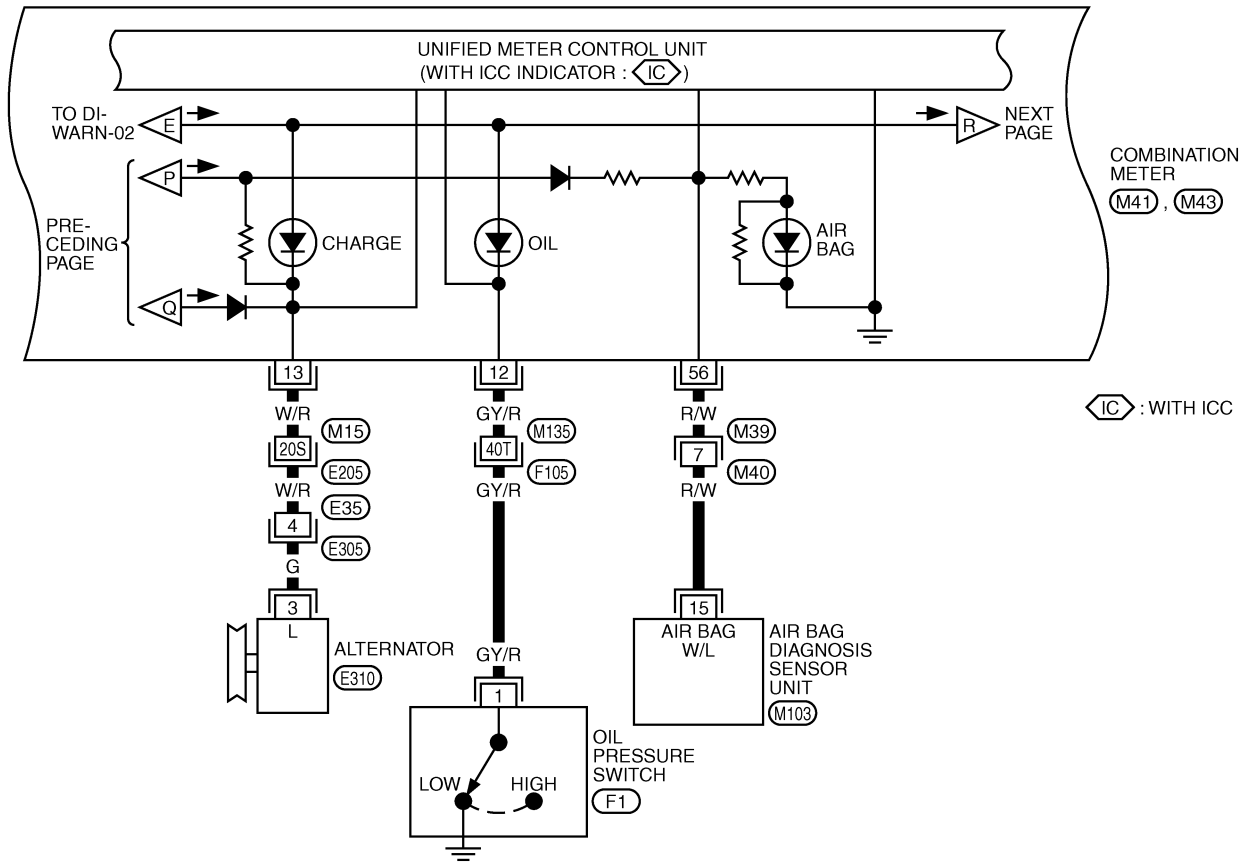


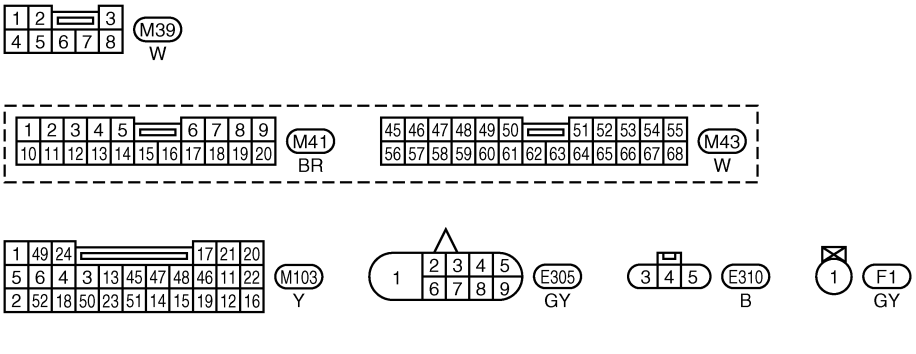


REFER TO THE FOLLOWING.
E205 -SUPER MULTIPLE JUNCTION (SMJ)

TKWM1546E

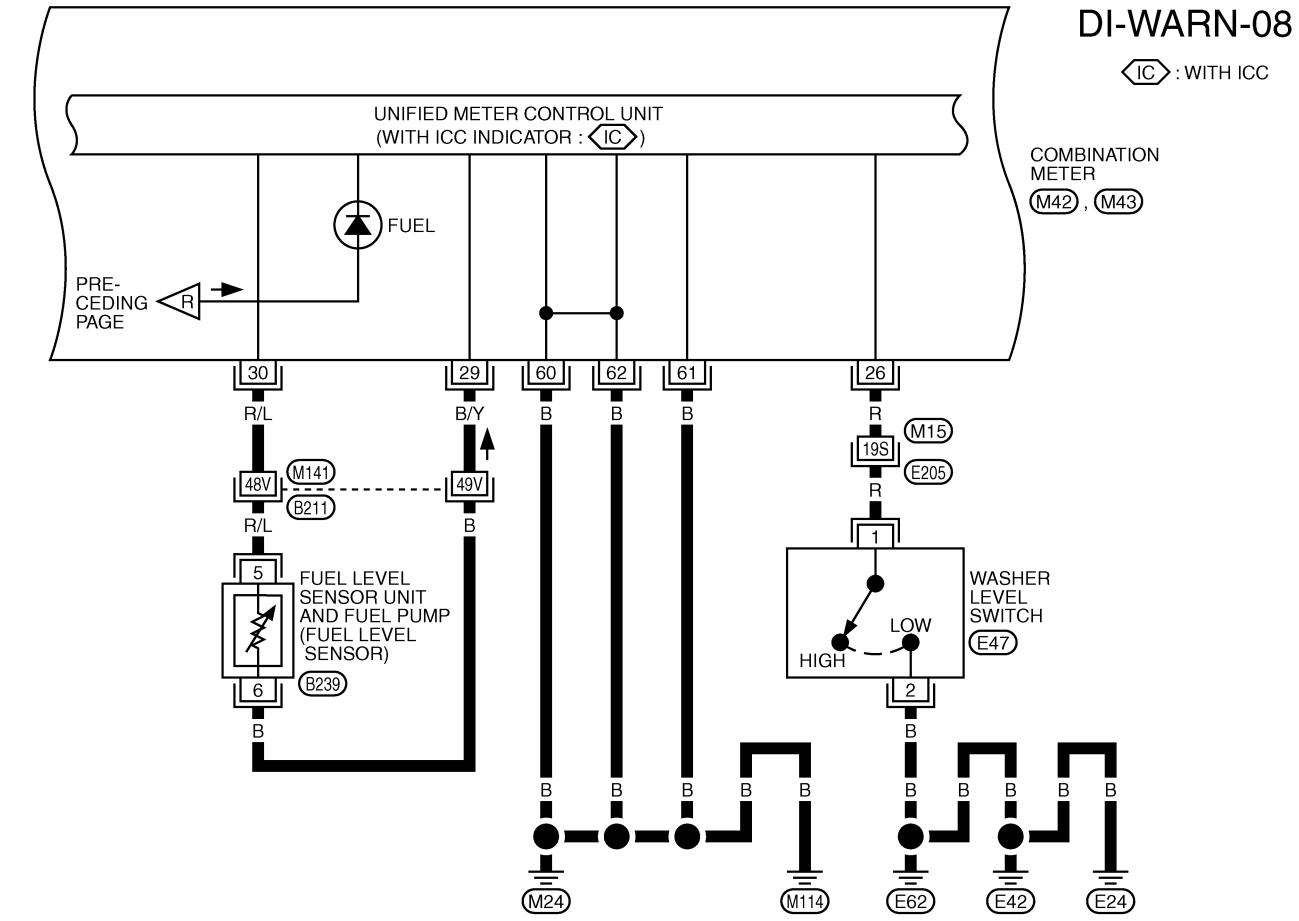
DI-WARN-07

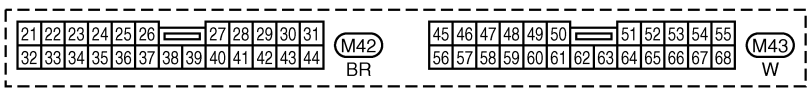


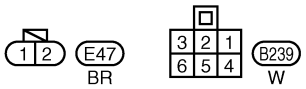


REFER TO THE FOLLOWING.
E205 , F105 -SUPER MULTIPLE JUNCTION (SMJ)

TKWM1547E

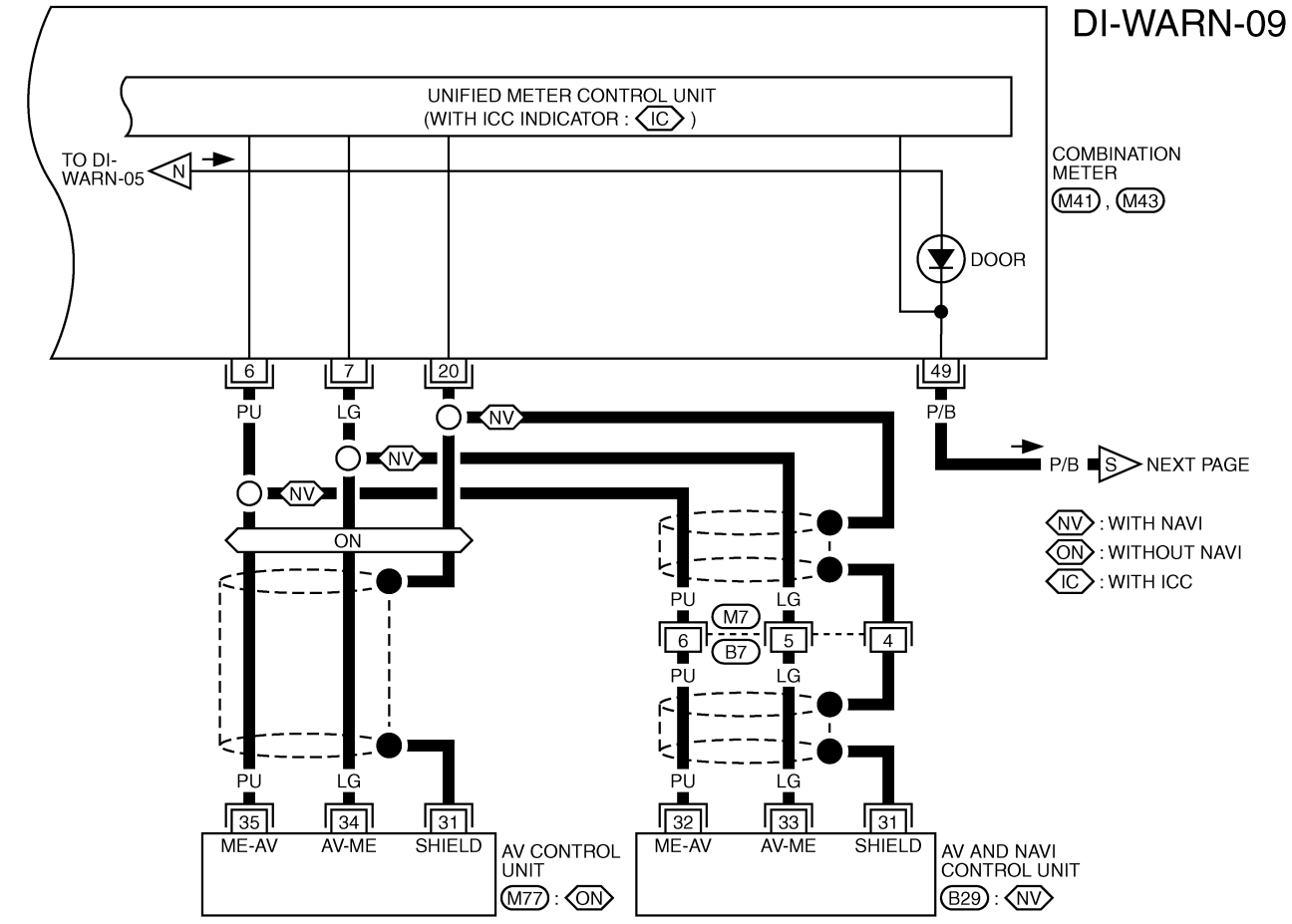


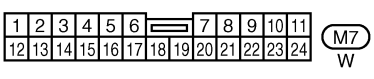


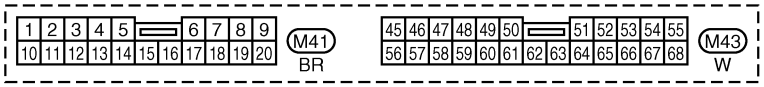


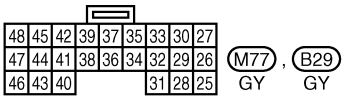
REFER TO THE FOLLOWING.
E205 , B211 -SUPER MULTIPLE JUNCTION (SMJ)

TKWM1548E


DI-WARN-09
UNIFIED METER CONTROL UNIT
(WITH ICC INDICATOR : IC)
TO DI-WARN-05
N
COMBINATION METER
M41 , M43
DOOR
6
7
20
49
PU
LG
NV
P/B
P/B S NEXT PAGE
NV : WITH NAVI
ON : WITHOUT NAVI
IC : WITH ICC
ON
M7
B7
35
34
31
32
33
ME-AV
AV-ME
SHIELD
AV CONTROL UNIT
M77 : ON
AV AND NAVI CONTROL UNIT
B29 : NV

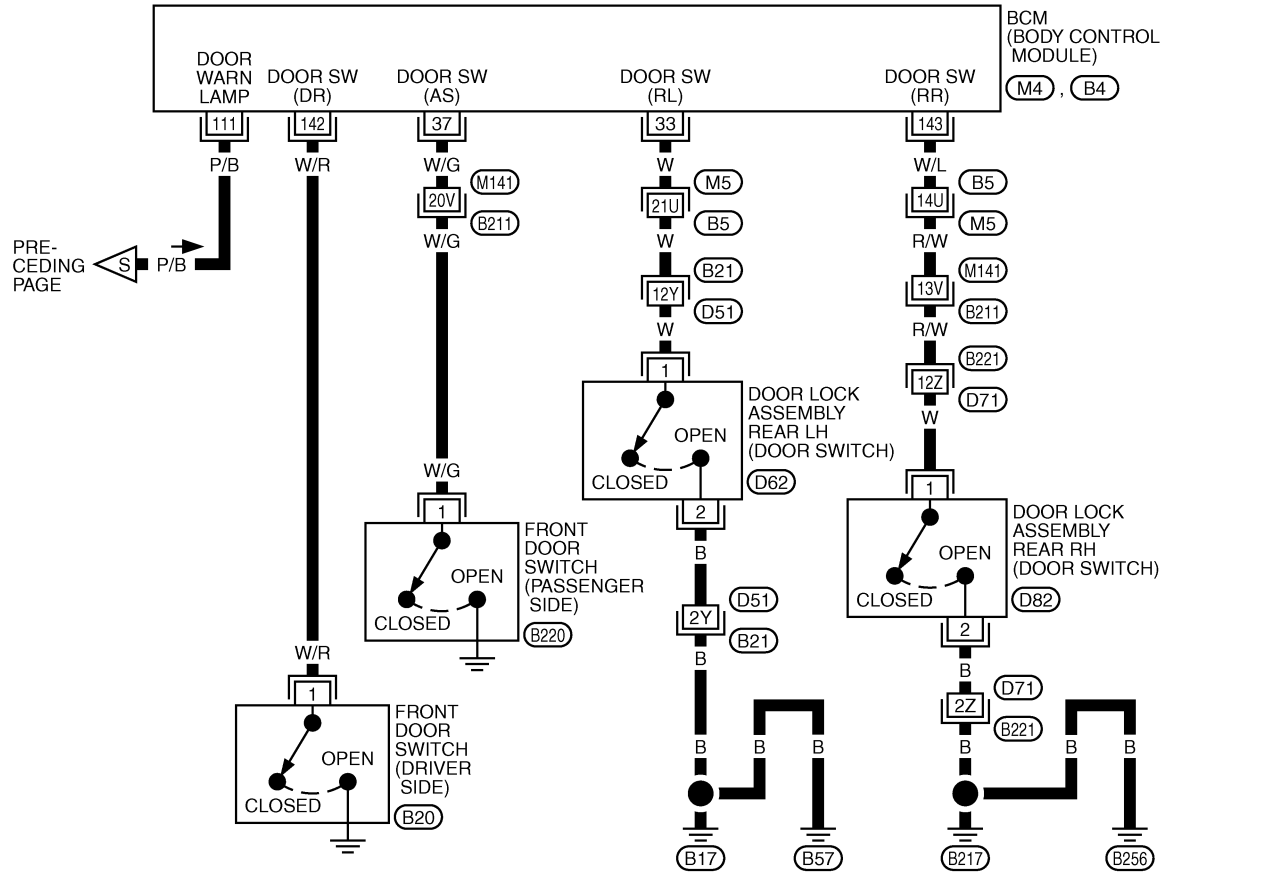

M7
W


M41
BR
M43
W


M77 , B29
GY
GY

TKWM1549E

DI-WARN-10



1
2
3
B20 , B220
W W

1 2
D62 , D82
W W

REFER TO THE FOLLOWING.
M5 , B21 , B211 , B221 -SUPER MULTIPLE JUNCTION (SMJ)
M4 , B4 -ELECTRICAL UNITS

TKWM1550E

Terminals and Reference Value for BCM

EKS00GD7

Terminal No.	Wire color	Item	Condition		Reference value (V)
			Ignition switch	Operation	
33	W	Rear door switch (LH)	OFF	Rear door LH is open.	Approx. 0
				Rear door LH is closed.	Approx. 12
37	W/G	Passenger door switch	OFF	Passenger door is open.	Approx. 0
				Passenger door is closed.	Approx. 12
111	P/B	Door warning lamp	OFF	Any door is open.	Approx. 0
				Any door is closed.	Approx. 12
142	W/R	Driver door switch	OFF	Driver door is open.	Approx. 0
				Driver door is closed.	Approx. 12
143	W/L	Rear door switch (RH)	OFF	Rear door RH is open.	Approx. 0
				Rear door RH is closed.	Approx. 12

CONSULT-II Function

EKS00GD8

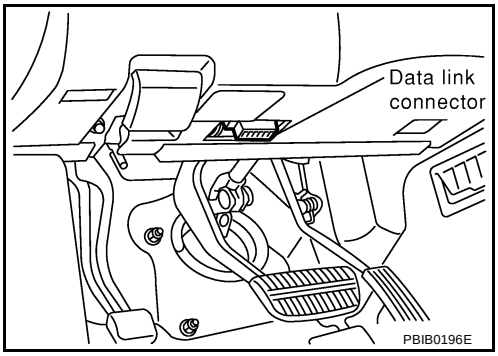
- CONSULT-II performs the following functions communicating with the BCM.

DIAGNOSTIC ITEMS DESCRIPTION

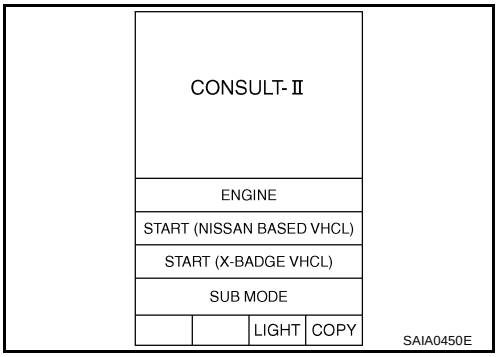
IVMS diagnosis position	Diagnosis mode	Description
DOOR OPEN WARNING	DATA MONITOR	The input data to the BCM control unit is displayed in real time.
	ACTIVE TEST	Operation of electrical loads can be checked by sending driving signal to them.
BCM PART NUMBER		Displays BCM part number.

CONSULT-II BASIC OPERATION PROCEDURE

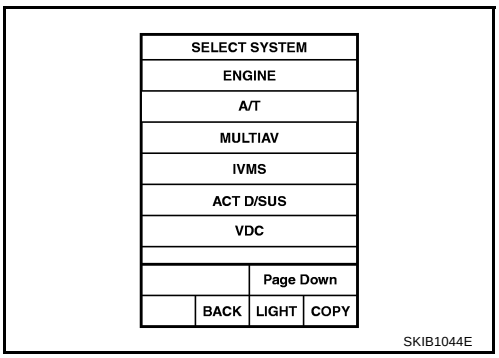
1. With the ignition switch OFF, connect “CONSULT-II” and “CONSULT-II CONVERTER” to the data link connector, and turn ignition switch ON.



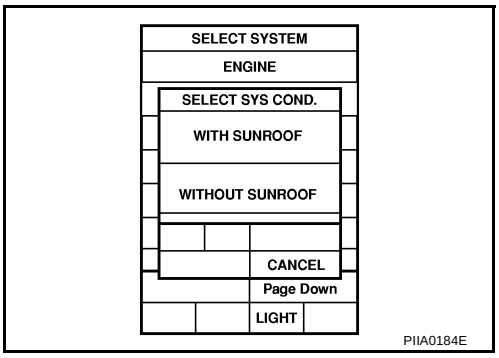
2. Touch “START (NISSAN BASED VHCL)”.



3. Touch “IVMS” on “SELECT SYSTEM” screen. If “IVMS” is not indicated, go to GI-38, "CONSULT-II Data Link Connector (DLC) Circuit" .



4. Check the model specification, touch either “WITH SUNROOF” or “WITHOUT SUNROOF”.
5. Touch “OK”. If the selection is wrong, touch “CANCEL”.
6. Select the desired part to be diagnosed on the “SELECT TEST ITEM” screen.



DATA MONITOR

Operation Procedure

1. Touch “DOOR OPEN WARNING” 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 the all items.
SELECTION FROM MENU	Selects and monitors the items.

4. If “SELECTION FROM MENU” is selected, touch the desired monitor item. If “ALL SIGNALS” is selected, the main item required to control is monitored.
5. Touch “START”.
6. During monitoring, touching “COPY” can start recording the monitor item status.

Data Monitor Item

Monitored item	Description
IGN ON SW	Indicates [ON/OFF] condition of ignition switch.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.

ACTIVE TEST

Operation Procedure

1. Touch “DOOR OPEN WARNING” 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	Description
DR OPN WARN LAMP	This test is able to check door warning lamp operation. Door warning lamp indicate when touch “ON” on CONSULT-II screen.

On Board Diagnosis

EKS00GD9

ON BOARD DIAGNOSTIC RESULTS INDICATOR LAMP

- Map lamps and step lamps (all seats) act as the indicators for the on board diagnosis.

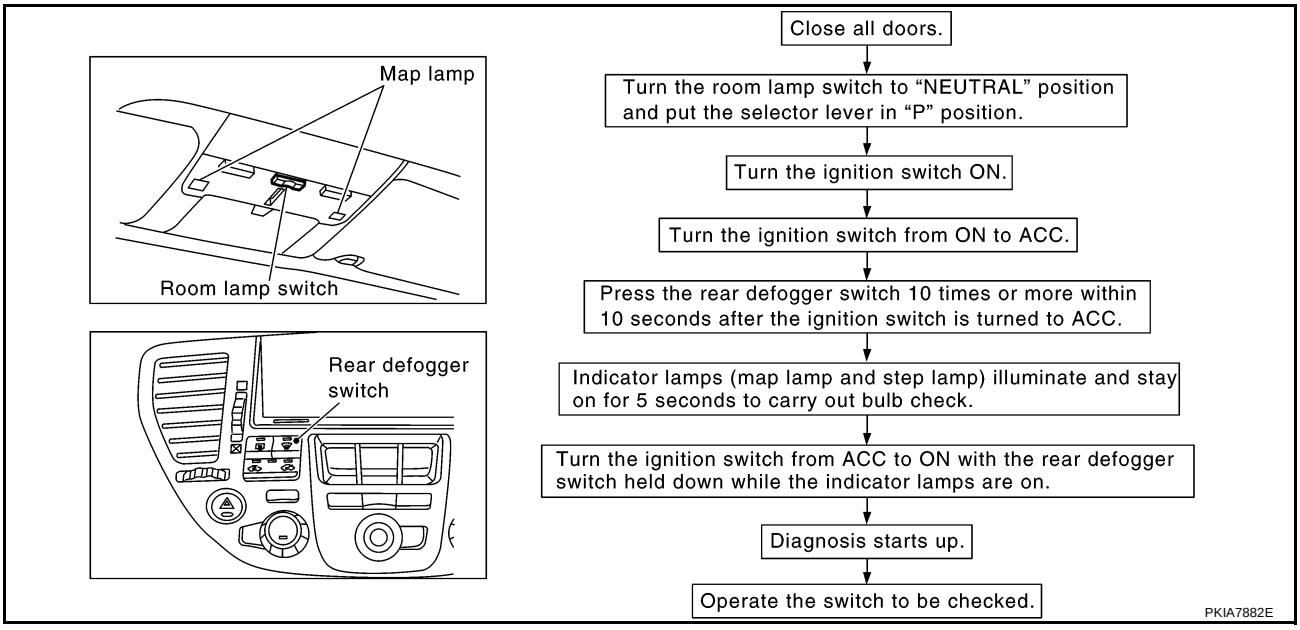
DIAGNOSIS ITEM

Diagnosis item	Description
Switch monitor	Monitoring conditions of switches connected to BCM.

SWITCH MONITOR

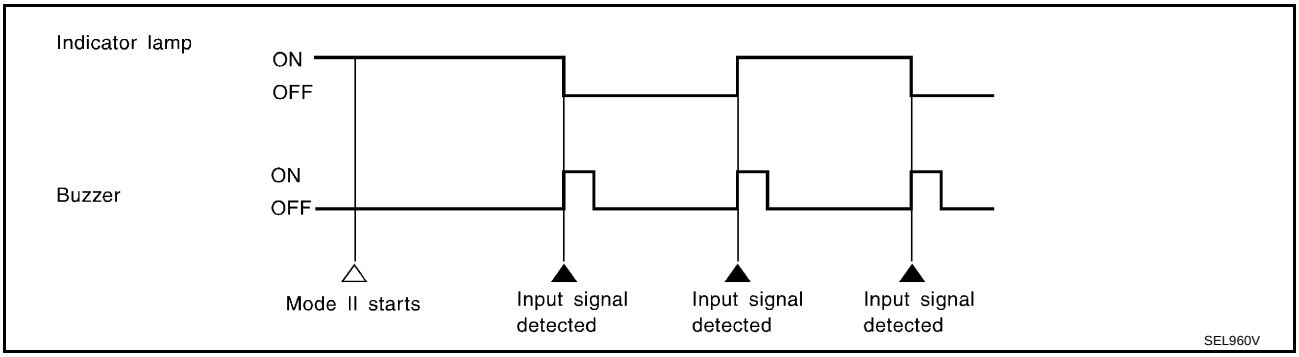
- Perform the diagnosis on the switch system to each control unit.

How to Perform Switch Monitor



Description

- In this mode, when BCM detects the input signal from a switch in IVMS as shown below, the detection is indicated by the map lamp and front step lamps with buzzer.



Switch Monitor Item

- The status of the switch (except the ignition switch, interior lamp switch, and map lamp switch) as input to each control unit can be monitored.

unit	monitored item
BCM	Front door switch (driver side)
	Front door switch (passenger side)
	Rear door switch LH
	Rear door switch RH

Cancel of Switch Monitor

- Turn ignition switch OFF.
- Drive the vehicle speed more than 7 km/h (4 MPH).

Trouble Diagnosis

EKS00GDA

HOW TO PROCEED WITH TROUBLE DIAGNOSIS

1. Confirm the symptom and customer complaint.
2. Understand the outline of system. Refer to DI-30, "System Description" .
3. Referring to trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to DI-48, "SYMPTOM CHART" .
4. Does warning lamp system operate normally? If it operates normally, GO TO 5. If not, GO TO 3.
5. INSPECTION END

SYMPTOM CHART

Symptom	Diagnoses/Service procedure
● Door warning lamp does not illuminate with any of doors opened. ● Door warning lamp illuminates constantly.	Perform the following inspections. 1. DI-48, "Combination Meter Circuit Inspection" 2. DI-49, "Front Door Switch Inspection" 3. DI-50, "Rear Door Switch Inspection" Replace BCM, found normal function in the above inspections.

Combination Meter Circuit Inspection

EKS00GDB

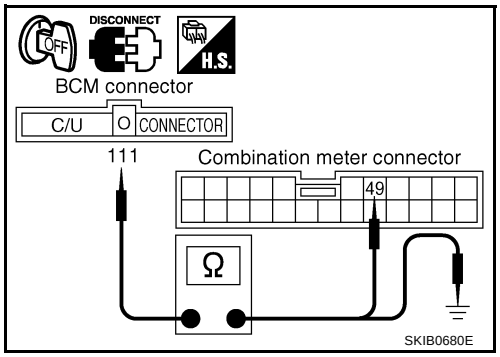
1. CHECK DOOR WARNING LAMP CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and combination meter connector.
3. Check continuity between BCM harness connector M4 terminal 111 (P/B) and combination meter harness connector M43 terminal 49 (P/B).

   111 (P/B) – 49 (P/B) : Continuity should exist.

4. Check continuity between BCM harness connector M4 terminal 111 (P/B) and ground.

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



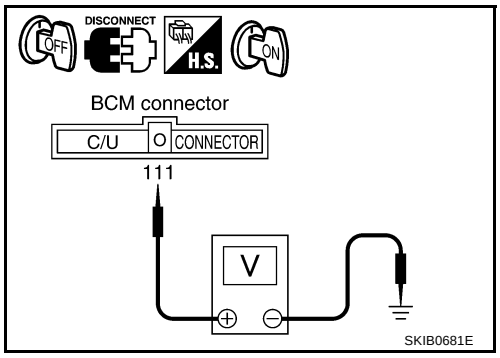
OK or NG

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

2. CHECK VOLTAGE OF COMBINATION METER

1. Connect combination meter connector.
2. Turn ignition switch ON.
3. Check voltage between BCM harness connector M4 terminal 111 (P/B) and ground.

   111 (P/B) – Ground : Approx. 12 V



OK or NG

OK >> Combination meter circuit is OK. Return to DI-48, "SYMPTOM CHART" .
NG >> Replace combination meter.

Front Door Switch Inspection

EKS00GDC

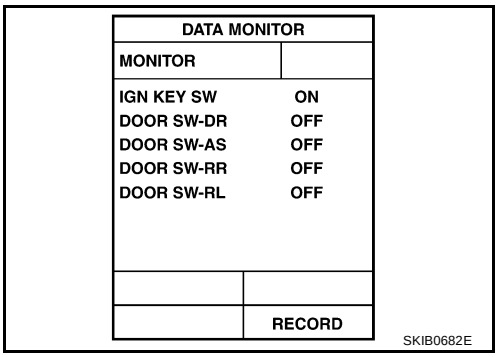
1. CHECK FRONT DOOR SWITCH OPERATION

With CONSULT-II

- Check front door switch “DOOR SW” in “DATA MONITOR” mode with CONSULT-II.

“DOOR SW-DR”
When driver door is open : ON
When driver door is closed : OFF

“DOOR SW-AS”
When passenger door is open : ON
When passenger door is closed : OFF



Without CONSULT-II

- Check front door switches in switch monitor mode. Refer to DI-47, "On Board Diagnosis" .

OK or NG

OK >> Front door switch is OK. Return to DI-48, "SYMPTOM CHART" .
NG 1: Driver door switch signal is irregular.>>GO TO 2.
NG 2: Passenger door switch signal is irregular.>>GO TO 3.

2. CHECK FRONT DOOR SWITCH (DRIVER SIDE) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and front door switch (driver side) connector.
3. Check continuity between BCM harness connector B4 terminal 142 (W/R) and front door switch (driver side) harness connector B20 terminal 1 (W/R).

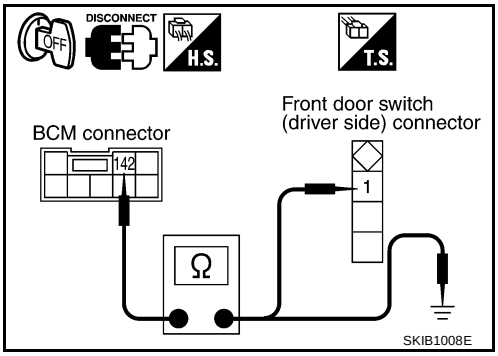
142 (W/R) – 1 (W/R) : Continuity should exist.

4. Check continuity between BCM harness connectors B4 terminal 142 (W/R) and ground.

142 (W/R) – Ground : Continuity should not exist.

OK or NG

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



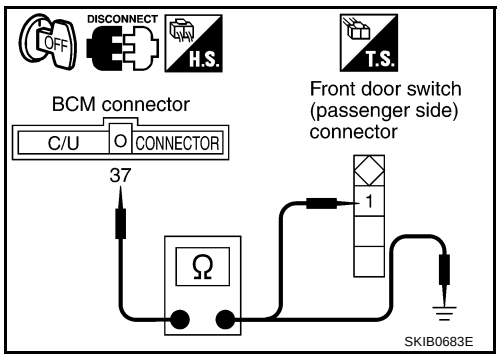
3. CHECK FRONT DOOR SWITCH (PASSENGER SIDE) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and front door switch (passenger side) connector.
3. Check continuity between BCM harness connector M4 terminal 37 (W/G) and front door switch (passenger side) harness connector B220 terminal 1 (W/G).

37 (W/G) – 1 (W/G) : Continuity should exist.

4. Check continuity between BCM harness connectors M4 terminal 37 (W/G) and ground.

37 (W/G) – Ground : Continuity should not exist.



OK or NG

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

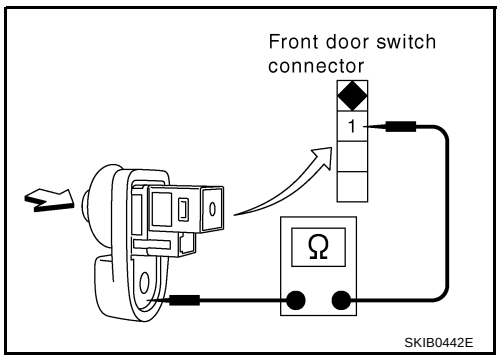
4. CHECK FRONT DOOR SWITCH

Check front 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.
NG >> Replace front door switch.

Rear Door Switch Inspection

EKS00GDD

1. CHECK REAR DOOR SWITCH OPERATION

With CONSULT-II

- Check rear door switch “DOOR SW” in “DATA MONITOR” mode with CONSULT-II.

“DOOR SW-RR”

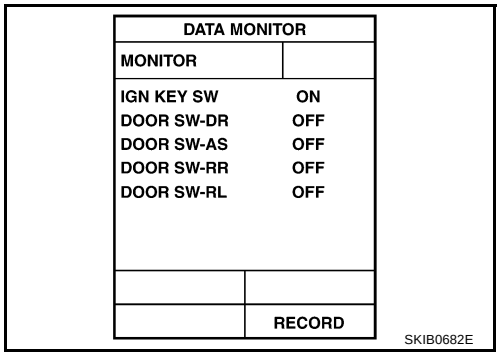
When rear door RH is open : ON

When rear door RH is closed : OFF

“DOOR SW-RL”

When rear door LH is open : ON

When rear door LH is closed : OFF



Without CONSULT-II

- Check rear door switches in switch monitor mode. Refer to DI-47, "On Board Diagnosis" .

OK or NG

OK >> Rear door switch is OK. Return to DI-48, "SYMPTOM CHART" .
NG 1: Rear door switch RH signal is irregular.>>GO TO 2.
NG 2: Rear door switch LH signal is irregular.>>GO TO 3.

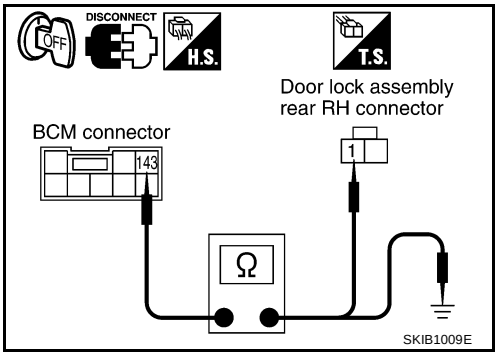
2. CHECK REAR DOOR SWITCH (RH) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and door lock assembly rear RH (door switch) connector.
3. Check continuity between BCM harness connector B4 terminal 143 (W/L) and door lock assembly rear RH (door switch) harness connector D82 terminal 1 (W).

143 (W/L) – 1 (W) : Continuity should exist.

4. Check continuity between BCM harness connector B4 terminal 143 (W/L) and ground.

143 (W/L) – Ground : Continuity should not exist.



OK or NG

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

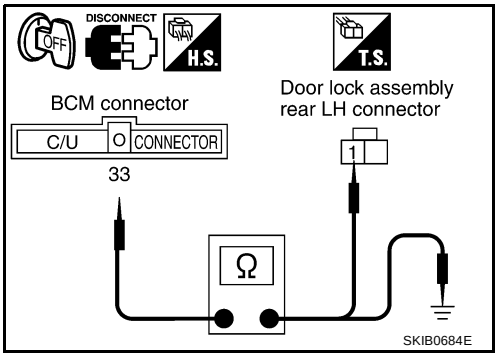
3. CHECK REAR DOOR SWITCH (LH) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and door lock assembly rear LH (door switch) connector.
3. Check continuity between BCM harness connector M4 terminal 33 (W) and door lock assembly rear LH (door switch) harness connector D62 terminal 1 (W).

33 (W) – 1 (W) : Continuity should exist.

4. Check continuity between BCM harness connector M4 terminal 33 (W) and ground.

33 (W) – Ground : Continuity should not exist.



OK or NG

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

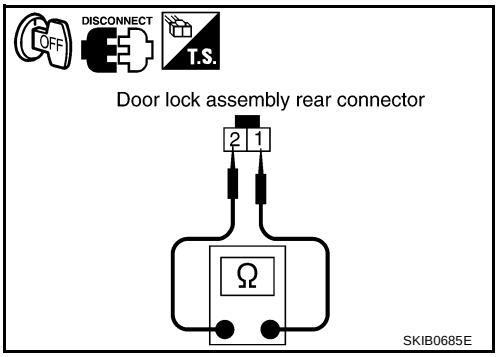
4. CHECK REAR DOOR SWITCH

Check continuity between door lock assembly rear (door switch) connector D62 or D82 terminals 1 and 2.

1 – 2

When rear door is open : Continuity should exist.

When rear door is close : Continuity should not exist.



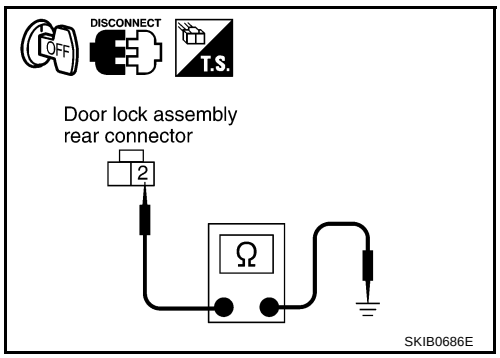
OK or NG

OK >> GO TO 5.
NG >> Replace door lock assembly rear (door switch).

5. CHECK REAR DOOR SWITCH GROUND CIRCUIT

Check continuity between door lock assembly rear (door switch) harness connector D62 or D82 terminal 2 (B) and ground.

2 (B) – Ground : Continuity should exist.



OK or NG

OK >> Replace BCM.
NG >> Check ground harness.

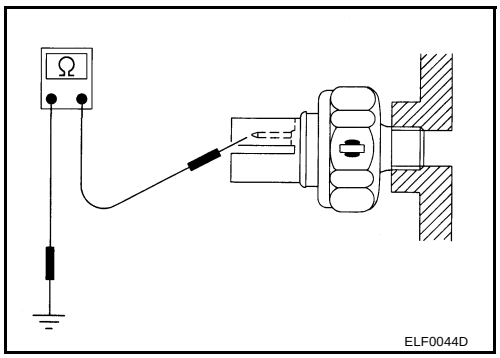
Electrical Components Inspection

EKS00GDE

OIL PRESSURE SWITCH

Check continuity between the oil pressure switch and ground.

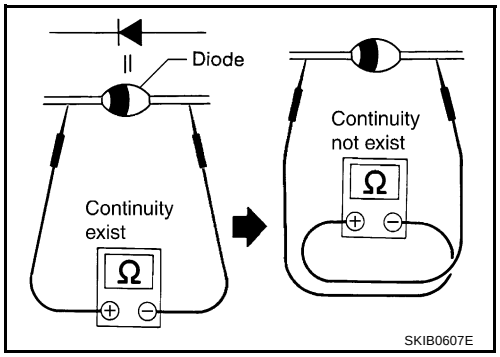
Condition	Oil pressure kPa (kg/cm^2 , psi)	Continuity
Engine stopped	Less than 29 (0.3, 4)	Yes
Engine running	More than 29 (0.3, 4)	No



DIODE CHECK

- Check continuity using an ohmmeter.
- Diode is functioning properly if test results are as shown in the figure.
- Check diodes at the combination meter harness connector instead of on the combination meter assembly. Refer to DI-35, "Wiring Diagram — WARN —" .

  NOTE:
  Specification may vary depending on the type of tester. Before performing this inspection, be sure to refer to the instruction manual for the tester to be used.

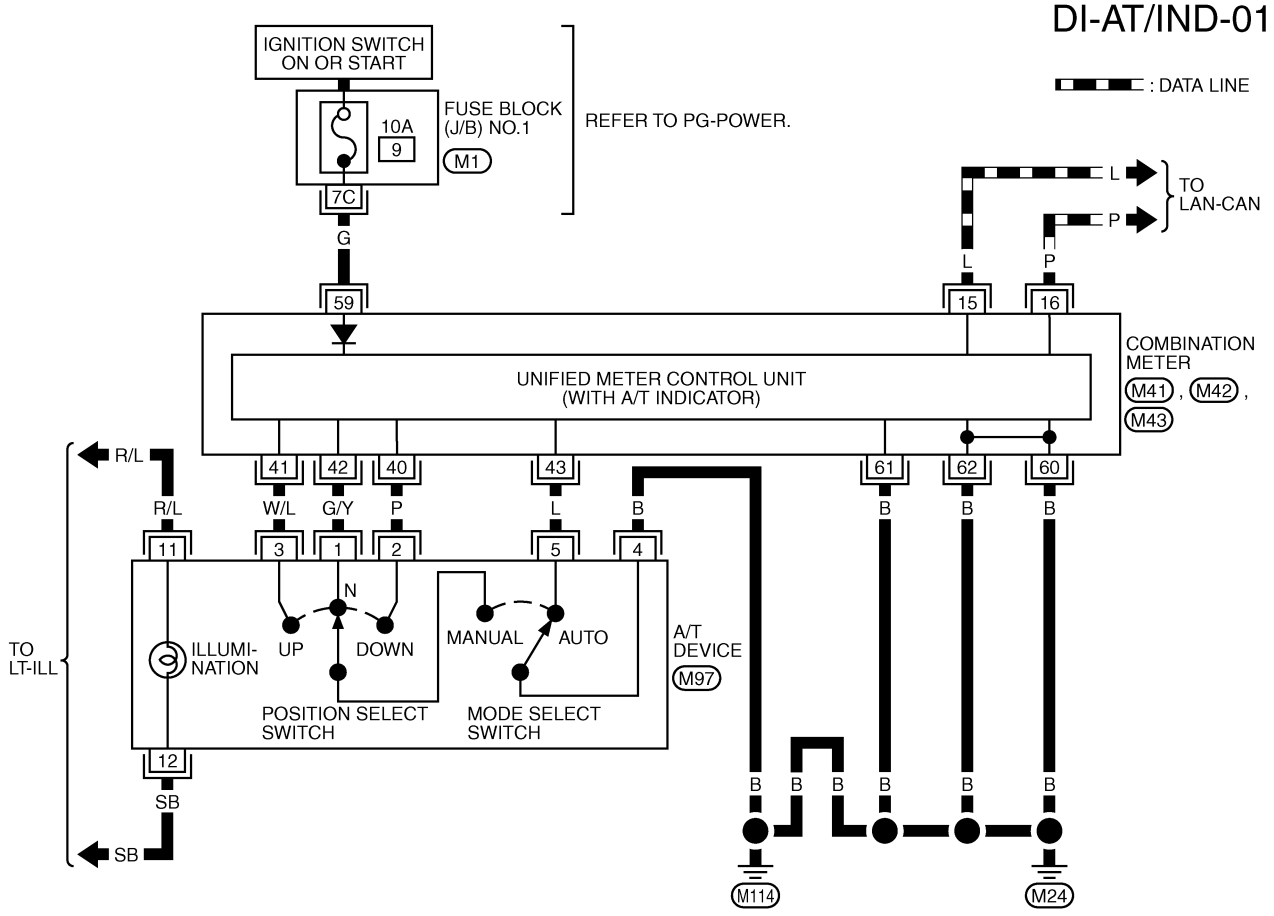


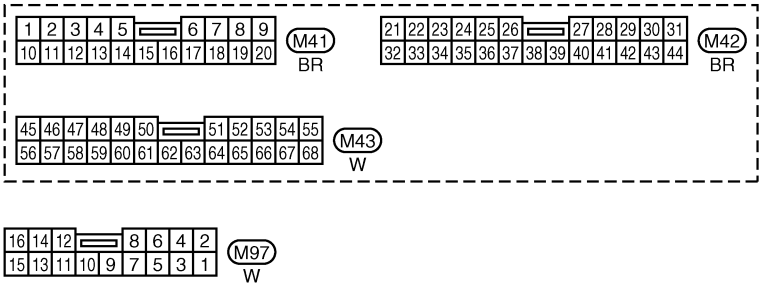
A/T INDICATOR

PFP:24814

Wiring Diagram — AT/IND —

EKS00GDF





REFER TO THE FOLLOWING.
M1 -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

TKWM1551E

A/T Indicator Does Not Illuminate

EKS00GDG

1. CHECK SELF-DIAGNOSIS

Perform combination meter self-diagnosis mode. Refer to DI-16, "Self-Diagnosis Mode of Combination Meter".

Are all A/T indicator segments displayed?

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

2. CHECK TCM CONTROL UNIT SYSTEM

Perform TCM self-diagnosis. Refer to AT-91, "CONSULT-II Function (A/T)" in AT section.

OK or NG

OK >> Replace combination meter.
NG >> Perform “Diagnosis Procedure” for displayed DTC.

WARNING CHIME

PFP:24814

System Description

EKS00GDH

FUNCTION

Item	Description
Ignition key warning chime	Sounds warning chime when driver door is opened with key in ignition key cylinder (ignition switch “OFF” or “ACC” position).
Light warning chime	Sounds warning chime when driver door is opened with lighting switch in the 1st or 2nd position and ignition switch “OFF” or “ACC” position.
Seat belt warning chime	Sounds warning chime for about 6 seconds if ignition switch is turned “ON” when driver seat belt is unfastened.

POWER SUPPLY AND GROUND CIRCUIT

Power is supplied at all times

- through 10A fuse [No. 3, located in the fuse block (J/B) No. 1]
- to BCM terminal 105,
- through 10A fuse [No. 6, located in the fuse block (J/B) No. 1]
- to warning chime terminal 1
- through warning chime terminal 3
- to BCM terminal 12,
- through 10A fuse [No. 32, located in the fuse block (J/B) No. 2]
- to key switch and key lock solenoid (key switch) terminal 3,
- through 15A fuse [No. 54, located in the fuse, fusible link and relay block (J/B)]
- to tail lamp relay terminals 2 and 6 [located in fuse, fusible link and relay block (J/B)].

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

- through 10A fuse [No. 1, located in the fuse block (J/B) No. 1]
- to BCM terminal 68.

Ground is supplied

- to BCM terminals 56 and 113
- through grounds M24 and M114.

When a signal, or combination of signals, is received by the BCM, the warning chime will sound.

IGNITION KEY WARNING CHIME

With key inserted in the ignition key cylinder (OFF or ACC position) and the driver door open, the warning chime will sound.

Power is supplied at signal

- through key switch and key lock solenoid (key switch) terminal 4
- to BCM terminal 69.

Ground is supplied at signal

- to BCM terminal 142
- through front door switch (driver side) terminal 1.

Front door switch (driver side) is case ground.

LIGHT WARNING CHIME

With ignition switch in OFF or ACC position, driver door open, and lighting switch in 1ST or 2ND position, the warning chime will sound.

Power is supplied at signal

- from tail lamp relay [located in fuse, fusible link and relay block (J/B)] terminal 7
- to BCM terminal 3.

Ground is supplied at signal

- from front door switch (driver side) terminal 1
- to BCM terminal 142.

Front door switch (driver side) is case ground.

SEAT BELT WARNING CHIME

With ignition switch turned ON and seat belt unfastened (seat belt switch ON), warning chime will sound for approximately 6 seconds.
Ground is supplied at signal

- from seat belt buckle switch terminal 41
- to BCM terminal 147.

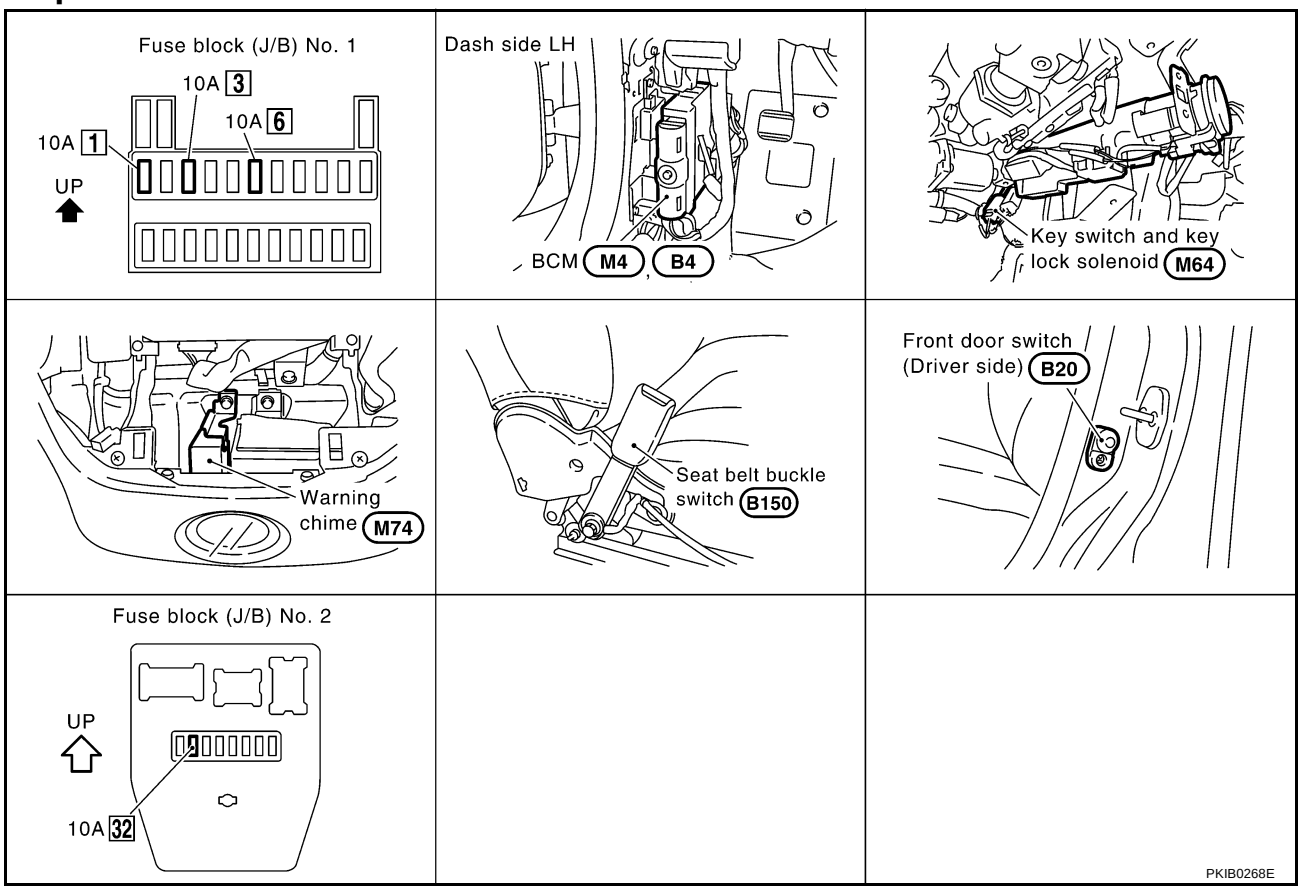
Seat belt terminal 15A is grounded through grounds B17 and B57.

MAJOR COMPONENT PARTS AND FUNCTION

Components	Functions
BCM	It operates the warning chime intermittently by signals from the ignition switch, key-in detection switch, lighting switch, or front door switch (driver side).
Warning chime	It generates intermittent sounds by signals from the BCM.

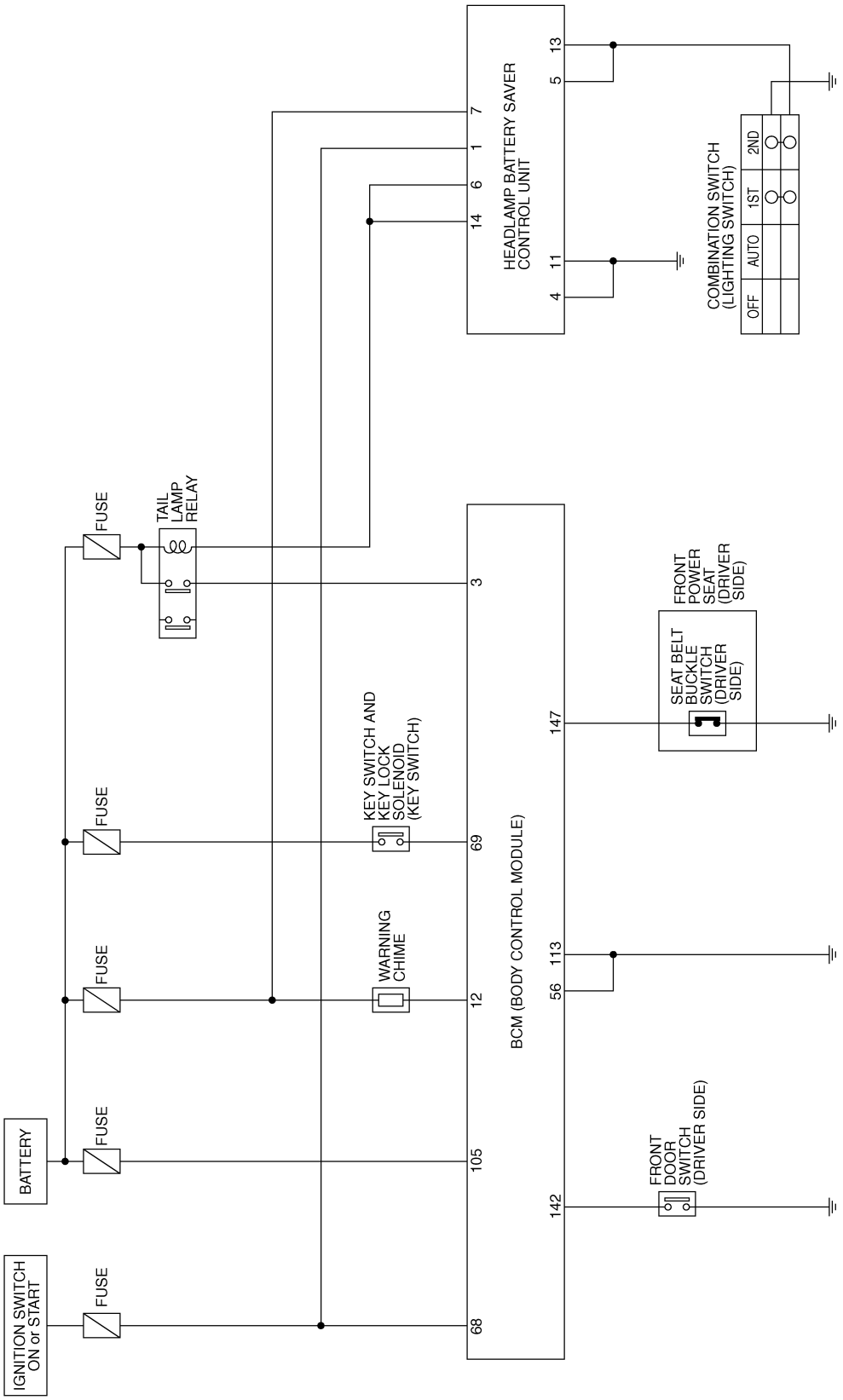
Component Parts and Harness Connector Location

EKS00GDI



Schematic

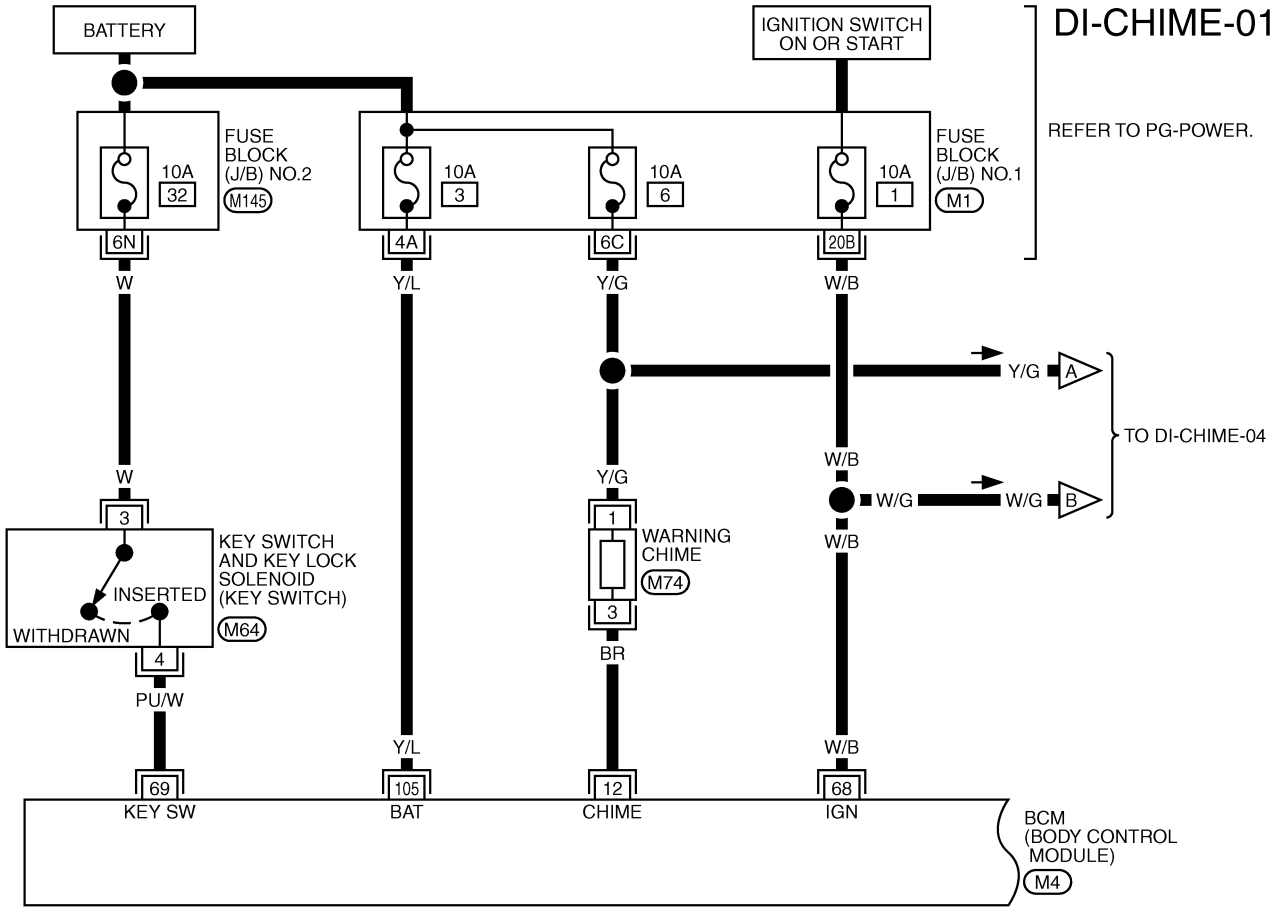
EKS00GFS



TKWM0533E

Wiring Diagram — CHIME —

EKS00GDJ



REFER TO THE FOLLOWING.

