SECTION DI
DRIVER INFORMATION SYSTEM

CONTENTS

PRECAUTION

PFP:00011

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

EKS004TQ

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

EKS003SO

When you read wiring diagrams, refer to the following:

- Refer to GI-12, "How to Read Wiring Diagrams" .
- Refer to PG-3, "POWER SUPPLY ROUTING CIRCUIT" for power distribution circuit.

When you perform trouble diagnosis, refer to the following:

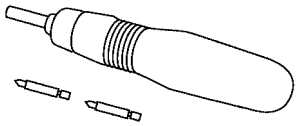
- Refer to GI-10, "HOW TO FOLLOW TEST GROUPS IN TROUBLE DIAGNOSES" .
- Refer to GI-25, "How to Perform Efficient Diagnosis for an Electrical Incident" .

PREPARATION

PFP:00002

Commercial Service Tool

EKS004VN

Tool name	Description
Power tool  PBIC0191E	Loosening bolts and nuts

COMBINATION METERS

PFP:24814

System Description

EKS004TR

UNIFIED METER CONTROL UNIT

- Speedometer, odo/trip meter, tachometer, fuel gauge and water temperature gauge are controlled by the unified meter control unit, which is built into the combination meter. Unified meter control unit receives signals from unified meter and A/C amp.
- Warning lamps and indicator lamps are controlled by signals drawn from the unified meter and A/C amp., BCM (body control module), and components connected directly to the combination meter.
- Digital meter is adopted for odo/trip meter.*
  *The record of the odometer is kept even if the battery cable is disconnected. The record of the trip meter is erased when the battery cable is disconnected.
- Odo/trip meter and A/T indicator segments can be checked in diagnosis mode.
- Meters/gauges can be checked in diagnosis mode.

Illumination control

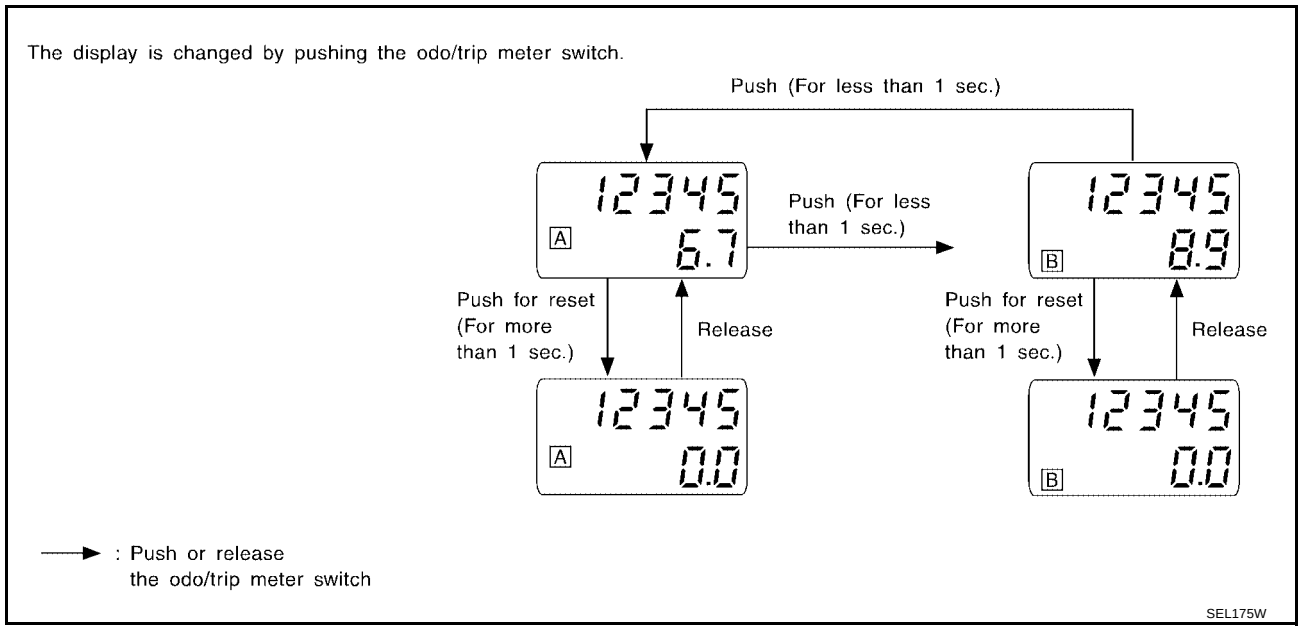
The unified meter control unit outputs the odo/trip meter and A/T indicator lighting when the ignition switch is turned on. When the lighting switch is turned on, the illumination control switch can be used to adjust the brightness of the combination meter illumination and the odo/trip meter illumination. When the ignition switch is in the START position, the combination meter dial lighting and illumination control switch lighting are turned off. For additional combination meter illumination control information, refer to LT-176, "System Description" .

UNIFIED METER AND A/C AMP.

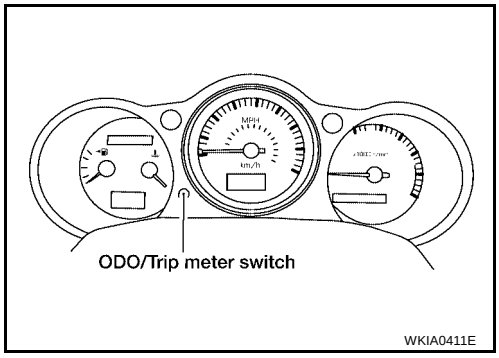
For unified meter and A/C amp. system description information, refer to DI-30, "System Description" .

HOW TO CHANGE THE DISPLAY FOR ODO/TRIP METER

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



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



POWER SUPPLY AND GROUND CIRCUIT

Power is supplied at all times

- through 10A fuse [No.19, located in the fuse block (J/B)]
- to combination meter terminal 24, and
- to unified meter and A/C amp. terminal 21.

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

- through 10A fuse [No.14, located in the fuse block (J/B)]
- to combination meter terminal 23, and
- through 10A fuse [No.12, located in the fuse block (J/B)]
- to unified meter and A/C amp. terminal 22.

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

- through 15A fuse [No.10, located in the fuse block (J/B)], and
- through 15A fuse [No.11, located in the fuse block (J/B)]
- to unified meter and A/C amp. terminal 46.

Ground is supplied

- to combination meter terminals 10, 11 and 12, and
- to unified meter and A/C amp. terminals 29 and 30
- through body grounds M57, M61 and M79.

WATER TEMPERATURE GAUGE

The water temperature gauge indicates the engine coolant temperature.
ECM provides a water temperature signal to unified meter and A/C amp. via CAN communication lines. Unified meter and A/C amp. provides a water temperature signal to combination meter for water temperature gauge via communication line between unified meter and A/C amp. and combination meter.

TACHOMETER

The tachometer indicates engine speed in revolutions per minute (rpm).
ECM provides an engine speed signal to unified meter and A/C amp. via CAN communication lines. Unified meter and A/C amp. provides an engine speed signal to combination meter for tachometer via communication lines between unified meter and A/C amp. and combination meter.

FUEL GAUGE

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

- from unified meter and A/C amp. terminal 36
- through the fuel level sensor unit and fuel pump terminal 5
- to unified meter and A/C amp. terminal 28 for the fuel gauge.

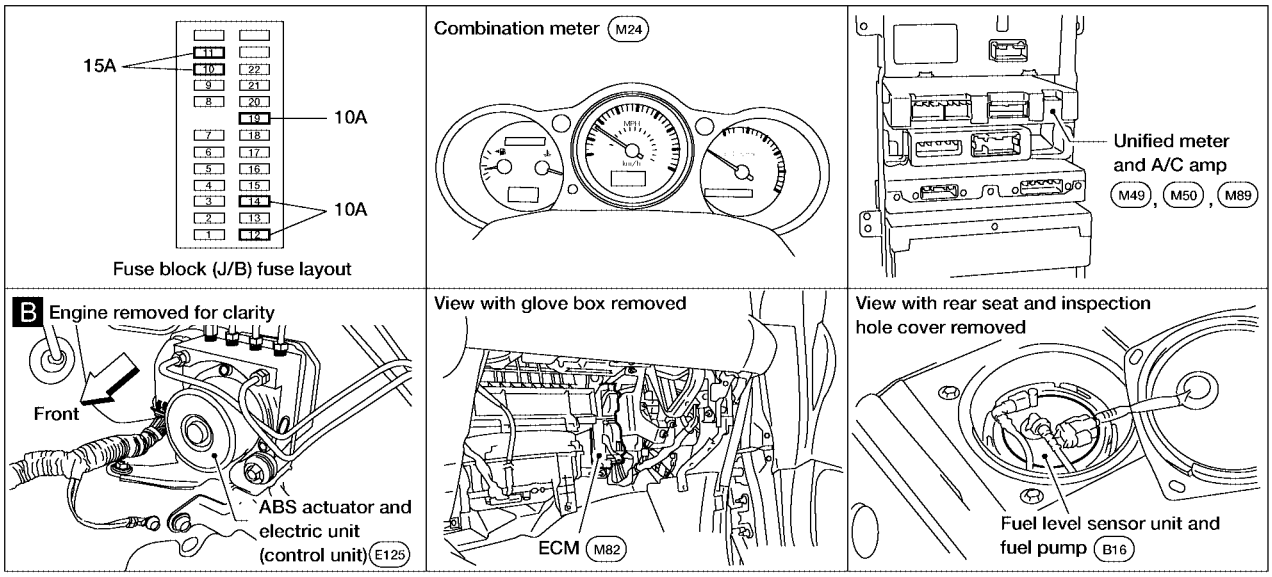
Unified meter and A/C amp. provides a fuel level signal to combination meter for fuel gauge via communication line between unified meter and A/C amp. and combination meter.

SPEEDOMETER

ABS actuator and electric unit (control unit) provides a vehicle speed signal to the unified meter and A/C amp. via CAN communication lines. After unified meter and A/C amp. receives the vehicle speed signal, it changes the signal to 8 pulse signal and provides the 8 pulse signal to the combination meter for the speedometer via communication line.

Component Parts and Harness Connector Location

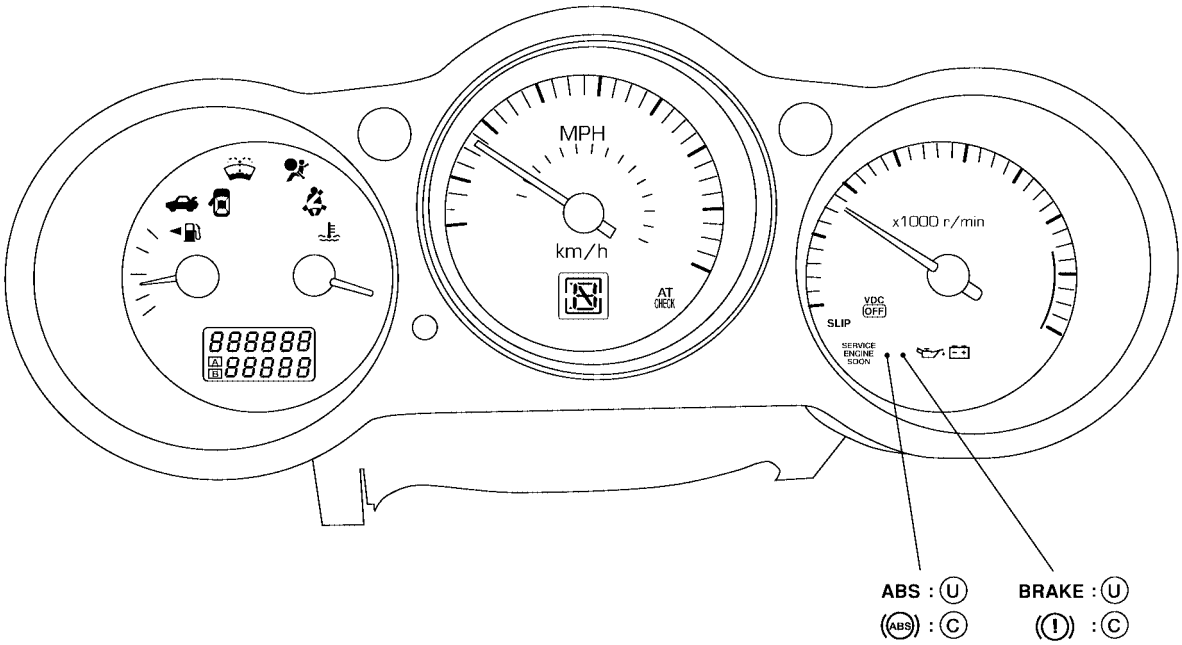
EKS004TS

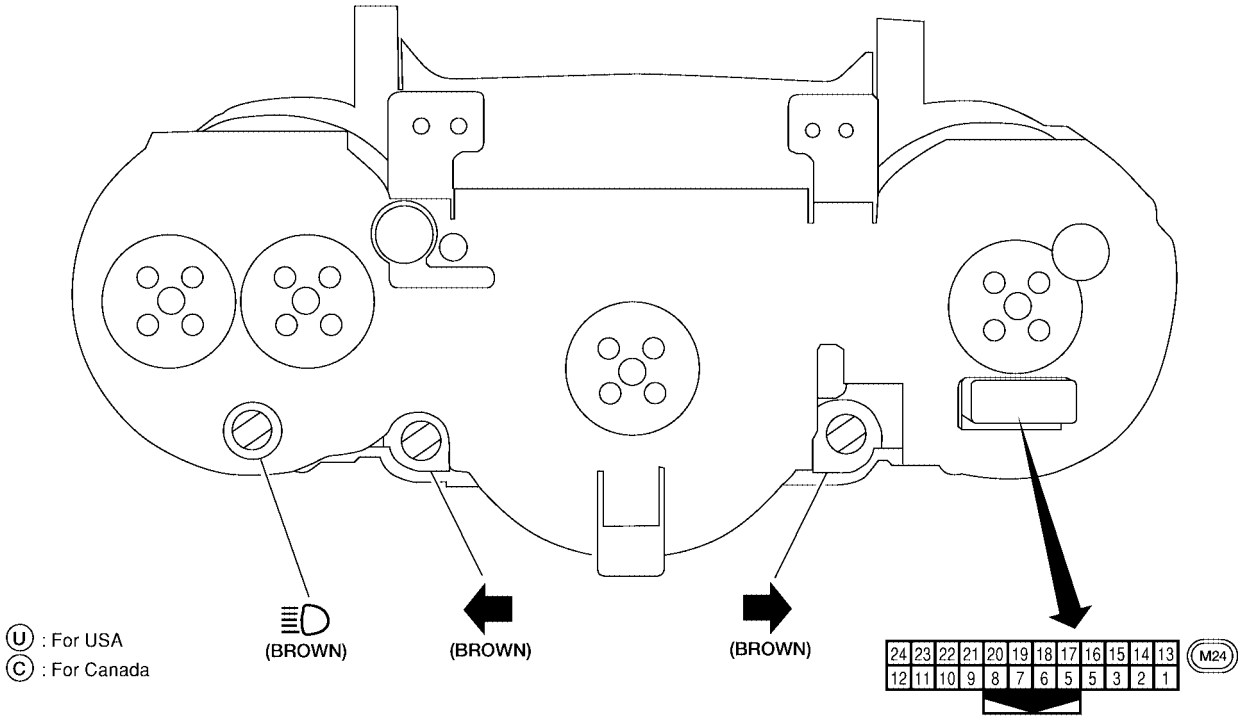


WKIA2970E

Combination Meter
CHECK

EKS004TT





U : For USA
C : For Canada

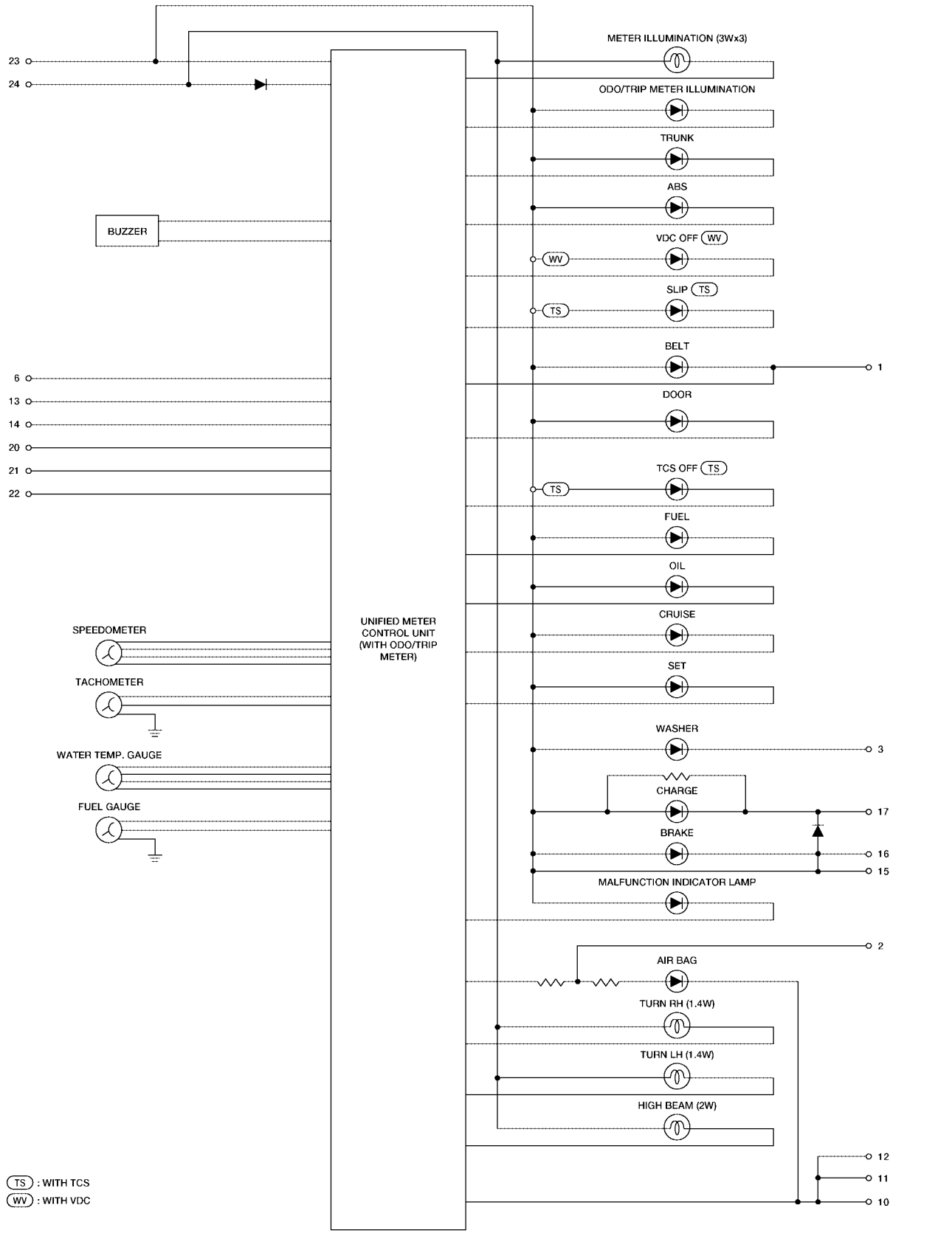
Bulb socket color	Bulb wattage
Brown	1.4W

