SECTION LAN

LAN SYSTEM

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PRECAUTIONS

PFP:00001

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

AKS00FCW

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SRS and SB section of this Service Manual.

WARNING:

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

Precautions When Using CONSULT-II

AKS0058H

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-7, "TROUBLE DIAGNOSES WORK FLOW" .

Precautions For Trouble Diagnosis

AKS0058I

CAN SYSTEM

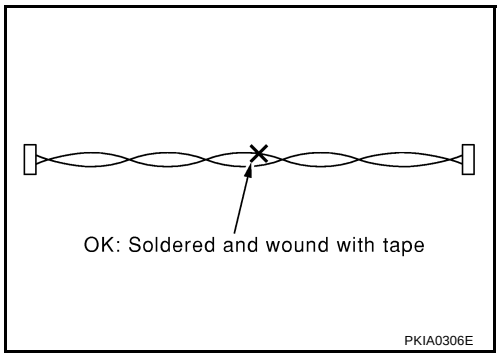
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

Precautions For Harness Repair

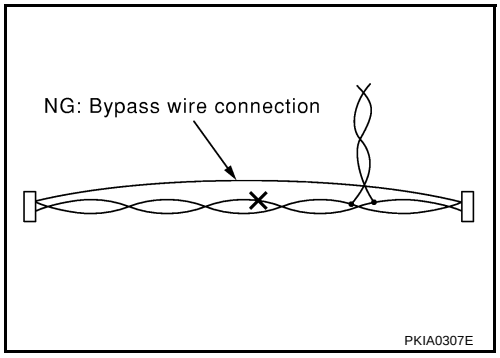
AKS0058J

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

AKS00CBN

WHEN A MALFUNCTION IS DETECTED BY CAN COMMUNICATION SYSTEM

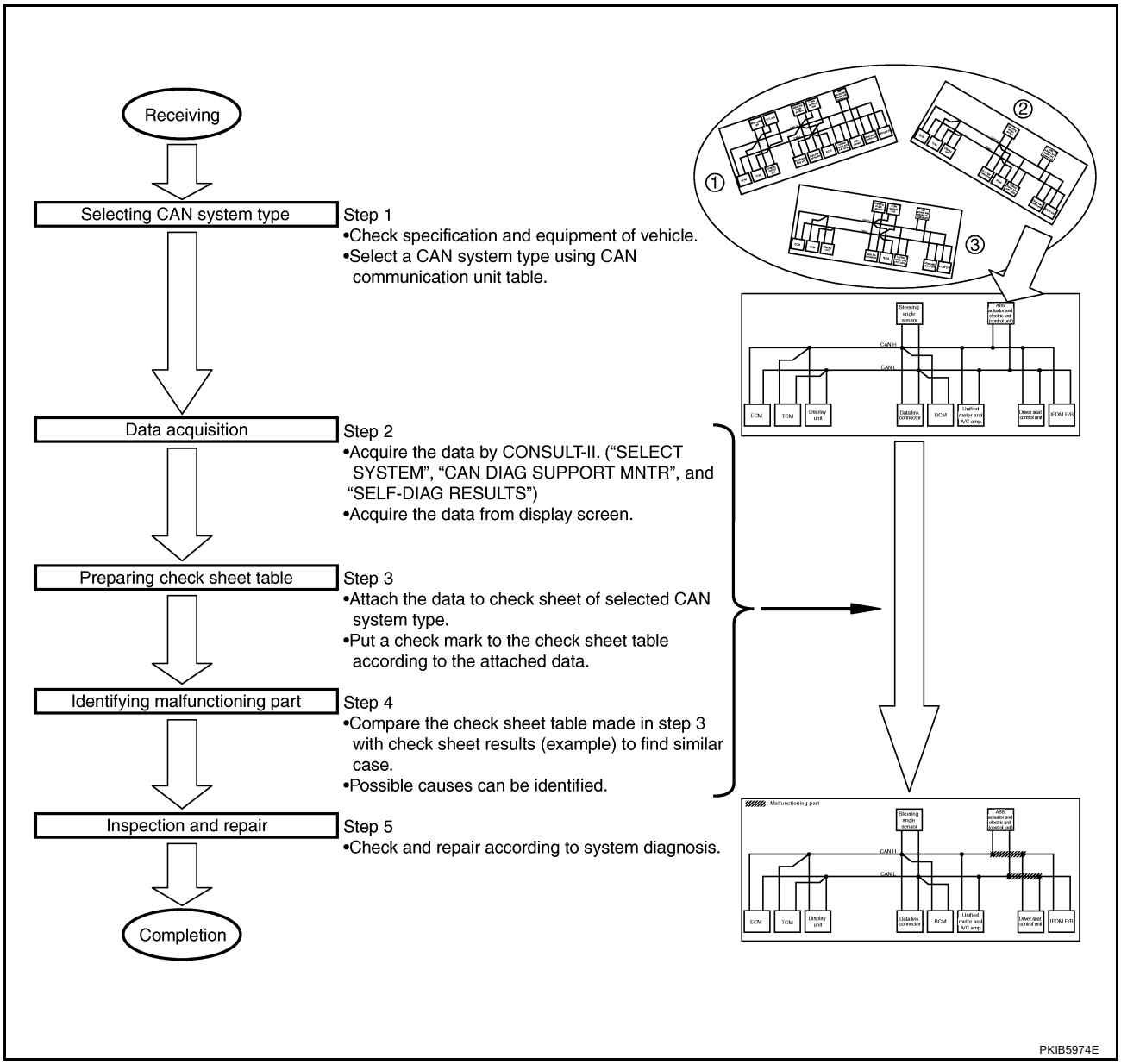
- CAN communication line is open. (CAN H, CAN L, or both)
- CAN communication line is shorted. (Ground, between CAN lines, or other harnesses)
- The areas related to CAN communication of unit is malfunctioning.

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-9, "SELECTING CAN SYSTEM TYPE (HOW TO USE SPECIFICATION TABLE)" .
- Step 2: Refer to LAN-10, "ACQUISITION OF DATA BY CONSULT-II" .
- Step 3: Refer to LAN-11, "HOW TO USE CHECK SHEET TABLE" .
- Step 4: Refer to LAN-12, "Example of Filling in Check Sheet When Initial Conditions Are Reproduced" .
- Step 5: Check and repair according to system diagnosis.

Diagnosis Procedure

AKS00CBO

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) Wagon/2WD/VQ35DE/AT/VDC/Without navigation system/Without ICC system/Without Intelligent Key system/
Without lane departure warning system/With automatic drive positioner

CAN Communication Unit

Go to CAN system, when selecting your CAN system type from the following table.

Body type	Wagon									Check basic specifications of the vehicle.
Axle	2WD					AWD				
Engine	VQ35DE					VQ35DE/VK45DE				
Transmission	A/T									
Brake control	VDC									
Navigation system				×	×				×	× → Select " × " if it is model with navigation system.
ICC system				×	×				×	× → Select " × " if it is model with ICC system.
Intelligent Key system				×	×				×	× → Select " × " if it is model with Intelligent Key system.
Lane departure warning system			×		×			×		× → Select " × " if it is model with lane departure warning.
Automatic drive positioner		×	×	×	×		×	×	×	× → Select " × " if it is model with automatic drive positioner.
CAN system type	9	1	2	3	4	10	5	6	7	8 — 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										

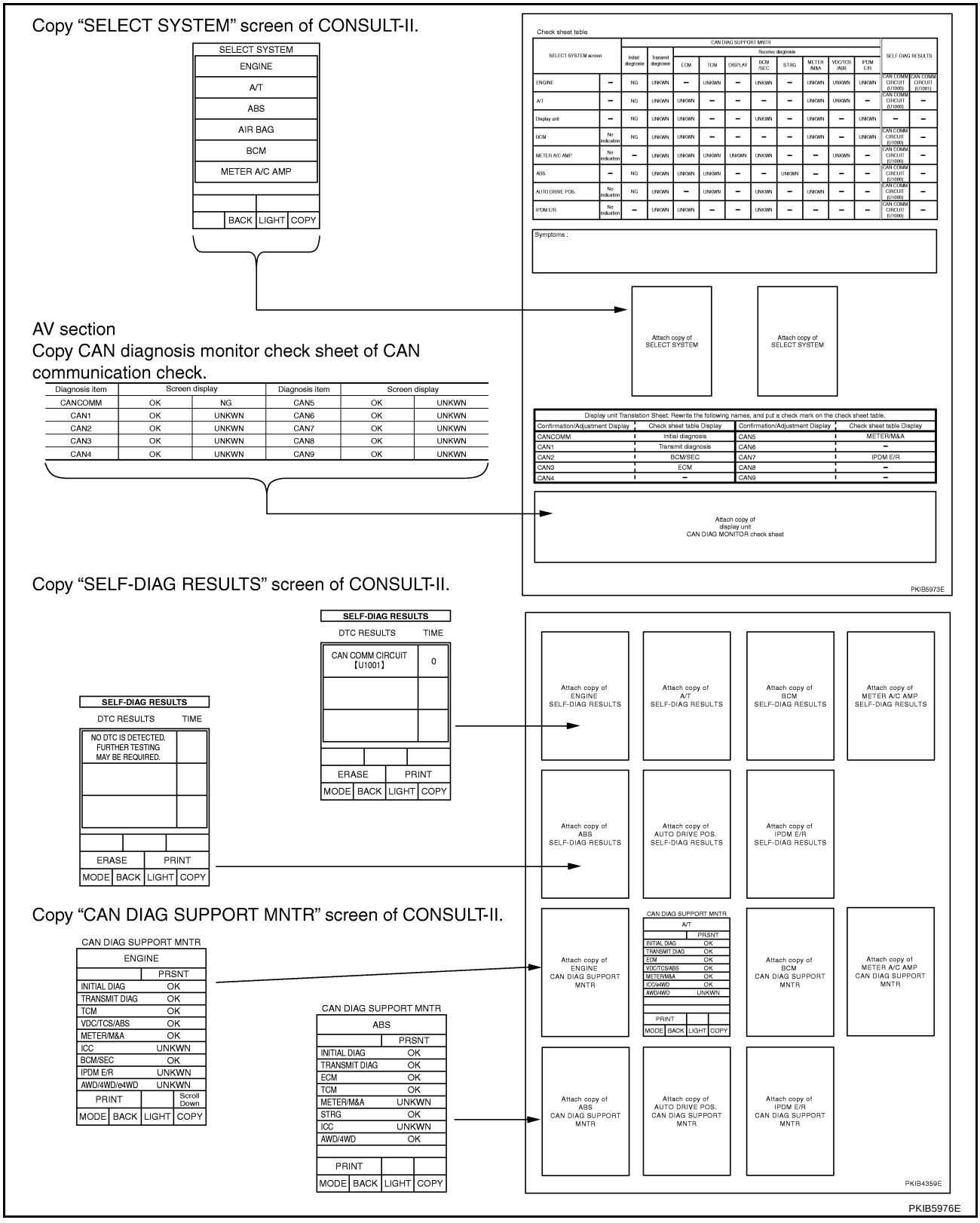
× : Applicable

In the case of this example:
It corresponds to type 1.

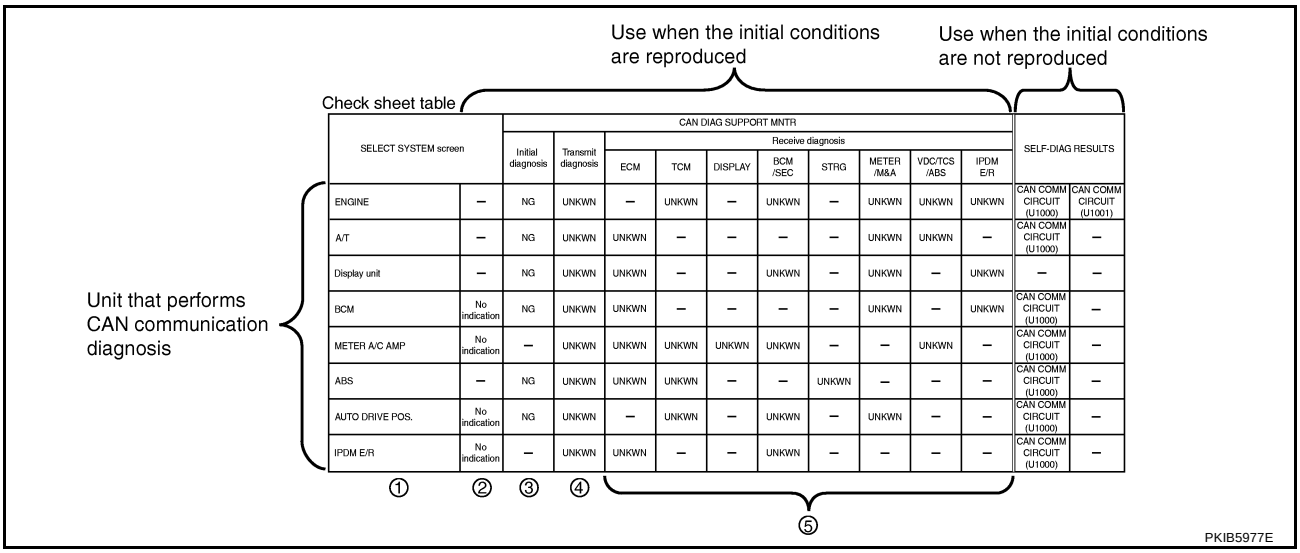
SKIB7423E

ACQUISITION OF DATA BY CONSULT-II

Attach the data acquired by CONSULT-II on the check sheet determined according to CAN system type. (Transfer the data from the display screen of the vehicle to the CAN diagnosis monitor check sheet. For display unit: Refer to AV-85, "CAN Communication Line Inspection" . For display control unit: Refer to AV-155, "CAN Communication Line Check" .)



HOW TO USE CHECK SHEET TABLE

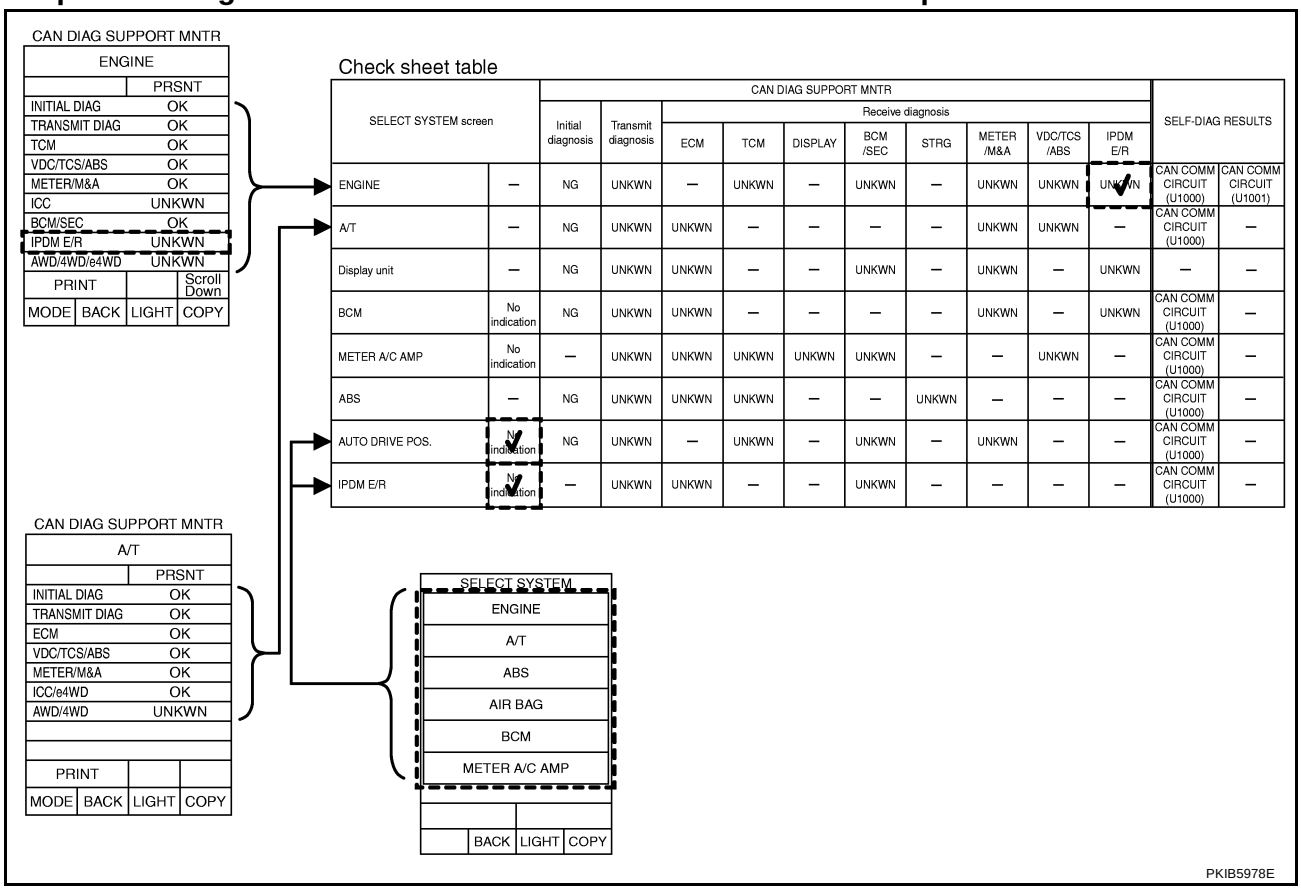


1. Unit names displayed on CONSULT-II
2. “No indication”: Put a check mark to it if the unit name described in step 1 is not displayed on “SELECT SYSTEM” screen of CONSULT-II. (Unit communicating with CONSULT-II via CAN communication line)
   “–”: Column not used (Unit communicating with CONSULT-II excluding 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.
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-12, "Example of Filling in Check Sheet When Initial Conditions Are Reproduced" .
- When the initial conditions are not reproduced. Refer to LAN-16, "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.

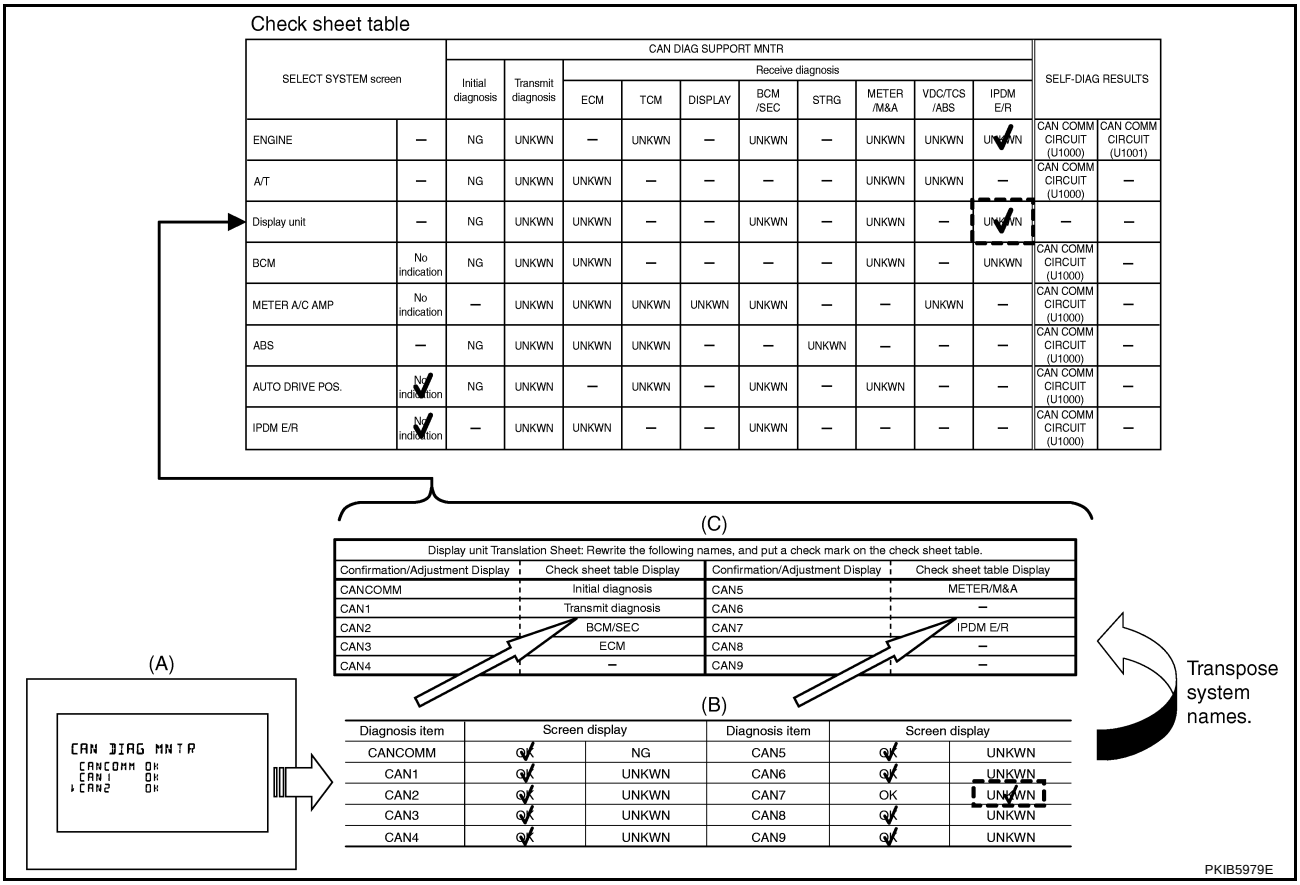
   NOTE:
   Put a check mark to “No indication” of AUTO DRIVE POS. and IPDM E/R because AUTO DRIVE POS. and IPDM E/R is not displayed on “SELECT SYSTEM” screen.

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 “ICC”, “IPDM E/R” and “AWD/4WD/e4WD”. But put a check mark to “IPDM E/R” because “UNKWN” is listed on the column of reception diagnosis of the check sheet table.

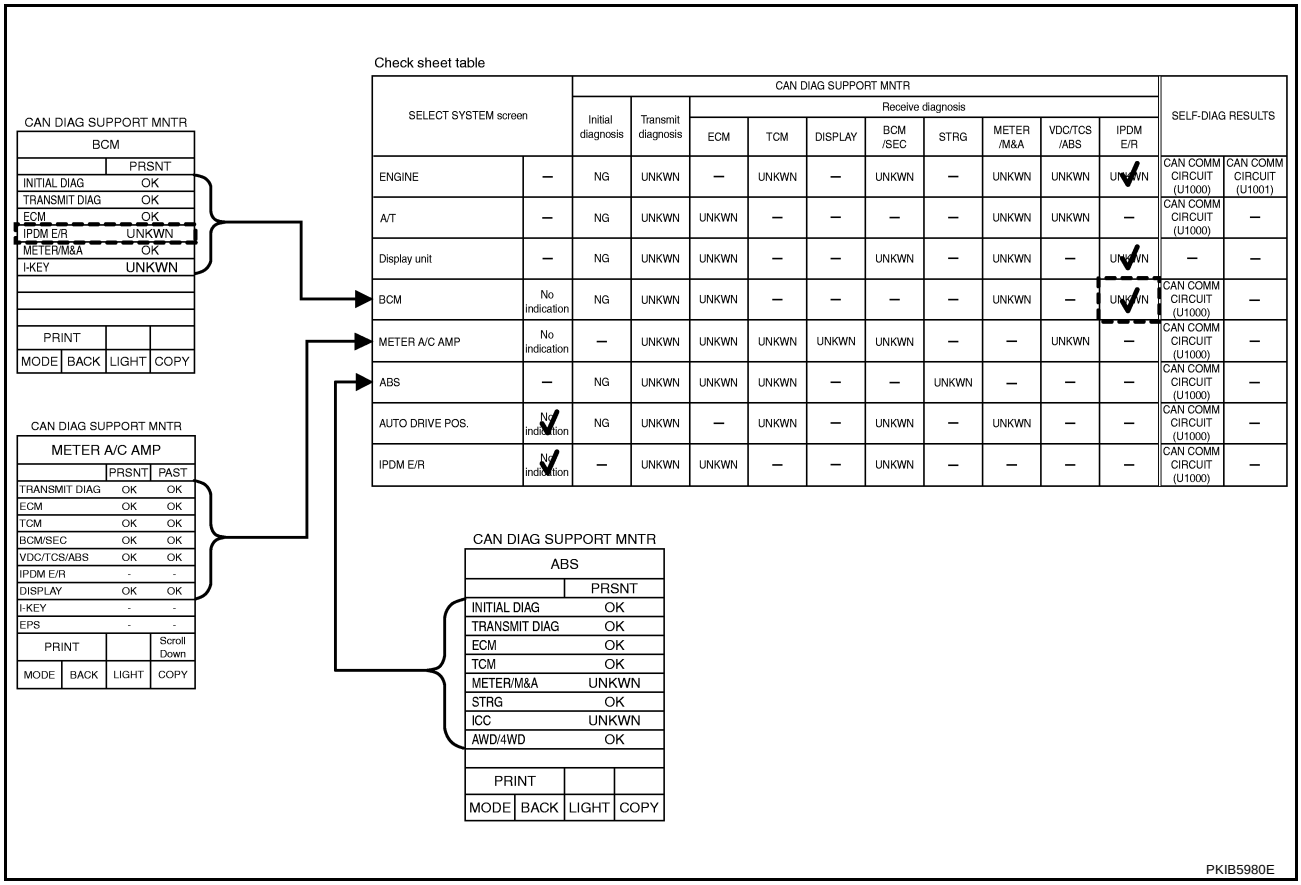
3. Confirm the unit name that “UNKWN” is displayed on the copy of “CAN DIAG SUPPORT MNTR” screen of “A/T” as well as “ENGINE”. And then, put a check mark to the check sheet table.

   NOTE:
   - For “A/T”, “UNKWN” is displayed on “AWD/4WD”. But, do not put a check mark to their columns of reception diagnosis of the check sheet table because “UNKWN” is not listed.



4. Display unit reads the CAN diagnosis monitor check sheet (B) AV-85, "CAN Communication Line Inspection" transferred from the display screen (A). The transferred CAN diagnosis monitor check sheet is copied to the Check sheet, and conversed according to the Display unit Translation Sheet. And then put a check mark to the check sheet table.

NOTE:
In the CAN diagnosis monitor check sheet (B), check marks are put to “CAN7”. But, in the column of the check sheet table indication in Display unit Translation Sheet (C), “IPDM E/R” is listed only for “CAN7”. Therefore, put a check mark to “IPDM E/R” because “UNKWN” is listed on the column of reception diagnosis of the check sheet table.



5. Confirm the unit name that “UNKWN” is displayed on the copy of “CAN DIAG SUPPORT MNTR” screen of “BCM”, “METER A/C AMP” and “ABS” as well as “ENGINE”. And then, put a check mark to the check sheet table.

NOTE:

- For “BCM”, “UNKWN” is displayed on “IPDM E/R” and “I-KEY”. But put a check mark to “IPDM E/R” because “UNKWN” is listed on the column of reception diagnosis on the check sheet table.
- For “METER A/C AMP”, “UNKWN” is not displayed. Do not put a check to it.
- For “ABS”, “UNKWN” is displayed on “METER/M&A” and “ICC”. But, do not put a check mark to their columns of reception diagnosis of the check sheet table because “UNKWN” is not listed.

The arranged results of CAN diagnosis support monitor

Check sheet table

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR: Initial diagnosis	Transmit diagnosis	Receive diagnosis: ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R	SELF-DIAG RESULTS	
ENGINE	–	NG	UNKWN	–	UNKWN	–	UNKWN	–	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	–	–	–	UNKWN	UNKWN	–	CAN COMM CIRCUIT (U1000)	–
Display unit	–	NG	UNKWN	UNKWN	–	–	UNKWN	–	UNKWN	–	UNKWN	–	–
BCM	No indication	NG	UNKWN	UNKWN	–	–	–	–	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
METER A/C AMP	No indication	–	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	–	–	UNKWN	–	CAN COMM CIRCUIT (U1000)	–
ABS	–	NG	UNKWN	UNKWN	UNKWN	–	–	UNKWN	–	–	–	CAN COMM CIRCUIT (U1000)	–
AUTO DRIVE POS.	✓ No indication	NG	UNKWN	–	UNKWN	–	UNKWN	–	UNKWN	–	–	CAN COMM CIRCUIT (U1000)	–
IPDM E/R	✓ No indication	–	UNKWN	UNKWN	–	–	UNKWN	–	–	–	–	CAN COMM CIRCUIT (U1000)	–

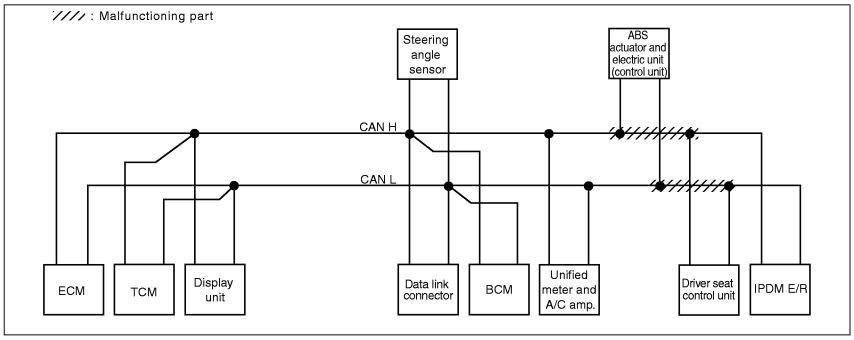
Choose similar indications between the results of CAN diagnosis support monitor and the results of the check sheet. Malfunctioning parts are found.

Case 4

Check harness between ABS actuator and electric unit (control unit) and driver seat control unit.

Check sheet results (example)

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR: Initial diagnosis	Transmit diagnosis	Receive diagnosis: ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R	SELF-DIAG RESULTS	
ENGINE	–	NG	UNKWN	–	UNKWN	–	UNKWN	–	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	–	–	–	UNKWN	UNKWN	–	CAN COMM CIRCUIT (U1000)	–
Display unit	–	NG	UNKWN	UNKWN	–	–	UNKWN	–	UNKWN	–	UNKWN	–	–
BCM	No indication	NG	UNKWN	UNKWN	–	–	–	–	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
METER A/C AMP	No indication	–	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	–	–	UNKWN	–	CAN COMM CIRCUIT (U1000)	–
ABS	–	NG	UNKWN	UNKWN	UNKWN	–	–	UNKWN	–	–	–	CAN COMM CIRCUIT (U1000)	–
AUTO DRIVE POS.	✓ No indication	NG	UNKWN	–	UNKWN	–	UNKWN	–	UNKWN	–	–	CAN COMM CIRCUIT (U1000)	–
IPDM E/R	✓ No indication	–	UNKWN	UNKWN	–	–	UNKWN	–	–	–	–	CAN COMM CIRCUIT (U1000)	–



PKIB5981E

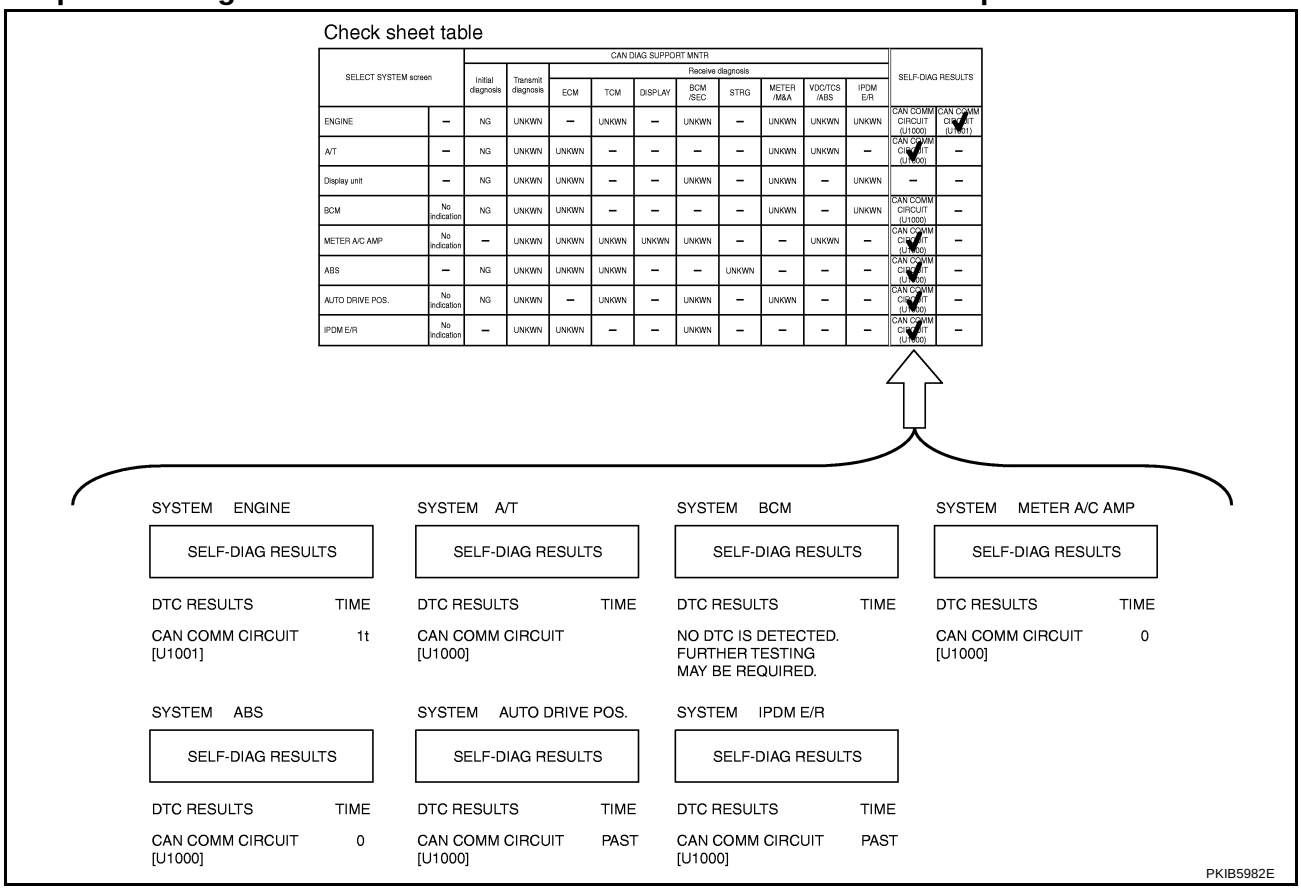
NOTE:

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.

6. Perform system diagnosis for possible causes identified.
7. 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-30, "CAN Communication Unit" .

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



1. See “SELF-DIAG RESULTS” of all units attached to the check sheet. If “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]” are displayed. Put a check mark to it.
   - For “A/T”, “CAN COMM CIRCUIT [U1000]” are displayed. Put a check mark to it.
   - For “BCM”, “NO DTC IS DETECTED” is displayed. Do not put a check mark to it.
   - For “METER A/C AMP”, “CAN COMM CIRCUIT [U1000]” are displayed. Put a check mark to it.
   - For “ABS”, “CAN COMM CIRCUIT [U1000]” are displayed. Put a check mark to it.
   - For “AUTO DRIVE POS.”, “CAN COMM CIRCUIT [U1000]” are displayed. Put a check mark to it.
   - For “IPDM E/R”, “CAN COMM CIRCUIT [U1000]” is displayed. Put a check mark to it.

The arranged results of self-diagnosis

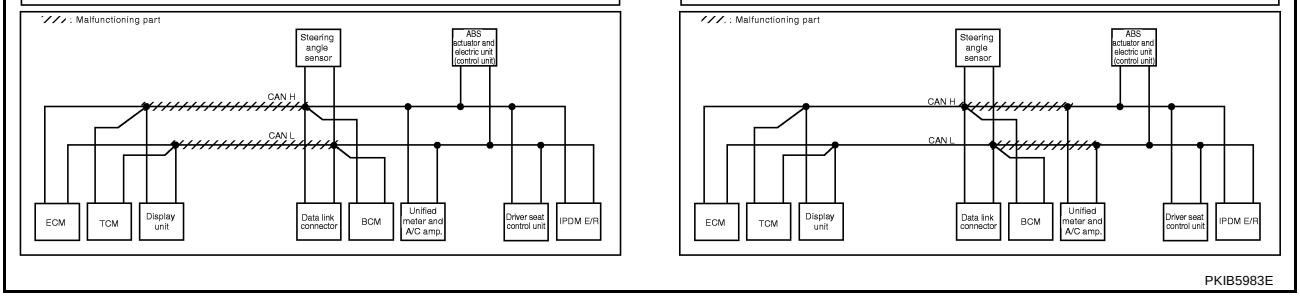
Check sheet table

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR: Initial diagnosis	CAN DIAG SUPPORT MNTR: Transmit diagnosis	CAN DIAG SUPPORT MNTR: Receive diagnosis: ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /MIA	VDC/TCS /ABS	IPDM E/R	SELF-DIAG RESULTS	
ENGINE	–	NG	UNKWN	–	UNKWN	–	UNKWN	–	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	–	NG	UNKWN	UNKWN	–	–	–	–	UNKWN	UNKWN	–	CAN COMM CIRCUIT (U1000)	–
Display unit	–	NG	UNKWN	UNKWN	–	–	UNKWN	–	UNKWN	–	UNKWN	–	–
BCM	No indication	NG	UNKWN	UNKWN	–	–	–	–	UNKWN	–	UNKWN	CAN COMM CIRCUIT (U1000)	–
METER A/C AMP	No indication	–	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	–	–	UNKWN	–	CAN COMM CIRCUIT (U1000)	–
ABS	–	NG	UNKWN	UNKWN	–	–	UNKWN	–	–	–	–	CAN COMM CIRCUIT (U1000)	–
AUTO DRIVE POS.	No indication	NG	UNKWN	–	UNKWN	–	UNKWN	–	UNKWN	–	–	CAN COMM CIRCUIT (U1000)	–
IPDM E/R	No indication	–	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 1
Check harness between TCM and data link connector.

Case 2
Check harness between data link connector and unified meter and A/C amp.



PKIB5983E

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

AKS00CBP

DESCRIPTION OF “CAN DIAG SUPPORT MNTR” SCREEN FOR ECM

(Example)

CAN DIAG SUPPORT MNTR

ENGINE	
	PRSNT
INITIAL DIAG	OK
TRANSMIT DIAG	OK
TCM	OK
VDC/TCS/ABS	OK
METER/M&A	OK
ICC	UNKWN
BCM/SEC	OK
IPDM E/R	OK
AWD/4WD/e4WD	UNKWN

PRINT			Scroll Down
MODE	BACK	LIGHT	COPY

CAN DIAG SUPPORT MNTR

ENGINE	
	PRSNT
TRANSMIT DIAG	OK
TCM	OK
VDC/TCS/ABS	OK
METER/M&A	OK
ICC	UNKWN
BCM/SEC	OK
IPDM E/R	OK
AWD/4WD/e4WD	UNKWN
EPS	UNKWN

PRINT	Scroll Up	
MODE	BACK	LIGHT	COPY

SKIB0591E

“SELECT SYSTEM” screen	“CAN DIAG SUPPORT MNTR” screen	Description	Present
ENGINE	INITIAL DIAG	Make sure that microcomputer in ECU works normally.	OK/NG
	TRANSMIT DIAG	Make sure of normal transmission.	OK/UNKWN
	TCM	Make sure of normal reception from TCM.	OK/UNKWN
	VDC/TCS/ABS	Make sure of normal reception from ABS actuator and electric unit (control unit).	OK/UNKWN
	METER/M&A	Make sure of normal reception from unified meter and A/C amp.	OK/UNKWN
	ICC	Make sure of normal reception from ICC unit.	OK/UNKWN
	BCM/SEC	Make sure of normal reception from BCM.	OK/UNKWN
	IPDM E/R	Make sure of normal reception from IPDM E/R.	OK/UNKWN
	AWD/4WD/e4WD	AWD/4WD/e4WD is not diagnosed.	UNKWN
	EPS	EPS is not diagnosed.	UNKWN

Display Results (Present)

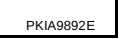
- OK: Normal
- NG: Malfunction
- UNKWN: The diagnosed unit does not transmit or receive the applicable data normally.

DESCRIPTION OF “CAN DIAG SUPPORT MNTR” SCREEN FOR 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	



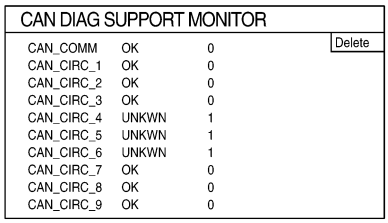
“SELECT SYSTEM” screen	“CAN DIAG SUPPORT MNTR” screen	Description	Present
A/T	INITIAL DIAG	Make sure that microcomputer in ECU works normally.	OK/NG
	TRANSMIT DIAG	Make sure of normal transmission.	OK/UNKWN
	ECM	Make sure of normal reception from ECM.	OK/UNKWN
	VDC/TCS/ABS	Make sure of normal reception from ABS actuator and electric unit (control unit).	OK/UNKWN
	METER/M&A	Make sure of normal reception from unified meter and A/C amp.	OK/UNKWN
	ICC/e4WD	Make sure of normal reception from ICC unit.	OK/UNKWN
	AWD/4WD	Make sure of normal reception from AWD control unit.	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 DISPLAY CONTROL UNIT

(Example)



SKIB0645E

Unit name	Diagnosis item	Description	"CAN DIAG SUPPORT MONITOR" screen	Error counter (Reference)
Display control unit	CAN COMM	Make sure that microcomputer in ECU works normally.	OK/NG	0/1~50
	CAN CIRC 1	Make sure of normal transmission.	OK/UNKWN	
	CAN CIRC 2	Make sure of normal reception from BCM.	OK/UNKWN	
	CAN CIRC 3	Make sure of normal reception from ECM.	OK/UNKWN	
	CAN CIRC 4	CAN CIRC 4 is not diagnosed.	OK/UNKWN	
	CAN CIRC 5	Make sure of normal reception from unified meter and A/C amp.	OK/UNKWN	
	CAN CIRC 6	CAN CIRC 6 is not diagnosed.	OK/UNKWN	
	CAN CIRC 7	Make sure of normal reception from IPDM E/R.	OK/UNKWN	
	CAN CIRC 8	CAN CIRC 8 is not diagnosed.	OK/UNKWN	
	CAN CIRC 9	CAN CIRC 9 is not diagnosed.	OK/UNKWN	

Display Results (Present)

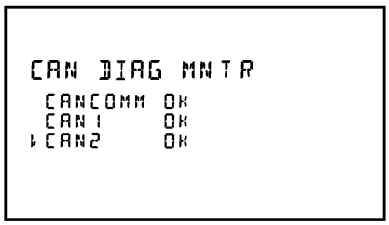
- OK: Normal
- NG: Malfunction
- UNKWN: The diagnosed unit does not transmit or receive the applicable data normally.

Display Results: Error Counter (Reference)

- 0: It is normal now.
- 1 ~ 50: Displays when it finds malfunction in the past even if it is normal or there is a malfunction at present. Also, displays when diagnosis is not performed. It increase like 0→1→2...49→50 after returning to the normal condition whenever IGN OFF→ON. If it is over 50, it is fixed to 50 until the self-diagnostic results are erased. Keep this condition until resetting it.

DESCRIPTION OF “CAN DIAG MNTR” SCREEN FOR DISPLAY UNIT

(Example)



SKIB2447E

Unit name	Diagnosis item	Description	“CAN DIAG MNTR” screen
Display unit	CANCOMM	Make sure that microcomputer in ECU works normally.	OK/NG
	CAN1	Make sure of normal transmission.	OK/UNKWN
	CAN2	Make sure of normal reception from BCM.	OK/UNKWN
	CAN3	Make sure of normal reception from ECM.	OK/UNKWN
	CAN4	CAN CIRC 4 is not diagnosed.	OK/UNKWN
	CAN5	Make sure of normal reception from unified meter and A/C amp.	OK/UNKWN
	CAN6	CAN CIRC 6 is not diagnosed.	OK/UNKWN
	CAN7	Make sure of normal reception from IPDM E/R.	OK/UNKWN
	CAN8	CAN CIRC 8 is not diagnosed.	OK/UNKWN
	CAN9	CAN CIRC 9 is not diagnosed.	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 AWD CONTROL UNIT

(Example)

CAN DIAG SUPPORT MNTR

ALL MODE AWD/4WD	
	PRSNT
INITIAL DIAG	OK
TRANSMIT DIAG	OK
VDC/TCS/ABS	OK
ECM	OK
TCM	OK
METER/M&A	OK
PRINT	
MODE / BACK / LIGHT / COPY	

“SELECT SYSTEM” screen	“CAN DIAG SUPPORT MNTR” screen	Description	Present
ALL MODE AWD/ 4WD	INITIAL DIAG	Make sure that microcomputer in ECU works normally.	OK/NG
	TRANSMIT DIAG	Make sure of normal transmission.	OK/UNKWN
	VDC/TCS/ABS	Make sure of normal reception from ABS actuator and electric unit (control unit).	OK/UNKWN
	ECM	Make sure of normal reception from ECM.	OK/UNKWN
	TCM	Make sure of normal reception from TCM. (Not available for CAN system diagnosis.)	OK
	METER/M&A	Make sure of normal reception from unified meter and A/C amp.	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 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	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

PKIB5985E

“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 ABS actuator and electric unit (control unit).	OK/UNKWN
	TCM	Make sure of normal reception from TCM.	OK/UNKWN
	METER/M&A	METER/M&A is not diagnosed.	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	Make sure of normal reception from BCM.	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 INTELLIGENT KEY UNIT

(Example)

CAN DIAG SUPPORT MNTR

INTELLIGENT KEY		
	PRSNT	PAST
TRANSMIT DIAG	OK	OK
ECM	OK	OK
METER/M&A	OK	OK
BCM/SEC	OK	OK
PRINT		
MODE / BACK / LIGHT / COPY		

SKIB2359E

"SELECT SYSTEM" screen	"CAN DIAG SUPPORT MNTR" screen	Description	Present	Past
INTELLIGENT KEY	TRANSMIT DIAG	Make sure of normal transmission.	OK/UNKWN/–	OK/0/1~39/–
	ECM	Make sure of normal reception from ECM.	OK/UNKWN/–	
	METER/M&A	Make sure of normal reception from unified meter and A/C amp.	OK/UNKWN/–	
	BCM/SEC	Make sure of normal reception from BCM.	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 BCM

(Example)

CAN DIAG SUPPORT MNTR

BCM	
	PRSNT
INITIAL DIAG	OK
TRANSMIT DIAG	OK
ECM	OK
IPDM E/R	OK
METER/M&A	UNKWN
I-KEY	OK
PRINT	
MODE / BACK / LIGHT / COPY	

SKIB0593E

“SELECT SYSTEM” screen	“CAN DIAG SUPPORT MNTR” screen	Description	Present
BCM	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
	IPDM E/R	Make sure of normal reception from IPDM E/R.	OK/UNKWN
	METER/M&A	Make sure of normal reception from unified meter and A/C amp.	OK/UNKWN
	I-KEY	Make sure of normal reception from Intelligent Key unit. (Not available for CAN system diagnosis.)	OK

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 LDW CAMERA UNIT

(Example)

CAN DIAG SUPPORT MNTR

LDW		
	PRSNT	PAST
TRANSMIT DIAG	–	–
ECM	OK	OK
VDC/TCS/ABS	OK	OK
BCM/SEC	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 ABS actuator and electric unit (control unit).	OK/UNKWN/–	
	BCM/SEC	Make sure of normal reception from BCM.	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

DESCRIPTION OF “CAN DIAG SUPPORT MNTR” SCREEN FOR UNIFIED METER AND A/C AMP.

(Example)

CAN DIAG SUPPORT MNTR

METER A/C AMP		
	PRSNT	PAST
TRANSMIT DIAG	OK	OK
ECM	OK	OK
TCM	OK	OK
BCM/SEC	OK	OK
VDC/TCS/ABS	OK	OK
IPDM E/R	-	-
DISPLAY	OK	OK
I-KEY	-	-
EPS	-	-
PRINT		Scroll Down
MODE	BACK	LIGHT	COPY

CAN DIAG SUPPORT MNTR

METER A/C AMP		
	PRSNT	PAST
IPDM E/R	-	-
DISPLAY	OK	OK
I-KEY	-	-
EPS	-	-
AWD/4WD	-	-
e4WD	-	-
ICC	-	-
LANE KEEP	-	-
TIRE-P	OK	OK
PRINT	Scroll Up	
MODE	BACK	LIGHT	COPY

PKIB5986E

“SELECT SYSTEM” screen	“CAN DIAG SUPPORT MNTR” screen	Description	Present	Past
METER A/C AMP	TRANSMIT DIAG	Make sure of normal transmission.	OK/UNKWN/–	OK/0/1~39/–
	ECM	Make sure of normal reception from ECM.	OK/UNKWN/–	
	TCM	Make sure of normal reception from TCM.	OK/UNKWN/–	
	BCM/SEC	Make sure of normal reception from BCM.	OK/UNKWN/–	
	VDC/TCS/ABS	Make sure of normal reception from ABS actuator and electric unit (control unit).	OK/UNKWN/–	
	IPDM E/R	IPDM E/R is not diagnosed.	–	
	DISPLAY	Make sure of normal reception from display control unit.	OK/UNKWN/–	
		Make sure of normal reception from display unit.	OK/UNKWN/–	
	I-KEY	Make sure of normal reception from Intelligent Key unit.	OK/UNKWN/–	
	EPS	EPS is not diagnosed.	–	
	AWD/4WD	Make sure of normal reception from AWD control unit.	OK/UNKWN/–	
	e4WD	e4WD is not diagnosed.	–	
	ICC	Make sure of normal reception from ICC unit.	OK/UNKWN/–	
	LANE KEEP	LANE KEEP is not diagnosed.	–	
	TIRE-P	Make sure of normal reception from BCM. (Not available for CAN system diagnosis.)	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 ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

(Example)

CAN DIAG SUPPORT MNTR

ABS	
	PRSNT
INITIAL DIAG	OK
TRANSMIT DIAG	OK
ECM	OK
TCM	OK
METER/M&A	UNKWN
STRG	OK
ICC	UNKWN
AWD/4WD	OK
PRINT	
MODE / BACK / LIGHT / COPY	

SKIB2442E

“SELECT SYSTEM” screen	“CAN DIAG SUPPORT MNTR” screen	Description	Present
ABS	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	METER/M&A is not diagnosed.	UNKWN
	STRG	Make sure of normal reception from steering angle sensor.	OK/UNKWN
	ICC	ICC is not diagnosed.	UNKWN
	AWD/4WD	Make sure of normal reception from AWD control unit.	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 DRIVER SEAT CONTROL UNIT

(Example)

CAN DIAG SUPPORT MNTR

AUTO DRIVE POS.	
	PRSNT
INITIAL DIAG	OK
TRANSMIT DIAG	OK
BCM/SEC	OK
METER/M&A	OK
TCM	OK
PRINT	
MODE / BACK / LIGHT / COPY	

SKIB2360E

“SELECT SYSTEM” screen	“CAN DIAG SUPPORT MNTR” screen	Description	Present
AUTO DRIVE POS.	INITIAL DIAG	Make sure that microcomputer in ECU works normally.	OK/NG
	TRANSMIT DIAG	Make sure of normal transmission.	OK/UNKWN
	BCM/SEC	Make sure of normal reception from BCM.	OK/UNKWN
	METER/M&A	Make sure of normal reception from unified meter and A/C amp.	OK/UNKWN
	TCM	Make sure of normal reception from TCM.	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 IPDM E/R

(Example)

CAN DIAG SUPPORT MNTR

IPDM E/R		
	PRSNT	PAST
TRANSMIT DIAG	OK	OK
ECM	OK	OK
BCM/SEC	OK	OK
PRINT		
MODE / BACK	LIGHT	COPY

SKIB0595E

“SELECT SYSTEM” screen	“CAN DIAG SUPPORT MNTR” screen	Description	Present	Past
IPDM E/R	TRANSMIT DIAG	Make sure of normal transmission.	OK/UNKWN/–	OK/0/1~39/–
	ECM	Make sure of normal reception from ECM.	OK/UNKWN/–	
	BCM/SEC	Make sure of normal reception from BCM.	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

AKS007GA

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

CAN Communication Unit

AKS007Z4

Go to CAN system, when selecting your CAN system type from the following table.

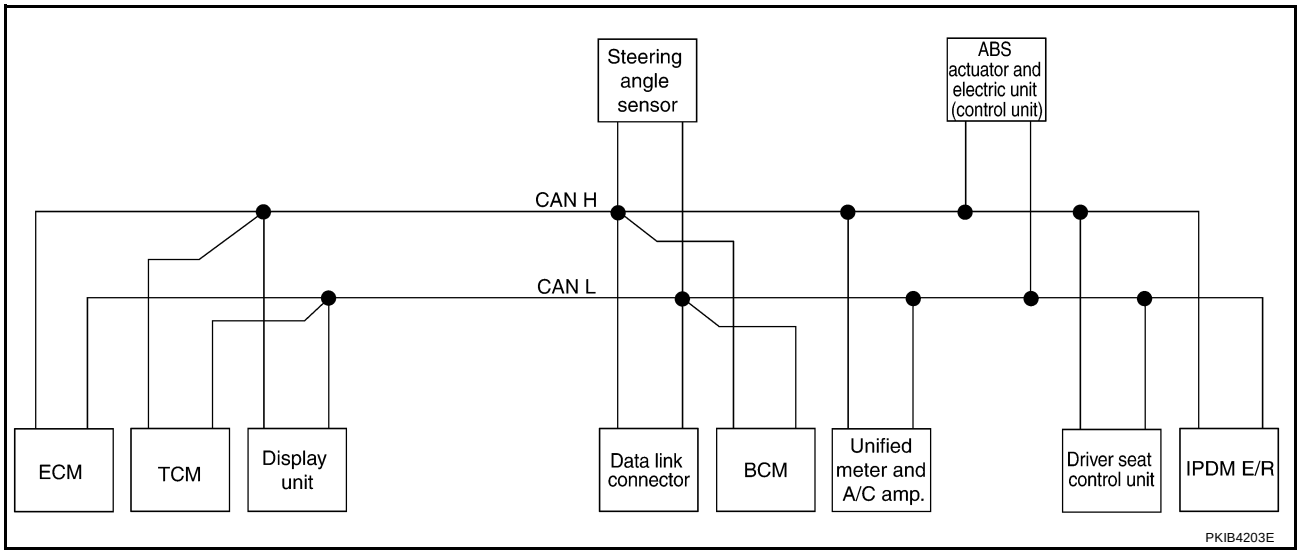
Body type	Wagon									
Axle	2WD					AWD				
Engine	VQ35DE					VQ35DE/VK45DE				
Transmission	A/T									
Brake control	VDC									
Navigation system				×	×				×	×
ICC system				×	×				×	×
Intelligent Key system				×	×				×	×
Lane departure warning system			×		×			×		×
Automatic drive positioner		×	×	×	×		×	×	×	×
CAN system type	9	1	2	3	4	10	5	6	7	8
CAN system trouble diagnosis	LAN-400	LAN-47	LAN-85	LAN-126	LAN-171	LAN-434	LAN-219	LAN-260	LAN-304	LAN-351

×: Applicable

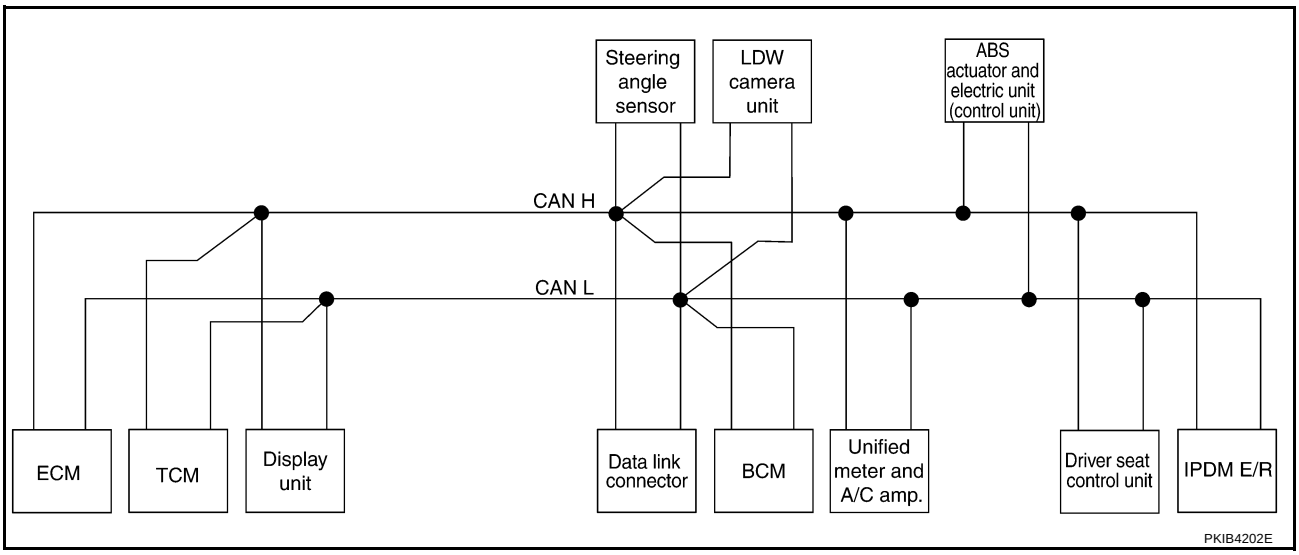
TYPE 1/TYPE 2/TYPE 9

System Diagram

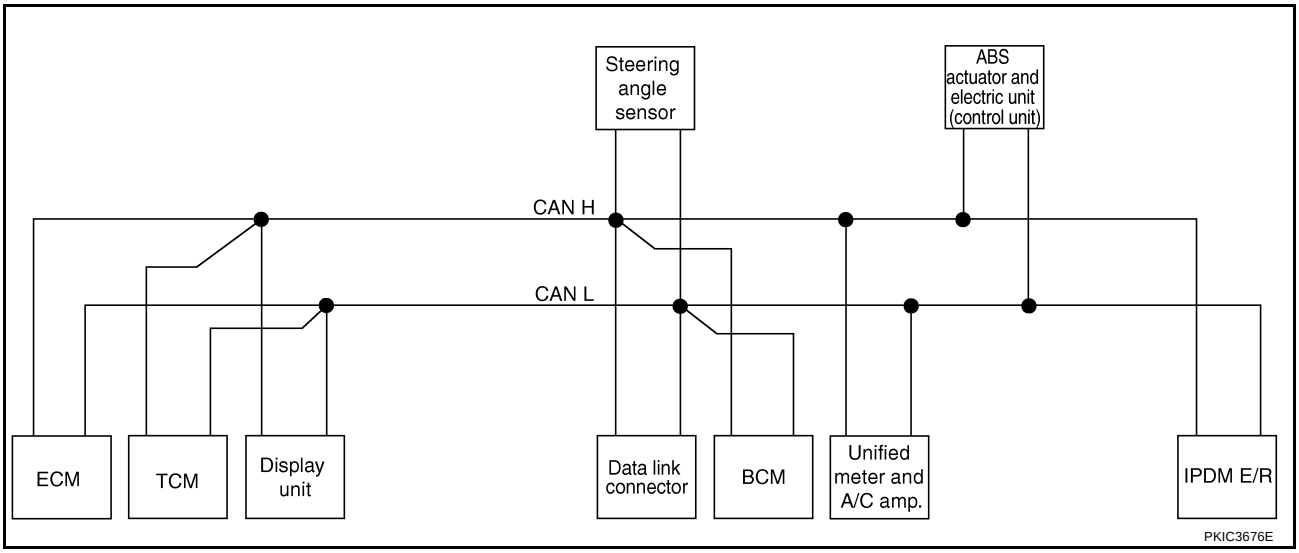
- Type 1



- Type 2



- Type 9



Input/Output Signal Chart

T: Transmit R: Receive

Signals	ECM	TCM	Display unit	BCM	Steering angle sensor	LDW camera unit	Unified meter and A/C amp.	ABS actuator and electric unit (control unit)	Driver seat control unit	IPDM E/R
Engine speed signal	T	R	R				R	R		
Engine status signal	T			R						
Engine coolant temperature signal	T						R			
A/T self-diagnosis signal	R	T								
Accelerator pedal position signal	T	R						R		
Closed throttle position signal	T	R								
Wide open throttle position signal	T	R								
Battery voltage signal	T	R								
Key switch signal				T					R	

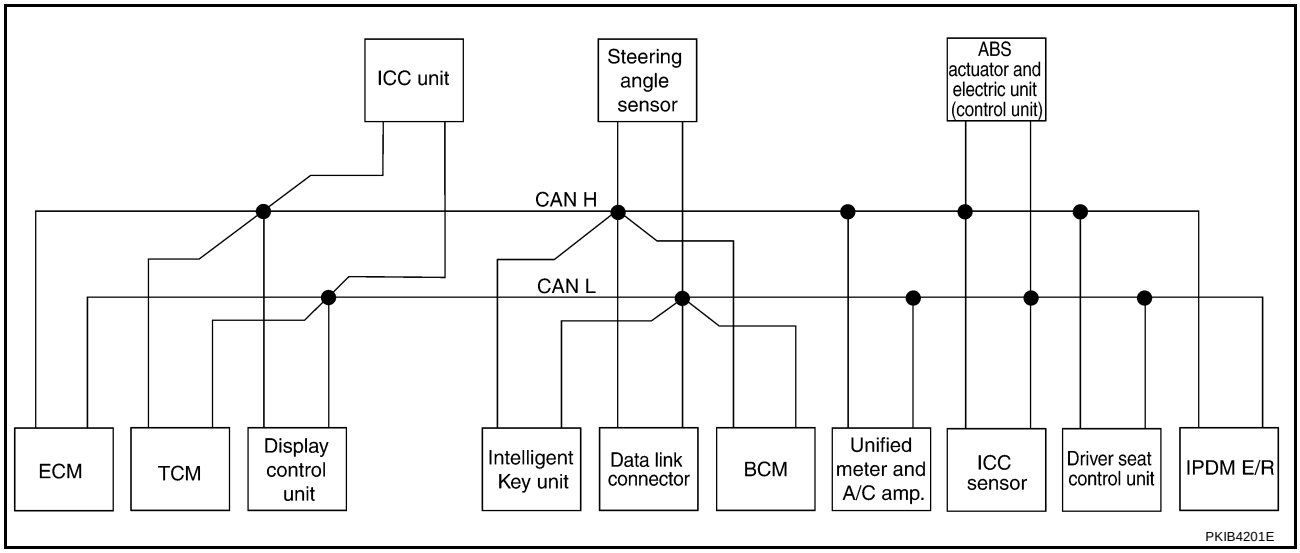
Signals	ECM	TCM	Display unit	BCM	Steering angle sensor	LDW camera unit	Unified meter and A/C amp.	ABS actuator and electric unit (control unit)	Driver seat control unit	IPDM E/R
Ignition switch signal				T					R	R
P range signal		T						R	R	
Stop lamp switch signal		R					T			
Fuel consumption monitor signal	T						R			
			R				T			
Turbine revolution signal	R	T								
Output shaft revolution signal	R	T				R				
A/C switch signal	R			T						
A/C compressor request signal	T									R
A/C compressor feedback signal	T						R			
Blower fan motor switch signal	R			T						
A/C switch/indicator signal			T				R			
			R				T			
Cooling fan speed request signal	T									R
Position light request signal			R	T			R			R
Low beam request signal				T						R
Low beam status signal	R									T
High beam request signal				T			R			R
High beam status signal	R									T
Front fog light request signal				T						R
Day time running light request signal				T			R			
Turn LED burnout status signal				R			T			
Vehicle speed signal						R	R	T		
	R	R	R	R			T		R	
Sleep wake up signal				T			R			R
Door switch signal			R	T			R		R	R
Turn indicator signal				T		R	R			
Key fob ID signal				T					R	
Key fob door unlock signal				T					R	
Oil pressure switch signal				R						T
				T			R			
Buzzer output signal				T			R			
Fuel level sensor signal	R						T			
Fuel level low warning signal			R				T			
ASCD SET lamp signal	T						R			
ASCD CRUISE lamp signal	T						R			
Malfunction indicator lamp signal	T						R			
ASCD operation signal	T	R								
ASCD OD cancel request signal	T	R								

Signals	ECM	TCM	Display unit	BCM	Steering angle sensor	LDW camera unit	Unified meter and A/C amp.	ABS actuator and electric unit (control unit)	Driver seat control unit	IPDM E/R
Front wiper request signal				T						R
Front wiper stop position signal				R						T
Rear window defogger switch signal				T						R
Rear window defogger control signal	R		R	R						T
Hood switch signal				R						T
Theft warning horn request signal				T						R
Horn chirp signal				T						R
Steering angle sensor signal					T			R		
ABS warning lamp signal							R	T		
VDC OFF indicator lamp signal							R	T		
SLIP indicator lamp signal							R	T		
Brake warning lamp signal							R	T		
System setting signal			T	R					R	
			R	T					T	
A/T CHECK indicator lamp signal		T					R			
A/T position indicator lamp signal		T					R			
A/T shift schedule change demand 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			
Manual mode indicator signal		T					R			
Distance to empty signal			R				T			
Parking brake switch signal				R			T			
Snow mode switch signal	R						T			
Tire pressure signal				T			R			

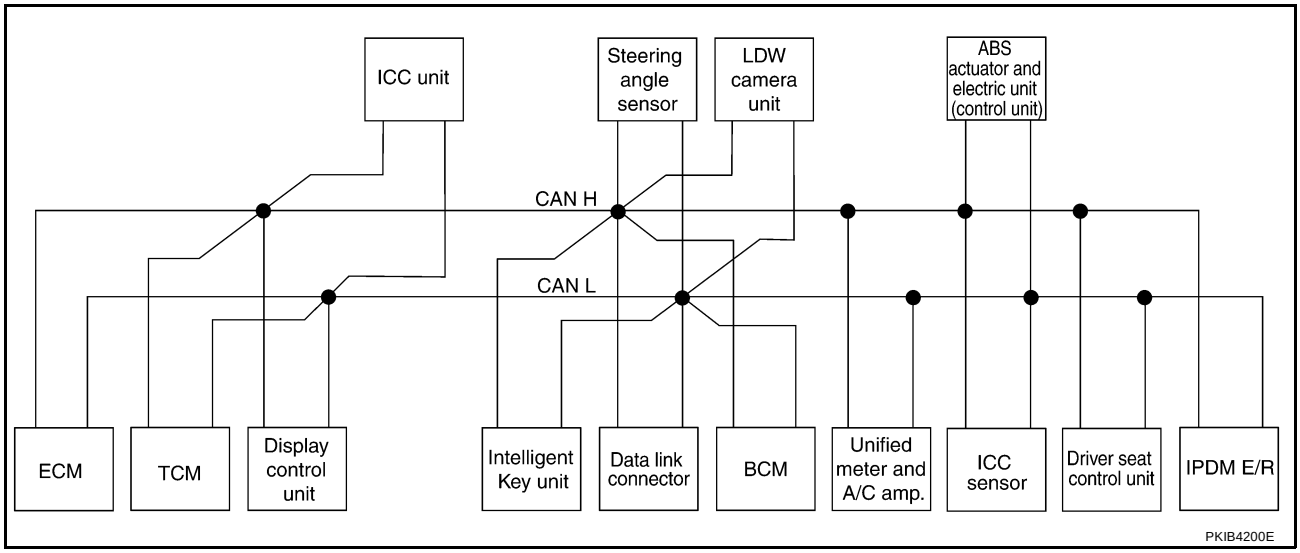
TYPE 3/TYPE 4

System Diagram

- Type 3



- Type 4



Input/Output Signal Chart

T: Transmit R: Receive

Signals	ECM	TCM	Display control unit	ICC unit	Intelligent Key unit	BCM	Steering angle sensor	LDW camera unit	Unified meter and A/C amp.	ICC sensor	ABS actuator and electric unit (control unit)	Driver seat control unit	IPDM E/R
Engine speed signal	T	R	R	R					R		R		
Engine status signal	T					R							
Engine coolant temperature signal	T								R				
A/T self-diagnosis signal	R	T											
Accelerator pedal position signal	T	R		R							R		

Signals	ECM	TCM	Display control unit	ICC unit	Intelligent Key unit	BCM	Steering angle sensor	LDW camera unit	Unified meter and A/C amp.	ICC sensor	ABS actuator and electric unit (control unit)	Driver seat control unit	IPDM E/R
Closed throttle position signal	T	R		R									
Wide open throttle position signal	T	R											
Battery voltage signal	T	R											
Key switch signal						T						R	
Ignition switch signal						T						R	R
P range signal		T		R							R	R	
Stop lamp switch signal		R							T				
ABS operation signal				R							T		
TCS operation signal				R							T		
VDC operation signal				R							T		
Fuel consumption monitor signal	T								R				
			R						T				
Turbine revolution signal	R	T		R									
Output shaft revolution signal	R	T		R				R					
A/C switch signal	R					T							
A/C compressor request signal	T												R
A/C compressor feedback signal	T								R				
Blower fan motor switch signal	R					T							
A/C switch/indicator signal			T						R				
			R						T				
Cooling fan speed request signal	T												R
Position light request signal						T			R				R
Low beam request signal						T							R
Low beam status signal	R												T
High beam request signal						T			R				R
High beam status signal	R												T
Front fog light request signal						T							R
Day time running light request signal						T			R				
Turn LED burnout status signal						R			T				

Signals	ECM	TCM	Display control unit	ICC unit	Intelligent Key unit	BCM	Steering angle sensor	LDW camera unit	Unified meter and A/C amp.	ICC sensor	ABS actuator and electric unit (control unit)	Driver seat control unit	IPDM E/R
Vehicle speed signal				R				R	R		T		
	R	R	R		R	R			T	R		R	
Sleep wake up signal						T			R				R
					T	R							
Door switch signal			R		R	T			R			R	R
Turn indicator signal						T		R	R				
Key fob ID signal						T						R	
Key fob door unlock signal						T						R	
Oil pressure switch signal						R							T
						T			R				
Buzzer output signal						T			R				
					T				R				
				T					R				
Fuel level sensor signal	R								T				
Fuel level low warning signal			R						T				
Malfunctioning indicator lamp signal	T								R				
ICC operation signal	R			T									
Front wiper request signal				R		T							R
Front wiper stop position signal						R							T
Rear window defogger switch signal						T							R
Rear window defogger control signal	R		R			R							T
Hood switch signal						R							T
Theft warning horn request signal						T							R
Horn chirp signal						T							R
Steering angle sensor signal							T				R		
Tire pressure signal						T			R				
ABS warning lamp signal									R		T		
VDC OFF indicator lamp signal									R		T		
SLIP indicator lamp signal									R		T		
Brake warning lamp signal									R		T		

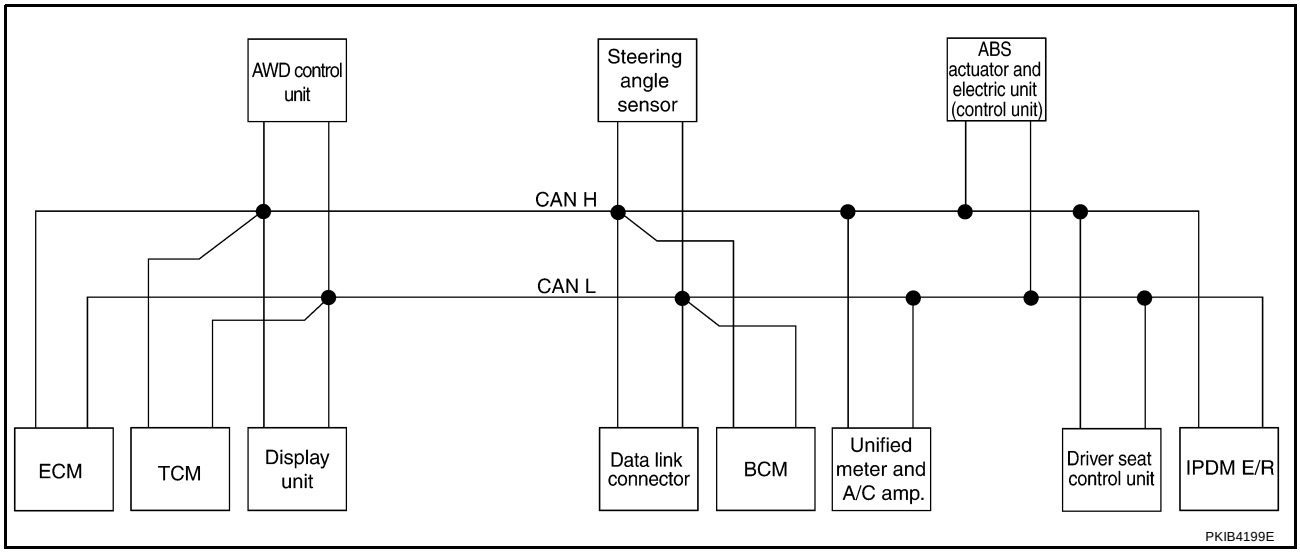
Signals	ECM	TCM	Display control unit	ICC unit	Intelligent Key unit	BCM	Steering angle sensor	LDW camera unit	Unified meter and A/C amp.	ICC sensor	ABS actuator and electric unit (control unit)	Driver seat control unit	IPDM E/R
System setting signal			T		R							R	
			R		T							T	
Distance to empty signal			R						T				
Parking brake switch signal						R			T				
Door lock/unlock request signal					T	R							
Door lock/unlock status signal					R	T							
Starter permission signal					T	R							
Back door open request signal					T	R							
Power window open request signal					T	R							
Alarm request signal					T	R							
Key warning signal					T				R				
ICC sensor signal				R						T			
ICC warning lamp signal				T					R				
ICC system display signal				T					R				
Current gear position signal		T		R							R		
ICC steering switch signal	T			R									
ASCD operation signal	T	R											
ASCD OD cancel request signal	T	R											
ICC OD cancel request signal		R		T									
A/T CHECK indicator lamp signal		T							R				
A/T position indicator lamp signal		T							R				
A/T shift schedule change demand 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				
Manual mode indicator signal		T		R					R				

Signals	ECM	TCM	Display control unit	ICC unit	Intelligent Key unit	BCM	Steering angle sensor	LDW camera unit	Unified meter and A/C amp.	ICC sensor	ABS actuator and electric unit (control unit)	Driver seat control unit	IPDM E/R
Ignition knob switch signal					T	R							
Snow mode switch signal	R								T				
	T			R									
VDC OFF switch signal				R							T		

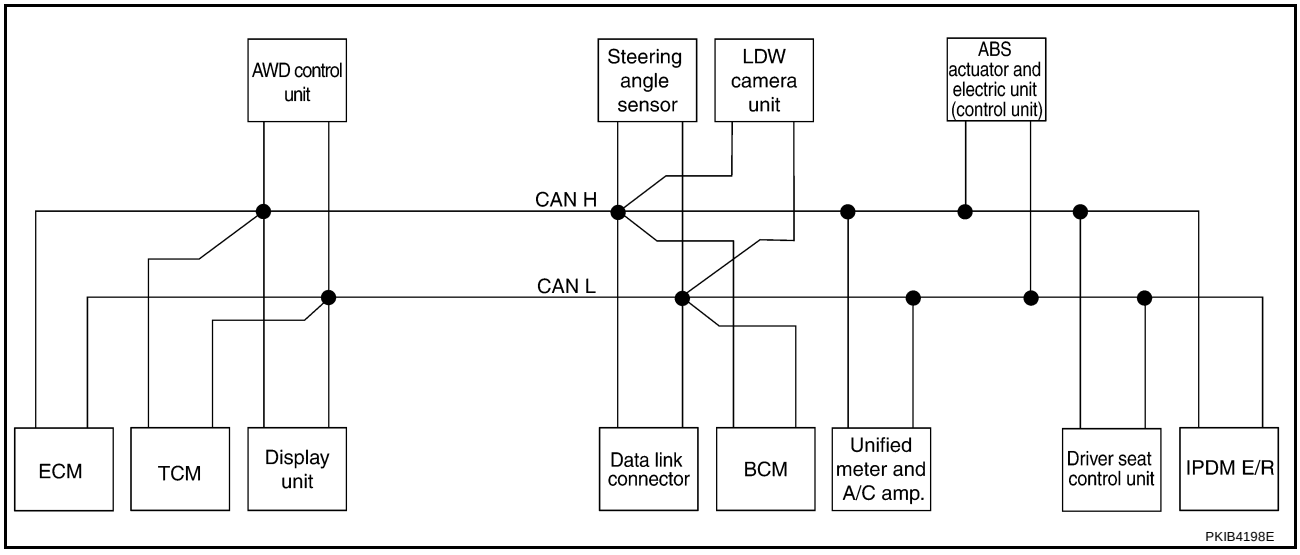
TYPE 5/TYPE 6/TYPE 10

System Diagram

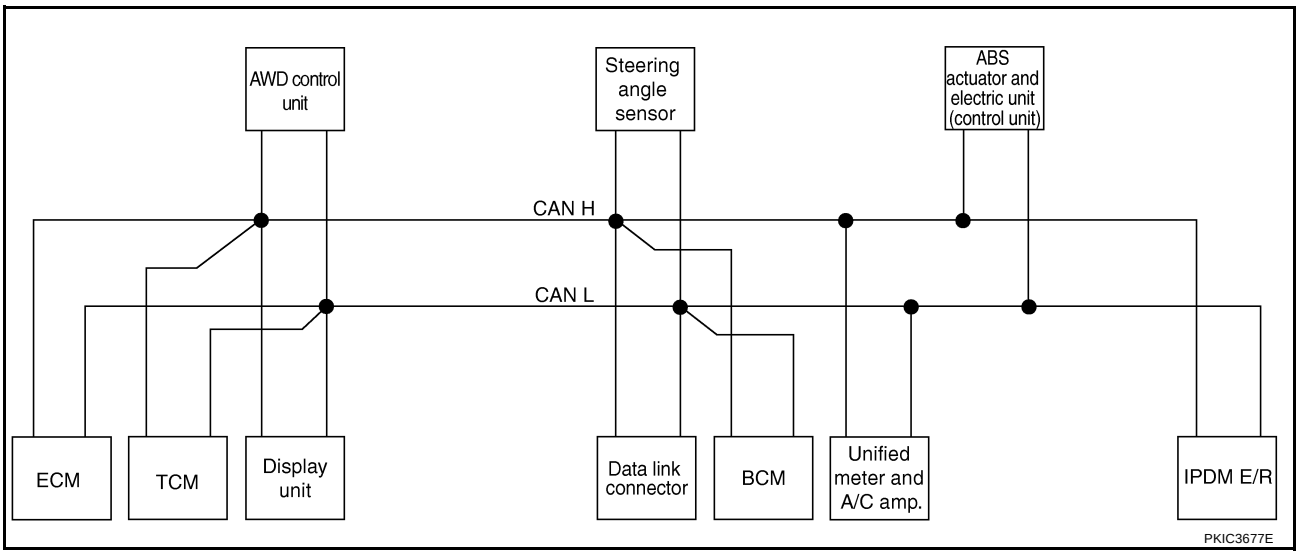
- Type 5



- Type 6



- Type 10



Input/Output Signal Chart

T: Transmit R: Receive

Signals	ECM	TCM	Display unit	AWD control unit	BCM	Steering angle sensor	LDW camera unit	Unified meter and A/C amp.	ABS actuator and electric unit (control unit)	Driver seat control unit	IPDM E/R
A/T self-diagnosis signal	R	T									
Stop lamp switch signal		R		R				T			
Battery voltage signal	T	R									
Key switch signal					T					R	
Ignition switch signal					T					R	R
P range signal		T							R	R	
Closed throttle position signal	T	R									
Wide open throttle position signal	T	R									
Engine speed signal	T	R	R	R				R	R		
Engine status signal	T				R						
Engine coolant temperature signal	T							R			
Accelerator pedal position signal	T	R		R					R		
Fuel consumption monitor signal	T							R			
			R					T			
Turbine revolution signal	R	T									
Output shaft revolution signal	R	T					R				
A/C switch signal	R				T						
A/C compressor request signal	T										R
A/C compressor feedback signal	T							R			
Blower fan motor switch signal	R				T						

Signals	ECM	TCM	Display unit	AWD control unit	BCM	Steering angle sensor	LDW camera unit	Unified meter and A/C amp.	ABS actuator and electric unit (control unit)	Driver seat control unit	IPDM E/R
A/C switch/indicator signal			T					R			
			R					T			
Cooling fan speed request signal	T										R
Position light request signal			R		T			R			R
Low beam request signal					T						R
Low beam status signal	R										T
High beam request signal					T			R			R
High beam status signal	R										T
Front fog light request signal					T						R
Day time running light request signal					T			R			
Turn LED burnout status signal					R			T			
Vehicle speed signal				R			R	R	T		
	R	R	R		R			T		R	
Sleep wake up signal					T			R			R
Door switch signal			R		T			R		R	R
Turn indicator signal					T		R	R			
Key fob ID signal					T					R	
Key fob door unlock signal					T					R	
Oil pressure switch signal					R						T
					T			R			
Buzzer output signal					T			R			
Fuel level sensor signal	R							T			
Fuel level low warning signal			R					T			
ASCD SET lamp signal	T							R			
ASCD CRUISE lamp signal	T							R			
Malfunction indicator lamp signal	T							R			
Front wiper request signal					T						R
Front wiper stop position signal					R						T
Rear window defogger switch signal					T						R
Rear window defogger control signal	R		R		R						T
Hood switch signal					R						T
Theft warning horn request signal					T						R
Horn chirp signal					T						R
Steering angle sensor signal						T			R		

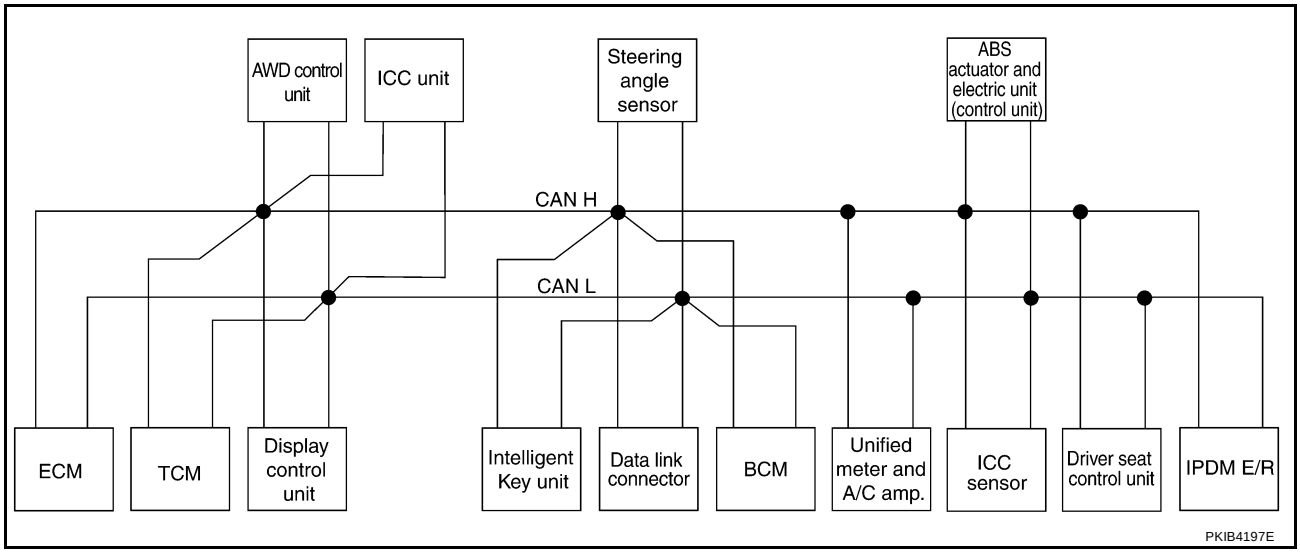
Signals	ECM	TCM	Display unit	AWD control unit	BCM	Steering angle sensor	LDW camera unit	Unified meter and A/C amp.	ABS actuator and electric unit (control unit)	Driver seat control unit	IPDM E/R
ABS warning lamp signal								R	T		
VDC OFF indicator lamp signal								R	T		
SLIP indicator lamp signal								R	T		
Brake warning lamp signal								R	T		
System setting signal			T		R					R	
			R		T					T	
AWD warning lamp signal				T				R			
Distance to empty signal			R					T			
Parking brake switch signal				R	R			T			
ASCD operation signal	T	R									
ASCD OD cancel request signal	T	R									
A/T CHECK indicator lamp signal		T						R			
A/T position indicator lamp signal		T						R			
A/T shift schedule change demand 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			
Manual mode indicator signal		T						R			
Snow mode switch signal	R							T			
Current gear position signal*	R	T									
Next gear position signal*	R	T									
Shift change signal*	R	T									
Shift pattern signal*	R	T									
Tire pressure signal					T			R			

*: VK45DE engine model only

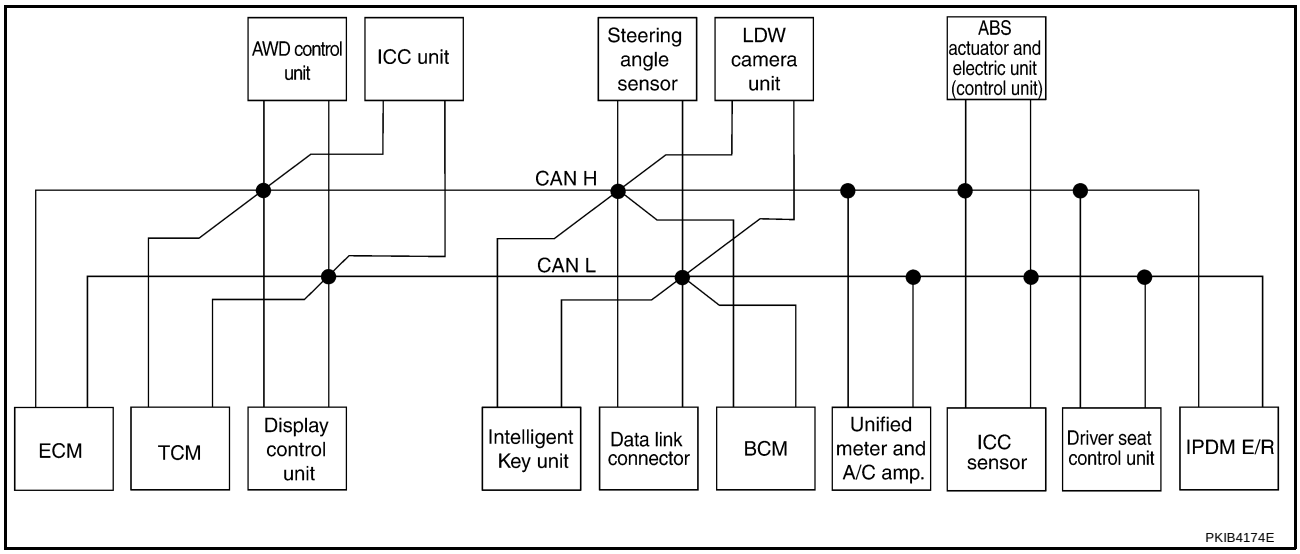
TYPE 7/TYPE 8

System Diagram

- Type 7



- Type 8



Input/Output Signal Chart

T: Transmit R: Receive

Signals	ECM	TCM	Display control unit	AWD control unit	ICC unit	Intelligent Key unit	BCM	Steering angle sensor	LDW camera unit	Unified meter and A/C amp.	ICC sensor	ABS actuator and electric unit (control unit)	Driver seat control unit	IPDM E/R
A/T self-diagnosis signal	R	T												
ABS operation signal					R							T		
TCS operation signal					R							T		
VDC operation signal					R						R	T		
Stop lamp switch signal		R		R						T				

Signals	ECM	TCM	Display control unit	AWD control unit	ICC unit	Intelligent Key unit	BCM	Steering angle sensor	LDW camera unit	Unified meter and A/C amp.	ICC sensor	ABS actuator and electric unit (control unit)	Driver seat control unit	IPDM E/R
Battery voltage signal	T	R												
Key switch signal							T						R	
Ignition switch signal							T						R	R
P range signal		T			R							R	R	
Closed throttle position signal	T	R			R									
Wide open throttle position signal	T	R												
Engine speed signal	T	R	R	R	R					R		R		
Engine status signal	T						R							
Engine coolant temperature signal	T									R				
Accelerator pedal position signal	T	R		R	R							R		
Fuel consumption monitor signal	T									R				
			R							T				
Turbine revolution signal	R	T			R									
Output shaft revolution signal	R	T			R				R					
A/C switch signal	R						T							
A/C compressor request signal	T													R
A/C compressor feedback signal	T									R				
Blower fan motor switch signal	R						T							
A/C switch/indicator signal			T							R				
			R							T				
Cooling fan speed request signal	T													R
Position light request signal			R				T			R				R
Low beam request signal							T							R
Low beam status signal	R													T
High beam request signal							T			R				R
High beam status signal	R													T
Front fog light request signal							T							R

Signals	ECM	TCM	Display control unit	AWD control unit	ICC unit	Intelligent Key unit	BCM	Steering angle sensor	LDW camera unit	Unified meter and A/C amp.	ICC sensor	ABS actuator and electric unit (control unit)	Driver seat control unit	IPDM E/R
Day time running light request signal							T			R				
Turn LED burnout status signal							R			T				
Vehicle speed signal				R	R				R	R		T		
	R	R	R			R	R			T	R		R	
Sleep wake up signal							T			R				R
						T	R							
Door switch signal			R			R	T			R			R	R
Turn indicator signal							T		R	R				
Key fob ID signal							T						R	
Key fob door unlock signal							T						R	
Oil pressure switch signal							R							T
							T			R				
Buzzer output signal							T			R				
						T				R				
					T					R				
Fuel level sensor signal	R									T				
Fuel level low warning signal			R							T				
Malfunction indicator lamp signal	T									R				
ICC operation signal	R				T									
Front wiper request signal					R		T							R
Front wiper stop position signal							R							T
Rear window defogger switch signal							T							R
Rear window defogger control signal	R		R				R							T
Hood switch signal							R							T
Theft warning horn request signal							T							R
Horn chirp signal							T							R
Steering angle sensor signal								T				R		
Tire pressure signal							T			R				
ABS warning lamp signal										R		T		

Signals	ECM	TCM	Display control unit	AWD control unit	ICC unit	Intelligent Key unit	BCM	Steering angle sensor	LDW camera unit	Unified meter and A/C amp.	ICC sensor	ABS actuator and electric unit (control unit)	Driver seat control unit	IPDM E/R
VDC OFF indicator lamp signal										R		T		
SLIP indicator lamp signal										R		T		
Brake warning lamp signal										R		T		
System setting signal			T			R							R	
			R			T							T	
AWD warning lamp signal				T						R				
Distance to empty signal			R							T				
Parking brake switch signal				R			R			T				
Door lock/unlock request signal						T	R							
Door lock/unlock status signal						R	T							
Starter permission signal						T	R							
Back door open request signal						T	R							
Power window open request signal						T	R							
Alarm request signal						T	R							
Key warning signal						T				R				
ICC sensor signal					R						T			
ICC warning lamp signal					T					R				
ICC system display signal					T					R				
Current gear position signal		T			R							R		
ICC steering switch signal	T				R									
ASCD operation signal	T	R												
ASCD OD cancel request signal	T	R												
ICC OD cancel request signal		R			T									
A/T CHECK indicator lamp signal		T								R				
A/T position indicator lamp signal		T								R				

Signals	ECM	TCM	Display control unit	AWD control unit	ICC unit	Intelligent Key unit	BCM	Steering angle sensor	LDW camera unit	Unified meter and A/C amp.	ICC sensor	ABS actuator and electric unit (control unit)	Driver seat control unit	IPDM E/R
A/T shift schedule change demand 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				
Manual mode indicator signal		T								R				
Ignition knob switch signal						T	R							
Snow mode switch signal	R									T				
	T									R				
Current gear position signal*	R	T												
Next gear position signal*	R	T												
Shift change signal*	R	T												
Shift pattern signal*	R	T												
VDC OFF switch signal					R							T		

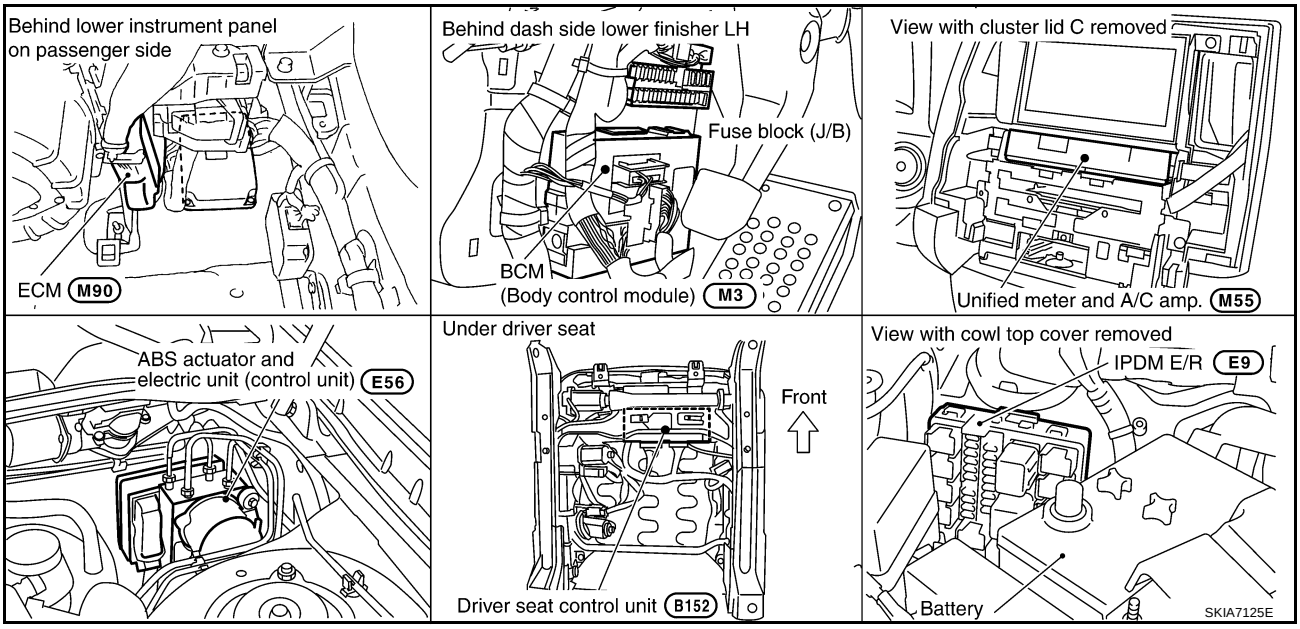
*: VK45DE engine model only

CAN SYSTEM (TYPE 1)

PFP:23710

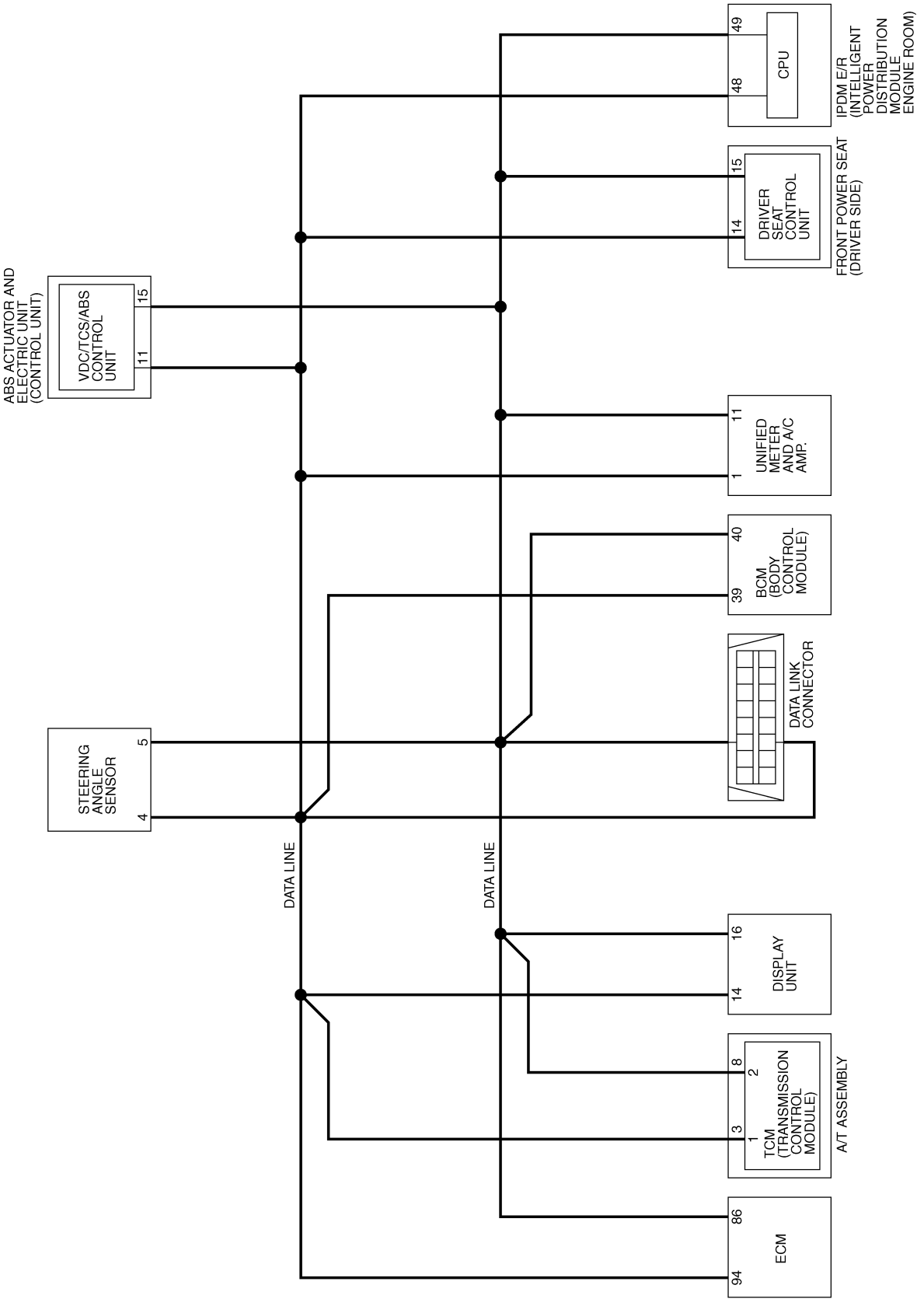
Component Parts and Harness Connector Location

AKS00CFK



Schematic

AKS00CFL

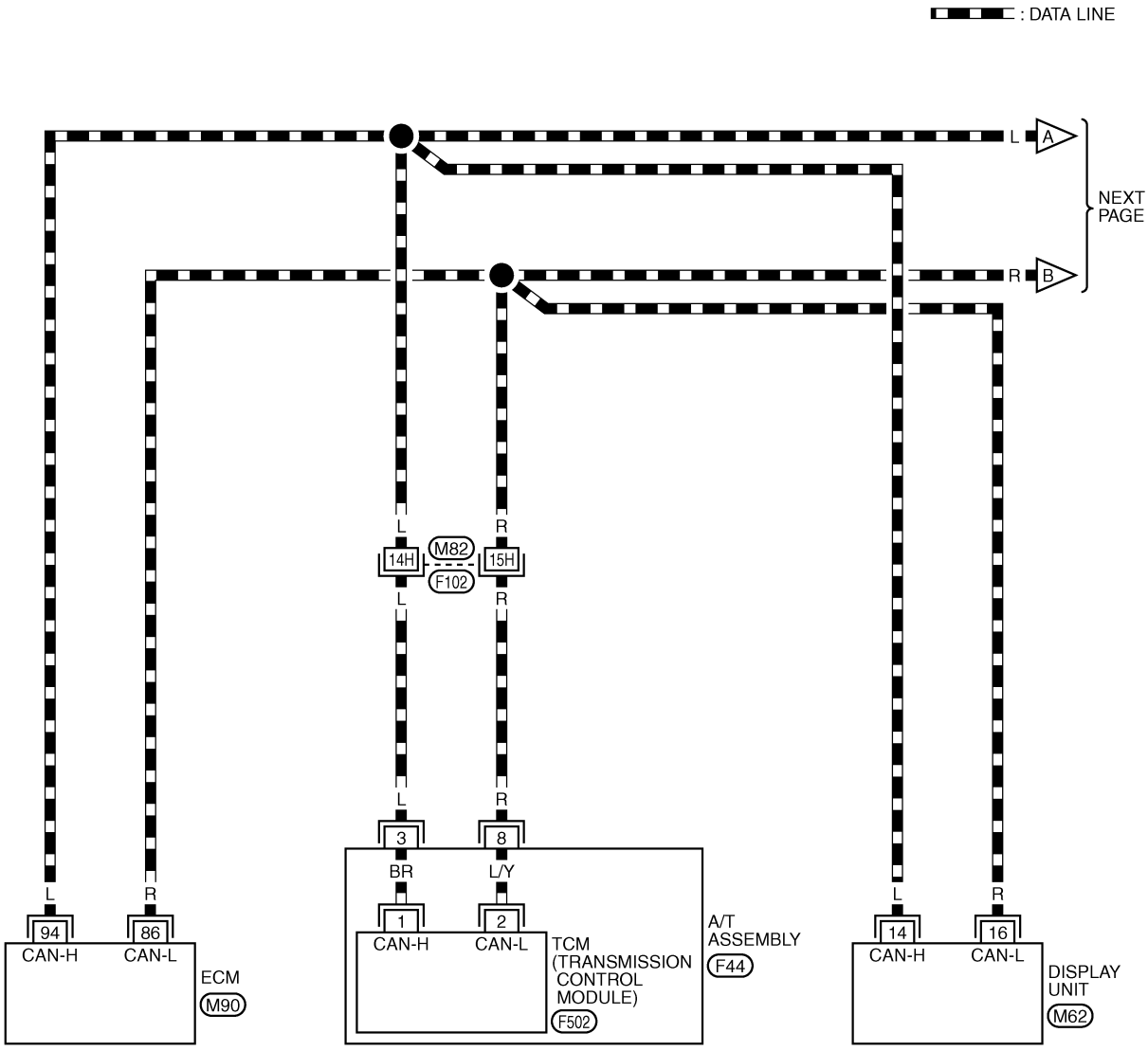


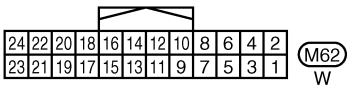
TKWM2089E

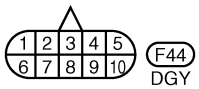
Wiring Diagram - CAN -

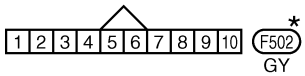
AKS00CFM

LAN-CAN-01









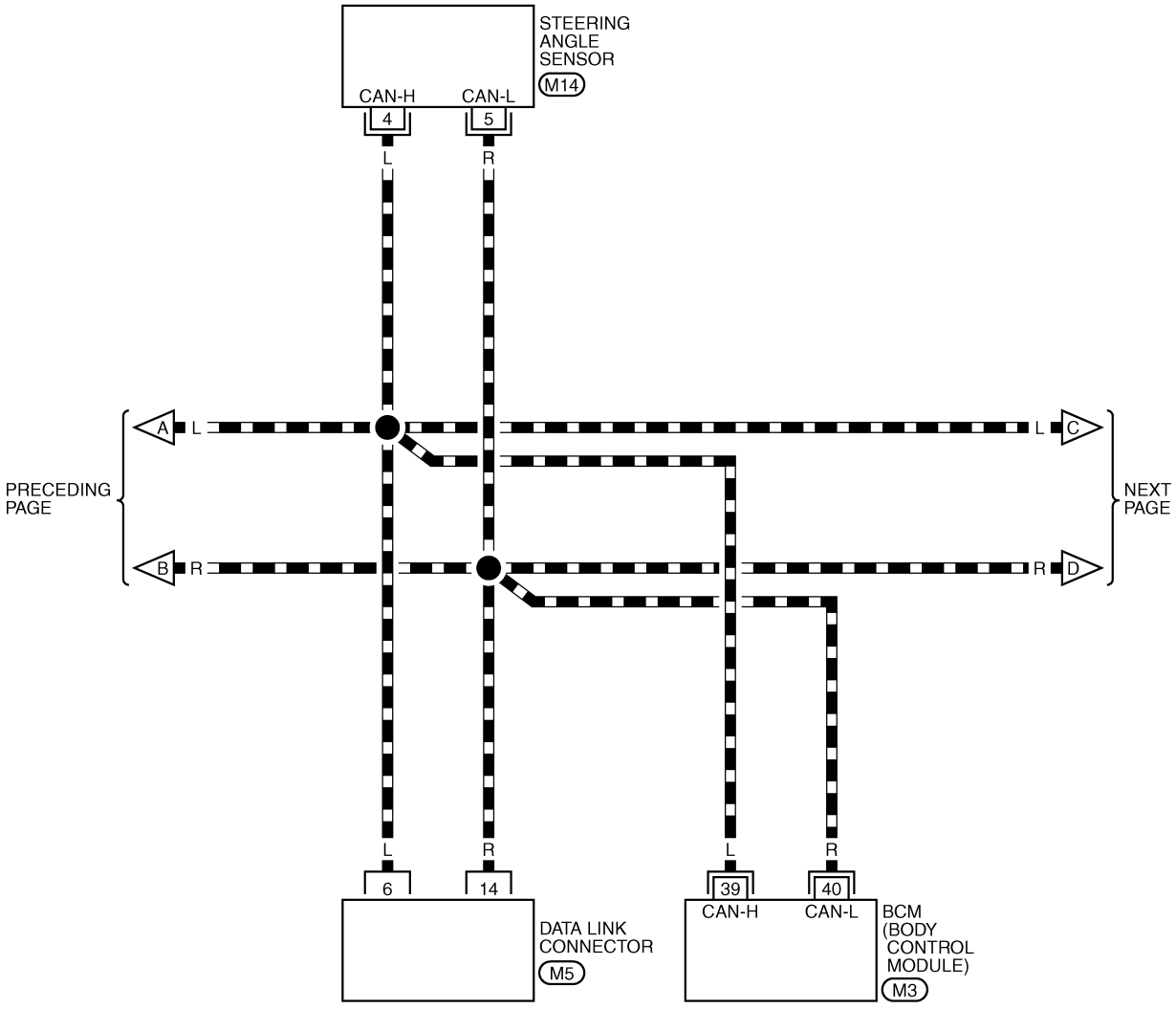
REFER TO THE FOLLOWING.
F102 -SUPER MULTIPLE JUNCTION (SMJ)
M90 -ELECTRICAL UNITS

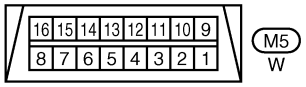
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

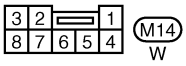
TKWM2090E

LAN-CAN-02

: DATA LINE



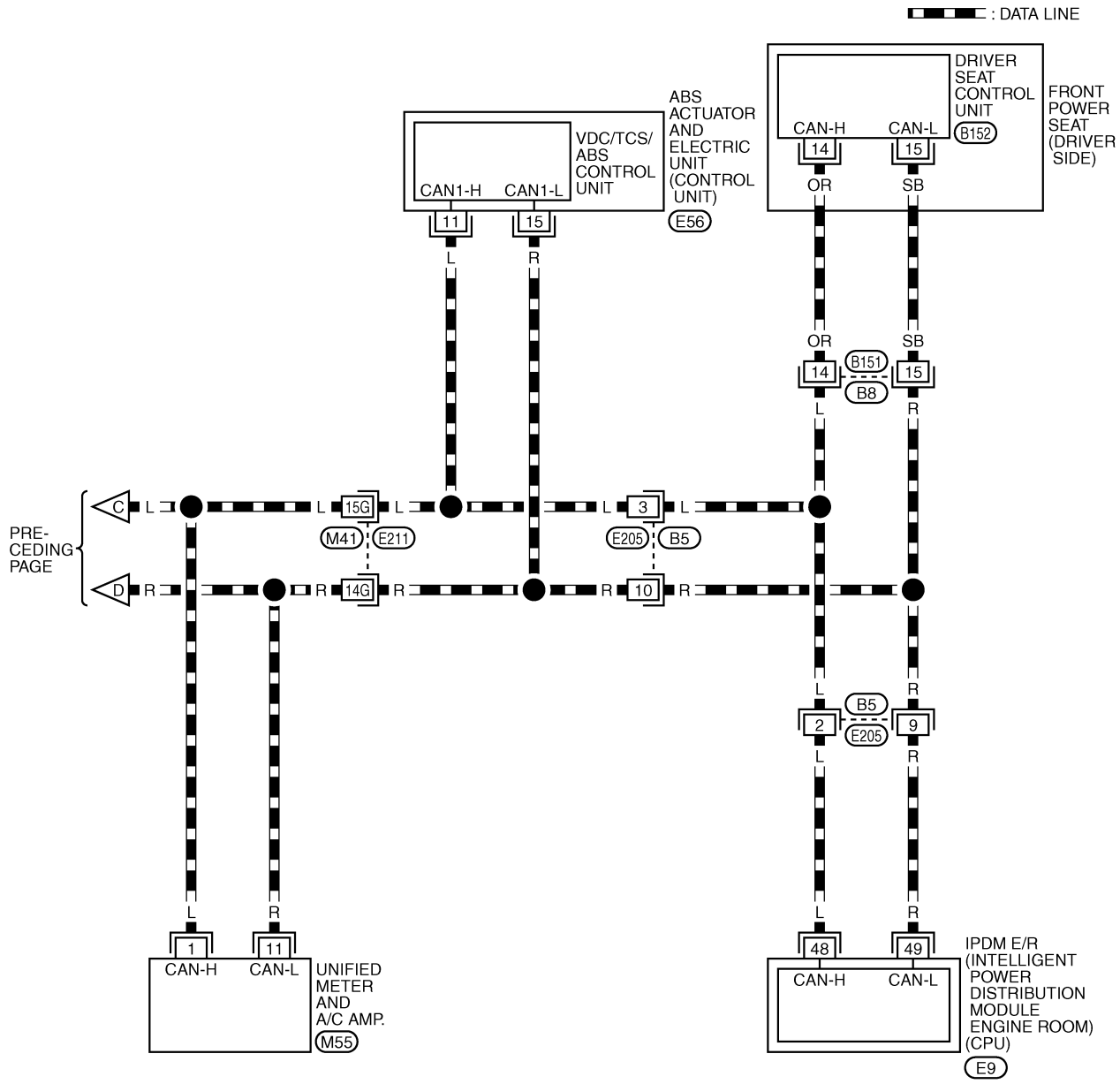




REFER TO THE FOLLOWING.
M3 -ELECTRICAL UNITS

TKWM2091E

LAN-CAN-03



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

REFER TO THE FOLLOWING.