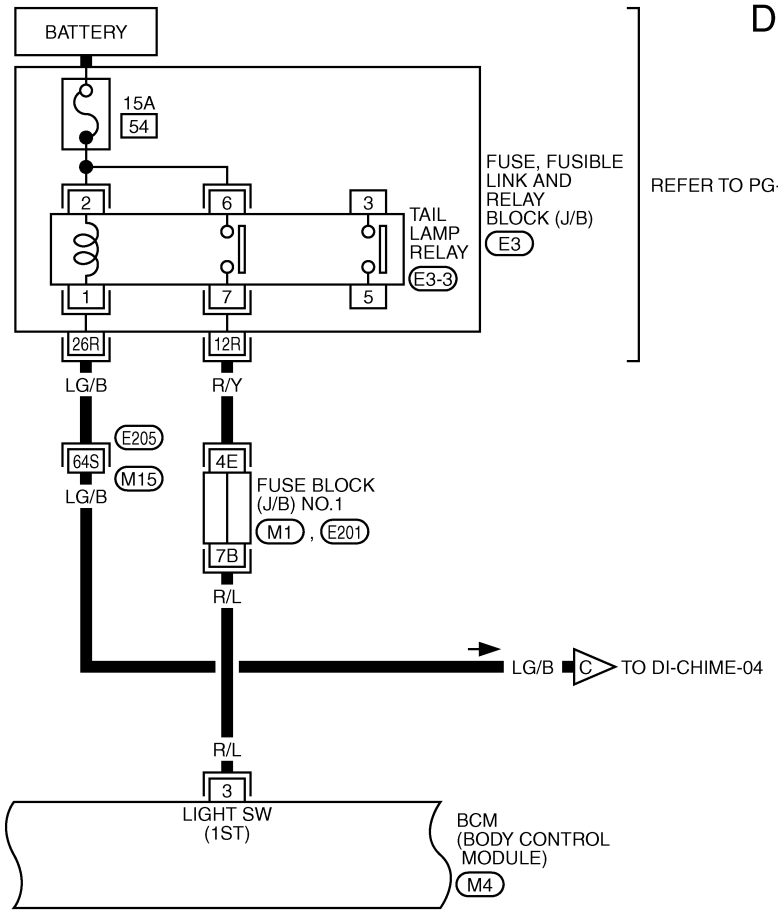
M1 -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

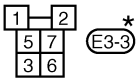
M145 -FUSE BLOCK-JUNCTION BOX (J/B) NO.2

M4 -ELECTRICAL UNITS

TKWM1552E

DI-CHIME-02





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

REFER TO THE FOLLOWING.

E205 -SUPER MULTIPLE JUNCTION (SMJ)

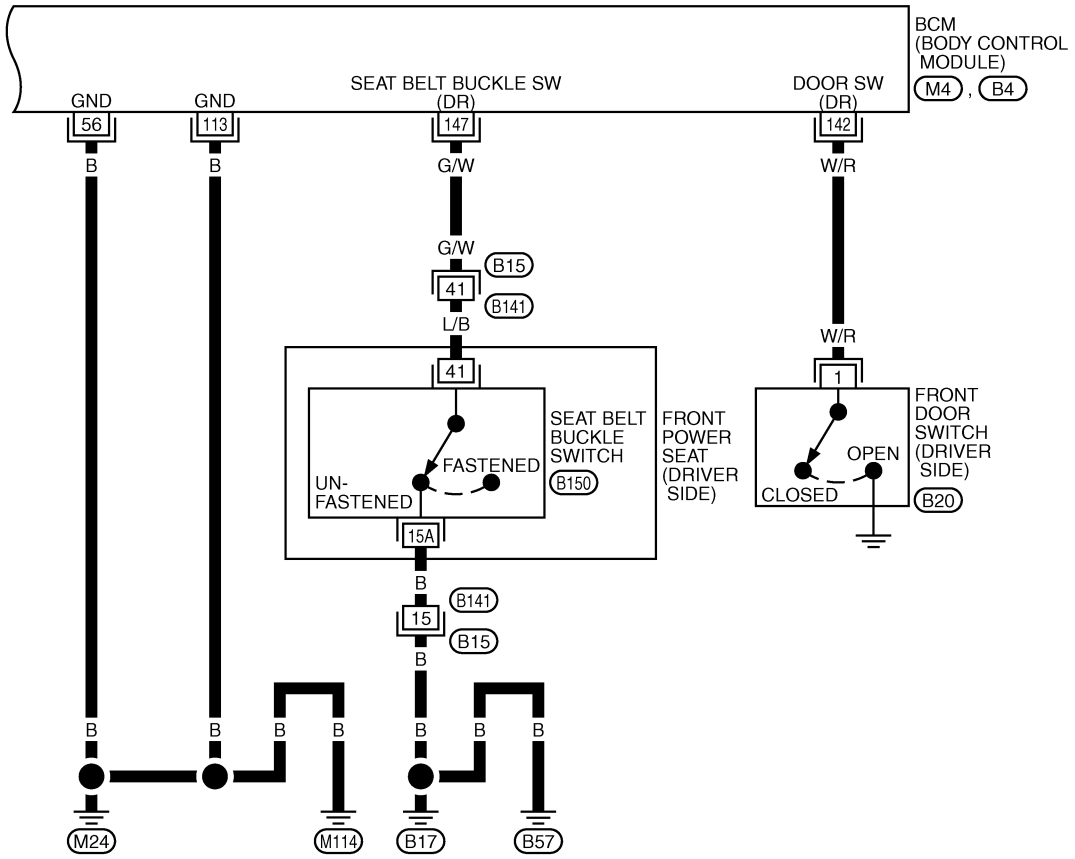
M1 , E201 -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

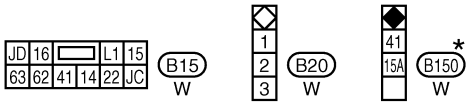
E3 -FUSE, FUSIBLE LINK AND RELAY BLOCK (J/B)

M4 -ELECTRICAL UNITS

TKWM1553E

DI-CHIME-03

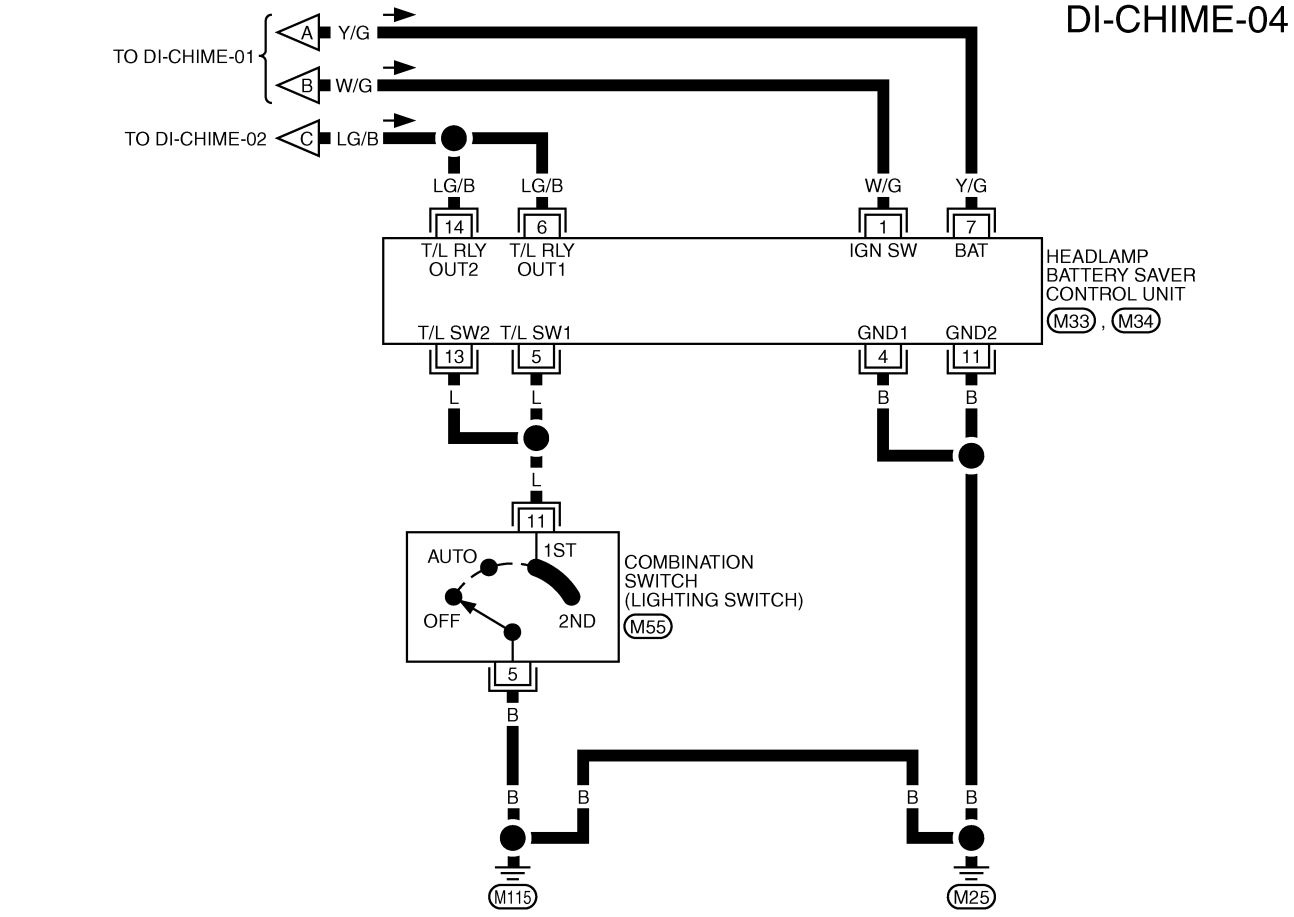


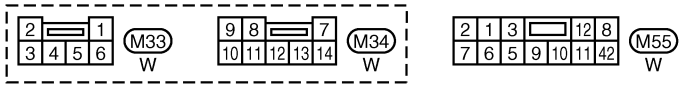


*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

REFER TO THE FOLLOWING.
M4 , B4 -ELECTRICAL UNITS

TKWM1554E

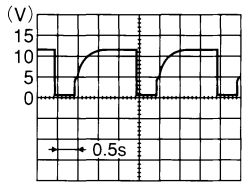
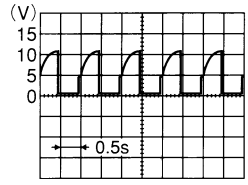

DI-CHIME-04
TO DI-CHIME-01
A
Y/G
B
W/G
TO DI-CHIME-02
C
LG/B
LG/B
LG/B
W/G
Y/G
14
6
1
7
T/L RLY OUT2
T/L RLY OUT1
IGN SW
BAT
HEADLAMP BATTERY SAVER CONTROL UNIT
M33 , M34
T/L SW2
T/L SW1
GND1
GND2
13
5
4
11
L
L
B
B
L
11
AUTO
1ST
OFF
2ND
COMBINATION SWITCH (LIGHTING SWITCH)
M55
5
B
B
B
B
B
M115
M25


M33
W
M34
W
M55
W

TKWM1555E

Terminals and Reference Value Chart for BCM

EKS00GDK

Terminal No.	Wire color	Item	Condition			Reference value (V)
			Ignition switch	Operation		
3	R/L	Lighting switch signal	OFF	Lighting switch is 1ST or 2ND position.		Approx. 12
				Lighting switch is OFF position.		Approx. 0
12	BR	Warning chime signal	OFF	[Ignition key warning chime] Driver door is open. Lighting switch is OFF position.	Key is inserted.	 ELN0529D
					Key is removed.	Approx. 12
				[Light warning chime] Lighting switch is 1ST or 2ND position.	Driver door is open.	 ELN0530D
					Driver door is closed.	Approx. 12
56	B	Ground	ON	–		Approx. 0
68	W/B	Ignition switch (ON)	ON	–		Battery voltage
69	PU/W	Key switch and key lock solenoid (key switch)	OFF	Key is removed.		Approx. 0
				Key is inserted.		Approx. 12
105	Y/L	Battery power supply	OFF	–		Battery voltage
113	B	Ground	ON	–		Approx. 0
142	W/R	Front door switch (driver side)	OFF	Driver door is open.		Approx. 0
				Driver door is closed.		Approx. 12
147	G/W	Seat belt buckle switch (driver side)	ON	Fasten.		Approx. 5
				Unfasten.		Approx. 0

CONSULT-II Function

EKS00GDL

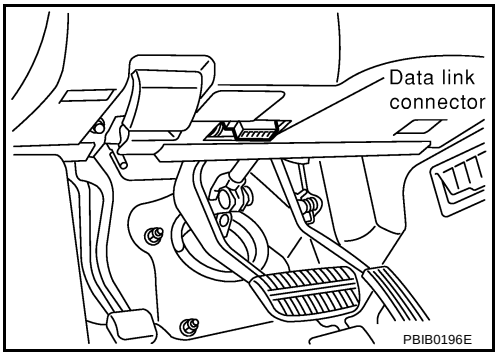
- CONSULT-II performs the following functions communicating with the BCM.

DIAGNOSTIC ITEMS DESCRIPTION

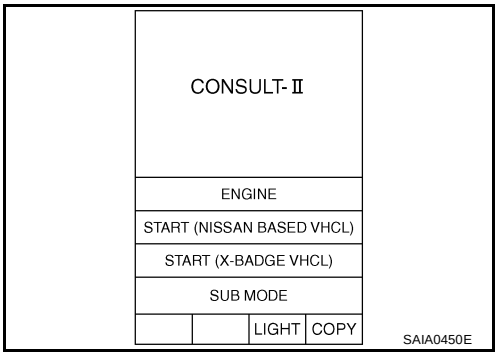
IVMS diagnosis position	Diagnosis mode	Description
IGN KEY WARN ALM	DATA MONITOR	The input data to the BCM control unit is displayed in real time.
	ACTIVE TEST	Operation of electrical loads can be checked by sending driving signal to them.
LIGHT WARN ALM	DATA MONITOR	The input data to the BCM control unit is displayed in real time.
	ACTIVE TEST	Operation of electrical loads can be checked by sending driving signal to them.
SEAT BELT TIMER	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 PART NUMBER		Displays BCM part number.

CONSULT-II BASIC OPERATION PROCEDURE

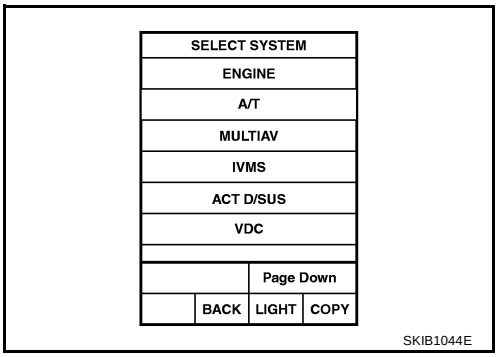
1. With the ignition switch OFF, connect “CONSULT-II” and “CONSULT-II CONVERTER” to the data link connector, and turn the ignition switch ON.



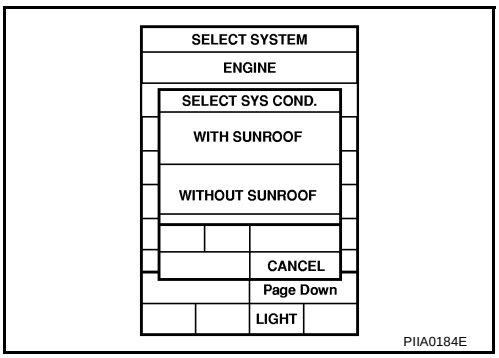
2. Touch “START (NISSAN BASED VHCL)”.



3. Touch “IVMS” on “SELECT SYSTEM” screen. If “IVMS” is not indicated, go to GI-38, "CONSULT-II Data Link Connector (DLC) Circuit" .



4. Check the model specification, touch either “WITH SUNROOF” or “WITHOUT SUNROOF”.
5. Touch “OK”. If the selection is wrong, touch “CANCEL”.
6. Select the desired part to be diagnosed on the “SELECT TEST ITEM” screen.



DATA MONITOR

Operation Procedure

1. Touch “IGN KEY WARN ALM”, “LIGHT WARN ALM” or “SEAT BELT TIMER” 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 the all items.
SELECTION FROM MENU	Selects and monitors the items.

4. If “SELECTION FROM MENU” is selected, touch the desired monitor item. If “ALL SIGNALS” is selected, the main item required to control is monitored.
5. Touch “START”.
6. During monitoring, touching “COPY” can start recording the monitor item status.

Data Monitor Item (Key Warning Chime)

Monitored item	Description
IGN KEY SW	Indicates [ON/OFF] condition of electronic key switch.
IGN ON SW	Indicates [ON/OFF] condition of ignition switch.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch LH.

Data Monitor Item (Light Warning Chime)

Monitored item	Description
IGN ON SW	Indicates [ON/OFF] condition of ignition switch.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch LH.
HD/LAMP 1ST SW	Indicates [ON/OFF] condition of lighting switch.

Data Monitor Item (Seat Belt Warning Chime)

Monitored item	Description
IGN ON SW	Indicates [ON/OFF] condition of ignition switch.
SEAT BELT SW	Indicates [ON/OFF] condition of fastening belt buckle switch.

ACTIVE TEST

Operation Procedure

1. Touch “IGN KEY WARN ALM”, “LIGHT WARN ALM” or “SEAT BELT TIMER” 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 (Key Warning Chime)

Test item	Description
CHIME	This test is able to check key warning chime operation. Key warning chime sounds for 2 seconds after touching “ON” on CONSULT-II screen.

Active Test Item (Light Warning Chime)

Test item	Description
CHIME	This test is able to check light warning chime operation. Light warning chime sounds for 2 seconds after touching “ON” on CONSULT-II screen.

Active Test Item (Seat Belt Warning Chime)

Test item	Description
CHIME	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.

On Board Diagnosis

EKS00GDM

ON BOARD DIAGNOSTIC RESULTS INDICATOR LAMP

- Map lamps and step lamps (all seats) act as the indicators for the on board diagnosis.

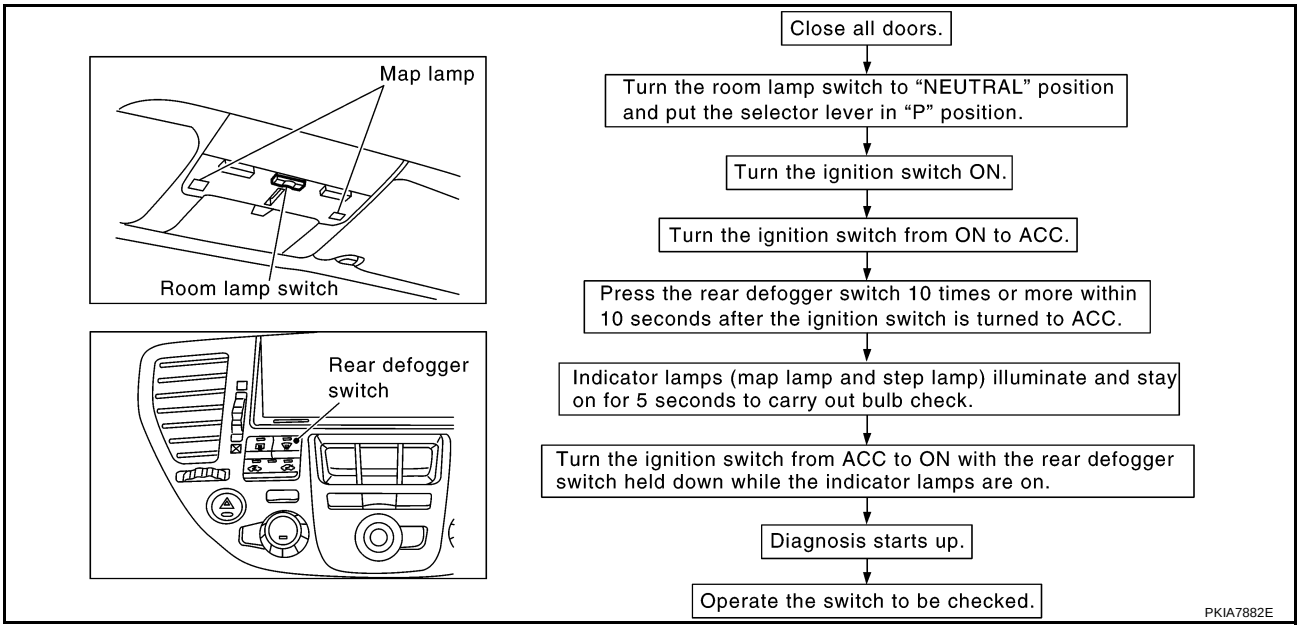
DIAGNOSIS ITEM

Diagnosis item	Description
Switch monitor	Monitoring conditions of switches connected to BCM.

SWITCH MONITOR

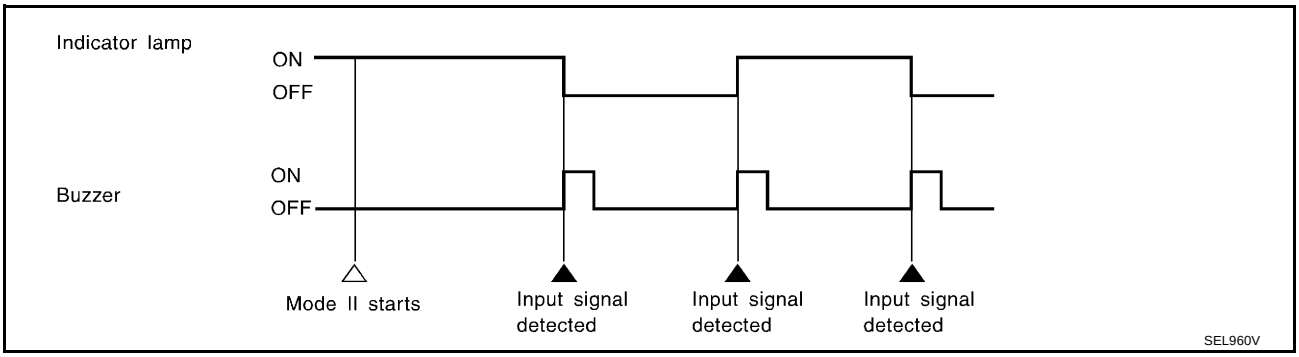
- Perform the diagnosis on the switch system to each control unit.

How to Perform Switch Monitor



Description

- In this mode, when BCM detects the input signal from a switch in IVMS as shown below, the detection is indicated by the map lamp and front step lamps with buzzer.



Switch Monitor Item

- The status of the switch (except the ignition switch, interior lamp switch, and map lamp switch) as input to each control unit can be monitored.

unit	monitored item
BCM	Driver door switch
	Lighting switch (1ST)
	Seat belt buckle switch

Cancel of Switch Monitor

- Turn ignition switch OFF.
- Drive the vehicle at more than 7 km/h (4 MPH).

Trouble Diagnosis

EKS00GDN

HOW TO PROCEED WITH TROUBLE DIAGNOSIS

1. Confirm the symptom and customer complaint.
2. Understand the outline of system. Refer to DI-55, "System Description" .
3. Referring to symptom chart, repair or replace the cause of the malfunction. Refer to DI-66, "SYMPTOM CHART" .
4. Does warning chime system operate normally? If it operates normally, GO TO 5. If not, GO TO 3.
5. INSPECTION END

SYMPTOM CHART

Symptom	Diagnoses/Service procedure
All warning chime does not activate.	Perform the following inspections. 1. DI-66, "Power Supply and Ground Circuit Inspection" 2. DI-67, "Warning Chime Circuit Inspection" Replace BCM, found normal function in the above inspections.
Light warning chime and key warning chime does not activate. (Seat belt warning chime does activate.)	DI-68, "Front Door Switch (Driver Side) Input Signal Inspection" Replace BCM, found normal function in the above inspection.
Light warning chime does not activate. (head lamp system is normal).	DI-69, "Lighting Switch Input Signal Inspection" Replace BCM, found normal function in the above inspection.
Key warning chime does not activate.	DI-70, "Key Switch Insert Signal Inspection" Replace BCM, found normal function in the above inspection.
Seat belt warning chime does not activate.	DI-71, "Seat Belt Buckle Switch Input Signal Inspection" Replace BCM, found normal function in the above inspection.

Power Supply and Ground Circuit Inspection

EKS00GDO

1. CHECK FUSE

Check for blown BCM and warning chime fuses.

Unit	Power source	Fuse No.
BCM	Battery	3
	Ignition switch ON or START	1
Warning chime	Battery	6

OK or NG

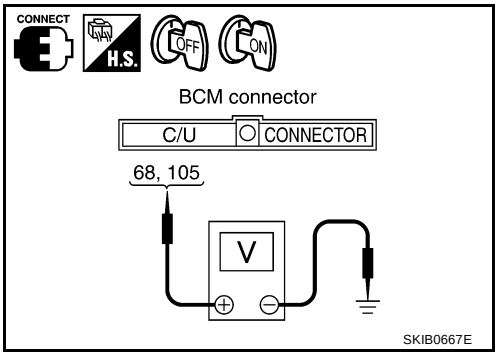
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to PG-2, "POWER SUPPLY ROUTING" .

2. CHECK POWER SUPPLY CIRCUIT

Check voltage between BCM harness connector M4 terminals 68 (W/B), 105 (Y/L) and ground.

Terminals			Ignition switch position	
(+)		(–)	OFF	ON
Connector	Terminal (Wire color)			
M4	68 (W/B)	Ground	0V	Battery voltage
	105 (Y/L)		Battery voltage	Battery voltage



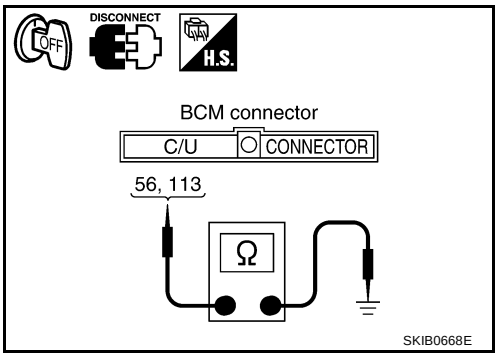
OK or NG

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 M4 terminals 56 (B), 113 (B) and ground.

56 (B) – Ground
113 (B) – Ground **: Continuity should exist.**



OK or NG

OK >> Power supply and ground circuit are OK. Return to DI-66, "SYMPTOM CHART" .
NG >> Check ground harness.

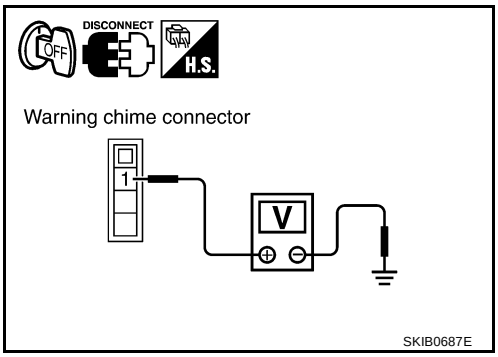
Warning Chime Circuit Inspection

EKS00GDP

1. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect warning chime connector.
3. Check voltage between warning chime harness connector M74 terminal 1 (Y/G) and ground.

1 (Y/G) – Ground **: Battery voltage**



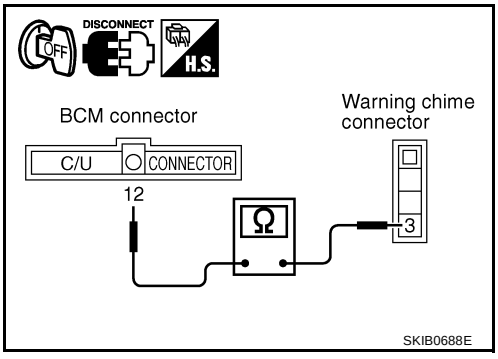
OK or NG

OK >> GO TO 2.
NG >> Check harness between fuse and warning chime.

2. CHECK WARNING CHIME OPEN CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between warning chime harness connector M74 terminal 3 (BR) and BCM harness connector M4 terminal 12 (BR).

3 (BR) – 12 (BR) **: Continuity should exist.**



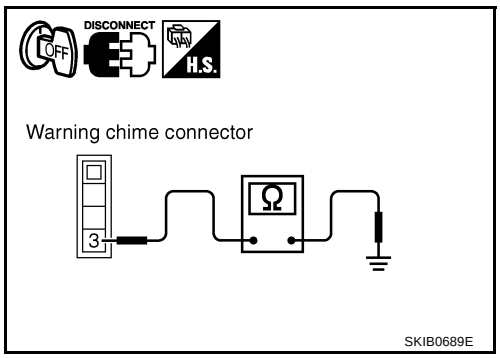
OK or NG

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

3. CHECK WARNING CHIME SHORT CIRCUIT

Check continuity between warning chime harness connector M74 terminal 3 (BR) and ground.

3 (BR) – Ground : Continuity should not exist.



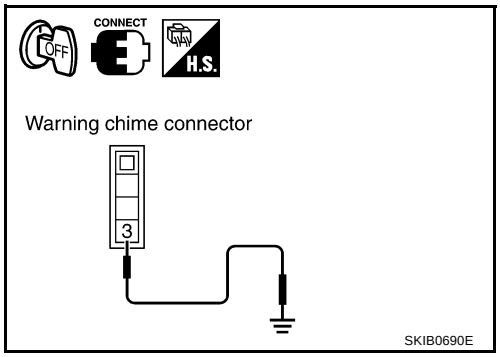
OK or NG

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

4. CHECK WARNING CHIME OPERATION

1. Connect warning chime connector.
2. Ground warning chime harness connector M74 terminal 3 (BR).

3 (BR) – Ground : Warning chime should operate.



OK or NG

OK >> Warning chime circuit is OK. Return to DI-66, "SYMPTOM CHART" .
NG >> Replace warning chime.

Front Door Switch (Driver Side) Input Signal Inspection

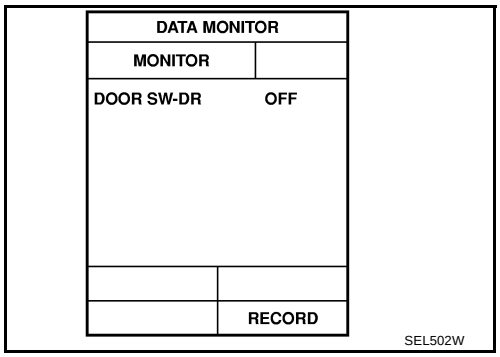
EKS00GDQ

1. CHECK FRONT DOOR SWITCH (DRIVER SIDE) INPUT SIGNAL

With CONSULT-II

- Check front door switch “DOOR SW-DR” in “DATA MONITOR” mode with CONSULT-II.

“DOOR SW-DR”
When driver door is open : ON
When driver door is closed : OFF



Without CONSULT-II

- Check front door switch (driver side) in “SWITCH MONITOR” mode, refer to DI-65, "On Board Diagnosis" .

OK or NG

OK >> Front door switch (driver side) input signal is OK. Return to DI-66, "SYMPTOM CHART" .
NG >> GO TO 2.

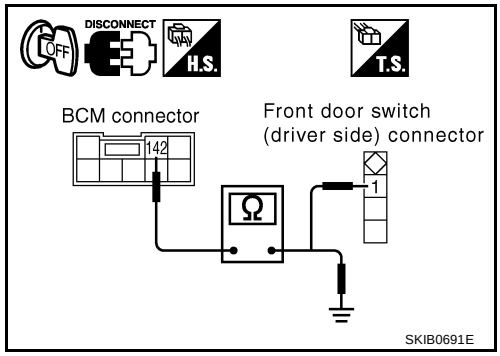
2. CHECK DOOR SWITCH OPEN OR SHORT CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and front door switch (driver side) connector.
3. Check continuity between BCM harness connector B4 terminal 142 (W/R) and front door switch (driver side) connector B20 terminal 1 (W/R)

142 (W/R) – 1 (W/R) : Continuity should exist.

4. Check continuity between BCM harness connector B4 terminal 142 (W/R) and ground

142 (W/R) – Ground : Continuity should not exist.



OK or NG

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

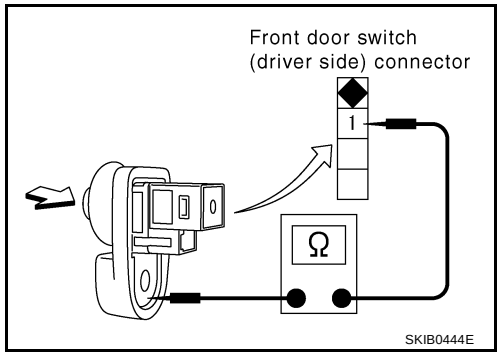
3. CHECK DOOR SWITCH (DRIVER SIDE)

Check front door switch (driver side).

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.
NG >> Replace front door switch (driver side).

Lighting Switch Input Signal Inspection

EKS00GDS

1. CHECK LIGHTING SWITCH INPUT SIGNAL

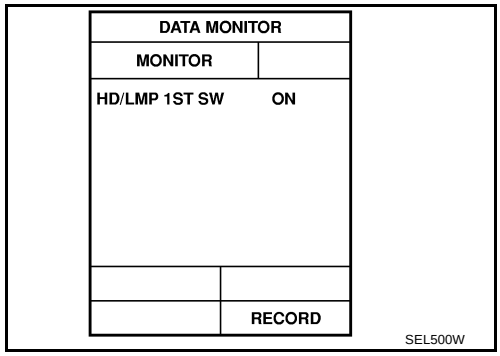
With CONSULT-II

- Check lighting switch “HD/LMP 1ST SW” in “DATA MONITOR” mode with CONSULT-II.

“HD/LMP 1ST SW”

When lighting switch is 1ST or 2ND : ON

When lighting switch is OFF : OFF



Without CONSULT-II

- Check lighting switch in switch monitor mode, refer to DI-65, "On Board Diagnosis" .

OK or NG

OK >> Lighting switch input signal is OK. Return to DI-66, "SYMPTOM CHART" .
NG >> GO TO 2.

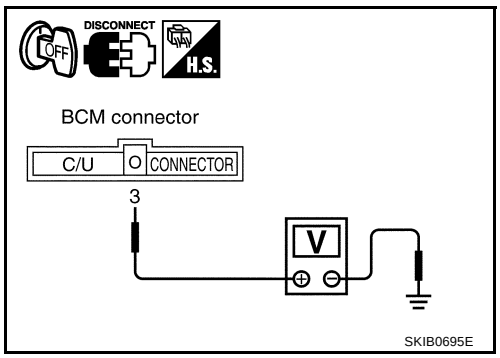
2. CHECK TAIL LAMP RELAY CONTROL SIGNAL

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check voltage between BCM harness connector M4 terminal 3 (R/L) and ground.

3 (R/L) – Ground

When lighting switch is 1ST or 2ND : Approx. 12 V

When lighting switch is OFF : Approx. 0 V



OK or NG

OK >> Replace BCM.
NG >> Check harness between BCM and tail lamp relay.

Key Switch Insert Signal Inspection

EKS00GDR

1. CHECK KEY SWITCH INPUT SIGNAL

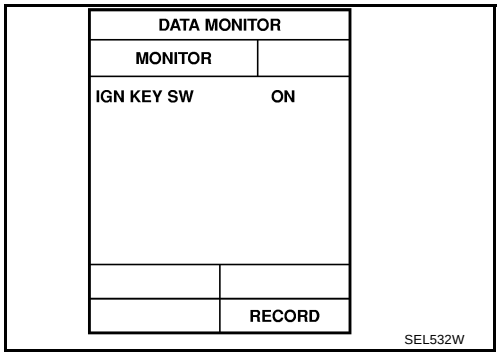
With CONSULT-II

- Check key switch “IGN KEY SW” in “DATA MONITOR” mode with CONSULT-II.

“IGN KEY SW”

When key is inserted to ignition key cylinder : ON

When key is removed to ignition key cylinder : OFF



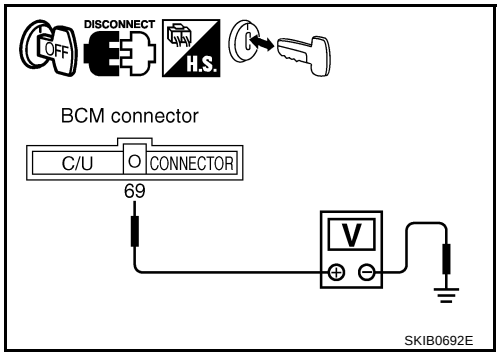
Without CONSULT-II

1. Disconnect BCM connector.
2. Check voltage between BCM harness connector M4 terminal 69 (PU/W) and ground.

69 (PU/W) – Ground

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

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



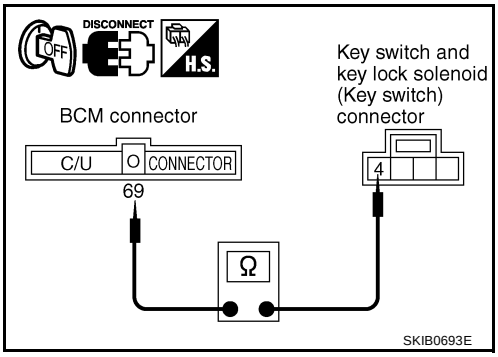
OK or NG

OK >> Key switch insert signal is OK. Return to DI-66, "SYMPTOM CHART" .
NG >> GO TO 2.

2. CHECK KEY SWITCH CIRCUIT

1. Remove key from the ignition key cylinder.
2. Disconnect key switch and key lock solenoid (key switch) connector.
3. Check continuity between BCM harness connector M4 terminal 69 (PU/W) and key switch and key lock solenoid (key switch) harness connector M64 terminal 4 (PU/W).

69 (PU/W) – 4 (PU/W) : Continuity should exist.



OK or NG

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

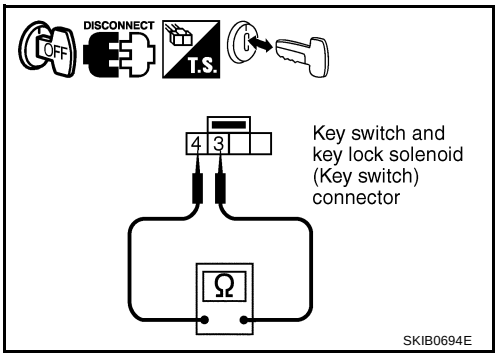
3. CHECK KEY SWITCH (INSERT)

Check continuity between key switch and key lock solenoid (key switch) connector M64 terminals 3 and 4.

3 – 4

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

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



OK or NG

OK >> Check harness between fuse and key switch.
NG >> Replace key switch and key lock solenoid (key switch).

Seat Belt Buckle Switch Input Signal Inspection

EKS001F7

1. CHECK SEAT BELT BUCKLE SWITCH INPUT SIGNAL

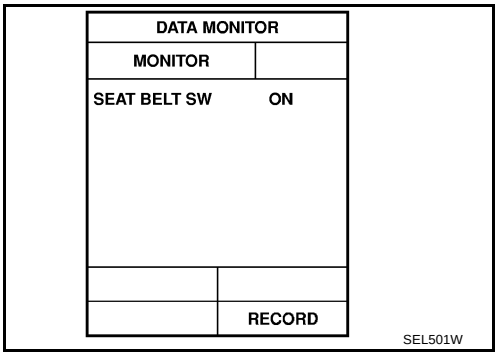
With CONSULT-II

Check seat belt buckle switch “SEAT BELT SW” in “DATA MONITOR” mode with CONSULT-II.

“SEAT BELT SW”

When seat belt is fastened : ON

When seat belt is unfastened : OFF



Without CONSULT-II

Check seat belt buckle switch in switch monitor mode, refer to DI-65, "On Board Diagnosis" .

OK or NG

OK >> Seat belt buckle switch Input signal is OK. Return to DI-66, "SYMPTOM CHART" .
NG >> GO TO 2.

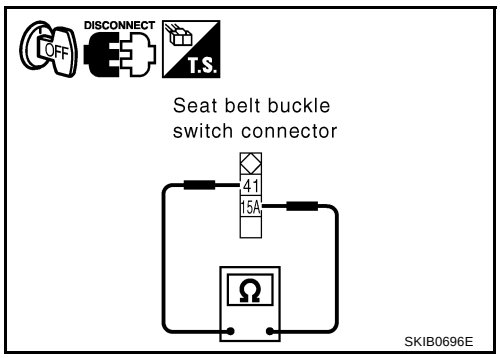
2. CHECK SEAT BELT BUCKLE SWITCH

1. Turn ignition switch OFF.
2. Disconnect seat belt buckle switch connector.
3. Check continuity between seat belt buckle switch connector B150 terminals 41 and 15A.

41 – 15A

When seat belt is fastened : Continuity should not exist.

When seat belt is unfastened : Continuity should exist.



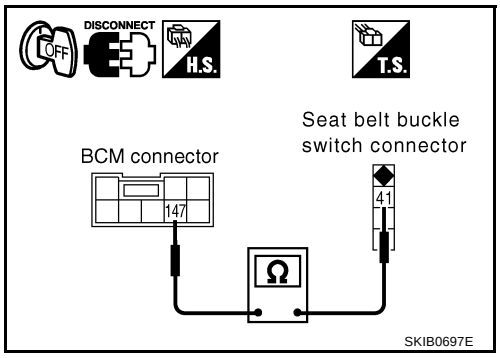
OK or NG

OK >> GO TO 3.
NG >> Replace seat belt buckle switch.

3. CHECK SEAT BELT BUCKLE SWITCH CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector B4 terminal 147 (G/W) and seat belt buckle switch harness connector B150 terminal 41 (L/B).

147 (G/W) – 41 (L/B) : Continuity should exist.



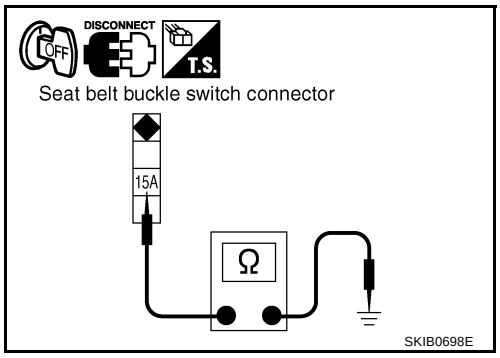
OK or NG

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

4. CHECK SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

Check continuity between seat belt buckle switch harness connector B150 terminal 15A (B) and ground.

15A (B) – Ground : Continuity should exist.



OK or NG

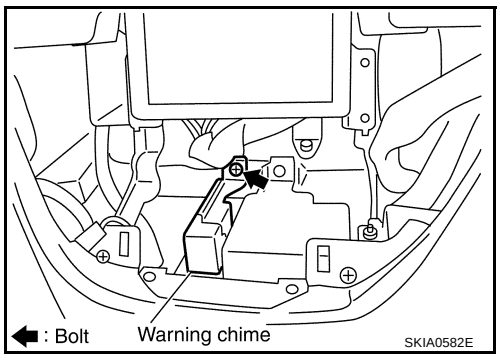
OK >> Replace BCM.
NG >> Repair harness or connector.

Removal and Installation of Warning Chime

EKS00GDT

REMOVAL

1. Remove cluster lid C. Refer to IP-10, "INSTRUMENT PANEL ASSEMBLY" .
2. Remove bolt (1), and remove warning chime.



INSTALLATION

Installation is the reverse order of removal.

VEHICLE INFORMATION AND INTEGRATED SWITCH SYSTEM /WITHOUT NAVIGATION SYSTEM

PFP:28395

System Description

EKS00GE9

INTEGRATED SWITCH SYSTEM

Using the multifunction switch at the center of the instrument panel, the controls of the following systems are centralized:

- Auto A/C system
- Vehicle information system
- Audio system

The multifunction switch can operate and check the vehicle condition and each setting (vehicle electrical system).

PRECAUTION OF LCD MONITOR

- When passenger compartment temperature is low, the LCD monitor sometimes dims because of the brightness of the back light (small fluorescent light) integrated into the LCD monitor decrease. In this case, the refreshing rate of the picture also becomes low because of the low response of the LCD monitor. When passenger compartment becomes warm, however, the LCD recovers the normal display.
- Sometimes, black or bright dots peculiar to LCD monitor can be seen on the display.
- Back light sometimes flickers or darkens according to the total consumption hours and the number of ON and OFF switching. In this case, the back light should be replaced (LCD monitor assembly).

POWER SUPPLY AND GROUND CIRCUIT

Power is supplied at all times

- through 15A fuse [No. 52, located in fuse, fusible link and relay block (J/B)]
- to AV control unit terminals 2 and 3,
- to display terminals 21 and 23.

When ignition switch is in ACC or ON position, power is supplied

- through 10A fuse [No. 21, located in fuse block (J/B) No. 1]
- to AV control unit terminal 6
- to display terminal 19
- to multifunction switch terminal 1.

Ground is supplied

- to AV control unit terminals 1 and 4
- through grounds M25 and M115, and
- to multifunction switch terminal 2
- to display terminals 22 and 24
- through grounds M24 and M114.

AV COMMUNICATION LINE

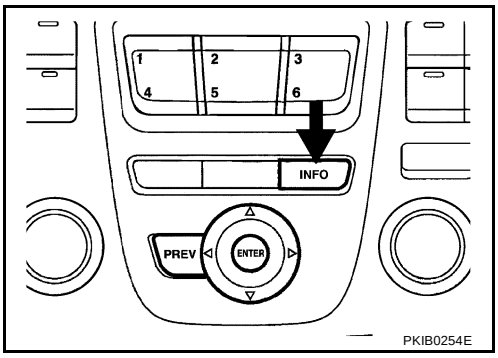
AV control unit is connected to the following units with AV communication line.

- Display
- Multifunction switch
- Audio unit
- BOSE speaker amp. (audio amp.)
- Low tire pressure warning control unit
- Voice activated control module

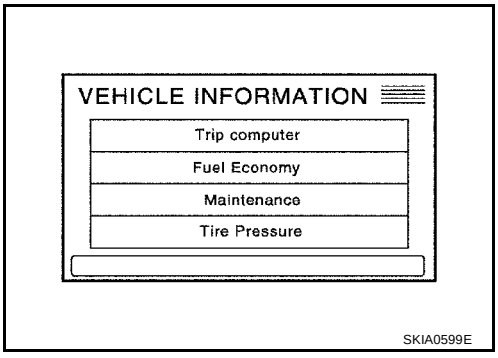
VEHICLE INFORMATION SYSTEM

- AV control unit is received vehicle information system of signals from combination meter.
- AV control unit is communicating with BCM and combination meter.

1. Press “INFO” switch to display vehicle information display.



2. Select “Trip computer”, “Fuel Economy”, “Maintenance” or “Tire Pressure”.

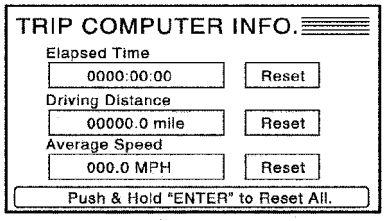


Display items	Display/Setting contents
Trip Computer	Elapsed time
	Driving distance
	Average speed
Fuel Economy	Average fuel economy
	Distance to empty
	Fuel economy
	Fuel economy record
Maintenance (with maintenance information) *	Maintenance intervals of engine oil and setting of oil change cycle
	Maintenance intervals of oil filter and setting of filter replacement cycle
	Maintenance intervals of tire and setting of tire replacement cycle
Tire Pressure	Tire pressure information

*: Maintenance information displays the change cycle of engine oil, oil filter and tire on LCD monitor depending on the driving distance specified by a driver or a technician.

Trip Computer Information

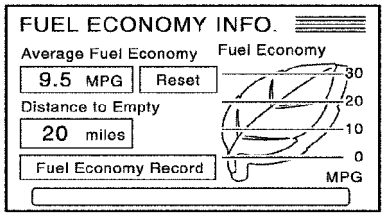
1. Select “Trip Computer”.
2. “Elapsed Time”, “Driving Distance” and “Average Speed” are displayed as trip computer information.



SKIA0601E

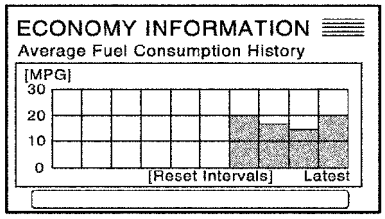
Fuel Economy Information

1. Select “Fuel Economy”.
2. “Average Fuel Economy”, “Distance to Empty” and “Fuel Economy Record” are displayed as fuel economy information.



SKIA0602E

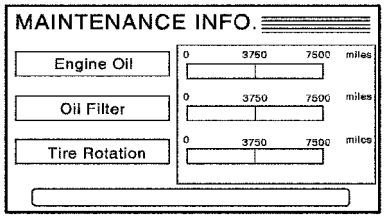
3. Select “Fuel Economy Record”. The average fuel consumption history will be displayed in graph along with the average for the previous Reset-to-Reset period.



SKIA0603E

Maintenance Information

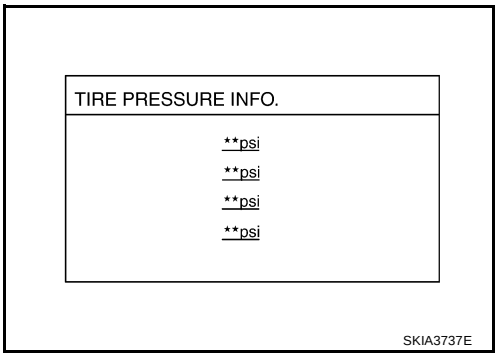
1. Select “Maintenance”.
2. “Engine Oil”, “Oil Filter” and “Tire Rotation” are displayed as maintenance information.



SKIA0604E

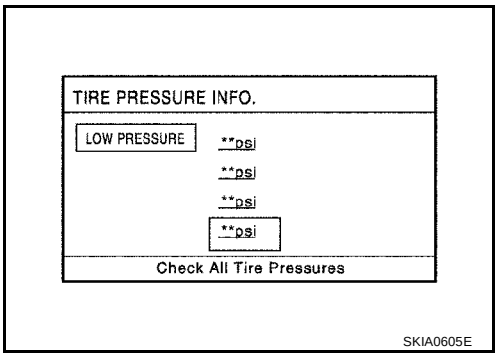
Tire Pressure Information

1. Select “Tire Pressure”.
2. Tire Pressure is displayed as tire pressure information.



NOTE:

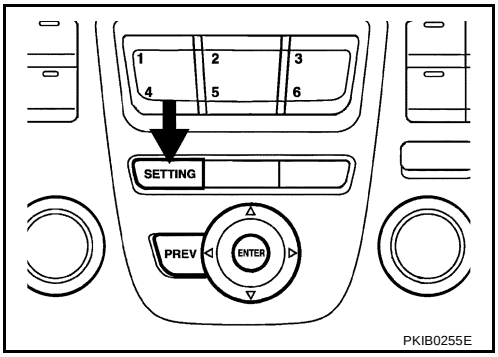
- When air pressure becomes 180 kPa (1.8 kg/cm^2 , 26 psi) or less, “LOW PRESSURE” warning is indicated.
- When air pressure becomes 70 kPa (0.7 kg/cm^2 , 10 psi) or less, “FLAT TIRE” warning is indicated.
- When pressure is not detected or tire pressure system has malfunction “** psi” is indicated.
- Indication with yellow frame for the malfunctioning tire.



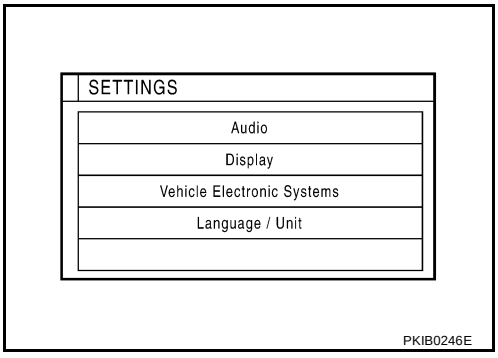
SETTING OF VEHICLE STATUS

- Setting of electric status can be changed by multifunction switch.The signal is sent to BCM through AV control unit to change vehicle electric system setting.
- AV control unit is communicating with BCM and combination meter.

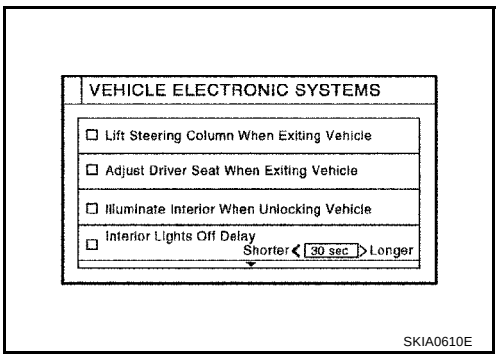
1. Press “SETTING” switch to display vehicle information display.



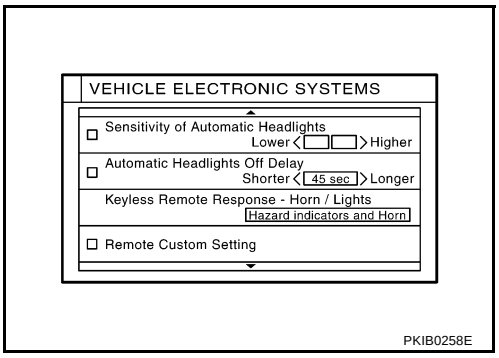
2. Select “Vehicle Electronic Systems”.



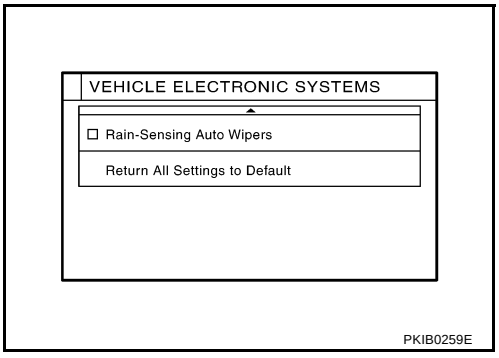
3. Select a vehicle status shown on the display.
   Adjustable vehicle status
   - Lift Steering Column When Exiting Vehicle
   - Adjust Driver Seat When Exiting Vehicle
   - Illuminate Interior When Unlocking Vehicle
   - Interior Lights Off Delay



   - Sensitivity of Automatic Headlights
   - Automatic Headlights Off Delay
   - Keyless Remote Response - Horn/Lights
   - Remote Custom Setting



   - Rain-Sensing Auto Wipers
   - Return All Settings to Default



Adjustable vehicle status

Setting items	Setting variations	Initial setting	Operation
Lift Steering Column When Exiting Vehicle	ON/OFF	ON	The steering column automatically tilts up when the driver gets out, and returns to the original position when the driver gets on. ● When driver door is closed and key removed from ignition key cylinder, the steering column tilts up. ● When driver door is open and key is turned to OFF, the steering column tilts up.
Adjust Driver Seat When Exiting Vehicle	ON/OFF	ON	The driver's seat automatically slides backward when the driver gets out, and returns to the original position when the driver gets on.
Illuminate Interior When Unlocking Vehicle	ON/OFF	ON	The interior room lamps are illuminate automatically when the door unlocked with key or keyfob.
Interior Lights Off Delay	OFF/15/30/45 sec.	30 sec.	Interior room lamp timer period can be changed in this mode. Selects interior room lamp timer.
Sensitivity of Automatic Headlights	1/2/3/4	3	Sensitivity of auto light sensor can be adjusted.
Automatic Headlights Off Delay	OFF/20/45/90/120/ 150/180 sec.	45 sec.	Auto light delay off timer period can be changed in this mode. Selects auto light delay off timer.

Setting items	Setting variations	Initial setting	Operation
Key Remote Response - Horn/Lights	Hazard indicators only /Hazard indicators and horn	Hazard indicators and horn	Hazard indicators Only: ● Lock operation: The hazard warning lamp flash twice when lock the doors with keyfob. ● Unlock operation: No response. Hazard indicators and horn: ● Lock operation: The hazard warning lamp flash twice and horn sounds once when lock the doors with keyfob. ● Unlock operation; The hazard warning lamp flash once when unlock the doors with keyfob.
Remote Custom Setting	ON/OFF	ON	The driving position -seat and steering column- and the audio setting -current source and radio station presets- are set to the same condition you made last time by identifying the keyfob ID. This function operates when unlock the doors by using the keyfob. **NOTE:** It is necessary to memorize the driving position before using this function.
Rain-Sensing Auto Wipers	ON/OFF	ON	It possible to change from rain sensing wiper to vehicle speed sensing wiper. ● ON: Rain sensing wiper operates. – When front wiper switch is turned to “INT” position, wiper performs intermittent operation, low-speed operation and high-speed operation according to water drop increase rate on windshield detected by rain sensor. ● OFF: Vehicle speed sensing wiper operates. – When front wiper switch is turned to “INT” position, wiper performs intermittent operation, according to vehicle speed.
Return All Settings to Default	None	None	If this key is selected, all vehicle electronic systems setting are return to default.

WARNING INDICATIONS

Combination meter sends warning signal to AV control unit to display warning indications on the screen.

Warning indicators	Warning lamps in instrument panel	Warning detection and cancel conditions		Cases of malfunction
DOOR OPEN	Door	Detection condition	Vehicle is running [approx. 5 km/h (3 MPH) or faster] and door ajar of any of the doors is detected.	Door is open.
		Cancel condition	Vehicle is stopped and all the doors lock.	
LOW WASHER FLUID	–	Detection condition	Washer fluid level falls below approx. 0.4 ℓ (7/8 US qt, 3/4 lmp pt).	Washer fluid level is low.
		Cancel condition	Except above condition.	

Precautions for AV Control Unit Replacement

EKS006DP

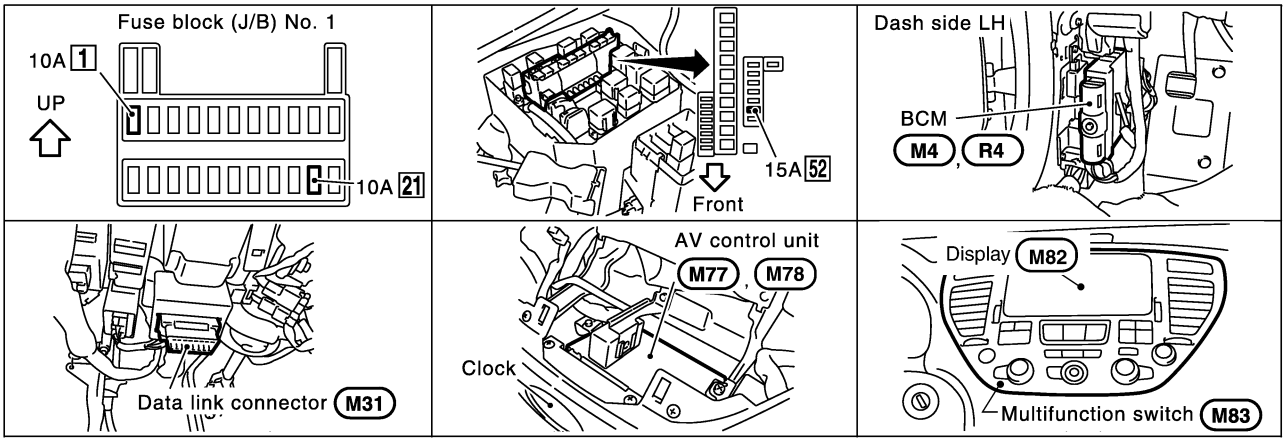
The AV control unit has the following information stored in its memory. Record the memory contents before replacing the control unit, and input them in the new unit as necessary.

<FM·AM>	• **Preset frequency**
	• **Area for indicating station, selection of overlapped stations**
<CD>	• **Program status**
<Sound quality>	• **Volume balance memory set values**
	• **Equalizer memory set values**
<Image quality>	• **Brightness of light when ON/OFF**
	• **Dimming switching**
	• **Display color switching**

NOTE:
Only removing the battery does not erase the memory.

