SECTION LAN

LAN SYSTEM

CONTENTS

LAN

CAN

PRECAUTIONS

PFP:00001

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

NKS001G4

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.**

IVMS (LAN)

PFP:28491

Overall Description

NKS001G5

OUTLINE

The In-Vehicle Multiplexing System, IVMS (LAN system), consists of a BCM (Body Control Module) and four LCUs (Local Control Units). Some switches and electrical loads are connected to each LCU. Some electrical systems are directly connected to the BCM. Control of each LCU (which is provided by a switch and electrical load), is accomplished by the BCM, via multiplex data lines (A-1, A-2 or A-3) connected between them.
Also, IVMS has the “sleep/wake-up control” function. IVMS puts itself (the whole IVMS system) to sleep under certain conditions to prevent unnecessary power consumption. Then, when a certain input is detected, the system wakes itself up. For more detailed information, refer to LAN-5, "Sleep/Wake-Up Control" .

BCM (BODY CONTROL MODULE)

The BCM, which is a master unit of the IVMS (LAN), consists of microprocessor, memory and communication LSI sections and has communication and control functions. It receives data signals from the LCUs and sends electrical load data signals to them.

LCU (LOCAL CONTROL UNIT)

The LCUs, which are slave units of the BCM, have only a communication function and consist of communication LSI and input-output interface circuits. They receive data signals from the BCM, control the ON/OFF operations of electrical loads and the sleep operation, as well as send switch signals to the BCM.

Control System for BCM

NKS002MG

SYSTEM CONTROLLED BY MULTIPLE COMMUNICATION BETWEEN BCM AND LCU (IVMS)

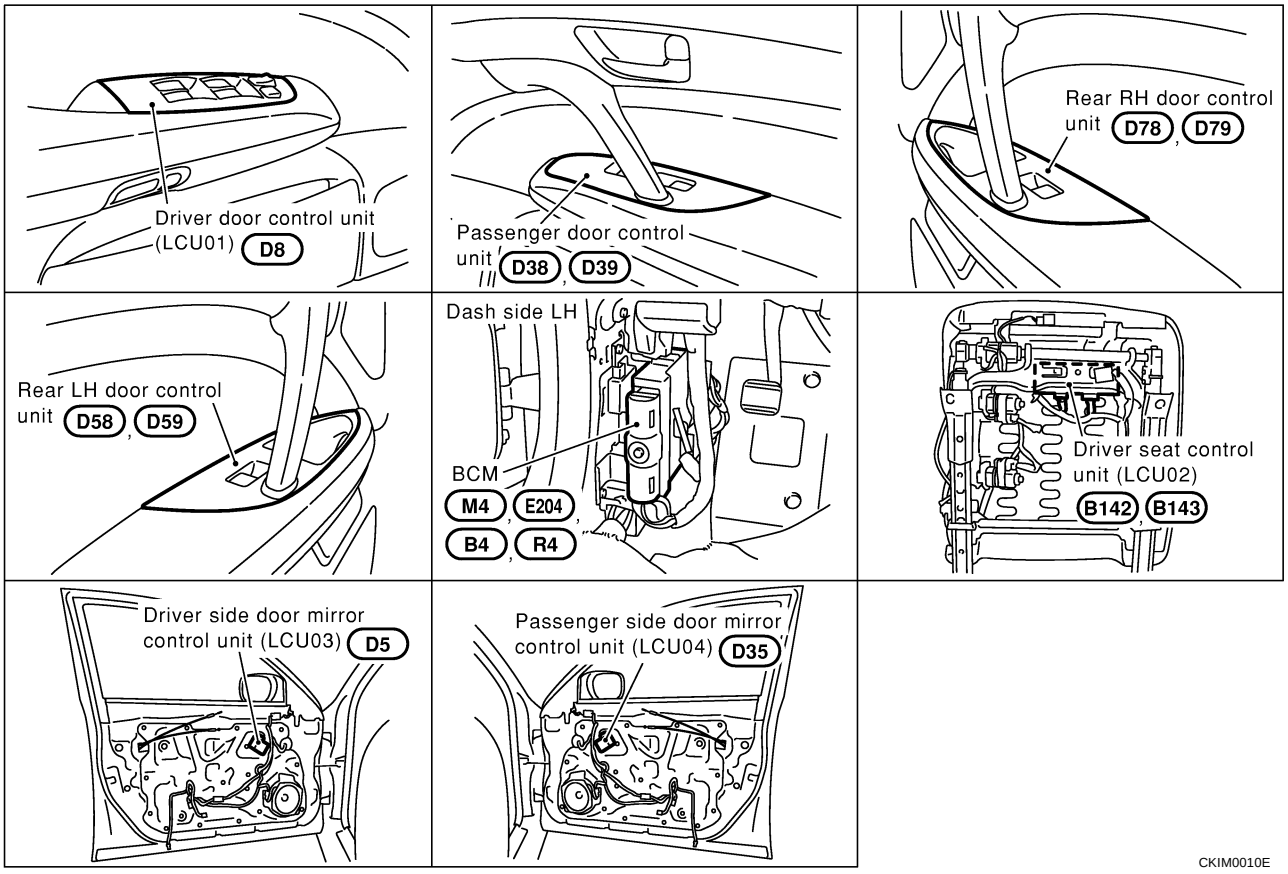
- Power window system (Refer to GW-16, "POWER WINDOW SYSTEM" .)
- Power door lock system (Refer to BL-19, "POWER DOOR LOCK SYSTEM" .)
- Reverse interlock door mirror system (Refer to GW-81, "REVERSE INTERLOCK DOOR MIRROR SYSTEM" .)
- Automatic drive positioner (Refer to SE-13, "AUTOMATIC DRIVE POSITIONER" .)

SYSTEM CONTROLLED BY BCM ONLY

- Remote keyless entry system (Refer to BL-53, "REMOTE KEYLESS ENTRY SYSTEM" .)
- Vehicle security (Theft warning) system (Refer to BL-155, "VEHICLE SECURITY (THEFT WARNING) SYSTEM" .)
- Interior room lamp (Refer to LT-117, "INTERIOR ROOM LAMP" .)
- Step lamp (Refer to LT-145, "STEP LAMP" .)
- Illumination (Refer to LT-167, "ILLUMINATION" .)
- Auto light (Refer to LT-5, "HEADLAMP (FOR USA)" .)
- Door warning lamp (Refer to DI-26, "WARNING LAMPS" .)
- Ignition key warning chime (Refer to DI-51, "WARNING CHIME" .)
- Light warning chime (Refer to DI-51, "WARNING CHIME" .)
- Seat belt warning chime (Refer to DI-51, "WARNING CHIME" .)
- Front wiper and washer system (Refer to WW-4, "FRONT WIPER AND WASHER SYSTEM (WITH RAIN SENSOR)" .)
- Trunk lid opener (Refer to BL-122, "TRUNK LID AND FUEL FILLER LID OPENER" .)
- Sun roof (Refer to RF-10, "SUNROOF" .)
- Rear window defogger (Refer to GW-61, "REAR WINDOW DEFOGGER" .)
- Trouble diagnosis system
  - With CONSULT-II
  - On board

Component Parts and Harness Connector Location

NKS001G6



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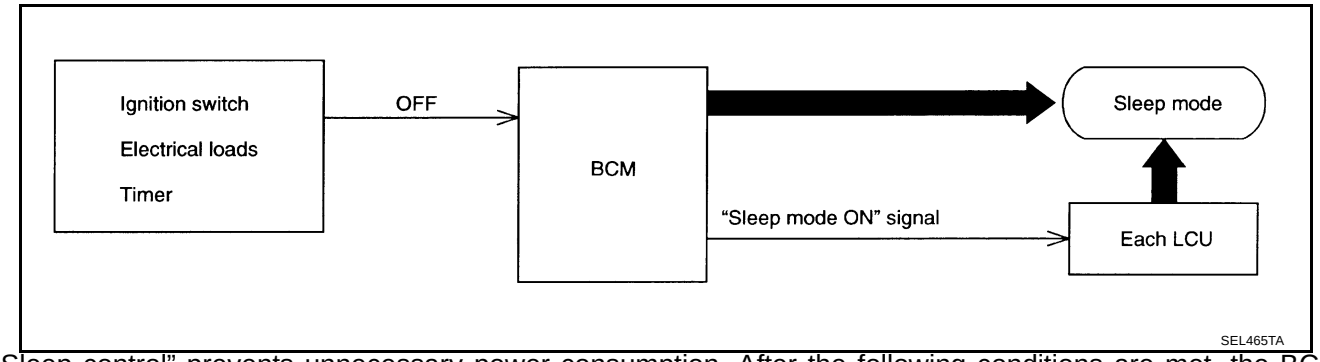
Sleep/Wake-Up Control

NKS001G7

SLEEP CONTROL

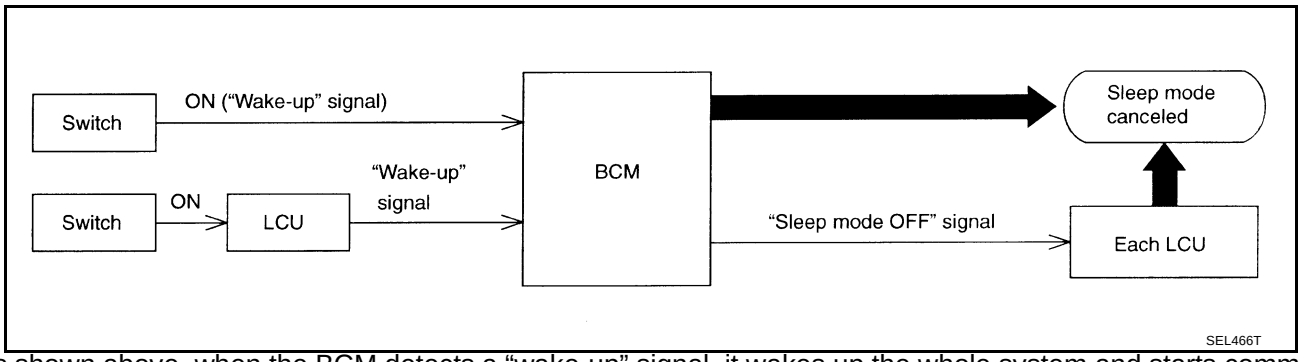


SEL465TA

"Sleep control" prevents unnecessary power consumption. After the following conditions are met, the BCM suspends the communication between itself and all LCUs. The whole IVMS is set in the "sleep" mode.

- Ignition switch "OFF"
- All electrical loads (in the IVMS) "OFF"
- Timer "OFF"

WAKE-UP CONTROL



As shown above, when the BCM detects a "wake-up" signal, it wakes up the whole system and starts communicating again. When the "sleep" mode of all LCUs is canceled, the BCM returns to the normal control mode. When any one of the following switches are turned ON, the "sleep" mode is canceled:

- All switches combined or connected with BCM.
- All switches combined or connected with LCU.

Fail-Safe System

NKS001G8

Fail-safe system operates when the signal from LCU is judged to be malfunctioning by BCM. If LCU sends no signal or an irregular signal to BCM a certain number of times in succession, the IVMS is set in a fail-safe condition. In the fail-safe condition, the electrical loads controlled by the switch on the questionable LCU will be operated at fail-safe mode.

CONSULT-II Function (IVMS)

NKS001G9

CONSULT-II executes the following functions by combining data reception and command transmission via the communication line from BCM: IVMS communication inspection, work support, self-diagnosis, data monitor and active test display.

DIAGNOSTIC ITEMS DESCRIPTION

IVMS diagnosis position	Diagnosis mode	Description
IVMS-comm check	IVMS-COMM DIAGNOSIS	Diagnoses continuity in the communication line(s), and of the function of the IVMS-communication interface between the body control module and the local control units, accomplished by transmitting a signal from the body control module to the local control units.
	WAKE-UP DIAGNOSIS	Diagnose the "wake-up" function of local control units by having a technician input the switch data into the local control unit that is in the temporary "sleep" condition.
Each system inspection	WORK SUPPORT	Changes the setting for each function.
	SELF-DIAGNOSTIC RESULTS	Carries out self-diagnosis.
	DATA MONITOR	Displays data relative to the body control module (BCM) input signals and various control related data for each system.
	ACTIVE TEST	Turns on/off actuators, relay and according to the commands transmitted by the CONSULT-II unit.
BCM PART NUMBER		Displays BCM part No.

DIAGNOSTIC ITEMS APPLICATION

Test item	Diagnosed system	Diagnosis mode					
		IVMS COMM DIAGNOSIS	WAKE-UP DIAGNOSIS	WORK SUPPORT	SELF DIAGNOSTIC RESULTS	DATA MONITOR	ACTIVE TEST
IVMS-COMM CHECK	IVMS communication and wake-up function	×	×				
DOOR LOCK	Power door lock system				×	×	×

Test item	Diagnosed system	Diagnosis mode					
		IVMS COMM DIAGNO-SIS	WAKE-UP DIAGNO-SIS	WORK SUPPORT	SELF DIAGNOS-TIC RESULTS	DATA MONITOR	ACTIVE TEST
AUTO DRIVE POSITIONER	● Automatic drive positioner ● Reverse interlock door mirror system			×	×	×	×
WIPER	Front wiper and washer system					×	×
REAR DEFOGGER	Rear window defogger					×	×
IGN KEY WARN ALM	Warning chime					×	×
LIGHT WARN ALM	Warning chime					×	×
SEAT BELT TIMER	Warning chime					×	×
THEFT WARNING SYSTEM	Vehicle security (Theft warning) system			×		×	×
STEP LAMP	Step lamps					×	×
MULTI-REMOTE CONTSYS	Remote keyless entry system			×		×	×
INTERIOR ILLUMINATION	Interior room lamp			×		×	×
SUNROOF RELAY	Sunroof					×	×
TRUNK OPEN	Trunk lid opener					×	×
DOOR OPEN WARNING	Warning lamps					×	×
AUTO LIGHT SYSTEM	Headlamp			×		×	×

X: Applicable
For diagnostic item in each control system, read the CONSULT-II Operation Manual.

On Board Diagnosis

NKS001GA

ON BOARD DIAGNOSTIC RESULTS INDICATOR LAMP

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

DIAGNOSTIC ITEM

Diagnosis item	Description
IVMS communication diagnosis	Diagnoses any error or inability of communication between BCM and LCUs.
Switch monitor	Monitors conditions of switches connected to BCM, LCUs and door control units.
Power door lock system self-diagnosis	Diagnoses malfunctions in each door lock actuator system.
Auto drive positioner self-diagnosis	Diagnoses malfunctions in each motor and sensor in the electrical load parts of the driver power seat system (sliding, reclining, and lifter [front/rear]), of the steering wheel system (tilt, telescoping) and of door mirror.

Removal and Installation of BCM

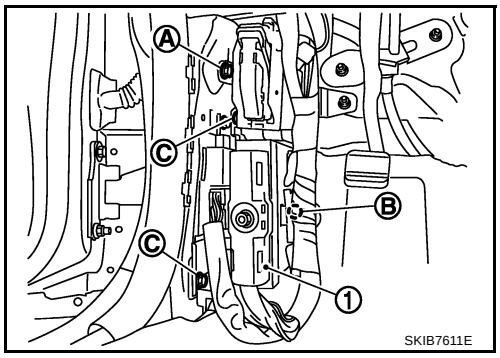
NKS002KA

REMOVAL

CAUTION:

Before servicing, disconnect the battery cable from the negative terminal.

1. Remove dash side finisher.
2. Remove SMJ harness connector mounting screw (A).
3. Remove harness clip (B) and disconnect BCM connector.
4. Remove BCM mounting screw (C) and remove BCM (1) from the vehicle.



INSTALLATION

Installation is the reverse order of removal.

Removal and Installation of LCU

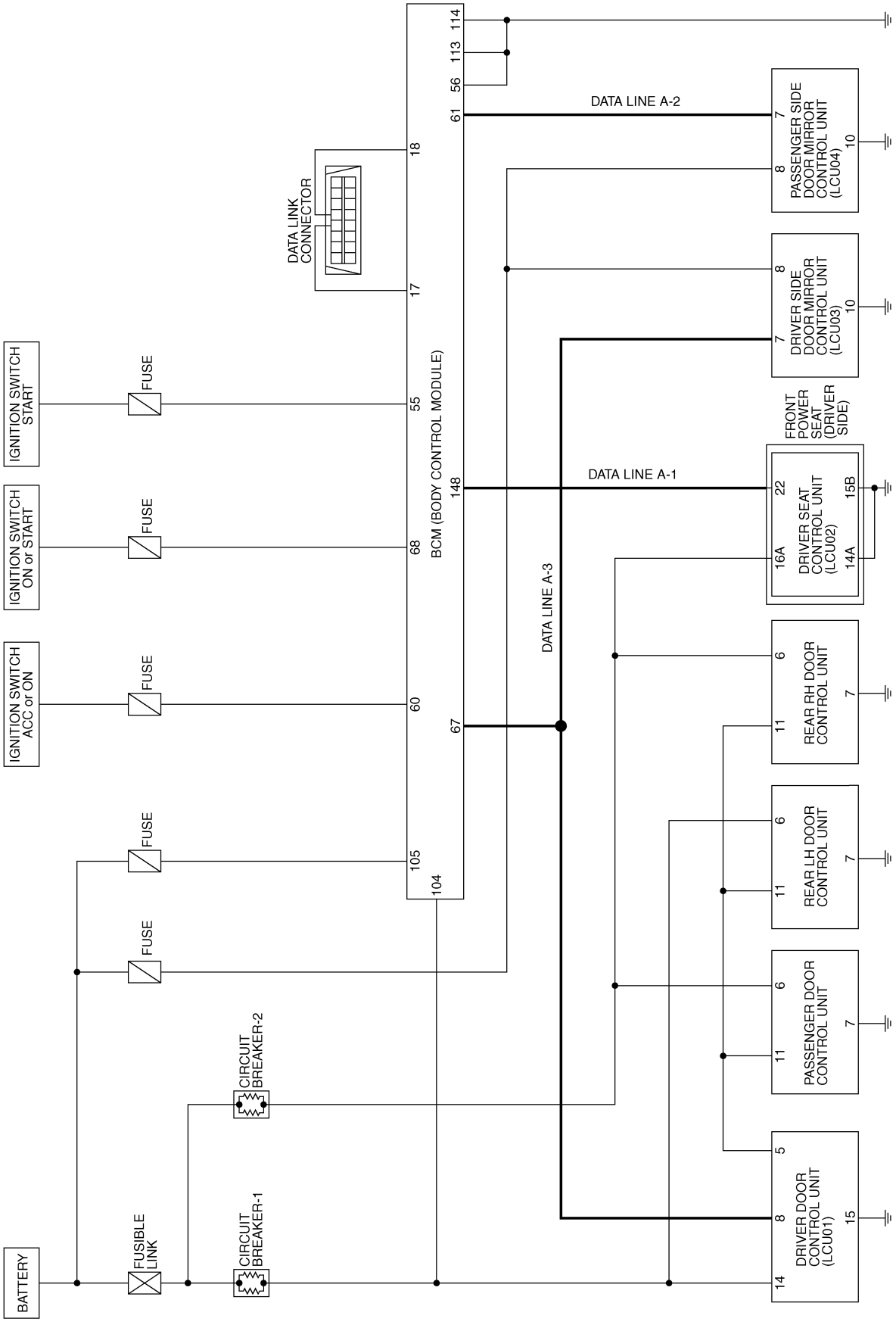
NKS002KB

- Driver door control unit (LCU01): Refer to EI-40, "FRONT DOOR TRIM (DRIVER SIDE)" .
- Driver seat control unit (LCU02): Refer to SE-182, "DRIVER SIDE POWER SEAT" .
- Driver side door mirror control unit (LCU03): Refer to GW-83, "Component Parts and Harness Connector Location" .
- Passenger side door mirror control unit (LCU04): Refer to GW-83, "Component Parts and Harness Connector Location" .

Schematic

NKS001GB

POWER SUPPLY, GROUND AND COMMUNICATION CIRCUITS



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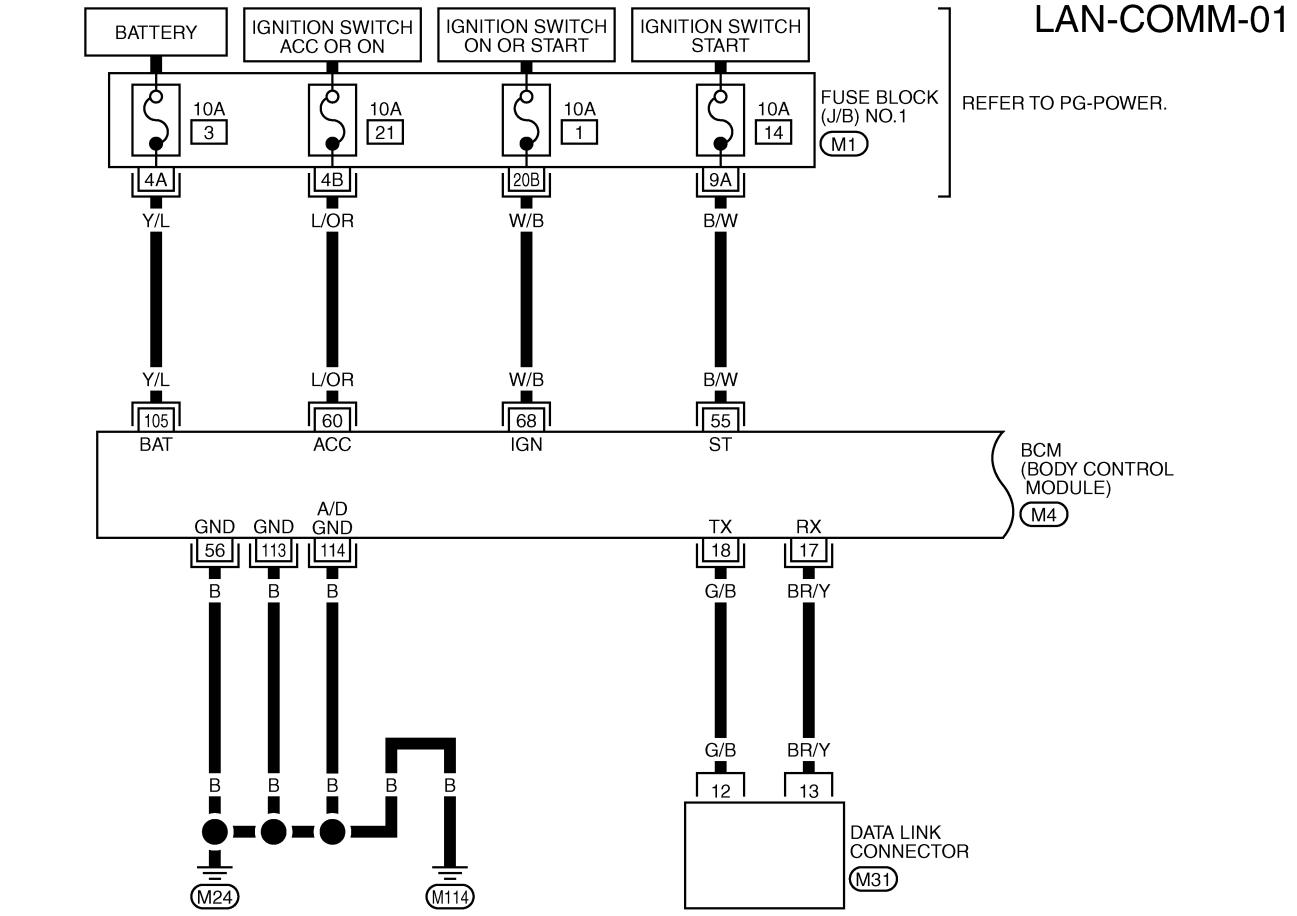
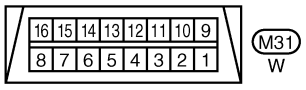
Wiring Diagram — COMM —

NKS001GC

POWER SUPPLY, GROUND AND COMMUNICATION CIRCUITS





REFER TO THE FOLLOWING.

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

M4 -ELECTRICAL UNITS

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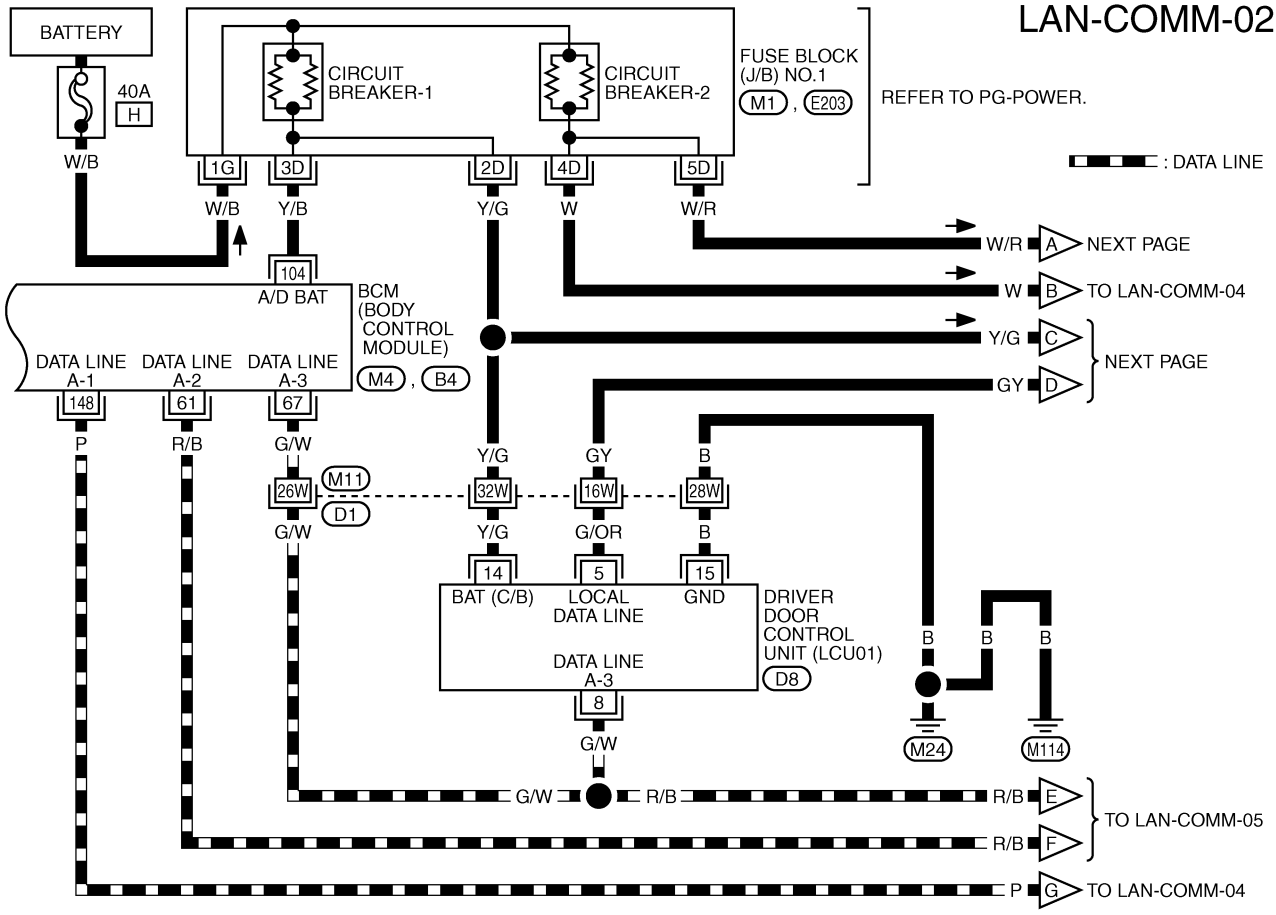
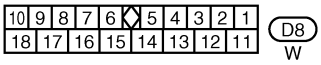
LAN-COMM-02





REFER TO THE FOLLOWING.

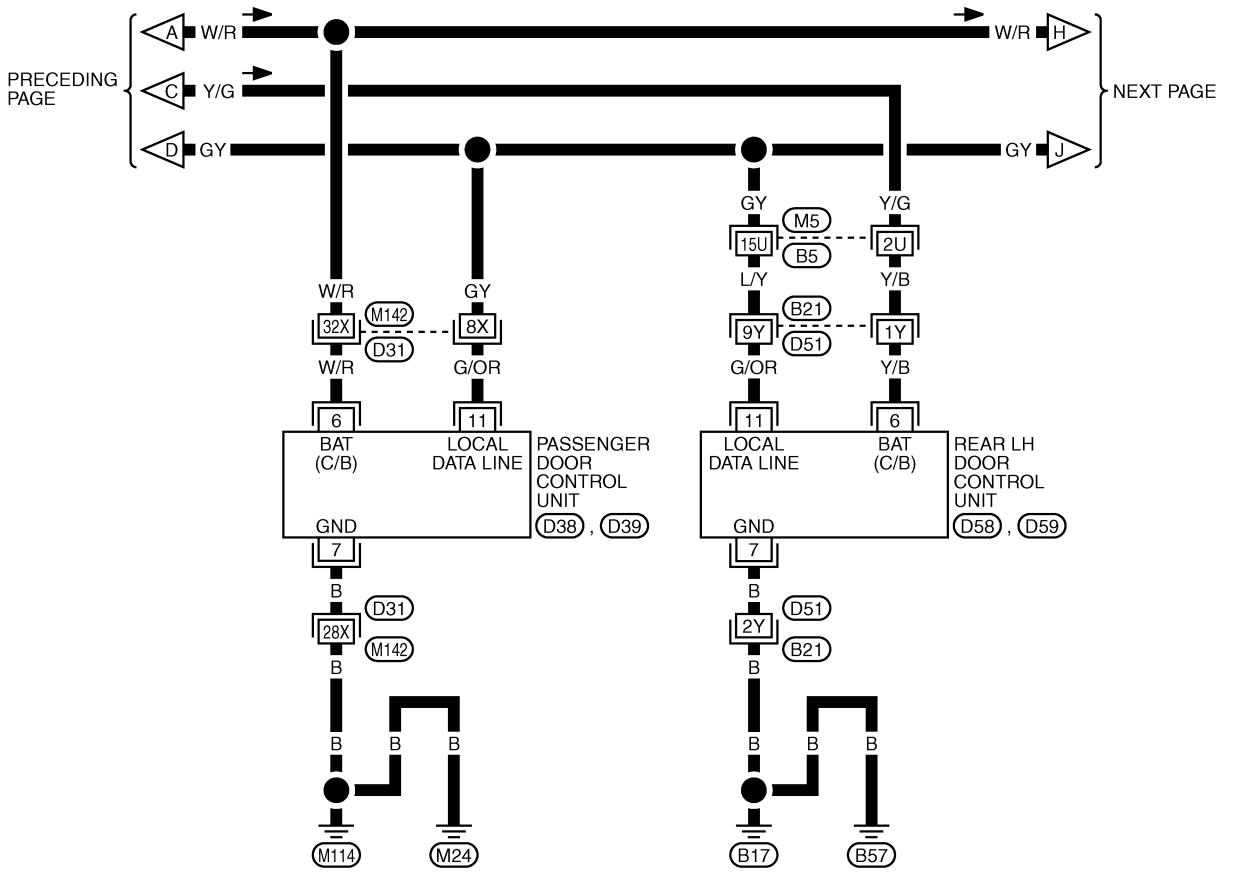
D1 -SUPER MULTIPLE JUNCTION (SMJ)

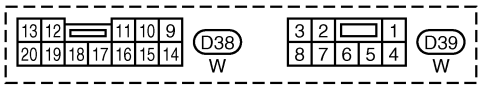
M1 , E203 -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

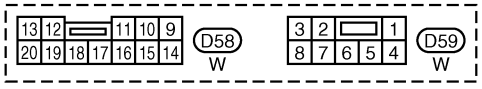
M4 , B4 -ELECTRICAL UNITS

TKWM3779E

LAN-COMM-03



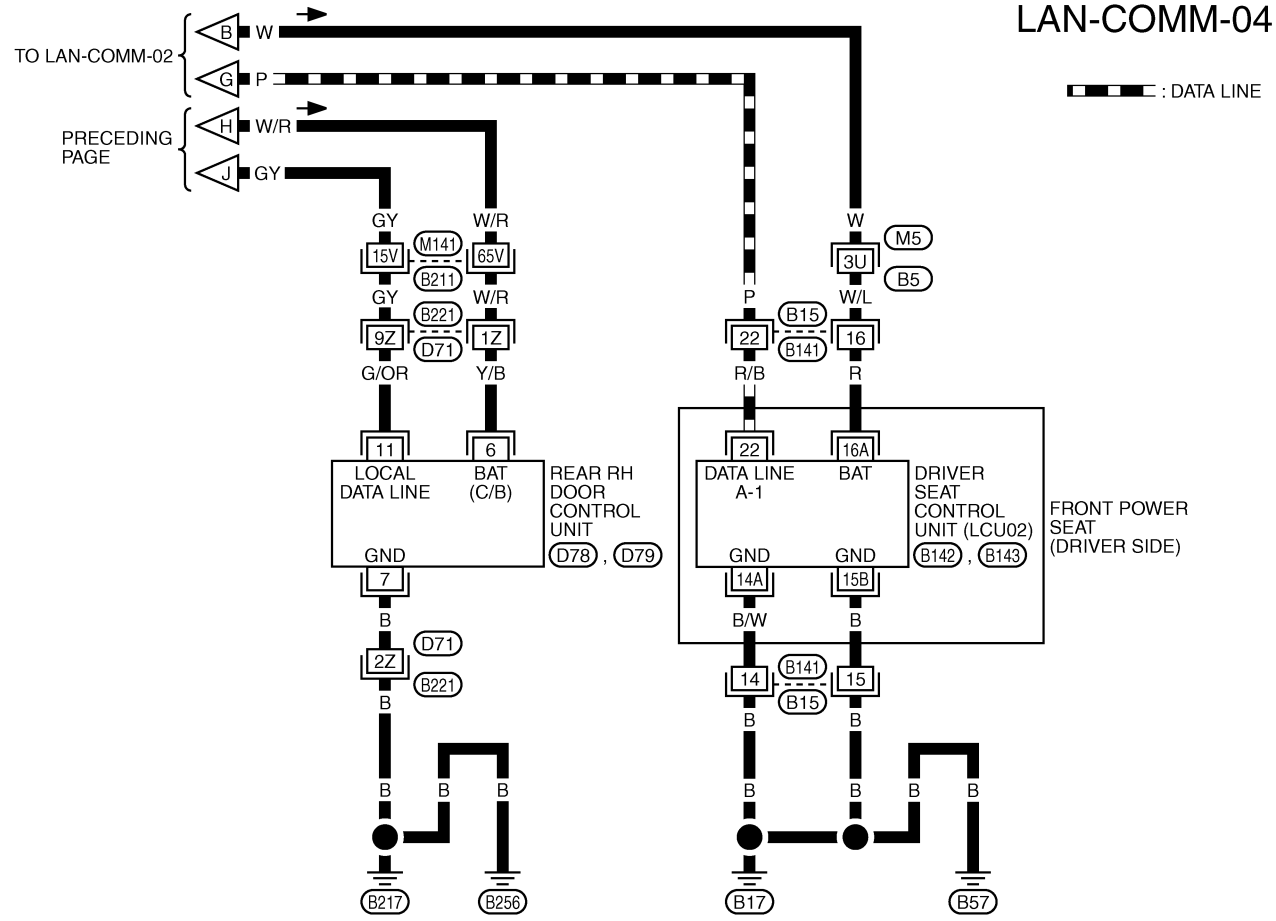


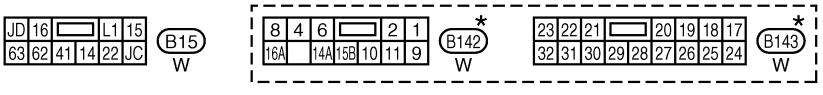


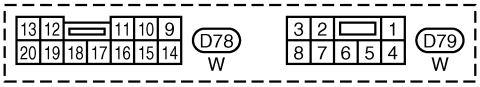
REFER TO THE FOLLOWING.
M5 , B21 , D31 -SUPER MULTIPLE JUNCTION (SMJ)

TKWM3780E

LAN-COMM-04



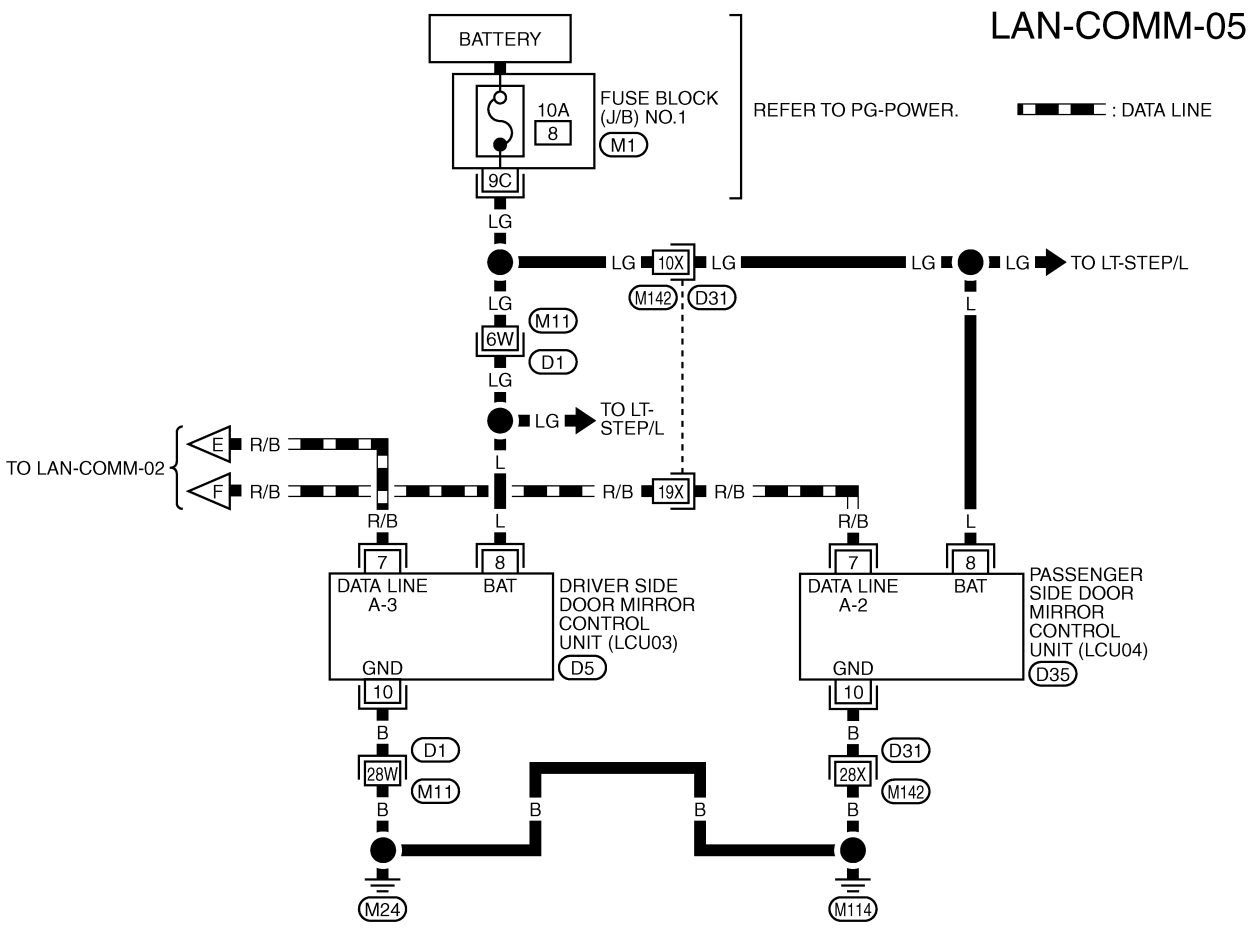


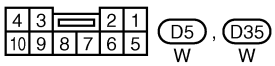


*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

REFER TO THE FOLLOWING.
M5 , B211 , B221 -SUPER MULTIPLE JUNCTION (SMJ)

TKWM3781E





REFER TO THE FOLLOWING.