E211 -SUPER MULTIPLE JUNCTION (SMJ)

E56 -ELECTRICAL UNITS

TKWM2092E

Check Sheet

AKS00CFN

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	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

Symptoms :

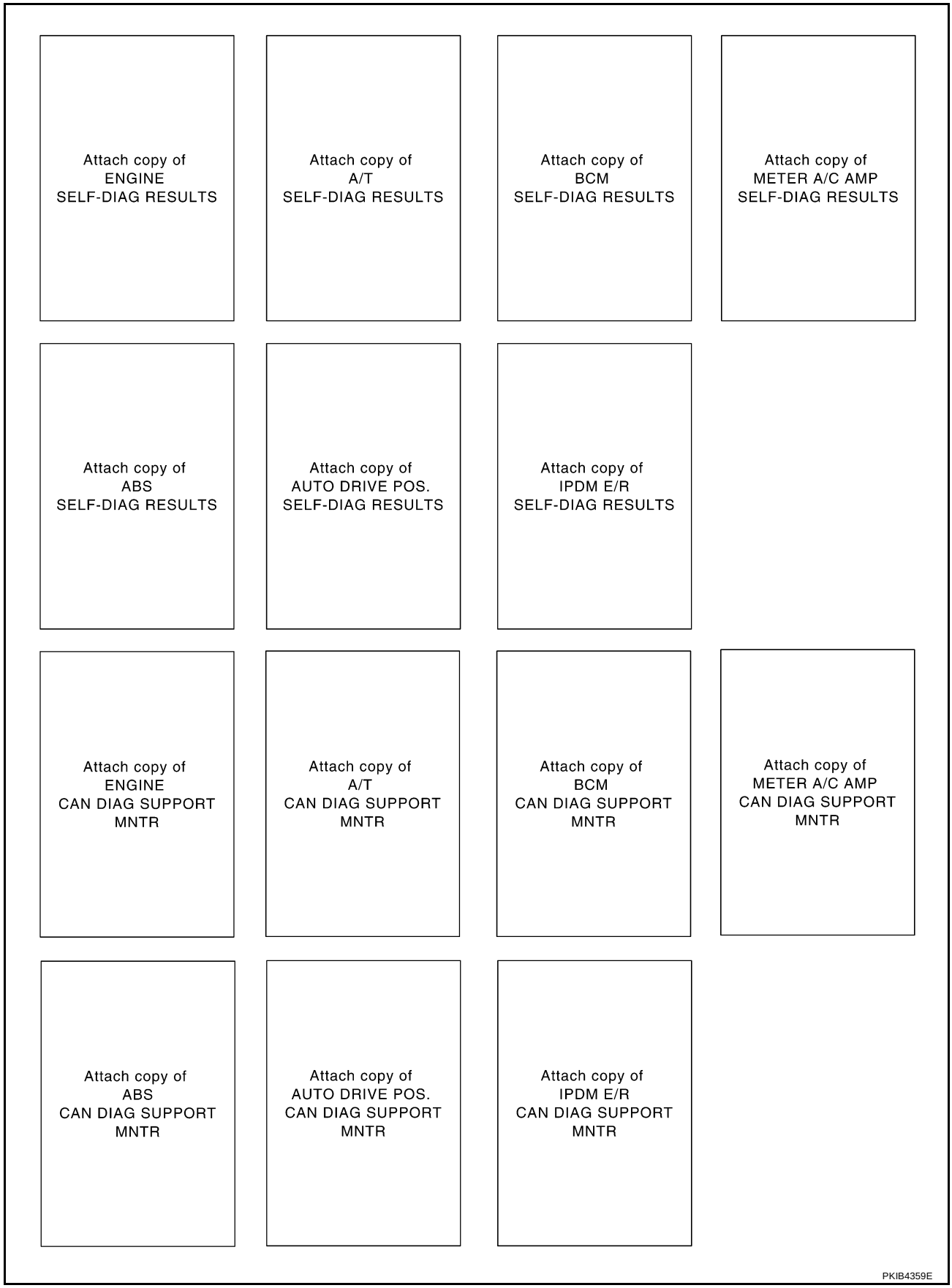
Attach copy of
SELECT SYSTEM

Attach copy of
SELECT SYSTEM

Display unit Translation Sheet: Rewrite the following names, and put a check mark on the check sheet table.			
Confirmation/Adjustment Display	Check sheet table Display	Confirmation/Adjustment Display	Check sheet table Display
CANCOMM	Initial diagnosis	CAN5	METER/M&A
CAN1	Transmit diagnosis	CAN6	—
CAN2	BCM/SEC	CAN7	IPDM E/R
CAN3	ECM	CAN8	—
CAN4	—	CAN9	—

Attach copy of
display unit
CAN DIAG MONITOR check sheet

PKIB5973E


Attach copy of
ENGINE
SELF-DIAG RESULTS
Attach copy of
A/T
SELF-DIAG RESULTS
Attach copy of
BCM
SELF-DIAG RESULTS
Attach copy of
METER A/C AMP
SELF-DIAG RESULTS
Attach copy of
ABS
SELF-DIAG RESULTS
Attach copy of
AUTO DRIVE POS.
SELF-DIAG RESULTS
Attach copy of
IPDM E/R
SELF-DIAG RESULTS
Attach copy of
ENGINE
CAN DIAG SUPPORT
MNTR
Attach copy of
A/T
CAN DIAG SUPPORT
MNTR
Attach copy of
BCM
CAN DIAG SUPPORT
MNTR
Attach copy of
METER A/C AMP
CAN DIAG SUPPORT
MNTR
Attach copy of
ABS
CAN DIAG SUPPORT
MNTR
Attach copy of
AUTO DRIVE POS.
CAN DIAG SUPPORT
MNTR
Attach copy of
IPDM E/R
CAN DIAG SUPPORT
MNTR
PKIB4359E

CHECK SHEET RESULTS (EXAMPLE)

NOTE:

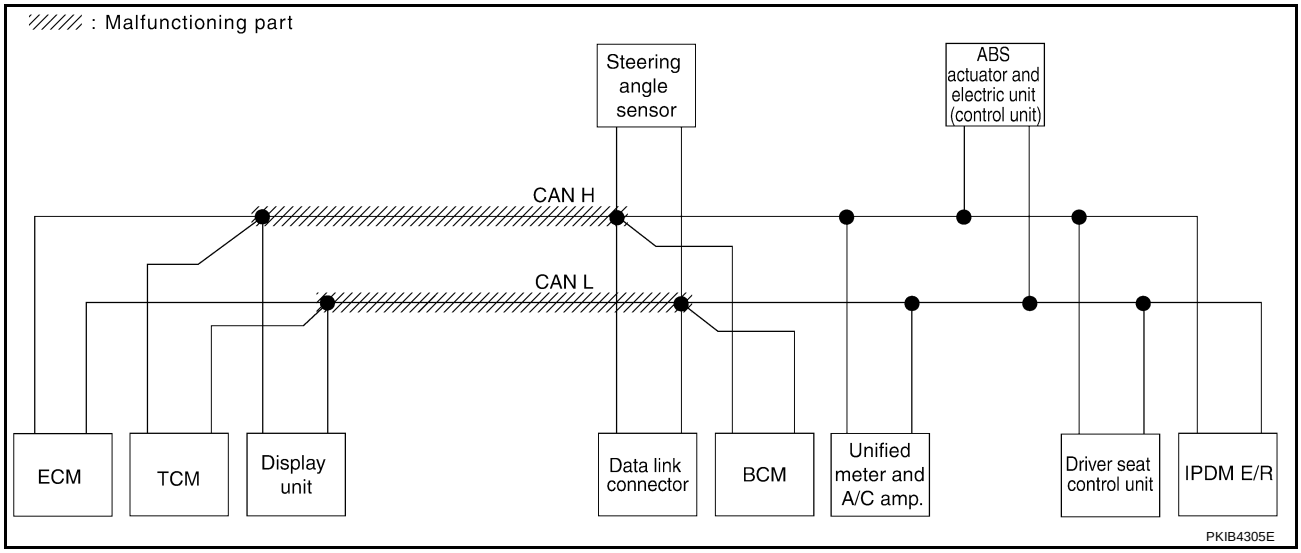
If a check mark is put on “NG” on “INITIAL DIAG (Initial diagnosis)”, replace the control unit.

Case 1

Check harness between TCM and data link connector. Refer to LAN-70, "Inspection Between TCM and Data Link Connector Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN ✓	—	UNKWN ✓	UNKWN ✓	UNKWN ✓	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN ✓	—	UNKWN ✓	—	UNKWN ✓	—	—
BCM	No indication	NG	UNKWN	UNKWN ✓	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000) ✓	—
METER A/C AMP	No indication	—	UNKWN	UNKWN ✓	UNKWN ✓	UNKWN ✓	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN ✓	UNKWN ✓	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN ✓	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN ✓	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB4441E

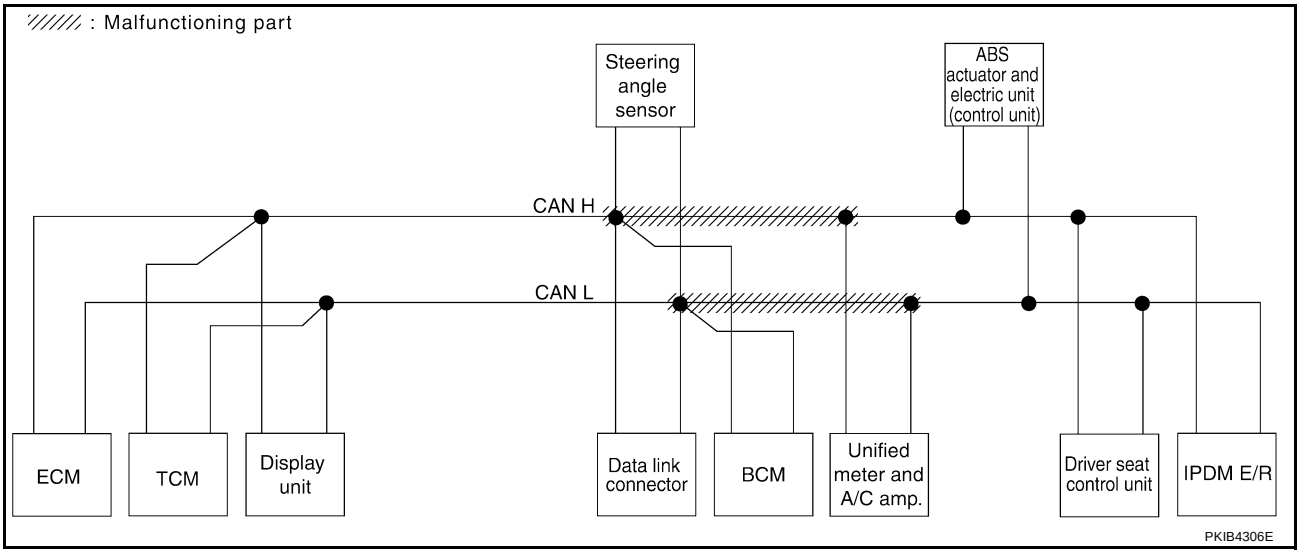


Case 2

Check harness between data link connector and unified meter and A/C amp. Refer to LAN-71, "Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN ✓	UNKWN ✓	UNKWN ✓	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN ✓	—	UNKWN ✓	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	—	UNKWN ✓	CAN COMM CIRCUIT (U1000) ✓	—
METER A/C AMP	No indication ✓	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN ✓	UNKWN ✓	—	—	UNKWN ✓	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication ✓	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication ✓	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB4442E



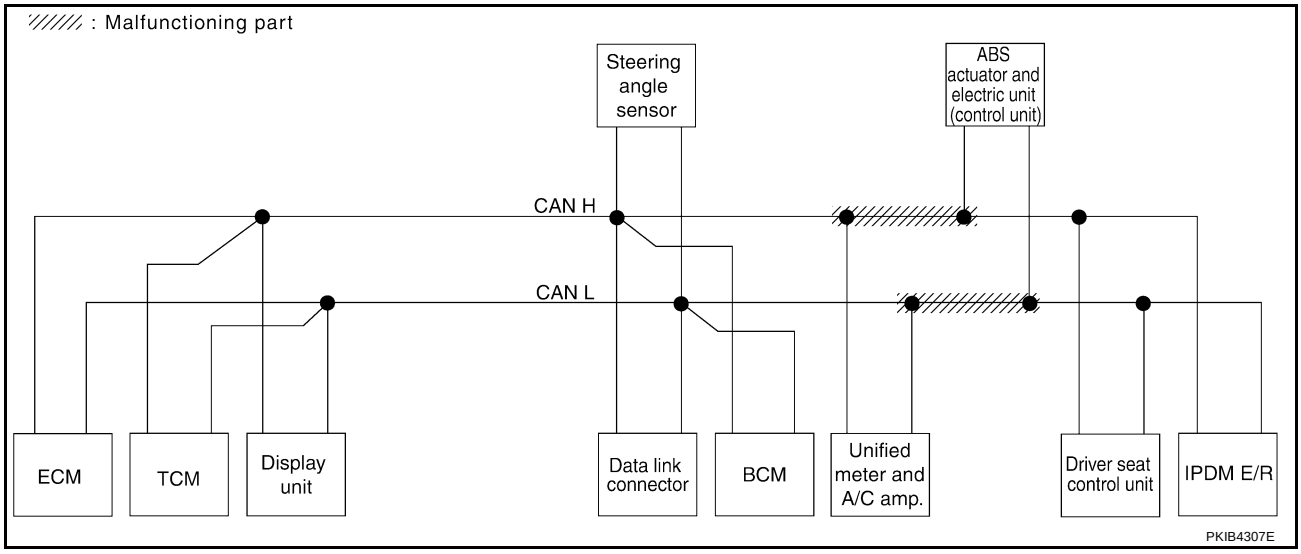
PKIB4306E

Case 3

Check harness between unified meter and A/C amp. and ABS actuator and electric unit (control unit). Refer to LAN-71, "Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

SKIB7294E

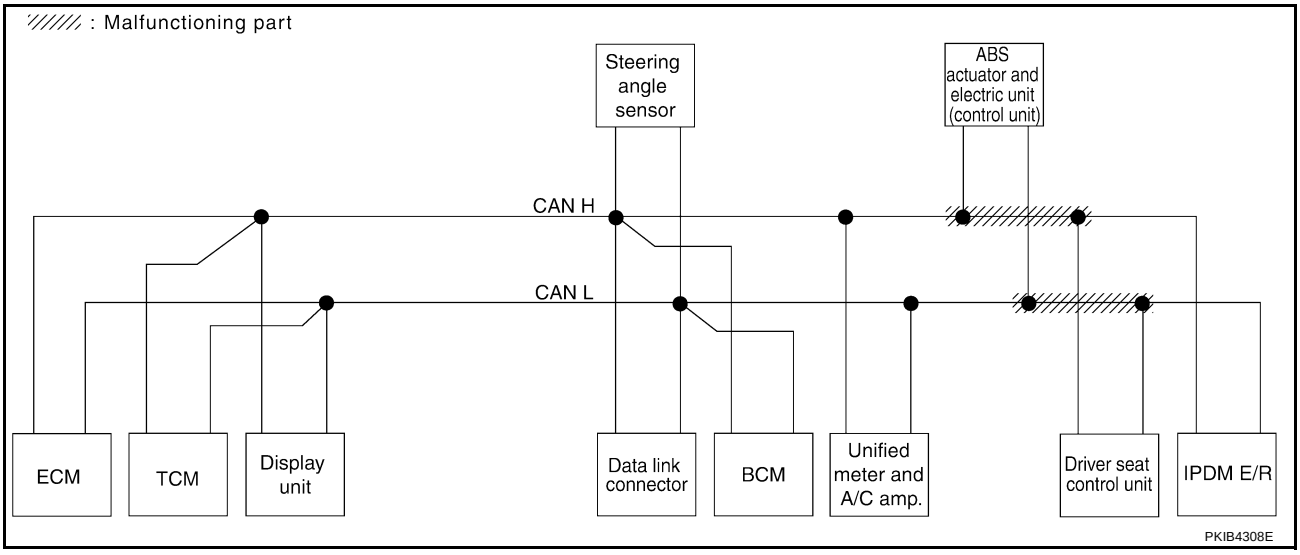


Case 4

Check harness between ABS actuator and electric unit (control unit) and driver seat control unit. Refer to LAN-72, "Inspection Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4444E

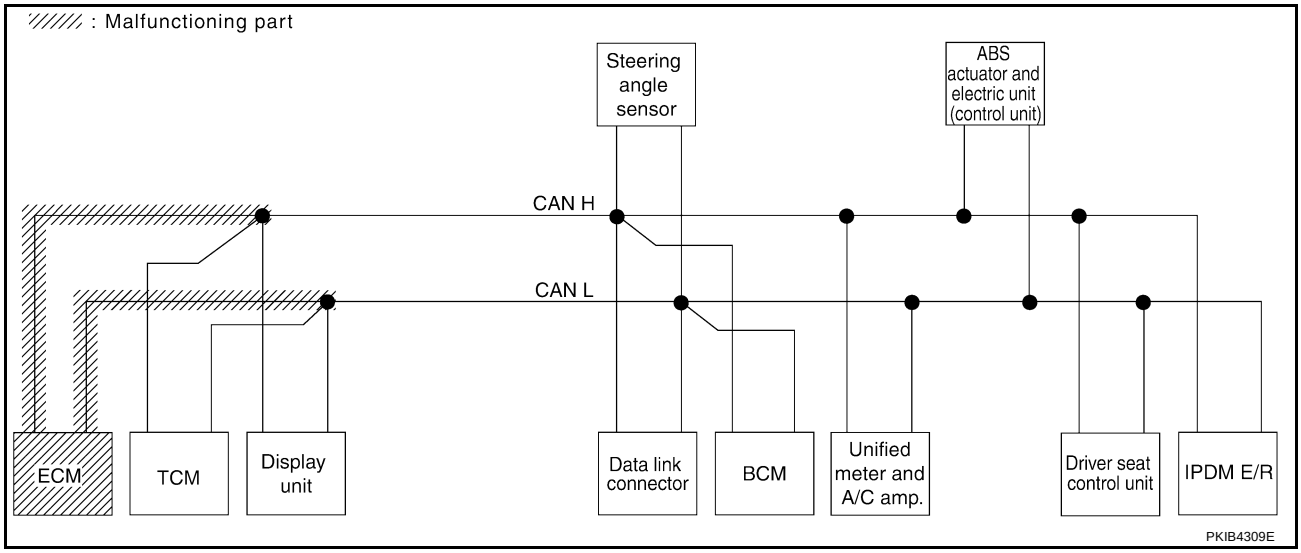


Case 5

Check ECM circuit. Refer to LAN-73, "ECM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4445E



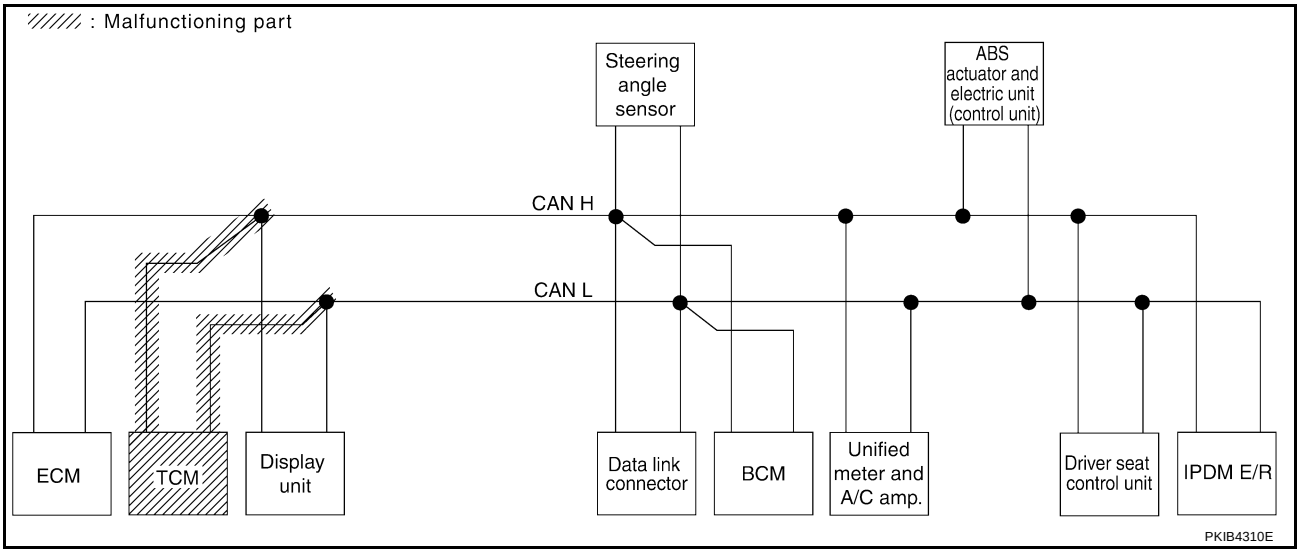
PKIB4309E

Case 6

Check TCM circuit. Refer to LAN-73, "TCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000) ✓	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN ✓	—	—	—	—	UNKWN ✓	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN ✓	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN ✓	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4446E



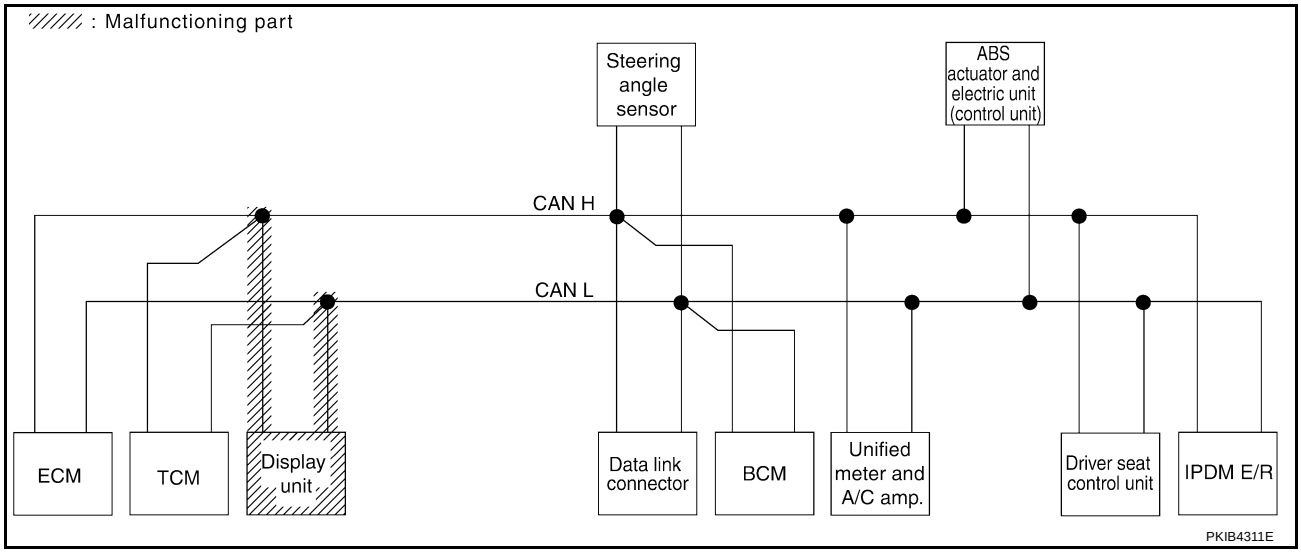
PKIB4310E

Case 7

Check display unit circuit. Refer to LAN-74, "Display Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN ✓	UNKWN ✓	—	—	UNKWN ✓	—	UNKWN ✓	—	UNKWN ✓	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4447E



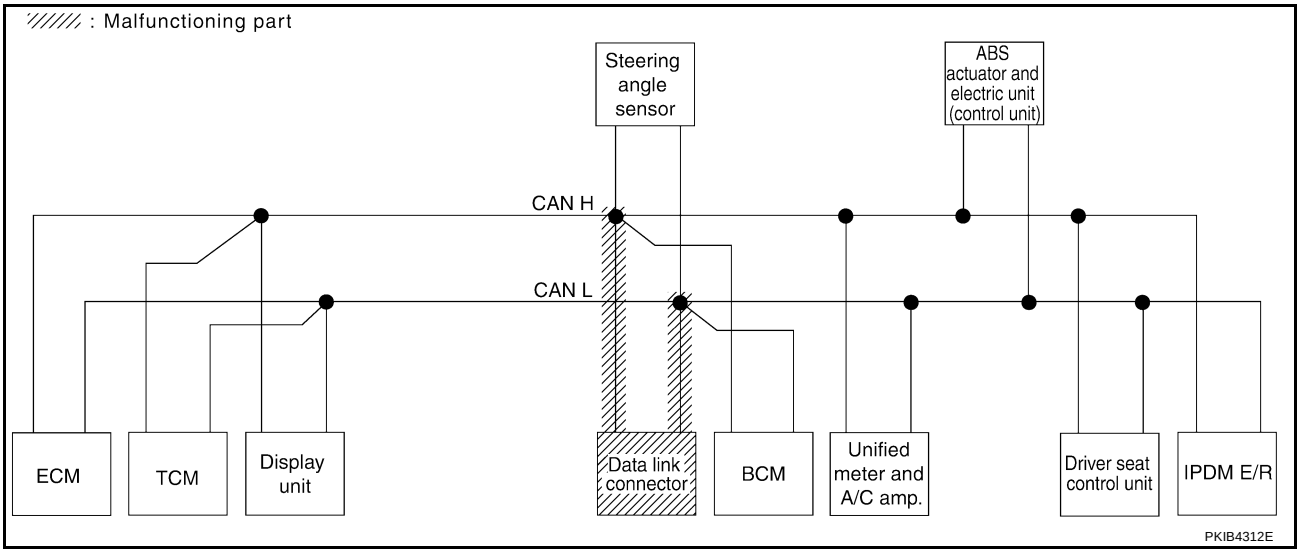
PKIB4311E

Case 8

Check data link connector circuit. Refer to LAN-74, "Data Link Connector Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4448E



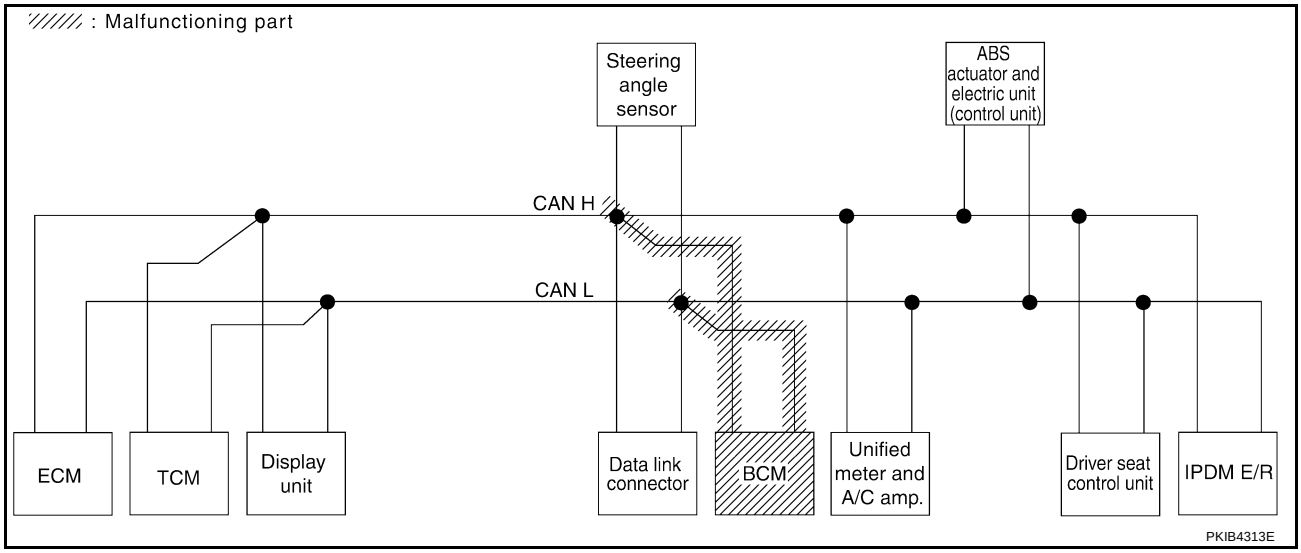
PKIB4312E

Case 9

Check BCM circuit. Refer to LAN-75, "BCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4449E



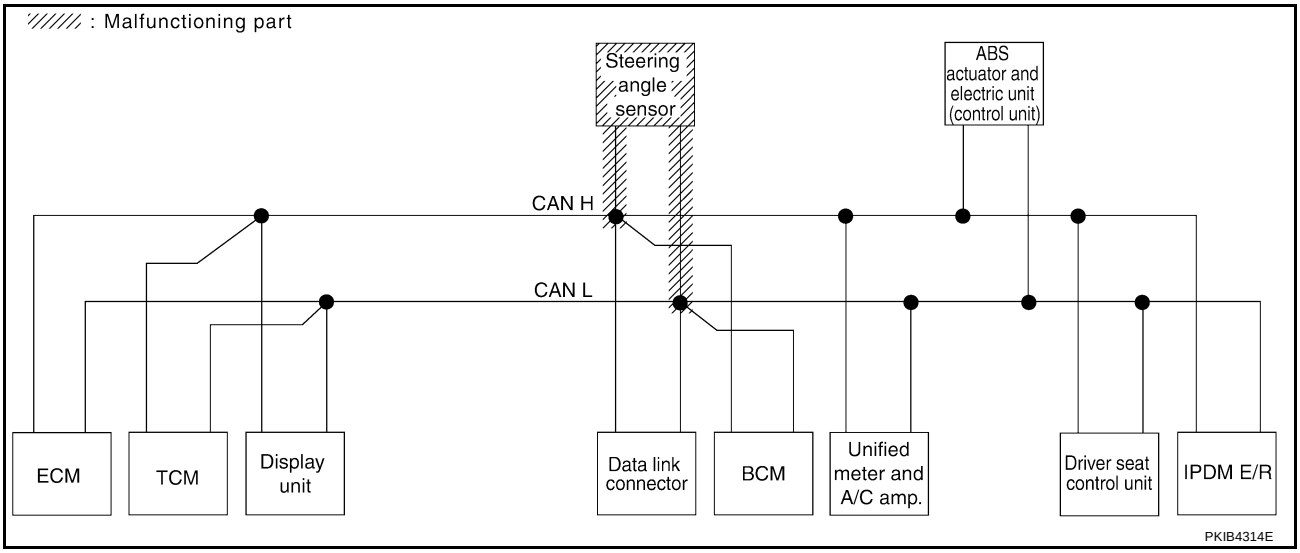
PKIB4313E

Case 10

Check steering angle sensor circuit. Refer to LAN-75, "Steering Angle Sensor Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4450E



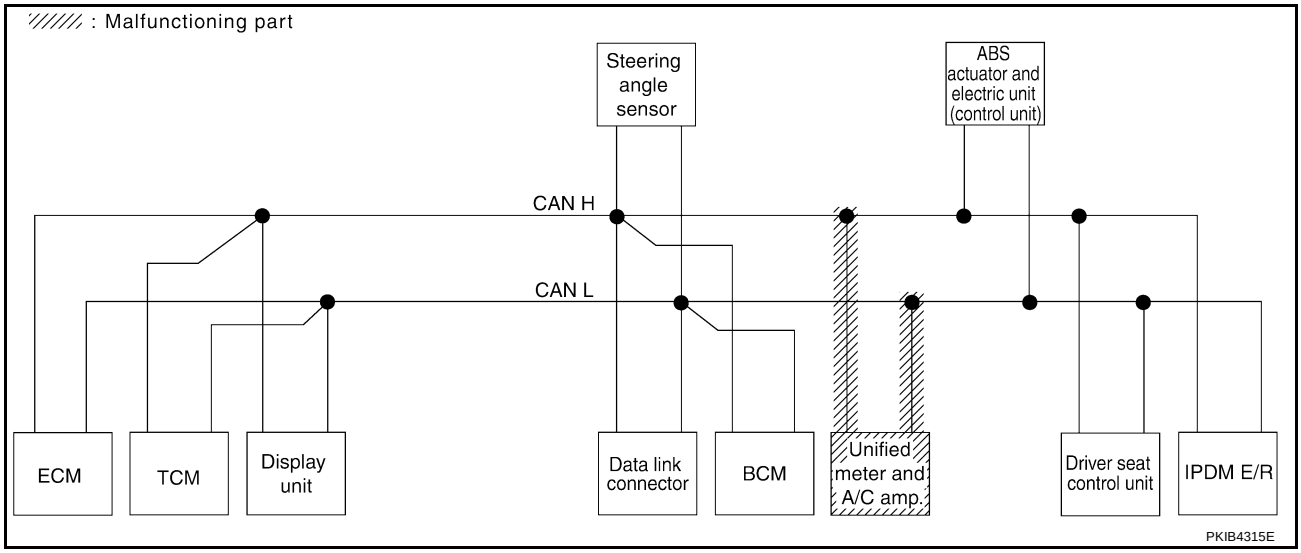
PKIB4314E

Case 11

Check unified meter and A/C amp. circuit. Refer to LAN-76, "Unified Meter and A/C Amp. Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN ✓	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication ✓	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN ✓	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4451E

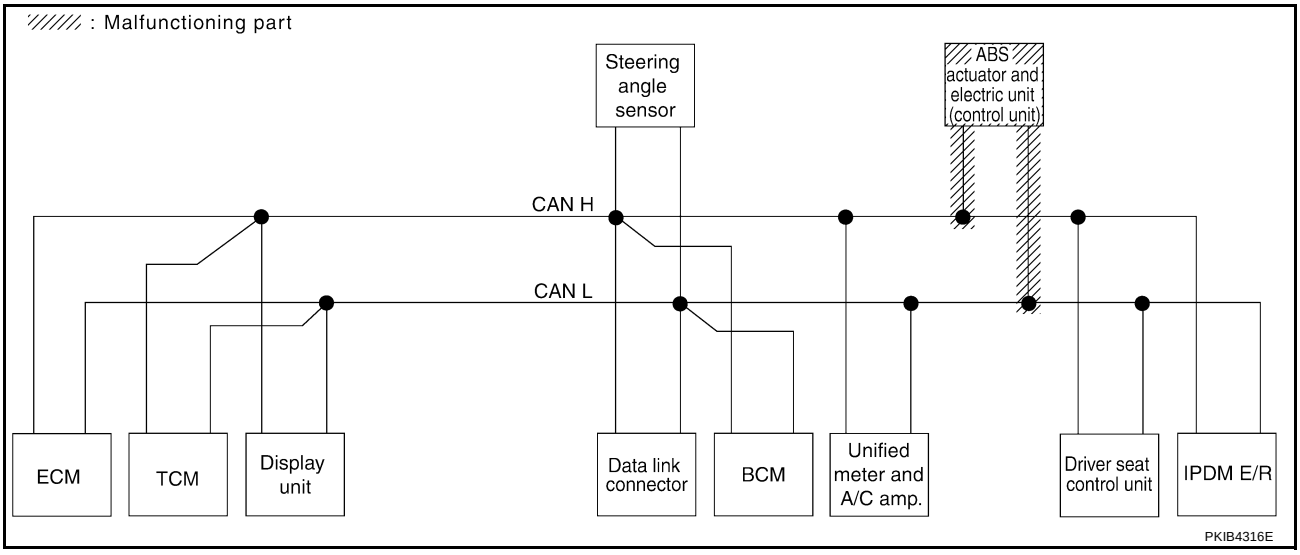


Case 12

Check ABS actuator and electric unit (control unit) circuit. Refer to LAN-76, "ABS Actuator and Electric Unit (Control Unit) Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4452E



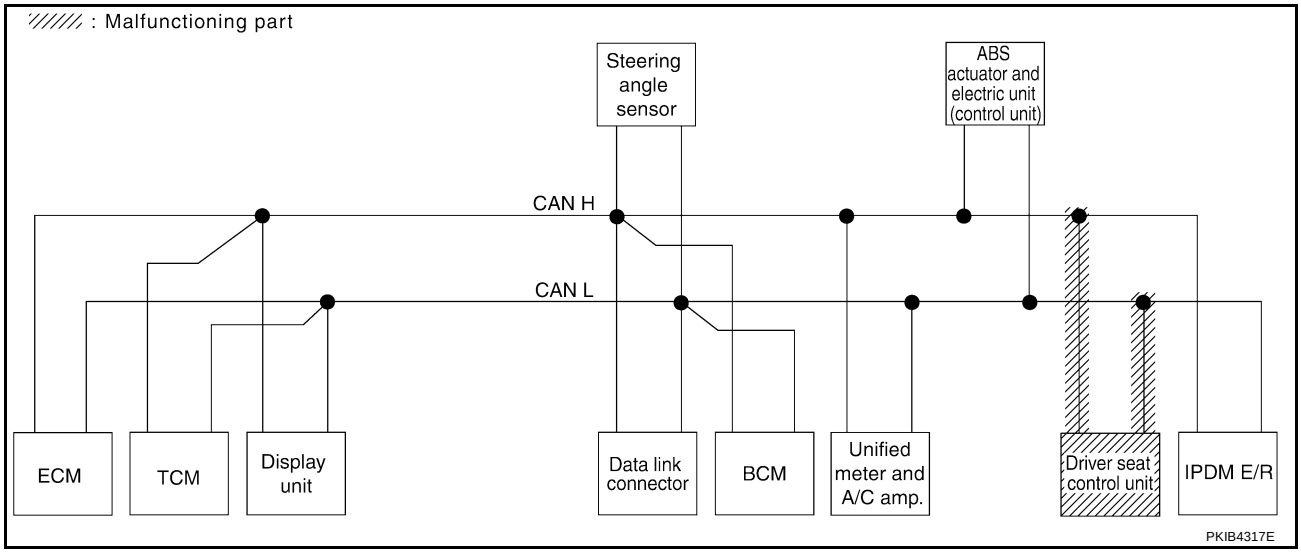
PKIB4316E

Case 13

Check driver seat control unit circuit. Refer to LAN-77, "Driver Seat Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4453E



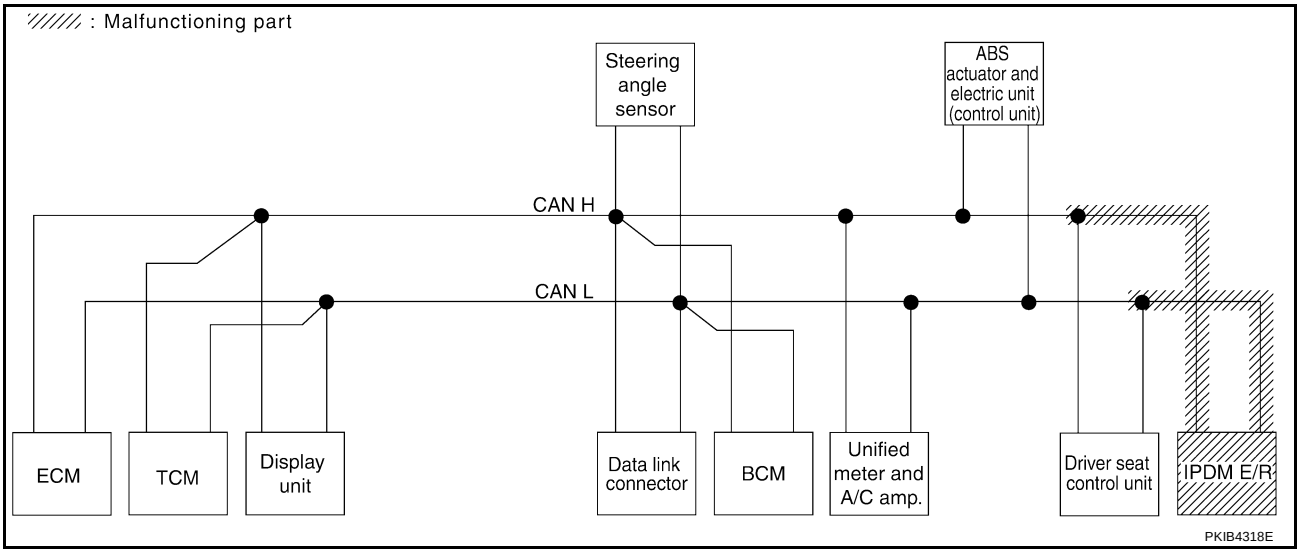
PKIB4317E

Case 14

Check IPDM E/R circuit. Refer to LAN-78, "IPDM E/R Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN ✓	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN ✓	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN ✓	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication ✓	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB4454E



PKIB4318E

Case 15

Check CAN communication circuit. Refer to LAN-78, "CAN Communication Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4455E

Case 16

Check IPDM E/R ignition relay circuit continuously sticks “OFF”. Refer to LAN-84, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4456E

Case 17

Check IPDM E/R ignition relay circuit continuously sticks “ON”. Refer to LAN-84, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	—	—	—	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	—	UNKWN	—	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4457E

Inspection Between TCM and Data Link Connector Circuit

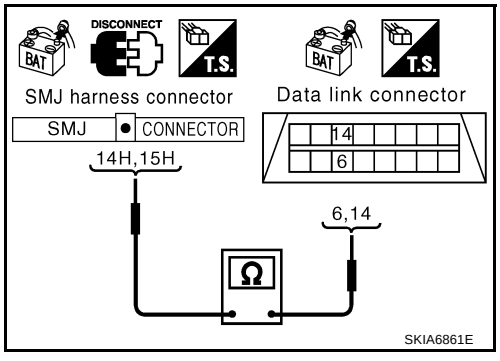
AKS00CFO

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and harness connector M82.
4. Check continuity between harness connector M82 terminals 14H (L), 15H (R) and data link connector M5 terminals 6 (L), 14 (R).

14H (L) - 6 (L) : Continuity should exist.

15H (R) - 14 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness.

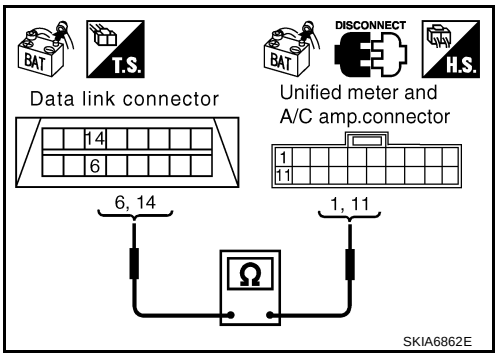
Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit

AKS00CFP

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and unified meter and A/C amp. connector.
4. Check continuity between data link connector M5 terminals 6 (L), 14 (R) and unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R).

6 (L) - 1 (L) : Continuity should exist.
14 (R) - 11 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit

AKS00CFQ

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 M41
- Harness connector E211

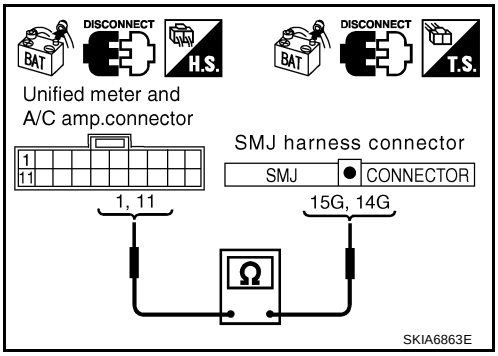
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector and harness connector M41.
2. Check continuity between unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R) and harness connector M41 terminals 15G (L), 14G (R).

1 (L) - 15G (L) : Continuity should exist.
11 (R) - 14G (R) : Continuity should exist.



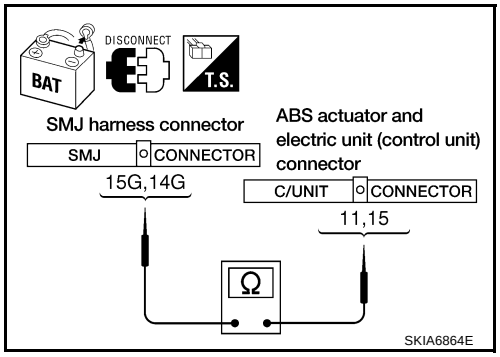
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check continuity between harness connector E211 terminals 15G (L), 14G (R) and ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R).

15G (L) - 11 (L) : Continuity should exist.
14G (R) - 15 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit Circuit

AKS00CFR

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 E205
- Harness connector B5

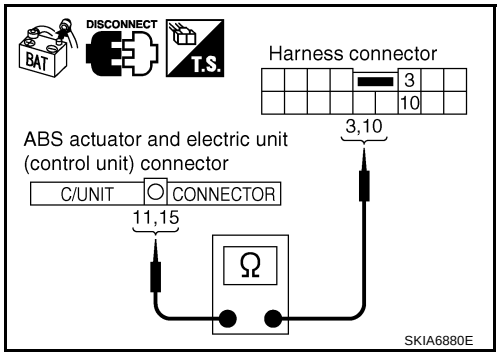
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and harness connector E205 terminals 3 (L), 10 (R).

11 (L) - 3 (L) : Continuity should exist.
15 (R) - 10 (R) : Continuity should exist.



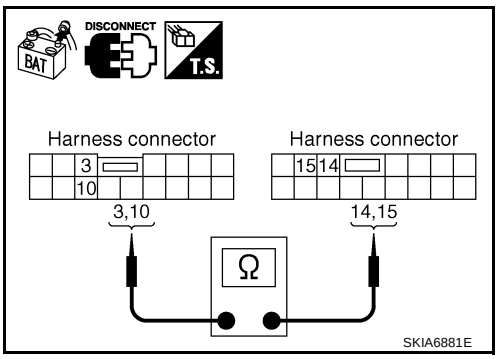
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect harness connector B8.
2. Check continuity between harness connector B5 terminals 3 (L), 10 (R) and harness connector B8 terminals 14 (L), 15 (R).

3 (L) - 14 (L) : Continuity should exist.
10 (R) - 15 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

ECM Circuit Inspection

AKS00CFS

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).

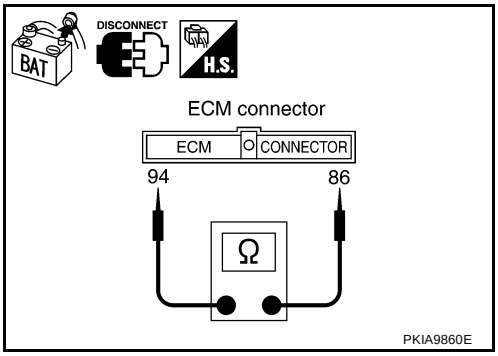
OK or NG

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 M90 terminals 94 (L) and 86 (R).

94 (L) - 86 (R) : Approx. 108 - 132Ω



OK or NG

OK >> Replace ECM.
NG >> Repair harness between ECM and harness connector M82.

TCM Circuit Inspection

AKS00CFT

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 (control module side and harness side).

- A/T assembly connector
- Harness connector F102
- Harness connector M82

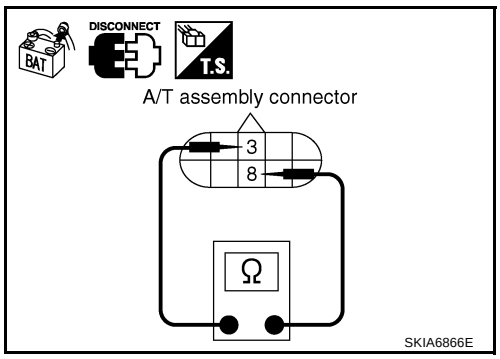
OK or NG

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 F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Approx. 54 - 66Ω



OK or NG

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

Display Unit Circuit Inspection

AKS00CFU

1. CHECK CONNECTOR

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

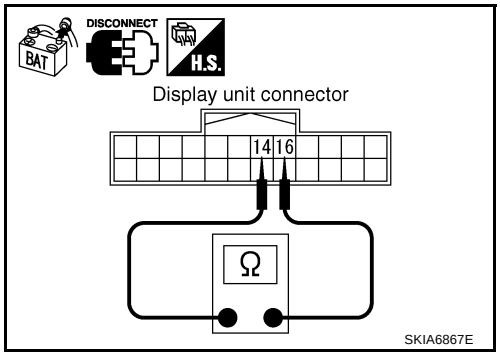
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect display unit connector.
2. Check resistance between display unit harness connector M62 terminals 14 (L) and 16 (R).

14 (L) - 16 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace display unit.
NG >> Repair harness between display unit and harness connector M82.

Data Link Connector Circuit Inspection

AKS00CFW

1. CHECK CONNECTOR

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

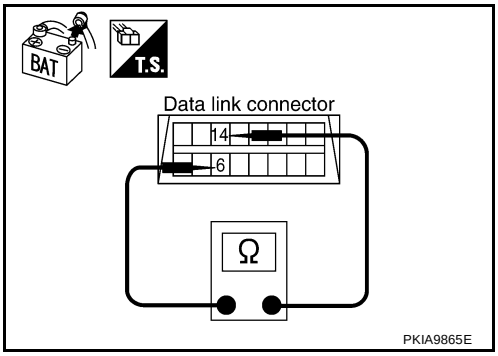
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness between data link connector and BCM.

BCM Circuit Inspection

AKS00CFX

1. CHECK CONNECTOR

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

OK or NG

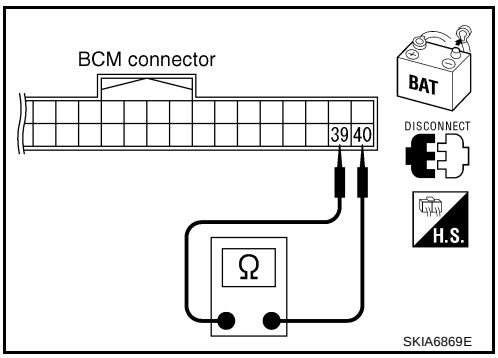
OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect BCM connector.
2. Check resistance between BCM harness connector M3 terminals 39 (L) and 40 (R).

39 (L) - 40 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace BCM. Refer to BCS-16, "Removal and Installation of BCM" .

NG >> Repair harness between BCM and data link connector.

Steering Angle Sensor Circuit Inspection

AKS00CFY

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

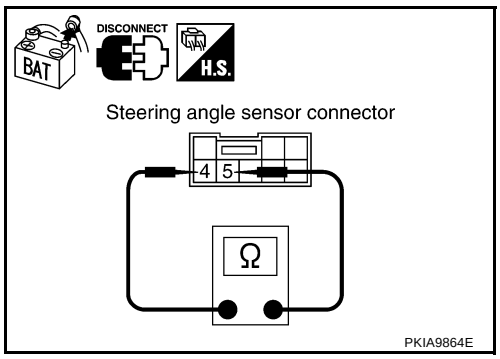
OK >> GO TO 2.

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 M14 terminals 4 (L) and 5 (R).

4 (L) - 5 (R) : Approx. 54 - 66Ω



OK or NG

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

Unified Meter and A/C Amp. Circuit Inspection

AKS00CFZ

1. CHECK CONNECTOR

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

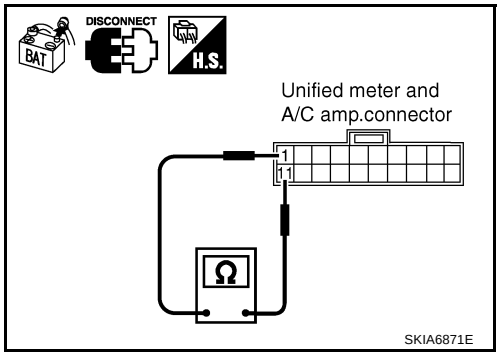
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector.
2. Check resistance between unified meter and A/C amp. harness connector M55 terminals 1 (L) and 11 (R).

1 (L) - 11 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace unified meter and A/C amp.
NG >> Repair harness between unified meter and A/C amp. and harness connector M41.

ABS Actuator and Electric Unit (Control Unit) Circuit Inspection

AKS00CG0

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of ABS actuator and electric unit (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.

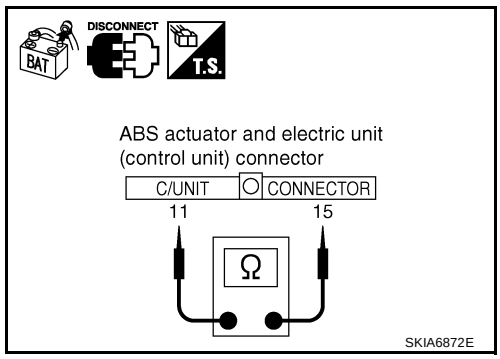
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check resistance between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace ABS actuator and electric unit (control unit).
NG >> Repair harness between ABS actuator and electric unit (control unit) and harness connector E205.



Driver Seat Control Unit Circuit Inspection

AKS00CG1

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 (control unit side and harness side).

- Driver seat control unit connector
- Harness connector B151
- Harness connector B8

OK or NG

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

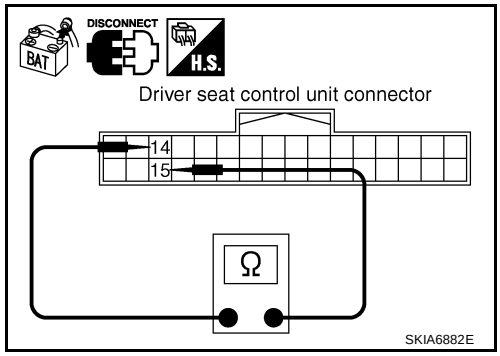
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check resistance between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

14 (OR) - 15 (SB) : Approx. 54 - 66Ω

OK or NG

OK >> Replace driver seat control unit.
NG >> Repair harness between driver seat control unit and harness connector B5.



IPDM E/R Circuit Inspection

AKS00CG2

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 (control module side and harness side).

– IPDM E/R connector
– Harness connector E205
– Harness connector B5

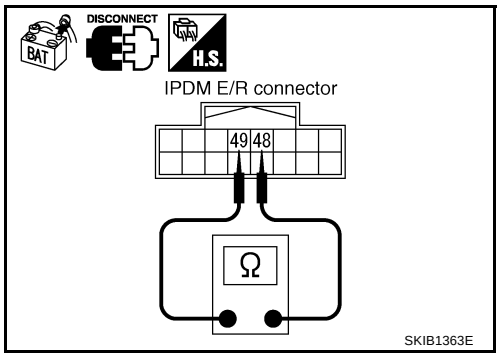
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check resistance between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Approx. 108 - 132Ω



OK or NG

OK >> Replace IPDM E/R.
NG >> Repair harness between IPDM E/R and harness connector B8.

CAN Communication Circuit Inspection

AKS00CG3

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 (control module side, control unit side, unit side, sensor side, meter side and harness side).

– ECM
– A/T assembly
– Display unit
– BCM
– Steering angle sensor
– Unified meter and A/C amp.
– ABS actuator and electric unit (control unit)
– Driver seat control unit
– IPDM E/R
– Between ECM and IPDM E/R
– Between ECM and A/T assembly
– Between ECM and driver seat control unit

OK or NG

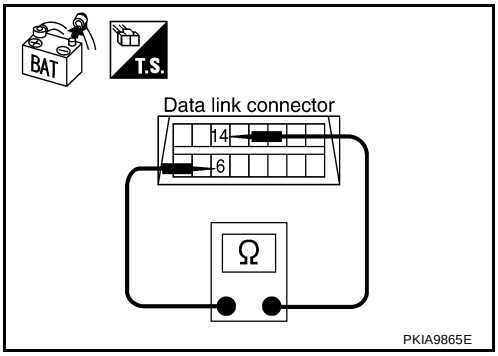
OK >> GO TO 2.
NG >> Repair terminal or connector.

2. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect following connectors.
- ECM connector
- Harness connector M82
- Display unit connector
- BCM connector
- Steering angle sensor connector
- Unified meter and A/C amp. connector
- Harness connector M41

2. Check continuity between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R) : Continuity should not exist.



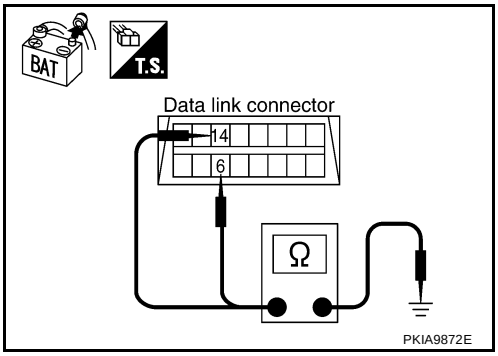
OK or NG

OK >> GO TO 3.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

3. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between data link connector M5 terminals 6 (L), 14 (R) and ground.

6 (L) - Ground : Continuity should not exist.
14 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 4.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

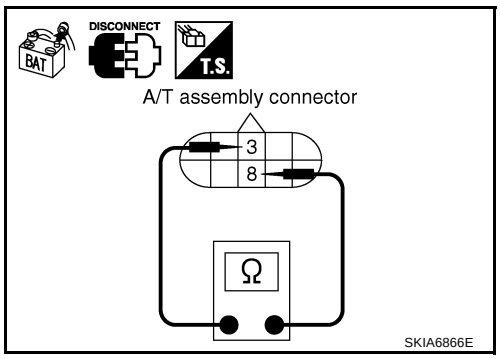
4. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect A/T assembly connector.
2. Check continuity between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 5.
NG >> Repair harness between A/T assembly and harness connector F102.



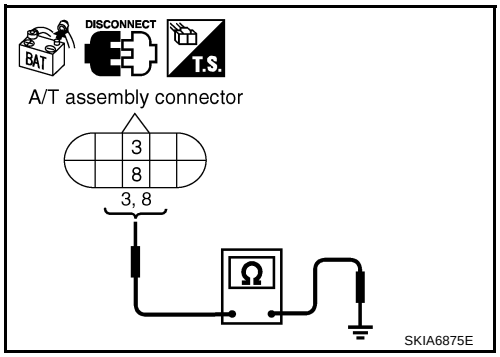
5. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between A/T assembly harness connector F44 terminals 3 (L), 8 (R) and ground.

3 (L) - Ground : Continuity should not exist.
8 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 6.
NG >> Repair harness between A/T assembly and harness connector F102.



6. CHECK HARNESS FOR SHORT CIRCUIT

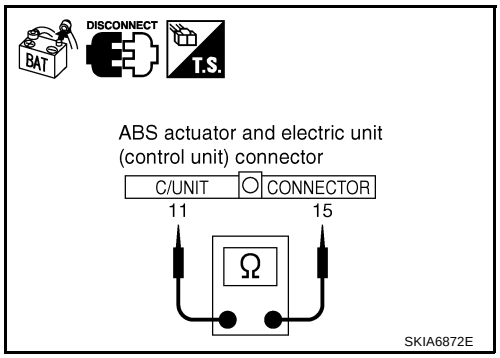
1. Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 7.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and harness connector E205

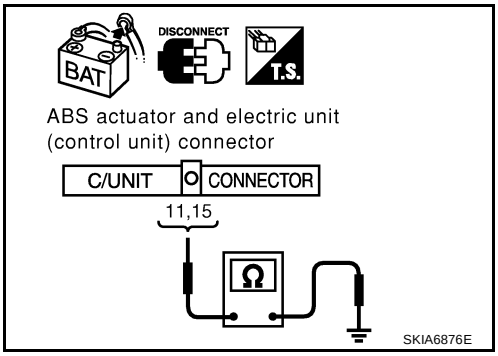


7. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and ground.

11 (L) - Ground : Continuity should not exist.

15 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 8.

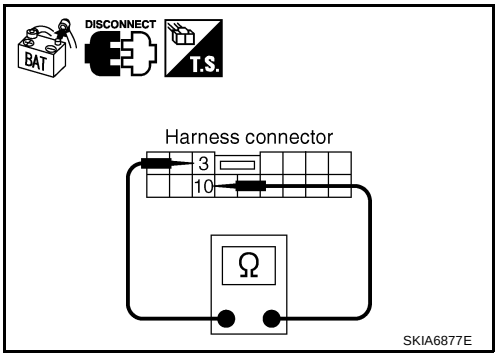
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and harness connector E205

8. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect harness connector B8.
2. Check continuity between harness connector B5 terminals 3 (L) and 10 (R).

3 (L) - 10 (R) : Continuity should not exist.



OK or NG

OK >> GO TO 9.

NG >> Check the following harnesses. If any harness is damaged, repair the harness.

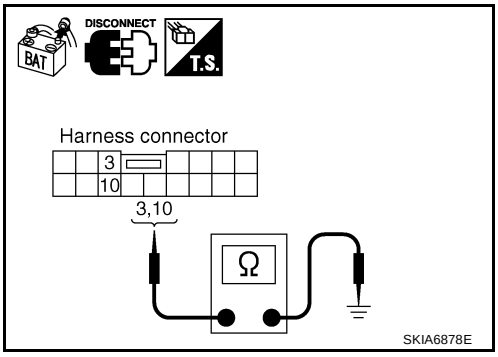
- Harness between harness connector B5 and harness connector B8
- Harness between harness connector B5 and harness connector B5

9. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between harness connector B5 terminals 3 (L), 10 (R) and ground.

3 (L) - Ground : Continuity should not exist.

10 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 10.

NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between harness connector B5 and harness connector B8
- Harness between harness connector B5 and harness connector B5

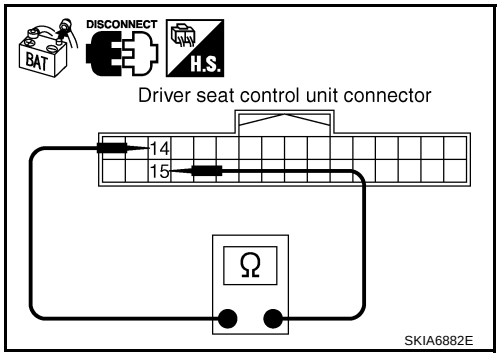
10. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check continuity between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

14 (OR) - 15 (SB) : Continuity should not exist.

OK or NG

OK >> GO TO 11.
NG >> Repair harness between driver seat control unit and harness connector B151.



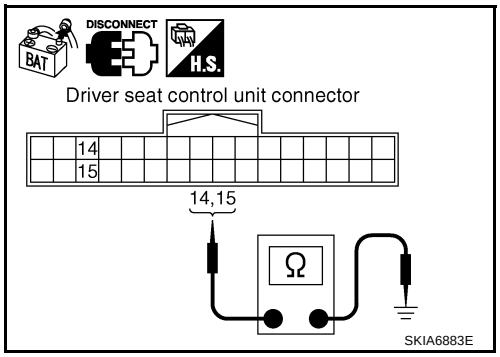
11. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between driver seat control unit harness connector B152 terminals 14 (OR), 15 (SB) and ground.

14 (OR) - Ground : Continuity should not exist.
15 (SB) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 12.
NG >> Repair harness between driver seat control unit and harness connector B151.



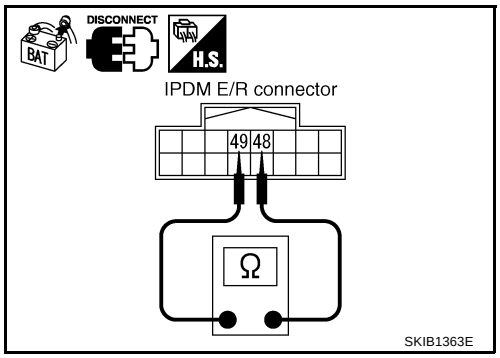
12. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check continuity between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 13.
NG >> Repair harness between IPDM E/R and harness connector E205.



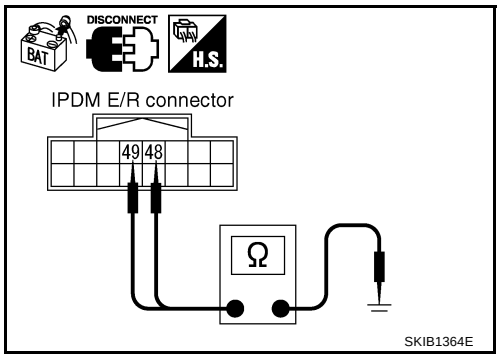
13. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between IPDM E/R harness connector E9 terminals 48 (L), 49 (R) and ground.

48 (L) - Ground : Continuity should not exist.
49 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 14.
NG >> Repair harness between IPDM E/R and harness connector E205.



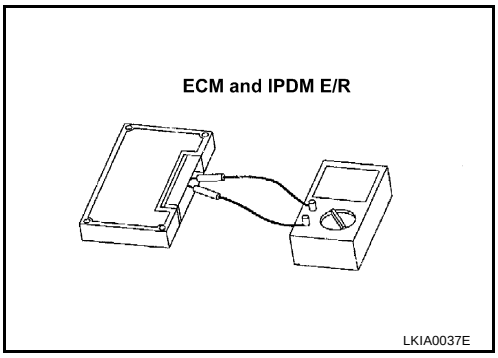
14. CHECK ECM AND IPDM E/R INTERNAL CIRCUIT

1. Remove ECM and IPDM E/R from vehicle.
2. Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. 108 - 132Ω

3. Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132Ω



OK or NG

OK >> GO TO 15.
NG >> Replace ECM and/or IPDM E/R.

15. 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 16.
NG >> Refer to LAN-16, "Example of Filling in Check Sheet When Initial Conditions Are Not Reproduced".

16. CHECK UNIT REPRODUCIBILITY

Performs the following procedure for each unit, 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.

- A/T assembly
- Display unit
- BCM
- Steering angle sensor
- Unified meter and A/C amp.
- ABS actuator and electric unit (control unit)
- Driver seat control unit
- ECM
- IPDM E/R

Check results

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

IPDM E/R Ignition Relay Circuit Inspection

AKS00CG4

Check the following. If no malfunction is found, replace the IPDM E/R.

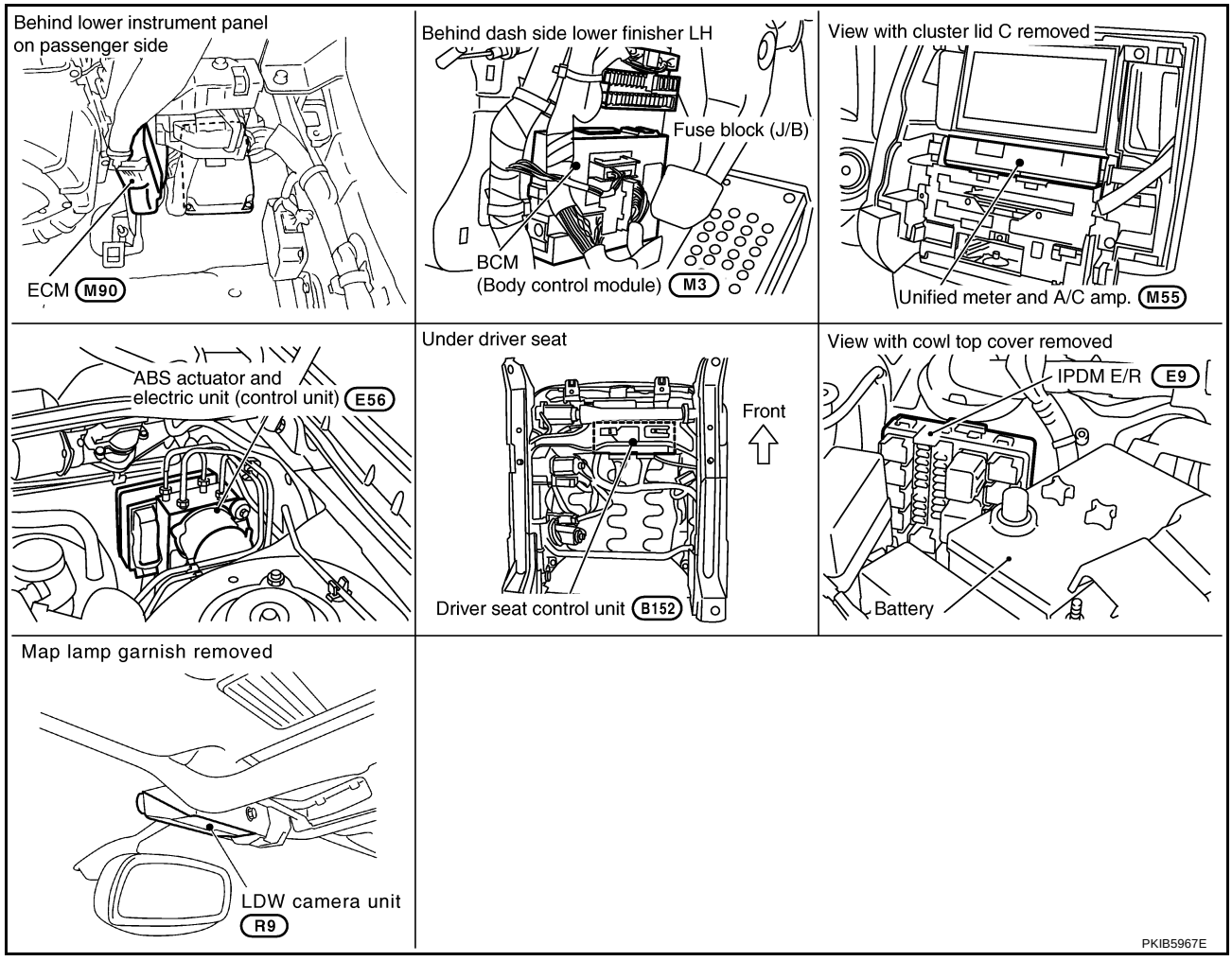
- IPDM E/R power supply circuit. Refer to PG-28, "IPDM E/R Power/Ground Circuit Inspection" .
- Ignition power supply circuit. Refer to PG-12, "IGNITION POWER SUPPLY - IGNITION SW. IN “ON” AND/OR “START”" .

CAN SYSTEM (TYPE 2)

PFP:23710

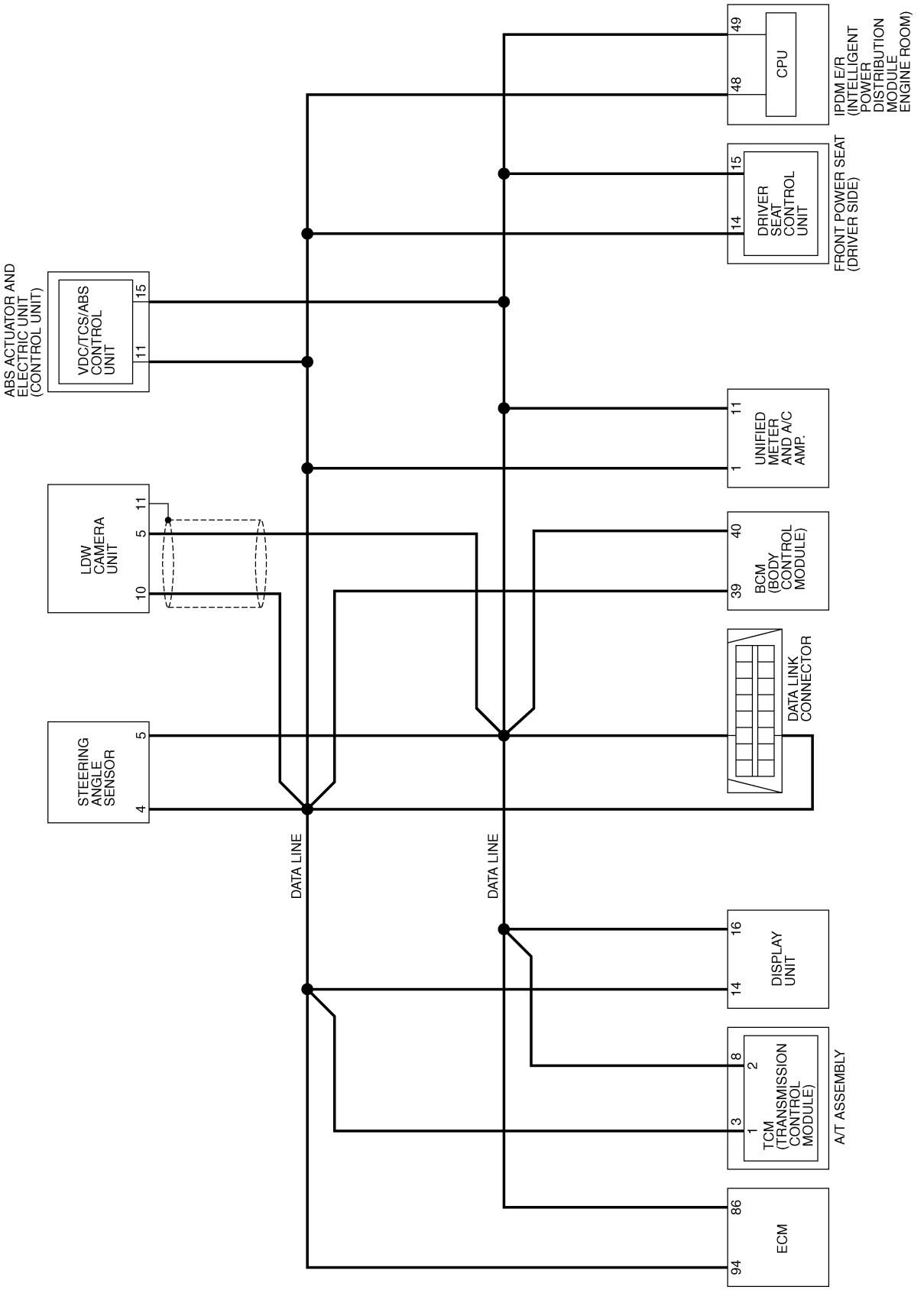
Component Parts and Harness Connector Location

AKS00CEY



Schematic

AKS00CEZ

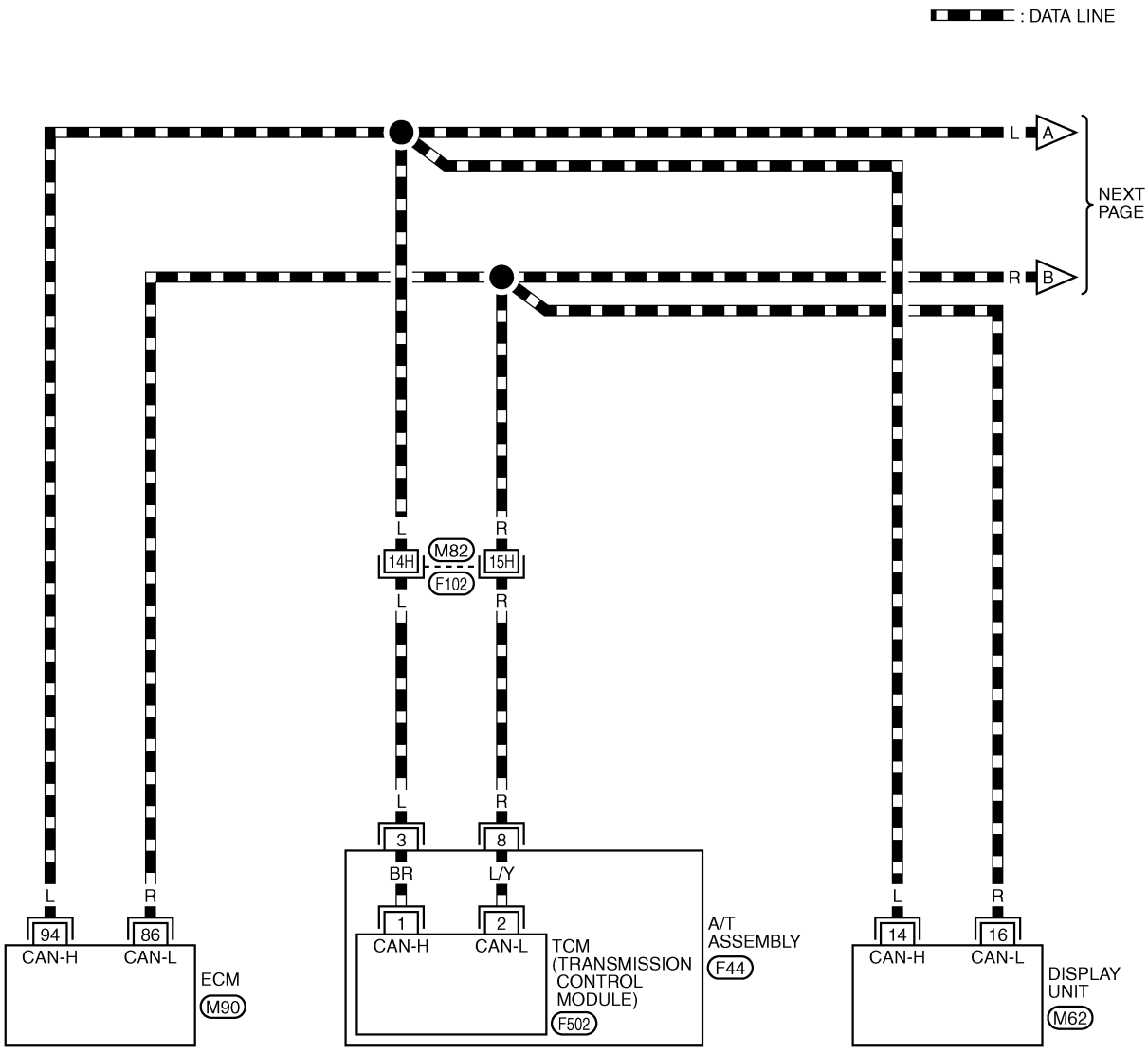


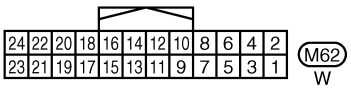
TKWM2351E

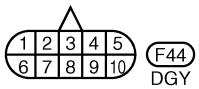
Wiring Diagram - CAN -

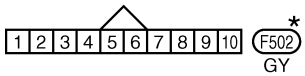
AKS00CF0

LAN-CAN-04







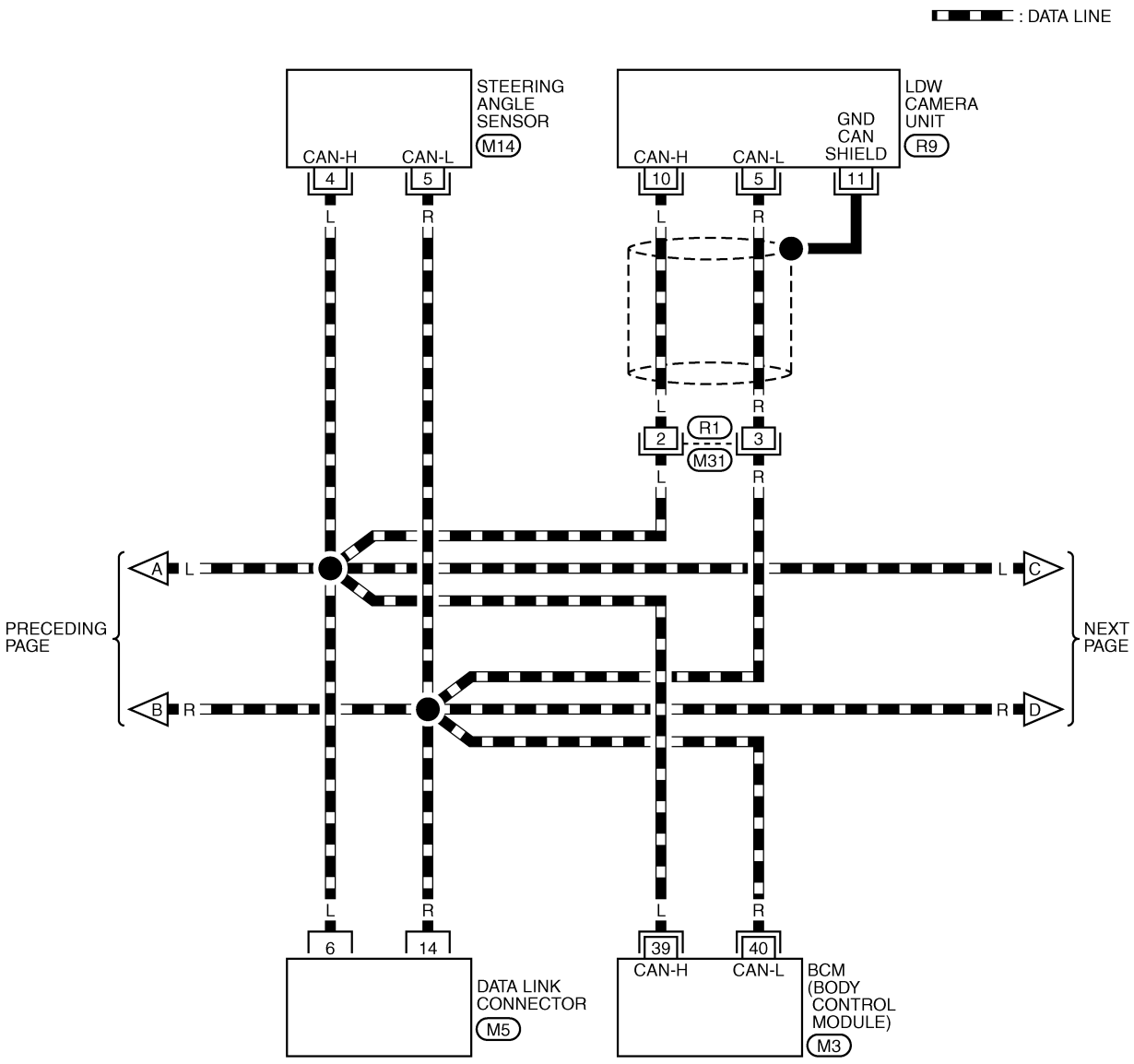


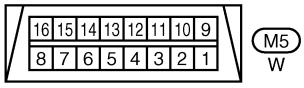
REFER TO THE FOLLOWING.
F102 -SUPER MULTIPLE JUNCTION (SMJ)
M90 -ELECTRICAL UNITS

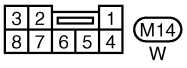
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

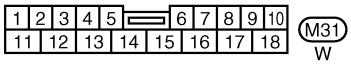
TKWM2352E

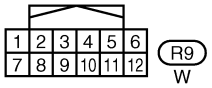
LAN-CAN-05







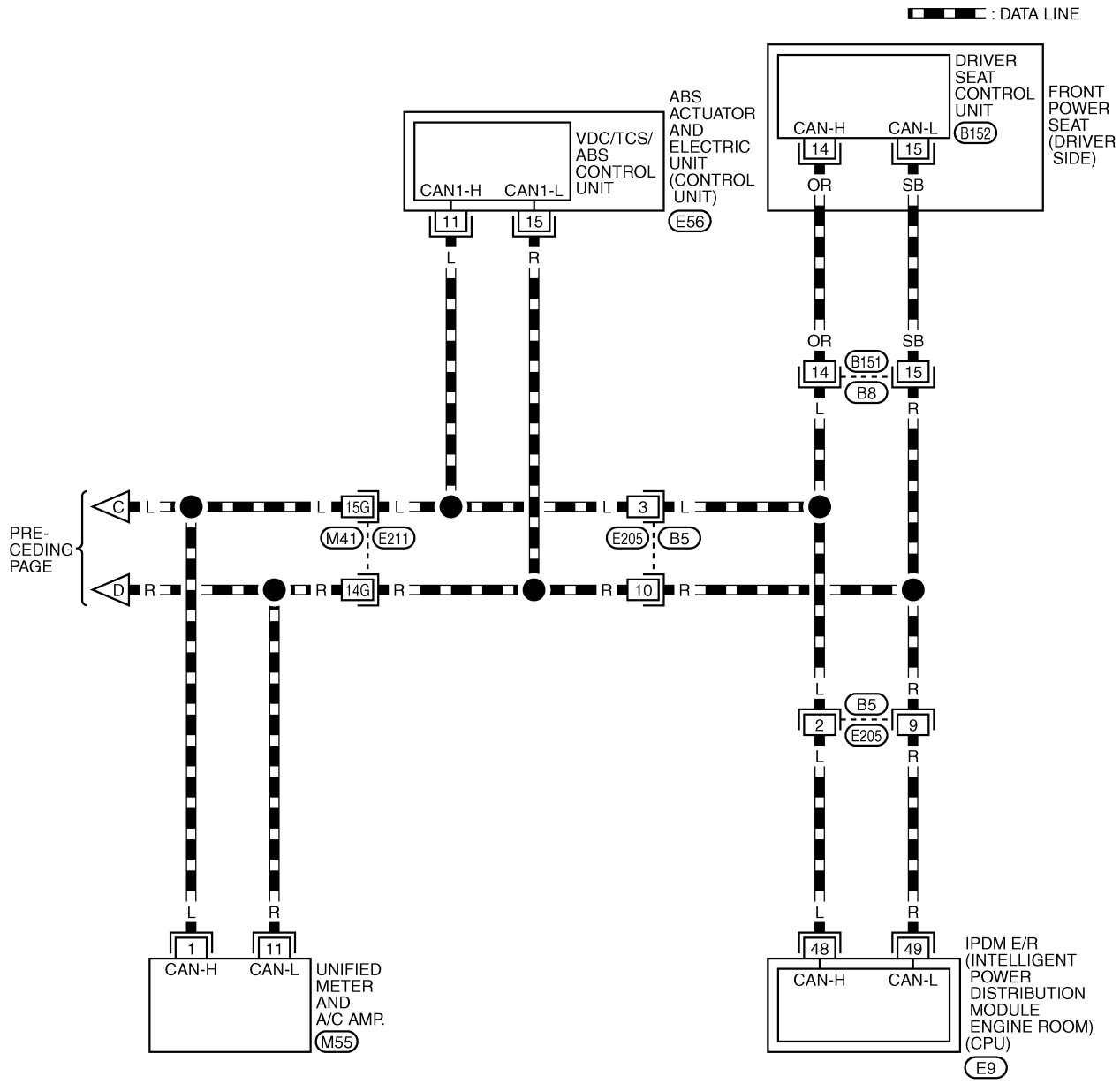


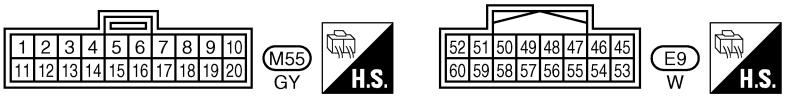


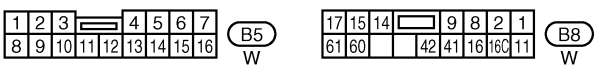
REFER TO THE FOLLOWING.
M3 -ELECTRICAL UNITS

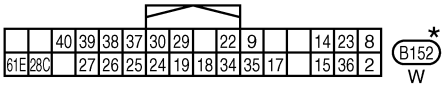
TKWM2353E

LAN-CAN-06









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

REFER TO THE FOLLOWING.

E211 -SUPER MULTIPLE JUNCTION (SMJ)

E56 -ELECTRICAL UNITS

TKWM2354E

Check Sheet

AKS00CF1

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	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

Symptoms :

Attach copy of SELECT SYSTEM

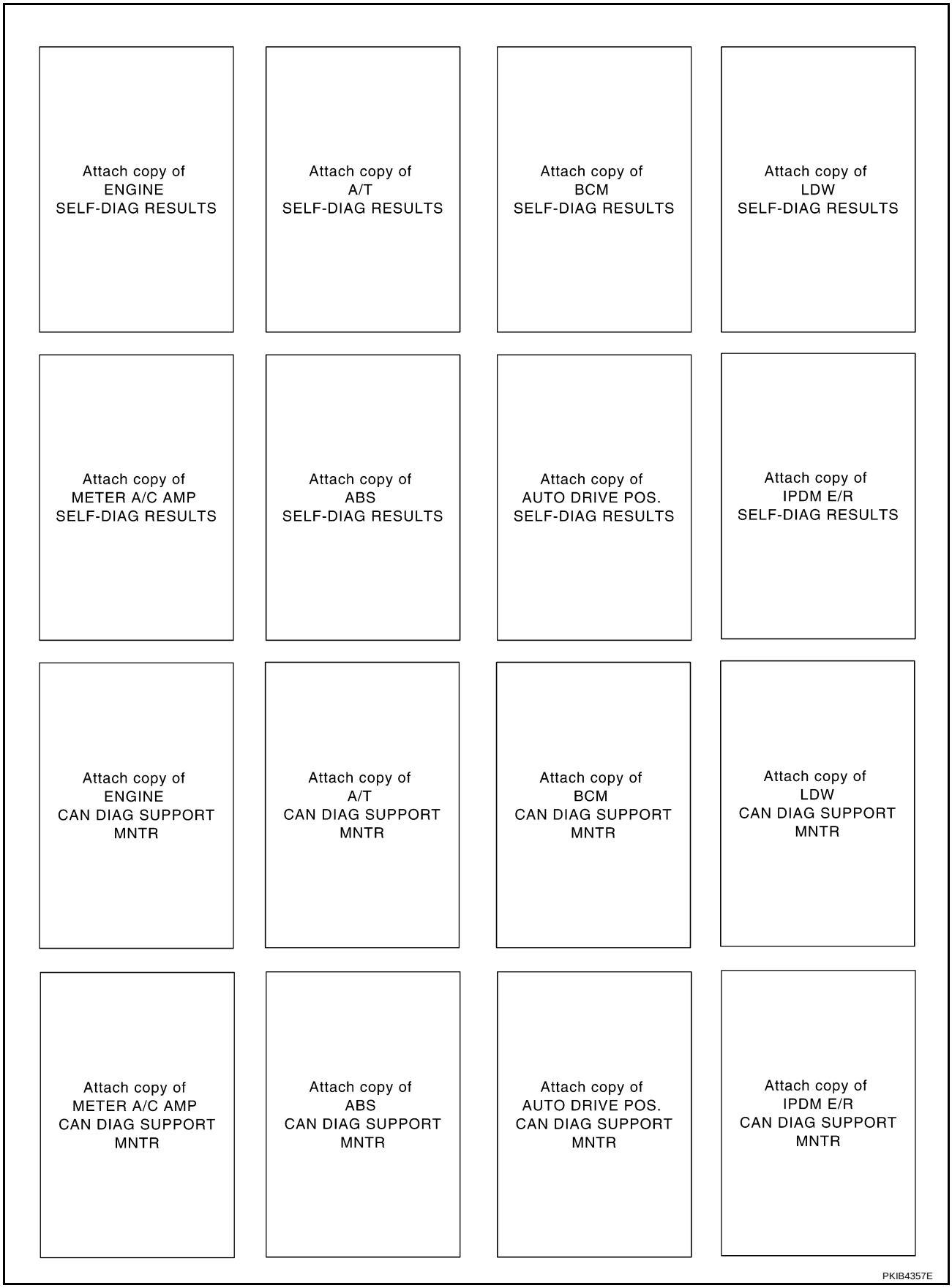
Attach copy of SELECT SYSTEM

PKIB4356E

Display unit Translation Sheet: Rewrite the following names, and put a check mark on the check sheet table.			
Confirmation/Adjustment Display	Check sheet table Display	Confirmation/Adjustment Display	Check sheet table Display
CANCOMM	Initial diagnosis	CAN5	METER/M&A
CAN1	Transmit diagnosis	CAN6	–
CAN2	BCM/SEC	CAN7	IPDM E/R
CAN3	ECM	CAN8	–
CAN4	–	CAN9	–

Attach copy of
display unit
CAN DIAG MONITOR check sheet

PKIB5984E


Attach copy of
ENGINE
SELF-DIAG RESULTS
Attach copy of
A/T
SELF-DIAG RESULTS
Attach copy of
BCM
SELF-DIAG RESULTS
Attach copy of
LDW
SELF-DIAG RESULTS
Attach copy of
METER A/C AMP
SELF-DIAG RESULTS
Attach copy of
ABS
SELF-DIAG RESULTS
Attach copy of
AUTO DRIVE POS.
SELF-DIAG RESULTS
Attach copy of
IPDM E/R
SELF-DIAG RESULTS
Attach copy of
ENGINE
CAN DIAG SUPPORT
MNTR
Attach copy of
A/T
CAN DIAG SUPPORT
MNTR
Attach copy of
BCM
CAN DIAG SUPPORT
MNTR
Attach copy of
LDW
CAN DIAG SUPPORT
MNTR
Attach copy of
METER A/C AMP
CAN DIAG SUPPORT
MNTR
Attach copy of
ABS
CAN DIAG SUPPORT
MNTR
Attach copy of
AUTO DRIVE POS.
CAN DIAG SUPPORT
MNTR
Attach copy of
IPDM E/R
CAN DIAG SUPPORT
MNTR
PKIB4357E

CHECK SHEET RESULTS (EXAMPLE)

NOTE:

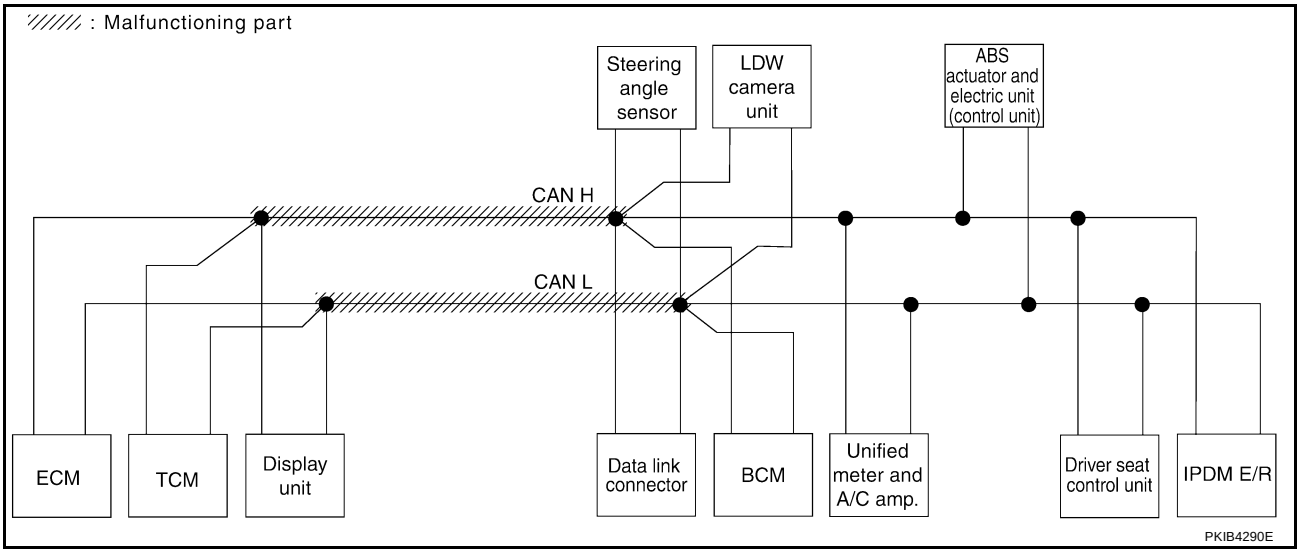
If a check mark is put on “NG” on “INITIAL DIAG (Initial diagnosis)”, replace the control unit.