Component Parts and Harness Connector Location

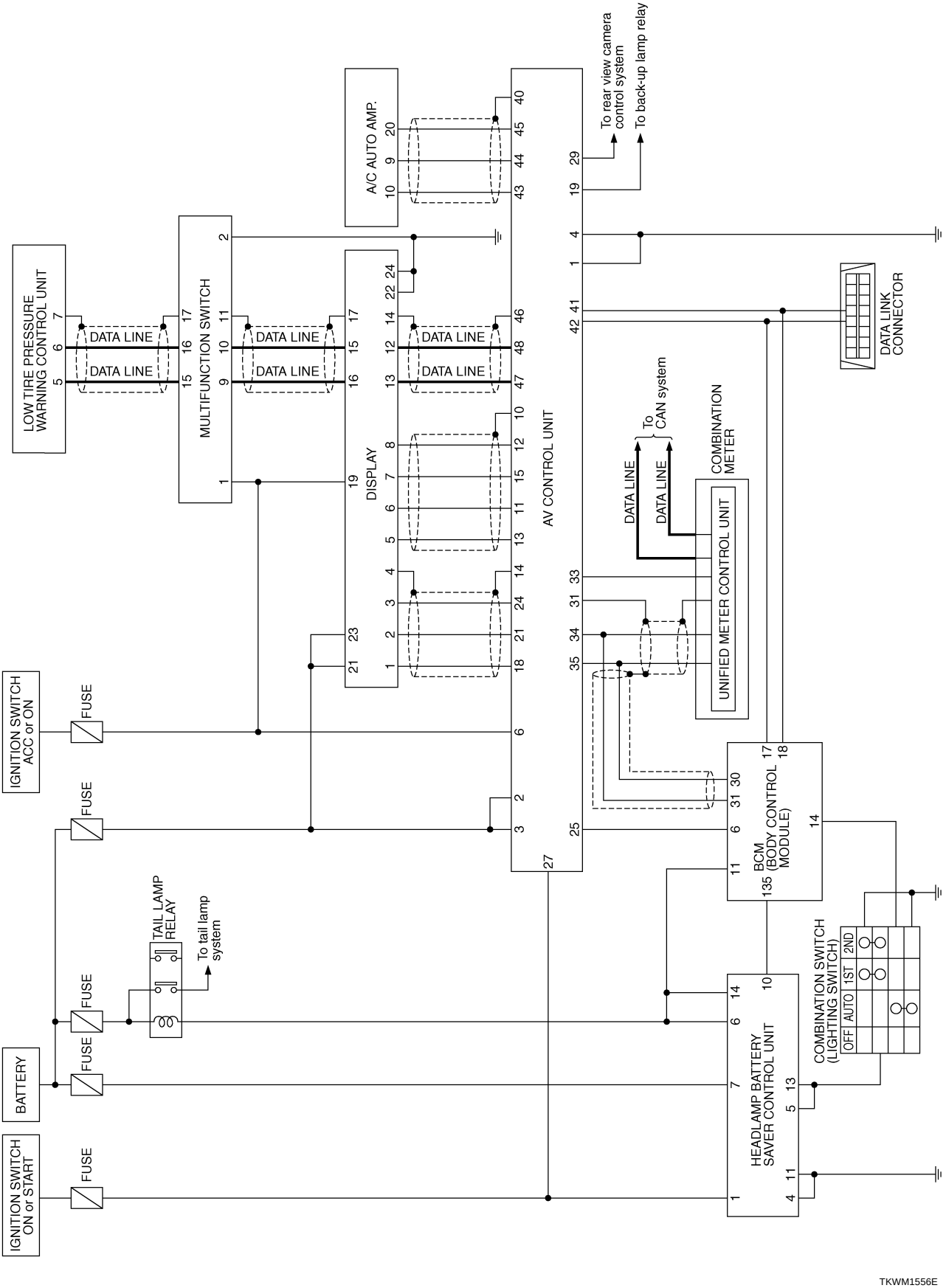
EKS006DQ



PKIA6792E

Schematic

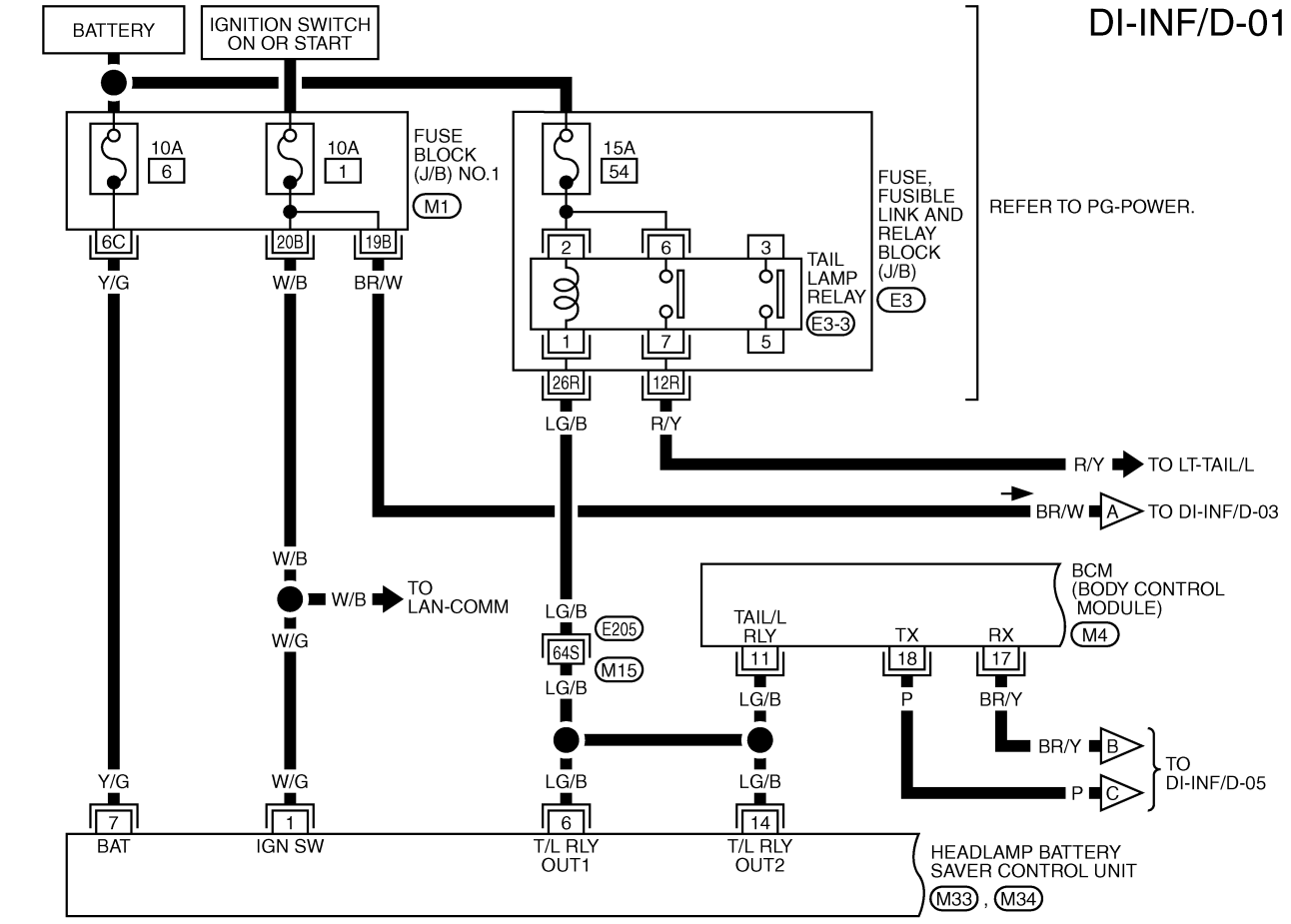
EKS006DR

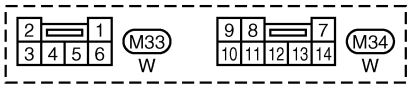


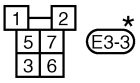
TKWM1556E

Wiring Diagram — INF/D —

EKS006DS







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

REFER TO THE FOLLOWING.

E205 -SUPER MULTIPLE JUNCTION (SMJ)

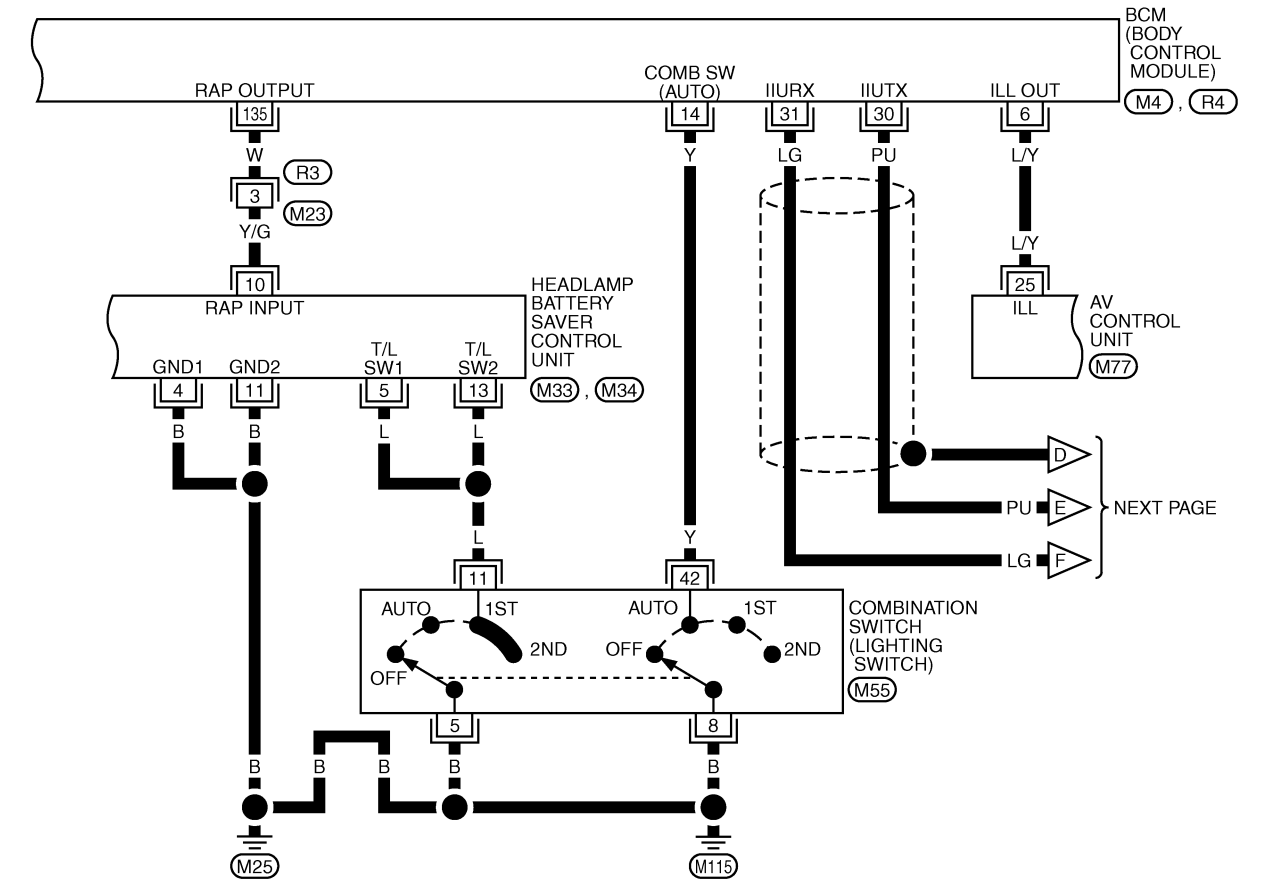
M1 -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

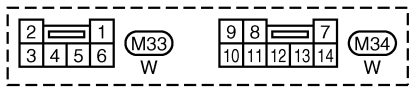
E3 -FUSE, FUSIBLE LINK AND RELAY BLOCK (J/B)

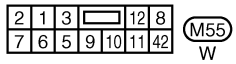
M4 -ELECTRICAL UNITS

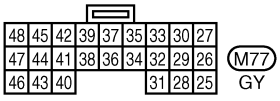
TKWM1557E

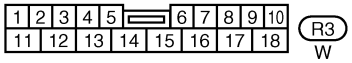
DI-INF/D-02







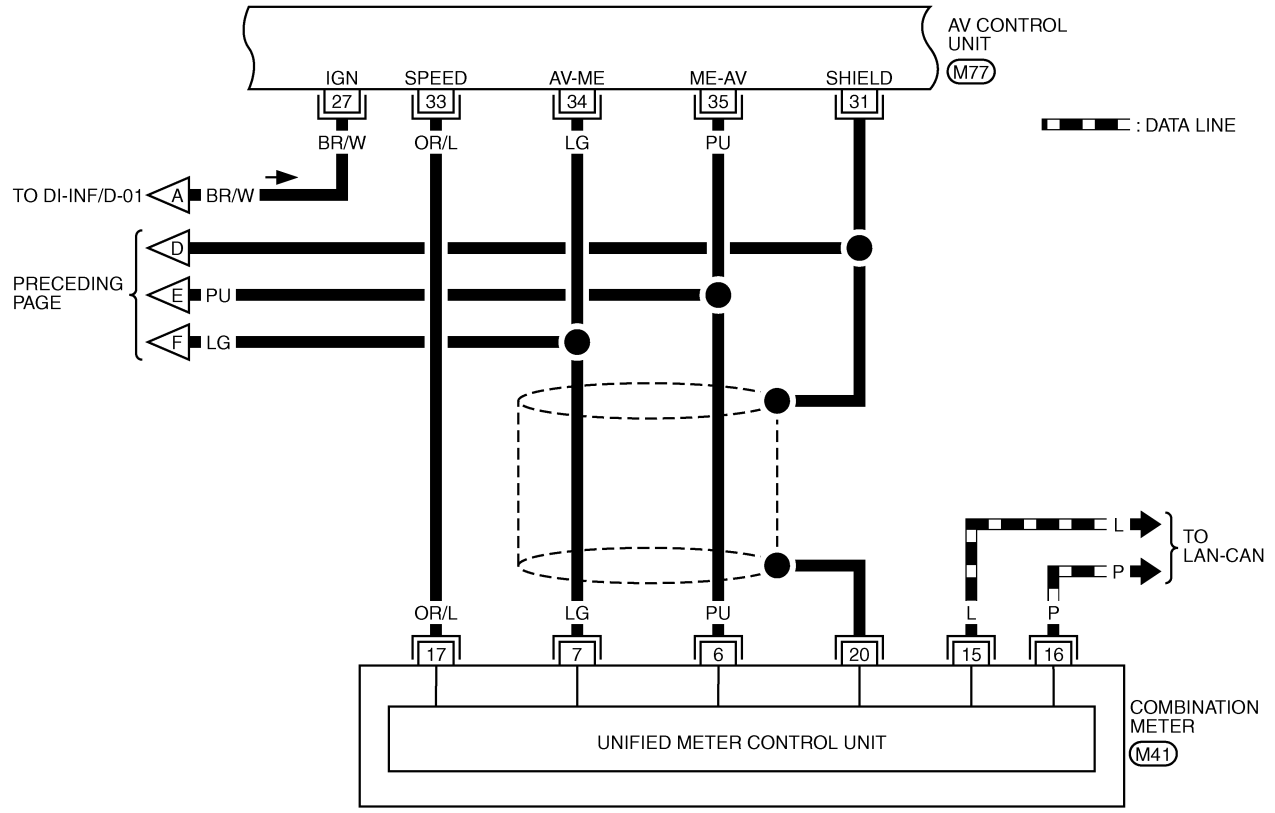


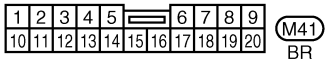


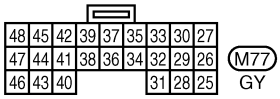
REFER TO THE FOLLOWING.
M4 , R4 -ELECTRICAL UNITS

TKWM1558E

DI-INF/D-03

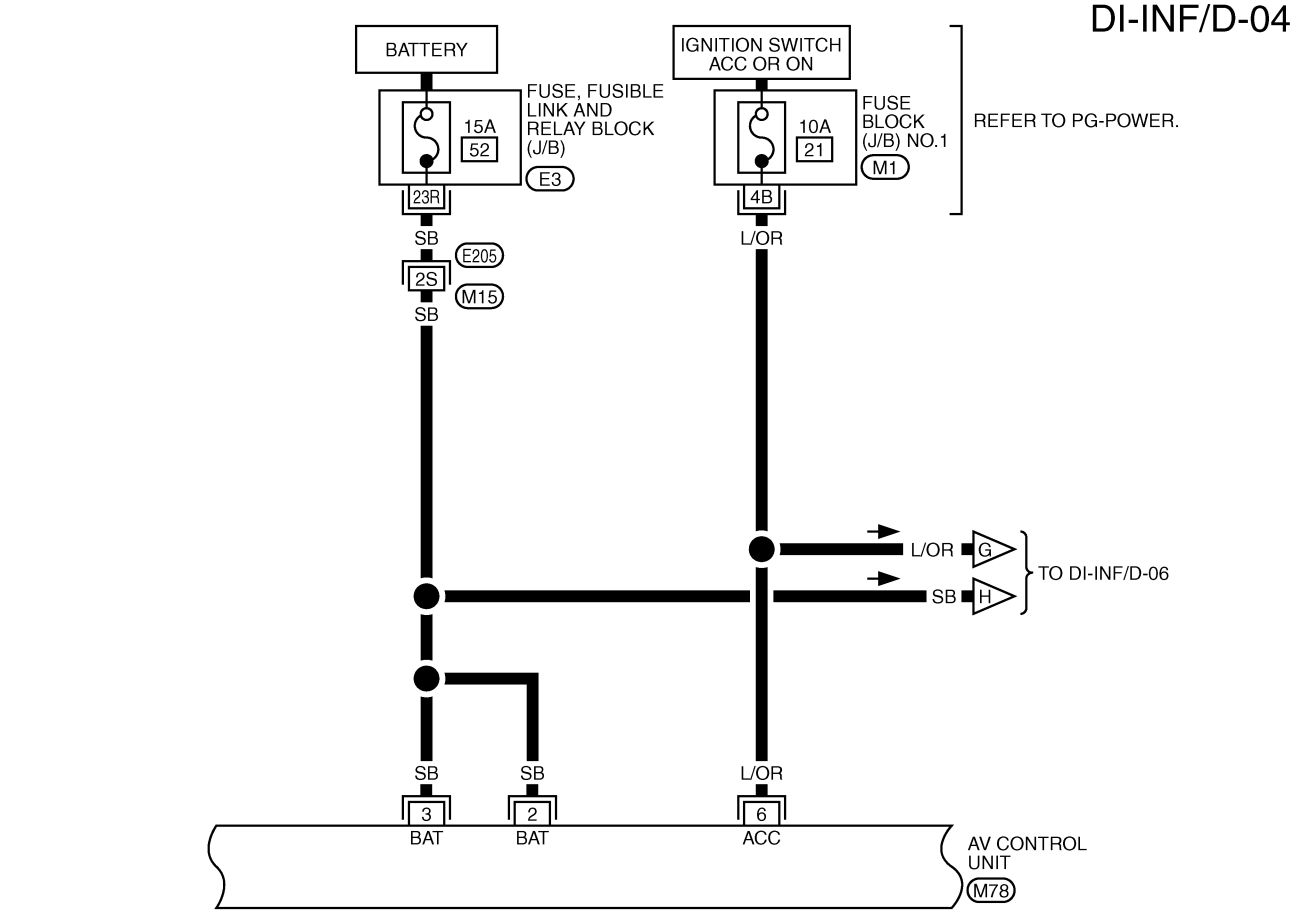


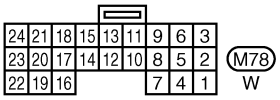




TKWM1559E

DI-INF/D-04





REFER TO THE FOLLOWING.

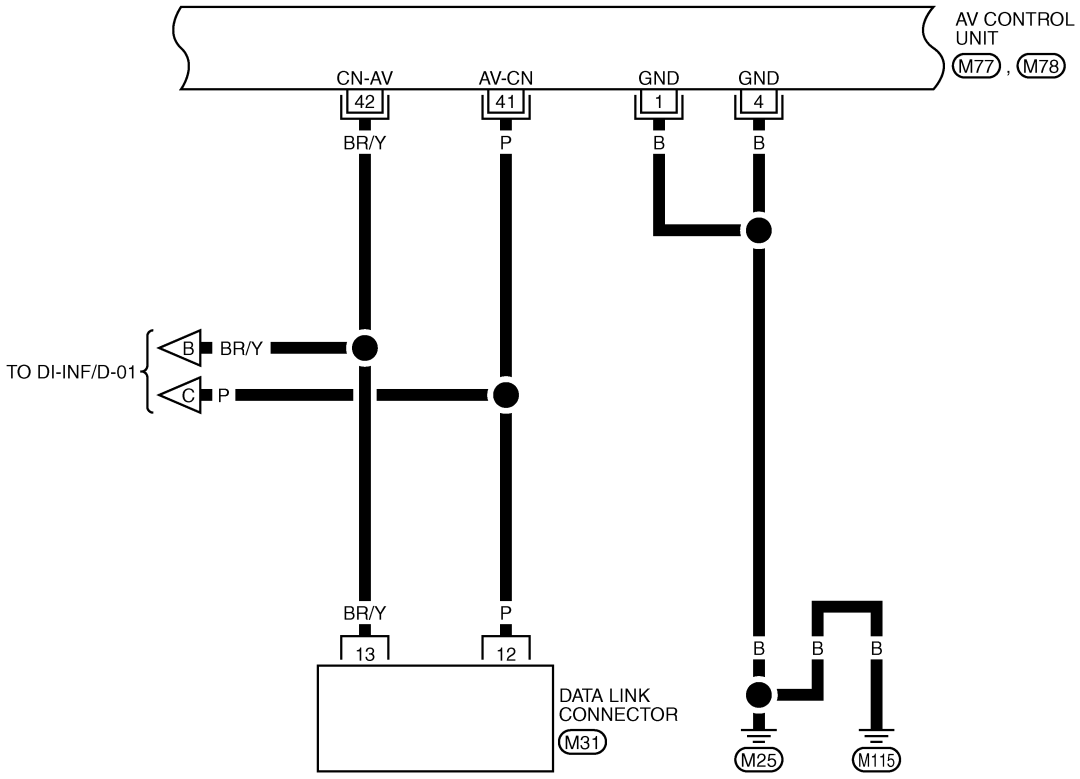
E205 -SUPER MULTIPLE JUNCTION (SMJ)

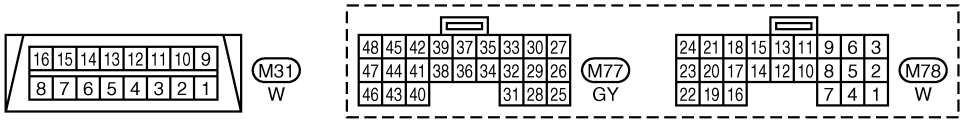
M1 -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

E3 -FUSE, FUSIBLE LINK AND RELAY BLOCK (J/B)

TKWM1560E

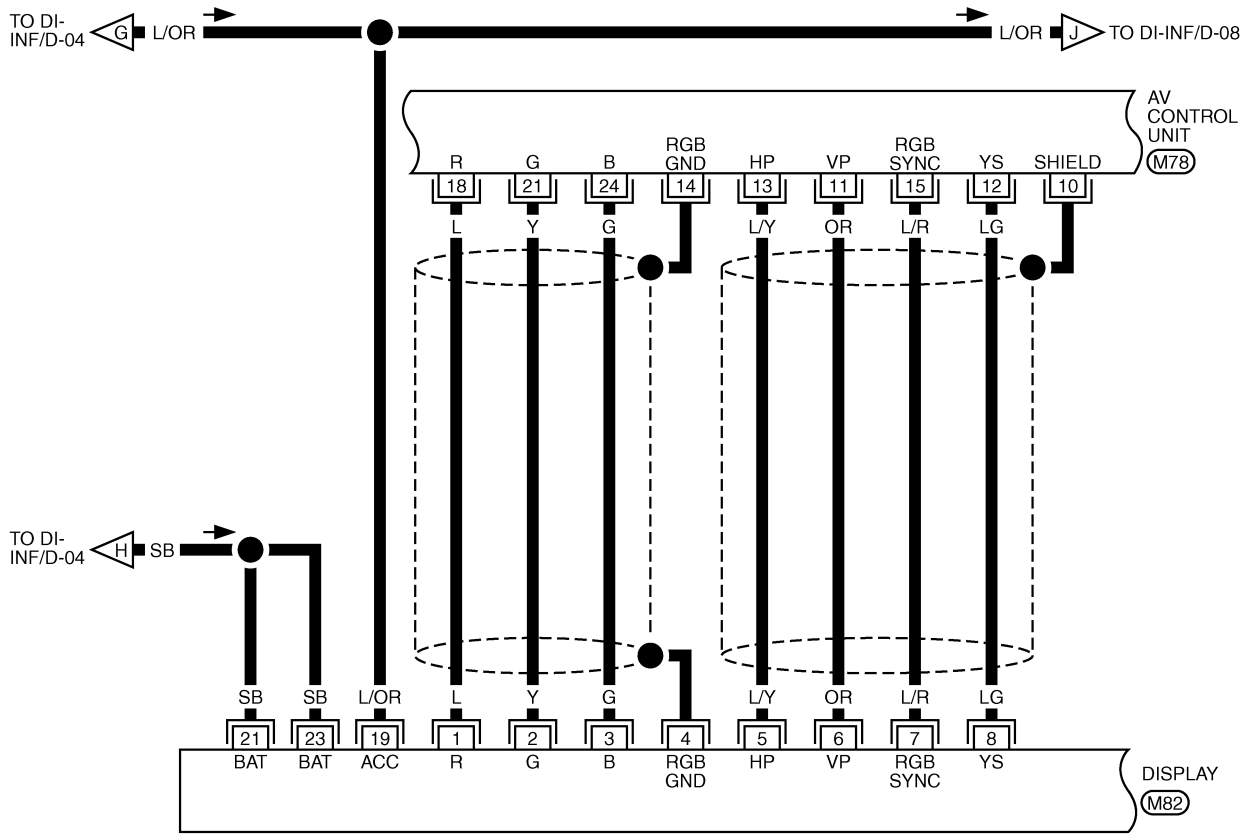
DI-INF/D-05

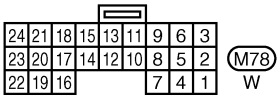


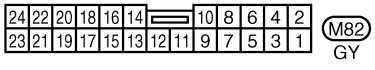


TKWM1561E

DI-INF/D-06

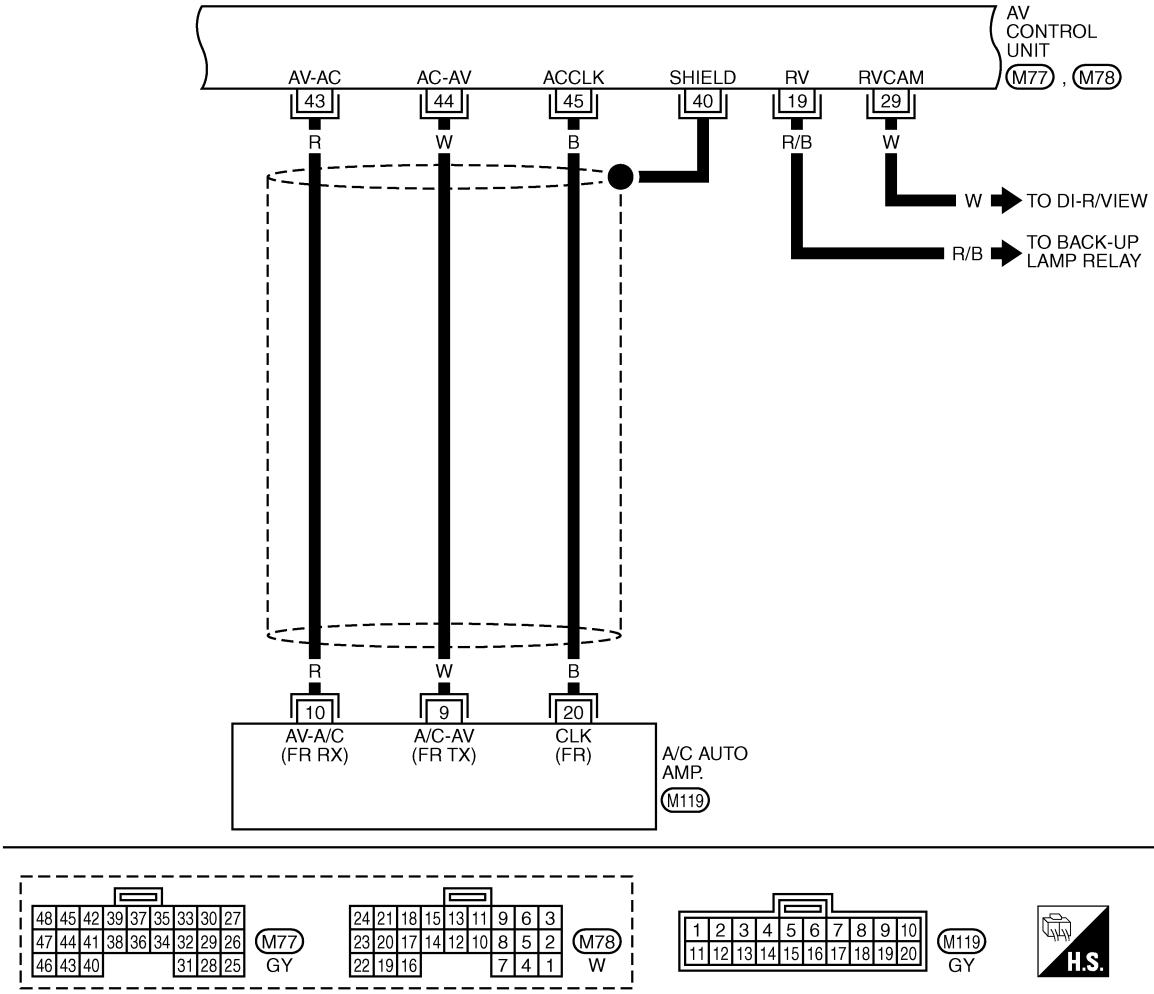






TKWM1562E

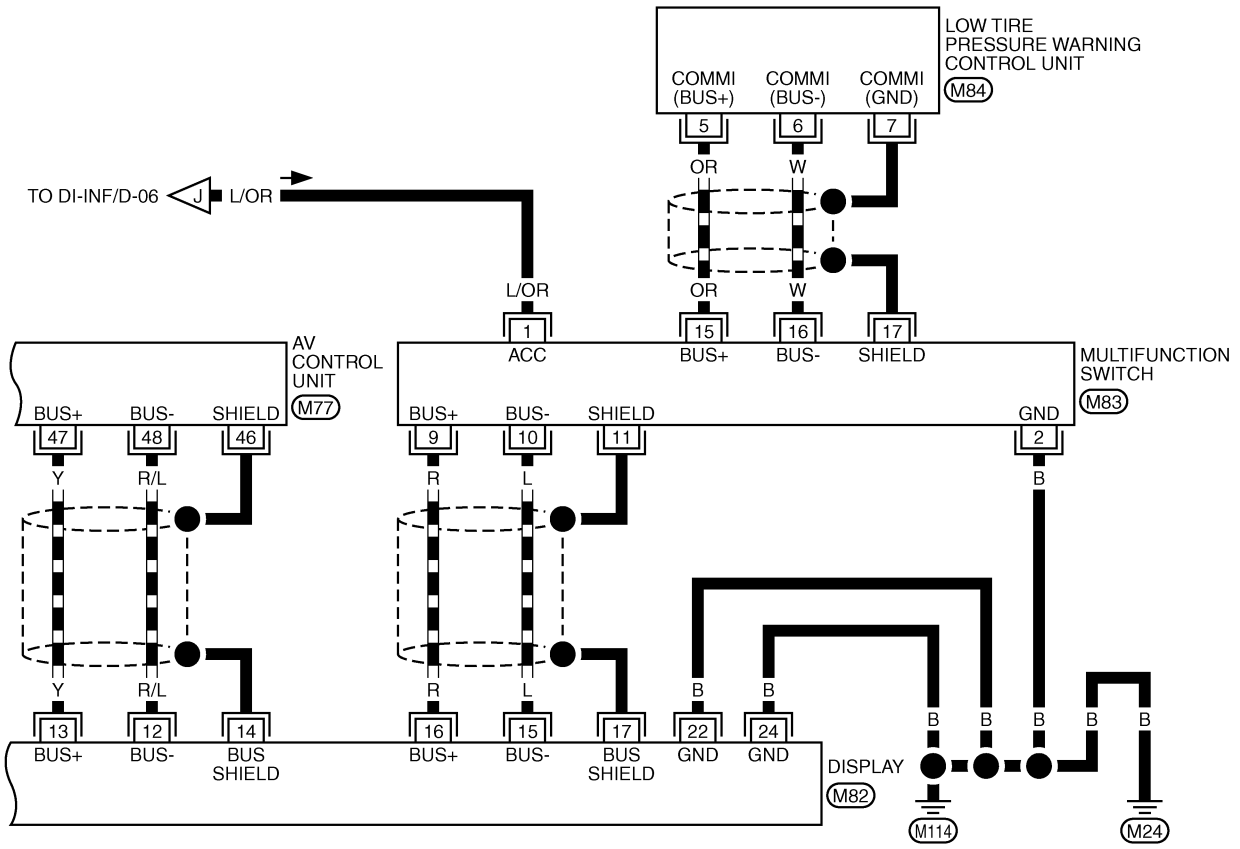
DI-INF/D-07

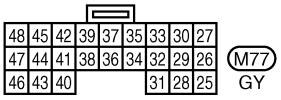


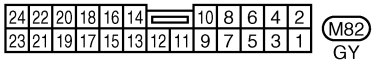
TKWM1563E

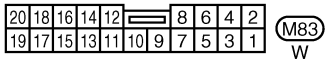
DI-INF/D-08

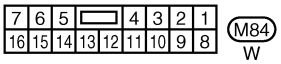
: DATA LINE







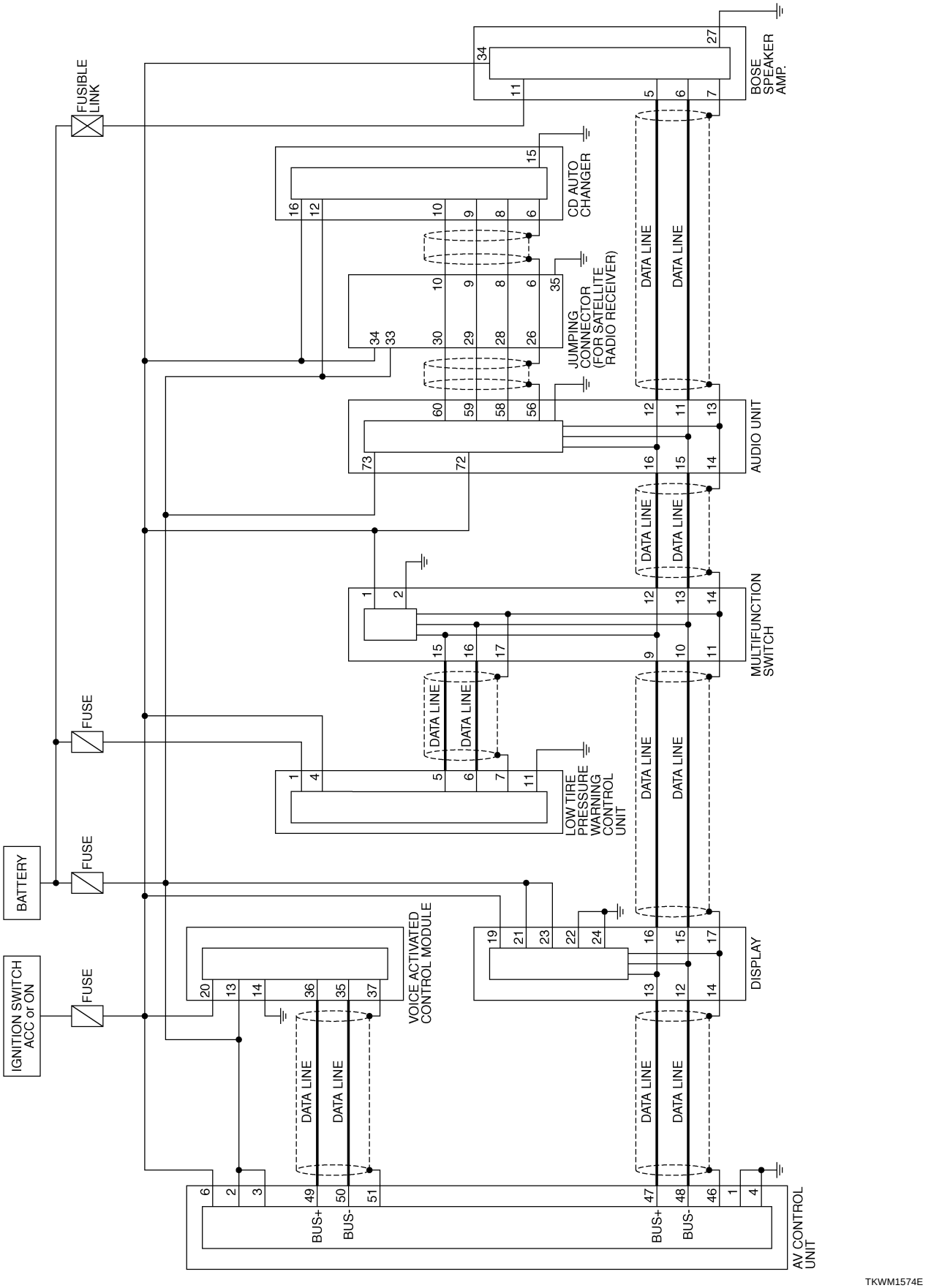




TKWM1564E

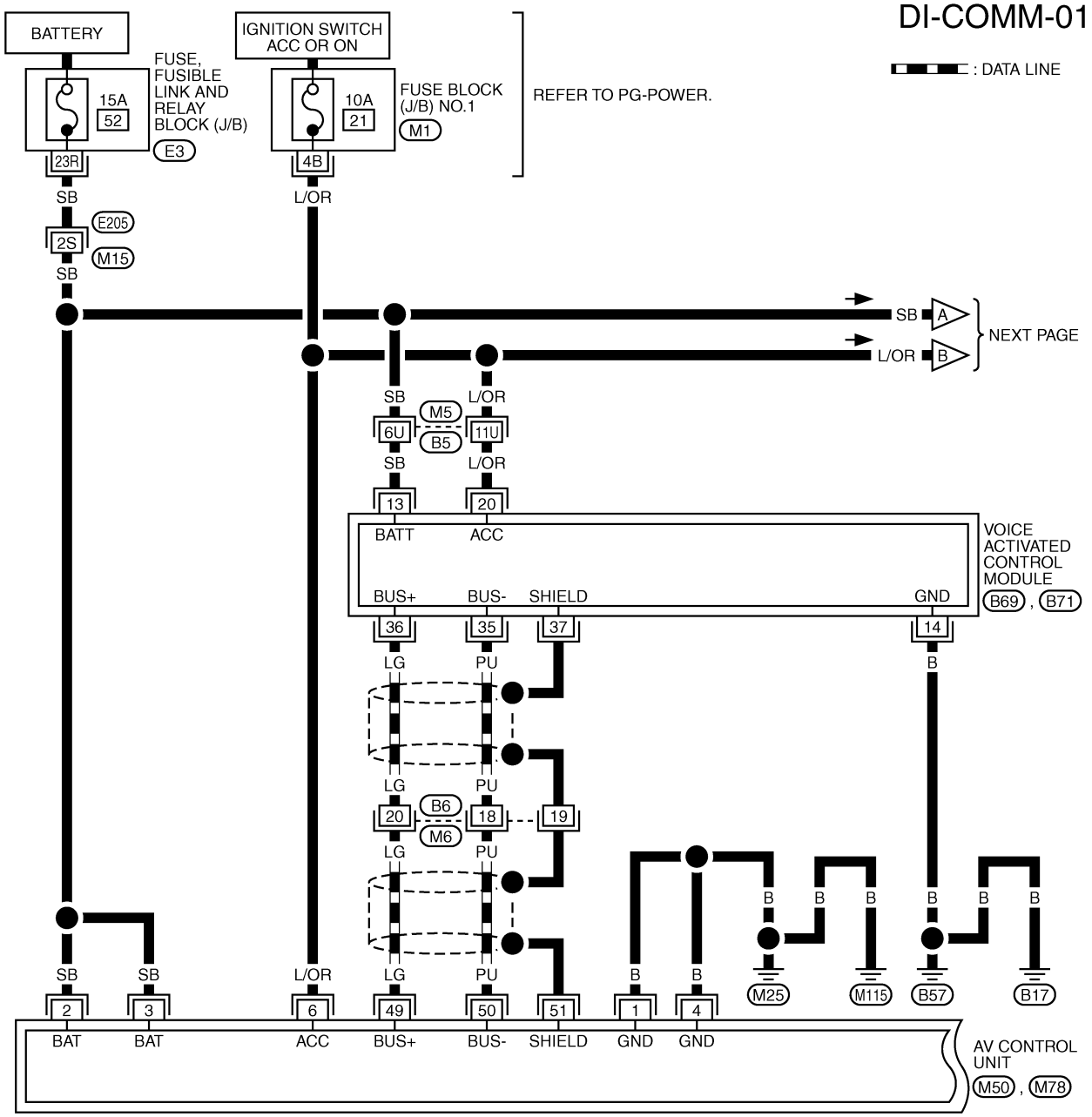
Schematic

EKS006QW



Wiring Diagram — COMM —

EKS006QX



REFER TO THE FOLLOWING.

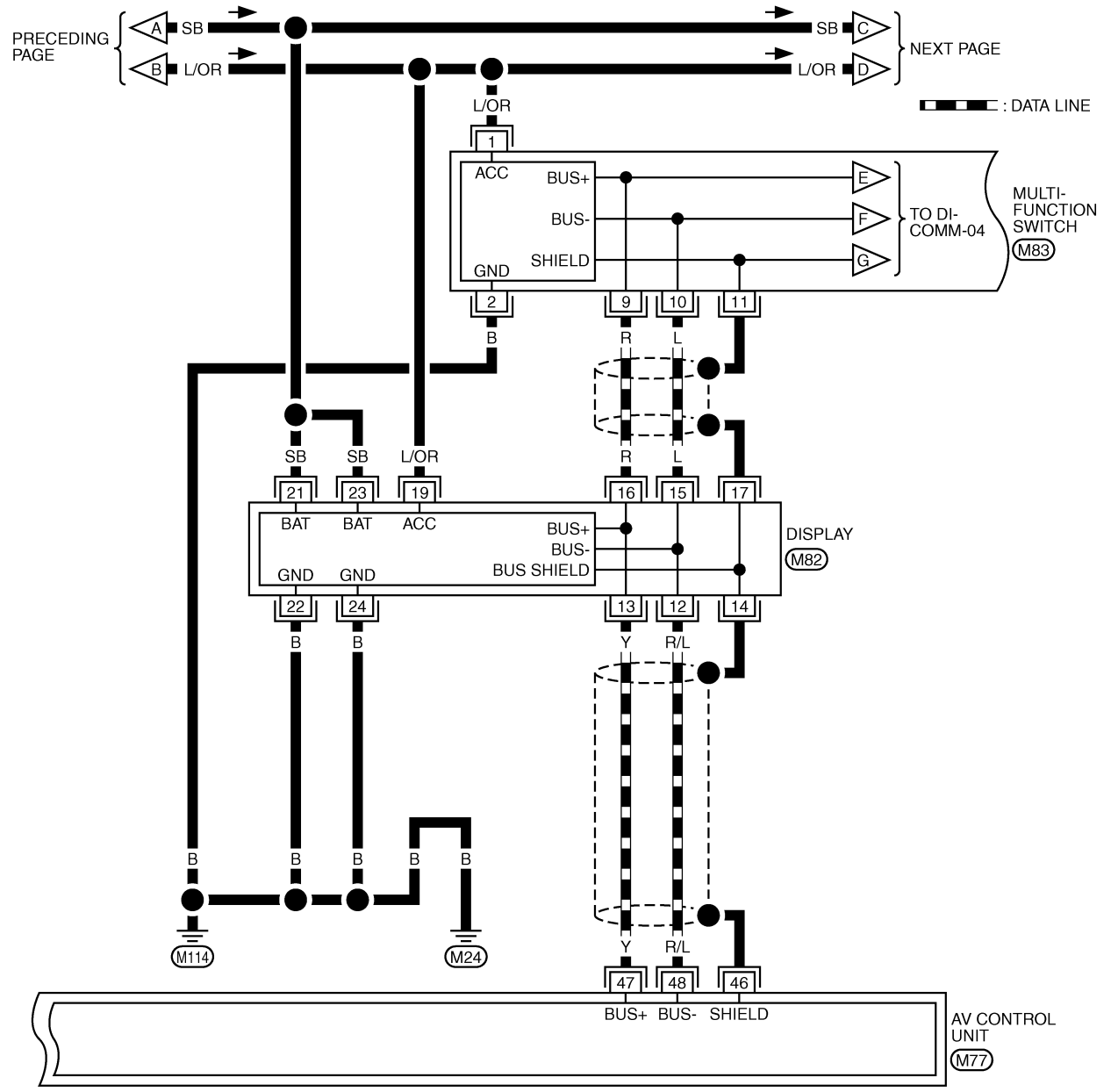
M5 , E205 -SUPER MULTIPLE JUNCTION (SMJ)

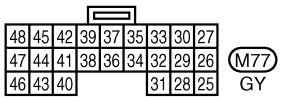
M1 -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

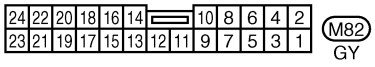
E3 -FUSE, FUSIBLE LINK AND RELAY BLOCK (J/B)

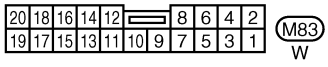
TKWM1575E

DI-COMM-02

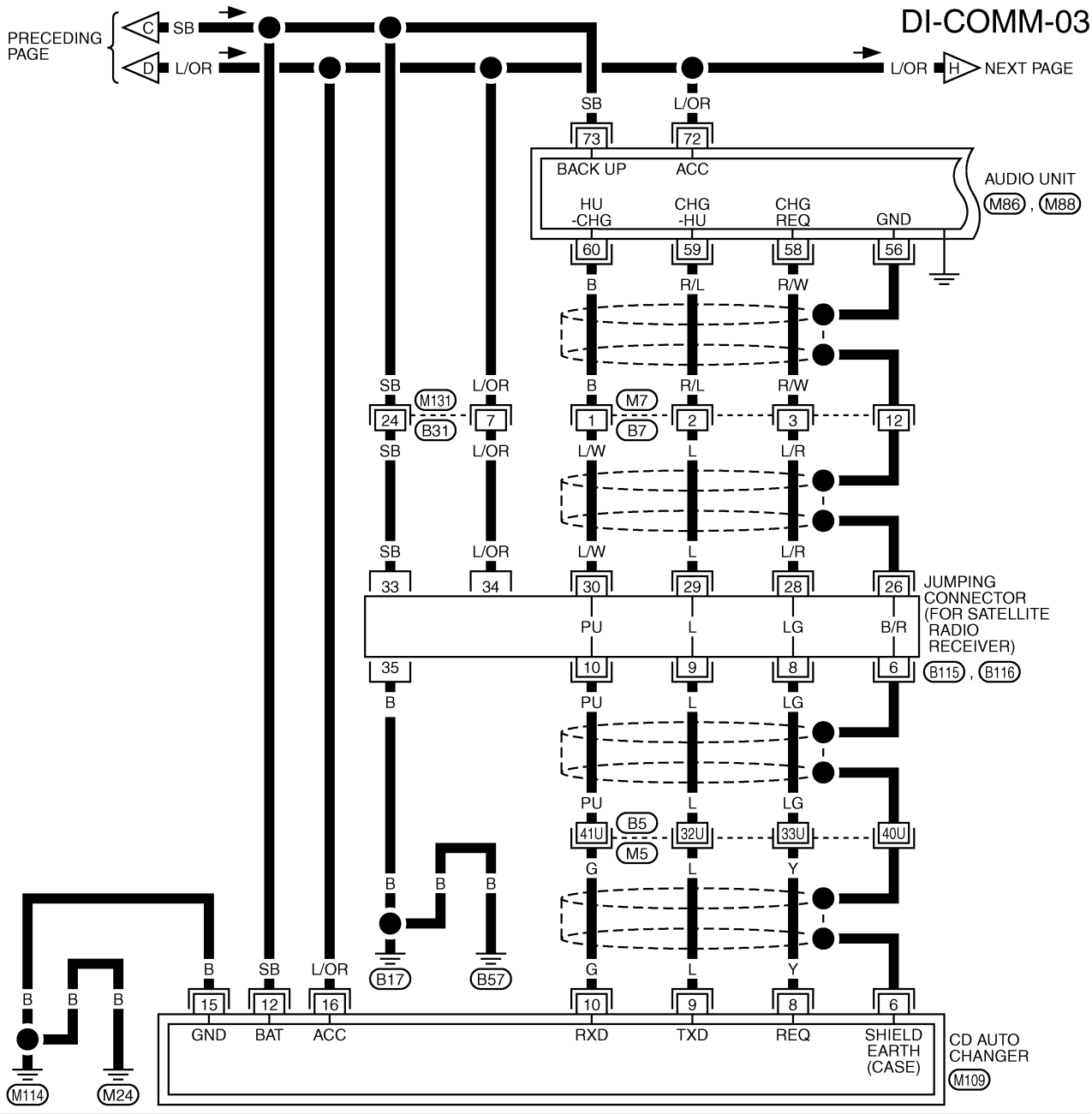








TKWM1577E

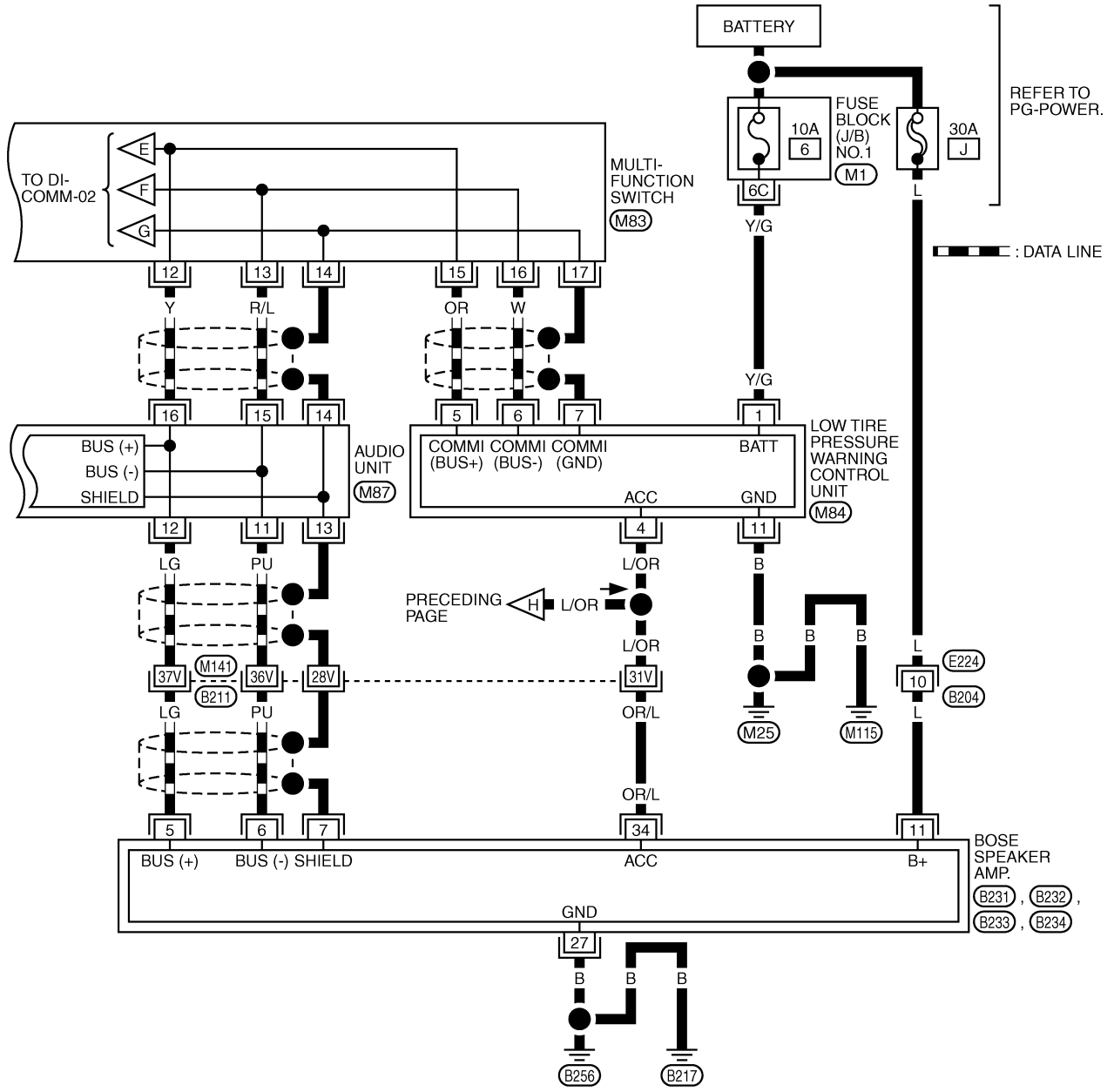


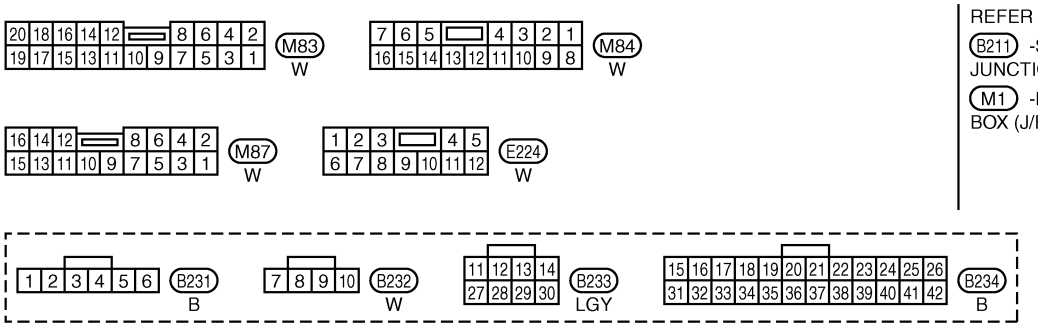
REFER TO THE FOLLOWING.

M5 -SUPER MULTIPLE JUNCTION (SMJ)

TKWM1578E

DI-COMM-04





REFER TO THE FOLLOWING.