( ): Bulb socket color

LKIA0242E

Circuit Diagram

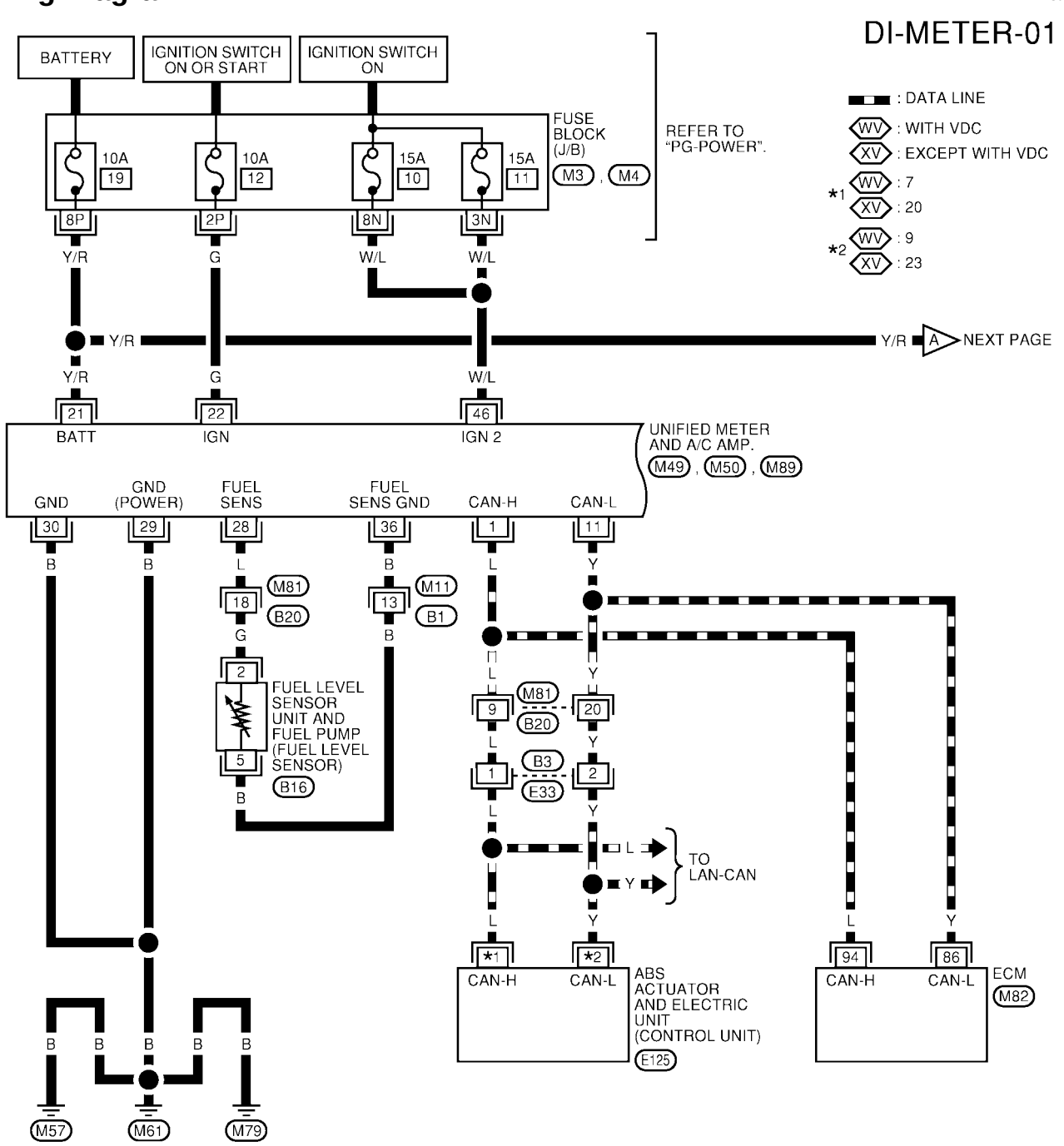
EKS004TU

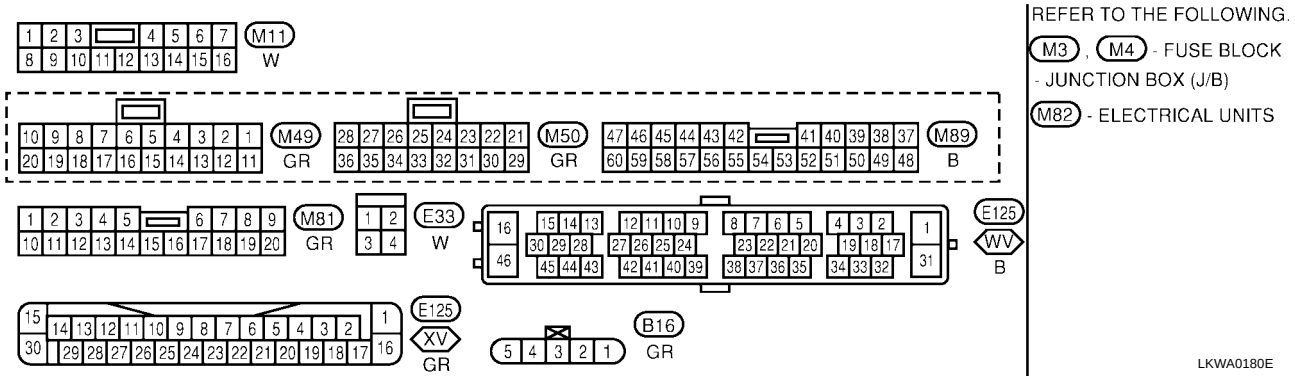


LKWA0179E

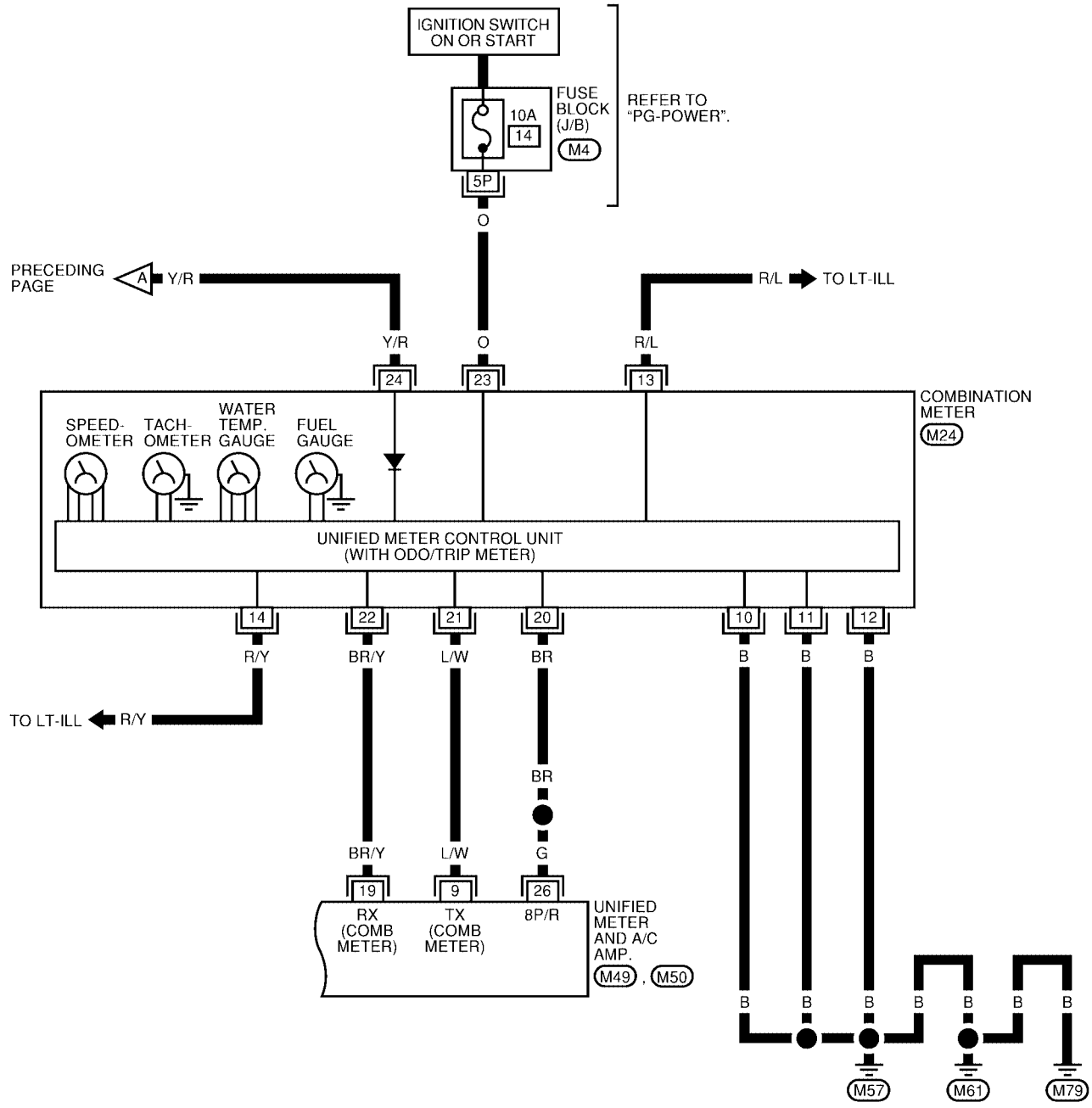
Wiring Diagram — METER —

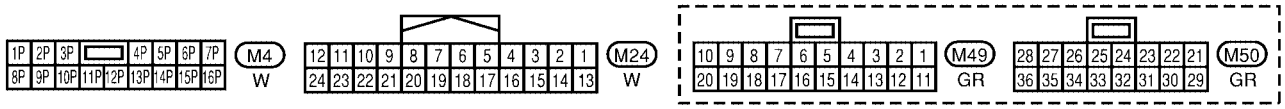
EKS004TV





DI-METER-02

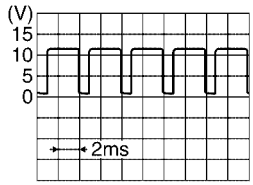
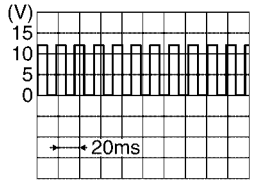
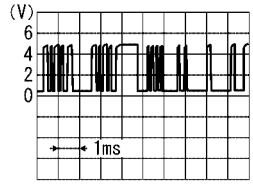
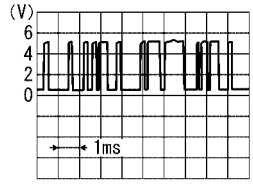




LKWA0181E

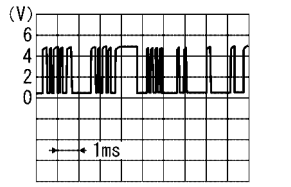
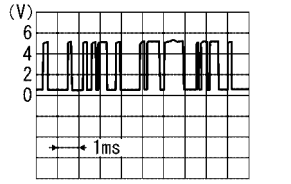
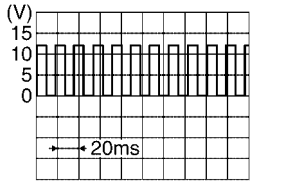
Terminals and Reference Value for Combination Meter

EKS004TW

Terminal No.	Wire color	Item	Condition		Reference value (V) (Approx.)
			Ignition switch	Operation or condition	
10	B	Ground	ON	—	0
11	B	Ground	ON	—	0
12	B	Ground	ON	—	0
13	R/L	Illumination control switch (+)	—	—	Refer to LT-177, "ILLUMINATION OPERATION BY LIGHTING SWITCH" .
14	R/Y	Illumination signal	ON	Lighting switch ON	<e.g.> When brightness level is about midway.  SKIA5872E
				Lighting switch OFF	0
20	BR	Vehicle speed signal (8-pulse)	ON	Speedometer operated [When vehicle speed is approx. 40 km/h (25 MPH)]	 PKIA1935E
21	L/W	RX communication line (From unified meter and A/C amp.)	ON	—	 SKIA3362E
22	BR/Y	TX communication line (To unified meter and A/C amp.)	ON	—	 SKIA3361E
23	O	Ignition switch ON or START	ON	—	Battery voltage
24	Y/R	Battery power supply	OFF	—	Battery voltage

Terminals and Reference Value for Unified Meter and A/C Amp.

EKS004TX

Terminal No.	Wire color	Item	Condition		Reference value (V) (Approx.)
			Ignition switch	Operation or condition	
1	L	CAN-H	—	—	—
9	L/W	TX communication line (To combination meter)	ON	—	 SKIA3362E
11	Y	CAN-L	—	—	—
19	BR/Y	RX communication line (From combination meter)	ON	—	 SKIA3361E
21	Y/R	Battery power supply	OFF	—	Battery voltage
22	G	Ignition switch ON or START	ON	—	Battery voltage
26	G	Vehicle speed signal (8-pulse)	ON	Speedometer operated [When vehicle speed is approx. 40 km/h (25 MPH)]	 PKIA1935E
28	L	Fuel level sensor signal	—	—	Refer to DI-29, "FUEL LEVEL SENSOR UNIT CHECK" .
29	B	Ground (For power)	ON	—	0
30	B	Ground	ON	—	0
36	B	Fuel level sensor signal ground	—	—	—
46	W/L	Ignition switch ON	ON	—	Battery voltage

Meter/Gauge Operation and Odo/Trip Meter

EKS004TY

SELF-DIAGNOSIS FUNCTION

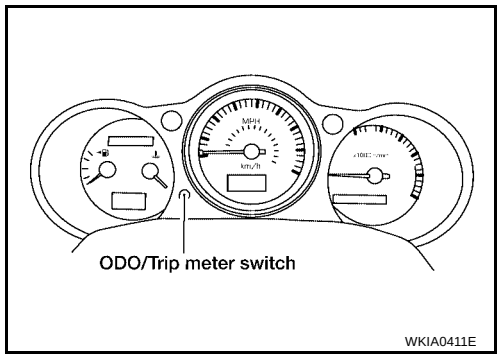
- Odo/trip meter segment and A/T indicator segment operation can be checked in self-diagnosis mode.
- Meters/gauges can be checked in self-diagnosis mode.

HOW TO ALTERNATE DIAGNOSIS MODE

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 will indicate 0000.0 miles, but the actual trip mileage will be retained. (Trip B operates the same way.)
2. Turn ignition switch OFF.
3. While pushing the odo/trip meter switch, turn ignition switch ON again.
4. Make sure the trip meter displays “0000.0”.
5. Push the odo/trip meter switch at least 3 times within 5 seconds.
6. All the segments on the odo/trip meter and A/T indicator illuminate, and simultaneously the low-fuel warning lamp indicator illuminates. At this time, the unified meter control unit is turned to diagnosis mode.

   NOTE:
   If any of the segments are not displayed, replace the combination meter.



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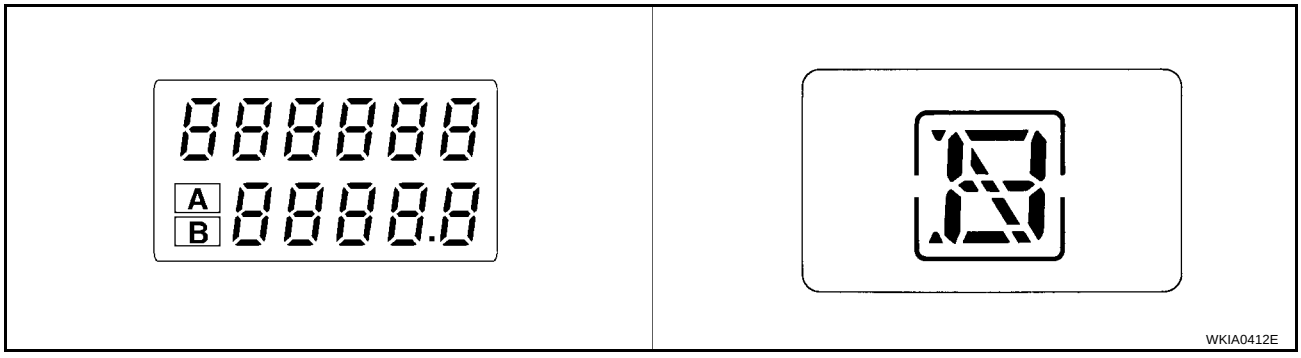


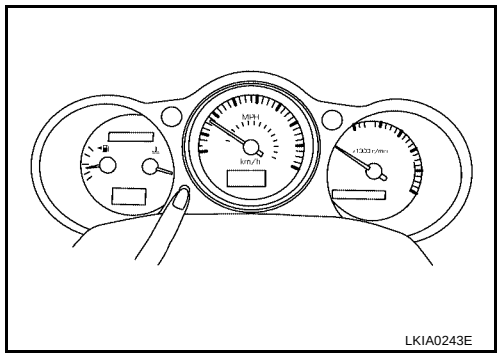
WKIA0412E

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

CONSULT-II Function

EKS004TZ

Refer to DI-33, "CONSULT-II Function" in “UNIFIED METER AND A/C AMP”.


LKIA0243E

How to Proceed With Trouble Diagnosis

EKS004U0

1. Confirm the symptom or customer complaint.
2. Perform diagnosis according to diagnosis flow. Refer to DI-16, "Diagnosis Flow" .
3. According to the symptom chart, repair or replace the cause of the symptom.
4. Does the meter operate normally? If so, go to 5. If not, go to 2.
5. INSPECTION END

Diagnosis Flow

EKS004U1

1. CHECK SELF-DIAGNOSTIC RESULTS OF UNIFIED METER AND A/C AMP.

1. Start engine.
2. Select “METER A/C AMP” on CONSULT-II, and perform self-diagnosis of unified meter and A/C amp. Refer to DI-33, "CONSULT-II Function" .
3. After erasing the self-diagnosis result, perform self-diagnosis again.

Self-diagnostic results content

No malfunction detected>> GO TO 2.
Malfunction detected>> Go to DI-19, "Symptom Chart 2" .

2. CHECK WARNING LAMP ILLUMINATION

1. Turn ignition switch ON.
2. Make sure warning lamps (such as malfunction indicator lamp and oil pressure warning lamp) illuminate.

Do warning lamps illuminate?

YES >> GO TO 3.
NO >> Check ignition power supply system of combination meter. Refer to DI-17, "Power Supply and Ground Circuit Inspection" .

3. CHECK SELF-DIAGNOSIS OPERATION OF COMBINATION METER

Perform combination meter self-diagnosis. Refer to DI-15, "SELF-DIAGNOSIS FUNCTION" .

Does self-diagnosis function operate?

YES >> GO TO 4.
NO >> Check the following.

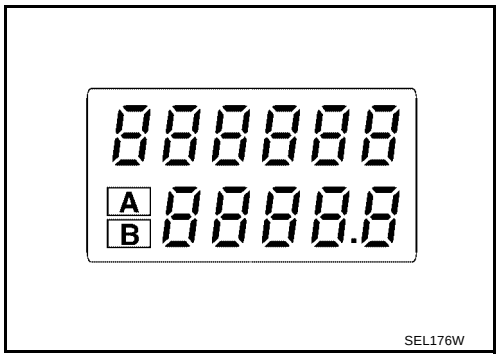
- Combination meter power supply and ground circuit. Refer to DI-17, "Power Supply and Ground Circuit Inspection"

4. CHECK ODO/TRIP METER OPERATION

Check segment display status of odo/trip meter.

Is the display normal?

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



5. CHECK LOW-FUEL WARNING LAMP ILLUMINATION CONFIRMATION

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

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

OK or NG

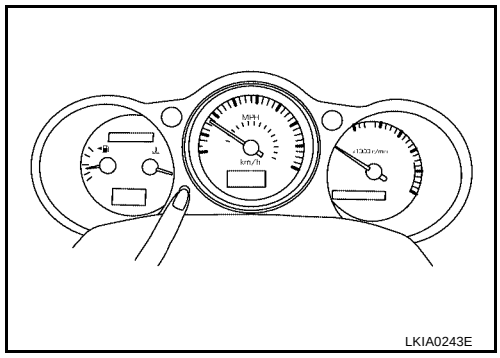
OK >> GO TO 6.
NG >> Replace the combination meter.

6. CHECK COMBINATION METER CIRCUIT

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

OK or NG

OK >> Go to DI-19, "Symptom Chart 1" .
NG >> Replace the combination meter.



LKIA0243E

Power Supply and Ground Circuit Inspection

EKS004U2

1. CHECK FUSE

Check for blown combination meter and unified meter and A/C amp. fuses.

Unit	Power source	Fuse No.
Combination meter	Battery	19
Unified meter and A/C amp.		
Combination meter	Ignition switch ON or START	14
Unified meter and A/C amp.	Ignition switch ON or START	12
Unified meter and A/C amp.	Ignition switch ON	10, 11

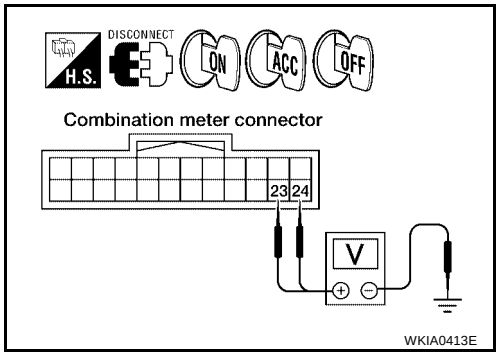
Refer to DI-11, "Wiring Diagram — METER —" .

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-3, "POWER SUPPLY ROUTING CIRCUIT" .

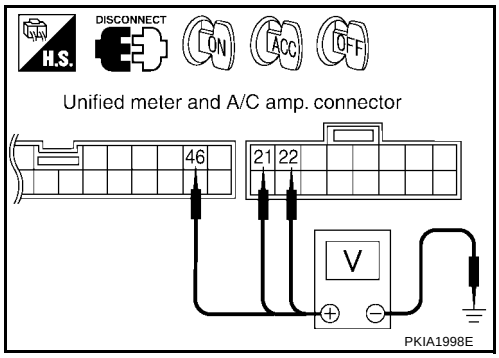
2. CHECK POWER SUPPLY CIRCUIT

1. Disconnect combination meter connector and unified meter and A/C amp. connector.
2. Check voltage between combination meter harness connector terminals and ground.



Terminals			Ignition switch position		
(+)		(–)	OFF	ACC	ON
Connector	Terminal (Wire color)				
M24	24 (Y/R)	Ground	Battery voltage	Battery voltage	Battery voltage
	23 (O)		0V	0V	Battery voltage

3. Check voltage between unified meter and A/C amp. harness connector terminals and ground.



Terminals			Ignition switch position		
(+)		(–)	OFF	ACC	ON
Connector	Terminal (Wire color)				
M50	21 (Y/R)	Ground	Battery voltage	Battery voltage	Battery voltage
	22 (G)		0V	0V	Battery voltage
M89	46 (W/L)		0V	0V	Battery voltage

OK or NG

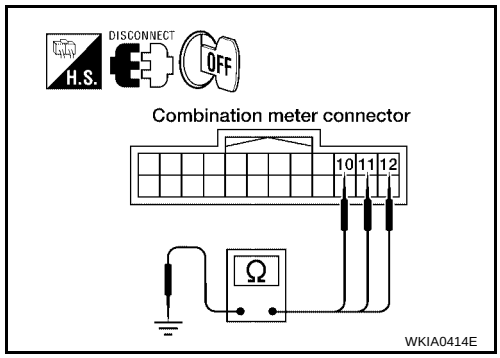
OK >> GO TO 3.
NG >> Check the following.

- Harness for open or short between combination meter and fuse
- Harness for open or short between unified meter and A/C amp. and fuse

3. CHECK GROUND CIRCUIT

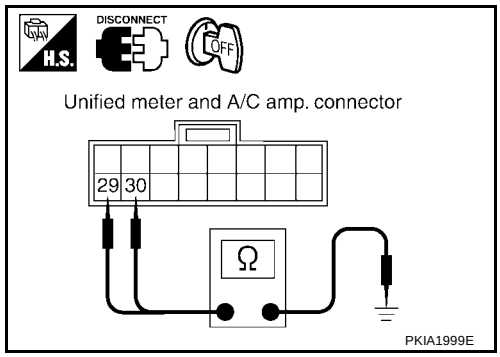
1. Check continuity between combination meter harness connector terminals and ground.

Terminals			Continuity
(+)		(–)	
Connector	Terminal (Wire color)		
M24	10 (B)	Ground	Yes
	11 (B)		
	12 (B)		



2. Check continuity between unified meter and A/C amp. harness connector terminals and ground.

Terminals			Continuity
(+)		(–)	
Connector	Terminal (Wire color)		
M50	29 (B)	Ground	Yes
	30 (B)		



OK or NG

OK >> INSPECTION END
NG >> Repair harness or connector.

Symptom Chart 1

EKS004U3

Trouble phenomenon	Possible cause
Improper speedometer and odo/trip meter Indication.	Refer to DI-20, "Vehicle Speed Signal Inspection" .
Improper tachometer indication.	Refer to DI-22, "Engine Speed Signal Inspection" .
Improper water temperature gauge indication.	Refer to DI-23, "Water Temperature Signal Inspection" .
Improper fuel gauge indication.	Refer to DI-24, "Fuel Level Sensor Signal Inspection 1" .
Improper low-fuel warning lamp indication.	Refer to DI-25, "Fuel Level Sensor Signal Inspection 2" .
More than one gauge does not give proper indication.	Replace the combination meter.
Improper A/T position indication.	Refer to DI-50, "A/T INDICATOR" .
Illumination control does not operate properly.	Refer to LT-176, "ILLUMINATION" .

Symptom Chart 2

EKS004U4

Displayed item [Code]	Inspection contents	Possible cause
CAN COMM CIRC [U1000]	Inspect the CAN communication.	Refer to LAN-8, "CAN COMMUNICATION" . **CAUTION:** **Even when there is no malfunction on speed signal system, malfunction may be misinterpreted when battery has low voltage (when maintaining 7V-8V for about 2 seconds).**

Displayed item [Code]	Inspection contents	Possible cause
METER COMM CIRC [B2202]	Inspect the communication line between combination meter and unified meter and A/C amp.	Refer to DI-25, "Communication Line Inspection" .
VEHICLE SPEED CIRC [B2205]	Inspect the vehicle speed input signal.	Perform the ABS actuator and electric unit (control unit) self-diagnosis. ● With traction control but without VDC system, refer to BRC-66, "SELF-DIAGNOSIS" . ● Without traction control system, refer to BRC-25, "SELF-DIAGNOSIS" . ● With VDC system, refer to BRC-112, "SELF-DIAGNOSIS" . **CAUTION:** **Even when there is no malfunction on speed signal system, malfunction may be misinterpreted when battery has low voltage (when maintaining 7V-8V for about 2 seconds).**

Vehicle Speed Signal Inspection

EKS004U5

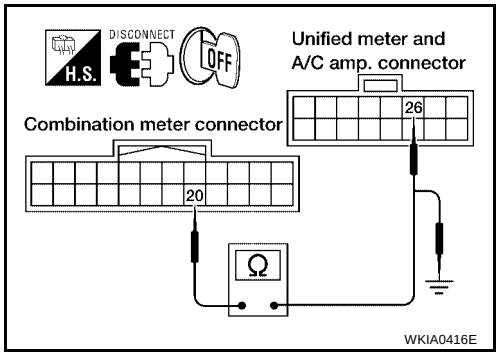
1. CHECK CONTINUITY BETWEEN COMBINATION METER AND UNIFIED METER AND A/C AMP.

1. Disconnect combination meter connector and unified meter and A/C amp. connector.
2. Check continuity between combination meter harness connector M24 terminal 20 (BR) and unified meter and A/C amp. harness connector M50 terminal 26 (G).

   Continuity should exist.

3. Check continuity between combination meter harness connector M24 terminal 20 (BR) and ground.

   Continuity should not exist.



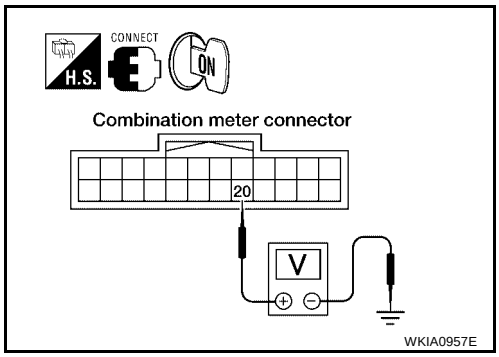
OK or NG

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 combination meter harness connector M24 terminal 20 (BR) and ground.