Case 1

Check harness between TCM and data link connector. Refer to LAN-110, "Inspection Between TCM and Data Link Connector Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN ✓	—	UNKWN ✓	UNKWN ✓	UNKWN ✓	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN ✓	—	UNKWN ✓	—	UNKWN ✓	—	—
BCM	No indication	NG	UNKWN	UNKWN ✓	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN ✓	UNKWN ✓	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
METER A/C AMP	No indication	—	UNKWN	UNKWN ✓	UNKWN ✓	UNKWN ✓	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN ✓	UNKWN ✓	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN ✓	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN ✓	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB4423E

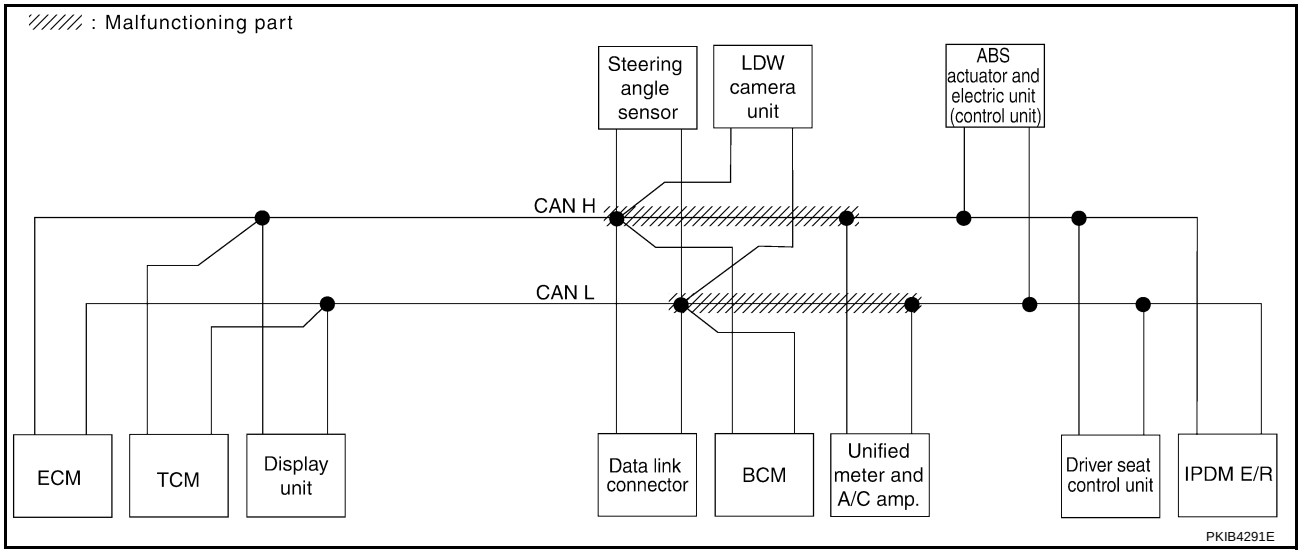


Case 2

Check harness between data link connector and unified meter and A/C amp. Refer to LAN-111, "Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4424E

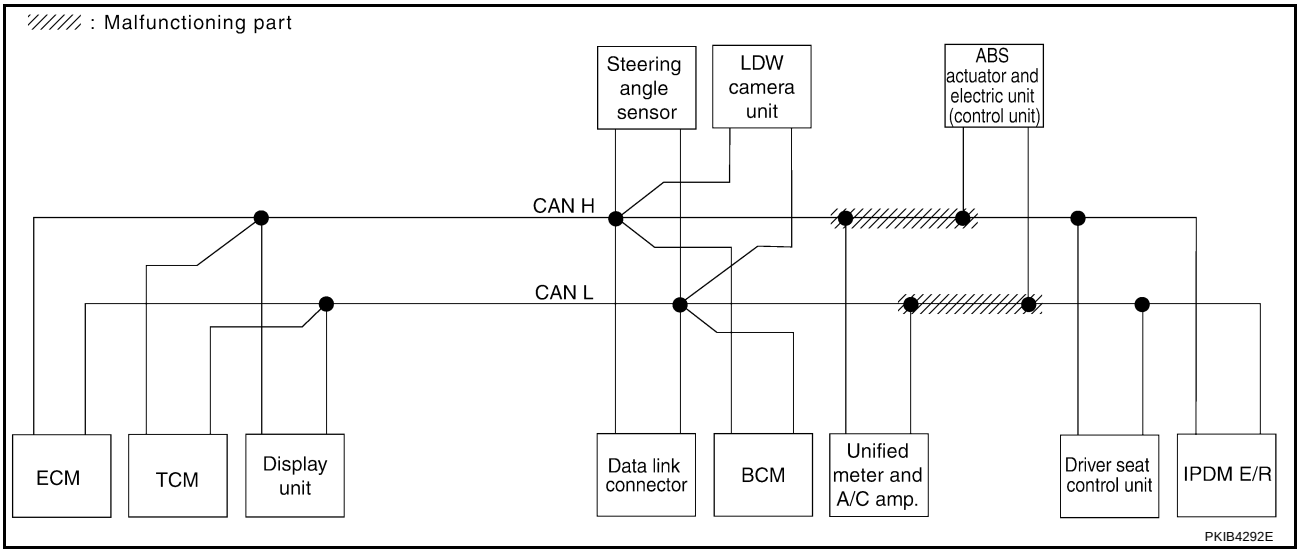


Case 3

Check harness between unified meter and A/C amp. and ABS actuator and electric unit (control unit). Refer to LAN-111, "Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

SKIB7295E

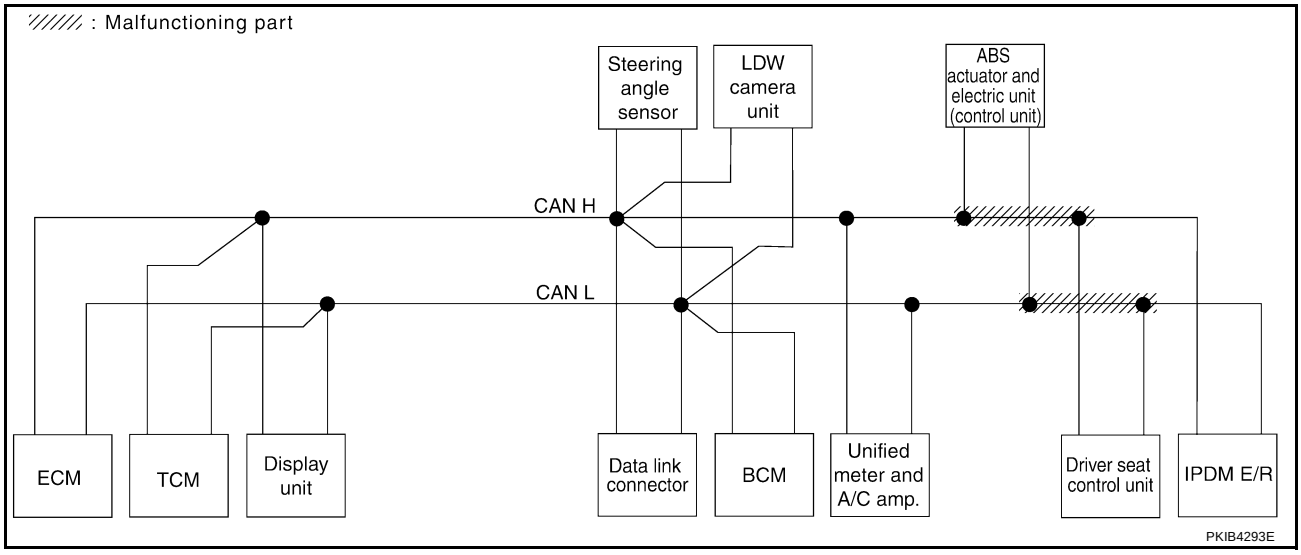


Case 4

Check harness between ABS actuator and electric unit (control unit) and driver seat control unit. Refer to LAN-112, "Inspection Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4426E

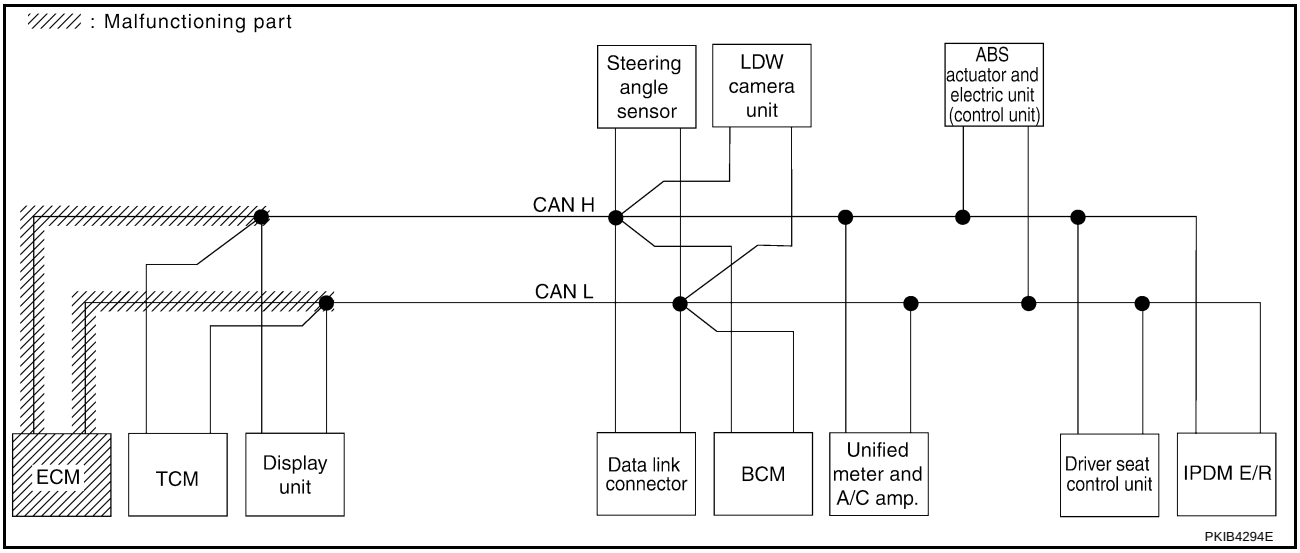


Case 5

Check ECM circuit. Refer to LAN-113, "ECM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4427E



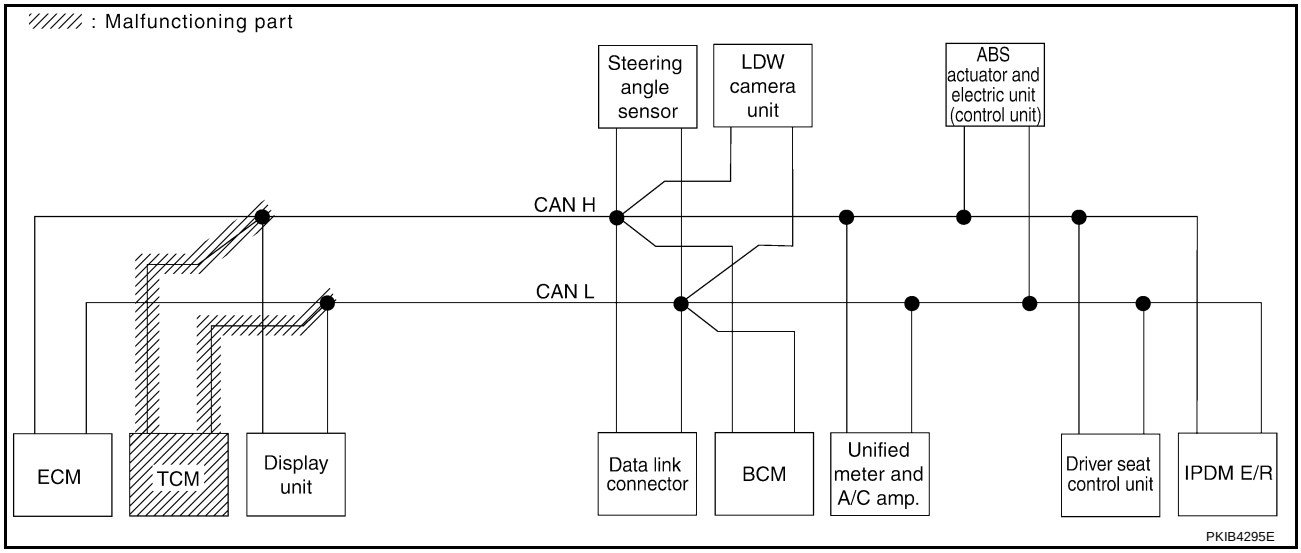
PKIB4294E

Case 6

Check TCM circuit. Refer to LAN-113, "TCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN ✓	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000) ✓	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN ✓	—	—	—	—	UNKWN ✓	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN ✓	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN ✓	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN ✓	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4428E

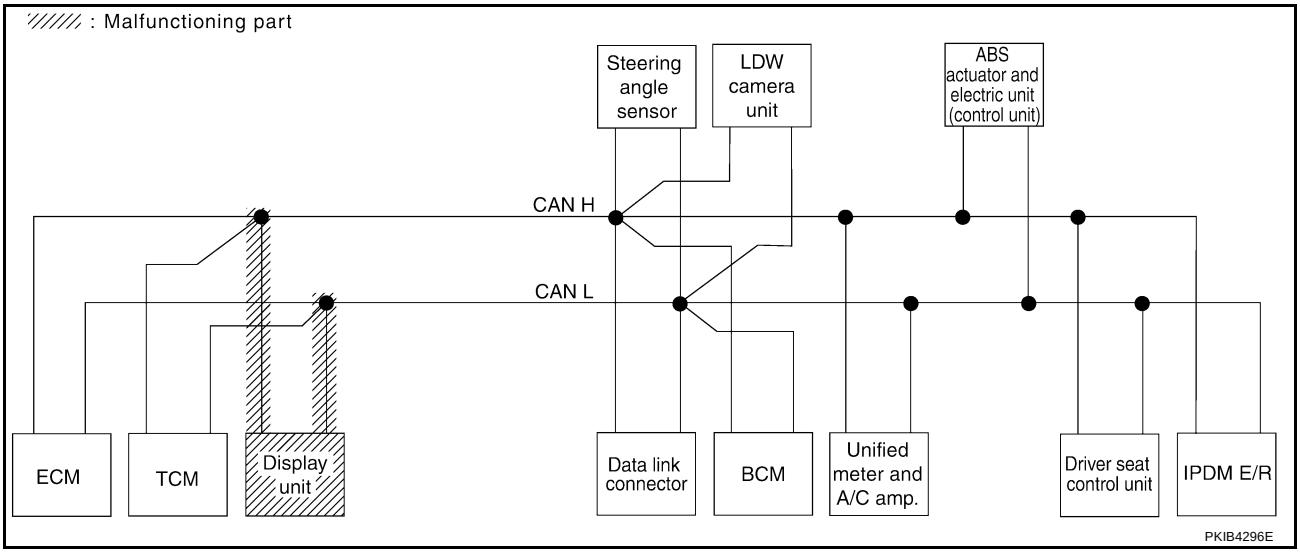


Case 7

Check display unit circuit. Refer to LAN-114, "Display Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN ✓	UNKWN ✓	—	—	UNKWN ✓	—	UNKWN ✓	—	UNKWN ✓	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4429E



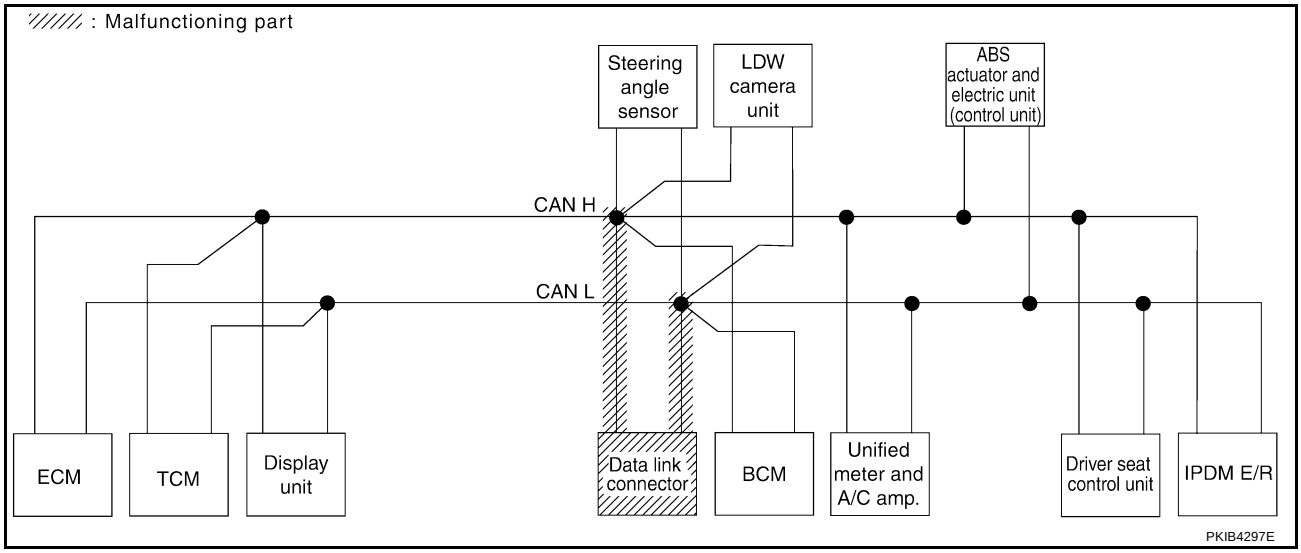
PKIB4296E

Case 8

Check data link connector circuit. Refer to LAN-114, "Data Link Connector Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4430E



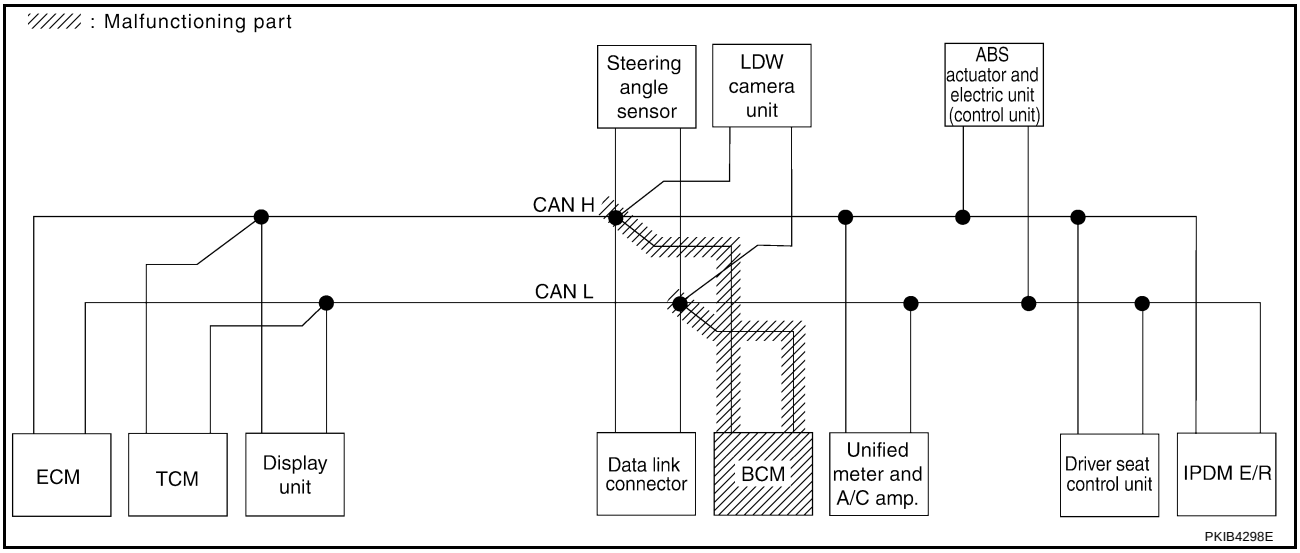
PKIB4297E

Case 9

Check BCM circuit. Refer to LAN-115, "BCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN ✓	—	UNKWN	—	UNKWN	—	—
BCM	No indication ✓	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN ✓	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN ✓	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN ✓	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN ✓	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB4431E

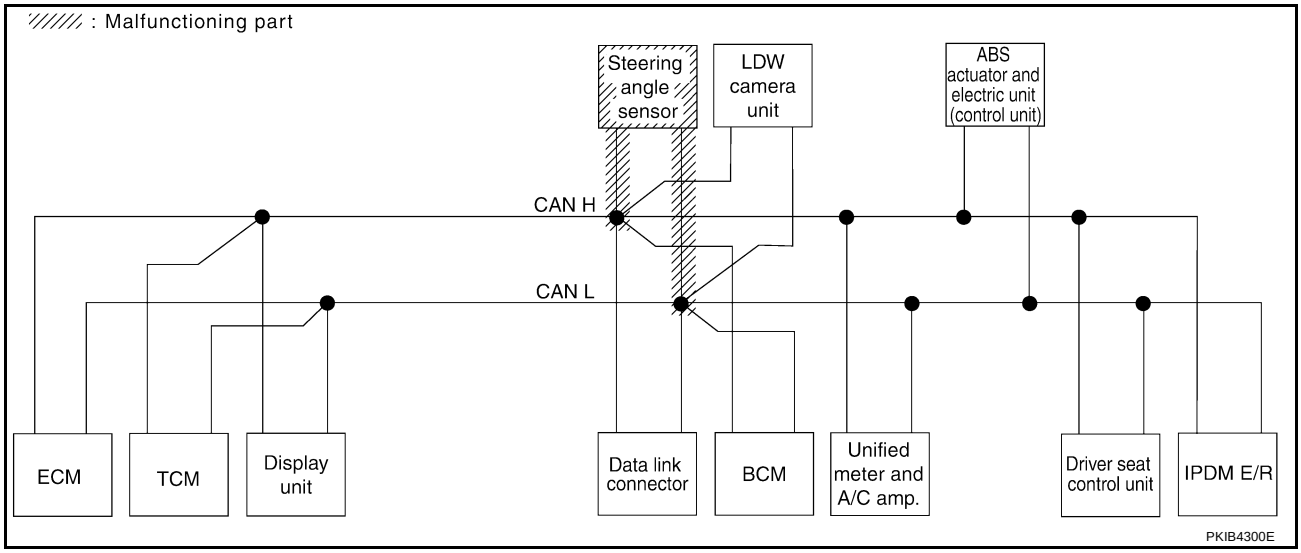


Case 10

Check steering angle sensor circuit. Refer to LAN-115, "Steering Angle Sensor Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4432E



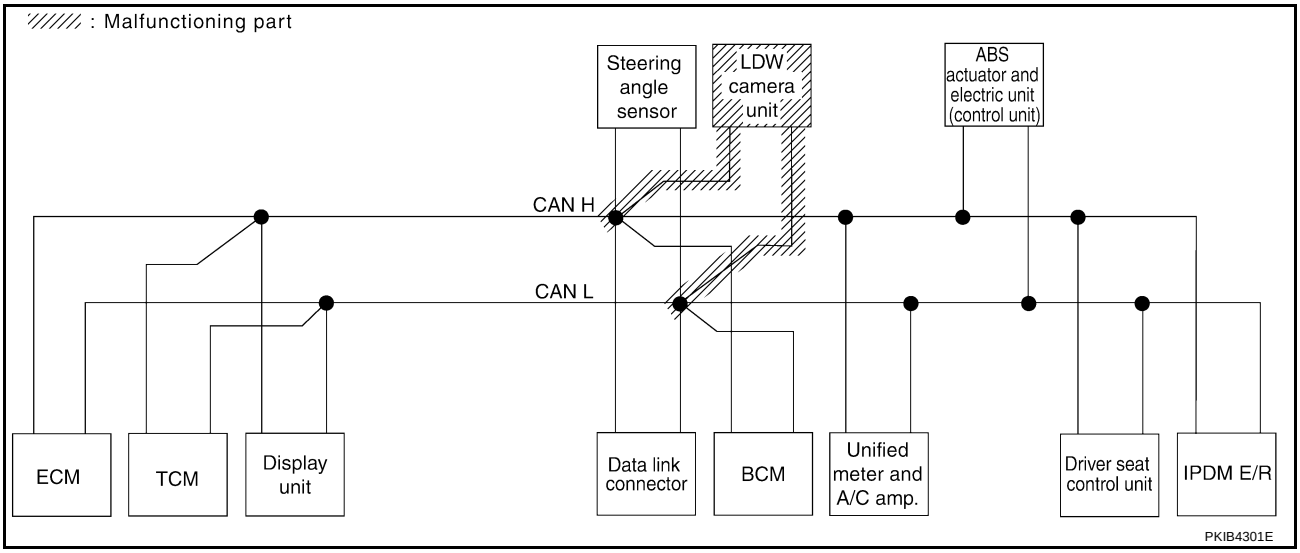
PKIB4300E

Case 11

Check LDW camera unit circuit. Refer to LAN-116, "LDW Camera Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4433E



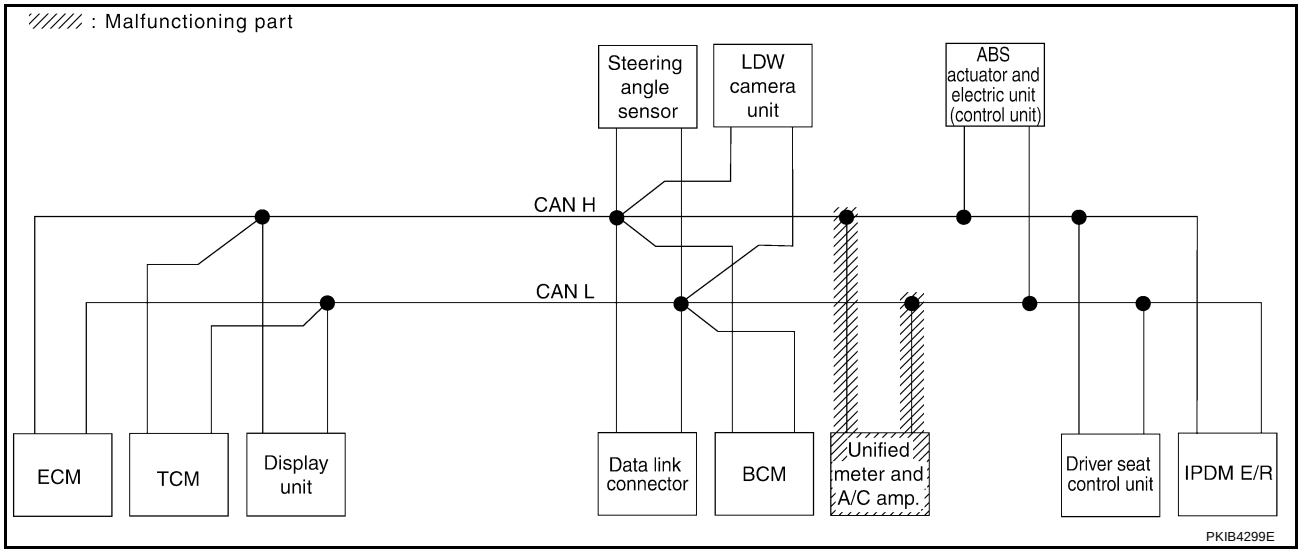
PKIB4301E

Case 12

Check unified meter and A/C amp. circuit. Refer to LAN-117, "Unified Meter and A/C Amp. Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4434E

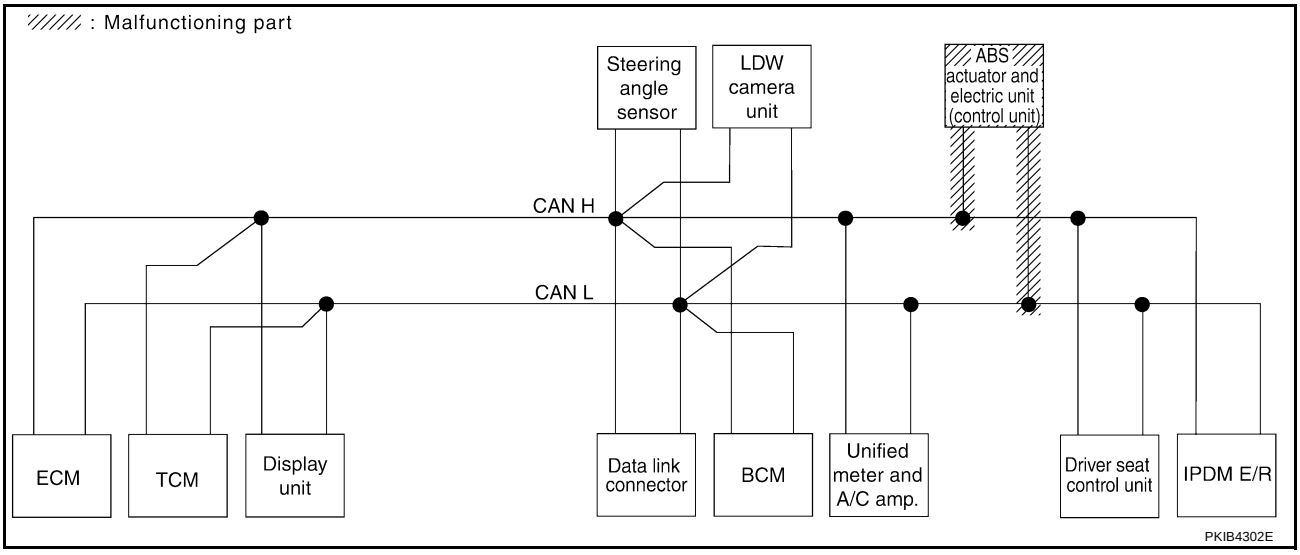


Case 13

Check ABS actuator and electric unit (control unit) circuit. Refer to LAN-117, "ABS Actuator and Electric Unit (Control Unit) Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN ✓	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	—	—	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG ✓	UNKWN ✓	UNKWN ✓	UNKWN ✓	—	—	UNKWN ✓	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4435E

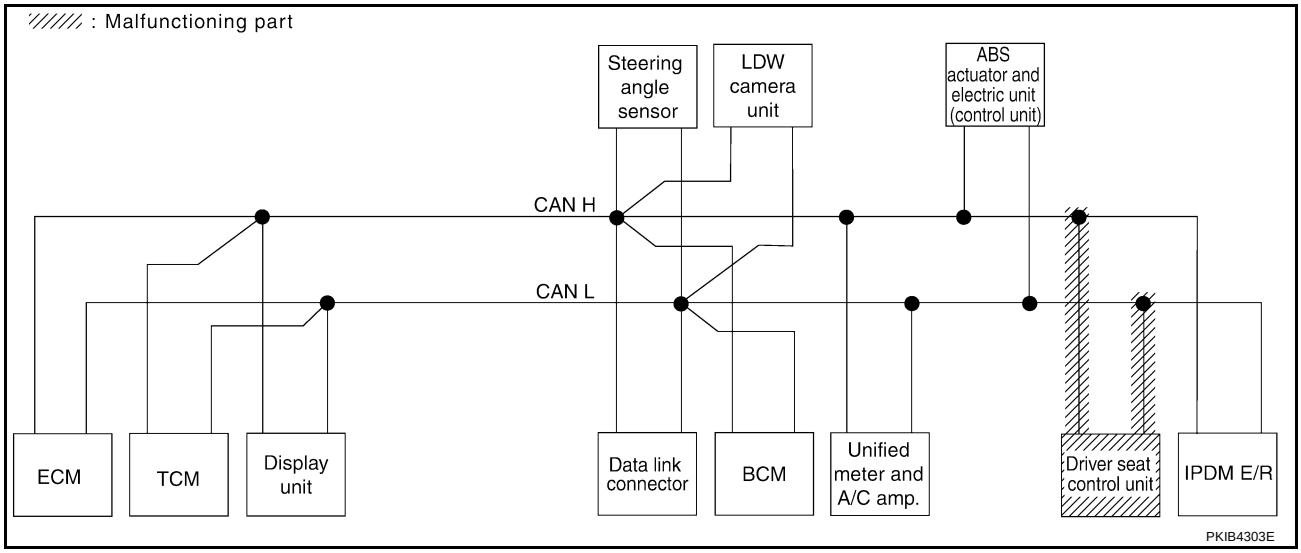


Case 14

Check driver seat control unit circuit. Refer to LAN-118, "Driver Seat Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4436E

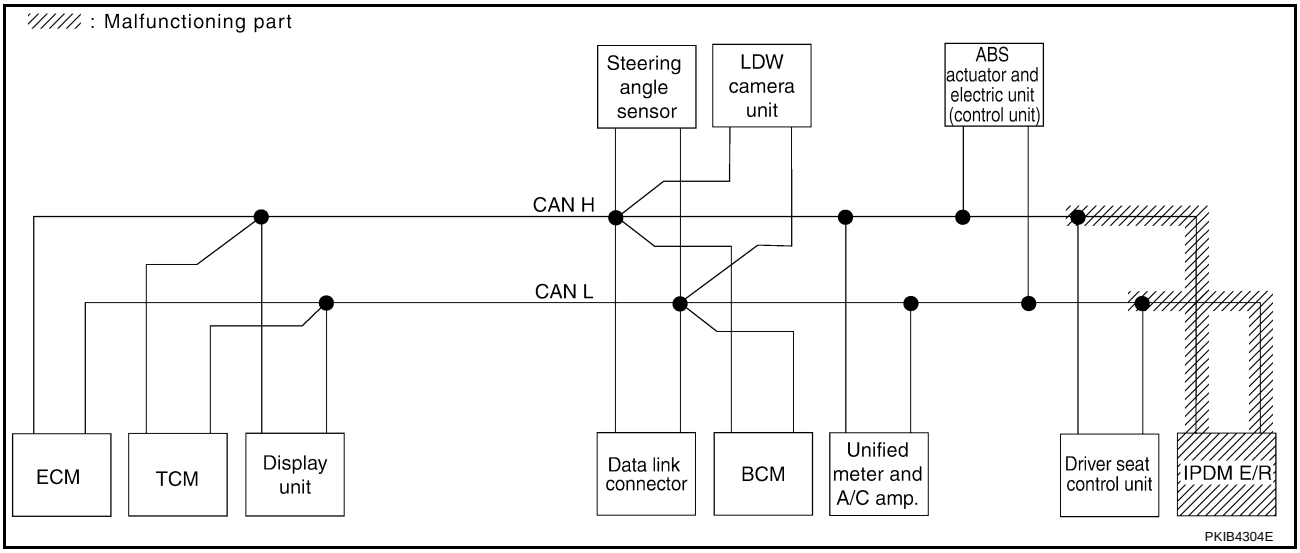


Case 15

Check IPDM E/R circuit. Refer to LAN-118, "IPDM E/R Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN ✓	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN ✓	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN ✓	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication ✓	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB4437E



PKIB4304E

Case 16

Check CAN communication circuit. Refer to LAN-119, "CAN Communication Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4438E

Case 17

Check IPDM E/R ignition relay circuit continuously sticks “OFF”. Refer to LAN-125, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4439E

Case 18

Check IPDM E/R ignition relay circuit continuously sticks “ON”. Refer to LAN-125, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	—	—	—	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	—	UNKWN	—	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4440E

Inspection Between TCM and Data Link Connector Circuit

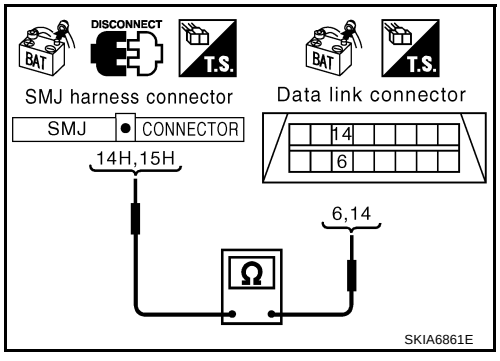
AKS00CF2

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and harness connector M82.
4. Check continuity between harness connector M82 terminals 14H (L), 15H (R) and data link connector M5 terminals 6 (L), 14 (R).

14H (L) - 6 (L) : Continuity should exist.

15H (R) - 14 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness.

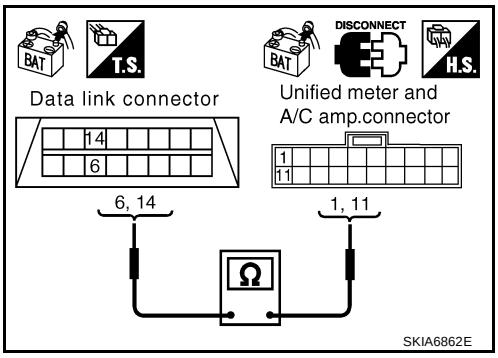
Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit

AKS00CF3

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and unified meter and A/C amp. connector.
4. Check continuity between data link connector M5 terminals 6 (L), 14 (R) and unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R).

6 (L) - 1 (L) : Continuity should exist.
14 (R) - 11 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit

AKS00CF4

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 M41
- Harness connector E211

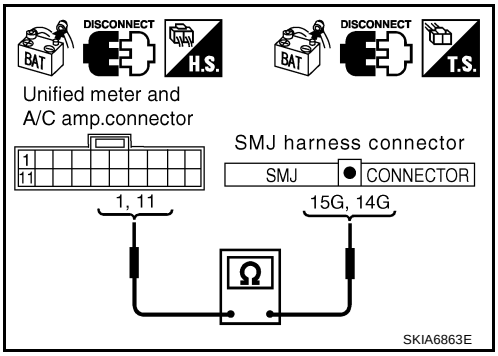
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector and harness connector M41.
2. Check continuity between unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R) and harness connector M41 terminals 15G (L), 14G (R).

1 (L) - 15G (L) : Continuity should exist.
11 (R) - 14G (R) : Continuity should exist.



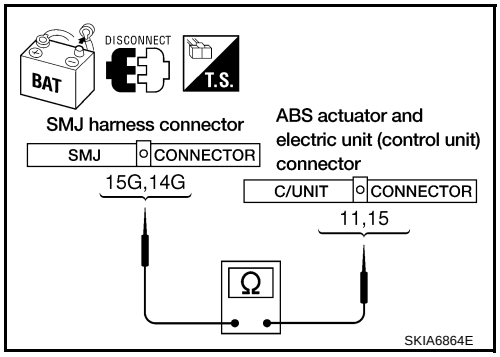
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check continuity between harness connector E211 terminals 15G (L), 14G (R) and ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R).

15G (L) - 11 (L) : Continuity should exist.
14G (R) - 15 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit Circuit

AKS00CF5

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 E205
- Harness connector B5

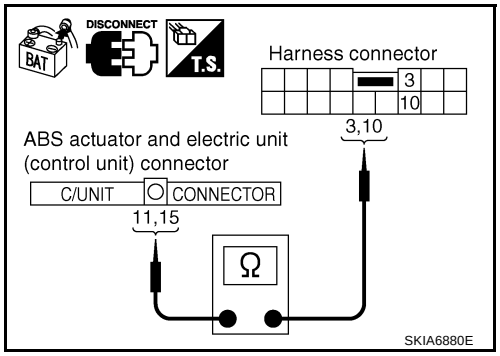
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and harness connector E205 terminals 3 (L), 10 (R).

11 (L) - 3 (L) : Continuity should exist.
15 (R) - 10 (R) : Continuity should exist.



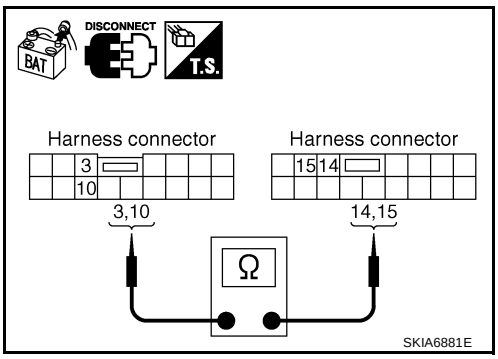
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect harness connector B8.
2. Check continuity between harness connector B5 terminals 3 (L), 10 (R) and harness connector B8 terminals 14 (L), 15 (R).

3 (L) - 14 (L) : Continuity should exist.
10 (R) - 15 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

ECM Circuit Inspection

AKS00CF6

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).

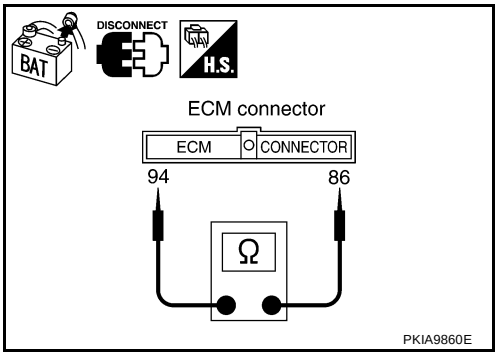
OK or NG

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 M90 terminals 94 (L) and 86 (R).

94 (L) - 86 (R) : Approx. 108 - 132Ω



OK or NG

OK >> Replace ECM.
NG >> Repair harness between ECM and harness connector M82.

TCM Circuit Inspection

AKS00CF7

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 (control module side and harness side).

- A/T assembly connector
- Harness connector F102
- Harness connector M82

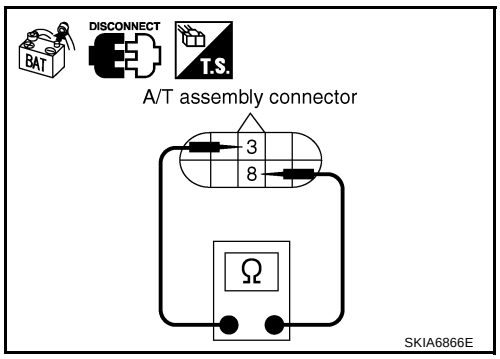
OK or NG

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 F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Approx. 54 - 66Ω



OK or NG

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

Display Unit Circuit Inspection

AKS00CF8

1. CHECK CONNECTOR

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

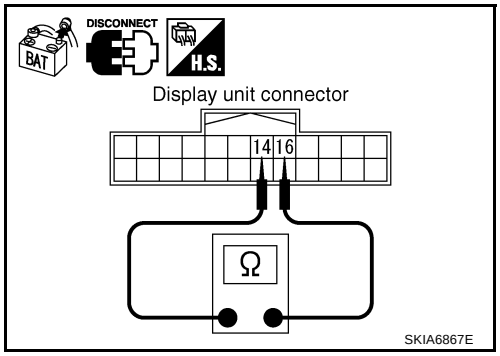
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect display unit connector.
2. Check resistance between display unit harness connector M62 terminals 14 (L) and 16 (R).

14 (L) - 16 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace display unit.
NG >> Repair harness between display unit and harness connector M82.

Data Link Connector Circuit Inspection

AKS00CFA

1. CHECK CONNECTOR

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

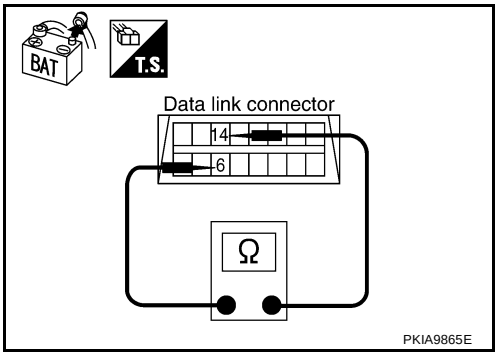
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness between data link connector and BCM.

BCM Circuit Inspection

AKS00CFB

1. CHECK CONNECTOR

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

OK or NG

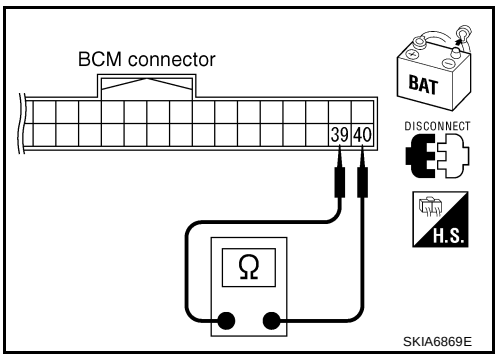
OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect BCM connector.
2. Check resistance between BCM harness connector M3 terminals 39 (L) and 40 (R).

39 (L) - 40 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace BCM. Refer to BCS-16, "Removal and Installation of BCM" .

NG >> Repair harness between BCM and data link connector.

Steering Angle Sensor Circuit Inspection

AKS00CFC

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

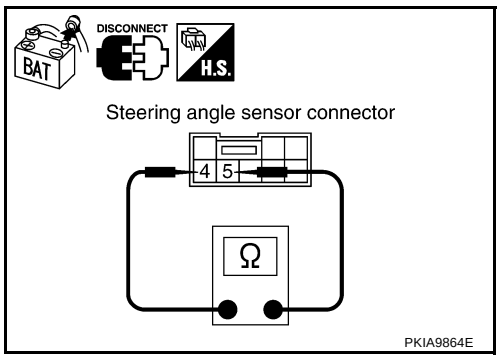
OK >> GO TO 2.

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 M14 terminals 4 (L) and 5 (R).

4 (L) - 5 (R) : Approx. 54 - 66Ω



OK or NG

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

LDW Camera Unit Circuit Inspection

AKS00CFD

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 (unit side and harness side).

- LDW camera unit connector
- Harness connector R1
- Harness connector M31

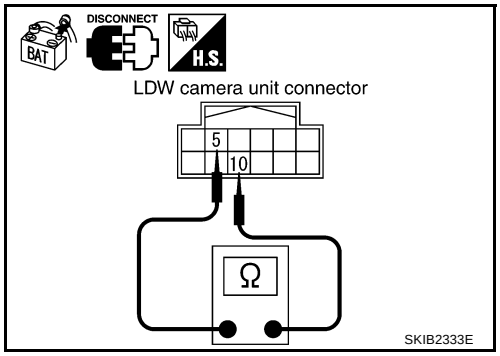
OK or NG

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 R9 terminals 10 (L) and 5 (R).

10 (L) - 5 (R) : Approx. 54 - 66Ω



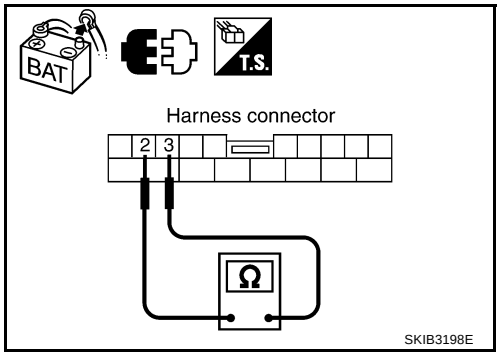
OK or NG

OK >> Replace LDW camera unit.
NG >> GO TO 3.

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect harness connector R1.
2. Check resistance between harness connector M31 terminals 2 (L) and 3 (R).

2 (L) - 3 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Replace harness between LDW camera unit and harness connector R1.

Unified Meter and A/C Amp. Circuit Inspection

AKS00CFE

1. CHECK CONNECTOR

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

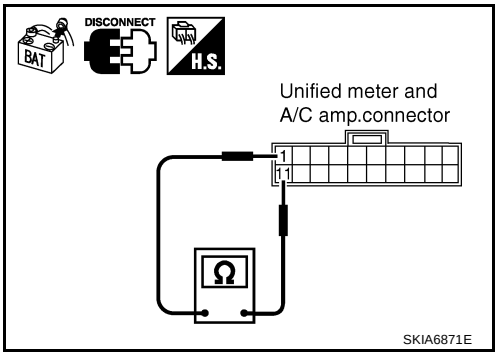
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector.
2. Check resistance between unified meter and A/C amp. harness connector M55 terminals 1 (L) and 11 (R).

1 (L) - 11 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace unified meter and A/C amp.
NG >> Repair harness between unified meter and A/C amp. and harness connector M41.

ABS Actuator and Electric Unit (Control Unit) Circuit Inspection

AKS00CFF

1. CHECK CONNECTOR

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

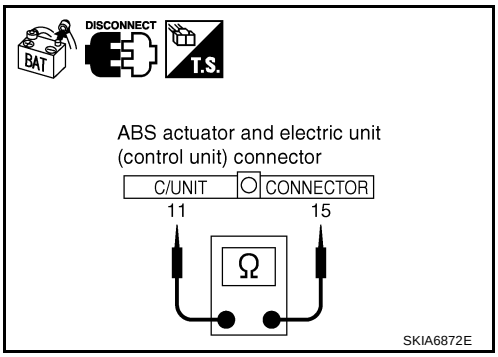
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check resistance between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace ABS actuator and electric unit (control unit).
NG >> Repair harness between ABS actuator and electric unit (control unit) and harness connector E205.

Driver Seat Control Unit Circuit Inspection

AKS00CFG

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 (control unit side and harness side).

– Driver seat control unit connector
– Harness connector B151
– Harness connector B8

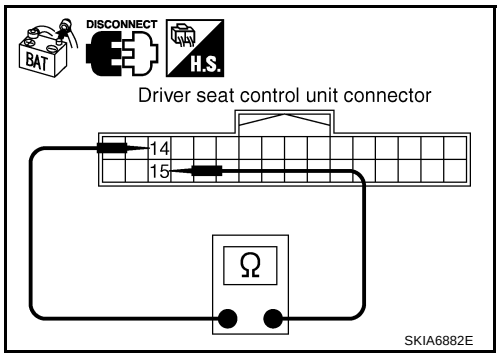
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check resistance between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

14 (OR) - 15 (SB) : Approx. 54 - 66Ω



OK or NG

OK >> Replace driver seat control unit.
NG >> Repair harness between driver seat control unit and harness connector B5.

IPDM E/R Circuit Inspection

AKS00CFH

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 (control module side and harness side).

– IPDM E/R connector
– Harness connector E205
– Harness connector B5

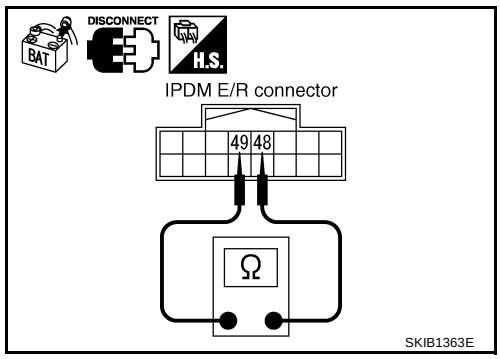
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check resistance between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Approx. 108 - 132Ω



OK or NG

OK >> Replace IPDM E/R.
NG >> Repair harness between IPDM E/R and harness connector B8.

CAN Communication Circuit Inspection

AKS00CFI

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 (control module side, control unit side, unit side, sensor side, meter side and harness side).

- ECM
- A/T assembly
- Display unit
- BCM
- Steering angle sensor
- LDW camera unit
- Unified meter and A/C amp.
- ABS actuator and electric unit (control unit)
- Driver seat control unit
- IPDM E/R
- Between ECM and IPDM E/R
- Between ECM and A/T assembly
- Between ECM and LDW camera unit
- Between ECM and driver seat control unit

OK or NG

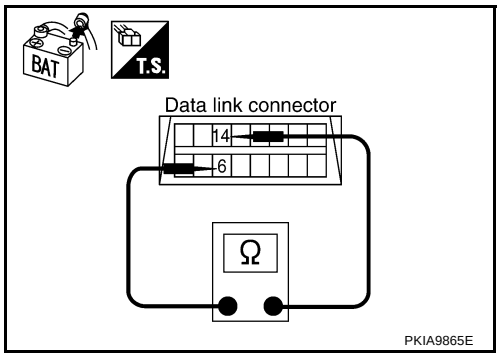
OK >> GO TO 2.
NG >> Repair terminal or connector.

2. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect following connectors.
- ECM connector
- Harness connector M82
- Display unit connector
- BCM connector
- Steering angle sensor connector
- Harness connector M31
- Unified meter and A/C amp. connector
- Harness connector M41

2. Check continuity between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R) : Continuity should not exist.



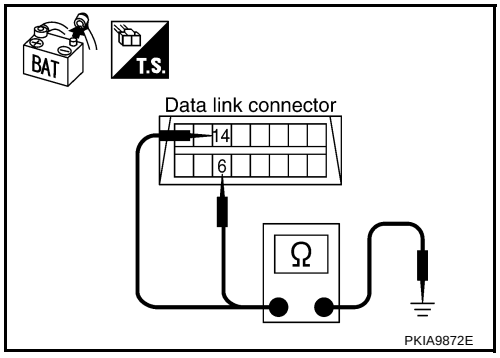
OK or NG

OK >> GO TO 3.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and harness connector M31
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

3. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between data link connector M5 terminals 6 (L), 14 (R) and ground.

6 (L) - Ground : Continuity should not exist.
14 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 4.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and harness connector M31
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

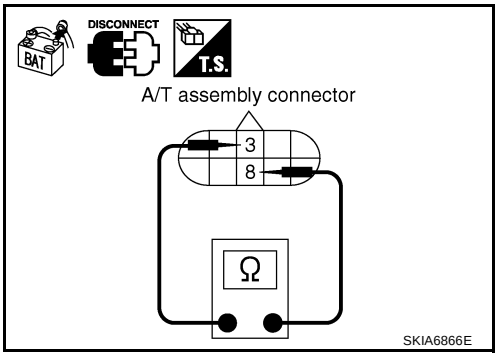
4. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect A/T assembly connector.
2. Check continuity between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 5.
NG >> Repair harness between A/T assembly and harness connector F102.



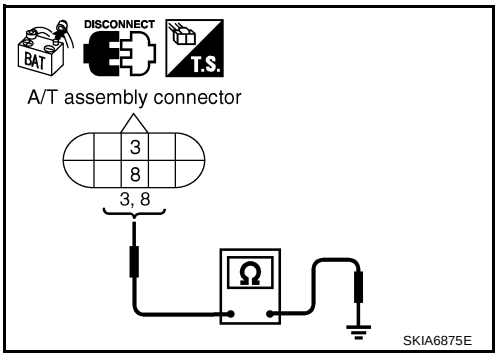
5. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between A/T assembly harness connector F44 terminals 3 (L), 8 (R) and ground.

3 (L) - Ground : Continuity should not exist.
8 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 6.
NG >> Repair harness between A/T assembly and harness connector F102.



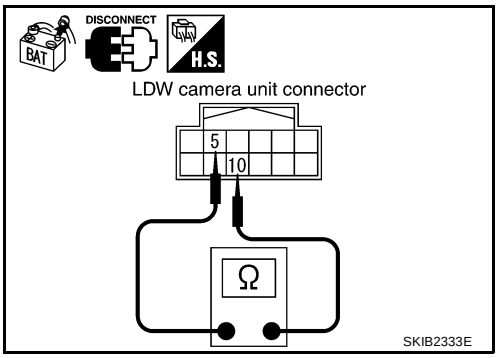
6. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect LDW camera unit connector.
2. Check continuity between LDW camera unit harness connector R9 terminals 10 (L) and 5 (R).

10 (L) - 5 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 7.
NG >> Replace harness between LDW camera unit and harness connector R1.



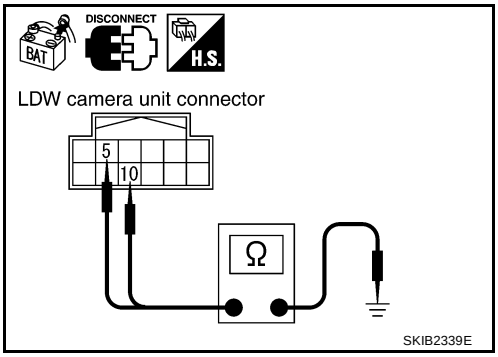
7. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between LDW camera unit harness connector R9 terminals 10 (L), 5 (R) and ground.

10 (L) - Ground : Continuity should not exist.
5 (R) - Ground : Continuity should not exist.

OK or NG

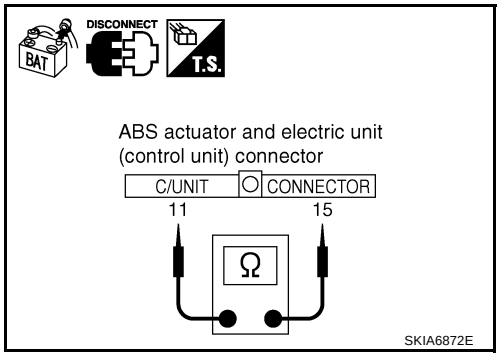
OK >> GO TO 8.
NG >> Replace harness between LDW and harness connector R1.



8. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Continuity should not exist.



OK or NG

OK >> GO TO 9.

NG >> Check the following harnesses. If any harness is damaged, repair the harness.

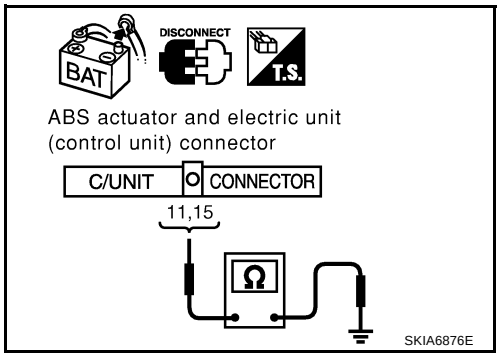
- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and harness connector E205

9. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and ground.

11 (L) - Ground : Continuity should not exist.

15 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 10.

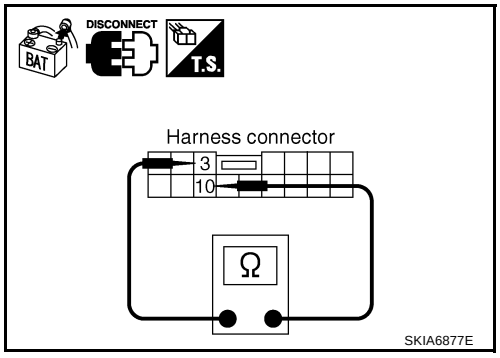
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and harness connector E205

10. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect harness connector B8.
2. Check continuity between harness connector B5 terminals 3 (L) and 10 (R).

3 (L) - 10 (R) : Continuity should not exist.



OK or NG

OK >> GO TO 11.

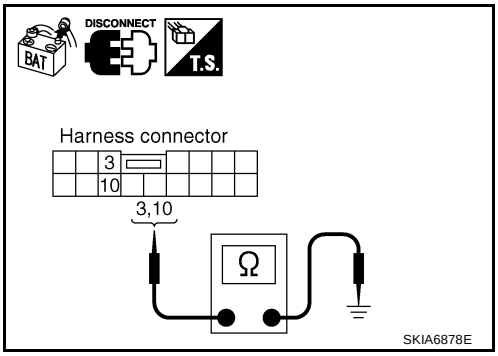
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between harness connector B5 and harness connector B8
- Harness between harness connector B5 and harness connector B5

11. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between harness connector B5 terminals 3 (L), 10 (R) and ground.

3 (L) - Ground : Continuity should not exist.
10 (R) - Ground : Continuity should not exist.



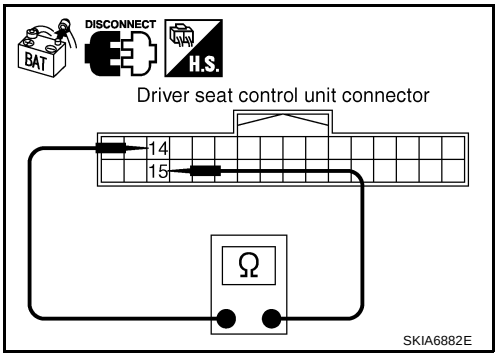
OK or NG

OK >> GO TO 12.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between harness connector B5 and harness connector B8
- Harness between harness connector B5 and harness connector B5

12. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check continuity between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

14 (OR) - 15 (SB) : Continuity should not exist.



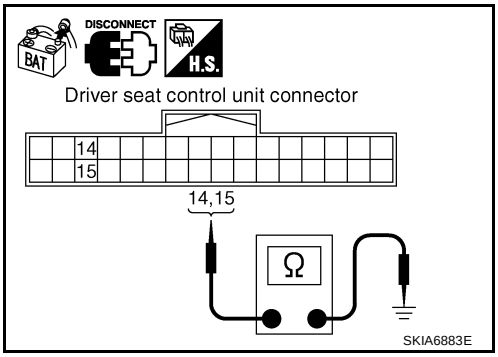
OK or NG

OK >> GO TO 13.
NG >> Repair harness between driver seat control unit and harness connector B151.

13. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between driver seat control unit harness connector B152 terminals 14 (OR), 15 (SB) and ground.

14 (OR) - Ground : Continuity should not exist.
15 (SB) - Ground : Continuity should not exist.



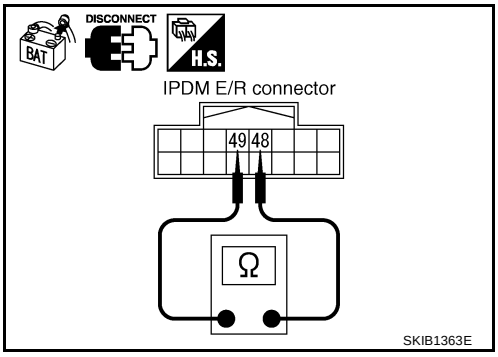
OK or NG

OK >> GO TO 14.
NG >> Repair harness between driver seat control unit and harness connector B151.

14. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check continuity between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Continuity should not exist.



OK or NG

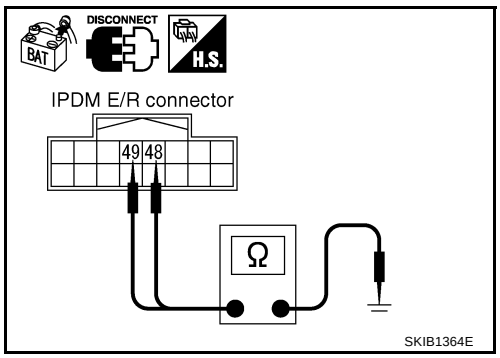
OK >> GO TO 15.
NG >> Repair harness between IPDM E/R and harness connector E205.

15. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between IPDM E/R harness connector E9 terminals 48 (L), 49 (R) and ground.

48 (L) - Ground : Continuity should not exist.

49 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 16.

NG >> Repair harness between IPDM E/R and harness connector E205.

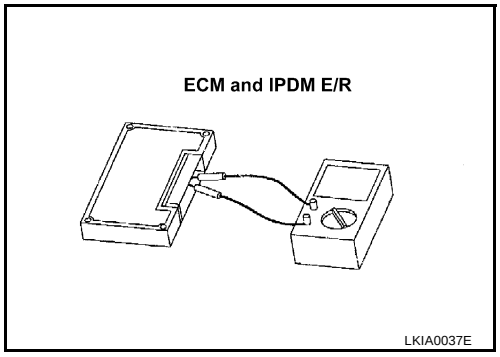
16. CHECK ECM AND IPDM E/R INTERNAL CIRCUIT

1. Remove ECM and IPDM E/R from vehicle.
2. Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. 108 - 132Ω

3. Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132Ω



OK or NG

OK >> GO TO 17.

NG >> Replace ECM and/or IPDM E/R.

17. 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 18.

NG >> Refer to LAN-16, "Example of Filling in Check Sheet When Initial Conditions Are Not Reproduced".

18. CHECK UNIT REPRODUCIBILITY

Performs the following procedure for each unit, 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.

- A/T assembly
- Display unit
- BCM
- Steering angle sensor
- LDW camera unit
- Unified meter and A/C amp.
- ABS actuator and electric unit (control unit)
- Driver seat control unit
- ECM
- IPDM E/R

Check results

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

IPDM E/R Ignition Relay Circuit Inspection

AKS00CFJ

Check the following. If no malfunction is found, replace the IPDM E/R.

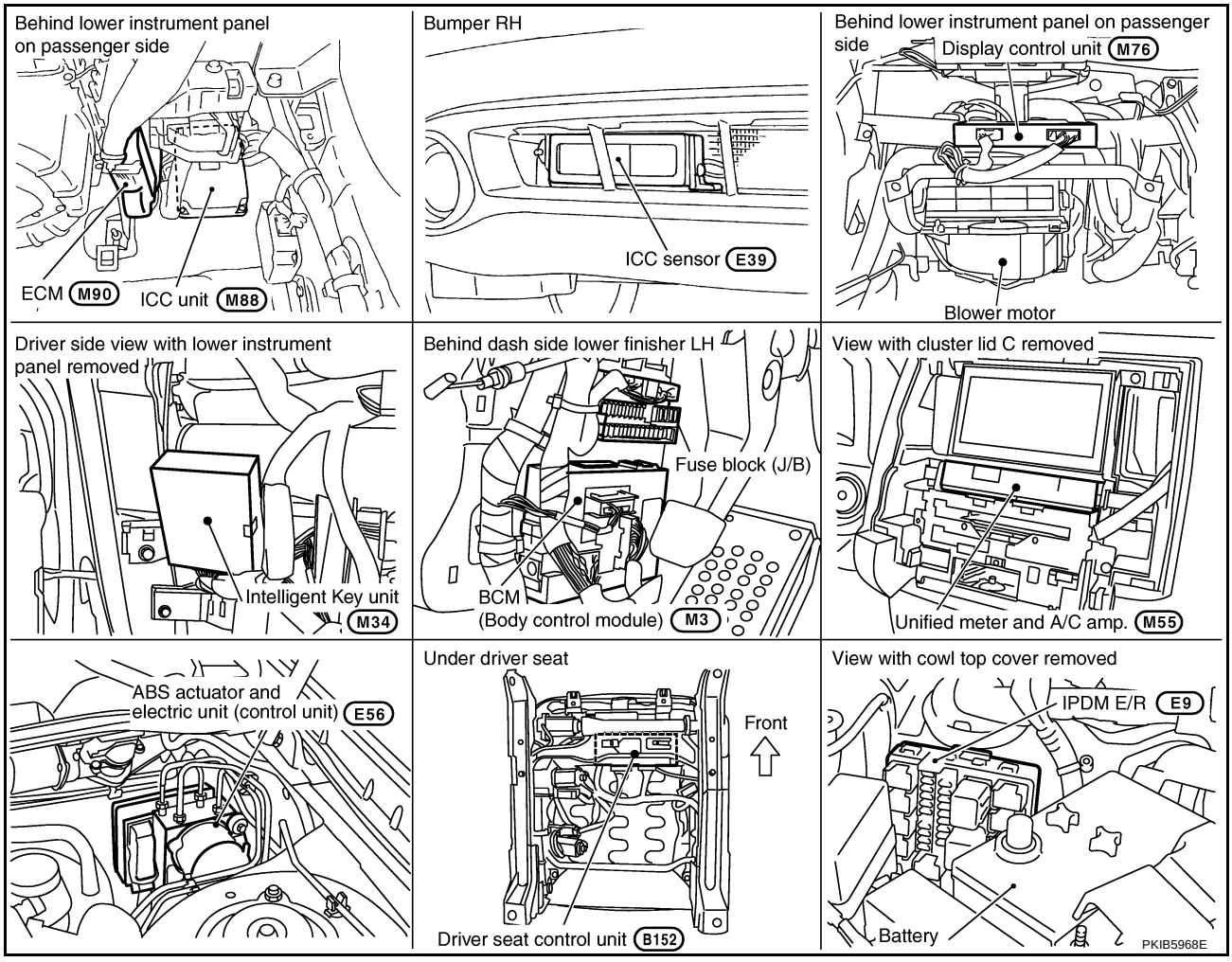
- IPDM E/R power supply circuit. Refer to PG-28, "IPDM E/R Power/Ground Circuit Inspection" .
- Ignition power supply circuit. Refer to PG-12, "IGNITION POWER SUPPLY - IGNITION SW. IN “ON” AND/OR “START”" .

CAN SYSTEM (TYPE 3)

PFP:23710

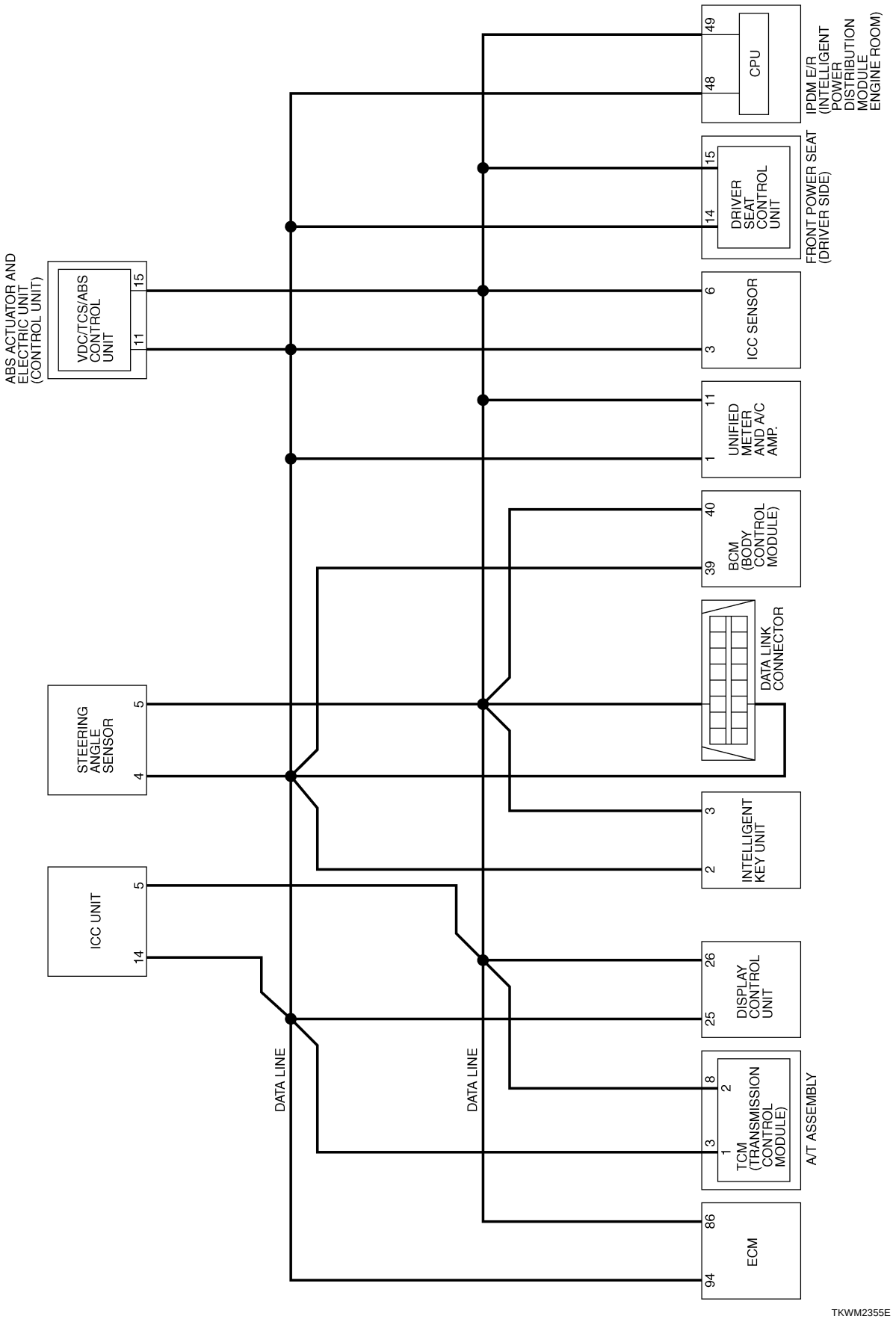
Component Parts and Harness Connector Location

AKS00CEA



Schematic

AKS00CEB

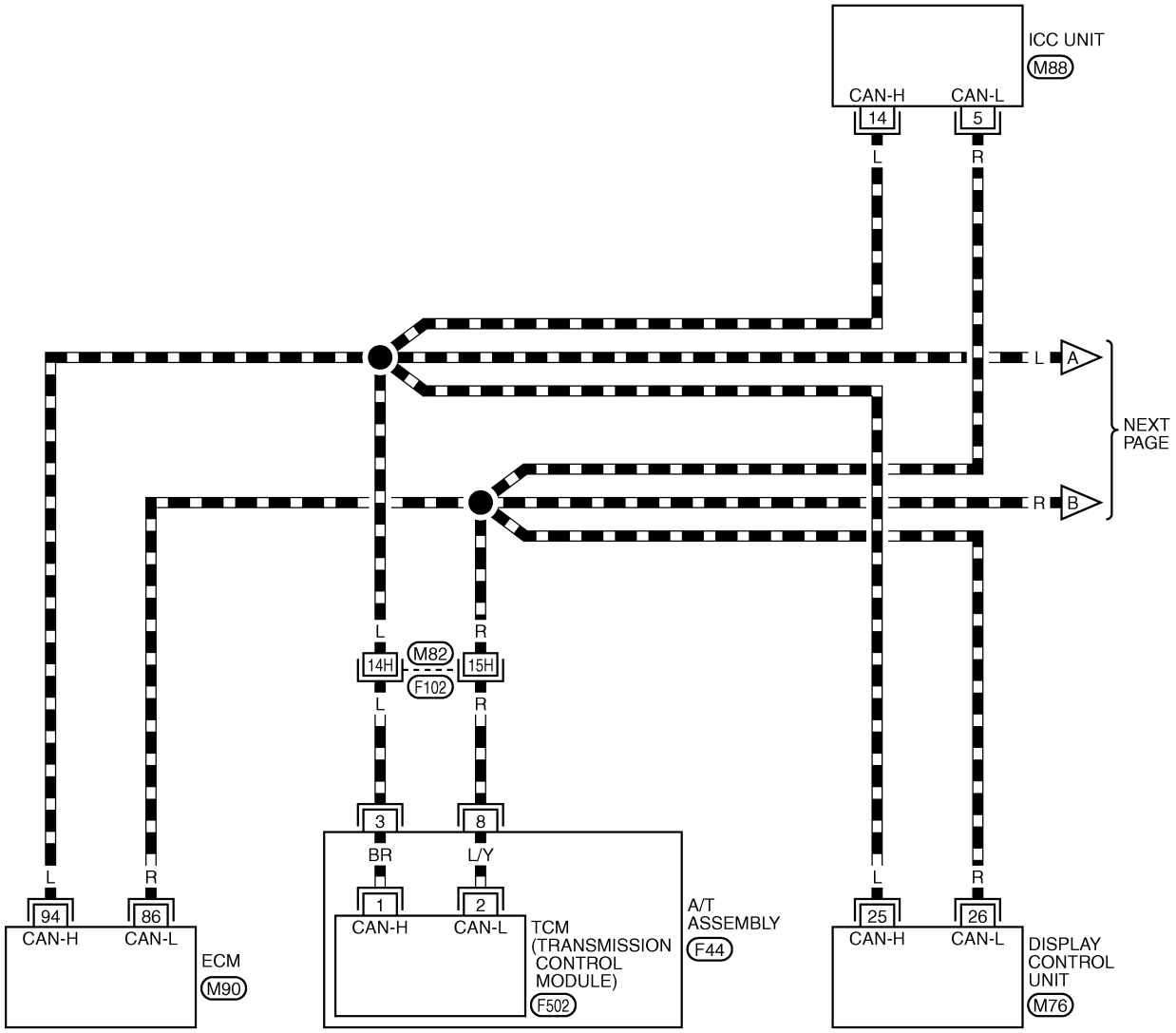


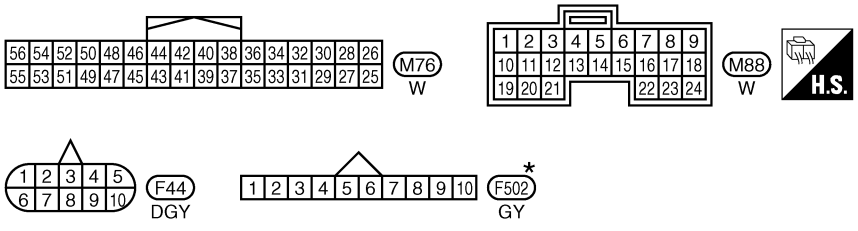
Wiring Diagram - CAN -

AKS00CEC

LAN-CAN-07

: DATA LINE





REFER TO THE FOLLOWING.

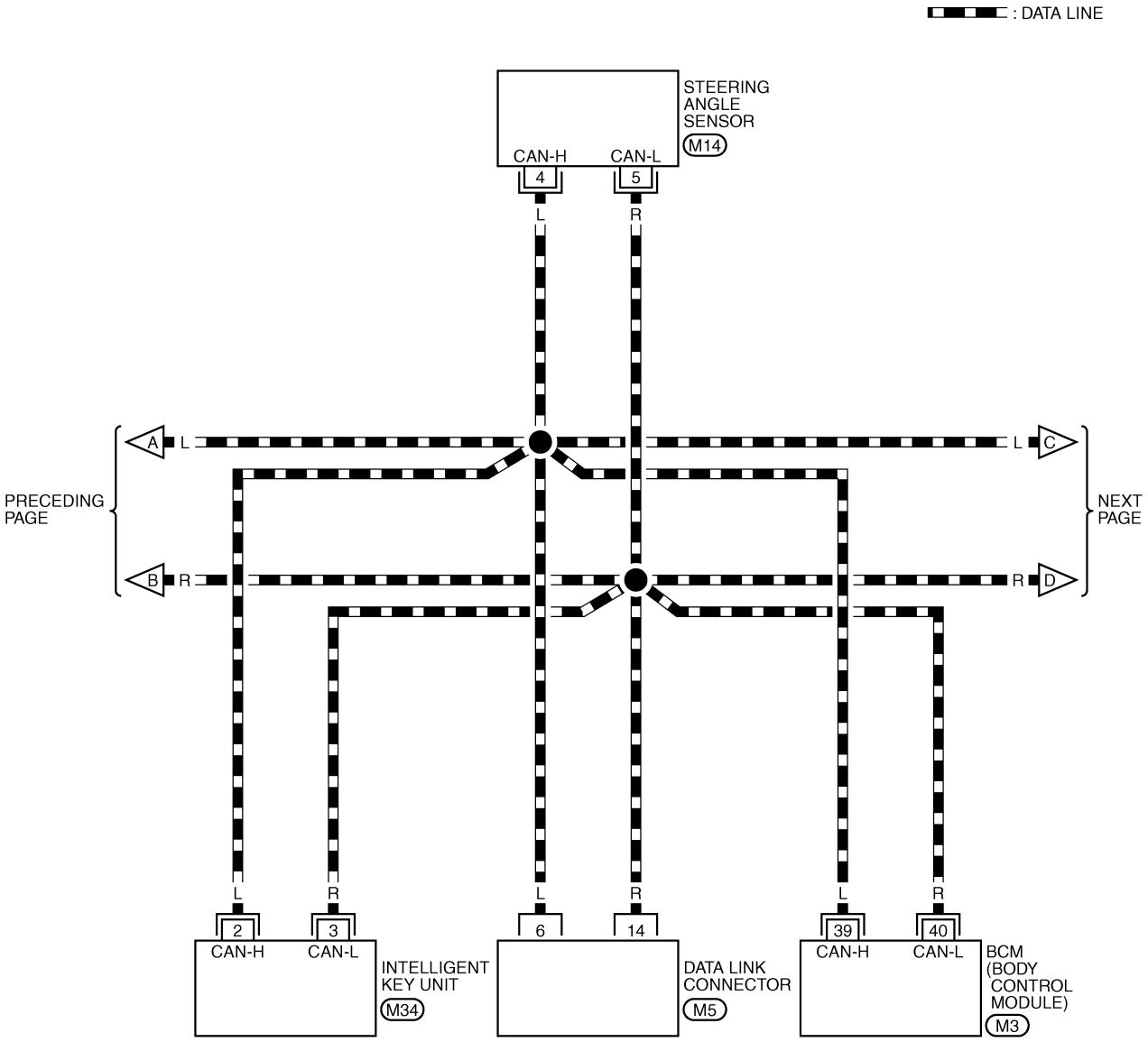
F102 -SUPER MULTIPLE JUNCTION (SMJ)

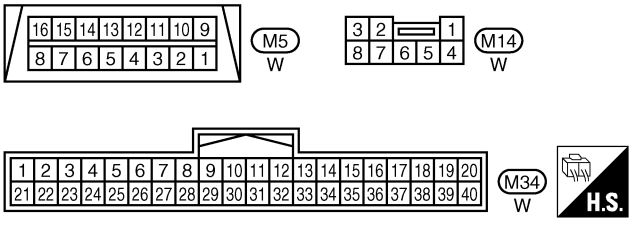
M90 -ELECTRICAL UNITS

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

TKWM2356E

LAN-CAN-08

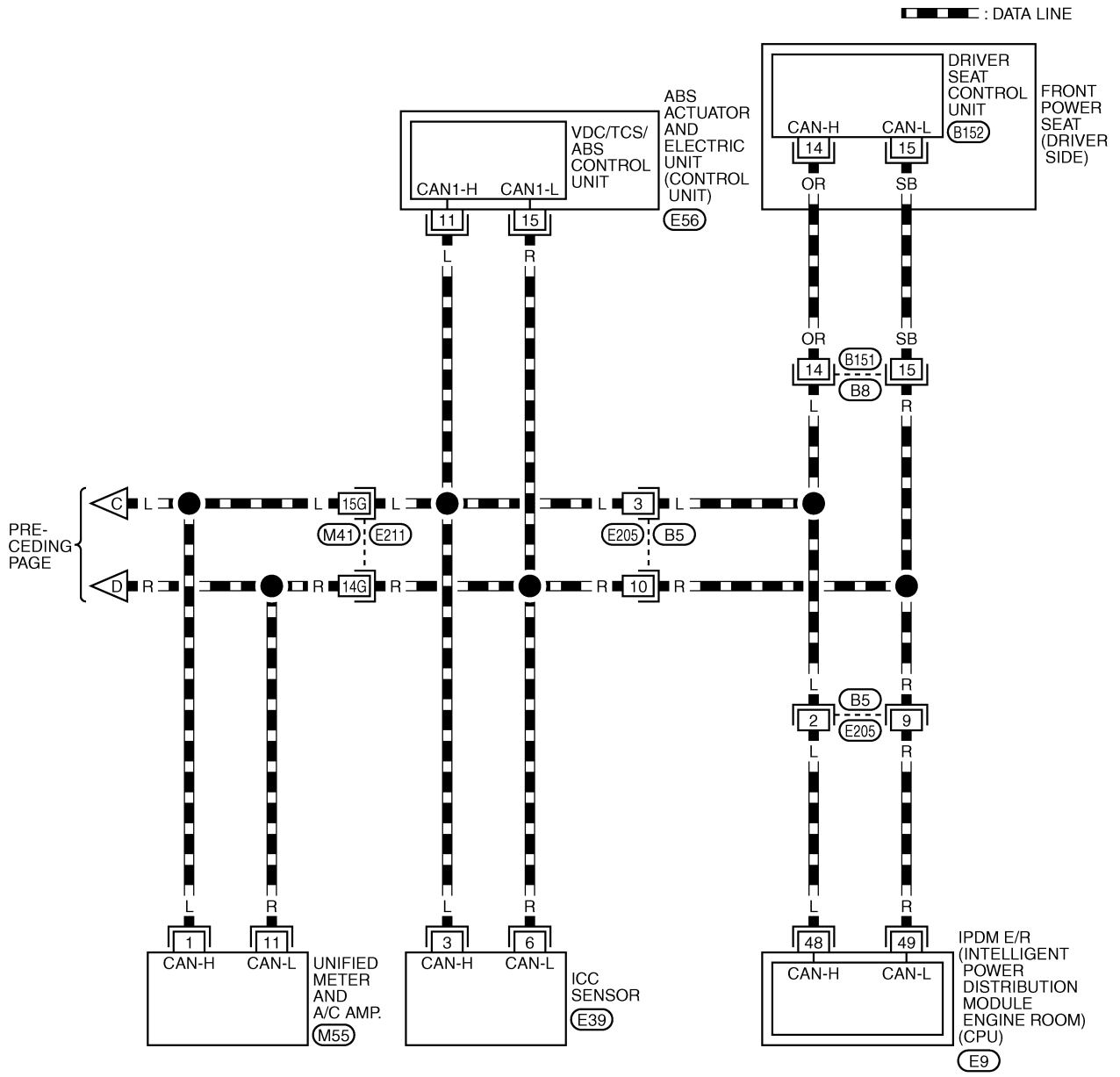


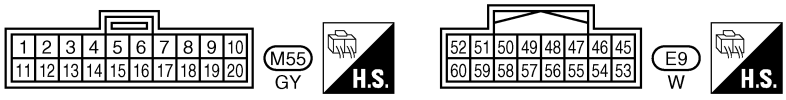


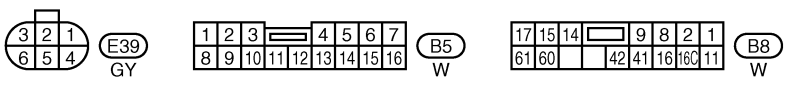
REFER TO THE FOLLOWING.
M3 -ELECTRICAL UNITS

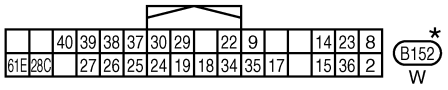
TKWM2357E

LAN-CAN-09









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

REFER TO THE FOLLOWING.

E211 -SUPER MULTIPLE JUNCTION (SMJ)

E56 -ELECTRICAL UNITS

TKWM2358E

Check Sheet

AKS00CED

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	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

Symptoms :

Attach copy of SELECT SYSTEM

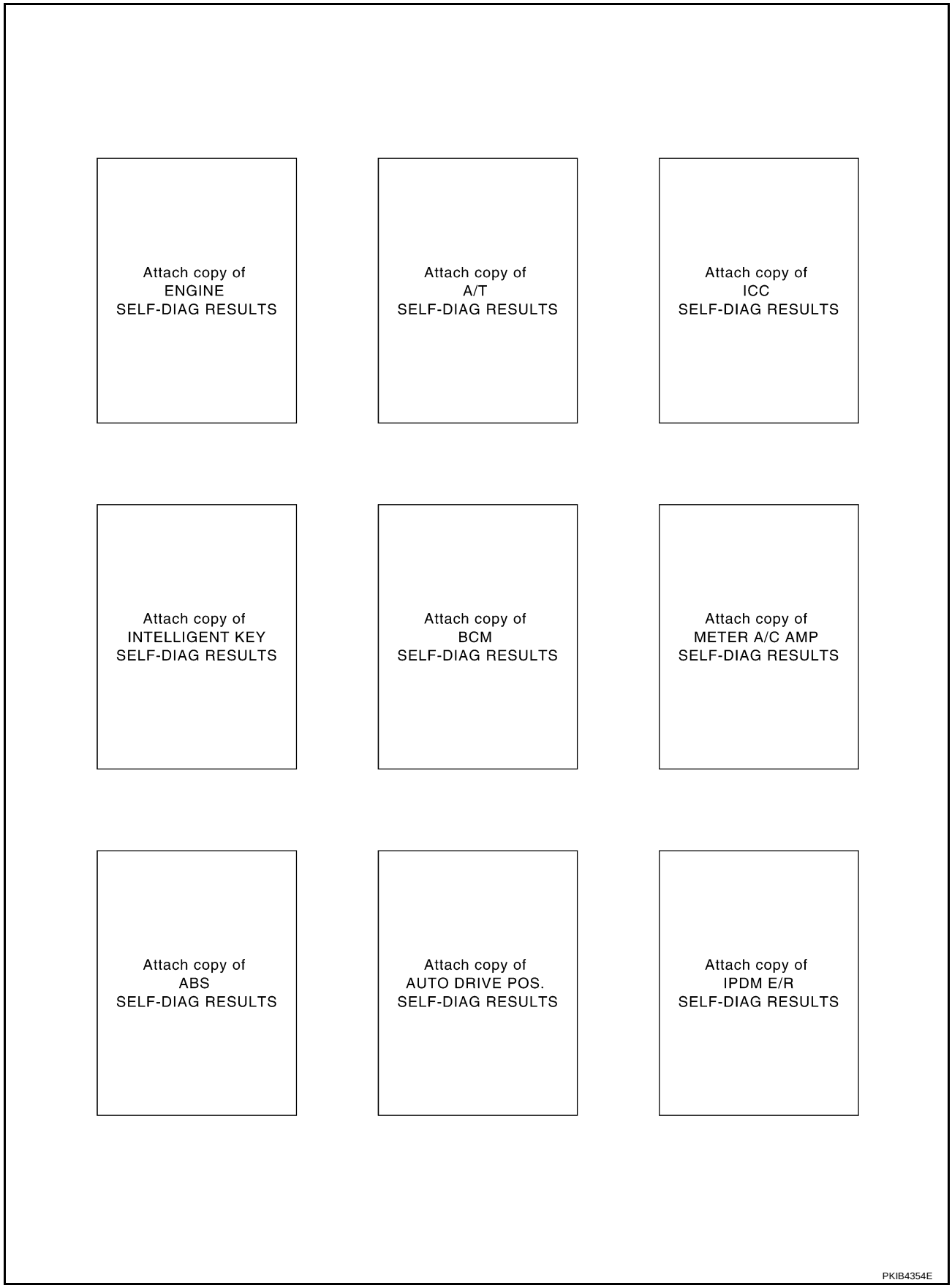
Attach copy of SELECT SYSTEM

PKIB4353E

Display control unit Translation Sheet: Rewrite the following names, and put a check mark on the check sheet table.			
Confirmation/Adjustment Display	Check sheet table Display	Confirmation/Adjustment Display	Check sheet table Display
CAN COMM	Initial diagnosis	CAN CIRC 5	METER/M&A
CAN CIRC 1	Transmit diagnosis	CAN CIRC 6	–
CAN CIRC 2	BCM/SEC	CAN CIRC 7	IPDM E/R
CAN CIRC 3	ECM	CAN CIRC 8	–
CAN CIRC 4	–	CAN CIRC 9	–

Attach copy of
display control unit
CAN DIAG SUPPORT MONITOR check sheet

PKIB4177E


Attach copy of
ENGINE
SELF-DIAG RESULTS
Attach copy of
A/T
SELF-DIAG RESULTS
Attach copy of
ICC
SELF-DIAG RESULTS
Attach copy of
INTELLIGENT KEY
SELF-DIAG RESULTS
Attach copy of
BCM
SELF-DIAG RESULTS
Attach copy of
METER A/C AMP
SELF-DIAG RESULTS
Attach copy of
ABS
SELF-DIAG RESULTS
Attach copy of
AUTO DRIVE POS.
SELF-DIAG RESULTS
Attach copy of
IPDM E/R
SELF-DIAG RESULTS
PKIB4354E

Attach copy of
ENGINE
CAN DIAG SUPPORT
MNTR

Attach copy of
A/T
CAN DIAG SUPPORT
MNTR

Attach copy of
ICC
CAN DIAG SUPPORT
MNTR

Attach copy of
INTELLIGENT KEY
CAN DIAG SUPPORT
MNTR

Attach copy of
BCM
CAN DIAG SUPPORT
MNTR

Attach copy of
METER A/C AMP
CAN DIAG SUPPORT
MNTR

Attach copy of
ABS
CAN DIAG SUPPORT
MNTR

Attach copy of
AUTO DRIVE POS.
CAN DIAG SUPPORT
MNTR

Attach copy of
IPDM E/R
CAN DIAG SUPPORT
MNTR

PKIB4355E

CHECK SHEET RESULTS (EXAMPLE)

NOTE:

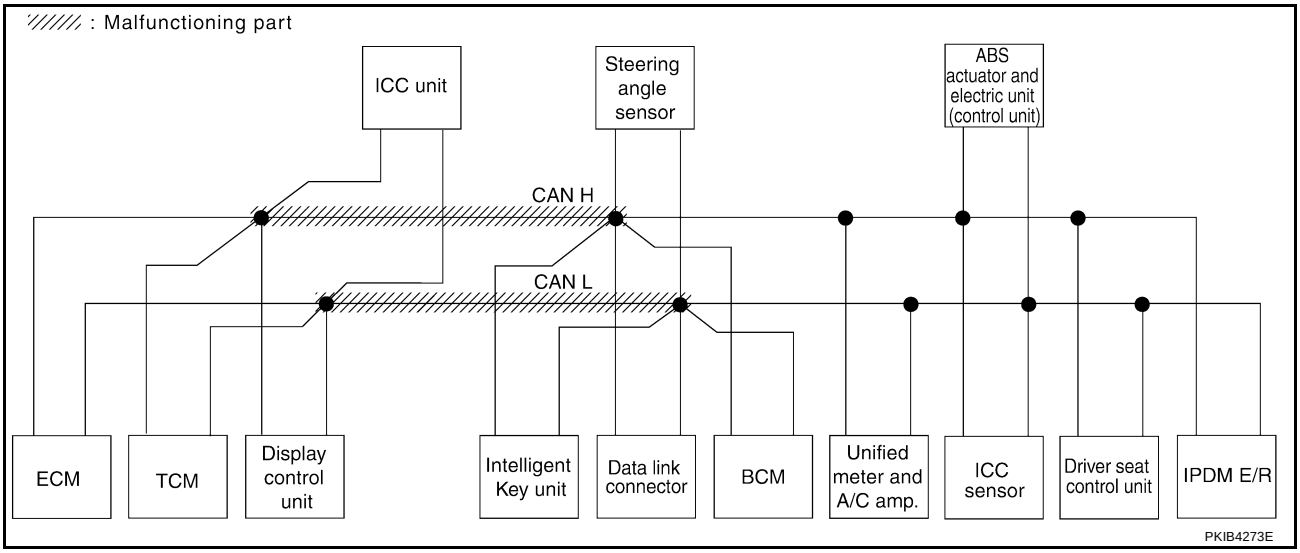
If a check mark is put on “NG” on “INITIAL DIAG (Initial diagnosis)”, replace the control unit.