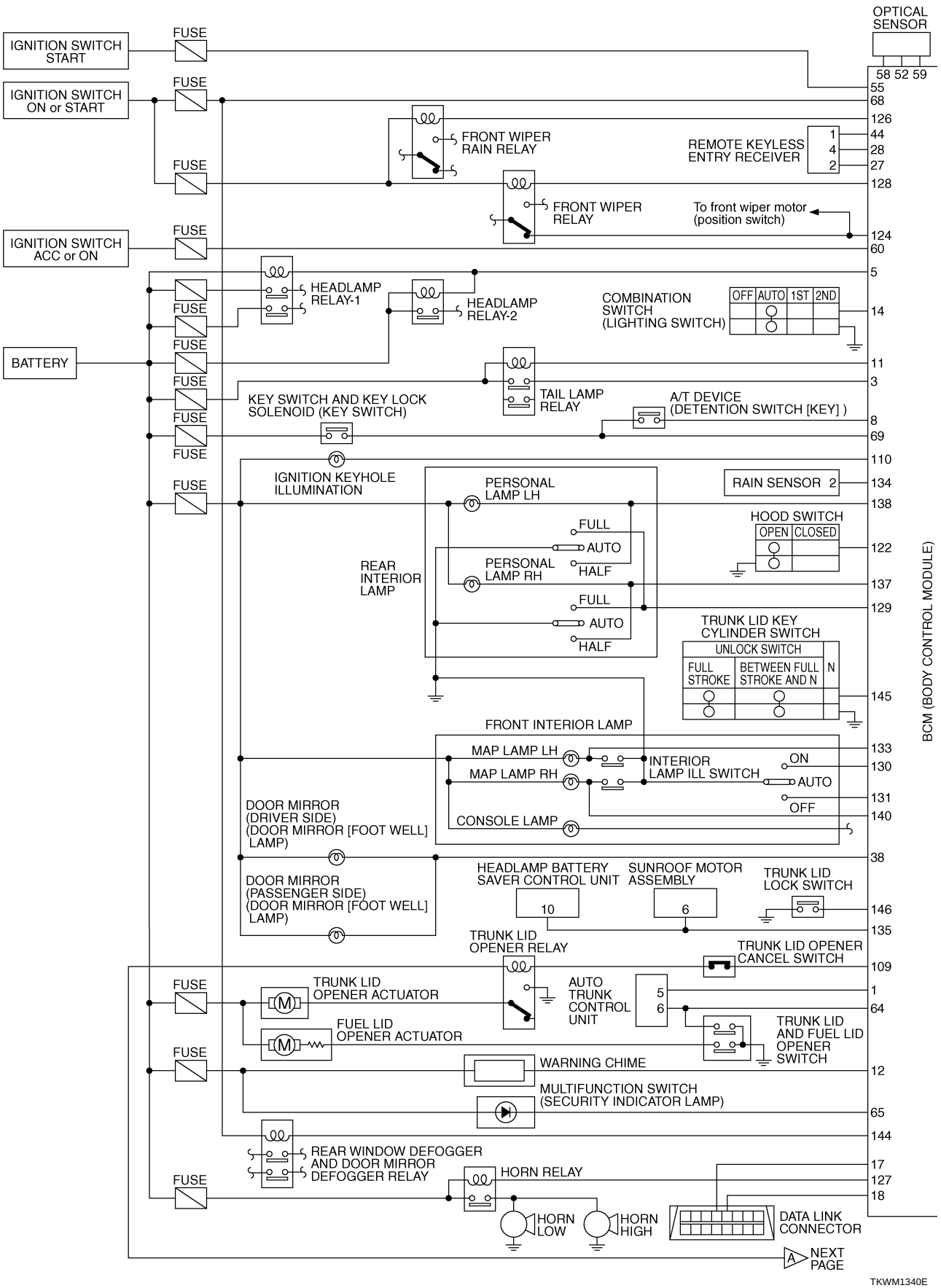
D1 , D31 -SUPER MULTIPLE JUNCTION (SMJ)

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

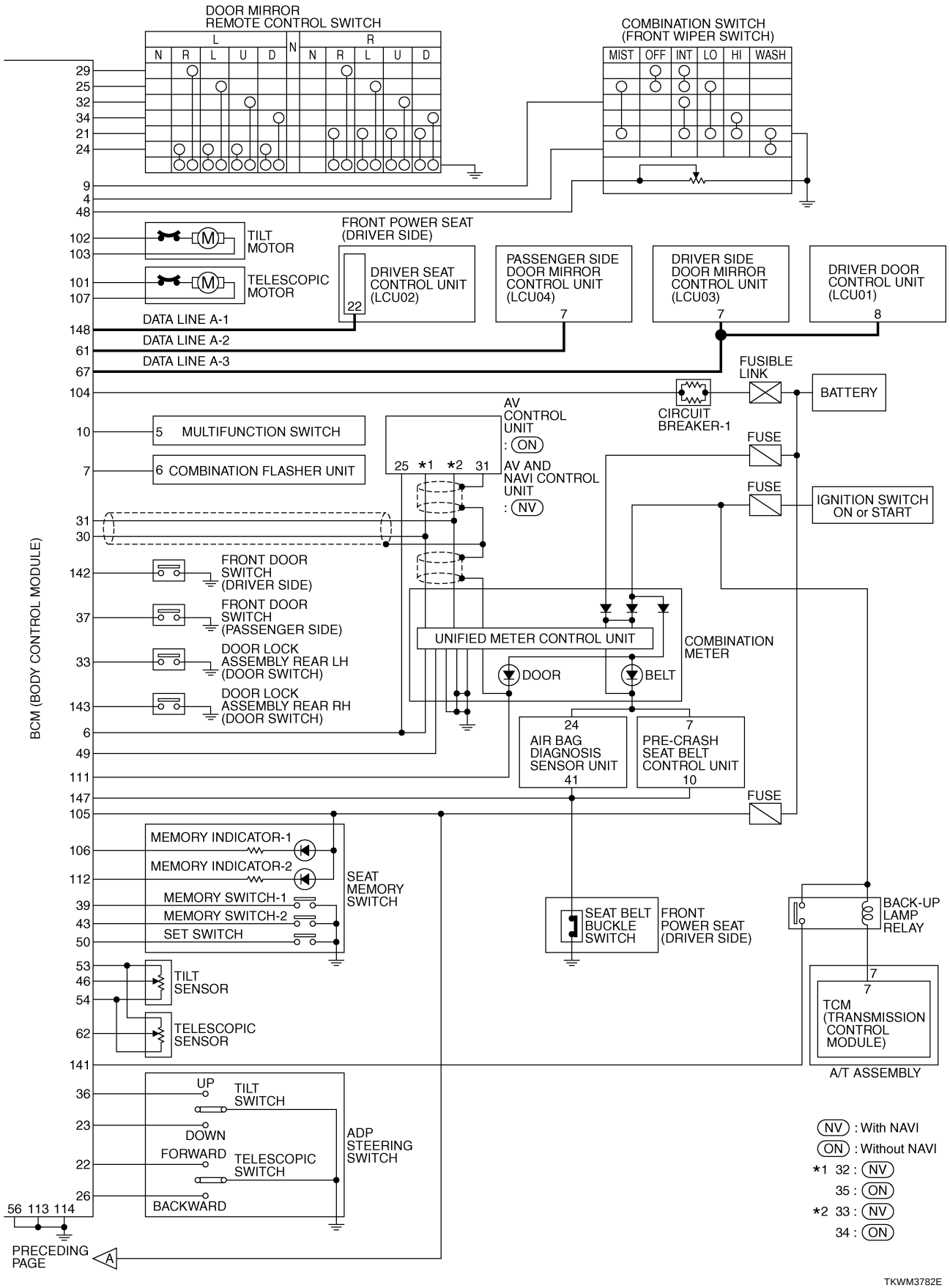
TKWM1339E

Schematic — BCM —

NKS001GD



TKWM1340E


DOOR MIRROR
REMOTE CONTROL SWITCH
L
R
N R L U D
COMBINATION SWITCH
(FRONT WIPER SWITCH)
MIST OFF INT LO HI WASH
TILT MOTOR
TELESCOPIC MOTOR
FRONT POWER SEAT
(DRIVER SIDE)
DRIVER SEAT CONTROL UNIT (LCU02)
PASSENGER SIDE DOOR MIRROR CONTROL UNIT (LCU04)
DRIVER SIDE DOOR MIRROR CONTROL UNIT (LCU03)
DRIVER DOOR CONTROL UNIT (LCU01)
DATA LINE A-1
DATA LINE A-2
DATA LINE A-3
FUSIBLE LINK
BATTERY
CIRCUIT BREAKER-1
FUSE
IGNITION SWITCH ON or START
AV CONTROL UNIT : (ON)
AV AND NAVI CONTROL UNIT : (NV)
MULTIFUNCTION SWITCH
COMBINATION FLASHER UNIT
BCM (BODY CONTROL MODULE)
FRONT DOOR SWITCH (DRIVER SIDE)
FRONT DOOR SWITCH (PASSENGER SIDE)
DOOR LOCK ASSEMBLY REAR LH (DOOR SWITCH)
DOOR LOCK ASSEMBLY REAR RH (DOOR SWITCH)
UNIFIED METER CONTROL UNIT
COMBINATION METER
DOOR
BELT
AIR BAG DIAGNOSIS SENSOR UNIT
PRE-CRASH SEAT BELT CONTROL UNIT
MEMORY INDICATOR-1
MEMORY INDICATOR-2
MEMORY SWITCH-1
MEMORY SWITCH-2
SET SWITCH
SEAT MEMORY SWITCH
SEAT BELT BUCKLE SWITCH
FRONT POWER SEAT (DRIVER SIDE)
BACK-UP LAMP RELAY
TILT SENSOR
TELESCOPIC SENSOR
TCM (TRANSMISSION CONTROL MODULE)
A/T ASSEMBLY
UP
DOWN
FORWARD
BACKWARD
TILT SWITCH
TELESCOPIC SWITCH
ADP STEERING SWITCH
PRECEDING PAGE
(NV) : With NAVI
(ON) : Without NAVI
*1 32 : (NV)
35 : (ON)
*2 33 : (NV)
34 : (ON)
TKWM3782E

PRECAUTIONS

PFP:00001

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

NKS001GI

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WARNING:

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- **Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SRS section.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

Precautions When Using CONSULT-II

NKS003IH

When connecting CONSULT-II to data link connector, connect them through CONSULT-II CONVERTER.

CAUTION:

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

CHECK POINTS FOR USING CONSULT-II

1. Has CONSULT-II been used without connecting CONSULT-II CONVERTER on this vehicle?
   - If YES, GO TO 2.
   - If NO, GO TO 5.
2. Is there any indication other than indications relating to CAN communication system in the self-diagnosis results?
   - If YES, GO TO 3.
   - If NO, GO TO 4.
3. Based on self-diagnosis results unrelated to CAN communication, carry out the inspection.
4. Malfunctions may be detected in self-diagnosis depending on control units carrying out CAN communication. Therefore, erase the self-diagnosis results.
5. Diagnose CAN communication system. Refer to LAN-19, "TROUBLE DIAGNOSES WORK FLOW" .

Precautions for Trouble Diagnosis

NKS003II

CAN SYSTEM

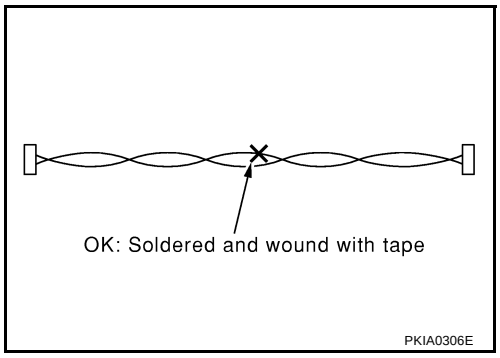
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

Precautions for Harness Repair

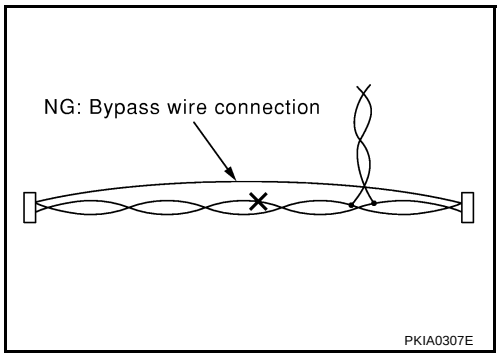
NKS003IJ

CAN SYSTEM

- Solder the repaired parts, and wrap with tape. [Frays of twisted line must be within 110 mm (4.33 in).]



- Do not perform bypass wire connections for the repair parts. (The spliced wire will become separated and the characteristics of twisted line will be lost.)



TROUBLE DIAGNOSES WORK FLOW

PFP:00004

When Displaying CAN Communication System Errors

NKS001GM

WHEN A MALFUNCTION IS DETECTED BY CAN COMMUNICATION SYSTEM

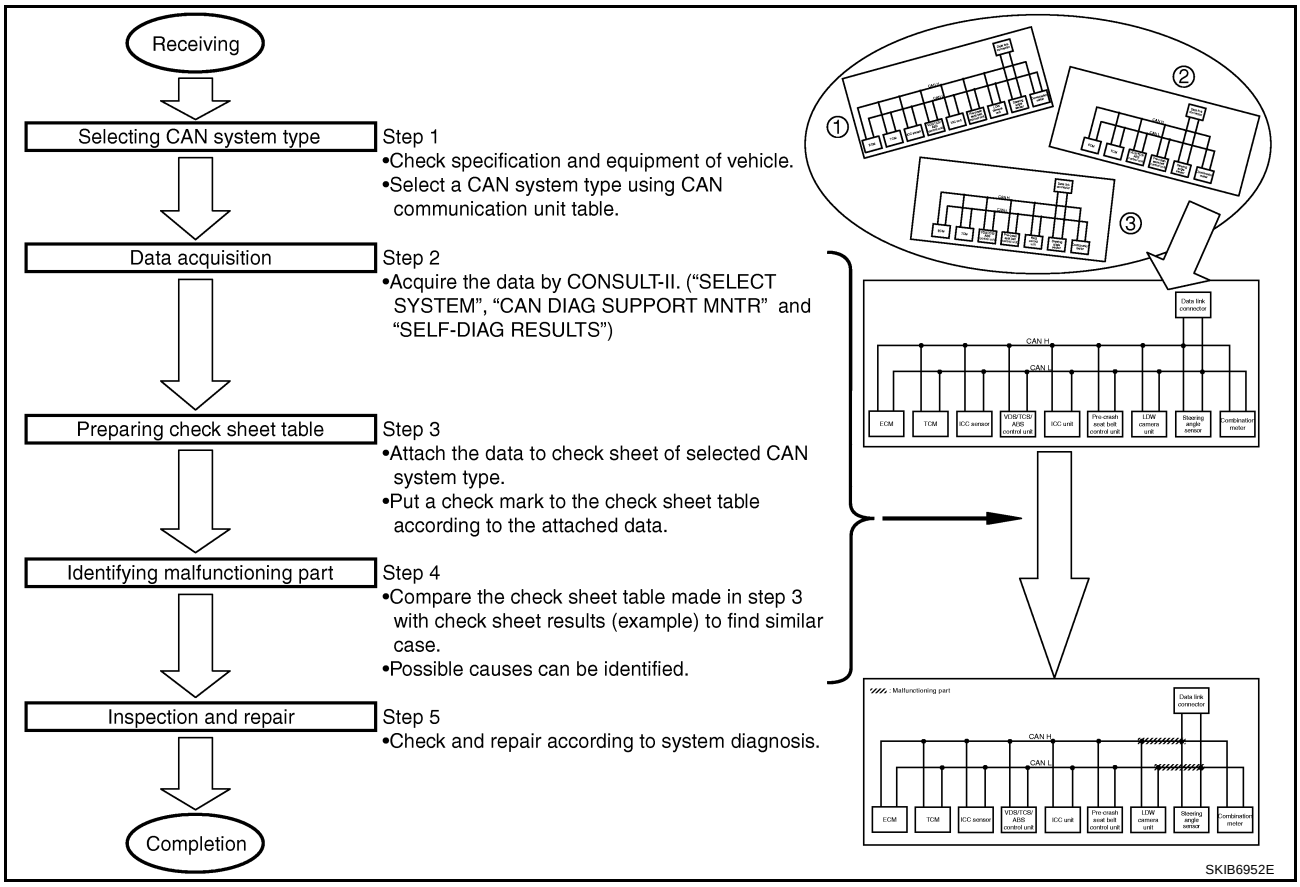
- CAN communication line is open. (CAN H, CAN L, or both)
- CAN communication line is shorted. (Ground, between CAN lines, or other harnesses)
- The areas related to CAN communication of unit is malfunctioning.

WHEN A MALFUNCTION IS DETECTED EXCEPT CAN COMMUNICATION SYSTEM

- Removal and installation of parts: When the units that perform CAN communication or the sensors related to CAN communication are removed and installed, malfunction may be detected (or DTC other than CAN communication may be detected).
- Fuse blown out (removed): CAN communication of the unit may be stopped at such time.
- Low voltage: If the voltage decreases because of battery discharge when IGN is ON, malfunction may be detected by self-diagnosis according to the units.

TROUBLE DIAGNOSIS FLOW CHART

Depending on the control unit which performs CAN communication, “U1010” may be indicated as the result of self-diagnosis. Replace the control unit if “U1010” is indicated.



- Step 1: Refer to LAN-21, "SELECTING CAN SYSTEM TYPE (HOW TO USE SPECIFICATION TABLE)" .
- Step 2: Refer to LAN-22, "ACQUISITION OF DATA BY CONSULT-II" .
- Step 3: Refer to LAN-23, "HOW TO USE CHECK SHEET TABLE" .
- Step 4: Refer to LAN-24, "Example of Filling in Check Sheet When Initial Conditions Are Reproduced" .
- Step 5: Refer to LAN-93, "TROUBLE DIAGNOSIS FOR SYSTEM" .

Diagnosis Procedure

NKS001GN

SELECTING CAN SYSTEM TYPE (HOW TO USE SPECIFICATION TABLE)

Determine CAN system type from the equipment of the vehicle to select applicable check sheet.

(Example) Sedan/2WD/VK45DE/AT/VDC/With ICC system/Without rear active steer/
With lane departure warning system

CAN Communication Unit

Refer to the following table to determine CAN system type.

Body type	Sedan			Check basic specifications of the vehicle.
Axle	2WD			
Engine	VK45DE			
Transmission	A/T			
Brake control	VDC			
ICC system		×		Select "×" if it is model with ICC system.
Rear active steer			×	Select "×" if it is model with rear active steer.
Lane departure warning system		×		Select "×" if it is model with lane departure warning system.
CAN system type	1	2	3	Which number is selected when sequentially selecting from the top of the specification table? The number is "CAN system type" of the applicable vehicle.
CAN system trouble diagnosis	XX-XX	XX-XX	XX-XX	

×: Applicable

In the case of this example:
It corresponds to type 2.

SKIB6953E

ACQUISITION OF DATA BY CONSULT-II

Attach the data acquired by CONSULT-II on the check sheet determined according to CAN system type.

Copy "SELECT SYSTEM" screen of CONSULT-II.

SELECT SYSTEM
ENGINE
A/T
MULTI AV
IVMS
ACT D/SUS
VDC
Page Down
BACK LIGHT COPY

SELECT SYSTEM
ACT D/SUS
VDC
ICC
AIR PRESSURE MONITOR
AIR BAG
HEAD LAMP LEVELIZER
Page Up
BACK LIGHT COPY

Check sheet table

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR: Initial diagnosis	CAN DIAG SUPPORT MNTR: Transmit diagnosis	CAN DIAG SUPPORT MNTR: Receive diagnosis: ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A	SELF-DIAG RESULTS	
ENGINE	–	–	UNKWN	–	UNKWN	–	UNKWN	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	–	UNKWN	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
VDC	–	NG	UNKWN	UNKWN	UNKWN	–	–	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	–
ICC	–	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
PRECRASH SEATBELT	No indication	–	–	UNKWN	UNKWN	–	–	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
LDW	No indication	–	–	UNKWN	UNKWN	–	UNKWN	UNKWN	–	–	CAN COMM CIRCUIT (U1000)	–

Symptoms :

Attach copy of SELECT SYSTEM

Attach copy of SELECT SYSTEM

Copy "SELF-DIAG RESULTS" screen of CONSULT-II.

SELF-DIAG RESULTS	
DTC RESULTS	TIME
NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED.	
ERASE	PRINT
MODE BACK LIGHT COPY	

SELF-DIAG RESULTS
DTC RESULTS
CAN COMM CIRCUIT 【U1000】
ERASE PRINT
MODE BACK LIGHT COPY

Attach copy of ENGINE SELF-DIAG RESULTS

Attach copy of A/T SELF-DIAG RESULTS

Attach copy of VDC SELF-DIAG RESULTS

Attach copy of ICC SELF-DIAG RESULTS

SELF-DIAG RESULTS	
DTC RESULTS	TIME
CAN COMM CIRCUIT 【U1000】	
ERASE	PRINT
MODE BACK LIGHT COPY	

Attach copy of LDW SELF-DIAG RESULTS

Copy "CAN DIAG SUPPORT MNTR" screen of CONSULT-II.

CAN DIAG SUPPORT MNTR	
A/T	
	PRSNT
INITIAL DIAG	OK
TRANSMIT DIAG	OK
ECM	OK
VDC/TCS/ABS	OK
METER/M&A	UNKWN
ICC/e4WD	OK
AWD/4WD	UNKWN
PRINT	
MODE BACK LIGHT COPY	

CAN DIAG SUPPORT MNTR	
ICC	
	PRSNT
INITIAL DIAG	OK
TRANSMIT DIAG	OK
ECM	OK
VDC/TCS/ABS	OK
TCM	OK
METER/M&A	UNKWN
LANE KEEP	UNKWN
ECM(I)	OK
ICC SENSOR	OK
PRINT	Scroll Down
MODE BACK LIGHT COPY	

CAN DIAG SUPPORT MNTR	
ICC	
	PRSNT
LANE KEEP	UNKWN
ECM(I)	OK
ICC SENSOR	OK
STRG	UNKWN
METER/M&A(I)	OK
ERROR(I)	OK
LANE DETECTOR	UNKWN
TCM(I)	UNKWN
BCM/SEC	UNKWN
PRINT	Scroll Up
MODE BACK LIGHT COPY	

Attach copy of ENGINE CAN DIAG SUPPORT MNTR

Attach copy of A/T CAN DIAG SUPPORT MNTR

VDC	
	PRSNT
INITIAL DIAG	OK
TRANSMIT DIAG	OK
ECM	OK
TCM	OK
METER/M&A	UNKWN
ICC	OK
STRG	UNKWN
PRINT	
MODE BACK LIGHT COPY	

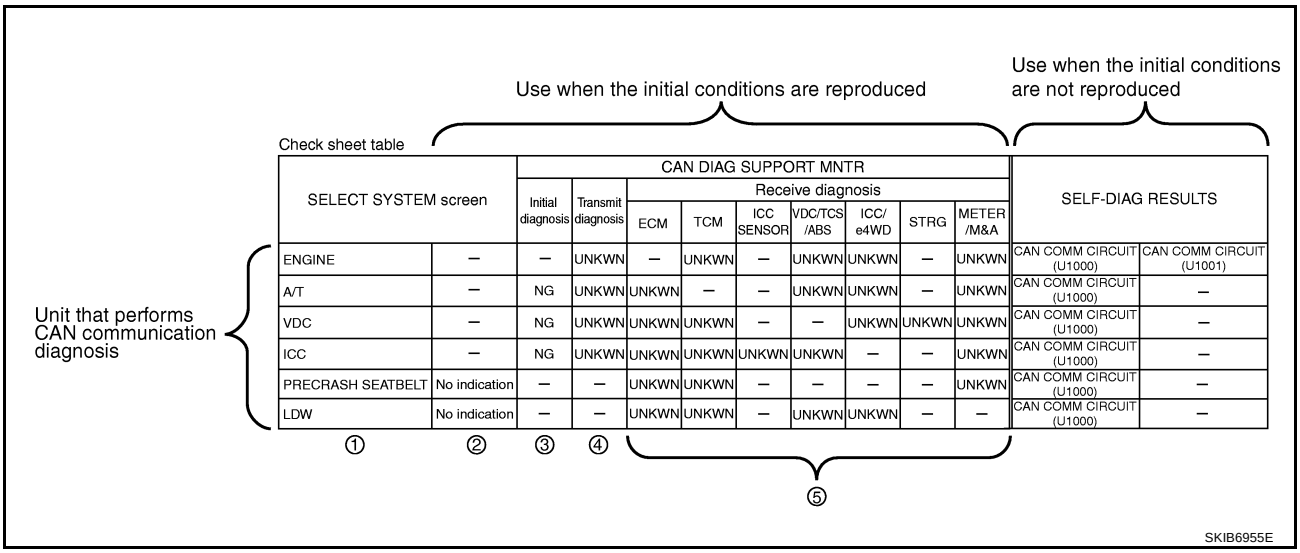
Attach copy of ICC CAN DIAG SUPPORT MNTR

Attach copy of PRECRASH SEATBELT CAN DIAG SUPPORT MNTR

Attach copy of LDW CAN DIAG SUPPORT MNTR

SKIB6954E

HOW TO USE CHECK SHEET TABLE

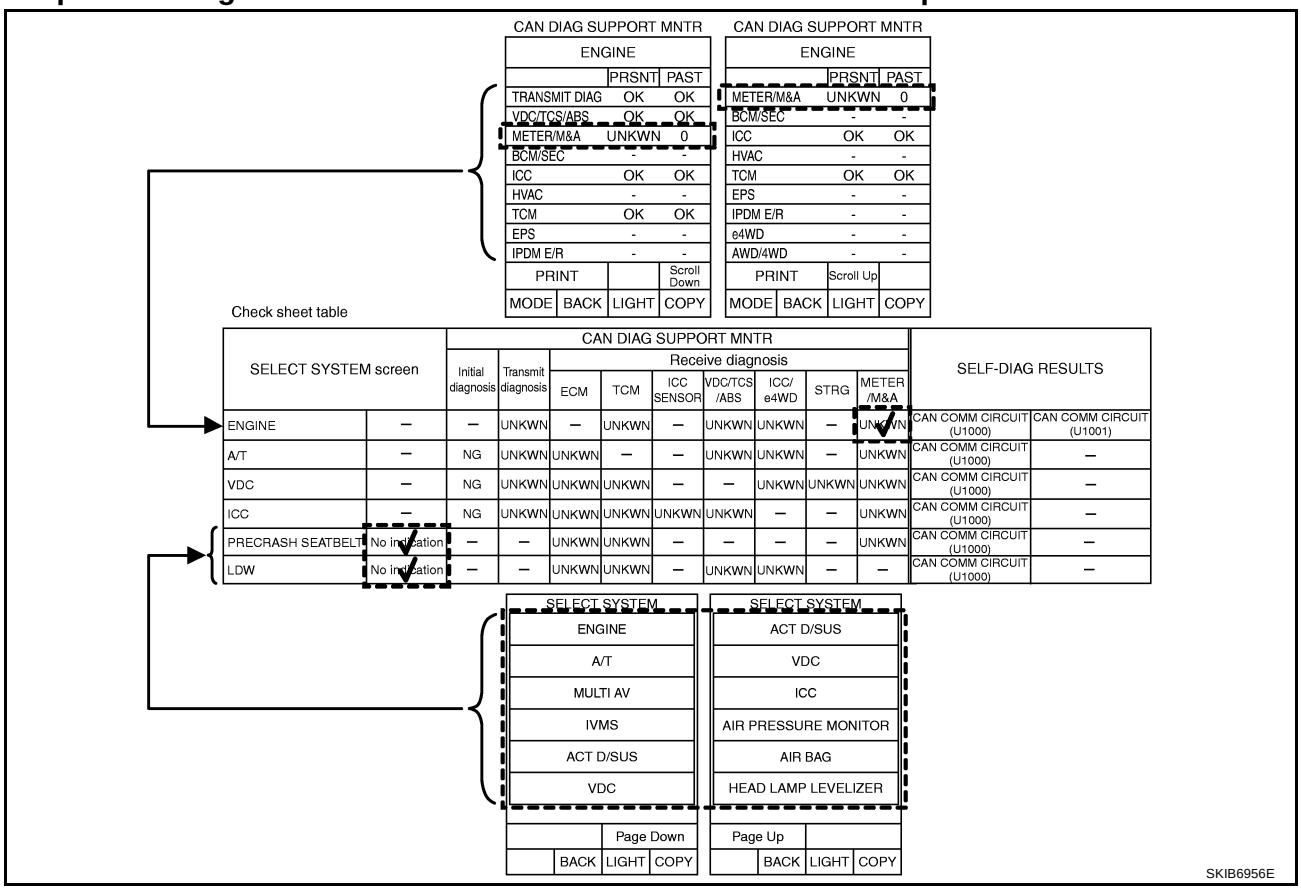


1. Unit names displayed on CONSULT-II
2. “No indication”: Put a check mark to it if the unit name described in step 1 is not displayed on “SELECT SYSTEM” screen of CONSULT-II. (Unit communicating with CONSULT-II via CAN communication line)
   “–”: Column not used (Unit communicating with CONSULT-II excluding CAN communication line)
3. “NG”: Display “NG” when malfunction is detected in the initial diagnosis of the diagnosed unit. Replace the unit if “NG” is displayed.
   “–”: Column not used (Initial diagnosis is not performed.)
4. “UNKWN”: Display “UNKWN” when the diagnosed unit does not transmit the data normally. Put a check mark to it if “UNKWN” is displayed on CONSULT-II.
   “–”: Column not used (Transmit diagnosis is not performed.)
5. “UNKWN”: Display “UNKWN” when the diagnosed unit does not receive the data normally. Put a check mark to it if “UNKWN” is displayed on CONSULT-II.
   “–”: Column not used (It is not necessary for CAN communication trouble diagnosis.)

NOTE:
CAN communication diagnosis checks if CAN communication works normally. (Contents of data are not diagnosed.)

- When the initial conditions are reproduced, refer to LAN-24, "Example of Filling in Check Sheet When Initial Conditions Are Reproduced" .
- When the initial conditions are not reproduced, refer to LAN-27, "Example of Filling in Check Sheet When Initial Conditions Are Not Reproduced" .

Example of Filling in Check Sheet When Initial Conditions Are Reproduced

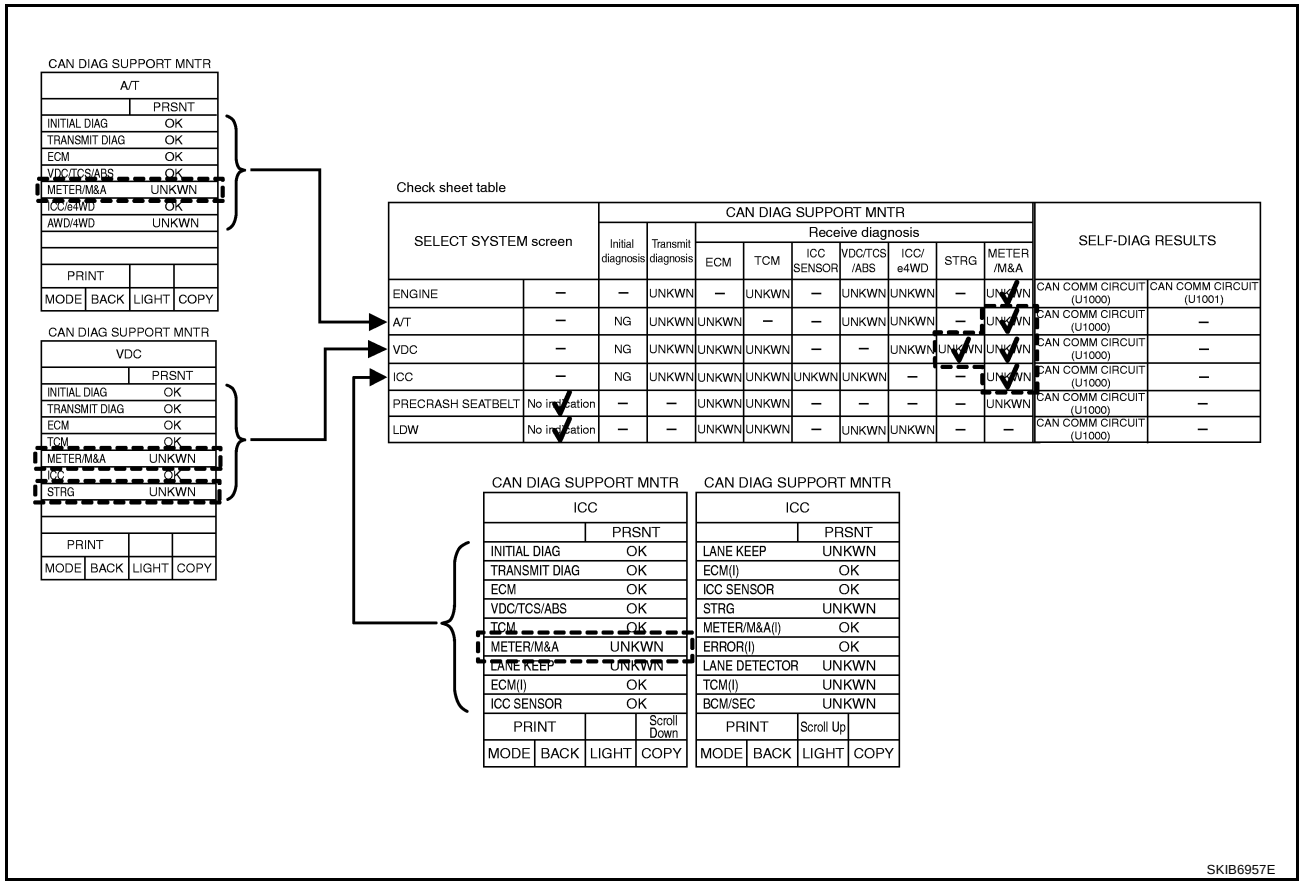


1. Put a check mark to “No indication” if some of unit names listed on the column of diagnosis system selection screen of a check sheet table are not displayed on “SELECT SYSTEM” screen attached to the check sheet.