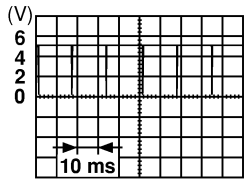
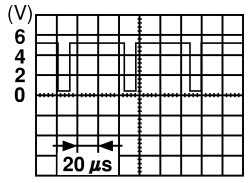
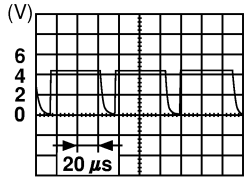
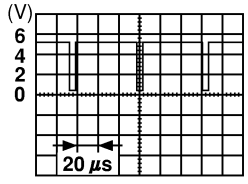
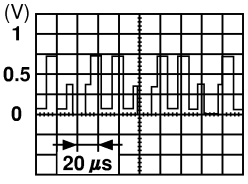
B211 -SUPER MULTIPLE JUNCTION (SMJ)

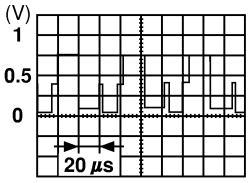
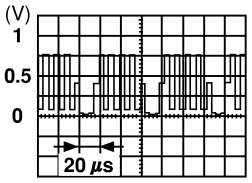
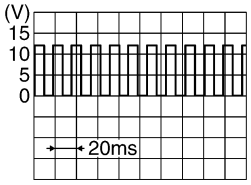
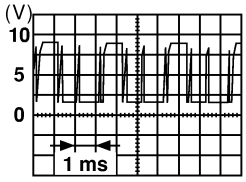
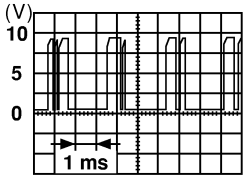
M1 -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

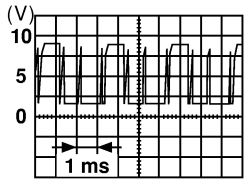
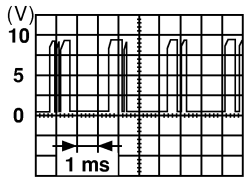
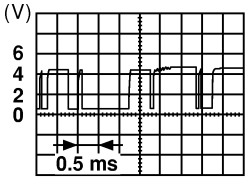
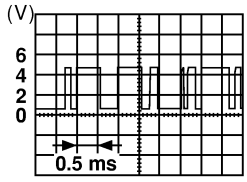
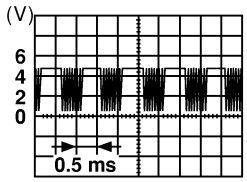
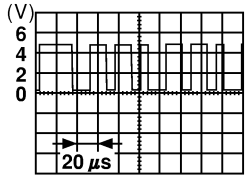
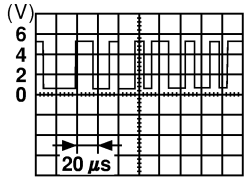
TKWM1579E

Terminals and Reference Value for AV Control Unit

EKS006DT

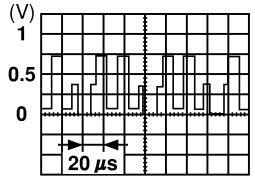
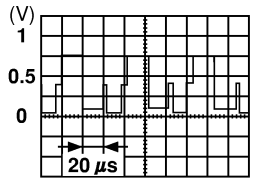
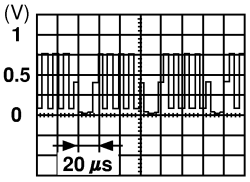
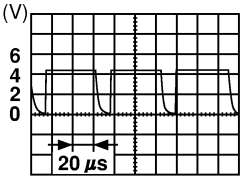
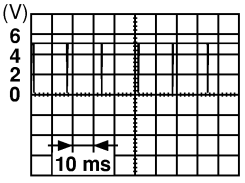
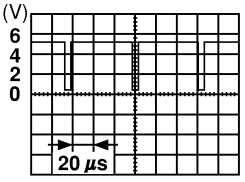
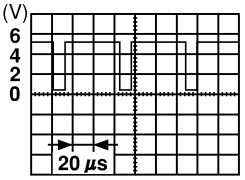
Terminal No. (Wire color)		Item	Signal input/ output	Condition		Reference value [V]
(+)	(–)			Ignition switch	Operation	
1 (B)	Ground	Ground	—	ON	—	Approx. 0
2 (SB)		Battery	Input	OFF	—	Battery voltage
3 (SB)						
4 (B)		Ground	—	ON	—	Approx. 0
6 (L/OR)		Ignition switch (ACC)	Input	ACC	—	Battery voltage
10		Shield	—	ON	—	Approx. 0
11 (OR)	10	Vertical synchronizing signal	Input	ON	Select “Rearview” in “Confirmation/Adjustment” mode and display the rearview image on the screen.	 SKIA0161E
12 (LG)	10	RGB area signal	Output	ON	Press the “INFO” switch.	 SKIA0162E
13 (L/Y)	10	Horizontal synchronizing signal	Input	ON	Select “Rearview” in “Confirmation/Adjustment” mode and display the rearview image on the screen.	 SKIA0163E
14	Ground	RGB ground	—	ON	—	Approx. 0
15 (L/R)	10	RGB synchronizing signal	Output	ON	Select “Display Color Spectrum Bar” of “Display Diagnosis” in Confirmation/Adjustment mode function.	 SKIA0164E
18 (L)	14	RGB signal (R: red)	Output	ON	Select “Display Color Spectrum Bar” of “Display Diagnosis” in Confirmation/Adjustment mode function.	 SKIA0165E
19 (R/B)	Ground	Reverse signal	Input	ON	A/T selector lever in “R” position	Approx. 12
					A/T selector lever not in “R” position	Approx. 0

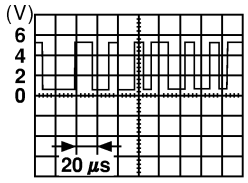
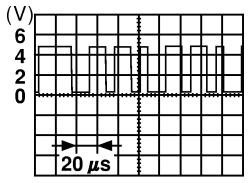
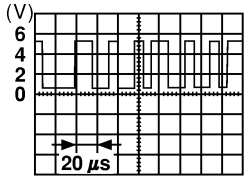
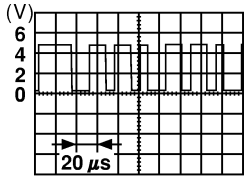
Terminal No. (Wire color)		Item	Signal input/ output	Condition		Reference value [V]
(+)	(–)			Ignition switch	Operation	
21 (Y)	14	RGB signal (G: green)	Output	ON	Select “Display Color Spectrum Bar” of “Display Diagnosis” in Confirmation/Adjustment mode function.	 SKIA0166E
24 (G)	14	RGB signal (B: blue)	Output	ON	Select “Display Color Spectrum Bar” of “Display Diagnosis” in Confirmation/Adjustment mode function.	 SKIA0167E
25 (L/Y)	Ground	Illumination control signal	Input	ON	Lighting switch ON (1st position)	Approx. 12
					Lighting switch OFF	Approx. 0
27 (BR/W)		Ignition switch (ON) signal	Input	ON	—	Battery voltage
29 (W)		Rear view camera recognition signal	Output	ON	Connect rear view camera control unit connector.	Approx. 0
					Disconnect rear view camera control unit connector.	Approx. 5
31		Shield	—	ON	—	Approx. 0
33 (OR/L)		Vehicle speed signal (8-pulse)	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)	 PKIA1935E
34 (LG)		Communication signal (AV - ME)	Output	ON	Perform various settings on the “Vehicle Electric Systems” screen.	 SKIA0169E
35 (PU)		Communication signal (ME - AV)	Input	ON	Perform various settings on the “Vehicle Electric Systems” screen.	 SKIA0170E
40		Shield	—	ON	—	Approx. 0

Terminal No. (Wire color)		Item	Signal input/ output	Condition		Reference value [V]
(+)	(–)			Ignition switch	Operation	
41 (P)	Ground	CONSULT-II communication signal (AV - CN)	Output	ON	Perform CONSULT-II.	 SKIA0169E
42 (BR/Y)		CONSULT-II communication signal (CN - AV)	Input	ON	Perform CONSULT-II.	 SKIA0170E
43 (R)		A/C communication signal (AV-AC)	Output	ON	—	 SKIA0172E
44 (W)		A/C communication signal (AC-AV)	Input	ON	—	 SKIA0173E
45 (B)		A/C clock signal	Input	ON	—	 SKIA0174E
46		Shield	—	ON	—	Approx. 0
47 (Y)		Communication signal (+)	Input/ output	ON	—	 SKIA0175E
48 (R/L)		Communication signal (–)	Input/ output	ON	—	 SKIA0176E

Terminals and Reference Value for Display

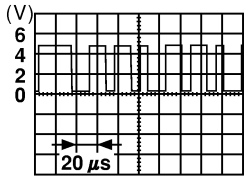
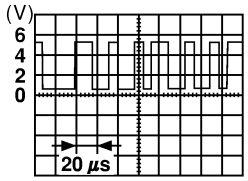
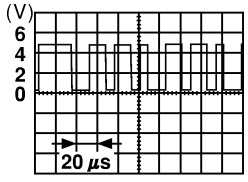
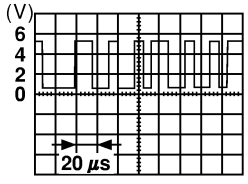
EKS006DU

Terminal No. (Wire color)		Item	Signal input/ output	Condition		Reference value [V]
(+)	(–)			Ignition switch	Operation	
1 (L)	4	RGB signal (R: Red)	Input	ON	Select “Display Color Spectrum Bar” of “Display Diagnosis” in Confirmation/Adjustment mode function.	 SKIA0165E
2 (Y)	4	RGB signal (G: Green)	Input	ON	Select “Display Color Spectrum Bar” of “Display Diagnosis” in Confirmation/Adjustment mode function.	 SKIA0166E
3 (G)	4	RGB signal (B: Blue)	Input	ON	Select “Display Color Spectrum Bar” of “Display Diagnosis” in Confirmation/Adjustment mode function.	 SKIA0167E
4	Ground	RGB ground	—	ON	—	Approx. 0
5 (L/Y)		Horizontal synchronizing signal	Output	ON	Select “Rearview” in “Confirmation/Adjustment” mode and display the rearview image on the screen.	 SKIA0163E
6 (OR)		Vertical synchronizing signal	Output	ON	Select “Rearview” in “Confirmation/Adjustment” mode and display the rearview image on the screen.	 SKIA0161E
7 (L/R)		RGB synchronizing signal	Input	ON	Select “Display Color Spectrum Bar” of “Display Diagnosis” in Confirmation/Adjustment mode function.	 SKIA0164E
8 (LG)		RGB area signal	Input	ON	Press the “INFO” switch.	 SKIA0162E

Terminal No. (Wire color)		Item	Signal input/ output	Condition		Reference value [V]
(+)	(–)			Ignition switch	Operation	
12 (R/L)	Ground	Communication signal (–)	Input/ output	ON	—	 SKIA0176E
13 (Y)		Communication signal (+)	Input/ output	ON	—	 SKIA0175E
14		Shield	—	ON	—	Approx. 0
15 (L)		Communication signal (–)	Input/ output	ON	—	 SKIA0176E
16 (R)		Communication signal (+)	Input/ output	ON	—	 SKIA0175E
17		Shield	—	ON	—	Approx. 0
19 (L/OR)		Ignition switch (ACC)	Input	ACC	—	Battery voltage
21 (SB)		Battery power	Input	OFF	—	Battery voltage
23 (SB)						
22 (B)		Ground	—	ON	—	Approx. 0
24 (B)						

Terminals and Reference Value for Multifunction Switch

EKS006DV

Terminal No. (Wire color)		Signal	Signal input/ output	Condition		Reference value [V]
(+)	(–)			Ignition switch	Operation	
1 (L/OR)	Ground	Ignition switch (ACC)	Input	ACC	—	Battery voltage
2 (B)		Ground	—	ON	—	Approx. 0
9 (R)		Communication signal (+)	Input/ output	ON	—	 SKIA0175E
10 (L)		Communication signal (–)	Input/ output	ON	—	 SKIA0176E
11		Shield	—	ON	—	Approx. 0
15 (OR)		Communication signal (+)	Input/ output	ON	—	 SKIA0175E
16 (W)		Communication signal (–)	Input/ output	ON	—	 SKIA0176E
17		Shield	—	ON	—	Approx. 0

CONSULT-II Function

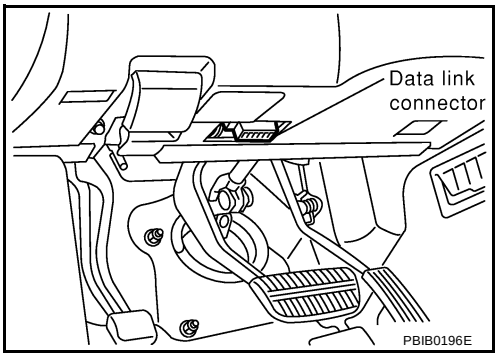
EKS00GEA

CONSULT-II performs the following functions communicating with the AV control unit.

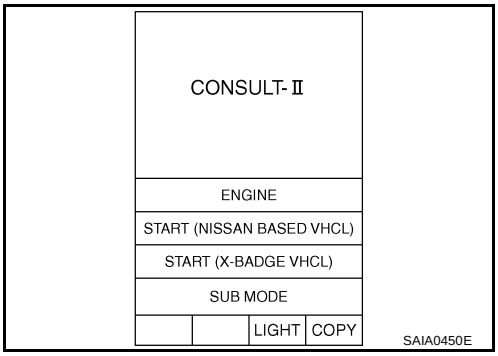
System part	Check item, diagnosis mode	Description
MULTI AV	VERSION	Displays unit version.
	SELF-DIAG RESULTS	● Checks for the connections AV communication line. ● Performs the unit diagnosis.
	SIGNAL MONITOR	Displays unified AV control unit. Input date in real time.

CONSULT-II BASIC OPERATION PROCEDURE

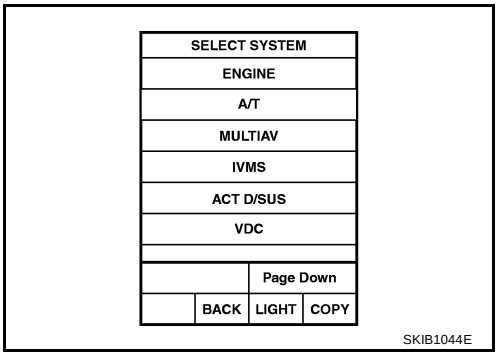
1. With the ignition switch OFF, connect “CONSULT-II” and “CONSULT-II CONVERTER” to the data link connector, and turn the ignition switch ON.



2. Touch “START (NISSAN BASED VHCL)”.

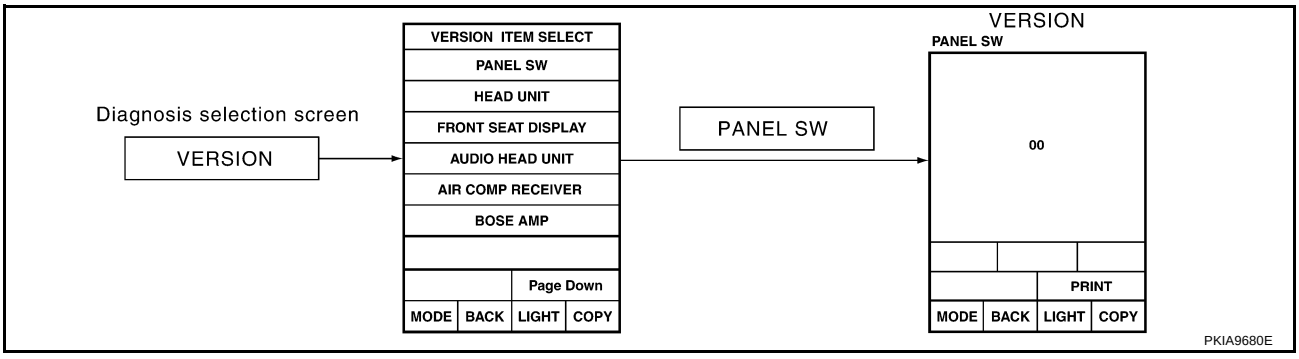


3. Touch “MULTIAV”. If “MULTIAV” is not indicated, go to GI-38, "CONSULT-II Data Link Connector (DLC) Circuit" .
4. Select “VERSION”, ”SELF-DIAG RESULTS” or “SIGNAL MONITOR”.



VERSION

Displays version of each unit connected to the AV control unit.



Version display	Remarks
“PANEL SW”	Multifunction switch
“HEAD UNIT”	AV control unit
“REAR VIEW CAMERA”	–
“FRONT SEAT DISPLAY”	Display
“AUDIO HEAD UNIT”	–

Version display	Remarks
“AIR COMP RECEIVER”	Low Tire Pressure Warning Control Unit
“BOSE AMP”	–
“IVCS”	**NOTE:** Although these items are shown on the CONSULT-II screen, impracticable. Because, these items are not applied.
“VOICE UNIT”	

SELF-DIAGNOSIS RESULTS

- Checks for connection between each unit and analyzes each individual unit, then displays the results on the screen.

Items Shown

Items shown	Malfunctioning part/reference page
NO DTC IS DETECTED FURTHER TESTING MAY BE REQUIRED	–
HEAD UNIT ABNORMAL	AV control unit malfunction.
AUDIO HEAD UNIT ABNORMAL CONNECTION	Refer to DI-106, "Quick Reference Table" .
AIR COMP RECEIVER ABNORMAL CONNECTION	
VOICE UNIT ABNORMAL CONNECTION	**NOTE:** Although these items are shown on the CONSULT-II screen, the system does not have malfunctioning. Because, these items are not applied.
VOICE UNIT ABNORMAL	
BOSE AMP ABNORMAL CONNECTION	Refer to DI-106, "Quick Reference Table" .
BOSE AMP ABNORMAL	BOSE speaker amp. malfunction.
PANEL SW ABNORMAL CONNECTION (MULTIFUNCTION SW)	Refer to DI-106, "Quick Reference Table" .

NOTE:
When “IVCS ABNORMAL CONNECTION” is indicated, it does not malfunction.

Quick Reference Table

1. Select an applicable diagnosis No. in the diagnosis result quick reference table.
2. Find estimated malfunctioning system in the diagnosis No. table and perform check by referring to DI-91, "Wiring Diagram — COMM —" .

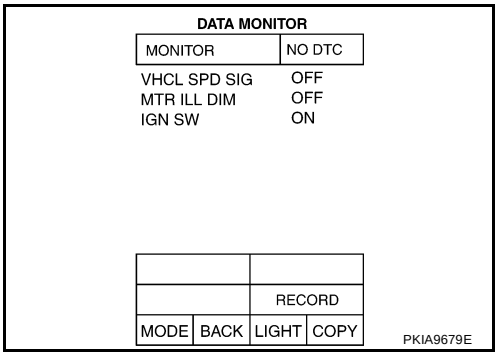
Screen switch							Diagnosis No.
PANEL SW	AUDIO HEAD UNIT	AIR COMP RECEIVER	BOSE AMP	FRONT SEAT DISPLAY	VOICE UNIT	CD CHANGER	
×	×	×	×	×			1
×	×	×	×				2
×							3
	×		×				4
	×						5
		×					6
			×				7
				×			8
					×		9
						×	10

Self-diagnosis Codes

Diagnosis No.	Possible cause	Reference page
1	AV communication line between AV control unit and display.	DI-122, "AV Control Unit and Display Circuit Inspection"
2	AV communication line between multifunction switch and display.	DI-121, "Multifunction Switch and Display Circuit Inspection"
3	Multifunction switch power supply and ground circuit.	DI-112, "Power Supply and Ground Circuit Inspection for Multifunction Switch"
4	AV communication line between multifunction switch and audio unit.	DI-123, "Audio Unit and Multifunction Switch Circuit Inspection"
5	Audio unit power supply and ground circuit.	AV-31, "Power Supply Circuit Inspection"
6	Low tire pressure warning control unit power supply and ground circuit.	WT-18, "Preliminary Check"
	AV communication line between multifunction switch and low tire pressure warning control unit.	DI-122, "Low Tire Pressure Warning Control Unit and Multifunction Switch Circuit Inspection"
7	BOSE speaker amp. power supply and ground circuit.	AV-31, "Power Supply Circuit Inspection"
	AV communication line between audio unit and BOSE speaker amp.	DI-124, "BOSE Speaker Amp. and Audio Unit Circuit Inspection"
8	Display power supply and ground circuit.	DI-111, "Power Supply and Ground Circuit Inspection for Display"
9	Voice activated control module power supply and ground circuit.	DI-188, "Power Supply and Ground Circuit Inspection"
	AV communication line between AV control unit and voice activated control module.	DI-191, "Voice Activated Control System Not Starting PTT Switch Pushed ON"
10	CD auto changer power supply and ground circuit.	AV-31, "Power Supply Circuit Inspection"
	AV communication line between audio unit and CD auto changer.	DI-123, "CD Auto Changer and Audio Unit Circuit Inspection"

SIGNAL MONITOR

- Displays status of the vehicle signal input to the AV control unit. (Refer to DI-107, "CONFIRMATION/ADJUSTMENT MODE" for operation conditions for the connections to be indicated.)



- For each signal, a comparison of actual operating status and the status recognized by the system can be checked.

Data monitor item		Condition	Remarks
VHCL SPD SIG	ON	Vehicle speed > 0 km/h (0 MPH)	Changes in indication may be delayed by approx. 1.5 seconds. This is normal.
	OFF	Vehicle speed = 0 km/h (0 MPH)	
	–	Ignition switch in ACC position	
MTR ILL DIM	ON	Lighting switch ON	–
	OFF	Lighting switch OFF	
IGN SW	ON	Ignition switch ON	–
	OFF	Ignition switch ACC or OFF	

On Board Self-Diagnosis Function (Without CONSULT-II)

EKS00GEB

DESCRIPTION

- Diagnosis function consists of the self-diagnosis mode performed automatically and the CONFIRMATION/ ADJUSTMENT mode operated manually.
- Self-diagnosis mode checks for connections between the units constituting this system, analyzes each individual unit at the same time, and displays the results on the LCD screen.
- CONFIRMATION/ADJUSTMENT mode is used to perform trouble diagnosis that require operation and judgment by an operator (malfunction that cannot be automatically judged by the system), to check/ change the set value.

DIAGNOSIS ITEM

Mode		Description	Reference page
SELF-DIAGNOSIS		● AV control unit diagnosis. ● Analyzes connection between the AV control unit and each unit, and operation of each unit.	DI-104
CONFIRMATION/ ADJUSTMENT	Display Diagnosis	Color tone and shading of the screen can be checked by the display of a color bar and a gray scale.	DI-108
	Vehicle Signals	Analyzes the following vehicle signals: Vehicle speed signal, parking brake signal, light signal, ignition switch signal, and reverse signal.	DI-109
	Rearview	Changes position of the aiming line overlapped on the rear view image.	DI-166
	Auto Climate Control	Turns all A/C screens on display and A/C switch indicator lamp on.	ATC-104
	History of errors *	Malfunctioning component and number of errors occurred	—
	Speaker Test	Checks the connection of each speaker using a test tone.	AV-26

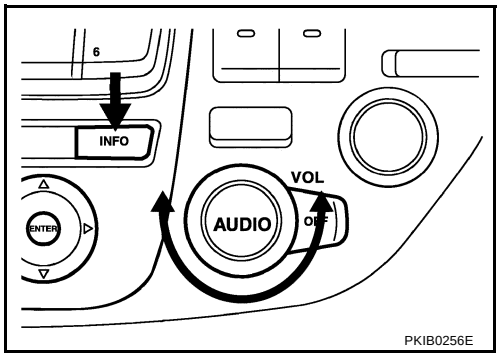
NOTE:

*: Although this item is shown on the screen, impracticable. Because, this item is not applied.

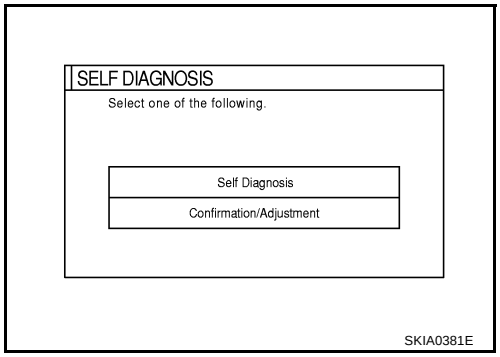
SELF-DIAGNOSIS MODE

Operation Procedure

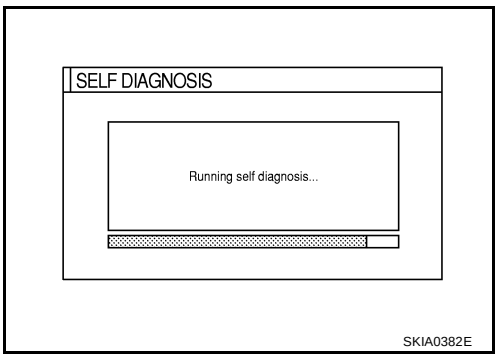
1. Start the engine.
2. Turn the audio system off.
3. While pressing the “INFO” switch, turn the volume control dial clockwise or counterclockwise for 30 clicks or more. (When the self-diagnosis mode is started, a short beep will be heard.)
   - Shifting from current screen to previous screen is performed by pressing “PREV” switch.



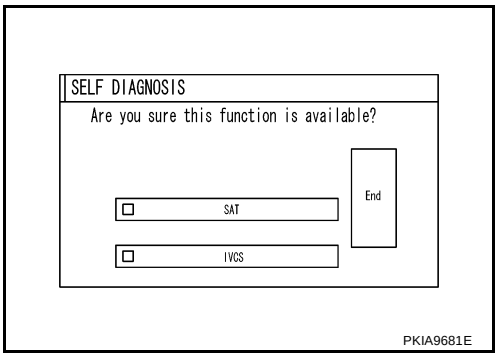
4. The initial trouble diagnosis screen will be shown, and items “Self Diagnosis” and “Confirmation/Adjustment” will become selective.



5. Perform self-diagnosis by selecting the “SELF DIAGNOSIS”.
   - Self-diagnosis subdivision screen will be shown and the operation enters the self-diagnosis mode.
   - A bar graph shown below the self-diagnosis subdivision screen indicates progress of the diagnosis.



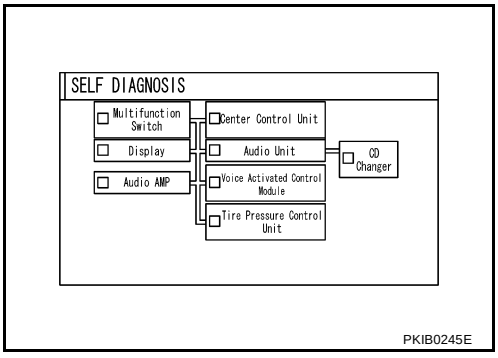
6. When the self-diagnosis completes, optional part confirmation screen will be shown.
   - When connection of an optional part is judged error, a screen to check if the optional part is actually fitted on the vehicle or not will be shown. When fitted, select the switch of the part on the screen and press “End”. Then the “SELF DIAGNOSIS” screen will be shown.
   - When the optional part is connected normally, the switch for the part will not appear on the screen.



7. On the “SELF DIAGNOSIS” screen, each unit name will be colored according to the diagnosis result, as follows.

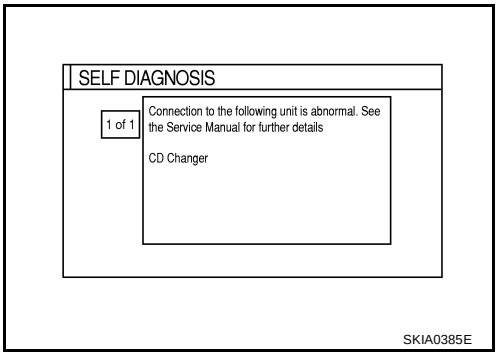
   Green : No malfunctioning.
   Yellow : Cannot be judged by self-diagnosis results.
   Red : Unit is malfunctioning.
   Gray : Diagnosis has not been done.

   - If several malfunctions are present in a unit, color of its switch on the screen will be either red, yellow, or gray, determined by the malfunction of the highest priority.



CAUTION:
“Tire Pressure Control Unit” on the screen will be illuminated in yellow when performing self-diagnosis with ignition switch in ACC position.

8. Select a switch on the “SELF DIAGNOSIS” screen and comments for the diagnosis results will be shown.
   - When the switch is green, the following comment will be shown. “Self-diagnosis was successful. Further diagnosis and adjustments are recommended. Follow the “confirmation and adjustments” menu or refer to the service manual.”.
   - When the switch is yellow, the following comment will be shown. “Connection to the following unit is abnormal. See the Service Manual for further details”.
   - When the switch is red, the following comment will be shown “Center Control Unit is abnormal”.



SELF-DIAGNOSIS RESULT

Quick Reference Table

1. Select an applicable diagnosis No. in the diagnosis result quick reference table.
2. Find estimated malfunctioning system in the diagnosis No. table and perform check by referring to DI-91, "Wiring Diagram — COMM —" .
3. Turn ignition switch OFF and perform self-diagnosis again.

Screen switch							Diagnosis No.
Switch color	Center control unit*1	Tire pressure control unit	Audio unit	CD changer	Audio amp.*2	Voice Activated Control Module	
Red	×						1
Yellow	×	×					2
	×		×	× (Gray)			3
			×	×			4
	×				×		5
	×					×	6
	×		×	× (Gray)	×		7

- *1: Center control unit = AV control unit
- *2: Audio amp. = BOSE speaker amp.

CAUTION:

- **When multifunction switch has a malfunction, you cannot start.**
- **Check the following when the self-diagnosis mode you cannot use.**
  - **AV communication line between AV control unit and display, AV communication line between display and multifunction switch.**
  - **Multifunction switch power supply and ground circuit.**
- **When an error is in the AV communication line, it cannot be detected on the screen because self-diagnosis is inoperative. However, the error can be detected with CONSULT-II. Refer to DI-100, "CONSULT-II Function" .**

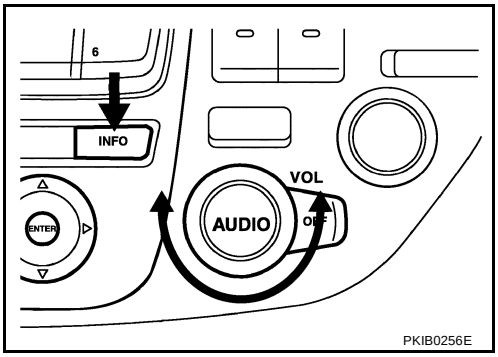
Self-Diagnosis Codes

Diagnosis No.	Possible cause	Reference page
1	AV control unit malfunction.	–
2	Low tire pressure warning control unit power supply and ground circuit.	WT-18, "Preliminary Check"
	AV communication line between low tire pressure warning control unit and multifunction switch.	DI-122, "Low Tire Pressure Warning Control Unit and Multifunction Switch Circuit Inspection"
3	Audio unit power supply and ground circuit.	AV-31, "Power Supply Circuit Inspection"
4	CD auto changer power supply and ground circuit.	AV-31, "Power Supply Circuit Inspection"
	AV communication line between CD auto changer and audio unit.	DI-123, "CD Auto Changer and Audio Unit Circuit Inspection"
5	BOSE speaker amp. power supply and ground circuit.	AV-31, "Power Supply Circuit Inspection"
	AV communication line between BOSE speaker amp. and audio unit.	DI-124, "BOSE Speaker Amp. and Audio Unit Circuit Inspection"
6	Voice activated control module power supply and ground circuit.	DI-188, "Power Supply and Ground Circuit Inspection"
	AV communication line between AV control unit and voice activated control module.	DI-191, "Voice Activated Control System Not Starting PTT Switch Pushed ON"
7	AV communication line between audio unit and multifunction switch.	DI-123, "Audio Unit and Multifunction Switch Circuit Inspection"

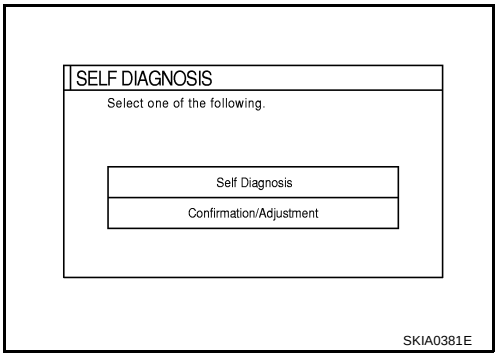
CONFIRMATION/ADJUSTMENT MODE

Operation Procedure

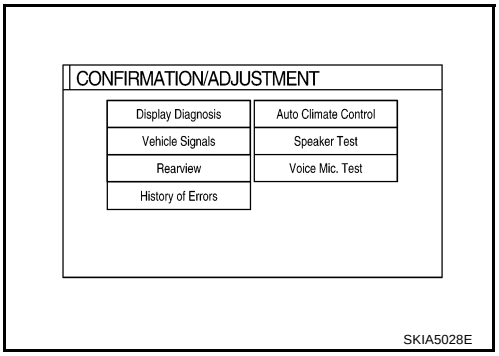
1. Start the engine.
2. Turn the audio system off.
3. While pressing the “INFO” switch, turn the volume control dial clockwise or counterclockwise for 30 clicks or more. (When the self-diagnosis mode is started, a short beep will be heard.)
   - Shifting from current screen to previous screen is performed by pressing “PREV” switch.



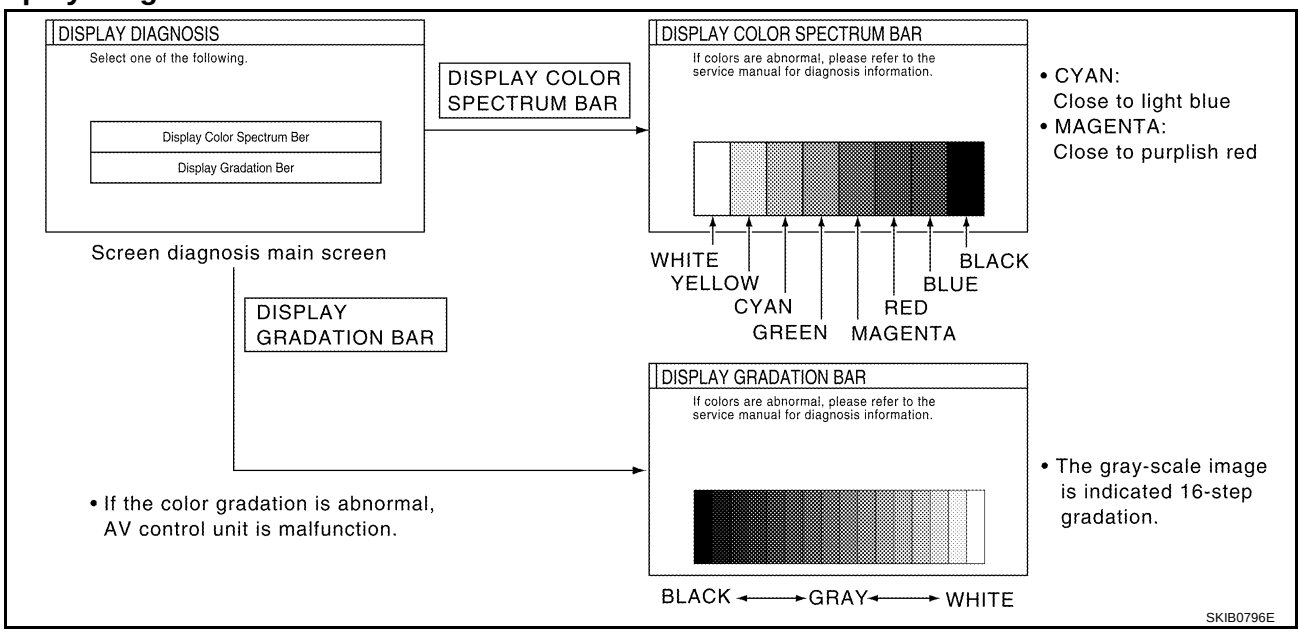
4. The initial trouble diagnosis screen will be shown, and items “Self Diagnosis” and “Confirmation/Adjustment” will become selective.



5. When “Confirmation/Adjustment” is selected on the initial trouble diagnosis screen, the operation will enter the CONFIRMATION/ ADJUSTMENT mode. In this mode, check and adjustment of each item will become possible.
6. Select each switch on “Confirmation/Adjustment” screen to display the relevant diagnosis screen.



Display Diagnosis



CAUTION:

When DISPLAY COLOR SPECTRUM BAR screen is completed after “PREV” switch is pressed, the screen color changes once. This is normal.

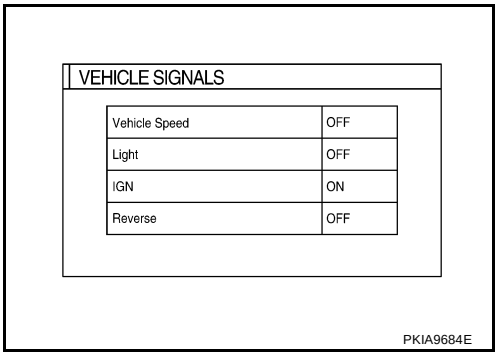
- When RGB signal error occurred in the RGB system, tone of the color bar will change as follows.

  R (red) signal error : Screen looks bluish
  G (green) signal error : Screen looks yellowish
  B (blue) signal error : Screen looks reddish

- When the color of the screen looks unusual, refer to DI-115, "Color of RGB Image Is Not Proper" .

Vehicle Signals

- A comparison check can be made of each actual vehicle signal and the signals recognized by the system.



Diagnosis item	Display	Condition	Remarks
Vehicle Speed	ON	Vehicle speed > 0 km/h (0 MPH)	Changes in indication may be delayed by approx. 1.5 seconds. This is normal.
	OFF	Vehicle speed = 0 km/h (0 MPH)	
	–	Ignition switch in ACC position	
Light	ON	Lighting switch ON	–
	OFF	Lighting switch OFF	
IGN	ON	Ignition switch ON	–
	OFF	Ignition switch ACC or OFF	
Reverse	ON	A/T selector lever “R” position	–
	OFF	A/T selector lever in other “R” position	
	–	Ignition switch in ACC position	

Rear View Camera

Refer to DI-166, "Side Distance Guideline Correction" for the details.

Auto Climate Control

Refer to ATC-53, "Self-diagnosis Function" in ATC section for the details.

Speaker Test

Refer to AV-26, "Confirmation/Adjustment Mode" for the details.

Multifunction Switch Self-Diagnosis Function

EKS00GEC

It can check ON/OFF operation of each switch in the multifunction switch and diagnose the input signals to the rear control switch (audio) and steering switch (audio).

DIAGNOSIS FUNCTION

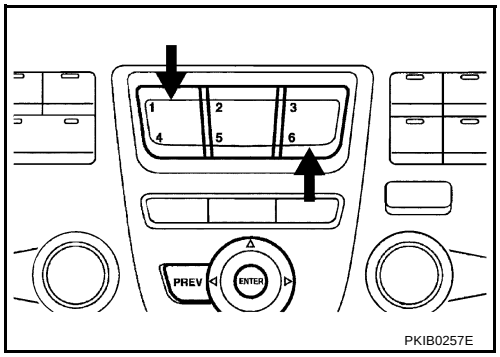
- It can illuminate all the indicators (LED) in the multifunction switch.
- It can check for continuity of the switches by sounding the buzzer when the multifunction switch is pressed.
- It can check for continuity of harness between multifunction switch and rear control switch (audio), or steering switch (audio).

  NOTE:
  When it check continuity of harness between multifunction switch and rear control switch (audio), rear control cancel switch is OFF position.

STARTING THE SELF-DIAGNOSIS MODE

1. Turn ignition switch from OFF to ACC.
2. Within 10 seconds press and hold the function switches “1” and “6 ”simultaneously for 5 seconds.

Then the self-diagnosis operates.



EXITING THE SELF-DIAGNOSIS MODE

- Turn ignition switch OFF, or press and hold the function switches “1” and “6” simultaneously for 5 seconds. Then the self-diagnosis ends.

Power Supply and Ground Circuit Inspection for AV Control Unit

EKS00GED

1. CHECK FUSE

Check for blown AV control unit fuses.

Unit	Power source	Fuse No.
AV control unit	Battery	52
	Ignition switch ACC or ON	21

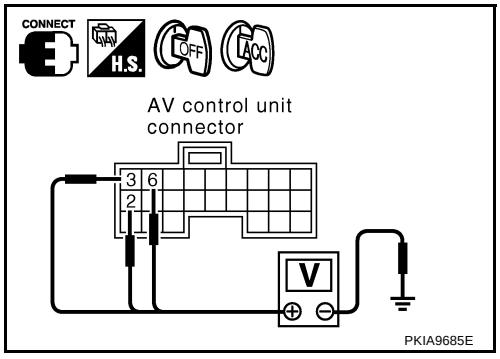
OK or NG

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

2. CHECK POWER SUPPLY CIRCUIT

Check voltage between AV control unit harness connector M78 terminals 2 (SB), 3 (SB), 6 (L/OR) and ground.

Terminals			Ignition switch position	
(+)		(–)	OFF	ACC
Connector	Terminal (Wire color)			
M78	2 (SB)	Ground	Battery voltage	Battery voltage
	3 (SB)		Battery voltage	Battery voltage
	6 (L/OR)		0 V	Battery voltage



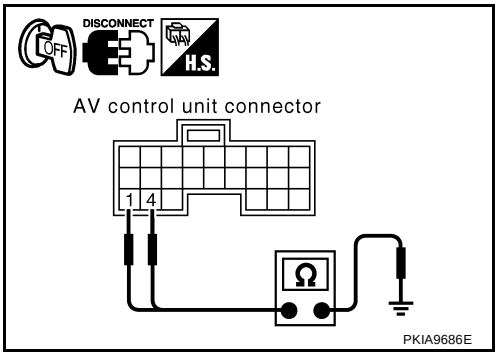
OK or NG

OK >> GO TO 3.
NG >> Check harness between AV control unit and fuse.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector.
3. Check continuity between AV control unit harness connector M78 terminals 1 (B), 4 (B) and ground.

1 (B) – Ground
4 (B) – Ground **: Continuity should exist.**



OK or NG

OK >> INSPECTION END
NG >> Check ground harness.

Power Supply and Ground Circuit Inspection for Display

EKS00GEE

1. CHECK FUSE

Check for blown display fuses.

Unit	Power souse	Fuse No.
Display	Battery	52
	Ignition switch ACC or ON	21

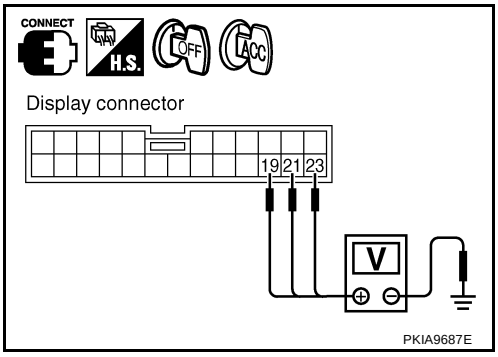
OK or NG

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

2. CHECK POWER SUPPLY CIRCUIT

Check voltage between display harness connector M82 terminals 19 (L/OR), 21 (SB), 23 (SB) and ground.

Terminals			Ignition switch position	
(+)		(–)	OFF	ACC
Connector	Terminal (Wire color)			
M82	19 (L/OR)	Ground	0 V	Battery voltage
	21 (SB)		Battery voltage	Battery voltage
	23 (SB)		Battery voltage	Battery voltage



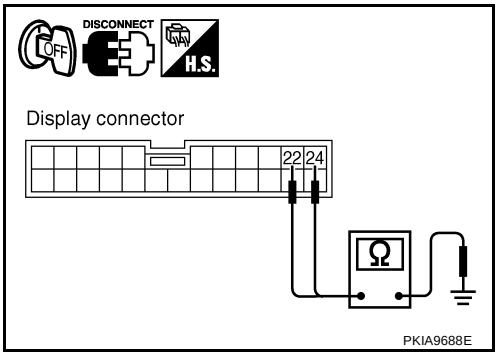
OK or NG

OK >> GO TO 3.
NG >> Check harness between display and fuse.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display connector.
3. Check continuity between display harness connector M82 terminals 22 (B), 24 (B) and ground.

22 (B) – Ground
24 (B) – Ground **: Continuity should exist.**



OK or NG

OK >> INSPECTION END
NG >> Check ground harness.

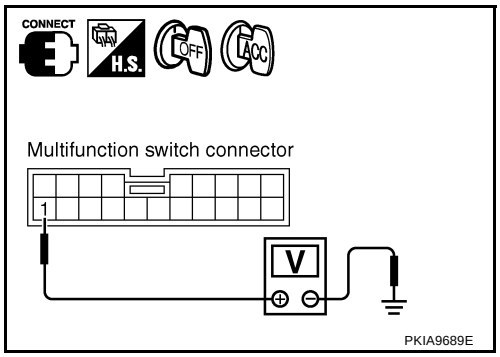
Power Supply and Ground Circuit Inspection for Multifunction Switch

EKS00GEF

1. CHECK POWER SUPPLY CIRCUIT

Check voltage between multifunction switch harness connector M83 terminal 1 (L/OR) and ground.

Terminals			Ignition switch position	
(+)		(–)	OFF	ACC
Connector	Terminal (Wire color)			
M83	1 (L/OR)	Ground	0 V	Battery voltage



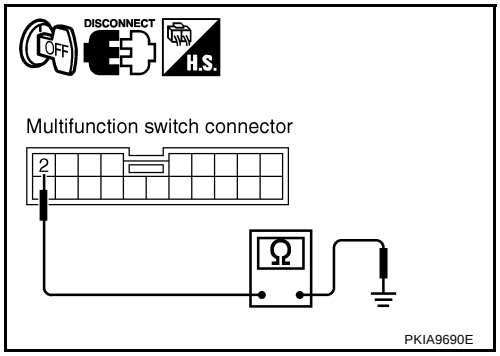
OK or NG

OK >> GO TO 2.
NG >> Check harness between multifunction switch and fuse.

2. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect multifunction switch connector.
3. Check continuity between multifunction switch harness connector M83 terminal 2 (B) and ground.

2 (B) – Ground : Continuity should exist.



OK or NG

OK >> INSPECTION END
NG >> Check ground harness.

Vehicle Speed Signal Inspection

EKS00GEG

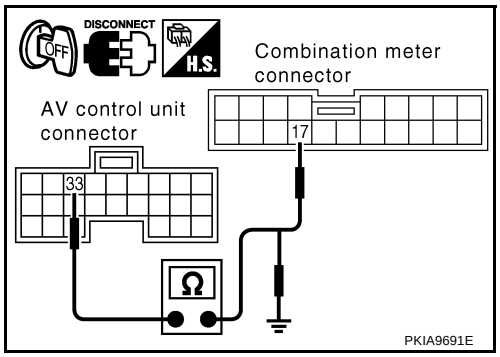
1. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector and combination meter connector.
3. Check continuity between AV control unit harness connector M77 terminal 33 (OR/L) and combination meter harness connector M41 terminal 17 (OR/L).

33 (OR/L) – 17 (OR/L) : Continuity should exist.

4. Check continuity between AV control unit harness connector M77 terminal 33 (OR/L) and ground.

33 (OR/L) – Ground : Continuity should not exist.



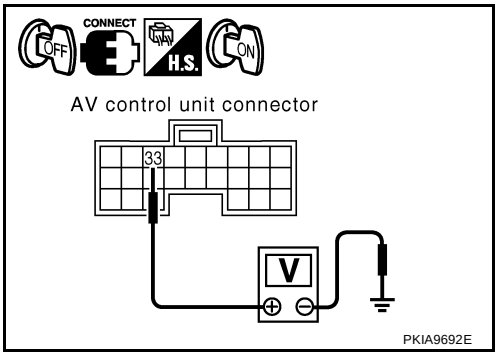
OK or NG

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

2. CHECK OUTPUT VOLTAGE

1. Connect AV control unit connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector M77 terminal 33 (OR/L) and ground.

33 (OR/L) – Ground : Approx. 3.5 V or more



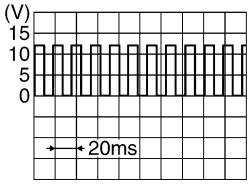
OK or NG

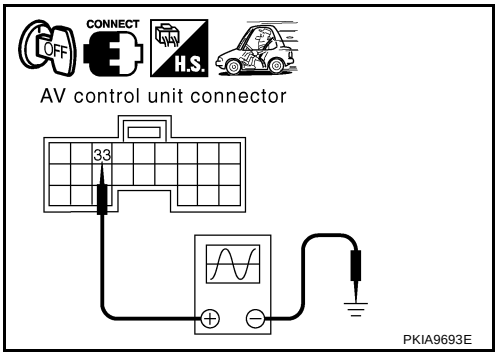
OK >> GO TO 3.
NG >> Replace AV control unit.

3. CHECK VEHICLE SPEED SIGNAL

1. Turn ignition switch OFF and connect combination meter connector.
2. Start engine and drive vehicle at approximately 40 km/h (25 MPH).
3. Check voltage signal between AV control unit harness connector M77 terminal 33 (OR/L) and ground.

33 (OR/L) – Ground:





OK or NG

OK >> Replace AV control unit.
NG >> Check combination meter. Refer to DI-19, "Vehicle Speed Signal Inspection" .

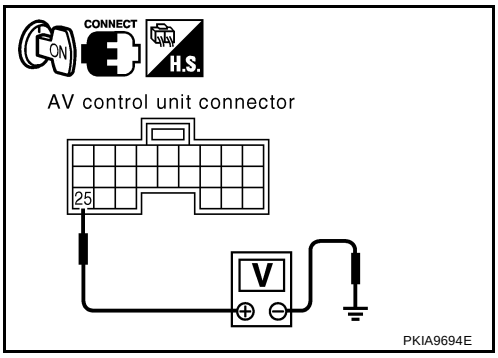
Illumination Control Signal Inspection

EKS00GEH

1. CHECK ILLUMINATION CONTROL SIGNAL

1. Turn ignition switch ON.
2. Check voltage between AV control unit harness connector M77 terminal 25 (L/Y) and ground.

25 (L/Y) – Ground
Lighting switch ON (1st position) : Approx. 12 V
Lighting switch OFF : Approx. 0 V



OK or NG

OK >> Replace AV control unit.
NG >> Check harness between AV control unit and BCM.

Ignition Signal Inspection

EKS00GEI

1. CHECK FUSE

Check for blown AV control unit fuses.

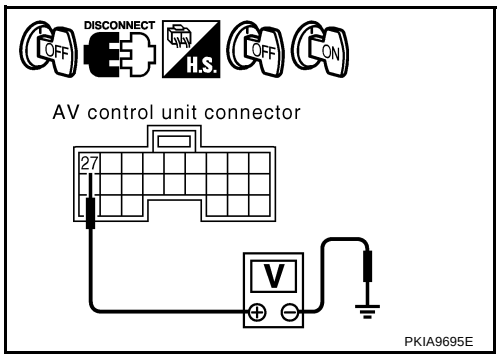
Unit	Power souse	Fuse No.
AV control unit	Ignition switch ON or START	1

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-2, "POWER SUPPLY ROUTING" .

2. CHECK IGNITION SIGNAL

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector.
3. Check voltage between AV control unit harness connector M77 terminal 27 (BR/W) and ground.



Terminals			Ignition switch position	
(+)		(–)	OFF	ON
Connector	Terminal (Wire color)			
M77	27 (BR/W)	Ground	0 V	Battery voltage

OK or NG

OK >> Replace AV control unit.
NG >> Check harness between AV control unit and fuse.

RGB Screen Is Not Shown

EKS00GEJ

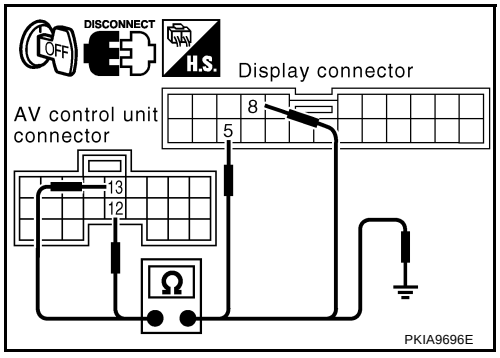
1. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector and display connector.
3. Check continuity between AV control unit harness connector M78 terminal 12 (LG) and display harness connector M82 terminal 8 (LG).

12 (LG) – 8 (LG) : Continuity should exist.

4. Check continuity between AV control unit harness connector M78 terminal 13 (L/Y) and display harness connector M82 terminal 5 (L/Y).

13 (L/Y) – 5 (L/Y) : Continuity should exist.



5. Check continuity between AV control unit harness connector M78 terminals 12 (LG), 13 (L/Y) and ground.

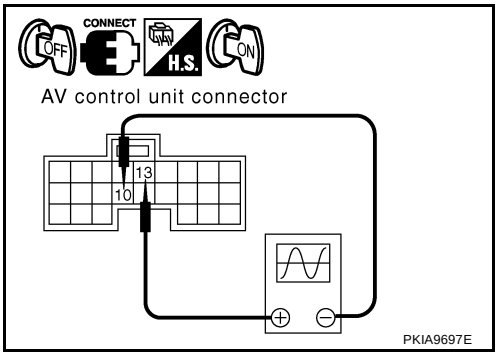
12 (LG) – Ground
13 (L/Y) – Ground **: Continuity should not exist.**

OK or NG

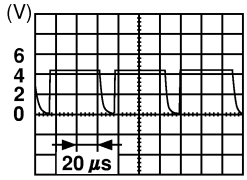
OK >> GO TO 2.
NG >> Repair harness or connector.

2. CHECK HORIZONTAL SYNCHRONIZATION SIGNAL

1. Connect AV control unit connector and display connector.
2. Turn ignition switch ON.
3. Select “Rearview” in “Confirmation/Adjustment” mode and display the rearview image on the screen.
4. Check voltage signal between AV control unit harness connector M78 terminals 13 (L/Y) and 10.



13 (L/Y) – 10:

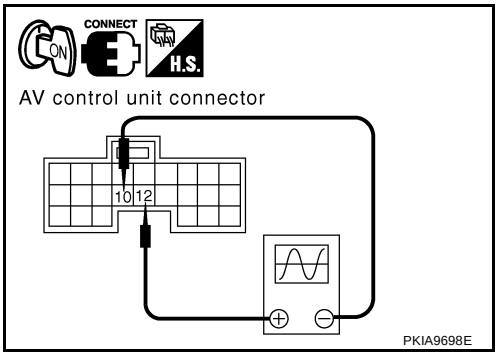


OK or NG

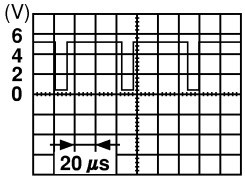
OK >> GO TO 3.
NG >> Replace display.

3. CHECK RGB AREA SIGNAL

1. Press “INFO” switch.
2. Check voltage signal between AV control unit harness connector M78 terminals 12 (LG) and 10.



12 (LG) – 10:



OK or NG

OK >> Replace display.
NG >> Replace AV control unit.

Color of RGB Image Is Not Proper

EKS00GEK

1. CHECK COLOR BAR DIAGNOSIS

Check color tone by “SCREEN ADJUSTMENT” of “CONFIRMATION/ADJUSTMENT” function.

OK or NG

OK >> INSPECTION END
NG >> GO TO 2.

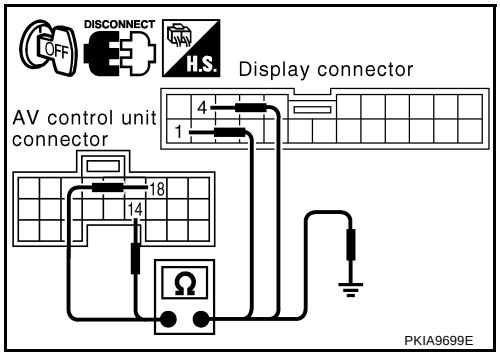
2. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector and display connector.
3. Check continuity as follows.

- **When the screen looks bluish**

Terminals				Continuity
AV control unit		Display		
Connector	Terminal (Wire color)	Connector	Terminal (Wire color)	
M78	18 (L)	M82	1 (L)	Yes
M78	14	M82	4	

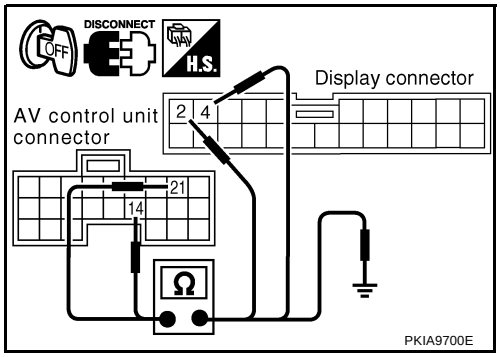
Terminals			Continuity
(+)		(–)	
Connector	Terminal (Wire color)		
M78	14, 18 (L)	Ground	No



- **When the screen looks reddish**

Terminals				Continuity
AV control unit		Display		
Connector	Terminal (Wire color)	Connector	Terminal (Wire color)	
M78	21 (Y)	M82	2 (Y)	Yes
M78	14	M82	4	

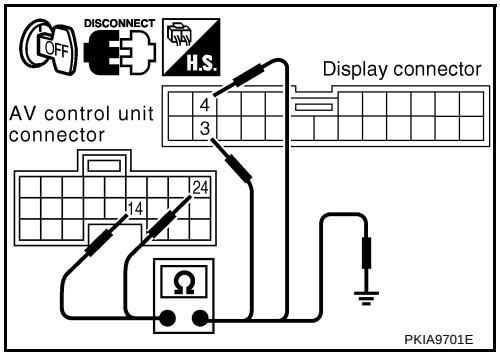
Terminals			Continuity
(+)		(–)	
Connector	Terminal (Wire color)		
M78	14, 21 (Y)	Ground	No



- **When the screen looks yellowish**

Terminals				Continuity
AV control unit		Display		
Connector	Terminal (Wire color)	Connector	Terminal (Wire color)	
M78	24 (G)	M82	3 (G)	Yes
M78	14	M82	4	

Terminals			Continuity
(+)		(–)	
Connector	Terminal (Wire color)		
M78	14, 24 (G)	Ground	No



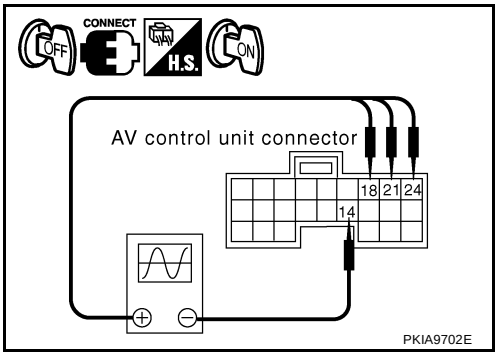
OK or NG

OK >> GO TO 3.

NG >> ● Check connector housings for disconnected or loose terminals.
● Repair harness or connector.

3. CHECK RGB SIGNAL

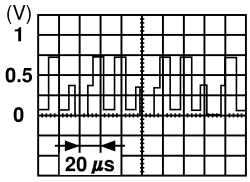
1. Connect AV control unit connector and display connector.
2. Turn ignition switch ON.
3. Display “Color bar” by “CONFIRMATION/ADJUSTMENT” mode.
4. Check the following.



- **When the screen looks bluish**

Voltage signal between AV control unit harness connector M78 terminals 18 (L) and 14

18 (L) – 14:

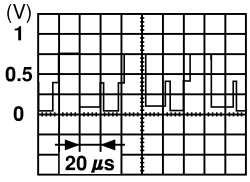


SKIA0165E

- **When the screen looks reddish**

Voltage signal between AV control unit harness connector M78 terminals 21 (Y) and 14

21 (Y) – 14:

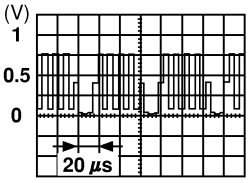


SKIA0166E

- **When the screen looks yellowish**

Voltage signal between AV control unit harness connector M78 terminals 24 (G) and 14

24 (G) – 14:



SKIA0167E

OK or NG

OK >> Replace display.
NG >> Replace AV control unit.

RGB Screen Is Rolling

EKS00GEL

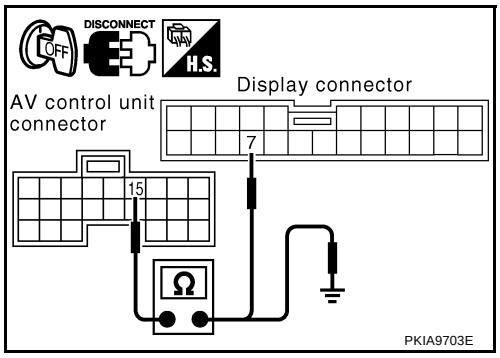
1. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector and display connector.
3. Check continuity between AV control unit harness connector M78 terminal 15 (L/R) and display harness connector M82 terminal 7 (L/R).

15 (L/R) – 7 (L/R) : Continuity should exist.

4. Check continuity between AV control unit harness connector M78 terminal 15 (L/R) and ground.

15 (L/R) – Ground : Continuity should not exist.



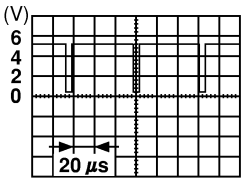
OK or NG

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

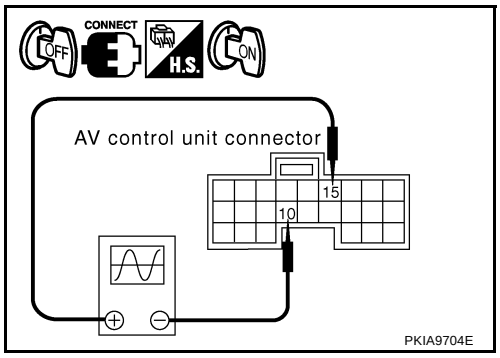
2. CHECK RGB SYNCHRONIZING SIGNAL

1. Connect AV control unit connector and display connector.
2. Turn ignition switch ON.
3. Check voltage signal between AV control unit harness connector M78 terminals 15 (L/R) and 10.

15 (L/R) – 10:



SKIA0164E



OK or NG

OK >> Replace display.
NG >> Replace AV control unit.

No A/C Display is Shown

EKS006RM

Refer to ATC-107, "A/C Display is Malfunctioning" in ATC section.

A/C Operation Is Not Possible

EKS006RN

Refer to ATC-108, "A/C Operation is Malfunctioning" in ATC section.

No Fuel Information Is Displayed/No Warning Message Is Displayed

EKS00GEM

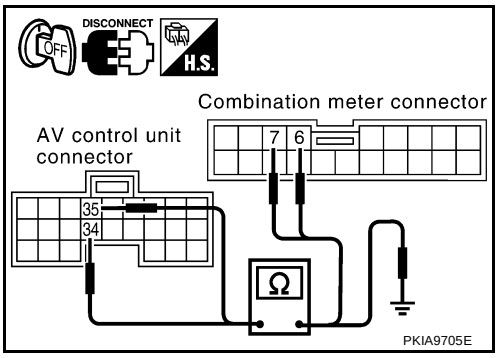
1. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect connectors of AV control unit, combination meter and BCM.
3. Check continuity between AV control unit harness connector M77 terminal 34 (LG) and combination meter harness connector M41 terminal 7 (LG).

34 (LG) – 7 (LG) : Continuity should exist.

4. Check continuity between AV control unit harness connector M77 terminal 35 (PU) and combination meter harness connector M41 terminal 6 (PU).

35 (PU) – 6 (PU) : Continuity should exist.



5. Check continuity between AV control unit harness connector M77 terminals 34 (LG), 35 (PU) and ground.

34 (LG) – Ground
35 (PU) – Ground **: Continuity should not exist.**

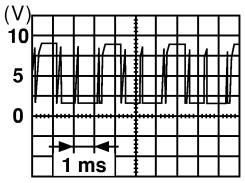
OK or NG

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

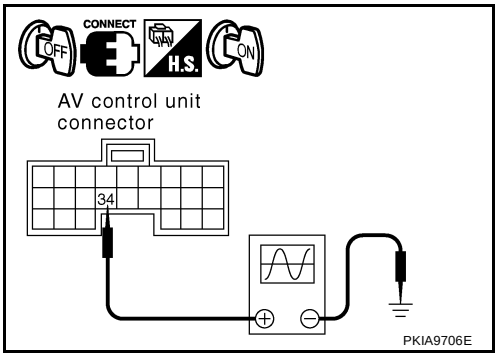
2. CHECK COMMUNICATION SIGNAL (AV-ME)

1. Connect connectors of combination meter, BCM and AV control unit.
2. Turn ignition switch ON and display “VEHICLE ELECTRONIC SYSTEMS” screen.
3. Check voltage signal between AV control unit harness connector M77 terminal 34 (LG) and ground.

34 (LG) – Ground:



SKIA0169E



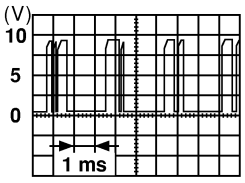
OK or NG

OK >> GO TO 3.
NG >> Replace AV control unit.

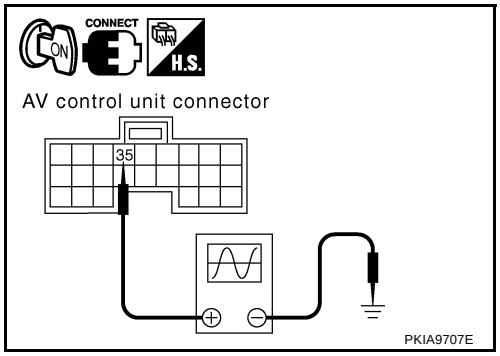
3. CHECK COMMUNICATION SIGNAL (ME-AV)

1. Turn ignition switch ON and display “VEHICLE ELECTRONIC SYSTEMS” screen.
2. Check voltage signal between AV control unit harness connector M77 terminal 35 (PU) and ground.