Case 1

Check harness between TCM and data link connector. Refer to LAN-154, "Inspection Between TCM and Data Link Connector Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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) ✓	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	—	UNKWN ✓	—	—	UNKWN ✓	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN ✓	—	—	UNKWN ✓	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN ✓	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
BCM	No indication	NG	UNKWN	UNKWN ✓	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000) ✓	—
METER A/C AMP	No indication	—	UNKWN	UNKWN ✓	UNKWN ✓	UNKWN ✓	UNKWN ✓	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN ✓	UNKWN ✓	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN ✓	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN ✓	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB4402E

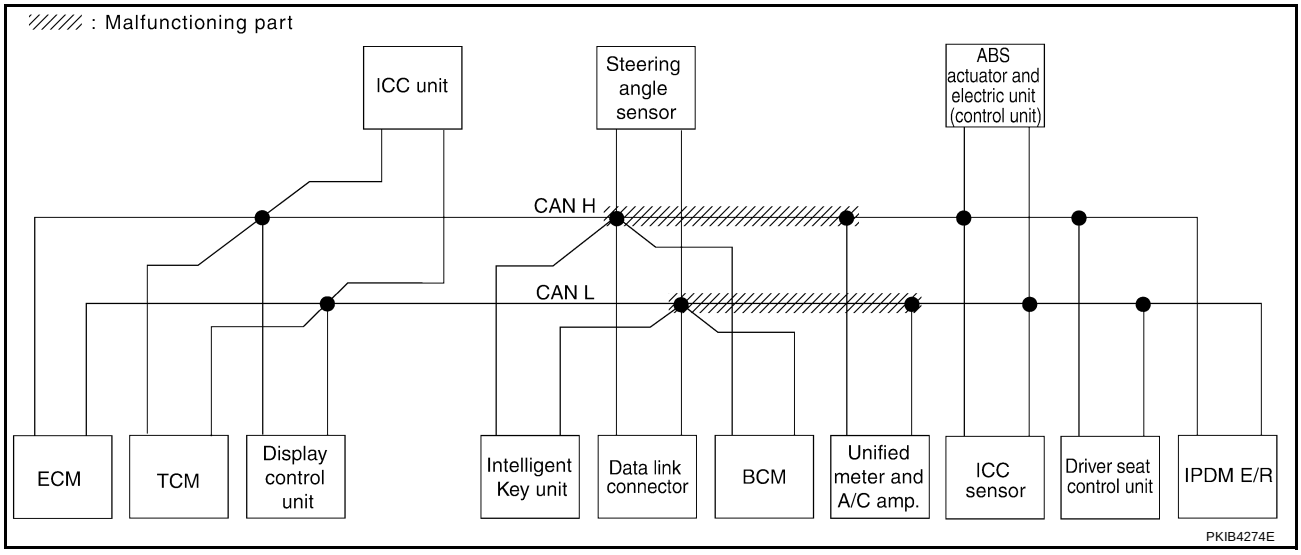


Case 2

Check harness between data link connector and unified meter and A/C amp. Refer to LAN-155, "Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4403E

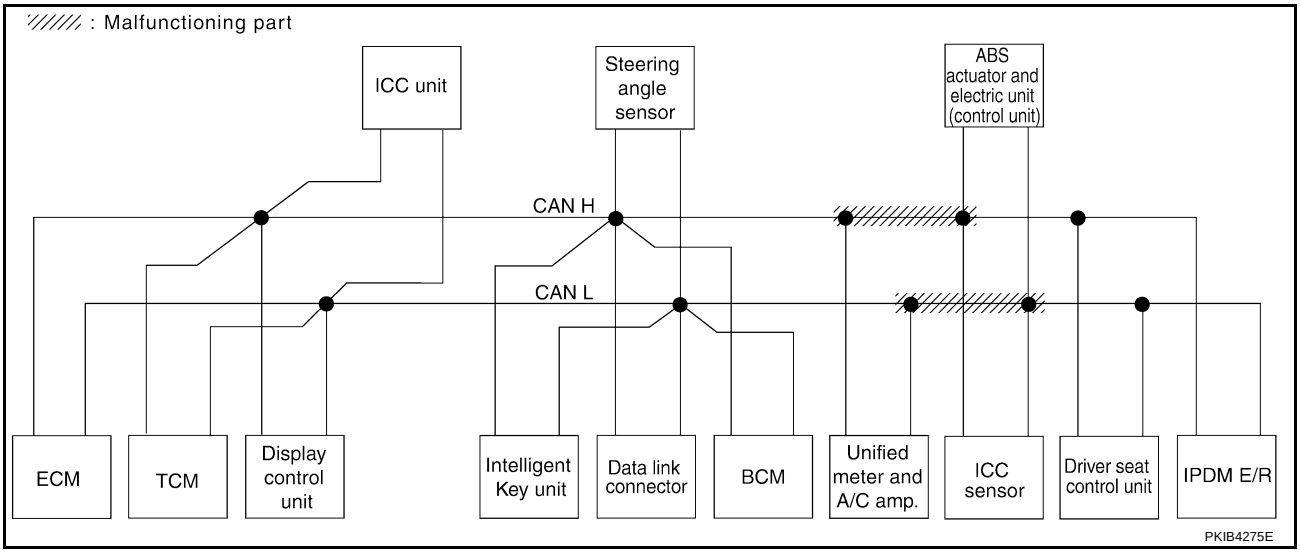


Case 3

Check harness between unified meter and A/C amp. and ABS actuator and electric unit (control unit). Refer to LAN-155, "Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR												SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis											
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R	
ENGINE	—	NG	UNKWN	—	UNKWN	—	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) / —
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	— / —
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000) / —
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) / —
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000) / —
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) / —
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) / —
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) / —
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000) / —

PKIB4404E



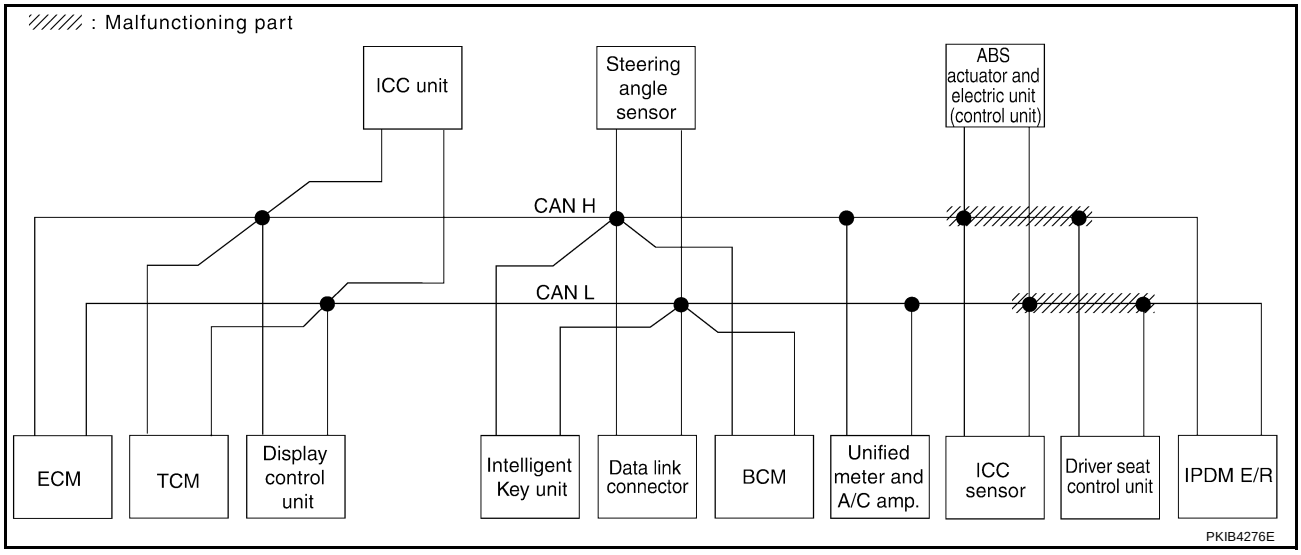
PKIB4275E

Case 4

Check harness between ABS actuator and electric unit (control unit) and driver seat control unit. Refer to LAN-156, "Inspection Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN ✓	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN ✓	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication ✓	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication ✓	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB4405E

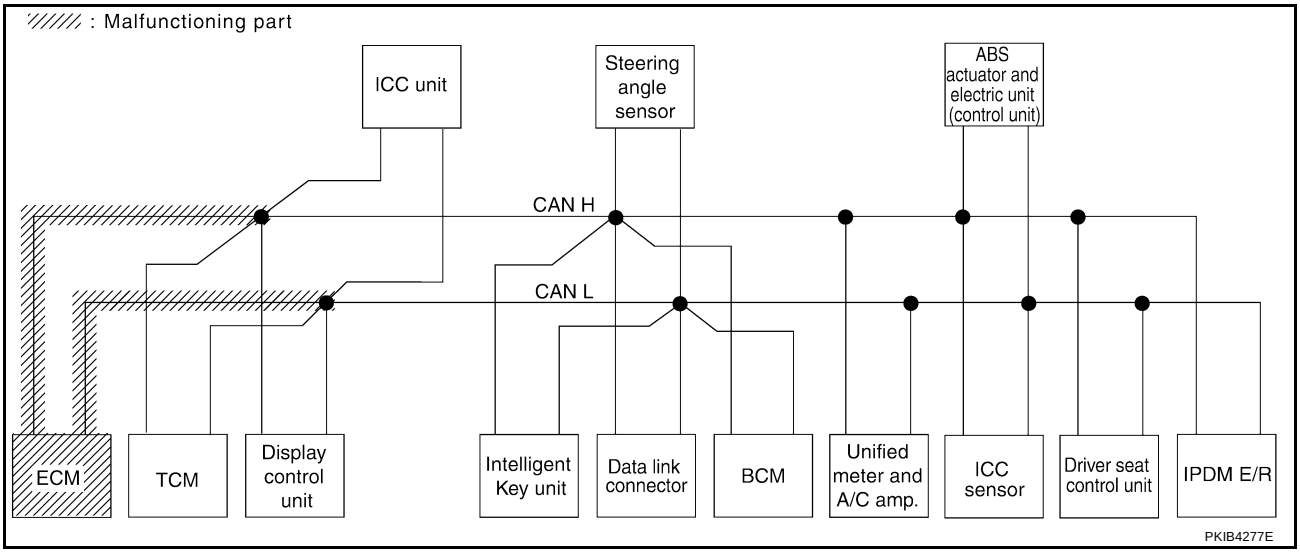


Case 5

Check ECM circuit. Refer to LAN-157, "ECM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR												SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis											
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R	
ENGINE	—	NG	UNKWN	—	UNKWN	—	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) ✓ / —
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	— / —
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓ / —
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓ / —
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000) / —
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓ / —
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓ / —
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) / —
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓ / —

PKIB4406E

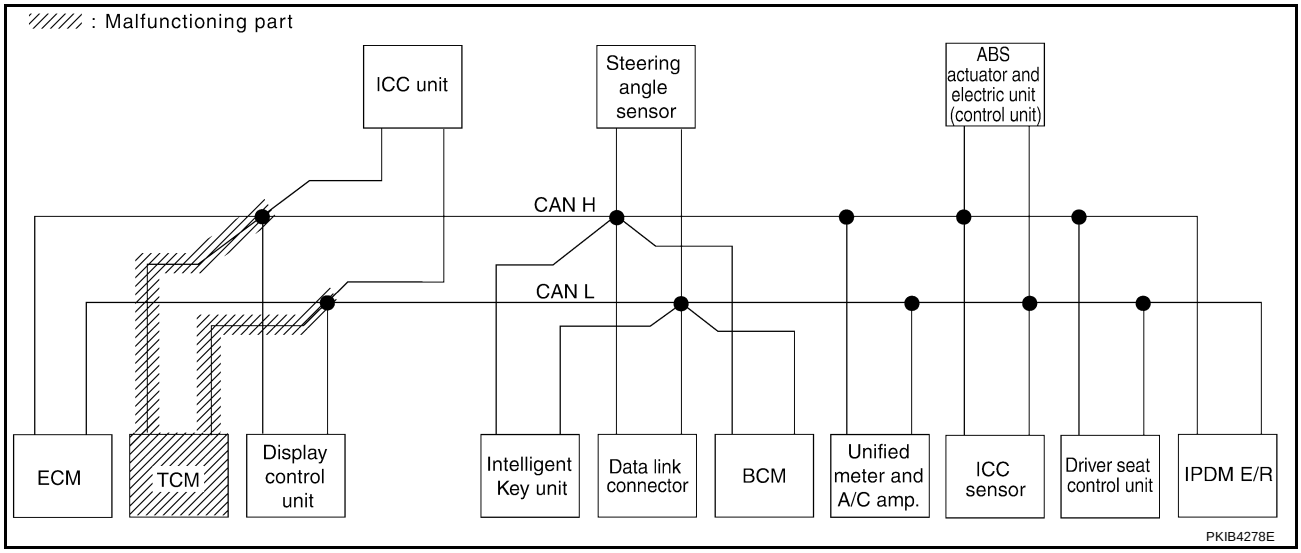


Case 6

Check TCM circuit. Refer to LAN-157, "TCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN ✓	—	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) ✓	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN ✓	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN ✓	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN ✓	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4407E

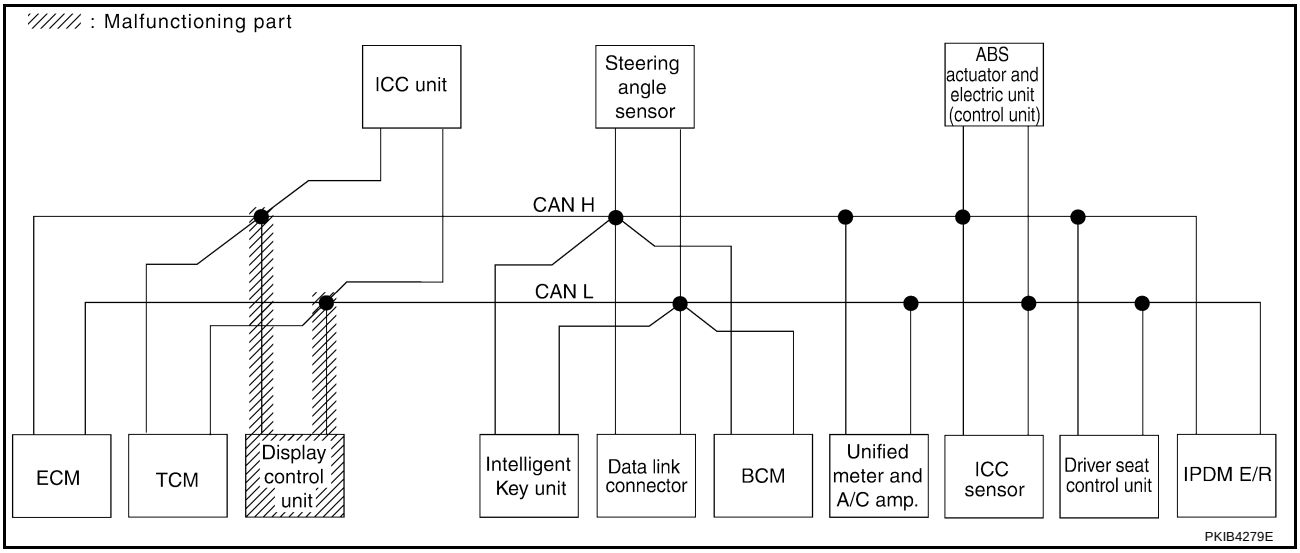


Case 7

Check display control unit circuit. Refer to LAN-158, "Display Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN ✓	UNKWN ✓	—	—	—	—	UNKWN ✓	—	UNKWN ✓	—	—	UNKWN ✓	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4408E

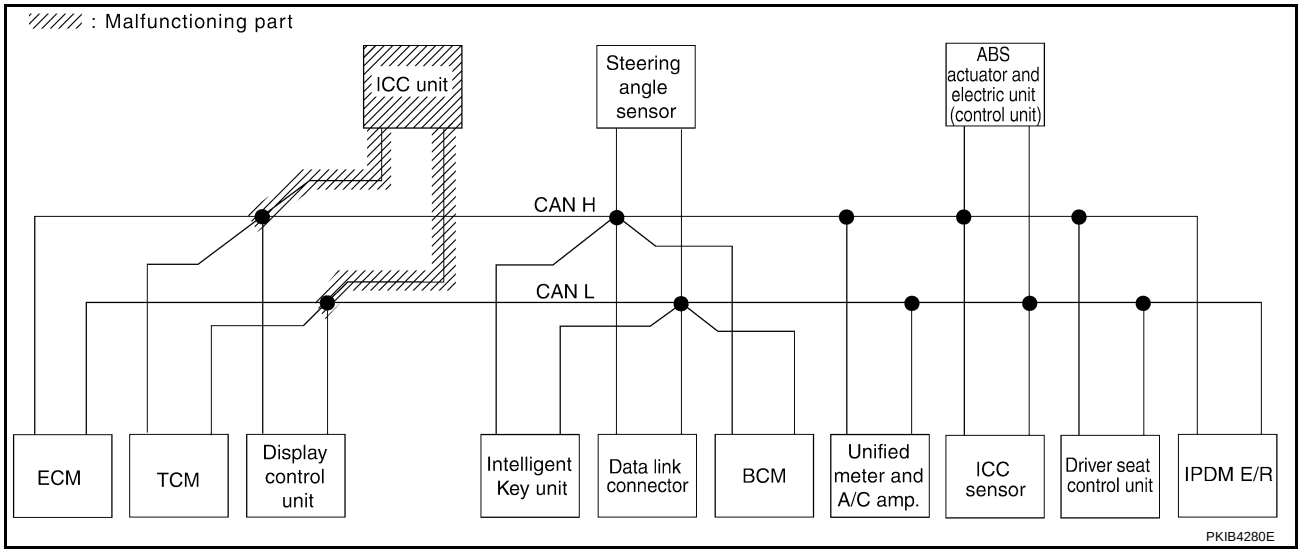


Case 8

Check ICC unit circuit. Refer to LAN-158, "ICC Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN ✓	UNKWN ✓	—	—	—	UNKWN ✓	—	—	UNKWN ✓	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4410E

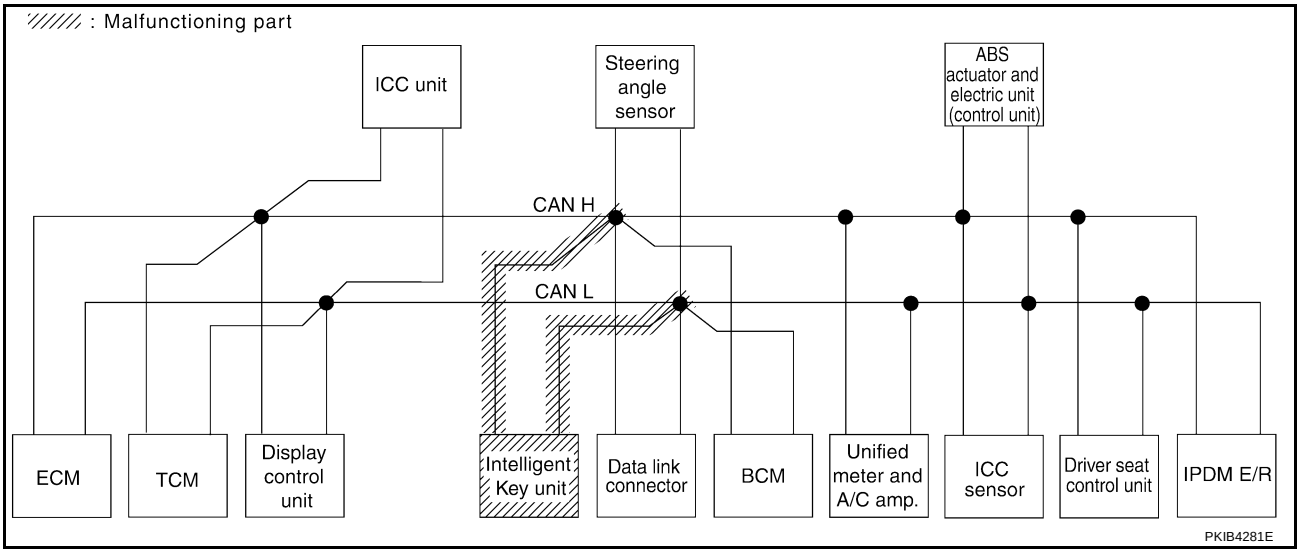


Case 9

Check Intelligent Key unit circuit. Refer to LAN-159, "Intelligent Key Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4411E



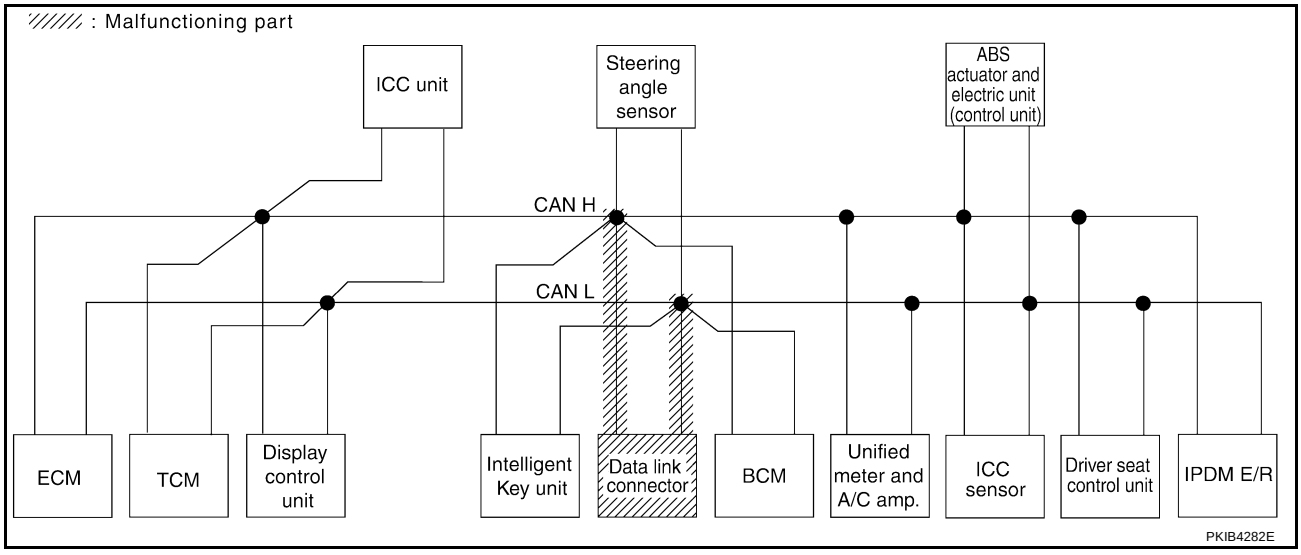
PKIB4281E

Case 10

Check data link connector circuit. Refer to LAN-159, "Data Link Connector Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	✓ No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	✓ No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	✓ No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	✓ No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	✓ No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4412E

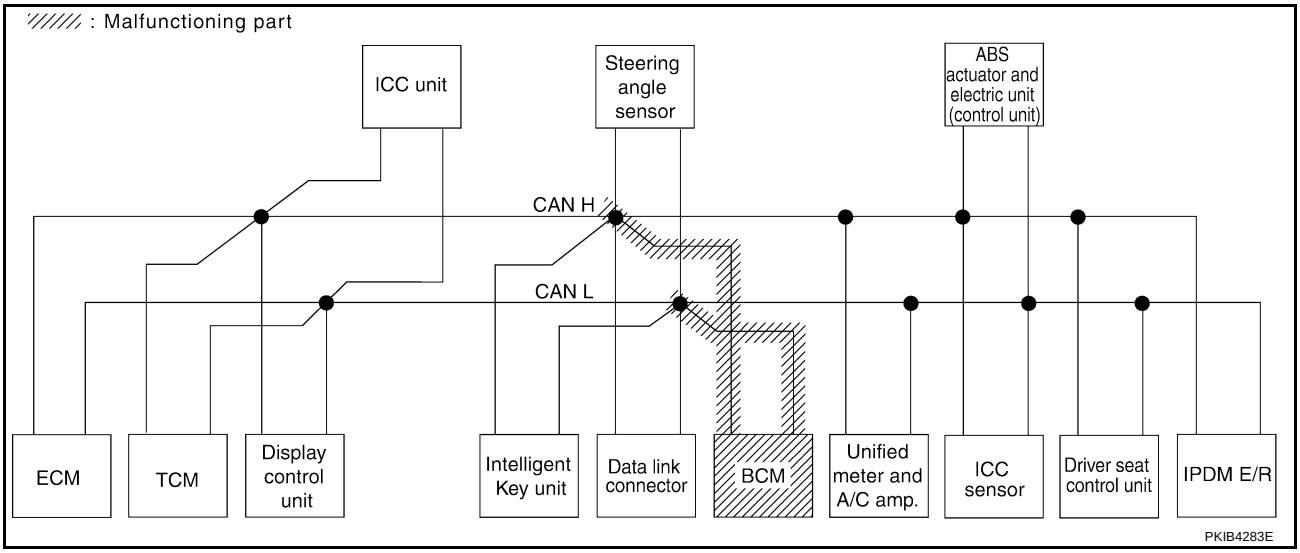


Case 11

Check BCM circuit. Refer to LAN-160, "BCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN ✓	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
BCM	No indication ✓	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN ✓	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN ✓	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB4413E

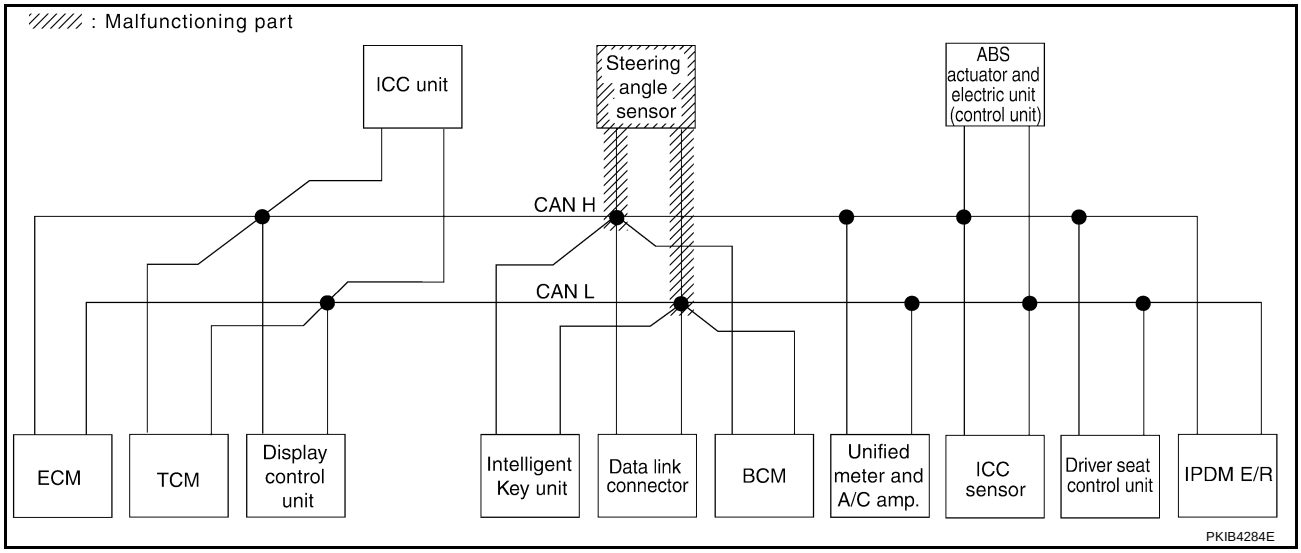


Case 12

Check steering angle sensor circuit. Refer to LAN-160, "Steering Angle Sensor Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4414E



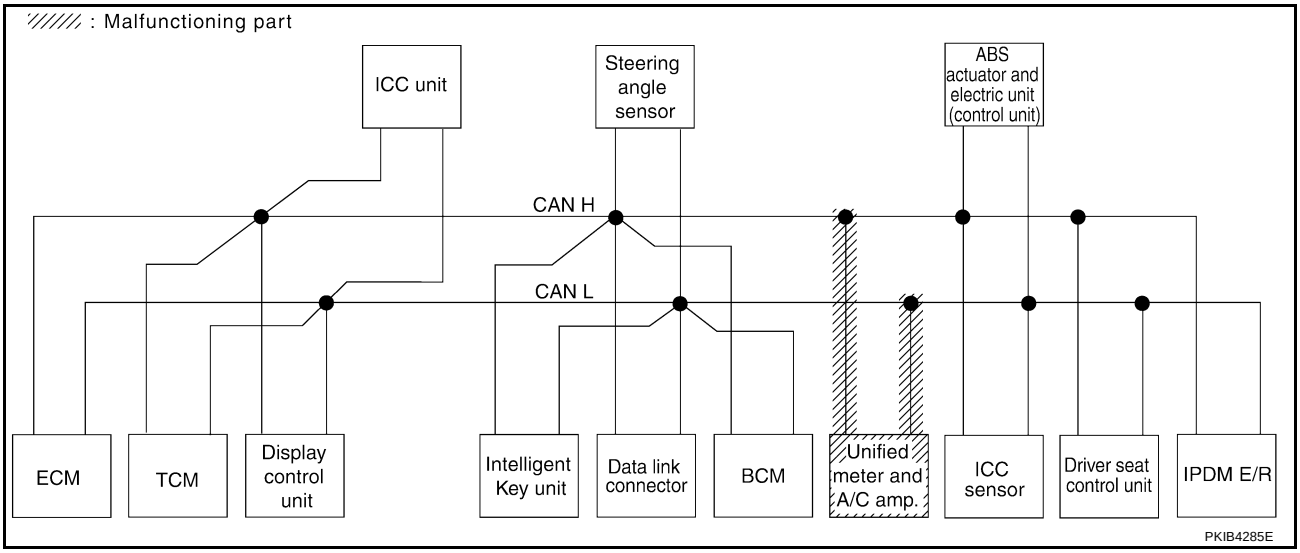
PKIB4284E

Case 13

Check unified meter and A/C amp. circuit. Refer to LAN-161, "Unified Meter and A/C Amp. Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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) ✓	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN ✓	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN ✓	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN ✓	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication ✓	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN ✓	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4415E



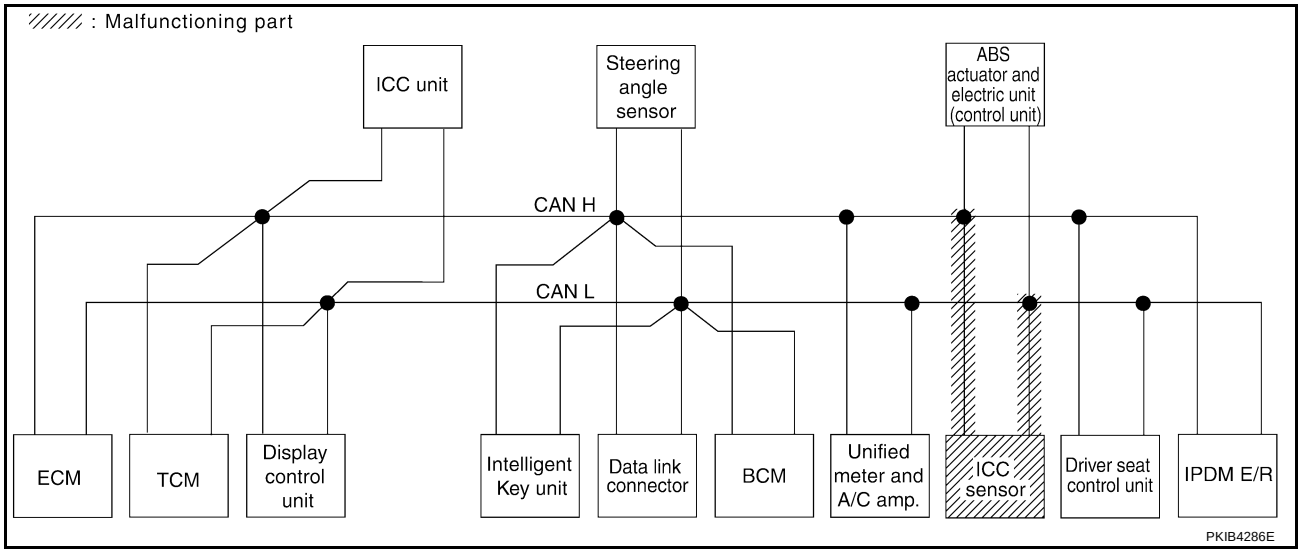
PKIB4285E

Case 14

Check ICC sensor circuit. Refer to LAN-161, "ICC Sensor Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4416E



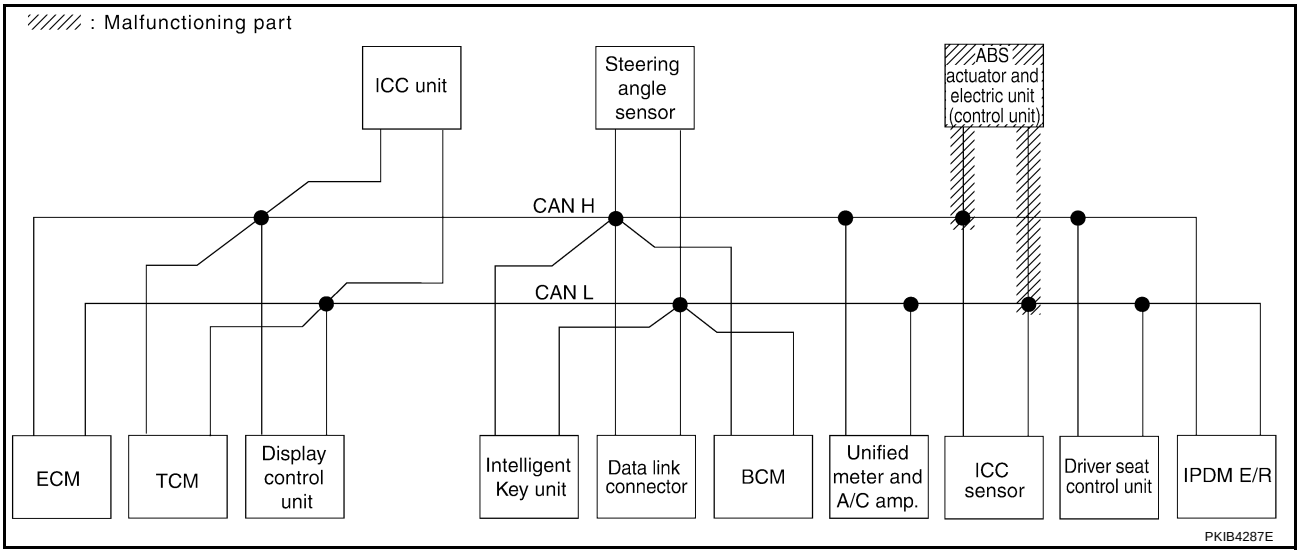
PKIB4286E

Case 15

Check ABS actuator and electric unit (control unit) circuit. Refer to LAN-162, "ABS Actuator and Electric Unit (Control Unit) Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4417E



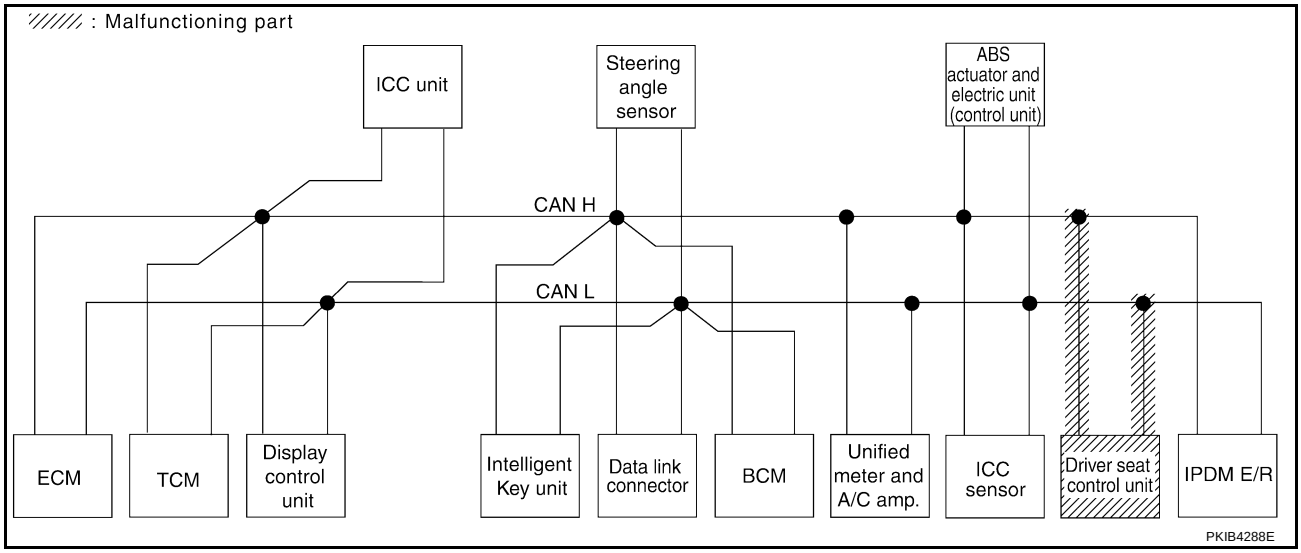
PKIB4287E

Case 16

Check driver seat control unit circuit. Refer to LAN-162, "Driver Seat Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4418E



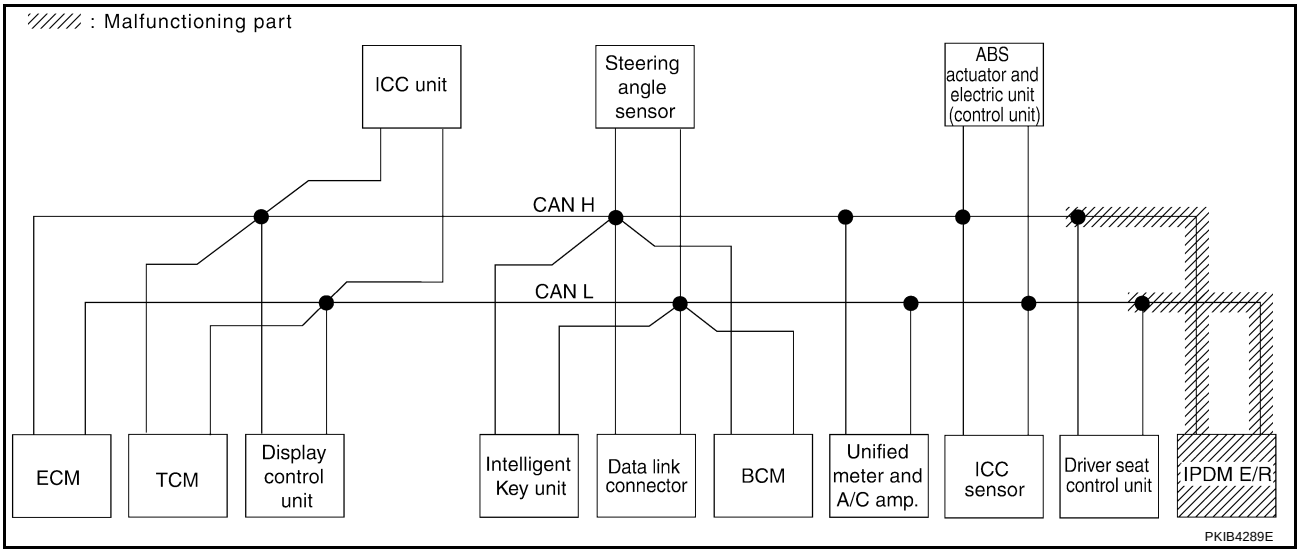
PKIB4288E

Case 17

Check IPDM E/R circuit. Refer to LAN-163, "IPDM E/R Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN ✓	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN ✓	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication ✓	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB4419E



PKIB4289E

Case 18

Check CAN communication circuit. Refer to LAN-164, "CAN Communication Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4420E

Case 19

Check IPDM E/R ignition relay circuit continuously sticks “OFF”. Refer to LAN-170, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR												SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis											
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R	
ENGINE	—	NG	UNKWN	—	UNKWN ✓	—	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) / —
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	— / —
ICC	—	NG	UNKWN	UNKWN	UNKWN ✓	—	—	—	UNKWN	—	—	UNKWN	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓ / —
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) / —
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000) / —
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓ / —
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) / —
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN ✓	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓ / —
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000) / —

PKIB4421E

Case 20

Check IPDM E/R ignition relay circuit continuously sticks “ON”. Refer to LAN-170, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	—	—	—	—	—	—	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4422E

Inspection Between TCM and Data Link Connector Circuit

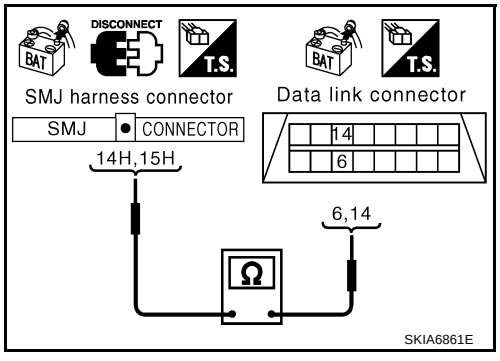
AKS00CEE

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and harness connector M82.
4. Check continuity between harness connector M82 terminals 14H (L), 15H (R) and data link connector M5 terminals 6 (L), 14 (R).

14H (L) - 6 (L) : Continuity should exist.

15H (R) - 14 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness.

Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit

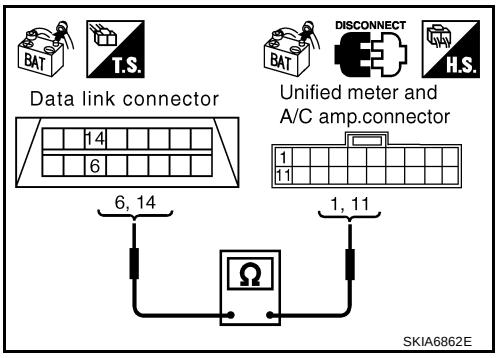
AKS00CEF

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and unified meter and A/C amp. connector.
4. Check continuity between data link connector M5 terminals 6 (L), 14 (R) and unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R).

6 (L) - 1 (L) : Continuity should exist.

14 (R) - 11 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness.

Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit

AKS00CEG

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 M41
- Harness connector E211

OK or NG

OK >> GO TO 2.

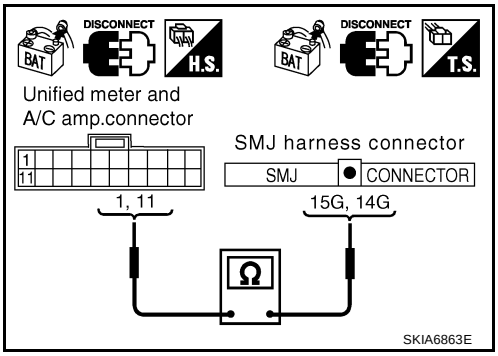
NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector and harness connector M41.
2. Check continuity between unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R) and harness connector M41 terminals 15G (L), 14G (R).

1 (L) - 15G (L) : Continuity should exist.

11 (R) - 14G (R) : Continuity should exist.



OK or NG

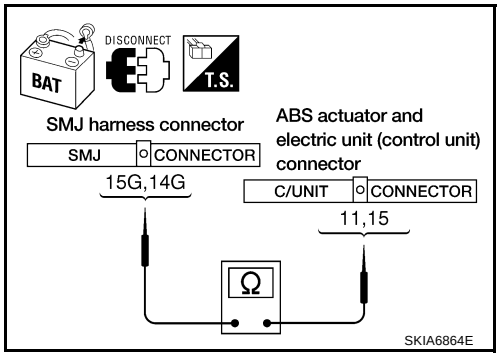
OK >> GO TO 3.

NG >> Repair harness.

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check continuity between harness connector E211 terminals 15G (L), 14G (R) and ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R).

15G (L) - 11 (L) : Continuity should exist.
14G (R) - 15 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit Circuit

AKS00CEH

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 E205
- Harness connector B5

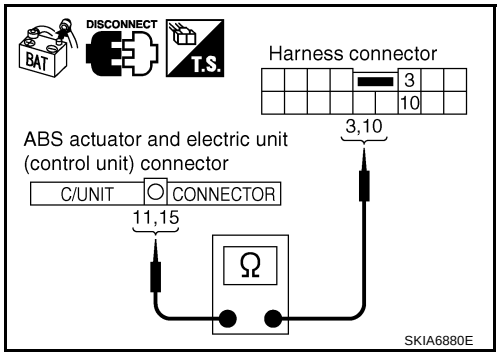
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and harness connector E205 terminals 3 (L), 10 (R).

11 (L) - 3 (L) : Continuity should exist.
15 (R) - 10 (R) : Continuity should exist.



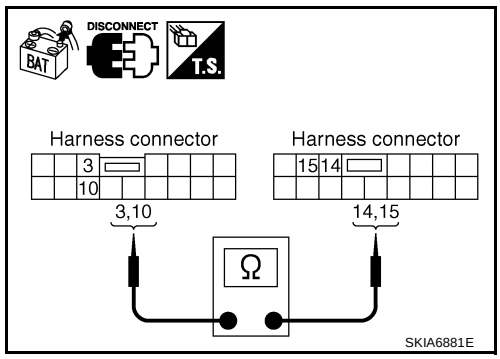
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect harness connector B8.
2. Check continuity between harness connector B5 terminals 3 (L), 10 (R) and harness connector B8 terminals 14 (L), 15 (R).

3 (L) - 14 (L) : Continuity should exist.
10 (R) - 15 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

ECM Circuit Inspection

AKS00CEI

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).

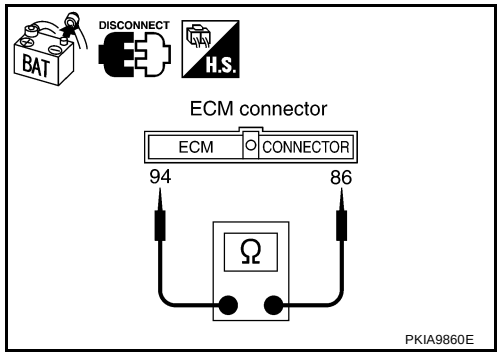
OK or NG

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 M90 terminals 94 (L) and 86 (R).

94 (L) - 86 (R) : Approx. 108 - 132Ω



OK or NG

OK >> Replace ECM.
NG >> Repair harness between ECM and harness connector M82.

TCM Circuit Inspection

AKS00CEJ

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 (control module side and harness side).

- A/T assembly connector
- Harness connector F102
- Harness connector M82

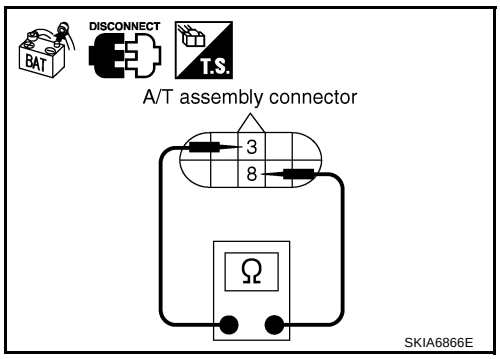
OK or NG

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 F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Approx. 54 - 66Ω



OK or NG

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

Display Control Unit Circuit Inspection

AKS00CEK

1. CHECK CONNECTOR

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

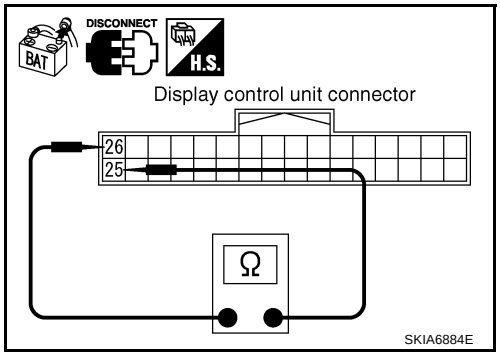
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect display control unit connector.
2. Check resistance between display control unit harness connector M76 terminals 25 (L) and 26 (R).

25 (L) - 26 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace display control unit.
NG >> Repair harness between display control unit and harness connector M82.

ICC Unit Circuit Inspection

AKS00CEM

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.

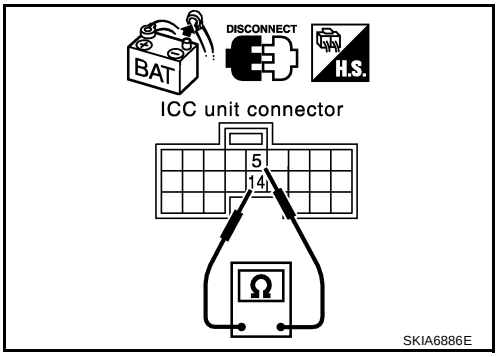
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ICC unit connector.
2. Check resistance between ICC unit harness connector M88 terminals 14 (L) and 5 (R).

14 (L) - 5 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace ICC unit.
NG >> Repair harness between ICC unit and harness connector M82.



Intelligent Key Unit Circuit Inspection

AKS00CEN

1. CHECK CONNECTOR

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

OK or NG

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

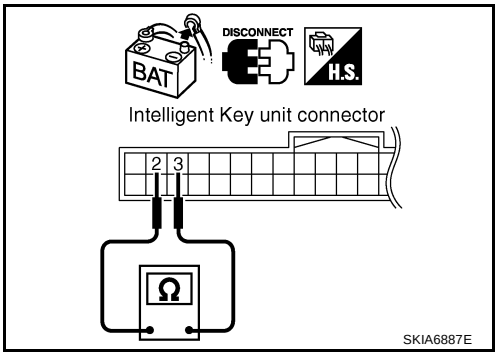
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect Intelligent Key unit connector.
2. Check resistance between Intelligent Key unit harness connector M34 terminals 2 (L) and 3 (R).

2 (L) - 3 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace Intelligent Key unit.
NG >> Repair harness between Intelligent Key unit and data link connector.



Data Link Connector Circuit Inspection

AKS00CEO

1. CHECK CONNECTOR

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

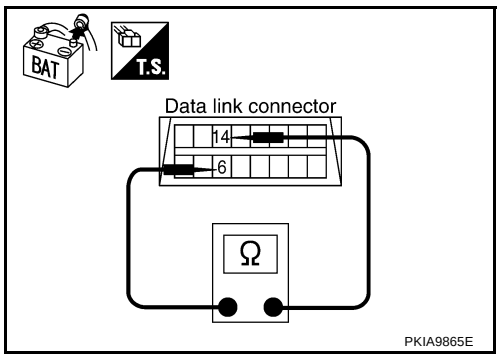
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness between data link connector and BCM.

BCM Circuit Inspection

AKS00CEP

1. CHECK CONNECTOR

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

OK or NG

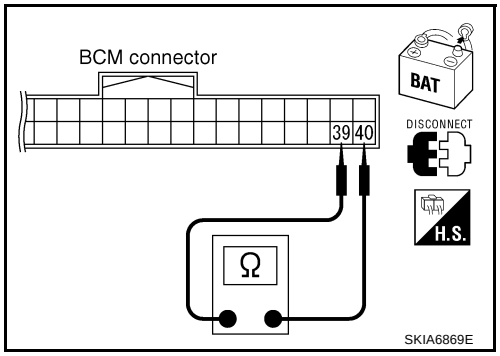
OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect BCM connector.
2. Check resistance between BCM harness connector M3 terminals 39 (L) and 40 (R).

39 (L) - 40 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace BCM. Refer to BCS-16, "Removal and Installation of BCM" .

NG >> Repair harness between BCM and data link connector.

Steering Angle Sensor Circuit Inspection

AKS00CEQ

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.

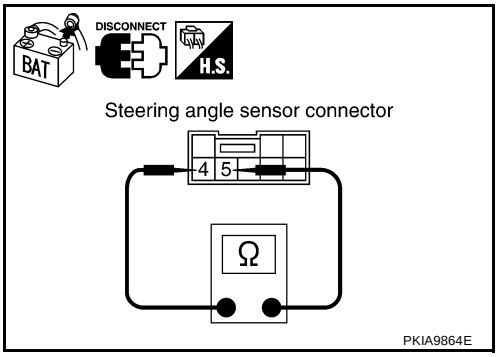
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect steering angle sensor connector.
2. Check resistance between steering angle sensor harness connector M14 terminals 4 (L) and 5 (R).

4 (L) - 5 (R) : Approx. 54 - 66Ω

OK or NG

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



Unified Meter and A/C Amp. Circuit Inspection

AKS00CER

1. CHECK CONNECTOR

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

OK or NG

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

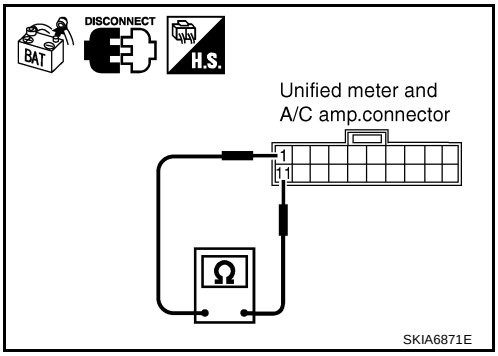
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector.
2. Check resistance between unified meter and A/C amp. harness connector M55 terminals 1 (L) and 11 (R).

1 (L) - 11 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace unified meter and A/C amp.
NG >> Repair harness between unified meter and A/C amp. and harness connector M41.



ICC Sensor Circuit Inspection

AKS00CES

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).

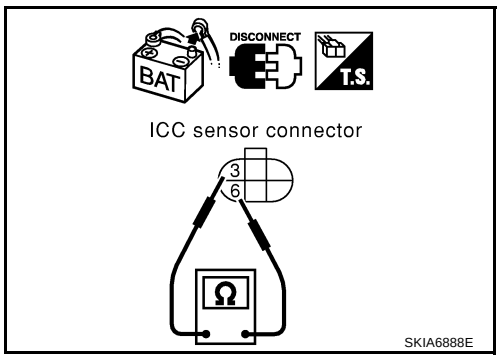
OK or NG

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 E39 terminals 3 (L) and 6 (R).

3 (L) - 6 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace ICC sensor.
NG >> Repair harness between ICC sensor and ABS actuator and electric unit (control unit).

ABS Actuator and Electric Unit (Control Unit) Circuit Inspection

AKS00CET

1. CHECK CONNECTOR

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

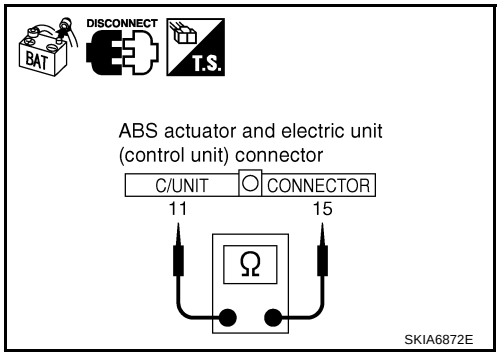
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check resistance between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace ABS actuator and electric unit (control unit).
NG >> Repair harness between ABS actuator and electric unit (control unit) and ICC sensor.

Driver Seat Control Unit Circuit Inspection

AKS00CEU

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 (control unit side and harness side).

- Driver seat control unit connector
- Harness connector B151
- Harness connector B8

OK or NG

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

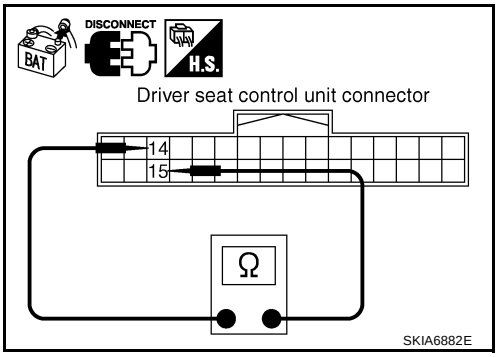
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check resistance between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

14 (OR) - 15 (SB) : Approx. 54 - 66Ω

OK or NG

OK >> Replace driver seat control unit.
NG >> Repair harness between driver seat control unit and harness connector B5.



IPDM E/R Circuit Inspection

AKS00CEV

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 (control module side and harness side).

- IPDM E/R connector
- Harness connector E205
- Harness connector B5

OK or NG

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

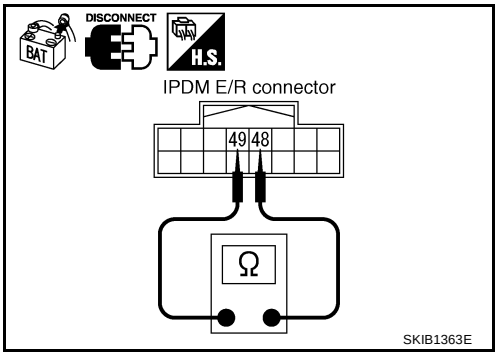
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check resistance between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Approx. 108 - 132Ω

OK or NG

OK >> Replace IPDM E/R.
NG >> Repair harness between IPDM E/R and harness connector B8.



CAN Communication Circuit Inspection

AKS00CEW

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 (control module side, control unit side, unit side, sensor side, meter side and harness side).

- ECM
- A/T assembly
- Display control unit
- ICC unit
- Intelligent Key unit
- BCM
- Steering angle sensor
- Unified meter and A/C amp.
- ICC sensor
- ABS actuator and electric unit (control unit)
- Driver seat control unit
- IPDM E/R
- Between ECM and IPDM E/R
- Between ECM and A/T assembly
- Between ECM and driver seat control unit

OK or NG

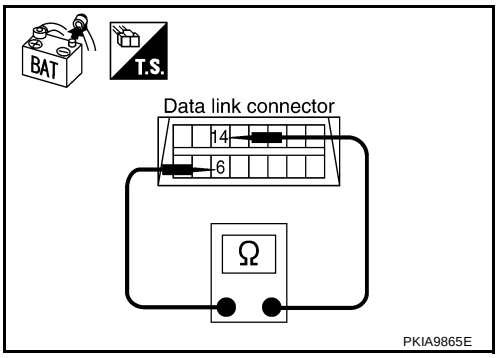
OK >> GO TO 2.
NG >> Repair terminal or connector.

2. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect following connectors.
- ECM connector
- Harness connector M82
- Display control unit connector
- ICC unit connector
- Intelligent Key unit connector
- BCM connector
- Steering angle sensor connector
- Unified meter and A/C amp. connector
- Harness connector M41

2. Check continuity between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R) : Continuity should not exist.



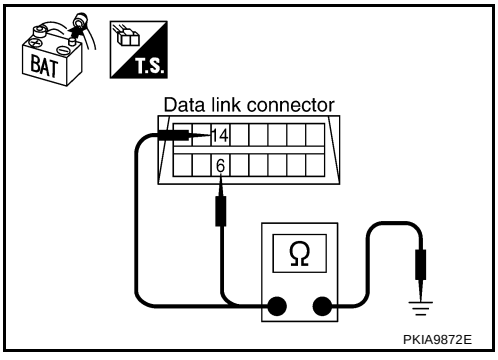
OK or NG

OK >> GO TO 3.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display control unit
- Harness between data link connector and ICC unit
- Harness between data link connector and Intelligent Key unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

3. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between data link connector M5 terminals 6 (L), 14 (R) and ground.

6 (L) - Ground : Continuity should not exist.
14 (R) - Ground : Continuity should not exist.



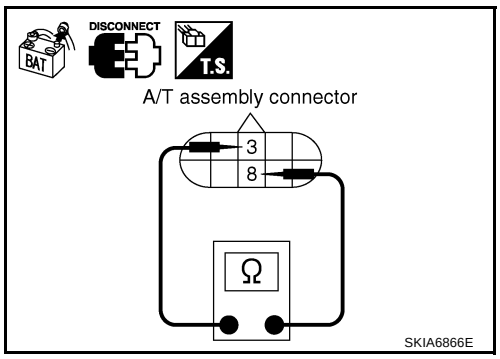
OK or NG

OK >> GO TO 4.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display control unit
- Harness between data link connector and ICC unit
- Harness between data link connector and Intelligent Key unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

4. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect A/T assembly connector.
2. Check continuity between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Continuity should not exist.



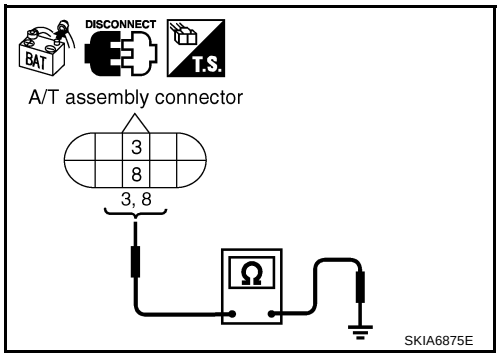
OK or NG

OK >> GO TO 5.
NG >> Repair harness between A/T assembly and harness connector F102.

5. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between A/T assembly harness connector F44 terminals 3 (L), 8 (R) and ground.

3 (L) - Ground : Continuity should not exist.
8 (R) - Ground : Continuity should not exist.



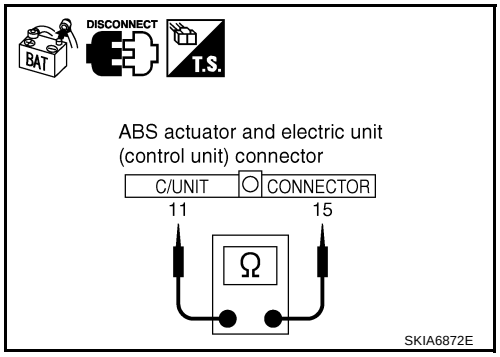
OK or NG

OK >> GO TO 6.
NG >> Repair harness between A/T assembly and harness connector F102.

6. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect following connectors.
- ICC sensor connector
- ABS actuator and electric unit (control unit) connector
- Harness connector E205
2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Continuity should not exist.



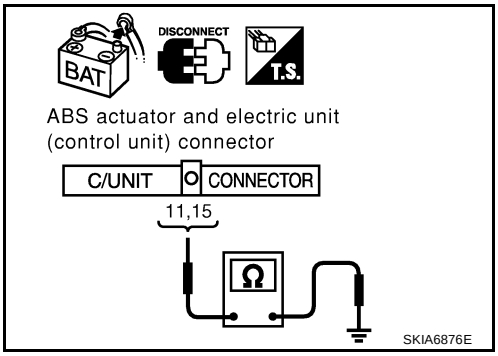
OK or NG

OK >> GO TO 7.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and ICC sensor
- Harness between ABS actuator and electric unit (control unit) and harness connector E205

7. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and ground.

11 (L) - Ground : Continuity should not exist.
15 (R) - Ground : Continuity should not exist.



OK or NG

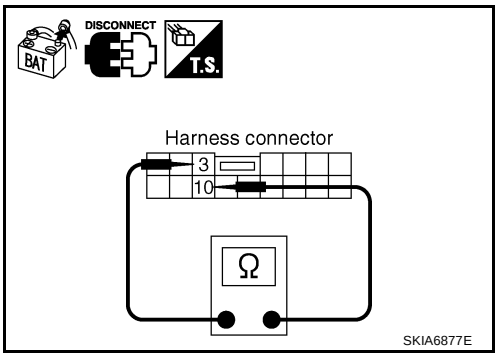
OK >> GO TO 8.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and ICC sensor
- Harness between ABS actuator and electric unit (control unit) and harness connector E205

8. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect harness connector B8.
2. Check continuity between harness connector B5 terminals 3 (L) and 10 (R).

3 (L) - 10 (R) : Continuity should not exist.



OK or NG

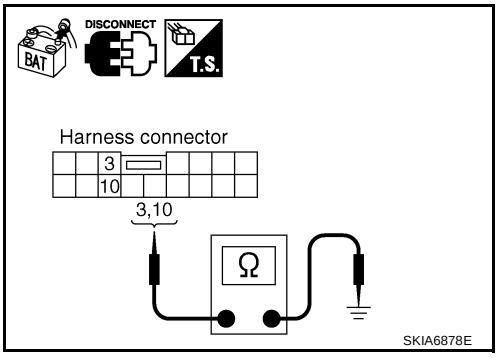
OK >> GO TO 9.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between harness connector B5 and harness connector B8
- Harness between harness connector B5 and harness connector B5

9. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between harness connector B5 terminals 3 (L), 10 (R) and ground.

3 (L) - Ground : Continuity should not exist.
10 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 10.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between harness connector B5 and harness connector B8
- Harness between harness connector B5 and harness connector B5

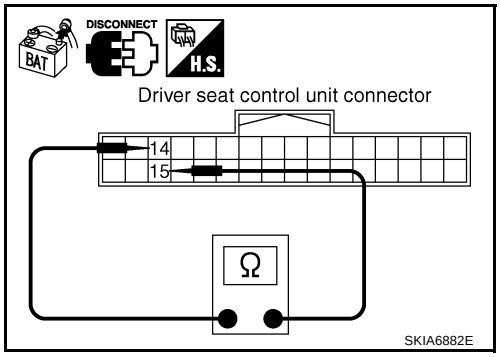
10. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check continuity between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

14 (OR) - 15 (SB) : Continuity should not exist.

OK or NG

OK >> GO TO 11.
NG >> Repair harness between driver seat control unit and harness connector B151.



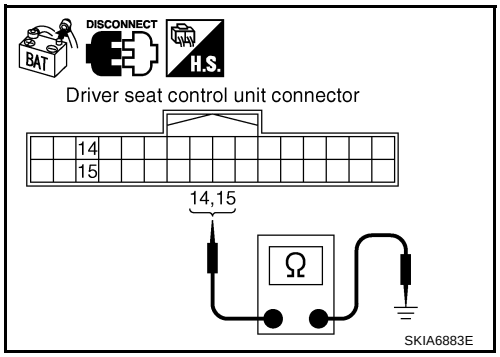
11. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between driver seat control unit harness connector B152 terminals 14 (OR), 15 (SB) and ground.

14 (OR) - Ground : Continuity should not exist.
15 (SB) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 12.
NG >> Repair harness between driver seat control unit and harness connector B151.



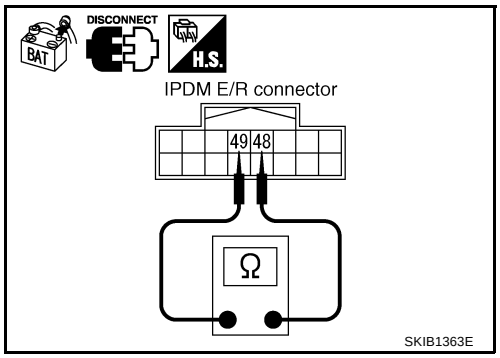
12. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check continuity between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 13.
NG >> Repair harness between IPDM E/R and harness connector E205.



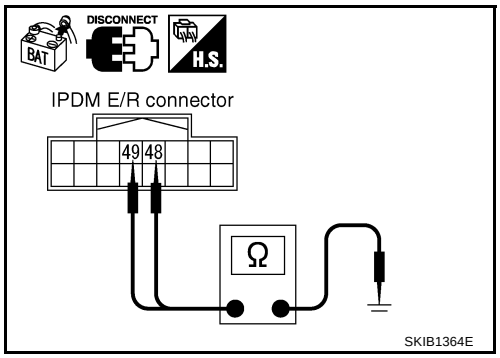
13. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between IPDM E/R harness connector E9 terminals 48 (L), 49 (R) and ground.

48 (L) - Ground : Continuity should not exist.
49 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 14.
NG >> Repair harness between IPDM E/R and harness connector E205.



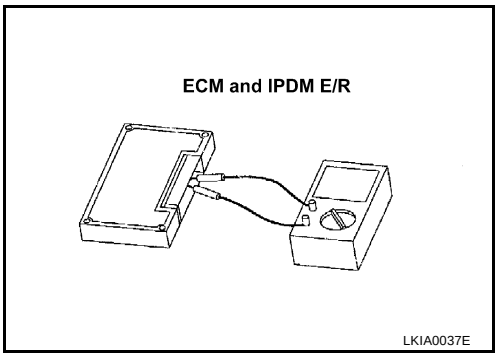
14. CHECK ECM AND IPDM E/R INTERNAL CIRCUIT

1. Remove ECM and IPDM E/R from vehicle.
2. Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. 108 - 132Ω

3. Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132Ω



OK or NG

OK >> GO TO 15.
NG >> Replace ECM and/or IPDM E/R.

15. 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 16.
NG >> Refer to LAN-16, "Example of Filling in Check Sheet When Initial Conditions Are Not Reproduced".

16. CHECK UNIT REPRODUCIBILITY

Performs the following procedure for each unit, 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.

- A/T assembly
- Display control unit
- ICC unit
- Intelligent Key unit
- BCM
- Steering angle sensor
- Unified meter and A/C amp.
- ICC sensor
- ABS actuator and electric unit (control unit)
- Driver seat control unit
- ECM
- IPDM E/R

Check results

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

IPDM E/R Ignition Relay Circuit Inspection

AKS00CEX

Check the following. If no malfunction is found, replace the IPDM E/R.

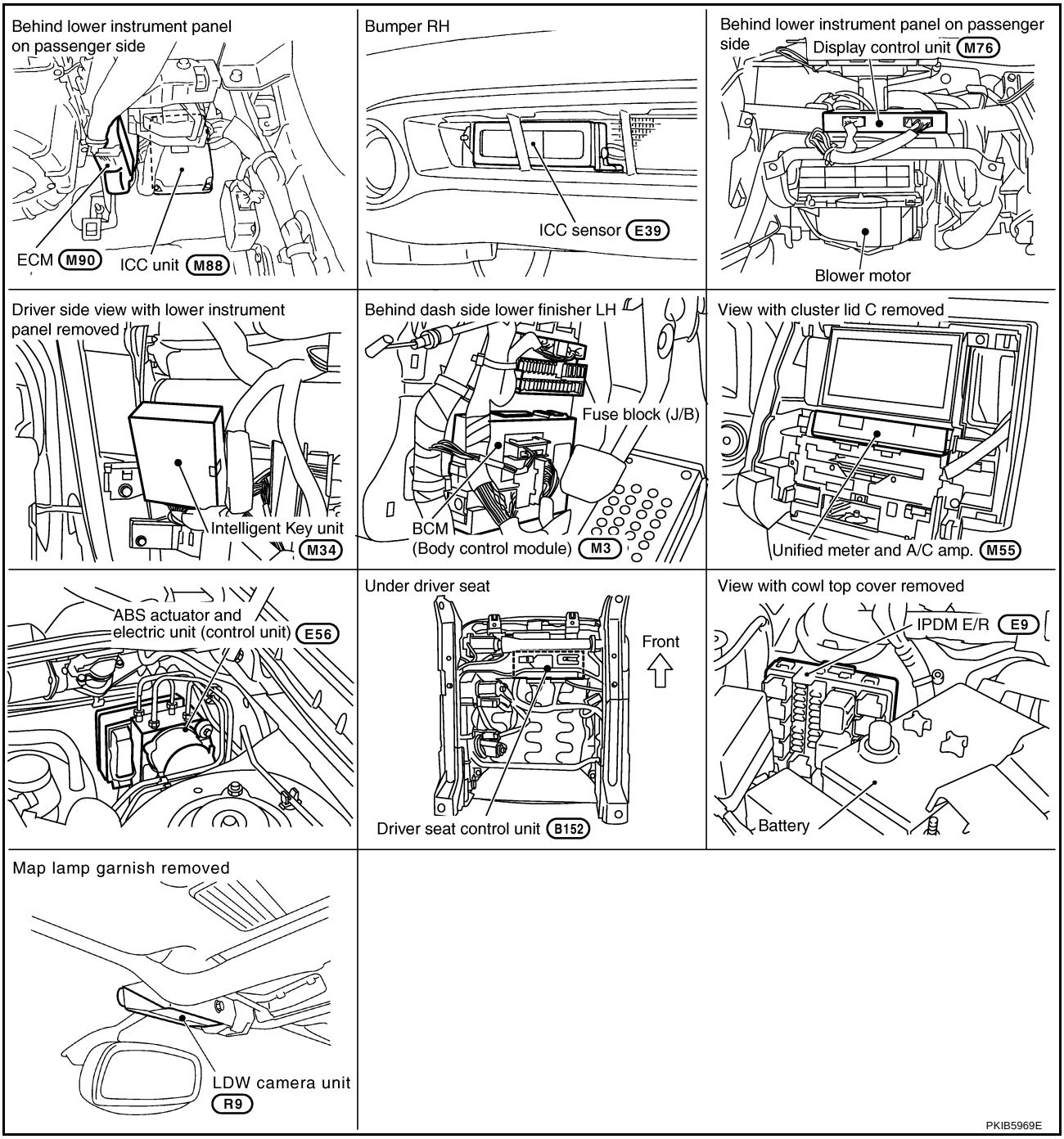
- IPDM E/R power supply circuit. Refer to PG-28, "IPDM E/R Power/Ground Circuit Inspection" .
- Ignition power supply circuit. Refer to PG-12, "IGNITION POWER SUPPLY - IGNITION SW. IN “ON” AND/OR “START”" .

CAN SYSTEM (TYPE 4)

PFP:23710

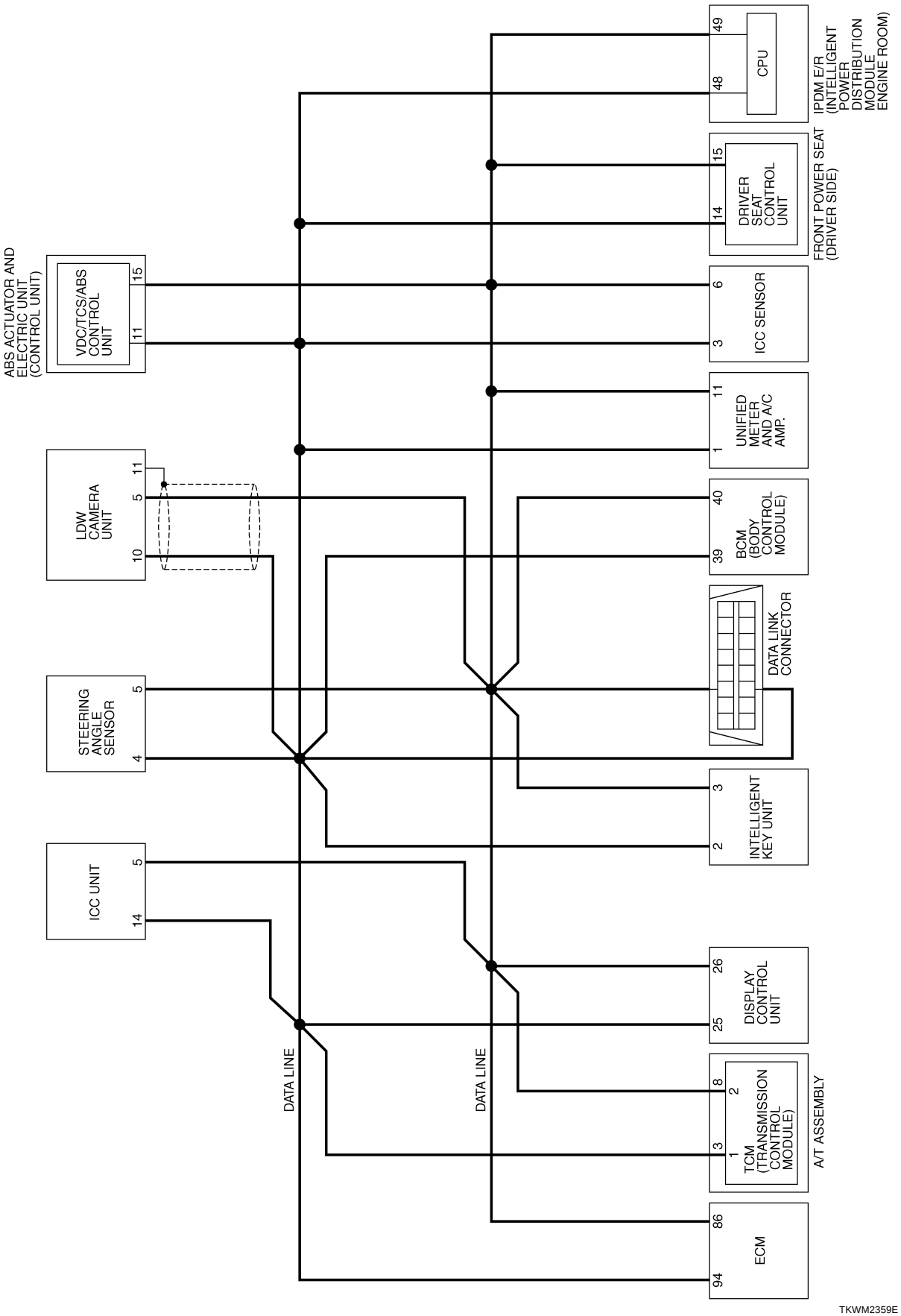
Component Parts and Harness Connector Location

AKS00CDM



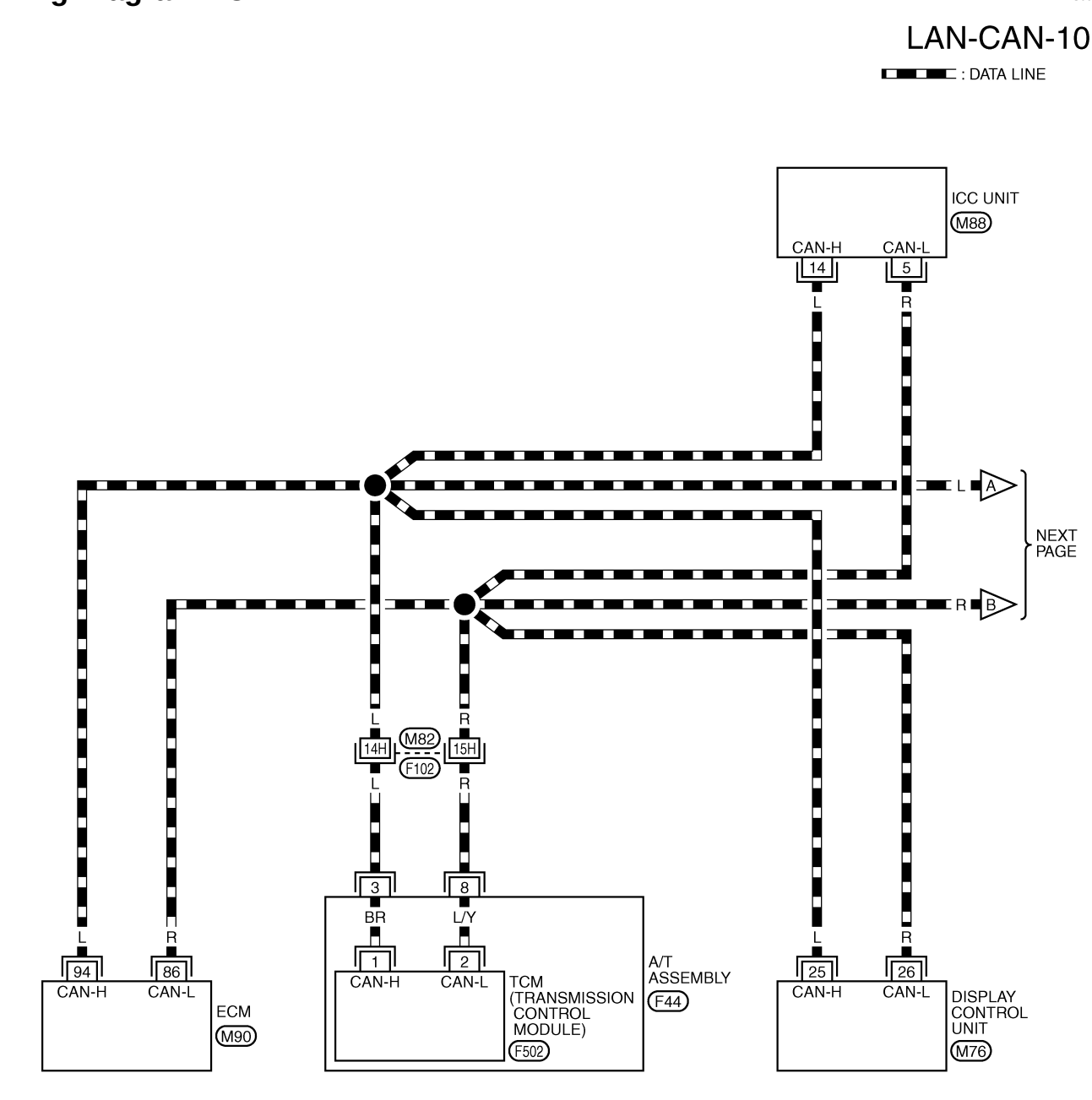
Schematic

AKS00CDN



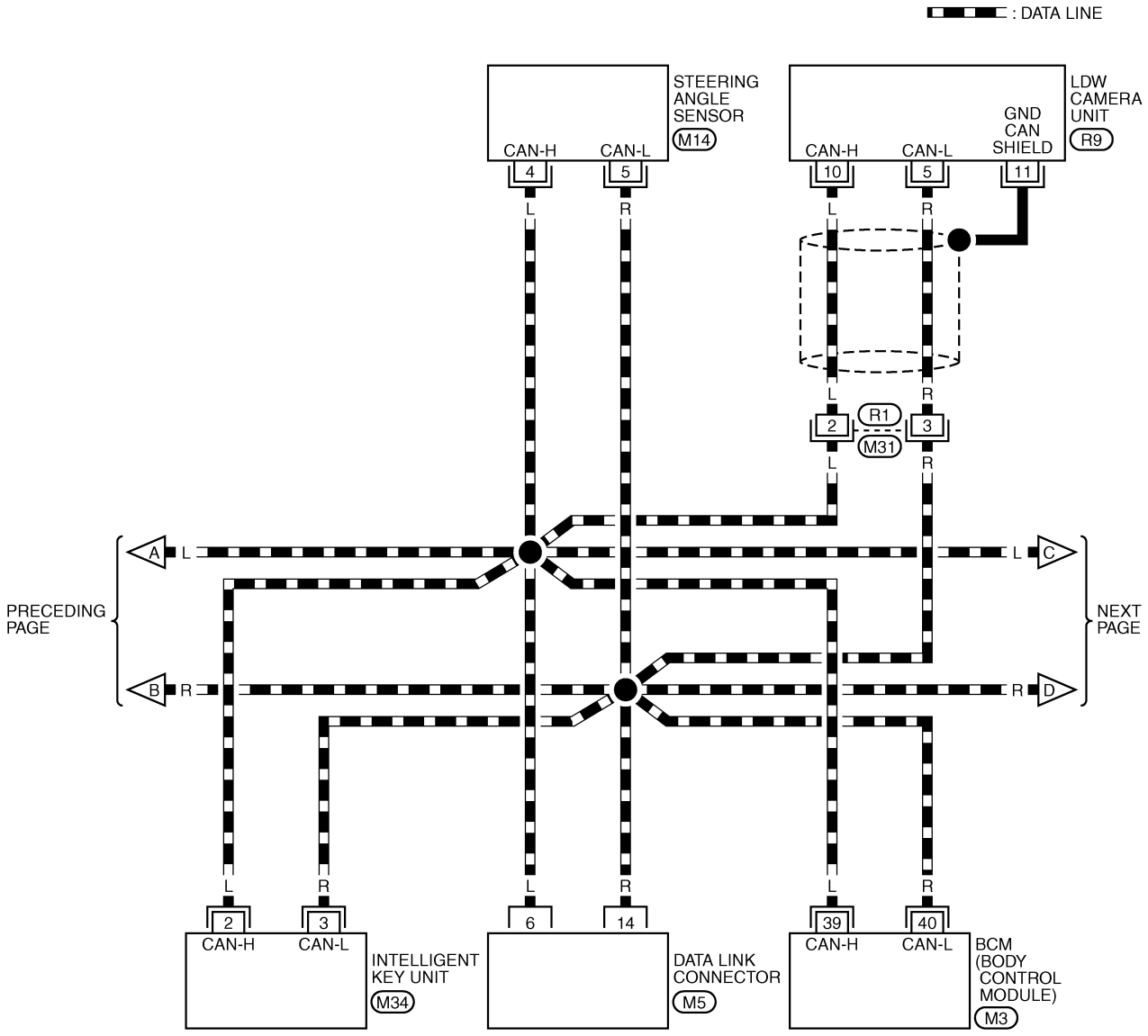
Wiring Diagram - CAN -

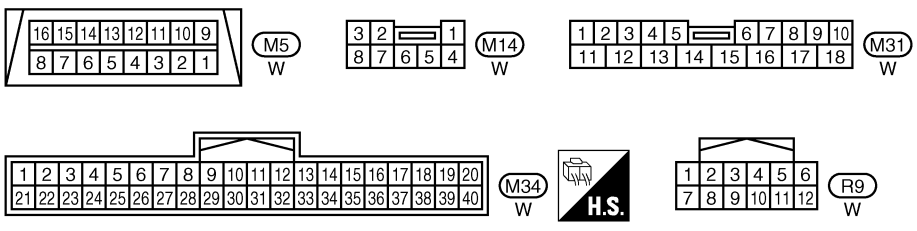
AKS00CDO



TKWM2360E

LAN-CAN-11



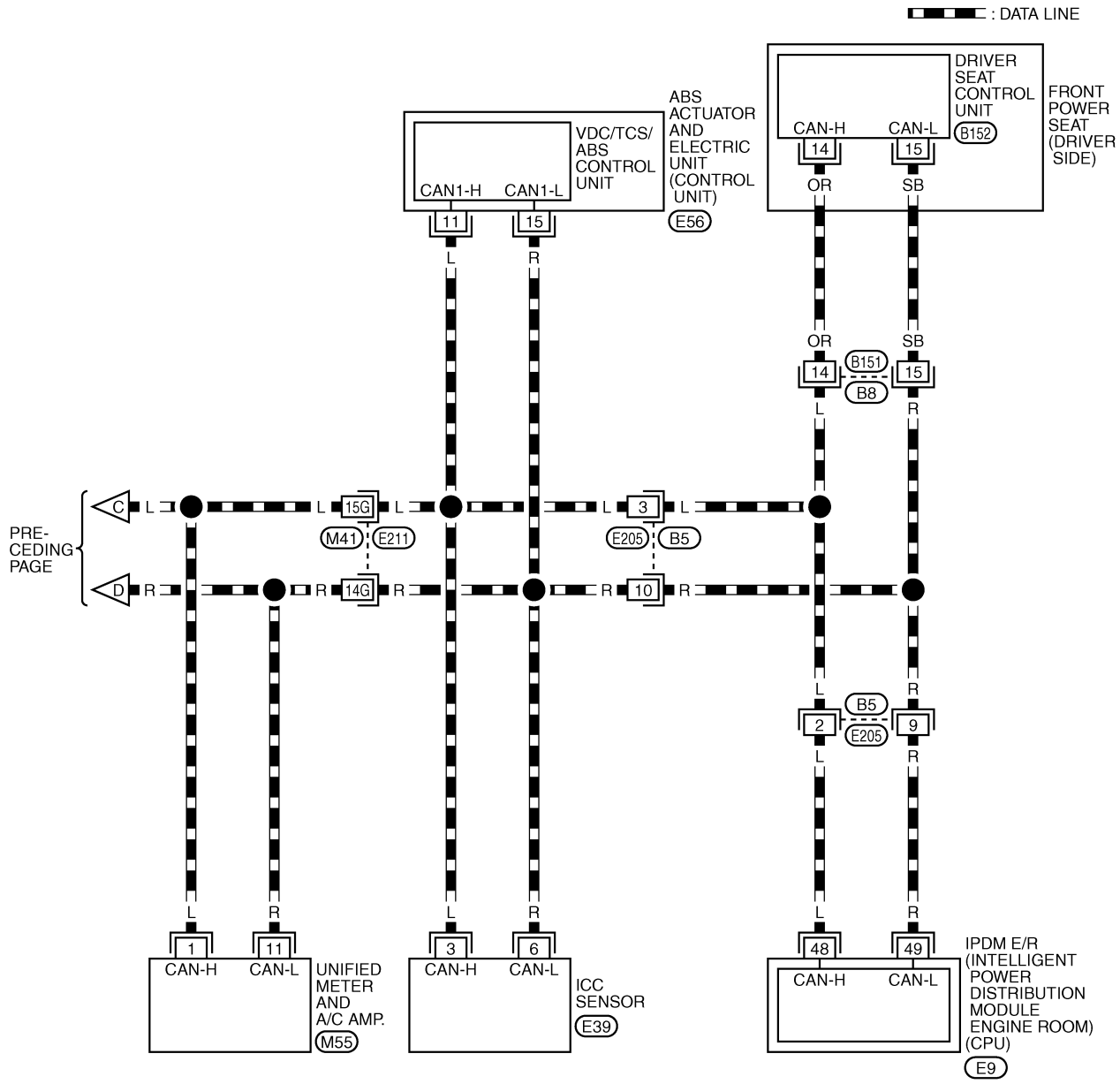


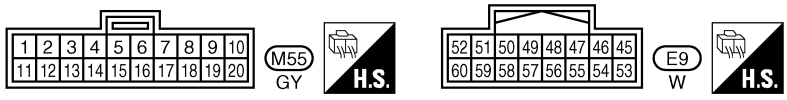
REFER TO THE FOLLOWING.

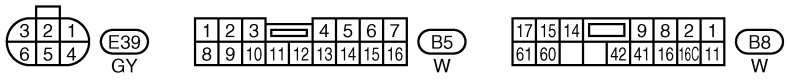
M3 -ELECTRICAL UNITS

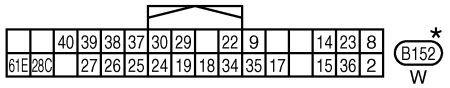
TKWM2361E

LAN-CAN-12









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

REFER TO THE FOLLOWING.

E211 -SUPER MULTIPLE JUNCTION (SMJ)

E56 -ELECTRICAL UNITS

TKWM2362E

Check Sheet

AKS00CDP

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	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

Symptoms :

Attach copy of SELECT SYSTEM

Attach copy of SELECT SYSTEM

PKIB4350E

Display control unit Translation Sheet: Rewrite the following names, and put a check mark on the check sheet table.			
Confirmation/Adjustment Display	Check sheet table Display	Confirmation/Adjustment Display	Check sheet table Display
CAN COMM	Initial diagnosis	CAN CIRC 5	METER/M&A
CAN CIRC 1	Transmit diagnosis	CAN CIRC 6	–
CAN CIRC 2	BCM/SEC	CAN CIRC 7	IPDM E/R
CAN CIRC 3	ECM	CAN CIRC 8	–
CAN CIRC 4	–	CAN CIRC 9	–

Attach copy of
display control unit
CAN DIAG SUPPORT MONITOR check sheet

PKIB4177E

Attach copy of
ENGINE
SELF-DIAG RESULTS

Attach copy of
A/T
SELF-DIAG RESULTS

Attach copy of
ICC
SELF-DIAG RESULTS

Attach copy of
INTELLIGENT KEY
SELF-DIAG RESULTS

Attach copy of
BCM
SELF-DIAG RESULTS

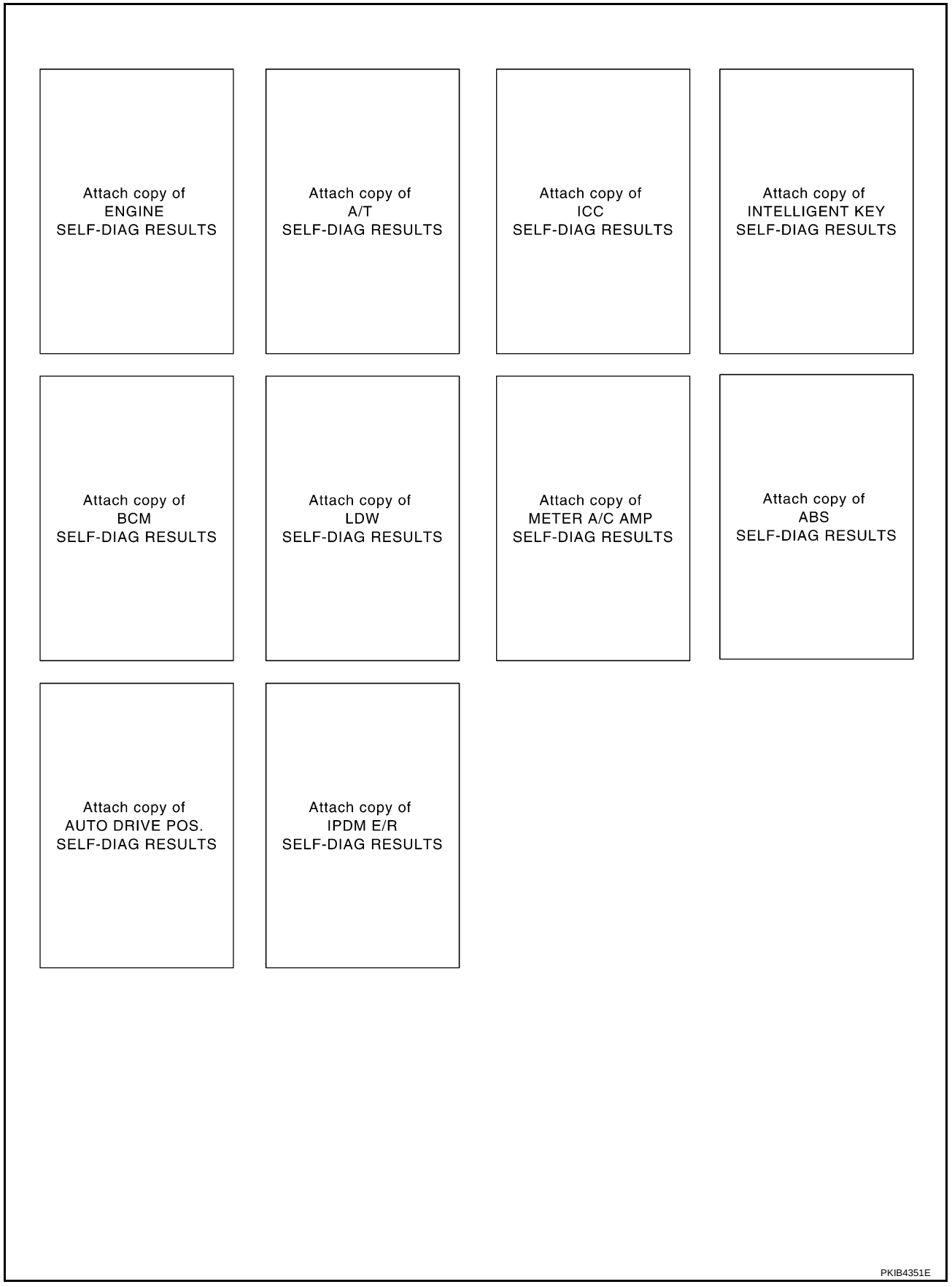
Attach copy of
LDW
SELF-DIAG RESULTS

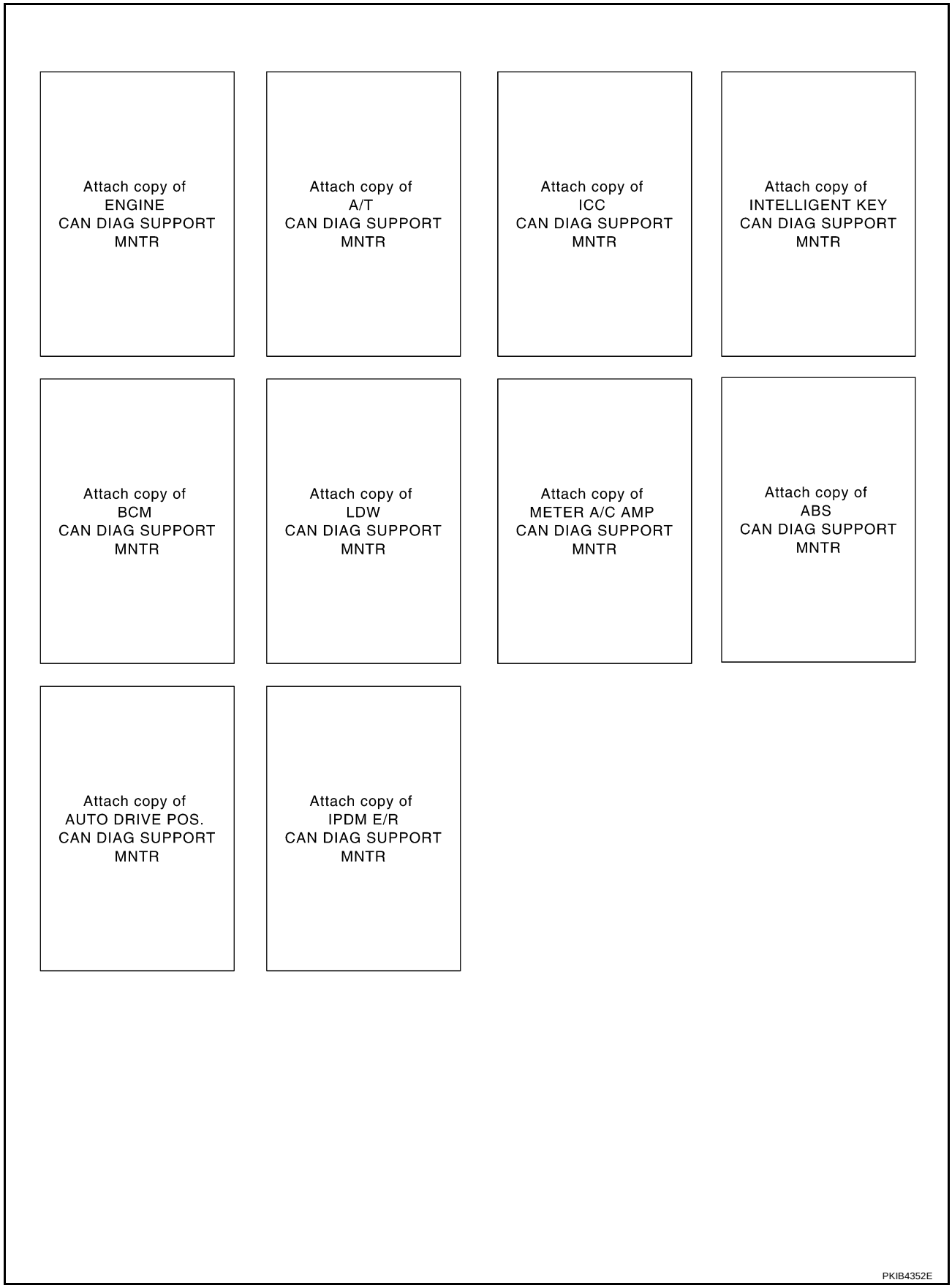
Attach copy of
METER A/C AMP
SELF-DIAG RESULTS

Attach copy of
ABS
SELF-DIAG RESULTS

Attach copy of
AUTO DRIVE POS.
SELF-DIAG RESULTS

Attach copy of
IPDM E/R
SELF-DIAG RESULTS




Attach copy of
ENGINE
CAN DIAG SUPPORT
MNTR
Attach copy of
A/T
CAN DIAG SUPPORT
MNTR
Attach copy of
ICC
CAN DIAG SUPPORT
MNTR
Attach copy of
INTELLIGENT KEY
CAN DIAG SUPPORT
MNTR
Attach copy of
BCM
CAN DIAG SUPPORT
MNTR
Attach copy of
LDW
CAN DIAG SUPPORT
MNTR
Attach copy of
METER A/C AMP
CAN DIAG SUPPORT
MNTR
Attach copy of
ABS
CAN DIAG SUPPORT
MNTR
Attach copy of
AUTO DRIVE POS.
CAN DIAG SUPPORT
MNTR
Attach copy of
IPDM E/R
CAN DIAG SUPPORT
MNTR
PKIB4352E

CHECK SHEET RESULTS (EXAMPLE)

NOTE:

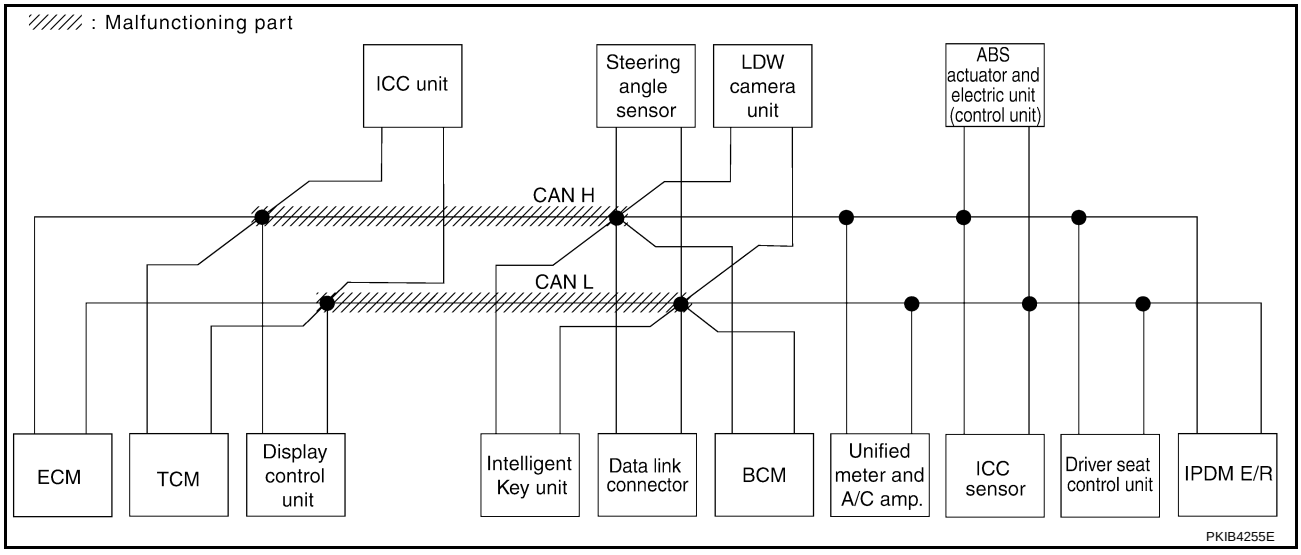
If a check mark is put on “NG” on “INITIAL DIAG (Initial diagnosis)”, replace the control unit.