   NOTE:
   Put check marks to “No indication” of PRECRASH SEATBELT and LDW because PRECRASH SEATBELT and LDW are not displayed on “SELECT SYSTEM” screen.

2. Confirm the unit name that “UNKWN” is displayed from the copy of “CAN DIAG SUPPORT MNTR” screen of “ENGINE” attached to the check sheet, and then put a check mark to the check sheet table.

   NOTE:
   In “CAN DIAG SUPPORT MNTR” screen, “UNKWN” is displayed on “METER/M&A”. Put a check mark to it.



3. Confirm the unit name that “UNKWN” is displayed on the copy of “CAN DIAG SUPPORT MNTR” screen of “A/T”, “VDC” and “ICC” as well as “ENGINE”. And then, put a check mark to the check sheet table.

NOTE:

- For “A/T”, “UNKWN” is displayed on “METER/M&A” and “AWD/4WD”. But put a check mark only to “METER/M&A” because “UNKWN” is listed on the column of reception diagnosis on the check sheet table.
- For “VDC”, “UNKWN” is displayed on “METER/M&A” and “STRG”. Put check mark to them.
- For “ICC”, “UNKWN” is displayed on “METER/M&A”, “LANE KEEP”, “STRG”, “LANE DETECTOR”, “TCM(I)” and “BCM/SEC”. But put a check mark only to “METER/M&A” because “UNKWN” is listed on the column of reception diagnosis on the check sheet table.

The arranged results of CAN diagnosis support monitor

Check sheet table

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	–	–	UNKWN	–	UNKWN	–	UNKWN	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	–	UNKWN	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
VDC	–	NG	UNKWN	UNKWN	UNKWN	–	–	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	–
ICC	–	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
PRECRASH SEATBELT	No indication	–	–	UNKWN	UNKWN	–	–	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
LDW	No indication	–	–	UNKWN	UNKWN	–	UNKWN	UNKWN	–	–	CAN COMM CIRCUIT (U1000)	–

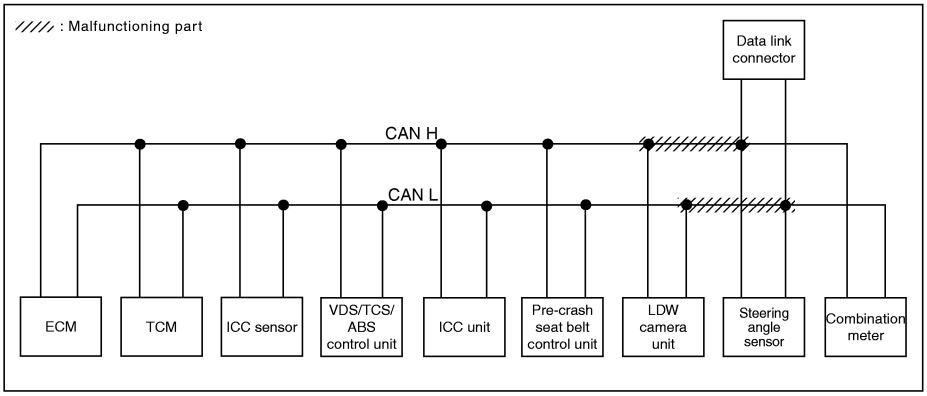
Choose similar indications between the results of CAN diagnosis support monitor and the results of the check sheet. Malfunctioning parts are found.

Case 6

Check harness between LDW camera unit and data link connector.

Check sheet results (example)

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	–	–	UNKWN	–	UNKWN	–	UNKWN	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	–	UNKWN	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
VDC	–	NG	UNKWN	UNKWN	UNKWN	–	–	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	–
ICC	–	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
PRECRASH SEATBELT	No indication	–	–	UNKWN	UNKWN	–	–	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
LDW	No indication	–	–	UNKWN	UNKWN	–	UNKWN	UNKWN	–	–	CAN COMM CIRCUIT (U1000)	–



SKIB6958E

NOTE:

There is a case that some of “CAN DIAG SUPPORT MNTR” and “SELF-DIAG RESULTS” are not needed for diagnosis. In the case, “UNKWN” and “CAN COMM CIRCUIT [U1000]” in “Check sheet results (example)” change to “–”. Then, ignore check marks on the check sheet table.

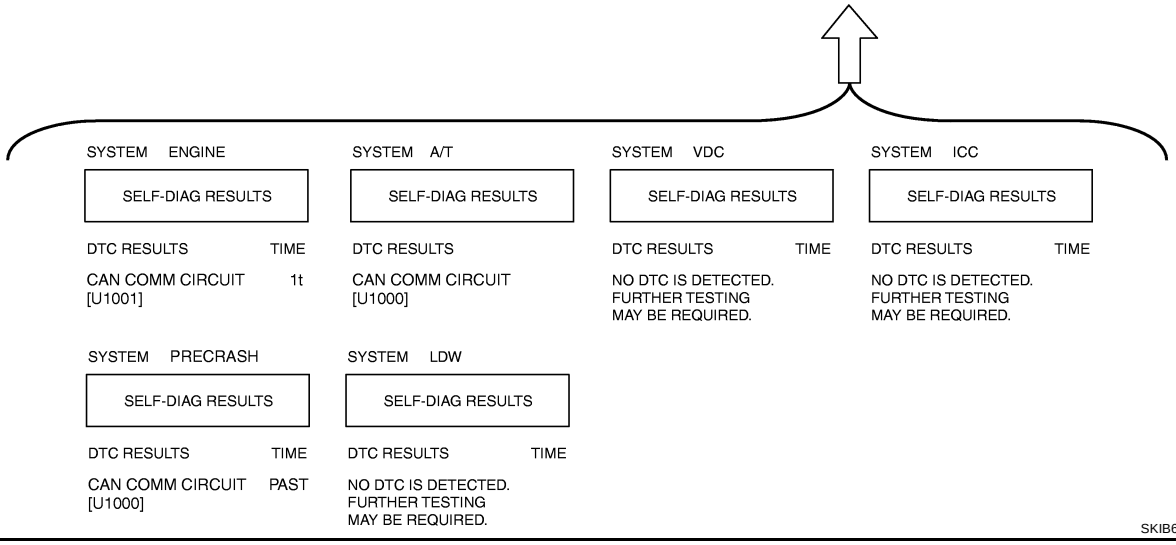
4. Perform system diagnosis for possible causes identified.
5. Perform diagnosis again after inspection and repair. Make sure that repair is completely performed, and then end the procedure.

Start CAN system trouble diagnosis if this procedure can be confirmed. Refer to LAN-40, "CAN Communication Unit" .

Example of Filling in Check Sheet When Initial Conditions Are Not Reproduced

Check sheet table

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	–	–	UNKWN	–	UNKWN	–	UNKWN	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	–	UNKWN	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
VDC	–	NG	UNKWN	UNKWN	UNKWN	–	–	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	–
ICC	–	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
PRECRASH SEATBELT	No indication	–	–	UNKWN	UNKWN	–	–	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
LDW	No indication	–	–	UNKWN	UNKWN	–	UNKWN	UNKWN	–	–	CAN COMM CIRCUIT (U1000)	–



1. See “SELF-DIAG RESULTS” of all units attached to the check sheet. If “CAN COMM CIRCUIT”, “CAN COMM CIRCUIT [U1000]” or “CAN COMM CIRCUIT [U1001]” is displayed, put a check mark to the applicable column of self-diagnostic results of the check sheet table.

NOTE:

- For “ENGINE”, “CAN COMM CIRCUIT [U1001]” is displayed. Put a check mark to it.
- For “A/T”, “CAN COMM CIRCUIT [U1000]” is displayed. Put a check mark to it.
- For “VDC”, “NO DTC IS DETECTED” is displayed. Do not put a check mark to it.
- For “ICC”, “NO DTC IS DETECTED” is displayed. Do not put a check mark to it.
- For “PRECRASH SEATBELT”, “CAN COMM CIRCUIT [U1000]” is displayed. Put a check mark to it.
- For “LDW”, “NO DTC IS DETECTED” is displayed. Do not put a check mark to it.

The arranged results of self-diagnosis

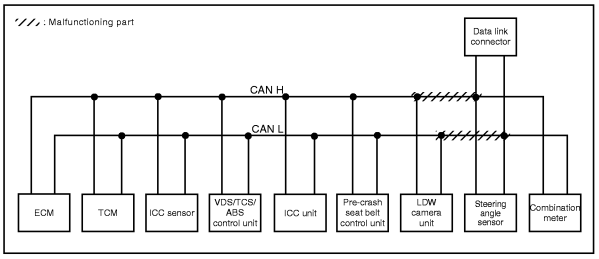
Check sheet table

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR: Initial diagnosis	CAN DIAG SUPPORT MNTR: Transmit diagnosis	CAN DIAG SUPPORT MNTR: Receive diagnosis: ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A	SELF-DIAG RESULTS	
ENGINE	–	–	UNKWN	–	UNKWN	–	UNKWN	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	–	UNKWN	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
VDC	–	NG	UNKWN	UNKWN	UNKWN	–	–	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	–
ICC	–	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
PRECRASH SEATBELT	No indication	–	–	UNKWN	UNKWN	–	–	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
LDW	No indication	–	–	UNKWN	UNKWN	–	UNKWN	UNKWN	–	–	CAN COMM CIRCUIT (U1000)	–

When the arranged results of self-diagnosis and check sheet results (example) are corresponding, possible causes can be selected.

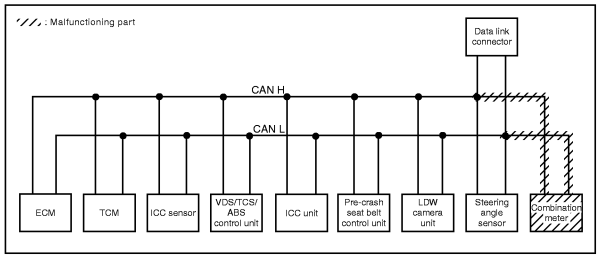
Case 6
Check harness between LDW camera unit and data link connector.

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR: Initial diagnosis	CAN DIAG SUPPORT MNTR: Transmit diagnosis	CAN DIAG SUPPORT MNTR: Receive diagnosis: ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A	SELF-DIAG RESULTS	
ENGINE	–	–	UNKWN	–	UNKWN	–	UNKWN	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	–	UNKWN	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
VDC	–	NG	UNKWN	UNKWN	UNKWN	–	–	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	–
ICC	–	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
PRECRASH SEATBELT	No indication	–	–	UNKWN	UNKWN	–	–	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
LDW	No indication	–	–	UNKWN	UNKWN	–	UNKWN	UNKWN	–	–	CAN COMM CIRCUIT (U1000)	–



Case 16
Check combination meter circuit.

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR: Initial diagnosis	CAN DIAG SUPPORT MNTR: Transmit diagnosis	CAN DIAG SUPPORT MNTR: Receive diagnosis: ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A	SELF-DIAG RESULTS	
ENGINE	–	–	UNKWN	–	UNKWN	–	UNKWN	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	–	UNKWN	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
VDC	–	NG	UNKWN	UNKWN	UNKWN	–	–	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	–
ICC	–	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
PRECRASH SEATBELT	No indication	–	–	UNKWN	UNKWN	–	–	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
LDW	No indication	–	–	UNKWN	UNKWN	–	UNKWN	UNKWN	–	–	CAN COMM CIRCUIT (U1000)	–



SKIB6960E

NOTE:
There is a case that some of “CAN DIAG SUPPORT MNTR” and “SELF-DIAG RESULTS” are not needed for diagnosis. In the case, “UNKWN” and “CAN COMM CIRCUIT [U1000]” in “Check sheet results (example)” change to “–”. Then, ignore check marks on the check sheet table.

2. For the selected possible causes, it is expected that malfunctions have been found in the past.

CAN Diagnostic Support Monitor

NKS001GO

DESCRIPTION OF “CAN DIAG SUPPORT MNTR” SCREEN FOR ECM

(Example)

CAN DIAG SUPPORT MNTR

ENGINE		
	PRSNT	PAST
TRANSMIT DIAG	OK	OK
VDC/TCS/ABS	OK	OK
METER/M&A	OK	OK
BCM/SEC	-	-
ICC	OK	OK
HVAC	-	-
TCM	OK	OK
EPS	-	-
IPDM E/R	-	-
PRINT		Scroll Down
MODE	BACK	LIGHT	COPY

CAN DIAG SUPPORT MNTR

ENGINE		
	PRSNT	PAST
METER/M&A	OK	OK
BCM/SEC	-	-
ICC	OK	OK
HVAC	-	-
TCM	OK	OK
EPS	-	-
IPDM E/R	-	-
e4WD	-	-
AWD/4WD	-	-
PRINT	Scroll Up	
MODE	BACK	LIGHT	COPY

SKIB7330E

“SELECT SYSTEM” screen	“CAN DIAG SUPPORT MNTR” screen	Description	Present	Past
ENGINE	TRANSMIT DIAG	Make sure of normal transmission.	OK/UNKWN/–	OK/0/1 – 39/–
	VDC/TCS/ABS	Make sure of normal reception from VDC/TCS/ ABS control unit.	OK/UNKWN/–	
	METER/M&A	Make sure of normal reception from combination meter.	OK/UNKWN/–	
	BCM/SEC	BCM/SEC is not diagnosed.	–	
	ICC	Make sure of normal reception from ICC unit.	OK/UNKWN/–	
	HVAC	HVAC is not diagnosed.	–	
	TCM	Make sure of normal reception from TCM.	OK/UNKWN/–	
	EPS	EPS is not diagnosed.	–	
	IPDM E/R	IPDM E/R is not diagnosed.	–	
	e4WD	e4WD is not diagnosed.	–	
	AWD/4WD	AWD/4WD is not diagnosed.	–	

Display Results (Present)

- OK: Normal
- UNKWN: The diagnosed unit does not transmit or receive the applicable data normally.
- –: There is no received unit or the unit is not in the condition that reception diagnosis is performed.

Display Results (Past)

- OK: Normal
- 0: There is malfunction now.
- 1 – 39: Displays when it is normal at present and finds malfunction in the past. It increases like 0→1→2...38→39 after returning to the normal condition whenever IGN OFF→ON. If it is over 39, it is fixed to 39 until the self-diagnostic results are erased. It returns to 0 when malfunction is detected again in the process.
- –: Undiagnosed

DESCRIPTION OF “CAN DIAG SUPPORT MNTR” SCREEN FOR TCM

(Example)

CAN DIAG SUPPORT MNTR

A/T	
	PRSNT
INITIAL DIAG	OK
TRANSMIT DIAG	OK
ECM	OK
VDC/TCS/ABS	OK
METER/M&A	OK
ICC/e4WD	OK
AWD/4WD	UNKWN
PRINT	
MODE BACK LIGHT COPY	

PKIA9892E

“SELECT SYSTEM” screen	“CAN DIAG SUPPORT MNTR” screen	Description	Present
A/T	INITIAL DIAG	Make sure that microcomputer in ECU works normally.	OK/NG
	TRANSMIT DIAG	Make sure of normal transmission.	OK/UNKWN
	ECM	Make sure of normal reception from ECM.	OK/UNKWN
	VDC/TCS/ABS	Make sure of normal reception from VDC/TCS/ABS control unit.	OK/UNKWN
	METER/M&A	Make sure of normal reception from combination meter.	OK/UNKWN
	ICC/e4WD	Make sure of normal reception from ICC unit.	OK/UNKWN
	AWD/4WD	AWD/4WD is not diagnosed.	UNKWN

Display Results (Present)

- OK: Normal
- NG: Malfunction
- UNKWN: The diagnosed unit does not transmit or receive the applicable data normally.

DESCRIPTION OF “CAN DIAG SUPPORT MNTR” SCREEN FOR VDC/TCS/ABS CONTROL UNIT

(Example)

CAN DIAG SUPPORT MNTR

VDC	
	PRSNT
INITIAL DIAG	OK
TRANSMIT DIAG	OK
ECM	OK
TCM	OK
METER/M&A	OK
ICC	OK
STRG	OK
RAS	OK
PRINT	
MODE BACK LIGHT COPY	

PKIC5952E

“SELECT SYSTEM” screen	“CAN DIAG SUPPORT MNTR” screen	Description	Present
VDC	INITIAL DIAG	Make sure that microcomputer in ECU works normally.	OK/NG
	TRANSMIT DIAG	Make sure of normal transmission.	OK/UNKWN
	ECM	Make sure of normal reception from ECM.	OK/UNKWN
	TCM	Make sure of normal reception from TCM.	OK/UNKWN
	METER/M&A	Make sure of normal reception from combination meter.	OK/UNKWN
	ICC	Make sure of normal reception from ICC unit.	OK/UNKWN
	STRG	Make sure of normal reception from steering angle sensor.	OK/UNKWN
	RAS/HICAS	Make sure of normal reception from rear active steer.	OK/UNKWN

Display Results (Present)

- OK: Normal
- NG: Malfunction
- UNKWN: The diagnosed unit does not transmit or receive the applicable data normally.

DESCRIPTION OF “CAN DIAG SUPPORT MNTR” SCREEN FOR ICC CONTROL UNIT

(Example)

CAN DIAG SUPPORT MNTR

ICC	
	PRSNT
INITIAL DIAG	OK
TRANSMIT DIAG	OK
ECM	OK
VDC/TCS/ABS	OK
TCM	OK
METER/M&A	OK
LANE KEEP	UNKWN
ECM(I)	OK
ICC SENSOR	OK

PRINT			Scroll Up
MODE	BACK	LIGHT	COPY

CAN DIAG SUPPORT MNTR

ICC	
	PRSNT
LANE KEEP	UNKWN
ECM(I)	OK
ICC SENSOR	OK
STRG	UNKWN
METER/M&A(I)	OK
ERROR(I)	OK
LANE DETECTOR	UNKWN
TCM(I)	UNKWN
BCM/SEC	UNKWN

PRINT			Scroll Down
MODE	BACK	LIGHT	COPY

PKIA9894E

“SELECT SYSTEM” screen	“CAN DIAG SUPPORT MNTR” screen	Description	Present
ICC	INITIAL DIAG	Make sure that microcomputer in ECU works normally.	OK/NG
	TRANSMIT DIAG	Make sure of normal transmission.	OK/UNKWN
	ECM	Make sure of normal reception from ECM.	OK/UNKWN
	VDC/TCS/ABS	Make sure of normal reception from VDC/TCS/ABS control unit.	OK/UNKWN
	TCM	Make sure of normal reception from TCM.	OK/UNKWN
	METER/M&A	Make sure of normal reception from combination meter.	OK/UNKWN
	LANE KEEP	LANE KEEP is not diagnosed.	UNKWN
	ECM(I)	Make sure of normal reception from ECM (as a laser radar sensor). (Not available for CAN system diagnosis.)	OK/UNKWN
	ICC SENSOR	Make sure of normal reception from ICC sensor.	OK/UNKWN
	STRG	STRG is not diagnosed.	UNKWN
	METER/M&A(I)	Make sure of normal reception from combination meter (as a laser radar sensor). (Not available for CAN system diagnosis.)	OK/UNKWN
	ERROR(I)	Make sure that the initial diagnosis and transmit diagnosis of laser radar sensor work normally. (Not available for CAN system diagnosis.)	OK/UNKWN
	LANE DETECTOR	LANE DETECTOR is not diagnosed.	UNKWN
	TCM(I)	TCM(I) is not diagnosed.	UNKWN
	BCM/SEC	BCM/SEC is not diagnosed.	UNKWN

Display Results (Present)

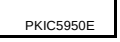
- OK: Normal
- NG: Malfunction
- UNKWN: The diagnosed unit does not transmit or receive the applicable data normally.

DESCRIPTION OF "CAN DIAG SUPPORT MNTR" SCREEN FOR PRE-CRASH SEAT BELT CONTROL UNIT

(Example)

CAN DIAG SUPPORT MNTR

PRECRASH SEATBELT		
	PRSNT	PAST
TRANSMIT DIAG	OK	OK
ECM	OK	OK
METER/M&A	OK	OK
ICC	-	-
TCM	OK	OK
PRINT		
MODE / BACK	LIGHT	COPY



"SELECT SYSTEM" screen	"CAN DIAG SUPPORT MNTR" screen	Description	Present	Past
PRECRASH SEAT-BELT	TRANSMIT DIAG	TRANSMIT DIAG is not diagnosed.	OK	OK
	ECM	Make sure of normal reception from ECM.	OK/UNKWN/–	OK/0/1 – 39/–
	METER/M&A	Make sure of normal reception from combination meter.	OK/UNKWN/–	
	ICC	ICC is not diagnosed.	–	
	TCM	Make sure of normal reception from TCM.	OK/UNKWN/–	

Display Results (Present)

- OK: Normal
- UNKWN: The diagnosed unit does not transmit or receive the applicable data normally.
- –: There is no received unit or the unit is not in the condition that reception diagnosis is performed.

Display Results (Past)

- OK: Normal
- 0: There is malfunction now.
- 1 – 39: Displays when it is normal at present and finds malfunction in the past. It becomes 0→1→2...38→39→OK whenever IGN OFF→ON and the self-diagnostic results are erased after returning to the normal condition. It returns to 0 when malfunction is detected again in the process.
- –: Undiagnosed

DESCRIPTION OF "CAN DIAG SUPPORT MNTR" SCREEN FOR RAS CONTROL UNIT

(Example)

CAN DIAG SUPPORT MNTR

RAS/HICAS		
	PRSNT	PAST
TRANSMIT DIAG	OK	OK
ECM	OK	OK
VDC/TCS/ABS	OK	OK
STRG	OK	OK
PRINT		
MODE / BACK / LIGHT / COPY		

PKIB9803E

"SELECT SYSTEM" screen	"CAN DIAG SUPPORT MNTR" screen	Description	Present	Past
RAS/HICAS	TRANSMIT DIAG	Make sure of normal transmission.	OK/UNKWN/–	OK/0/1 – 39/–
	ECM	Make sure of normal reception from ECM.	OK/UNKWN/–	
	VDC/TCS/ABS	Make sure of normal reception from VDC/TCS/ABS control unit.	OK/UNKWN/–	
	STRG	Make sure of normal reception from steering angle sensor.	OK/UNKWN/–	

Display Results (Present)

- OK: Normal
- UNKWN: The diagnosed unit does not transmit or receive the applicable data normally.
- –: There is no received unit or the unit is not in the condition that reception diagnosis is performed.

Display Results (Past)

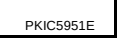
- OK: Normal
- 0: There is malfunction now.
- 1 – 39: Displays when it is normal at present and finds malfunction in the past. It increases like 0→1→2...38→39 after returning to the normal condition whenever IGN OFF→ON. If it is over 39, it is fixed to 39 until the self-diagnostic results are erased. It returns to 0 when malfunction is detected again in the process.
- –: Undiagnosed

DESCRIPTION OF “CAN DIAG SUPPORT MNTR” SCREEN FOR LDW CAMERA UNIT

(Example)

CAN DIAG SUPPORT MNTR

LDW		
	PRSNT	PAST
TRANSMIT DIAG	–	–
ECM	OK	OK
VDC/TCS/ABS	OK	OK
ICC	OK	OK
TCM	OK	OK
PRINT		
MODE / BACK / LIGHT / COPY		



“SELECT SYSTEM” screen	“CAN DIAG SUPPORT MNTR” screen	Description	Present	Past
LDW	TRANSMIT DIAG	TRANSMIT DIAG is not diagnosed.	–	OK/0/1 – 39/–
	ECM	Make sure of normal reception from ECM.	OK/UNKWN/–	
	VDC/TCS/ABS	Make sure of normal reception from VDC/TCS/ ABS control unit.	OK/UNKWN/–	
	ICC	Make sure of normal reception from ICC unit.	OK/UNKWN/–	
	TCM	Make sure of normal reception from TCM.	OK/UNKWN/–	

Display Results (Present)

- OK: Normal
- UNKWN: The diagnosed unit does not transmit or receive the applicable data normally.
- –: There is no received unit or the unit is not in the condition that reception diagnosis is performed.

Display Results (Past)

- OK: Normal
- 0: There is malfunction now.
- 1 – 39: Displays when it is normal at present and finds malfunction in the past. It increases like 0→1→2...38→39 after returning to the normal condition whenever IGN OFF→ON. If it is over 39, it is fixed to 39 until the self-diagnostic results are erased. It returns to 0 when malfunction is detected again in the process.
- –: Undiagnosed

CAN COMMUNICATION

PFP:23710

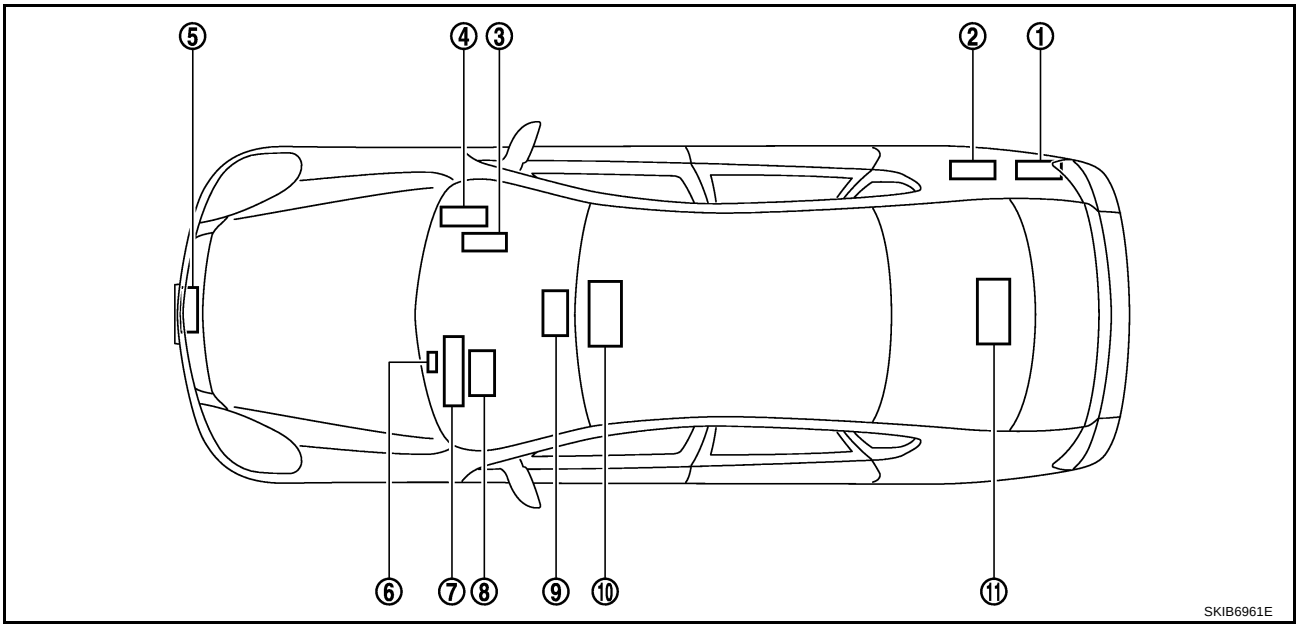
System Description

NKS001GP

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

Component Parts and Harness Connector Location

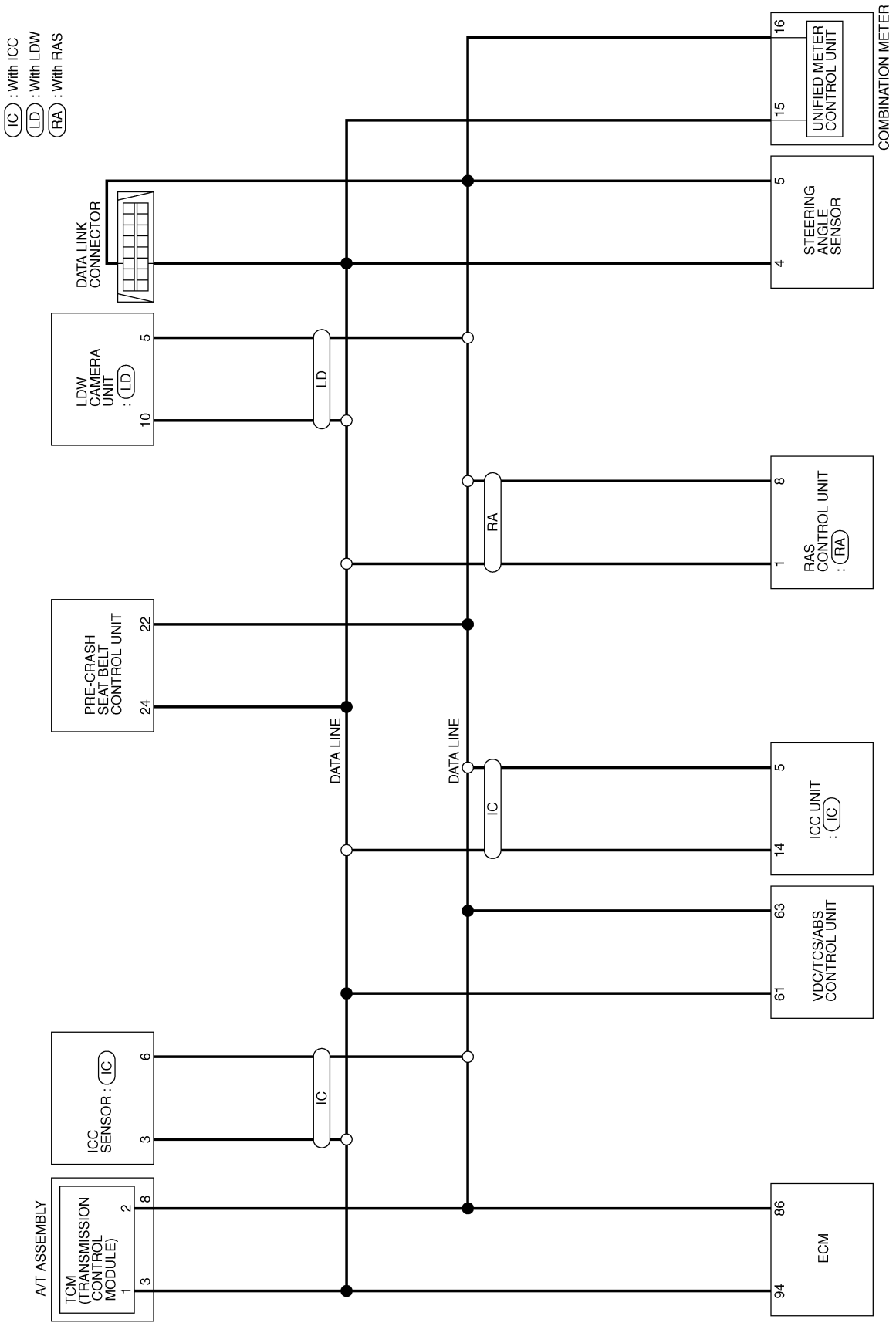
NKS002DL



1.	ICC unit B243 (with ICC system)	2.	Pre-crash seat belt control unit B318	3.	ECM F101
4.	VDC/TCS/ABS control unit E218	5.	ICC sensor E52 (with ICC system)	6.	Data link connector M31
7.	Combination meter M41	8.	Steering angle sensor M52	9.	LDW camera unit R26 (with lane departure warning system)
10.	A/T assembly F26	11.	RAS control unit B39 (with rear active steer)		

Schematic

NKS002DM

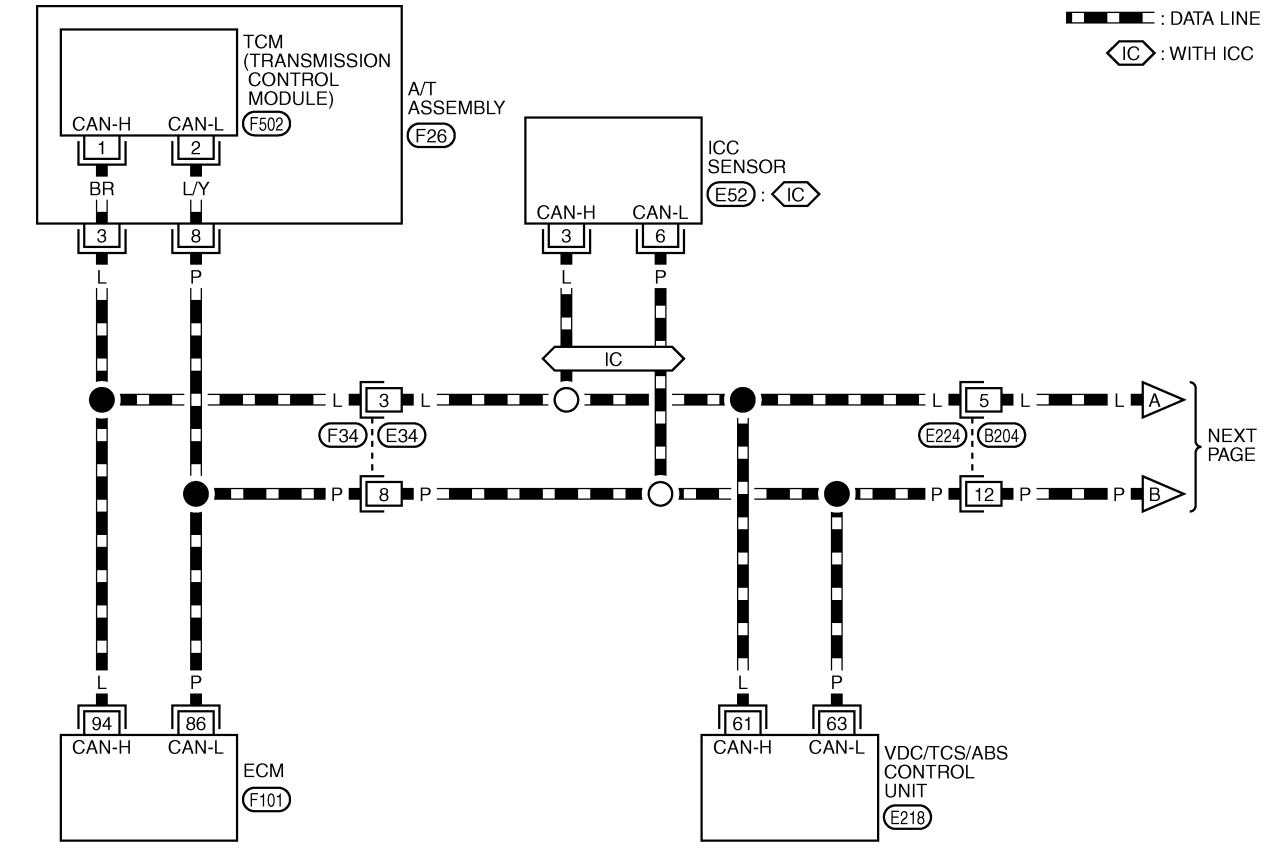


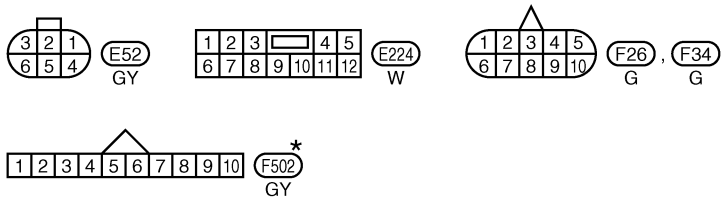
TKWM3783E

Wiring Diagram — CAN —

NKS002DN

LAN-CAN-01



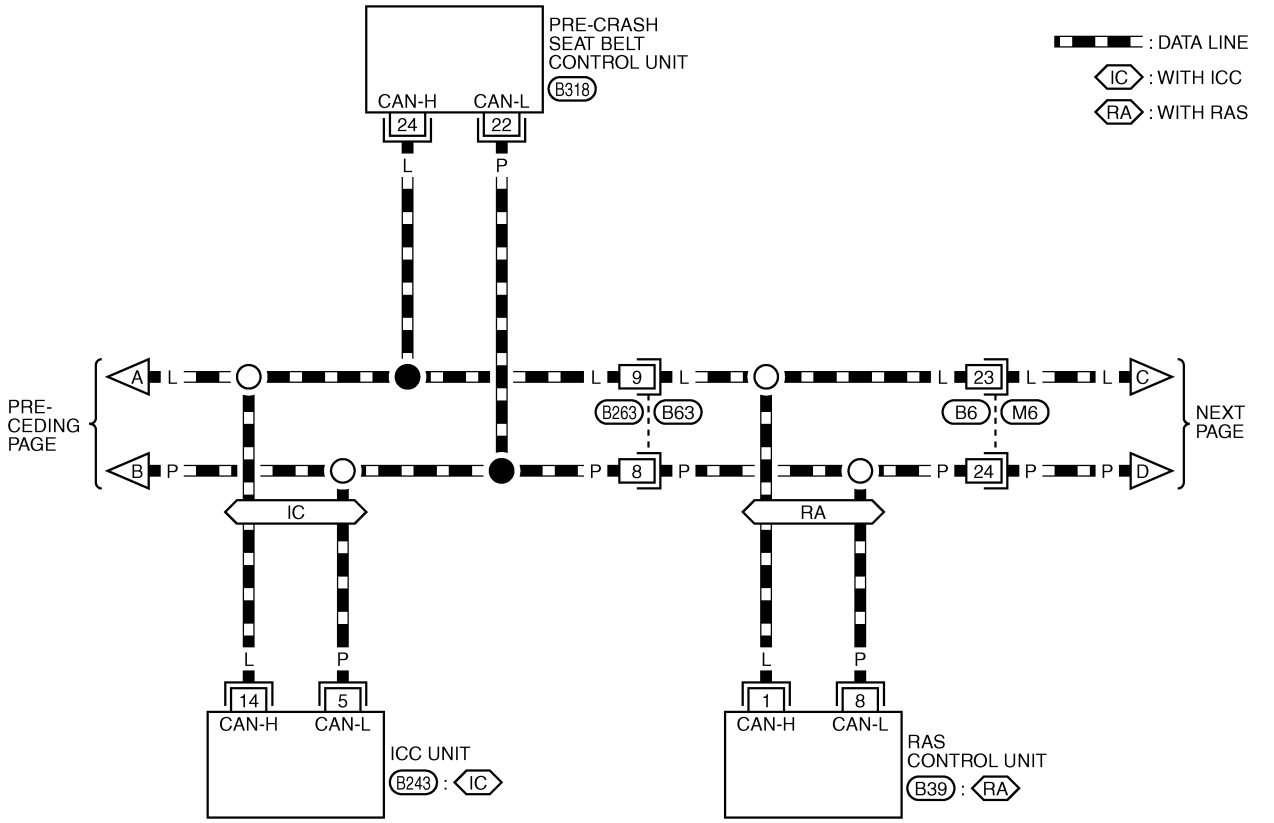


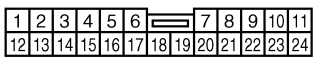
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