   Battery voltage should exist.



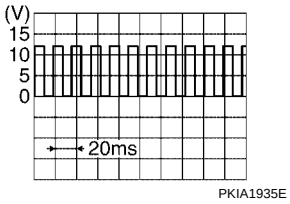
OK or NG

OK >> GO TO 3.
NG >> Replace combination meter. Refer to DI-29, "Removal and Installation of Combination Meter" .

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

1. Turn ignition switch OFF.
2. Connect unified meter and A/C amp. connector.
3. Check voltage signal between combination meter harness connector M24 terminal 20 (BR) and ground with simple oscilloscope of CONSULT-II.

20 (BR) - Ground:



PKIA1935E

OK or NG

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

4. CHECK ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) SELF-DIAGNOSIS

Perform the ABS actuator and electric unit (control unit) self-diagnosis.

- With traction control but without VDC system, refer to BRC-66, "SELF-DIAGNOSIS" .
- Without traction control system, refer to BRC-25, "SELF-DIAGNOSIS" .
- With VDC system, refer to BRC-112, "SELF-DIAGNOSIS" .

OK or NG

OK >> Replace the unified meter and A/C amp. Refer to DI-36, "Removal and Installation of Unified Meter and A/C Amp." .
NG >> Check the applicable parts.

Engine Speed Signal Inspection

EKS004U7

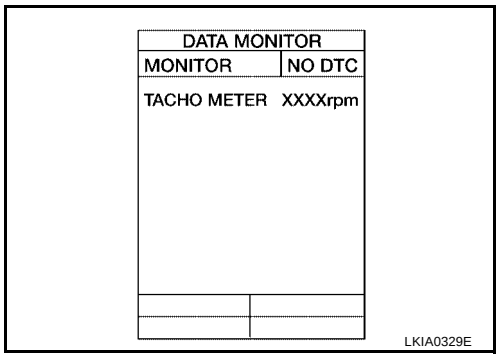
1. CHECK UNIFIED METER AND A/C AMP. OUTPUT SIGNAL

1. Start engine and select “METER A/C AMP” on CONSULT-II.
2. Using “TACHO METER” on the data monitor, compare the value of data monitor with tachometer pointer of combination meter.

OK or NG

OK >> GO TO 2.

NG >> Replace the combination meter. Refer to DI-29, "Removal and Installation of Combination Meter" .



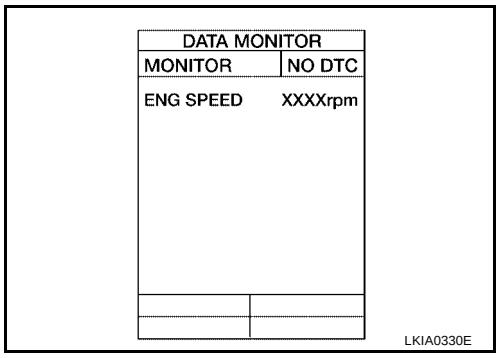
2. CHECK UNIFIED METER AND A/C AMP. INPUT SIGNAL

1. Select “ENGINE” on CONSULT-II.
2. Using “ENG SPEED” on the data monitor, print out the CONSULT-II screen when the engine is idling.
3. Select “METER A/C AMP” on CONSULT-II.
4. Using “TACHO METER” on the data monitor, compare the value of data monitor of the idling speed with that of the “ENG SPEED”.

OK or NG

OK >> Perform ECM self-diagnosis. Refer to EC-113, "CONSULT-II Function (ECM)" .

NG >> Replace the unified meter and A/C amp. Refer to DI-36, "Removal and Installation of Unified Meter and A/C Amp." .



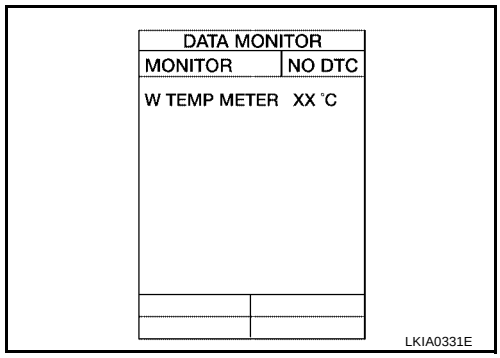
Water Temperature Signal Inspection

EKS004U8

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

1. Start engine and select “METER A/C AMP” on CONSULT-II.
2. Using “W TEMP METER” on the data monitor, compare the value of data monitor with water temperature gauge pointer of combination meter.

Water temperature gauge pointer	Reference value of data monitor °C (°F) (Approx.)
Hot	130 (266)
Middle	70-105 (158-221)
Cold	50 (122)



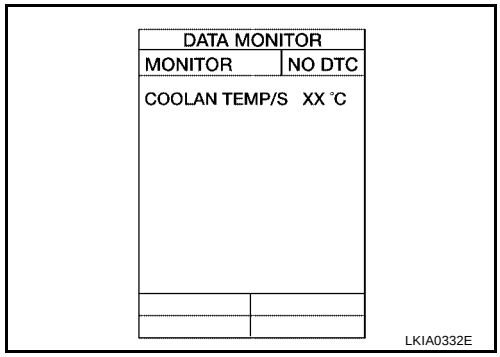
OK or NG

OK >> GO TO 2.

NG >> Replace the combination meter. Refer to IP-15, "Combination Meter" .

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

1. Select “ENGINE” on CONSULT-II.
2. Using “COOLAN TEMP/S” on the data monitor, print out the CONSULT-II screen.
3. Select “METER A/C AMP” on CONSULT-II.
4. Using “W TEMP METER” on the data monitor, compare the value of data monitor with that of the “COOLAN TEMP/S”.



OK or NG

OK >> Perform ECM self-diagnosis. Refer to EC-113, "CONSULT-II Function (ECM)" .

NG >> Replace the unified meter and A/C amp. Refer to DI-36, "Removal and Installation of Unified Meter and A/C Amp." .

Fuel Level Sensor Signal Inspection 1

EKS004U9

The following symptoms do not indicate a malfunction.

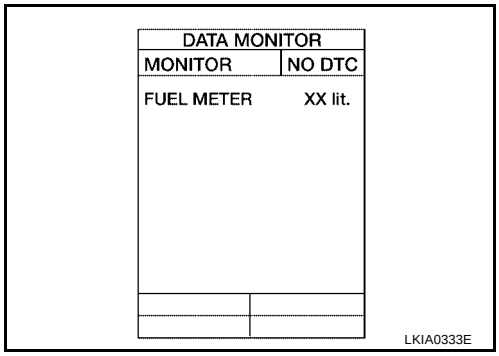
FUEL GAUGE

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

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

1. Select “METER A/C AMP” on CONSULT-II.
2. Using “FUEL METER” on the data monitor, compare the value of data monitor with fuel gauge pointer of combination meter.

Fuel gauge pointer	Reference value of data monitor (lit.) (Approx.)
Full	81
Three quarters	61
Half	41
One quarter	21
Empty	2



OK or NG

OK >> GO TO 2.
NG >> Replace the combination meter.

2. CHECK FUEL LEVEL SENSOR

Check components. Refer to DI-29, "FUEL LEVEL SENSOR UNIT CHECK" .

OK or NG

OK >> GO TO 3.
NG >> Replace the fuel level sensor unit. Refer to FL-5, "Removal and Installation" .

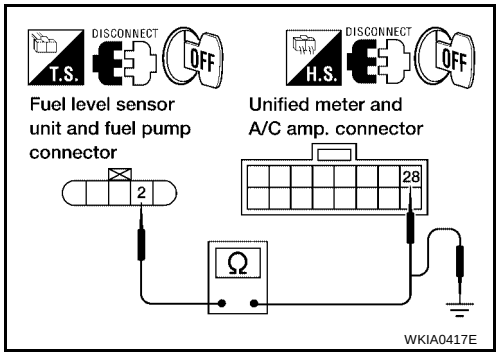
3. CHECK FUEL LEVEL SENSOR CIRCUIT 1

1. Disconnect fuel level sensor unit and fuel pump (main) connector and unified meter and A/C amp. connector.
2. Check continuity between fuel level sensor unit and fuel pump harness connector B16 terminal 2 (G) and unified meter and A/C amp. harness connector M50 terminal 28 (L).

   Continuity should exist.

3. Check continuity between fuel level sensor unit and fuel pump harness connector B16 terminal 2 (G) and ground.

   Continuity should not exist.



OK or NG

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

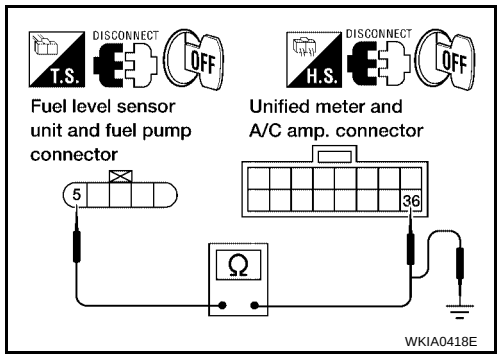
4. CHECK FUEL LEVEL SENSOR CIRCUIT 2

1. Check continuity between fuel level sensor unit and fuel pump harness connector B16 terminal 5 (B) and unified meter and A/C amp. harness connector M50 terminal 36 (B).

Continuity should exist.

2. Check continuity between fuel level sensor unit and fuel pump harness connector B16 terminal 5 (B) and ground.

Continuity should not exist.



OK or NG

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

5. CHECK INSTALLATION CONDITION

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

OK or NG

OK >> Replace the unified meter and A/C amp. Refer to DI-36, "Removal and Installation of Unified Meter and A/C Amp." .
NG >> Install the fuel level sensor unit properly.

Fuel Level Sensor Signal Inspection 2

EKS004UA

The following symptoms do not indicate a malfunction.

LOW-FUEL WARNING LAMP

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

1. CHECK FUEL GAUGE

1. Ensure the fuel level in the tank is high enough so the low-fuel warning lamp should not be on.
2. Verify fuel gauge is operating properly.

OK or NG

OK >> Replace the combination meter. Refer to DI-29, "Removal and Installation of Combination Meter" .
NG >> Go to DI-24, "Fuel Level Sensor Signal Inspection 1" .

Communication Line Inspection

EKS004UB

1. CHECK CONNECTOR

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

OK or NG

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

2. CHECK METER/GAUGES VISUALLY

Does the pointer on the meter/gauges fluctuate when starting the engine?

Is the fluctuation acceptable?

YES >> GO TO 3.
NO >> GO TO 6.

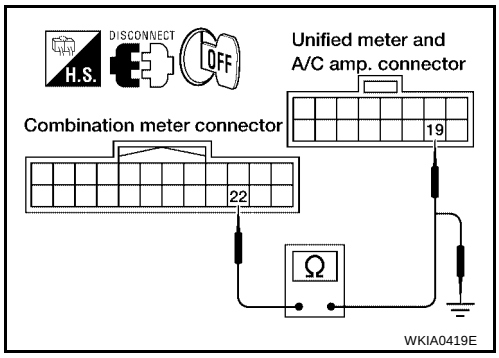
3. CHECK CONTINUITY COMMUNICATION CIRCUIT (TX: COMBINATION METER)

1. Turn ignition switch OFF.
2. Disconnect combination meter and unified meter and A/C amp. connectors.
3. Check continuity between combination meter harness connector M24 terminal 22 (BR/Y) and unified meter and A/C amp. harness connector M49 terminal 19 (BR/Y).

   Continuity should exist.

4. Check continuity between combination meter harness connector M24 terminal 22 (BR/Y) and ground.

   Continuity should not exist.



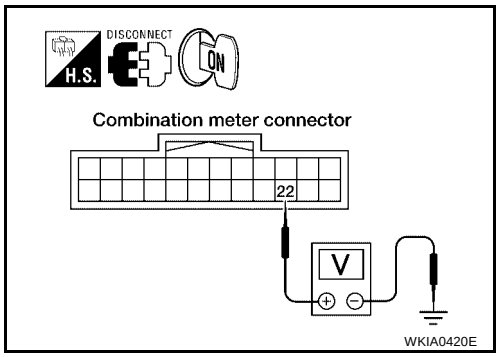
OK or NG

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

4. CHECK VOLTAGE OF UNIFIED METER AND A/C AMP.

1. Connect unified meter and A/C amp. connector.
2. Turn ignition switch ON.
3. Check voltage between combination meter harness connector M24 terminal 22 (BR/Y) and ground.

   Approx. 5V



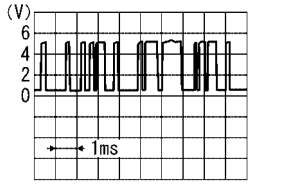
OK or NG

OK >> GO TO 5.
NG >> Replace the unified meter and A/C amp. Refer to DI-36, "Removal and Installation of Unified Meter and A/C Amp." .

5. CHECK VOLTAGE SIGNAL OF COMBINATION METER

1. Turn ignition switch OFF and connect combination meter connector.
2. Turn ignition switch ON.
3. Check voltage signal between combination meter harness connector M24 terminal 22 (BR/Y) and ground with simple oscilloscope of CONSULT-II.

   22 (BR/Y) - Ground:



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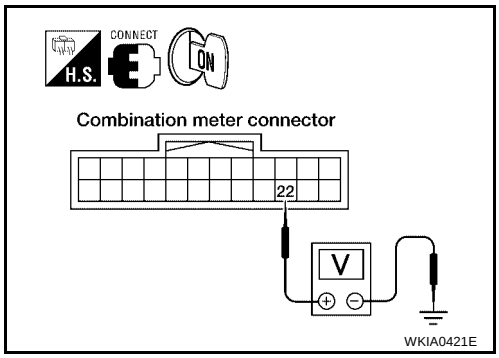


OK or NG

OK >> Replace the unified meter and A/C amp. Refer to DI-36, "Removal and Installation of Unified Meter and A/C Amp." .
NG >> Replace the combination meter. Refer to DI-29, "Removal and Installation of Combination Meter" .

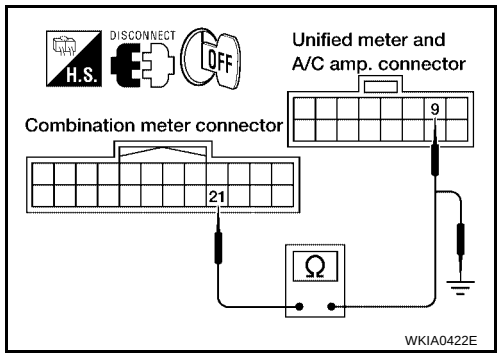
6. CHECK CONTINUITY COMMUNICATION CIRCUIT (RX: COMBINATION METER)

1. Turn ignition switch OFF.
2. Disconnect combination meter and unified meter and A/C amp. connectors.
3. Check continuity between combination meter harness connector M24 terminal 21 (L/W) and unified meter and A/C amp. harness connector M49 terminal 9 (L/W).

   Continuity should exist.

4. Check continuity between combination meter harness connector M24 terminal 21 (L/W) and ground.

   Continuity should not exist.



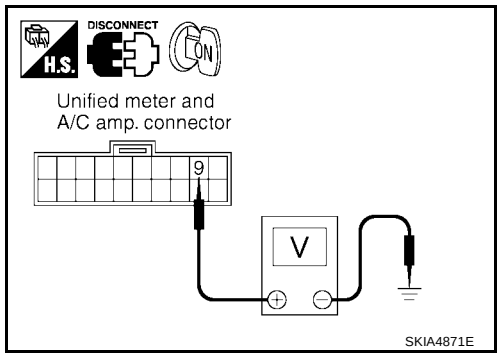
OK or NG

OK >> GO TO 7.
NG >> Repair harness or connector.

7. CHECK VOLTAGE OF COMBINATION METER

1. Connect combination meter connector.
2. Turn ignition switch ON.
3. Check voltage between unified meter and A/C amp. harness connector M49 terminal 9 (L/W) and ground.

   Approx. 5V



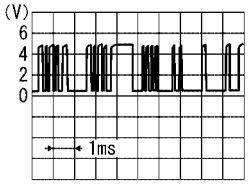
OK or NG

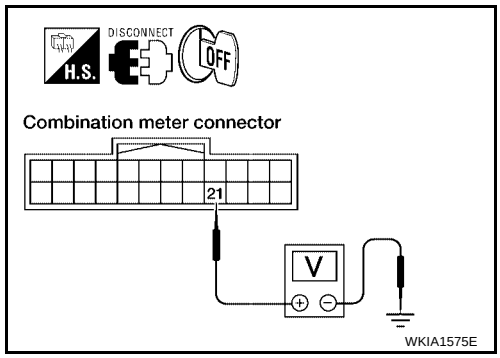
OK >> GO TO 8.
NG >> Replace the combination meter. Refer to DI-29, "Removal and Installation of Combination Meter" .

8. CHECK VOLTAGE SIGNAL OF UNIFIED METER AND A/C AMP.

1. Turn ignition switch OFF and connect unified meter and A/C amp. connector.
2. Turn ignition switch ON.
3. Check voltage signal between combination meter harness connector M24 terminal 21 (L/W) and ground with simple oscilloscope of CONSULT-II.

   21 (L/W) - Ground:





OK or NG

OK >> Replace the combination meter. Refer to IP-15, "Combination Meter" .
NG >> Replace the unified meter and A/C amp. Refer to DI-36, "Removal and Installation of Unified Meter and A/C Amp." .

Fuel Gauge Pointer Fluctuates, Indicates Wrong Value, or Varies

EKS004UE

1. CHECK FUEL GAUGE FLUCTUATION

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

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

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

Fuel Gauge Does Not Move to Full-position

EKS004UF

1. QUESTION 1

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

YES or NO

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

2. QUESTION 2

Was the vehicle fueled with the ignition switch ON?

YES or NO

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

3. QUESTION 3

Is the vehicle parked on an incline?

YES or NO

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

4. QUESTION 4

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

YES or NO

YES >> Check the fuel level sensor unit. Refer to DI-29, "FUEL LEVEL SENSOR UNIT CHECK" .
NO >> Check fuel level sensor unit installation, and determine whether the float arm interferes or binds with any of the internal components in the fuel tank.

Electrical Components Inspection

EKS004UG

FUEL LEVEL SENSOR UNIT CHECK

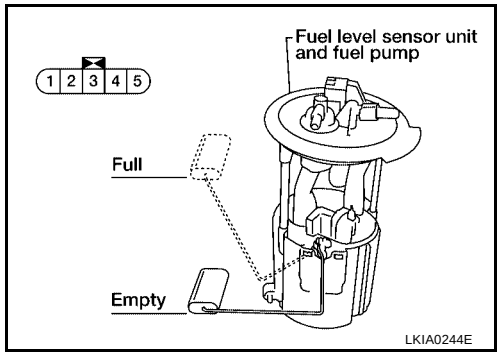
For removal, refer to FL-5, "FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY" .

Check Fuel Level Sensor Unit and Fuel Pump

Check resistance between fuel level sensor unit and fuel pump connector terminals 2 and 5.

Terminals		Float position mm (in)			Resistance value Ω (Approx.)
2	5	*1	Empty	15 (0.59)	81
		*2	Full	193 (7.6)	2

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

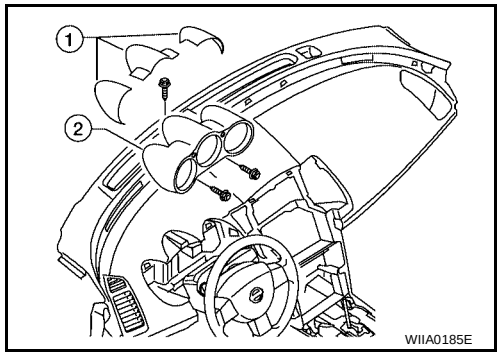


Removal and Installation of Combination Meter

EKS004UH

REMOVAL

1. Remove the combination meter covers.
2. Remove 3 screws using power tool and remove the combination meter assembly.
3. Disconnect electrical connector and remove combination meter.



INSTALLATION

Install in the reverse order of removal.

UNIFIED METER AND A/C AMP

PFP:27760

System Description

EKS004TH

- For the unified meter and A/C amp., the signal line (CAN H, CAN L and fuel level sensor) required for controlling the combination meter are integrated in the A/C auto amp.
- In addition to providing input to the A/C auto amp., signals required for combination meter operation are received from various components - either directly, or via CAN communication. These signals are sent to the combination meter using the TX and RX communication lines between the combination meter and unified meter and A/C amp. For information regarding A/C control, refer to ATC-21, "AIR CONDITIONER CONTROL" in ATC section.
- The signals required for the distance to empty (DTE) display are centralized in the unified meter and A/C amp., converted into data, and sent to the display control unit using CAN communication.
- Other input signals are also sent to the ECM, TCM, display control unit and BCM using CAN communication.
- CONSULT-II functions (self-diagnostic results and data monitor) are used to identify errors in the communication lines connected to the unified meter and A/C amp., and to monitor the status of signals received by the combination meter from the unified meter and A/C amp.