35 (PU) – Ground:



SKIA0170E



OK or NG

OK >> Replace AV control unit.
NG >> Replace combination meter.

Vehicle Condition Setting Is Not Possible

EKS00GEN

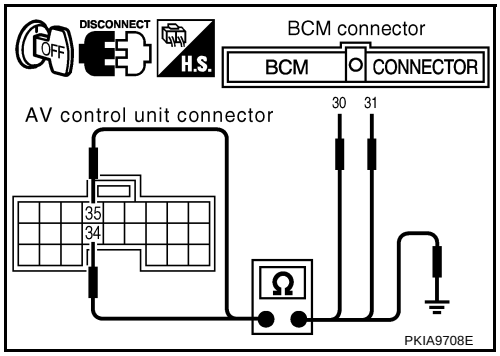
1. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect connectors of AV control unit, combination meter and BCM.
3. Check continuity AV control unit harness connector M77 terminal 34 (LG) and BCM harness connector M4 terminal 31 (LG).

34 (LG) – 31 (LG) : Continuity should exist.

4. Check continuity AV control unit harness connector M77 terminal 35 (PU) and BCM harness connector M4 terminal 30 (PU).

35 (PU) – 30 (PU) : Continuity should exist.



5. Check continuity between AV control unit harness connector M77 terminals 34 (LG), 35 (PU) and ground.

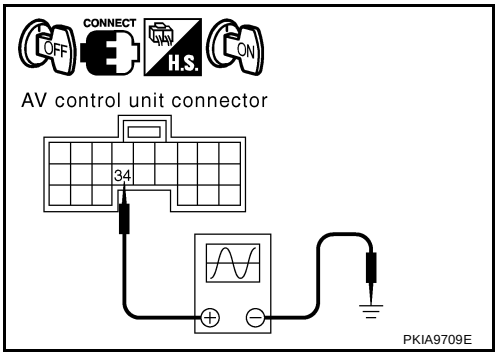
34 (LG) – Ground
35 (PU) – Ground **: Continuity should not exist.**

OK or NG

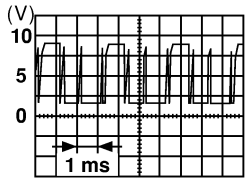
OK >> GO TO 2.
NG >> Repair harness or connector.

2. CHECK COMMUNICATION SIGNAL (AV-ME)

1. Connect connectors of AV control unit, combination meter and BCM.
2. Turn ignition switch ON and display “VEHICLE ELECTRONIC SYSTEMS” screen.
3. Check voltage signal between AV control unit harness connector M77 terminal 34 (LG) and ground.



34 (LG) – Ground:



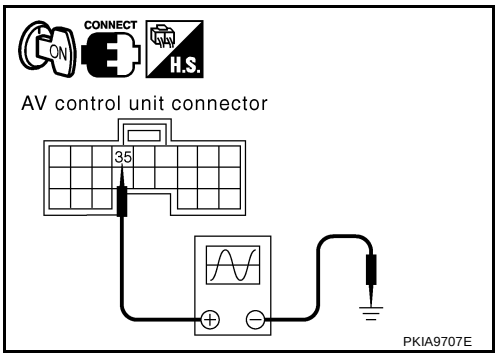
SKIA0169E

OK or NG

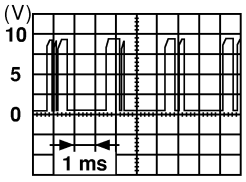
OK >> GO TO 3.
NG >> Replace AV control unit.

3. CHECK COMMUNICATION SIGNAL (ME-AV)

1. Turn ignition switch ON and display “VEHICLE ELECTRONIC SYSTEMS” screen.
2. Check voltage signal between AV control unit harness connector M77 terminal 35 (PU) and ground.



35 (PU) – Ground:



SKIA0170E

OK or NG

OK >> Replace AV control unit.
NG >> Replace BCM.

Multifunction Switch and Display Circuit Inspection

EKS00GEP

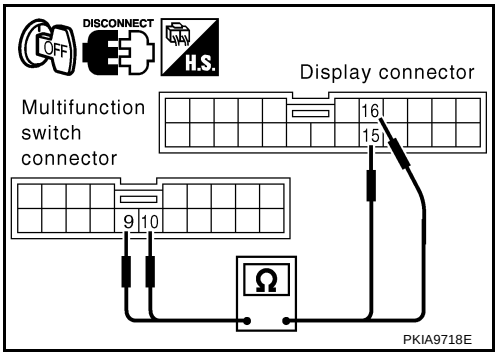
1. CHECK MULTIFUNCTION SWITCH AND DISPLAY OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect multifunction switch connector and display connector.
3. Check continuity between multifunction switch harness connector M83 terminal 9 (R) and display harness connector M82 terminal 16 (R).

9 (R) – 16 (R) : Continuity should exist.

4. Check continuity between multifunction switch harness connector M83 terminal 10 (L) and display harness connector M82 terminal 15 (L).

10 (L) – 15 (L) : Continuity should exist.



OK or NG

OK >> Replace multifunction switch.
NG >> Repair harness or connector.

AV Control Unit and Display Circuit Inspection

EKS00GEQ

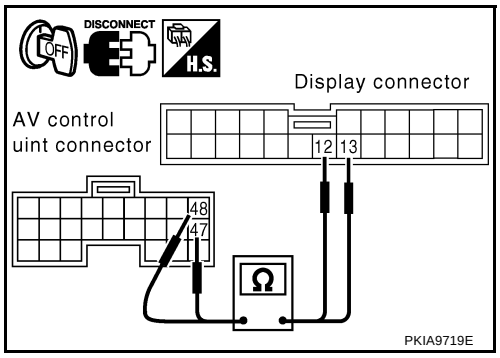
1. CHECK AV CONTROL UNIT AND DISPLAY OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector and display connector.
3. Check continuity between AV control unit connector M77 terminal 47 (Y) and display connector M82 terminal 13 (Y).

47 (Y) – 13 (Y) : Continuity should exist.

4. Check continuity between AV control unit harness connector M77 terminal 48 (R/L) and display harness connector M82 terminal 12 (R/L).

48 (R/L) – 12 (R/L) : Continuity should exist.



OK or NG

OK >> Replace display.
NG >> Repair harness or connector.

Low Tire Pressure Warning Control Unit and Multifunction Switch Circuit Inspection

EKS00GER

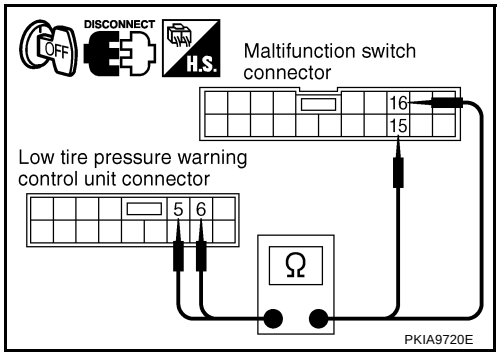
1. CHECK LOW TIRE PRESSURE WARNING CONTROL UNIT AND MULTIFUNCTION SWITCH OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect low tire pressure warning control unit connector and multifunction switch connector.
3. Check continuity between low tire pressure warning control unit harness connector M84 terminal 5 (OR) and multifunction switch harness connector M83 terminal 15 (OR).

5 (O/R) – 15 (O/R) : Continuity should exist.

4. Check continuity between low tire pressure warning control unit harness connector M84 terminal 6 (W) and multifunction switch harness connector M83 terminal 16 (W).

6 (W) – 16 (W) : Continuity should exist.



OK or NG

OK >> Replace low tire pressure warning control unit.
NG >> Repair harness or connector.

Audio Unit and Multifunction Switch Circuit Inspection

EKS00GES

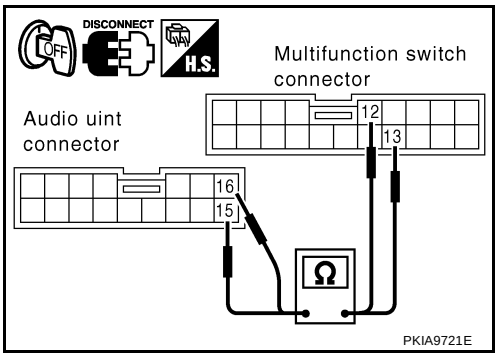
1. CHECK AUDIO UNIT AND MULTIFUNCTION SWITCH OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and multifunction switch connector.
3. Check continuity between audio unit harness connector M87 terminal 15 (R/L) and multifunction switch harness connector M83 terminal 13 (R/L).

15 (R/L) – 13 (R/L) : Continuity should exist.

4. Check continuity between audio unit harness connector M87 terminal 16 (Y) and multifunction switch harness connector M83 terminal 12 (Y).

16 (Y) – 12 (Y) : Continuity should exist.



OK or NG

OK >> Replace audio unit.
NG >> Repair harness or connector.

CD Auto Changer and Audio Unit Circuit Inspection

EKS00GET

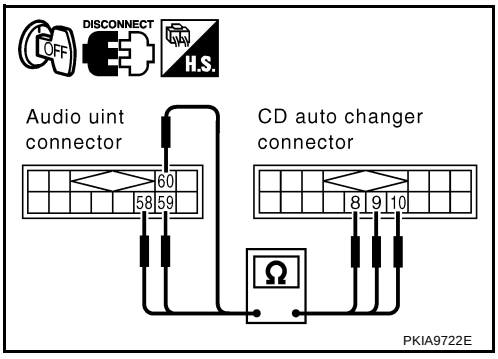
1. CHECK CD AUTO CHANGER AND AUDIO UNIT OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect CD auto changer connector and audio unit connector.
3. Check continuity between CD auto changer harness connector M109 terminal 8 (Y) and audio unit harness connector M88 terminal 58 (R/W).

8 (Y) – 58 (R/W) : Continuity should exist.

4. Check continuity between CD auto changer harness connector M109 terminal 9 (L) and audio unit harness connector M88 terminal 59 (R/L).

9 (L) – 59 (R/L) : Continuity should exist.



5. Check continuity between CD auto changer harness connector M109 terminal 10 (G) and audio unit harness connector M88 terminal 60 (B).

10 (G) – 60 (B) : Continuity should exist.

OK or NG

OK >> Replace CD auto changer.
NG >> Repair harness or connector.

BOSE Speaker Amp. and Audio Unit Circuit Inspection

EKS00GEU

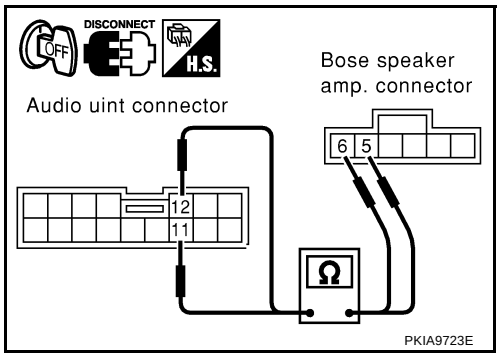
1. CHECK BOSE SPEAKER AMP. AND AUDIO UNIT OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BOSE speaker amp. connector and audio unit connector.
3. Check continuity between BOSE speaker amp. harness connector B231 terminal 5 (LG) and audio unit harness connector M87 terminal 12 (LG).

5 (LG) – 12 (LG) : Continuity should exist.

4. Check continuity between BOSE speaker amp. harness connector B231 terminal 6 (PU) and audio unit harness connector M87 terminal 11 (PU).

6 (PU) – 11 (PU) : Continuity should exist.



OK or NG

OK >> Replace BOSE speaker amp.
NG >> Repair harness or connector.

Multifunction Switch Does Not Operate

EKS006TW

1. MULTIFUNCTION SWITCH SELF-DIAGNOSIS

Perform multifunction switch self-diagnosis. Refer to DI-109, "Multifunction Switch Self-Diagnosis Function" .

Does multifunction switch self-diagnosis mode operate?

YES >> With the self-diagnosis results, check the malfunctioning part.
NO >> GO TO 2.

2. COMMUNICATION CIRCUIT SELF-DIAGNOSIS

Perform the self-diagnosis with CONSULT-II. Refer to DI-100, "CONSULT-II Function" .

Is self-diagnosis result OK?

YES >> Replace display.
NO >> With the self-diagnosis results, check the malfunctioning part.

Removal and Installation of Multifunction Switch

EKS00H9M

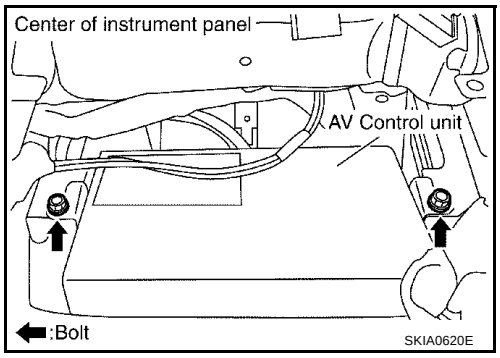
Refer to IP-10, "INSTRUMENT PANEL ASSEMBLY" .

Removal and Installation of AV Control Unit

EKS006EC

REMOVAL

1. Remove cluster lid C. Refer to IP-10, "INSTRUMENT PANEL ASSEMBLY" .
2. Remove warning chime. Refer to DI-72, "Removal and Installation of Warning Chime" .
3. Remove tire pressure warning control unit. Refer to WT-8, "TIRE PRESSURE WARNING CONTROL UNIT" .
4. Remove the screws (2), and remove AV control unit.



INSTALLATION

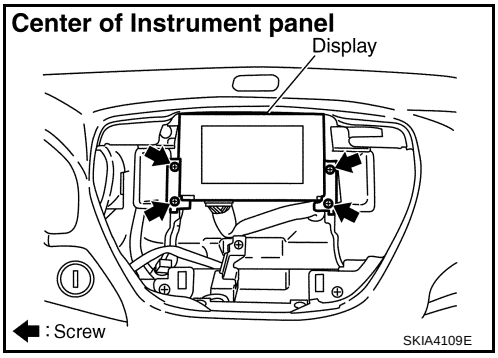
Installation is the reverse order of removal.

Removal and Installation of Display

EKS006TO

REMOVAL

1. Remove the cluster lid C. Refer to IP-10, "INSTRUMENT PANEL ASSEMBLY" .
2. Remove the screws (4), and remove the display.

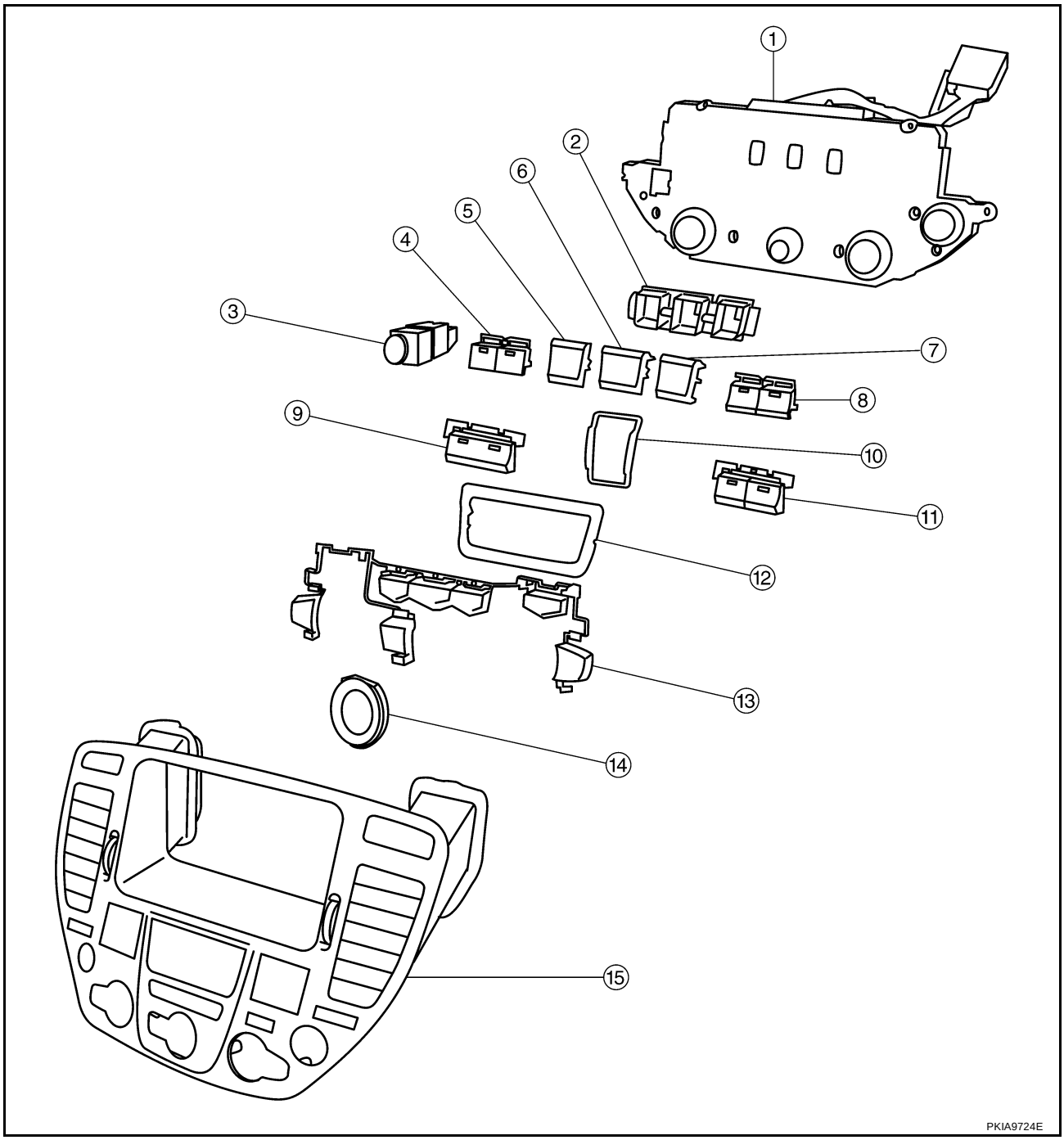


INSTALLATION

Installation is the reverse order of removal.

Disassembly and Assembly for Multifunction Switch

EKS006TP



1. Multifunction switch
2. Escutcheon
3. Hazard switch
4. Defroster, rear window defogger switch
5. Function switch
6. Function switch
7. Function switch
8. TAPE and DISC switch
9. A/C switch
10. Escutcheon
11. FM/AM and SAT switch
12. Escutcheon
13. Switch assembly
14. Escutcheon
15. Cluster lid C

DISASSEMBLY

1. Remove the screw (7).
2. Remove the switches.

ASSEMBLY

Assembly is the reverse order of disassembly.

VEHICLE INFORMATION AND INTEGRATED SWITCH SYSTEM /WITH NAVIGATION SYSTEM

PFP:28395

System Description

EKS006EE

INTEGRATED SWITCH SYSTEM

Using the multifunction switch at the center of the instrument panel, the controls of the following systems are centralized:

- Auto A/C system
- Vehicle information system
- Audio system
- Navigation system

The multifunction switch can operate and check the vehicle condition and each setting (vehicle electrical system).

PRECAUTION OF LCD MONITOR

- When passenger compartment temperature is low, the LCD monitor sometimes dims because of the brightness of the back light (small fluorescent light) integrated into the LCD monitor decrease. In this case, the refreshing rate of the picture also becomes low because of the low response of the LCD monitor. When passenger compartment becomes warm, however, the LCD recovers the normal display.
- Sometimes, black or bright dots peculiar to LCD monitor can be seen on the display.
- Back light sometimes flickers or darkens according to the total consumption hours and the number of ON and OFF switching. In this case, the back light should be replaced. (LCD monitor assembly)

POWER SUPPLY AND GROUND CIRCUIT

Power is supplied at all times

- through 15A fuse [No. 52, located in fuse, fusible link and relay block (J/B)]
- to AV and NAVI control unit terminals 2 and 3
- to display terminals 21 and 23.

When ignition switch is in ACC or ON position, power is supplied

- through 10A fuse [No. 21, located in fuse block (J/B) No. 1]
- to AV and NAVI control unit terminal 6
- to display terminal 19
- to multifunction switch terminal 1.

Ground is supplied

- to AV and NAVI control unit terminal 1 and 4
- through body grounds B17 and B57, and
- to multifunction switch terminal 2
- to display terminals 22 and 24
- through body grounds M24 and M114.

AV COMMUNICATION LINE

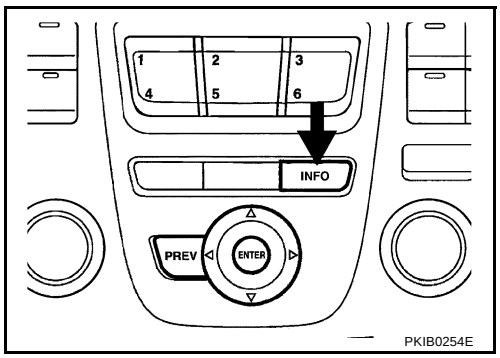
AV and NAVI control unit is connected to the following units by AV communication line. Each unit transmits/receives data with AV communication line.

- Display
- Multifunction switch
- Audio unit
- BOSE speaker amp. (audio amp.)
- Low tire pressure warning control unit
- Voice activated control module

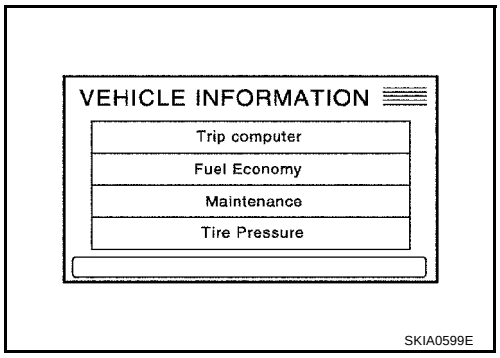
VEHICLE INFORMATION SYSTEM

- AV and NAVI control unit is received vehicle information system of signals from combination meter.
- AV and NAVI control unit is communicating with BCM and combination meter.

1. Press “INFO” switch to display vehicle information display.



2. Select “Trip Computer”, “Fuel Economy”, “Maintenance” or “Tire pressure”.

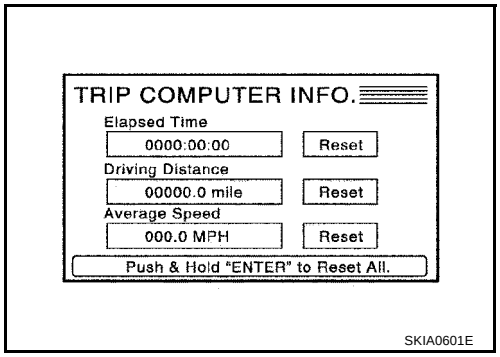


Display items	Display/Setting contents
Trip Computer	Elapsed Time
	Driving Distance
	Average Speed
Fuel Economy	Average Fuel Economy
	Distance to Empty
	Fuel Economy
	Fuel Economy Record
Maintenance (with maintenance information*)	Maintenance intervals of engine oil and setting of oil change cycle
	Maintenance intervals of oil filter and setting of filter replacement cycle
	Maintenance intervals of tire and setting of tire replacement cycle
Tire Pressure	Tire pressure information

*: Maintenance information displays the change cycle of engine oil, oil filter and tire on LCD monitor depending on the driving distance specified by a driver or a technician.

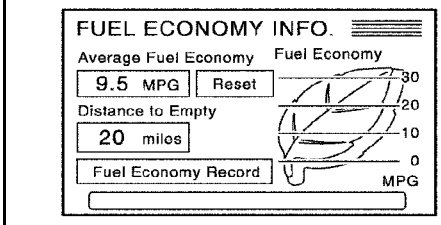
Trip Computer Information

1. Select “Trip Computer”
2. “Elapsed Time”, “Driving Distance” and “Average Speed” are displayed as trip computer information.



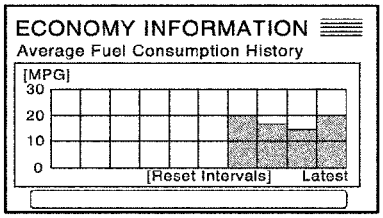
Fuel Economy Information

1. Select “Fuel Economy”.
2. “Average Fuel Economy”, “Distance to Empty” and “Fuel Economy Record” are displayed as fuel economy information.



SKIA0602E

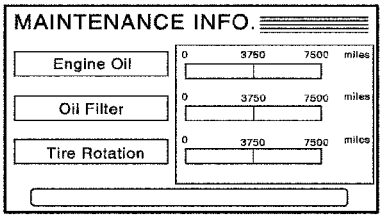
3. Select “Fuel Economy Record”. The average fuel consumption history will be displayed in graph along with the average for the previous Reset-to-Reset period.



SKIA0603E

Maintenance Information

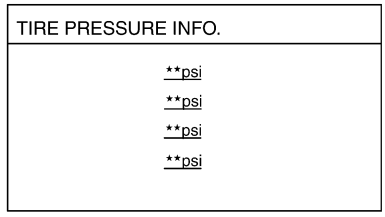
1. Select “Maintenance”.
2. “Engine Oil”, “Oil Filter” and “Tire Rotation” are displayed as maintenance information.



SKIA0604E

Tire Pressure Information

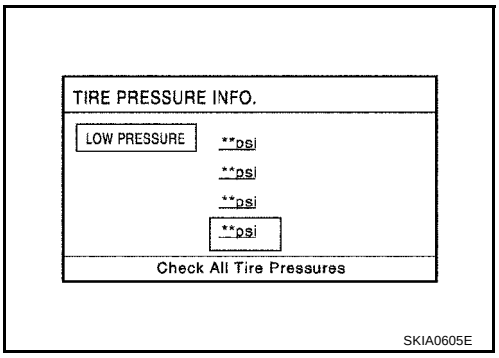
1. Select “Tire Pressure”.
2. Tire Pressure is displayed as tire pressure information.



SKIA3737E

NOTE:

- When air pressure becomes 180 kPa (1.8 kg/cm^2 , 26 psi) or less, “LOW PRESSURE” warning is indicated.
- When air pressure becomes 70 kPa (0.7 kg/cm^2 , 10 psi) or less, “FLAT TIRE” warning is indicated.
- When pressure is not detected or tire pressure system has malfunction “** psi” is indicated.
- Indication with yellow frame for the malfunctioning tire.

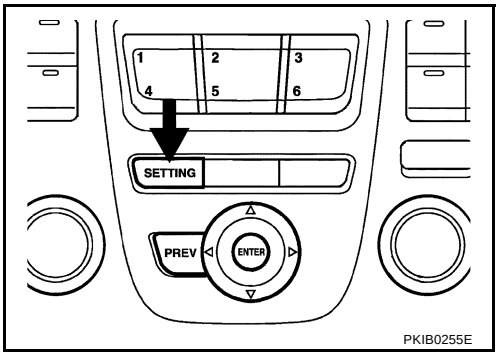


SKIA0605E

SETTING OF VEHICLE STATUS

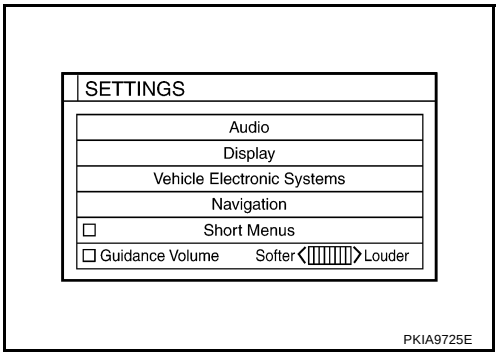
- Setting of electric status can be changed by multifunction switch.The signal is sent to BCM through AV and NAVI control unit to change vehicle electric system setting.
- AV and NAVI control unit is communicating with BCM and combination meter.

1. Press “SETTING” switch to display vehicle information display.



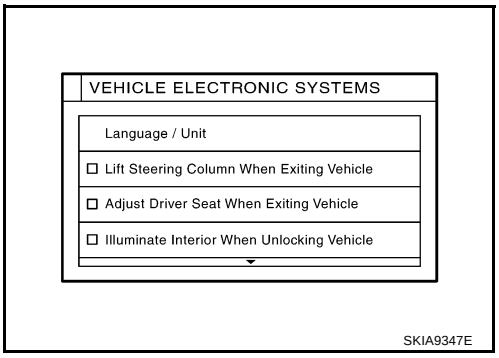
PKIB0255E

2. Select “Vehicle Electronic Systems”.



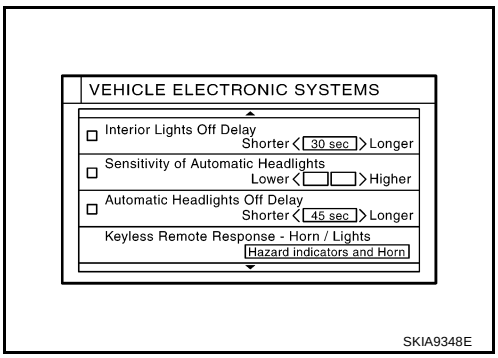
PKIA9725E

3. Select a vehicle status shown on the display.
   Adjustable vehicle status
   - Language/Unit
   - Lift Steering Column When Exiting Vehicle
   - Adjust Driver Seat When Exiting Vehicle
   - Illuminate Interior When Unlocking Vehicle

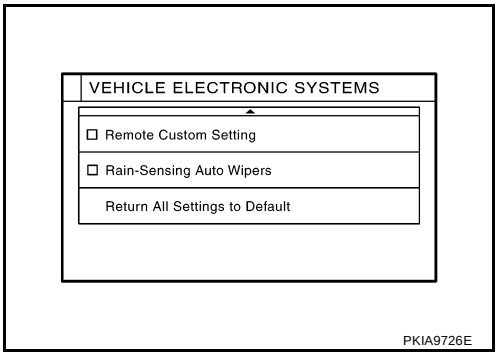


SKIA9347E

- Interior Lights Off Delay
- Sensitivity of Automatic Headlights
- Automatic Headlights Off Delay
- Keyless Remote Response-Horn/Lights



- Remote Custom Settings
- Rain-Sensing Auto Wipers
- Return All Setting to Default



Adjustable Vehicle Status

Setting items	Setting variations	Initial setting	Operation
Language/Unit	Language: English/Français	English	Language and unit can be changed in this mode.
	Unit: US/Metric	US	
Lift Steering Column When Exiting Vehicle	ON/OFF	ON	The steering column automatically tilts up when the driver gets out, and returns to the original position when the driver gets on. ● When driver door is closed and key removed from ignition key cylinder, the steering column tilts up. ● When driver door is open and key is turned to OFF, the steering column tilts up.
Adjust Driver Seat When Exiting Vehicle	ON/OFF	ON	The driver's seat automatically slides backward when the driver gets out, and returns to the original position when the driver gets on.
Illuminate Interior When Unlocking Vehicle	ON/OFF	ON	The interior room lamps are illuminate automatically when the door unlocked with key or keyfob.
Interior Lights Off Delay	OFF/15/30/45 sec.	30 sec.	Interior room lamp timer period can be changed in this mode. Selects interior room lamp timer.
Sensitivity of Automatic Headlights	1/2/3/4	3	Sensitivity of auto light sensor can be adjusted.
Automatic Headlights Off Delay	OFF/20/45/90/ 120/150/180 sec.	45 sec.	Auto light delay off timer period can be changed in this mode. Selects auto light delay off timer.
Key Remote Response - Horn/ Lights	Hazard indicators only /Hazard indicators and horn	Hazard indicators only	Hazard indicators Only: ● Lock operation: The hazard warning lamp flash twice when lock the doors with keyfob. ● Unlock operation: No response. Hazard indicators and horn: ● Lock operation: The hazard warning lamp flash twice and horn sounds once when lock the doors with keyfob. ● Unlock operation; The hazard warning lamp flash once when unlock the doors with keyfob.

Setting items	Setting variations	Initial setting	Operation
Remote Custom Setting	ON/OFF	ON	The driving position -seat and steering column- and the audio setting -current source and radio station presets- are set to the same condition you made last time by identifying the keyfob ID. This function operates when unlock the doors by using the keyfob. **NOTE:** It is necessary to memorize the driving position before using this function.
Rain-Sensing Auto Wipers	ON/OFF	ON	It possible to change from rain sensing wiper to vehicle speed sensing wiper. ● ON: Rain sensing wiper operates. – When front wiper switch is turned to “INT” position, wiper performs intermittent operation, low-speed operation and high-speed operation according to water drop increase rate on windshield detected by rain sensor. ● OFF: Vehicle speed sensing wiper operates. – When front wiper switch is turned to “INT” position, wiper performs intermittent operation, according to vehicle speed.
Return All Settings to Default	None	None	If this key is selected, all vehicle electronic systems setting are return to default.

WARNING INDICATIONS

Combination meter sends warning signal to AV and NAVI control unit to display warning indications on the screen.

Warning indicators	Warning lamps in instrument panel	Warning detection and cancel conditions		Cases of malfunction
DOOR OPEN	Door	Detection condition	Vehicle is running [approx. 5 km/h (3 MPH) or faster] and door ajar of any of the doors is detected.	Door is open.
		Cancel condition	Vehicle is stopped and all the doors lock.	
LOW WASHER FLUID	–	Detection condition	Washer fluid level falls below approx. 0.4 ℓ (7/8 US qt, 3/4 Imp pt).	Washer fluid level is low.
		Cancel condition	Except above condition.	

Precautions for AV and NAVI Control Unit Replacement

EKS006EF

- When replacing the AV and NAVI control unit, eject the map DVD-ROM before disconnecting the battery.
- The AV and NAVI control unit has the following information stored in its memory. Record the memory contents before replacing the control unit, and input them in the new unit as necessary.

<FM·AM>
- **Preset frequency**
- **Area for indicating station, selection of overlapped stations**

<CD>
- **Program status**

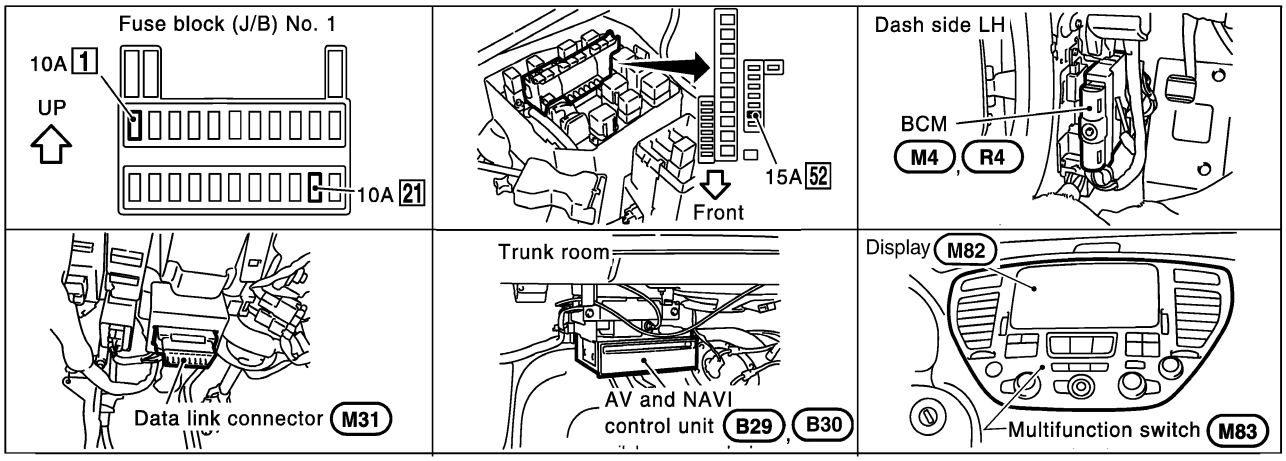
<Sound quality>
- **Volume balance memory set values**
- **Equalizer memory set values**

<Image quality>	• Brightness of light when ON/OFF • Dimming switching • Display color switching
<Navigation mode>	• Latest status (MAP screen/BIRD VIEW™, reduced scale, rotation angle of map screen, route guide ON/OFF, track ON/OFF, etc.) • Current position • Destination, passing point 1 - 5 • Registered places, their names, etc.

NOTE:
Only removing the battery does not erase the memory.

Component Parts and Harness Connector Location

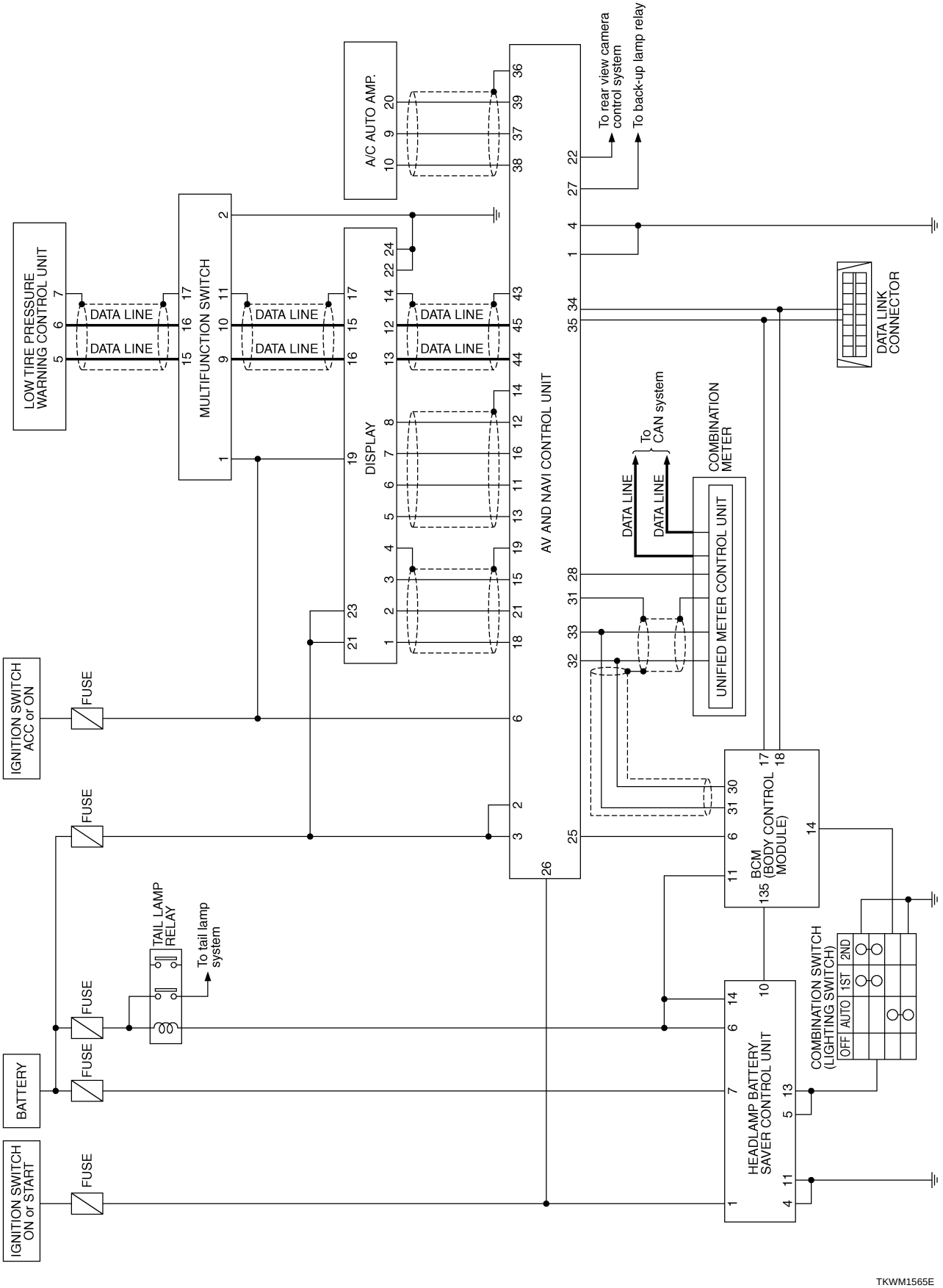
EKS006EG



PKIA6800E

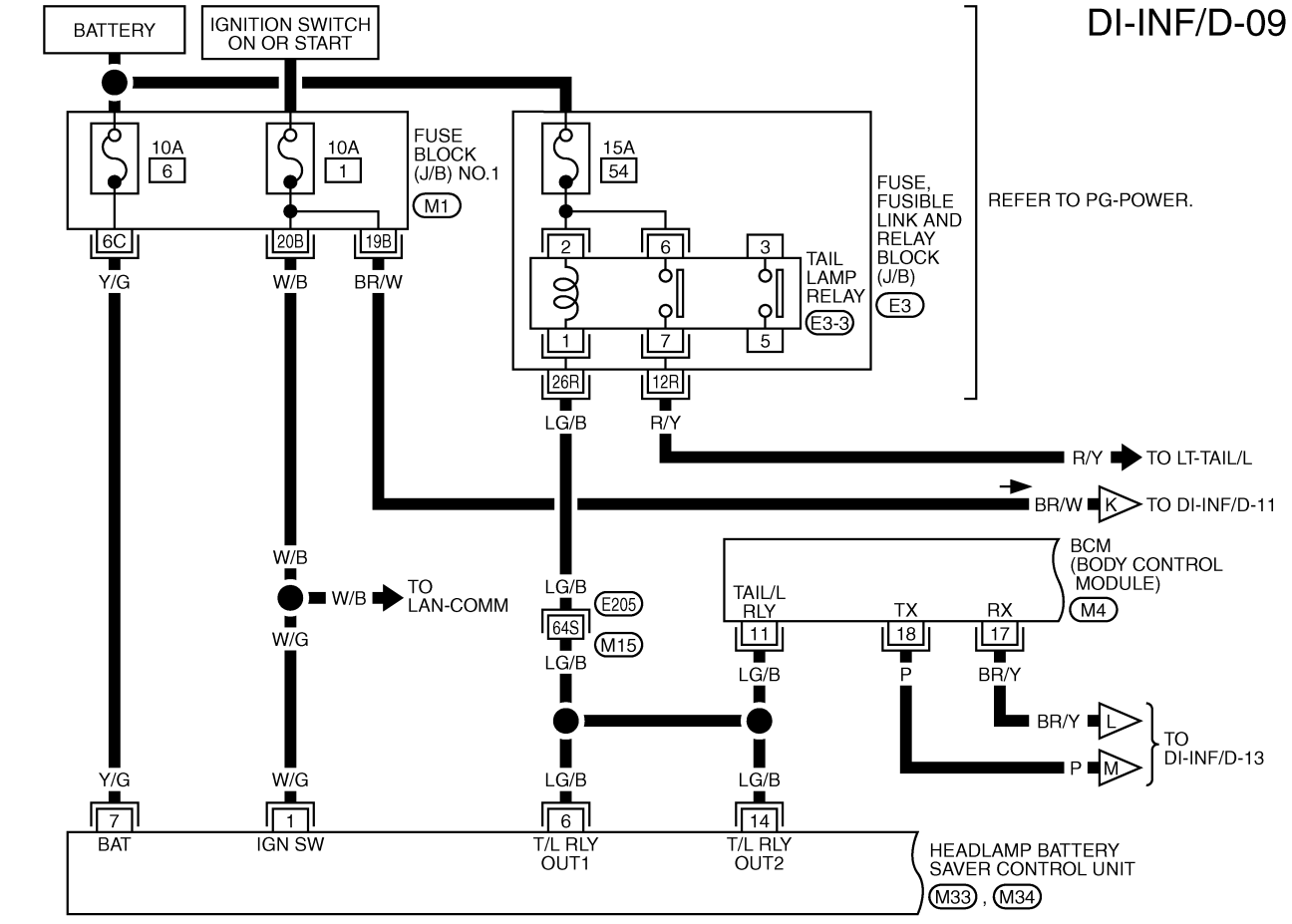
Schematic

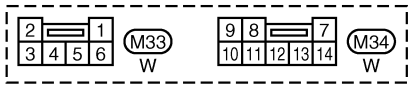
EKS006EH

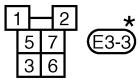


Wring Diagram — INF/D —

EKS00EIU







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

REFER TO THE FOLLOWING.

E205 -SUPER MULTIPLE JUNCTION (SMJ)

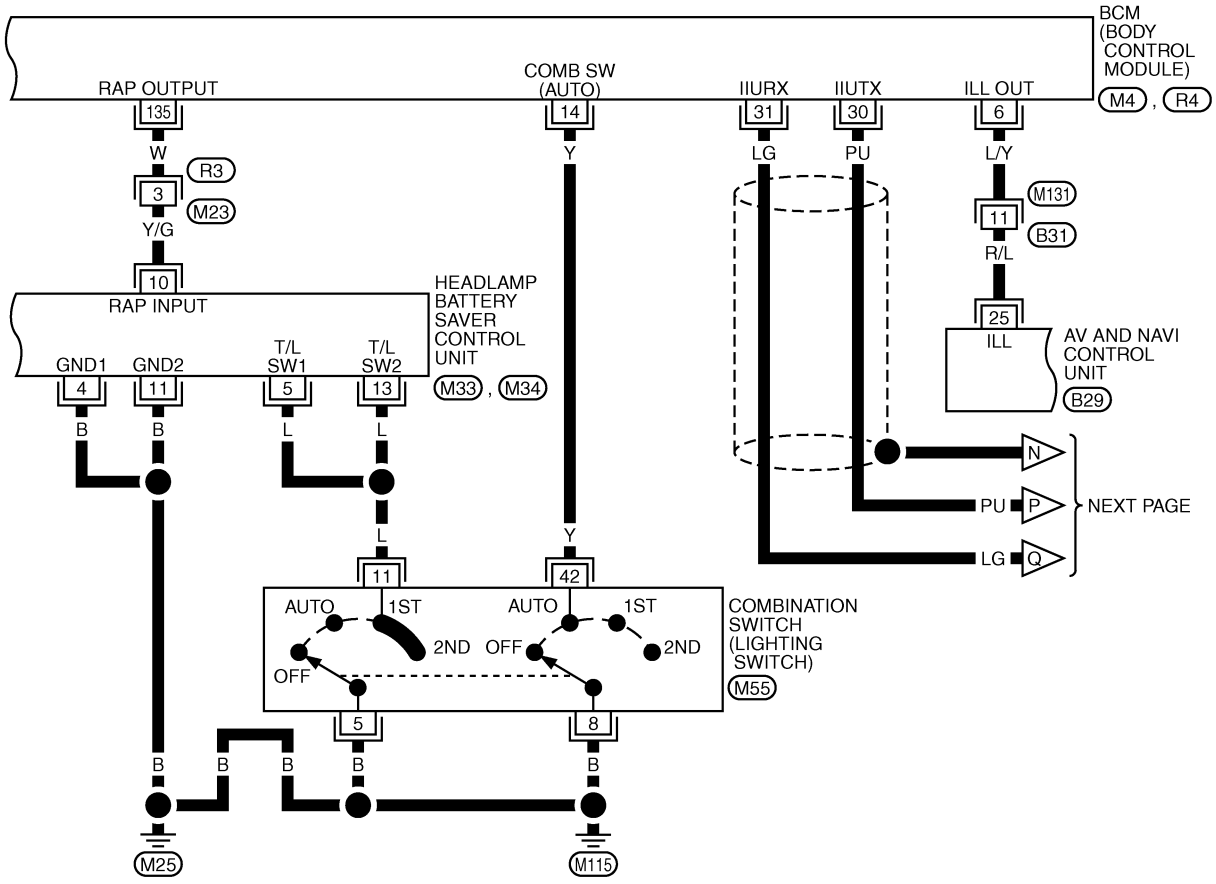
M1 -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

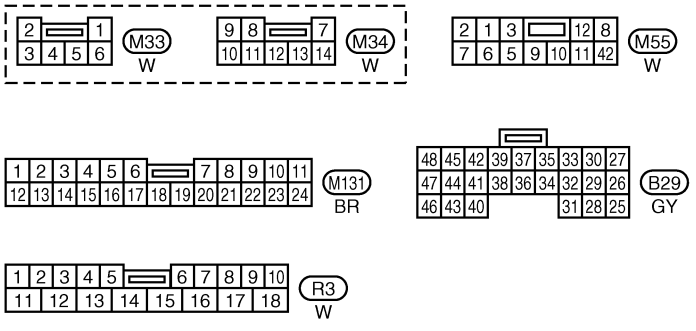
E3 -FUSE, FUSIBLE LINK AND RELAY BLOCK (J/B)

M4 -ELECTRICAL UNITS

TKWM1566E

DI-INF/D-10

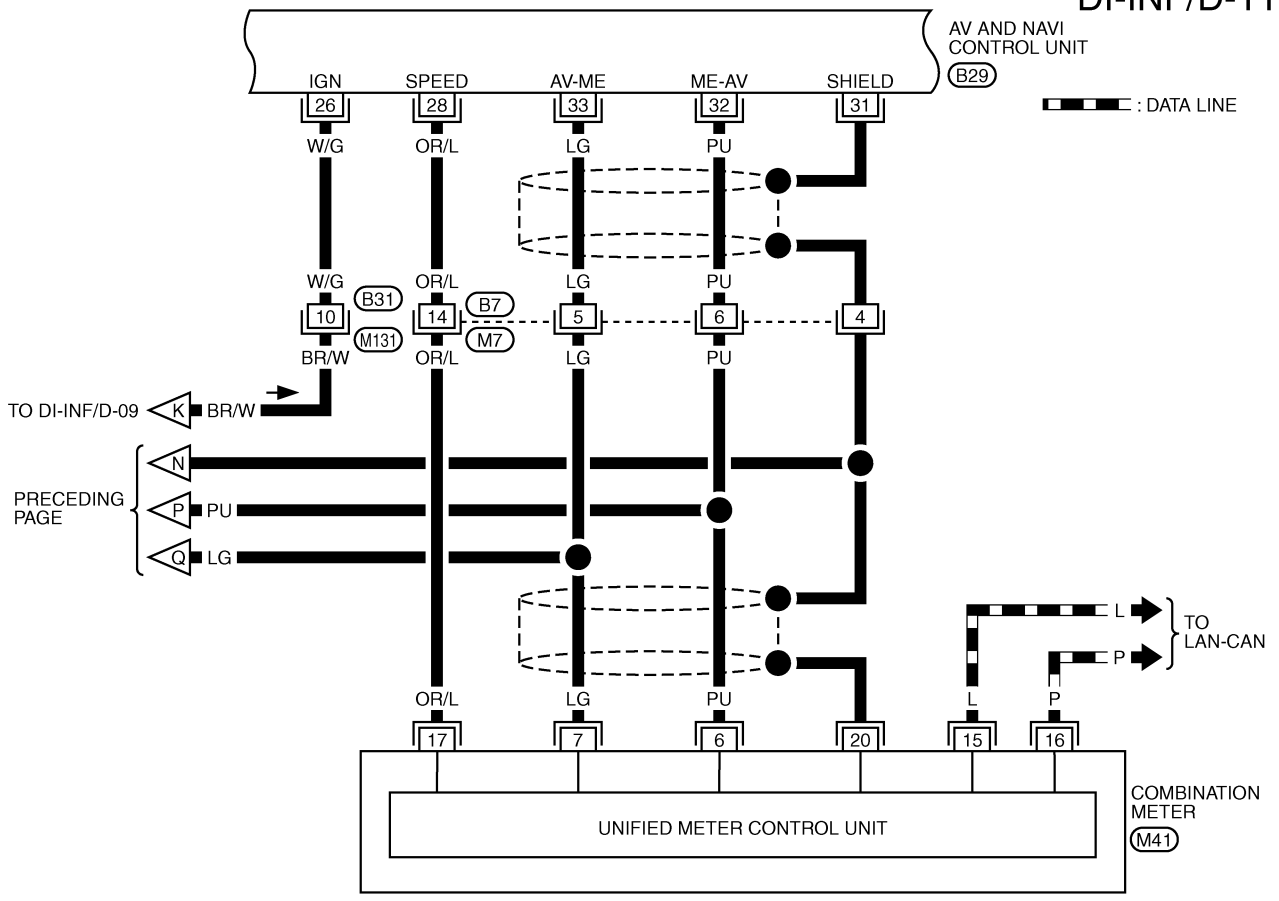


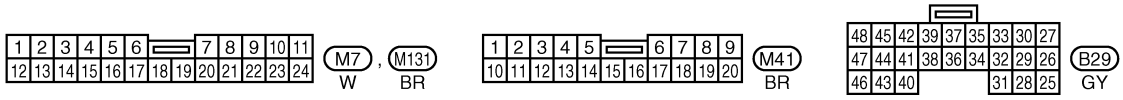


REFER TO THE FOLLOWING.
M4 , R4 -ELECTRICAL UNITS

TKWM1567E

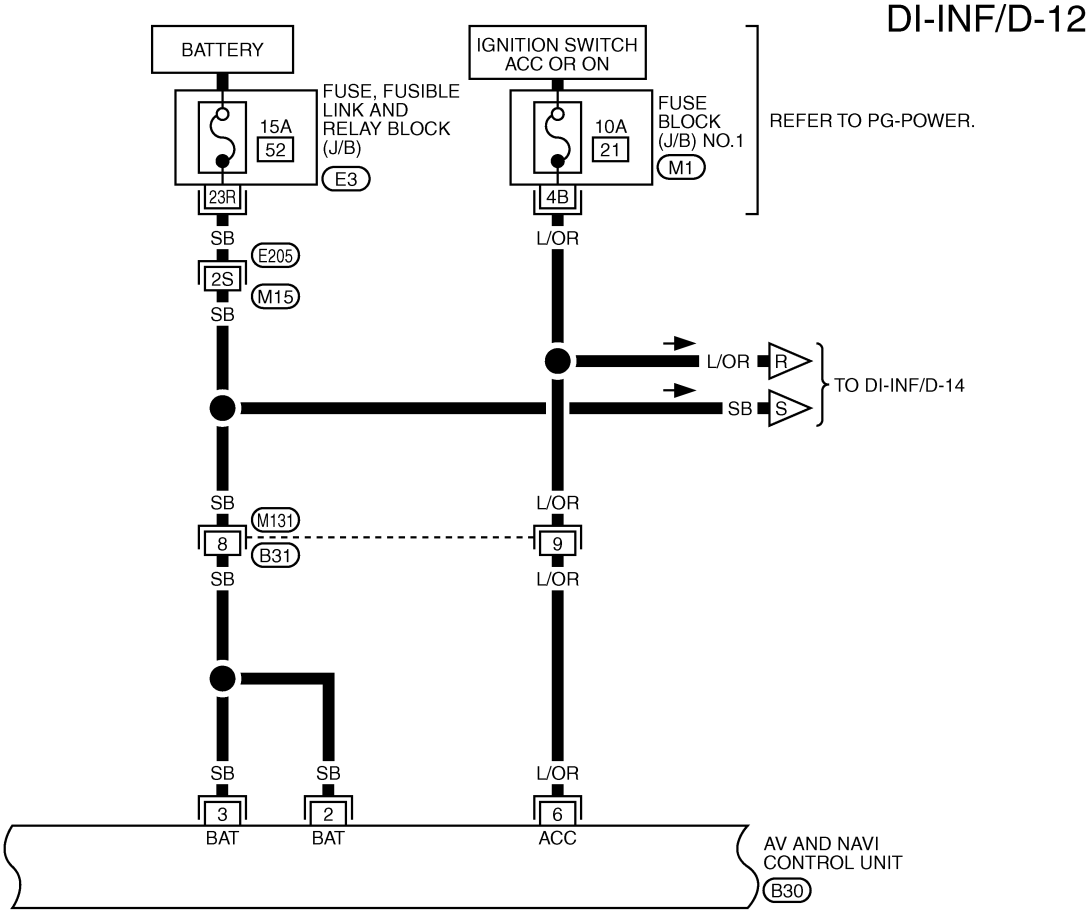
DI-INF/D-11

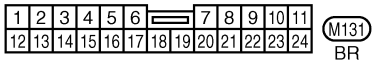


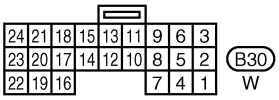


TKWM1568E

DI-INF/D-12







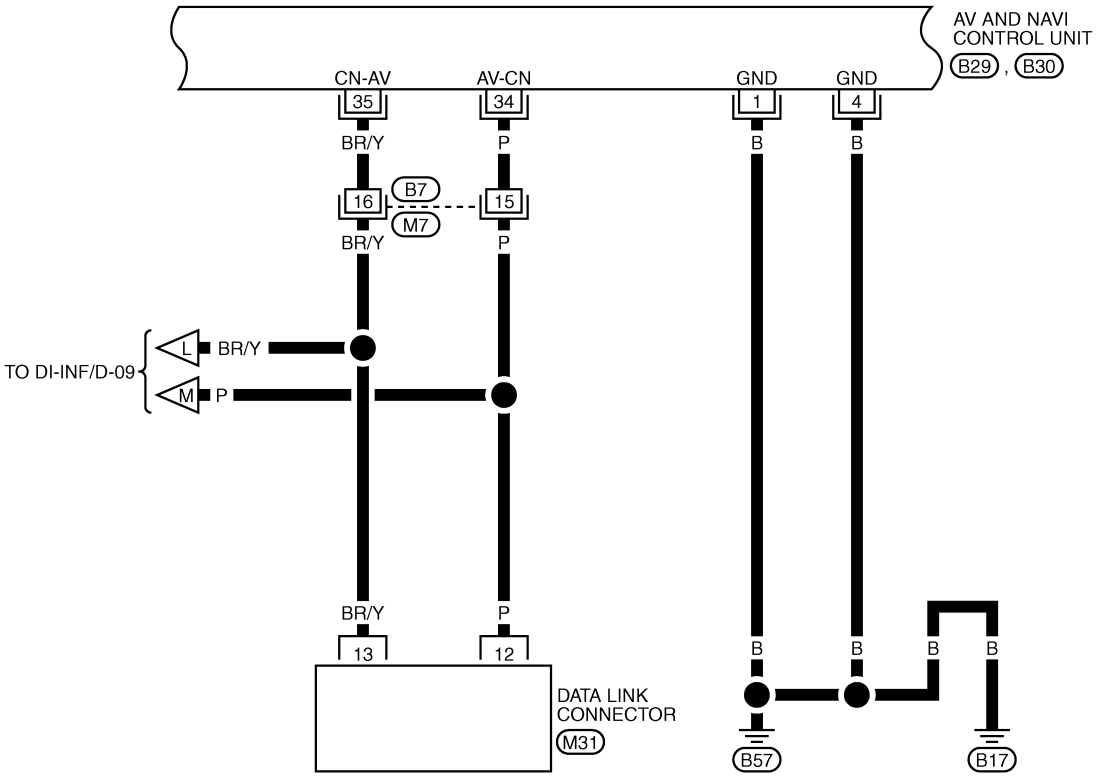
REFER TO THE FOLLOWING.