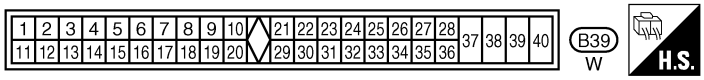
REFER TO THE FOLLOWING.
E218 , F101 -ELECTRICAL UNITS

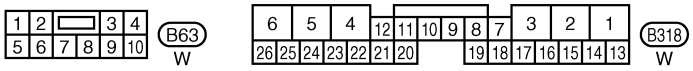
TKWM3784E

LAN-CAN-02





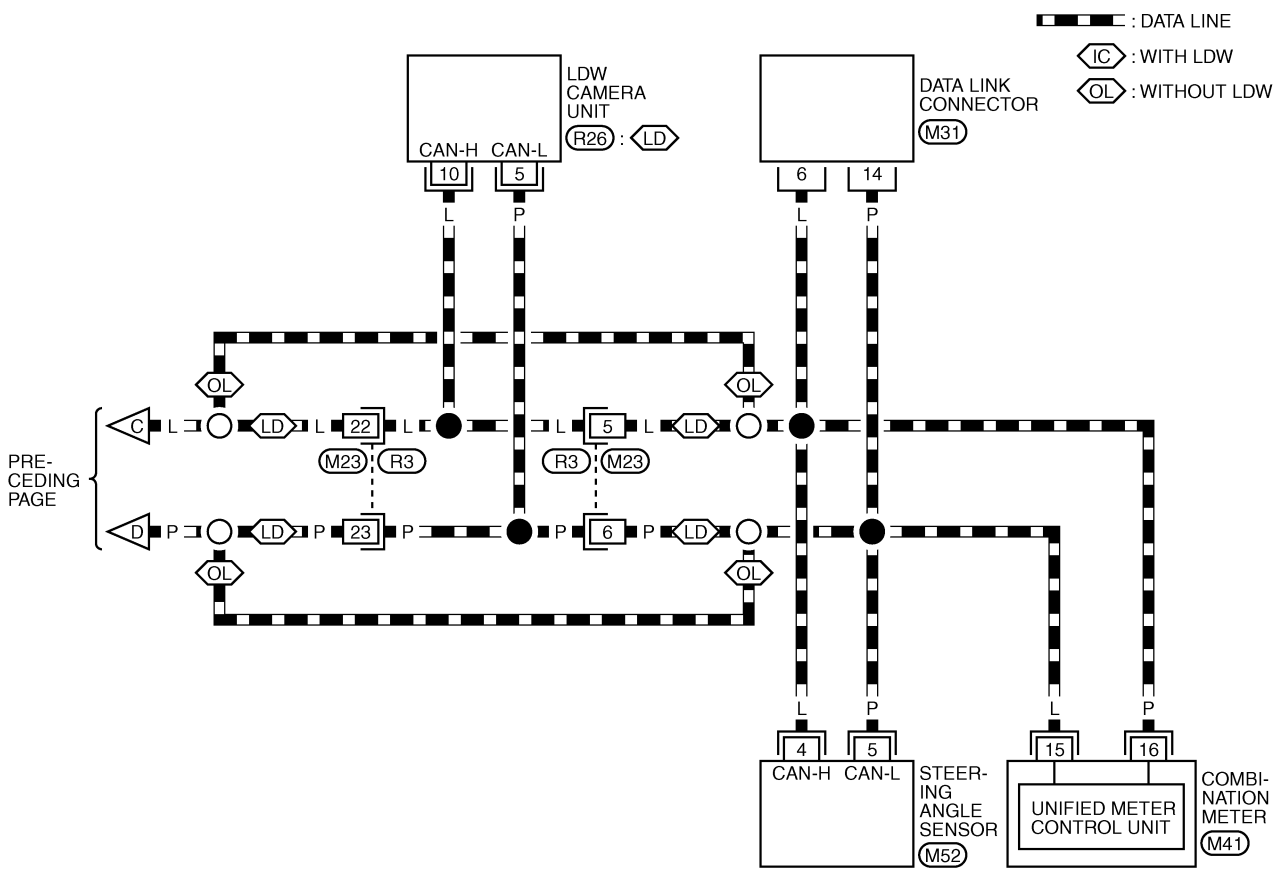


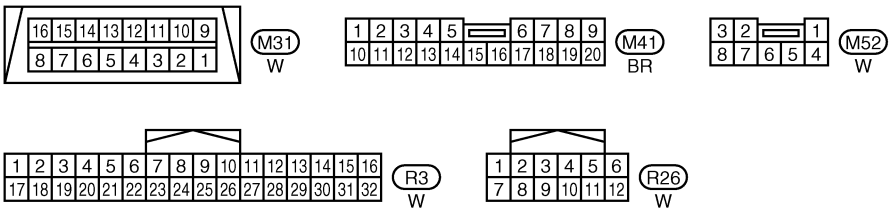


REFER TO THE FOLLOWING.
B243 -ELECTRICAL UNITS

TKWM3785E

LAN-CAN-03





TKWM3786E

CAN Communication Unit

NKS001GQ

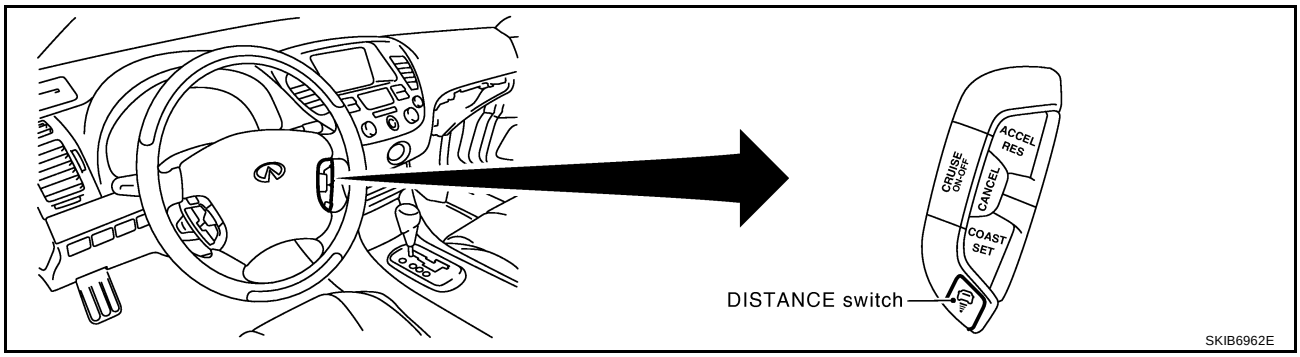
Refer to the following table to determine CAN system type.

Body type	Sedan		
Axle	2WD		
Engine	VK45DE		
Transmission	A/T		
Brake control	VDC		
ICC system		×	
Rear active steer			×
Lane departure warning system		×	
CAN system type	1	2	3
CAN system trouble diagnosis	LAN-46	LAN-59	LAN-59

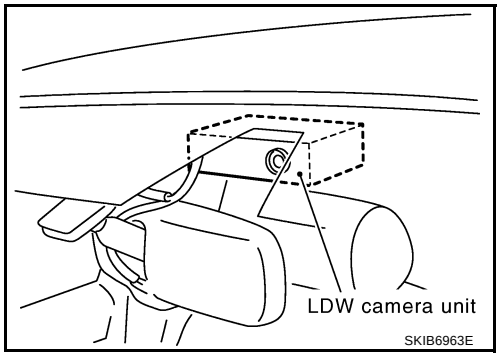
×: Applicable

NOTE:
Confirming the presence of the following items helps to identify CAN system type.

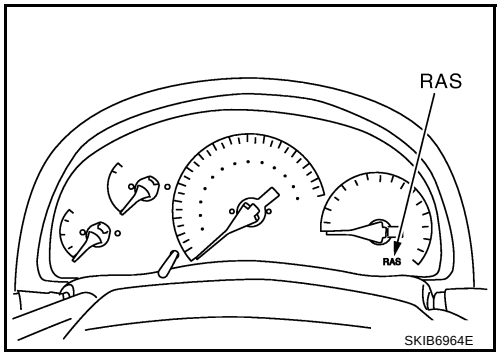
- Model with ICC system



- Model with Lane departure warning system

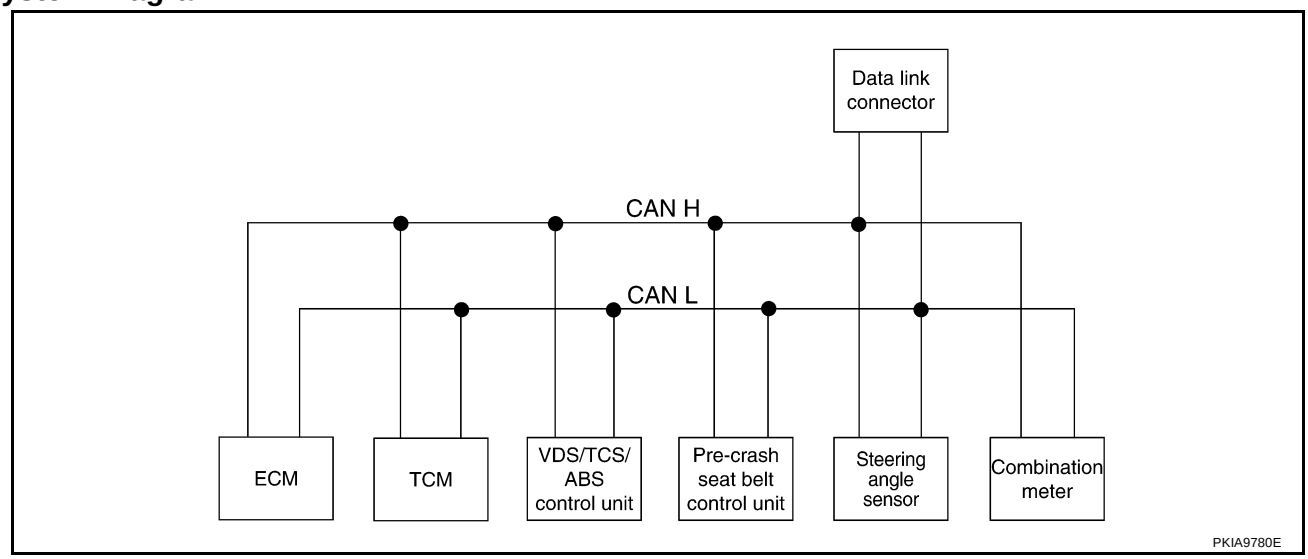


- Model with rear active steer



TYPE 1

System Diagram



Input/output Signal Chart

T: Transmit R: Receive

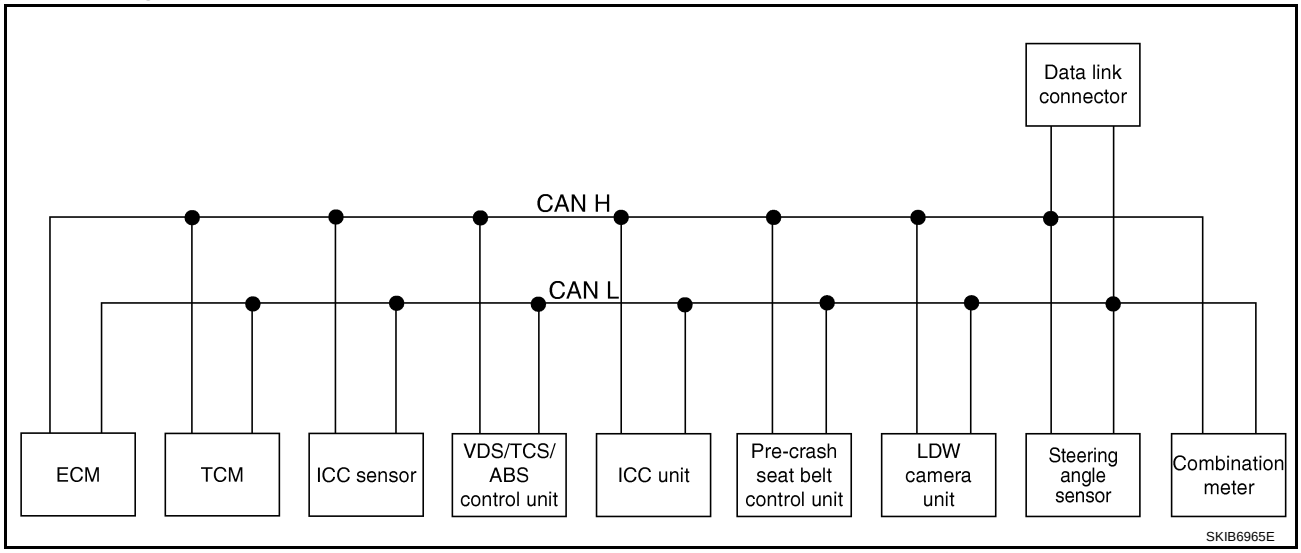
Signals	ECM	TCM	VDC/TCS/ ABS control unit	Pre-crash seat belt control unit	Steering angle sensor	Combination meter
Accelerator pedal position signal	T	R	R			
ASCD CRUISE lamp signal	T					R
ASCD SET lamp signal	T					R
Battery voltage signal	T	R				
Closed throttle position signal	T	R				
Engine coolant temperature signal	T					R
Engine speed signal	T	R	R			R
Fuel consumption monitor signal	T					R
Malfunction indicator lamp signal	T					R
Wide open throttle position signal	T	R				
A/T self-diagnosis signal	R	T				
A/T CHECK indicator lamp signal		T				R
A/T position indicator lamp signal		T		R*		R
Current gear position signal	R	T	R			
Manual mode indicator signal		T				R
Next gear position signal	R	T	R			
Output shaft revolution signal	R	T				
Shift change signal	R	T	R			
Shift pattern signal	R	T				
Turbine revolution signal	R	T				
ABS operation signal		R	T			
ABS warning lamp signal			T			R
SLIP indicator lamp signal			T			R
VDC OFF indicator lamp signal			T			R
Vehicle speed signal			T			R
	R	R		R		T

Signals	ECM	TCM	VDC/TCS/ ABS control unit	Pre-crash seat belt control unit	Steering angle sensor	Combination meter
Steering angle sensor signal			R		T	
Fuel level sensor signal	R					T
Manual mode signal		R				T
Not Manual mode signal		R				T
Manual mode shift up signal		R				T
Manual mode shift down signal		R				T
Stop lamp switch signal		R				T

*: R range signal only

TYPE 2

System Diagram



Input/output Signal Chart

T: Transmit R: Receive

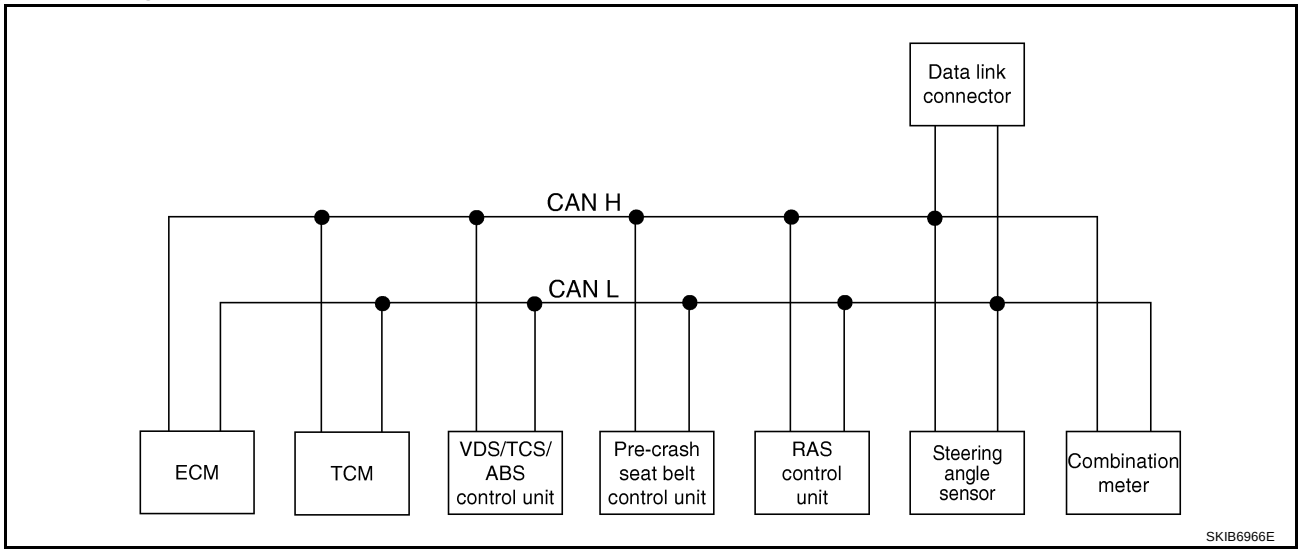
Signals	ECM	TCM	ICC sensor	VDC/ TCS/ ABS control unit	ICC unit	Pre-crash seat belt control unit	LDW camera unit	Steering angle sensor	Combination meter
Accelerator pedal position signal	T	R		R	R				
Battery voltage signal	T	R							
Closed throttle position signal	T	R			R				
Engine coolant temperature signal	T								R
Engine speed signal	T	R		R	R				R
Fuel consumption monitor signal	T								R
ICC steering switch signal	T				R				
Malfunction indicator lamp signal	T								R
Wide open throttle position signal	T	R							
A/T CHECK indicator lamp signal		T							R
A/T position indicator lamp signal		T			R	R*			R
A/T self-diagnosis signal	R	T							
Current gear position signal	R	T		R	R				
Manual mode indicator signal		T			R				R

Signals	ECM	TCM	ICC sensor	VDC/ TCS/ ABS control unit	ICC unit	Pre-crash seat belt control unit	LDW camera unit	Steering angle sensor	Combination meter
Next gear position signal	R	T		R					
Output shaft revolution signal	R	T			R		R		
P range signal		T			R				
Shift change signal	R	T		R					
Shift pattern signal	R	T							
Turbine revolution signal	R	T			R				
ICC sensor signal			T		R				
ABS malfunction signal				T	R				
ABS operation signal		R		T	R				
ABS warning lamp signal				T					R
SLIP indicator lamp signal				T					R
TCS malfunction signal				T	R				
TCS operation signal				T	R				
Vehicle speed signal				T	R		R		R
	R	R	R			R			T
VDC malfunction signal				T	R				
VDC OFF indicator lamp signal				T					R
VDC OFF switch signal				T	R				
VDC operation signal				T	R				
ICC OD cancel request signal	R				T				
	T	R							
ICC operation signal	R				T				
ICC system display signal					T				R
ICC warning lamp signal					T				R
Turn indicator signal					T		R		
Steering angle sensor signal				R				T	
Fuel level sensor signal	R								T
Manual mode shift down signal		R							T
Manual mode shift up signal		R							T
Manual mode signal		R							T
Not Manual mode signal		R							T
Stop lamp switch signal		R							T

*: R range signal only

TYPE 3

System Diagram



Input/output Signal Chart

T: Transmit R: Receive

Signals	ECM	TCM	VDC/TCS/ ABS control unit	Pre-crash seat belt control unit	RAS control unit	Steering angle sensor	Combination meter
Accelerator pedal position signal	T	R	R				
ASCD CRUISE lamp signal	T						R
ASCD SET lamp signal	T						R
Battery voltage signal	T	R					
Closed throttle position signal	T	R					
Engine coolant temperature signal	T						R
Engine speed signal	T	R	R		R		R
Fuel consumption monitor signal	T						R
Malfunction indicator lamp signal	T						R
Wide open throttle position signal	T	R					
A/T CHECK indicator lamp signal		T					R
A/T position indicator lamp signal		T		R*			R
A/T self-diagnosis signal	R	T					
Current gear position signal	R	T	R				
Manual mode indicator signal		T					R
Next gear position signal	R	T	R				
Output shaft revolution signal	R	T					
Shift change signal	R	T	R				
Shift pattern signal	R	T					
Turbine revolution signal	R	T					
ABS operation signal		R	T				
ABS warning lamp signal			T				R
SLIP indicator lamp signal			T				R
Vehicle speed signal			T		R		R
	R	R		R			T
VDC malfunction signal			T		R		

Signals	ECM	TCM	VDC/TCS/ ABS control unit	Pre-crash seat belt control unit	RAS control unit	Steering angle sensor	Combination meter
VDC OFF indicator lamp signal			T				R
RAS signal			R		T		
Steering angle sensor signal			R		R	T	
Fuel level sensor signal	R						T
Manual mode shift down signal		R					T
Manual mode shift up signal		R					T
Manual mode signal		R					T
Not Manual mode signal		R					T
Stop lamp switch signal		R					T

*: R range signal only

CAN SYSTEM (TYPE 1)

PFP:23710

Component Parts and Harness Connector Location

NKS002DO

Refer to LAN-35, "Component Parts and Harness Connector Location" .

Schematic

NKS002DP

Refer to LAN-36, "Schematic" .

Wiring Diagram — CAN —

NKS002DQ

Refer to LAN-37, "Wiring Diagram — CAN —" .

Check Sheet

NKS002DR

NOTE:
If a check mark is put on “NG” on “INITIAL DIAG (Initial diagnosis)”, replace the control unit.

Check sheet table

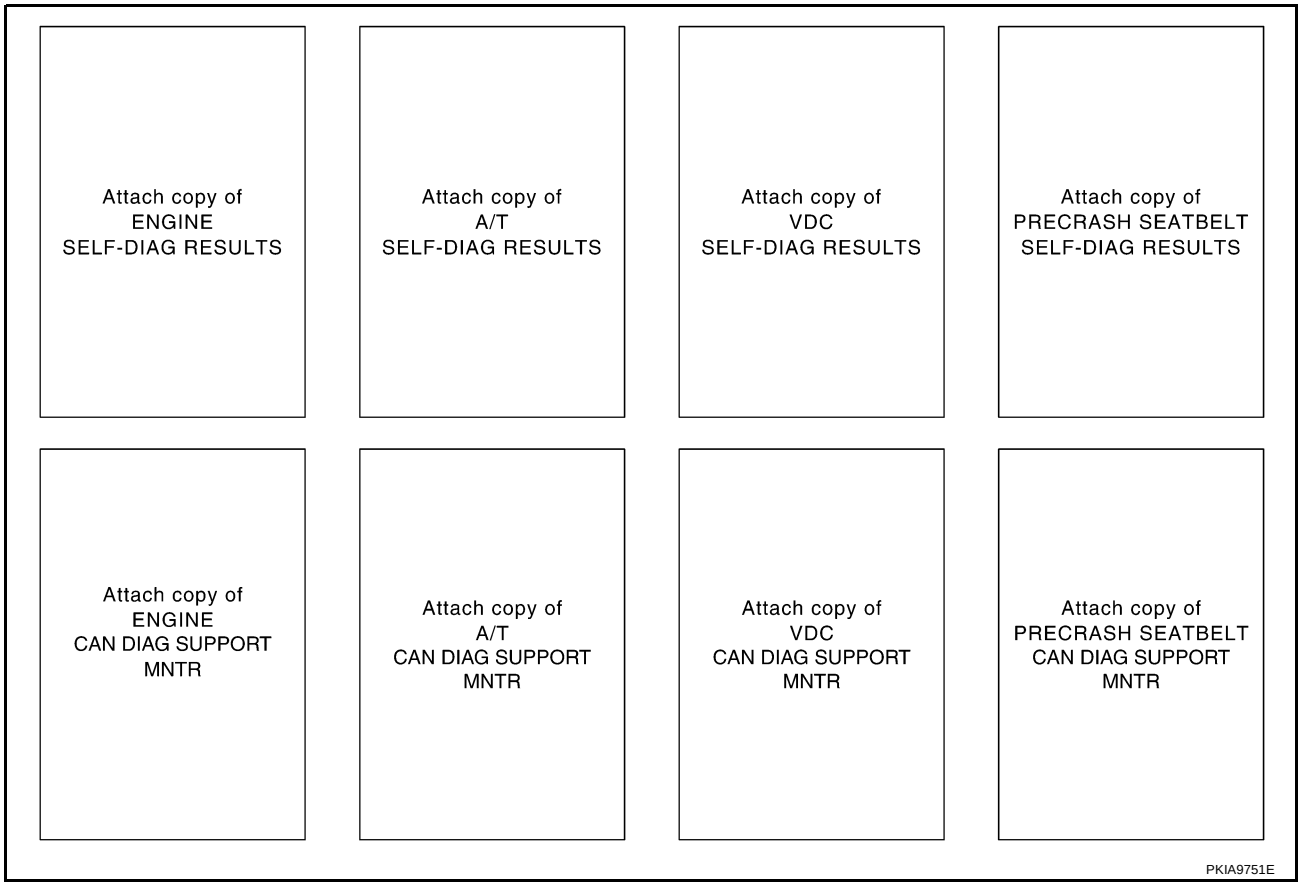
SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR							SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis						
				ECM	TCM	VDC/TCS /ABS	STRG	METER /M&A		
ENGINE	–	–	UNKWN	–	UNKWN	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
VDC	–	NG	UNKWN	UNKWN	UNKWN	–	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	–
PRECRASH SEATBELT	No indication	–	–	UNKWN	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–

Symptoms :

Attach copy of SELECT SYSTEM

Attach copy of SELECT SYSTEM

SKIB7458E


Attach copy of
ENGINE
SELF-DIAG RESULTS
Attach copy of
A/T
SELF-DIAG RESULTS
Attach copy of
VDC
SELF-DIAG RESULTS
Attach copy of
PRECRASH SEATBELT
SELF-DIAG RESULTS
Attach copy of
ENGINE
CAN DIAG SUPPORT
MNTR
Attach copy of
A/T
CAN DIAG SUPPORT
MNTR
Attach copy of
VDC
CAN DIAG SUPPORT
MNTR
Attach copy of
PRECRASH SEATBELT
CAN DIAG SUPPORT
MNTR
PKIA9751E

CHECK SHEET RESULTS (EXAMPLE)

NOTE:

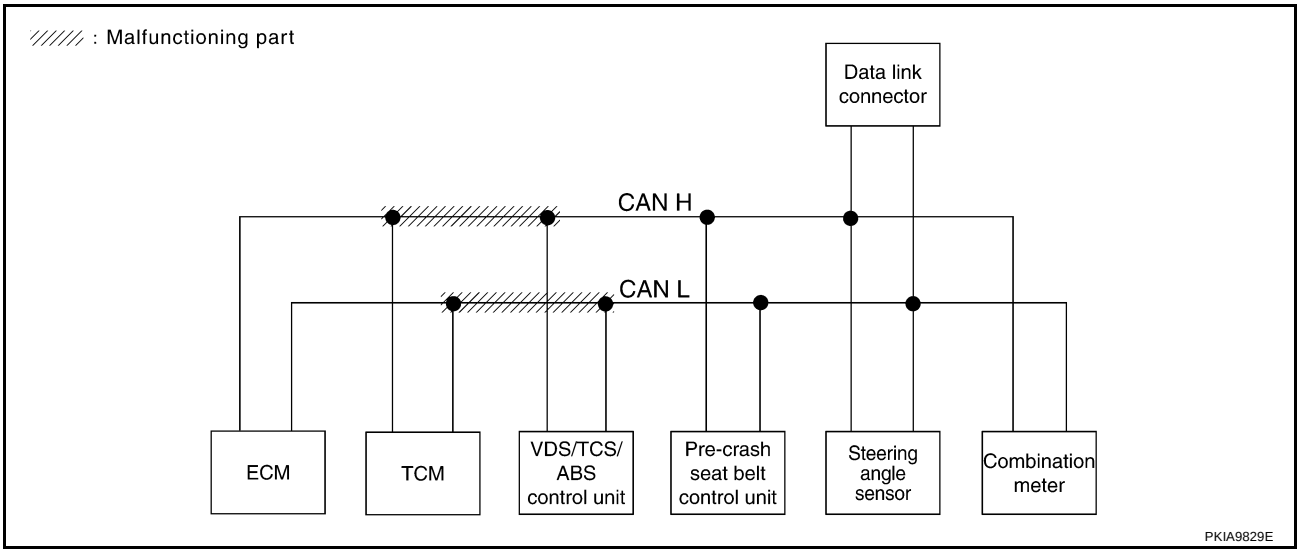
If a check mark is put on “NG” on “INITIAL DIAG (Initial diagnosis)”, replace the control unit.