INPUT/OUTPUT SIGNALS

Between Unified Meter and A/C Amp. and Combination Meter

Unit	Input	Output
Unified meter and A/C amp.	● Seat belt buckle switch signal (Driver's side) ● Parking brake signal ● Refuel status signal ● Low-fuel warning lamp condition signal ● Combination meter receiver error signal ● Delivery destination data signal ● Combination meter specifications signal	● Vehicle speed signal (8-pulse) ● Engine speed signal ● Engine coolant temperature signal ● Fuel level sensor signal (resistance value) ● Malfunction indicator signal ● ABS warning lamp signal ● Brake warning lamp signal ● Turn indicator signal ● High beam request signal ● TCS OFF indicator lamp signal ● VDC OFF indicator lamp signal ● SLIP indicator lamp signal ● A/T position indicator signal ● Manual mode gear position signal ● Door switch signal ● Oil pressure switch signal ● Buzzer output signal

FAIL-SAFE

Solution When Communication Error Between the Unified Meter & A/C Amp. and the Combination Meter

Function		Specifications
Speedometer		Reset to zero by suspending communication.
Tachometer		
Fuel gauge		
Water temperature gauge		
Illumination control	Combination meter illumination	When suspending communication, change to nighttime mode.
Odo/trip meter		Integrate in response to 8-pulse input.
A/T indicator		The display turns off by suspending communication.
Warning buzzer		The warning buzzer turns off by suspending communication.
Warning lamp/indicator lamp	ABS warning lamp	The lamp turns on by suspending communication.
	VDC OFF indicator	
	TCS OFF indicator	
	SLIP indicator	
	Brake warning lamp	
	Door warning lamp	The lamp turns off by suspending communication.
	ASCD SET indicator lamp	
	ASCD CRUISE indicator lamp	
	Oil pressure warning lamp	
	Turn signal indicator	
	Malfunction indicator lamp	
	A/T indicator lamp	
	High beam indicator	

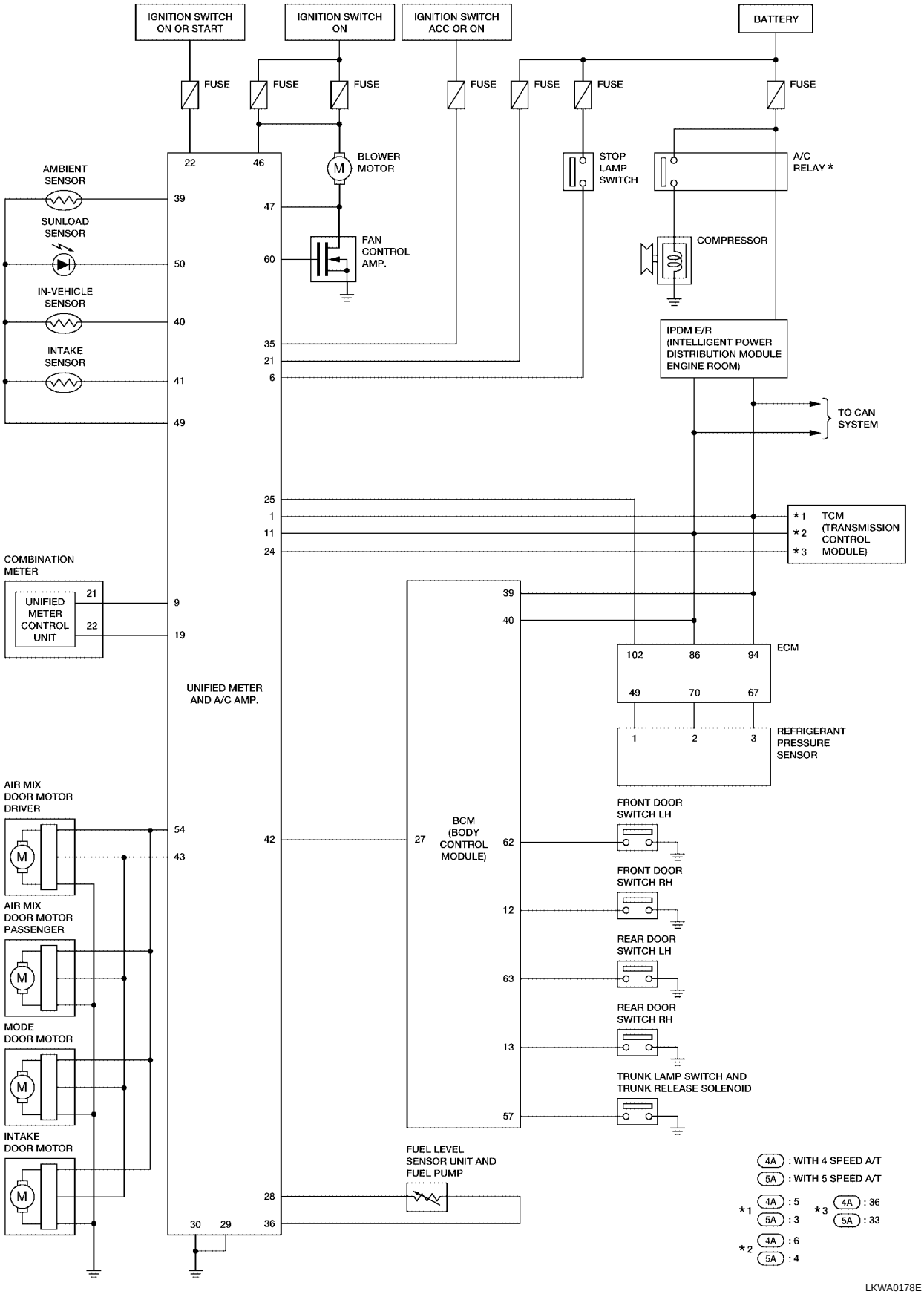
CAN Communication System Description

EKS004TI

Refer to LAN-8, "CAN COMMUNICATION" .

Schematic

EKS004TJ



LKWA0178E

CONSULT-II Function

EKS004TK

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

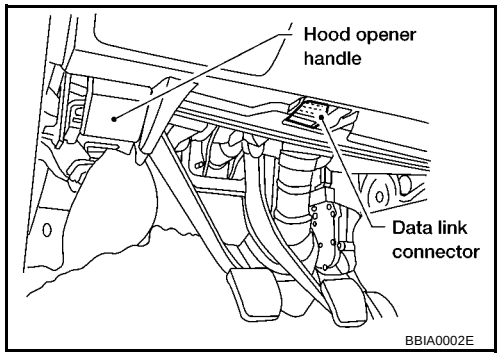
System part	Check item, diagnosis mode	Description
METER A/C AMP	SELF-DIAGNOSTIC RESULTS	Unified meter and A/C amp. monitors conditions and indicates any error that unified meter and A/C amp. identifies.
	DATA MONITOR	Displays unified meter and A/C amp. input data in real time.
	CAN DIAG SUPPORT MNTR	The results of transmit/receive diagnosis of CAN communication can be read.

CONSULT-II BASIC OPERATION

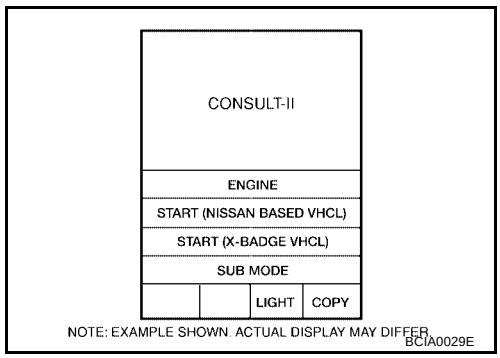
CAUTION:

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

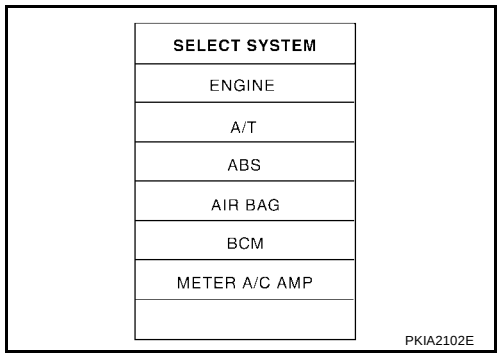
1. With the ignition switch OFF, connect “CONSULT-II” and “CONSULT-II CONVERTER” to the data link connector, then turn ignition switch ON.



2. Touch “START (NISSAN BASED VHCL)”.



3. Touch “METER A/C AMP” on “SELECT SYSTEM” screen. If “METER A/C AMP” is not indicated, go to GI-36, "CONSULT-II Data Link Connector (DLC) Circuit" .
4. Select “SELF-DIAG RESULTS” or “DATA MONITOR”.

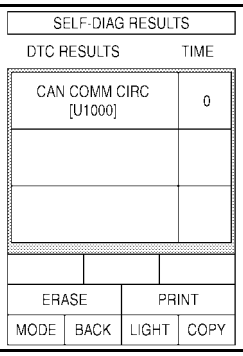


SELF-DIAGNOSTIC RESULTS

Operation Procedure

1. Touch “SELF-DIAG RESULTS” on “SELECT DIAG MODE” screen.
2. Self-diagnosis results are displayed.

Example)



SKIA4956E

Display Item List

CONSULT-II display	Malfunction
CAN COMM CIRC [U1000]	Malfunction is detected in CAN communication lines. **CAUTION:** **Even when there is no malfunction on CAN communication system, malfunction may be misinterpreted when battery has low voltage (when maintaining 7V-8V for about 2 seconds) or 10A fuse [No. 19, located in the Fuse Block (J/B)] is removed.**
METER COMM CIRC [B2202]	Malfunction is detected in communication lines between combination meter and unified meter and A/C amp.
VEHICLE SPEED CIRC [B2205]	Malfunction is detected when an erroneous speed signal is input. **CAUTION:** **Even when there is no malfunction on speed signal system, malfunctions may be misinterpreted when battery has low voltage (when maintaining 7V-8V for about 2 seconds).**

Time indicates the condition of the self-diagnosis results judged by each signal input.

- Normal: If the system is presently operating properly, but had a malfunction in the past, the time will indicate “1-63”.
- Malfunction: Soon after detecting malfunctions by self-diagnoses or current malfunction, “0” is indicated.

After the system returns to normal operating condition, every time the ignition switch is cycled (turned to OFF from ON), a value of one is added to the counter (i.e. “1”→“2”→“3”···“63”). When the ignition switch is cycled 64 times, the result of the self-diagnoses will be erased. If a malfunction is detected again, “0” will be indicated.

DATA MONITOR

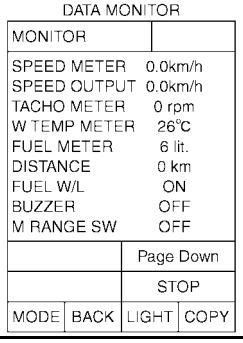
Operation Procedure

1. Touch “DATA MONITOR” on “SELECT DIAG MODE” screen.
2. Touch either “MAIN SIGNALS” or “SELECTION FROM MENU” on the “DATA MONITOR” screen.

MAIN SIGNALS	Monitors main signals.
SELECTION FROM MENU	Selects and monitors individual signal.

3. Touch “START”.
4. When “SELECTION FROM MENU” is selected, touch individual items to be monitored. When “MAIN SIGNALS” is selected, main items will be monitored.
5. Touch “RECORD” while monitoring, then the status of the monitored item can be recorded. To stop recording, touch “STOP”.

Example)



SKIA4957E

Display Item List

Display item [Unit]	MAIN SIGNALS	SELECTION FROM MENU	Contents
SPEED METER [km/h] or [mph]	X	X	This is the angle correction value after the speed signal from the ABS actuator and electric unit (control unit) is converted into the vehicle speed.
SPEED OUTPUT [km/h] or [mph]	X	X	This is the angle correction value before the speed signal from the ABS actuator and electric unit (control unit) is converted into the vehicle speed.
TACHO METER [rpm]	X	X	This is the converted value for the engine speed signal from the ECM.
W TEMP METER [°C] or [°F]	X	X	This is the converted value for the water temp signal from the ECM.
FUEL METER [lit.]	X	X	This is the processed value for the signal (resistance value) from the fuel gauge.
DISTANCE [km]	X	X	This is the calculated value for the speed signal from the ABS actuator and electric unit (control unit), the signal (resistance signal) from the fuel gauge and fuel consumption from ECM.
FUEL W/L [ON/OFF]	X	X	Indicates [ON/OFF] condition of low-fuel warning lamp.
MIL [ON/OFF]		X	Indicates [ON/OFF] condition of malfunction indicator lamp.
SEAT BELT W/L [ON/OFF]		X	Indicates [ON/OFF] condition of seat belt warning lamp.
BUZZER [ON/OFF]	X	X	Indicates [ON/OFF] condition of buzzer.
DOOR W/L [ON/OFF]		X	Indicates [ON/OFF] condition of door warning lamp.
HI-BEAM IND [ON/OFF]		X	Indicates [ON/OFF] condition of high beam indicator.
TURN IND [ON/OFF]		X	Indicates [ON/OFF] condition of turn indicator.
OIL W/L [ON/OFF]		X	Indicates [ON/OFF] condition of oil pressure warning lamp.
TCS IND [ON/OFF]		X	Indicates [ON/OFF] condition of TCS OFF indicator lamp.
VDC IND [ON/OFF]		X	Indicates [ON/OFF] condition of VDC OFF indicator lamp.
ABS W/L [ON/OFF]		X	Indicates [ON/OFF] condition of ABS warning lamp.
SLIP IND [ON/OFF]		X	Indicates [ON/OFF] condition of SLIP indicator lamp.
BRAKE W/L [ON/OFF]		X	Indicates [ON/OFF] condition of brake warning lamp. *1
M RANGE SW [ON/OFF]	X	X	Indicates [ON/OFF] condition of manual mode range switch.
NM RANGE SW [ON/OFF]	X	X	Indicates [ON/OFF] condition of except for manual mode range switch.
AT SFT UP SW [ON/OFF]	X	X	Indicates [ON/OFF] condition of A/T shift-up switch.
AT SFT DWN SW [ON/OFF]	X	X	Indicates [ON/OFF] condition of A/T shift-down switch.
BRAKE SW [ON/OFF]		X	Indicates [ON/OFF] condition of parking brake switch.
AT-M IND [ON/OFF]	X	X	Indicates [ON/OFF] condition of A/T manual mode indicator.
AT-M GEAR [5-1/1]	X	X	Indicates [5-1/1] condition of A/T manual mode gear position.
P RANGE IND [ON/OFF]	X	X	Indicates [ON/OFF] condition of A/T shift P range indicator.
R RANGE IND [ON/OFF]	X	X	Indicates [ON/OFF] condition of A/T shift R range indicator.
N RANGE IND [ON/OFF]	X	X	Indicates [ON/OFF] condition of A/T shift N range indicator.
D RANGE IND [ON/OFF]	X	X	Indicates [ON/OFF] condition of A/T shift D range indicator.
3 RANGE IND [ON/OFF]	X	X	Indicates [ON/OFF] condition of A/T shift 3 range indicator.
2 RANGE IND [ON/OFF]	X	X	Indicates [ON/OFF] condition of A/T shift 2 range indicator.
1 RANGE IND [ON/OFF]	X	X	Indicates [ON/OFF] condition of A/T shift 1range indicator.
A/T IND [ON/OFF]		X	Indicates [ON/OFF] condition of A/T indicator.

Display item [Unit]	MAIN SIGNALS	SELECTION FROM MENU	Contents
CRUISE IND [ON/OFF]		X	Indicates [ON/OFF] condition of CRUISE indicator.
SET IND [ON/OFF]		X	Indicates [ON/OFF] condition of SET indicator.

NOTE:
Any monitored item that does not match the vehicle being diagnosed is deleted from the display automatically.
*1: Monitor keeps indicating “OFF” when brake warning lamp is on because of parking brake operation or low brake fluid level.
*2: CAN status indicates the condition of the CAN communication judged by each signal input.

- Normal: If no problems were found in the past, CAN status indicates “0”. If the system is presently operating properly, but had a malfunction in the past, the CAN status will indicate “39-1”.
- Malfunction: If there is a malfunction, CAN indicates “40”.

After the system returns to its normal operating condition, every time the ignition switch is cycled (turned OFF from ON), a value will be removed from the counter (i.e. “39”→“38”→“37”···“1”). If a malfunction is detected again, CAN status indicates “40”. (Although the system has returned to normal operating condition, “0” is not immediately indicated. To reset, select and press “ERASE” on the “SELF-DIAGNOSIS” screen.)

Removal and Installation of Unified Meter and A/C Amp.

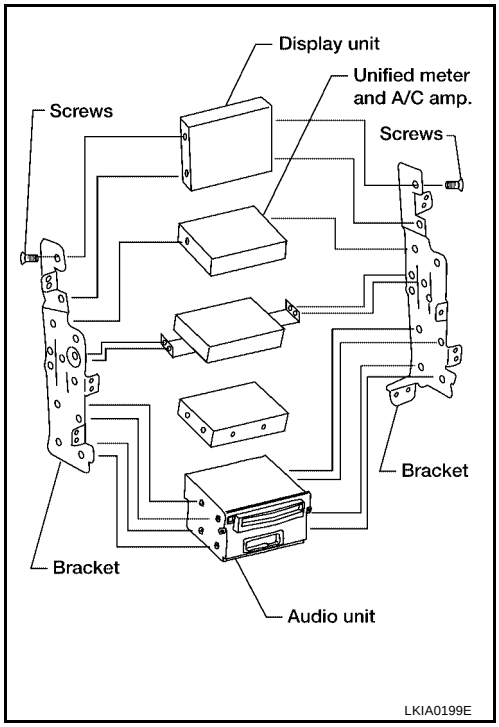
EKS004TL

REMOVAL

1. Remove center stack assembly, refer to IP-13, "Center Stack Assembly" .
2. Remove unified meter and A/C amp. screws, and remove unified meter and A/C amp. from brackets.

CAUTION:

- **When carrying audio unit body, do not touch internal mechanism access from cassette tape slot.**
- **Be careful not to allow foreign material to enter from cassette tape slot.**
- **Use appropriate screws for each, as screws for audio unit are different from that for unified meter and A/C amp.**



INSTALLATION

Install in the reverse order of removal.

COMPASS

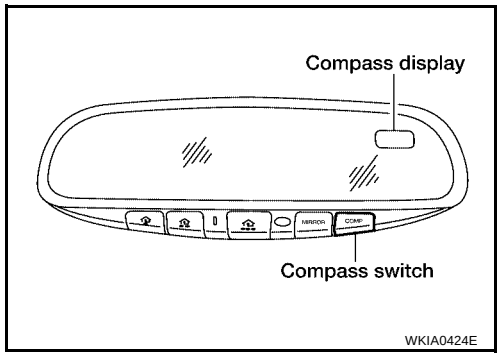
PFP:24835

System Description

EKS004TM

With the ignition switch in the ON position, and the COMPASS switch is ON, the compass display will indicate the direction the vehicle is heading.
Vehicle direction is displayed as follows:

- N: north
- E: east
- S: south
- W: west



POWER SUPPLY AND GROUND CIRCUIT

Power is supplied at all times

- through 10A fuse [No. 19, located in the fuse block (J/B)]
- to auto anti-dazzling inside mirror (compass) terminal 5.

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

- through 10A fuse [No. 14, located in the fuse block (J/B)]
- to auto anti-dazzling inside mirror (compass) terminal 6.

Ground is supplied at all times

- to auto anti-dazzling inside mirror (compass) terminal 8
- through body grounds M57, M61, and M79.

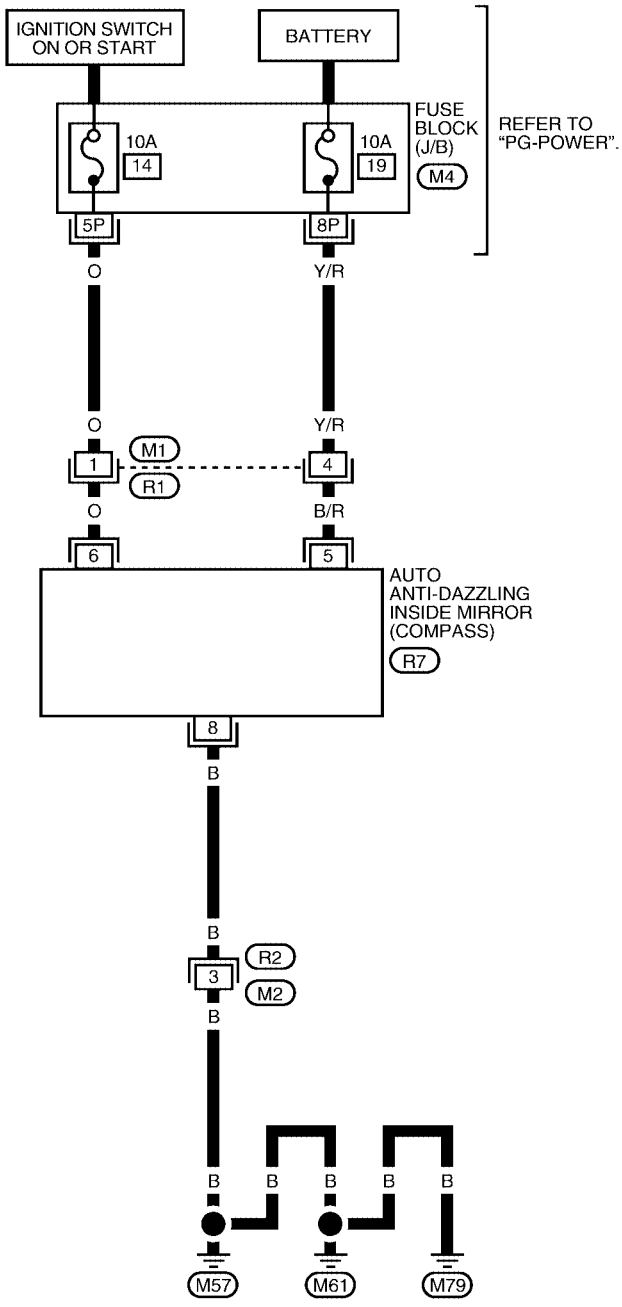
CALIBRATION

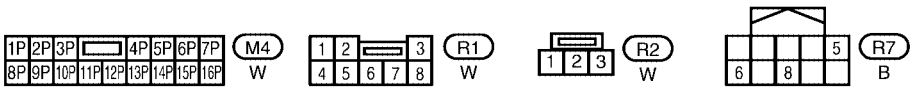
If the compass display reads "C", the compass needs to be calibrated. Refer to DI-40, "CALIBRATION FUNCTION OF COMPASS" .

Wiring Diagram — COMPAS —

EKS004TN

DI-COMPAS-01





WKWA0945E

Trouble Diagnoses

EKS004TO

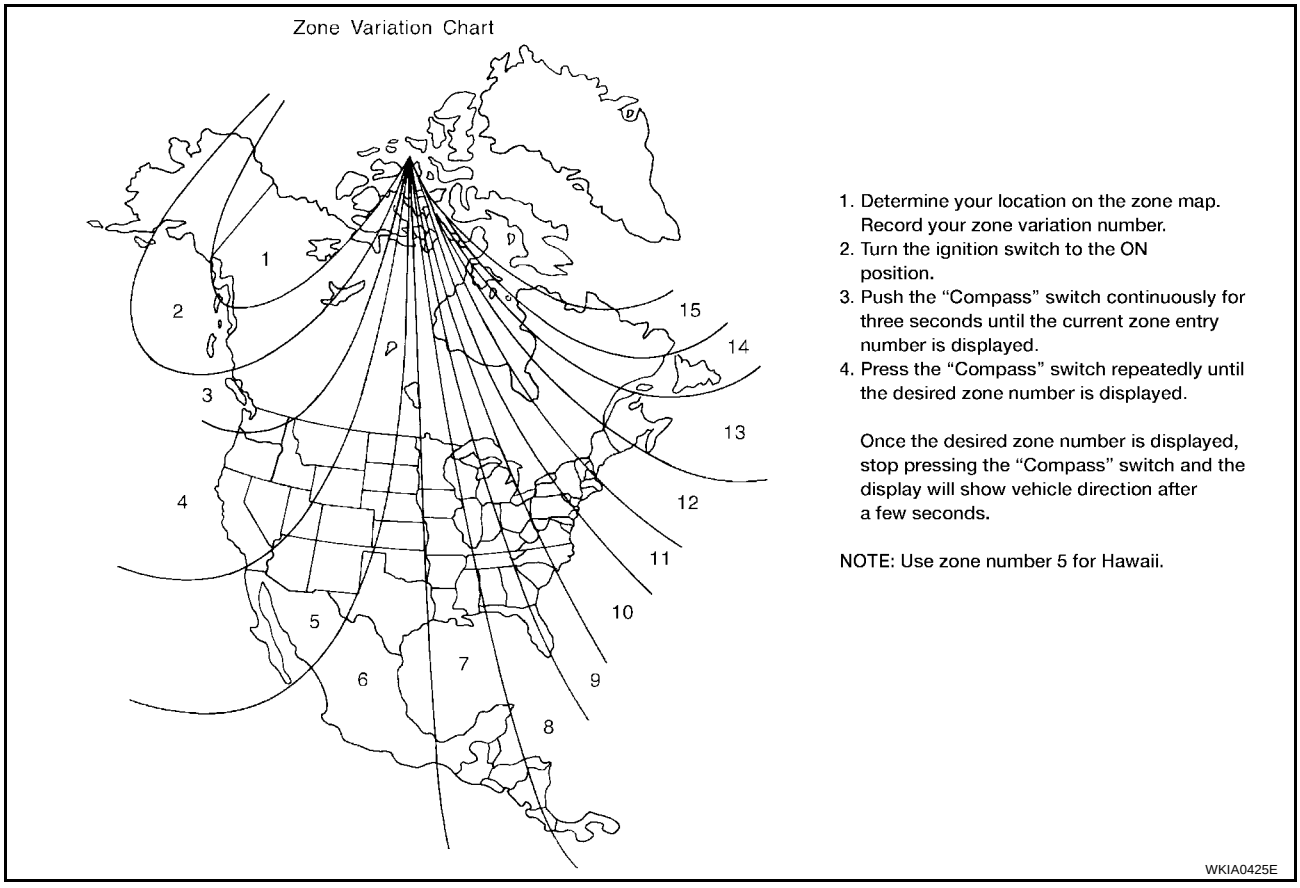
COMPASS INSPECTION

Symptom	Possible causes	Repair order
No display at all	1. 10A fuse 2. Ground circuit 3. Compass	1. Check 10A fuse [No. 14, located in fuse block (J/B)]. Turn the ignition switch ON and verify that battery positive voltage is at terminal 6 of compass. 2. Check ground circuit for compass. 3. Replace compass.
Forward direction indication slips off the mark or incorrect.	1. Compass not calibrated 2. Zone variation change is not done.	1. Perform the calibration function of the compass. Refer to DI-40, "CALIBRATION FUNCTION OF COMPASS" . 2. Perform the zone variation change procedure. Refer to DI-40, "Zone Variation Change Procedure" .
Compass reading remains unchanged.	● Compass	● Replace compass.