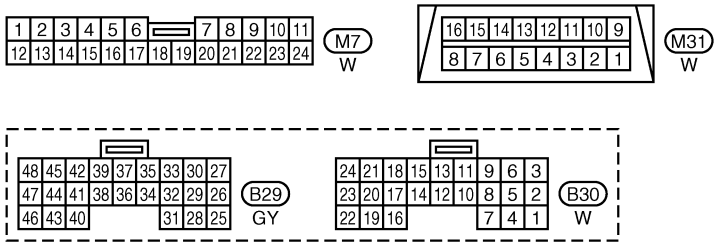
E205 -SUPER MULTIPLE JUNCTION (SMJ)

M1 -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

E3 -FUSE, FUSIBLE LINK AND RELAY BLOCK (J/B)

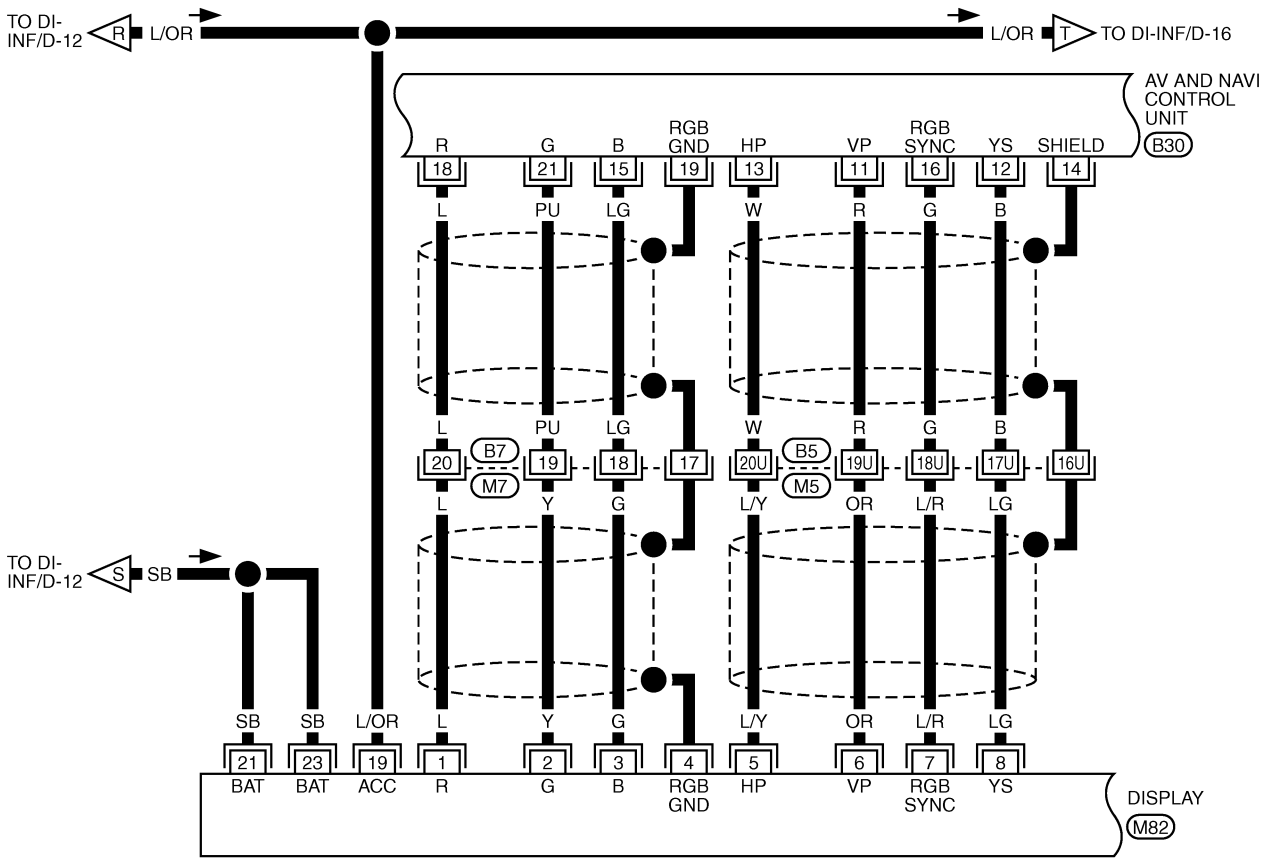
TKWM1569E

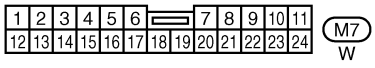

AV AND NAVI CONTROL UNIT
B29 , B30
CN-AV
AV-CN
GND
GND
35
34
1
4
BR/Y
P
B
B
16
15
B7
M7
BR/Y
P
TO DI-INF/D-09
L
M
BR/Y
P
BR/Y
P
13
12
DATA LINK CONNECTOR
M31
B
B
B
B
B57
B17

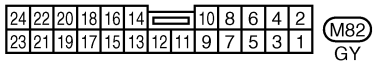

1 2 3 4 5 6 7 8 9 10 11
12 13 14 15 16 17 18 19 20 21 22 23 24
M7
W
16 15 14 13 12 11 10 9
8 7 6 5 4 3 2 1
M31
W
48 45 42 39 37 35 33 30 27
47 44 41 38 36 34 32 29 26
46 43 40 31 28 25
B29
GY
24 21 18 15 13 11 9 6 3
23 20 17 14 12 10 8 5 2
22 19 16 7 4 1
B30
W

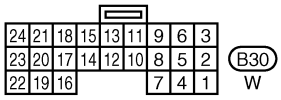
TKWM1570E

DI-INF/D-14



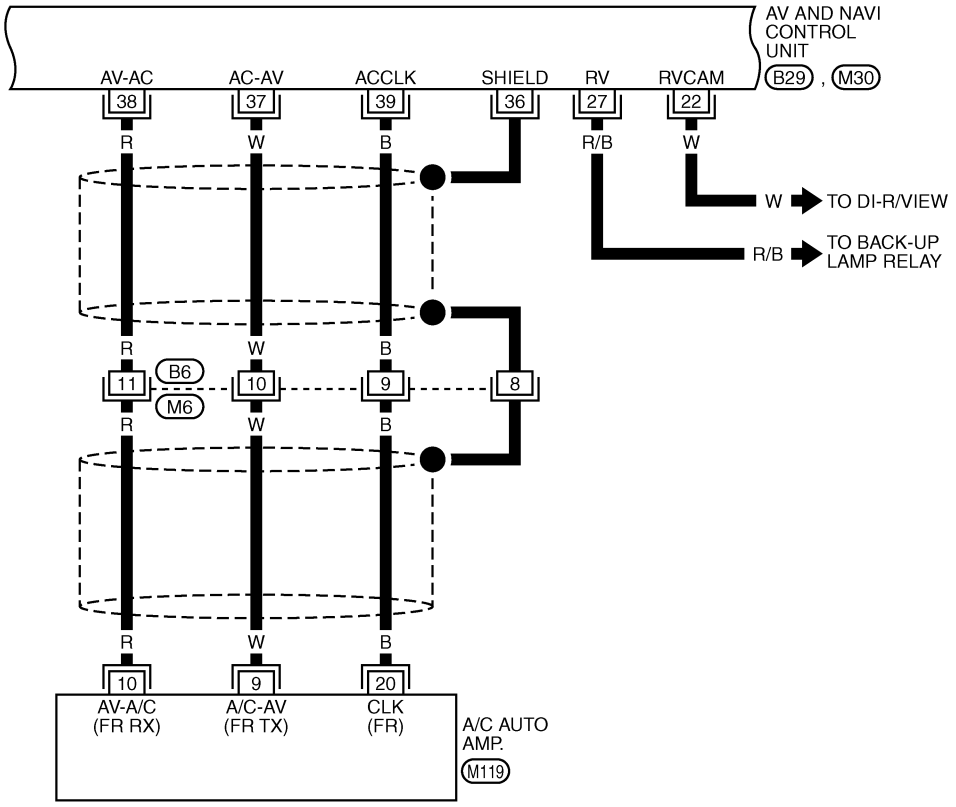


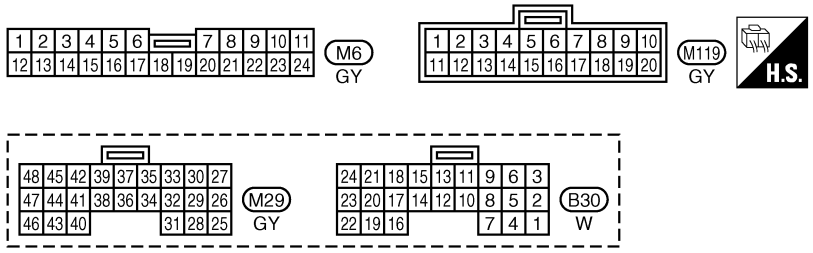




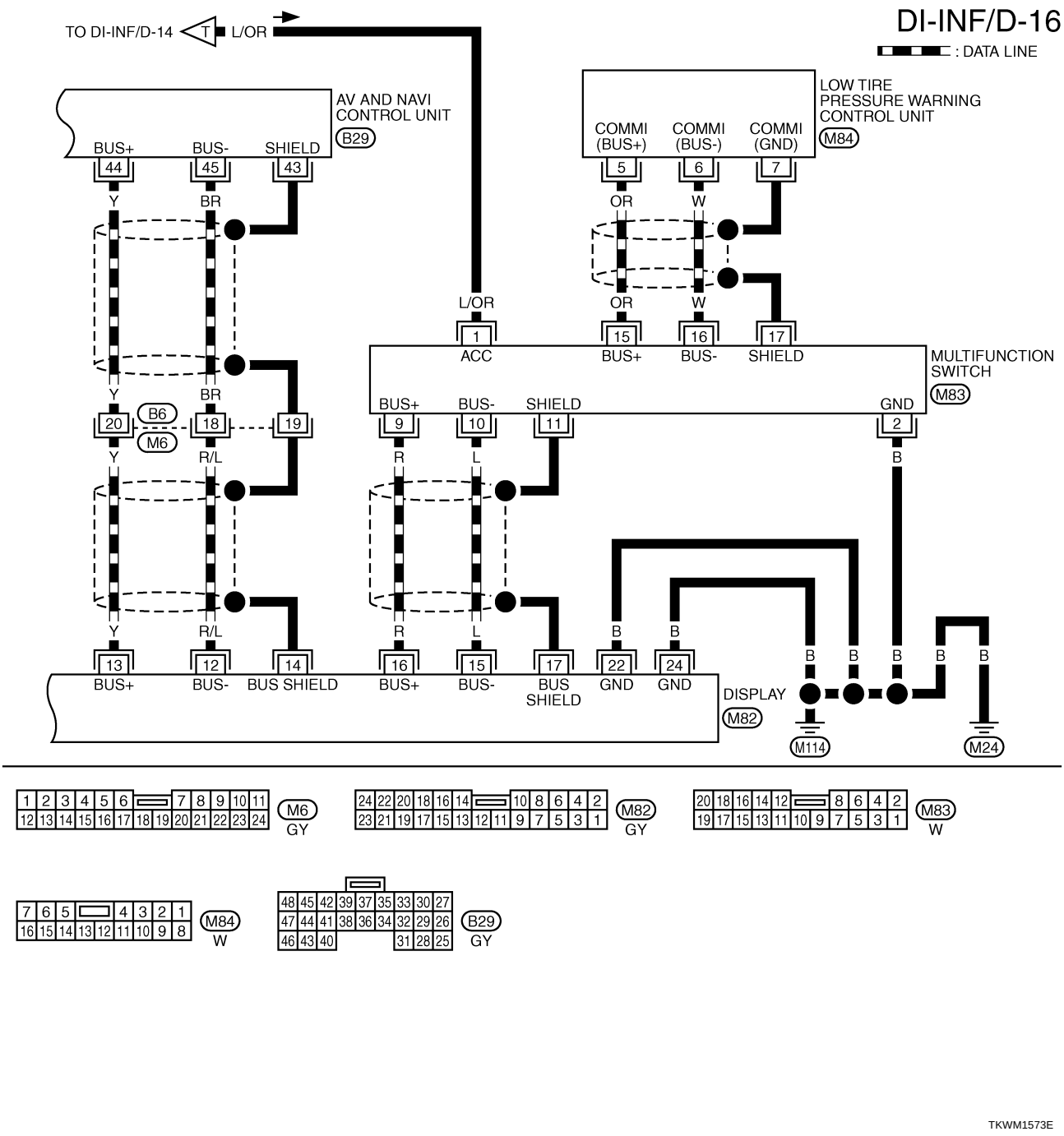
REFER TO THE FOLLOWING.
M5 -SUPER MULTIPLE JUNCTION (SMJ)

TKWM1571E


AV AND NAVI CONTROL UNIT
B29 , M30
AV-AC
AC-AV
ACCLK
SHIELD
RV
RVCAM
38
37
39
36
27
22
R
W
B
R/B
W
W TO DI-R/VIEW
R/B TO BACK-UP LAMP RELAY
B6
M6
11
10
9
8
10
9
20
AV-A/C (FR RX)
A/C-AV (FR TX)
CLK (FR)
A/C AUTO AMP.
M119


M6
GY
M119
GY
H.S.
M29
GY
B30
W

TKWM1572E



TKWM1573E

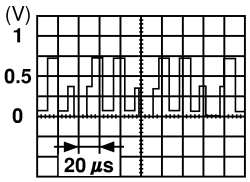
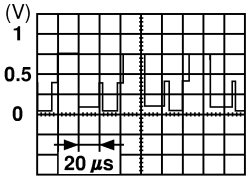
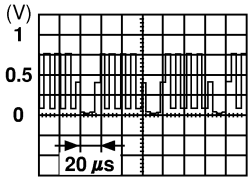
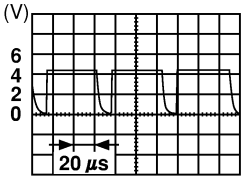
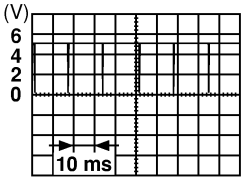
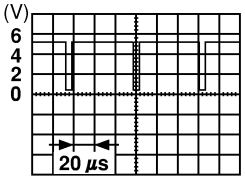
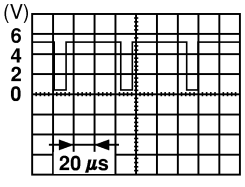
Terminals and Reference Value for AV and NAVI Control Unit

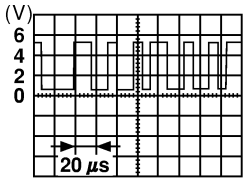
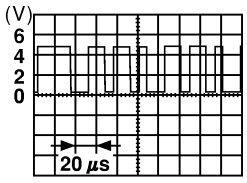
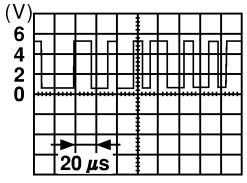
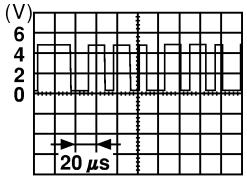
EKS006EJ

Refer to AV-76, "Terminals and Reference Value for AV and NAVI Control unit" in AV section.

Terminals and Reference Value for Display

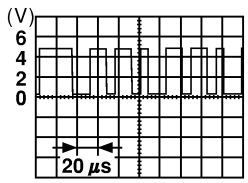
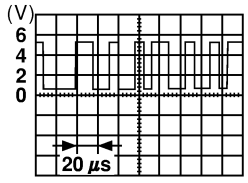
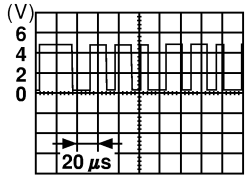
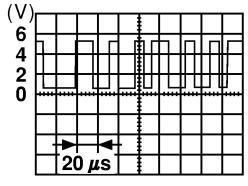
EKS00H9P

Terminal No. (Wire color)		Item	Signal input/ output	Condition		Reference value (V)
(+)	(–)			Ignition switch	Operation	
1 (L)	4	RGB signal (R: Red)	Input	ON	Select “Display Color Spectrum Bar” of “Display Diagnosis” in Confirmation/Adjustment mode function.	 SKIA0165E
2 (Y)	4	RGB signal (G: Green)	Input	ON	Select “Display Color Spectrum Bar” of “Display Diagnosis” in Confirmation/Adjustment mode function.	 SKIA0166E
3 (G)	4	RGB signal (B: Blue)	Input	ON	Select “Display Color Spectrum Bar” of “Display Diagnosis” in Confirmation/Adjustment mode function.	 SKIA0167E
4	Ground	RGB ground	—	ON	—	Approx. 0
5 (L/Y)		Horizontal synchronizing signal	Output	ON	Select “Rearview” in “Confirmation/Adjustment” mode and display the rear view image on the screen.	 SKIA0163E
6 (OR)		Vertical synchronizing signal	Output	ON	Select “Rearview” in “Confirmation/Adjustment” mode and display the rear view image on the screen.	 SKIA0161E
7 (L/R)		RGB synchronizing signal	Input	ON	Press the “MAP” switch.	 SKIA0164E
8 (LG)		RGB area signal	Input	ON	Press the “INFO” switch.	 SKIA0162E

Terminal No. (Wire color)		Item	Signal input/ output	Condition		Reference value (V)
(+)	(–)			Ignition switch	Operation	
12 (R/L)	Ground	Communication signal (–)	Input/ output	ON	—	 SKIA0176E
13 (Y)		Communication signal (+)	Input/ output	ON	—	 SKIA0175E
14		Shield	—	ON	—	Approx. 0
15 (L)		Communication signal (–)	Input/ output	ON	—	 SKIA0176E
16 (R)		Communication signal (+)	Input/ output	ON	—	 SKIA0175E
17		Shield	—	ON	—	Approx. 0
19 (L/OR)		Ignition switch (ACC)	Input	ACC	—	Battery voltage
21 (SB)		Battery power	Input	OFF	—	Battery voltage
23 (SB)						
22 (B)		Ground	—	ON	—	Approx. 0
24 (B)						

Terminals and Reference Value for Multifunction Switch

EKS00H9Q

Terminal No. (Wire color)		Signal	Signal input/ output	Condition		Reference value
(+)	(–)			Ignition switch	Operation	
1 (L/OR)	Ground	Ignition switch (ACC)	Input	ACC	—	Battery voltage
2 (B)		Ground	—	ON	—	Approx. 0V
9 (R)		Communication signal (+)	Input/ output	ON	—	 SKIA0175E
10 (L)		Communication signal (–)	Input/ output	ON	—	 SKIA0176E
11		Shield	—	ON	—	Approx. 0
15 (OR)		Communication signal (+)	Input/ output	ON	—	 SKIA0175E
16 (W)		Communication signal (–)	Input/ output	ON	—	 SKIA0176E
17		Shield	—	ON	—	Approx. 0

CONSULT-II Function

EKS006EN

Refer to AV-91, "CONSULT-II Function (MULTI AV)" in AV section.

On Board Self-Diagnosis Function (Without CONSULT-II)

EKS006EK

Refer to AV-80, "On Board Self-Diagnosis Function (Without CONSULT-II)" in AV section.

SELF-DIAGNOSIS MODE

Refer to AV-81, "Self-Diagnosis Mode" in AV section.

CONFIRMATION/ADJUSTMENT MODE

Refer to AV-85, "Confirmation/Adjustment Mode" in AV section.

Multifunction Switch Self-Diagnosis Function

EKS006TV

It can check ON/OFF operation of each switch in the multifunction switch and diagnose the input signals to the rear control switch (audio) and steering switch (audio).

DIAGNOSIS FUNCTION

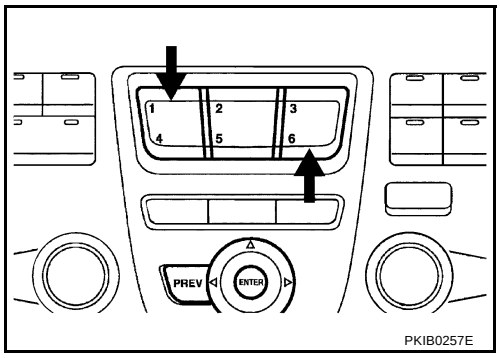
- It can illuminate all the indicators (LED) in the multifunction switch.
- It can check for continuity of the switches by sounding the buzzer when the multifunction switch is pressed.
- It can check for continuity of harness between multifunction switch and rear control switch (audio), or steering switch (audio).

  NOTE:
  When it checks continuity of harness between multifunction switch and rear control switch (audio), rear control cancel switch is in OFF position.

STARTING THE SELF-DIAGNOSIS MODE

1. Turn ignition switch from OFF to ACC.
2. Within 10 seconds press and hold the function switches “1” and “6 ”simultaneously for 5 seconds.

Then the self-diagnosis operates.



PKIB0257E

EXITING THE SELF-DIAGNOSIS MODE

- Turn ignition switch OFF, or press and hold the function switches “1” and “6” simultaneously for 5 seconds. Then the self-diagnosis ends.

Power Supply and Ground Circuit Check for AV and NAVI Control Unit

EKS006TY

Refer to AV-96, "Power Supply and Ground Circuit Check" in AV section.

Power Supply and Ground Circuit Inspection for Display

EKS006TZ

1. CHECK FUSES

Check for blown display fuses.

Unit	Power source	Fuse No.
Display	Battery	52
	Ignition switch ACC or ON	21

OK or NG

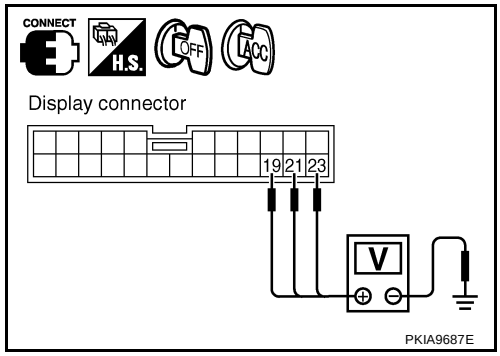
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to PG-2, "POWER SUPPLY ROUTING" .

2. CHECK POWER SUPPLY CIRCUIT

Check voltage between display harness connector M82 terminals 19 (L/OR), 21 (SB), 23 (SB) and ground.

Terminals			Ignition switch position	
(+)		(–)	OFF	ACC
Connector	Terminal (Wire color)			
M82	19 (L/OR)	Ground	0 V	Battery voltage
	21 (SB)		Battery voltage	Battery voltage
	23 (SB)		Battery voltage	Battery voltage



OK or NG

OK >> GO TO 3.
NG >> Check harness between display and fuse.

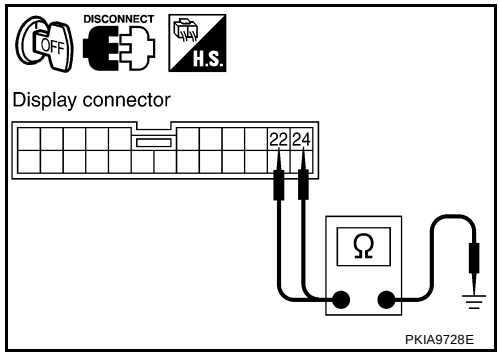
3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display connector.
3. Check continuity between display harness connector M82 terminals 22 (B), 24 (B) and ground.

22 (B) – Ground
24 (B) – Ground **: Continuity should exist.**

OK or NG

OK >> INSPECTION END
NG >> Check ground harness.



Power Supply and Ground Circuit Inspection for Multifunction Switch

EKS006U0

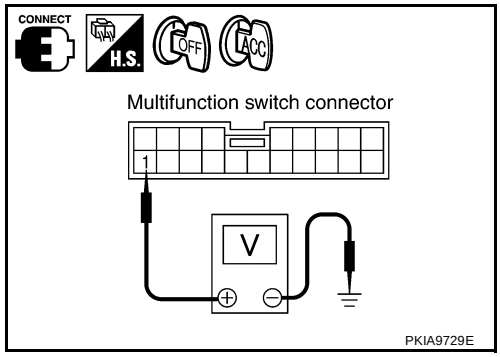
1. CHECK POWER SUPPLY CIRCUIT

Check voltage between multifunction switch harness connector M83 terminal 1 (L/OR) and ground.

Terminals			Ignition switch position	
(+)		(–)	OFF	ACC
Connector	Terminal (Wire color)			
M83	1 (L/OR)	Ground	0 V	Battery voltage

OK or NG

OK >> GO TO 2.
NG >> Check harness between multifunction switch and fuse.



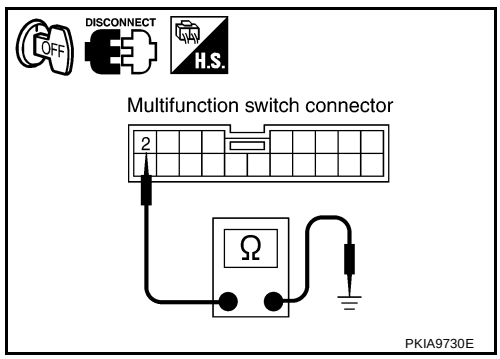
2. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect multifunction switch connector.
3. Check continuity between multifunction switch harness connector M83 terminal 2 (B) and ground.

2 (B) – Ground **: Continuity should exist.**

OK or NG

OK >> INSPECTION END
NG >> Check ground harness.



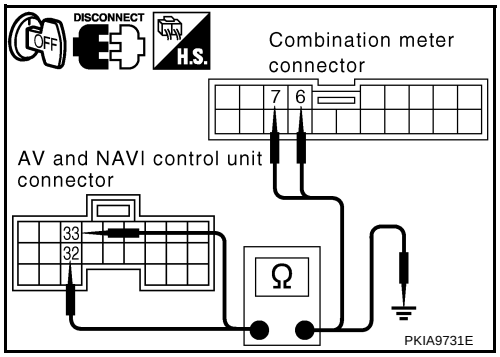
Fuel Information Is Not Displayed/Warning Message Is Not Displayed

EKS006U1

1. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect connectors of combination meter, BCM, and AV and NAVI control unit.
3. Check continuity between AV and NAVI control unit harness connector B29 terminals 33 (LG), 32 (PU) and combination meter harness connector M41 terminals 7 (LG), 6 (PU).

Terminals				Continuity
AV and NAVI control unit (+)		Combination meter (–)		
Connector	Terminal (Wire color)	Connector	Terminal (Wire color)	
B29	33 (LG)	M41	7 (LG)	Yes
	32 (PU)		6 (PU)	



4. Check continuity between AV and NAVI control unit harness connector B29 terminals 33 (LG), 32 (PU) and ground.

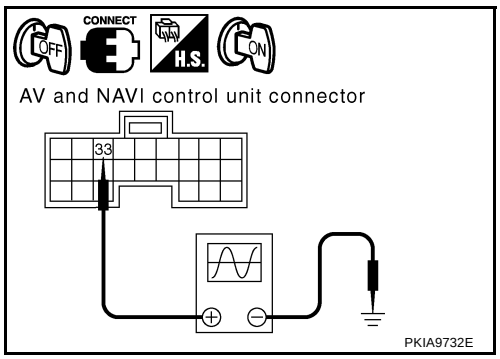
Terminals			Continuity
AV and NAVI control unit (+)		(–)	
Connector	Terminal (Wire color)		
B29	33 (LG)	Ground	No
	32 (PU)		

OK or NG

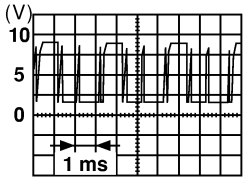
OK >> GO TO 2.
NG >> Repair harness or connector.

2. CHECK COMMUNICATION SIGNAL (AV–ME)

1. Connect connectors of combination meter, BCM, and AV and NAVI control unit.
2. Turn ignition switch ON and display “VEHICLE ELECTRONIC SYSTEMS” screen.
3. Check voltage signal between AV and NAVI control unit harness connector B29 terminal 33 (LG) and ground.



33 (LG) – Ground:



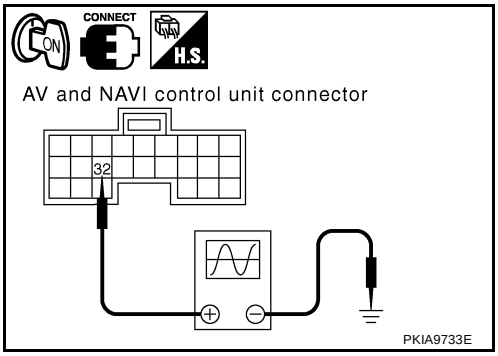
SKIA0169E

OK or NG

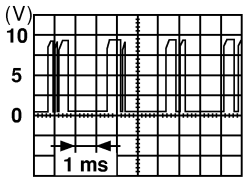
OK >> GO TO 3.
NG >> Replace AV and NAVI control unit.

3. CHECK COMMUNICATION SIGNAL (ME–AV)

1. Turn ignition switch ON and display “VEHICLE ELECTRONIC SYSTEMS” screen.
2. Check voltage signal between AV and NAVI control unit harness connector B29 terminal 32 (PU) and ground.



32 (PU) – Ground:



SKIA0170E

OK or NG

OK >> Replace AV and NAVI control unit.
NG >> Replace combination meter.

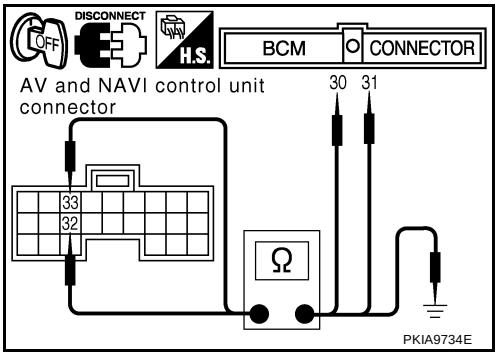
Vehicle Condition Setting Is Not Possible

EKS006U2

1. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect connectors of combination meter, BCM, and AV and NAVI control unit.
3. Check continuity AV and NAVI control unit harness connector B29 terminals 33 (LG), 32 (PU) and BCM harness connector M4 terminal 31 (LG), 30 (PU).

Terminals				Continuity
AV and NAVI control unit		BCM		
Connector	Terminal (Wire color)	Connector	Terminal (Wire color)	
B29	33 (LG)	M4	31 (LG)	Yes
	32 (PU)		30 (PU)	



4. Check continuity between AV and NAVI control unit harness connector B29 terminals 33 (LG), 32 (PU) and ground.

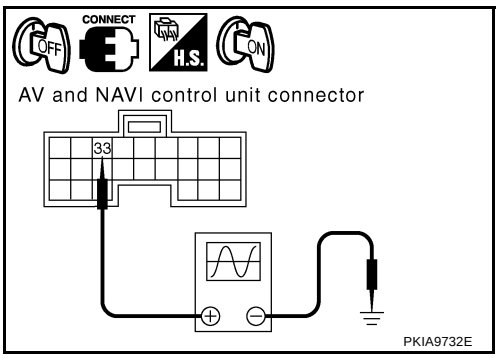
Terminals			Continuity
AV and NAVI control unit (+)		(–)	
Connector	Terminal (Wire color)		
B29	33 (LG)	Ground	No
	32 (PU)		

OK or NG

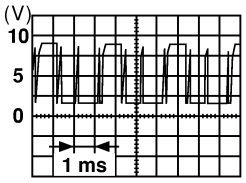
OK >> GO TO 2.
NG >> Repair harness or connector.

2. CHECK COMMUNICATION SIGNAL (AV–ME)

1. Connect connectors of combination meter, BCM, and AV and NAVI control unit.
2. Turn ignition switch ON and display “VEHICLE ELECTRONIC SYSTEMS” screen.
3. Check voltage signal between AV and NAVI control unit harness connector B29 terminal 33 (LG) and ground.



33 (LG) – Ground:



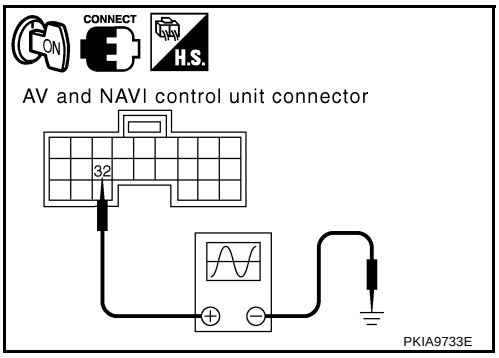
SKIA0169E

OK or NG

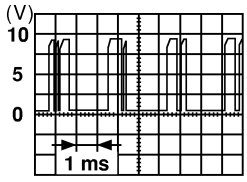
OK >> GO TO 3.
NG >> Replace AV and NAVI control unit.

3. CHECK COMMUNICATION SIGNAL (ME–AV)

1. Turn ignition switch ON and display “VEHICLE ELECTRONIC SYSTEMS” screen.
2. Check voltage signal between AV and NAVI control unit harness connector B29 terminal 32 (PU) and ground.



32 (PU) – Ground:



SKIA0170E

OK or NG

OK >> Replace AV and NAVI control unit.
NG >> Replace BCM.

Multifunction Switch Does Not Operate

EKS00H9O

1. MULTIFUNCTION SWITCH SELF-DIAGNOSIS

Perform multifunction switch self-diagnosis. Refer to DI-146, "Multifunction Switch Self-Diagnosis Function" .

Does multifunction switch self-diagnosis mode operate?

YES >> With the self-diagnosis results, check the malfunctioning part.
NO >> GO TO 2.

2. COMMUNICATION CIRCUIT SELF-DIAGNOSIS

Perform the self-diagnosis with CONSULT-II. Refer to AV-91, "CONSULT-II Function (MULTI AV)" .

Is self-diagnosis result OK?

YES >> Replace multifunction switch.
NO >> With the self-diagnosis results, check the malfunctioning part.

Removal and Installation of Multifunction Switch

EKS00H9N

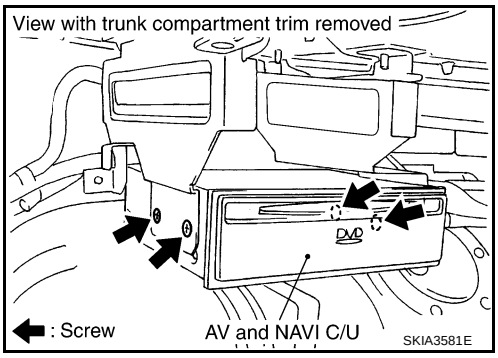
Refer to IP-10, "INSTRUMENT PANEL ASSEMBLY" .

Removal and Installation of AV and NAVI Control Unit

EKS006EX

REMOVAL

1. Remove the trunk compartment trim. Refer to EI-60, "TRUNK ROOM TRIM & TRUNK LID FINISHER" .
2. Remove the screws (4) and remove the AV and NAVI control unit.



INSTALLATION

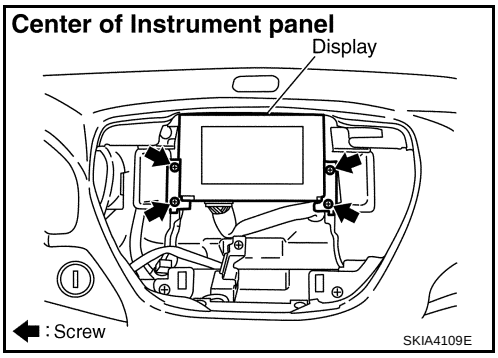
Installation is the reverse order of removal.

Removal and Installation of Display

EKS006EV

REMOVAL

1. Remove the cluster lid C. Refer to IP-10, "INSTRUMENT PANEL ASSEMBLY" .
2. Remove the screws (4), and remove the display.

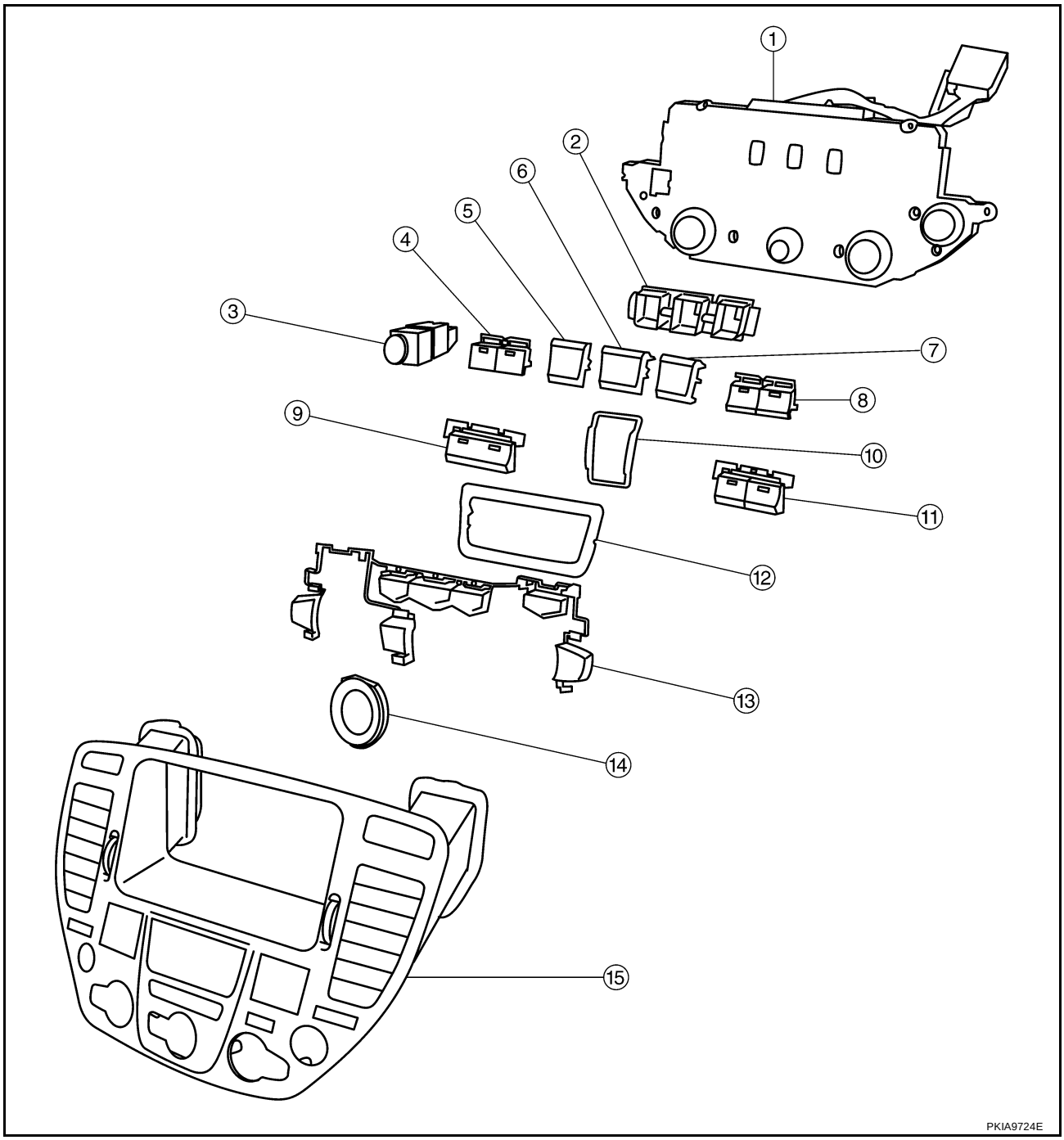


INSTALLATION

Installation is the reverse order of removal.

Disassembly and Assembly for Multifunction Switch

EKS006EW



1. Multifunction switch
2. Escutcheon
3. Hazard switch
4. Defroster, rear window defogger switch
5. Function switch
6. Function switch
7. Function switch
8. TAPE and DISC switch
9. A/C switch
10. Escutcheon
11. FM/AM and SAT switch
12. Escutcheon
13. Switch assembly
14. Escutcheon
15. Cluster lid C

DISASSEMBLY

1. Remove the screw (7).
2. Remove the switches.

ASSEMBLY

Assembly is the reverse order of disassembly.

REAR VIEW MONITOR

PFP:28260

System Description

EKS00GEV

- The rear view monitor is equipped to check the backward of the vehicle with display when A/T selector lever is in reverse position.
- The lines of vehicle sides and the distance from the rear end of the vehicle are provided on display as a guide. It allows the driver to know the distance between the vehicle and a backward object, and the width of the vehicle much easier.

POWER SUPPLY AND GROUND

Power is supplied at all time

- through 15A fuse [No. 52, located in fuse, fusible link and relay block (J/B)]
- to rear view camera control unit terminal 1.

When ignition switch is ACC or ON position, power is supplied

- through 10A fuse [No. 21, located in fuse block (J/B) No. 1]
- to rear view camera control unit terminal 2.

When ignition switch is ON or START position, power is supplied

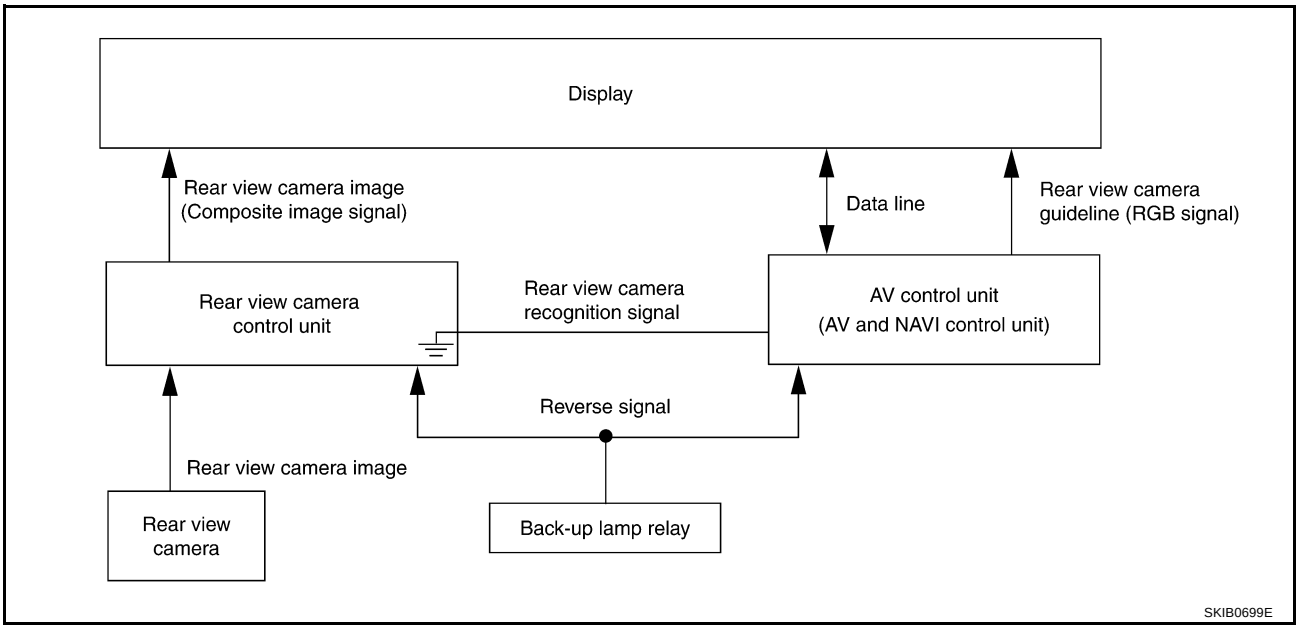
- through 10A fuse [No. 9, located in fuse block (J/B) No. 1]
- to back-up lamp relay terminals 2 and 5.

Ground is supplied

- to rear view camera control unit terminal 3
- through grounds B217 and B256,
- to rear view camera terminal 2
- through grounds B217 and B256.

REAR VIEW CAMERA OPERATION

AV control unit (AV and NAVI control unit) switches the display to rear view camera image when input reverse signal by AV communication line.
Display shows image from rear view camera image and rear view camera guideline.



Rear View Camera Image

When A/T selector lever is reverse position, power is supplied

- through back-up lamp relay terminal 1
- to A/T assembly terminal 7.

Then back-up lamp relay is energized

- from back-up lamp relay terminal 3
- to rear view camera control unit terminal 4.

Then, rear view camera control unit is sent camera ON signal

- through rear view camera control unit terminal 8
- to rear view camera terminal 1.

An image taken by rear view camera is sent

- through rear view camera terminals 3 and 4
- to rear view camera control unit terminals 10 and 9.

Then an image is sent

- through rear view camera control unit terminals 11 and 12
- to display terminals 11 and 9.

Then composite synchronizing signal is sent

- through rear view camera control unit terminal 14
- to display terminal 10
- for the display and the image.

An image of rear view will be projected on the display.

Rear View Camera Guide Line

When A/T selector lever is reverse position, power is supplied

- through back-up lamp relay terminal 1
- to A/T assembly terminal 7.

Then back-up lamp relay is energized

- from back-up lamp relay terminal 3
- to AV control unit terminal 19 (without NAVI)
- to AV and NAVI control unit terminal 27 (with NAVI).

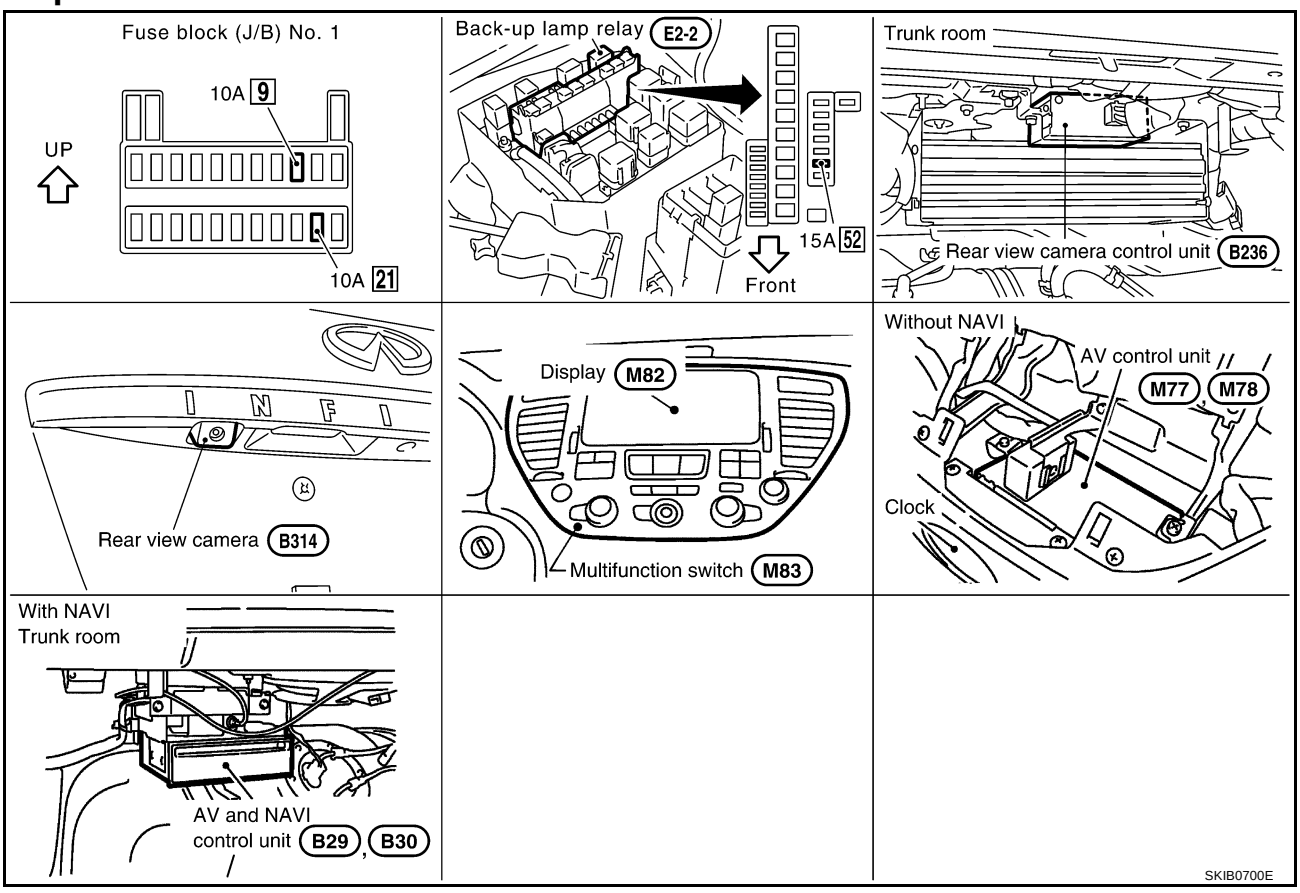
Then AV control unit (AV and NAVI control unit) is sent rear view camera guideline image

- through AV control unit terminals 18, 21 and 24 (without NAVI)
- through AV and NAVI control unit terminals 18, 21 and 15 (with NAVI)
- to display terminals 1, 2 and 3.

Rear view camera guide line will be projected on the display.

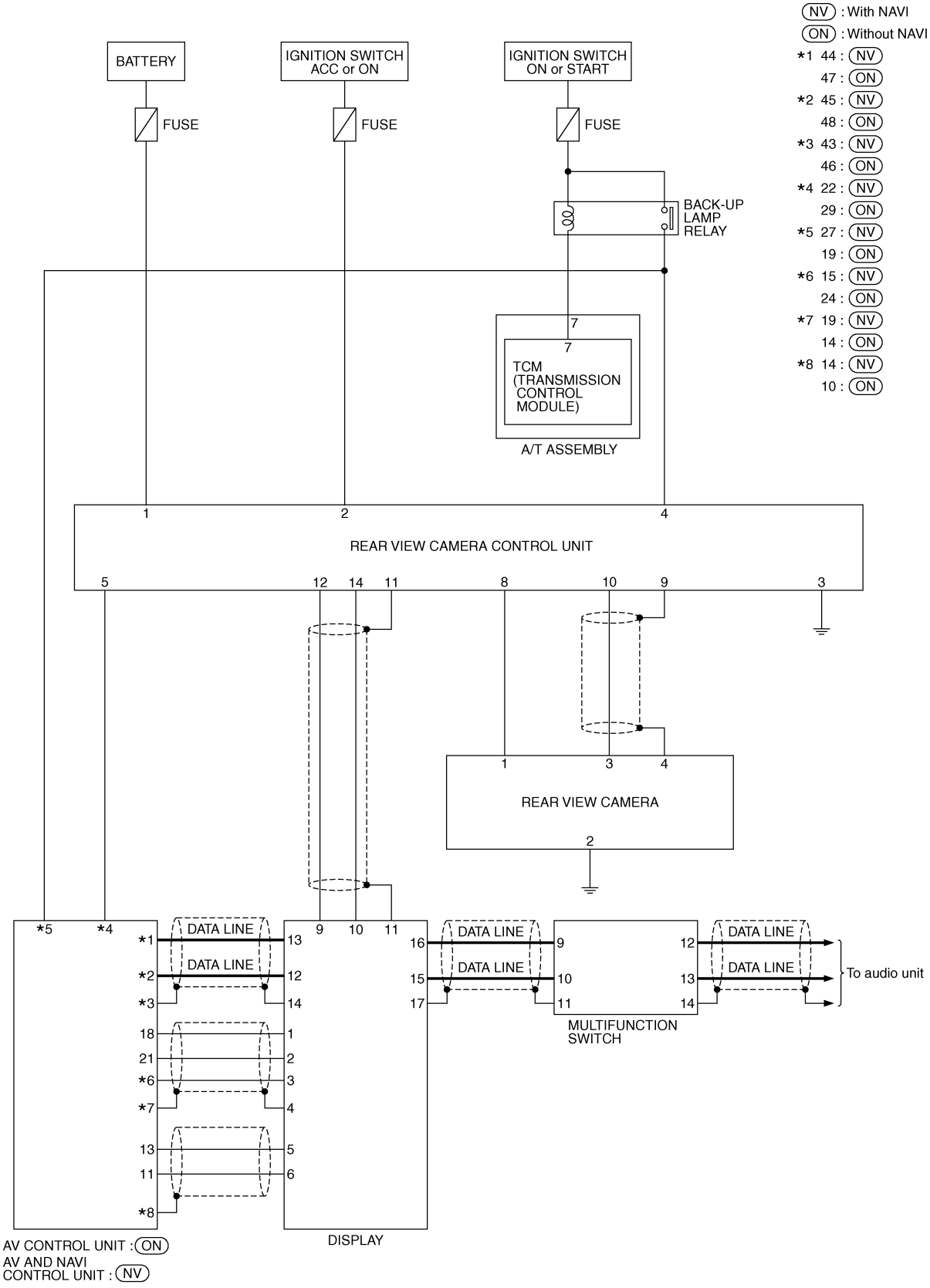
Component Parts and Harness Connector Location

EKS00GEW



Schematic

EKS00GEX

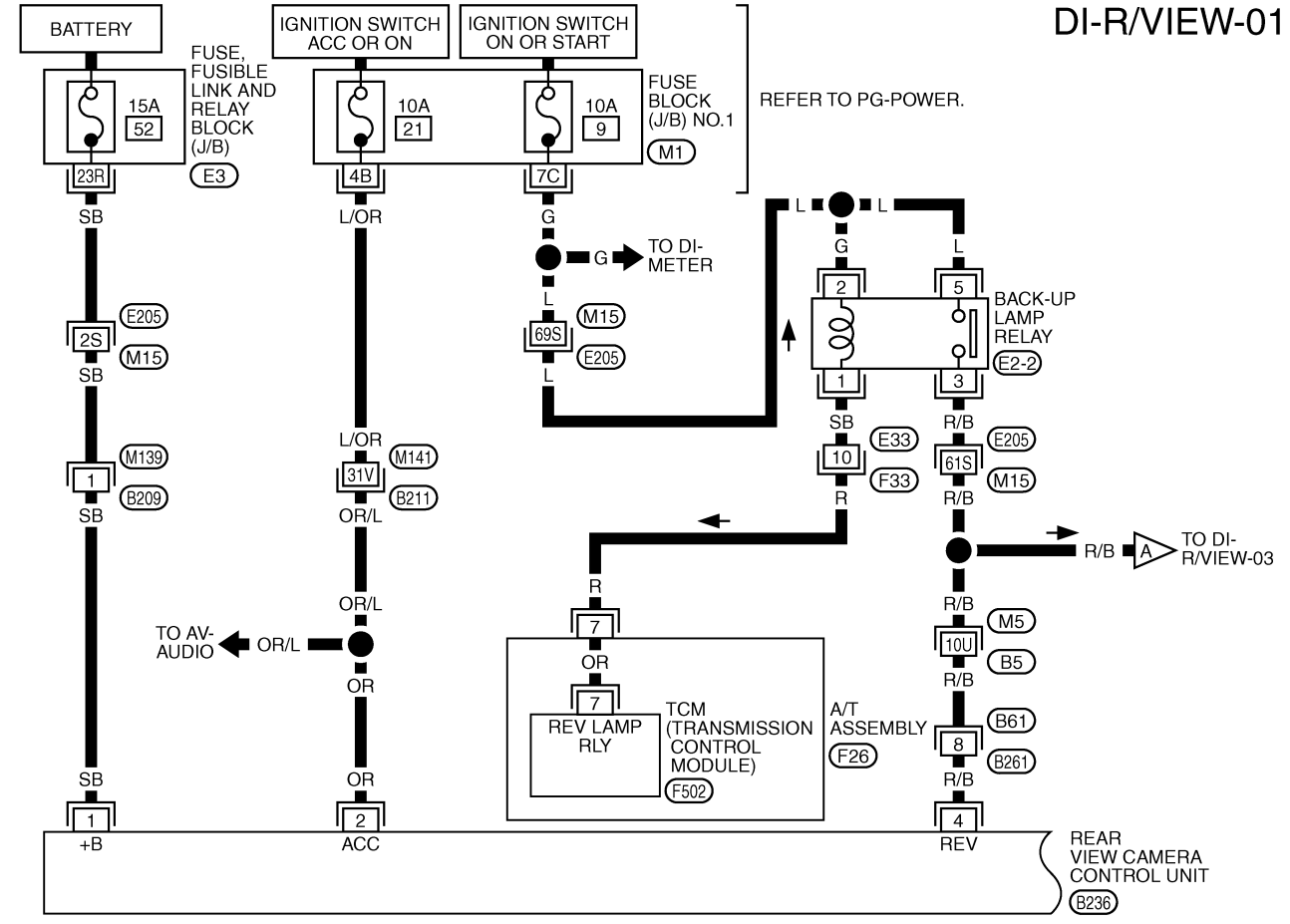


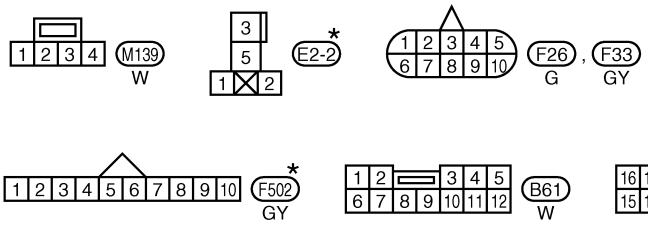
TKWM1581E

Wiring Diagram — R/VIEW —

EKS00GEY

WITHOUT NAVI





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

REFER TO THE FOLLOWING.