Case 1

Check harness between TCM and data link connector. Refer to LAN-200, "Inspection Between TCM and Data Link Connector Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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) ✓	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	—	UNKWN ✓	—	—	UNKWN ✓	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN ✓	—	—	UNKWN ✓	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN ✓	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
BCM	No indication	NG	UNKWN	UNKWN ✓	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000) ✓	—
LDW	No indication	—	—	UNKWN ✓	UNKWN ✓	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
METER A/C AMP	No indication	—	UNKWN	UNKWN ✓	UNKWN ✓	UNKWN ✓	UNKWN ✓	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN ✓	UNKWN ✓	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN ✓	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN ✓	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB4381E

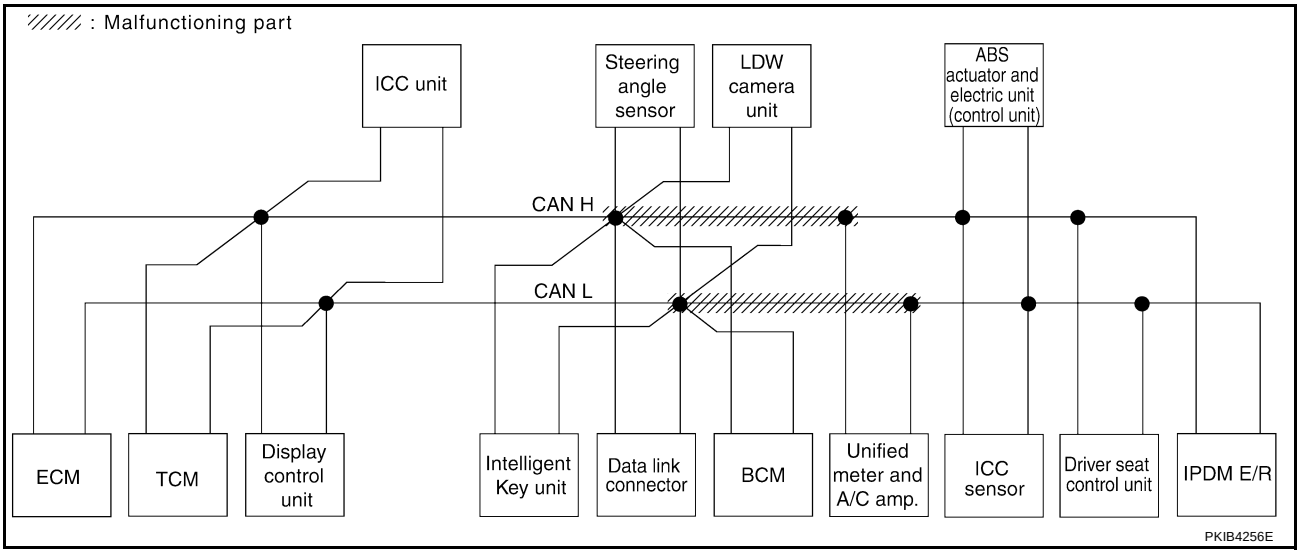


Case 2

Check harness between data link connector and unified meter and A/C amp. Refer to LAN-201, "Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4382E

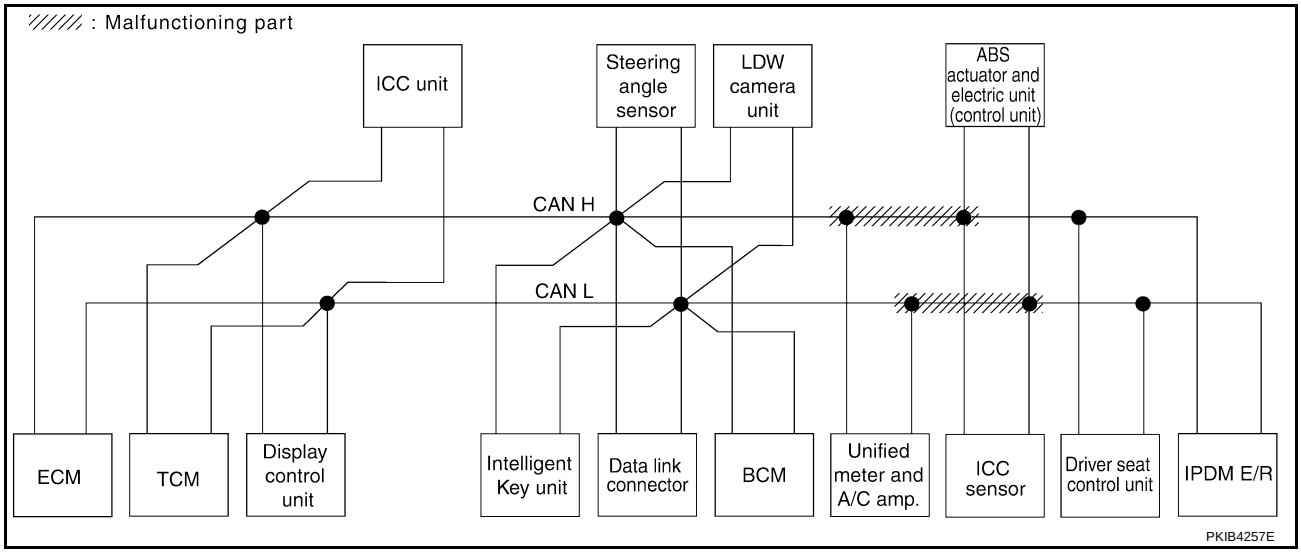


Case 3

Check harness between unified meter and A/C amp. and ABS actuator and electric unit (control unit). Refer to LAN-201, "Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR												SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis											
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R	
ENGINE	—	NG	UNKWN	—	UNKWN	—	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) ✓ / —
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN ✓	— / —
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN ✓	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓ / —
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) / —
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN ✓	CAN COMM CIRCUIT (U1000) / —
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓ / —
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓ / —
ABS	—	NG	UNKWN	UNKWN ✓	UNKWN ✓	—	—	—	—	UNKWN ✓	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓ / —
AUTO DRIVE POS.	No indication ✓	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓ / —
IPDM E/R	No indication ✓	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓ / —

PKIB4383E

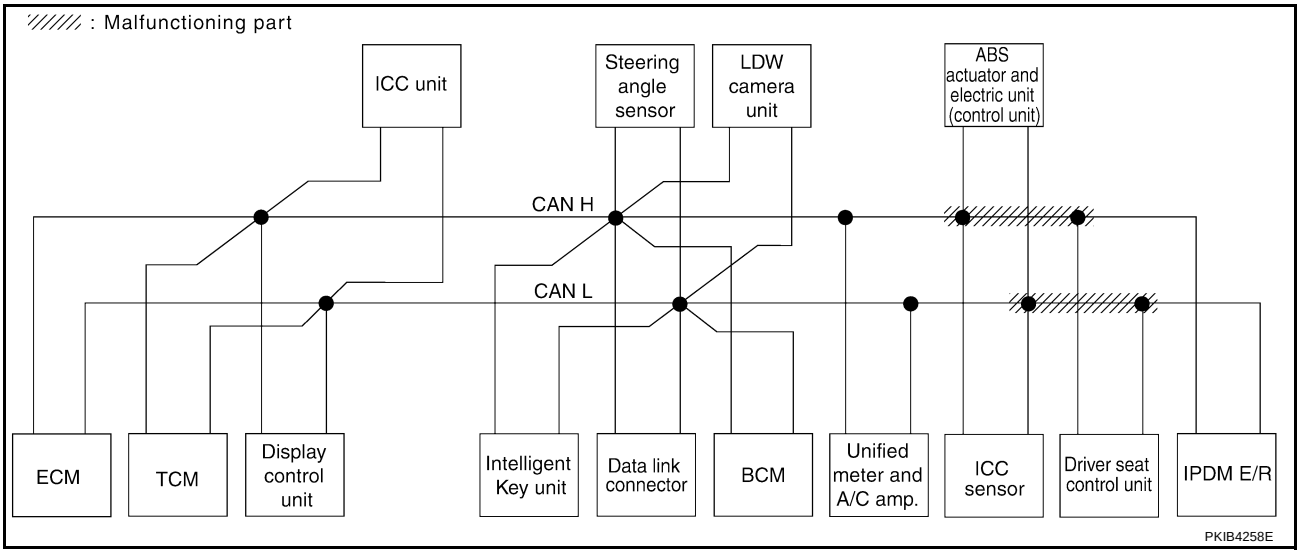


Case 4

Check harness between ABS actuator and electric unit (control unit) and driver seat control unit. Refer to LAN-202, "Inspection Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN ✓	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN ✓	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication ✓	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication ✓	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB4384E

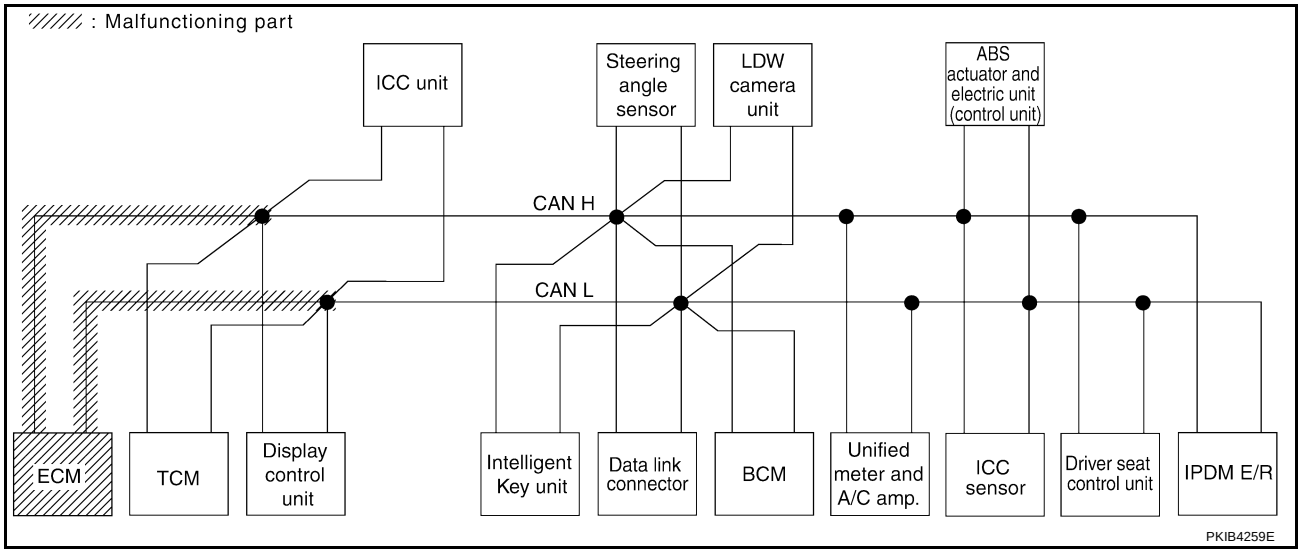


Case 5

Check ECM circuit. Refer to LAN-203, "ECM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR												SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis											
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R	
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4385E

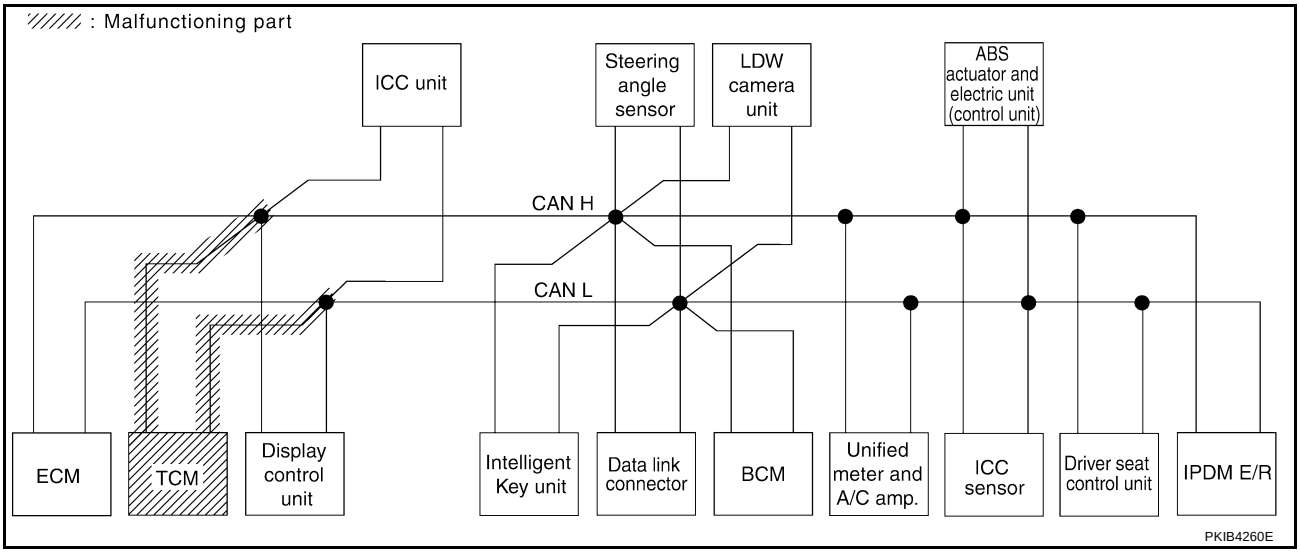


Case 6

Check TCM circuit. Refer to LAN-203, "TCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR												SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis											
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R	
ENGINE	—	NG	UNKWN	—	UNKWN	—	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) ✓ / —
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	— / —
ICC	—	NG	UNKWN	UNKWN	UNKWN ✓	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓ / —
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) / —
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000) / —
LDW	No indication	—	—	UNKWN	UNKWN ✓	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓ / —
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓ / —
ABS	—	NG	UNKWN	UNKWN	UNKWN ✓	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓ / —
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN ✓	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓ / —
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000) / —

PKIB4386E



PKIB4260E

Case 7

Check display control unit circuit. Refer to LAN-204, "Display Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN ✓	UNKWN ✓	—	—	—	—	UNKWN ✓	—	UNKWN ✓	—	—	UNKWN ✓	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

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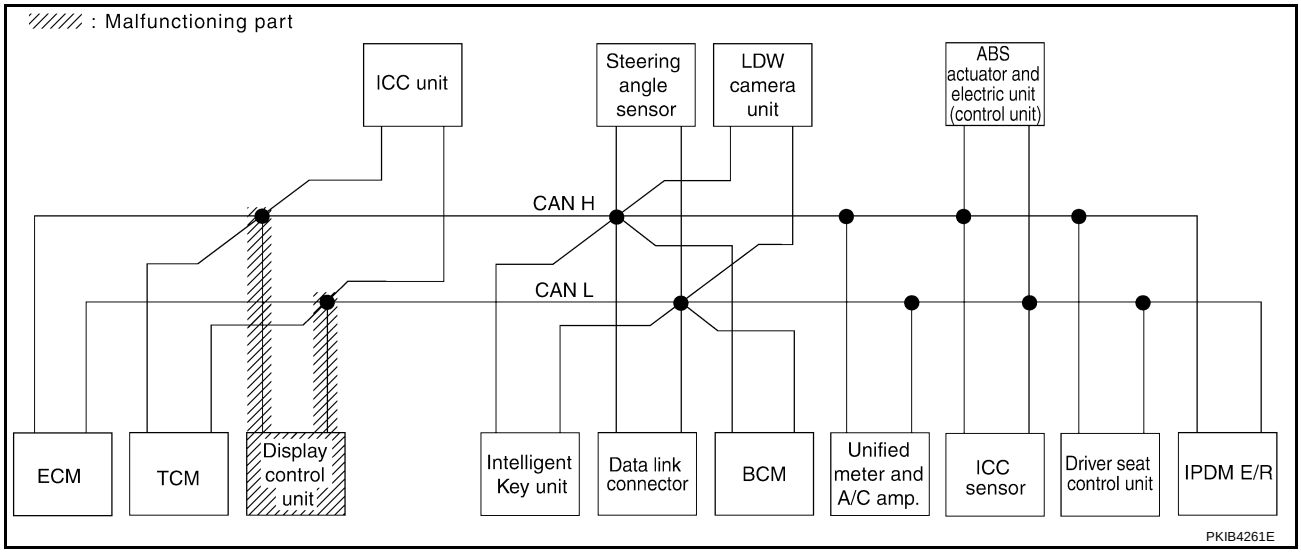
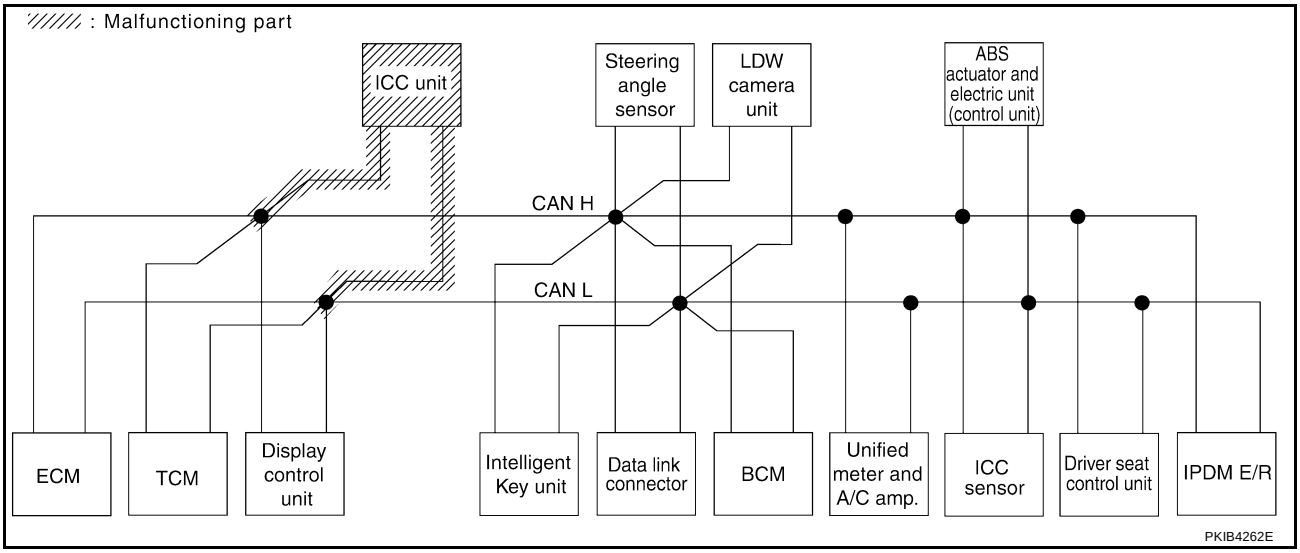


Case 8

Check ICC unit circuit. Refer to LAN-204, "ICC Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN ✓	UNKWN ✓	—	—	—	UNKWN ✓	—	—	UNKWN ✓	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4388E



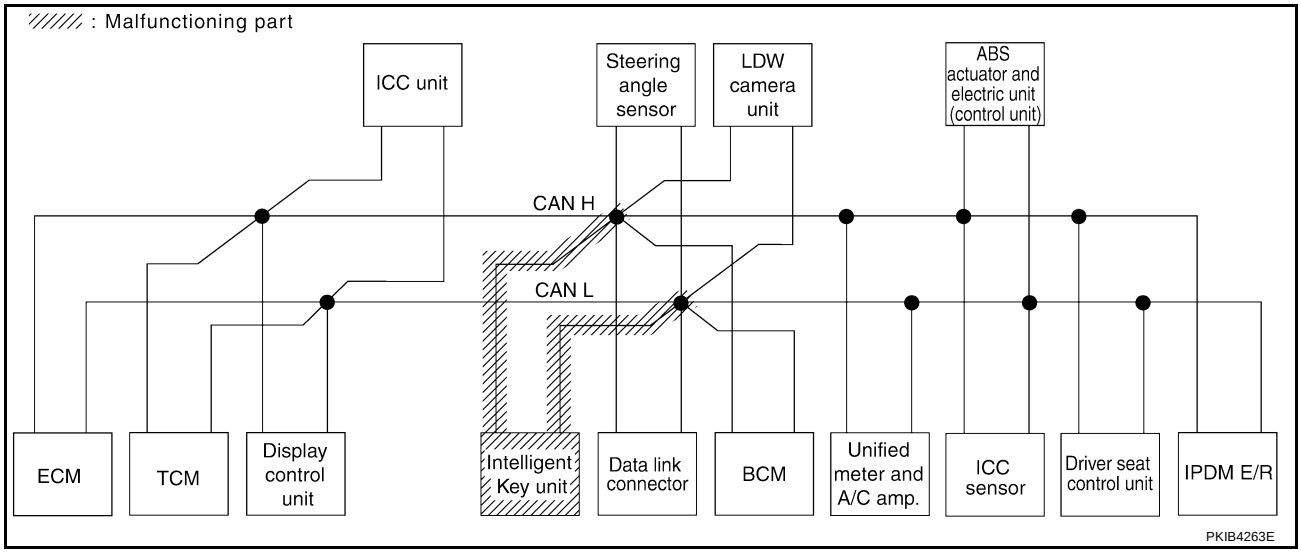
PKIB4262E

Case 9

Check Intelligent Key unit circuit. Refer to LAN-205, "Intelligent Key Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication ✓	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4389E

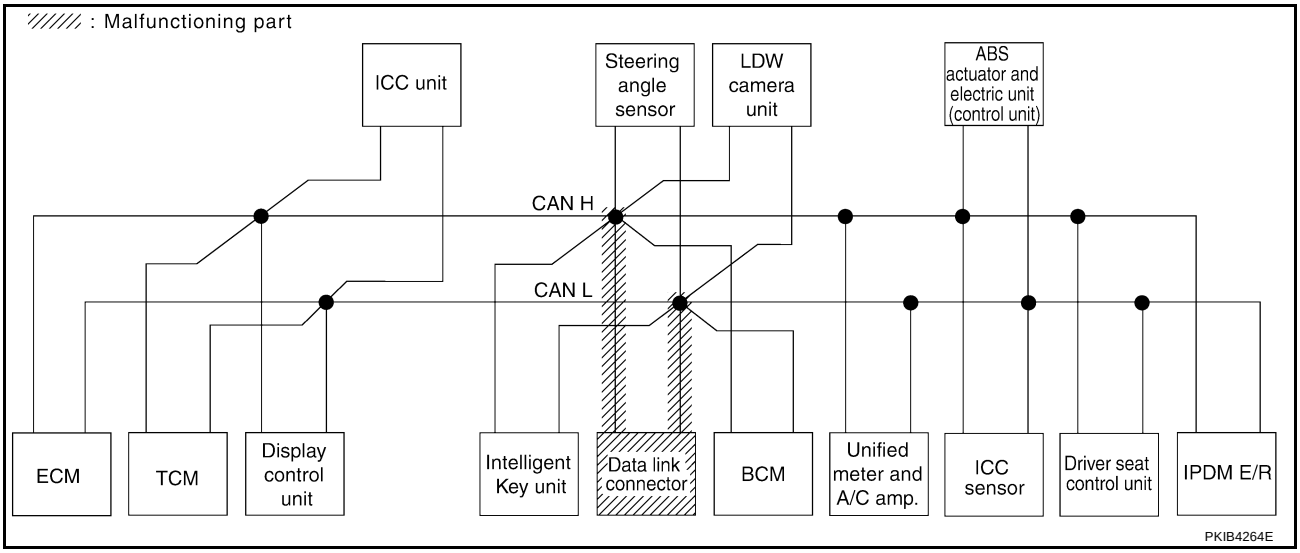


Case 10

Check data link connector circuit. Refer to LAN-205, "Data Link Connector Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication ✓	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication ✓	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication ✓	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication ✓	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication ✓	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication ✓	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4390E



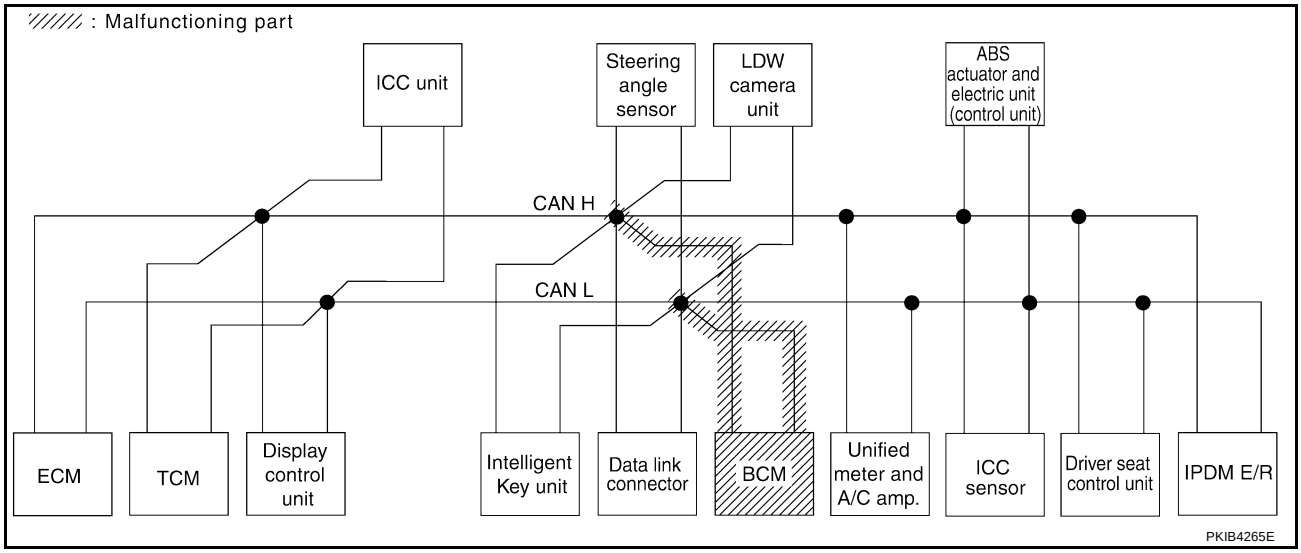
PKIB4264E

Case 11

Check BCM circuit. Refer to LAN-206, "BCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4391E

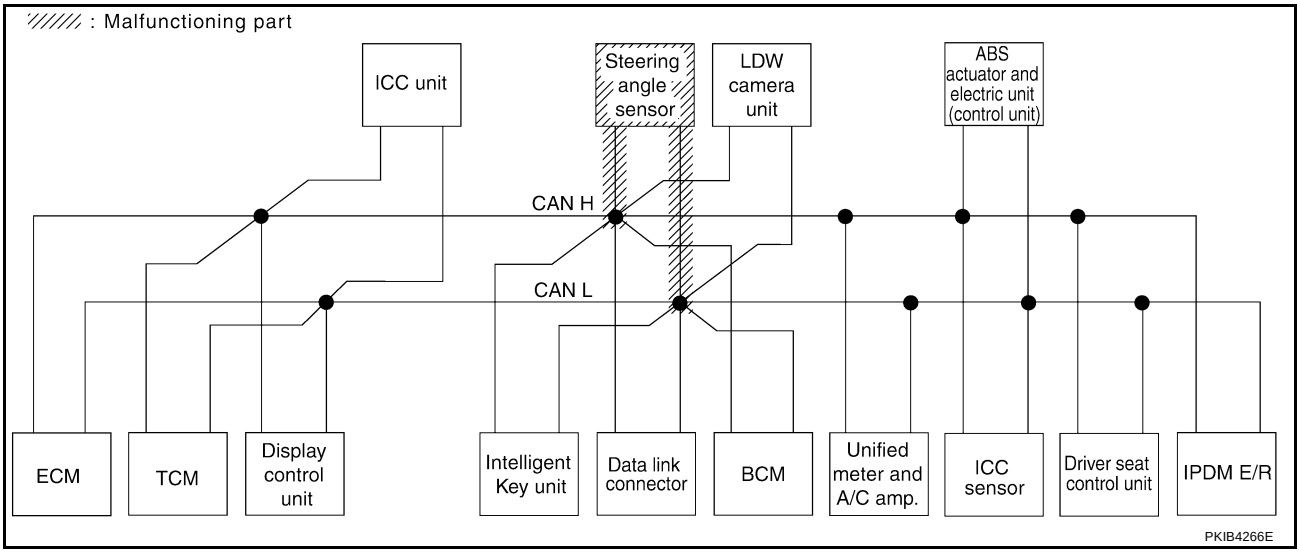


Case 12

Check steering angle sensor circuit. Refer to LAN-206, "Steering Angle Sensor Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4392E



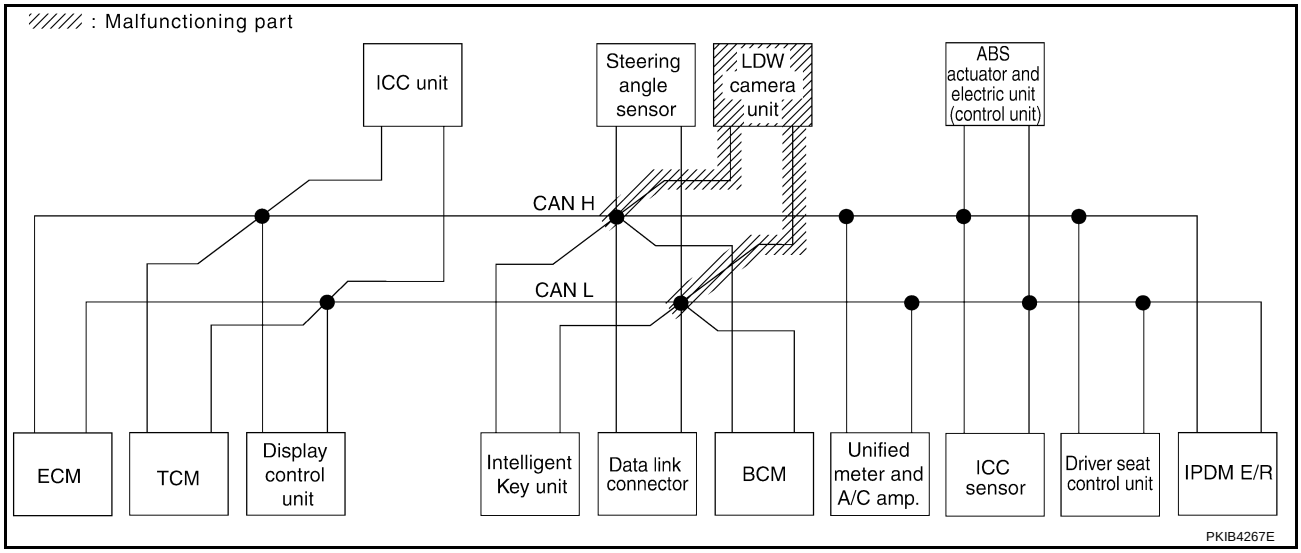
PKIB4266E

Case 13

Check LDW camera unit circuit. Refer to LAN-207, "LDW Camera Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4393E

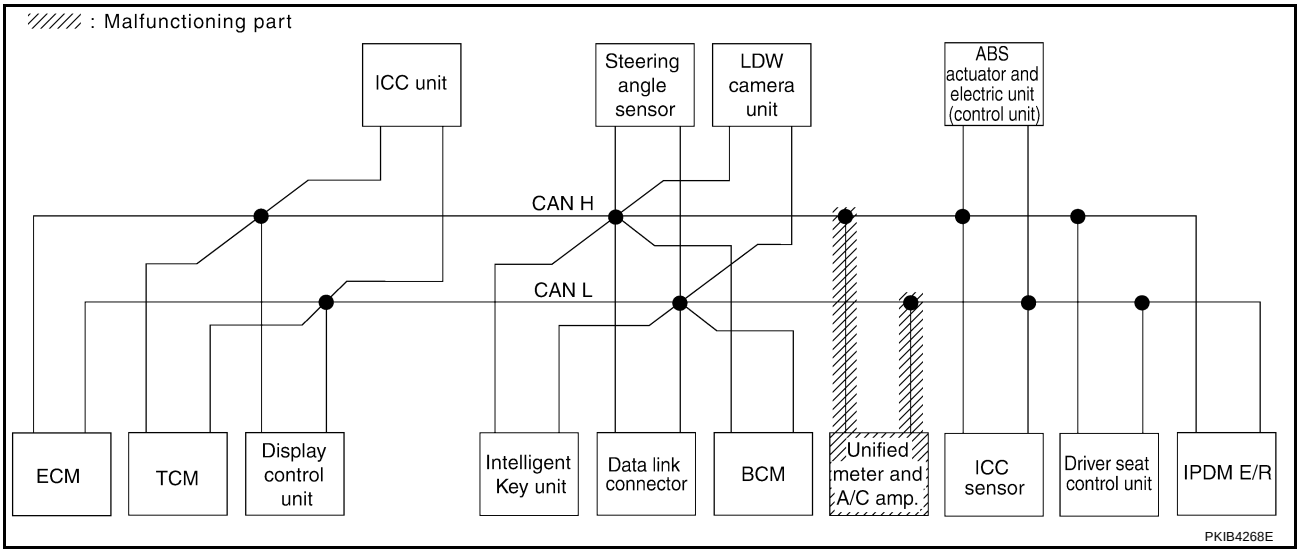


Case 14

Check unified meter and A/C amp. circuit. Refer to LAN-208, "Unified Meter and A/C Amp. Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4394E

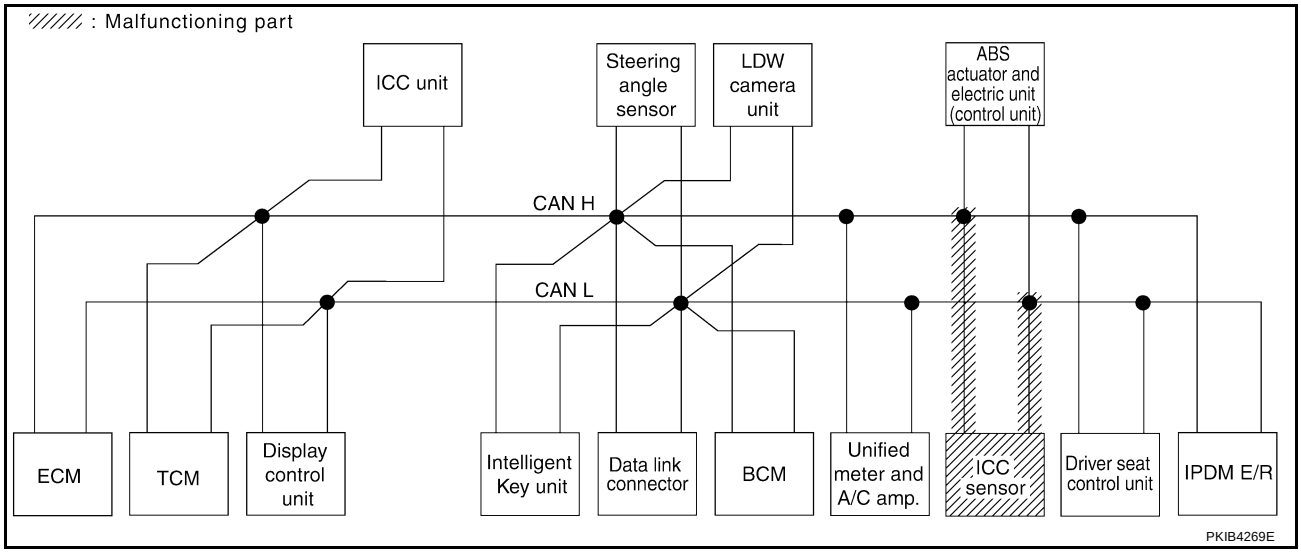


Case 15

Check ICC sensor circuit. Refer to LAN-208, "ICC Sensor Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4395E

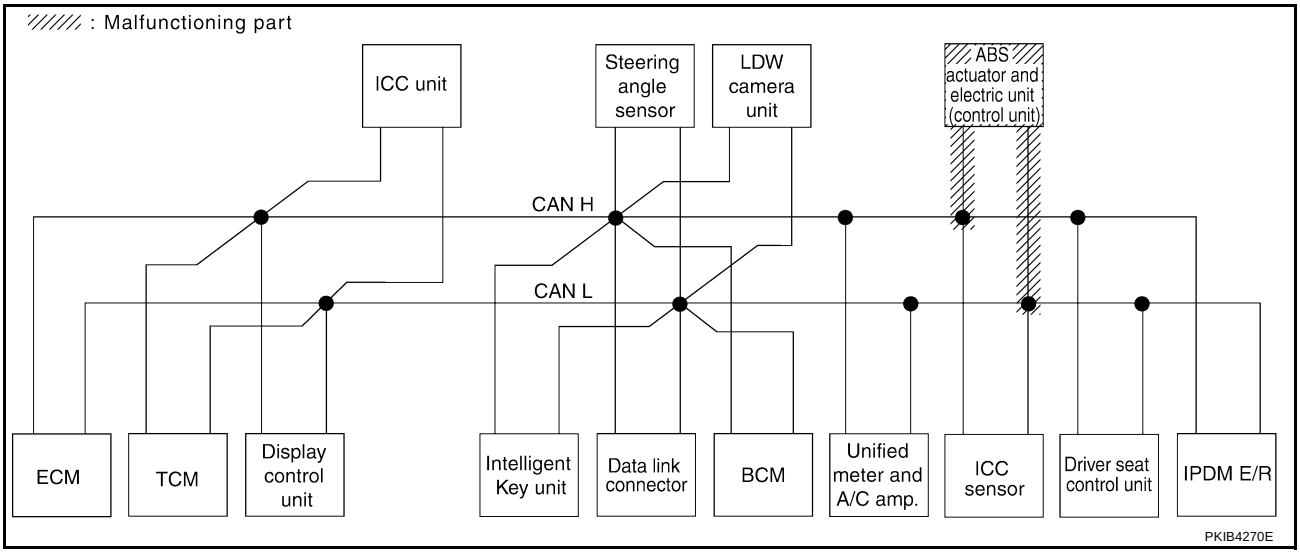


Case 16

Check ABS actuator and electric unit (control unit) circuit. Refer to LAN-209, "ABS Actuator and Electric Unit (Control Unit) Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4396E

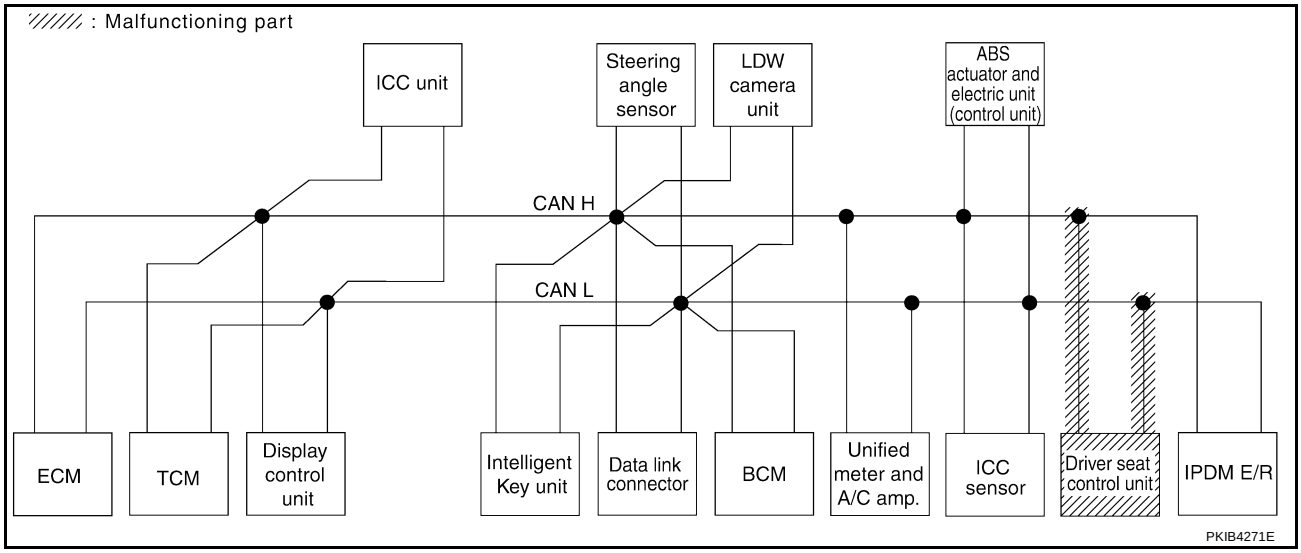


Case 17

Check driver seat control unit circuit. Refer to LAN-209, "Driver Seat Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication ✓	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4397E

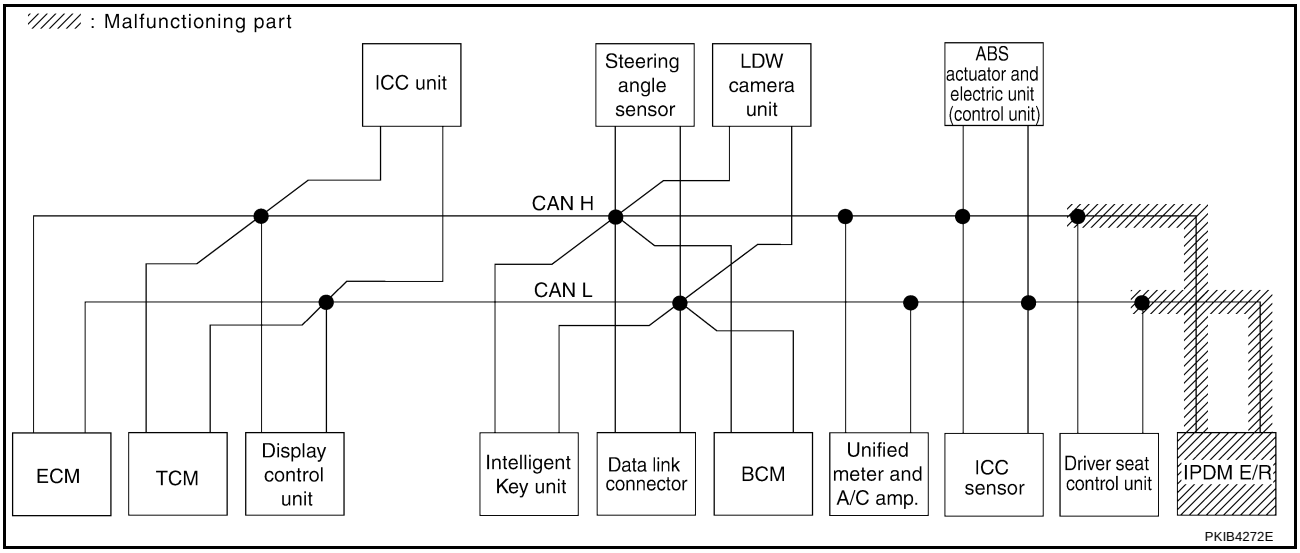


Case 18

Check IPDM E/R circuit. Refer to LAN-210, "IPDM E/R Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN ✓	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN ✓	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication ✓	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB4398E



Case 19

Check CAN communication circuit. Refer to LAN-211, "CAN Communication Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4399E

Case 20

Check IPDM E/R ignition relay circuit continuously sticks “OFF”. Refer to LAN-218, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	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)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4400E

Case 21

Check IPDM E/R ignition relay circuit continuously sticks “ON”. Refer to LAN-218, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	—	—	—	—	—	—	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	—	UNKWN	—	—	—	—	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4401E

Inspection Between TCM and Data Link Connector Circuit

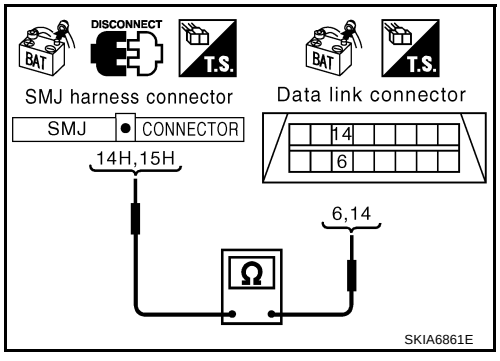
AKS00CDQ

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and harness connector M82.
4. Check continuity between harness connector M82 terminals 14H (L), 15H (R) and data link connector M5 terminals 6 (L), 14 (R).

14H (L) - 6 (L) : Continuity should exist.

15H (R) - 14 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness.

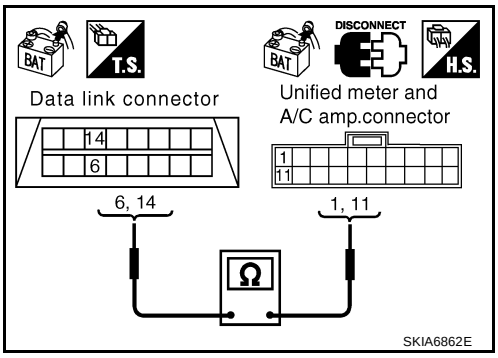
Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit

AKS00CDR

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and unified meter and A/C amp. connector.
4. Check continuity between data link connector M5 terminals 6 (L), 14 (R) and unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R).

6 (L) - 1 (L) : Continuity should exist.
14 (R) - 11 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit

AKS00CDS

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 M41
- Harness connector E211

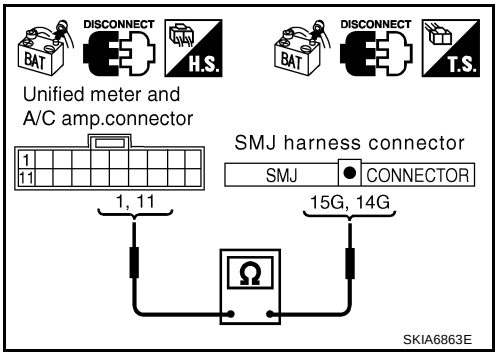
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector and harness connector M41.
2. Check continuity between unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R) and harness connector M41 terminals 15G (L), 14G (R).

1 (L) - 15G (L) : Continuity should exist.
11 (R) - 14G (R) : Continuity should exist.



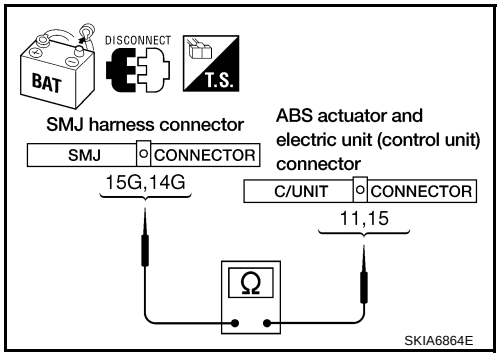
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check continuity between harness connector E211 terminals 15G (L), 14G (R) and ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R).

15G (L) - 11 (L) : Continuity should exist.
14G (R) - 15 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit Circuit

AKS00CDT

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 E205
- Harness connector B5

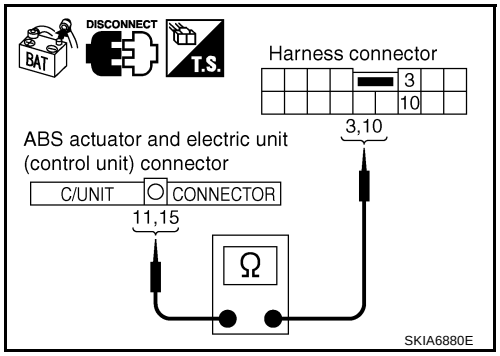
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and harness connector E205 terminals 3 (L), 10 (R).

11 (L) - 3 (L) : Continuity should exist.
15 (R) - 10 (R) : Continuity should exist.



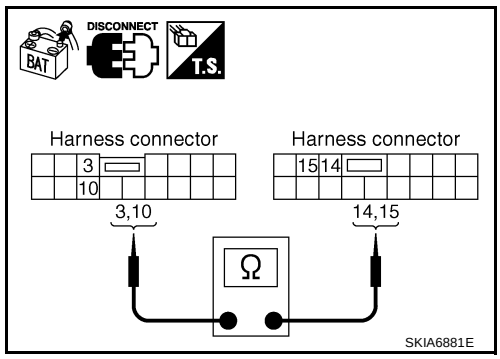
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect harness connector B8.
2. Check continuity between harness connector B5 terminals 3 (L), 10 (R) and harness connector B8 terminals 14 (L), 15 (R).

3 (L) - 14 (L) : Continuity should exist.
10 (R) - 15 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

ECM Circuit Inspection

AKS00CDU

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).

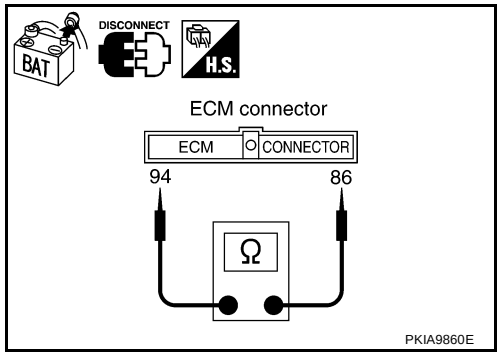
OK or NG

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 M90 terminals 94 (L) and 86 (R).

94 (L) - 86 (R) : Approx. 108 - 132Ω



OK or NG

OK >> Replace ECM.
NG >> Repair harness between ECM and harness connector M82.

TCM Circuit Inspection

AKS00CDV

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 (control module side and harness side).

- A/T assembly connector
- Harness connector F102
- Harness connector M82

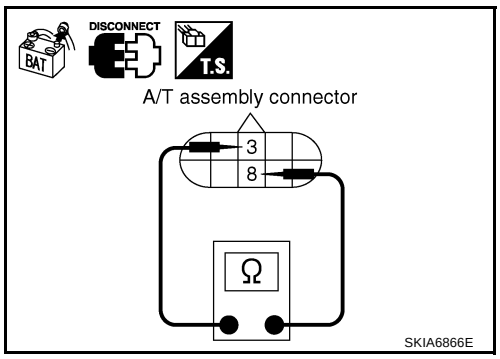
OK or NG

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 F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Approx. 54 - 66Ω



OK or NG

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

Display Control Unit Circuit Inspection

AKS00CDW

1. CHECK CONNECTOR

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

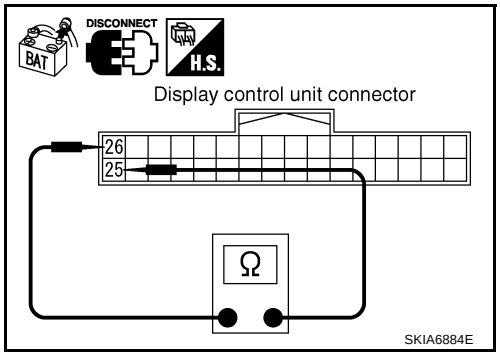
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect display control unit connector.
2. Check resistance between display control unit harness connector M76 terminals 25 (L) and 26 (R).

25 (L) - 26 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace display control unit.
NG >> Repair harness between display control unit and harness connector M82.

ICC Unit Circuit Inspection

AKS00CDX

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.

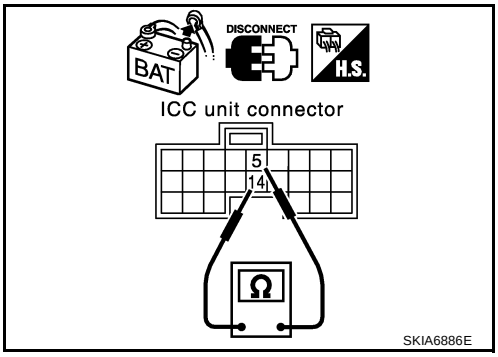
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ICC unit connector.
2. Check resistance between ICC unit harness connector M88 terminals 14 (L) and 5 (R).

14 (L) - 5 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace ICC unit.
NG >> Repair harness between ICC unit and harness connector M82.



Intelligent Key Unit Circuit Inspection

AKS00CDY

1. CHECK CONNECTOR

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

OK or NG

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

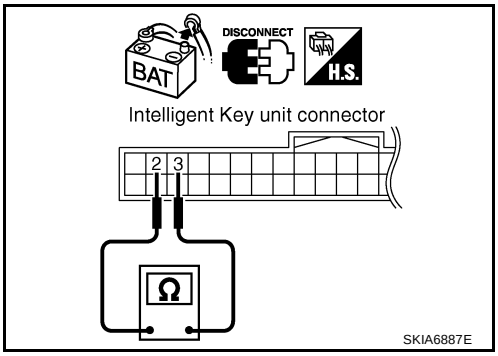
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect Intelligent Key unit connector.
2. Check resistance between Intelligent Key unit harness connector M34 terminals 2 (L) and 3 (R).

2 (L) - 3 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace Intelligent Key unit.
NG >> Repair harness between Intelligent Key unit and data link connector.



Data Link Connector Circuit Inspection

AKS00CDZ

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check data link connector and terminals 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

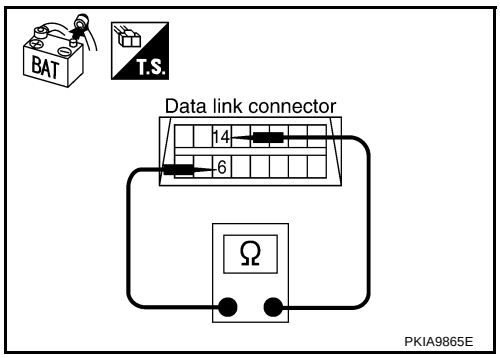
Check resistance between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness between data link connector and BCM.



BCM Circuit Inspection

AKS00CE0

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of BCM 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

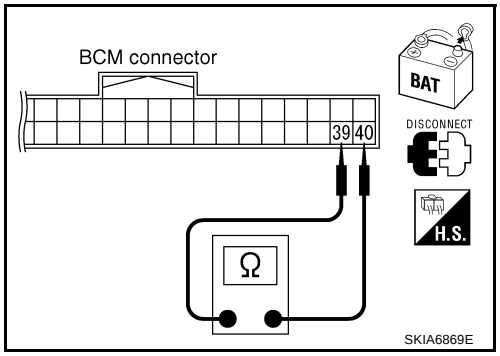
1. Disconnect BCM connector.
2. Check resistance between BCM harness connector M3 terminals 39 (L) and 40 (R).

39 (L) - 40 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace BCM. Refer to BCS-16, "Removal and Installation of BCM" .

NG >> Repair harness between BCM and data link connector.



Steering Angle Sensor Circuit Inspection

AKS00CE1

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.

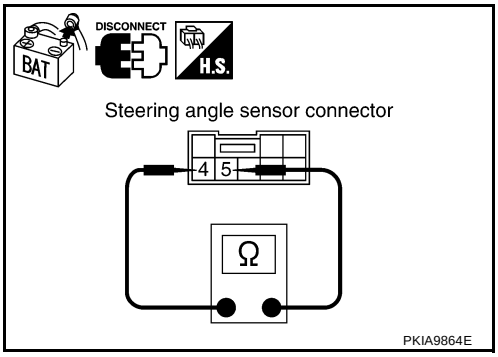
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect steering angle sensor connector.
2. Check resistance between steering angle sensor harness connector M14 terminals 4 (L) and 5 (R).

4 (L) - 5 (R) : Approx. 54 - 66Ω

OK or NG

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



LDW Camera Unit Circuit Inspection

AKS00CE2

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 (unit side and harness side).

- LDW camera unit connector
- Harness connector R1
- Harness connector M31

OK or NG

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

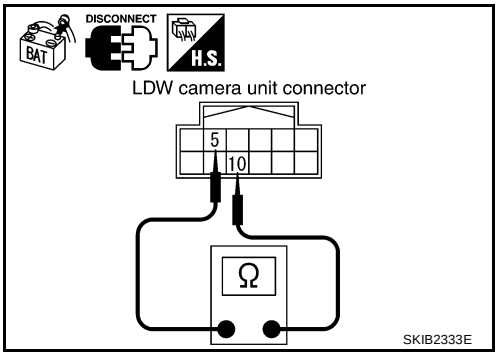
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect LDW camera unit connector.
2. Check resistance between LDW camera unit harness connector R9 terminals 10 (L) and 5 (R).

10 (L) - 5 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace LDW camera unit.
NG >> GO TO 3.



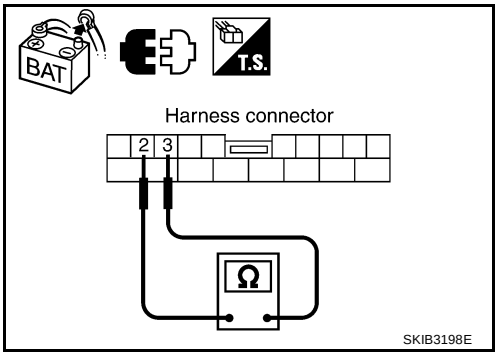
3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect harness connector R1.
2. Check resistance between harness connector M31 terminals 2 (L) and 3 (R).

2 (L) - 3 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Replace harness between LDW camera unit and harness connector R1.



Unified Meter and A/C Amp. Circuit Inspection

AKS00CE3

1. CHECK CONNECTOR

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

OK or NG

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

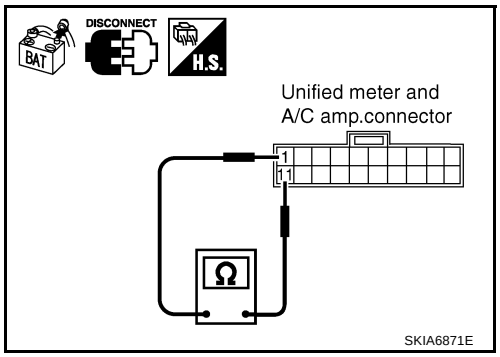
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector.
2. Check resistance between unified meter and A/C amp. harness connector M55 terminals 1 (L) and 11 (R).

1 (L) - 11 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace unified meter and A/C amp.
NG >> Repair harness between unified meter and A/C amp. and harness connector M41.



ICC Sensor Circuit Inspection

AKS00CE4

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.

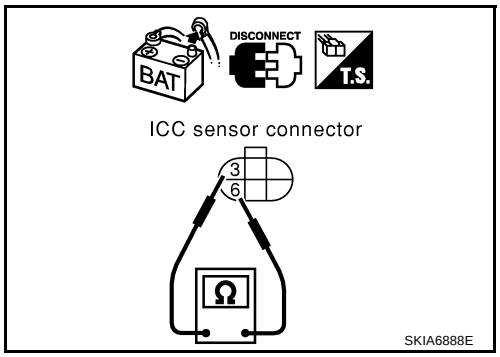
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ICC sensor connector.
2. Check resistance between ICC sensor harness connector E39 terminals 3 (L) and 6 (R).

3 (L) - 6 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace ICC sensor.
NG >> Repair harness between ICC sensor and ABS actuator and electric unit (control unit).



ABS Actuator and Electric Unit (Control Unit) Circuit Inspection

AKS00CE5

1. CHECK CONNECTOR

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

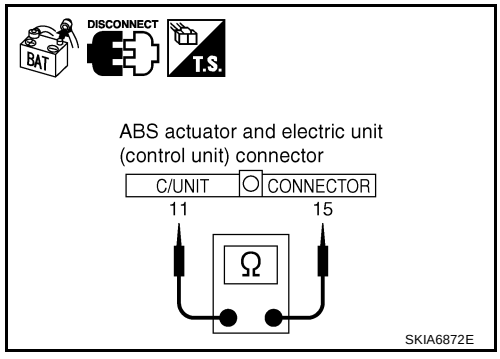
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check resistance between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace ABS actuator and electric unit (control unit).
NG >> Repair harness between ABS actuator and electric unit (control unit) and ICC sensor.

Driver Seat Control Unit Circuit Inspection

AKS00CE6

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 (control unit side and harness side).

- Driver seat control unit connector
- Harness connector B151
- Harness connector B8

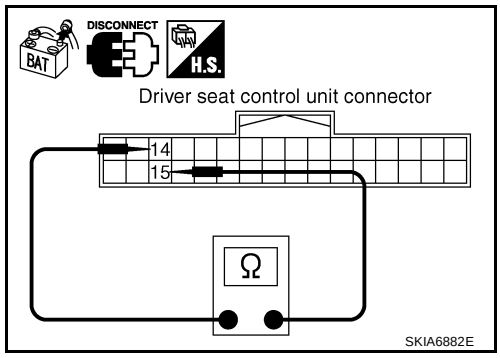
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check resistance between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

14 (OR) - 15 (SB) : Approx. 54 - 66Ω



OK or NG

OK >> Replace driver seat control unit.
NG >> Repair harness between driver seat control unit and harness connector B5.

IPDM E/R Circuit Inspection

AKS00CE7

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 (control module side and harness side).

- IPDM E/R connector
- Harness connector E205
- Harness connector B5

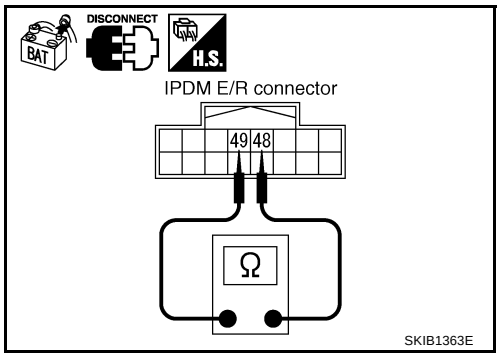
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check resistance between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Approx. 108 - 132Ω



OK or NG

OK >> Replace IPDM E/R.
NG >> Repair harness between IPDM E/R and harness connector B8.

CAN Communication Circuit Inspection

AKS00CE8

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 (control module side, control unit side, unit side, sensor side, meter side and harness side).

- ECM
- A/T assembly
- Display control unit
- ICC unit
- Intelligent Key unit
- BCM
- Steering angle sensor
- LDW camera unit
- Unified meter and A/C amp.
- ICC sensor
- ABS actuator and electric unit (control unit)
- Driver seat control unit
- IPDM E/R
- Between ECM and IPDM E/R
- Between ECM and A/T assembly
- Between ECM and LDW camera unit
- Between ECM and driver seat control unit

OK or NG

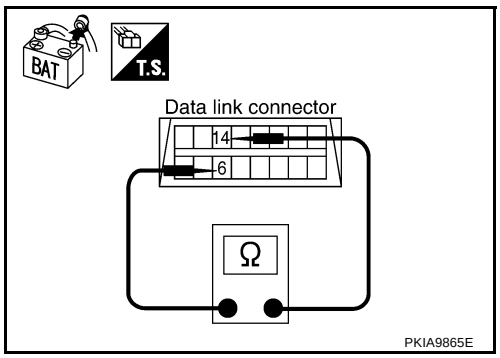
OK >> GO TO 2.
NG >> Repair terminal or connector.

2. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect following connectors.
- ECM connector
- Harness connector M82
- Display control unit connector
- ICC unit connector
- Intelligent Key unit connector
- BCM connector
- Steering angle sensor connector
- Harness connector M31
- Unified meter and A/C amp. connector
- Harness connector M41

2. Check continuity between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R) : Continuity should not exist.



OK or NG

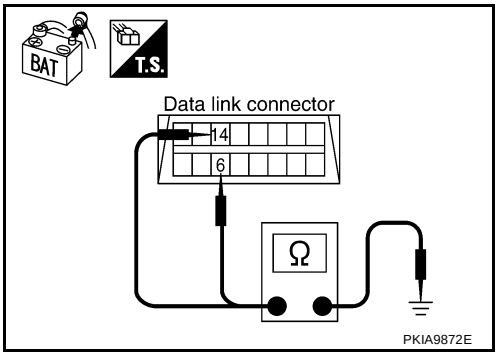
OK >> GO TO 3.

NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display control unit
- Harness between data link connector and ICC unit
- Harness between data link connector and Intelligent Key unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and harness connector M31
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

3. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between data link connector M5 terminals 6 (L), 14 (R) and ground.

6 (L) - Ground : Continuity should not exist.
14 (R) - Ground : Continuity should not exist.



OK or NG

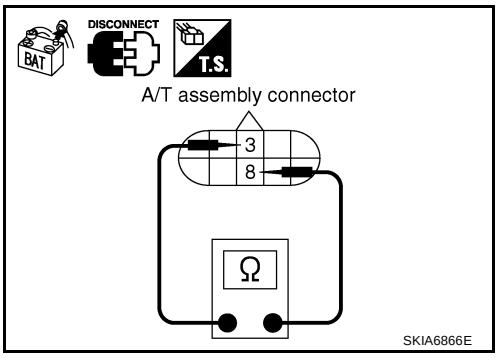
OK >> GO TO 4.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display control unit
- Harness between data link connector and ICC unit
- Harness between data link connector and Intelligent Key unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and harness connector M31
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

4. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect A/T assembly connector.
2. Check continuity between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Continuity should not exist.



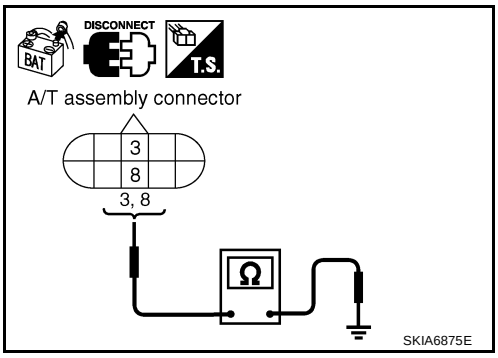
OK or NG

OK >> GO TO 5.
NG >> Repair harness between A/T assembly and harness connector F102.

5. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between A/T assembly harness connector F44 terminals 3 (L), 8 (R) and ground.

3 (L) - Ground : Continuity should not exist.
8 (R) - Ground : Continuity should not exist.



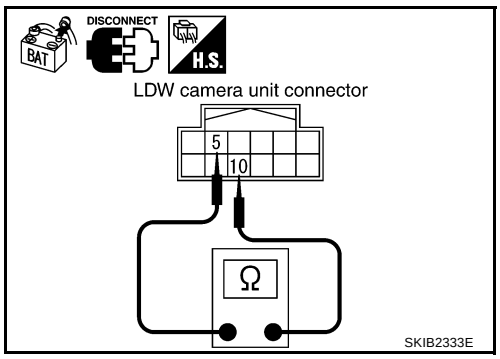
OK or NG

OK >> GO TO 6.
NG >> Repair harness between A/T assembly and harness connector F102.

6. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect LDW camera unit connector.
2. Check continuity between LDW camera unit harness connector R9 terminals 10 (L) and 5 (R).

10 (L) - 5 (R) : Continuity should not exist.



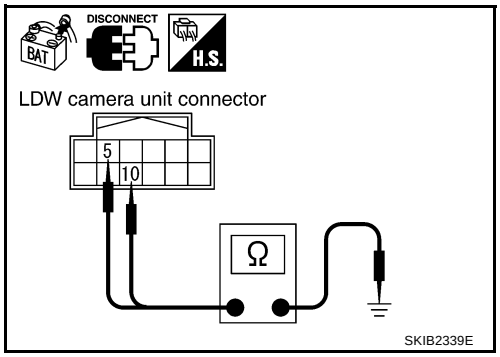
OK or NG

OK >> GO TO 7.
NG >> Replace harness between LDW camera unit and harness connector R1.

7. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between LDW camera unit harness connector R9 terminals 10 (L), 5 (R) and ground.

10 (L) - Ground : Continuity should not exist.
5 (R) - Ground : Continuity should not exist.



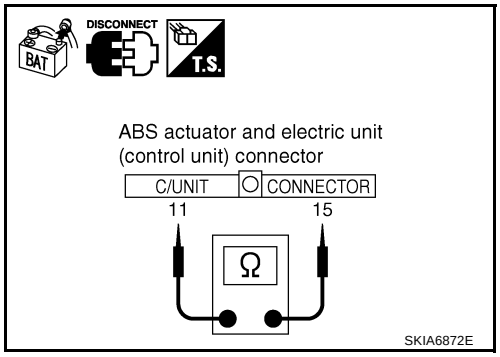
OK or NG

OK >> GO TO 8.
NG >> Replace harness between LDW and harness connector R1.

8. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect following connectors.
- ICC sensor connector
- ABS actuator and electric unit (control unit) connector
- Harness connector E205
2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Continuity should not exist.



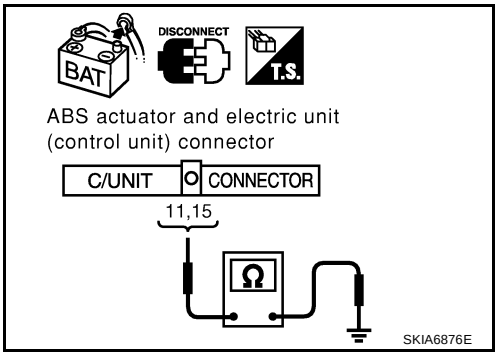
OK or NG

OK >> GO TO 9.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and ICC sensor
- Harness between ABS actuator and electric unit (control unit) and harness connector E205

9. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and ground.

11 (L) - Ground : Continuity should not exist.
15 (R) - Ground : Continuity should not exist.



OK or NG

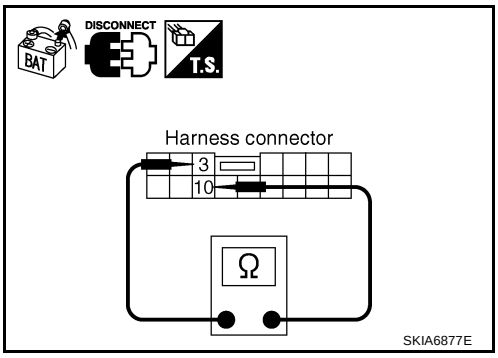
OK >> GO TO 10.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and ICC sensor
- Harness between ABS actuator and electric unit (control unit) and harness connector E205

10. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect harness connector B8.
2. Check continuity between harness connector B5 terminals 3 (L) and 10 (R).

3 (L) - 10 (R) : Continuity should not exist.



OK or NG

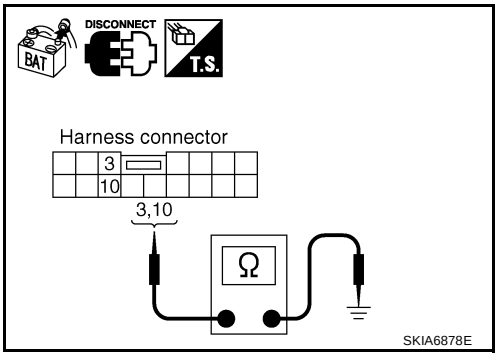
OK >> GO TO 11.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between harness connector B5 and harness connector B8
- Harness between harness connector B5 and harness connector B5

11. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between harness connector B5 terminals 3 (L), 10 (R) and ground.

3 (L) - Ground : Continuity should not exist.
10 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 12.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between harness connector B5 and harness connector B8
- Harness between harness connector B5 and harness connector B5

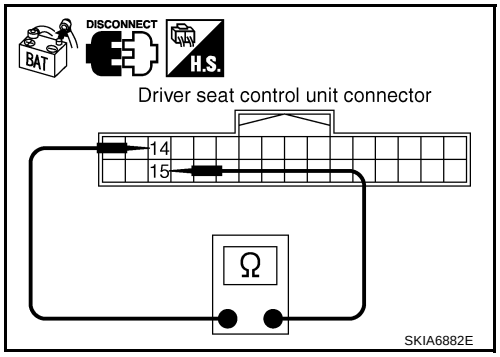
12. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check continuity between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

14 (OR) - 15 (SB) : Continuity should not exist.

OK or NG

OK >> GO TO 13.
NG >> Repair harness between driver seat control unit and harness connector B151.



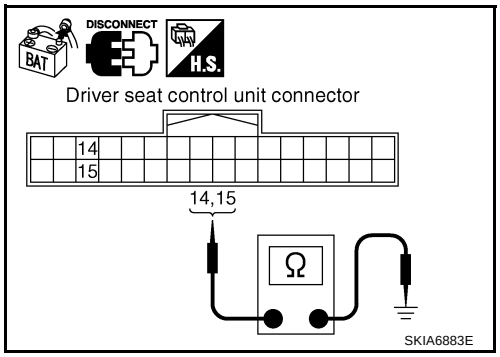
13. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between driver seat control unit harness connector B152 terminals 14 (OR), 15 (SB) and ground.

14 (OR) - Ground : Continuity should not exist.
15 (SB) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 14.
NG >> Repair harness between driver seat control unit and harness connector B151.



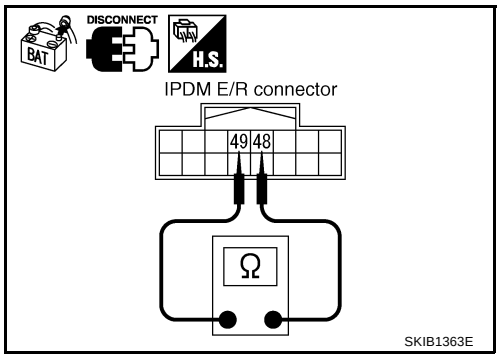
14. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check continuity between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 15.
NG >> Repair harness between IPDM E/R and harness connector E205.



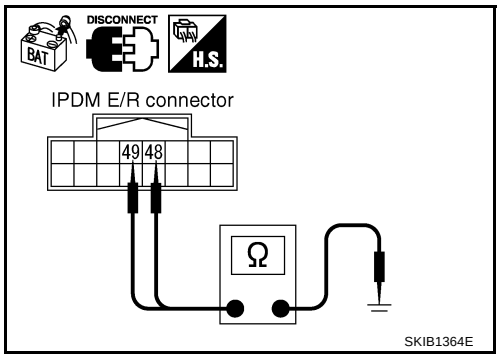
15. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between IPDM E/R harness connector E9 terminals 48 (L), 49 (R) and ground.

48 (L) - Ground : Continuity should not exist.
49 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 16.
NG >> Repair harness between IPDM E/R and harness connector E205.



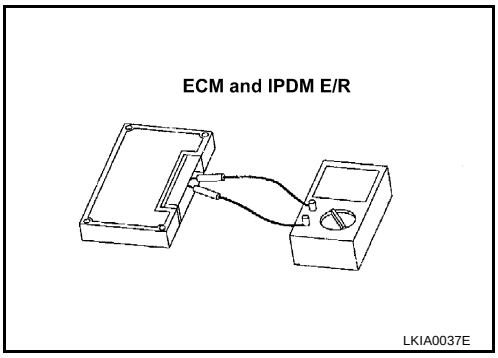
16. CHECK ECM AND IPDM E/R INTERNAL CIRCUIT

1. Remove ECM and IPDM E/R from vehicle.
2. Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. 108 - 132Ω

3. Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132Ω



OK or NG

OK >> GO TO 17.
NG >> Replace ECM and/or IPDM E/R.

17. 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 18.
NG >> Refer to LAN-16, "Example of Filling in Check Sheet When Initial Conditions Are Not Reproduced"
.

18. CHECK UNIT REPRODUCIBILITY

Performs the following procedure for each unit, 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.

- A/T assembly
- Display control unit
- ICC unit
- Intelligent Key unit
- BCM
- Steering angle sensor
- LDW camera unit
- Unified meter and A/C amp.
- ICC sensor
- ABS actuator and electric unit (control unit)
- Driver seat control unit
- ECM
- IPDM E/R

Check results

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

IPDM E/R Ignition Relay Circuit Inspection

AKS00CE9

Check the following. If no malfunction is found, replace the IPDM E/R.

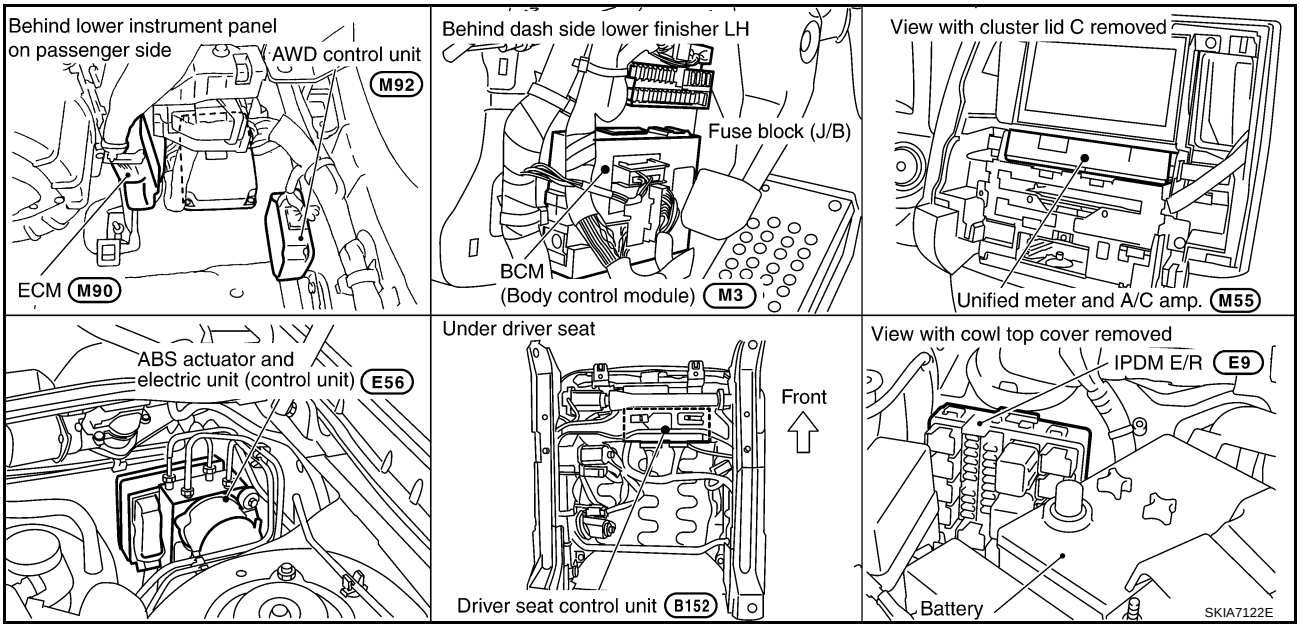
- IPDM E/R power supply circuit. Refer to PG-28, "IPDM E/R Power/Ground Circuit Inspection" .
- Ignition power supply circuit. Refer to PG-12, "IGNITION POWER SUPPLY - IGNITION SW. IN “ON” AND/OR “START”" .

CAN SYSTEM (TYPE 5)

PFP:23710

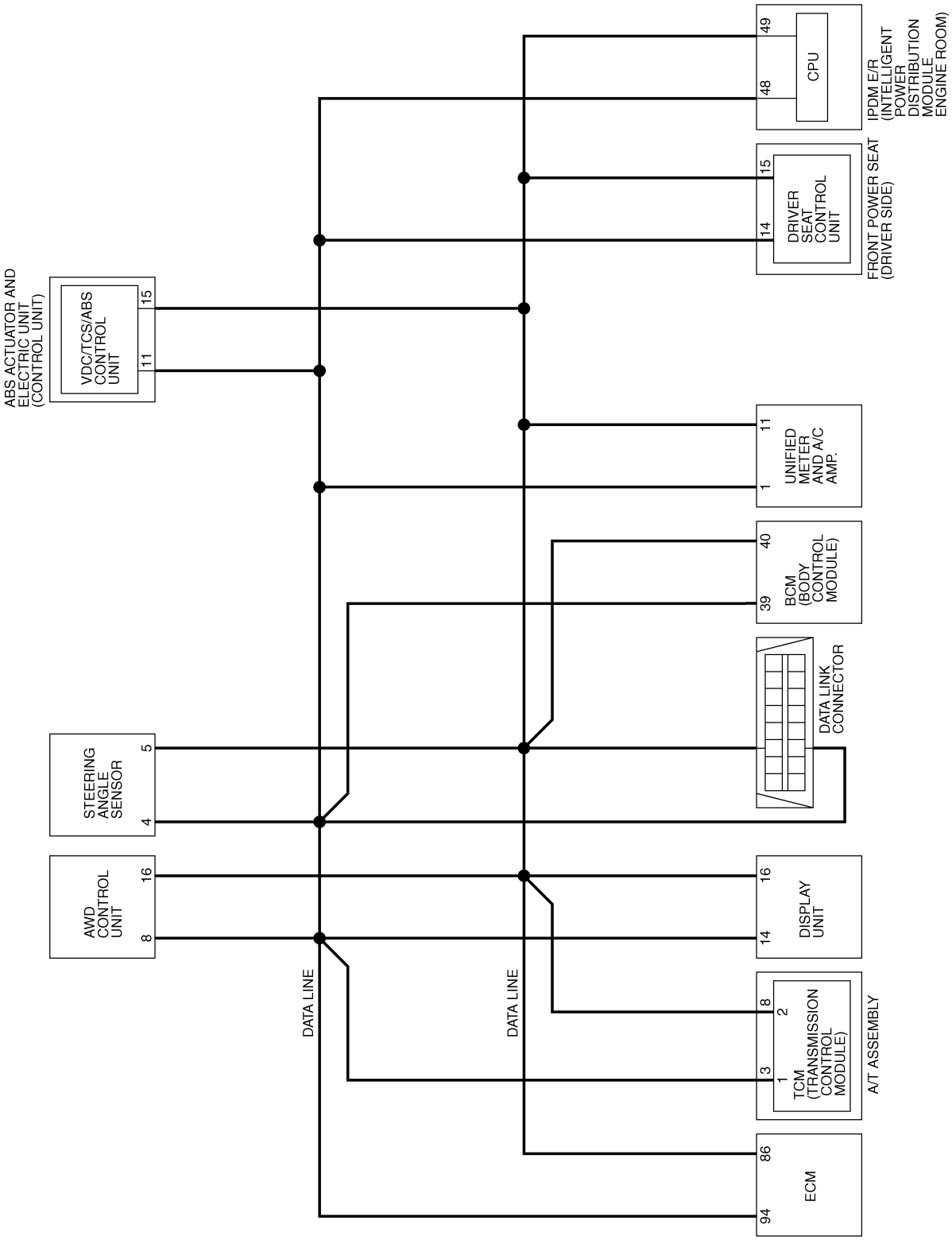
Component Parts and Harness Connector Location

AKS00CD1



Schematic

AKS00CD2

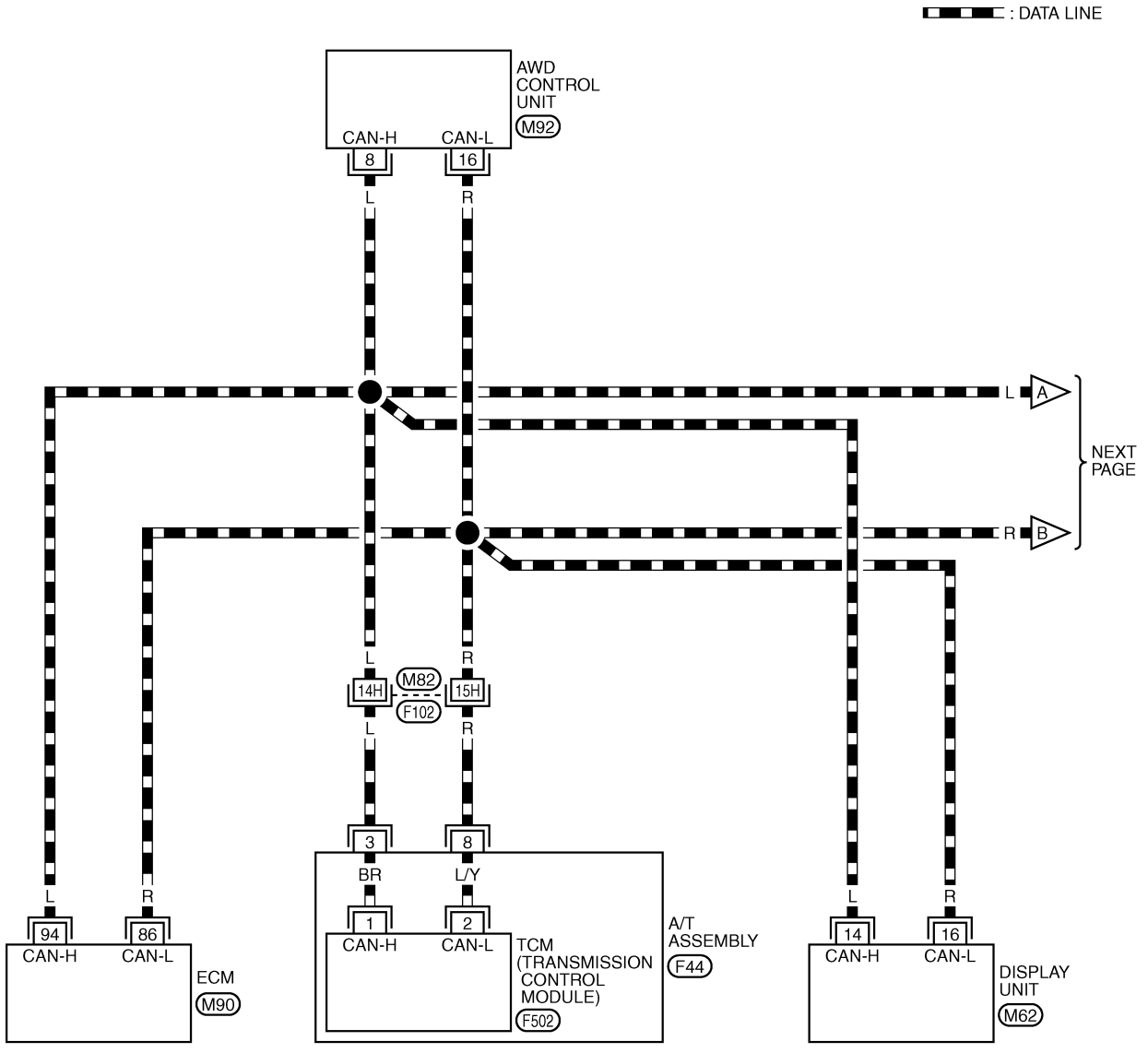


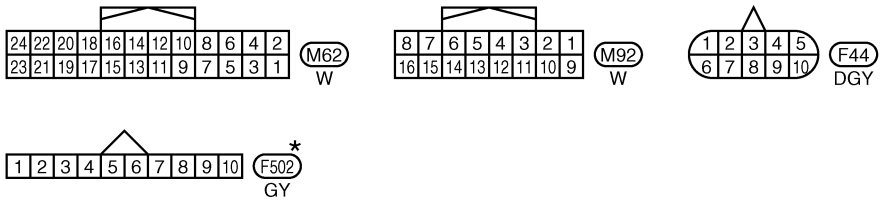
TKWM2363E

Wiring Diagram - CAN -

AKS00CD3

LAN-CAN-13





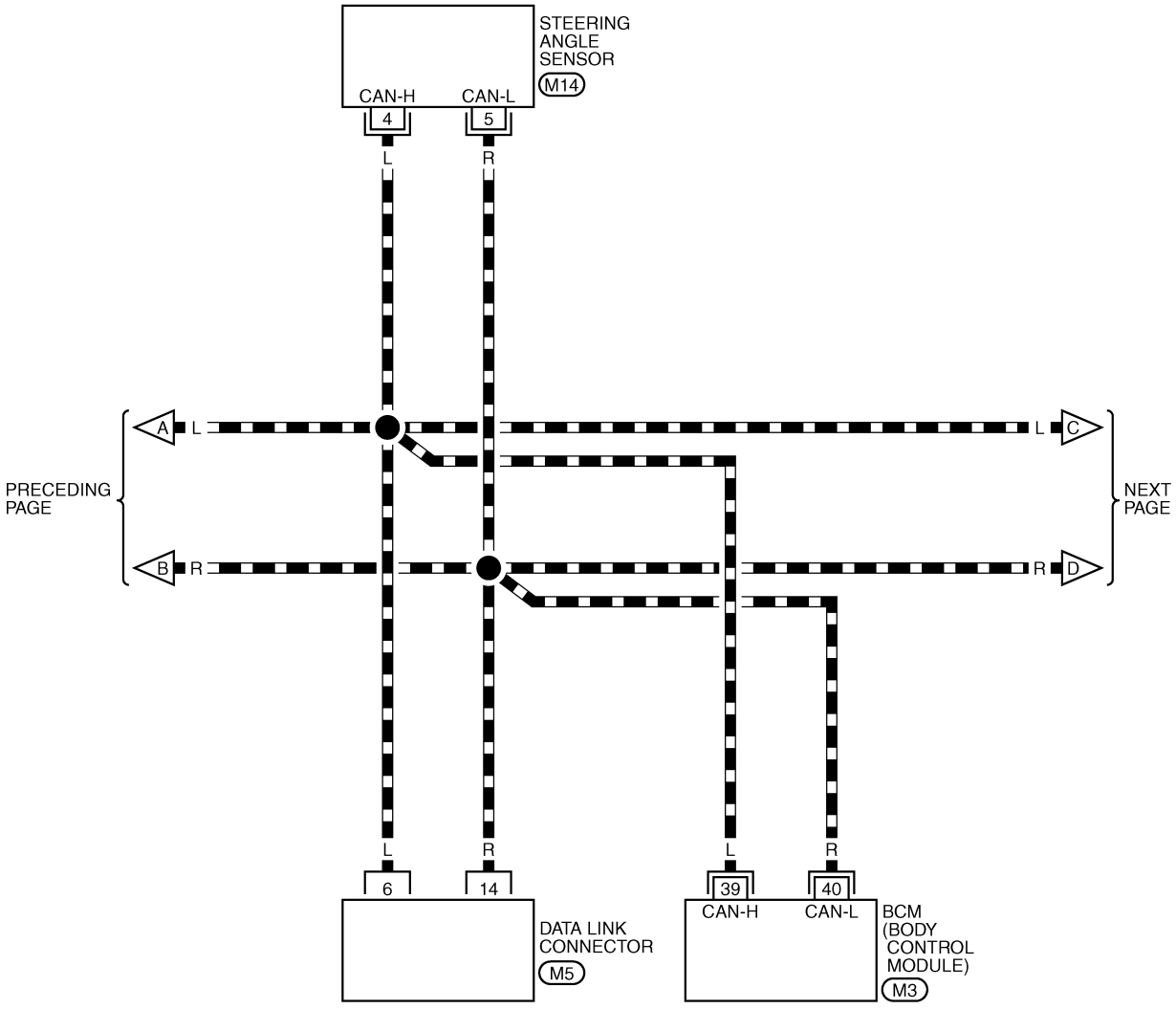
REFER TO THE FOLLOWING.
F102 -SUPER MULTIPLE JUNCTION (SMJ)
M90 -ELECTRICAL UNITS

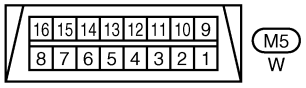
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

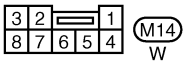
TKWM2364E

LAN-CAN-14

: DATA LINE



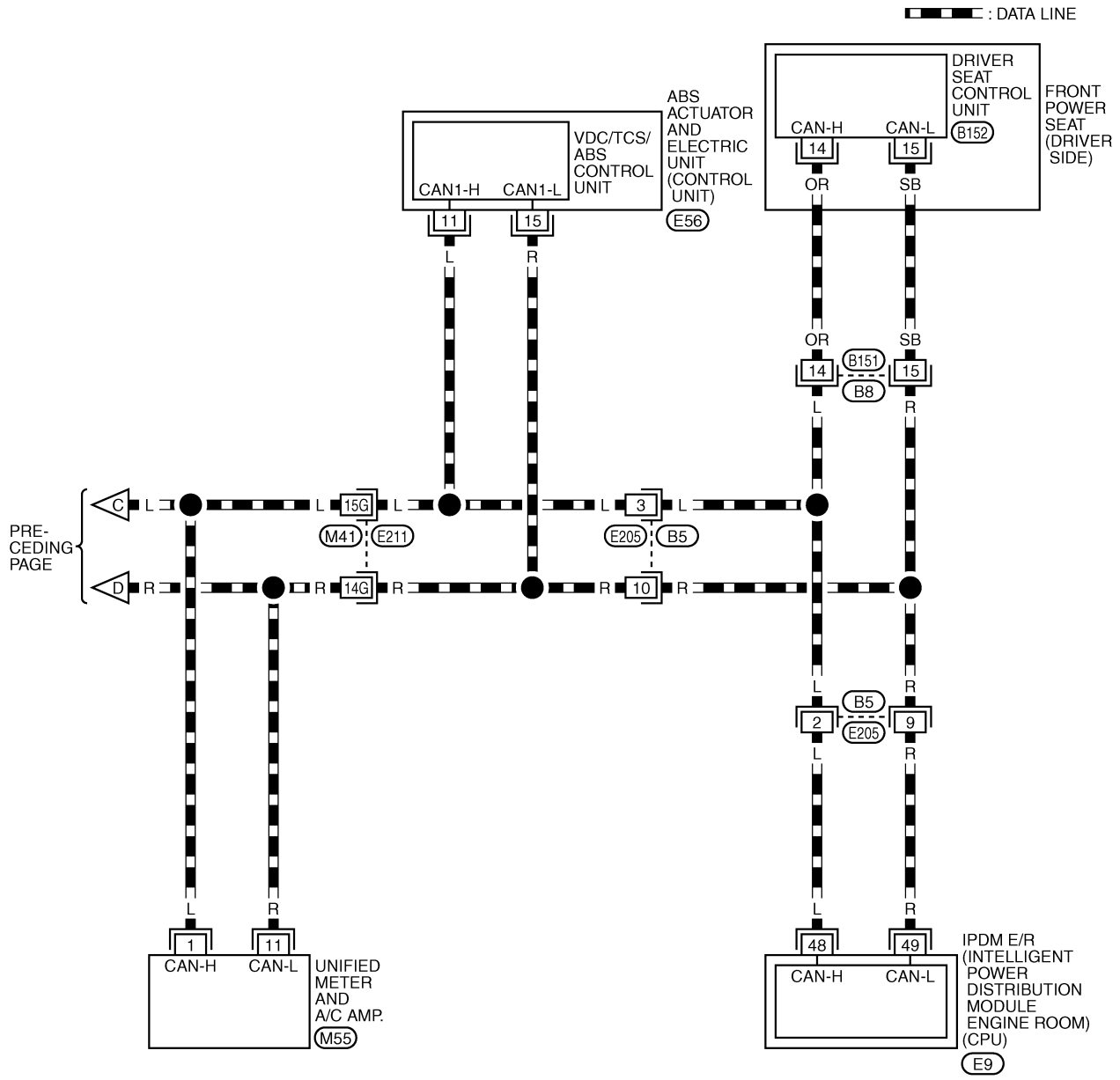


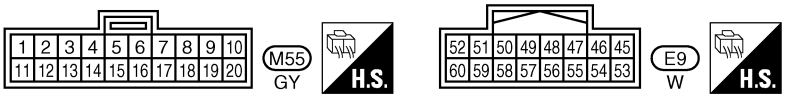


REFER TO THE FOLLOWING.
M3 -ELECTRICAL UNITS

TKWM2365E

LAN-CAN-15





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

REFER TO THE FOLLOWING.

E211 -SUPER MULTIPLE JUNCTION (SMJ)

E56 -ELECTRICAL UNITS

TKWM2366E

Check Sheet

AKS00CD4

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	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

Symptoms :

Attach copy of SELECT SYSTEM

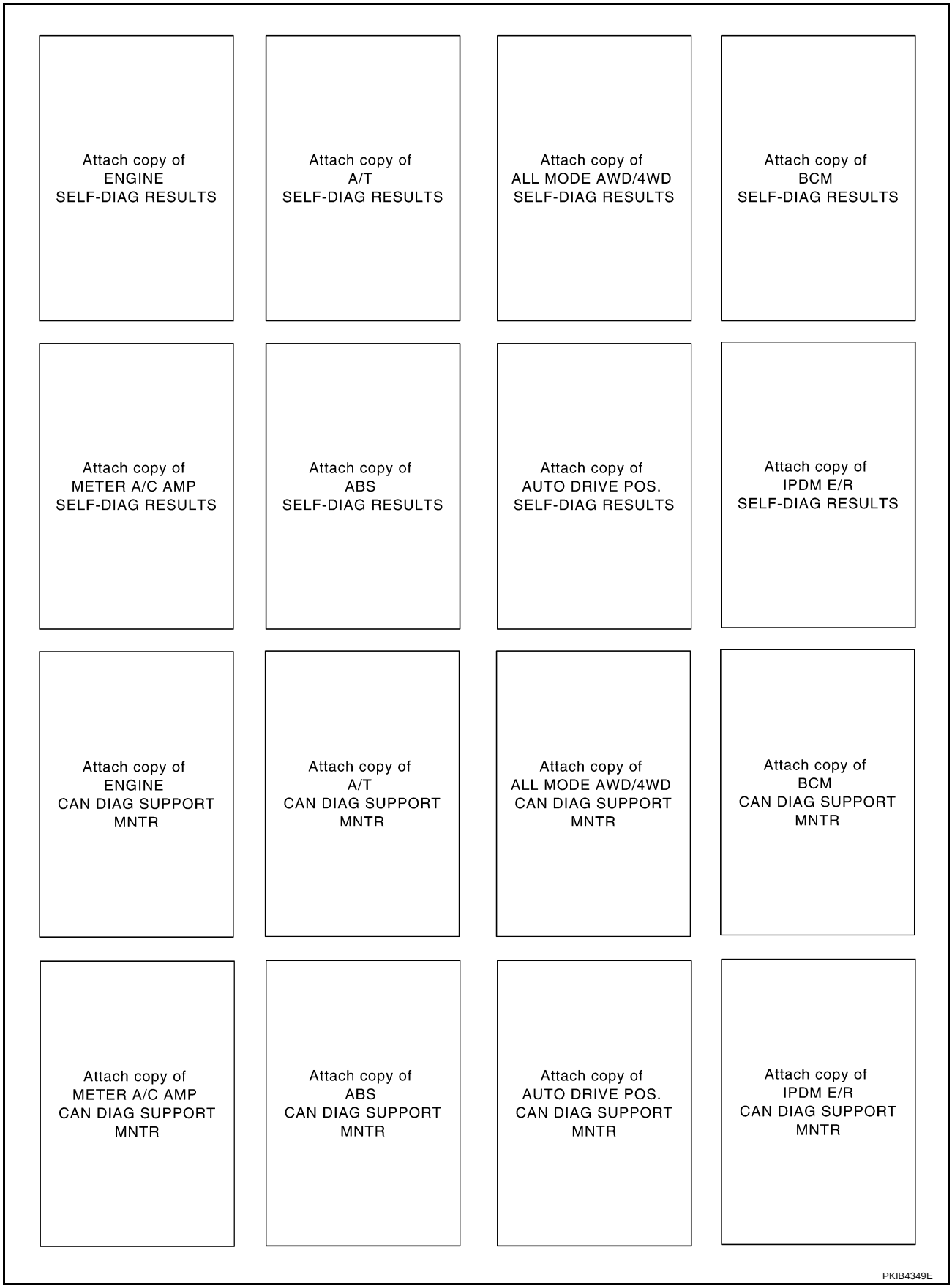
Attach copy of SELECT SYSTEM

PKIB4348E

Display unit Translation Sheet: Rewrite the following names, and put a check mark on the check sheet table.			
Confirmation/Adjustment Display	Check sheet table Display	Confirmation/Adjustment Display	Check sheet table Display
CANCOMM	Initial diagnosis	CAN5	METER/M&A
CAN1	Transmit diagnosis	CAN6	–
CAN2	BCM/SEC	CAN7	IPDM E/R
CAN3	ECM	CAN8	–
CAN4	–	CAN9	–

Attach copy of
display unit
CAN DIAG MONITOR check sheet

PKIB5984E


Attach copy of
ENGINE
SELF-DIAG RESULTS
Attach copy of
A/T
SELF-DIAG RESULTS
Attach copy of
ALL MODE AWD/4WD
SELF-DIAG RESULTS
Attach copy of
BCM
SELF-DIAG RESULTS
Attach copy of
METER A/C AMP
SELF-DIAG RESULTS
Attach copy of
ABS
SELF-DIAG RESULTS
Attach copy of
AUTO DRIVE POS.
SELF-DIAG RESULTS
Attach copy of
IPDM E/R
SELF-DIAG RESULTS
Attach copy of
ENGINE
CAN DIAG SUPPORT
MNTR
Attach copy of
A/T
CAN DIAG SUPPORT
MNTR
Attach copy of
ALL MODE AWD/4WD
CAN DIAG SUPPORT
MNTR
Attach copy of
BCM
CAN DIAG SUPPORT
MNTR
Attach copy of
METER A/C AMP
CAN DIAG SUPPORT
MNTR
Attach copy of
ABS
CAN DIAG SUPPORT
MNTR
Attach copy of
AUTO DRIVE POS.
CAN DIAG SUPPORT
MNTR
Attach copy of
IPDM E/R
CAN DIAG SUPPORT
MNTR
PKIB4349E

CHECK SHEET RESULTS (EXAMPLE)

NOTE:

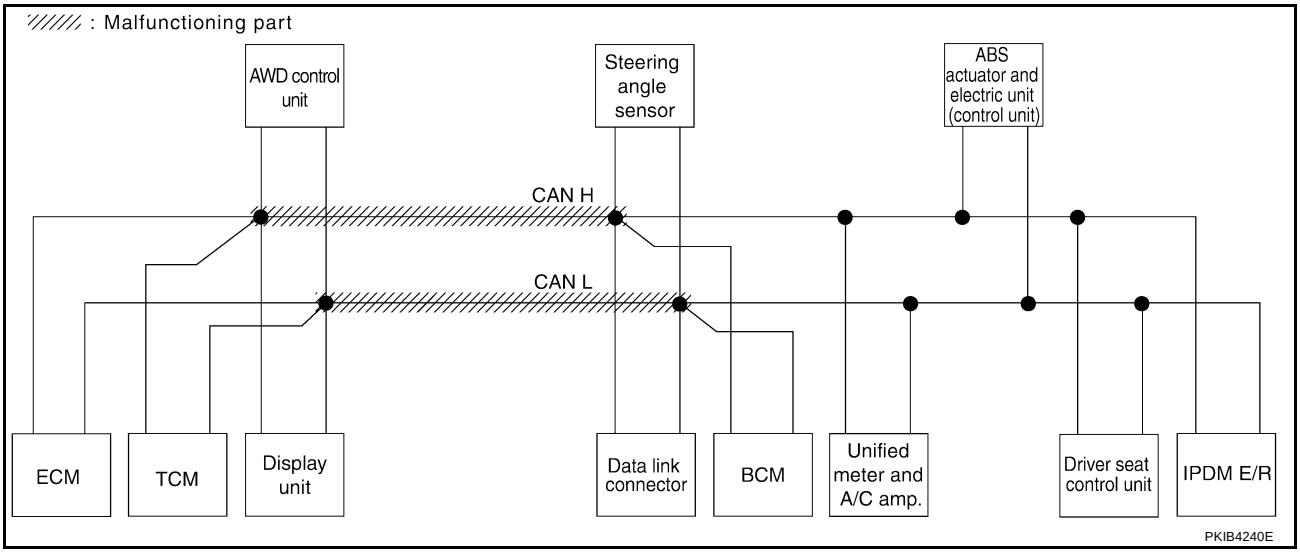
If a check mark is put on “NG” on “INITIAL DIAG (Initial diagnosis)”, replace the control unit.