Zone Variation Change Procedure

EKS004TP

The difference between magnetic North and geographical North can sometimes be great enough to cause false compass readings. This difference is known as variance. In order for the compass to operate properly (accurately) in a particular zone, the zone variation must be calibrated using the following procedure.

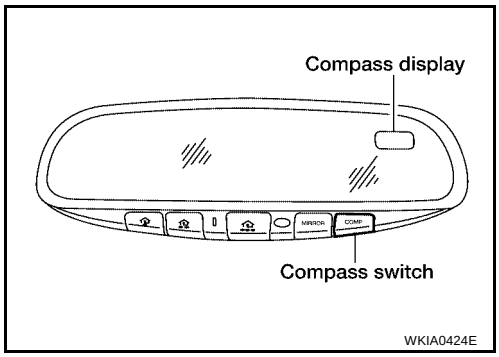


CALIBRATION FUNCTION OF COMPASS

The direction display is equipped with a calibration feature. If vehicle direction is not shown correctly, carry out initial correction.

1. Pushing the COMPASS switch for about 10 seconds will enter the initial calibration mode.
2. Drive the vehicle slowly in a circle, in an open, safe place. The initial calibration is completed in about three turns.

NOTE:
In places where the terrestrial magnetism is extremely disturbed, the initial correction may start automatically.