Case 1

Check harness between TCM and VDC/TCS/ABS control unit. Refer to LAN-93, "Inspection Between TCM and VDC/TCS/ABS Control Unit Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR							SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis						
				ECM	TCM	VDC/TCS /ABS	STRG	METER /M&A		
ENGINE	–	–	UNKWN	–	UNKWN	UNKWN ✓	–	UNKWN ✓	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	–	NG	UNKWN	UNKWN	–	UNKWN ✓	–	UNKWN ✓	CAN COMM CIRCUIT (U1000) ✓	–
VDC	–	NG	UNKWN	UNKWN ✓	UNKWN ✓	–	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000) ✓	–
PRECRASH SEATBELT	No indication	–	–	UNKWN ✓	UNKWN ✓	–	–	UNKWN	CAN COMM CIRCUIT (U1000) ✓	–

SKIB7459E



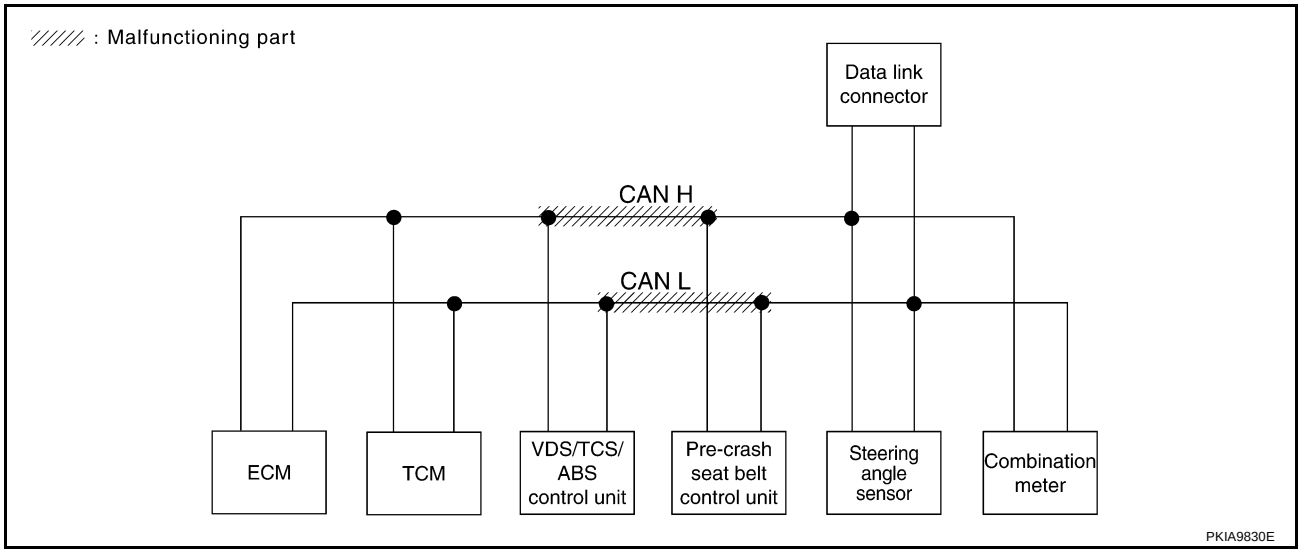
PKIA9829E

Case 2

Check harness between VDC/TCS/ABS control unit and pre-crash seat belt control unit. Refer to LAN-95, "Inspection Between VDC/TCS/ABS Control Unit and Pre-Crash Seat Belt Control Unit Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR							SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis						
				ECM	TCM	VDC/TCS /ABS	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN ✓	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	UNKWN	—	UNKWN ✓	CAN COMM CIRCUIT (U1000) ✓	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN ✓	UNKWN ✓	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN ✓	UNKWN ✓	—	—	UNKWN	CAN COMM CIRCUIT (U1000) ✓	—

SKIB7460E



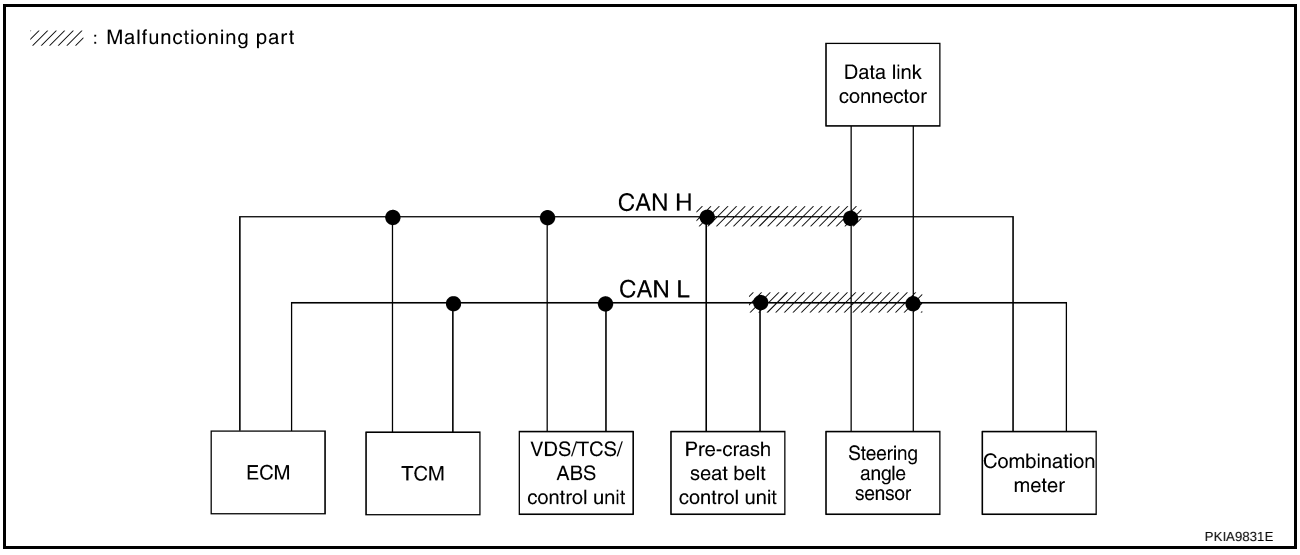
PKIA9830E

Case 3

Check harness between pre-crash seat belt control unit and data link connector. Refer to LAN-97, "Inspection Between Pre-Crash Seat Belt Control Unit and Data Link Connector Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR							SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis						
				ECM	TCM	VDC/TCS /ABS	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—

SKIB7461E



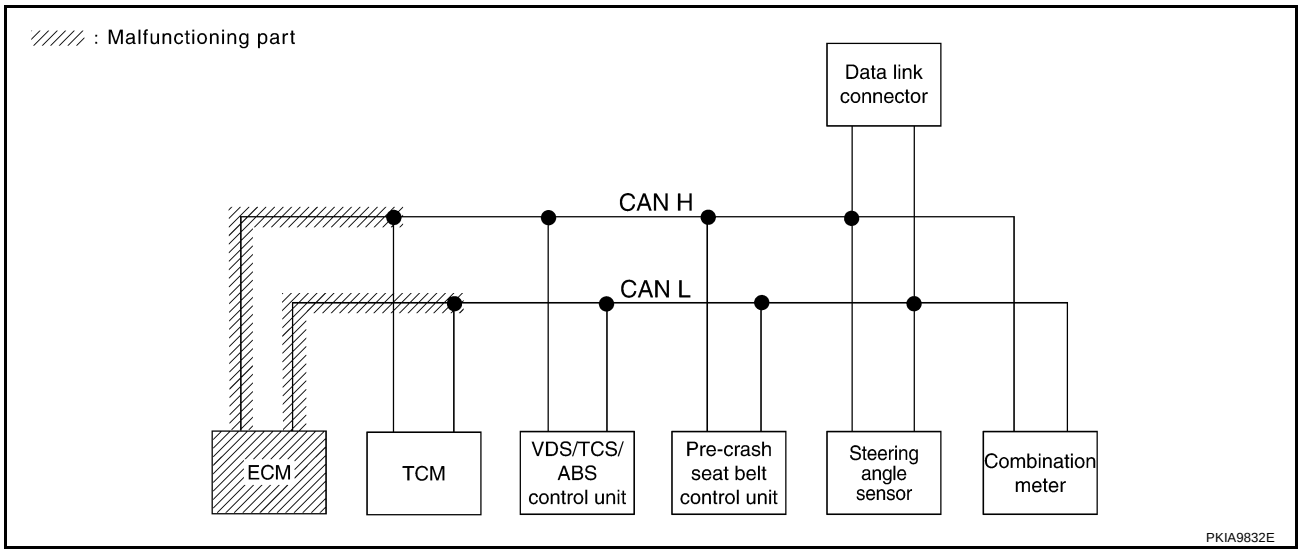
PKIA9831E

Case 4

Check ECM circuit. Refer to LAN-103, "ECM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR							SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis						
				ECM	TCM	VDC/TCS /ABS	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—

SKIB7462E



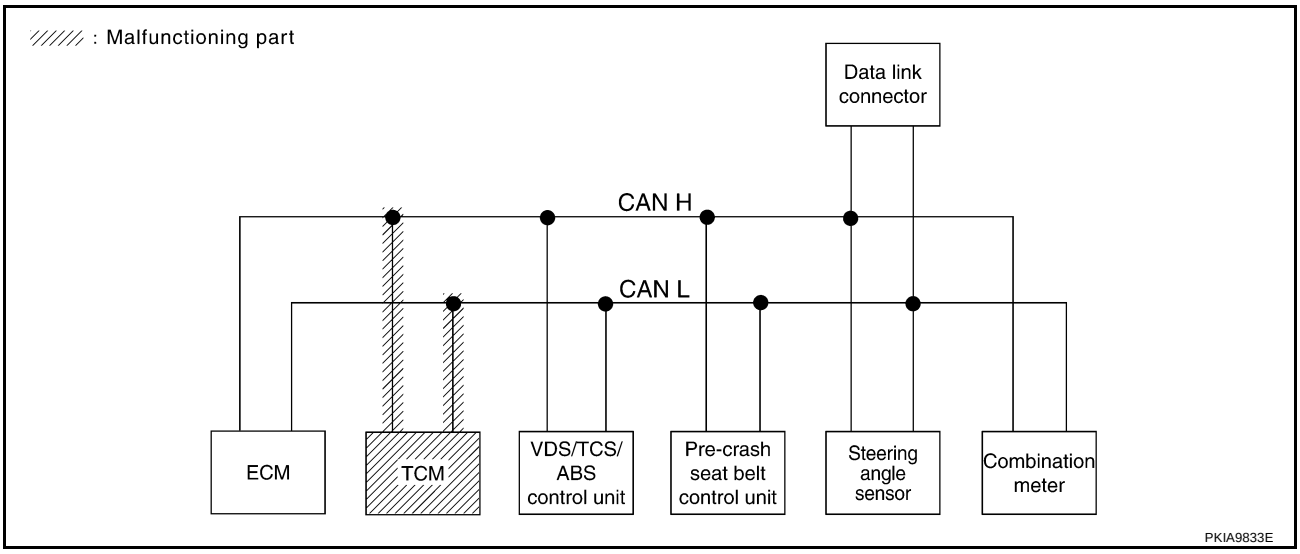
PKIA9832E

Case 5

Check TCM circuit. Refer to LAN-103, "TCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR							SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis						
				ECM	TCM	VDC/TCS /ABS	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—

SKIB7463E



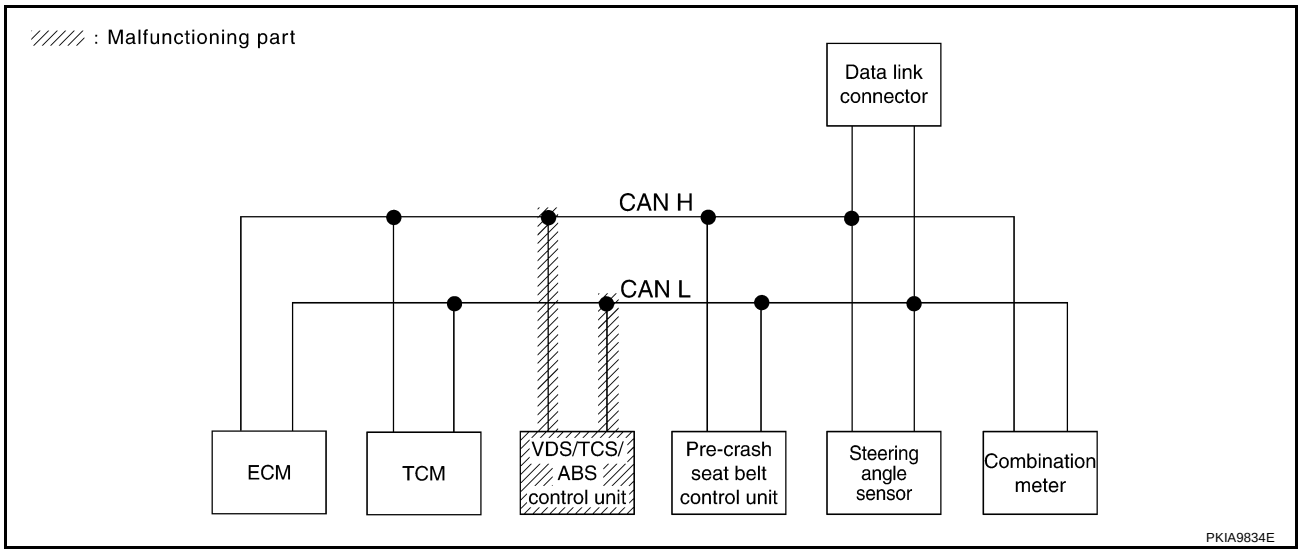
PKIA9833E

Case 6

Check VDC/TCS/ABS control unit circuit. Refer to LAN-104, "VDC/TCS/ABS Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR							SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis						
				ECM	TCM	VDC/TCS /ABS	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	UNKWN ✓	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	UNKWN ✓	—	UNKWN	CAN COMM CIRCUIT (U1000) ✓	—
VDC	—	NG ✓	UNKWN ✓	UNKWN ✓	UNKWN ✓	—	UNKWN ✓	UNKWN ✓	CAN COMM CIRCUIT (U1000) ✓	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—

SKIB7464E



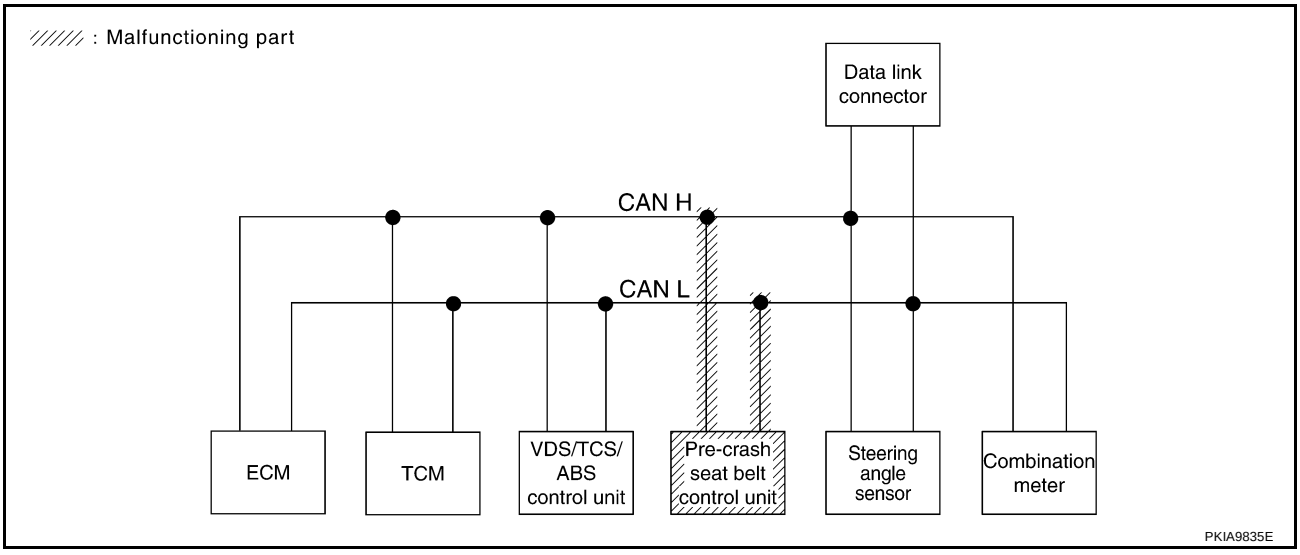
PKIA9834E

Case 7

Check pre-crash seat belt control unit circuit. Refer to LAN-105, "Pre-Crash Seat Belt Control Unit and Data Link Connector Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR							SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis						
				ECM	TCM	VDC/TCS /ABS	STRG	METER /M&A		
ENGINE	–	–	UNKWN	–	UNKWN	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
VDC	–	NG	UNKWN	UNKWN	UNKWN	–	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	–
PRECRASH SEATBELT	No indication ✓	–	–	UNKWN	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000) ✓	–

SKIB7465E



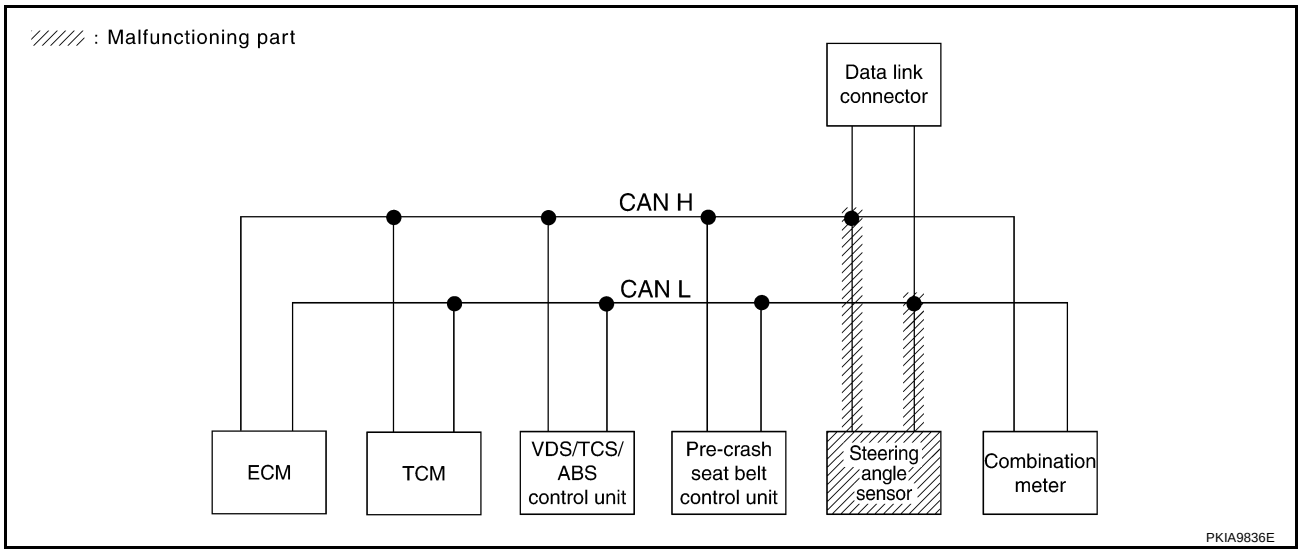
PKIA9835E

Case 8

Check steering angle sensor circuit. Refer to LAN-108, "Steering Angle Sensor Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR							SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis						
				ECM	TCM	VDC/TCS /ABS	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—

SKIB7466E



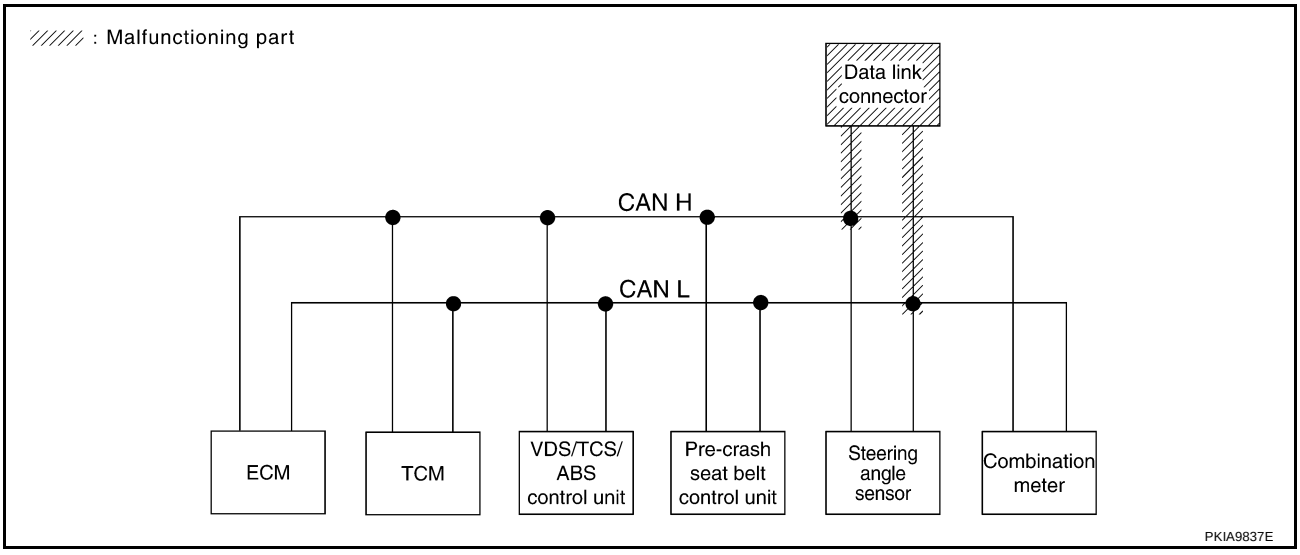
PKIA9836E

Case 9

Check data link connector circuit. Refer to LAN-105, "Pre-Crash Seat Belt Control Unit and Data Link Connector Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR							SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis						
				ECM	TCM	VDC/TCS /ABS	STRG	METER /M&A		
ENGINE	–	–	UNKWN	–	UNKWN	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
VDC	–	NG	UNKWN	UNKWN	UNKWN	–	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	–
PRECRASH SEATBELT	No indication	–	–	UNKWN	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–

SKIB7467E



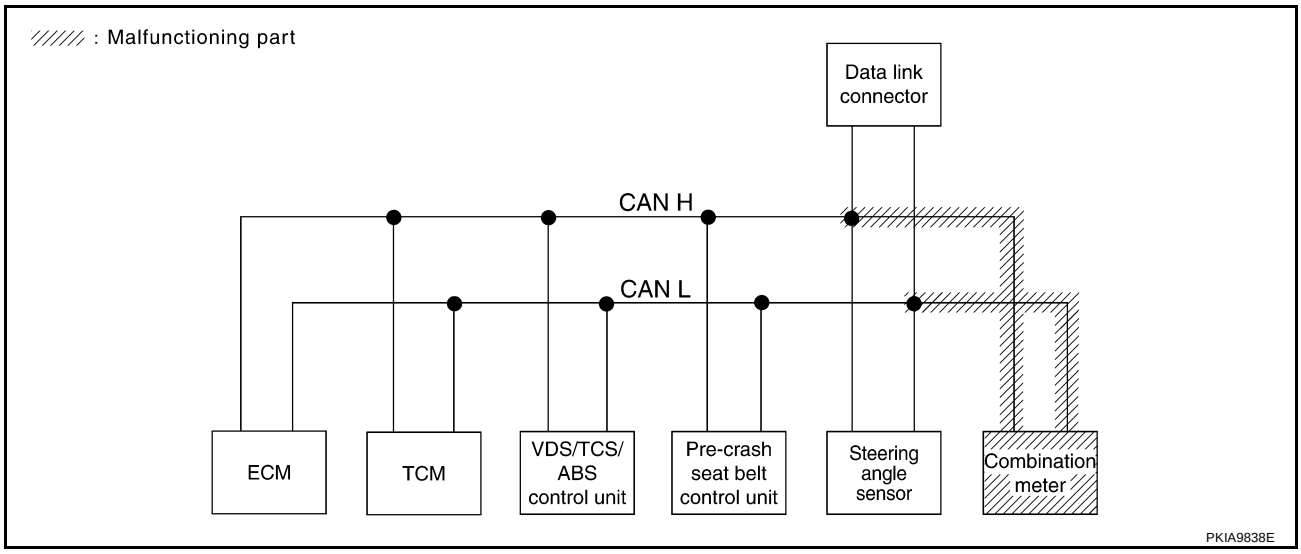
PKIA9837E

Case 10

Check combination meter circuit. Refer to LAN-109, "Combination Meter Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR							SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis						
				ECM	TCM	VDC/TCS /ABS	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—

SKIB7468E



PKIA9838E

Case 11

Check CAN communication circuit. Refer to LAN-109, "CAN Communication Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR							SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis						
				ECM	TCM	VDC/TCS /ABS	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—

SKIB7469E

CAN SYSTEM (TYPE 2)

PFP:23710

Component Parts and Harness Connector Location

NKS00260

Refer to LAN-35, "Component Parts and Harness Connector Location" .

Schematic

NKS00261

Refer to LAN-36, "Schematic" .

Wiring Diagram — CAN —

NKS00262

Refer to LAN-37, "Wiring Diagram — CAN —" .

Check Sheet

NKS00263

NOTE:
If a check mark is put on “NG” on “INITIAL DIAG (Initial diagnosis)”, replace the control unit.

Check sheet table

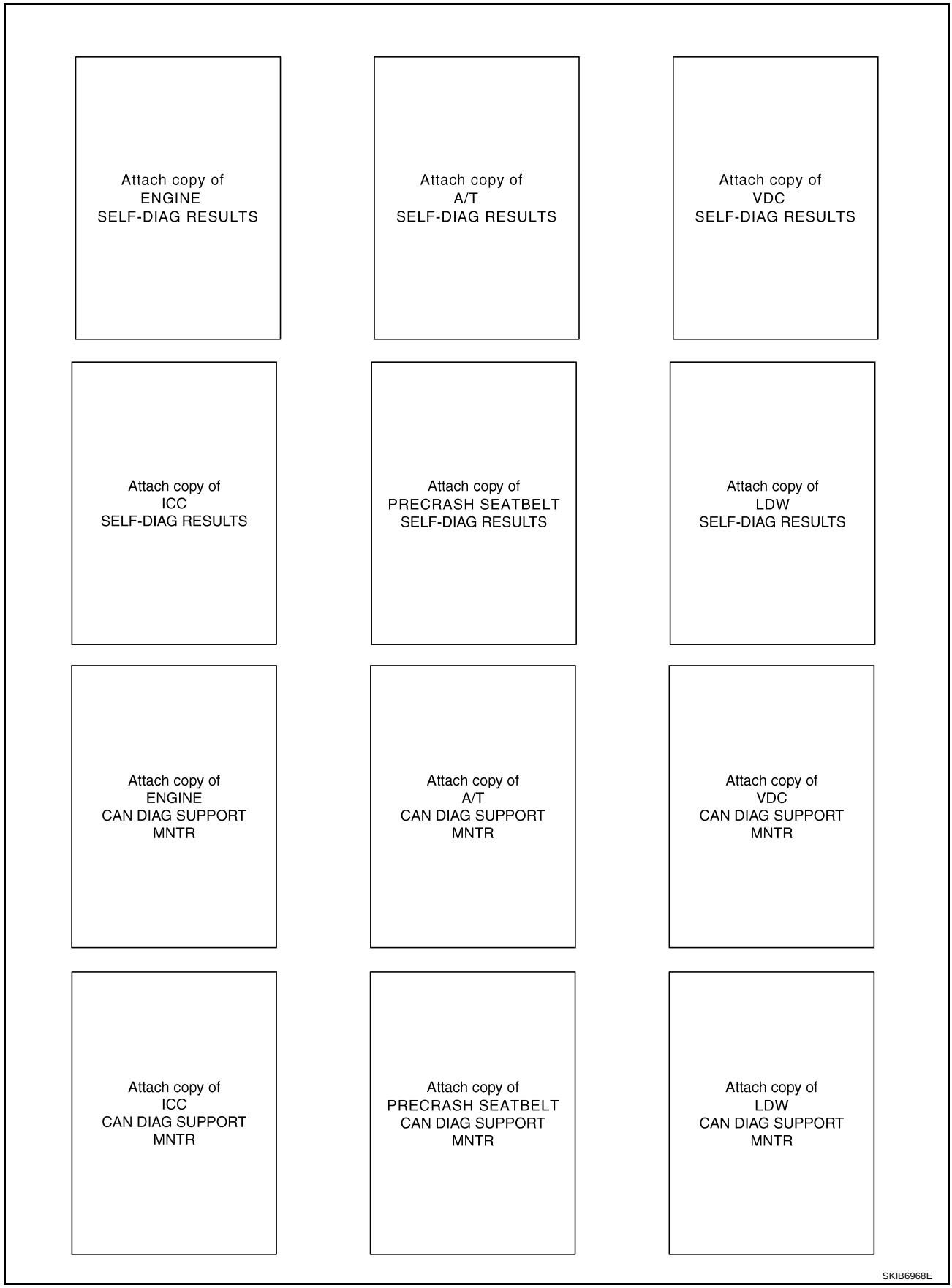
SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—

Symptoms :

Attach copy of SELECT SYSTEM

Attach copy of SELECT SYSTEM

SKIB6967E


Attach copy of
ENGINE
SELF-DIAG RESULTS
Attach copy of
A/T
SELF-DIAG RESULTS
Attach copy of
VDC
SELF-DIAG RESULTS
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ICC
SELF-DIAG RESULTS
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SELF-DIAG RESULTS
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MNTR
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MNTR
Attach copy of
LDW
CAN DIAG SUPPORT
MNTR
SKIB6968E

CHECK SHEET RESULTS (EXAMPLE)

NOTE:

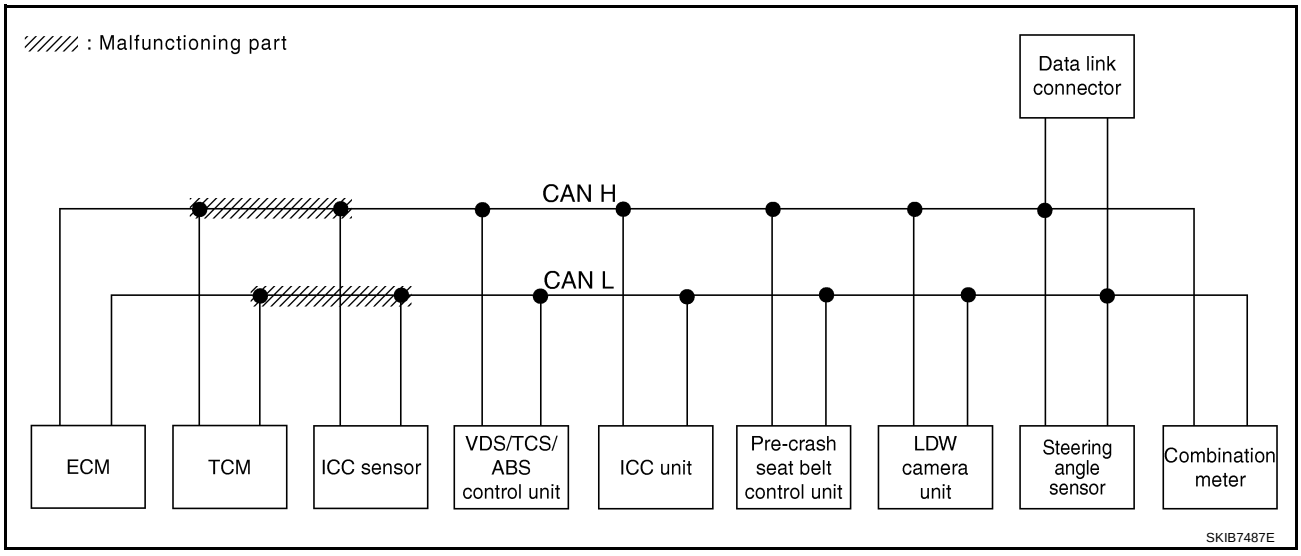
If a check mark is put on “NG” on “INITIAL DIAG (Initial diagnosis)”, replace the control unit.

Case 1

Check harness between TCM and ICC sensor. Refer to LAN-94, "Inspection Between TCM and ICC Sensor Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	—	UNKWN ✓	UNKWN ✓	—	UNKWN ✓	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN ✓	UNKWN ✓	—	UNKWN ✓	CAN COMM CIRCUIT (U1000) ✓	—
VDC	—	NG	UNKWN	UNKWN ✓	UNKWN ✓	—	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000) ✓	—
ICC	—	NG	UNKWN	UNKWN ✓	UNKWN ✓	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000) ✓	—
PRECRASH SEATBELT	No indication	—	—	UNKWN ✓	UNKWN ✓	—	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000) ✓	—
LDW	No indication	—	—	UNKWN ✓	UNKWN ✓	—	UNKWN	UNKWN	—	—	CAN COMM CIRCUIT (U1000) ✓	—

SKIB7470E

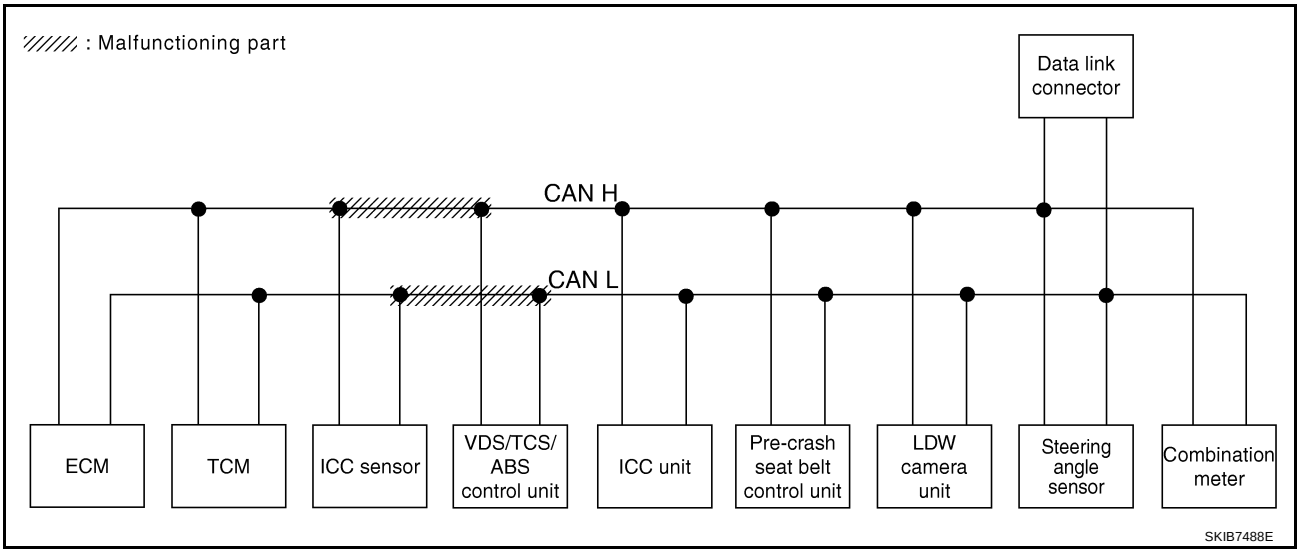


Case 2

Check harness between ICC sensor and VDC/TCS/ABS control unit. Refer to LAN-95, "Inspection Between ICC Sensor and VDC/TCS/ABS Control Unit Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	–	–	UNKWN	–	UNKWN	–	✓	✓	–	✓	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	–	✓	✓	–	✓	✓	–
VDC	–	NG	UNKWN	✓	✓	–	–	UNKWN	UNKWN	UNKWN	✓	–
ICC	–	NG	UNKWN	✓	✓	✓	UNKWN	–	–	UNKWN	✓	–
PRECRASH SEATBELT	No indication	–	–	✓	✓	–	–	–	–	UNKWN	✓	–
LDW	No indication	–	–	✓	✓	–	UNKWN	UNKWN	–	–	✓	–

SKIB7471E

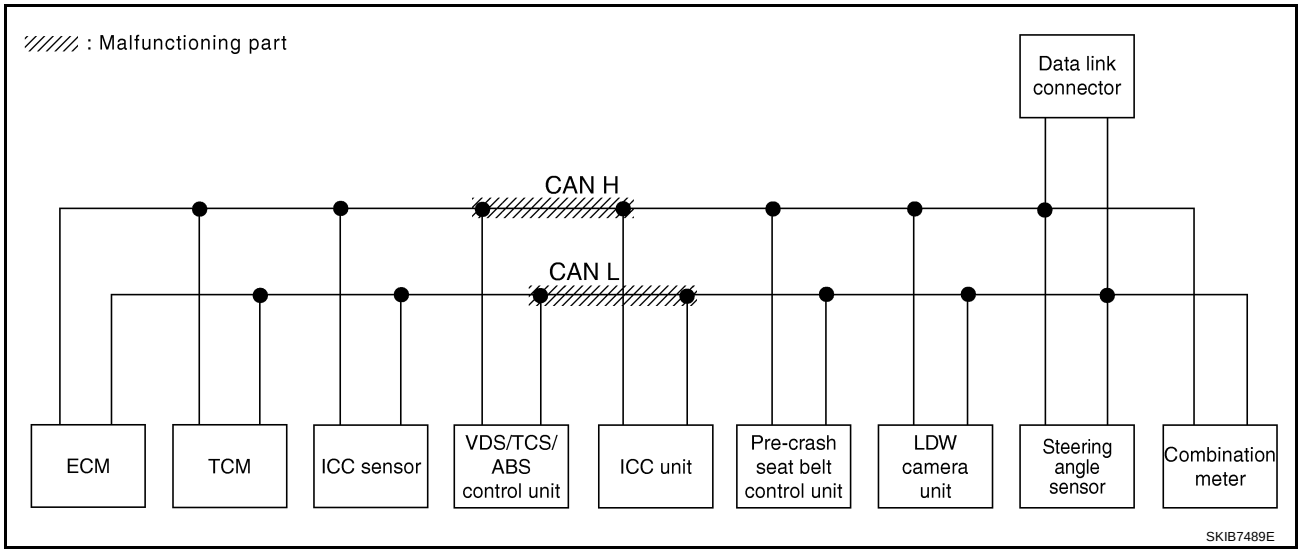


Case 3

Check harness between VDC/TCS/ABS control unit and ICC unit. Refer to LAN-96, "Inspection Between VDC/TCS/ABS Control Unit and ICC Unit Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—

SKIB7472E

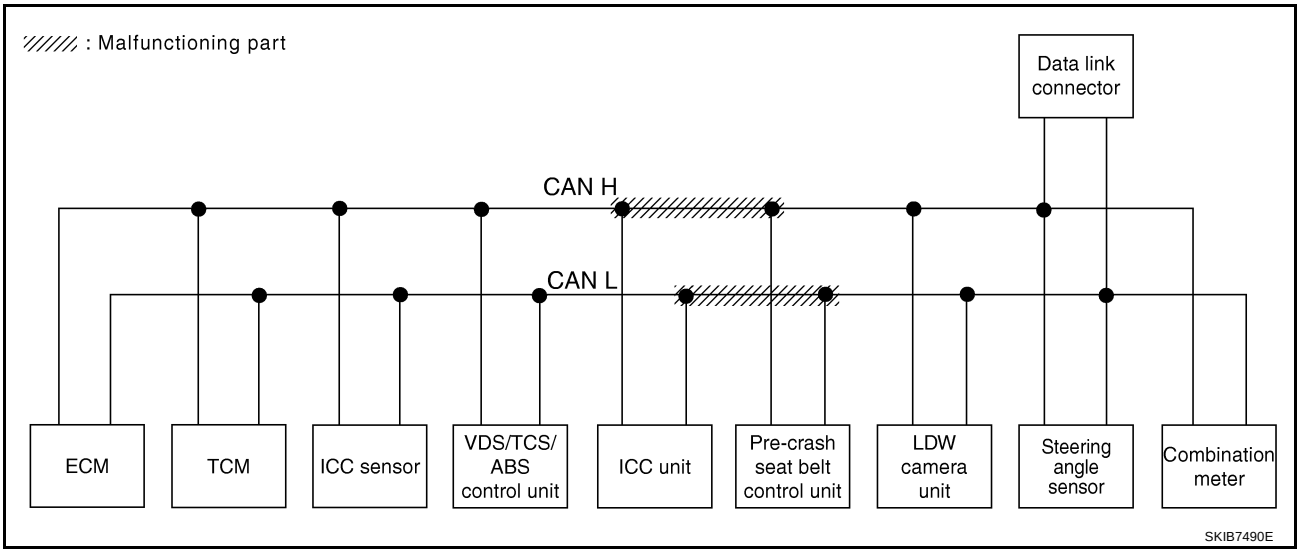


Case 4

Check harness between ICC unit and pre-crash seat belt control unit. Refer to LAN-97, "Inspection Between ICC Unit and Pre-Crash Seat Belt Control Unit Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—