Case 1

Check harness between TCM and data link connector. Refer to LAN-244, "Inspection Between TCM and Data Link Connector Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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) ✓	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN ✓	—	UNKWN ✓	—	UNKWN ✓	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	—	—	—
BCM	No indication	NG	UNKWN	UNKWN ✓	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN ✓	UNKWN ✓	UNKWN ✓	UNKWN ✓	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN ✓	UNKWN ✓	—	UNKWN ✓	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN ✓	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN ✓	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB5928E

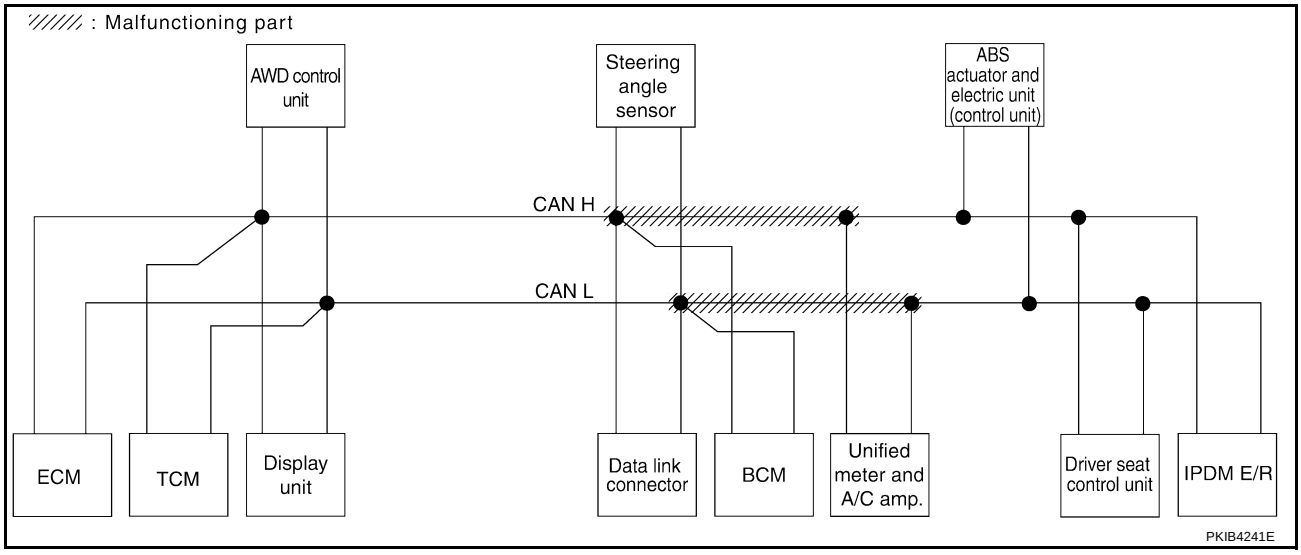


Case 2

Check harness between data link connector and unified meter and A/C amp. Refer to LAN-245, "Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	—	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5929E

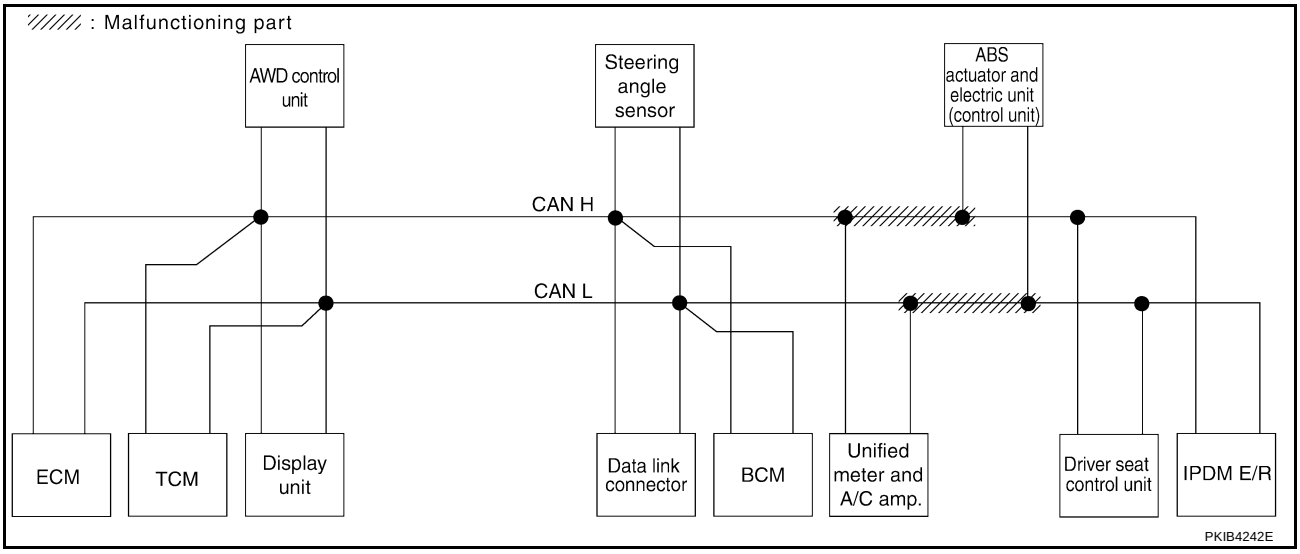


Case 3

Check harness between unified meter and A/C amp. and ABS actuator and electric unit (control unit). Refer to LAN-245, "Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

SKIB7296E

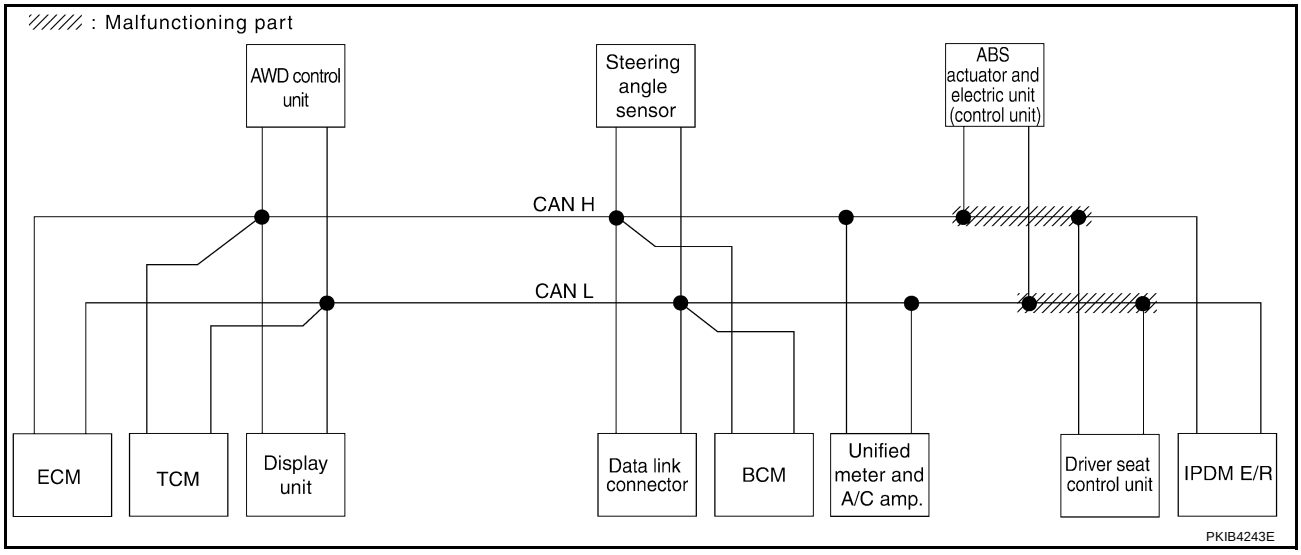


Case 4

Check harness between ABS actuator and electric unit (control unit) and driver seat control unit. Refer to LAN-246, "Inspection Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN ✓	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN ✓	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication ✓	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication ✓	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB5931E

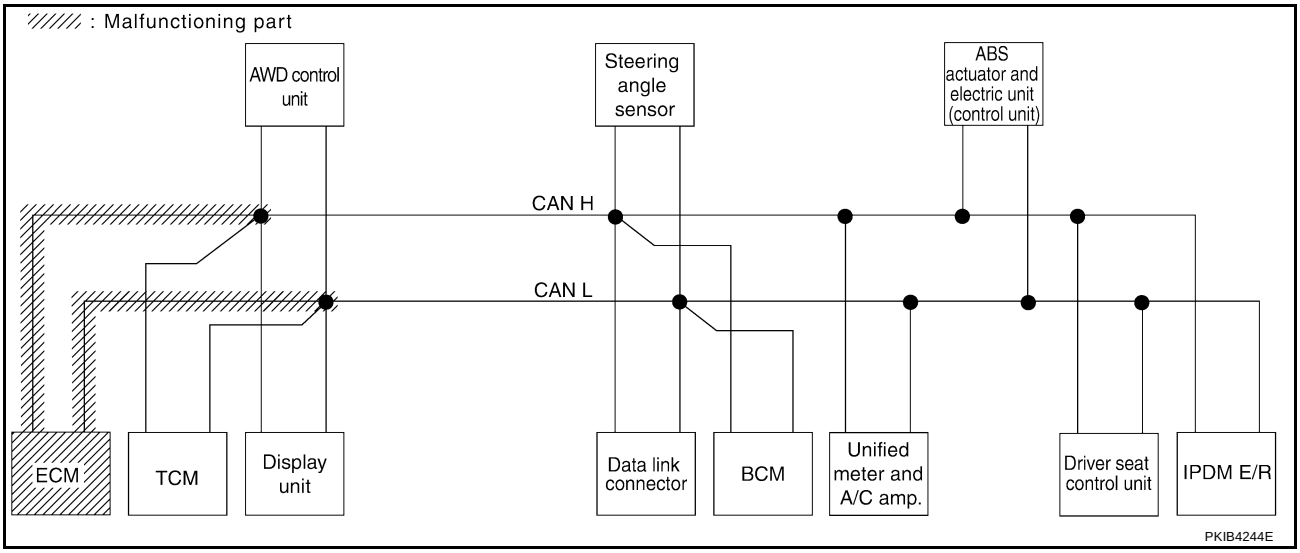


Case 5

Check ECM circuit. Refer to LAN-247, "ECM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R	
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5932E



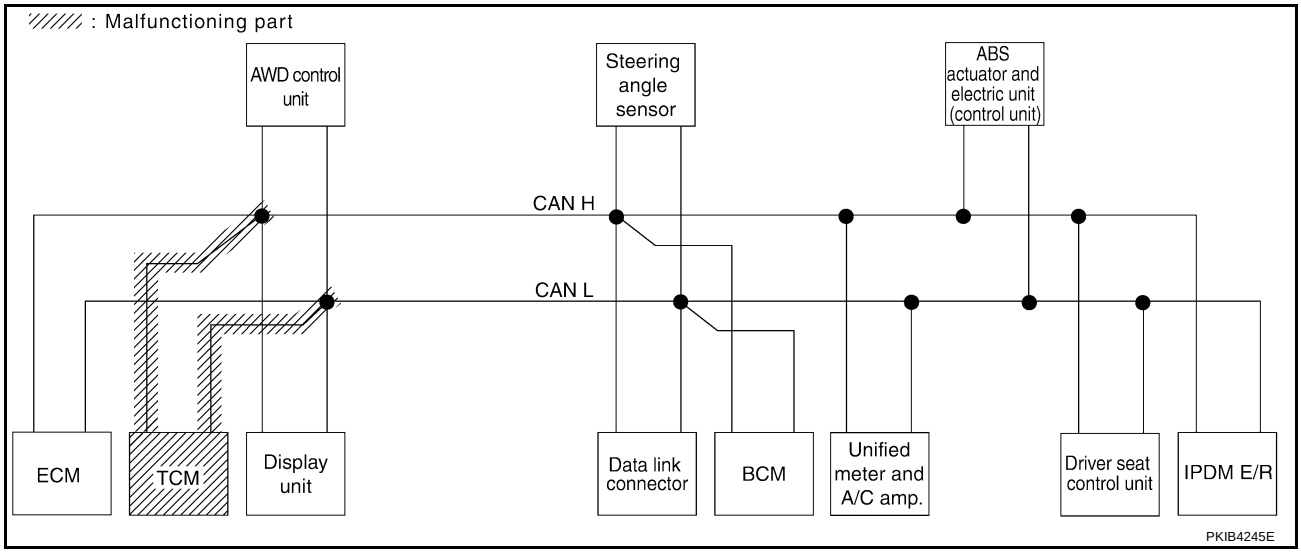
PKIB4244E

Case 6

Check TCM circuit. Refer to LAN-247, "TCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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) ✓	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN ✓	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN ✓	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5933E

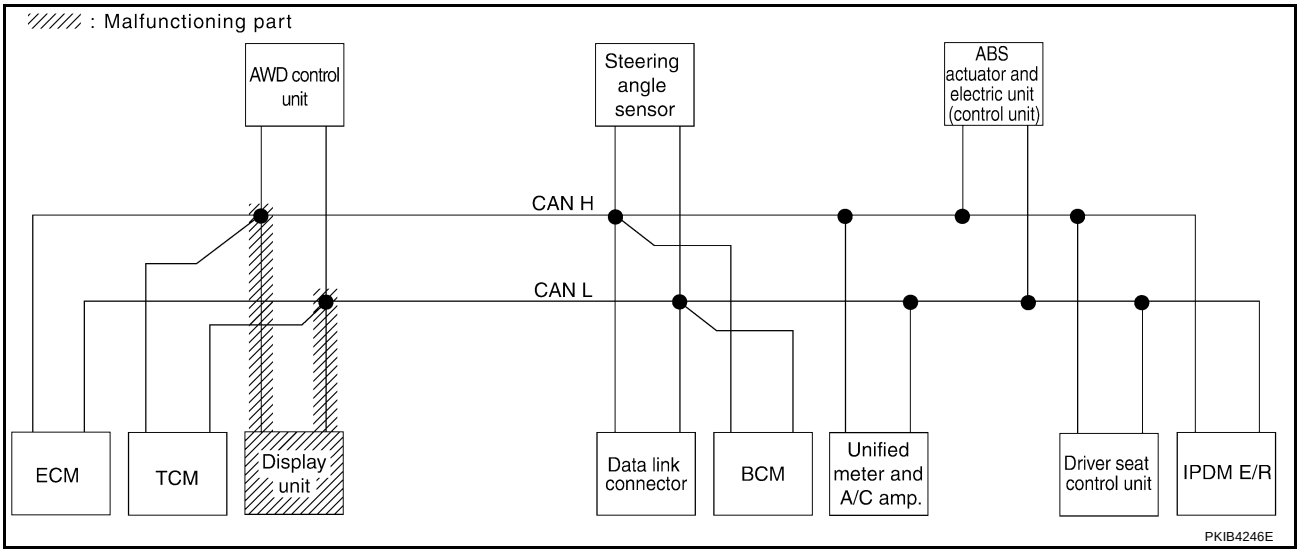


Case 7

Check display unit circuit. Refer to LAN-248, "Display Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN ✓	UNKWN ✓	—	—	—	UNKWN ✓	—	UNKWN ✓	—	UNKWN ✓	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5934E

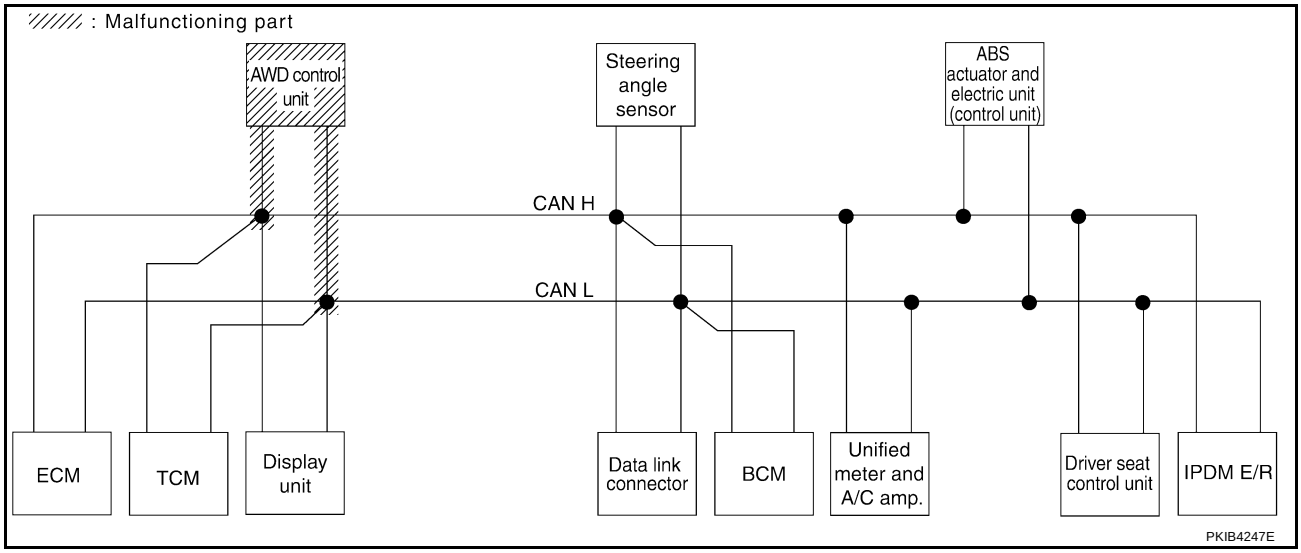


Case 8

Check AWD control unit circuit. Refer to LAN-248, "AWD Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN ✓	—	—	—	—	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN ✓	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5935E



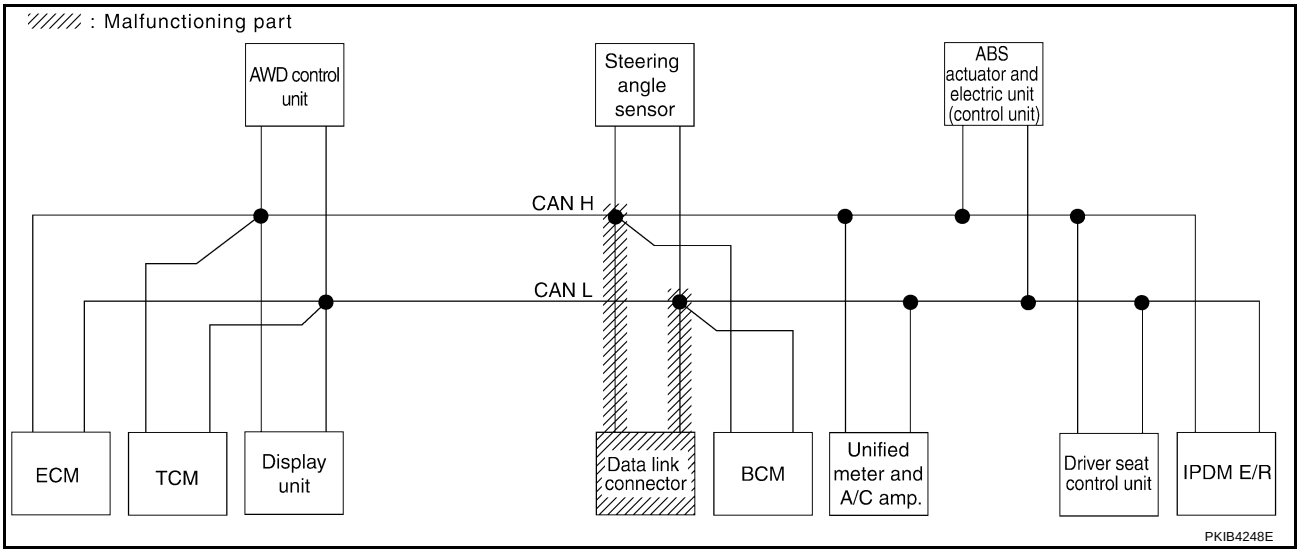
PKIB4247E

Case 9

Check data link connector circuit. Refer to LAN-249, "Data Link Connector Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	✓ No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	✓ No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	✓ No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	✓ No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5936E

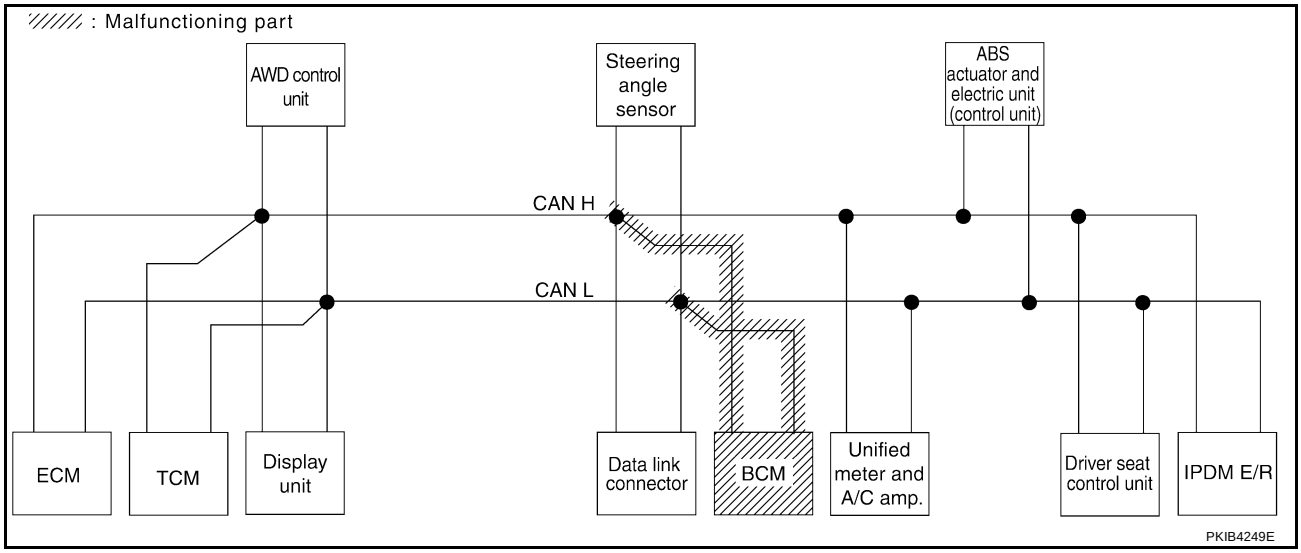


Case 10

Check BCM circuit. Refer to LAN-249, "BCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN ✓	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication ✓	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN ✓	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN ✓	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN ✓	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB5937E

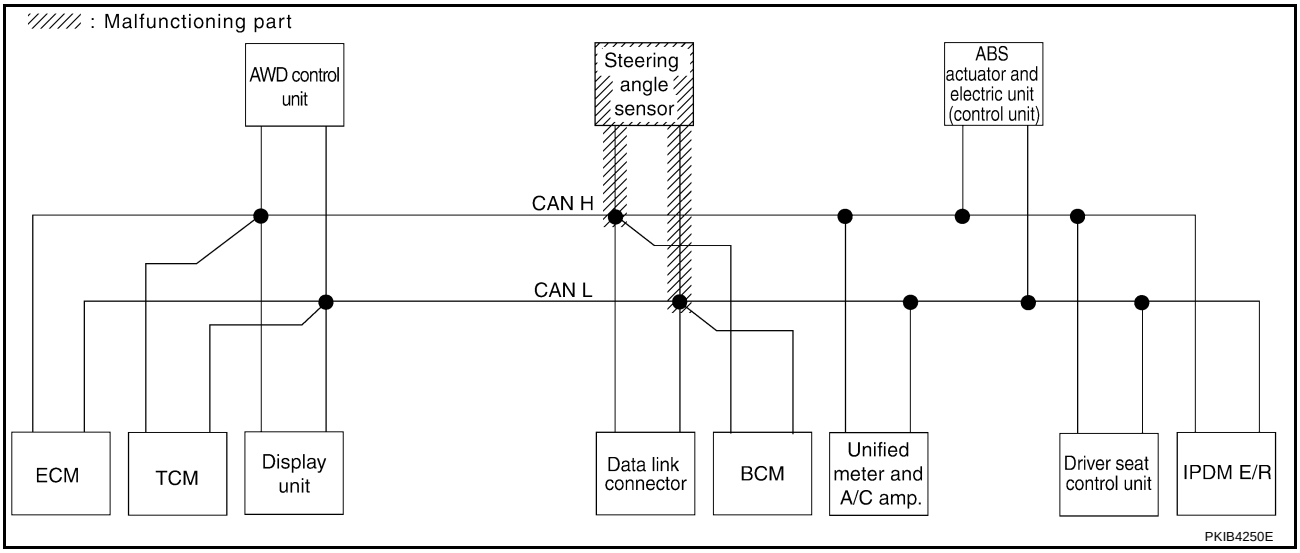


Case 11

Check steering angle sensor circuit. Refer to LAN-250, "Steering Angle Sensor Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5938E



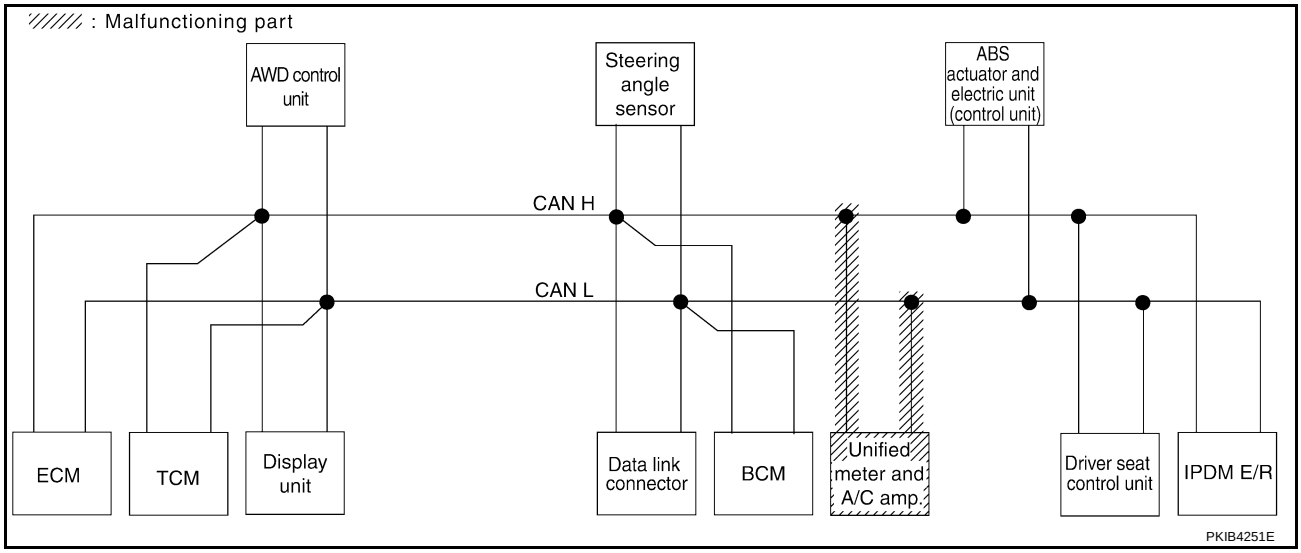
PKIB4250E

Case 12

Check unified meter and A/C amp. circuit. Refer to LAN-250, "Unified Meter and A/C Amp. Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5939E

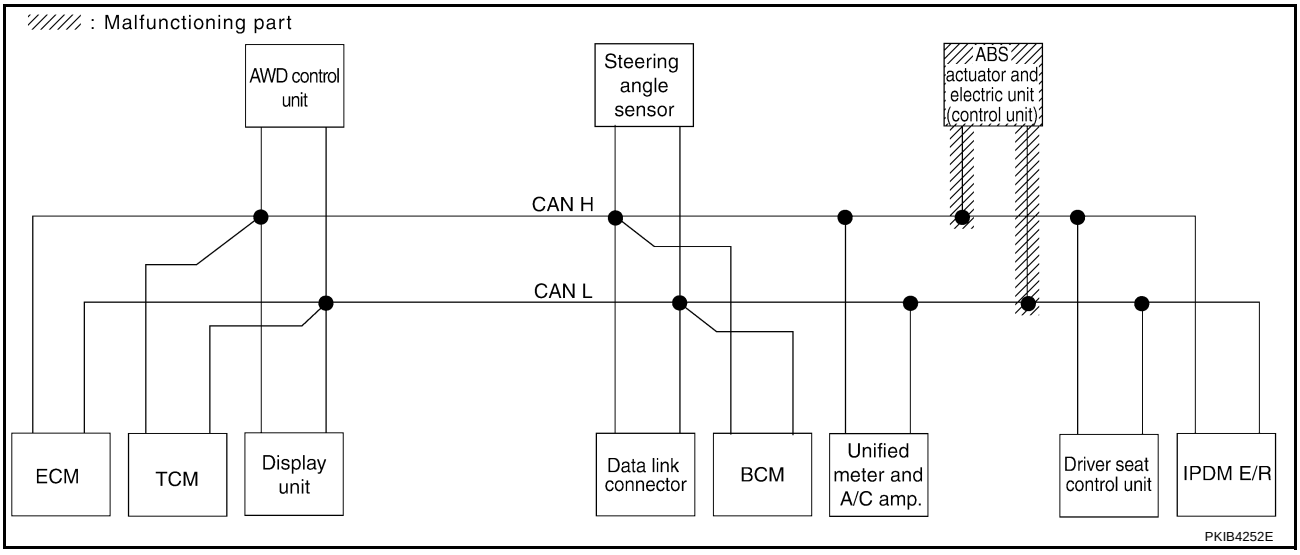


Case 13

Check ABS actuator and electric unit (control unit) circuit. Refer to LAN-251, "ABS Actuator and Electric Unit (Control Unit) Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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) ✓	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG ✓	UNKWN ✓	UNKWN ✓	UNKWN ✓	—	UNKWN ✓	—	UNKWN ✓	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5940E

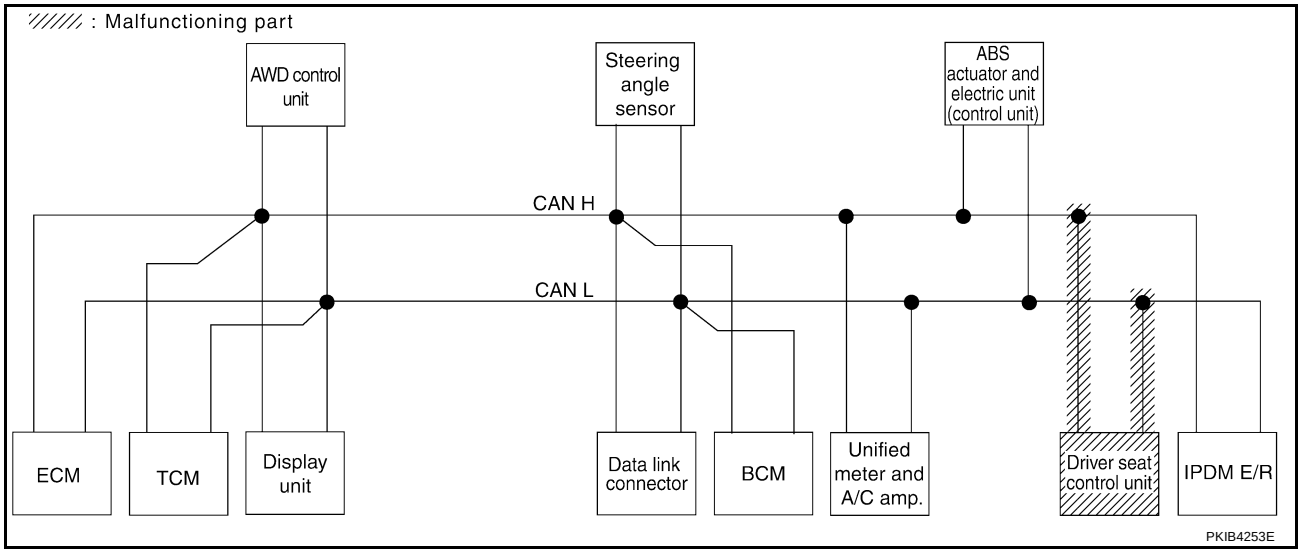


Case 14

Check driver seat control unit circuit. Refer to LAN-251, "Driver Seat Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5941E



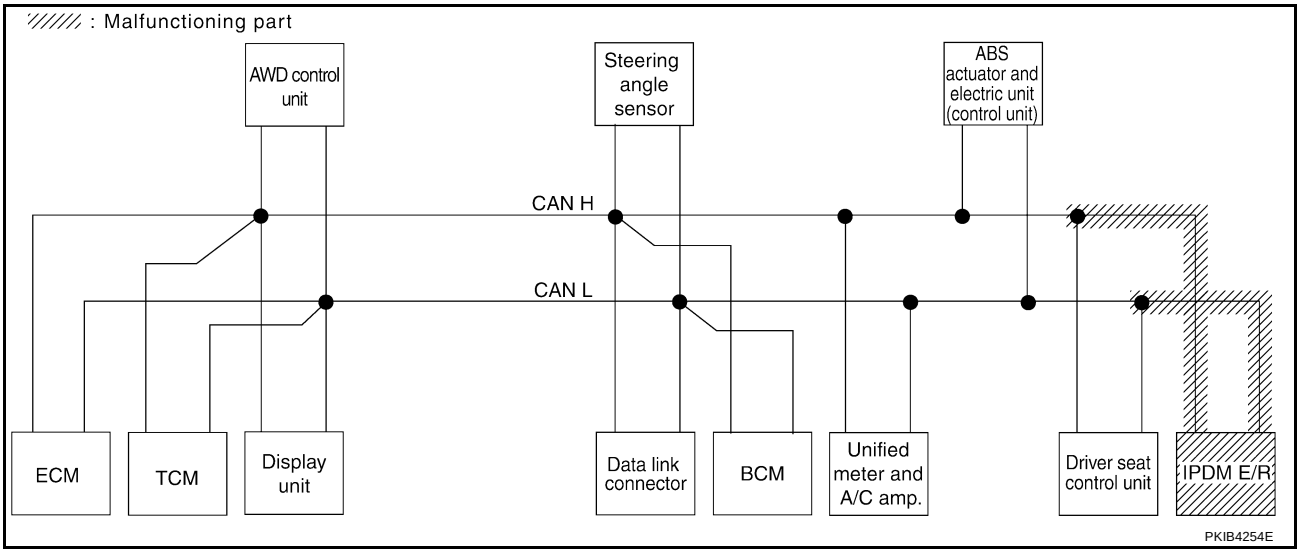
PKIB4253E

Case 15

Check IPDM E/R circuit. Refer to LAN-252, "IPDM E/R Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN ✓	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN ✓	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication ✓	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB5942E



PKIB4254E

Case 16

Check CAN communication circuit. Refer to LAN-253, "CAN Communication Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	—	—	—	—	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5943E

Case 17

Check IPDM E/R ignition relay circuit continuously sticks “OFF”. Refer to LAN-259, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R	
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	UNKWN	—	—	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN ✓	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5944E

Case 18

Check IPDM E/R ignition relay circuit continuously sticks “ON”. Refer to LAN-259, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	—	—	—	—	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	—	UNKWN	—	—	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5945E

Inspection Between TCM and Data Link Connector Circuit

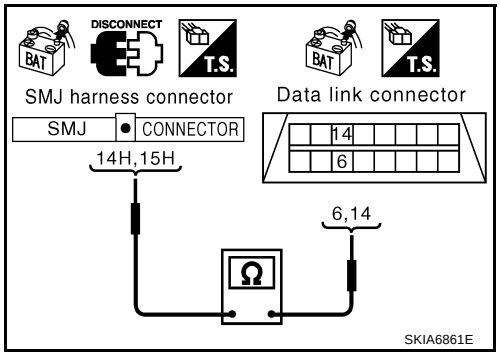
AKS00CD5

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and harness connector M82.
4. Check continuity between harness connector M82 terminals 14H (L), 15H (R) and data link connector M5 terminals 6 (L), 14 (R).

14H (L) - 6 (L) : Continuity should exist.

15H (R) - 14 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness.

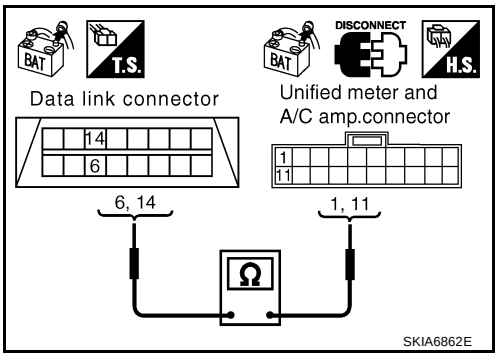
Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit

AKS00CD6

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and unified meter and A/C amp. connector.
4. Check continuity between data link connector M5 terminals 6 (L), 14 (R) and unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R).

6 (L) - 1 (L) : Continuity should exist.
14 (R) - 11 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit

AKS00CD7

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 M41
- Harness connector E211

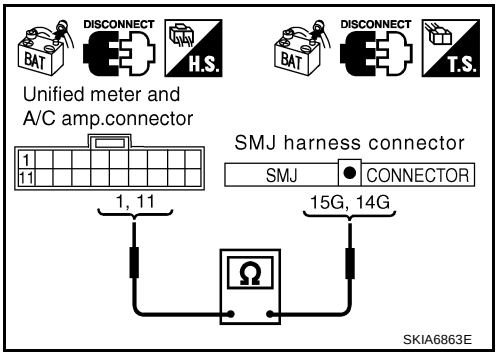
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector and harness connector M41.
2. Check continuity between unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R) and harness connector M41 terminals 15G (L), 14G (R).

1 (L) - 15G (L) : Continuity should exist.
11 (R) - 14G (R) : Continuity should exist.



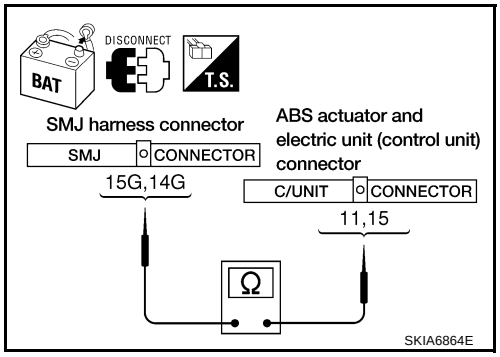
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check continuity between harness connector E211 terminals 15G (L), 14G (R) and ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R).

15G (L) - 11 (L) : Continuity should exist.
14G (R) - 15 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit Circuit

AKS00CD8

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 E205
- Harness connector B5

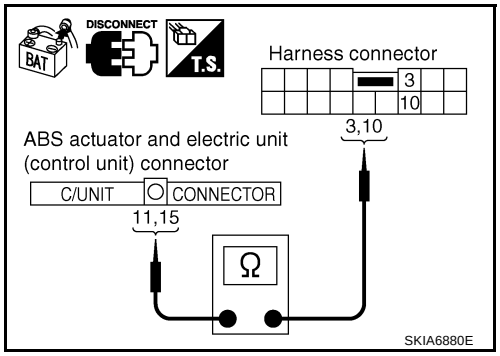
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and harness connector E205 terminals 3 (L), 10 (R).

11 (L) - 3 (L) : Continuity should exist.
15 (R) - 10 (R) : Continuity should exist.



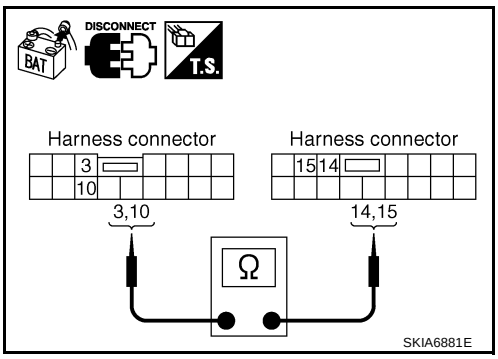
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect harness connector B8.
2. Check continuity between harness connector B5 terminals 3 (L), 10 (R) and harness connector B8 terminals 14 (L), 15 (R).

3 (L) - 14 (L) : Continuity should exist.
10 (R) - 15 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

ECM Circuit Inspection

AKS00CD9

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).

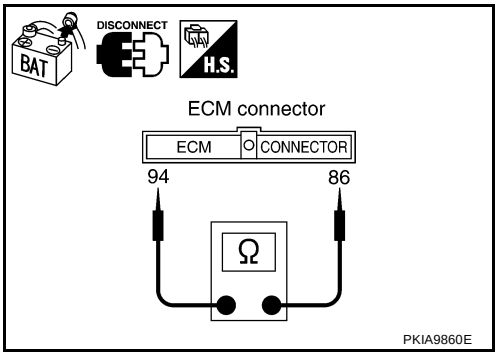
OK or NG

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 M90 terminals 94 (L) and 86 (R).

94 (L) - 86 (R) : Approx. 108 - 132Ω



OK or NG

OK >> Replace ECM.
NG >> Repair harness between ECM and harness connector M82.

TCM Circuit Inspection

AKS00CDA

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 (control module side and harness side).

- A/T assembly connector
- Harness connector F102
- Harness connector M82

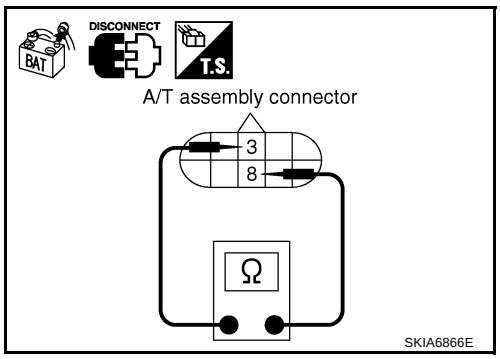
OK or NG

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 F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Approx. 54 - 66Ω



OK or NG

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

Display Unit Circuit Inspection

AKS00CDB

1. CHECK CONNECTOR

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

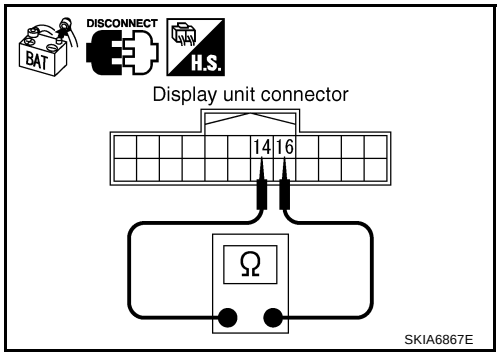
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect display unit connector.
2. Check resistance between display unit harness connector M62 terminals 14 (L) and 16 (R).

14 (L) - 16 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace display unit.
NG >> Repair harness between display unit and harness connector M82.

AWD Control Unit Circuit Inspection

AKS00CDC

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of AWD 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.

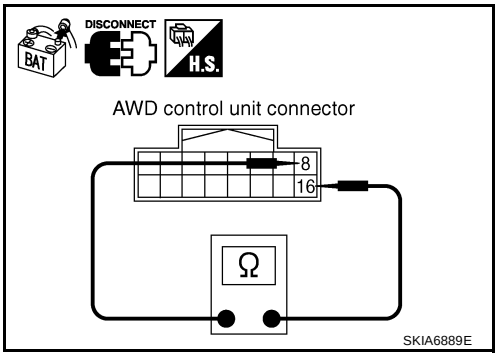
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect AWD control unit connector.
2. Check resistance between AWD control unit harness connector M92 terminals 8 (L) and 16 (R).

8 (L) - 16 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace AWD control unit.
NG >> Repair harness between AWD control unit and harness connector M82.



Data Link Connector Circuit Inspection

AKS00CDD

1. CHECK CONNECTOR

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

OK or NG

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

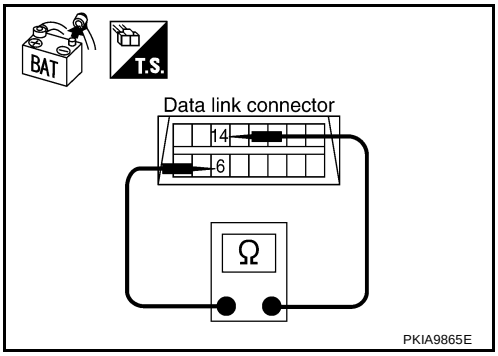
2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness between data link connector and BCM.



BCM Circuit Inspection

AKS00CDE

1. CHECK CONNECTOR

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

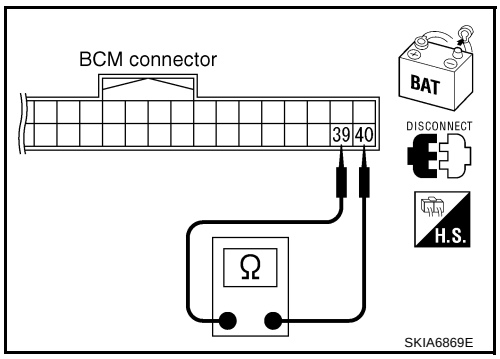
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect BCM connector.
2. Check resistance between BCM harness connector M3 terminals 39 (L) and 40 (R).

39 (L) - 40 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace BCM. Refer to BCS-16, "Removal and Installation of BCM" .
NG >> Repair harness between BCM and data link connector.

Steering Angle Sensor Circuit Inspection

AKS00CDF

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).

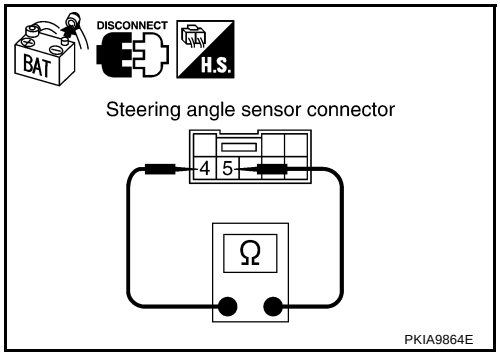
OK or NG

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 M14 terminals 4 (L) and 5 (R).

4 (L) - 5 (R) : Approx. 54 - 66Ω



OK or NG

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

Unified Meter and A/C Amp. Circuit Inspection

AKS00CDG

1. CHECK CONNECTOR

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

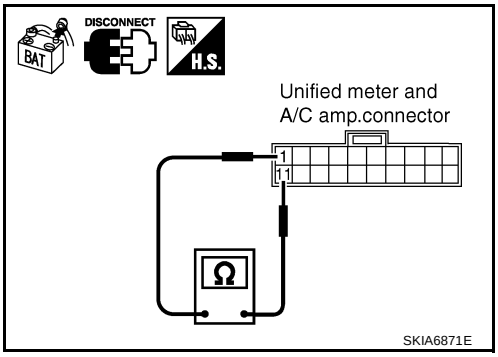
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector.
2. Check resistance between unified meter and A/C amp. harness connector M55 terminals 1 (L) and 11 (R).

1 (L) - 11 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace unified meter and A/C amp.
NG >> Repair harness between unified meter and A/C amp. and harness connector M41.

ABS Actuator and Electric Unit (Control Unit) Circuit Inspection

AKS00CDH

1. CHECK CONNECTOR

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

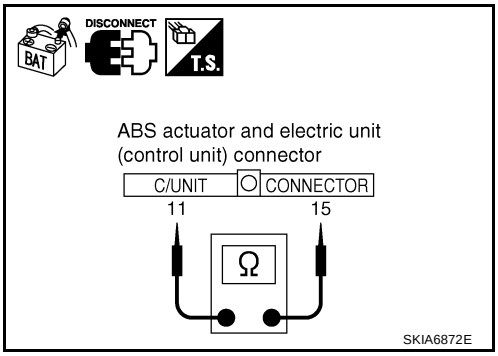
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check resistance between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace ABS actuator and electric unit (control unit).
NG >> Repair harness between ABS actuator and electric unit (control unit) and harness connector E205.

Driver Seat Control Unit Circuit Inspection

AKS00CDI

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 (control unit side and harness side).

- Driver seat control unit connector
- Harness connector B151
- Harness connector B8

OK or NG

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

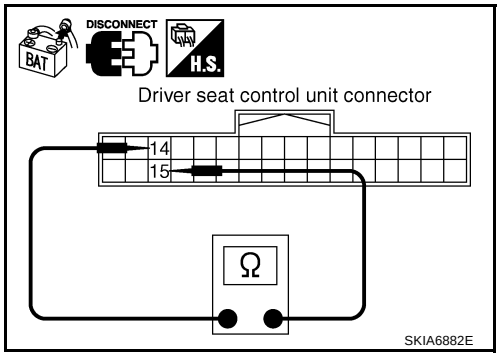
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check resistance between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

14 (OR) - 15 (SB) : Approx. 54 - 66Ω

OK or NG

OK >> Replace driver seat control unit.
NG >> Repair harness between driver seat control unit and harness connector B5.



IPDM E/R Circuit Inspection

AKS00CDJ

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 (control module side and harness side).

- IPDM E/R connector
- Harness connector E205
- Harness connector B5

OK or NG

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

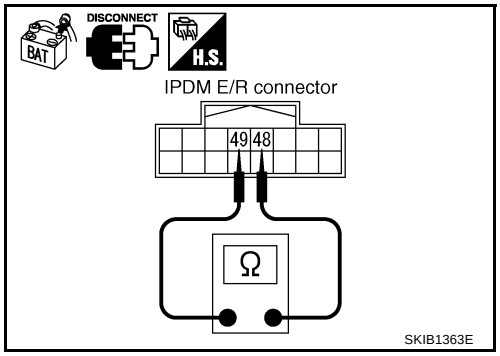
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check resistance between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Approx. 108 - 132Ω

OK or NG

OK >> Replace IPDM E/R.
NG >> Repair harness between IPDM E/R and harness connector B8.



CAN Communication Circuit Inspection

AKS00CDK

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 (control module side, control unit side, unit side, sensor side, meter side and harness side).

- ECM
- A/T assembly
- Display unit
- AWD control unit
- BCM
- Steering angle sensor
- Unified meter and A/C amp.
- ABS actuator and electric unit (control unit)
- Driver seat control unit
- IPDM E/R
- Between ECM and IPDM E/R
- Between ECM and A/T assembly
- Between ECM and driver seat control unit

OK or NG

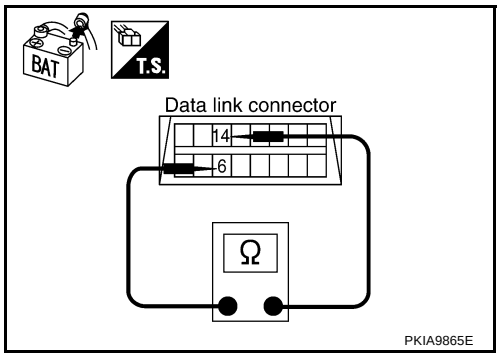
OK >> GO TO 2.
NG >> Repair terminal or connector.

2. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect following connectors.
- ECM connector
- Harness connector M82
- Display unit connector
- AWD control unit connector
- BCM connector
- Steering angle sensor connector
- Unified meter and A/C amp. connector
- Harness connector M41

2. Check continuity between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R) : Continuity should not exist.



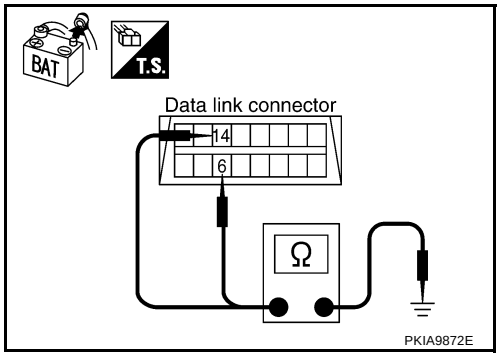
OK or NG

OK >> GO TO 3.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display unit
- Harness between data link connector and AWD control unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

3. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between data link connector M5 terminals 6 (L), 14 (R) and ground.

6 (L) - Ground : Continuity should not exist.
14 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 4.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display unit
- Harness between data link connector and AWD control unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

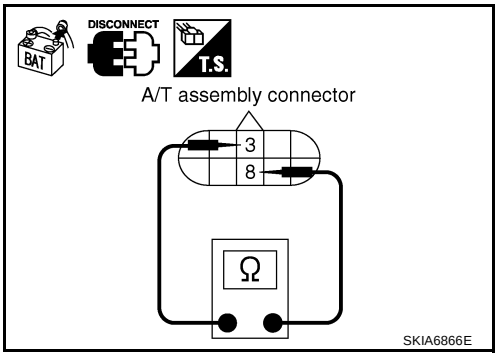
4. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect A/T assembly connector.
2. Check continuity between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 5.
NG >> Repair harness between A/T assembly and harness connector F102.



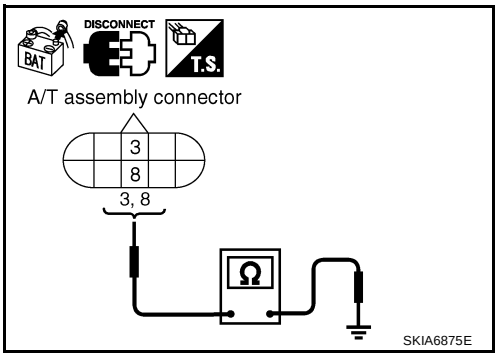
5. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between A/T assembly harness connector F44 terminals 3 (L), 8 (R) and ground.

3 (L) - Ground : Continuity should not exist.
8 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 6.
NG >> Repair harness between A/T assembly and harness connector F102.



6. CHECK HARNESS FOR SHORT CIRCUIT

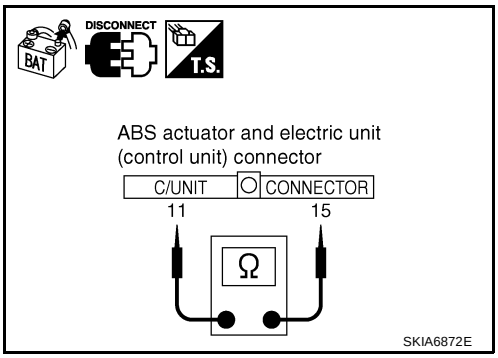
1. Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 7.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and harness connector E205

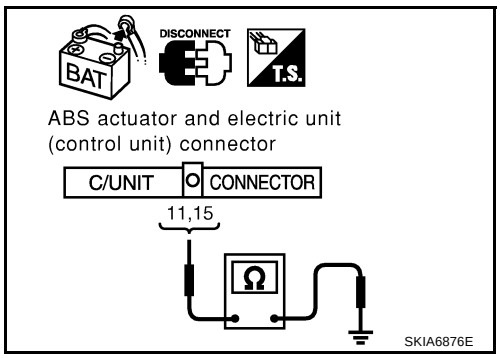


7. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and ground.

11 (L) - Ground : Continuity should not exist.

15 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 8.

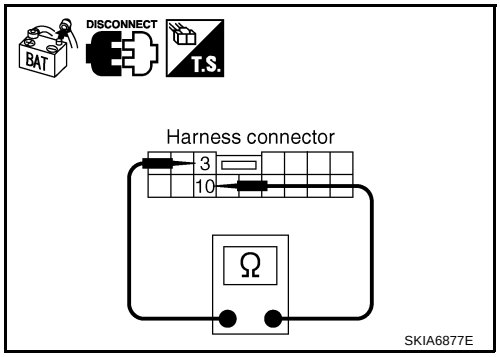
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and harness connector E205

8. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect harness connector B8.
2. Check continuity between harness connector B5 terminals 3 (L) and 10 (R).

3 (L) - 10 (R) : Continuity should not exist.



OK or NG

OK >> GO TO 9.

NG >> Check the following harnesses. If any harness is damaged, repair the harness.

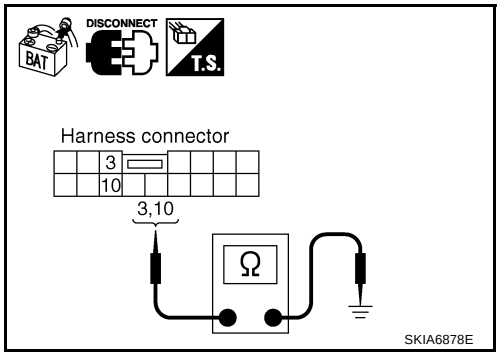
- Harness between harness connector B5 and harness connector B8
- Harness between harness connector B5 and harness connector B5

9. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between harness connector B5 terminals 3 (L), 10 (R) and ground.

3 (L) - Ground : Continuity should not exist.

10 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 10.

NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between harness connector B5 and harness connector B8
- Harness between harness connector B5 and harness connector B5

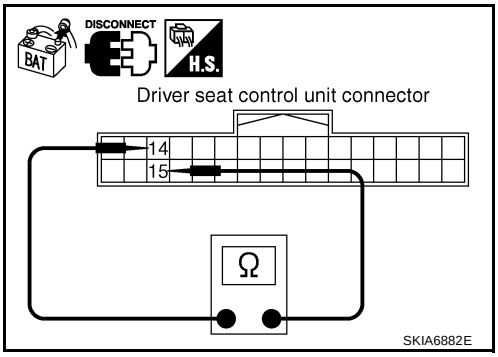
10. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check continuity between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

14 (OR) - 15 (SB) : Continuity should not exist.

OK or NG

OK >> GO TO 11.
NG >> Repair harness between driver seat control unit and harness connector B151.



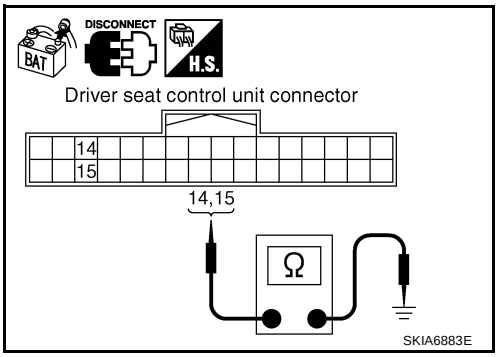
11. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between driver seat control unit harness connector B152 terminals 14 (OR), 15 (SB) and ground.

14 (OR) - Ground : Continuity should not exist.
15 (SB) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 12.
NG >> Repair harness between driver seat control unit and harness connector B151.



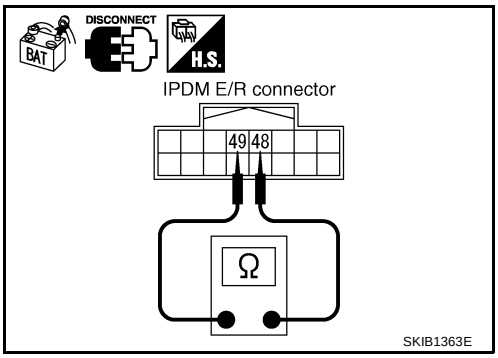
12. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check continuity between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 13.
NG >> Repair harness between IPDM E/R and harness connector E205.



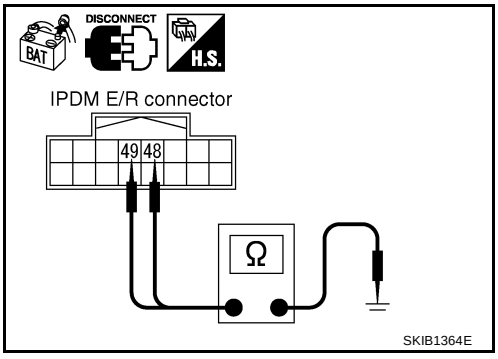
13. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between IPDM E/R harness connector E9 terminals 48 (L), 49 (R) and ground.

48 (L) - Ground : Continuity should not exist.
49 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 14.
NG >> Repair harness between IPDM E/R and harness connector E205.



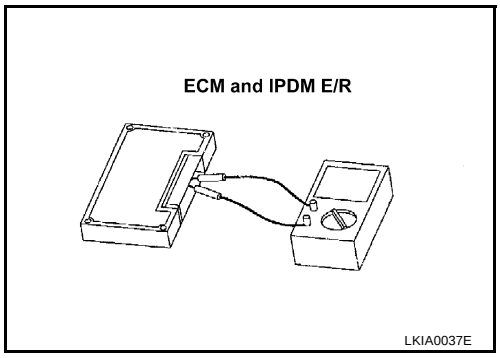
14. CHECK ECM AND IPDM E/R INTERNAL CIRCUIT

1. Remove ECM and IPDM E/R from vehicle.
2. Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. 108 - 132Ω

3. Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132Ω



OK or NG

OK >> GO TO 15.
NG >> Replace ECM and/or IPDM E/R.

15. 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 16.
NG >> Refer to LAN-16, "Example of Filling in Check Sheet When Initial Conditions Are Not Reproduced".

16. CHECK UNIT REPRODUCIBILITY

Performs the following procedure for each unit, 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.

- A/T assembly
- Display unit
- AWD control unit
- BCM
- Steering angle sensor
- Unified meter and A/C amp.
- ABS actuator and electric unit (control unit)
- Driver seat control unit
- ECM
- IPDM E/R

Check results

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

IPDM E/R Ignition Relay Circuit Inspection

AKS00CDL

Check the following. If no malfunction is found, replace the IPDM E/R.

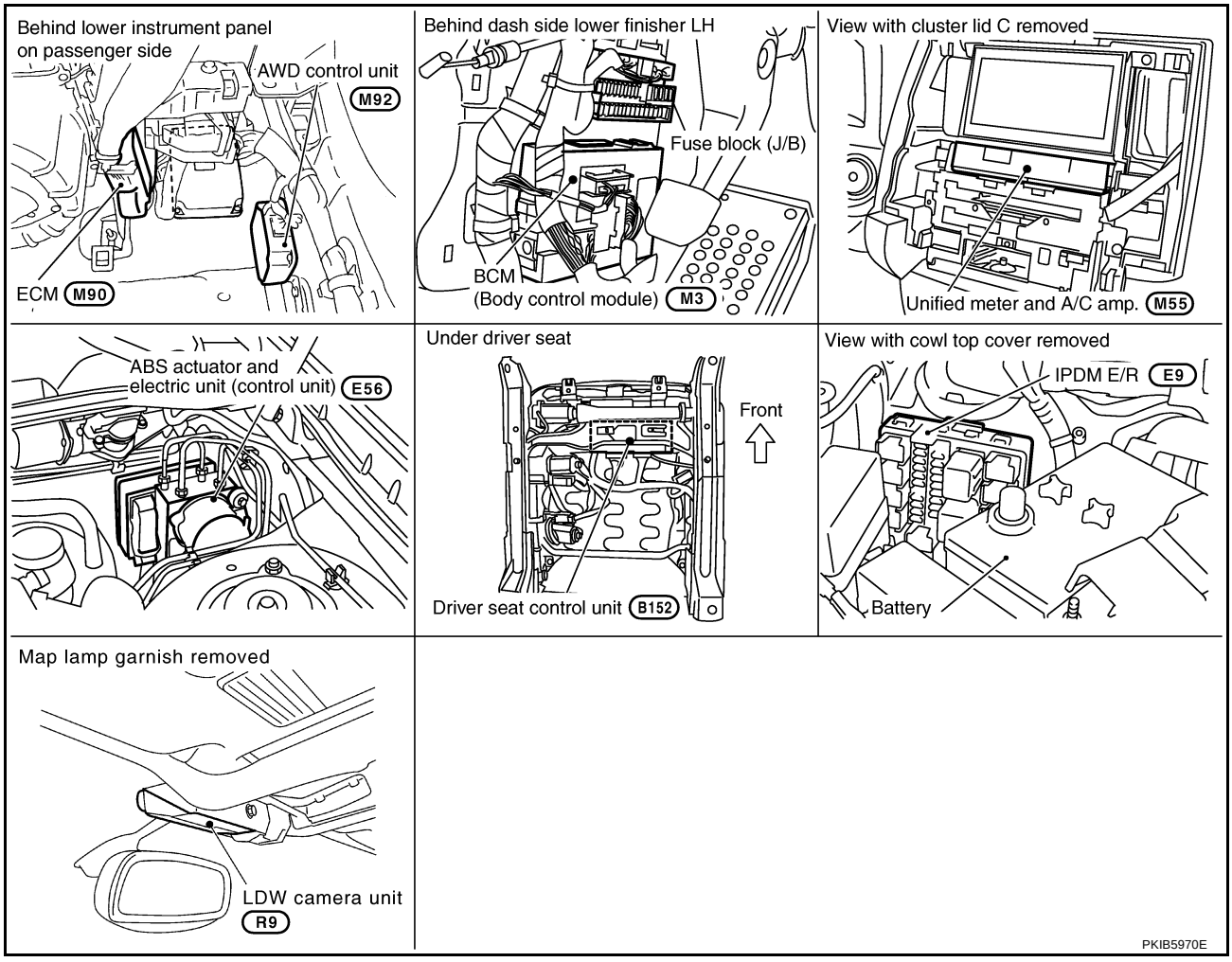
- IPDM E/R power supply circuit. Refer to PG-28, "IPDM E/R Power/Ground Circuit Inspection" .
- Ignition power supply circuit. Refer to PG-12, "IGNITION POWER SUPPLY - IGNITION SW. IN “ON” AND/OR “START”" .

CAN SYSTEM (TYPE 6)

PFP:23710

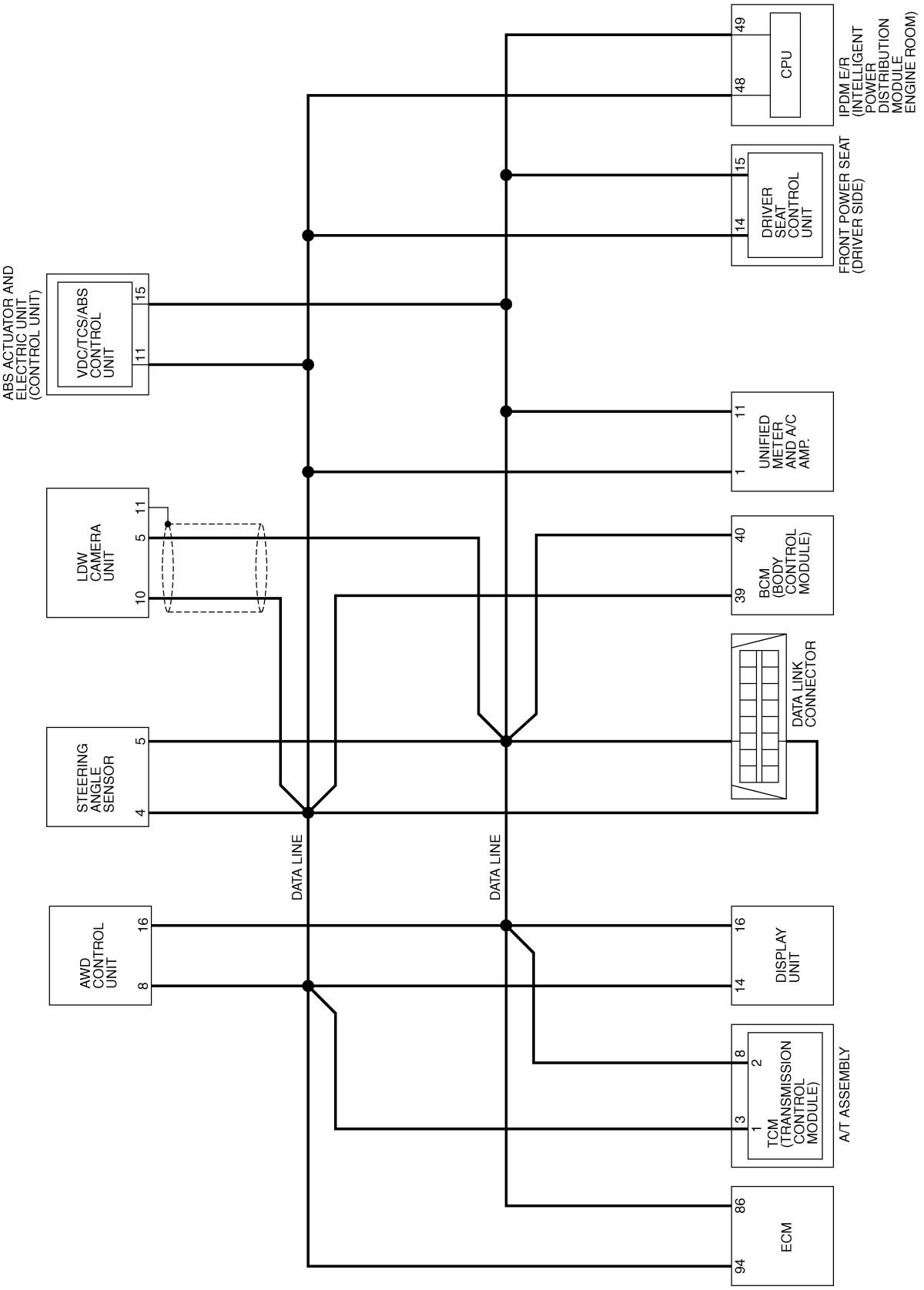
Component Parts and Harness Connector Location

AKS00CCF



Schematic

AKS00CCG

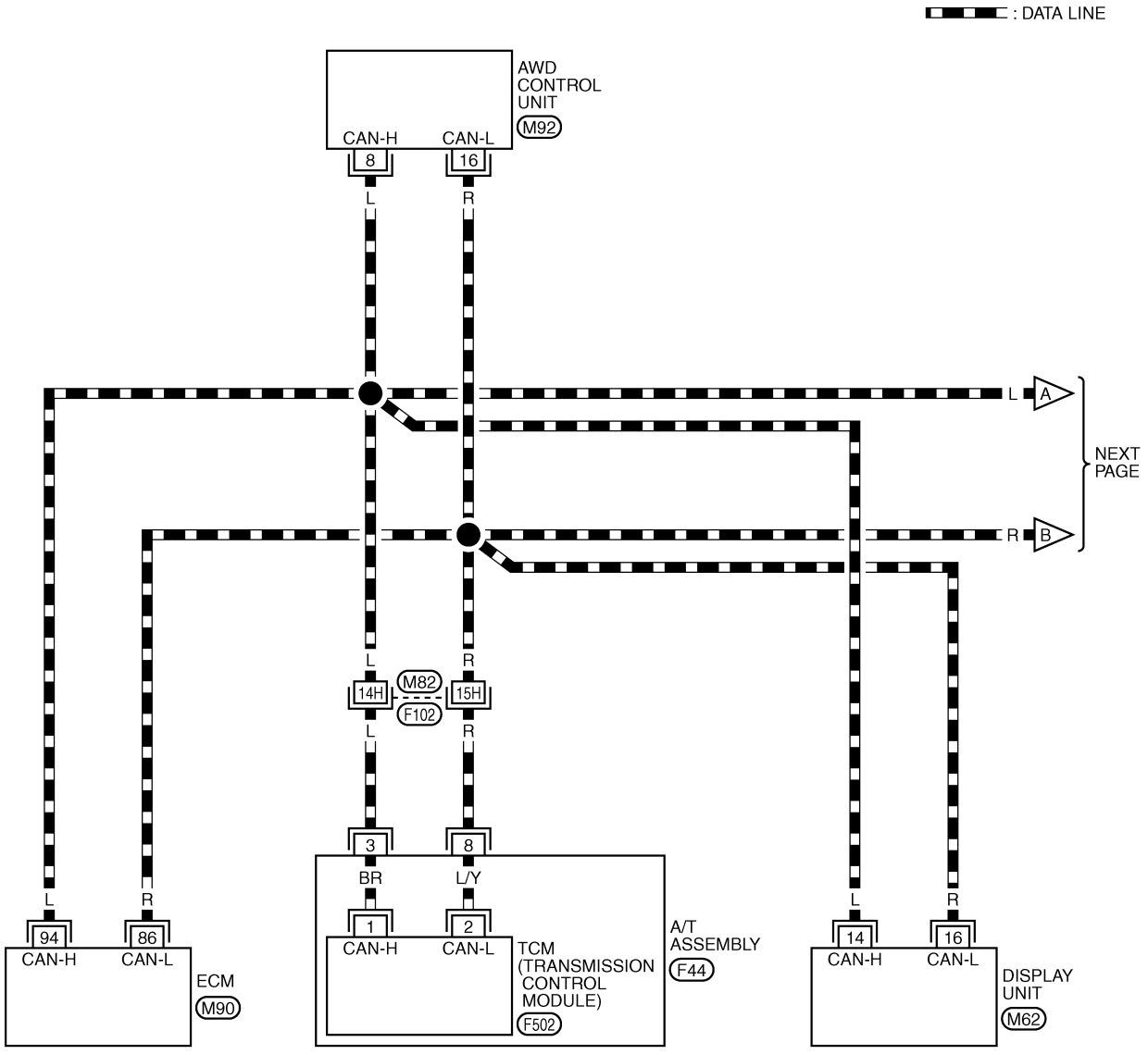


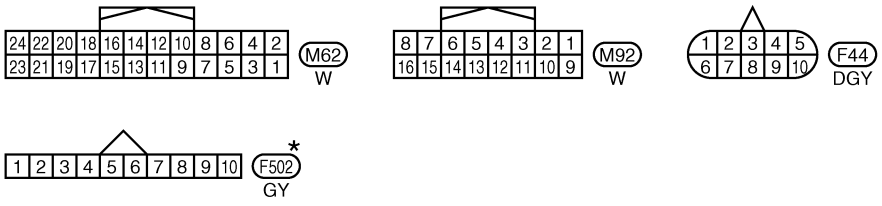
TKWM2367E

Wiring Diagram - CAN -

AKS00CCH

LAN-CAN-16





REFER TO THE FOLLOWING.

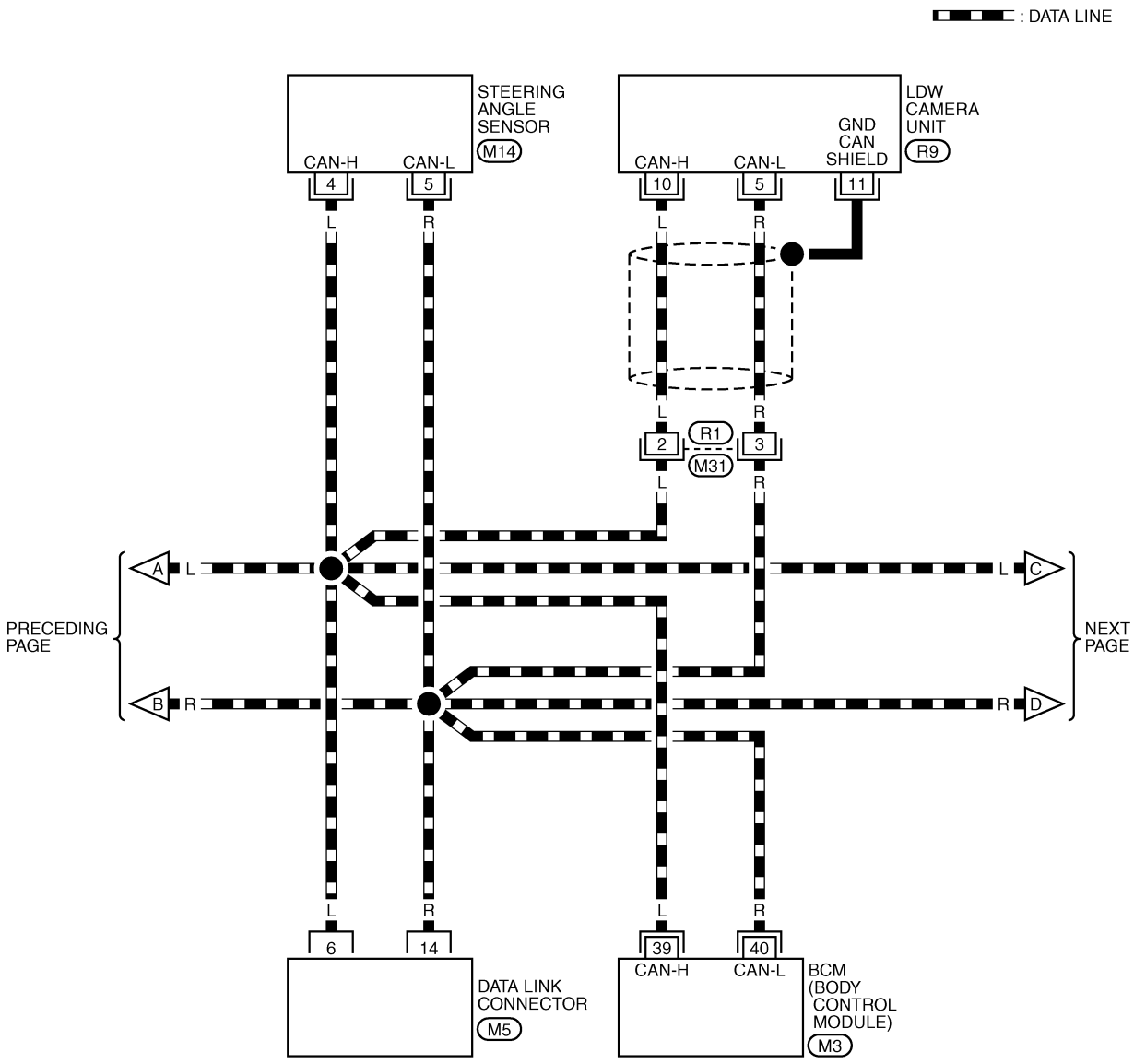
F102 -SUPER MULTIPLE JUNCTION (SMJ)

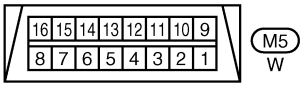
M90 -ELECTRICAL UNITS

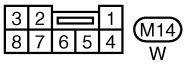
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

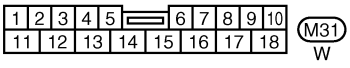
TKWM2368E

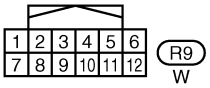
LAN-CAN-17







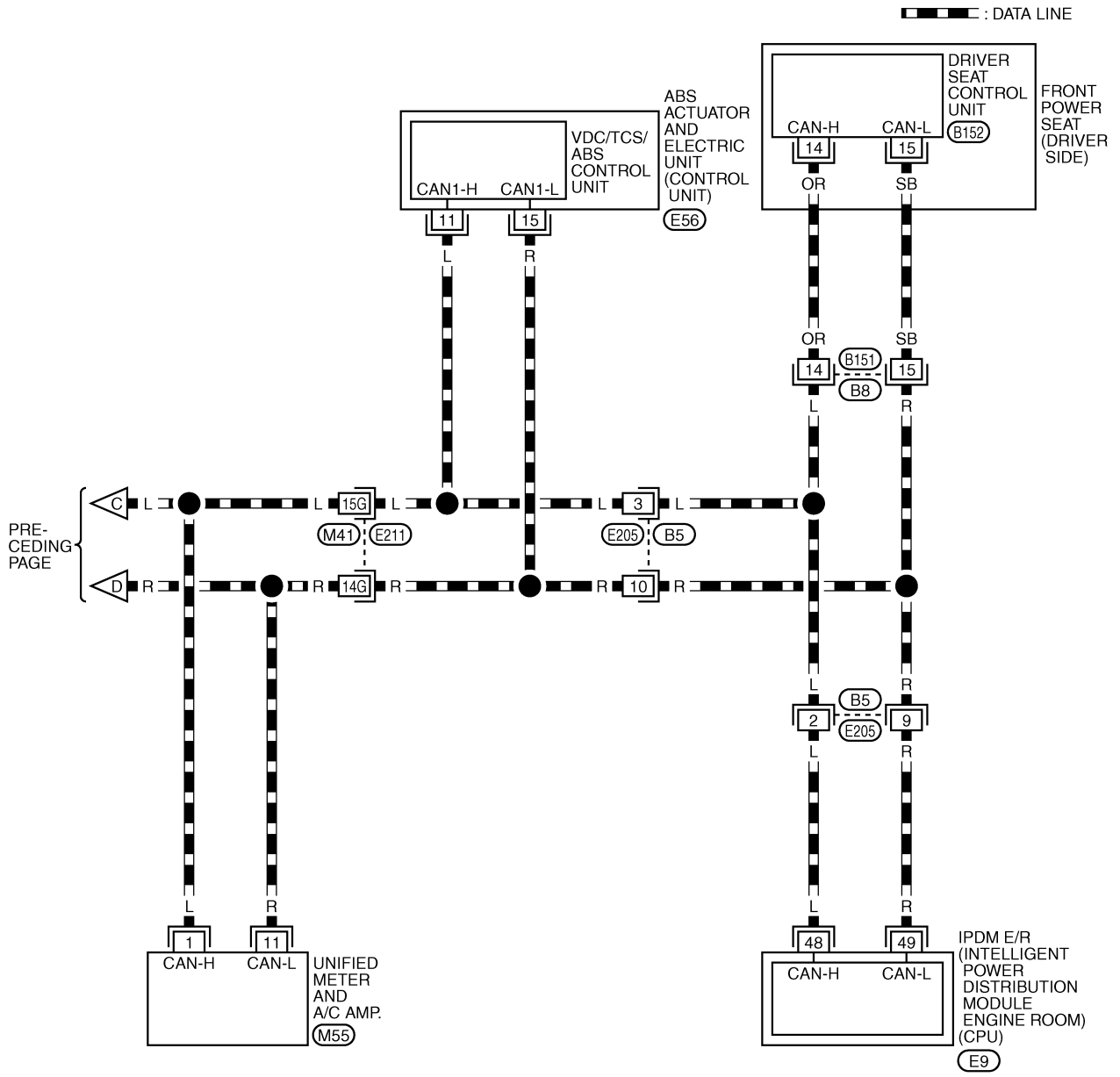


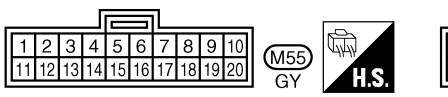


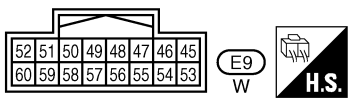
REFER TO THE FOLLOWING.
M3 -ELECTRICAL UNITS

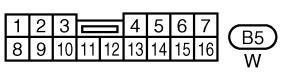
TKWM2369E

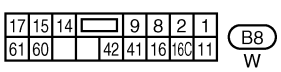
LAN-CAN-18

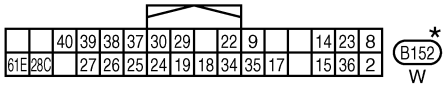












★: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

REFER TO THE FOLLOWING.
E211 -SUPER MULTIPLE JUNCTION (SMJ)
E56 -ELECTRICAL UNITS

TKWM2370E

Check Sheet

AKS00CCI

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	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

Symptoms :

Attach copy of SELECT SYSTEM

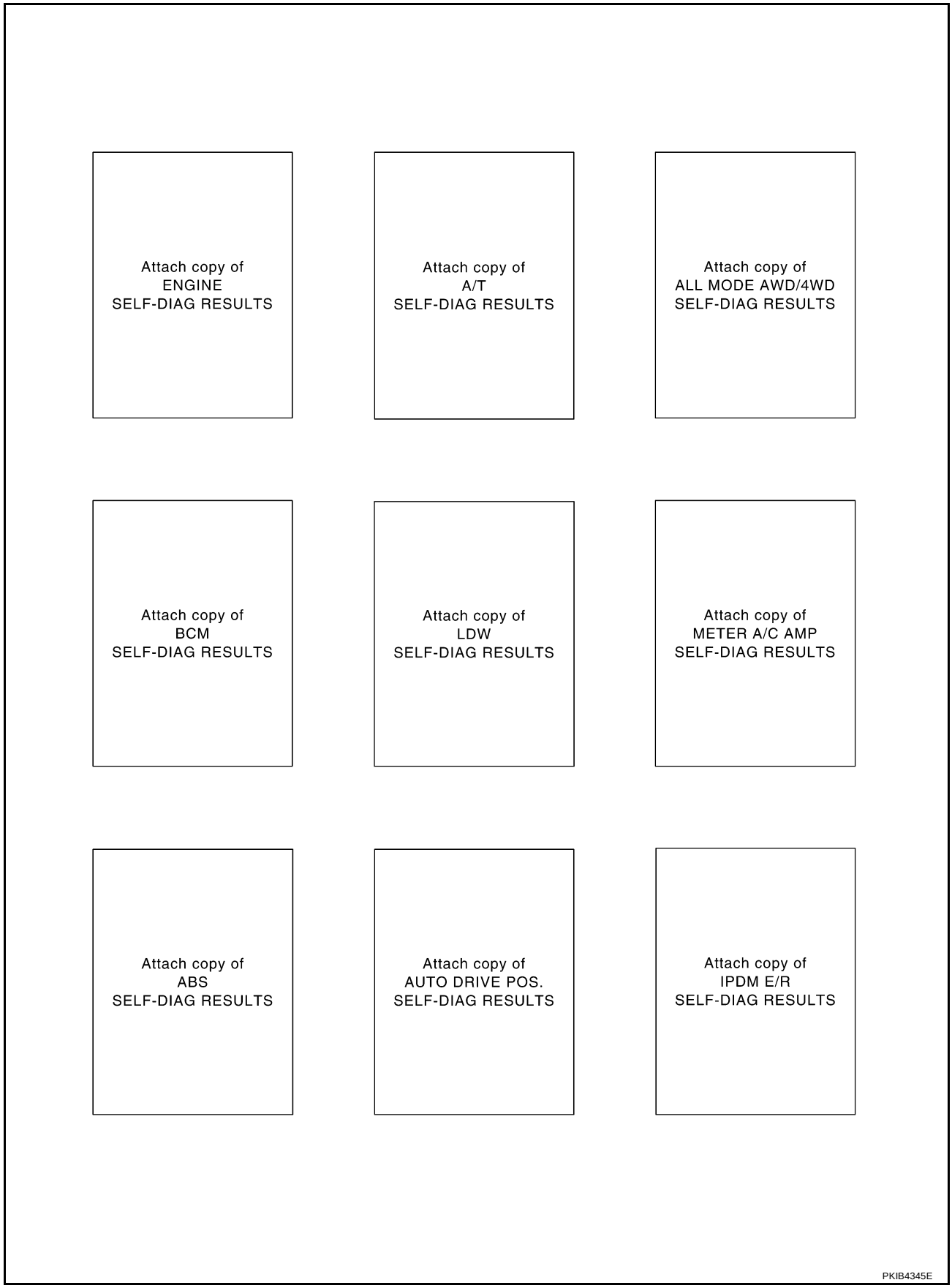
Attach copy of SELECT SYSTEM

PKIB4344E

Display unit Translation Sheet: Rewrite the following names, and put a check mark on the check sheet table.			
Confirmation/Adjustment Display	Check sheet table Display	Confirmation/Adjustment Display	Check sheet table Display
CANCOMM	Initial diagnosis	CAN5	METER/M&A
CAN1	Transmit diagnosis	CAN6	–
CAN2	BCM/SEC	CAN7	IPDM E/R
CAN3	ECM	CAN8	–
CAN4	–	CAN9	–

Attach copy of
display unit
CAN DIAG MONITOR check sheet

PKIB5984E


Attach copy of
ENGINE
SELF-DIAG RESULTS
Attach copy of
A/T
SELF-DIAG RESULTS
Attach copy of
ALL MODE AWD/4WD
SELF-DIAG RESULTS
Attach copy of
BCM
SELF-DIAG RESULTS
Attach copy of
LDW
SELF-DIAG RESULTS
Attach copy of
METER A/C AMP
SELF-DIAG RESULTS
Attach copy of
ABS
SELF-DIAG RESULTS
Attach copy of
AUTO DRIVE POS.
SELF-DIAG RESULTS
Attach copy of
IPDM E/R
SELF-DIAG RESULTS
PKIB4345E

Attach copy of
ENGINE
CAN DIAG SUPPORT
MNTR

Attach copy of
A/T
CAN DIAG SUPPORT
MNTR

Attach copy of
ALL MODE AWD/4WD
CAN DIAG SUPPORT
MNTR

Attach copy of
BCM
CAN DIAG SUPPORT
MNTR

Attach copy of
LDW
CAN DIAG SUPPORT
MNTR

Attach copy of
METER A/C AMP
CAN DIAG SUPPORT
MNTR

Attach copy of
ABS
CAN DIAG SUPPORT
MNTR

Attach copy of
AUTO DRIVE POS.
CAN DIAG SUPPORT
MNTR

Attach copy of
IPDM E/R
CAN DIAG SUPPORT
MNTR

PKIB4346E

CHECK SHEET RESULTS (EXAMPLE)

NOTE:

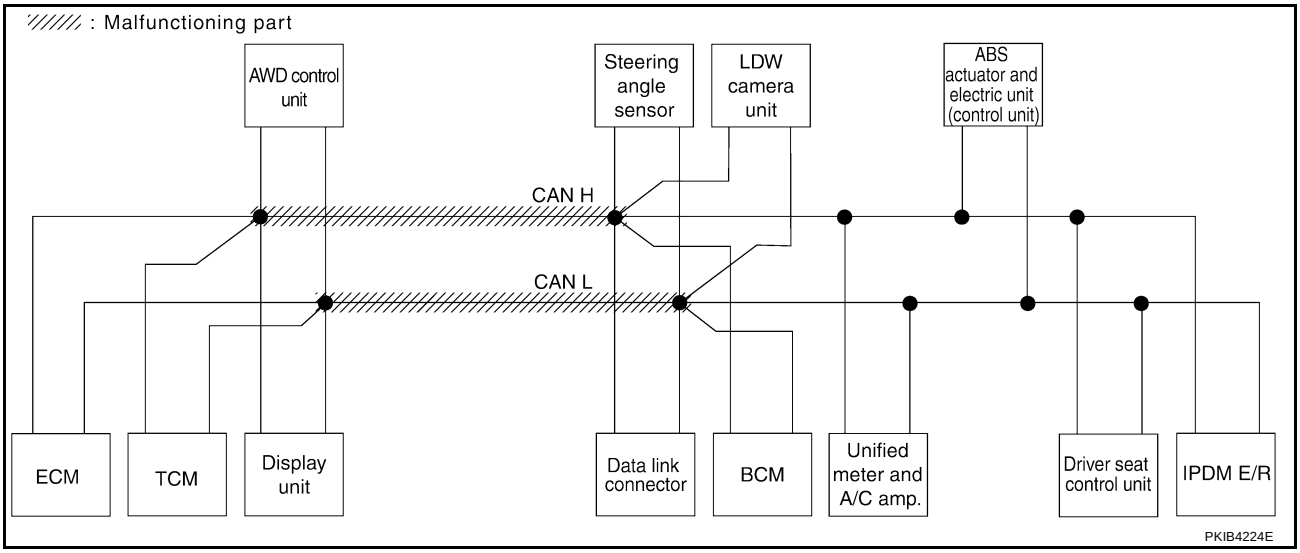
If a check mark is put on “NG” on “INITIAL DIAG (Initial diagnosis)”, replace the control unit.

Case 1

Check harness between TCM and data link connector. Refer to LAN-287, "Inspection Between TCM and Data Link Connector Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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) ✓	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN ✓	—	UNKWN ✓	—	UNKWN ✓	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	—	—	—
BCM	No indication	NG	UNKWN	UNKWN ✓	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN ✓	UNKWN ✓	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
METER A/C AMP	No indication	—	UNKWN	UNKWN ✓	UNKWN ✓	UNKWN ✓	UNKWN ✓	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN ✓	UNKWN ✓	—	UNKWN ✓	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN ✓	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN ✓	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB5946E



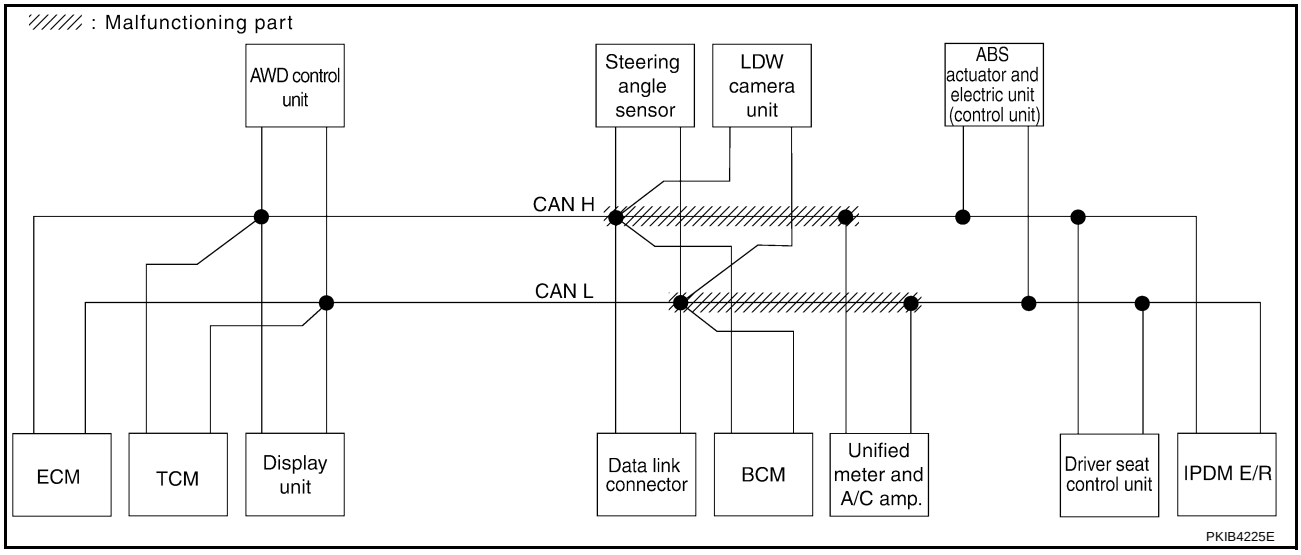
PKIB4224E

Case 2

Check harness between data link connector and unified meter and A/C amp. Refer to LAN-288, "Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	—	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5947E

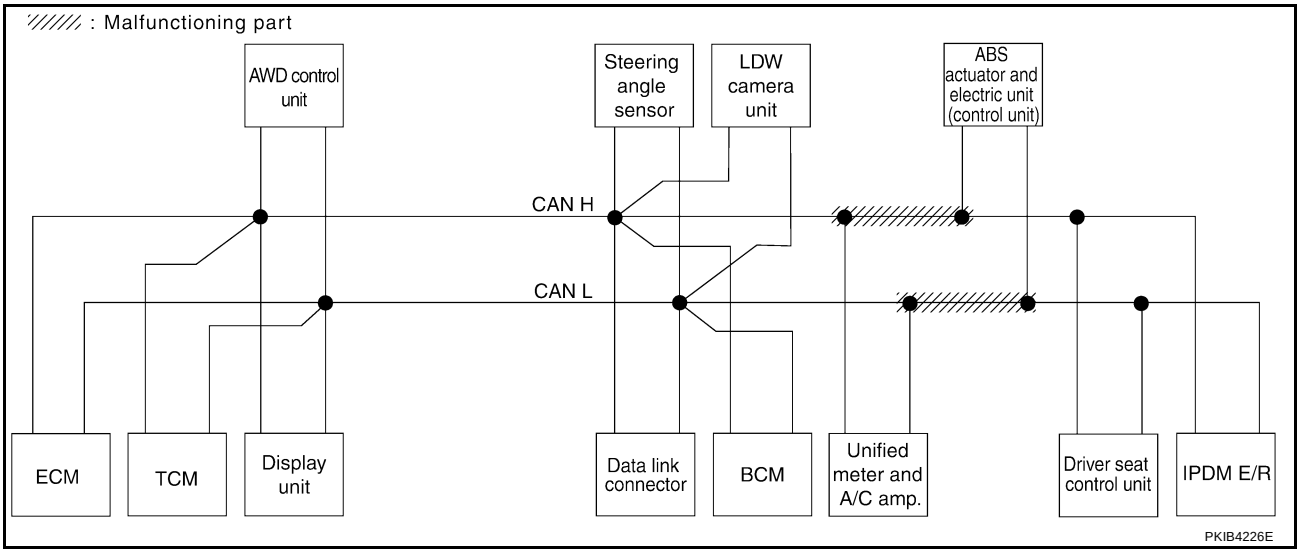


Case 3

Check harness between unified meter and A/C amp. and ABS actuator and electric unit (control unit). Refer to LAN-288, "Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

SKIB7297E

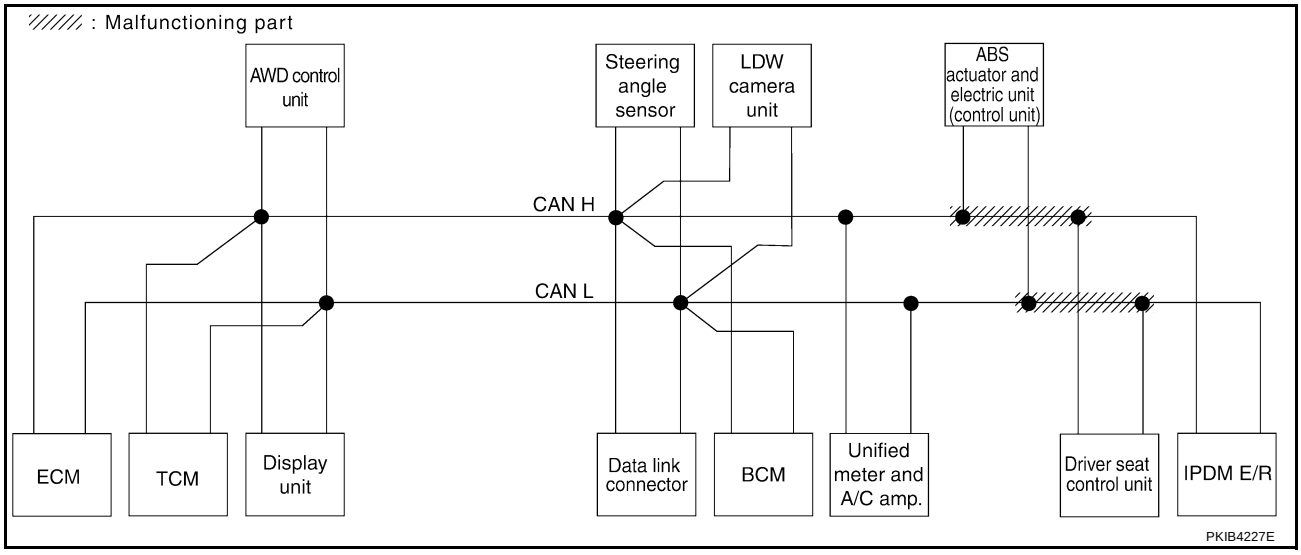


Case 4

Check harness between ABS actuator and electric unit (control unit) and driver seat control unit. Refer to LAN-289, "Inspection Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5949E

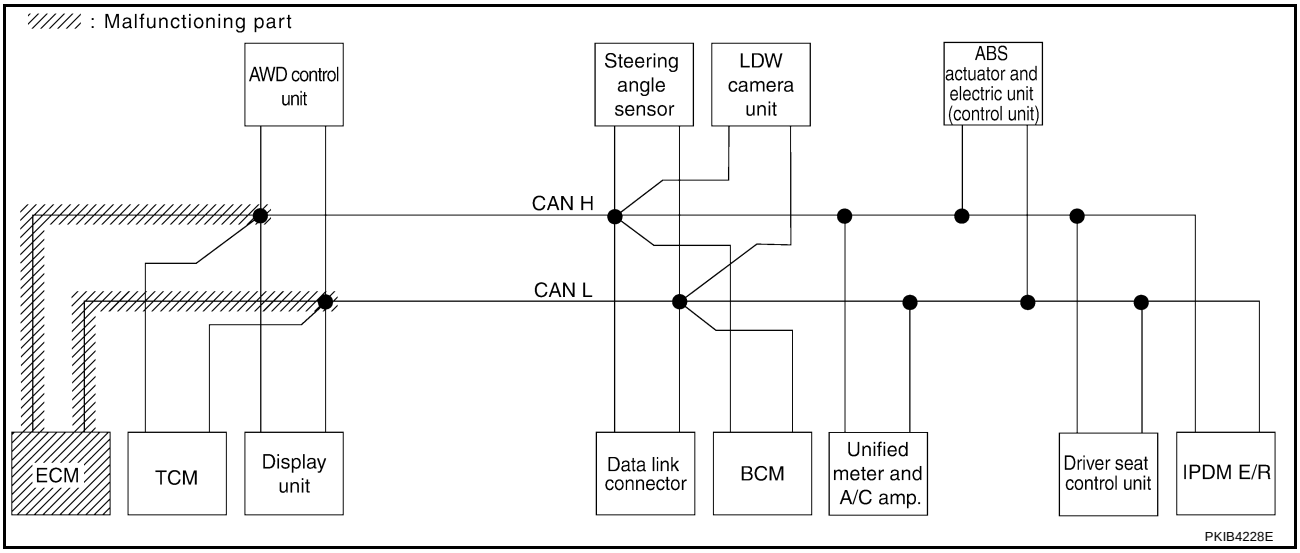


Case 5

Check ECM circuit. Refer to LAN-290, "ECM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R	
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5950E



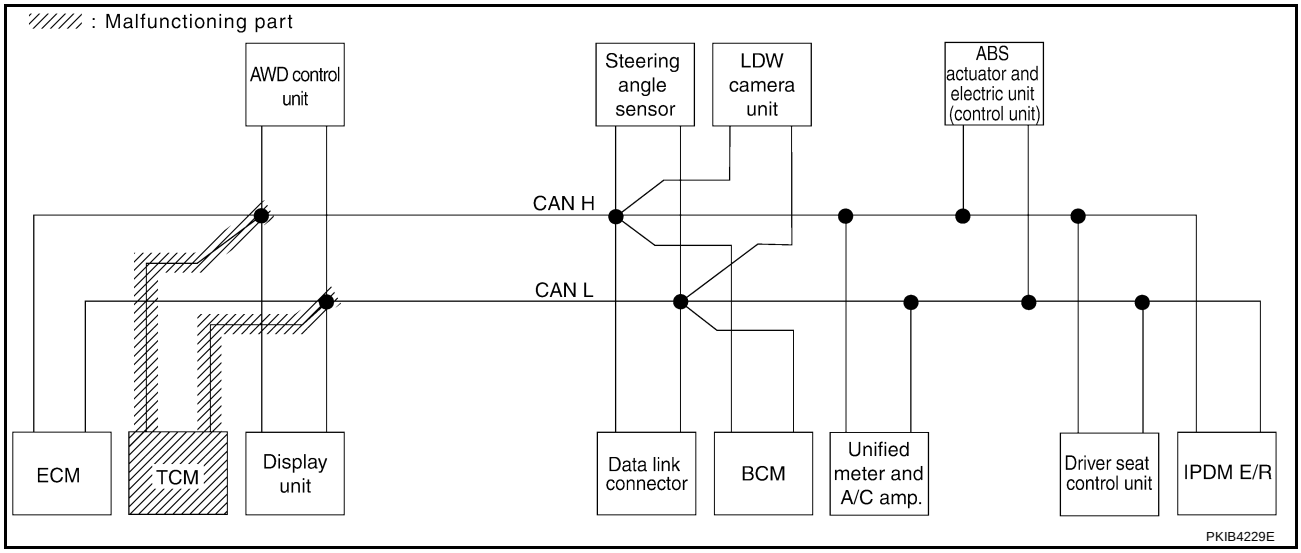
PKIB4228E

Case 6

Check TCM circuit. Refer to LAN-290, "TCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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) ✓	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN ✓	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN ✓	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN ✓	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5951E

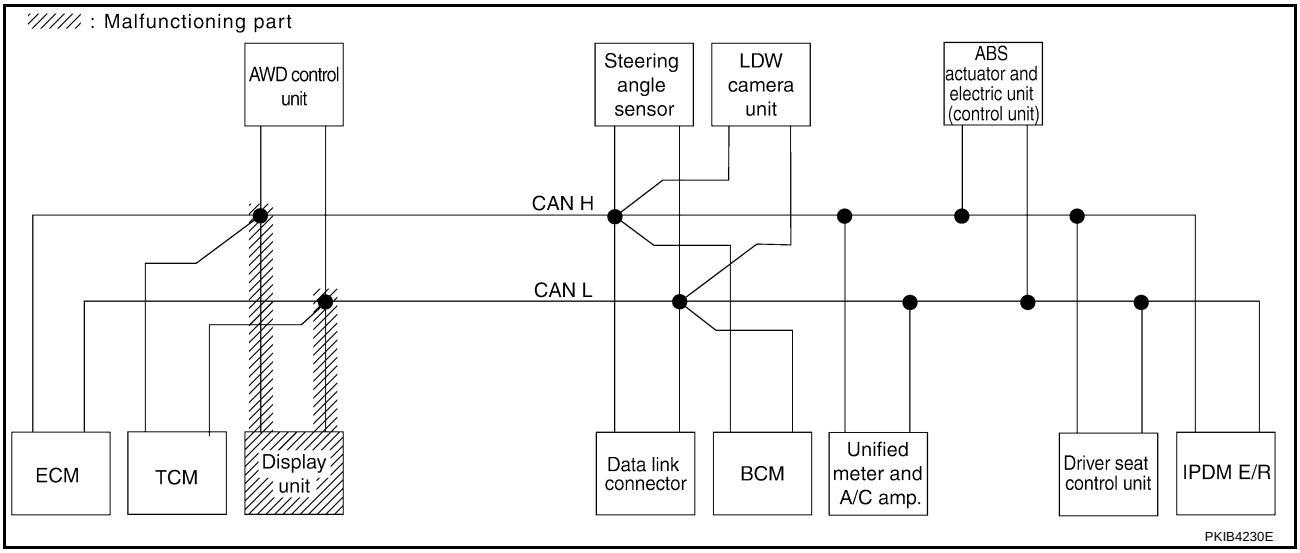


Case 7

Check display unit circuit. Refer to LAN-291, "Display Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN ✓	UNKWN ✓	—	—	—	UNKWN ✓	—	UNKWN ✓	—	UNKWN ✓	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5952E



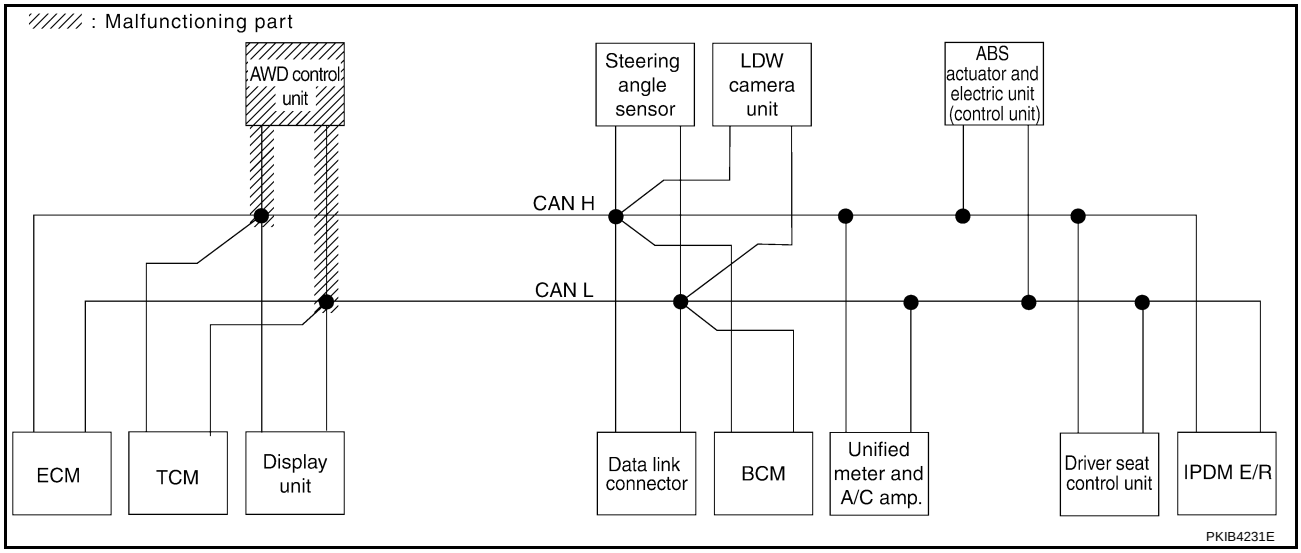
PKIB4230E

Case 8

Check AWD control unit circuit. Refer to LAN-291, "AWD Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN ✓	—	—	—	—	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN ✓	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5953E



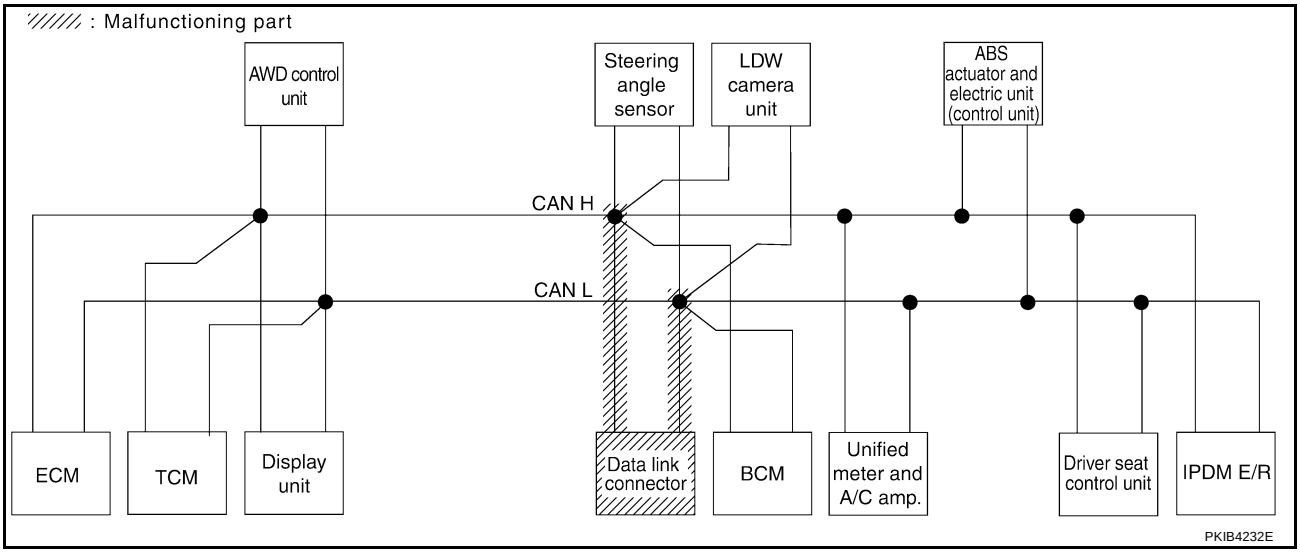
PKIB4231E

Case 9

Check data link connector circuit. Refer to LAN-292, "Data Link Connector Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5954E



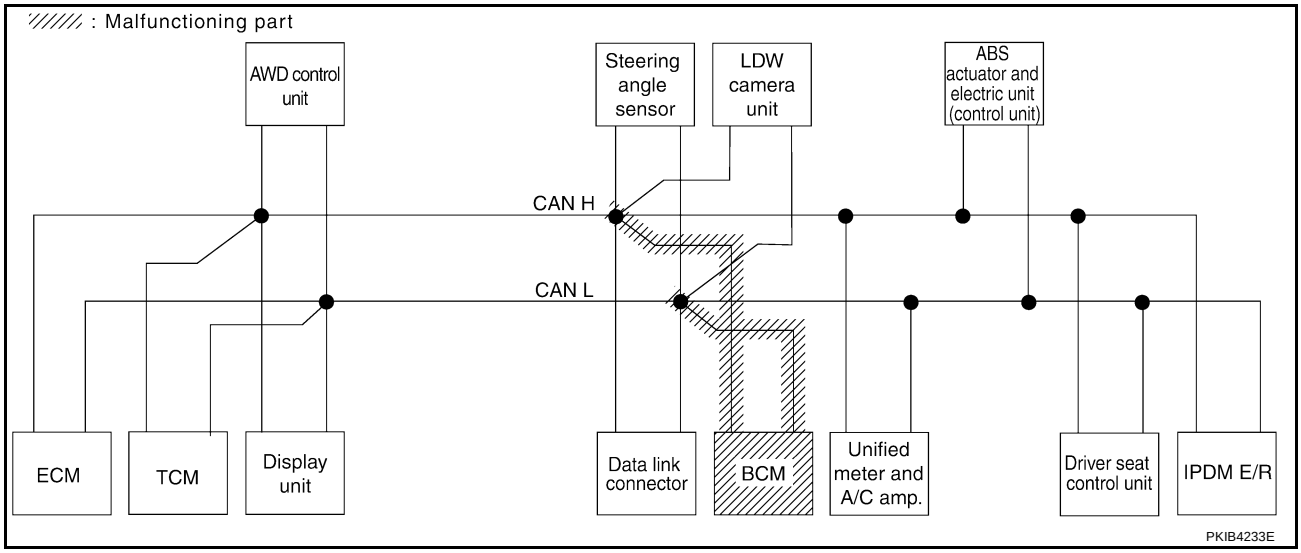
PKIB4232E

Case 10

Check BCM circuit. Refer to LAN-292, "BCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5955E

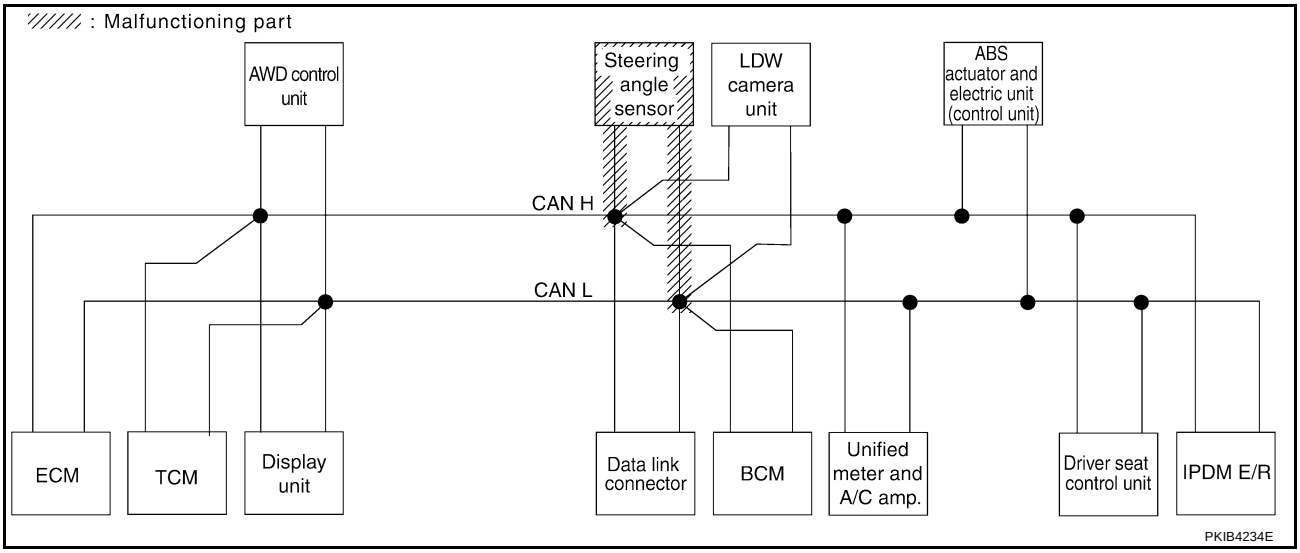


Case 11

Check steering angle sensor circuit. Refer to LAN-293, "Steering Angle Sensor Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5956E



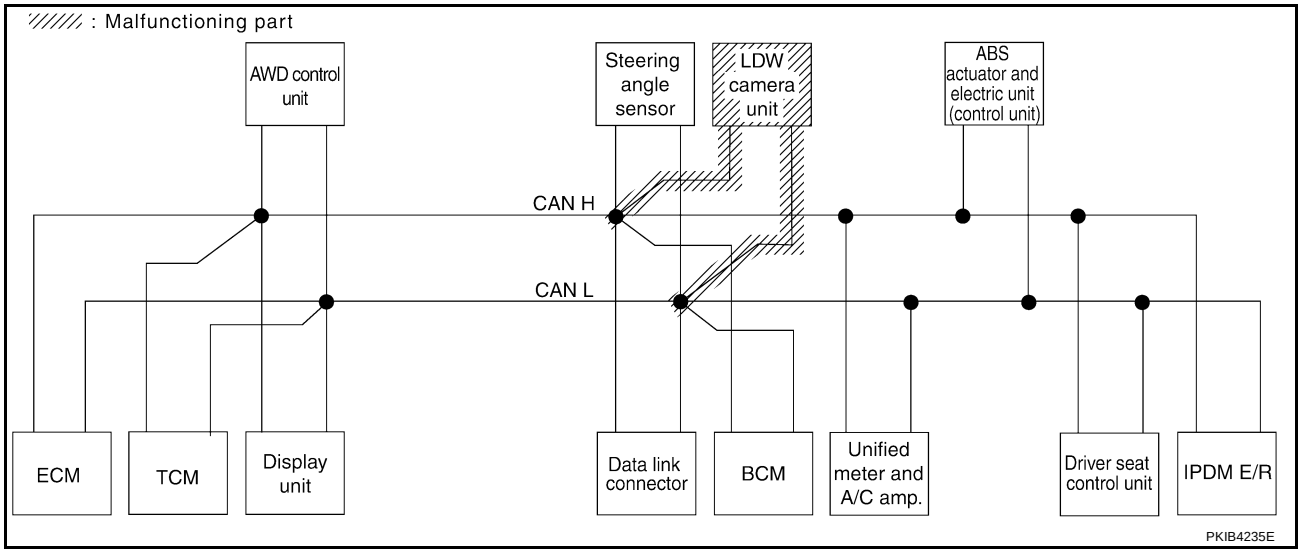
PKIB4234E

Case 12

Check LDW camera unit circuit. Refer to LAN-293, "LDW Camera Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5957E



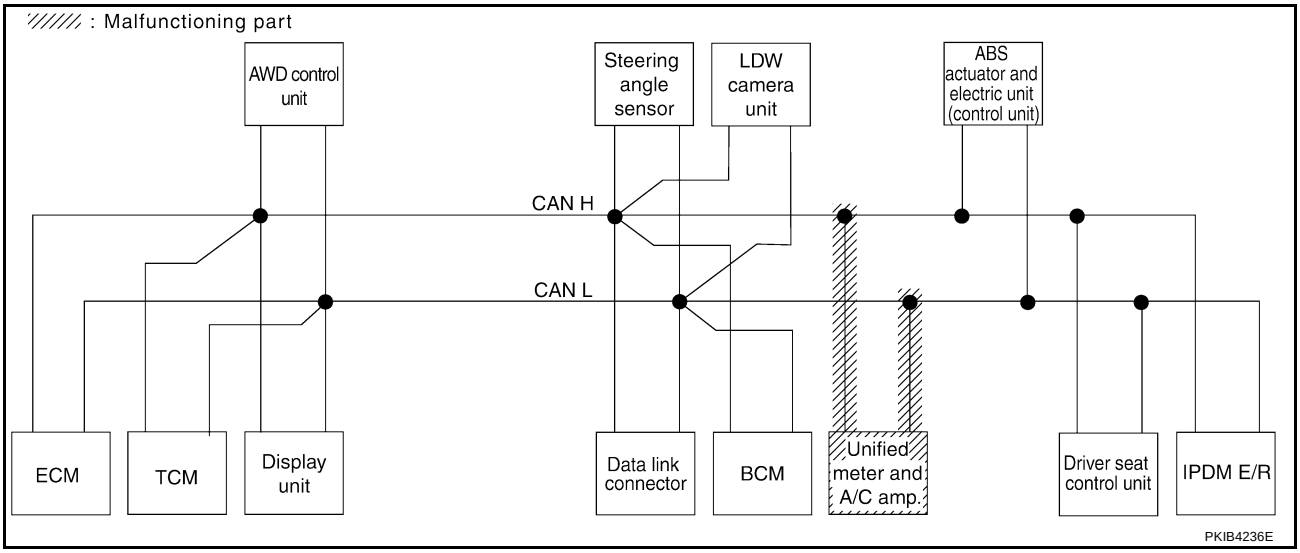
PKIB4235E

Case 13

Check unified meter and A/C amp. circuit. Refer to LAN-294, "Unified Meter and A/C Amp. Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5958E



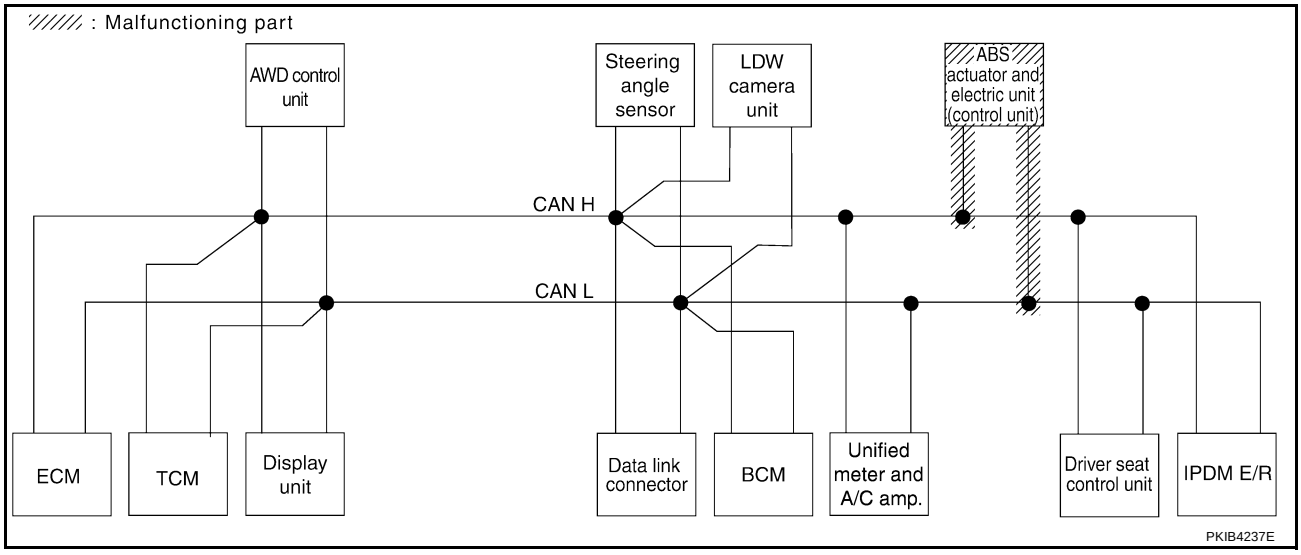
PKIB4236E

Case 14

Check ABS actuator and electric unit (control unit) circuit. Refer to LAN-295, "ABS Actuator and Electric Unit (Control Unit) Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5959E



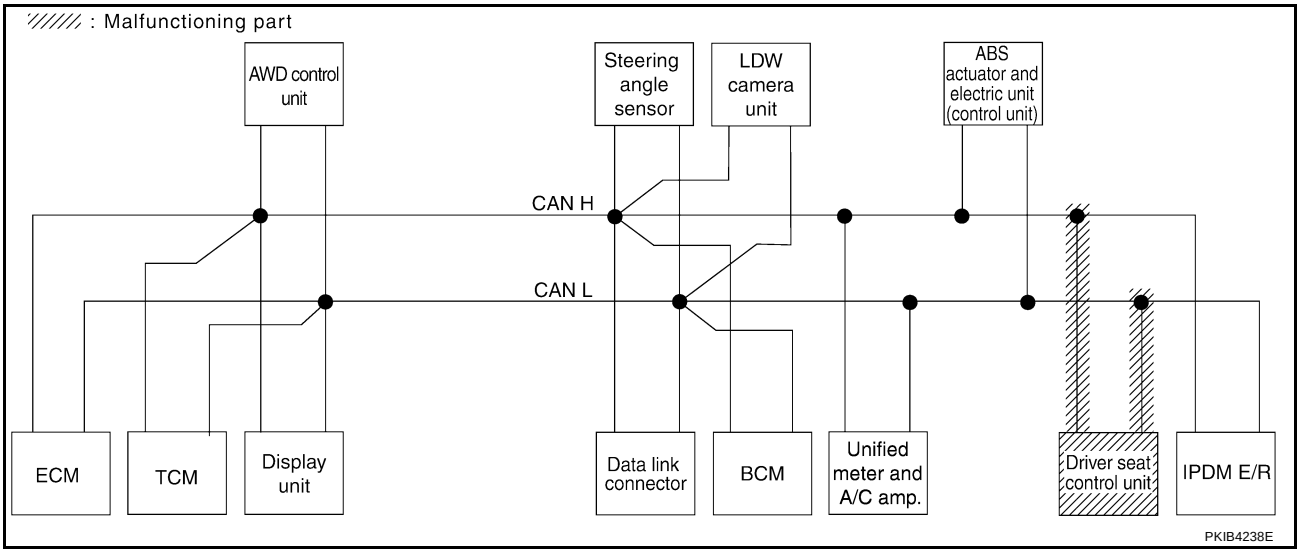
PKIB4237E

Case 15

Check driver seat control unit circuit. Refer to LAN-295, "Driver Seat Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5960E

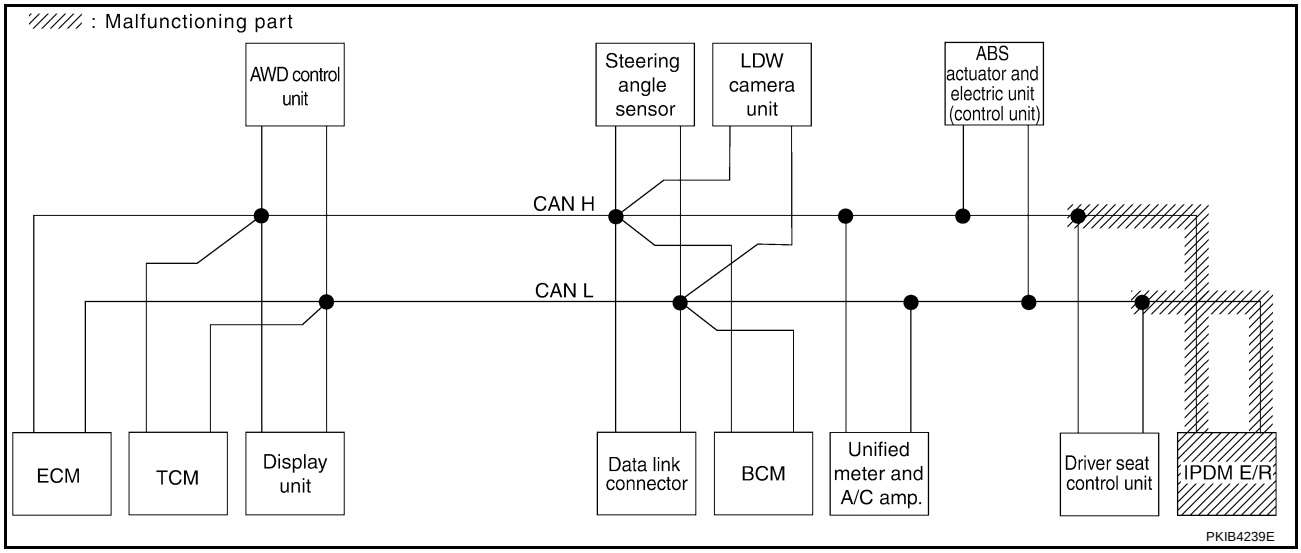


Case 16

Check IPDM E/R circuit. Refer to LAN-296, "IPDM E/R Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5961E



Case 17

Check CAN communication circuit. Refer to LAN-297, "CAN Communication Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	—	—	—	—	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5962E

Case 18

Check IPDM E/R ignition relay circuit continuously sticks “OFF”. Refer to LAN-303, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5963E

Case 19

Check IPDM E/R ignition relay circuit continuously sticks “ON”. Refer to LAN-303, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	—	—	—	—	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	—	UNKWN	—	—	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB5964E

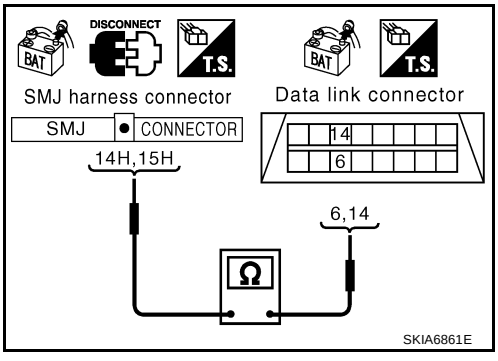
Inspection Between TCM and Data Link Connector Circuit

AKS00CCJ

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and harness connector M82.
4. Check continuity between harness connector M82 terminals 14H (L), 15H (R) and data link connector M5 terminals 6 (L), 14 (R).