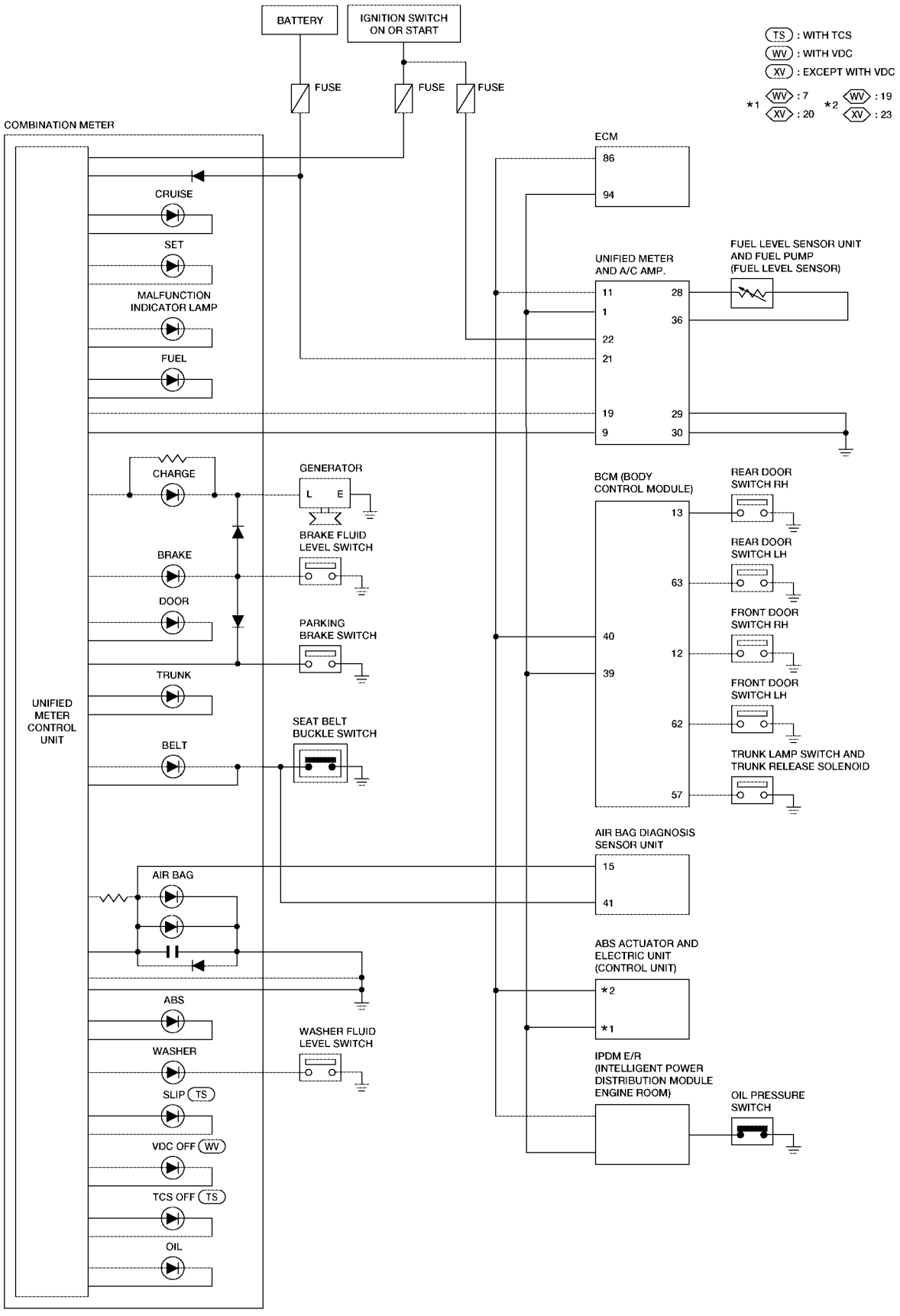


WARNING LAMPS

PFP:24814

Schematic

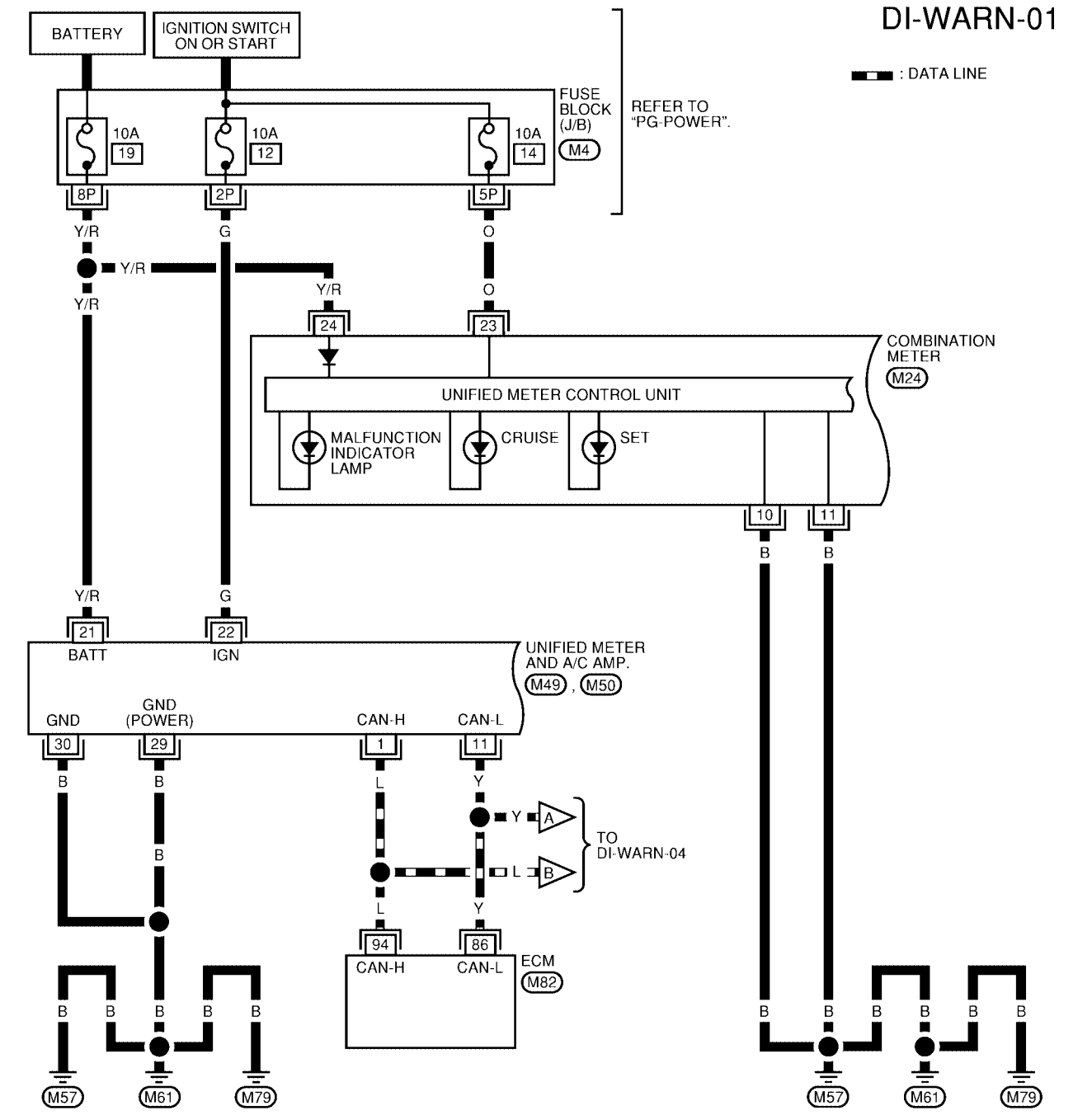
EKS004UJ

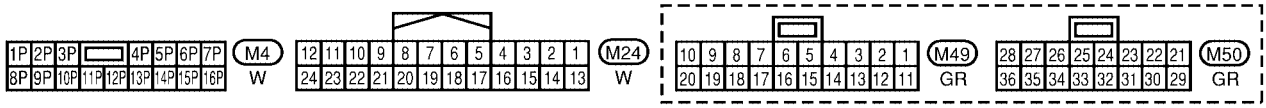


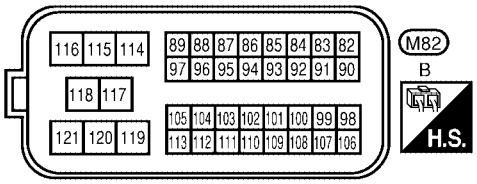
LKWA0183E

Wiring Diagram — WARN —

EKS004UK

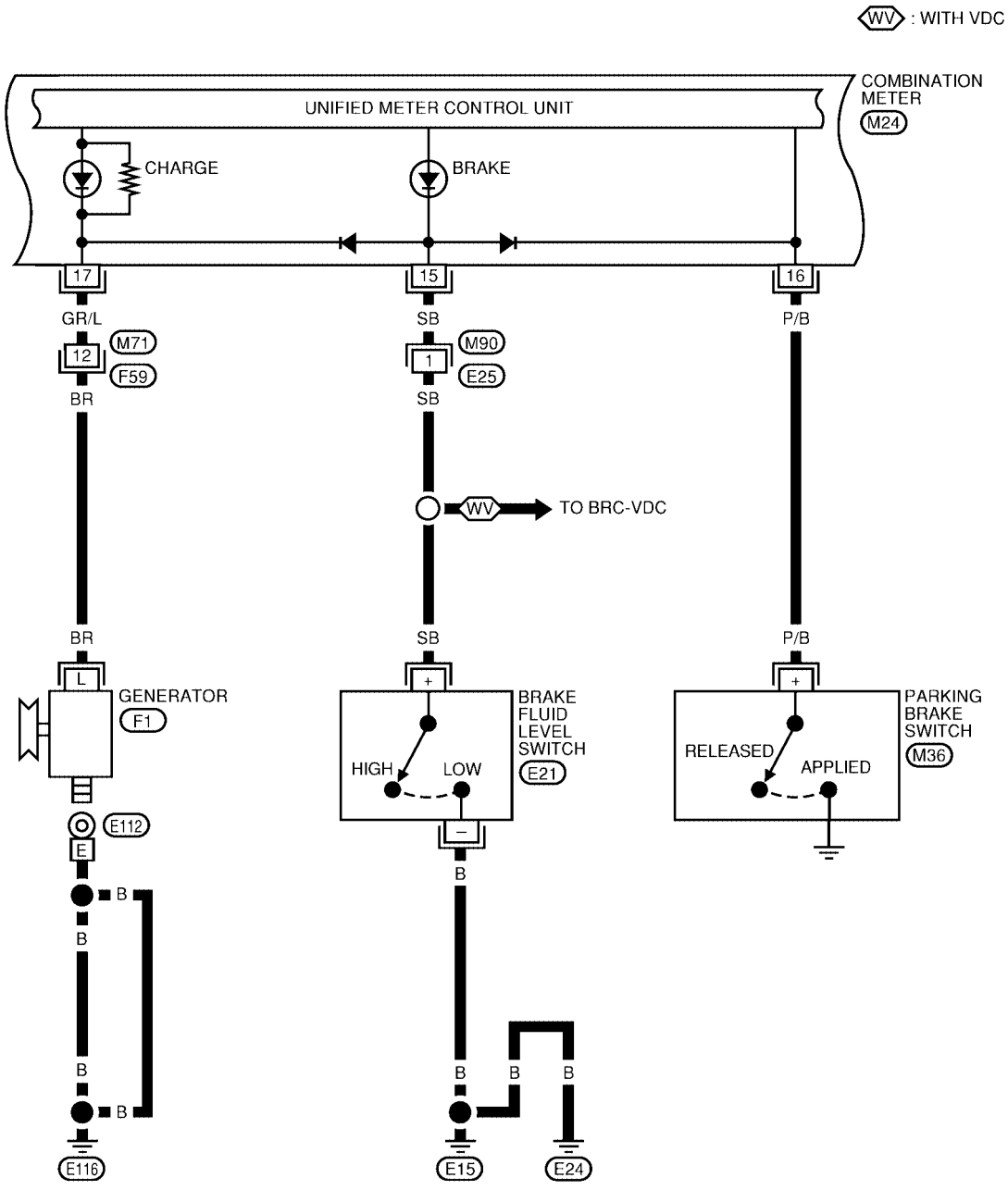


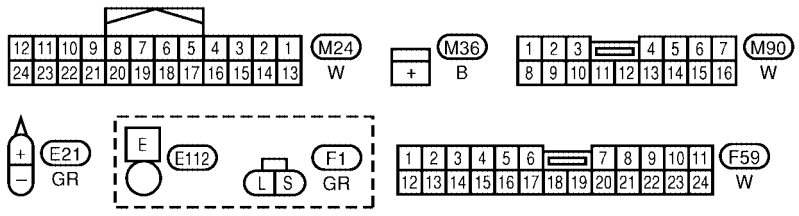




LKWA0184E

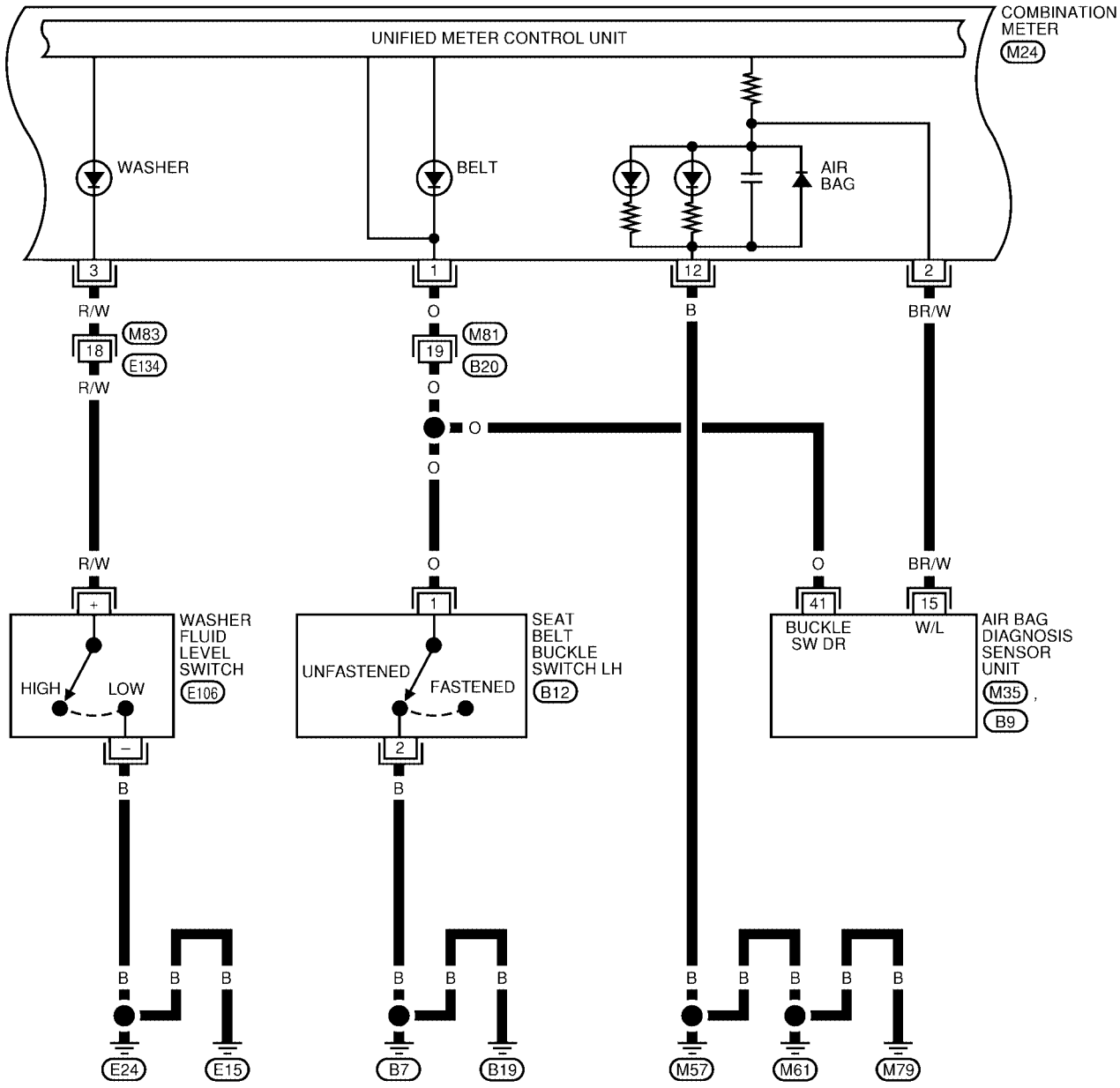
DI-WARN-02

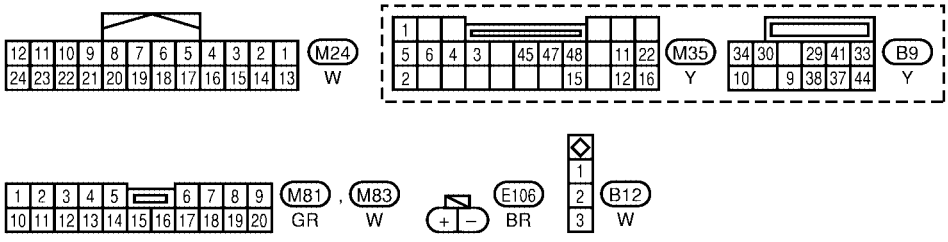




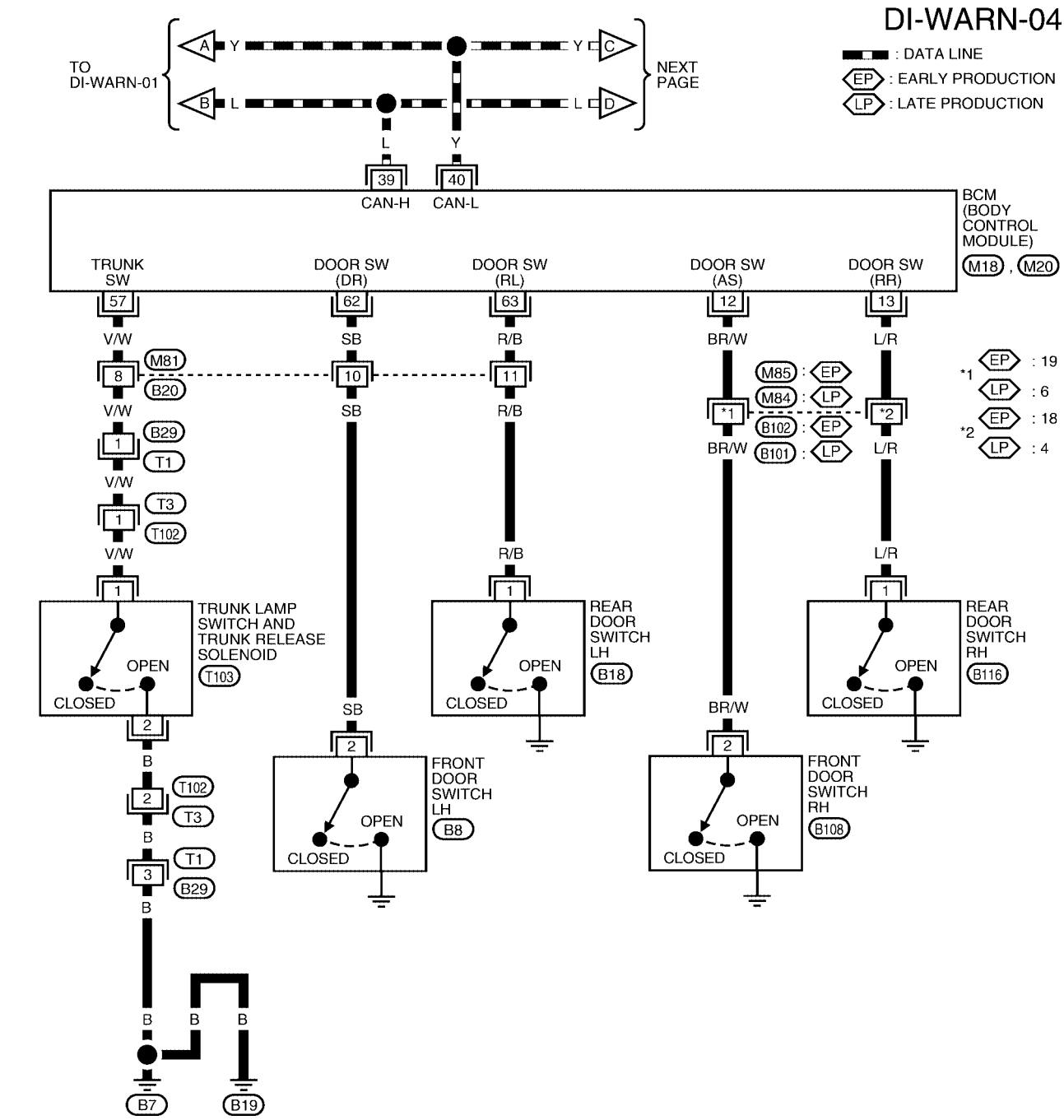
LKWA0185E

DI-WARN-03



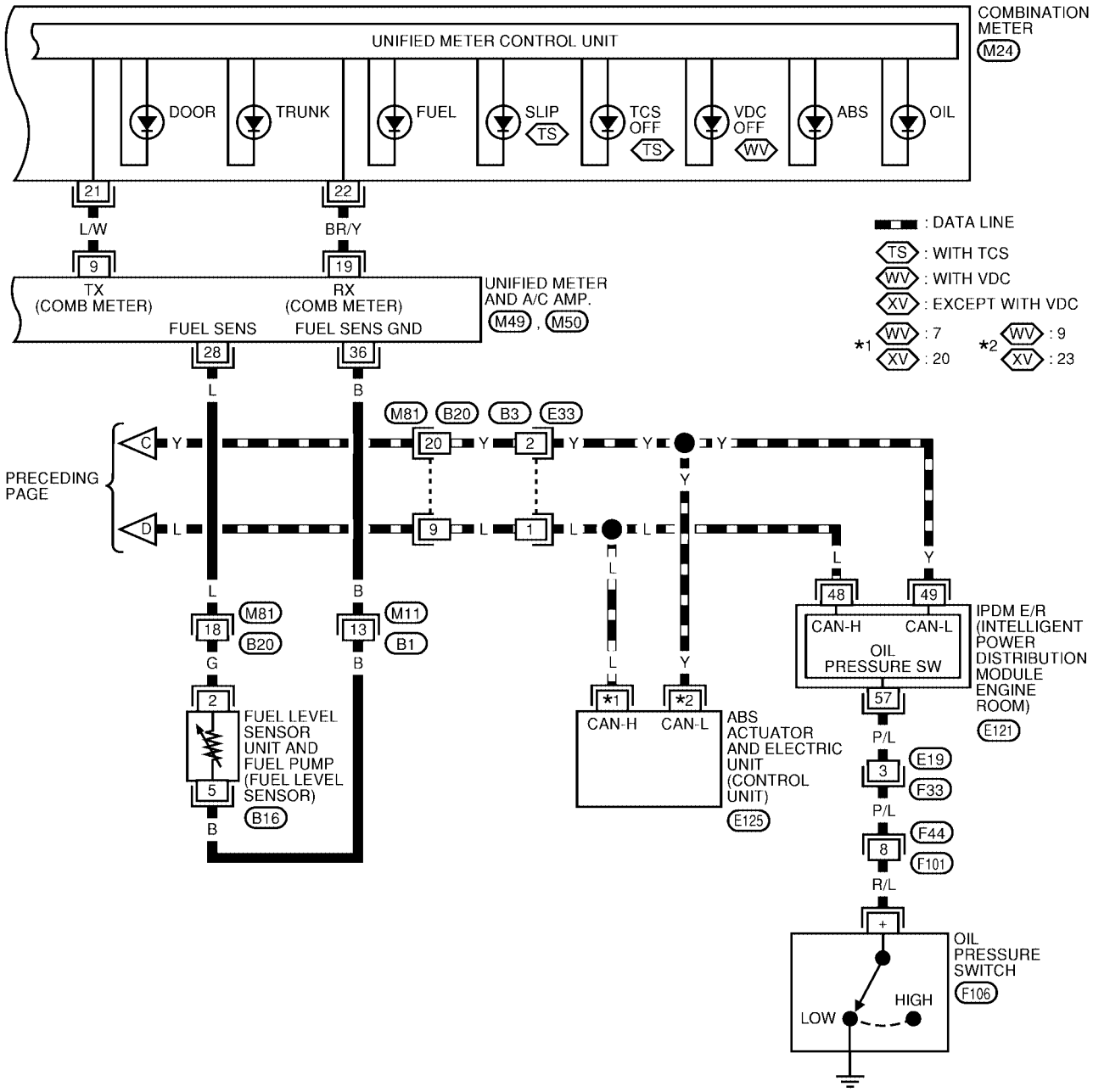


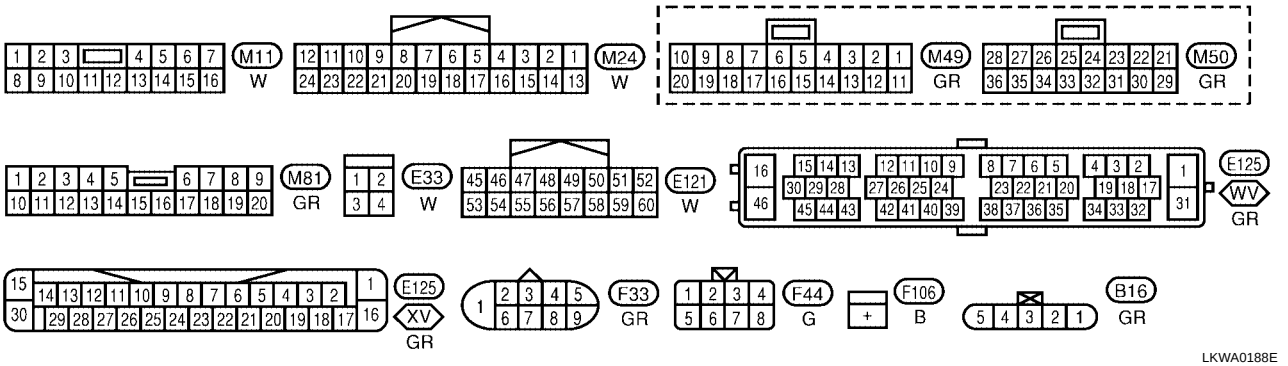
LKWA0186E


DI-WARN-04
: DATA LINE
EP : EARLY PRODUCTION
LP : LATE PRODUCTION
TO DI-WARN-01
NEXT PAGE
CAN-H
CAN-L
BCM (BODY CONTROL MODULE)
M18 , M20
TRUNK SW
DOOR SW (DR)
DOOR SW (RL)
DOOR SW (AS)
DOOR SW (RR)
V/W
SB
R/B
BR/W
L/R
M81
B20
B29
T1
T3
T102
M85 : EP
M84 : LP
B102 : EP
B101 : LP
*1 EP : 19
LP : 6
*2 EP : 18
LP : 4
TRUNK LAMP SWITCH AND TRUNK RELEASE SOLENOID
T103
REAR DOOR SWITCH LH
B18
REAR DOOR SWITCH RH
B116
FRONT DOOR SWITCH LH
B8
FRONT DOOR SWITCH RH
B108
OPEN
CLOSED
B7
B19
M18
M20
W
H.S.
M81
GR
M84
M85
B8 , B108
B18 , B116
T1
T3
T103

WKWA0929E

DI-WARN-05





LKWA0188E

Oil Pressure Warning Lamp Stays Off (Ignition Switch ON)

EKS004UL

1. CHECK SELF-DIAGNOSTIC RESULTS OF UNIFIED METER AND A/C AMP.

1. Start engine.
2. Select “METER A/C AMP” on CONSULT-II, and perform self-diagnosis of unified meter and A/C amp. Refer to DI-33, "CONSULT-II Function" .
3. After erasing the self-diagnostic results, perform self-diagnosis again.

Self-diagnostic results content

No malfunction detected>> GO TO 2.
Malfunction detected>> Go to DI-19, "Symptom Chart 2" .

2. CHECK IPDM E/R OUTPUT SIGNAL

Activate IPDM E/R auto active test. Refer to PG-20, "Auto Active Test" .

Is oil pressure warning lamp blinking?

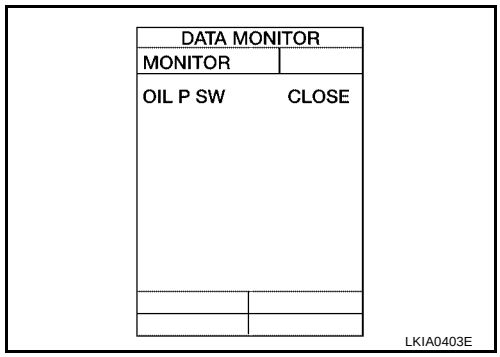
YES >> GO TO 5.
NO >> GO TO 3.

3. CHECK BCM INPUT SIGNAL

Select "IPDM E/R", "SIGNAL BUFFER", then "DATA MONITOR" on CONSULT-II. Refer to DI-34, "DATA MONITOR" . Operate ignition switch with “OIL P SW” of data monitor and check operation status.

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

When engine running : OIL P SW OPEN



OK or NG

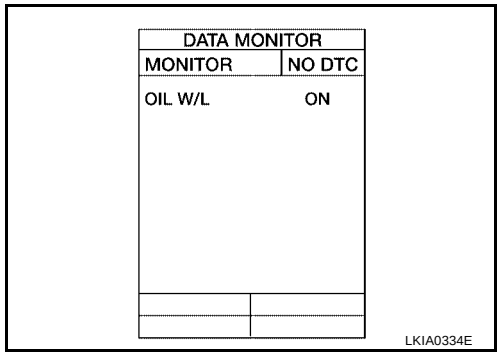
OK >> GO TO 4.
NG >> Replace the IPDM E/R. Refer to PG-26, "Removal and Installation of IPDM E/R" .

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

Select “METER A/C AMP” on CONSULT-II. Operate ignition switch with “OIL W/L” of data monitor and check operation status.

When ignition switch is in ON position (Engine stopped) : OIL W/L ON

When engine running : OIL W/L OFF



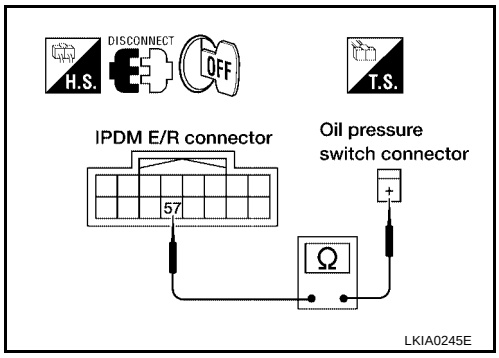
OK or NG

OK >> Replace the combination meter.
NG >> Replace the BCM. Refer to BCS-19, "Removal and Installation of BCM" .

5. CHECK OIL PRESSURE SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector and oil pressure switch connector.
3. Check continuity between IPDM E/R harness connector E121 terminal 57 (P/L) and oil pressure switch harness connector F106 terminal + (R/L).

Continuity should exist.



OK or NG

OK >> GO TO 6.
NG >> Repair harness or connector.

6. CHECK OIL PRESSURE SWITCH

Check oil pressure switch. Refer to DI-49, "OIL PRESSURE SWITCH" .

OK or NG

OK >> Replace the IPDM E/R. Refer to PG-26, "Removal and Installation of IPDM E/R" .
NG >> Replace the oil pressure switch.

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

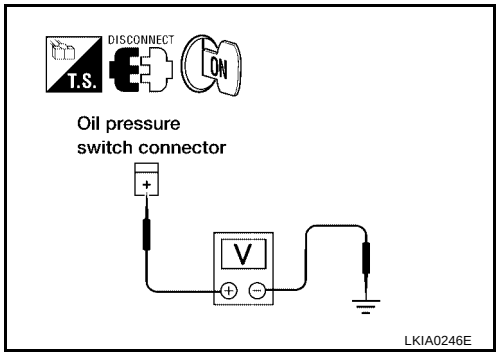
EKS004UM

NOTE:
For oil pressure inspection, refer to LU-6, "OIL PRESSURE CHECK" .

1. CHECK IPDM E/R OUTPUT SIGNAL

1. Disconnect oil pressure switch connector.
2. Turn ignition switch ON.
3. Check voltage between oil pressure switch harness connector F106 terminal + (R/L) and ground.

Battery voltage should exist.



OK or NG

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

2. CHECK OIL PRESSURE SWITCH

1. Turn ignition switch OFF.
2. Check oil pressure switch. Refer to DI-49, "OIL PRESSURE SWITCH" .

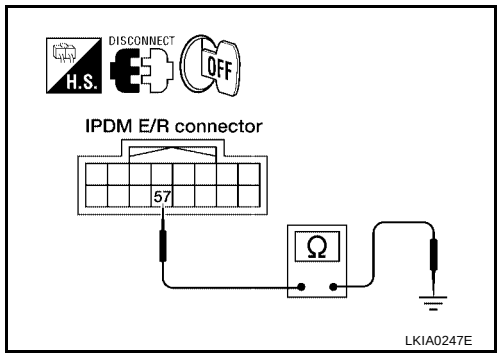
OK or NG

OK >> Replace the IPDM E/R, refer to PG-26, "Removal and Installation of IPDM E/R" .
NG >> Replace the oil pressure switch.

3. CHECK OIL PRESSURE SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R harness connector E121 terminal 57 (P/L) and ground.

Continuity should not exist.



OK or NG

OK >> Replace the IPDM E/R, refer to PG-26, "Removal and Installation of IPDM E/R" .

NG >> Repair harness or connector.

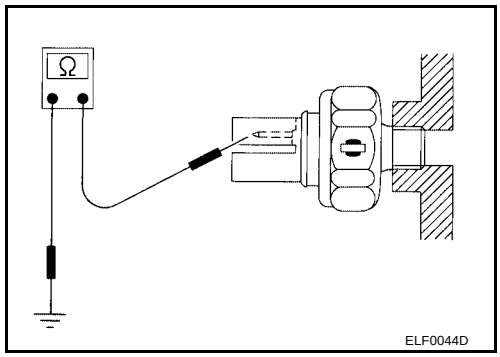
Component Inspection

OIL PRESSURE SWITCH

EKS004UN

Check continuity between oil pressure switch and ground.

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



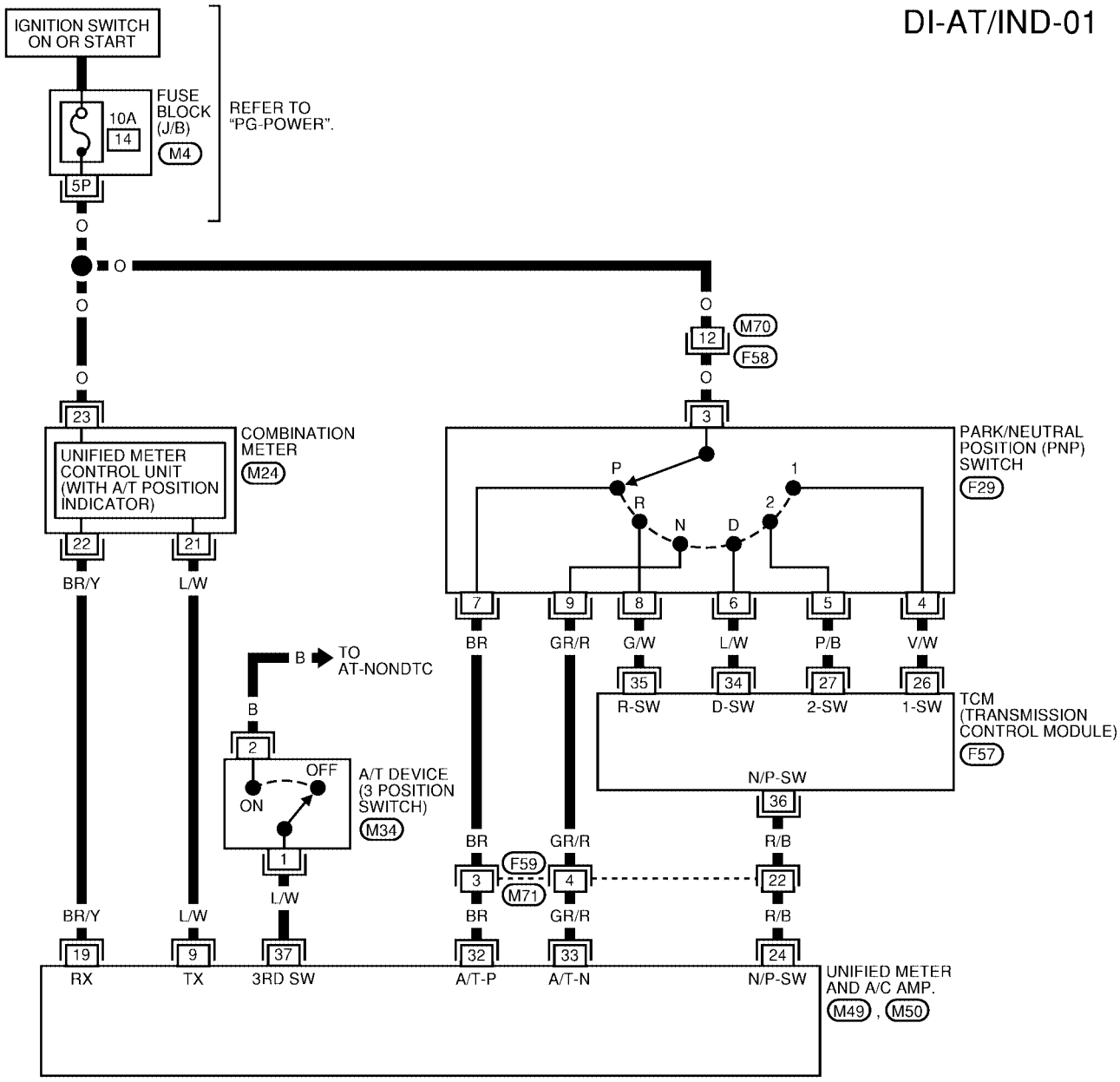
A/T INDICATOR

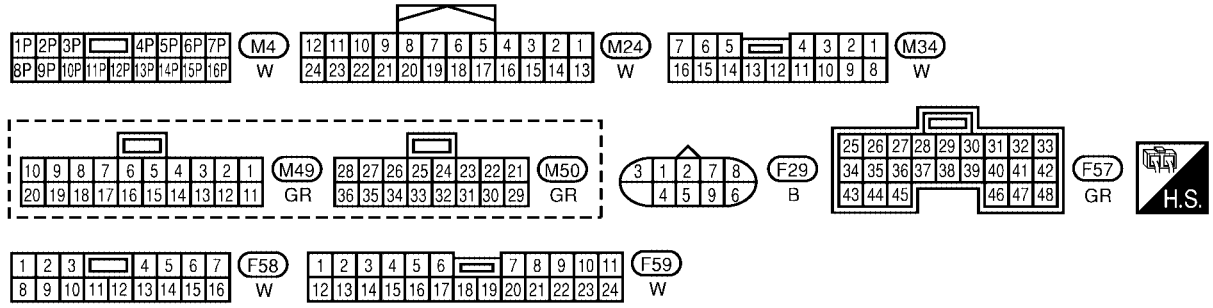
PFP:24814

Wiring Diagram — AT/IND

EKS003TP

4-SPEED A/T

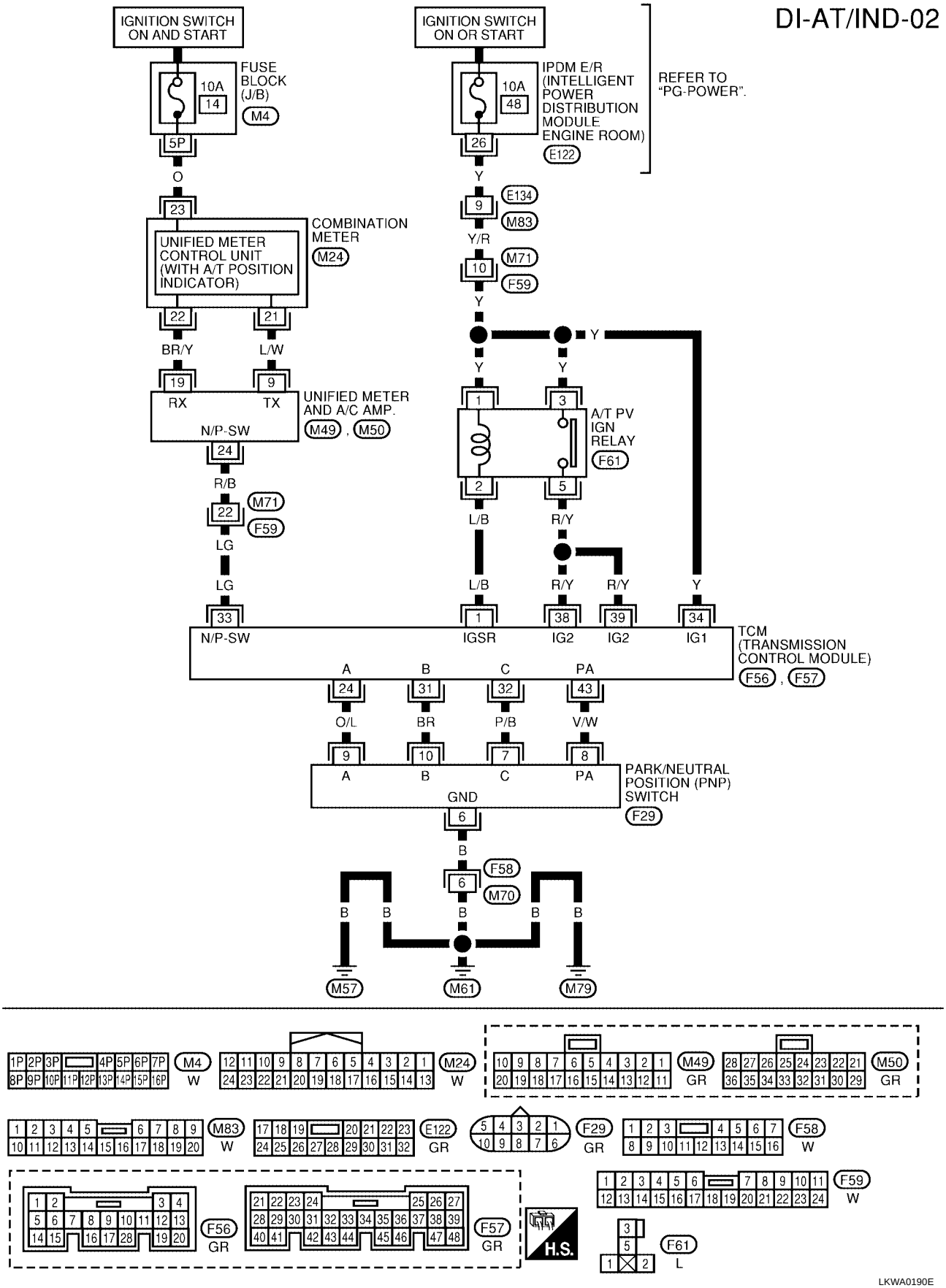




LKWA0189E

5-SPEED A/T

DI-AT/IND-02



Trouble Diagnosis

EKS003TQ

A/T Indicator Does Not Illuminate

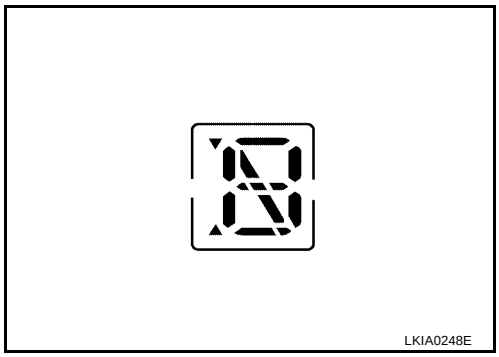
EKS003TR

1. CHECK SELF-DIAGNOSIS OF COMBINATION METER

Perform combination meter self-diagnosis. Refer to DI-15, "HOW TO ALTERNATE DIAGNOSIS MODE" .

OK or NG

OK >> GO TO 2.
NG >> Replace combination meter. Refer to DI-29, "Removal and Installation of Combination Meter" .


LKIA0248E

2. CHECK SELF-DIAGNOSIS RESULTS OF UNIFIED METER AND A/C AMP.

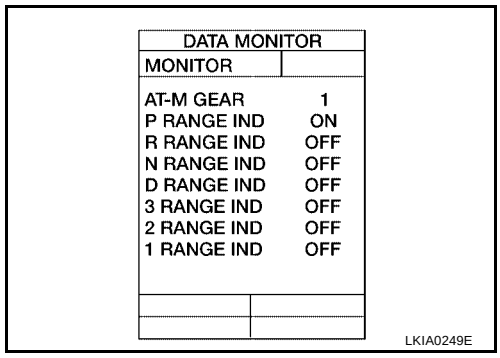
1. Start engine.
2. Select "METER A/C AMP" on CONSULT-II, and perform self-diagnosis of unified meter and A/C amp. Refer to DI-33, "CONSULT-II Function" .
3. After erasing the self-diagnosis result, perform self-diagnosis again.

Self-diagnosis results content

No malfunction detected>>GO TO 3.
Malfunction detected>>Go to DI-19, "Symptom Chart 2" .

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

1. Lift drive wheels.
2. Connect CONSULT-II and start engine.
3. Select "DATA MONITOR" of "METER A/C AMP". Confirm each indication on the monitor when operating the shift lever.