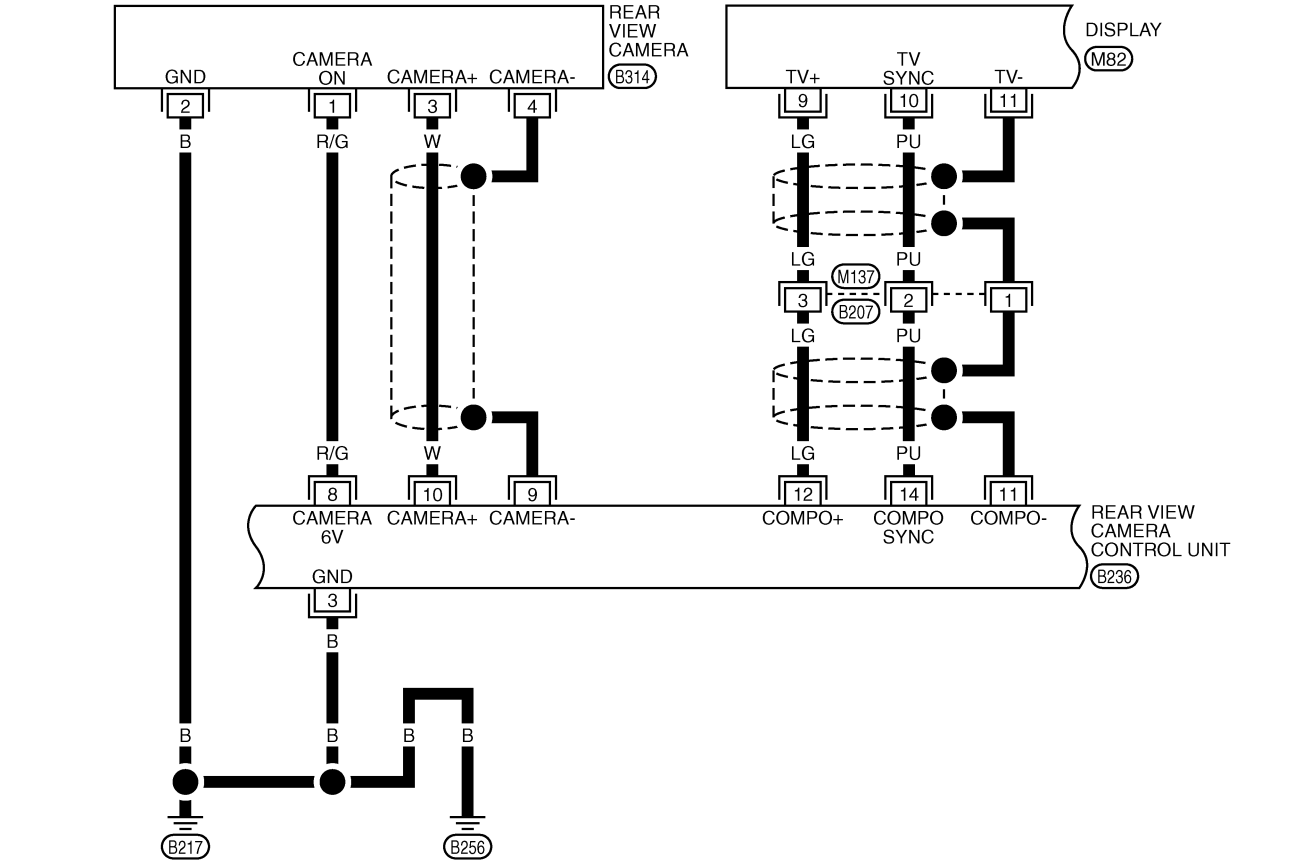
M5 , E205 , B211 -SUPER MULTIPLE JUNCTION (SMJ)

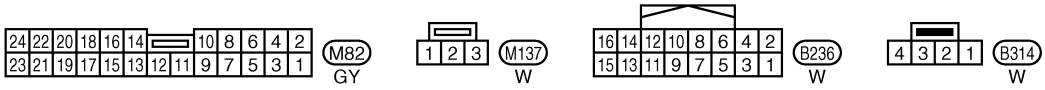
M1 -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

E3 -FUSE, FUSIBLE LINK AND RELAY BLOCK (J/B)

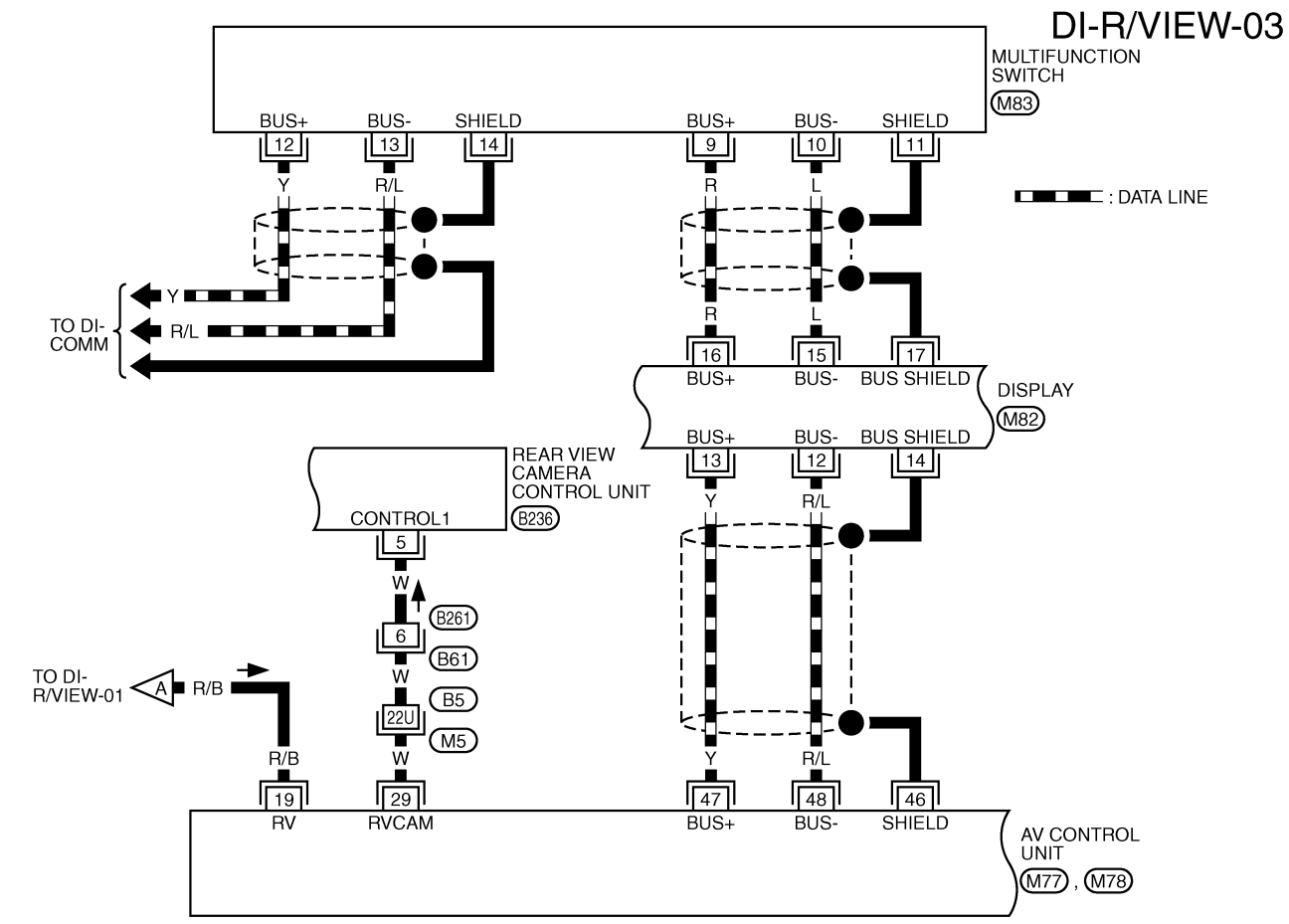
TKWM1582E

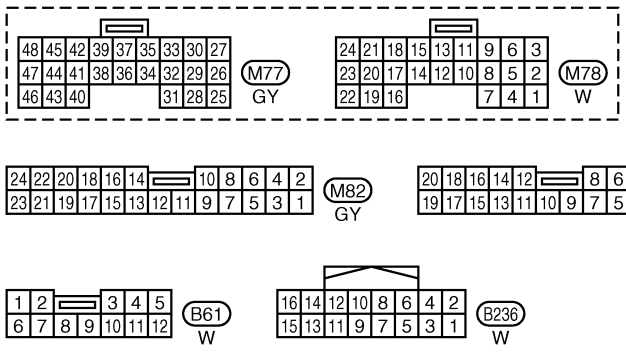
DI-R/VIEW-02





TKWM1583E

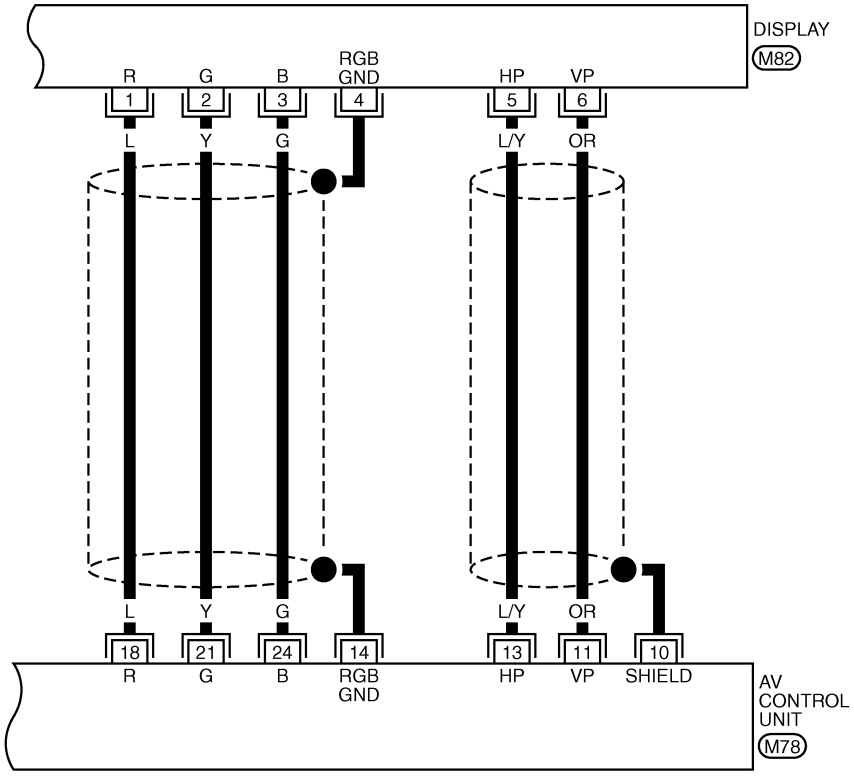


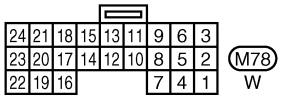


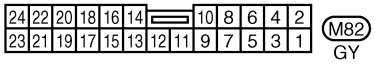
REFER TO THE FOLLOWING.
M5 -SUPER MULTIPLE JUNCTION (SMJ)

TKWM1584E

DI-R/VIEW-04



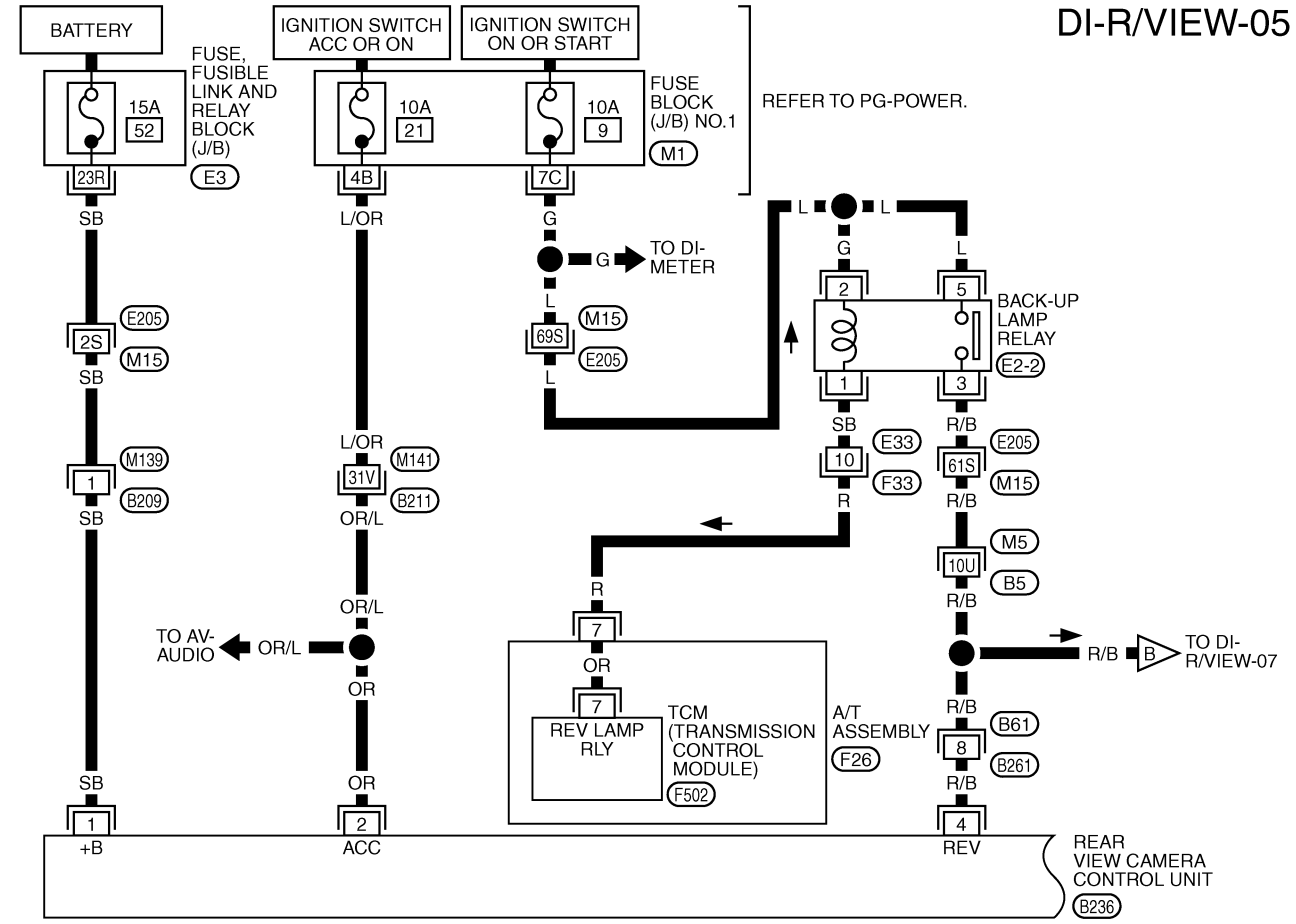


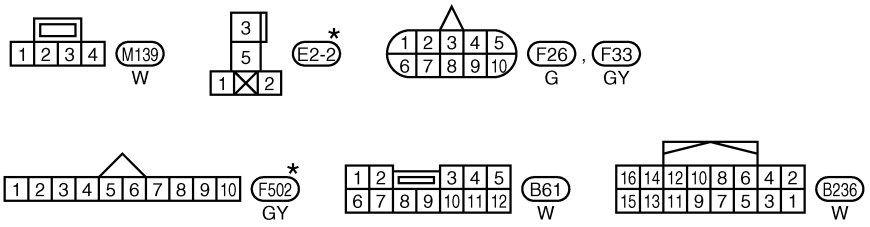


TKWM1585E

WITH NAVI

DI-R/VIEW-05





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

REFER TO THE FOLLOWING.

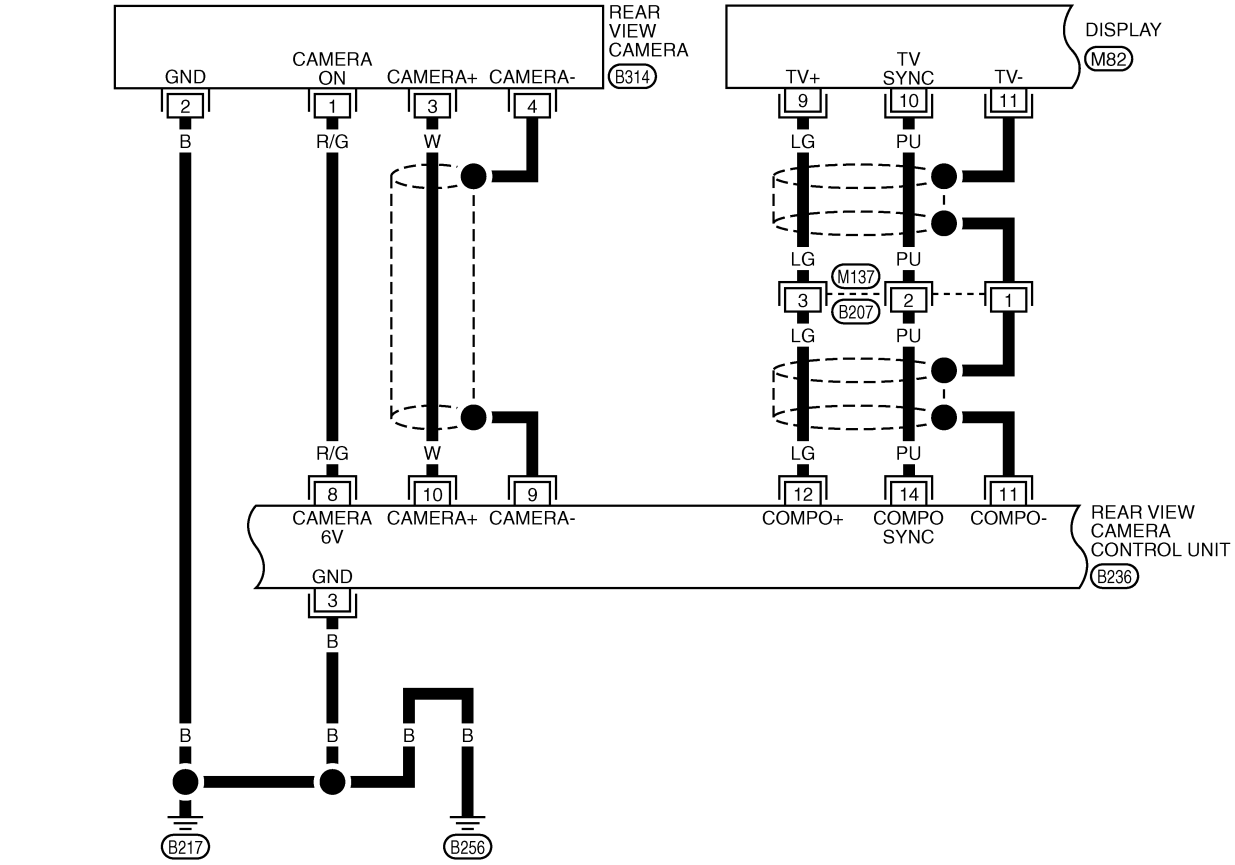
M5 , E205 , B211 -SUPER MULTIPLE JUNCTION (SMJ)

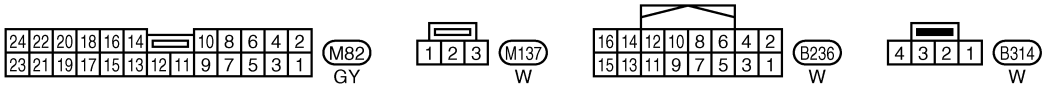
M1 -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

E3 -FUSE, FUSIBLE LINK AND RELAY BLOCK (J/B)

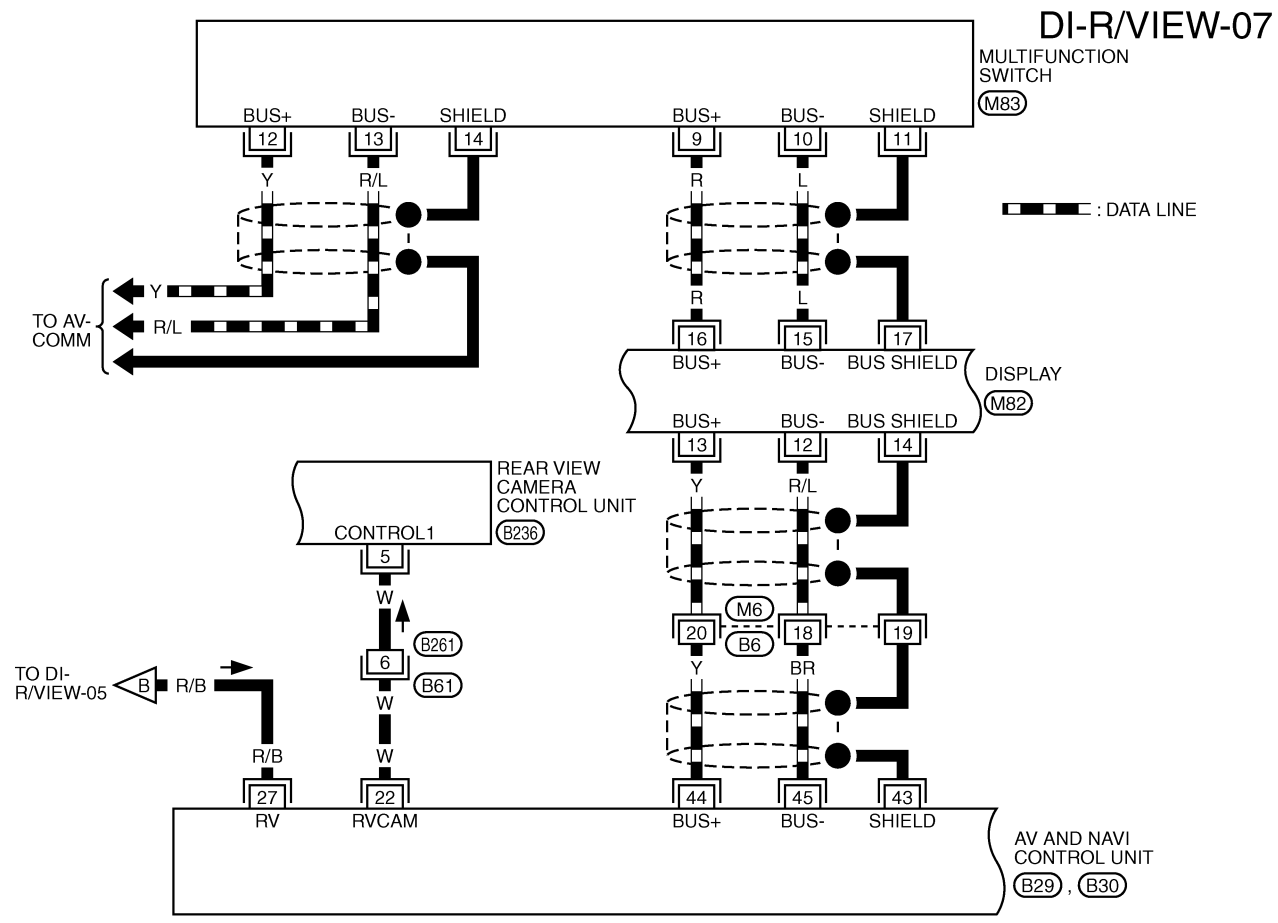
TKWM1727E

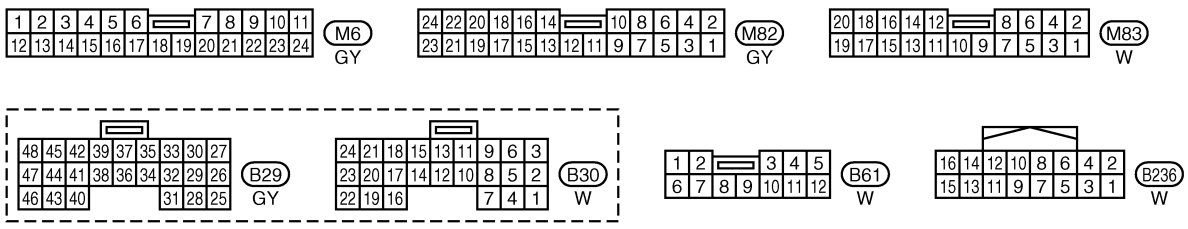
DI-R/VIEW-06





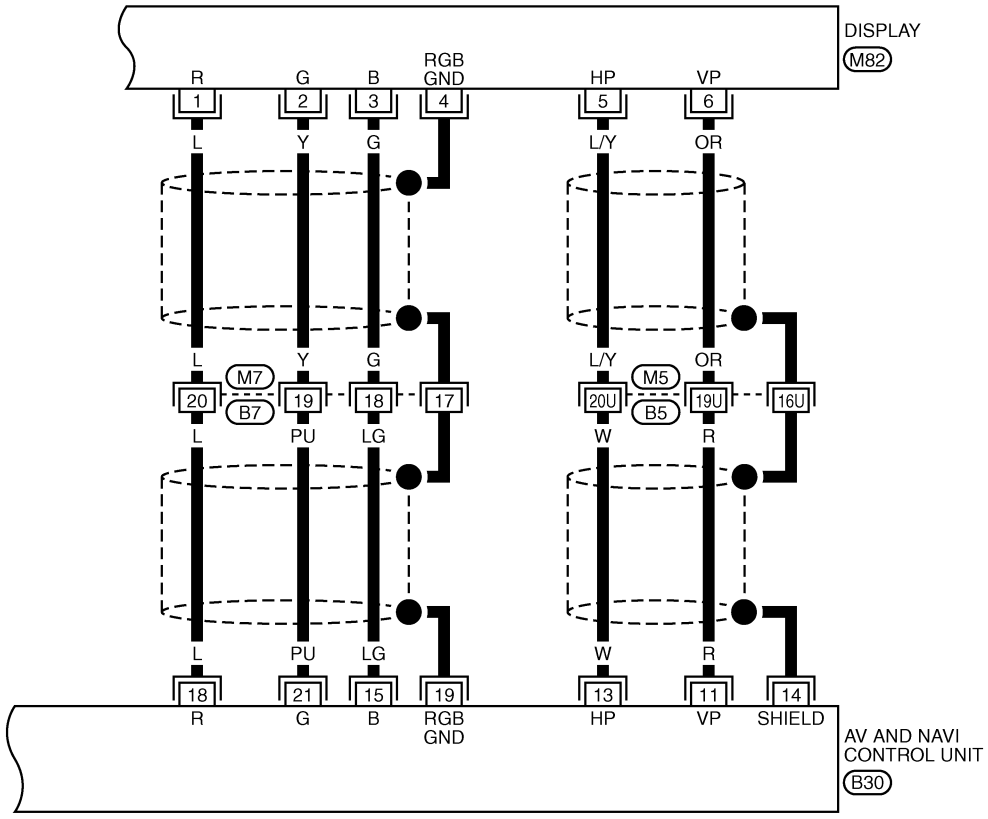
TKWM1728E

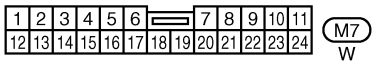

DI-R/VIEW-07
MULTIFUNCTION SWITCH
M83
BUS+ BUS- SHIELD
12 13 14
9 10 11
: DATA LINE
TO AV-COMM
Y
R/L
16 15 17
BUS+ BUS- BUS SHIELD
DISPLAY
M82
13 12 14
REAR VIEW CAMERA CONTROL UNIT
B236
CONTROL1
5
W
6
B261
B61
M6
20 18 19
B6
TO DI-R/VIEW-05
B
R/B
BR
27 22 44 45 43
RV RVCAM BUS+ BUS- SHIELD
AV AND NAVI CONTROL UNIT
B29 , B30

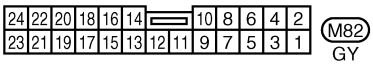

M6 GY
M82 GY
M83 W
B29 GY
B30 W
B61 W
B236 W

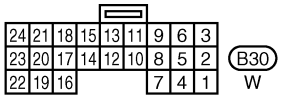
TKWM1729E

DI-R/VIEW-08







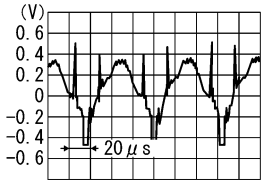
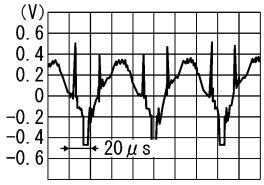
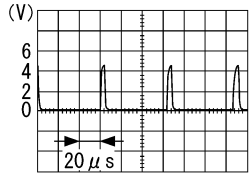


REFER TO THE FOLLOWING.
M5 -SUPER MULTIPLE JUNCTION (SMJ)

TKWM1730E

Terminals and Reference Value for Rear View Camera Control Unit

EKS00GEZ

Terminal No. (Wire color)		Item	Condition		Reference value (V)
(+)	(–)		Ignition switch	Operation	
1 (SB)	Ground	Battery power supply	OFF	–	Battery voltage
2 (OR)		Ignition switch (ACC)	ACC	–	Battery voltage
3 (B)		Ground	ON	–	Approx. 0
4 (R/B)		Reverse signal input	ON	A/T selector lever “R” position	Approx. 12
				A/T selector lever in other than “R” position	Approx. 0
5 (W)		Rear view camera recognition signal	ON	–	Approx. 0
8 (R/G)		Camera power output	ON	A/T selector lever “R” position	Approx. 6
9		Camera image input (–)	ON	–	Approx. 0
10 (W)	9	Camera image input (+)	ON	A/T selector lever “R” position	 SKIA4894E
11	Ground	Composite ground	ON	–	Approx. 0
12 (LG)	11	Composite image output	ON	A/T selector lever “R” position	 SKIA4894E
14 (PU)	11	Composite image synchronization signal output	ON	A/T selector lever “R” position	 SKIA5896E

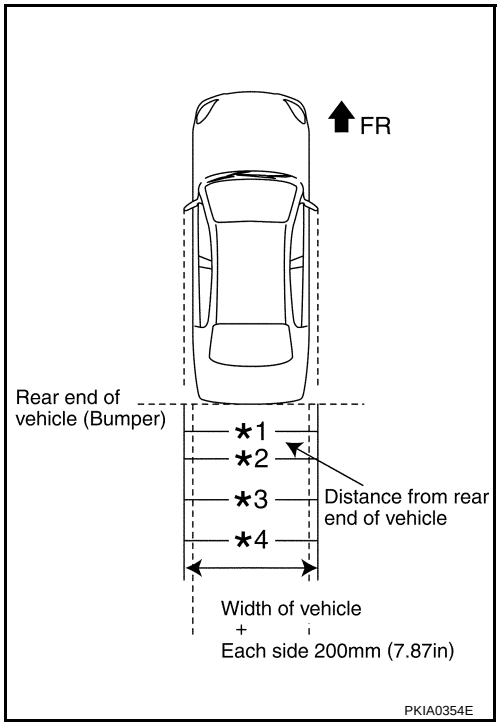
Side Distance Guideline Correction

EKS00GF1

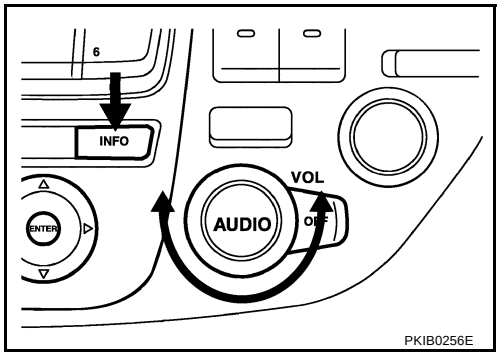
- This mode is used to modify the side distance guidelines if they are dislocated from the rear view monitor image, because of variations of body/camera mounting conditions.

1. Create a correction line to modify the screen.
   Draw lines on the backward of the vehicle passing through the following points: 0.2 m (7.87 inch) from both sides of the vehicle, and
   - *1: 0.5 m (1.64 feet)
   - *2: 1.0 m (3.28 feet)
   - *3: 2.0 m (6.56 feet)
   - *4: 3.0 m (9.84 feet)

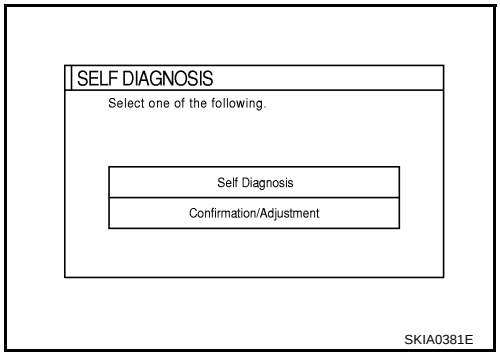
   from the rear end of the bumper.



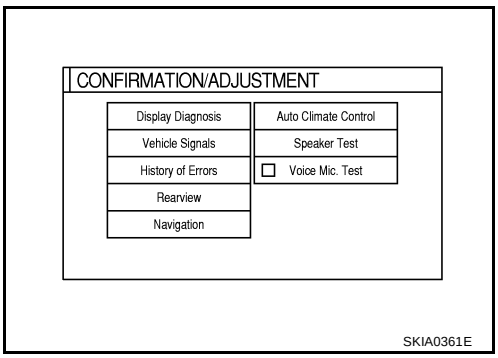
2. Turn ignition switch ON.
3. Turn OFF the audio system.
4. While pressing the “INFO” switch, turn volume control dial clockwise or counterclockwise for 30 clicks or more. (When self-diagnosis mode is activated, a short beep will be heard.)
   - To return to the previous screen, press “PREV” switch.



5. The initial trouble diagnosis screen is displayed for selecting “Confirmation/Adjustment” mode.

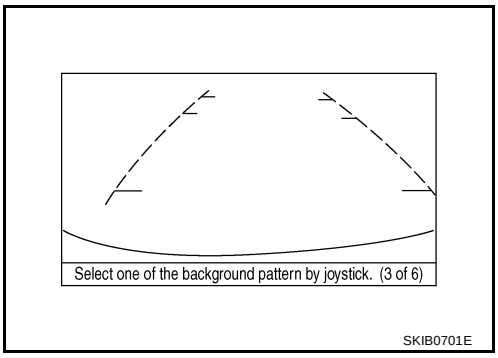


6. Select “Rearview” in “CONFIRMATION/ADJUSTMENT”.
7. Shift the A/T selector lever to “R” position.



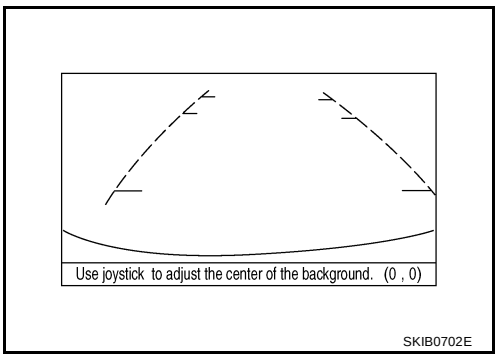
SKIA0361E

8. Using the joy stick, select the pattern closest to the prepared correction line among the 6 guideline patterns, then press “ENTER” button.



SKIB0701E

9. Carefully adjust the center of the background vertically and horizontally in the range of 8 - 8. Align it with the prepared line, and press the “ENTER” button.
10. The adjustment is completed.



SKIB0702E

Trouble Diagnosis

EKS00GZI

HOW TO PROCEED WITH TROUBLE DIAGNOSIS

1. Confirm the symptom and customer complaint.
2. Perform the preliminary inspection. Refer to DI-168, "Preliminary Inspection" .
3. Understand the outline of system. Refer to DI-153, "System Description" .
4. Referring to trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to DI-66, "SYMPTOM CHART" .
5. Does rear view monitor system operate normally? If it operates normally, GO TO 6. If not, GO TO 4.
6. INSPECTION END

SYMPTOM CHART

Symptom	Diagnoses/Service procedure
Rear view image is not displayed with the A/T selector lever in “R” position. (Rear view camera guide line is displayed only.)	Perform the following inspections. 1. DI-168, "Power Supply and Ground Circuit Inspection" 2. DI-169, "Rear View Camera Control Unit Reverse Signal Inspection" 3. DI-170, "Rear View Camera Circuit Inspection" 4. DI-171, "Composite Image Signal Circuit Inspection" Replace display, found normal function in the above inspections.
Display does not switch rear view image with the A/T selector lever in “R” position.	**Without NAVI** Perform the following inspections. 1. DI-172, "AV Control Unit Reverse Signal Inspection" 2. DI-173, "Rear View Camera Recognition Signal Inspection [Without NAVI]" Replace AV control unit, found normal function in the above inspections.
	With NAVI Perform the following inspections. 1. DI-174, "AV and NAVI Control Unit Reverse Signal Inspection" 2. DI-174, "Rear View Camera Recognition Signal Inspection [With NAVI]" Replace AV and NAVI control unit, found normal function in the above inspections.
Rear view image is distorted.	DI-175, "Rear View Image is Distorted".

Preliminary Inspection

EKS00GZJ

1. CHECK BACK-UP LAMP

1. Turn ignition switch ON.
2. Shift A/T selector lever to “R” position.

Does back-up lamp illuminate?

YES >> GO TO 2.
NO >> Check back-up lamp system. Refer to LT-103, "BACK-UP LAMP" in LT section.

2. CHECK AV COMMUNICATION SYSTEM

Perform self-diagnosis in the self-diagnosis mode. Refer to DI-104, "SELF-DIAGNOSIS MODE" (without NAVI) or AV-81, "Self-Diagnosis Mode" (with NAVI).

OK or NG

OK >> INSPECTION END
NG >> Check applicable parts.

Power Supply and Ground Circuit Inspection

EKS00GF3

1. CHECK FUSE

Check for blown rear view camera control unit fuses.

Unit	Power source	Fuse No.
Rear view camera control unit	Battery	52
	Ignition switch (ACC)	21

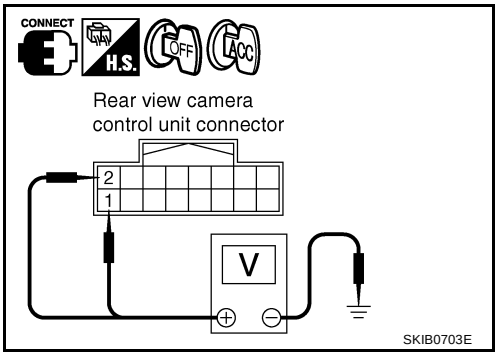
OK or NG

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

2. CHECK POWER SUPPLY CIRCUIT

Check voltage between rear view camera control unit harness connector B236 terminals 1 (SB), 2 (OR) and ground.

Terminals			OFF	ACC
(+)		(–)		
Connector	Terminal (Wire color)			
B236	1 (SB)	Ground	Battery voltage	Battery voltage
	2 (OR)		0 V	Battery voltage



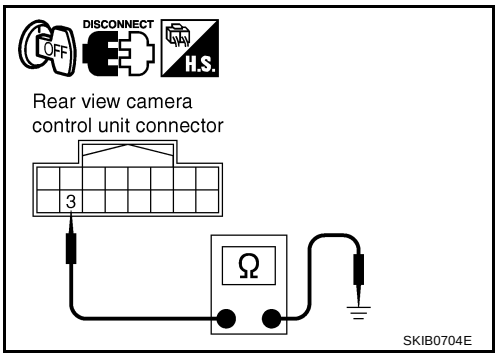
OK or NG

OK >> GO TO 3.
NG >> Check harness between rear view camera control unit and fuse.

3. CHECK REAR VIEW CAMERA CONTROL UNIT GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear view camera control unit connector.
3. Check continuity between rear view camera control unit harness connector B236 terminal 3 (B) and ground.

3 (B) – Ground : Continuity should exist.



OK or NG

OK >> Power supply and ground circuit are OK. Return to DI-168, "SYMPTOM CHART" .
NG >> Repair ground harness.

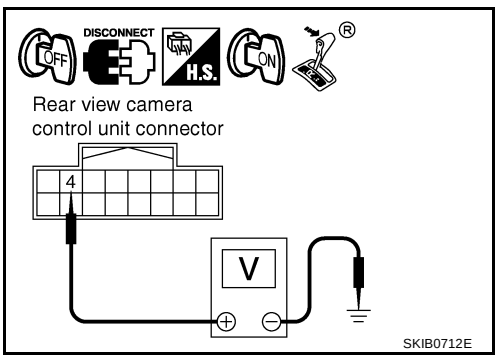
Rear View Camera Control Unit Reverse Signal Inspection

EKS00GZK

1. CHECK REVERSE POSITION INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect rear view camera control unit connector.
3. Turn ignition switch ON.
4. Shift A/T selector lever to “R” position.
5. Check voltage between rear view camera control unit harness connector B236 terminal 4 (R/B) and ground.

4 (R/B) – Ground : Approx. 12 V



OK or NG

OK >> Reverse signal is OK. Return to DI-168, "SYMPTOM CHART" .
NG >> Check harness between rear view camera control unit and back-up lamp relay.

Rear View Camera Circuit Inspection

EKS00GF4

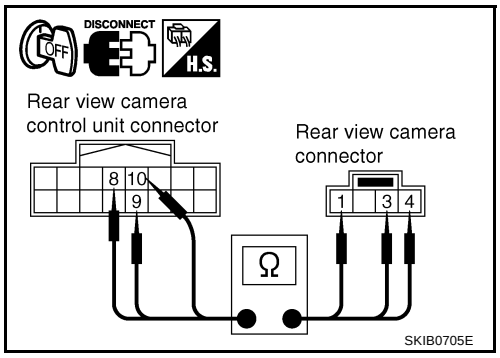
1. CHECK REAR VIEW CAMERA OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear view camera connector and rear view camera control unit connector.
3. Check continuity between rear view camera harness connector B314 terminal 1 (R/G) and rear view camera control unit harness connector B236 terminal 8 (R/G).

1 (R/G) – 8 (R/G) : Continuity should exist.

4. Check continuity between rear view camera harness connector B314 terminal 3 (W) and rear view camera control unit harness connector B236 terminal 10 (W).

3 (W) – 10 (W) : Continuity should exist.



5. Check continuity between rear view camera harness connector B314 terminal 4 and rear view camera control unit harness connector B236 terminal 9.

4 – 9 : Continuity should exist.

OK or NG

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

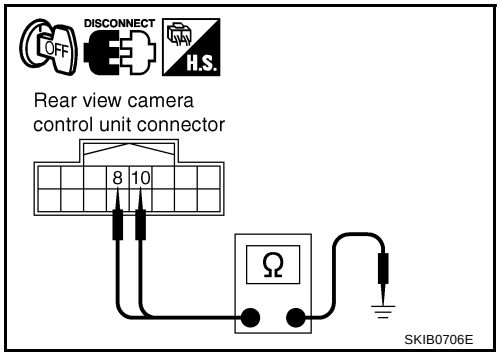
2. CHECK REAR VIEW CAMERA SHORT CIRCUIT

1. Check continuity between rear view camera control unit harness connector B236 terminal 8 (R/G) and ground.

8 (R/G) – Ground : Continuity should not exist.

2. Check continuity between rear view camera control unit harness connector B236 terminal 10 (W) and ground.

10 (W) – Ground : Continuity should not exist.



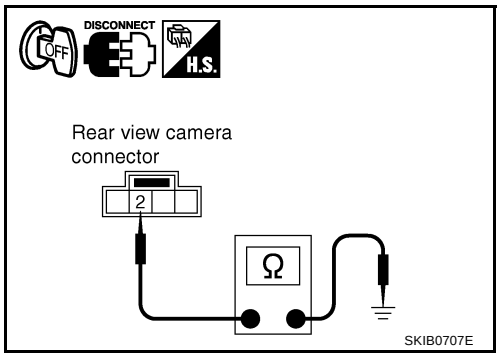
OK or NG

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

3. CHECK REAR VIEW CAMERA GROUND CIRCUIT

Check continuity between rear view camera harness connector B314 terminal 2 (B) and ground.

2 (B) – Ground : Continuity should exist.



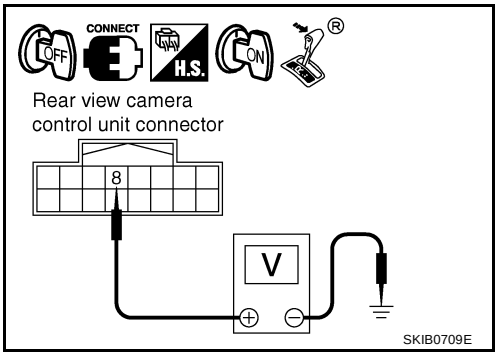
OK or NG

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

4. CHECK REAR VIEW CAMERA POWER OUTPUT

1. Connect rear view camera control unit connector.
2. Turn ignition switch ON.
3. Shift A/T selector lever to “R” position.
4. Check voltage between rear view camera control unit harness connector B236 terminal 8 (R/G) and ground.

8 (R/G) – Ground : Approx. 6 V



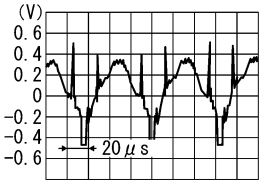
OK or NG

OK >> GO TO 5.
NG >> Replace rear view camera control unit.

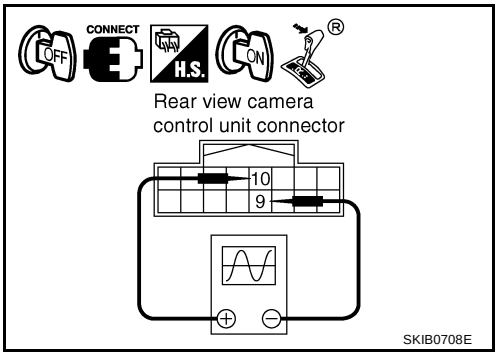
5. CHECK REAR VIEW CAMERA IMAGE INPUT SIGNAL

1. Turn ignition switch OFF.
2. Connect rear view camera connector.
3. Turn ignition switch ON.
4. Shift A/T selector lever to “R” position.
5. Check voltage signal between rear view camera control unit harness connector B236 terminals 10 (W) and 9.

10 (W) – 9:



SKIA4894E



OK or NG

OK >> Rear view camera is OK. Return to DI-168, "SYMPTOM CHART" .
NG >> Replace rear view camera.

Composite Image Signal Circuit Inspection

EKS00GZM

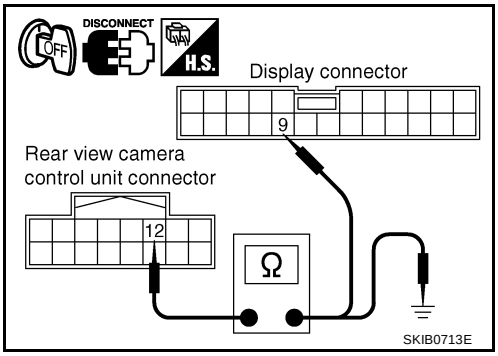
1. CHECK COMPOSITE IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear view camera control unit connector and display connector.
3. Check continuity between rear view camera control unit harness connector B236 terminal 12 (LG) and display harness connector M82 terminal 9 (LG).

12 (LG) – 9 (LG) : Continuity should exist.

4. Check continuity between rear view camera control unit harness connector B236 terminal 12 (LG) and ground.

12 (LG) – Ground : Continuity should not exist.



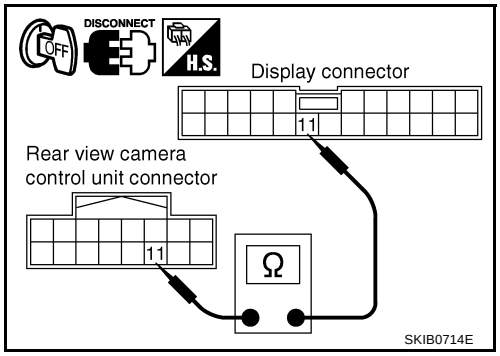
OK or NG

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

2. CHECK COMPOSITE SIGNAL GROUND CIRCUIT

Check continuity between rear view camera control unit B236 harness connector terminal 11 and display harness connector M82 terminal 11.

11 – 11 : Continuity should exist.

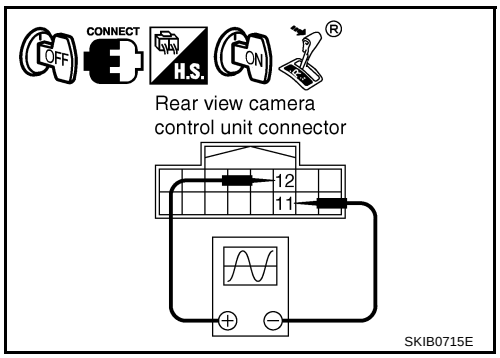


OK or NG

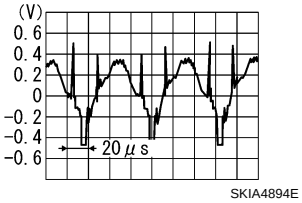
OK >> GO TO 3.
NG >> Repair harness or connector.

3. CHECK COMPOSITE IMAGE OUTPUT SIGNAL

1. Connect rear view camera connector and display connector.
2. Turn ignition switch ON.
3. Shift A/T selector lever to “R” position.
4. Check voltage signal between rear view camera control unit harness connector B236 terminals 12 (LG) and 11.



12 (LG) – 11:



OK or NG

OK >> Composite image signal circuit is OK. Return to DI-168, "SYMPTOM CHART" .
NG >> Replace rear view camera control unit.

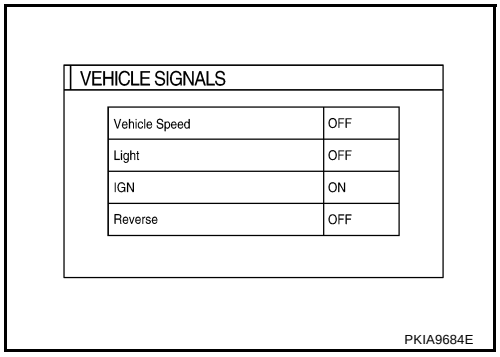
AV Control Unit Reverse Signal Inspection

EKS00GZL

1. CHECK REVERSE SIGNAL INPUT

Make sure vehicle signals by “VEHICLE SIGNALS” of “CONFIRMATION/ADJUSTMENT” function. Refer to DI-109, "Vehicle Signals" .

“Reverse”
A/T selector lever “R” position : ON
A/T selector lever in other “R” position : OFF



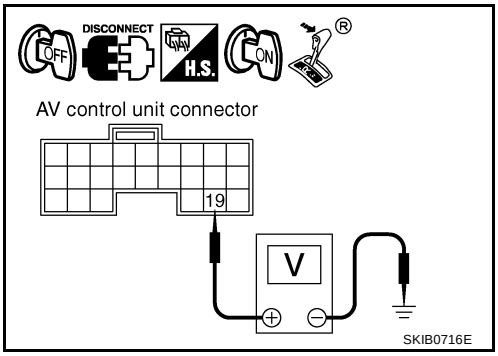
OK or NG

OK >> Reverse signal is OK. Return to DI-168, "SYMPTOM CHART" .
NG >> GO TO 2.

2. CHECK REVERSE POSITION INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector.
3. Turn ignition switch ON.
4. Shift A/T selector lever to “R” position.
5. Check voltage between AV control unit harness connector M78 terminal 19 (R/B) and ground.

19 (R/B) – Ground : Approx. 12 V



OK or NG

OK >> Replace AV control unit.
NG >> Check harness between AV control unit and back-up lamp relay.

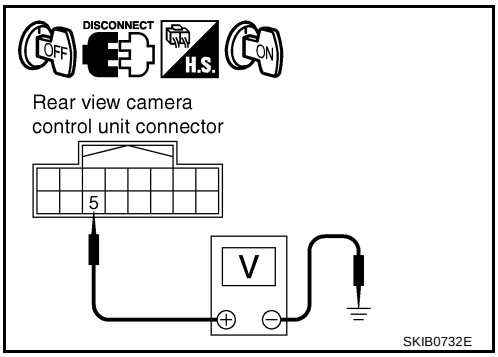
Rear View Camera Recognition Signal Inspection [Without NAVI]

EKS00GZQ

1. CHECK AV CONTROL UNIT SIGNAL OUTPUT

1. Turn ignition switch OFF.
2. Disconnect rear view camera control unit connector.
3. Turn ignition switch ON.
4. Check voltage between rear view camera control unit harness connector B236 terminal 5 (W) and ground.

5 (W) – Ground : Approx. 5 V



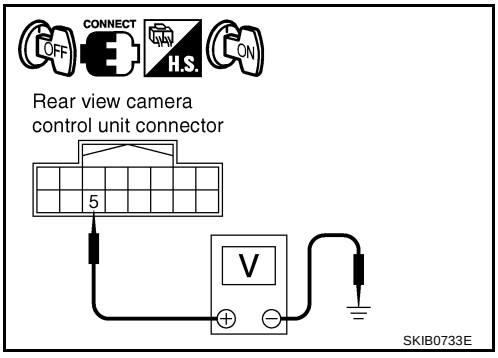
OK or NG

OK >> GO TO 2.
NG >> GO TO 3.

2. CHECK REAR VIEW CAMERA RECOGNITION SIGNAL INPUT

1. Turn ignition switch OFF.
2. Connect rear view camera control unit connector.
3. Turn ignition switch ON.
4. Check voltage between rear view camera control unit harness connector B236 terminal 5 (W) and ground.

5 (W) – Ground : Approx. 0 V



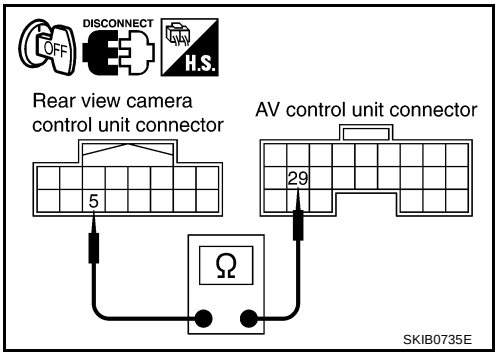
OK or NG

OK >> Rear view camera recognition signal is OK. Return to DI-168, "SYMPTOM CHART" .
NG >> Replace rear view camera control unit.

3. CHECK REAR VIEW CAMERA RECOGNITION SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector.
3. Check continuity between rear view camera control unit harness connector B236 terminal 5 (W) and AV control unit harness connector M77 terminal 29 (W).

5 (W) – 29 (W) : Continuity should exist.



OK or NG

OK >> Replace AV control unit.
NG >> Repair harness or connector.

AV and NAVI Control Unit Reverse Signal Inspection

EKS00GZN

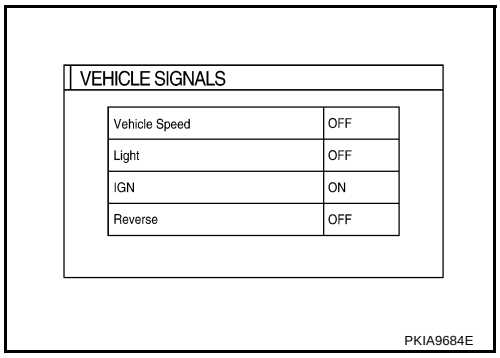
1. CHECK REVERSE SIGNAL INPUT

Make sure vehicle signals by “VEHICLE SIGNALS” of “CONFIRMATION/ADJUSTMENT” function. Refer to AV-87, "VEHICLE SIGNALS" .

“Reverse”

A/T selector lever “R” position : ON

A/T selector lever in other “R” position : OFF



OK or NG

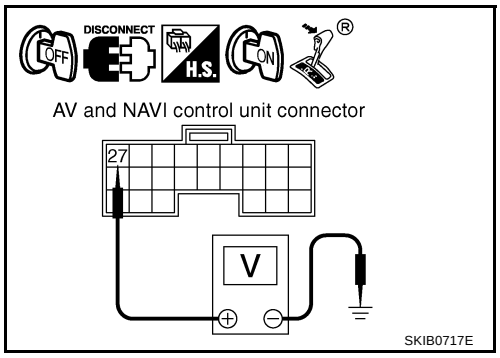
OK >> Reverse signal is OK. Return to DI-168, "SYMPTOM CHART" .

NG >> GO TO 2.

2. CHECK REVERSE POSITION INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect AV and NAVI control unit connector.
3. Turn ignition switch ON.
4. Shift A/T selector lever to “R” position.
5. Check voltage between AV and NAVI control unit harness connector B29 terminal 27 (R/B) and ground.

27 (R/B) – Ground : Approx. 12 V



OK or NG

OK >> Replace AV and NAVI control unit.

NG >> Check harness between AV and NAVI control unit and back-up lamp relay.

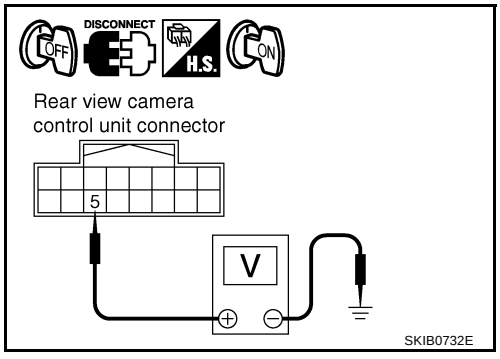
Rear View Camera Recognition Signal Inspection [With NAVI]

EKS00GZR

1. CHECK AV AND NAVI CONTROL UNIT SIGNAL OUTPUT

1. Turn ignition switch OFF.
2. Disconnect rear view camera control unit connector.
3. Turn ignition switch ON.
4. Check voltage between rear view camera control unit harness connector B236 terminal 5 (W) and ground.

5 (W) – Ground : Approx. 5 V



OK or NG

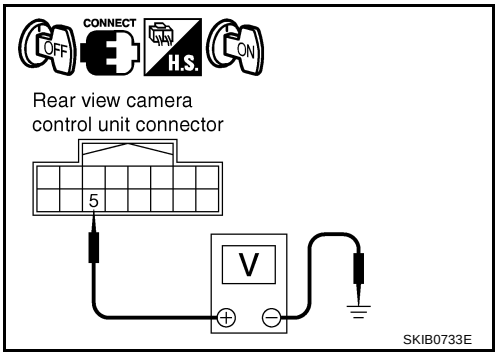
OK >> GO TO 2.

NG >> GO TO 3.

2. CHECK REAR VIEW CAMERA RECOGNITION SIGNAL INPUT

1. Turn ignition switch OFF.
2. Connect rear view camera control unit connector.
3. Turn ignition switch ON.
4. Check voltage between rear view camera control unit harness connector B236 terminal 5 (W) and ground.

5 (W) – Ground : Approx. 0 V



OK or NG

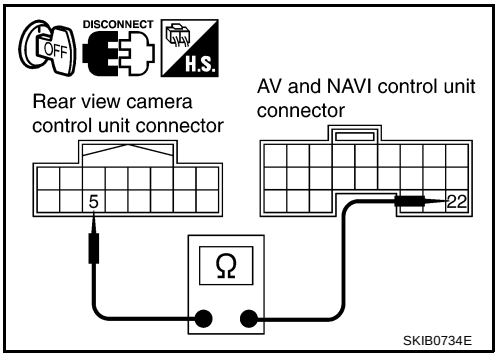
OK >> Rear view camera recognition signal is OK. Return to DI-168, "SYMPTOM CHART" .

NG >> Replace rear view camera control unit.

3. CHECK REAR VIEW CAMERA RECOGNITION SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV and NAVI control unit connector.
3. Check continuity between rear view camera control unit harness connector B236 terminal 5 (W) and AV and NAVI control unit harness connector B30 terminal 22 (W).

5 (W) – 22 (W) : Continuity should exist.



OK or NG

OK >> Replace AV and NAVI control unit.

NG >> Repair harness or connector.

Rear View Image is Distorted

EKS00GF6

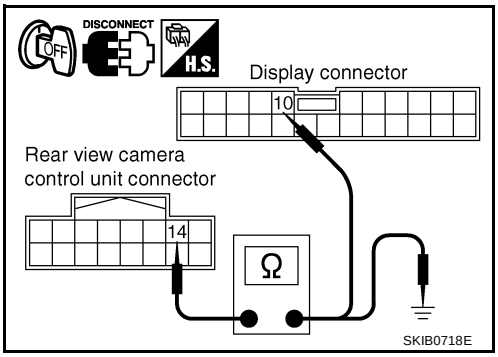
1. CHECK REAR VIEW CAMERA CONTROL UNIT COMPOSITE SYNCHRONIZING SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear view camera control unit connector and display connector.
3. Check continuity between rear view camera control unit harness connector B236 terminal 14 (PU) and display harness connector M82 terminal 10 (PU).

14 (PU) – 10 (PU) : Continuity should exist.

4. Check continuity between rear view camera control unit harness connector M236 terminal 14 (PU) and ground.

14 (PU) – Ground : Continuity should not exist.



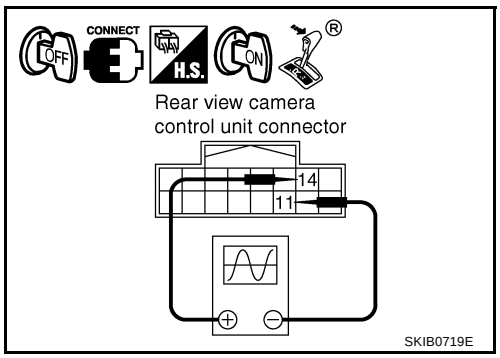
OK or NG

OK >> GO TO 2.

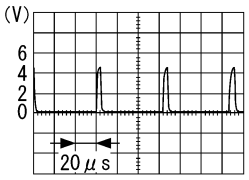
NG >> Repair harness or connector.

2. CHECK REAR VIEW CAMERA CONTROL UNIT COMPOSITE SYNCHRONIZING SIGNAL

1. Connect rear view camera control unit connector and display connector.
2. Turn ignition switch ON.
3. Shift A/T selector lever to “R” position.
4. Check voltage signal between rear view camera control unit harness connector B236 terminals 14 (PU) and 11.



14 (PU) – 11:



OK or NG

OK >> ● GO TO 3 (without NAVI).
● GO TO 7 (with NAVI).

NG >> Replace rear view camera control unit.

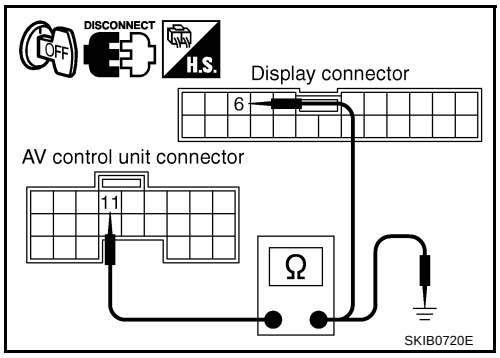
3. CHECK AV CONTROL UNIT VERTICAL SYNCHRONIZING SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector and display connector.
3. Check continuity between AV control unit harness connector M78 terminal 11 (OR) and display harness connector M82 terminal 6 (OR).

11 (OR) – 6 (OR) : Continuity should exist.

4. Check continuity between AV control unit harness connector M78 terminal 11 (OR) and ground.

11 (OR) – Ground : Continuity should not exist.



OK or NG

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

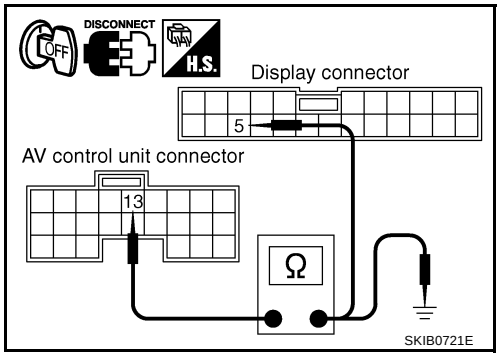
4. CHECK AV CONTROL UNIT HORIZONTAL SYNCHRONIZING SIGNAL CIRCUIT

1. Check continuity between AV control unit harness connector M78 terminal 13 (L/Y) and display harness connector M82 terminal 5 (L/Y).

13 (L/Y) – 5 (L/Y) : Continuity should exist.

2. Check continuity between AV control unit harness connector M78 terminal 13 (L/Y) and ground.

13 (L/Y) – Ground : Continuity should not exist.

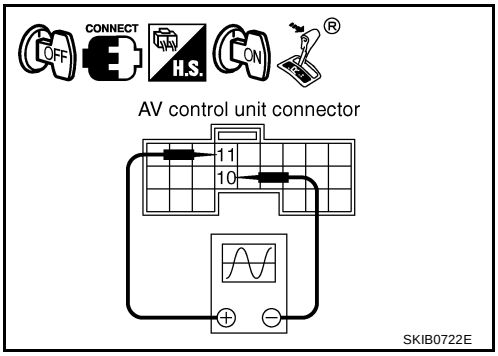


OK or NG

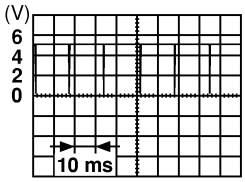
OK >> GO TO 5.
NG >> Repair harness or connector.

5. CHECK AV CONTROL UNIT VERTICAL SYNCHRONIZING SIGNAL

1. Connect AV control unit connector and display connector.
2. Turn ignition switch ON.
3. Shift A/T selector lever to “R” position.
4. Check voltage signal between AV control unit harness connector M78 terminals 11 (OR) and 10.