14H (L) - 6 (L) : Continuity should exist.
15H (R) - 14 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness.

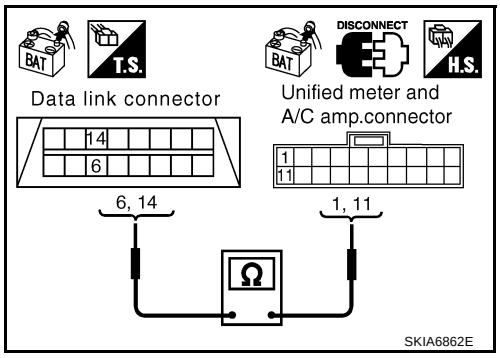
Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit

AKS00CCK

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and unified meter and A/C amp. connector.
4. Check continuity between data link connector M5 terminals 6 (L), 14 (R) and unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R).

6 (L) - 1 (L) : Continuity should exist.
14 (R) - 11 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit

AKS00CCL

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 M41
- Harness connector E211

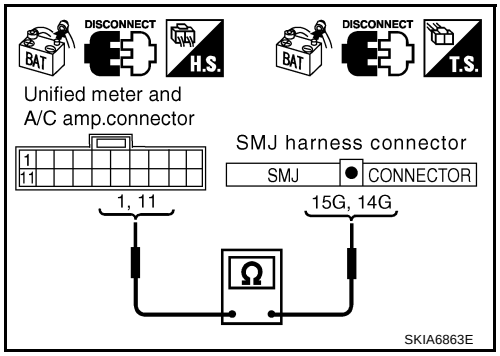
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector and harness connector M41.
2. Check continuity between unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R) and harness connector M41 terminals 15G (L), 14G (R).

1 (L) - 15G (L) : Continuity should exist.
11 (R) - 14G (R) : Continuity should exist.



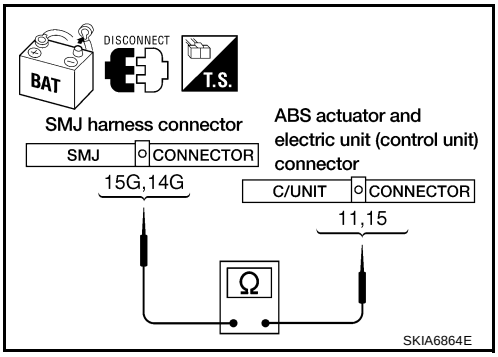
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check continuity between harness connector E211 terminals 15G (L), 14G (R) and ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R).

15G (L) - 11 (L) : Continuity should exist.
14G (R) - 15 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit Circuit

AKS00CCM

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 E205
- Harness connector B5

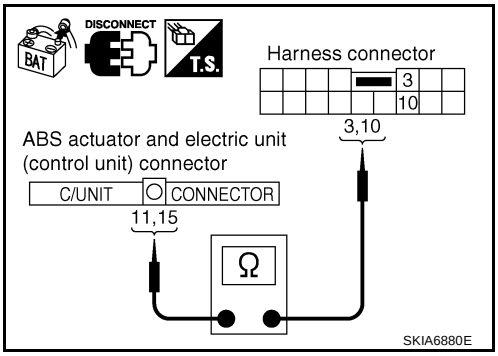
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and harness connector E205 terminals 3 (L), 10 (R).

11 (L) - 3 (L) : Continuity should exist.
15 (R) - 10 (R) : Continuity should exist.



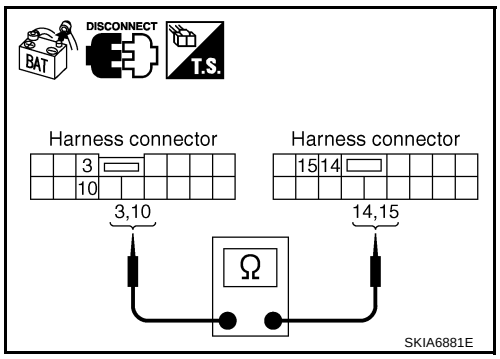
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect harness connector B8.
2. Check continuity between harness connector B5 terminals 3 (L), 10 (R) and harness connector B8 terminals 14 (L), 15 (R).

3 (L) - 14 (L) : Continuity should exist.
10 (R) - 15 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

ECM Circuit Inspection

AKS00CCN

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).

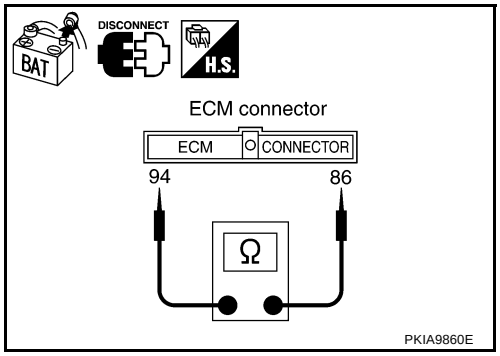
OK or NG

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 M90 terminals 94 (L) and 86 (R).

94 (L) - 86 (R) : Approx. 108 - 132Ω



OK or NG

OK >> Replace ECM.
NG >> Repair harness between ECM and harness connector M82.

TCM Circuit Inspection

AKS00CCO

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 (control module side and harness side).

- A/T assembly connector
- Harness connector F102
- Harness connector M82

OK or NG

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

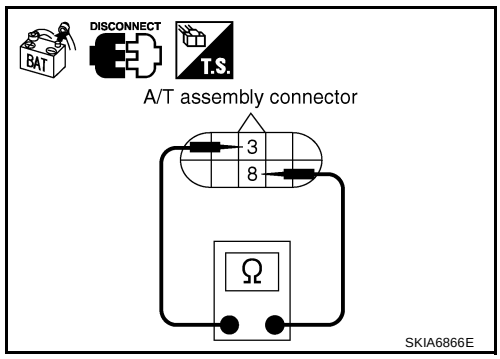
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect A/T assembly connector.
2. Check resistance between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Approx. 54 - 66Ω

OK or NG

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



Display Unit Circuit Inspection

AKS00CCP

1. CHECK CONNECTOR

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

OK or NG

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

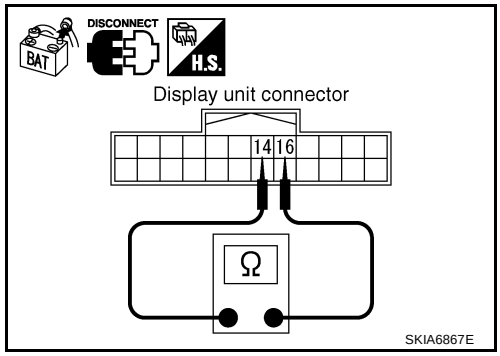
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect display unit connector.
2. Check resistance between display unit harness connector M62 terminals 14 (L) and 16 (R).

14 (L) - 16 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace display unit.
NG >> Repair harness between display unit and harness connector M82.



AWD Control Unit Circuit Inspection

AKS00CCQ

1. CHECK CONNECTOR

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

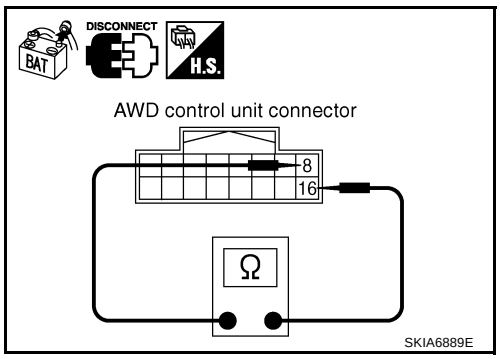
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect AWD control unit connector.
2. Check resistance between AWD control unit harness connector M92 terminals 8 (L) and 16 (R).

8 (L) - 16 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace AWD control unit.
NG >> Repair harness between AWD control unit and harness connector M82.

Data Link Connector Circuit Inspection

AKS00CCR

1. CHECK CONNECTOR

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

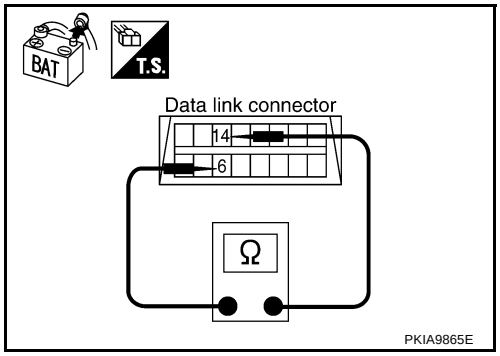
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness between data link connector and BCM.

BCM Circuit Inspection

AKS00CCS

1. CHECK CONNECTOR

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

OK or NG

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

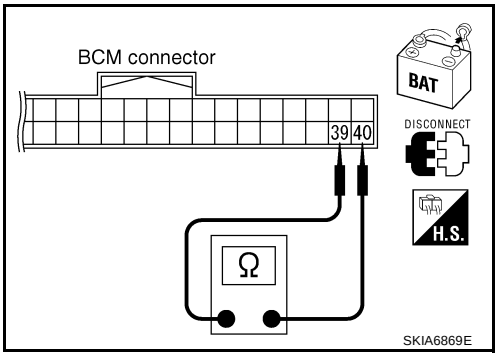
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect BCM connector.
2. Check resistance between BCM harness connector M3 terminals 39 (L) and 40 (R).

39 (L) - 40 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace BCM. Refer to BCS-16, "Removal and Installation of BCM" .
NG >> Repair harness between BCM and data link connector.



Steering Angle Sensor Circuit Inspection

AKS00CCT

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.

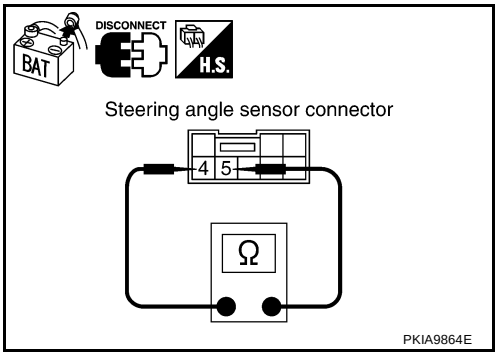
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect steering angle sensor connector.
2. Check resistance between steering angle sensor harness connector M14 terminals 4 (L) and 5 (R).

4 (L) - 5 (R) : Approx. 54 - 66Ω

OK or NG

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



LDW Camera Unit Circuit Inspection

AKS00CCU

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 (unit side and harness side).

- LDW camera unit connector
- Harness connector R1
- Harness connector M31

OK or NG

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

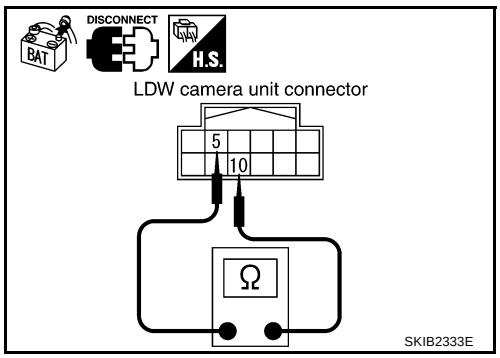
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect LDW camera unit connector.
2. Check resistance between LDW camera unit harness connector R9 terminals 10 (L) and 5 (R).

10 (L) - 5 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace LDW camera unit.
NG >> GO TO 3.



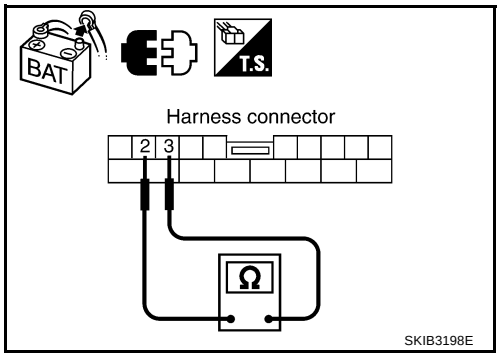
3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect harness connector R1.
2. Check resistance between harness connector M31 terminals 2 (L) and 3 (R).

2 (L) - 3 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Replace harness between LDW camera unit and harness connector R1.



Unified Meter and A/C Amp. Circuit Inspection

AKS00CCV

1. CHECK CONNECTOR

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

OK or NG

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

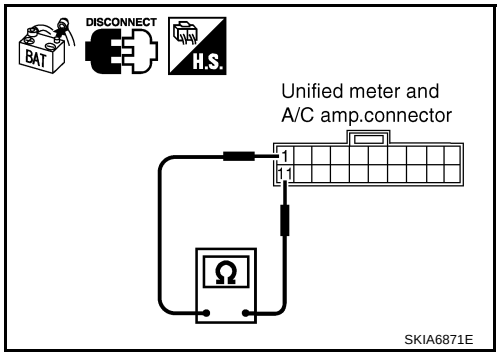
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector.
2. Check resistance between unified meter and A/C amp. harness connector M55 terminals 1 (L) and 11 (R).

1 (L) - 11 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace unified meter and A/C amp.
NG >> Repair harness between unified meter and A/C amp. and harness connector M41.



ABS Actuator and Electric Unit (Control Unit) Circuit Inspection

AKS00CCW

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of ABS actuator and electric unit (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.

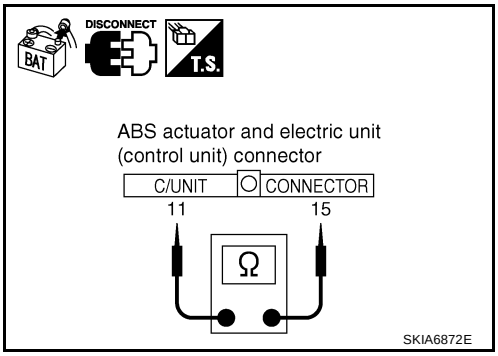
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check resistance between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace ABS actuator and electric unit (control unit).
NG >> Repair harness between ABS actuator and electric unit (control unit) and harness connector E205.



Driver Seat Control Unit Circuit Inspection

AKS00CCX

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 (control unit side and harness side).

- Driver seat control unit connector
- Harness connector B151
- Harness connector B8

OK or NG

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

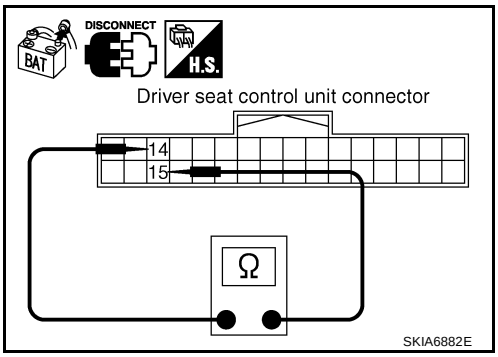
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check resistance between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

14 (OR) - 15 (SB) : Approx. 54 - 66Ω

OK or NG

OK >> Replace driver seat control unit.
NG >> Repair harness between driver seat control unit and harness connector B5.



IPDM E/R Circuit Inspection

AKS00CCY

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 (control module side and harness side).

- IPDM E/R connector
- Harness connector E205
- Harness connector B5

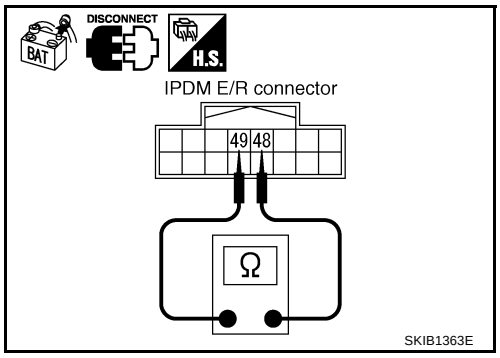
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check resistance between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Approx. 108 - 132Ω



OK or NG

OK >> Replace IPDM E/R.
NG >> Repair harness between IPDM E/R and harness connector B8.

CAN Communication Circuit Inspection

AKS00CCZ

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 (control module side, control unit side, unit side, sensor side, meter side and harness side).

- ECM
- A/T assembly
- Display unit
- AWD control unit
- BCM
- Steering angle sensor
- LDW camera unit
- Unified meter and A/C amp.
- ABS actuator and electric unit (control unit)
- Driver seat control unit
- IPDM E/R
- Between ECM and IPDM E/R
- Between ECM and A/T assembly
- Between ECM and LDW camera unit
- Between ECM and driver seat control unit

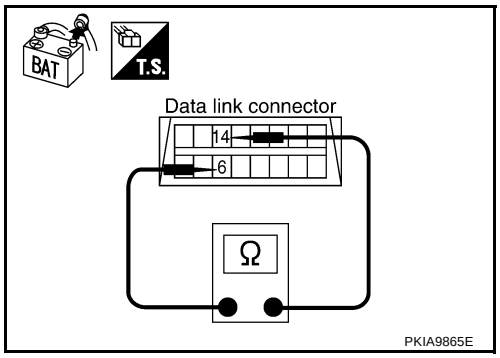
OK or NG

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

2. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect following connectors.
- ECM connector
- Harness connector M82
- Display unit connector
- AWD control unit connector
- BCM connector
- Steering angle sensor connector
- Harness connector M31
- Unified meter and A/C amp. connector
- Harness connector M41

2. Check continuity between data link connector M5 terminals 6 (L) and 14 (R).



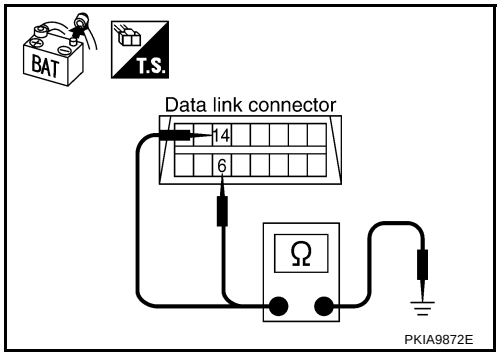
6 (L) - 14 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 3.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display unit
- Harness between data link connector and AWD control unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and harness connector M31
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

3. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between data link connector M5 terminals 6 (L), 14 (R) and ground.



6 (L) - Ground : Continuity should not exist.
14 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 4.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display unit
- Harness between data link connector and AWD control unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and harness connector M31
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

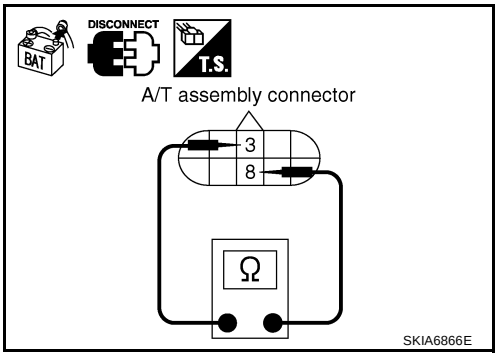
4. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect A/T assembly connector.
2. Check continuity between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 5.
NG >> Repair harness between A/T assembly and harness connector F102.



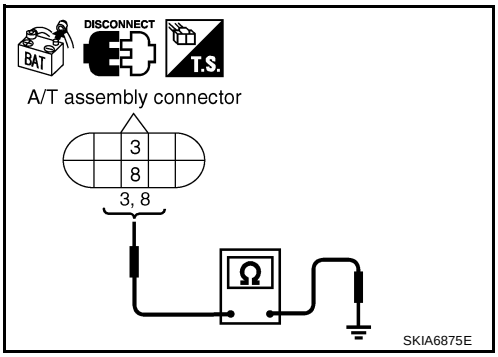
5. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between A/T assembly harness connector F44 terminals 3 (L), 8 (R) and ground.

3 (L) - Ground : Continuity should not exist.
8 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 6.
NG >> Repair harness between A/T assembly and harness connector F102.



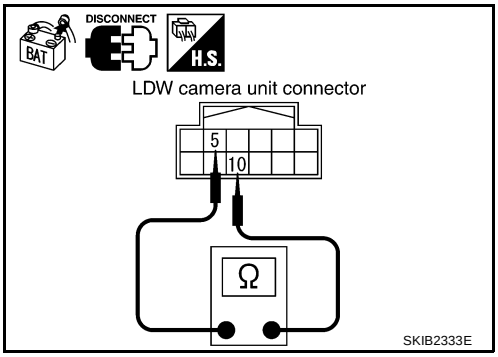
6. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect LDW camera unit connector.
2. Check continuity between LDW camera unit harness connector R9 terminals 10 (L) and 5 (R).

10 (L) - 5 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 7.
NG >> Replace harness between LDW camera unit and harness connector R1.



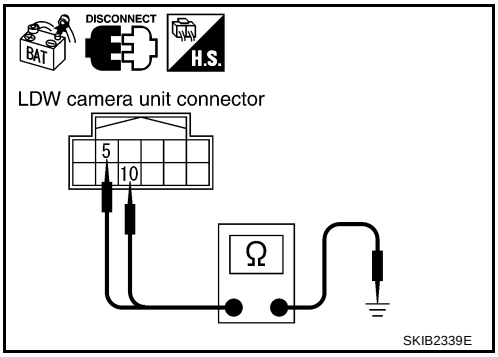
7. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between LDW camera unit harness connector R9 terminals 10 (L), 5 (R) and ground.

10 (L) - Ground : Continuity should not exist.
5 (R) - Ground : Continuity should not exist.

OK or NG

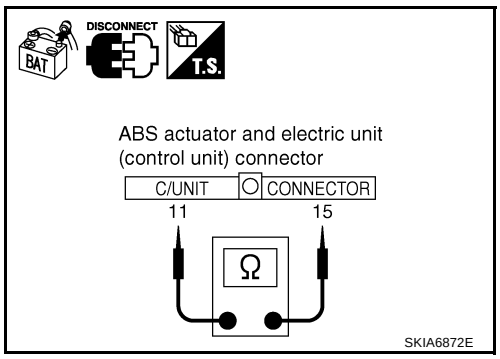
OK >> GO TO 8.
NG >> Replace harness between LDW and harness connector R1.



8. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Continuity should not exist.



OK or NG

OK >> GO TO 9.

NG >> Check the following harnesses. If any harness is damaged, repair the harness.

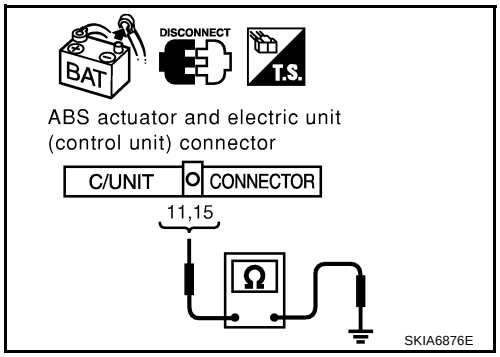
- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and harness connector E205

9. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and ground.

11 (L) - Ground : Continuity should not exist.

15 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 10.

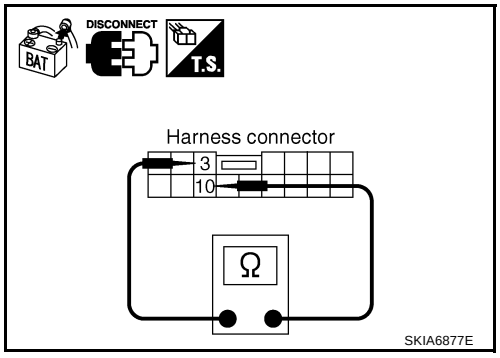
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and harness connector E205

10. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect harness connector B8.
2. Check continuity between harness connector B5 terminals 3 (L) and 10 (R).

3 (L) - 10 (R) : Continuity should not exist.



OK or NG

OK >> GO TO 11.

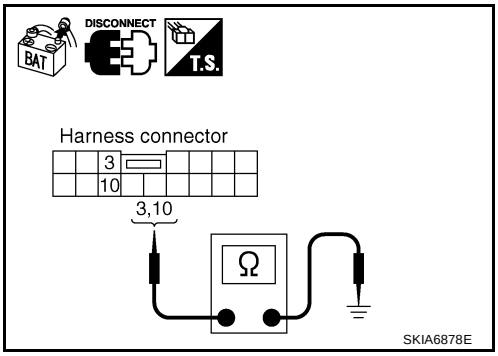
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between harness connector B5 and harness connector B8
- Harness between harness connector B5 and harness connector B5

11. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between harness connector B5 terminals 3 (L), 10 (R) and ground.

3 (L) - Ground : Continuity should not exist.
10 (R) - Ground : Continuity should not exist.



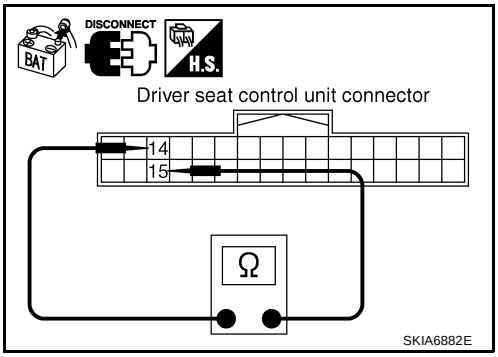
OK or NG

OK >> GO TO 12.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between harness connector B5 and harness connector B8
- Harness between harness connector B5 and harness connector B5

12. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check continuity between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

14 (OR) - 15 (SB) : Continuity should not exist.



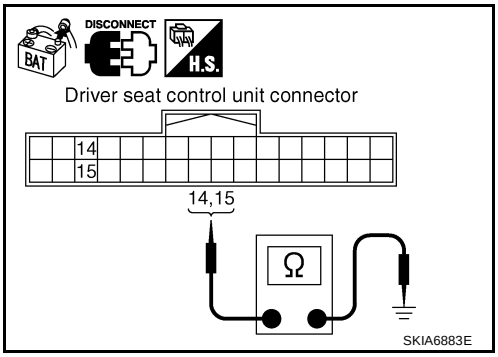
OK or NG

OK >> GO TO 13.
NG >> Repair harness between driver seat control unit and harness connector B151.

13. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between driver seat control unit harness connector B152 terminals 14 (OR), 15 (SB) and ground.

14 (OR) - Ground : Continuity should not exist.
15 (SB) - Ground : Continuity should not exist.



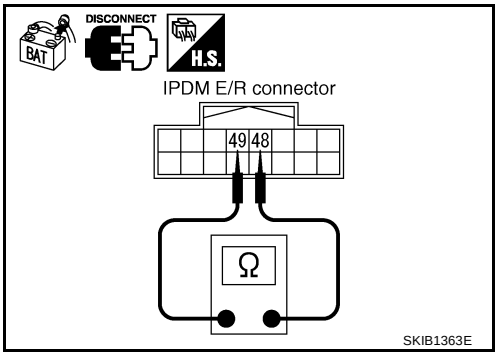
OK or NG

OK >> GO TO 14.
NG >> Repair harness between driver seat control unit and harness connector B151.

14. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check continuity between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Continuity should not exist.



OK or NG

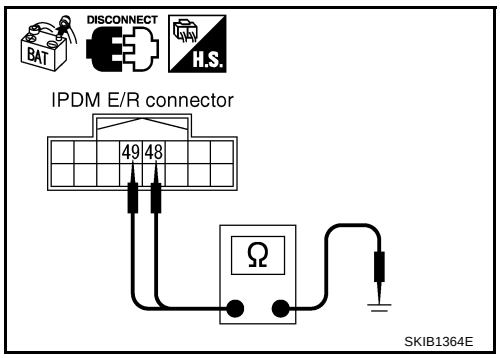
OK >> GO TO 15.
NG >> Repair harness between IPDM E/R and harness connector E205.

15. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between IPDM E/R harness connector E9 terminals 48 (L), 49 (R) and ground.

48 (L) - Ground : Continuity should not exist.

49 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 16.

NG >> Repair harness between IPDM E/R and harness connector E205.

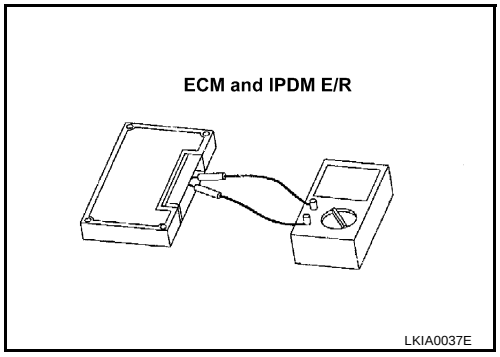
16. CHECK ECM AND IPDM E/R INTERNAL CIRCUIT

1. Remove ECM and IPDM E/R from vehicle.
2. Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. 108 - 132Ω

3. Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132Ω



OK or NG

OK >> GO TO 17.

NG >> Replace ECM and/or IPDM E/R.

17. 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 18.

NG >> Refer to LAN-16, "Example of Filling in Check Sheet When Initial Conditions Are Not Reproduced".

18. CHECK UNIT REPRODUCIBILITY

Performs the following procedure for each unit, 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.

- A/T assembly
- Display unit
- AWD control unit
- BCM
- Steering angle sensor
- LDW camera unit
- Unified meter and A/C amp.
- ABS actuator and electric unit (control unit)
- Driver seat control unit
- ECM
- IPDM E/R

Check results

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

IPDM E/R Ignition Relay Circuit Inspection

AKS00CD0

Check the following. If no malfunction is found, replace the IPDM E/R.

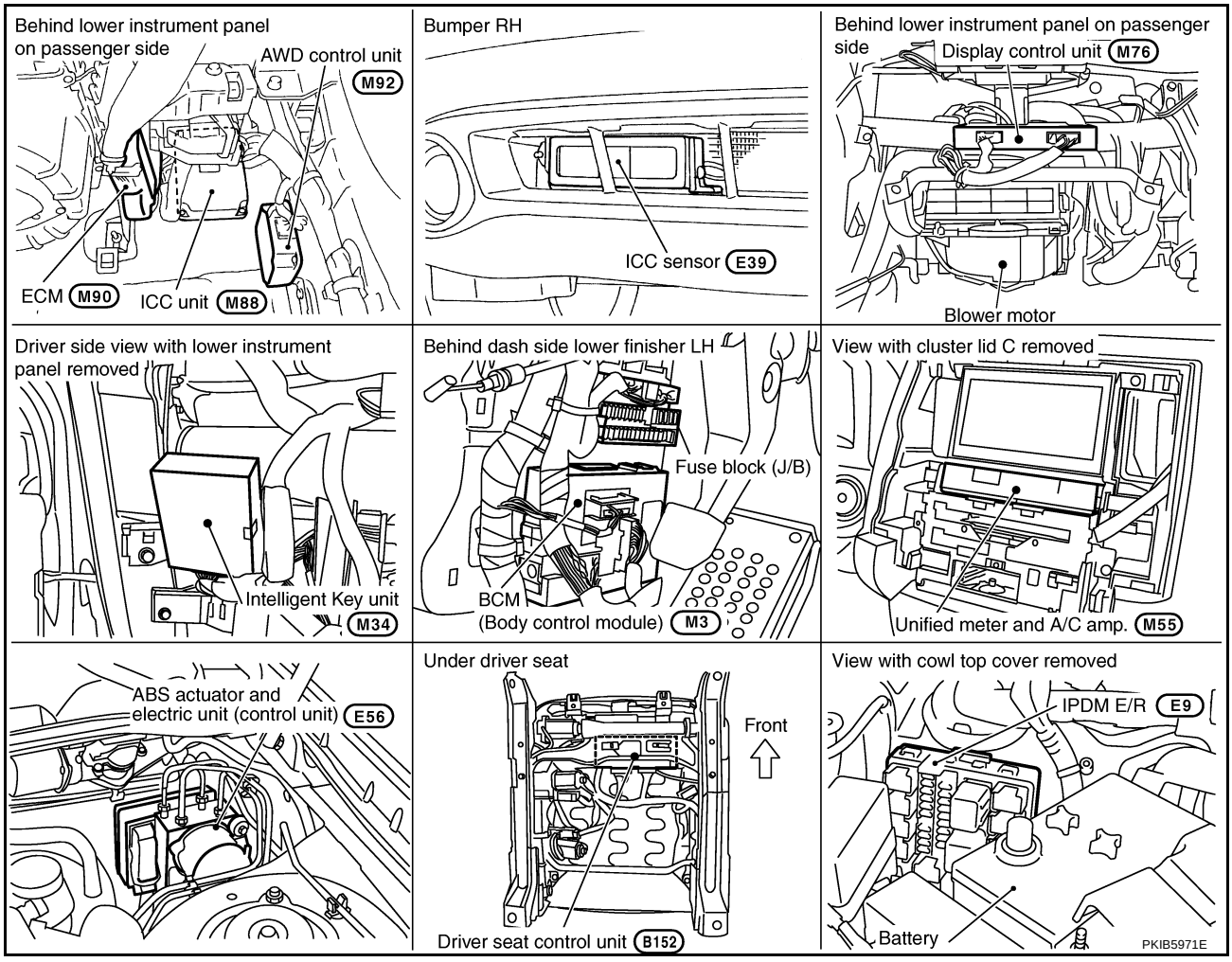
- IPDM E/R power supply circuit. Refer to PG-28, "IPDM E/R Power/Ground Circuit Inspection" .
- Ignition power supply circuit. Refer to PG-12, "IGNITION POWER SUPPLY - IGNITION SW. IN “ON” AND/OR “START”" .

CAN SYSTEM (TYPE 7)

PFP:23710

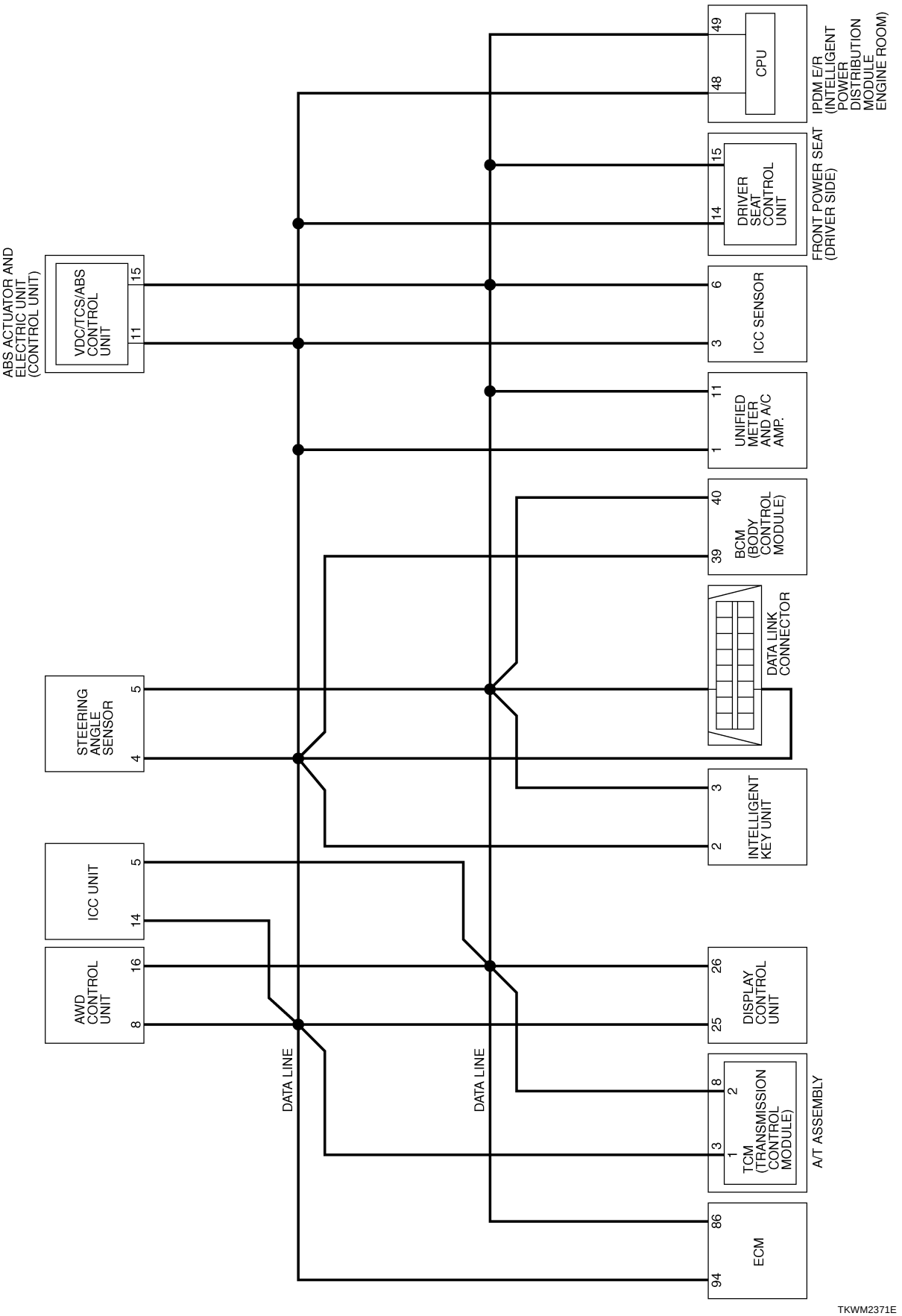
Component Parts and Harness Connector Location

AKS00CBQ



Schematic

AKS00CBR



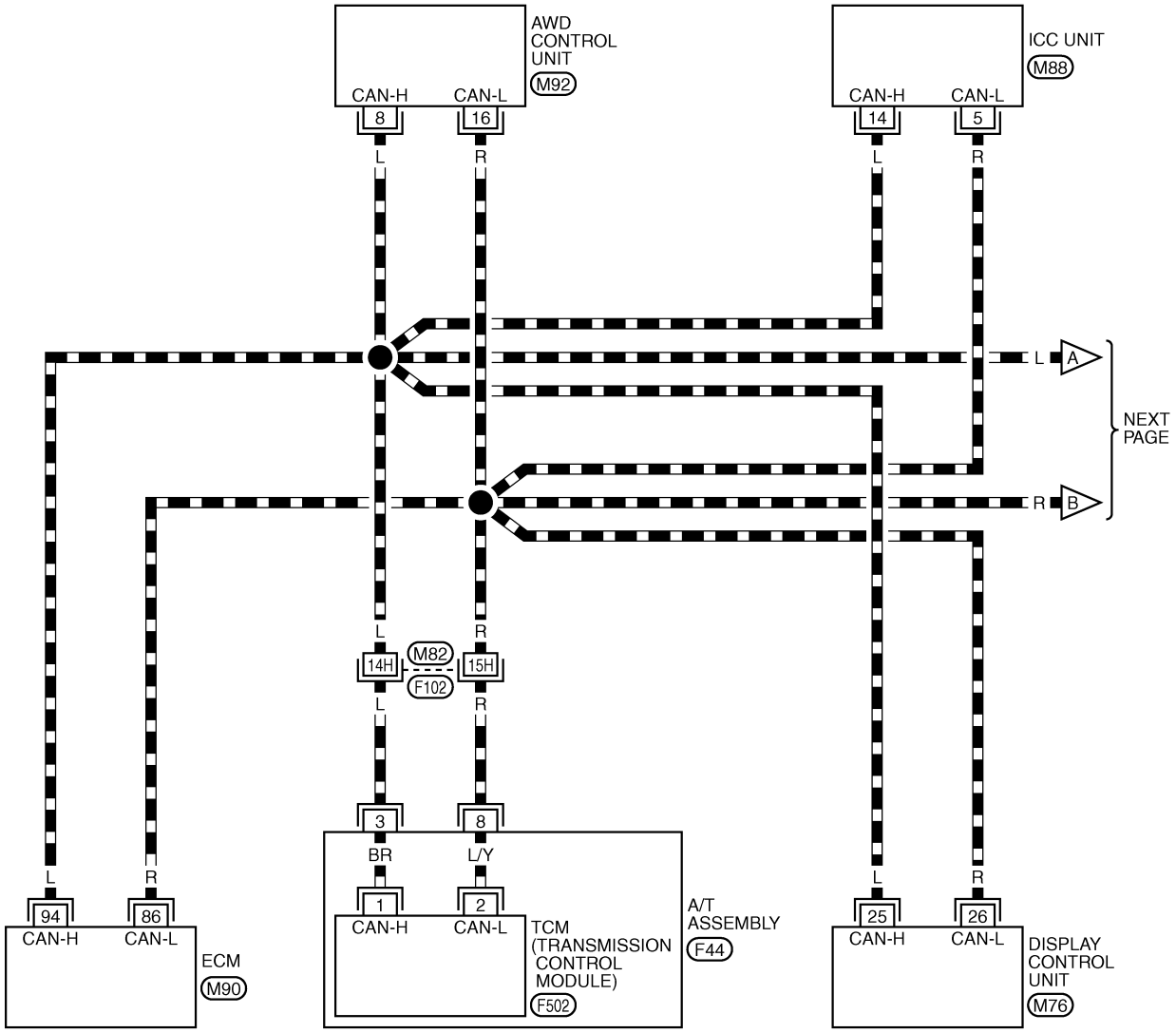
TKWM2371E

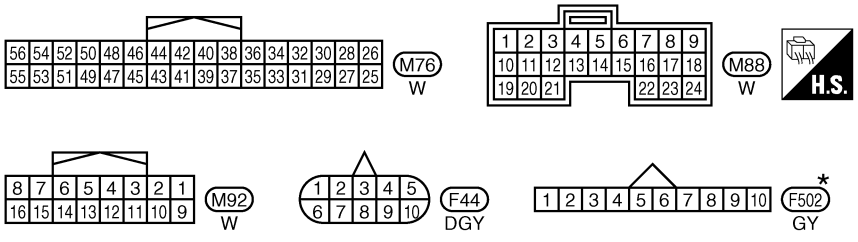
Wiring Diagram - CAN -

AKS00CBS

LAN-CAN-19

: DATA LINE





REFER TO THE FOLLOWING.

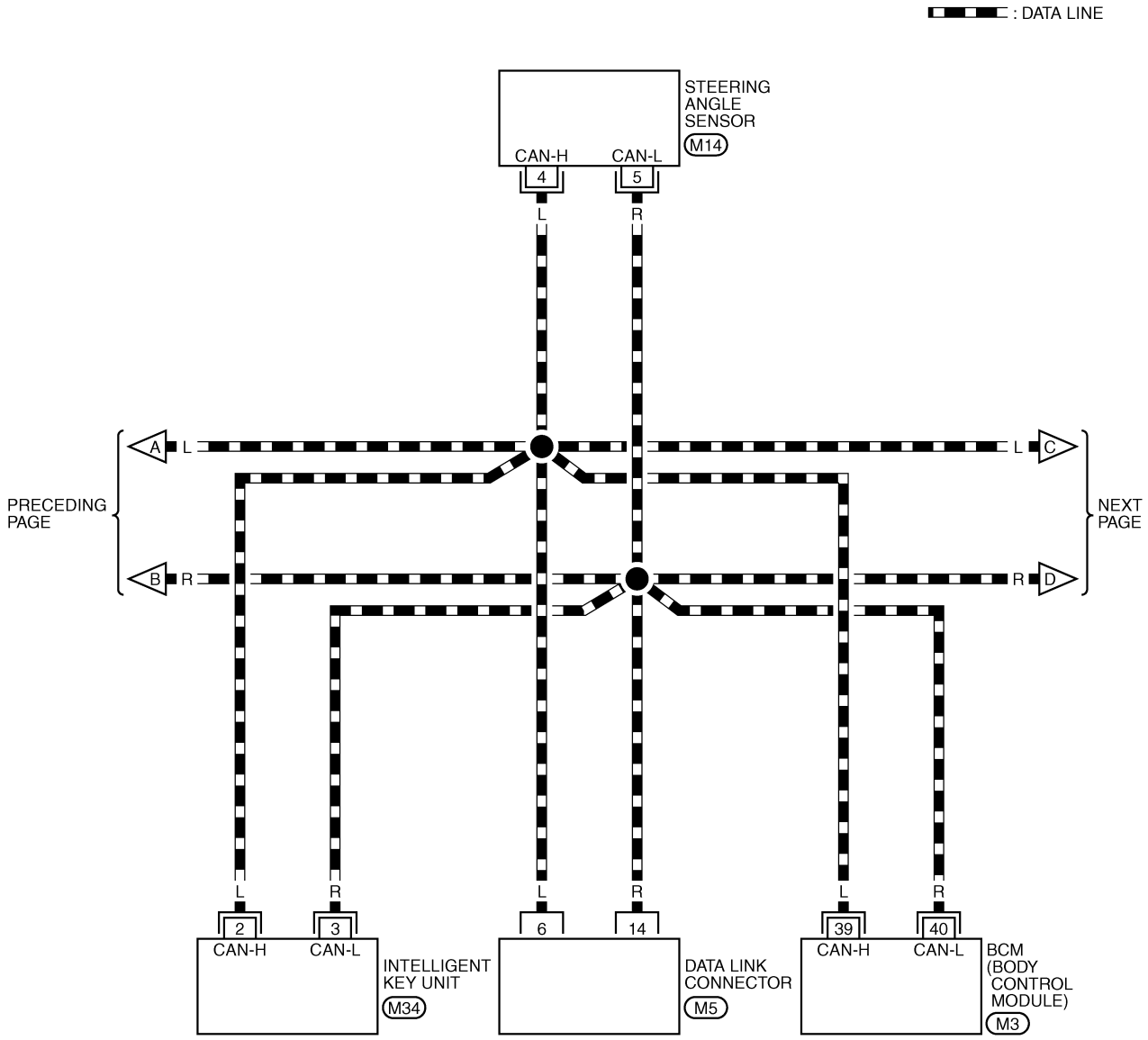
F102 -SUPER MULTIPLE JUNCTION (SMJ)

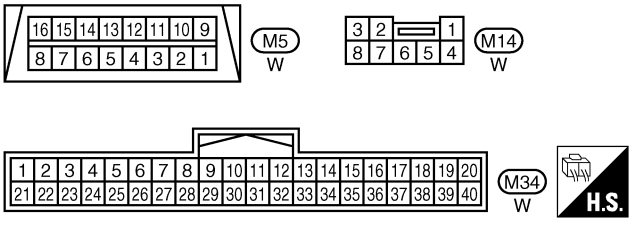
M90 -ELECTRICAL UNITS

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

TKWM2372E

LAN-CAN-20

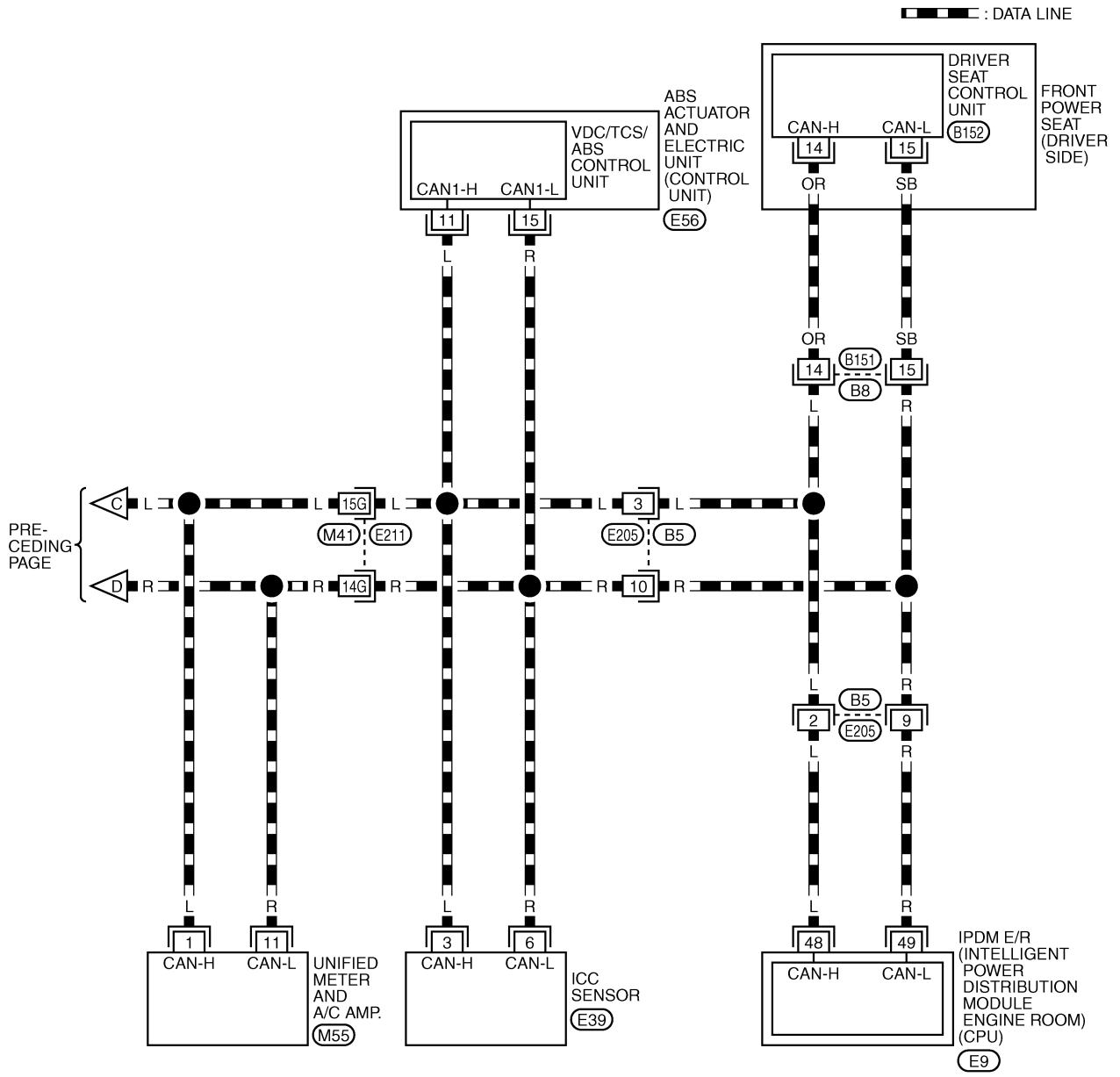


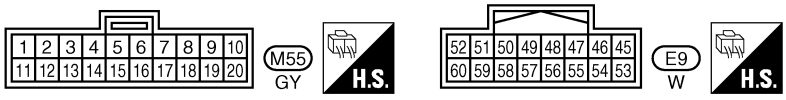


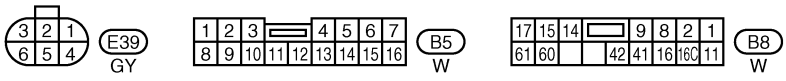
REFER TO THE FOLLOWING.
M3 -ELECTRICAL UNITS

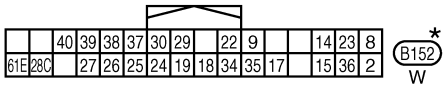
TKWM2373E

LAN-CAN-21









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

REFER TO THE FOLLOWING.

E211 -SUPER MULTIPLE JUNCTION (SMJ)

E56 -ELECTRICAL UNITS

TKWM2374E

Check Sheet

AKS00CBT

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	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R	
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

Symptoms :

Attach copy of SELECT SYSTEM

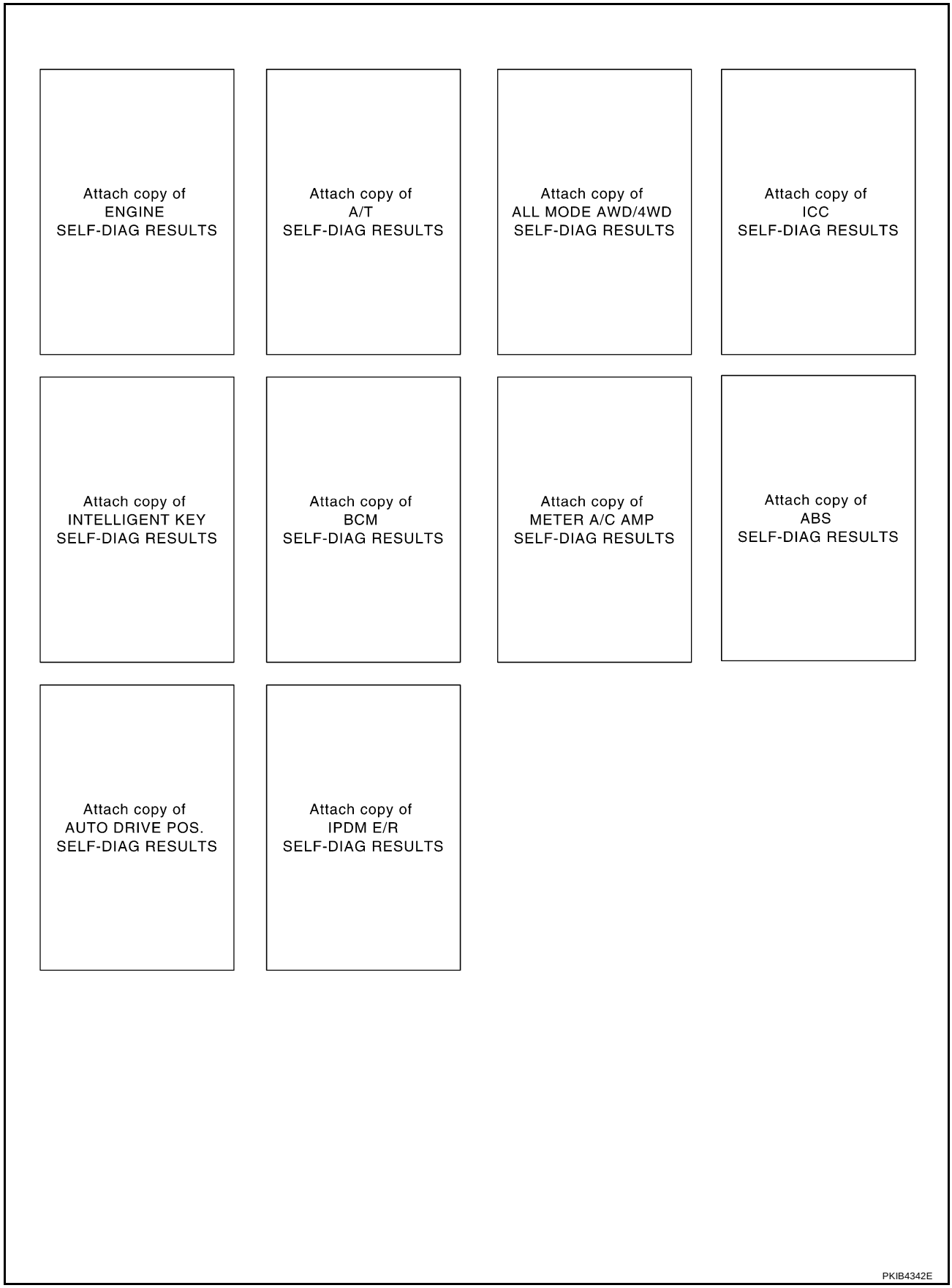
Attach copy of SELECT SYSTEM

PKIB4341E

Display control unit Translation Sheet: Rewrite the following names, and put a check mark on the check sheet table.			
Confirmation/Adjustment Display	Check sheet table Display	Confirmation/Adjustment Display	Check sheet table Display
CAN COMM	Initial diagnosis	CAN CIRC 5	METER/M&A
CAN CIRC 1	Transmit diagnosis	CAN CIRC 6	–
CAN CIRC 2	BCM/SEC	CAN CIRC 7	IPDM E/R
CAN CIRC 3	ECM	CAN CIRC 8	–
CAN CIRC 4	–	CAN CIRC 9	–

Attach copy of
display control unit
CAN DIAG SUPPORT MONITOR check sheet

PKIB4177E


Attach copy of
ENGINE
SELF-DIAG RESULTS
Attach copy of
A/T
SELF-DIAG RESULTS
Attach copy of
ALL MODE AWD/4WD
SELF-DIAG RESULTS
Attach copy of
ICC
SELF-DIAG RESULTS
Attach copy of
INTELLIGENT KEY
SELF-DIAG RESULTS
Attach copy of
BCM
SELF-DIAG RESULTS
Attach copy of
METER A/C AMP
SELF-DIAG RESULTS
Attach copy of
ABS
SELF-DIAG RESULTS
Attach copy of
AUTO DRIVE POS.
SELF-DIAG RESULTS
Attach copy of
IPDM E/R
SELF-DIAG RESULTS
PKIB4342E

Attach copy of
ENGINE
CAN DIAG SUPPORT
MNTR

Attach copy of
A/T
CAN DIAG SUPPORT
MNTR

Attach copy of
ALL MODE AWD/4WD
CAN DIAG SUPPORT
MNTR

Attach copy of
ICC
CAN DIAG SUPPORT
MNTR

Attach copy of
INTELLIGENT KEY
CAN DIAG SUPPORT
MNTR

Attach copy of
BCM
CAN DIAG SUPPORT
MNTR

Attach copy of
METER A/C AMP
CAN DIAG SUPPORT
MNTR

Attach copy of
ABS
CAN DIAG SUPPORT
MNTR

Attach copy of
AUTO DRIVE POS.
CAN DIAG SUPPORT
MNTR

Attach copy of
IPDM E/R
CAN DIAG SUPPORT
MNTR

PKIB4343E

CHECK SHEET RESULTS (EXAMPLE)

NOTE:

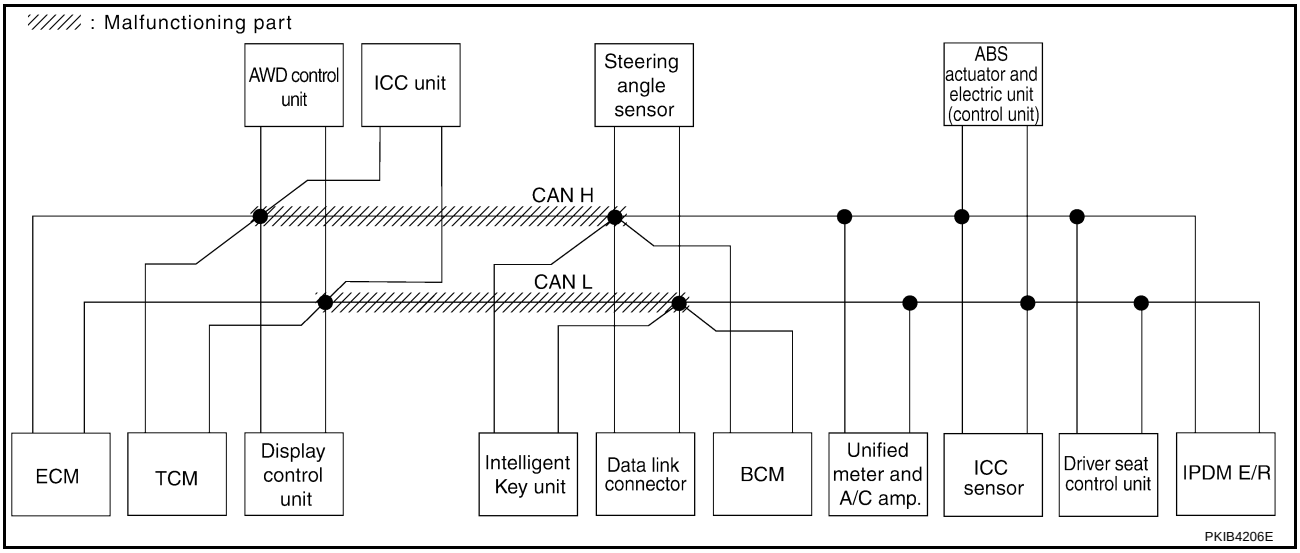
If a check mark is put on “NG” on “INITIAL DIAG (Initial diagnosis)”, replace the control unit.

Case 1

Check harness between TCM and data link connector. Refer to LAN-333, "Inspection Between TCM and Data Link Connector Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R	
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN ✓	—	UNKWN ✓	—	UNKWN ✓	UNKWN ✓	CAN COMM CIRCUIT (U1000) ✓ / CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN ✓	—	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓ / —
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN ✓	—	UNKWN ✓	—	—	UNKWN ✓	— / —
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	—	—	—	—	— / —
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	—	—	UNKWN ✓	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓ / —
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN ✓	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓ / —
BCM	No indication	NG	UNKWN	UNKWN ✓	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000) ✓ / —
METER A/C AMP	No indication	—	UNKWN	UNKWN ✓	UNKWN ✓	UNKWN ✓	UNKWN ✓	UNKWN ✓	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓ / —
ABS	—	NG	UNKWN	UNKWN ✓	UNKWN ✓	—	UNKWN ✓	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓ / —
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN ✓	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓ / —
IPDM E/R	No indication	—	UNKWN	UNKWN ✓	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓ / —

PKIB4360E

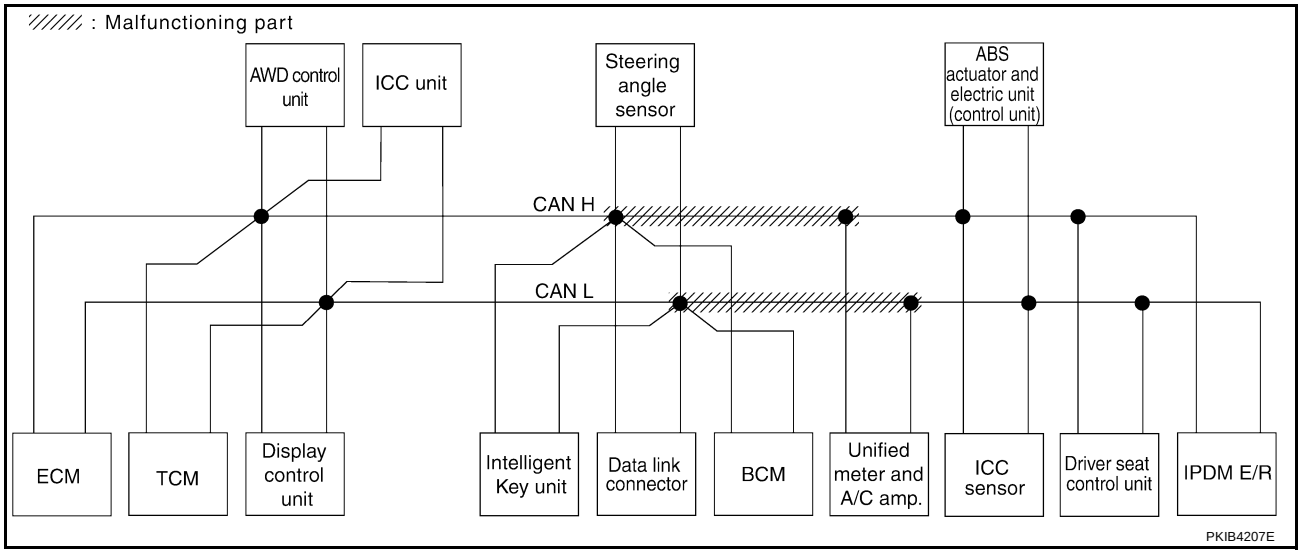


Case 2

Check harness between data link connector and unified meter and A/C amp. Refer to LAN-334, "Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	—	—	—	—	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4361E

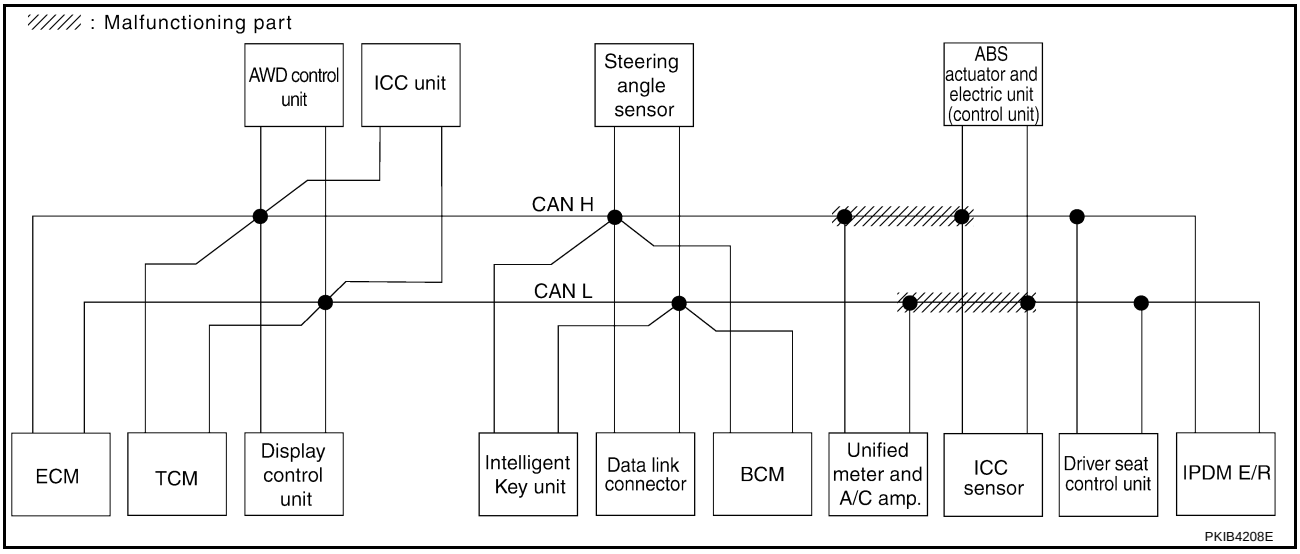


Case 3

Check harness between unified meter and A/C amp. and ABS actuator and electric unit (control unit). Refer to LAN-334, "Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R	
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN ✓	UNKWN ✓	CAN COMM CIRCUIT (U1000) ✓ / CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓ / —
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN ✓	— / —
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓ / —
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN ✓	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓ / —
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) / —
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN ✓	CAN COMM CIRCUIT (U1000) / —
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓ / —
ABS	—	NG	UNKWN	UNKWN ✓	UNKWN ✓	—	UNKWN ✓	—	—	—	UNKWN ✓	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓ / —
AUTO DRIVE POS.	No indication ✓	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓ / —
IPDM E/R	No indication ✓	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓ / —

PKIB4362E

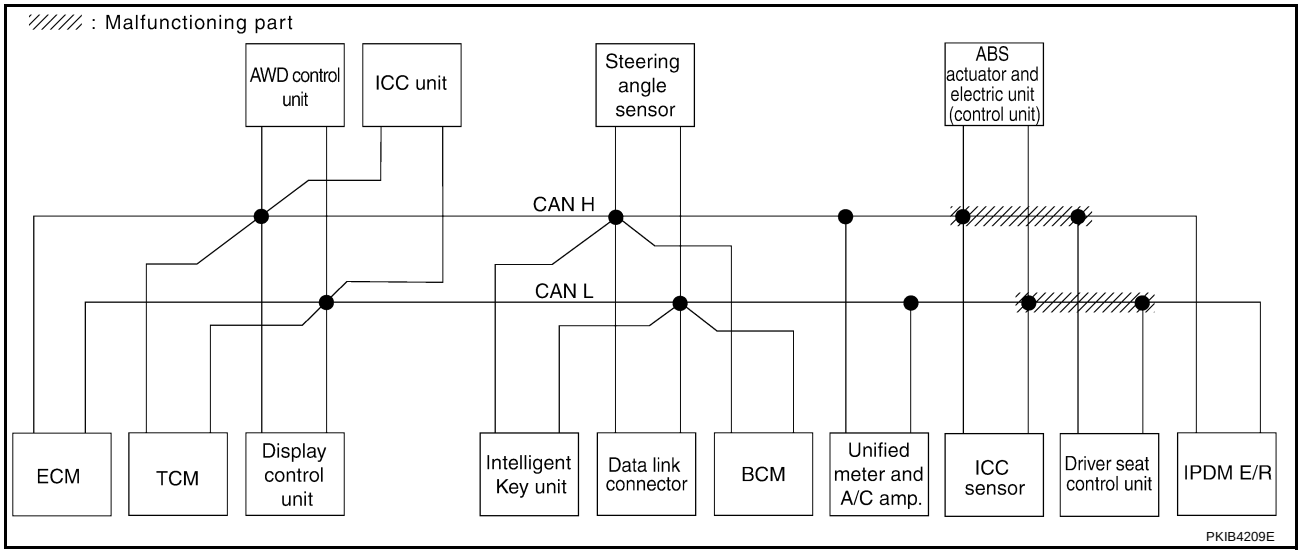


Case 4

Check harness between ABS actuator and electric unit (control unit) and driver seat control unit. Refer to LAN-335, "Inspection Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R	
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN ✓	CAN COMM CIRCUIT (U1000) / CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000) / —
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN ✓	— / —
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000) / —
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000) / —
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) / —
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN ✓	CAN COMM CIRCUIT (U1000) / —
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) / —
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) / —
AUTO DRIVE POS.	No indication ✓	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓ / —
IPDM E/R	No indication ✓	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓ / —

PKIB4363E

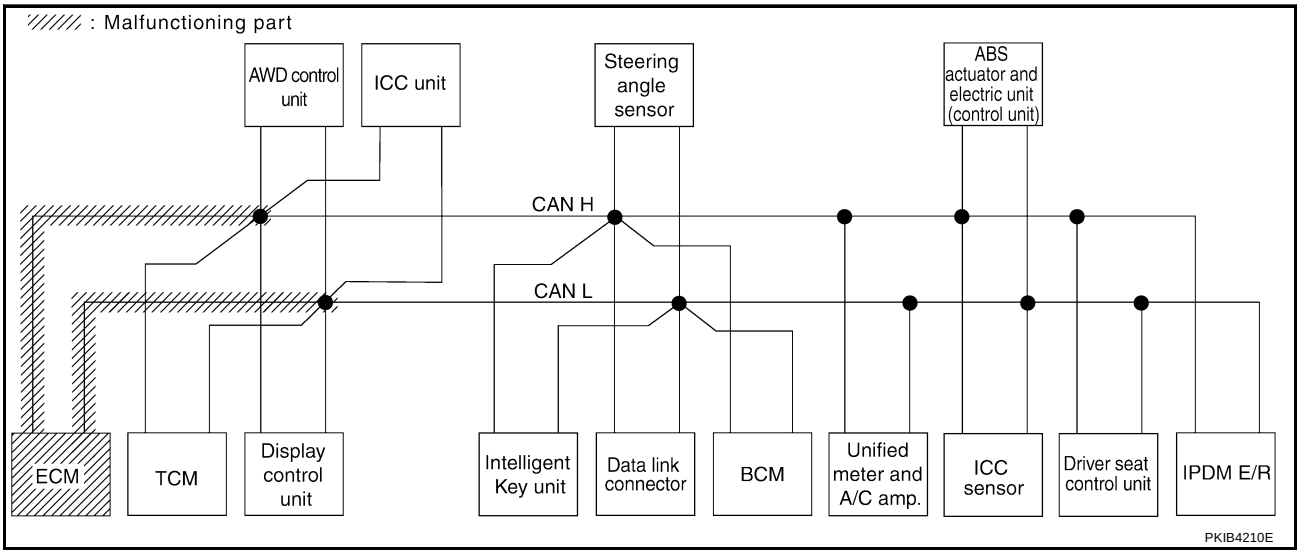


Case 5

Check ECM circuit. Refer to LAN-336, "ECM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R	
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000) ✓	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN ✓	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
Display control unit	—	NG	UNKWN	UNKWN ✓	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN ✓	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ICC	—	NG	UNKWN	UNKWN ✓	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN ✓	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
BCM	No indication	NG	UNKWN	UNKWN ✓	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN ✓	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN ✓	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN ✓	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB4364E



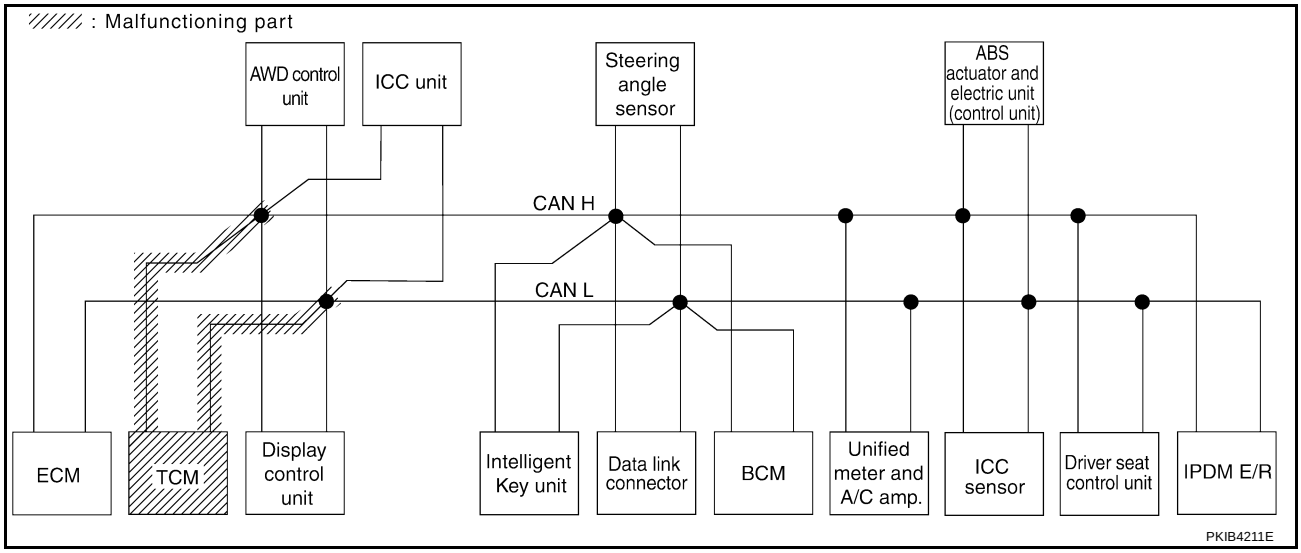
PKIB4210E

Case 6

Check TCM circuit. Refer to LAN-336, "TCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R	
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4365E

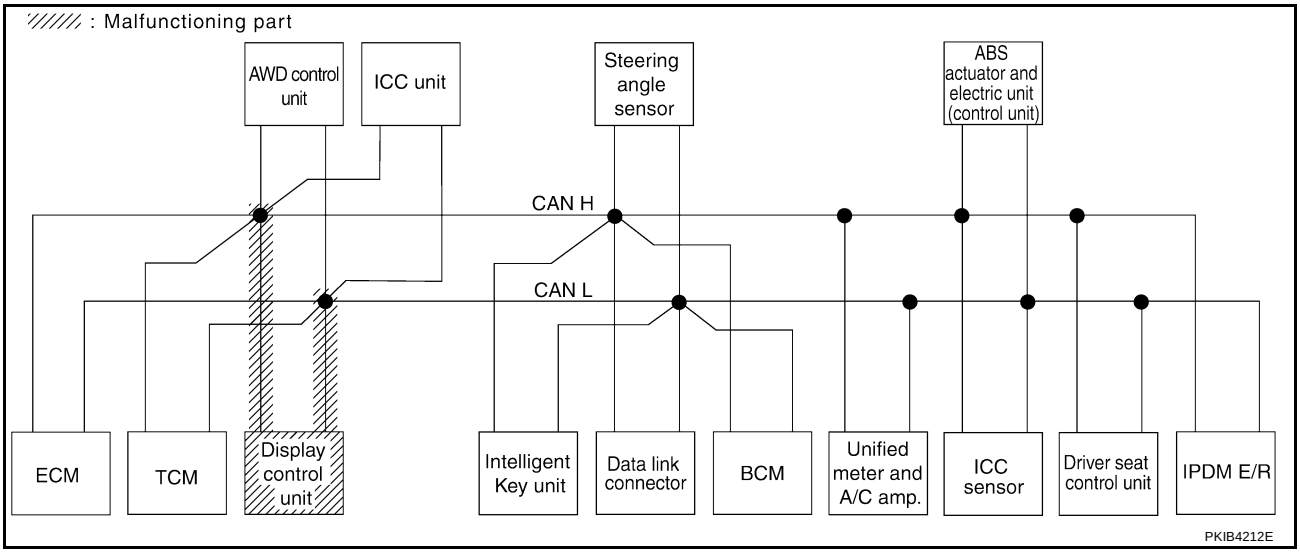


Case 7

Check display control unit circuit. Refer to LAN-337, "Display Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN ✓	UNKWN ✓	—	—	—	—	—	UNKWN ✓	—	UNKWN ✓	—	—	UNKWN ✓	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4366E



Case 8

Check AWD control unit circuit. Refer to LAN-337, "AWD Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	—	—	—	—	—	—	—	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

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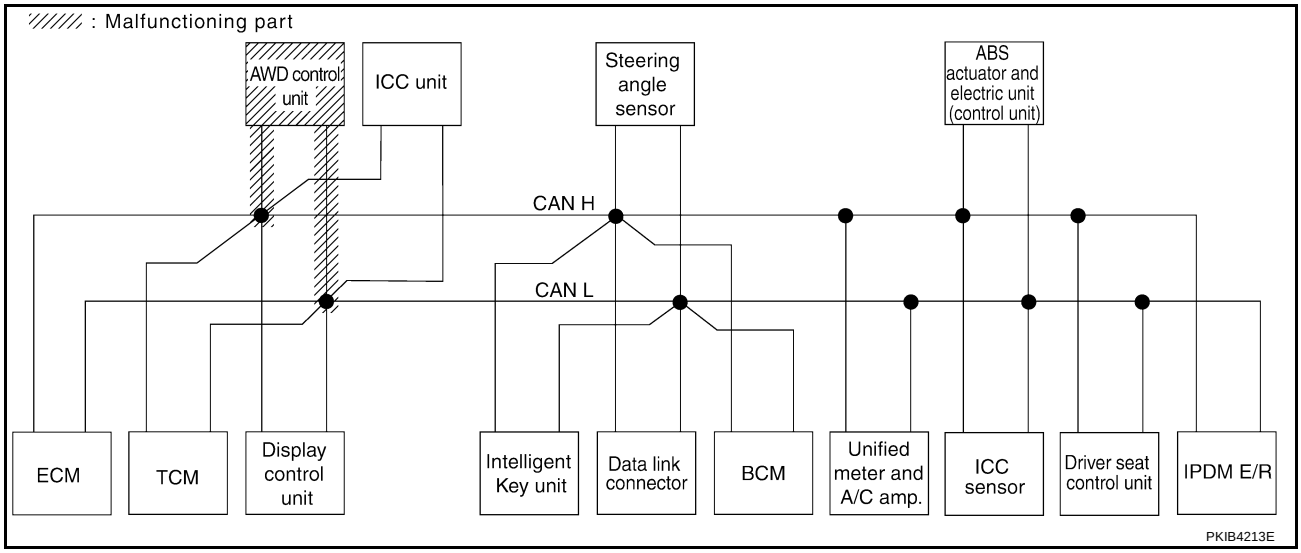

Case 9

Check ICC unit circuit. Refer to LAN-338, "ICC Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN ✓	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN ✓	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN ✓	UNKWN ✓	—	—	—	—	UNKWN ✓	—	—	UNKWN ✓	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

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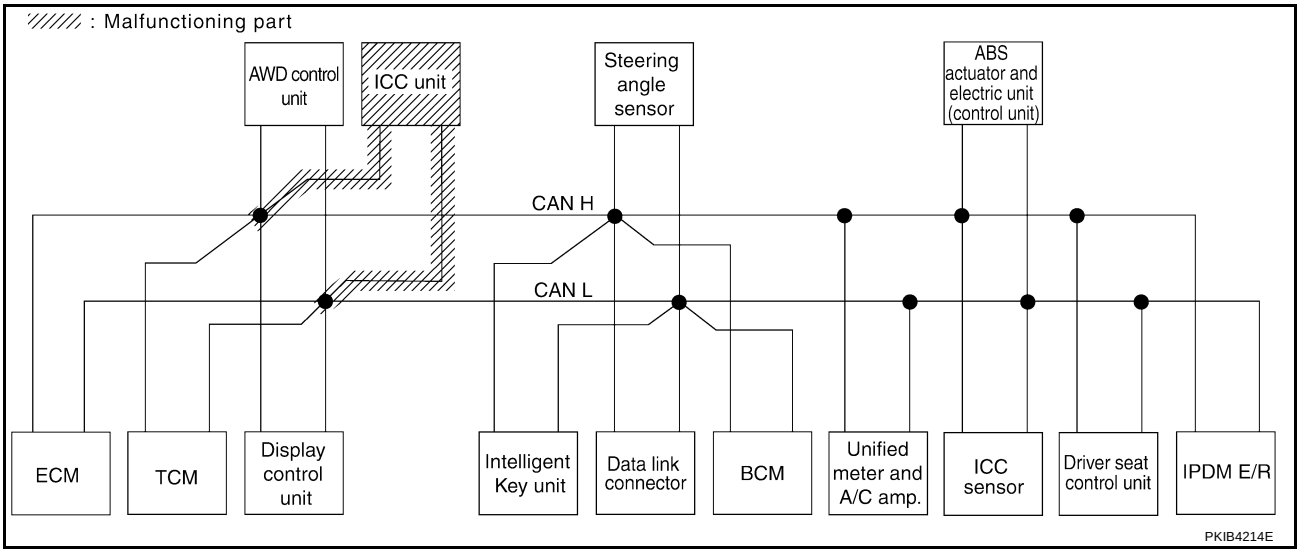


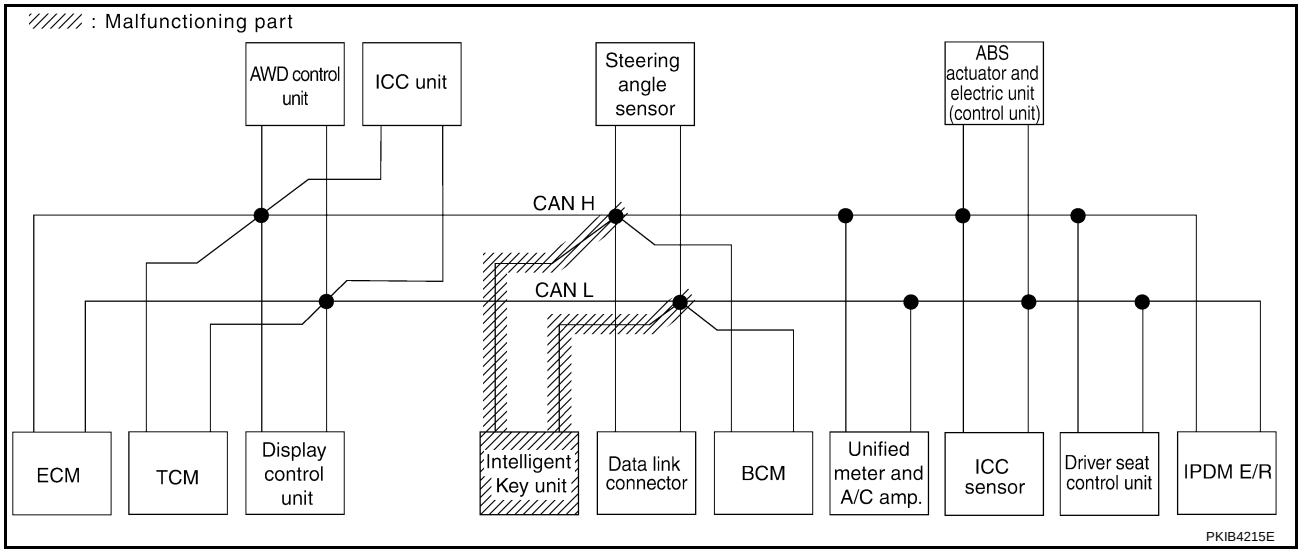
PKIB4214E

Case 10

Check Intelligent Key unit circuit. Refer to LAN-338, "Intelligent Key Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication ✓	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4369E



Case 11

Check data link connector circuit. Refer to LAN-339, "Data Link Connector Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	✓ No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	✓ No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	✓ No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	✓ No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	✓ No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

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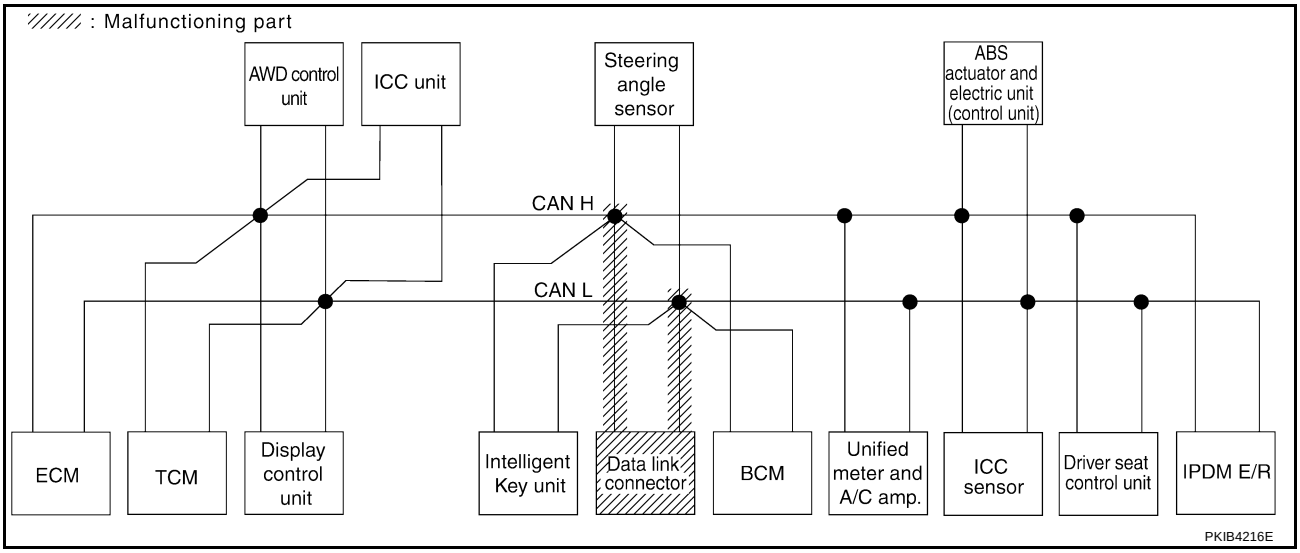

PKIB4216E

Case 12

Check BCM circuit. Refer to LAN-339, "BCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

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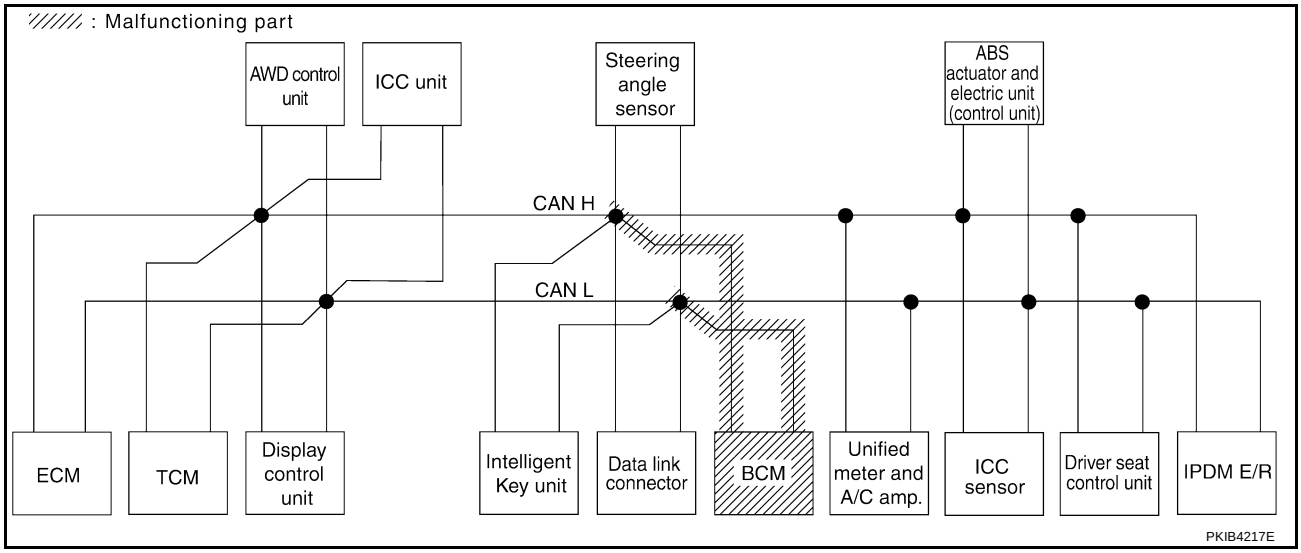
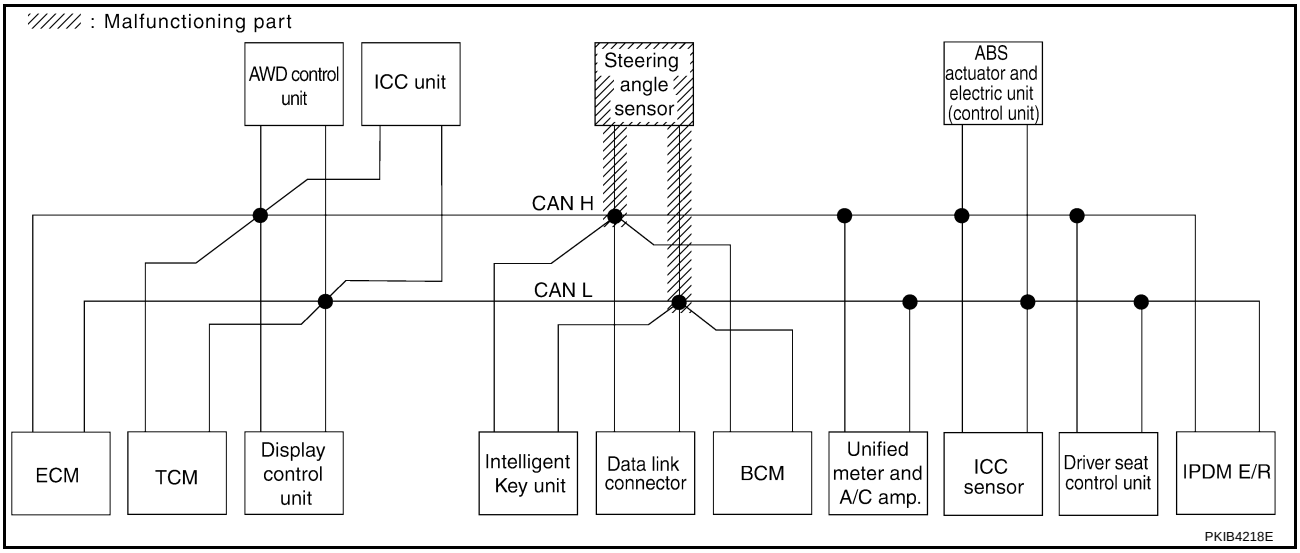


Case 13

Check steering angle sensor circuit. Refer to LAN-340, "Steering Angle Sensor Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4372E



Case 14

Check unified meter and A/C amp. circuit. Refer to LAN-340, "Unified Meter and A/C Amp. Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

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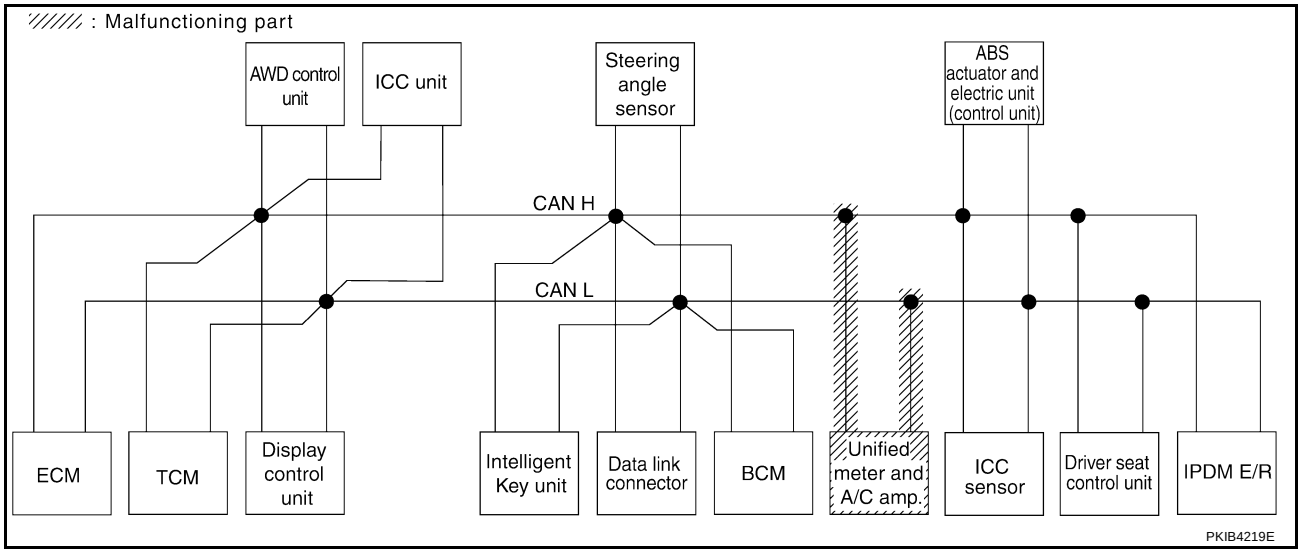
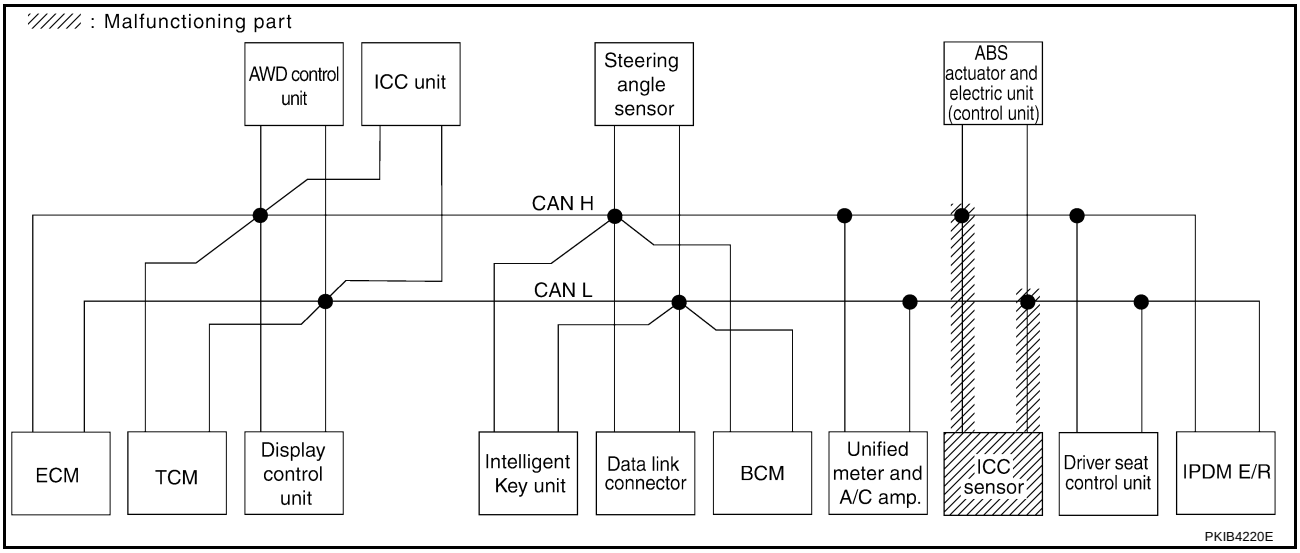


Case 15

Check ICC sensor circuit. Refer to LAN-341, "ICC Sensor Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4374E

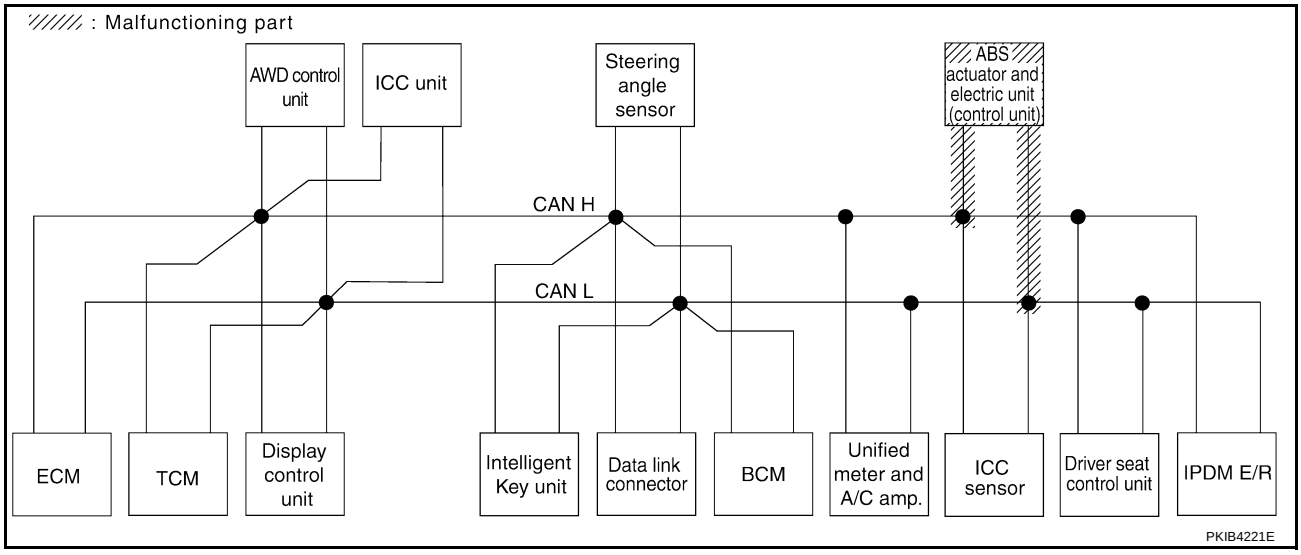


Case 16

Check ABS actuator and electric unit (control unit) circuit. Refer to LAN-341, "ABS Actuator and Electric Unit (Control Unit) Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R	
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000) ✓	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG ✓	UNKWN ✓	UNKWN ✓	UNKWN ✓	—	UNKWN ✓	—	—	—	UNKWN ✓	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4375E

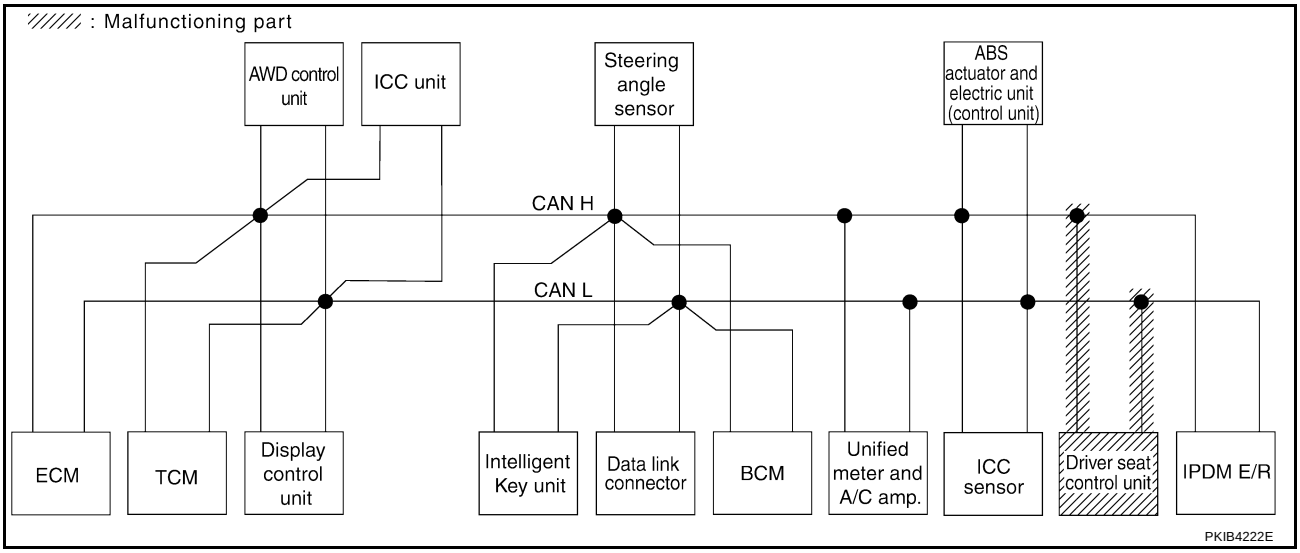


Case 17

Check driver seat control unit circuit. Refer to LAN-342, "Driver Seat Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4376E

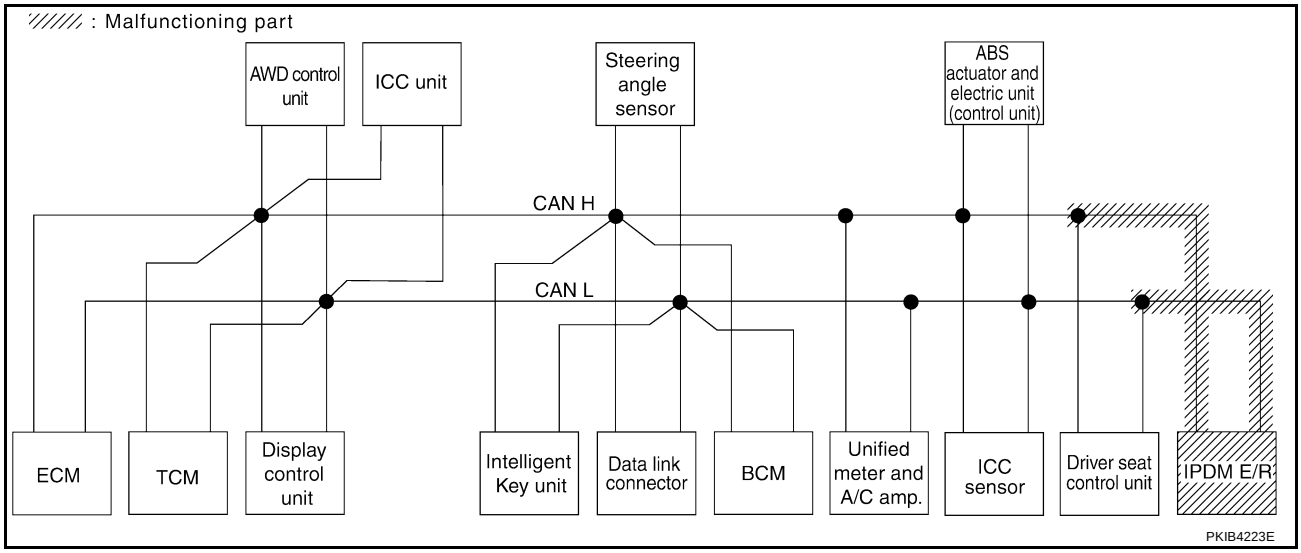


Case 18

Check IPDM E/R circuit. Refer to LAN-343, "IPDM E/R Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN ✓	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN ✓	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN ✓	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication ✓	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB4377E



Case 19

Check CAN communication circuit. Refer to LAN-344, "CAN Communication Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	—	—	—	—	—	—	—	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4378E

Case 20

Check IPDM E/R ignition relay circuit continuously sticks “OFF”. Refer to LAN-350, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN ✓	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN ✓	UNKWN	CAN COMM CIRCUIT (U1000) ✓	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
ICC	—	NG	UNKWN	UNKWN	UNKWN ✓	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN ✓	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4379E

Case 21

Check IPDM E/R ignition relay circuit continuously sticks “ON”. Refer to LAN-350, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	—	—	—	—	—	—	—	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	—	UNKWN	—	—	—	—	—	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4380E

Inspection Between TCM and Data Link Connector Circuit

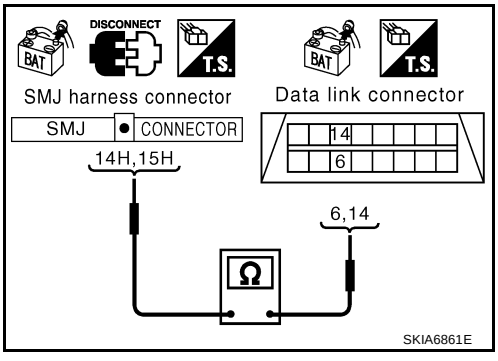
AKS00CBU

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and harness connector M82.
4. Check continuity between harness connector M82 terminals 14H (L), 15H (R) and data link connector M5 terminals 6 (L), 14 (R).