4 A/T Models

CONSULT-II display	Switch operation	Operation status
P RANGE IND	P range position	ON
	Except for P range position	OFF
R RANGE IND	R range position	ON
	Except for R range position	OFF
N RANGE IND	N range position	ON
	Except for N range position	OFF
D RANGE IND	D range position	ON
	Except for D range position	OFF
3 RANGE IND	3 range position	ON
	Except for 3 range position	OFF
2 RANGE IND	2 range position	ON
	Except for 2 range position	OFF
1 RANGE IND	1 range position	ON
	Except for 1 range position	OFF

5 A/T Models

CONSULT-II display	Switch operation	Operation status
AT-M GEAR	Manual mode range (shift up or down)	5-1
	Except for manual mode range	1
P RANGE IND	P range position	ON
	Except for P range position	OFF
R RANGE IND	R range position	ON
	Except for R range position	OFF
N RANGE IND	N range position	ON
	Except for N range position	OFF
D RANGE IND	D range position	ON
	Except for D range position	OFF
3 RANGE IND	3 range position	ON
	Except for 3 range position	OFF

CONSULT-II display	Switch operation	Operation status
2 RANGE IND	2 range position	ON
	Except for 2 range position	OFF
1 RANGE IND	1 range position	ON
	Except for 1 range position	OFF

OK or NG

OK >> Replace combination meter. Refer to DI-29, "Removal and Installation of Combination Meter" .
NG >> GO TO 4.

4. CHECK TCM

Perform self-diagnosis of TCM. For 4 A/T models, refer to AT-44, "CONSULT-II Function (TCM)" . For 5 A/T models, refer to AT-458, "CONSULT-II Function (TCM)" .

OK or NG

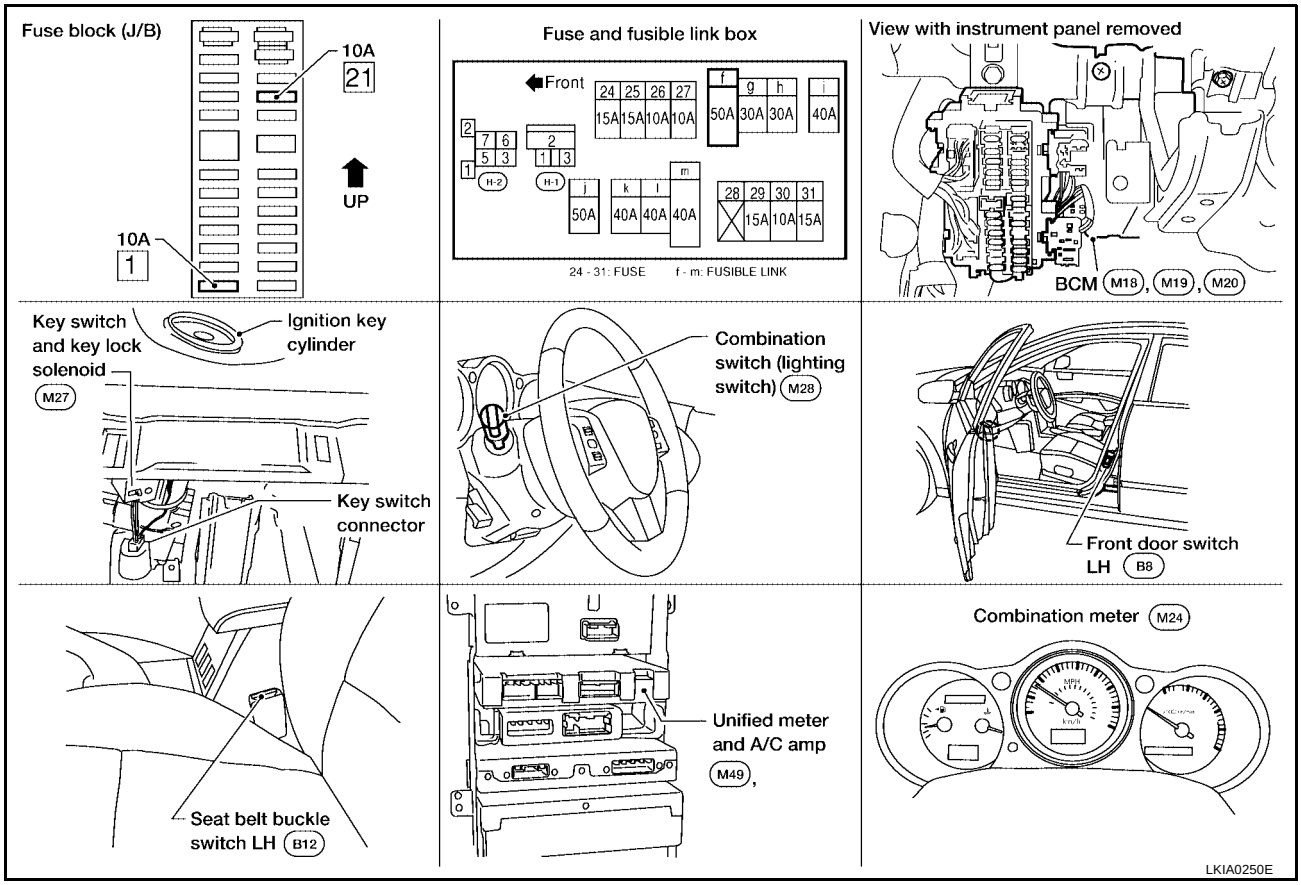
OK >> Replace the unified meter and A/C amp. Refer to DI-36, "Removal and Installation of Unified Meter and A/C Amp." .
NG >> Check the applicable parts.

WARNING CHIME

PFP:24814

Component Parts and Harness Connector Location

EKS004UO



System Description

EKS004UP

FUNCTION

Power is supplied at all times

- through 50A fuse (letter **f** , located in the fuse and fusible link box)
- to BCM terminal 55, and
- through 10A fuse [No. 21, located in the fuse block (J/B)]
- to key switch and key lock solenoid terminal 3.

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

- through 10A fuse [No. 1, located in the fuse block (J/B)]
- to BCM terminal 38.

Ground is supplied

- to BCM terminals 49 (early production) and 52, and
- to combination switch terminal 12
- through body grounds M57, M61, and M79.

NOTE:

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

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

IGNITION KEY WARNING CHIME

With the key inserted in the ignition switch, the ignition switch in OFF position, and the driver's door open, the warning chime will sound.

Power is supplied

- through key switch and key lock solenoid terminal 4
- to BCM terminal 37.

Ground is supplied

- to BCM terminal 62
- through front door switch LH terminal 2.

Front door switch LH is case grounded.
BCM sends door open signal to unified meter and A/C amp. via CAN communication lines.
BCM detects key inserted into the ignition switch, and sends key warning signal to unified meter and A/C amp. via CAN communication lines. Unified meter and A/C amp. sends key warning signal to combination meter via communication line between unified meter and A/C amp. and combination meter.
When combination meter receives key warning signal, it sounds warning chime.

LIGHT WARNING CHIME

With the key removed from the ignition switch, the driver's door open, and the lighting switch (part of the combination switch) in 1st or 2nd position, the warning chime will sound. [This is the operation of the light warning chime, except when headlamp battery saver control operates (for 5 minutes after ignition switch is turned to OFF or ACC position) and headlamps do not illuminate.]
Signal is supplied

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

NOTE:
BCM detected lighting switch in 1st or 2nd position, refer to BCS-3, "COMBINATION SWITCH READING FUNCTION" .

Ground is supplied

- to BCM terminal 62
- through front door switch LH terminal 2.

Front door switch LH is case grounded.
BCM sends door open signal to unified meter and A/C amp. via CAN communication lines.
BCM detects headlamps are illuminated, and sends light warning signal to unified meter and A/C amp. via CAN communication lines. Unified meter and A/C amp. sends light warning signal to combination meter via communication line between unified meter and A/C amp. and combination meter.
When combination meter receives light warning signal, it sounds warning chime.

SEAT BELT WARNING CHIME

When the ignition switch is turned ON with the seat belt unfastened [seat belt buckle switch LH unfastened], warning chime will sound for approximately 6 seconds.
Ground is supplied

- to combination meter terminal 1
- through seat belt buckle switch LH terminal 1.

Seat belt buckle switch LH terminal 2 is grounded through body grounds B7 and B19.
Combination meter sends seat belt buckle switch LH unfastened signal to unified meter and A/C amp. via communication line between unified meter and A/C amp. and combination meter.
BCM receives seat belt buckle switch LH unfastened signal from unified meter and A/C amp. via CAN communication line, and sends seat belt warning signal to unified meter and A/C amp. via CAN communication line. Unified meter and A/C amp. sends seat belt warning signal to combination meter via communication line between unified meter and A/C amp. and combination meter.
When the combination meter receives the seat belt warning signal, it sounds the warning chime. The BCM controls the (6 second) duration of the seat belt warning chime.

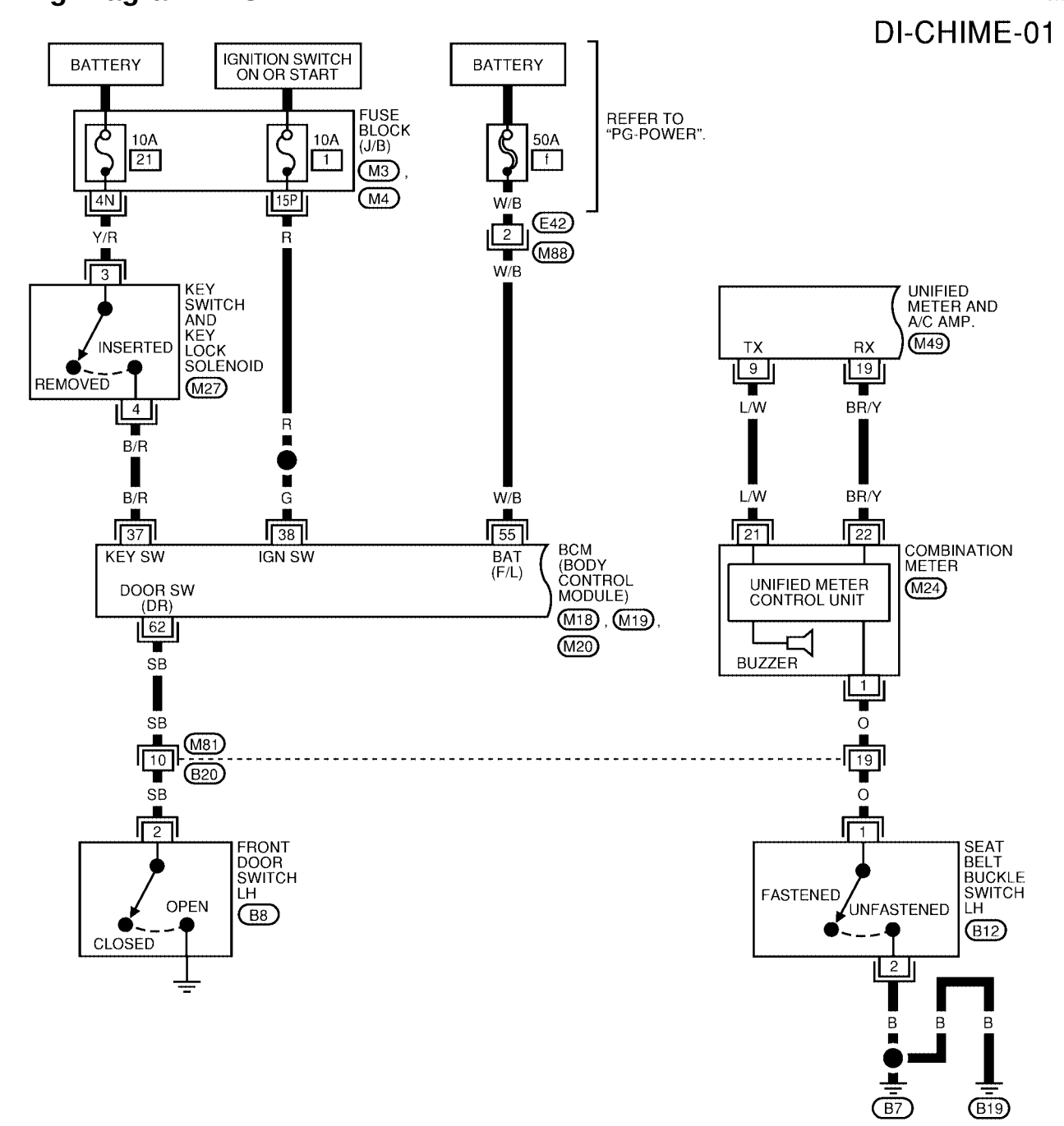
CAN Communication System Description

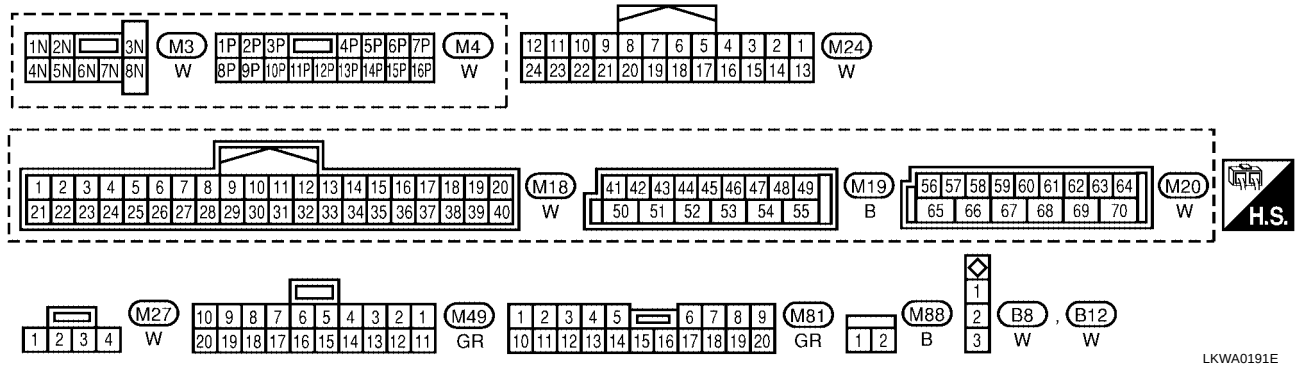
EKS004UQ

Refer to LAN-8, "CAN COMMUNICATION" .

Wiring Diagram — CHIME —

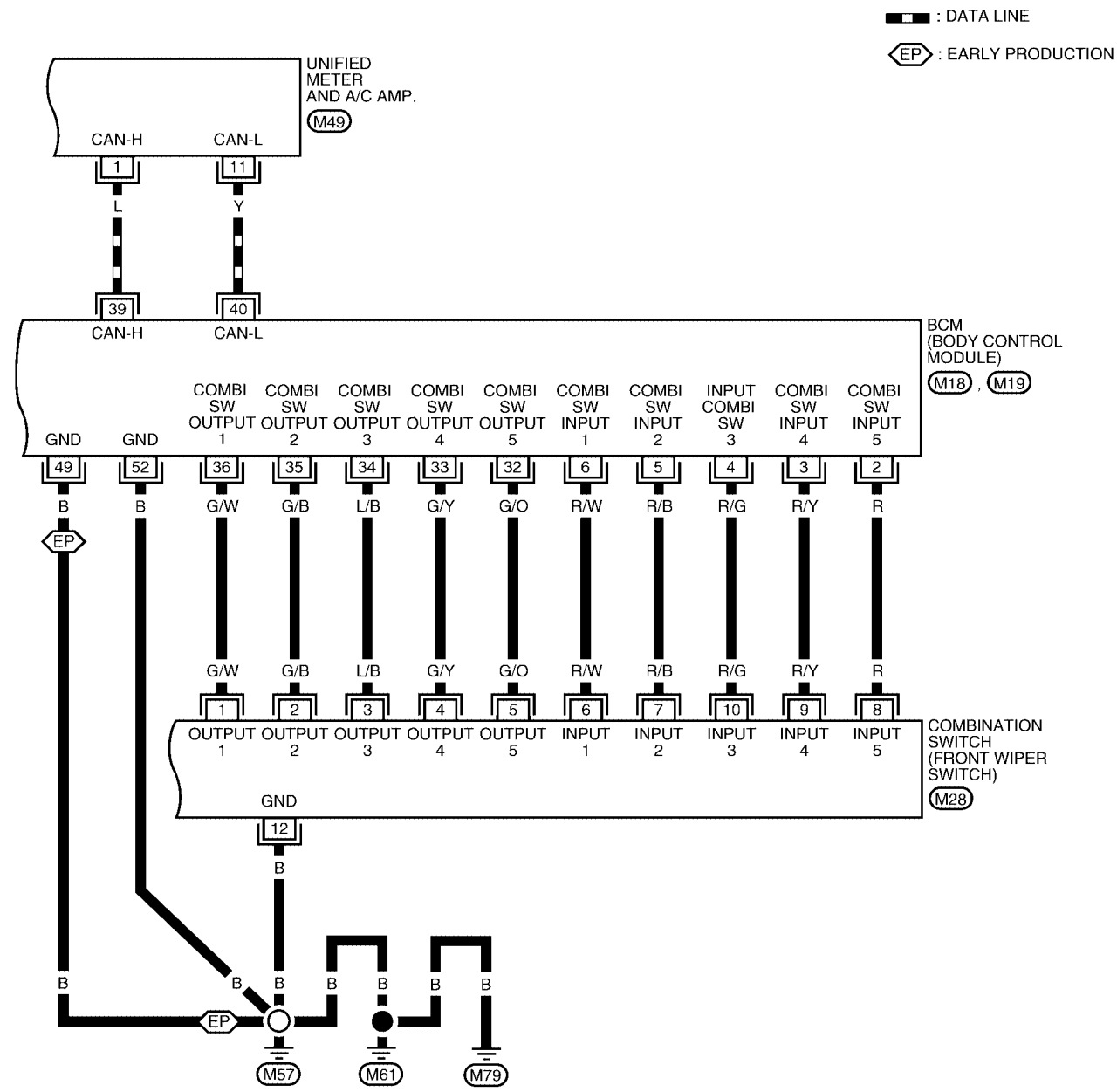
EKS004UR

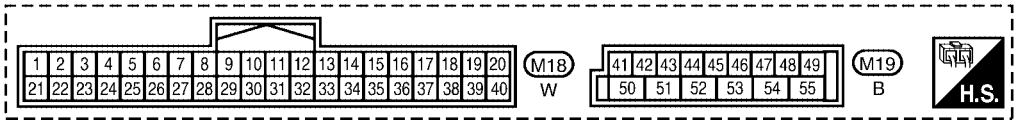


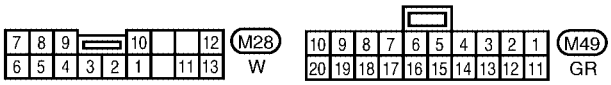


LKWA0191E

DI-CHIME-02



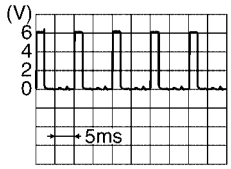
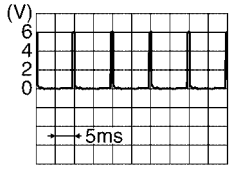
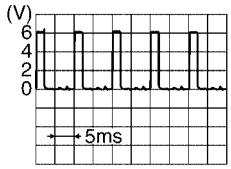
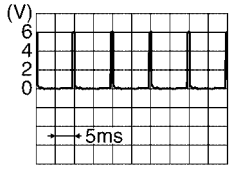
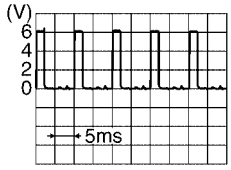
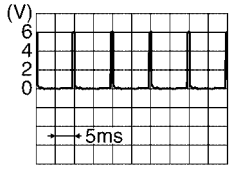
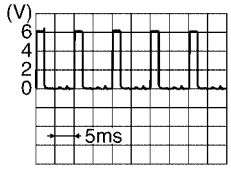


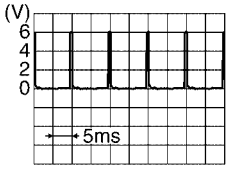


WKWA1827E

Terminals and Reference Value for BCM

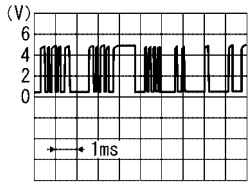
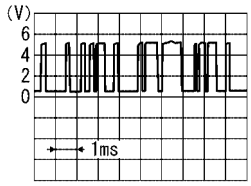
EKS004US

Terminal No.	Wire color	Item	Condition		Reference value (V) (Approx.)
			Ignition switch	Measurement method	
2	R	Combination switch input 5	ON	● Light switch and wiper switch OFF ● Wiper dial position 4	 SKIA5291E
3	R/Y	Combination switch input 4	ON	● Light switch and wiper switch OFF ● Wiper dial position 4	 SKIA5292E
4	R/G	Combination switch input 3	ON	● Light switch and wiper switch OFF ● Wiper dial position 4	 SKIA5291E
5	R/B	Combination switch input 2	ON	● Light switch and wiper switch OFF ● Wiper dial position 4	 SKIA5292E
6	R/W	Combination switch input 1			
32	G/O	Combination switch output 5	ON	● Light switch and wiper switch OFF ● Wiper dial position 4	 SKIA5291E
33	G/Y	Combination switch output 4	ON	● Light switch and wiper switch OFF ● Wiper dial position 4	 SKIA5292E
34	L/B	Combination switch output 3	ON	● Light switch and wiper switch OFF ● Wiper dial position 4	 SKIA5291E

Terminal No.	Wire color	Item	Condition		Reference value (V) (Approx.)
			Ignition switch	Measurement method	
35	G/B	Combination switch output 2	ON	● Light switch and wiper switch OFF ● Wiper dial position 4	 SKIA5292E
36	G/W	Combination switch output 1			
37	B/R	Key switch signal	OFF	Key is removed	0
				Key is inserted	Battery voltage
38	G	Ignition switch ON or START	ON	—	Battery voltage
39	L	CAN-H	OFF	—	—
40	Y	CAN-L	OFF	—	—
49	B	Ground	ON	—	0
52	B	Ground	ON	—	0
55	W/B	Battery power supply	OFF	—	Battery voltage
62	SB	Driver side door switch signal	OFF	ON (open)	0
				OFF (closed)	5

Terminals and Reference Value for Unified Meter and A/C Amp.

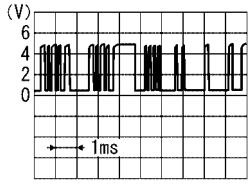
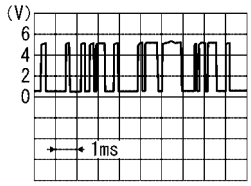
EKS004UT

Terminal No.	Wire color	Item	Condition		Reference value (V) (Approx.)
			Ignition switch	Measurement method	
1	L	CAN-H	OFF	—	—
9	L/W	TX communication line (To combination meter)	ON	—	 SKIA3362E
11	Y	CAN-L	OFF	—	—
19	BR/Y	RX communication line (From combination meter)	ON	—	 SKIA3361E

Terminals and Reference Value for Combination Meter

EKS004UU

Terminal No.	Wire color	Item	Condition		Reference value (V) (Approx.)
			Ignition switch	Measurement method	
1	O	Seat belt buckle switch LH	ON	Unfastened (ON)	0
				Fastened (OFF)	Battery voltage

Terminal No.	Wire color	Item	Condition		Reference value (V) (Approx.)
			Ignition switch	Measurement method	
21	L/W	RX communication line (From unified meter and A/C amp.)	ON	—	 SKIA3362E
22	BR/Y	TX communication line (To unified meter and A/C amp.)	ON	—	 SKIA3361E

How to Proceed With Trouble Diagnosis

EKS004UV

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to DI-55, "System Description" .
3. Perform the preliminary check. Refer to DI-61, "Preliminary Check" .
4. Start engine.
5. Select “METER A/C AMP” on CONSULT-II, and perform self-diagnosis of unified meter and A/C amp. Refer to DI-33, "CONSULT-II Function" . When no malfunction is detected, go to step 5. When malfunction is detected, go to DI-34, "Display Item List" .
6. After erasing the self-diagnostic results, perform self-diagnosis again. When no malfunction is detected, go to DI-19, "Symptom Chart 2" .
7. Check symptom and repair or replace the cause of malfunction.
8. Does the warning chime operate properly? If so, go to 7. If not, go to 5.
9. INSPECTION END.