11 (OR) – 10:



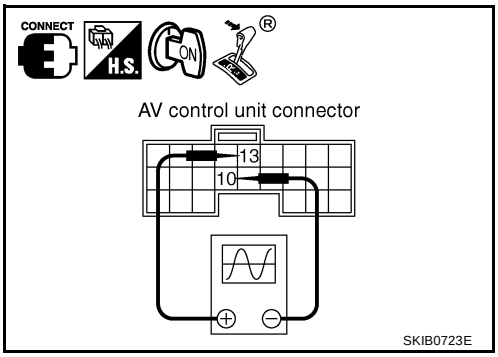
SKIA0161E

OK or NG

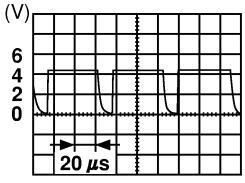
OK >> GO TO 6.
NG >> Replace AV control unit.

6. CHECK AV CONTROL UNIT HORIZONTAL SYNCHRONIZING SIGNAL

1. Turn ignition switch ON.
2. Shift A/T selector lever to “R” position.
3. Check voltage signal between AV control unit harness connector M78 terminals 13 (L/Y) and 10.



13 (L/Y) – 10:



SKIA0163E

OK or NG

OK >> Replace display.
NG >> Replace AV control unit.

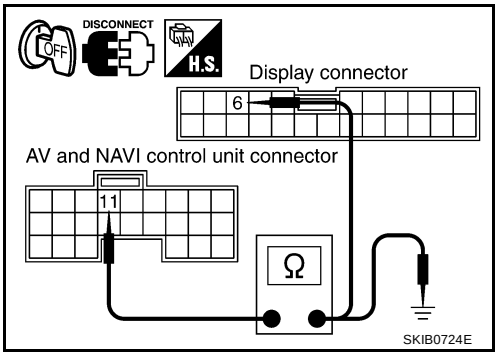
7. CHECK AV AND NAVI CONTROL UNIT VERTICAL SYNCHRONIZING SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV and NAVI control unit connector and display connector.
3. Check continuity between AV and NAVI control unit harness connector B30 terminal 11 (R) and display harness connector M82 terminal 6 (OR).

11 (R) – 6 (OR) : Continuity should exist.

4. Check continuity between AV and NAVI control unit harness connector B30 terminal 11 (R) and ground.

11 (R) – Ground : Continuity should not exist.



OK or NG

OK >> GO TO 8.
NG >> Repair harness or connector.

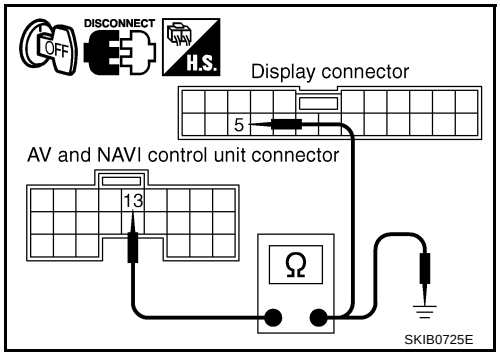
8. CHECK AV AND NAVI CONTROL UNIT HORIZONTAL SYNCHRONIZING SIGNAL CIRCUIT

1. Check continuity between AV and NAVI control unit harness connector B30 terminal 13 (W) and display harness connector M82 terminal 5 (L/Y).

13 (W) – 5 (L/Y) : Continuity should exist.

2. Check continuity between AV and NAVI control unit harness connector B30 terminal 13 (W) and ground.

13 (W) – Ground : Continuity should not exist.

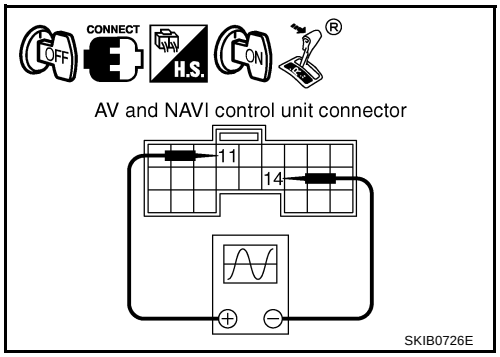


OK or NG

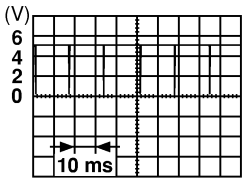
OK >> GO TO 9.
NG >> Repair harness or connector.

9. CHECK AV AND NAVI CONTROL UNIT VERTICAL SYNCHRONIZING SIGNAL

1. Connect AV and NAVI control unit connector and display connector.
2. Turn ignition switch ON.
3. Shift A/T selector lever to “R” position.
4. Check voltage signal between AV and NAVI control unit harness connector B30 terminals 11 (R) and 14.



11 (R) – 14:



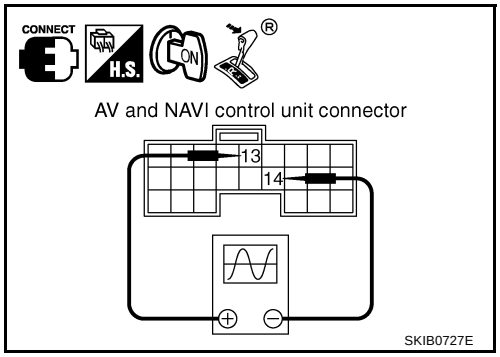
SKIA0161E

OK or NG

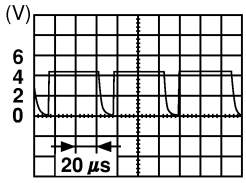
OK >> GO TO 10.
NG >> Replace AV and NAVI control unit.

10. CHECK AV AND NAVI CONTROL UNIT HORIZONTAL SYNCHRONIZING SIGNAL

1. Turn ignition switch ON.
2. Shift A/T selector lever to “R” position.
3. Check voltage signal between AV and NAVI control unit harness connector B30 terminals 13 (W) and 14.



13 (W) – 14:



SKIA0163E

OK or NG

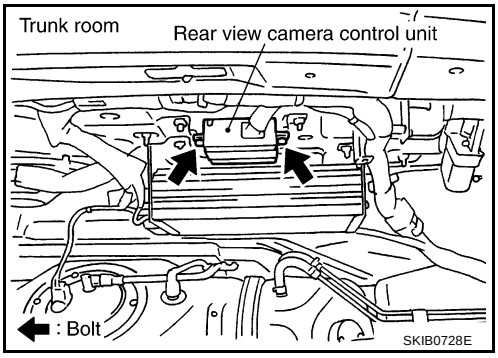
OK >> Replace display.
NG >> Replace AV and NAVI control unit.

Removal and Installation of Rear View Camera Control Unit

EKS00GF7

REMOVAL

1. Remove trunk front finisher. Refer to EI-60, "TRUNK ROOM TRIM & TRUNK LID FINISHER" .
2. Disconnect rear view camera control unit connector.
3. Remove bolts (2), and remove rear view camera control unit.



INSTALLATION

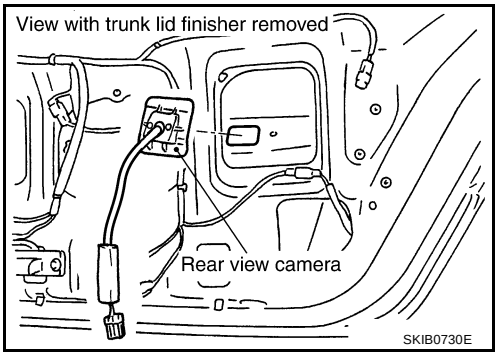
Installation is the reverse order of removal.

Removal and Installation of Rear View Camera

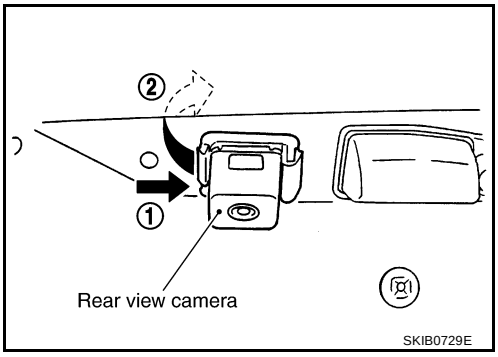
EKS00GF8

REMOVAL

1. Remove trunk lid finisher. Refer to EI-33, "TRUNK LID FINISHER" .



2. Disconnect rear view camera connector.
3. Remove rear view camera as shown in the figure.



INSTALLATION

Installation is the reverse order of removal.

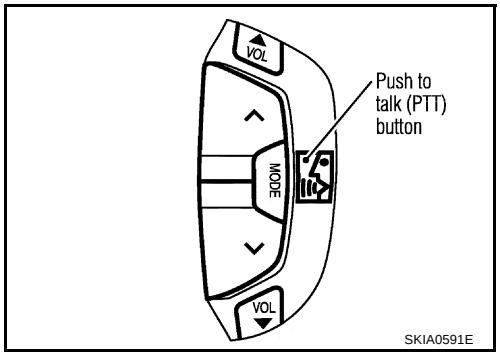
VOICE ACTIVATED CONTROL SYSTEM

PFP:28337

System Description

EKS0017C

OUTLINE



- The VACS (Voice-Activated Control System) provides a safe and convenient way of controlling vehicle systems such as the audio, auto A/C and navigation (if so equipped). The system is controlled by the PTT (Push to talk) button. Voice commands are picked up by a microphone. When giving a command, voice feedback will be heard through the speaker, and messages will be shown on the display. Voice feedback can be turned off. Personal directories of nametags for radio station presets can be created, and spoken command help is provided.
- Refer to Owner's Manual for voice activated control system operating instructions.

Power is supplied at all times

- through 15A fuse [No. 52, located in fuse, fusible link and relay block (J/B)]
- to voice activated control module terminal 13.

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

- through 10A fuse [No. 21, located in the fuse block (J/B) No. 1]
- to voice activated control module terminal 20.

Ground is also supplied

- to voice activated control module terminal 14
- through grounds B57 and B17.

VOICE ACTIVATED CONTROL FUNCTION

When PTT switch pushed ON, signal is sent

- from steering switch terminal 2
- to multifunction switch terminal 7,
- via multifunction switch, display and AV and NAVI control unit (with NAVI), or AV control unit (without NAVI) with AV communication line
- to voice activated control module terminals 35 and 36.

Voice activated control module displays "LISTENING" on screen when PTT switch is ON.
When any voice is input into microphone, voice signal is sent

- from microphone terminals 4 and 5
- to voice activated control module terminals 33 and 34.

When voice activated control module identifies voice signal as a command, it sends the signal

- form voice activated control module terminals 35 and 36
- to AV and NAVI control unit (with NAVI) terminals 47 and 48, or AV control unit (without NAVI) terminals 49 and 50 with AV communication line.

Then AV and NAVI control unit (with NAVI) or AV control unit (without NAVI) sends operational signal

- to display and audio unit and performs the voice command.

While voice activated control system is in operation, voice activated control module sends voice signal

- from voice activated control module terminals 25 and 26
- to BOSE speaker amp. terminals 26 and 42, and guides various operations.

Also at the same time voice activated control module sends mute signal

- from voice activated control module terminal 27
- to audio unit terminal 9

in order to prevent any noise input into microphone.

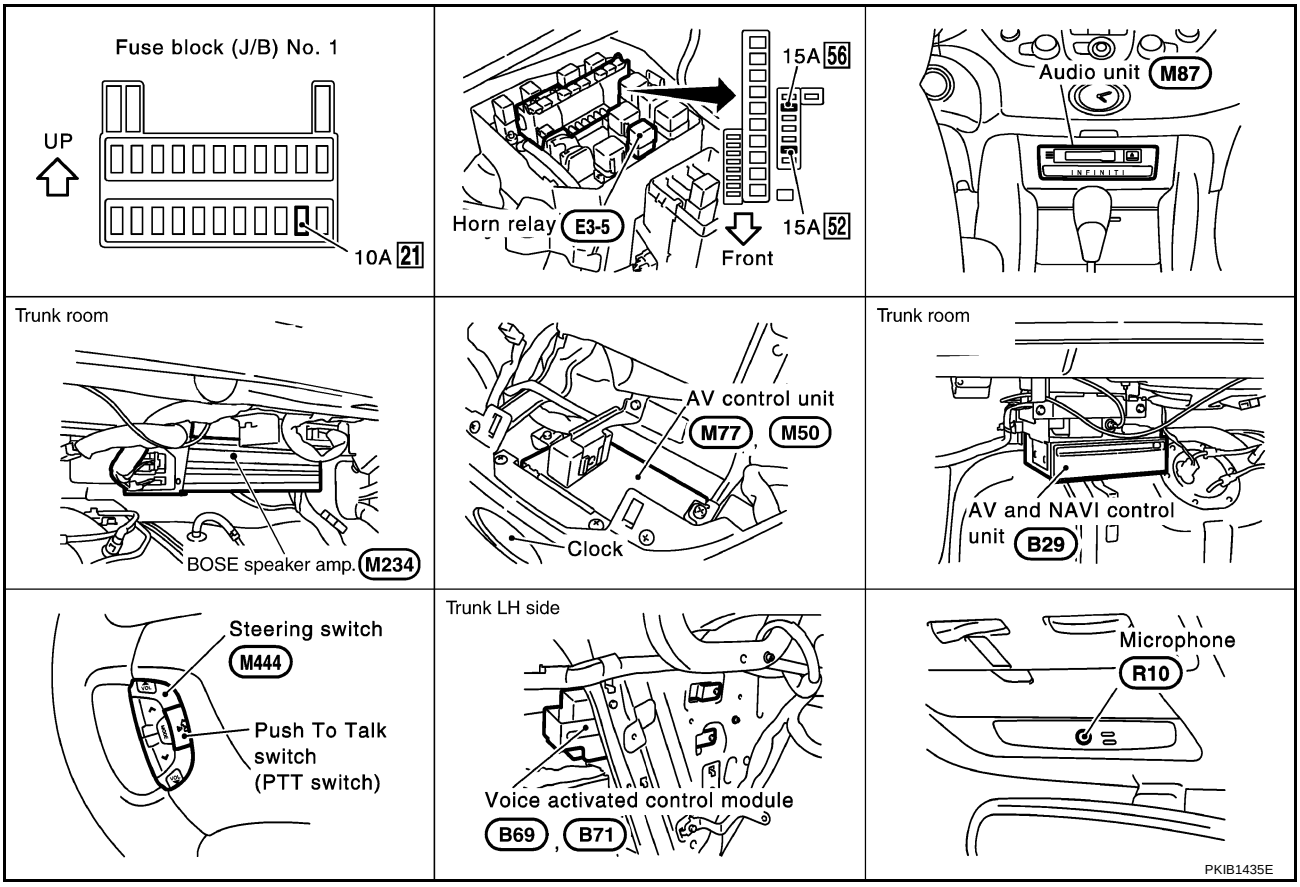
AV COMMUNICATION LINE

Voice activated control module is connected to the following units through AV communication line. Each unit transmits/receives data with AV communication line.

- AV and NAVI control unit (with NAVI)
- AV control unit (without NAVI)
- Display
- Audio unit
- Multifunction switch

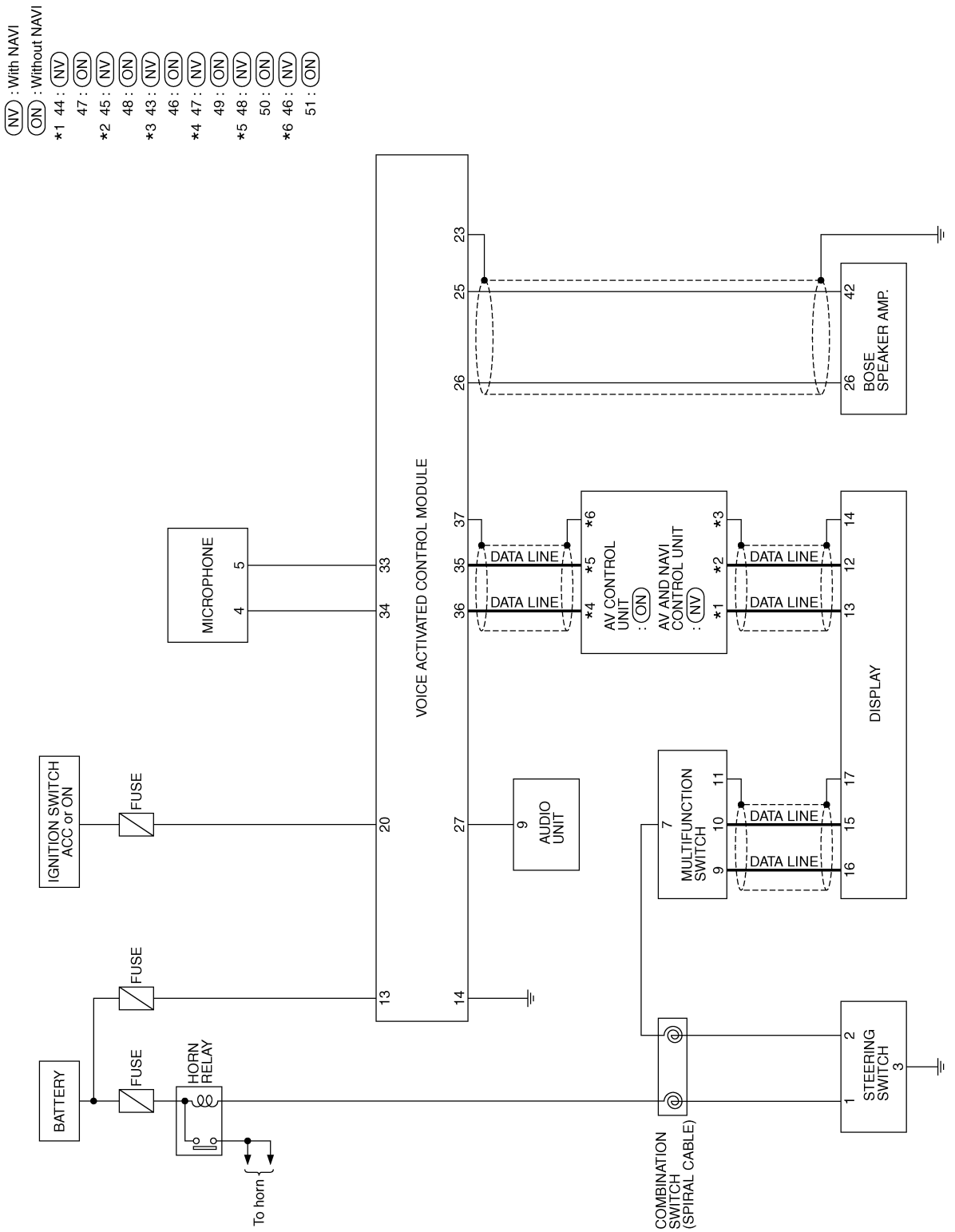
Component Parts and Harness Connector Location

EKS0017F



Schematic

EKS001BR

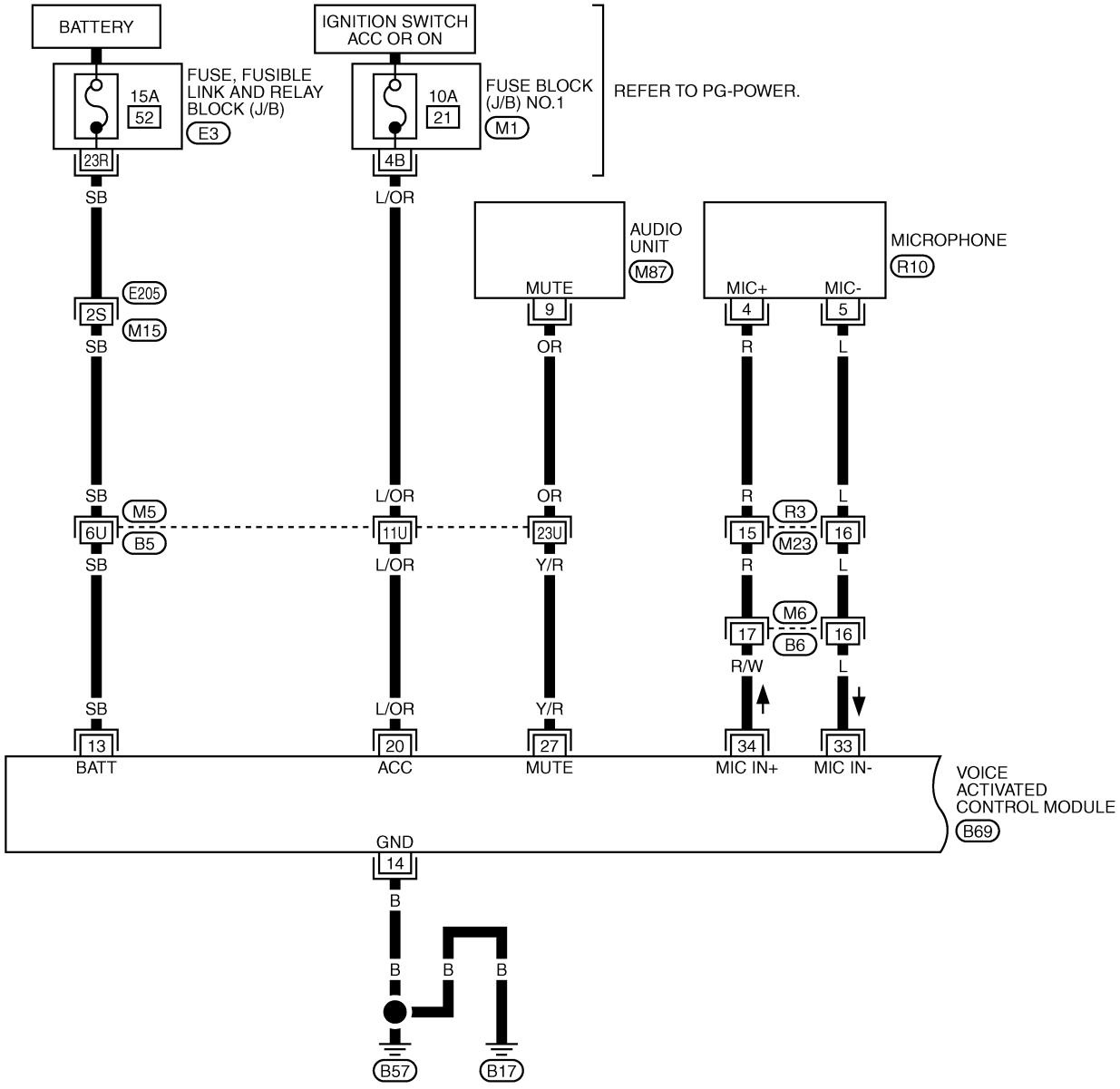


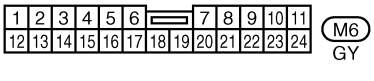
TKWM1586E

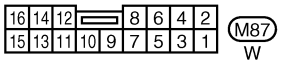
Wiring Diagram — VOICE —

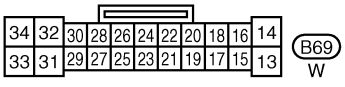
EKS0017D

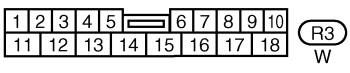
DI-VOICE-01

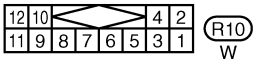












REFER TO THE FOLLOWING.

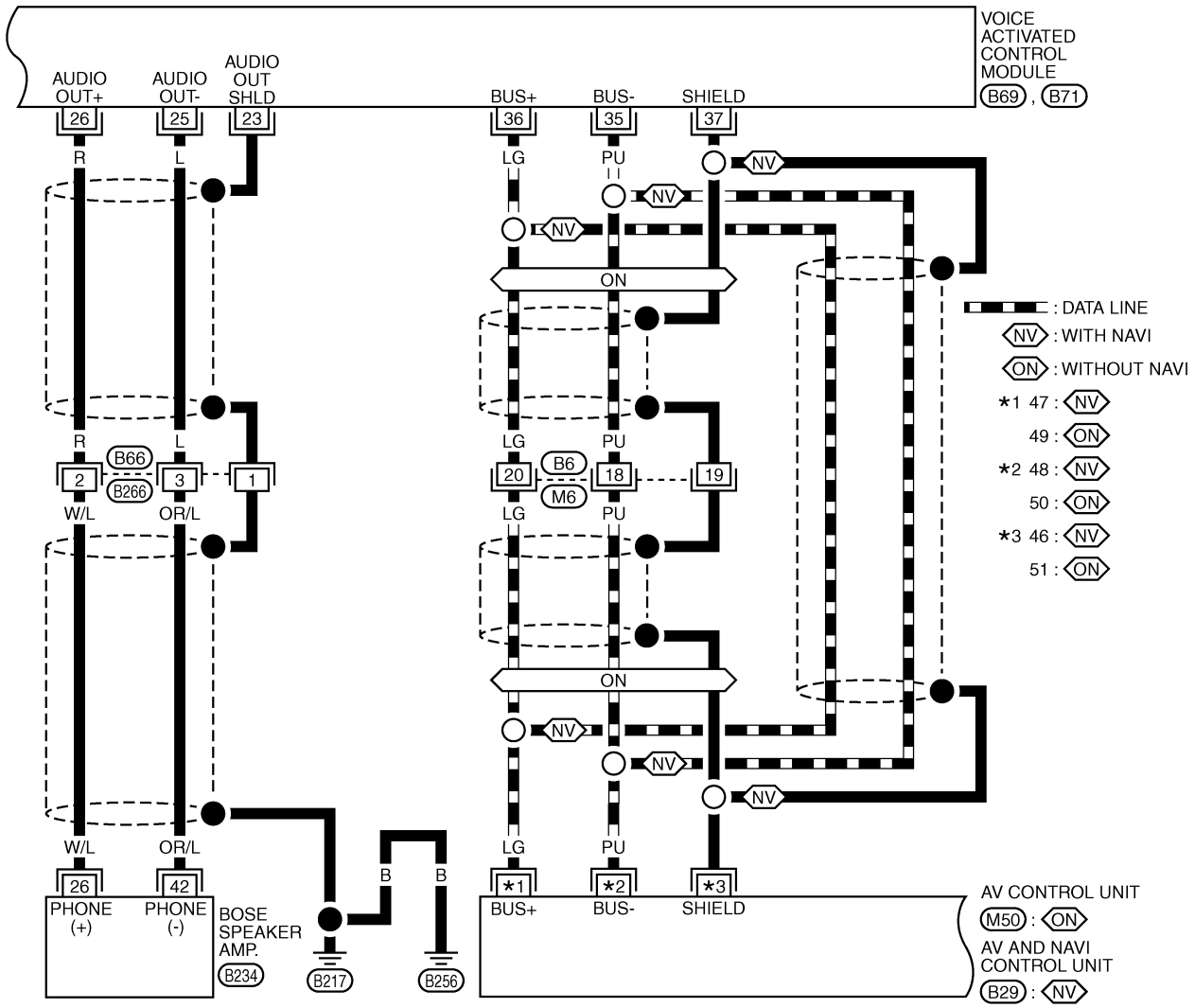
M5 , E205 -SUPER MULTIPLE JUNCTION (SMJ)

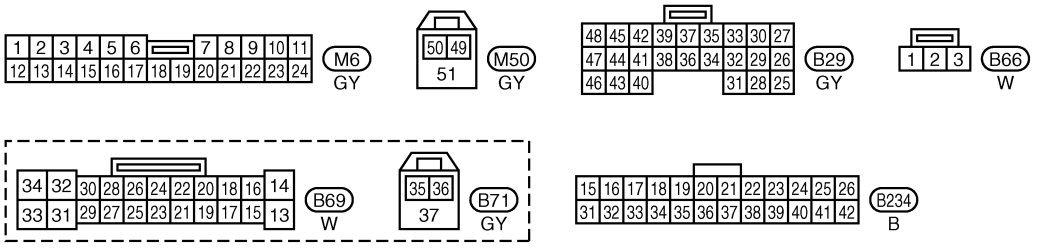
M1 -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

E3 -FUSE, FUSIBLE LINK AND RELAY BLOCK (J/B)

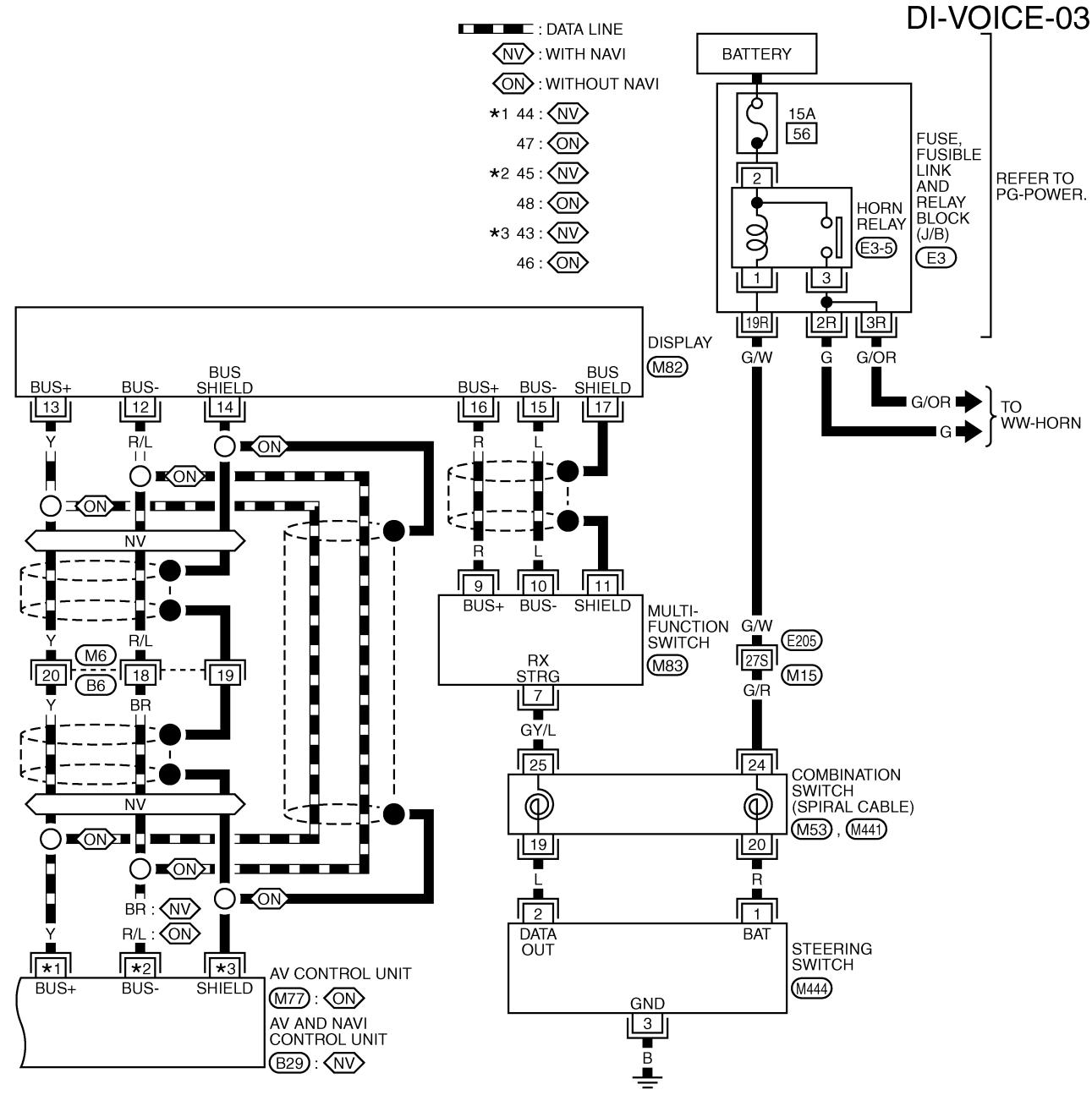
TKWM1587E

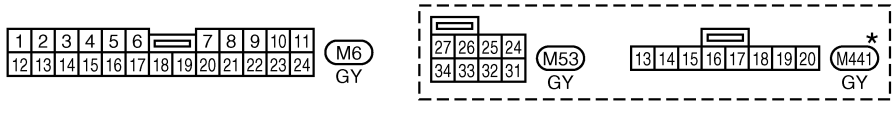
DI-VOICE-02



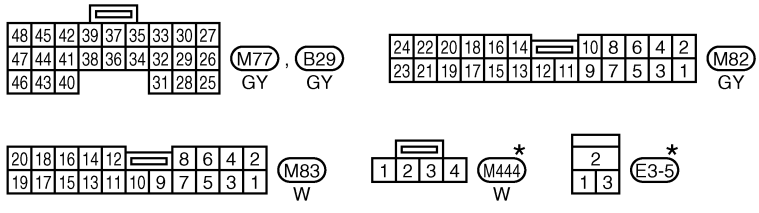


TKWM1588E





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



REFER TO THE FOLLOWING.

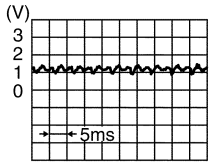
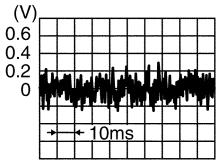
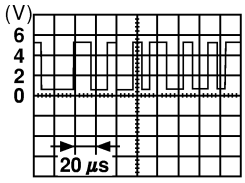
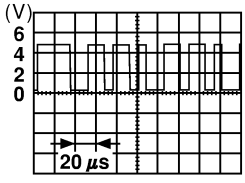
E205 -SUPER MULTIPLE JUNCTION BOX (SMJ)

E3 -FUSE, FUSIBLE LINK AND RELAY BLOCK (J/B)

TKWM1589E

Terminals and Reference Values for Voice Activated Control Module

EKS0017E

Terminal No. (Wire color)		Item	Condition		Reference value (V)
(+)	(–)		Ignition switch	Operation	
13 (SB)	Ground	Battery power source	OFF	–	Battery voltage
14 (B)		Ground	ON	–	Approx. 0
20 (L/OR)		Ignition switch ACC	ACC	–	Battery voltage
23		Audio shield ground	ON	–	Approx. 0
25 (L)	23	Audio output (–)	ON	Voice guide operates.	 PKIA0355E
26 (R)	23	Audio output (+)	ON		
27 (Y/R)	Ground	Mute	ON	PTT switch (not operate → operate)	Approx. 5 → Approx. 0
34 (R/W)	33 (L)	Mic input	ON	Voice mic test operates.	 PKIA0356E
35 (PU)	37	Communication signal (–)	ON	–	 SKIA0176E
36 (LG)	37	Communication signal (+)	ON	–	 SKIA0175E
37	Ground	Shield	ON	–	Approx. 0

CONSULT-II Function

EKS00HEA

CONSULT-II performs the following functions communicating with the AV control unit (without NAVI), or AV and NAVI control unit (with NAVI).

System part	Check item, diagnosis mode	Description
MULTI AV	VERSION	Displays unit version.
	SELF-DIAG RESULTS	● Checks for the connections AV communication line. ● Performs the unit diagnosis.

CONSULT-II BASIC OPERATION PROCEDURE

Refer to DI-101, "CONSULT-II BASIC OPERATION PROCEDURE" (without NAVI) or AV-91, "OPERATION PROCEDURE" (with NAVI).

On Board Self-Diagnosis Function (Without CONSULT-II)

EKS001AT

DESCRIPTION

- Diagnosis function consists of the self-diagnosis mode, and the “CONFIRMATION/ADJUSTMENT” mode.
- Self-diagnosis mode checks for connection between AV and NAVI control unit (with NAVI) or AV control unit (without NAVI) and voice activated control module. And analyzes each unit, then displays the results.
- “CONFIRMATION/ADJUSTMENT” function analyzes each microphone.

DIAGNOSIS ITEM

Mode		Description
SELF-DIAGNOSIS		● Checks for the connections between AV and NAVI control unit or AV control unit and voice activated control module. ● Performs the unit diagnosis of voice activated control module.
CONFIRMATION/ ADJUSTMENT	Voice Mic. Test	● Checks microphone.

SELF-DIAGNOSIS MODE

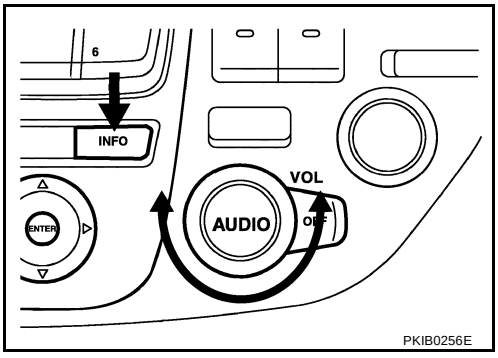
Operation Procedure

- To start the self-diagnosis mode and to check the diagnosis result, refer to DI-104, "SELF-DIAGNOSIS MODE" (without NAVI) or AV-81, "Self-Diagnosis Mode" (with NAVI).

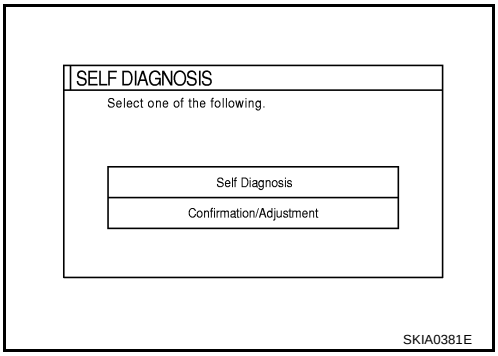
CONFIRMATION/ADJUSTMENT MODE

Operation Procedure

1. Start the engine.
2. Turn the audio system off.
3. While pressing the “INFO” switch, turn the volume control dial clockwise or counterclockwise for 30 clicks or more.

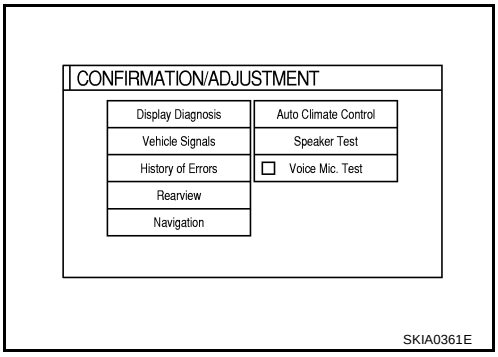


4. The initial trouble diagnosis screen will be shown, and items “Self Diagnosis” and “Confirmation/Adjustment” will become selective.
5. When “Confirmation/Adjustment” is selected on the trouble diagnosis screen, the operation will enter the Confirmation/Adjustment mode. In this mode, check and adjustment of each item will become possible.



6. When “Voice Mic. Test” is selected with joystick, icon indicator turns on (green) and voice input into microphone is sent out through speakers.

   NOTE:
   Voice from speakers may sound echoic.



Trouble Diagnosis

EKS0017G

THIS CONDITION IS NOT MALFUNCTION

Example of Basic Operational Errors

The system should respond correctly to all voice commands. Follow the solutions given in this guide for the appropriate error when any of the following symptom is encountered.
Where the solutions are listed by number, try each solution in turn, starting with number one, until the symptom is resolved.

Symptom	Remedy
Displays “COMMAND NOT RECOGNIZED” or the system does not interpret the command correctly.	1. Ensure that the command is valid, see Command list (Refer to Owner’s Manual). 2. Ensure that the command is given after the tone while “ LISTENING” is displayed. 3. Speak clearly without pausing between words and at a level appropriate to the ambient noise level. 4. Ensure that the ambient noise level is not excessive, for example, windows open or defrost on. **NOTE:** If it is too noisy to use the microphone, it is likely that voice commands will not be recognized. 5. If optional words of the command have been omitted, then the command should be tried with these in place. 6. If a number of commands have been given in rapid succession resulting in the message “COMMAND NOT RECOGNIZED” to be displayed, then allow the system to recover (approximately 1 minute) before trying the command again. 7. If the system consistently does not recognize commands, the voice training procedure should be performed to improve the recognition response for the speaker.
Displays “NO SPEECH DETECTED”.	1. Ensure that the command is given after the tone while “LISTENING” is displayed. 2. Ensure that the command is given within a maximum of five seconds from the end of the tone. **NOTE:** Be sure you know what to say before pressing the Voice button.
Displays “NAMETAG NOT UNIQUE”.	1. This response will be received when storing a nametag if the nametag being given has already been stored. This can be confirmed by giving the Radio Directory command. 2. If this response is received and the nametag has not been used already, then it is too similar to an existing nametag or voice grammar and an alternative should be used.
The system consistently selects the wrong nametag.	1. Ensure that the nametag requested matches what was originally stored. This can be confirmed by giving the Radio Directory command. 2. Delete one of the nametags being confused and replace it with a different nametag.

Power Supply and Ground Circuit Inspection

EKS001AW

1. CHECK FUSES

Check that any of the following fuses for voice activated control module is blown.

Unit	Power source	Fuse No.
Voice activated control module	Battery	52
	Ignition switch ACC or ON	21

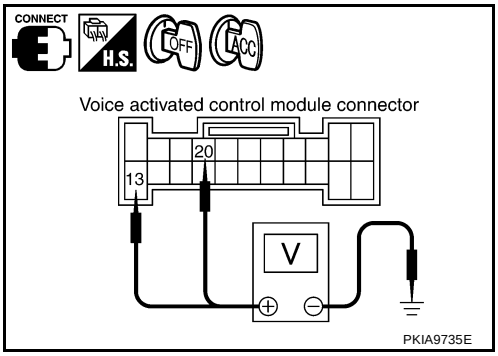
OK or NG

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

2. CHECK POWER SUPPLY CIRCUIT

Check voltage between voice activated control module harness connector B69 terminals 13 (SB), 20 (L/OR) and ground.

Terminals			Ignition switch position	
(+)		(–)	OFF	ACC
Connector	Terminal (Wire color)			
B69	13 (SB)	Ground	Battery voltage	Battery voltage
	20 (L/OR)		0 V	Battery voltage



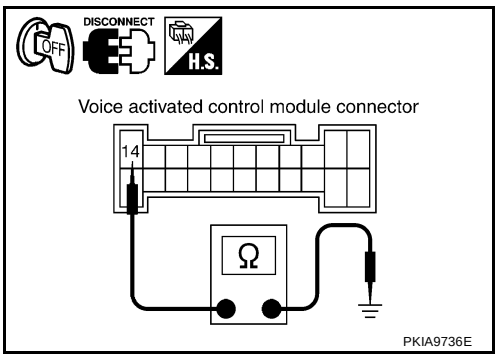
OK or NG

OK >> GO TO 3.
NG >> Check harness between voice activated control module and fuse.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect voice activated control module connector.
3. Check continuity between voice activated control module harness connector B69 terminal 14 (B) and ground.

14 (B) – Ground : Continuity should exist.



OK or NG

OK >> INSPECTION END
NG >> Check ground harness.

Voice Command Not Identified (With Voice Activated Control System in Operation)

EKS001B0

1. CHECK MICROPHONE OPERATION

1. Select “Voice Mic. Test” of “CONFIRMATION/ADJUSTMENT” mode. Refer to DI-187, "CONFIRMATION/ADJUSTMENT MODE" .
2. Speak to microphone, and check if the sound is heard from (right) instrument speaker.

OK or NG

OK >> Replace voice activated control module.
NG >> GO TO 2.

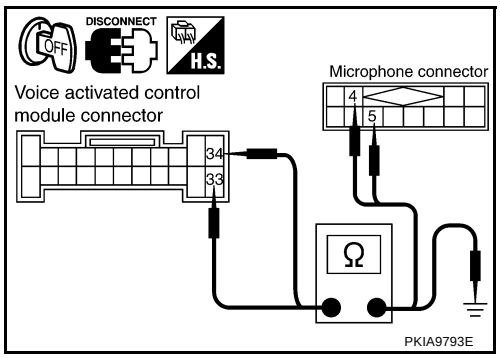
2. CHECK MICROPHONE CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect voice activated control module connector and microphone connector.
3. Check continuity between voice activated control module harness connector B69 terminal 33 (L) and microphone connector R10 terminal 5 (L).

33 (L) – 5 (L) : Continuity should exist.

4. Check continuity between voice activated control module harness connector B69 terminal 34 (R/W) and microphone harness connector R10 terminal 4 (R).

34 (R/W) – 4 (R) : Continuity should exist.



5. Check continuity between voice activated control module harness connector B69 terminals 33 (L), 34 (R/W) and ground.

33 (L) – Ground
34 (R/W) – Ground : Continuity should not exist.

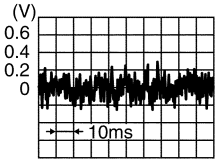
OK or NG

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

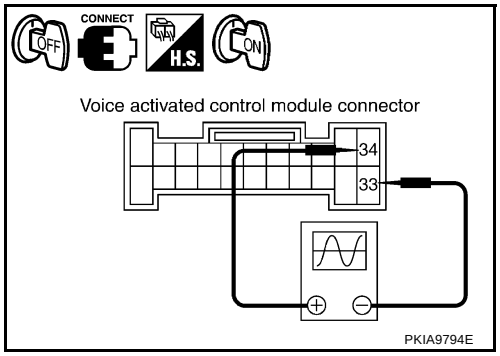
3. CHECK MICROPHONE SIGNAL

1. Connect voice activated control module connector and microphone connector.
2. Turn ignition switch ON.
3. Speak to microphone and check voltage signal between voice activated control module connector B69 terminals 34 (R/W) and 33 (L).

34 (R/W) – 33 (L):



PKIA0356E



OK or NG

OK >> Replace voice activated control module.
NG >> Replace microphone.

No Guide Sound or Beeps

EKS001AX

1. CHECK GUIDE SOUND SETTING

Check volume setting of voice activated control system if set as 0 (zero).

OK or NG

OK >> GO TO 2.
NG >> Adjust volume.

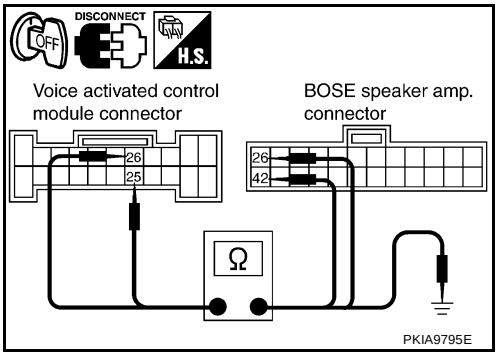
2. CHECK BOSE SPEAKER AMP. CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect voice activated control module connector and BOSE speaker amp. connector.
3. Check continuity between voice activated control module harness connector B69 terminal 25 (L) and BOSE speaker amp. harness connector B234 terminal 42 (OR/L).

25 (L) – 42 (OR/L) : Continuity should exist.

4. Check continuity between voice activated control module harness connector B69 terminal 26 (R) and BOSE speaker amp. harness connector B234 terminal 26 (W/L).

26 (R) – 26 (W/L) : Continuity should exist.



5. Check continuity between voice activated control module harness connector B69 terminals 25 (L), 26 (R) and ground.

25 (L) – Ground
26 (R) – Ground : Continuity should not exist.

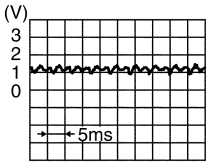
OK or NG

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

3. CHECK VOICE SIGNAL

1. Connect voice activated control module connector and BOSE speaker amp. connector.
2. Turn ignition switch ON.
3. The Speaker Adaptation (SA) mode ON and voice guide signal sent out, check voltage signal between voice activated control module harness connector B69 terminals 25 (L), 26 (R) and 23.

26 (R) – 23:
25 (L) – 23:



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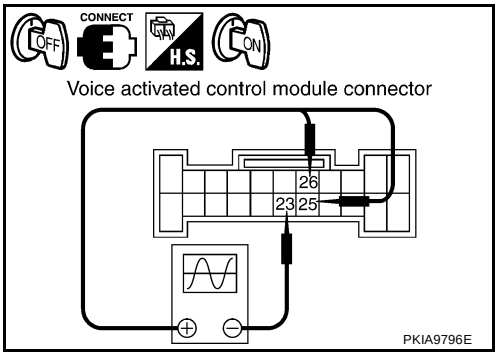


OK or NG

OK >> Replace BOSE speaker amp.
NG >> Replace voice activated control module.

Voice Activated Control System Not Starting PTT Switch Pushed ON

EKS001AY

1. CHECK PTT SWITCH OPERATION

Check PTT switch operation with self-diagnosis of multifunction switch. Refer to DI-109, "Multifunction Switch Self-Diagnosis Function" .

OK or NG

OK >> GO TO 2.
NG >> Replace steering switch.

2. CHECK MULTIFUNCTION SWITCH AND VOICE ACTIVATED CONTROL MODULE

Start self-diagnosis mode. Refer to DI-104, "On Board Self-Diagnosis Function (Without CONSULT-II)" .

Does self-diagnosis mode start?

YES >> GO TO 3.
NO >> Replace multifunction switch.

3. CHECK VOICE ACTIVATED CONTROL MODULE

Check voice activated control module with self-diagnosis mode started in previous step 2.

OK or NG

OK >> ● Replace AV and NAVI control unit (with NAVI).
● Replace AV control unit (without NAVI).
NG >> GO TO 4.

4. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit of voice activated control module. Refer to DI-188, "Power Supply and Ground Circuit Inspection" .

OK or NG

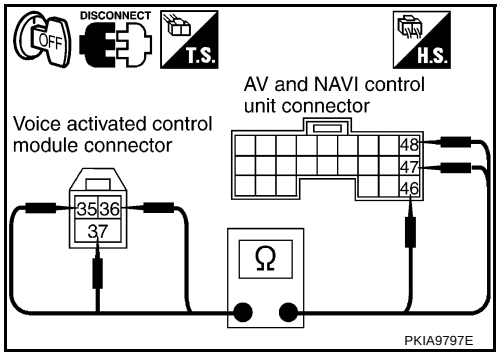
OK >> GO TO 5.
NG >> Repair harness or connector.

5. CHECK AV COMMUNICATION LINE

1. Turn ignition switch OFF.
2. Disconnect voice activated control module connector and AV and NAVI control unit (with NAVI) connector, or AV control unit (without NAVI) connector.
3. Check the following.

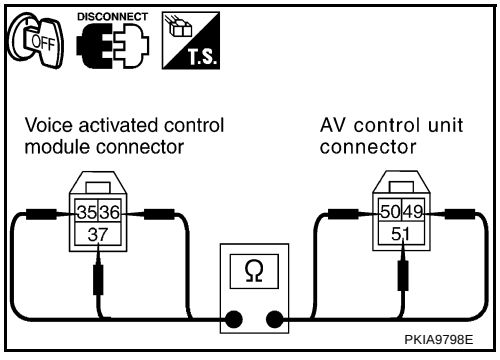
– **With NAVI**

Terminals				Continuity
Connector	Terminal (Wire color)	Connector	Terminal (Wire color)	
B71	35 (PU)	B29	48 (PU)	Yes
	36 (LG)		47 (LG)	Yes
	37		46	Yes
	35 (PU)		46	No
	36 (LG)		46	No



– **Without NAVI**

Terminals				Continuity
Connector	Terminal (Wire color)	Connector	Terminal (Wire color)	
B71	35 (PU)	M50	50 (PU)	Yes
	36 (LG)		49 (LG)	Yes
	37		51	Yes
	35 (PU)		51	No
	36 (LG)		51	No



OK or NG

OK >> Replace voice activated control module.
NG >> Repair harness or connector.

Audio Not Muted with PTT Switch Pushed ON

EKS001AZ

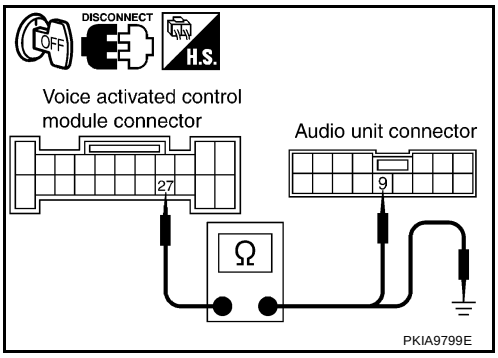
1. CHECK AUDIO UNIT CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect voice activated control module connector and Audio unit connector.
3. Check continuity between voice activated control module harness connector B69 terminal 27 (Y/R) and Audio unit harness connector M87 terminal 9 (OR).

27 (Y/R) – 9 (OR) : Continuity should exist.

4. Check continuity between voice activated control module harness connector B69 terminal 27 (Y/R) and ground.

27 (Y/R) – Ground : Continuity should not exist.



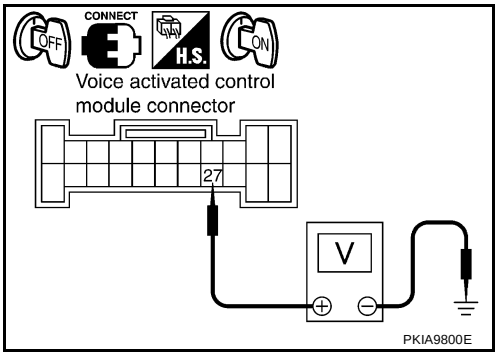
OK or NG

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

2. CHECK AUDIO UNIT MUTE SIGNAL

1. Connect voice activated control module connector and audio unit connector.
2. Turn ignition switch ON.
3. Check voltage between voice activated control module harness connector B69 terminal 27 (Y/R) and ground.

Terminals			PTT switch condition	Voltage (V)
(+)		(–)		
Connector	Terminal (Wire color)			
B69	27 (Y/R)	Ground	ON	Approx. 0
			OFF	Approx. 5



OK or NG

OK >> Replace audio unit.
NG >> Replace voice activated control module.

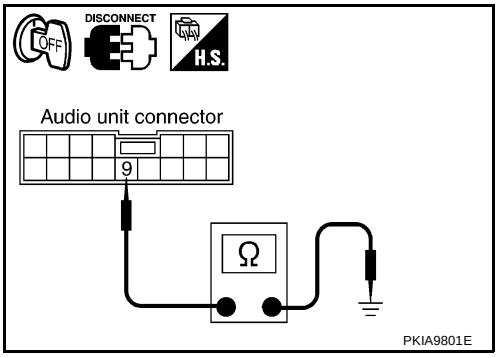
Audio Mute Not Released

EKS001BP

1. AUDIO UNIT MUTE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect voice activated control module connector and audio unit connector.
3. Check continuity between audio unit harness connector M87 terminal 9 (OR) and ground.

9 (OR) – Ground : Continuity should not exist.



OK or NG

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

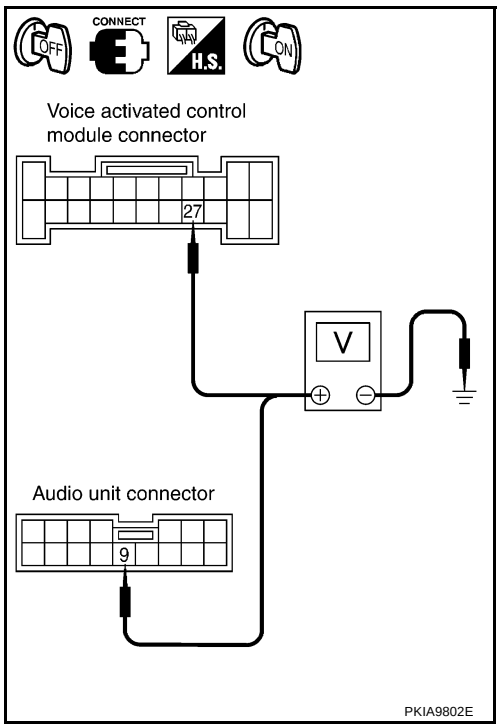
2. CHECK MUTE SIGNAL

1. Connect voice activated control module connector and audio unit connector.
2. Turn ignition switch ON.
3. Check the following.

Unit	Terminals (+) Connector	Terminals (+) Terminal (Wire color)	Terminals (–)	PTT switch condition	Voltage (V)
Voice activated control module	B69	27 (Y/R)	Ground	ON	Approx. 0
				OFF	Approx. 5
Audio unit	M87	9 (OR)		ON	Approx. 0
				OFF	Approx. 5

OK or NG

OK >> Replace audio unit.
NG >> Replace voice activated control module.

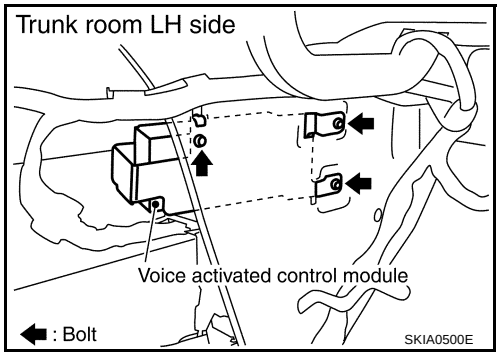


Removal and Installation for Voice Activated Control Module

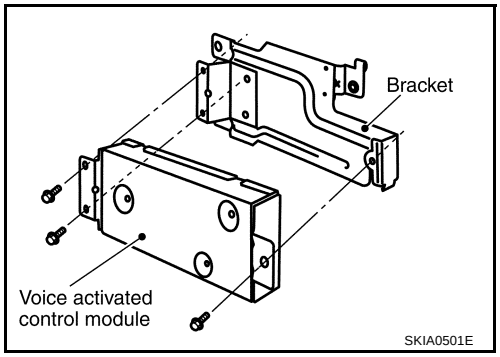
EKS001F3

REMOVAL

1. Remove trunk trim. Refer to EI-60, "TRUNK ROOM TRIM & TRUNK LID FINISHER" .
2. Remove the bolts (3), and disconnect connectors.
3. Remove voice activated control module.



4. Remove bracket from voice activated control module.



INSTALLATION

Installation is the reverse order of removal.

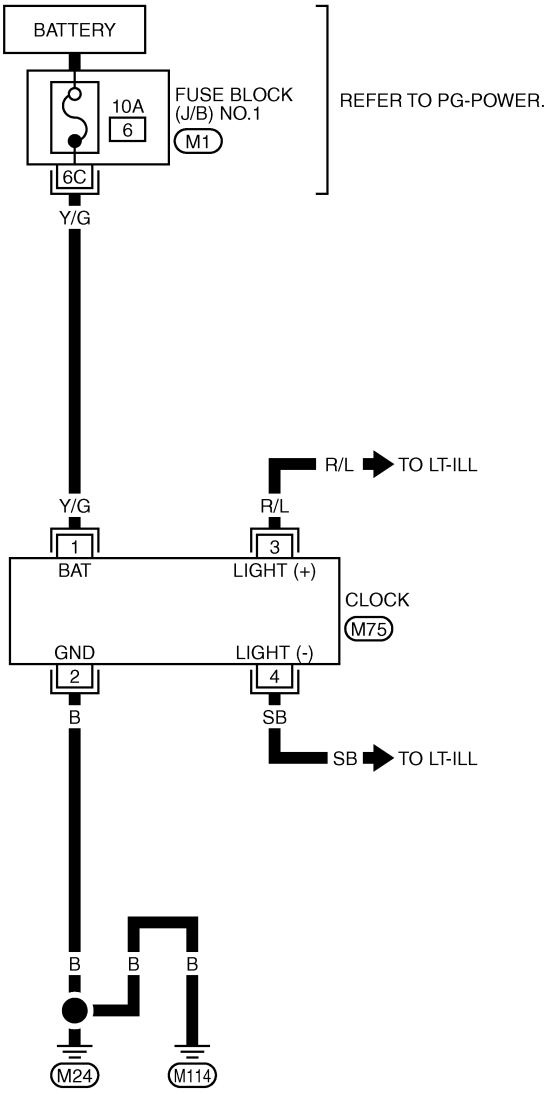
CLOCK

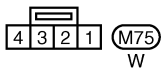
PFP:25820

Wiring Diagram — CLOCK —

EKS001B7

DI-CLOCK-01





REFER TO THE FOLLOWING.
M1 -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

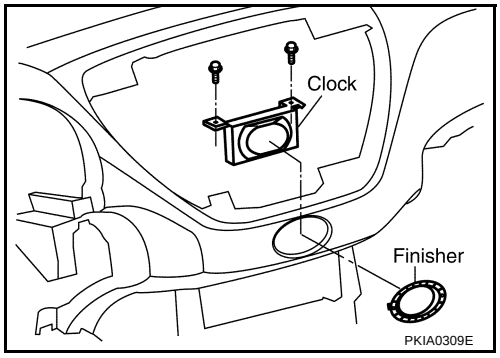
TKWM1580E

Removal and Installation

EKS001B8

REMOVAL

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



INSTALLATION

Installation is the reverse order of removal.