SKIB7473E

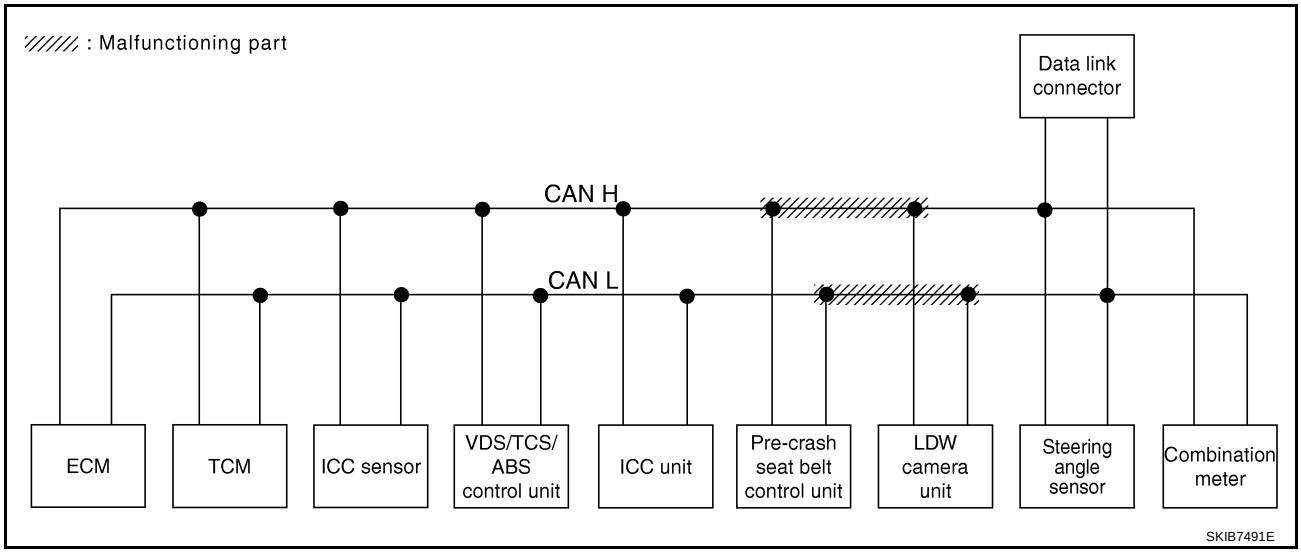


Case 5

Check harness between pre-crash seat belt control unit and LDW camera unit. Refer to LAN-100, "Inspection Between Pre-Crash Seat Belt Control Unit and LDW Camera Unit Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—

SKIB7474E

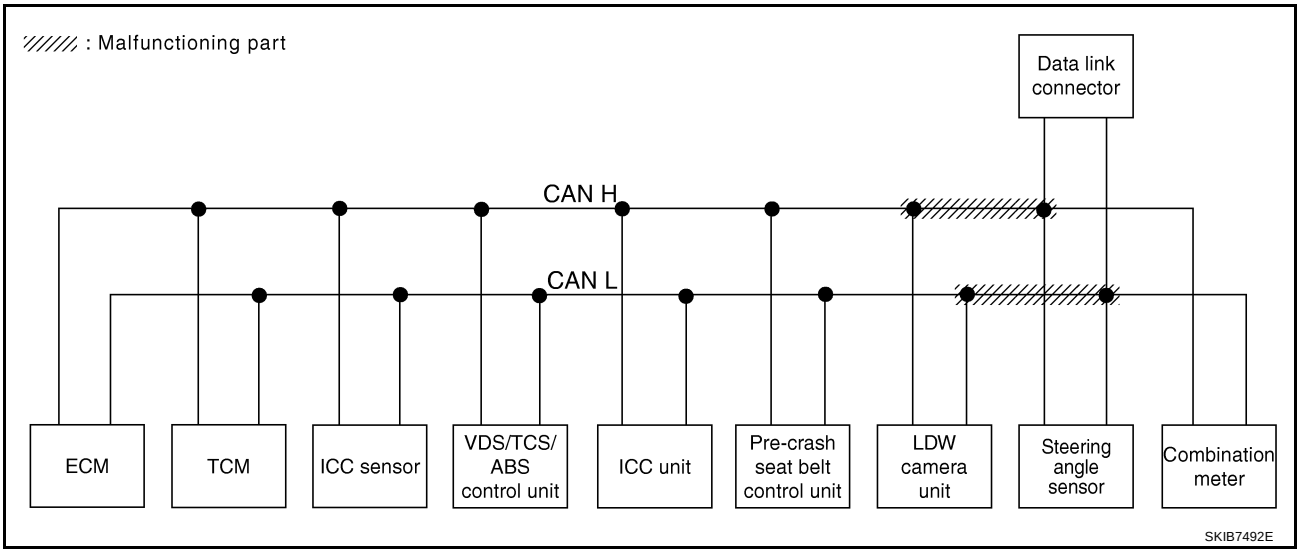


Case 6

Check harness between LDW camera unit and data link connector. Refer to LAN-102, "Inspection Between LDW Camera Unit and Data Link Connector Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	–	–	UNKWN	–	UNKWN	–	UNKWN	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	–	UNKWN	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
VDC	–	NG	UNKWN	UNKWN	UNKWN	–	–	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	–
ICC	–	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
PRECRASH SEATBELT	No indication	–	–	UNKWN	UNKWN	–	–	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
LDW	No indication	–	–	UNKWN	UNKWN	–	UNKWN	UNKWN	–	–	CAN COMM CIRCUIT (U1000)	–

SKIB7475E

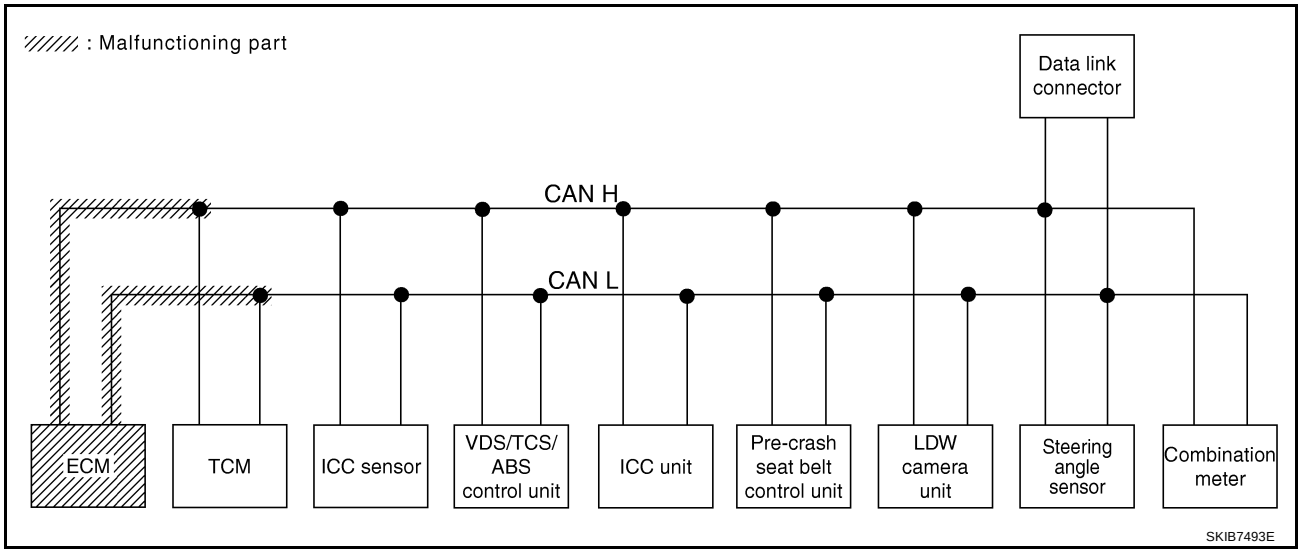


Case 7

Check ECM circuit. Refer to LAN-103, "ECM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000) ✓	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN ✓	—	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000) ✓	—
VDC	—	NG	UNKWN	UNKWN ✓	UNKWN	—	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000) ✓	—
ICC	—	NG	UNKWN	UNKWN ✓	UNKWN	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000) ✓	—
PRECRASH SEATBELT	No indication	—	—	UNKWN ✓	UNKWN	—	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000) ✓	—
LDW	No indication	—	—	UNKWN ✓	UNKWN	—	UNKWN	UNKWN	—	—	CAN COMM CIRCUIT (U1000) ✓	—

SKIB7476E



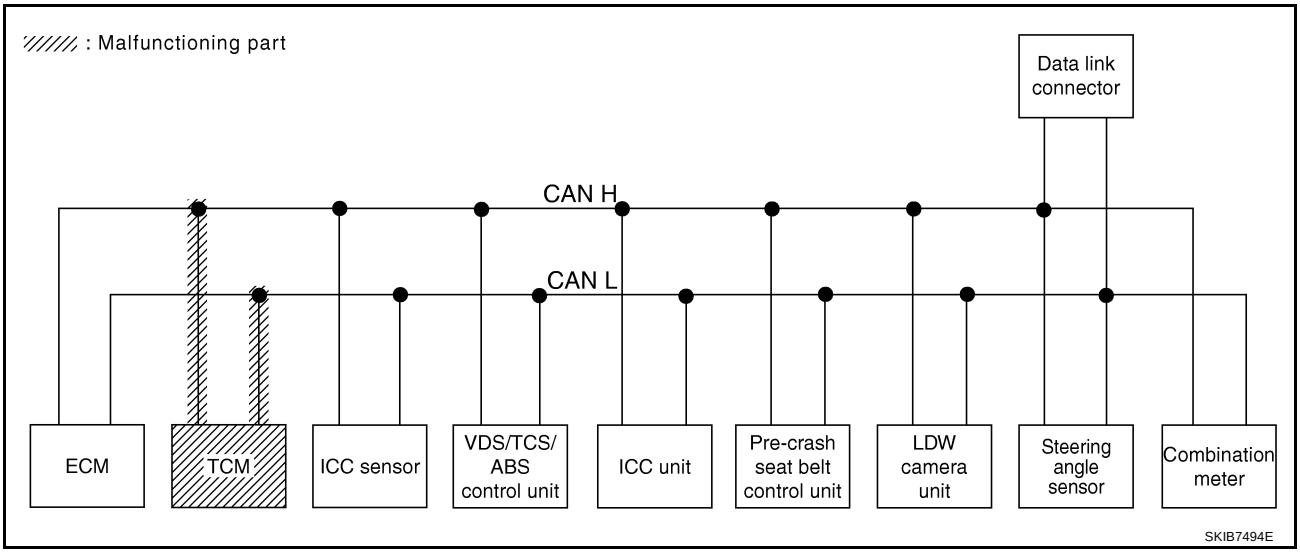
SKIB7493E

Case 8

Check TCM circuit. Refer to LAN-103, "TCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—

SKIB7477E

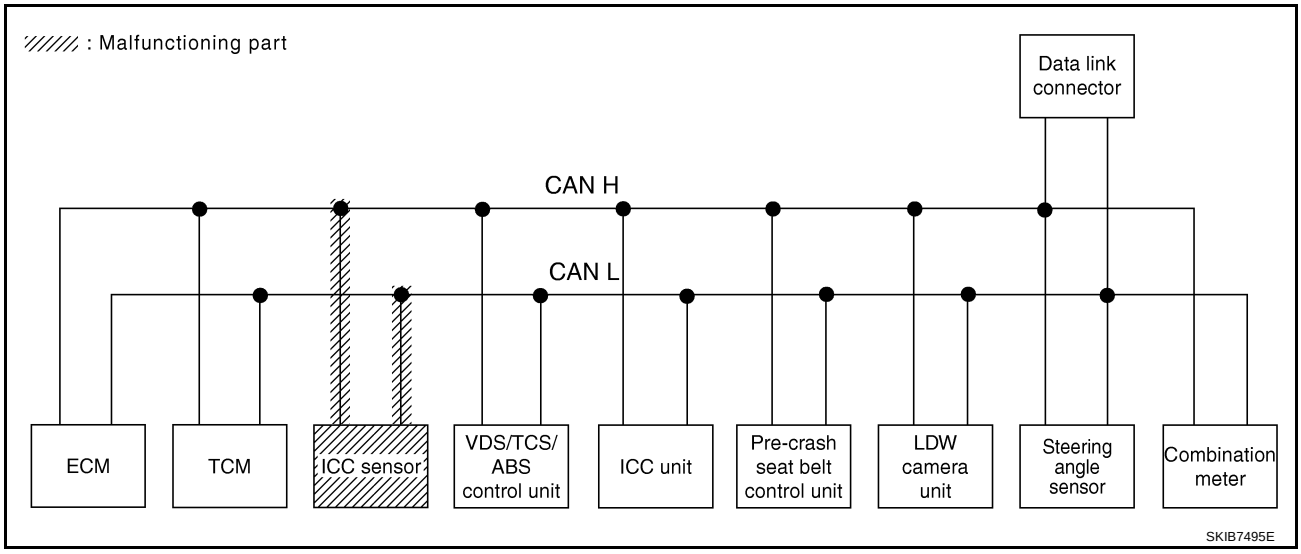


Case 9

Check ICC sensor circuit. Refer to LAN-104, "ICC Sensor Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000) ✓	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—

SKIB7478E



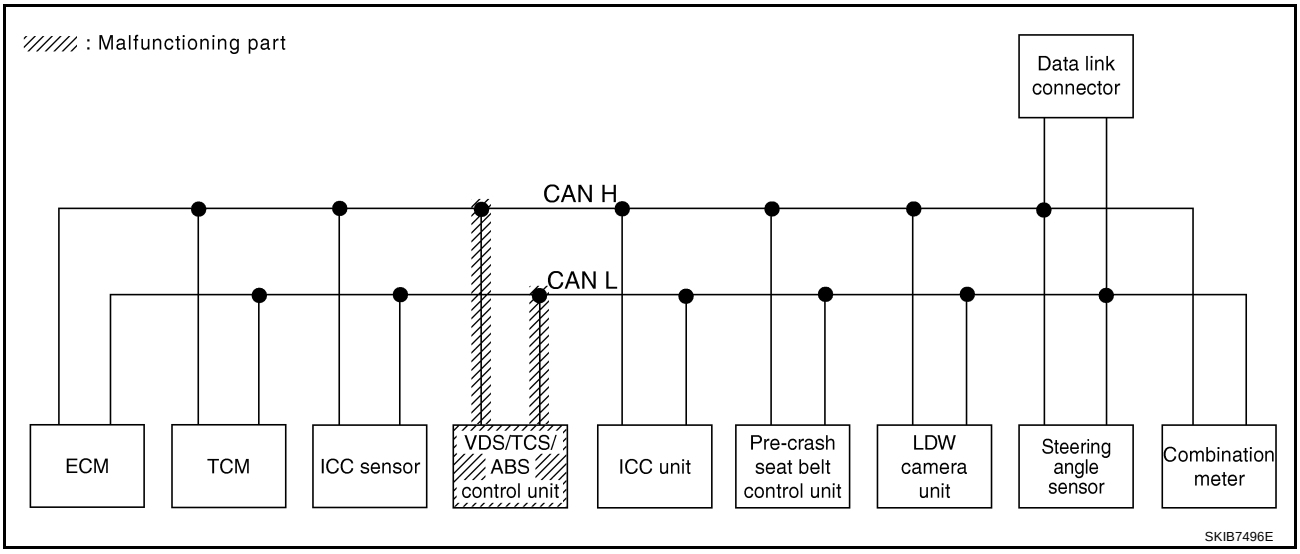
SKIB7495E

Case 10

Check VDC/TCS/ABS control unit circuit. Refer to LAN-104, "VDC/TCS/ABS Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—

SKIB7479E

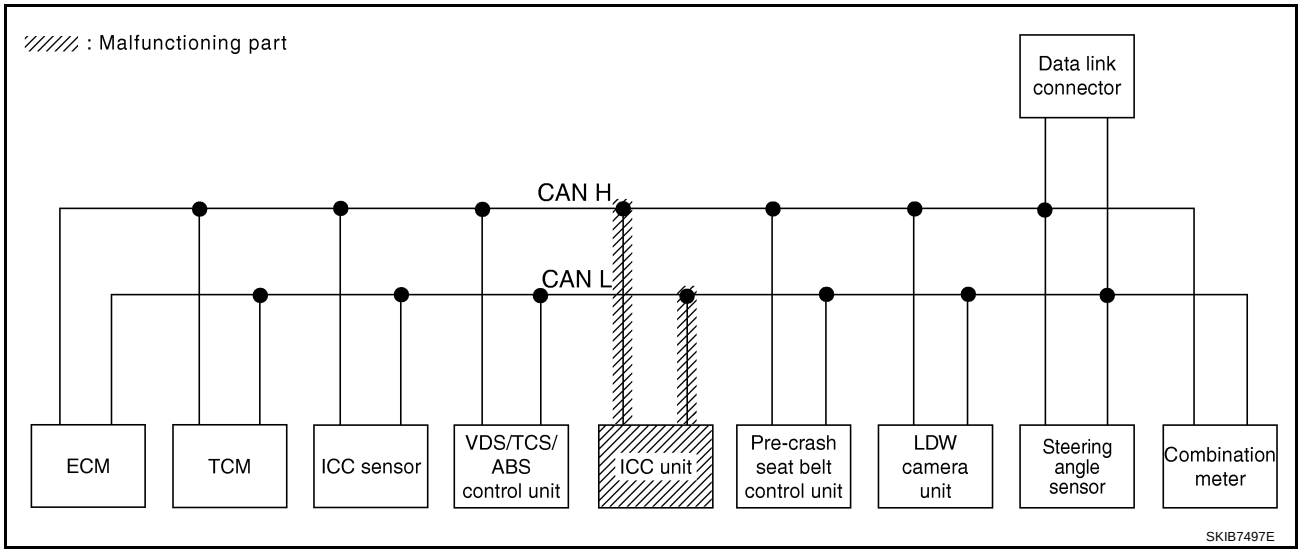


Case 11

Check ICC unit circuit. Refer to LAN-105, "ICC Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—

SKIB7480E



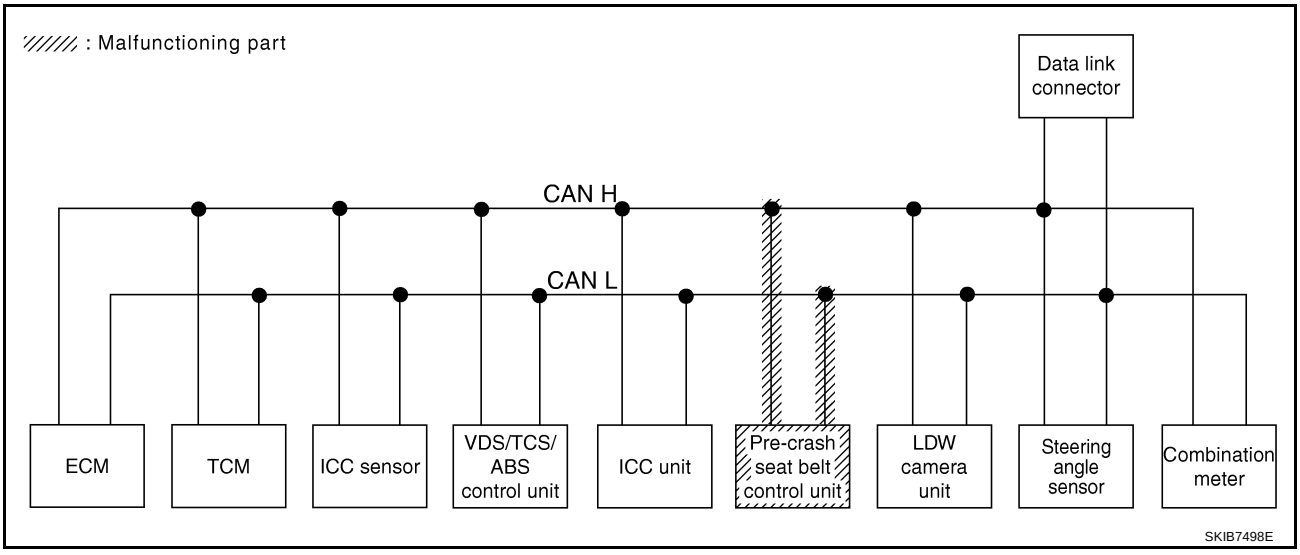
SKIB7497E

Case 12

Check pre-crash seat belt control unit circuit. Refer to LAN-106, "Pre-Crash Seat Belt Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication ✓	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000) ✓	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—

SKIB7481E

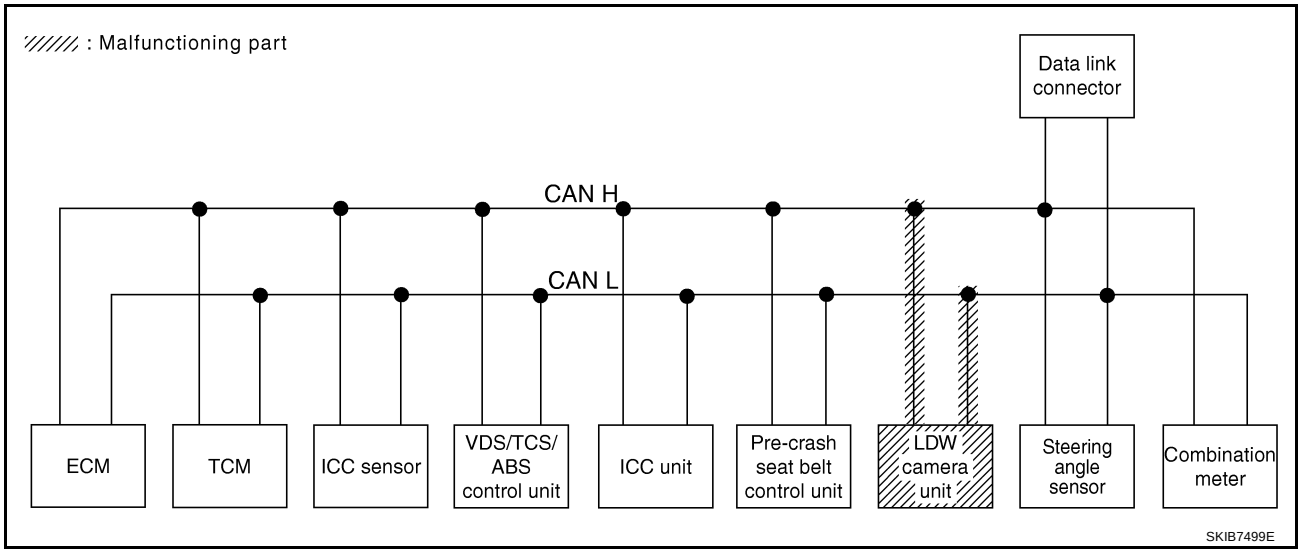


Case 13

Check LDW camera unit circuit. Refer to LAN-107, "LDW Camera Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication ✓	—	—	UNKWN	UNKWN	—	UNKWN	UNKWN	—	—	CAN COMM CIRCUIT (U1000) ✓	—

SKIB7482E



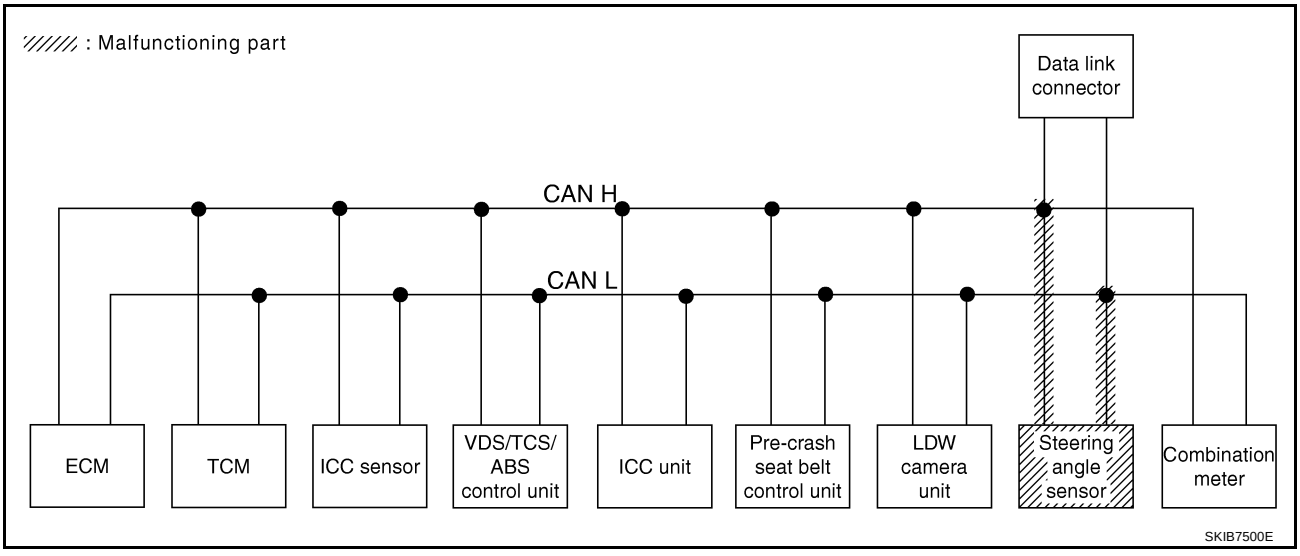
SKIB7499E

Case 14

Check steering angle sensor circuit. Refer to LAN-108, "Steering Angle Sensor Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—

SKIB7483E

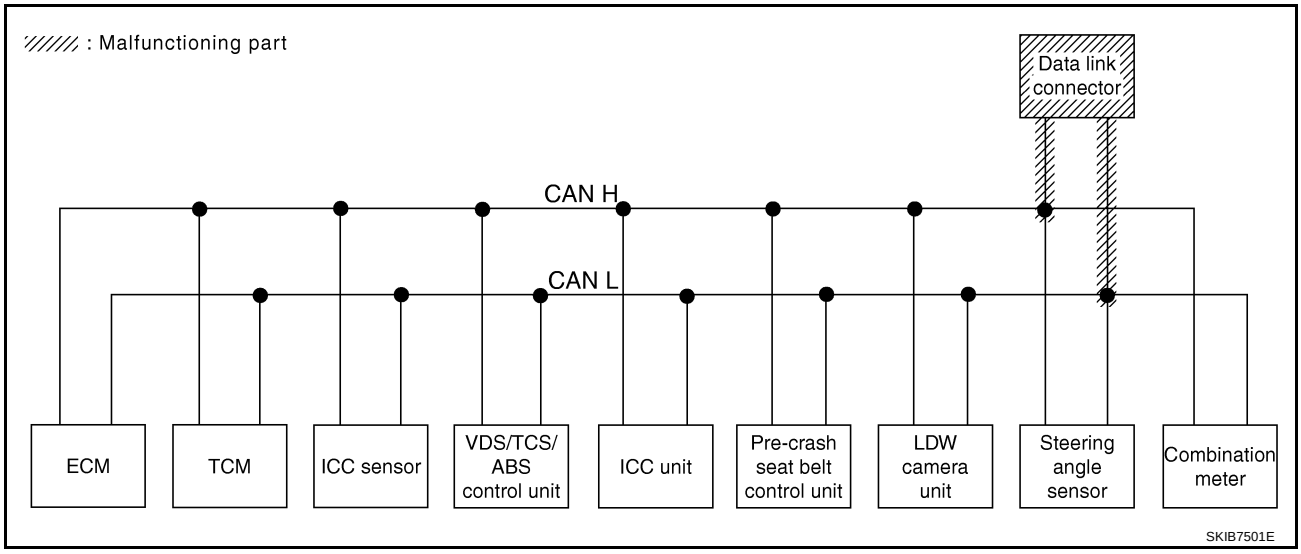


Case 15

Check data link connector circuit. Refer to LAN-108, "Data Link Connector Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—

SKIB7484E



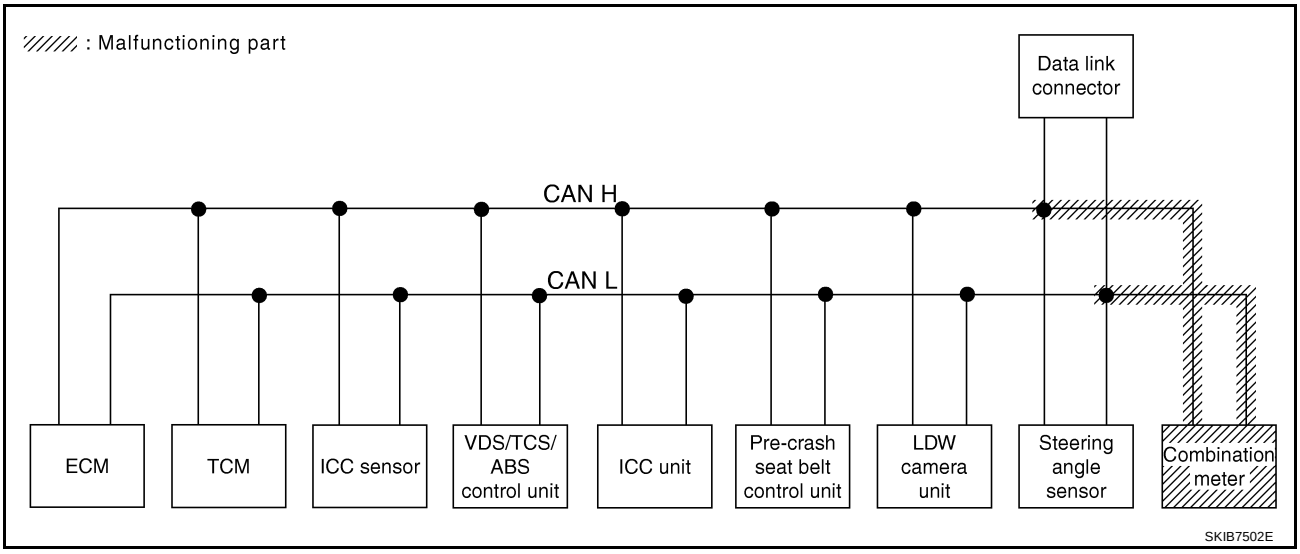
SKIB7501E

Case 16

Check combination meter circuit. Refer to LAN-109, "Combination Meter Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—

SKIB7485E



SKIB7502E

Case 17

Check CAN communication circuit. Refer to LAN-109, "CAN Communication Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR									SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis								
				ECM	TCM	ICC SENSOR	VDC/TCS /ABS	ICC/ e4WD	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—

SKIB7486E

CAN SYSTEM (TYPE 3)

PFP:23710

Component Parts and Harness Connector Location

NKS002DS

Refer to LAN-35, "Component Parts and Harness Connector Location" .

Schematic

NKS002DT

Refer to LAN-36, "Schematic" .

Wiring Diagram — CAN —

NKS002DU

Refer to LAN-37, "Wiring Diagram — CAN —" .

Check Sheet

NKS002DV

NOTE:
If a check mark is put on “NG” on “INITIAL DIAG (Initial diagnosis)”, replace the control unit.

Check sheet table

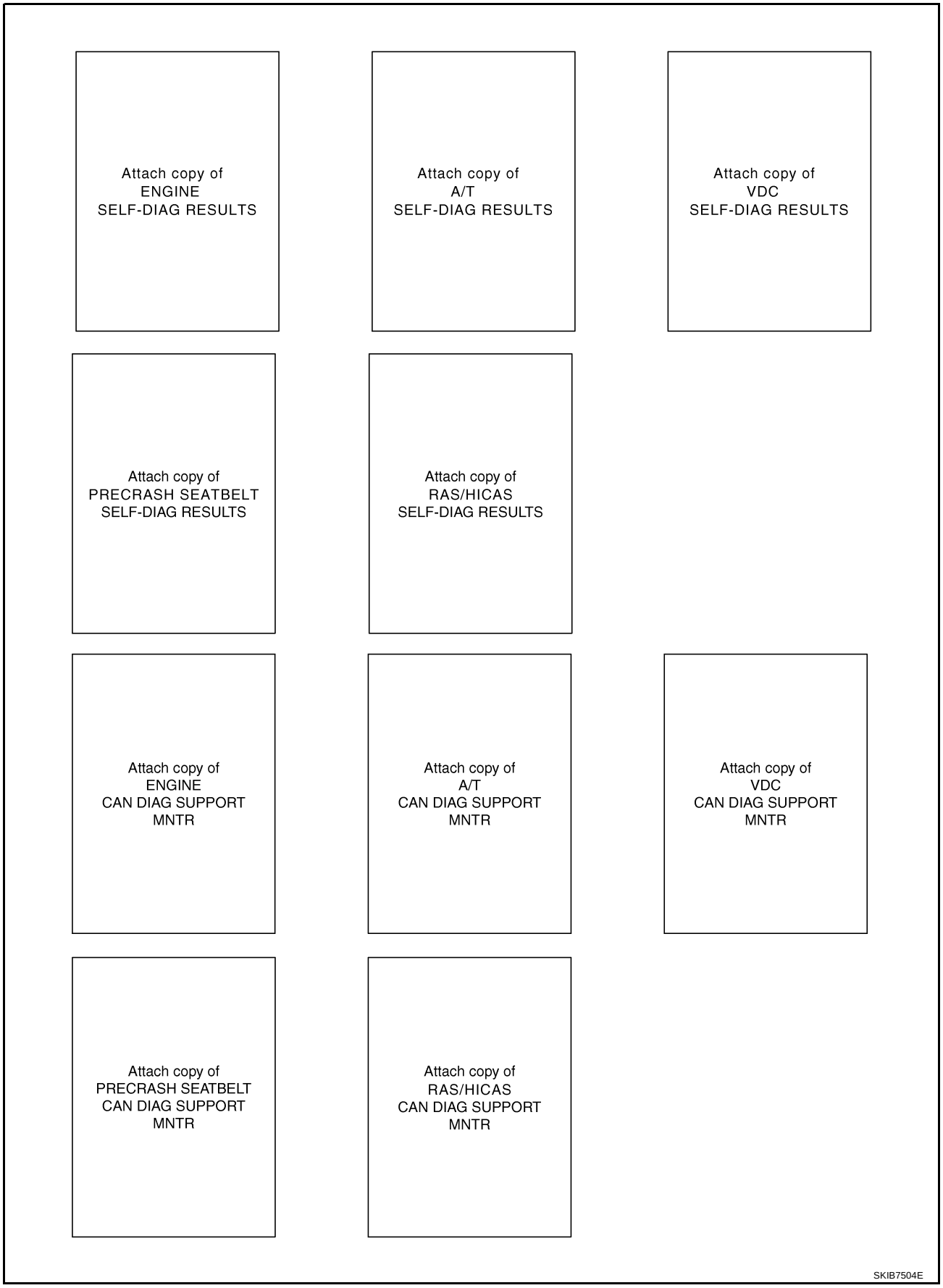
SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR								SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis							
				ECM	TCM	VDC/TCS /ABS	RAS	STRG	METER /M&A		
ENGINE	–	–	UNKWN	–	UNKWN	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
VDC	–	NG	UNKWN	UNKWN	UNKWN	–	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	–
PRECRASH SEATBELT	No indication	–	–	UNKWN	UNKWN	–	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
RAS/HICAS	No indication	–	UNKWN	UNKWN	–	UNKWN	–	UNKWN	–	CAN COMM CIRCUIT (U1000)	–

Symptoms :

Attach copy of SELECT SYSTEM

Attach copy of SELECT SYSTEM

SKIB7503E


Attach copy of
ENGINE
SELF-DIAG RESULTS
Attach copy of
A/T
SELF-DIAG RESULTS
Attach copy of
VDC
SELF-DIAG RESULTS
Attach copy of
PRECRASH SEATBELT
SELF-DIAG RESULTS
Attach copy of
RAS/HICAS
SELF-DIAG RESULTS
Attach copy of
ENGINE
CAN DIAG SUPPORT
MNTR
Attach copy of
A/T
CAN DIAG SUPPORT
MNTR
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VDC
CAN DIAG SUPPORT
MNTR
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PRECRASH SEATBELT
CAN DIAG SUPPORT
MNTR
Attach copy of
RAS/HICAS
CAN DIAG SUPPORT
MNTR
SKIB7504E

CHECK SHEET RESULTS (EXAMPLE)

NOTE:

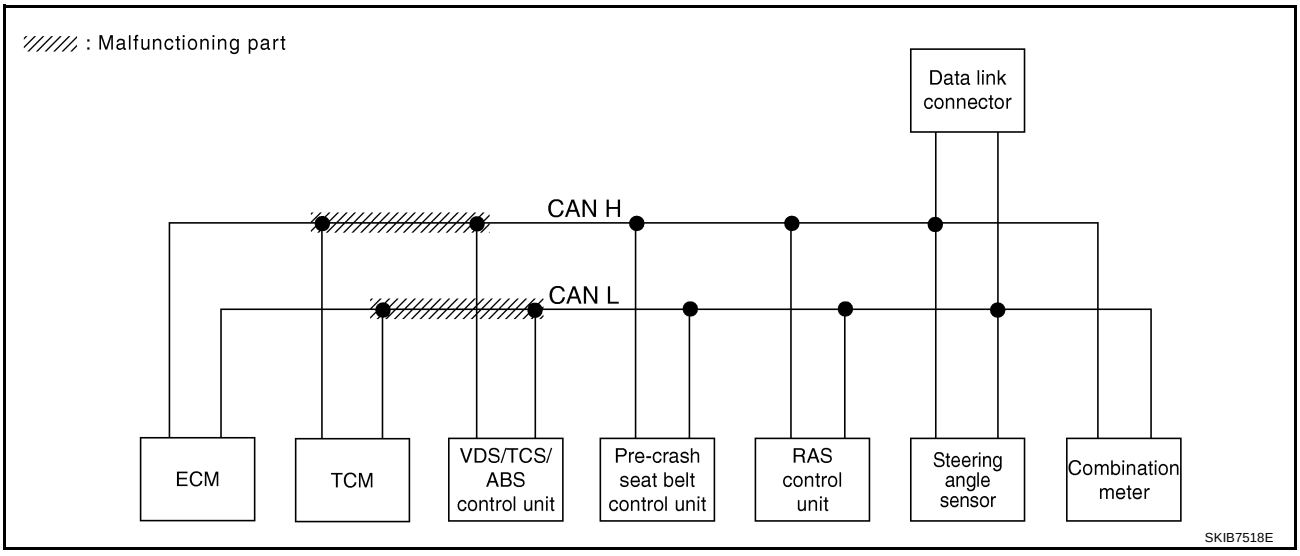
If a check mark is put on “NG” on “INITIAL DIAG (Initial diagnosis)”, replace the control unit.