Preliminary Check

EKS004UW

INSPECTION FOR POWER SUPPLY AND GROUND CIRCUIT

1. CHECK FUSE

Check for blown BCM fuses.

Unit	Power source	Fuse No.
BCM	Battery	**f**
	Ignition switch ON or START	1

Refer to DI-57, "Wiring Diagram — CHIME —" .

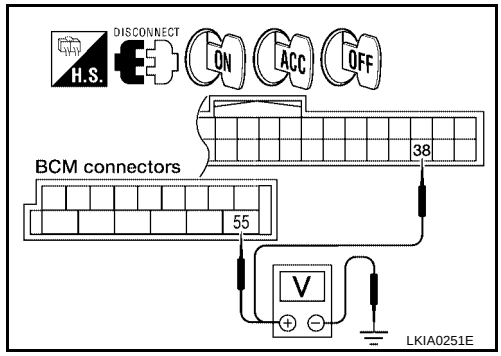
OK or NG

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to PG-3, "POWER SUPPLY ROUTING CIRCUIT" .

2. CHECK POWER SUPPLY CIRCUIT

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



Terminals			Ignition switch position		
(+)		(–)	OFF	ACC	ON
Connector	Terminal (Wire color)				
M19	55 (W/B)	Ground	Battery voltage	Battery voltage	Battery voltage
M18	38 (G)		0V	0V	Battery voltage

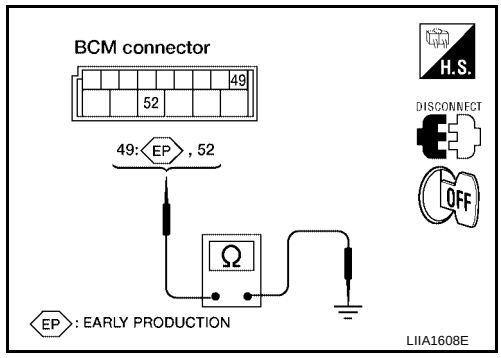
OK or NG

OK >> GO TO 3.
NG >> Check harness for open or short between BCM and fuse.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between BCM harness connector M19 terminals 49 (B) (early production) and 52 (B), and ground.

Continuity should exist.



OK or NG

OK >> Inspection End.
NG >> Repair harness or connector.

CONSULT-II Function

EKS004UX

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

DIAGNOSTIC ITEMS DESCRIPTION

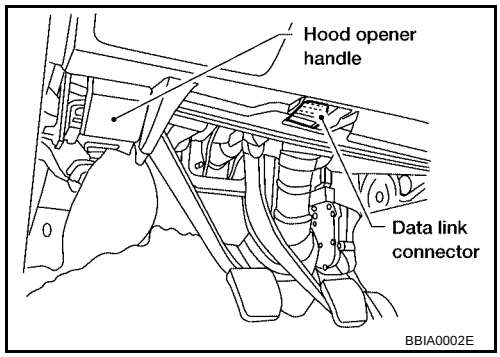
BCM diagnosis position	Diagnosis mode	Description
BUZZER	Data monitor	The input data to the BCM control unit is displayed in real time.
	Active test	Operation of electrical loads can be checked by sending driving signal to them.
BCM	Self-diagnostic	BCM performs self-diagnosis of CAN communication.

CONSULT-II BASIC OPERATION PROCEDURE

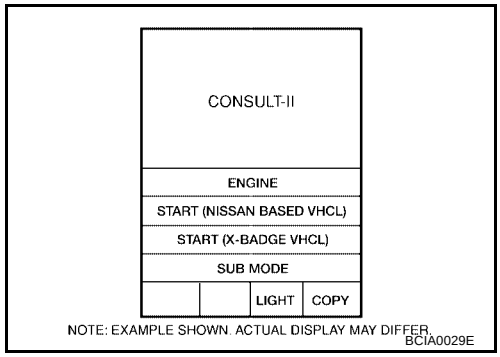
CAUTION:

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

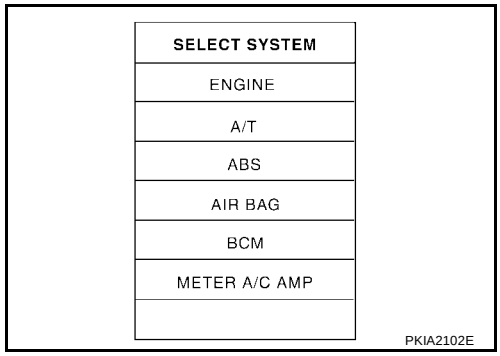
1. With the ignition switch OFF, connect “CONSULT-II” and “CONSULT-II CONVERTER” to the data link connector, and turn ignition switch ON.



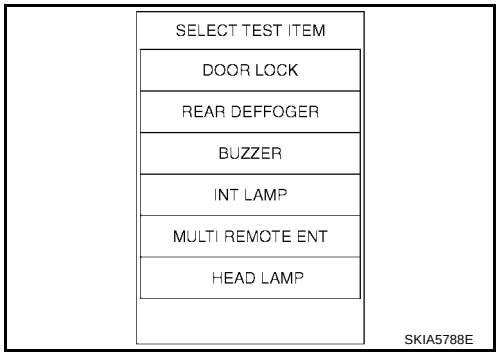
2. Touch “START (NISSAN BASED VHCL)”.



3. Touch “BCM” on “SELECT SYSTEM” screen. If “BCM” is not indicated, go to GI-36, "CONSULT-II Data Link Connector (DLC) Circuit" .



4. Touch "BUZZER" or “BCM”.
5. Select “DATA MONITOR” or “SELF-DIAG RESULTS”.



DATA MONITOR

Operation Procedure

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

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

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

Data Monitor Item

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

ACTIVE TEST

Operation Procedure

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

Active Test Item

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

SELF-DIAGNOSTIC RESULTS

Operation Procedure

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

Display Item List

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

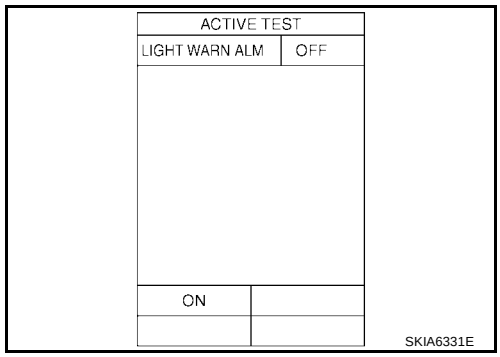
NOTE:
If "CAN communication [U1000]" is indicated, after printing the monitor item, go to "CAN System". Refer to LAN-8, "CAN COMMUNICATION" .

All Warning Chimes Do Not Operate

EKS004UY

1. CHECK CHIME OPERATION

Select “BUZZER” on CONSULT-II, and perform “LIGHT WARN ALM”, "IGN KEY WARN ALM" or "SEAT BELT WARN" active test.



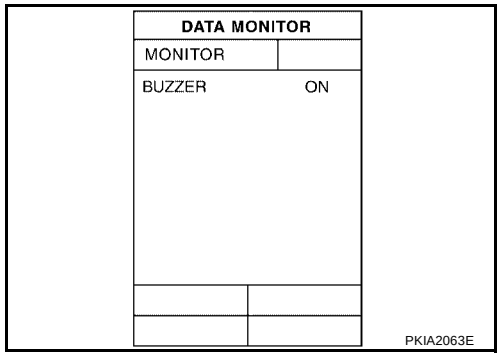
Does chime sound?

YES >> Replace the BCM. Refer to BCS-19, "Removal and Installation of BCM" .

NO >> GO TO 2.

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

Select "METER A/C AMP" on CONSULT-II. Observe "BUZZER" of "DATA MONITOR" while operating switches in order to meet the requirements to sound warning chime.



When requirements are met to sound warning chime : **BUZZER ON**

Except above : **BUZZER OFF**

OK or NG

OK >> Replace the combination meter. Refer to DI-29, "Removal and Installation of Combination Meter" .

NG >> Replace the BCM. Refer to BCS-19, "Removal and Installation of BCM" .

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

EKS004UZ

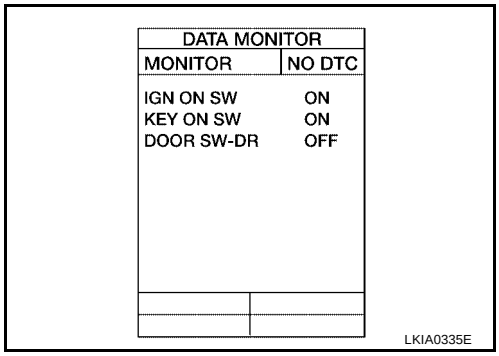
1. CHECK BCM INPUT SIGNAL

With CONSULT-II

1. Select "BCM" on CONSULT-II.
2. With "DATA MONITOR" of "BUZZER", confirm "DOOR SW-DR" changes with the status of front door LH.

When front door LH is opened : DOOR SW-DR ON

When front door LH is closed : DOOR SW-DR OFF

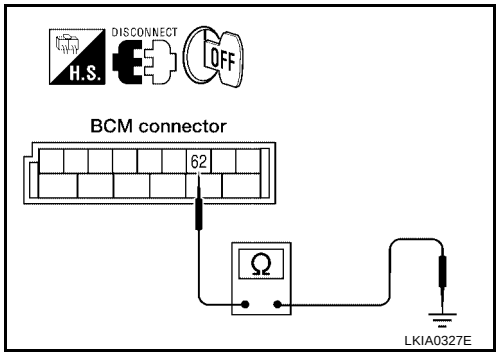


Without CONSULT-II

Check continuity between BCM harness connector M20 terminal 62 (SB) and ground.

When front door LH is opened : Continuity should exist

When front door LH is closed : Continuity should not exist



OK or NG

OK >> Replace the BCM. Refer to BCS-19, "Removal and Installation of BCM" .

NG >> GO TO 2.

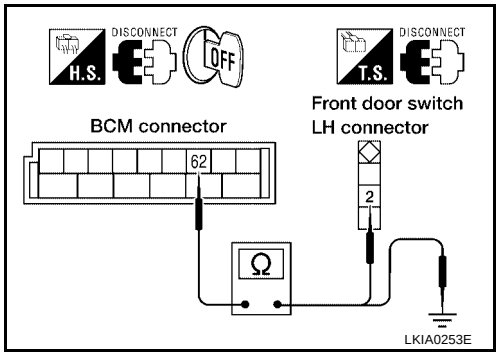
2. CHECK FRONT DOOR SWITCH LH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and front door switch LH connector.
3. Check continuity between BCM harness connector M20 terminal 62 (SB) and front door switch LH harness connector B8 terminal 2 (SB).

Continuity should exist.

4. Check continuity between BCM harness connector M20 terminal 62 (SB) and ground.

Continuity should not exist.



OK or NG

OK >> GO TO 3.

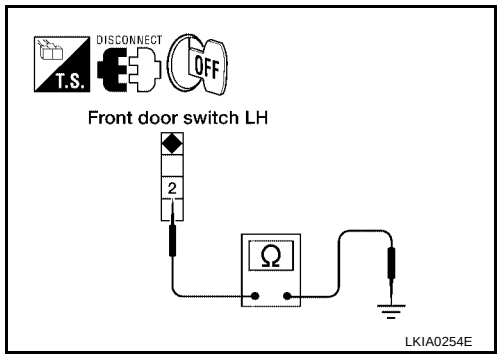
NG >> Repair harness or connector.

3. CHECK FRONT DOOR SWITCH LH AND GROUND CIRCUIT

Check continuity between front door switch LH terminal 2 and ground while switching the door switch from ON (open) to OFF (closed).

When front door LH is opened : Continuity should exist

When front door LH is closed : Continuity should not exist



OK or NG

OK >> Replace the BCM. Refer to BCS-19, "Removal and Installation of BCM" .

NG >> Replace the front door switch LH.

Key Warning Chime Does Not Operate

EKS004V0

1. CHECK FUSE

Check if the key switch fuse [fuse 21, located in the fuse block (J/B)] is blown. Refer to DI-57, "Wiring Diagram — CHIME —" .

Is the fuse blown?

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

NO >> GO TO 2.

2. CHECK WARNING CHIME OPERATION

With key removed from the ignition and the front door LH open, turn the lighting switch to 1st or 2nd position.

Does warning chime sound?

YES >> GO TO 3.

NO >> Go to DI-65, "All Warning Chimes Do Not Operate" or DI-66, "Key Warning Chime and Light Warning Chime Do Not Operate (Seat Belt Warning Chime Does Operate)" .

3. CHECK BCM INPUT SIGNAL

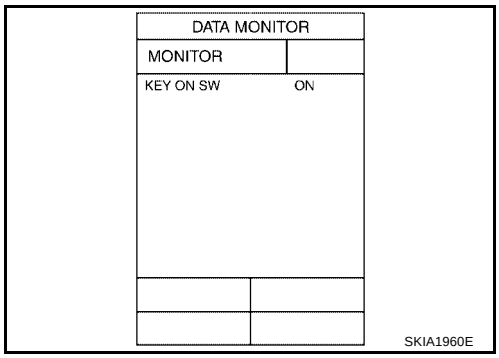
With CONSULT-II

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

1. Select "BCM".
2. With "DATA MONITOR" of "BUZZER", confirm "KEY ON SW" changes when the key is inserted/removed form the ignition key cylinder.

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

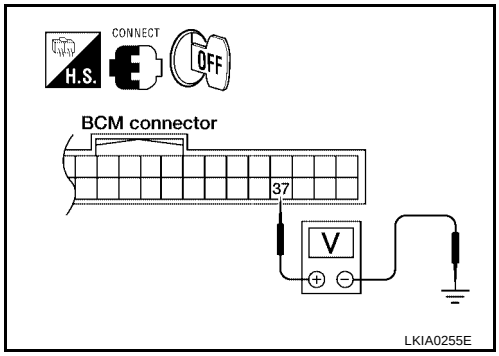
When key is removed from ignition key cylinder : KEY ON SW OFF



Without CONSULT-II

Check voltage between BCM harness connector M18 terminal 37 (B/R) and ground.

Terminals			Condition	Voltage (V)
(+)		(–)		
Connector	Terminal (Wire color)			
M18	37 (B/R)	Ground	Key is inserted	Battery voltage
			Key is removed	0



OK or NG

OK >> Replace the BCM. Refer to BCS-19, "Removal and Installation of BCM" .

NG >> GO TO 4.

4. CHECK KEY SWITCH

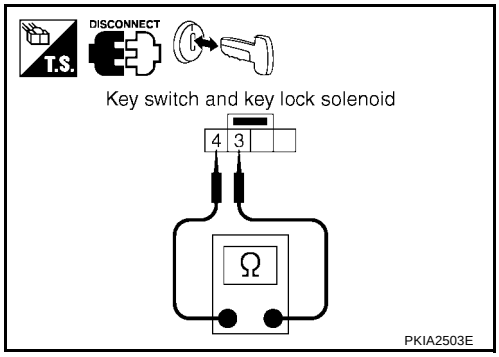
1. Disconnect key switch and key lock solenoid connector.
2. Check continuity between key switch and key lock solenoid connector M27 terminals 3 and 4.

Terminals		Condition	Continuity
3	4	Key is inserted	Yes
		Key is removed	No

OK or NG

OK >> GO TO 5.

NG >> Replace the key switch and key lock solenoid.



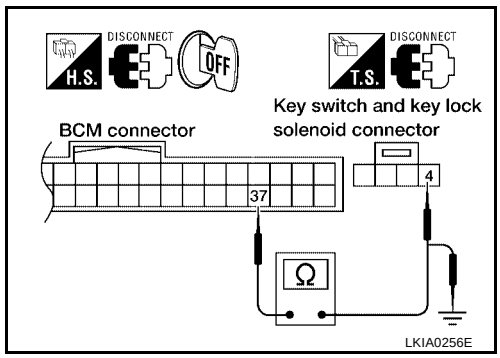
5. CHECK KEY SWITCH CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector M18 terminal 37 (B/R) and key switch and key lock solenoid harness connector M27 terminal 4 (B/R).

Continuity should exist.

3. Check continuity between BCM harness connector M18 terminal 37 (B/R) and ground.

Continuity should not exist.



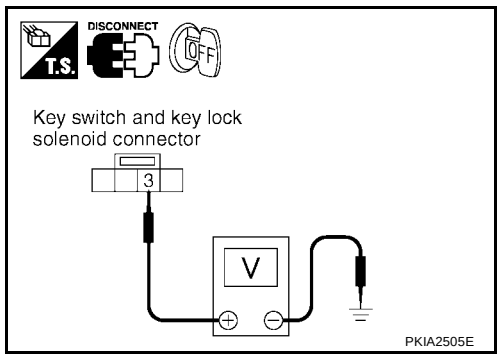
OK or NG

OK >> GO TO 6.
NG >> Repair harness or connector.

6. CHECK KEY SWITCH POWER SUPPLY CIRCUIT

Check voltage between key switch and key lock solenoid harness connector M27 terminal 3 (Y/R) and ground.

Battery voltage should exist.



OK or NG

OK >> Replace the BCM. Refer to BCS-19, "Removal and Installation of BCM" .
NG >> Check harness for open or short between key switch and key lock solenoid and fuse.

Light Warning Chime Does Not Operate

EKS005K9

1. CHECK WARNING CHIME OPERATION

Check key warning chime and seat belt warning chime functions.

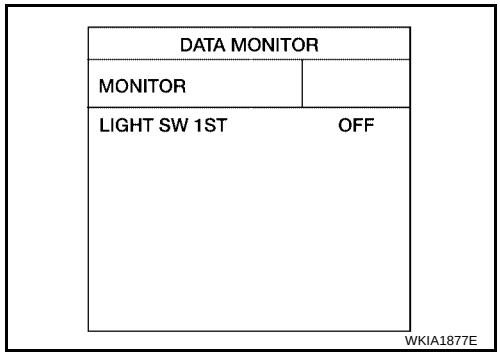
Do key warning chime and seat belt warning chime sound?

YES >> GO TO 2.
NO >> Go to DI-65, "All Warning Chimes Do Not Operate" .

2. CHECK BCM INPUT SIGNAL

1. Select "BCM".
2. With "DATA MONITOR" of "BUZZER", confirm "LIGHT SW 1ST" status changes when the lighting switch is moved from ON (1st position) to OFF.

Lighting switch ON (1st position) : LIGHT SW 1ST ON
Lighting switch OFF : LIGHT SW 1ST OFF



OK or NG

OK >> Replace the BCM. Refer to BCS-19, "Removal and Installation of BCM" .
NG >> Check lighting switch, refer to LT-122, "Removal and Installation" .

Seat Belt Warning Chime Does Not Operate

EKS004V1

1. CHECK WARNING CHIME OPERATION

1. With key removed from the ignition and the front door LH open, turn the lighting switch to 1st or 2nd position.
2. Return lighting switch to OFF position, and insert key into ignition.

Does warning chime sound for both steps?

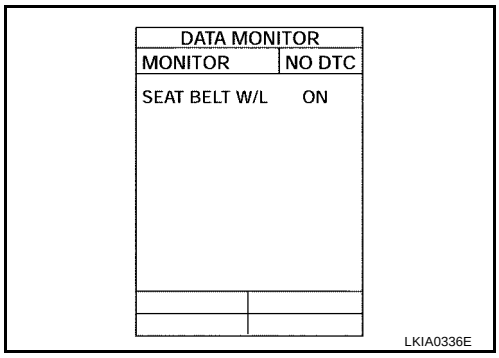
YES >> GO TO 2.
NO >> Go to DI-65, "All Warning Chimes Do Not Operate" .

2. CHECK BCM INPUT SIGNAL

With “SEAT BELT ALM” on the data monitor, confirm “SEAT BELT SW” when the seat belt buckle switch is operated.

1. Select "METER A/C AMP".
2. With "DATA MONITOR" of "METER A/C AMP", confirm "SEAT BELT W/L" status changes with the operation of the seat belt.

When seat belt is fastened : SEAT BELT W/L OFF
When seat belt is unfastened : SEAT BELT W/L ON



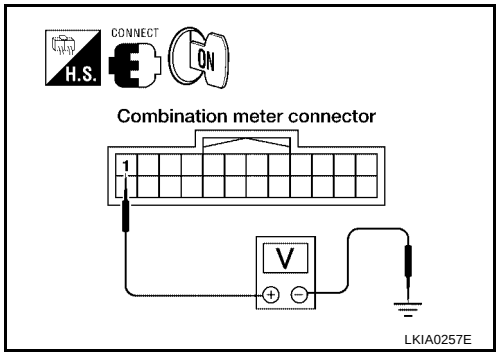
OK or NG

OK >> Replace the BCM. Refer to BCS-19, "Removal and Installation of BCM" .
NG >> GO TO 3.

3. CHECK COMBINATION METER INPUT SIGNAL

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

Terminals			Condition	Voltage (V) (Approx.)
(+)		(–)		
Connector	Terminal			
M24	1 (O)	Ground	Seat belt is fastened	Battery voltage
			Seat belt is unfastened	0



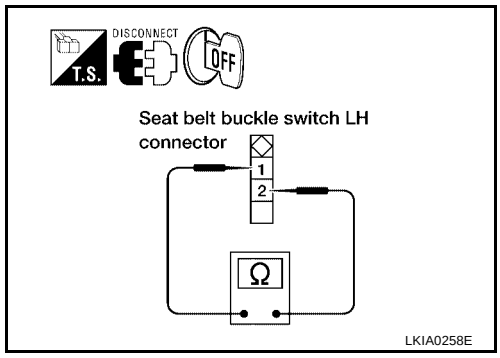
OK or NG

OK >> Replace the combination meter. Refer to DI-29, "Removal and Installation of Combination Meter"
NG >> GO TO 4.

4. CHECK SEAT BELT BUCKLE SWITCH

1. Turn ignition switch OFF.
2. Disconnect seat belt buckle switch LH connector.
3. Check continuity between seat belt buckle switch LH harness connector B12 terminals 1 and 2.

Terminals		Condition	Continuity
1	2	Seat belt is fastened	No
		Seat belt is unfastened	Yes



OK or NG

OK >> GO TO 5.
NG >> Replace the seat belt buckle switch LH.

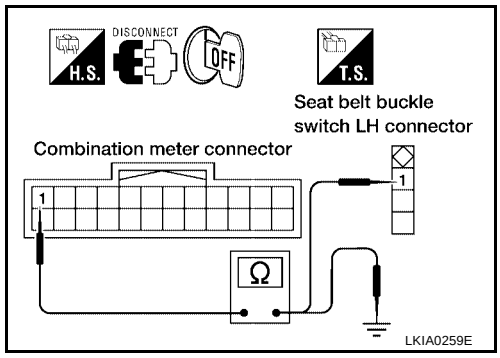
5. CHECK SEAT BELT BUCKLE SWITCH CIRCUIT

1. Disconnect combination meter connector.
2. Check continuity between combination meter harness connector M24 terminal 1 (O) and seat belt buckle switch LH harness connector B12 terminal 1 (O).

Continuity should exist.

3. Check continuity between combination meter harness connector M24 terminal 1 (O) and ground.

Continuity should not exist.



OK or NG

OK >> Check seat belt buckle switch ground circuit.
NG >> Repair harness or connector.