Case 1

Check harness between TCM and VDC/TCS/ABS control unit. Refer to LAN-93, "Inspection Between TCM and VDC/TCS/ABS Control Unit Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR								SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis							
				ECM	TCM	VDC/TCS /ABS	RAS	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	UNKWN ✓	—	—	UNKWN ✓	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	UNKWN ✓	—	—	UNKWN ✓	CAN COMM CIRCUIT (U1000) ✓	—
VDC	—	NG	UNKWN	UNKWN ✓	UNKWN ✓	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000) ✓	—
PRECRASH SEATBELT	No indication	—	—	UNKWN ✓	UNKWN ✓	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000) ✓	—
RAS/HICAS	No indication	—	UNKWN	UNKWN ✓	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—

SKIB7505E



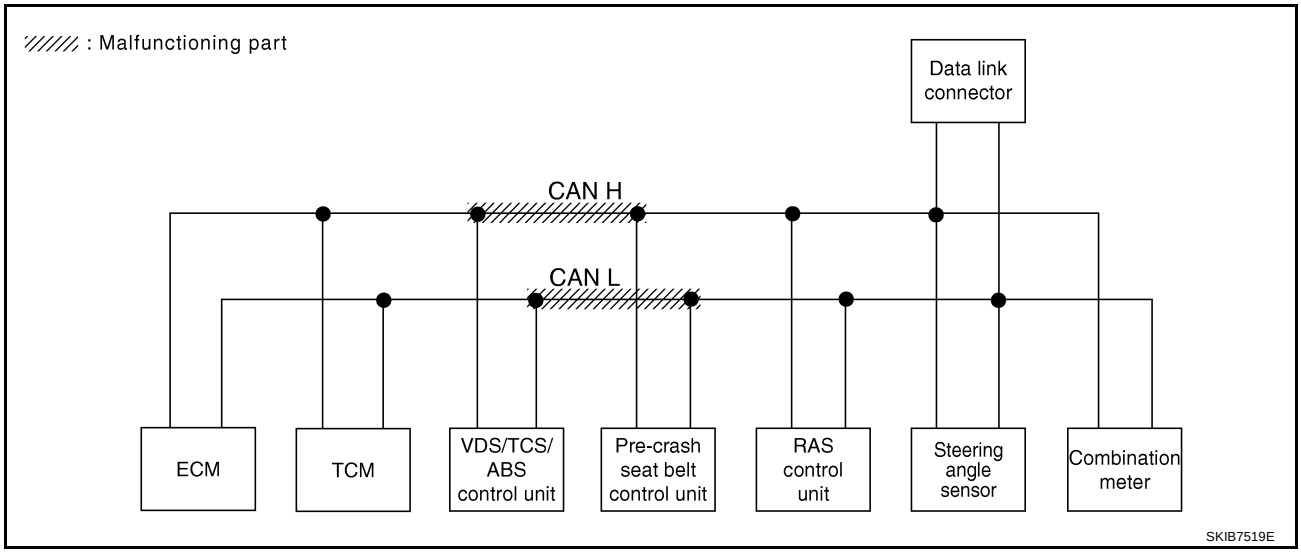
SKIB7518E

Case 2

Check harness between VDC/TCS/ABS control unit and pre-crash seat belt control unit. Refer to LAN-95, "Inspection Between VDC/TCS/ABS Control Unit and Pre-Crash Seat Belt Control Unit Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR								SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis							
				ECM	TCM	VDC/TCS /ABS	RAS	STRG	METER /M&A		
ENGINE	–	–	UNKWN	–	UNKWN	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
VDC	–	NG	UNKWN	UNKWN	UNKWN	–	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	–
PRECRASH SEATBELT	No indication	–	–	UNKWN	UNKWN	–	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
RAS/HICAS	No indication	–	UNKWN	UNKWN	–	UNKWN	–	UNKWN	–	CAN COMM CIRCUIT (U1000)	–

SKIB7506E



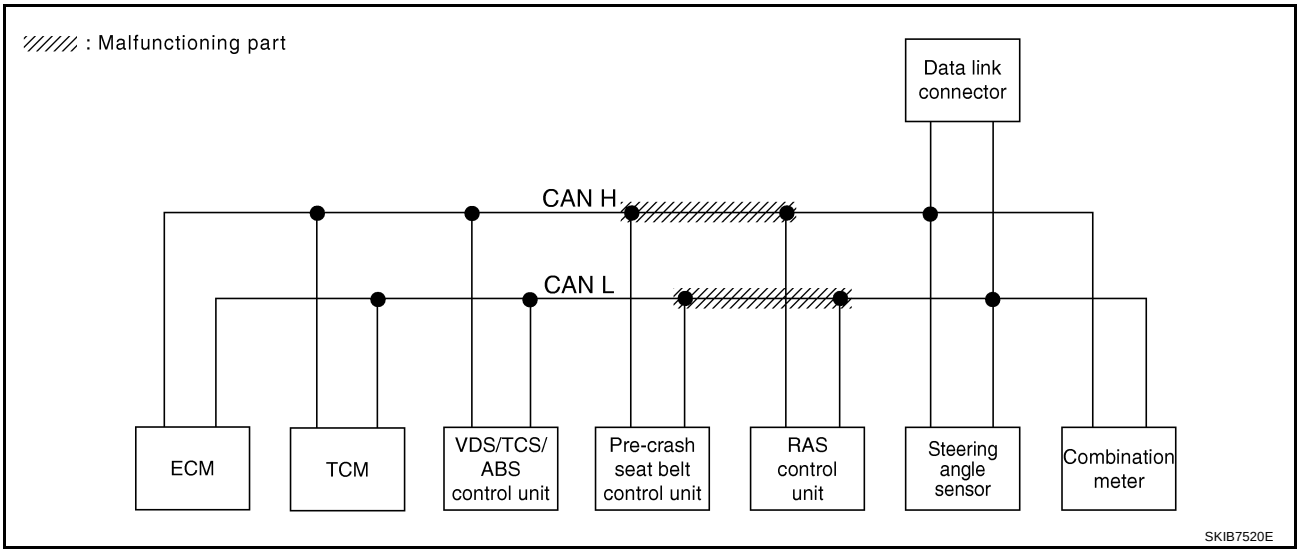
SKIB7519E

Case 3

Check harness between pre-crash seat belt control unit and RAS control unit. Refer to LAN-99, "Inspection Between Pre-Crash Seat Belt Control Unit and RAS Control Unit Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR								SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis							
				ECM	TCM	VDC/TCS /ABS	RAS	STRG	METER /M&A		
ENGINE	–	–	UNKWN	–	UNKWN	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
VDC	–	NG	UNKWN	UNKWN	UNKWN	–	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	–
PRECRASH SEATBELT	No indication	–	–	UNKWN	UNKWN	–	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
RAS/HICAS	No indication	–	UNKWN	UNKWN	–	UNKWN	–	UNKWN	–	CAN COMM CIRCUIT (U1000)	–

SKIB7507E



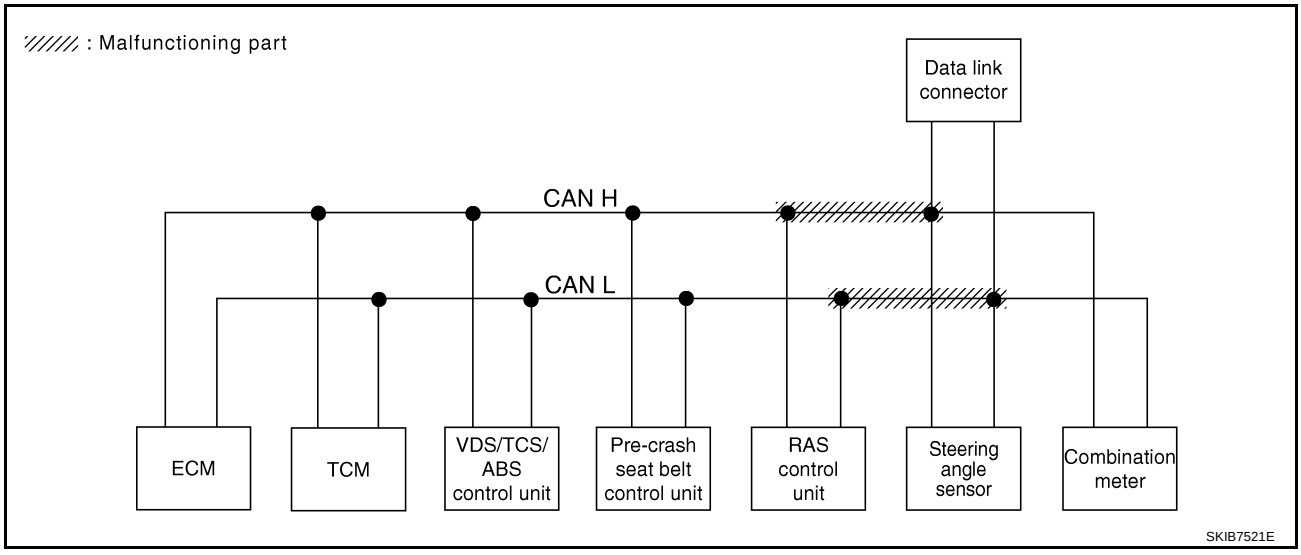
SKIB7520E

Case 4

Check harness between RAS control unit and data link connector. Refer to LAN-101, "Inspection Between RAS Control Unit and Data Link Connector Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR								SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis							
				ECM	TCM	VDC/TCS /ABS	RAS	STRG	METER /M&A		
ENGINE	–	–	UNKWN	–	UNKWN	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
VDC	–	NG	UNKWN	UNKWN	UNKWN	–	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	–
PRECRASH SEATBELT	No indication	–	–	UNKWN	UNKWN	–	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
RAS/HICAS	No indication	–	UNKWN	UNKWN	–	UNKWN	–	UNKWN	–	CAN COMM CIRCUIT (U1000)	–

SKIB7508E



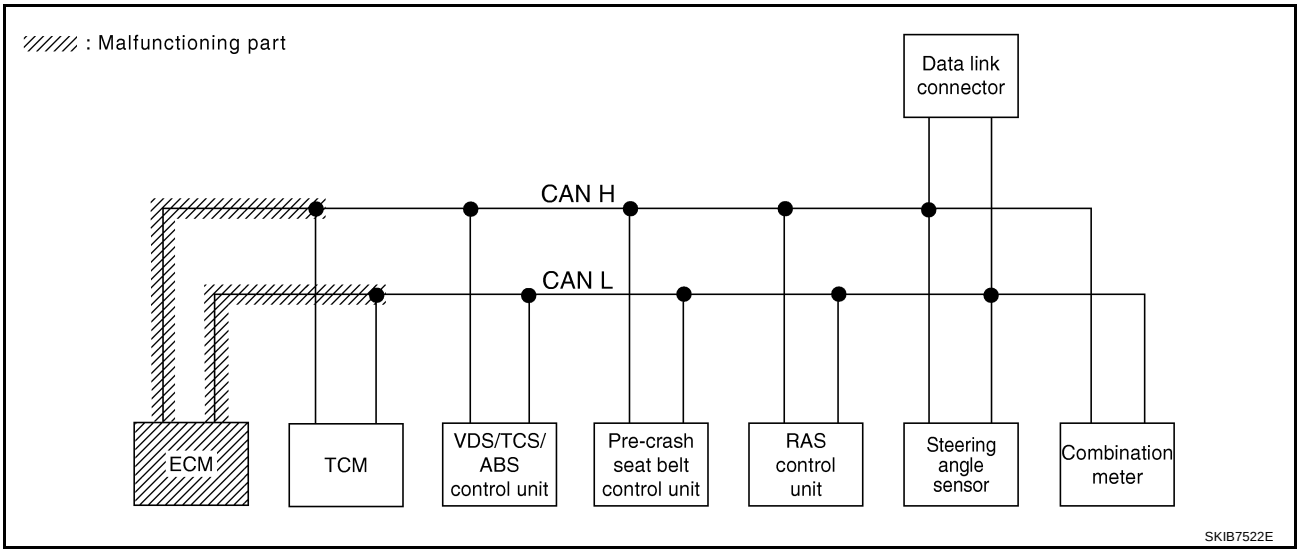
SKIB7521E

Case 5

Check ECM circuit. Refer to LAN-103, "ECM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR								SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis							
				ECM	TCM	VDC/TCS /ABS	RAS	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
RAS/HICAS	No indication	—	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—

SKIB7509E



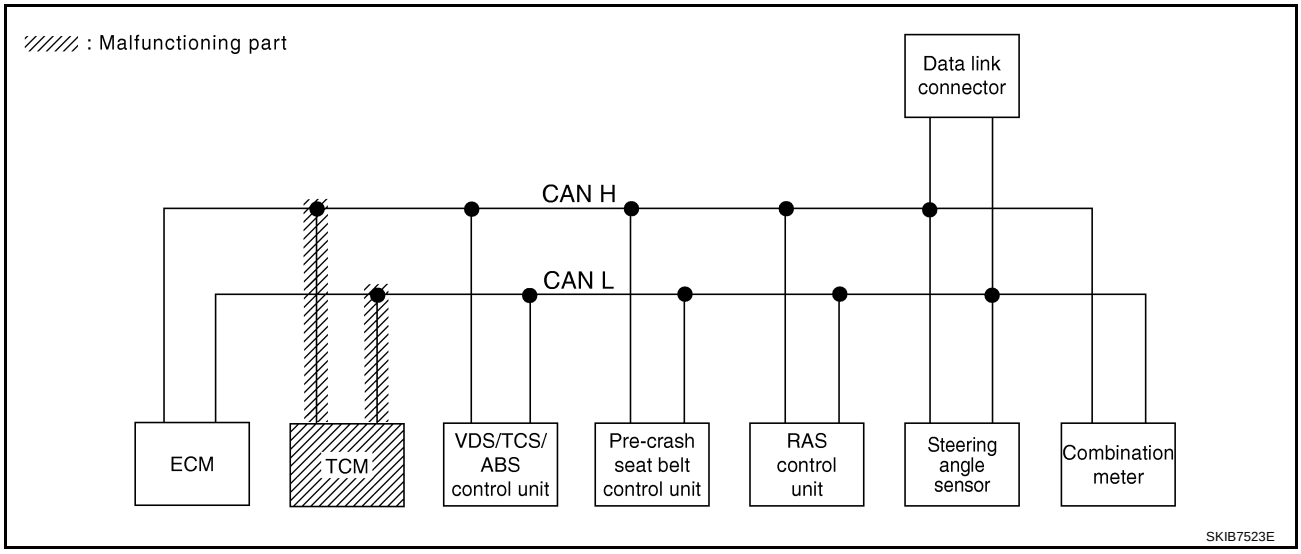
SKIB7522E

Case 6

Check TCM circuit. Refer to LAN-103, "TCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR								SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis							
				ECM	TCM	VDC/TCS /ABS	RAS	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
RAS/HICAS	No indication	—	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—

SKIB7510E



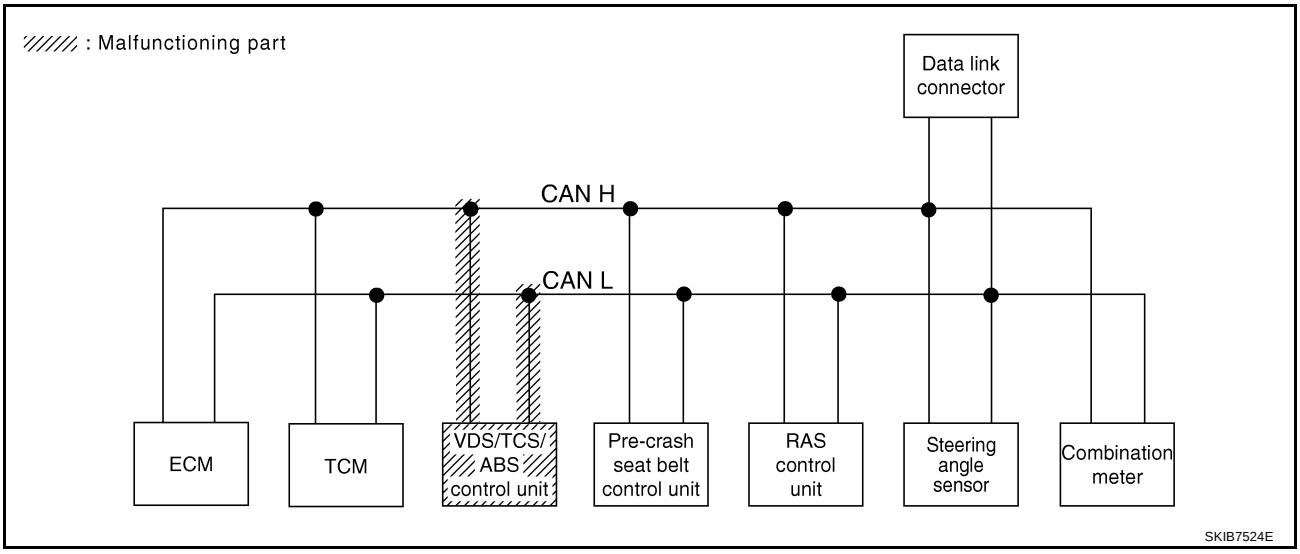
SKIB7523E

Case 7

Check VDC/TCS/ABS control unit circuit. Refer to LAN-104, "VDC/TCS/ABS Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR								SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis							
				ECM	TCM	VDC/TCS /ABS	RAS	STRG	METER /M&A		
ENGINE	–	–	UNKWN	–	UNKWN	UNKWN ✓	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	–	NG	UNKWN	UNKWN	–	UNKWN ✓	–	–	UNKWN	CAN COMM CIRCUIT (U1000) ✓	–
VDC	–	NG ✓	UNKWN ✓	UNKWN ✓	UNKWN ✓	–	UNKWN ✓	UNKWN ✓	UNKWN ✓	CAN COMM CIRCUIT (U1000) ✓	–
PRECRASH SEATBELT	No indication	–	–	UNKWN	UNKWN	–	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
RAS/HICAS	No indication	–	UNKWN	UNKWN	–	UNKWN ✓	–	UNKWN	–	CAN COMM CIRCUIT (U1000) ✓	–

SKIB7511E



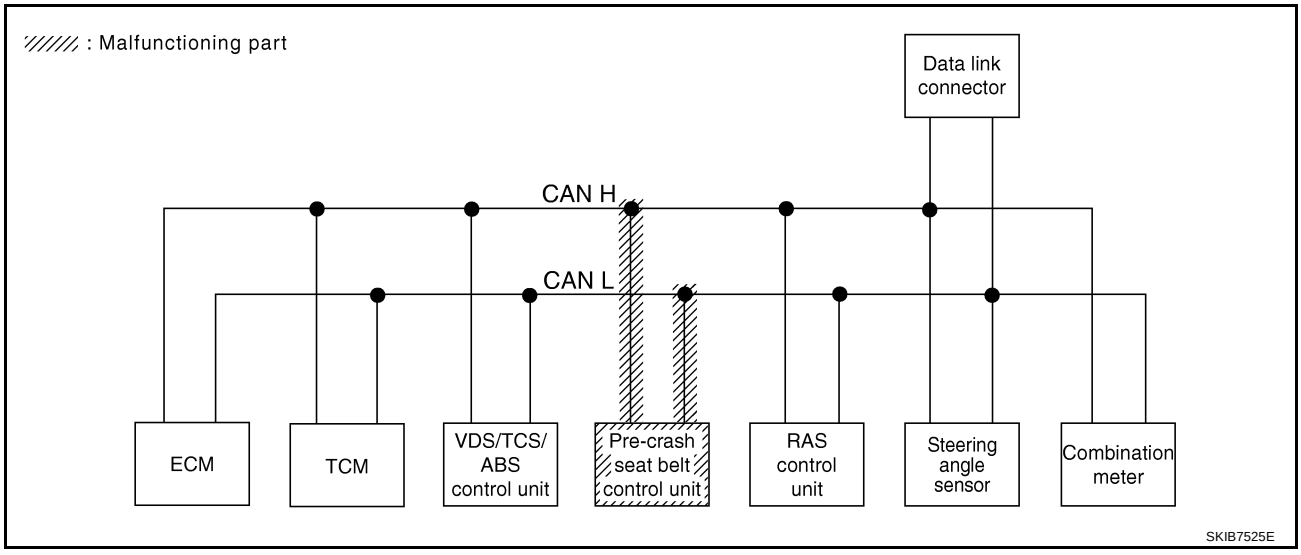
SKIB7524E

Case 8

Check pre-crash seat belt control unit circuit. Refer to LAN-106, "Pre-Crash Seat Belt Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR								SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis							
				ECM	TCM	VDC/TCS /ABS	RAS	STRG	METER /M&A		
ENGINE	–	–	UNKWN	–	UNKWN	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
VDC	–	NG	UNKWN	UNKWN	UNKWN	–	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	–
PRECRASH SEATBELT	No indication ✓	–	–	UNKWN	UNKWN	–	–	–	UNKWN	CAN COMM CIRCUIT (U1000) ✓	–
RAS/HICAS	No indication	–	UNKWN	UNKWN	–	UNKWN	–	UNKWN	–	CAN COMM CIRCUIT (U1000)	–

SKIB7512E



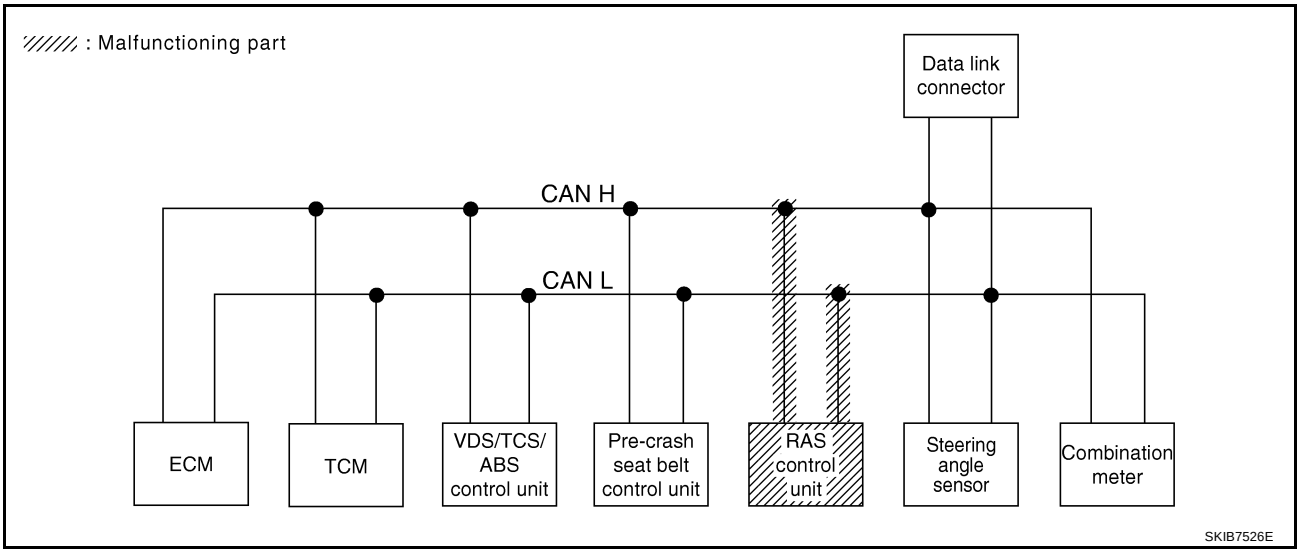
SKIB7525E

Case 9

Check RAS control unit circuit. Refer to LAN-107, "RAS Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR								SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis							
				ECM	TCM	VDC/TCS /ABS	RAS	STRG	METER /M&A		
ENGINE	–	–	UNKWN	–	UNKWN	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
VDC	–	NG	UNKWN	UNKWN	UNKWN	–	UNKWN ✓	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	–
PRECRASH SEATBELT	No indication	–	–	UNKWN	UNKWN	–	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
RAS/HICAS	No indication ✓	–	UNKWN	UNKWN	–	UNKWN	–	UNKWN	–	CAN COMM CIRCUIT (U1000) ✓	–

SKIB7513E



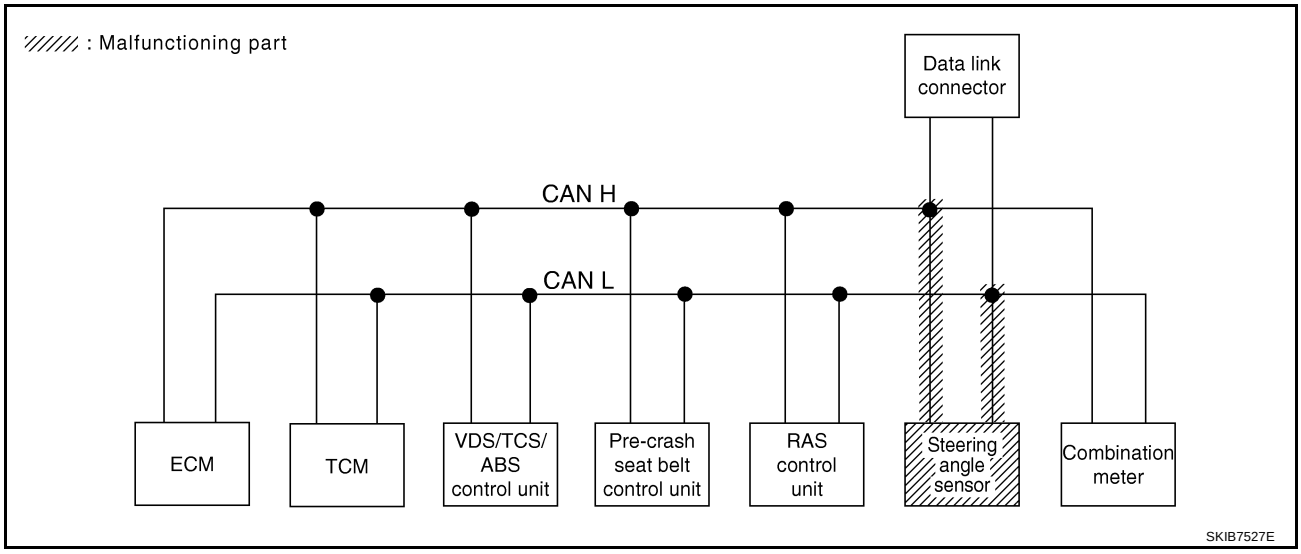
SKIB7526E

Case 10

Check steering angle sensor circuit. Refer to LAN-108, "Steering Angle Sensor Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR								SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis							
				ECM	TCM	VDC/TCS /ABS	RAS	STRG	METER /M&A		
ENGINE	—	—	UNKWN	—	UNKWN	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
VDC	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	UNKWN ✓	UNKWN	CAN COMM CIRCUIT (U1000)	—
PRECRASH SEATBELT	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
RAS/HICAS	No indication	—	UNKWN	UNKWN	—	UNKWN	—	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—

SKIB7514E



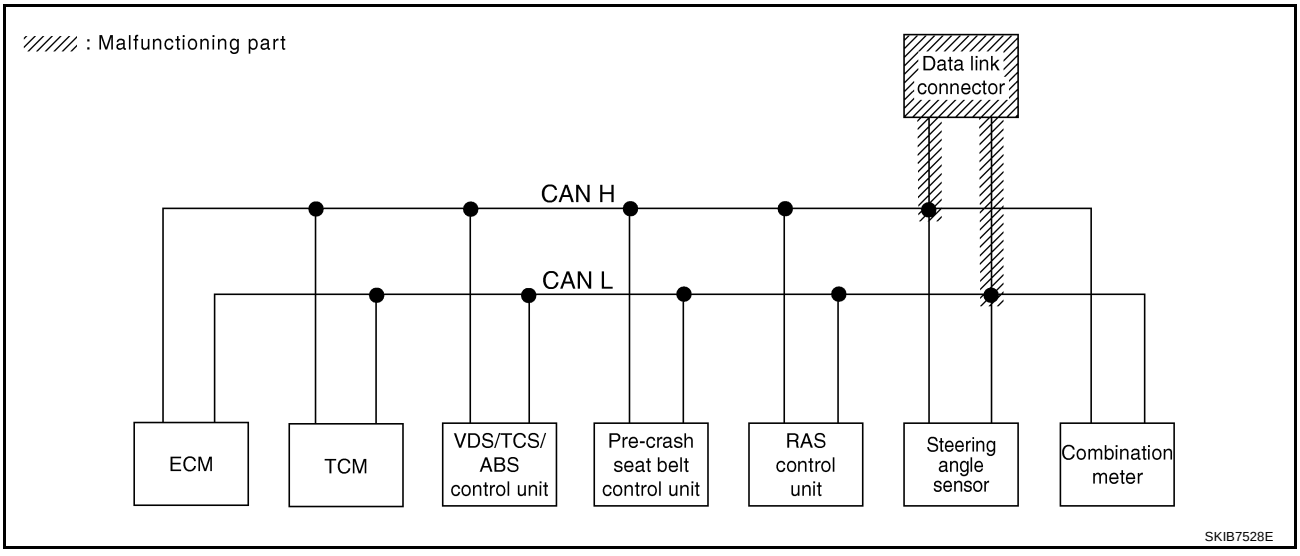
SKIB7527E

Case 11

Check data link connector circuit. Refer to LAN-108, "Data Link Connector Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR								SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis							
				ECM	TCM	VDC/TCS /ABS	RAS	STRG	METER /M&A		
ENGINE	–	–	UNKWN	–	UNKWN	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
VDC	–	NG	UNKWN	UNKWN	UNKWN	–	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	–
PRECRASH SEATBELT	✓ No indication	–	–	UNKWN	UNKWN	–	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
RAS/HICAS	✓ No indication	–	UNKWN	UNKWN	–	UNKWN	–	UNKWN	–	CAN COMM CIRCUIT (U1000)	–

SKIB7515E



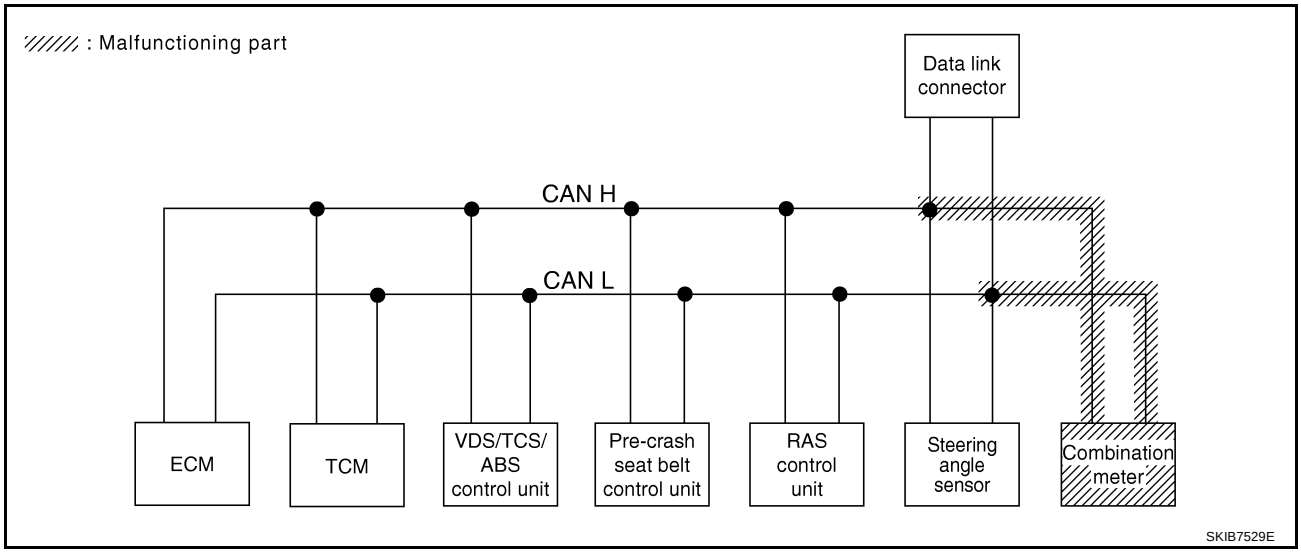
SKIB7528E

Case 12

Check combination meter circuit. Refer to LAN-109, "Combination Meter Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR								SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis							
				ECM	TCM	VDC/TCS /ABS	RAS	STRG	METER /M&A		
ENGINE	–	–	UNKWN	–	UNKWN	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	UNKWN	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
VDC	–	NG	UNKWN	UNKWN	UNKWN	–	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	–
PRECRASH SEATBELT	No indication	–	–	UNKWN	UNKWN	–	–	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
RAS/HICAS	No indication	–	UNKWN	UNKWN	–	UNKWN	–	UNKWN	–	CAN COMM CIRCUIT (U1000)	–

SKIB7516E



SKIB7529E

Case 13

Check CAN communication circuit. Refer to LAN-109, "CAN Communication Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR								SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis							
				ECM	TCM	VDC/TCS /ABS	RAS	STRG	METER /M&A		
ENGINE	–	–	✓	–	✓	✓	–	–	✓	✓	✓
A/T	–	NG	✓	✓	–	✓	–	–	✓	✓	–
VDC	–	✓	✓	✓	✓	–	✓	✓	✓	✓	–
PRECRASH SEATBELT	✓	–	–	✓	✓	–	–	–	✓	✓	–
RAS/HICAS	✓	–	✓	✓	–	✓	–	✓	–	✓	–

SKIB7517E

TROUBLE DIAGNOSIS FOR SYSTEM

PFP:00000

Inspection Between TCM and VDC/TCS/ABS Control Unit Circuit

NKS002IP

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check following terminals and connectors for damage, bend and loose connection (connector side and harness side).

- Harness connector F34
- Harness connector E34

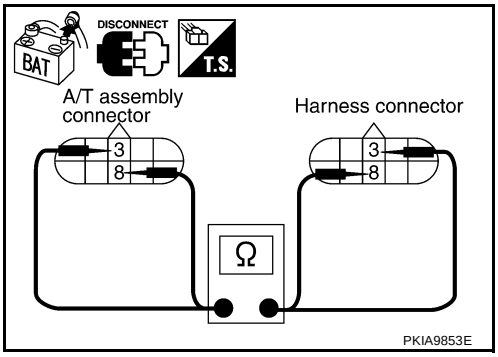
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect A/T assembly connector and harness connector F34.
2. Check continuity between A/T assembly harness connector and harness connector.

A/T assembly connector		Harness connector		Continuity
Connector	Terminal	Connector	Terminal	
F26	3	F34	3	Yes
	8		8	Yes



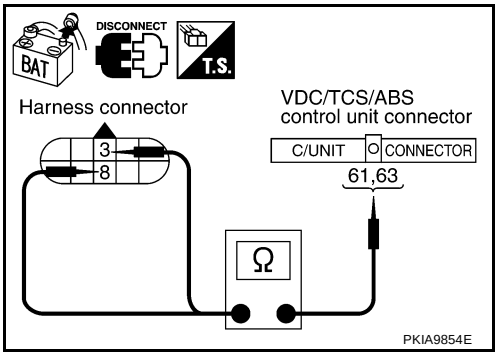
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect VDC/TCS/ABS control unit connector.
2. Check continuity between harness connector and VDC/TCS/ABS control unit harness connector.

Harness connector		VDC/TCS/ABS control unit connector		Continuity
Connector	Terminal	Connector	Terminal	
E34	3	E218	61	Yes
	8		63	Yes



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-19, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between TCM and ICC Sensor Circuit

NKS002DW

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check following terminals and connectors for damage, bend and loose connection (connector side and harness side).

- Harness connector F34
- Harness connector E34

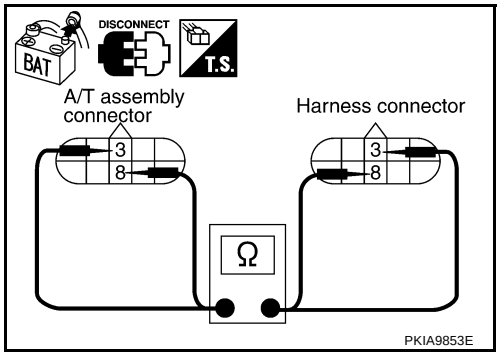
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect A/T assembly connector and harness connector F34.
2. Check continuity between A/T assembly harness connector and harness connector.

A/T assembly connector		Harness connector		Continuity
Connector	Terminal	Connector	Terminal	
F26	3	F34	3	Yes
	8		8	Yes



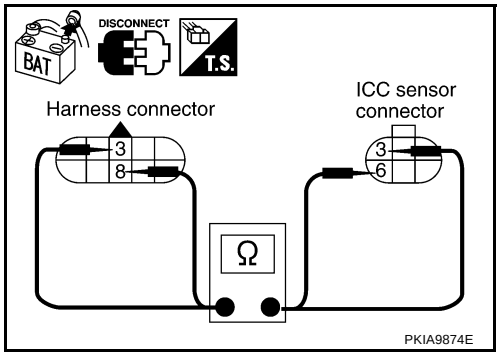
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ICC sensor connector.
2. Check continuity between harness connector and ICC sensor harness connector.

Harness connector		ICC sensor connector		Continuity
Connector	Terminal	Connector	Terminal	
E34	3	E52	3	Yes
	8		6	Yes



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-19, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

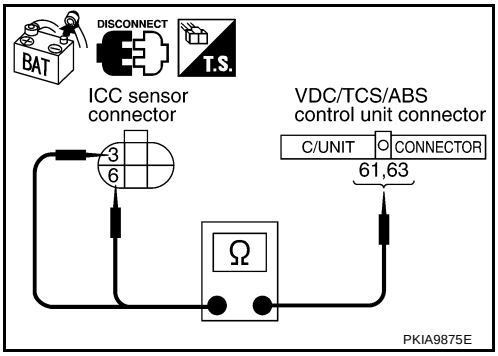
Inspection Between ICC Sensor and VDC/TCS/ABS Control Unit Circuit

NKS002DX

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect following connectors.
- ECM connector
- ICC sensor connector
- VDC/TCS/ABS control unit connector
4. Check continuity between ICC sensor harness connector and VDC/TCS/ABS control unit harness connector.

ICC sensor connector		VDC/TCS/ABS control unit connector		Continuity
Connector	Terminal	Connector	Terminal	
E52	3	E218	61	Yes
	6		63	Yes



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-19, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness.

Inspection Between VDC/TCS/ABS Control Unit and Pre-Crash Seat Belt Control Unit Circuit

NKS002IQ

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check following terminals and connectors for damage, bend and loose connection (connector side and harness side).
- Harness connector E224
- Harness connector B204

OK or NG

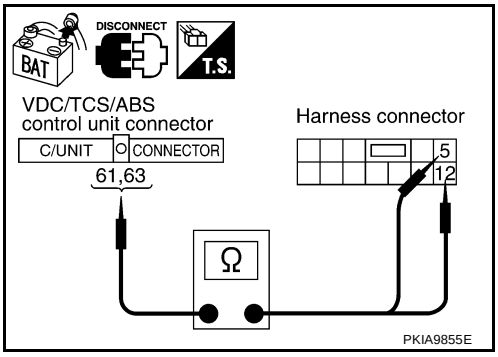
OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect VDC/TCS/ABS control unit connector and harness connector E224.
2. Check continuity between VDC/TCS/ABS control unit harness connector and harness connector.

VDC/TCS/ABS control unit connector		Harness connector		Continuity
Connector	Terminal	Connector	Terminal	
E218	61	E224	5	Yes
	63		12	Yes



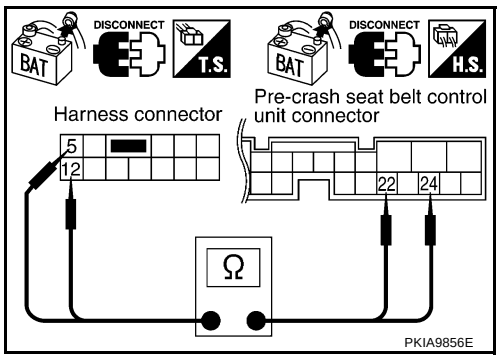
OK or NG

OK >> GO TO 3.

NG >> Repair harness.

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect pre-crash seat belt control unit connector.
2. Check continuity between harness connector and pre-crash seat belt control unit harness connector.



Harness connector		Pre-crash seat belt control unit connector		Continuity
Connector	Terminal	Connector	Terminal	
B204	5	B318	24	Yes
	12		22	Yes

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-19, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness.

Inspection Between VDC/TCS/ABS Control Unit and ICC Unit Circuit

NKS002DY

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check following terminals and connectors for damage, bend and loose connection (connector side and harness side).

- Harness connector E224
- Harness connector B204

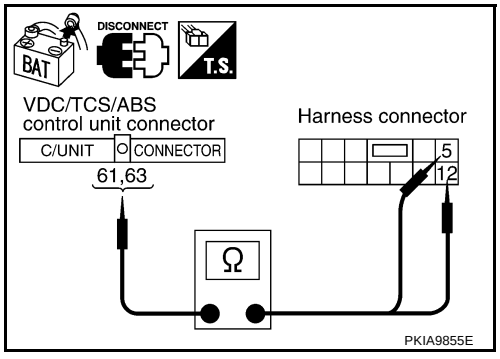
OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect VDC/TCS/ABS control unit connector and harness connector E224.
2. Check continuity between VDC/TCS/ABS control unit harness connector and harness connector.



VDC/TCS/ABS control unit connector		Harness connector		Continuity
Connector	Terminal	Connector	Terminal	
E218	61	E224	5	Yes
	63		12	Yes

OK or NG

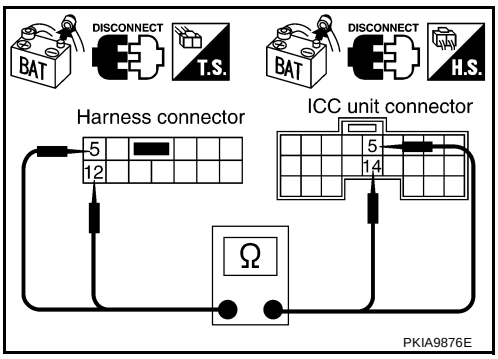
OK >> GO TO 3.

NG >> Repair harness.

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ICC unit connector.
2. Check continuity between harness connector and ICC unit harness connector.

Harness connector		ICC unit connector		Continuity
Connector	Terminal	Connector	Terminal	
B204	5	B243	14	Yes
	12		5	Yes



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-19, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness.

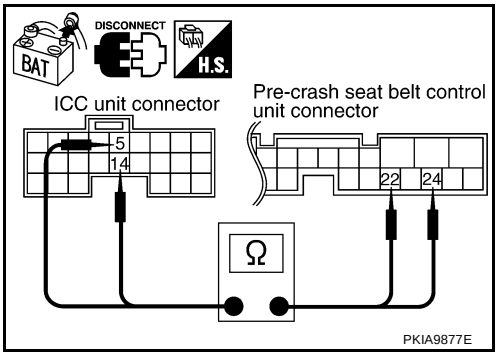
Inspection Between ICC Unit and Pre-Crash Seat Belt Control Unit Circuit

NKS002DZ

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect following connectors.
   - ECM connector
   - ICC unit connector
   - Pre-crash seat belt control unit connector
4. Check continuity between ICC unit harness connector and pre-crash seat belt control unit harness connector.

ICC unit connector		Pre-crash seat belt control unit connector		Continuity
Connector	Terminal	Connector	Terminal	
B243	14	B318	24	Yes
	5		22	Yes



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-19, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness.

Inspection Between Pre-Crash Seat Belt Control Unit and Data Link Connector Circuit

NKS002E0

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check following terminals and connectors for damage, bend and loose connection (connector side and harness side).
   - Harness connector B263
   - Harness connector B63
   - Harness connector B6
   - Harness connector M6

OK or NG

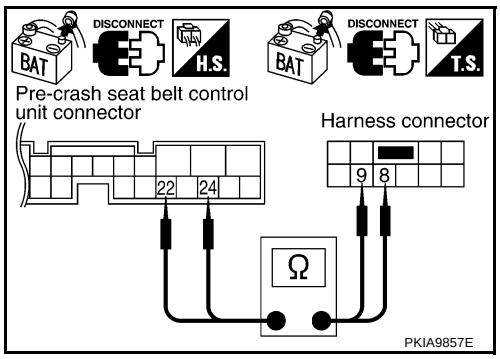
OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect pre-crash seat belt control unit connector and harness connector B263.
2. Check continuity between pre-crash seat belt control unit harness connector and harness connector.

Pre-crash seat belt control unit connector		Harness connector		Continuity
Connector	Terminal	Connector	Terminal	
B318	24	B263	9	Yes
	22		8	Yes



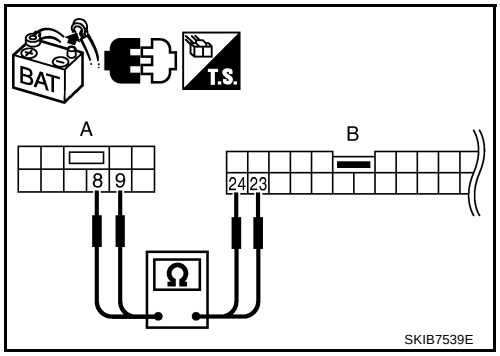
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect harness connector B6.
2. Check continuity between harness connector (A) and harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B63	9	B6	23	Yes
	8		24	Yes



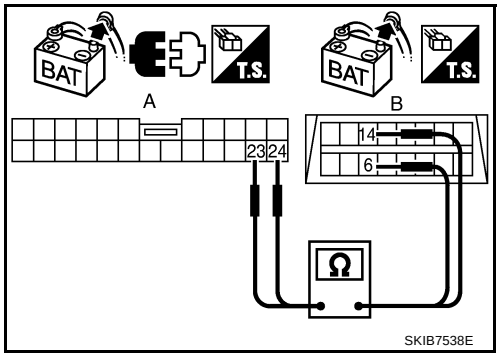
OK or NG

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

4. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between harness connector (A) and data link connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M6	23	M31	6	Yes
	24		14	Yes



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-19, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between Pre-Crash Seat Belt Control Unit and RAS Control Unit Circuit

NKS002IR

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check following terminals and connectors for damage, bend and loose connection (connector side and harness side).

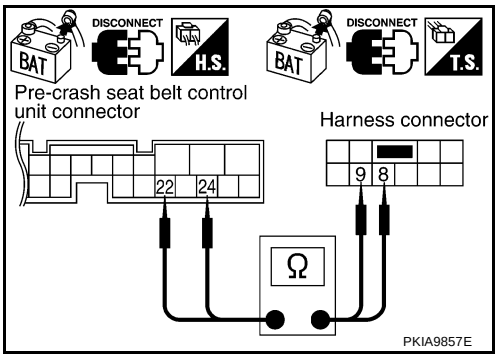
- Harness connector B263
- Harness connector B63

OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect pre-crash seat belt control unit connector and harness connector B263.
2. Check continuity between pre-crash seat belt control unit harness connector and harness connector.



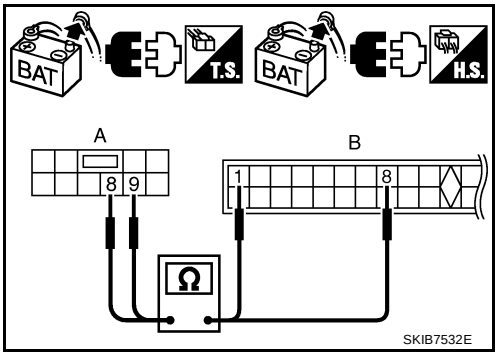
Pre-crash seat belt control unit connector		Harness connector		Continuity
Connector	Terminal	Connector	Terminal	
B318	24	B263	9	Yes
	22		8	Yes

OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect RAS control unit connector.
2. Check continuity between harness connector (A) and RAS control unit connector (B).



A		B		Continuity
Connector	Terminal	Connector	Terminal	
B63	9	B39	1	Yes
	8		8	Yes

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-19, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between Pre-Crash Seat Belt Control Unit and LDW Camera Unit Circuit

NKS002IT

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check following terminals and connectors for damage, bend and loose connection (connector side and harness side).

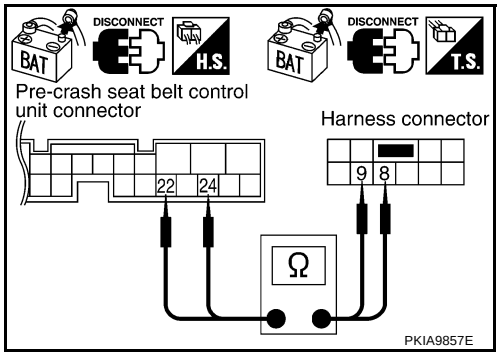
- Harness connector B263
- Harness connector B63
- Harness connector B6
- Harness connector M6
- Harness connector M23
- Harness connector R3

OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect pre-crash seat belt control unit connector and harness connector B263.
2. Check continuity between pre-crash seat belt control unit harness connector and harness connector.



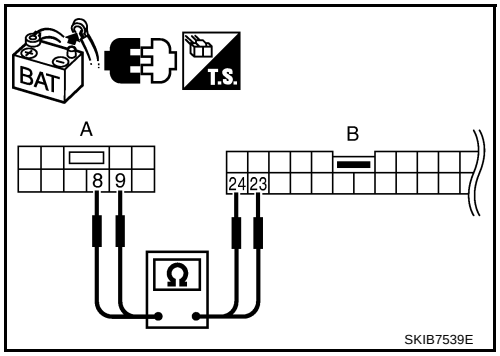
Pre-crash seat belt control unit connector		Harness connector		Continuity
Connector	Terminal	Connector	Terminal	
B318	24	B263	9	Yes
	22		8	Yes

OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect harness connector B6.
2. Check continuity between harness connector (A) and harness connector (B).



A		B		Continuity
Connector	Terminal	Connector	Terminal	
B63	9	B6	23	Yes
	8		24	Yes

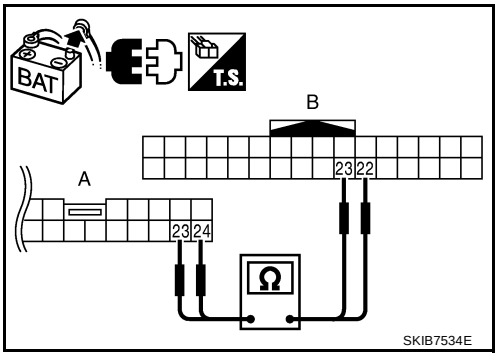
OK or NG

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

4. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect harness connector M23.
2. Check continuity between harness connector (A) and harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M6	23	M23	22	Yes
	24		23	Yes



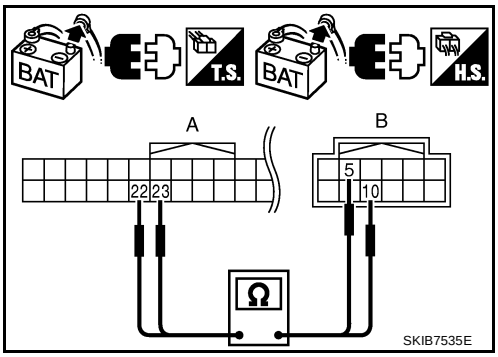
OK or NG

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

5. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect LDW camera unit connector.
2. Check continuity between harness connector (A) and LDW camera unit connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
R3	22	R26	10	Yes
	23		5	Yes



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-19, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between RAS Control Unit and Data Link Connector Circuit

NKS002IS

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check following terminals and connectors for damage, bend and loose connection (connector side and harness side).

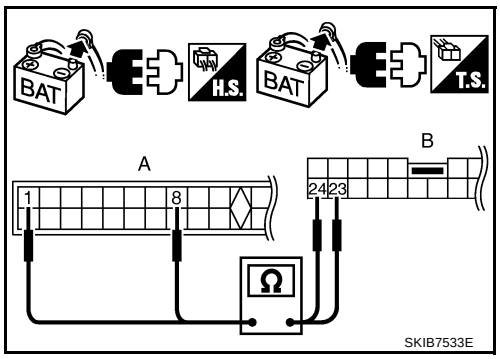
- Harness connector B6
- Harness connector M6

OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect RAS control unit connector and harness connector B6.
2. Check continuity between RAS control unit harness connector (A) and harness connector (B).



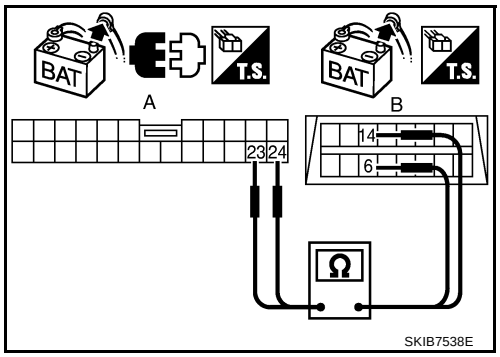
A		B		Continuity
Connector	Terminal	Connector	Terminal	
B39	1	B6	23	Yes
	8		24	Yes

OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between harness connector (A) and data link connector (B).



A		B		Continuity
Connector	Terminal	Connector	Terminal	
M6	23	M31	6	Yes
	24		14	Yes

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-19, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between LDW Camera Unit and Data Link Connector Circuit

NKS002IU

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check following terminals and connectors for damage, bend and loose connection (connector side and harness side).

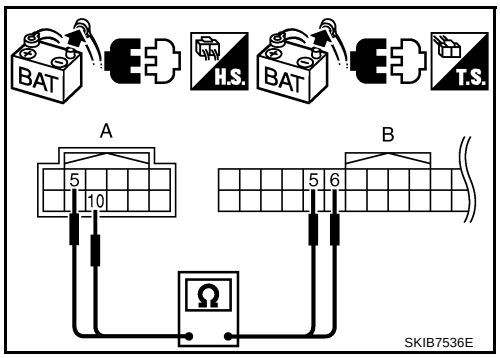
- Harness connector R3
- Harness connector M23

OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect LDW camera unit connector and harness connector R3.
2. Check continuity between LDW camera unit harness connector (A) and harness connector (B).



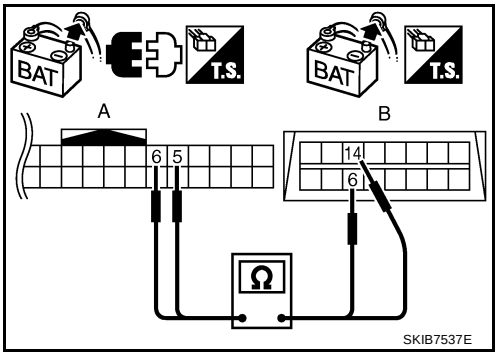
A		B		Continuity
Connector	Terminal	Connector	Terminal	
R26	10	R3	5	Yes
	5		6	Yes

OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between harness connector (A) and data link connector (B).



A		B		Continuity
Connector	Terminal	Connector	Terminal	
M23	5	M31	6	Yes
	6		14	Yes

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-19, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

ECM Circuit Inspection

NKS002IV

1. CHECK CONNECTOR

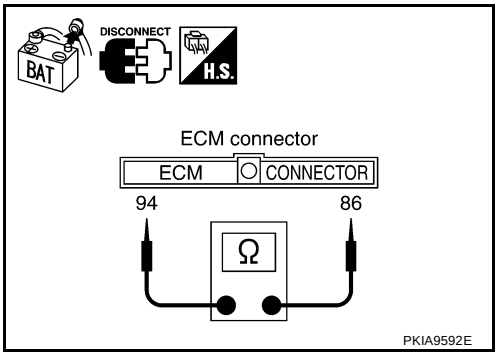
1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of ECM for damage, bend and loose connection (control module side and harness side).

OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ECM connector.
2. Check resistance between ECM harness connector terminals.



ECM connector	Terminal		Resistance (Approx.)
F101	94	86	108 – 132 Ω

OK or NG

OK >> Replace ECM.
NG >> Repair harness between ECM and A/T assembly.

TCM Circuit Inspection

NKS002IW

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of A/T assembly for damage, bend and loose connection (control module side and harness side).

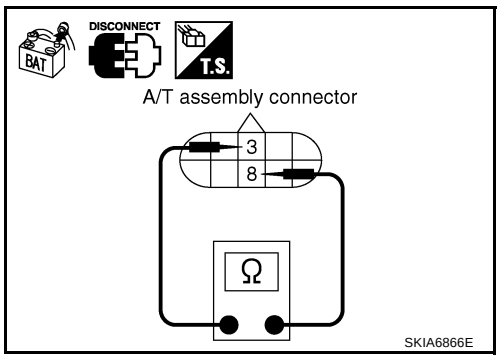
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect A/T assembly connector.
2. Check resistance between A/T assembly harness connector terminals.

A/T assembly connector	Terminal		Resistance (Approx.)
F26	3	8	54 – 66 Ω



OK or NG

OK >> Replace control valve with TCM.
NG >> Repair harness between A/T assembly and ECM.

ICC Sensor Circuit Inspection

NKS002IX

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of ICC sensor for damage, bend and loose connection (sensor side and harness side).

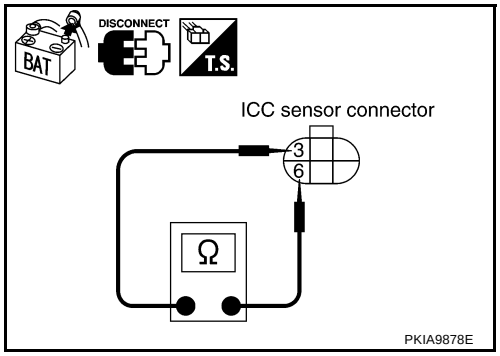
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ICC sensor connector.
2. Check resistance between ICC sensor harness connector terminals.

ICC sensor connector	Terminal		Resistance (Approx.)
E52	3	6	54 – 66 Ω



OK or NG

OK >> Replace ICC sensor.
NG >> Repair harness between ICC sensor and VDC/TCS/ABS control unit.

VDC/TCS/ABS Control Unit Circuit Inspection

NKS002IY

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of VDC/TCS/ABS control unit for damage, bend and loose connection (control unit side and harness side).

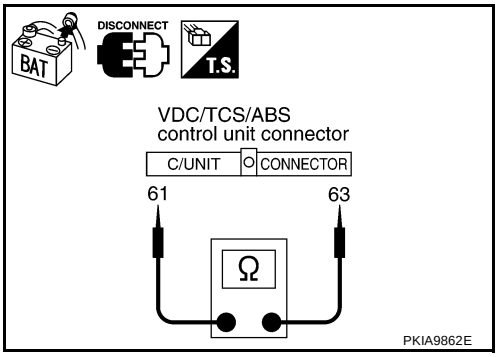
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect VDC/TCS/ABS control unit connector.
2. Check resistance between VDC/TCS/ABS control unit harness connector terminals.

VDC/TCS/ABS control unit connector	Terminal		Resistance (Approx.)
E218	61	63	54 – 66 Ω



OK or NG

OK >> Replace VDC/TCS/ABS control unit.
NG >> Repair harness between VDC/TCS/ABS control unit and harness connector E224.

ICC Unit Circuit Inspection

NKS002IZ

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of ICC unit for damage, bend and loose connection (unit side and harness side).

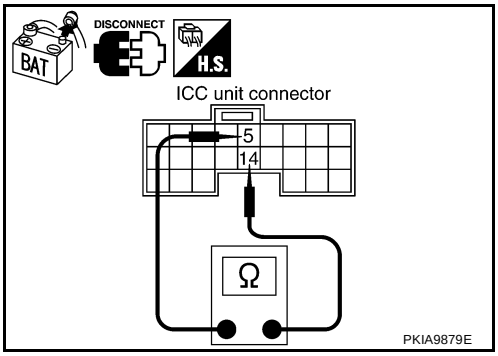
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ICC unit connector.
2. Check resistance between ICC unit harness connector terminals.

ICC unit connector	Terminal		Resistance (Approx.)
B243	14	5	54 – 66 Ω



OK or NG

OK >> Replace ICC unit.
NG >> Repair harness between ICC unit and pre-crash seat belt control unit.

Pre-Crash Seat Belt Control Unit and Data Link Connector Circuit Inspection

NKS002J0

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of data link connector for damage, bend and loose connection (connector side and harness side).

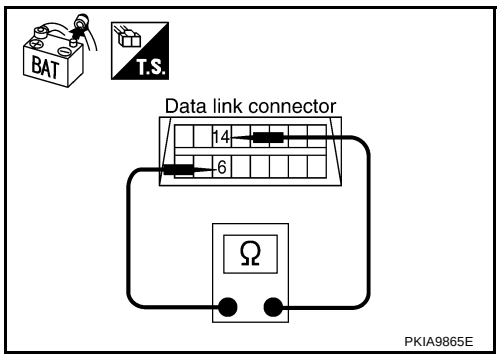
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between data link connector terminals.

Data link connector	Terminal		Resistance (Approx.)
M31	6	14	54 – 66 Ω



OK or NG

OK >> GO TO 3.
NG >> Repair harness between data link connector and steering angle sensor.

3. CHECK CONNECTOR

Check terminals and connector of pre-crash seat belt control unit for damage, bend and loose connection (control unit side and harness side).

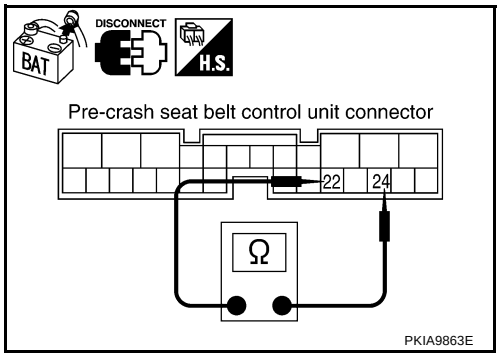
OK or NG

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

4. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect pre-crash seat belt control unit connector.
2. Check resistance between pre-crash seat belt control unit harness connector terminals.

Pre-crash seat belt control unit connector	Terminal		Resistance (Approx.)
B318	24	22	54 – 66 Ω



OK or NG

OK >> Replace pre-crash seat belt control unit.
NG >> Repair harness between pre-crash seat belt control unit and harness connector B263.

Pre-Crash Seat Belt Control Unit Circuit Inspection

NKS002J7

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of pre-crash seat belt control unit for damage, bend and loose connection (control unit side and harness side).

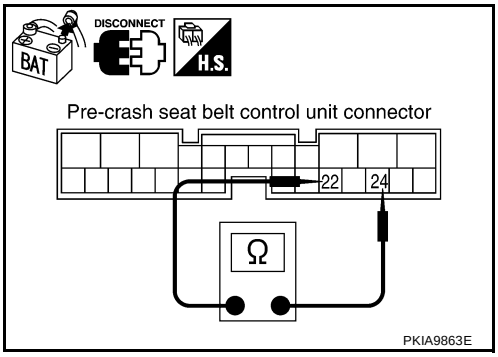
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect pre-crash seat belt control unit connector.
2. Check resistance between pre-crash seat belt control unit harness connector terminals.

Pre-crash seat belt control unit connector	Terminal		Resistance (Approx.)
B318	24	22	54 – 66 Ω



OK or NG

OK >> Replace pre-crash seat belt control unit.
NG >> Repair harness between pre-crash seat belt control unit and harness connector B263.

RAS Control Unit Circuit Inspection

NKS002J2

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of RAS control unit for damage, bend and loose connection (control unit side and harness side).

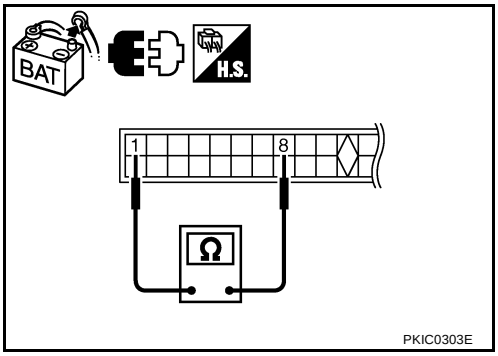
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect RAS control unit connector.
2. Check resistance between RAS control unit harness connector terminals.

RAS control unit connector	Terminal		Resistance (Approx.)
B39	1	8	54 – 66 Ω



OK or NG

OK >> Replace RAS control unit.
NG >> Replace harness between RAS control unit and harness connector B6.

LDW Camera Unit Circuit Inspection

NKS002J1

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of LDW camera unit for damage, bend and loose connection (unit side and harness side).

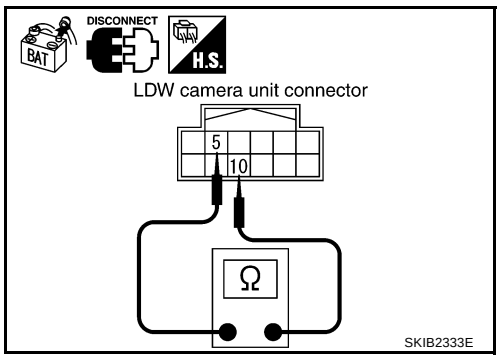
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect LDW camera unit connector.
2. Check resistance between LDW camera unit harness connector terminals.

LDW camera unit connector	Terminal		Resistance (Approx.)
R26	10	5	54 – 66 Ω



OK or NG

OK >> Replace LDW camera unit.
NG >> Repair harness between LDW camera unit and harness connector R3.

Steering Angle Sensor Circuit Inspection

NKS002J3

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of steering angle sensor for damage, bend and loose connection (sensor side and harness side).

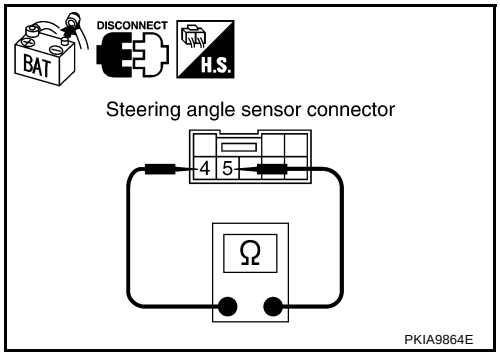
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect steering angle sensor connector.
2. Check resistance between steering angle sensor harness connector terminals.

Steering angle sensor connector	Terminal		Resistance (Approx.)
M52	4	5	54 – 66 Ω



OK or NG

OK >> Replace steering angle sensor.
NG >> Repair harness between steering angle sensor and data link connector.

Data Link Connector Circuit Inspection

NKS002J8

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of data link connector for damage, bend and loose connection (connector side and harness side).

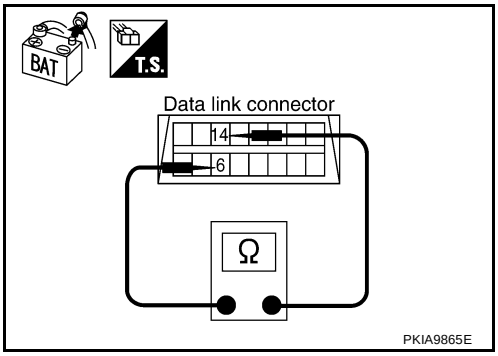
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between data link connector terminals.

Data link connector	Terminal		Resistance (Approx.)
M31	6	14	54 – 66 Ω



OK or NG

OK >> Diagnose again. Refer to LAN-19, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness between data link connector and steering angle sensor.

Combination Meter Circuit Inspection

NKS002J4

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of combination meter for damage, bend and loose connection (meter side and harness side).

OK or NG

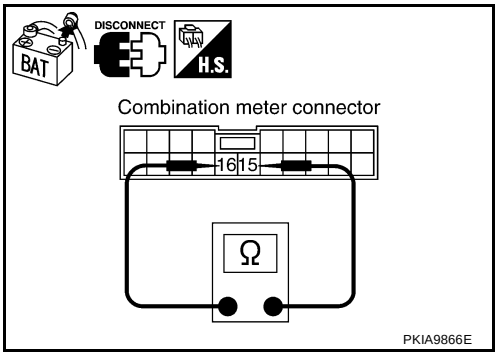
OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect combination meter connector.
2. Check resistance between combination meter harness connector terminals.

Combination meter connector	Terminal		Resistance (Approx.)
M41	15	16	108 – 132 Ω



OK or NG

OK >> Replace combination meter.

NG >> Repair harness between combination meter and data link connector.

CAN Communication Circuit Inspection

NKS002J5

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect the harness connector for each unit on the CAN network and check terminals for deformation, disconnection, looseness or damage.

OK or NG

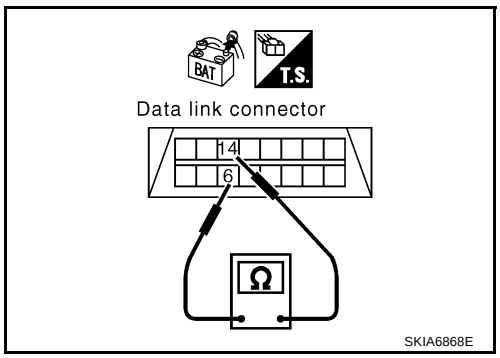
OK >> GO TO 2.

NG >> Repair terminal or connector as necessary.

2. CHECK HARNESS FOR SHORT CIRCUIT

With all module and control unit connectors disconnected, check continuity between data link connector terminals.

Terminal		Continuity
6	14	No



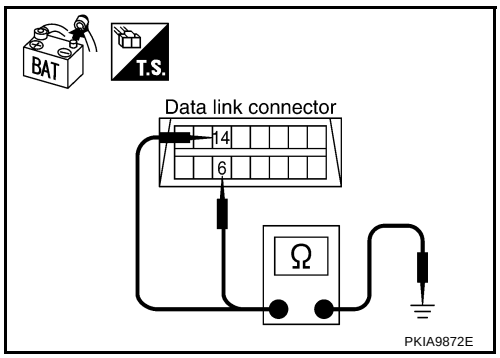
OK or NG

OK >> GO TO 3.
NG >>
- Repair harness.
- Change harness if shielded lines are used for the harness.

3. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between data link connector terminals and ground.

Terminal		Continuity
6	Ground	No
14	Ground	No



OK or NG

OK >> GO TO 4.
NG >>
- Repair harness.
- Change harness if shielded lines are used for the harness.

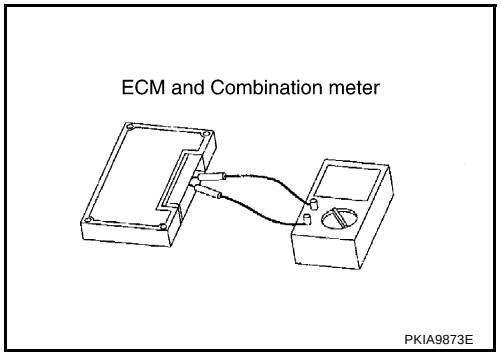
4. ECM AND COMBINATION METER INTERNAL CIRCUIT INSPECTION

1. Remove ECM and combination meter from vehicle.
2. Check resistance between ECM terminals.

Terminal		Resistance (Approx.)
94	86	108 – 132 Ω

3. Check resistance between combination meter terminals.

Terminal		Resistance (Approx.)
15	16	108 – 132 Ω



OK or NG

OK >> GO TO 5.
NG >> Replace ECM and/or combination meter.

5. CHECK SYMPTOM

1. Fill in described symptoms on the column “Symptom” in the check sheet.
2. Connect all connectors, and then make sure that the symptom is reproduced.

OK or NG

OK >> GO TO 6.
NG >> Refer to LAN-27, "Example of Filling in Check Sheet When Initial Conditions Are Not Reproduced"
.

6. UNIT REPRODUCIBILITY INSPECTION

Perform the following procedure for each unit on the CAN network, and then perform reproducibility test.

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect the unit connector.
4. Connect the battery cable to the negative terminal.
5. Make sure that the symptom filled in the “Symptom” of the check sheet is reproduced. (Do not confuse it with the symptom related to removed unit.)
6. Make sure that the same symptom is reproduced.

Inspection results

Reproduced>>Install removed unit, and then check the other unit.
Not reproduced>>Replace removed unit.