14H (L) - 6 (L) : Continuity should exist.

15H (R) - 14 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness.

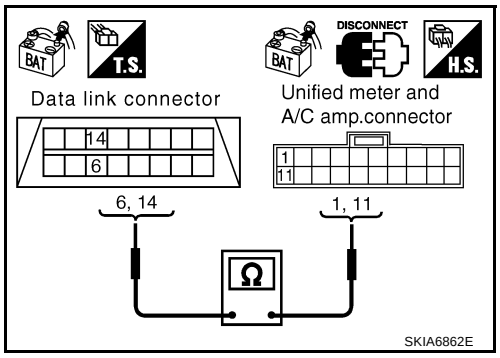
Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit

AKS00CBV

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and unified meter and A/C amp. connector.
4. Check continuity between data link connector M5 terminals 6 (L), 14 (R) and unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R).

6 (L) - 1 (L) : Continuity should exist.
14 (R) - 11 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit

AKS00CBW

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 M41
- Harness connector E211

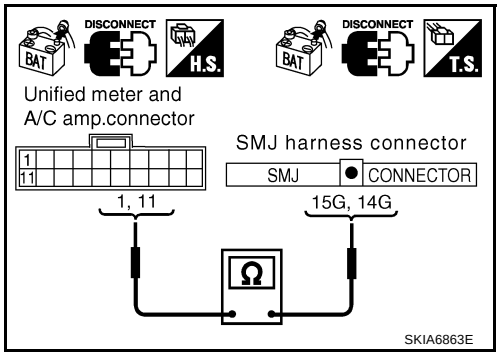
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector and harness connector M41.
2. Check continuity between unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R) and harness connector M41 terminals 15G (L), 14G (R).

1 (L) - 15G (L) : Continuity should exist.
11 (R) - 14G (R) : Continuity should exist.



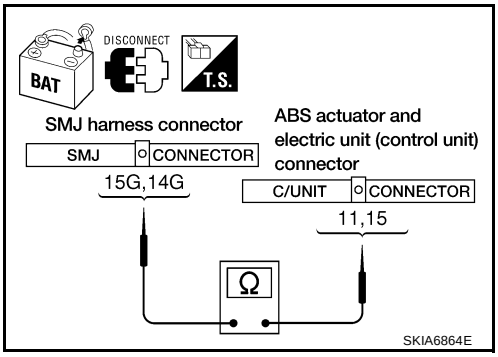
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check continuity between harness connector E211 terminals 15G (L), 14G (R) and ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R).

15G (L) - 11 (L) : Continuity should exist.
14G (R) - 15 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit Circuit

AKS00CBX

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 E205
- Harness connector B5

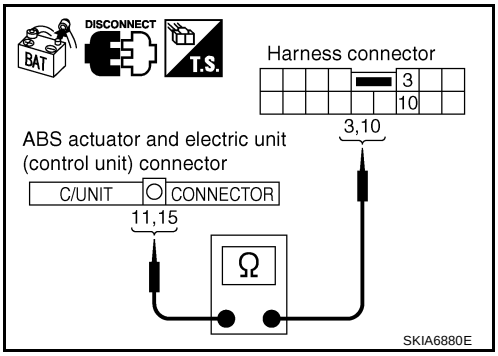
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and harness connector E205 terminals 3 (L), 10 (R).

11 (L) - 3 (L) : Continuity should exist.
15 (R) - 10 (R) : Continuity should exist.



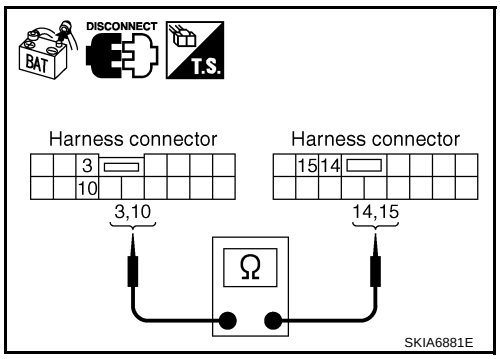
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect harness connector B8.
2. Check continuity between harness connector B5 terminals 3 (L), 10 (R) and harness connector B8 terminals 14 (L), 15 (R).

3 (L) - 14 (L) : Continuity should exist.
10 (R) - 15 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

ECM Circuit Inspection

AKS00CBY

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).

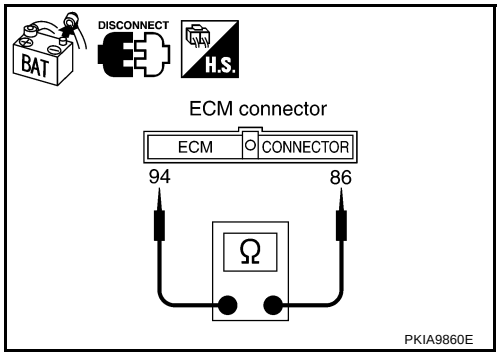
OK or NG

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 M90 terminals 94 (L) and 86 (R).

94 (L) - 86 (R) : Approx. 108 - 132Ω



OK or NG

OK >> Replace ECM.
NG >> Repair harness between ECM and harness connector M82.

TCM Circuit Inspection

AKS00CBZ

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 (control module side and harness side).

- A/T assembly connector
- Harness connector F102
- Harness connector M82

OK or NG

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

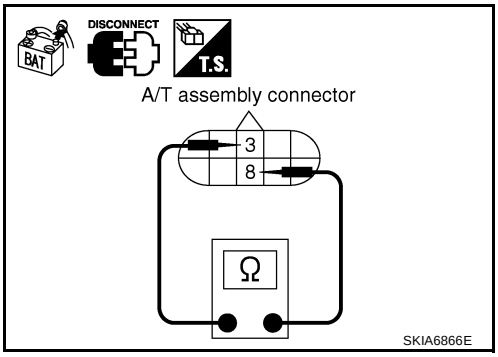
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect A/T assembly connector.
2. Check resistance between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Approx. 54 - 66Ω

OK or NG

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



Display Control Unit Circuit Inspection

AKS00CC0

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of display 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.

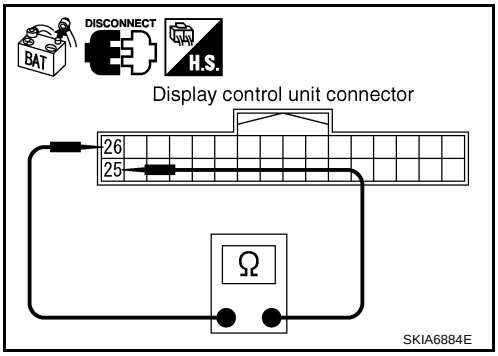
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect display control unit connector.
2. Check resistance between display control unit harness connector M76 terminals 25 (L) and 26 (R).

25 (L) - 26 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace display control unit.
NG >> Repair harness between display control unit and harness connector M82.



AWD Control Unit Circuit Inspection

AKS00CC1

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of AWD 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.

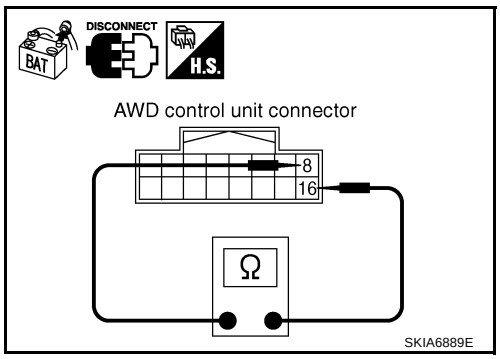
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect AWD control unit connector.
2. Check resistance between AWD control unit harness connector M92 terminals 8 (L) and 16 (R).

8 (L) - 16 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace AWD control unit.
NG >> Repair harness between AWD control unit and harness connector M82.



ICC Unit Circuit Inspection

AKS00CC2

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.

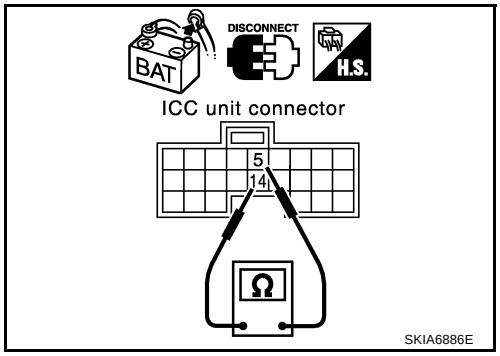
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ICC unit connector.
2. Check resistance between ICC unit harness connector M88 terminals 14 (L) and 5 (R).

14 (L) - 5 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace ICC unit.
NG >> Repair harness between ICC unit and harness connector M82.



Intelligent Key Unit Circuit Inspection

AKS00CC3

1. CHECK CONNECTOR

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

OK or NG

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

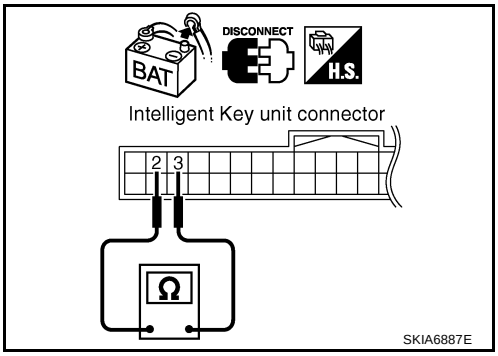
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect Intelligent Key unit connector.
2. Check resistance between Intelligent Key unit harness connector M34 terminals 2 (L) and 3 (R).

2 (L) - 3 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace Intelligent Key unit.
NG >> Repair harness between Intelligent Key unit and data link connector.



Data Link Connector Circuit Inspection

AKS00CC4

1. CHECK CONNECTOR

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

OK or NG

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

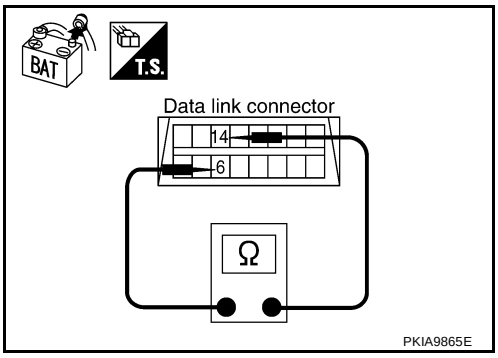
2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness between data link connector and BCM.



BCM Circuit Inspection

AKS00CC5

1. CHECK CONNECTOR

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

OK or NG

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

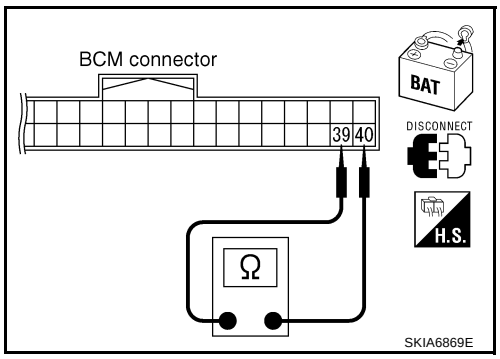
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect BCM connector.
2. Check resistance between BCM harness connector M3 terminals 39 (L) and 40 (R).

39 (L) - 40 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace BCM. Refer to BCS-16, "Removal and Installation of BCM" .
NG >> Repair harness between BCM and data link connector.



Steering Angle Sensor Circuit Inspection

AKS00CC6

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.

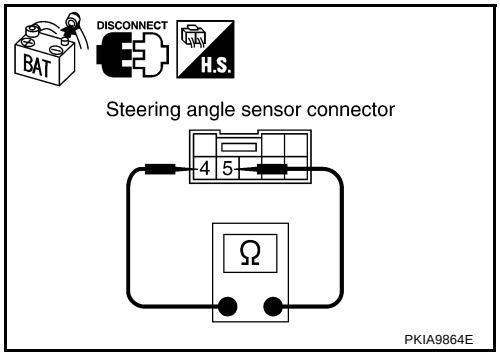
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect steering angle sensor connector.
2. Check resistance between steering angle sensor harness connector M14 terminals 4 (L) and 5 (R).

4 (L) - 5 (R) : Approx. 54 - 66Ω

OK or NG

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



Unified Meter and A/C Amp. Circuit Inspection

AKS00CC8

1. CHECK CONNECTOR

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

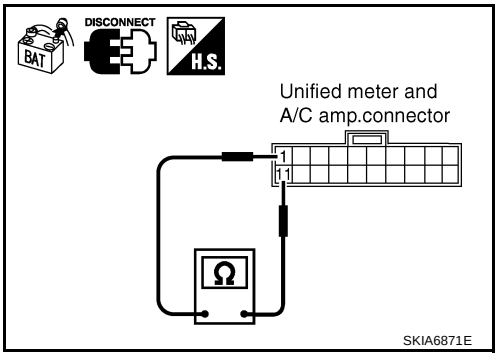
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector.
2. Check resistance between unified meter and A/C amp. harness connector M55 terminals 1 (L) and 11 (R).

1 (L) - 11 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace unified meter and A/C amp.
NG >> Repair harness between unified meter and A/C amp. and harness connector M41.

ICC Sensor Circuit Inspection

AKS00CC9

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).

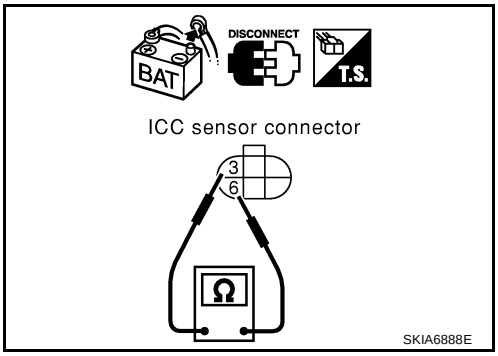
OK or NG

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 E39 terminals 3 (L) and 6 (R).

3 (L) - 6 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace ICC sensor.
NG >> Repair harness between ICC sensor and ABS actuator and electric unit (control unit).

ABS Actuator and Electric Unit (Control Unit) Circuit Inspection

AKS00CCA

1. CHECK CONNECTOR

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

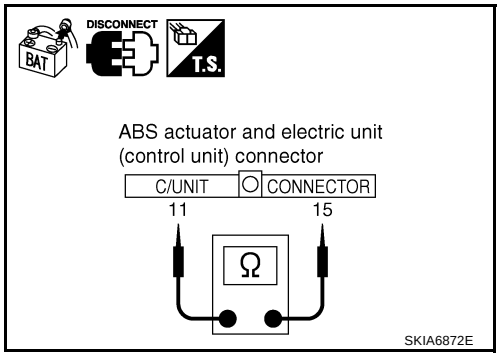
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check resistance between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace ABS actuator and electric unit (control unit).
NG >> Repair harness between ABS actuator and electric unit (control unit) and ICC sensor.

Driver Seat Control Unit Circuit Inspection

AKS00CCB

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 (control unit side and harness side).

- Driver seat control unit connector
- Harness connector B151
- Harness connector B8

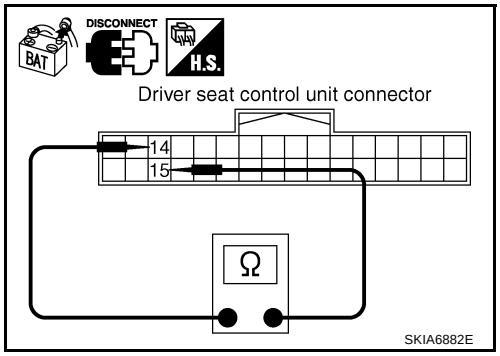
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check resistance between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

14 (OR) - 15 (SB) : Approx. 54 - 66Ω



OK or NG

OK >> Replace driver seat control unit.
NG >> Repair harness between driver seat control unit and harness connector B5.

IPDM E/R Circuit Inspection

AKS00CCC

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 (control module side and harness side).

- IPDM E/R connector
- Harness connector E205
- Harness connector B5

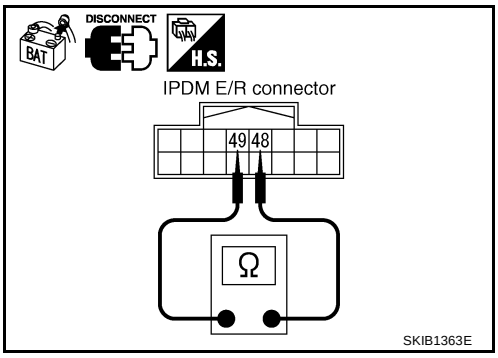
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check resistance between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Approx. 108 - 132Ω



OK or NG

OK >> Replace IPDM E/R.
NG >> Repair harness between IPDM E/R and harness connector B8.

CAN Communication Circuit Inspection

AKS00CCD

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 (control module side, control unit side, unit side, sensor side, meter side and harness side).

- ECM
- A/T assembly
- Display control unit
- AWD control unit
- ICC unit
- Intelligent Key unit
- BCM
- Steering angle sensor
- Unified meter and A/C amp.
- ICC sensor
- ABS actuator and electric unit (control unit)
- Driver seat control unit
- IPDM E/R
- Between ECM and IPDM E/R
- Between ECM and A/T assembly
- Between ECM and driver seat control unit

OK or NG

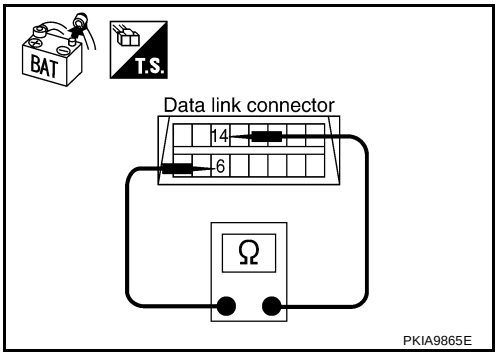
OK >> GO TO 2.
NG >> Repair terminal or connector.

2. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect following connectors.
- ECM connector
- Harness connector M82
- Display control unit connector
- AWD control unit connector
- ICC unit connector
- Intelligent Key unit connector
- BCM connector
- Steering angle sensor connector
- Unified meter and A/C amp. connector
- Harness connector M41

2. Check continuity between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R) : Continuity should not exist.



OK or NG

OK >> GO TO 3.

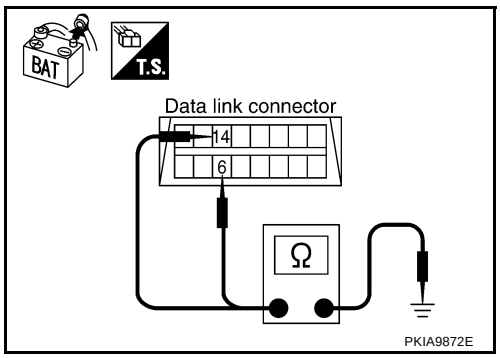
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display control unit
- Harness between data link connector and AWD control unit
- Harness between data link connector and ICC unit
- Harness between data link connector and Intelligent Key unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

3. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between data link connector M5 terminals 6 (L), 14 (R) and ground.

6 (L) - Ground : Continuity should not exist.

14 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 4.

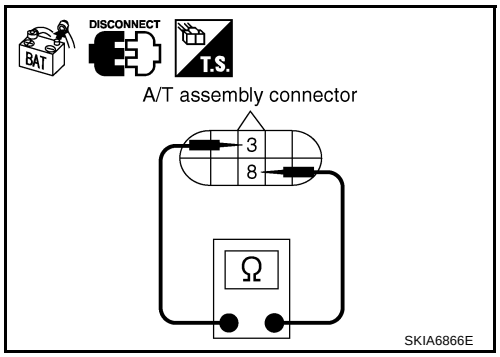
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display control unit
- Harness between data link connector and AWD control unit
- Harness between data link connector and ICC unit
- Harness between data link connector and Intelligent Key unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

4. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect A/T assembly connector.
2. Check continuity between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Continuity should not exist.



OK or NG

OK >> GO TO 5.

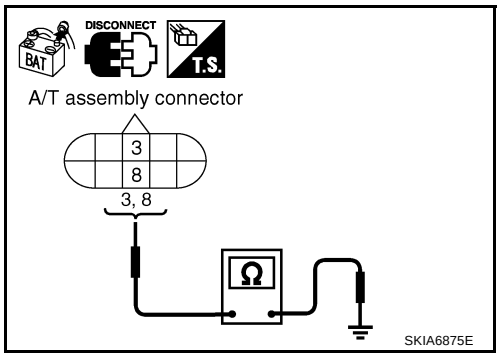
NG >> Repair harness between A/T assembly and harness connector F102.

5. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between A/T assembly harness connector F44 terminals 3 (L), 8 (R) and ground.

3 (L) - Ground : Continuity should not exist.

8 (R) - Ground : Continuity should not exist.



OK or NG

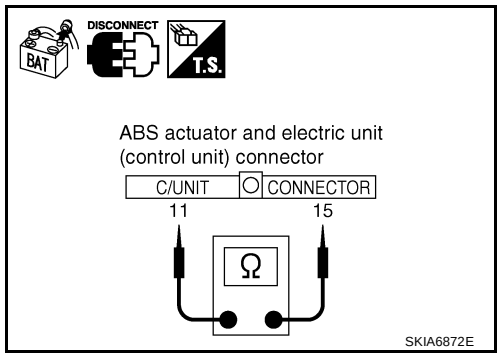
OK >> GO TO 6.

NG >> Repair harness between A/T assembly and harness connector F102.

6. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect following connectors.
- ICC sensor connector
- ABS actuator and electric unit (control unit) connector
- Harness connector E205
2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Continuity should not exist.



OK or NG

OK >> GO TO 7.

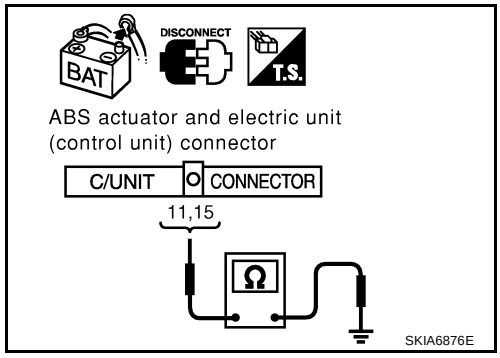
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and ICC sensor
- Harness between ABS actuator and electric unit (control unit) and harness connector E205

7. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and ground.

11 (L) - Ground : Continuity should not exist.

15 (R) - Ground : Continuity should not exist.



OK or NG

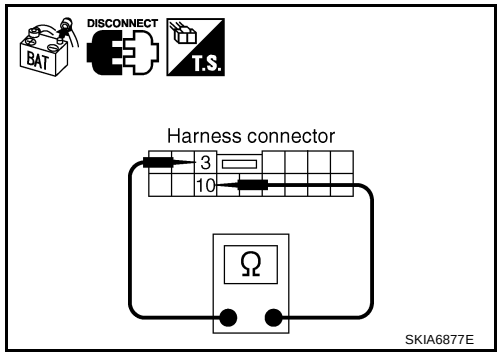
OK >> GO TO 8.

NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and ICC sensor
- Harness between ABS actuator and electric unit (control unit) and harness connector E205

8. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect harness connector B8.
2. Check continuity between harness connector B5 terminals 3 (L) and 10 (R).

3 (L) - 10 (R) : Continuity should not exist.



OK or NG

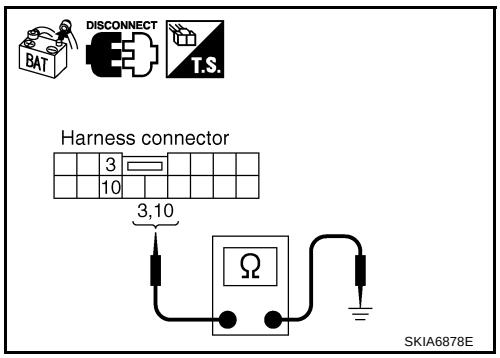
OK >> GO TO 9.

NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between harness connector B5 and harness connector B8
- Harness between harness connector B5 and harness connector B5

9. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between harness connector B5 terminals 3 (L), 10 (R) and ground.

3 (L) - Ground : Continuity should not exist.
10 (R) - Ground : Continuity should not exist.



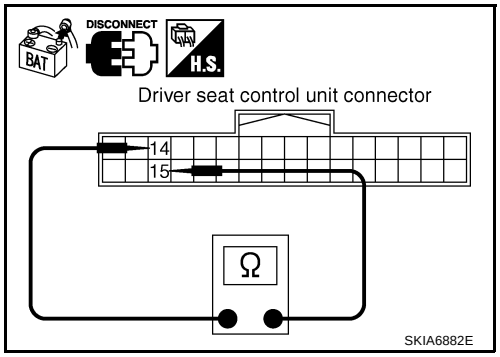
OK or NG

OK >> GO TO 10.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between harness connector B5 and harness connector B8
- Harness between harness connector B5 and harness connector B5

10. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check continuity between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

14 (OR) - 15 (SB) : Continuity should not exist.



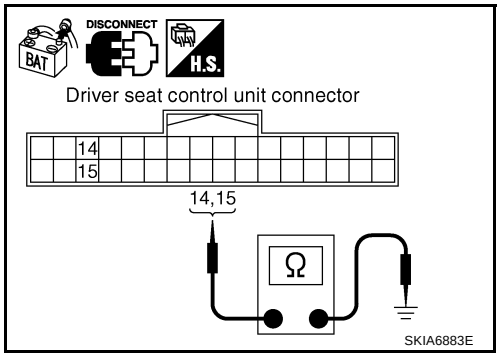
OK or NG

OK >> GO TO 11.
NG >> Repair harness between driver seat control unit and harness connector B151.

11. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between driver seat control unit harness connector B152 terminals 14 (OR), 15 (SB) and ground.

14 (OR) - Ground : Continuity should not exist.
15 (SB) - Ground : Continuity should not exist.



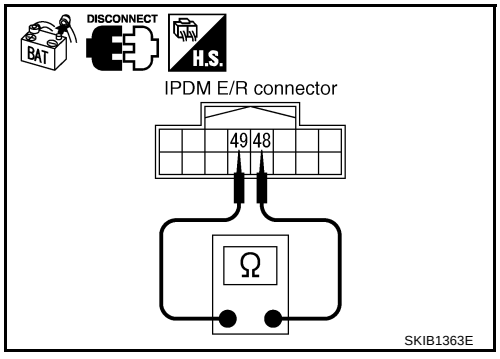
OK or NG

OK >> GO TO 12.
NG >> Repair harness between driver seat control unit and harness connector B151.

12. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check continuity between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Continuity should not exist.



OK or NG

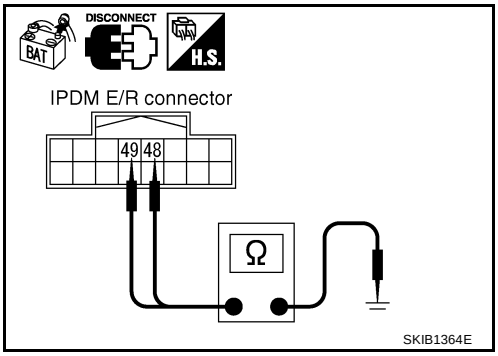
OK >> GO TO 13.
NG >> Repair harness between IPDM E/R and harness connector E205.

13. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between IPDM E/R harness connector E9 terminals 48 (L), 49 (R) and ground.

48 (L) - Ground : Continuity should not exist.

49 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 14.

NG >> Repair harness between IPDM E/R and harness connector E205.

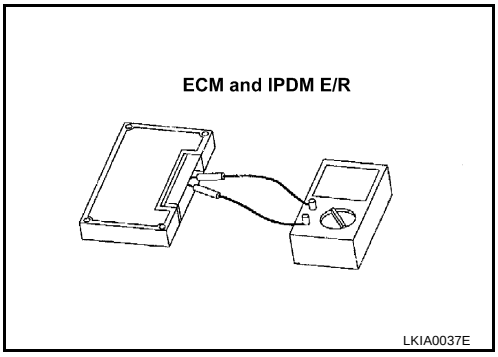
14. CHECK ECM AND IPDM E/R INTERNAL CIRCUIT

1. Remove ECM and IPDM E/R from vehicle.
2. Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. 108 - 132Ω

3. Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132Ω



OK or NG

OK >> GO TO 15.

NG >> Replace ECM and/or IPDM E/R.

15. 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 16.

NG >> Refer to LAN-16, "Example of Filling in Check Sheet When Initial Conditions Are Not Reproduced".

16. CHECK UNIT REPRODUCIBILITY

Performs the following procedure for each unit, 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.

- A/T assembly
- Display control unit
- AWD control unit
- ICC unit
- Intelligent Key unit
- BCM
- Steering angle sensor
- Unified meter and A/C amp.
- ICC sensor
- ABS actuator and electric unit (control unit)
- Driver seat control unit
- ECM
- IPDM E/R

Check results

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

IPDM E/R Ignition Relay Circuit Inspection

AKS00CCE

Check the following. If no malfunction is found, replace the IPDM E/R.

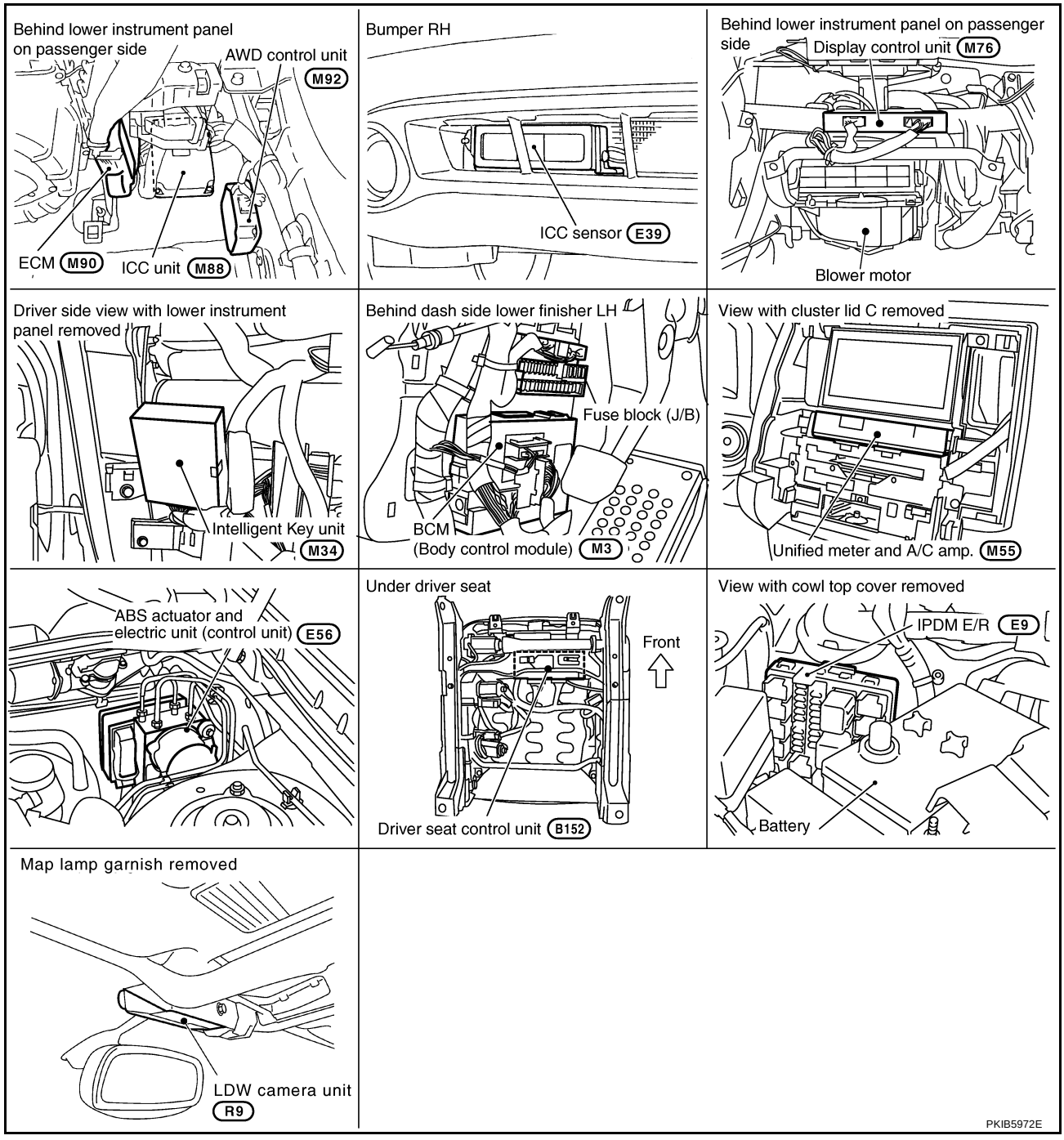
- IPDM E/R power supply circuit. Refer to PG-28, "IPDM E/R Power/Ground Circuit Inspection" .
- Ignition power supply circuit. Refer to PG-12, "IGNITION POWER SUPPLY - IGNITION SW. IN “ON” AND/OR “START”" .

CAN SYSTEM (TYPE 8)

PFP:23710

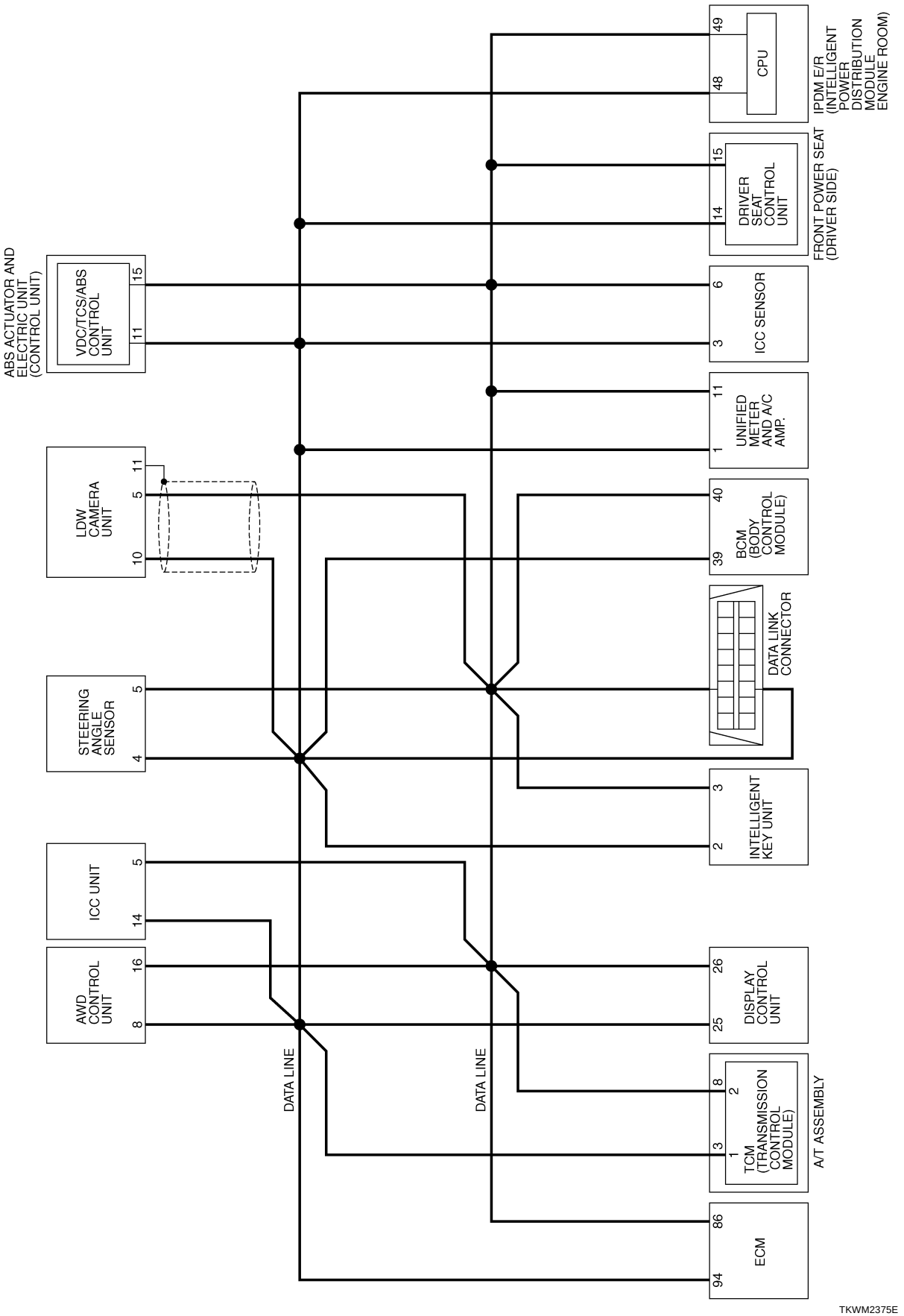
Component Parts and Harness Connector Location

AKS00CAU



Schematic

AKS00CAV

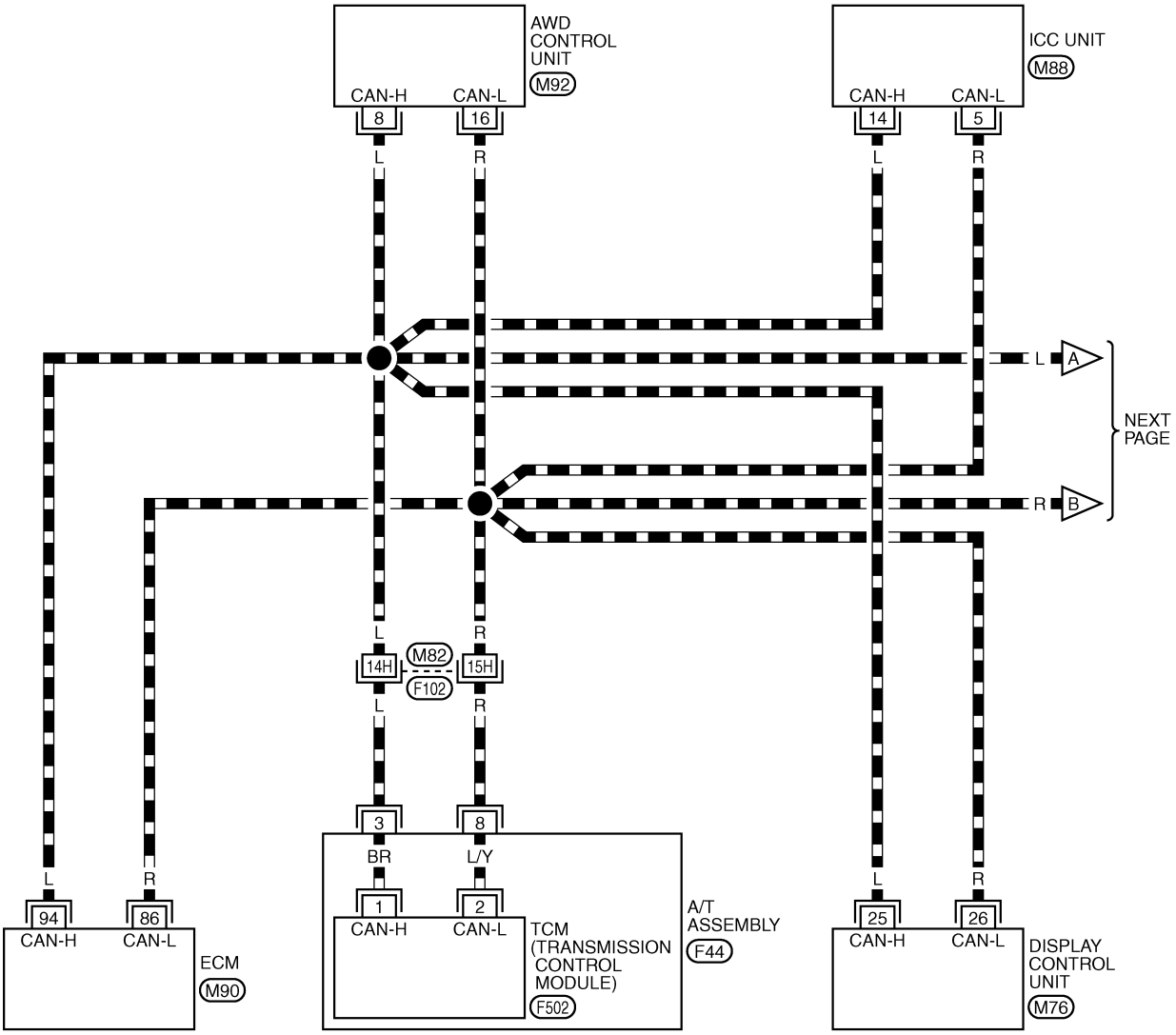


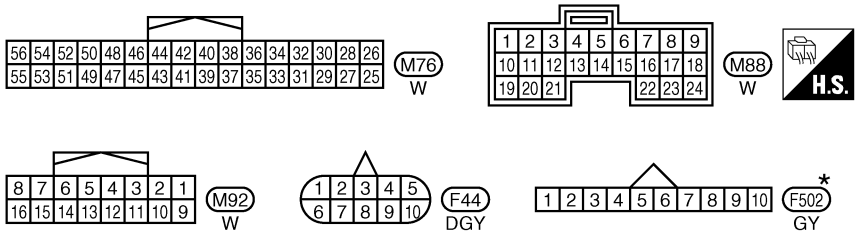
Wiring Diagram - CAN -

AKS00CAW

LAN-CAN-22

: DATA LINE





REFER TO THE FOLLOWING.

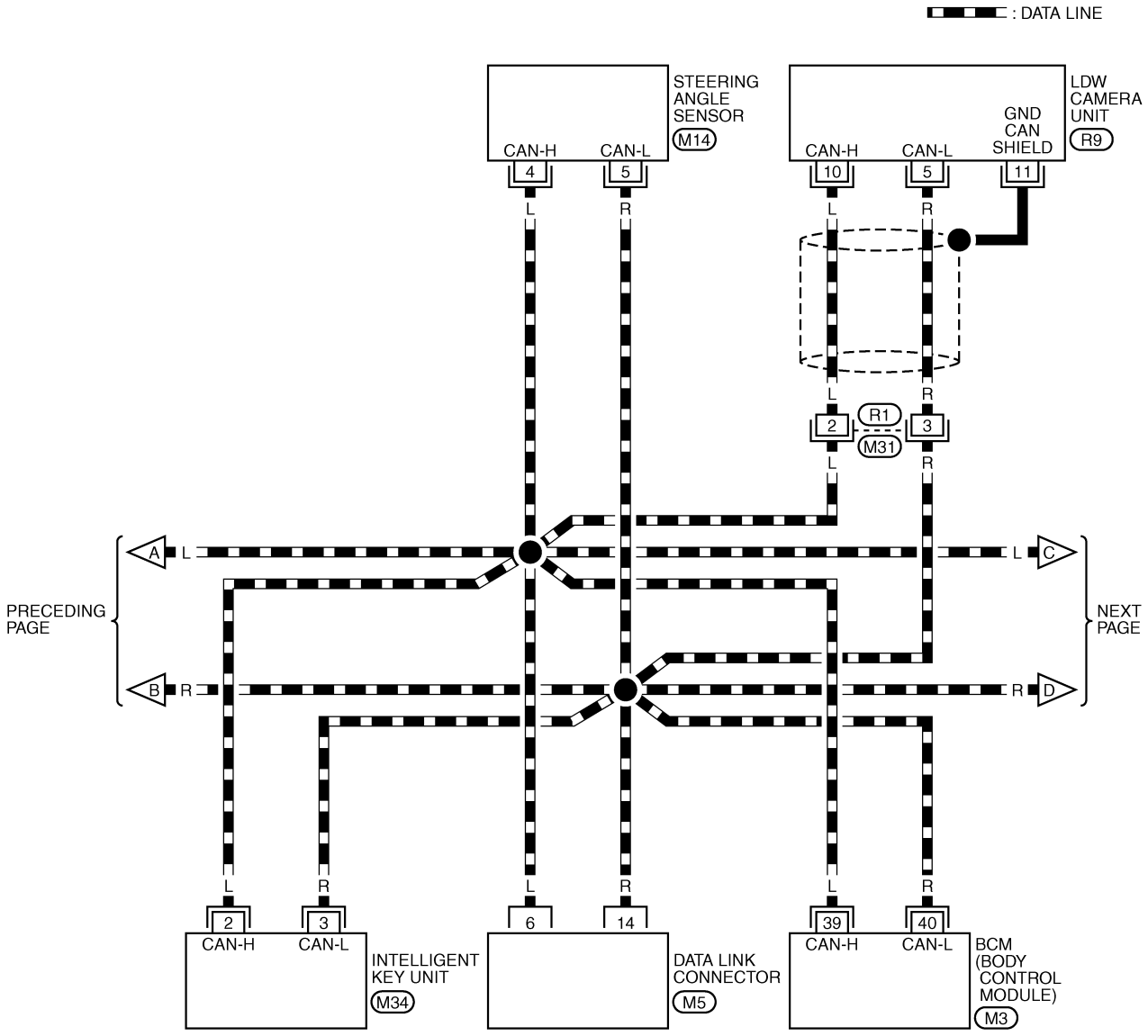
F102 -SUPER MULTIPLE JUNCTION (SMJ)

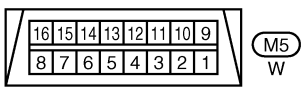
M90 -ELECTRICAL UNITS

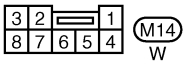
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

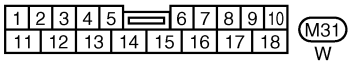
TKWM2376E

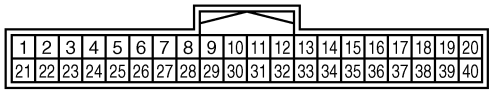
LAN-CAN-23

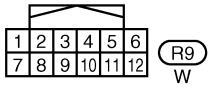








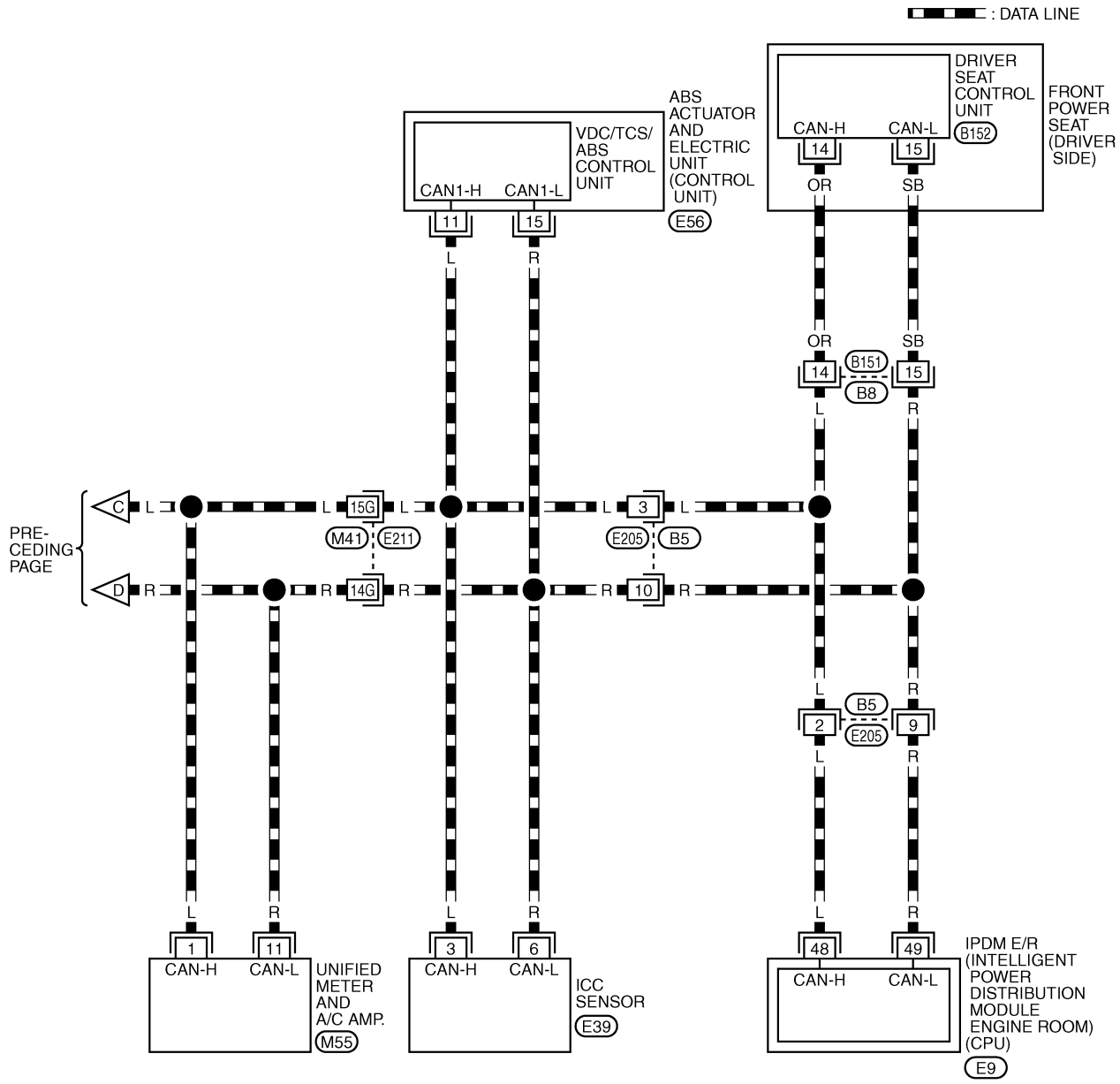


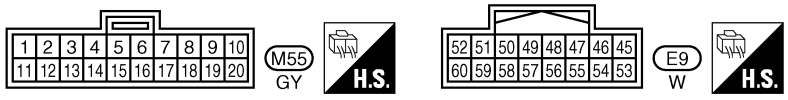


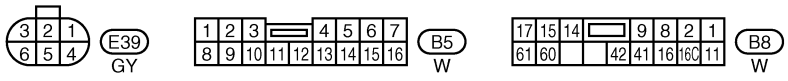
REFER TO THE FOLLOWING.
M3 -ELECTRICAL UNITS

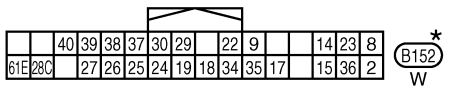
TKWM2377E

LAN-CAN-24









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

REFER TO THE FOLLOWING.

E211 -SUPER MULTIPLE JUNCTION (SMJ)

E56 -ELECTRICAL UNITS

TKWM2378E

Check Sheet

AKS00CAX

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	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R	
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

Symptoms :

Attach copy of SELECT SYSTEM

Attach copy of SELECT SYSTEM

PKIB4171E

Display control unit Translation Sheet: Rewrite the following names, and put a check mark on the check sheet table.			
Confirmation/Adjustment Display	Check sheet table Display	Confirmation/Adjustment Display	Check sheet table Display
CAN COMM	Initial diagnosis	CAN CIRC 5	METER/M&A
CAN CIRC 1	Transmit diagnosis	CAN CIRC 6	–
CAN CIRC 2	BCM/SEC	CAN CIRC 7	IPDM E/R
CAN CIRC 3	ECM	CAN CIRC 8	–
CAN CIRC 4	–	CAN CIRC 9	–

Attach copy of
display control unit
CAN DIAG SUPPORT MONITOR check sheet

PKIB4177E

Attach copy of ENGINE SELF-DIAG RESULTS	Attach copy of A/T SELF-DIAG RESULTS	Attach copy of ALL MODE AWD/4WD SELF-DIAG RESULTS	Attach copy of ICC SELF-DIAG RESULTS
Attach copy of INTELLIGENT KEY SELF-DIAG RESULTS	Attach copy of BCM SELF-DIAG RESULTS	Attach copy of LDW SELF-DIAG RESULTS	Attach copy of METER A/C AMP SELF-DIAG RESULTS
Attach copy of ABS SELF-DIAG RESULTS	Attach copy of AUTO DRIVE POS. SELF-DIAG RESULTS	Attach copy of IPDM E/R SELF-DIAG RESULTS	

PKIB4172E

Attach copy of
ENGINE
CAN DIAG SUPPORT
MNTR

Attach copy of
A/T
CAN DIAG SUPPORT
MNTR

Attach copy of
ALL MODE AWD/4WD
CAN DIAG SUPPORT
MNTR

Attach copy of
ICC
CAN DIAG SUPPORT
MNTR

Attach copy of
INTELLIGENT KEY
CAN DIAG SUPPORT
MNTR

Attach copy of
BCM
CAN DIAG SUPPORT
MNTR

Attach copy of
LDW
CAN DIAG SUPPORT
MNTR

Attach copy of
METER A/C AMP
CAN DIAG SUPPORT
MNTR

Attach copy of
ABS
CAN DIAG SUPPORT
MNTR

Attach copy of
AUTO DRIVE POS.
CAN DIAG SUPPORT
MNTR

Attach copy of
IPDM E/R
CAN DIAG SUPPORT
MNTR

PKIB4173E

CHECK SHEET RESULTS (EXAMPLE)

NOTE:

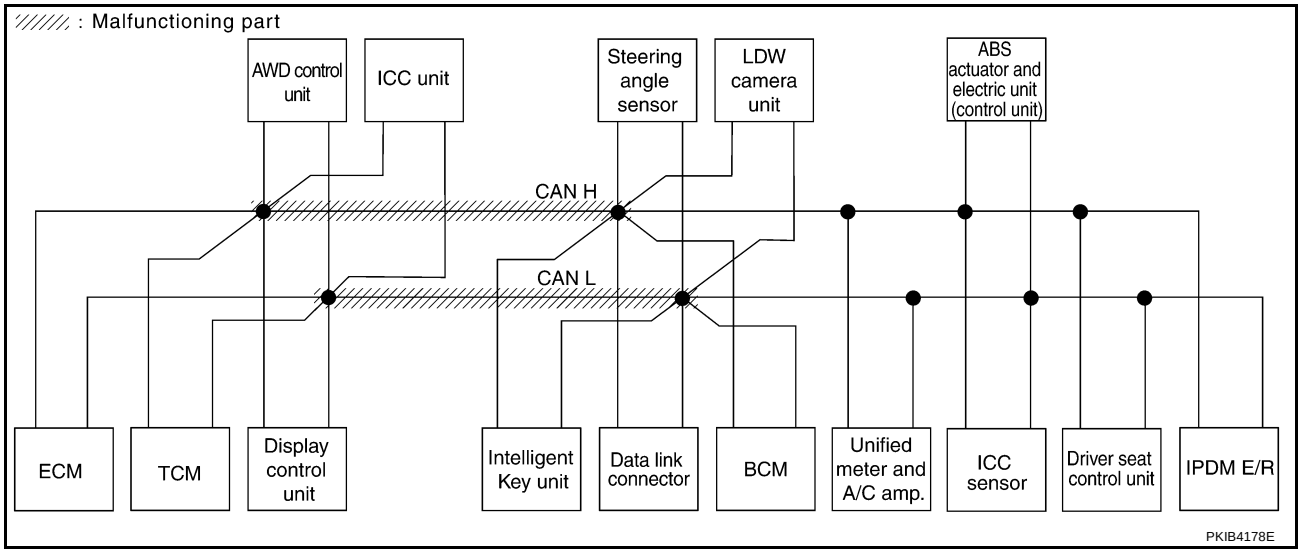
If a check mark is put on “NG” on “INITIAL DIAG (Initial diagnosis)”, replace the control unit.

Case 1

Check harness between TCM and data link connector. Refer to LAN-381, "Inspection Between TCM and Data Link Connector Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN ✓	—	UNKWN ✓	—	UNKWN ✓	UNKWN ✓	CAN COMM CIRCUIT (U1000) ✓	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN ✓	—	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN ✓	—	UNKWN ✓	—	—	UNKWN ✓	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	—	—	—	—	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	—	—	UNKWN ✓	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN ✓	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
BCM	No indication	NG	UNKWN	UNKWN ✓	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000) ✓	—
LDW	No indication	—	—	UNKWN ✓	UNKWN ✓	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
METER A/C AMP	No indication	—	UNKWN	UNKWN ✓	UNKWN ✓	UNKWN ✓	UNKWN ✓	UNKWN ✓	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN ✓	UNKWN ✓	—	UNKWN ✓	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN ✓	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN ✓	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB4319E

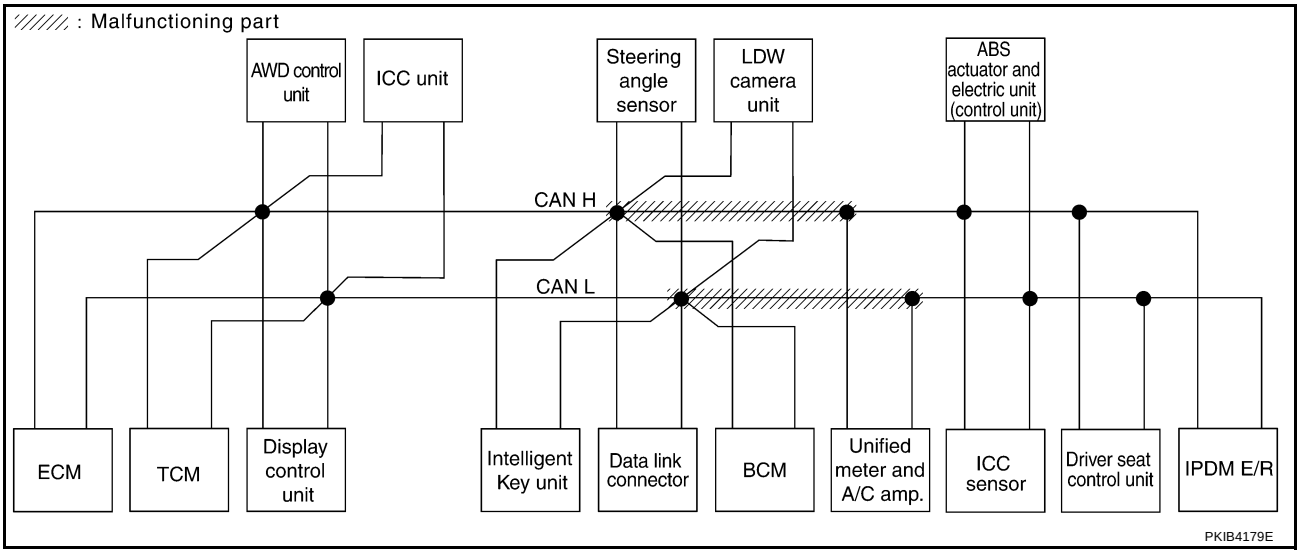


Case 2

Check harness between data link connector and unified meter and A/C amp. Refer to LAN-382, "Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	—	—	—	—	—	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4320E

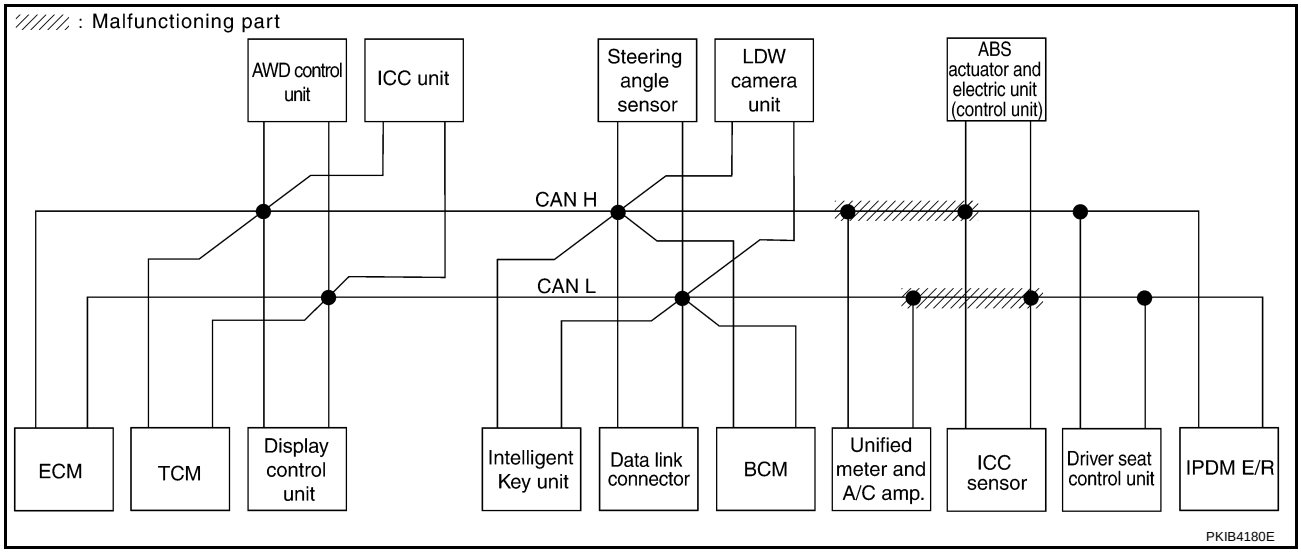


Case 3

Check harness between unified meter and A/C amp. and ABS actuator and electric unit (control unit). Refer to LAN-382, "Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4321E

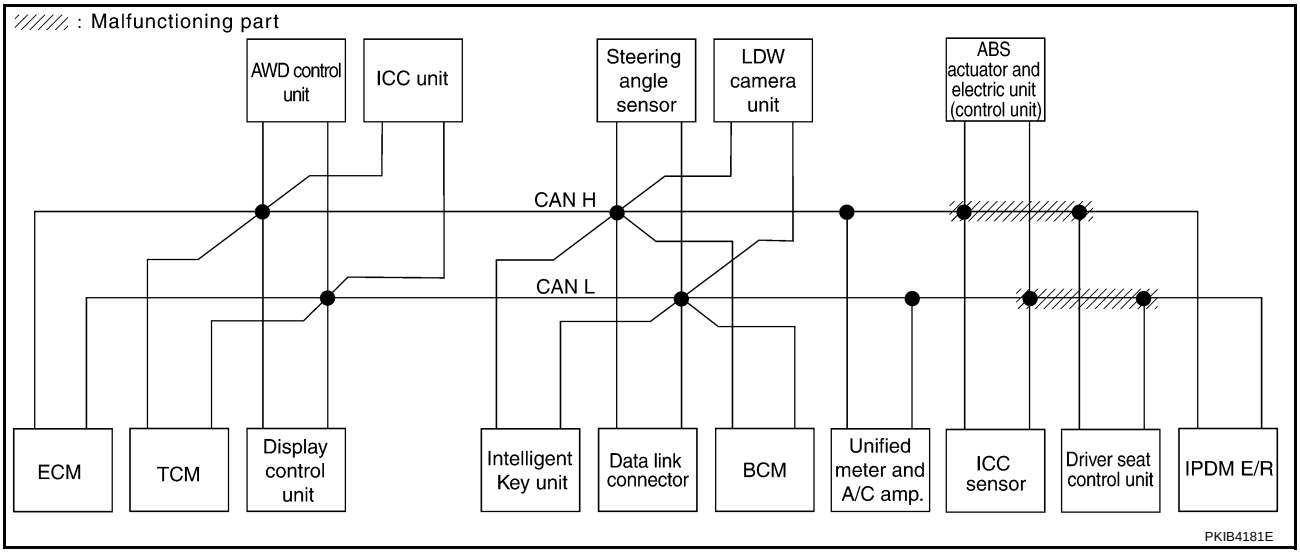


Case 4

Check harness between ABS actuator and electric unit (control unit) and driver seat control unit. Refer to LAN-383, "Inspection Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN ✓	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN ✓	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN ✓	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication ✓	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication ✓	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB4322E

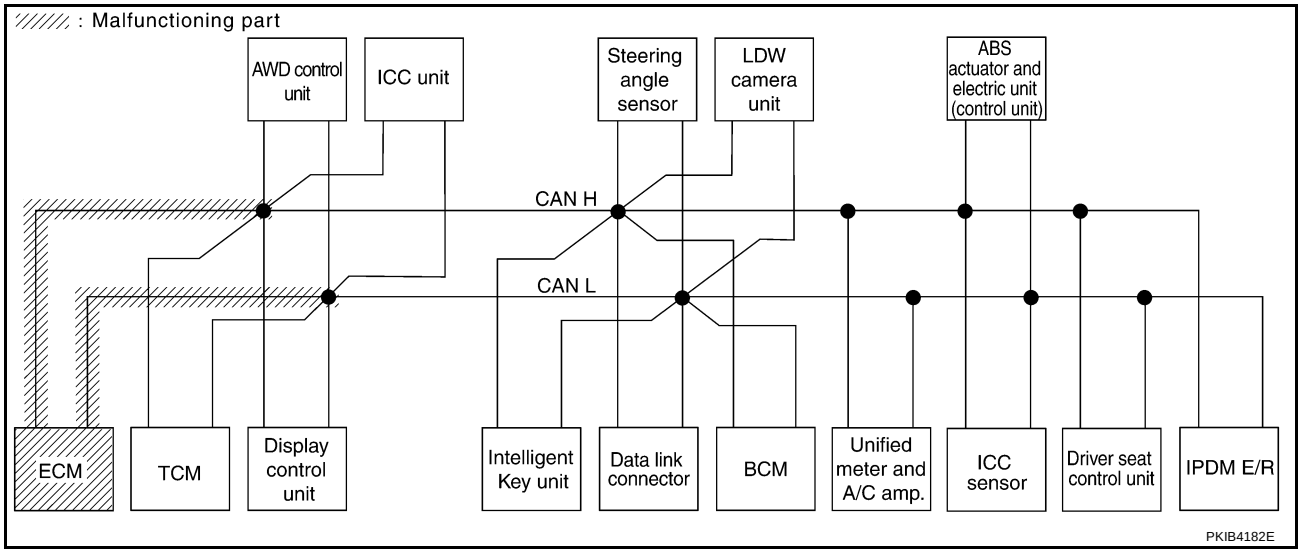


Case 5

Check ECM circuit. Refer to LAN-384, "ECM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R	
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4323E



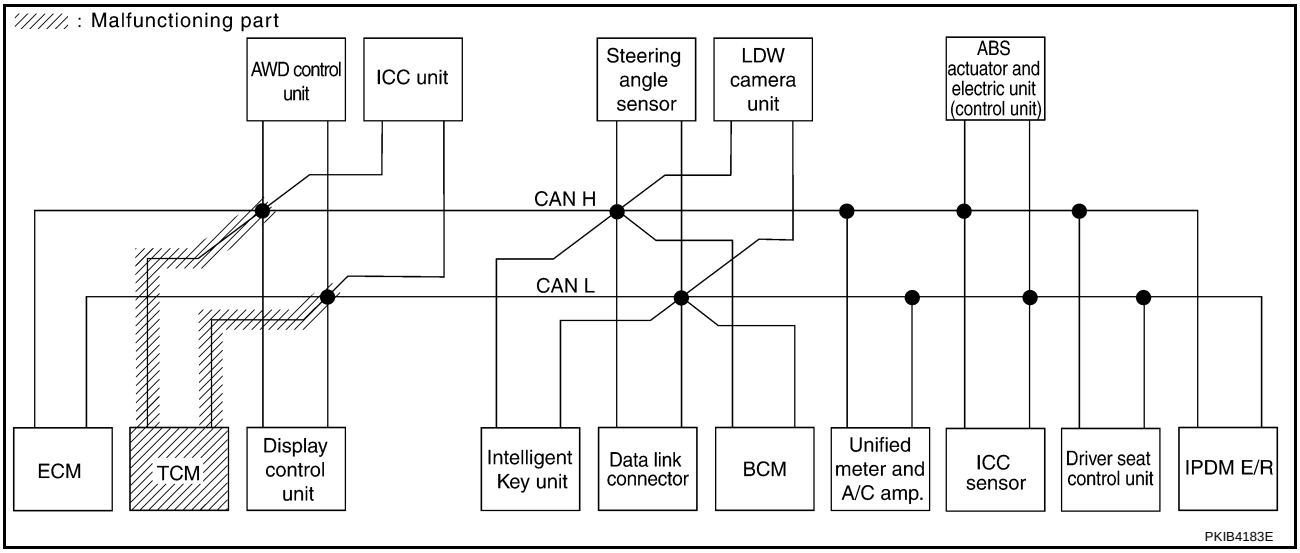
PKIB4182E

Case 6

Check TCM circuit. Refer to LAN-384, "TCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4324E



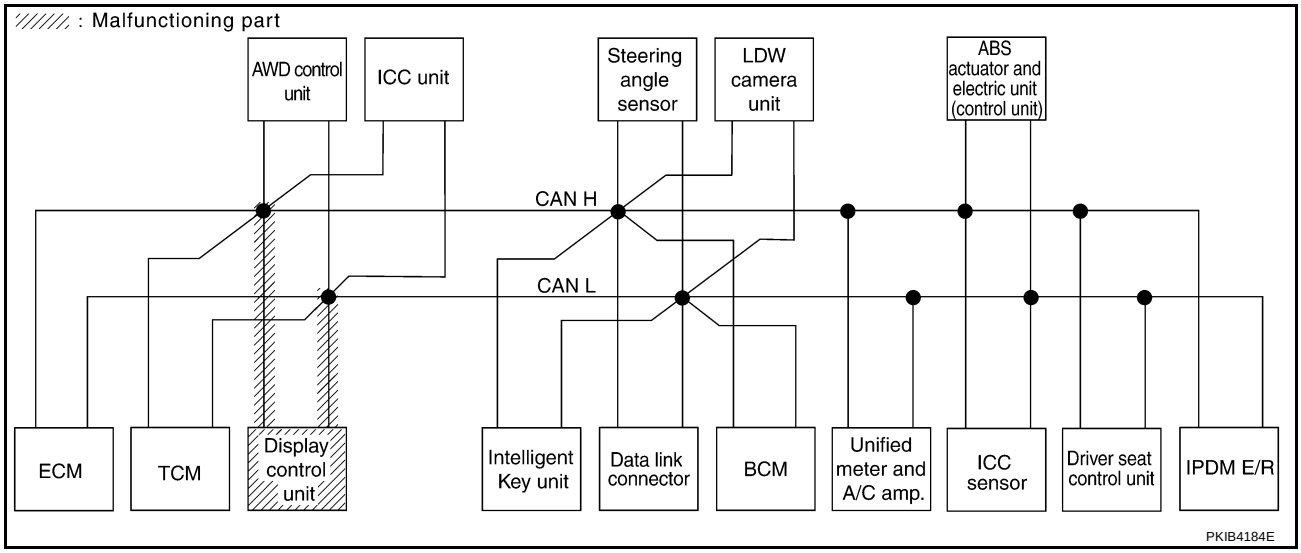
PKIB4183E

Case 7

Check display control unit circuit. Refer to LAN-385, "Display Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4325E

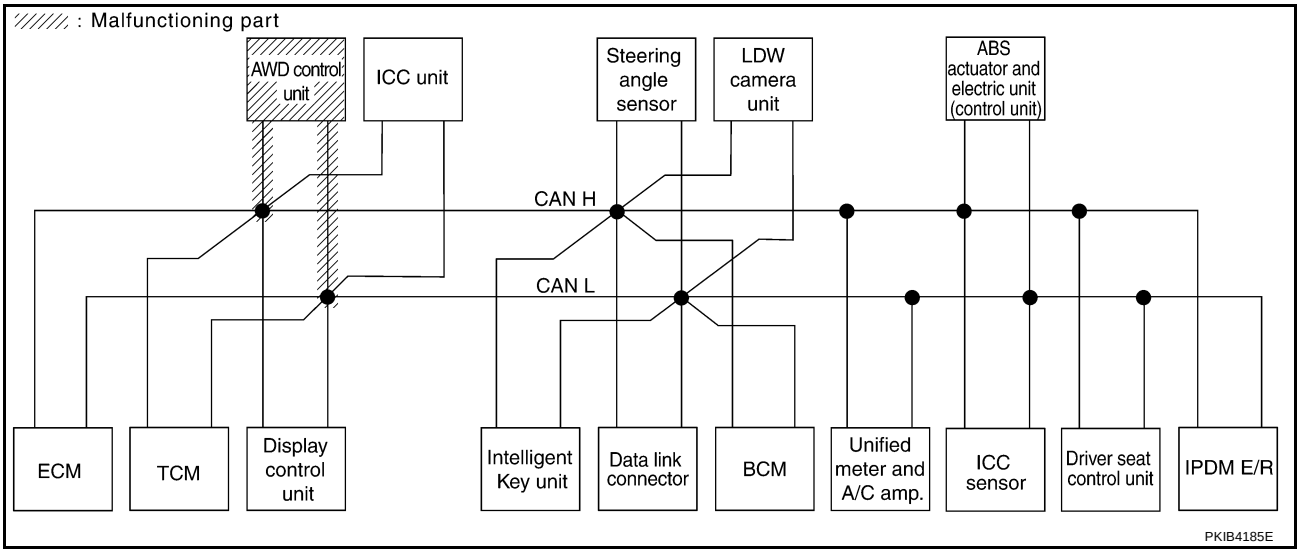


Case 8

Check AWD control unit circuit. Refer to LAN-385, "AWD Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN ✓	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN ✓	—	—	—	—	—	—	—	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN ✓	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4326E



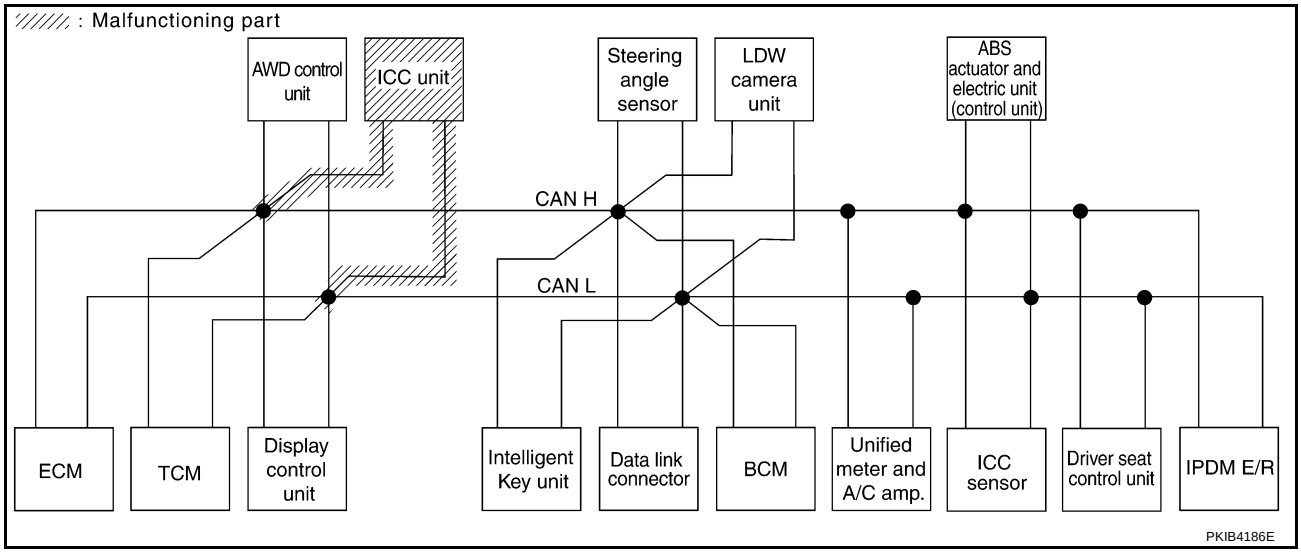
PKIB4185E

Case 9

Check ICC unit circuit. Refer to LAN-386, "ICC Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4327E

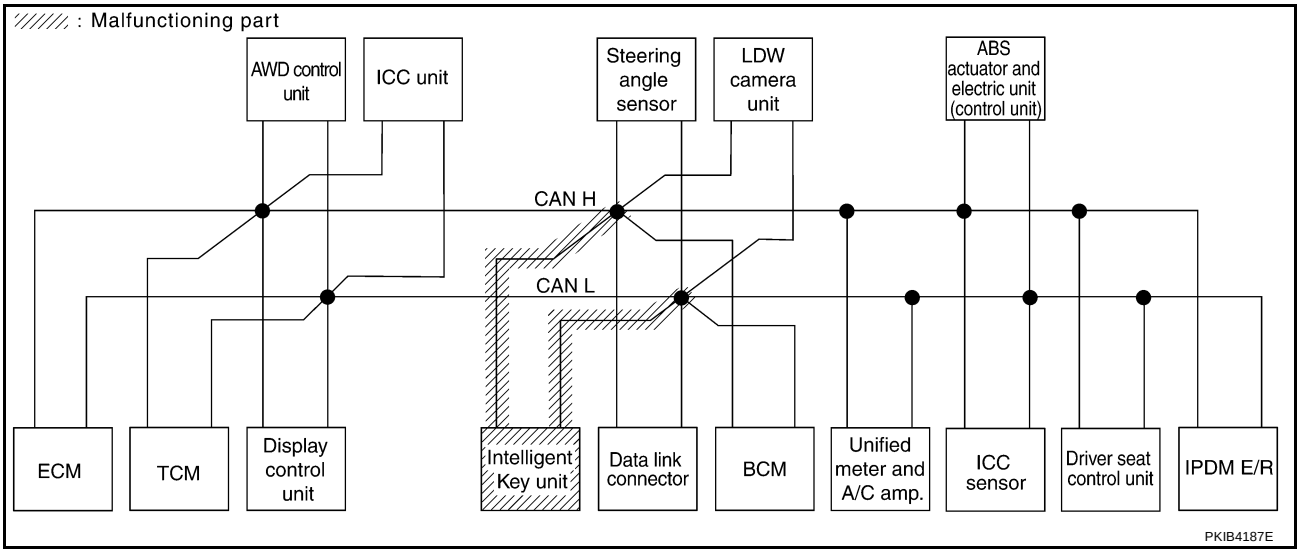


Case 10

Check Intelligent Key unit circuit. Refer to LAN-386, "Intelligent Key Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication ✓	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4328E



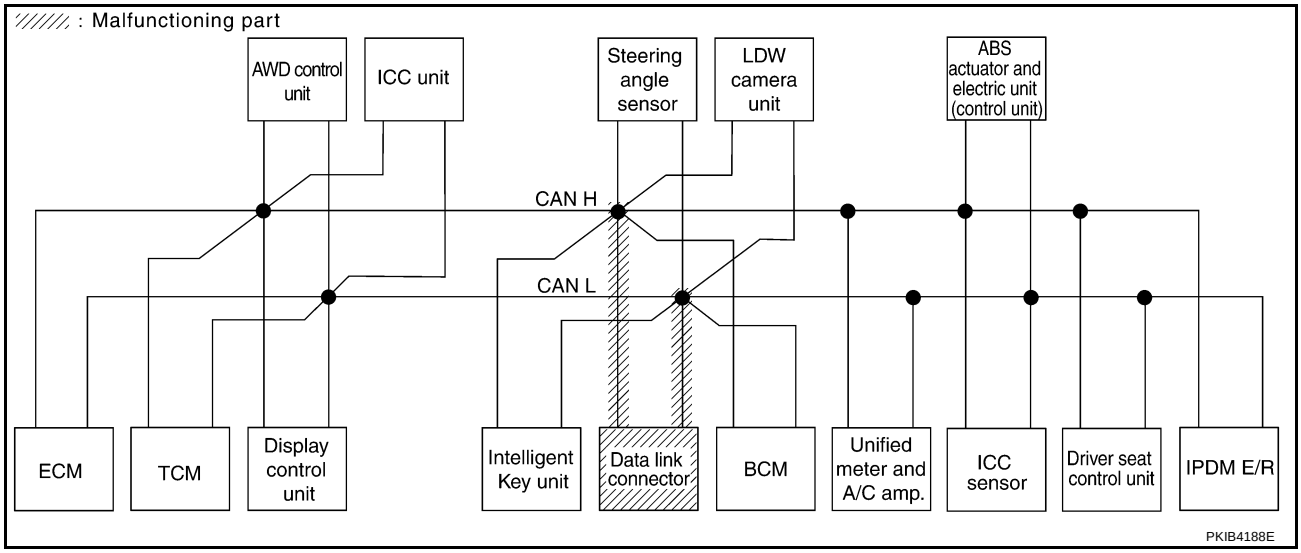
PKIB4187E

Case 11

Check data link connector circuit. Refer to LAN-387, "Data Link Connector Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4329E



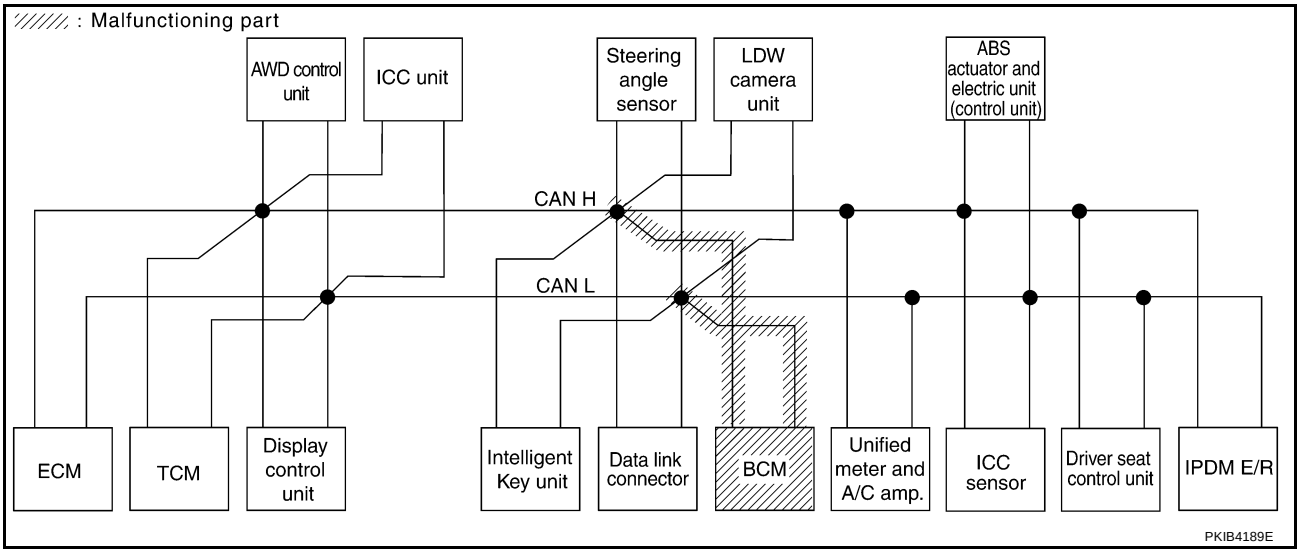
PKIB4188E

Case 12

Check BCM circuit. Refer to LAN-387, "BCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN ✓	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN ✓	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN ✓	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
BCM	No indication ✓	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN ✓	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN ✓	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN ✓	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB4330E



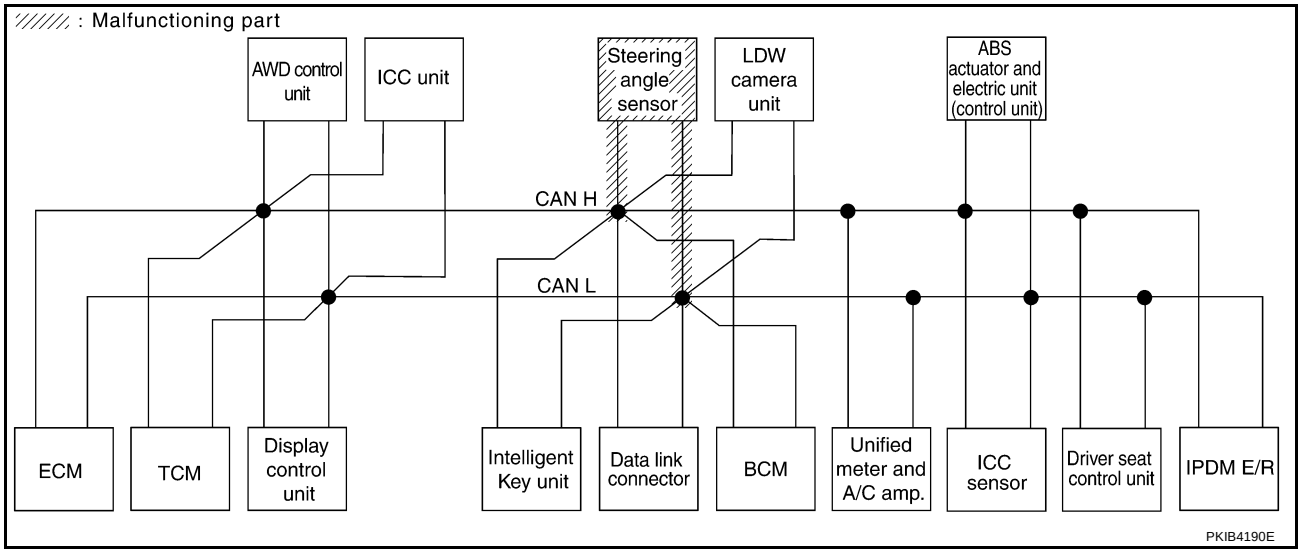
PKIB4189E

Case 13

Check steering angle sensor circuit. Refer to LAN-388, "Steering Angle Sensor Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4331E



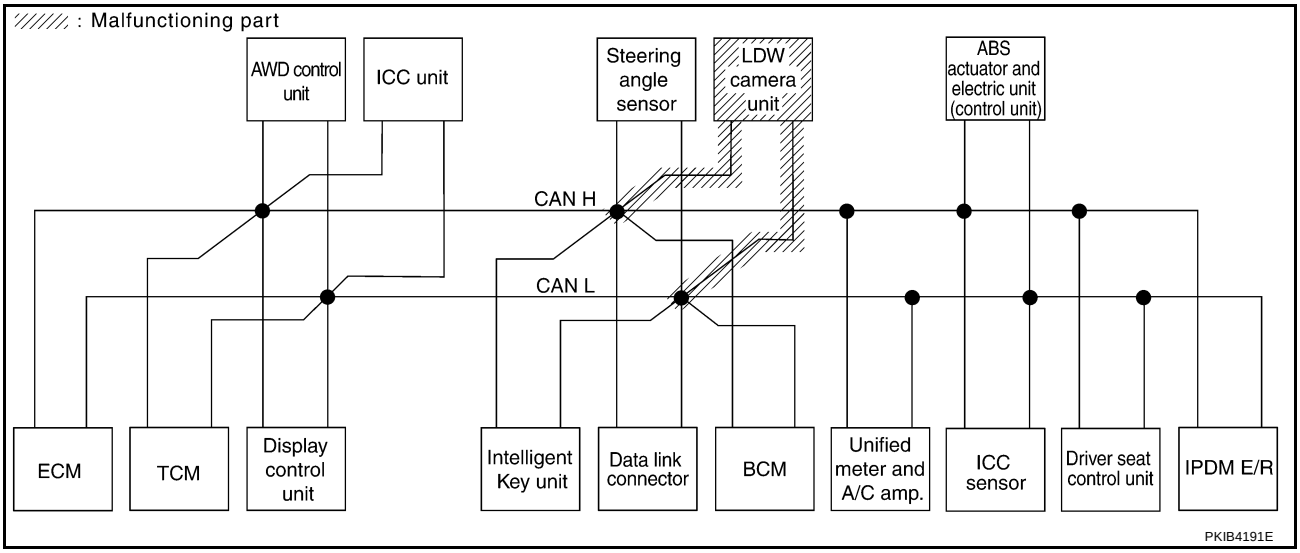
PKIB4190E

Case 14

Check LDW camera unit circuit. Refer to LAN-388, "LDW Camera Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4332E



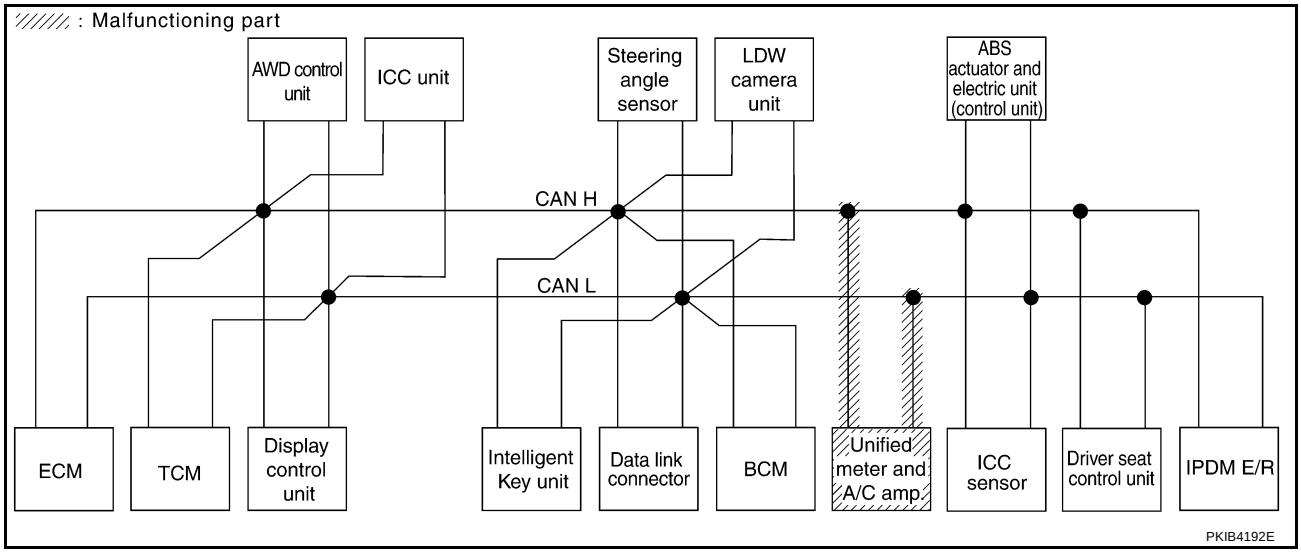
PKIB4191E

Case 15

Check unified meter and A/C amp. circuit. Refer to LAN-389, "Unified Meter and A/C Amp. Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4333E

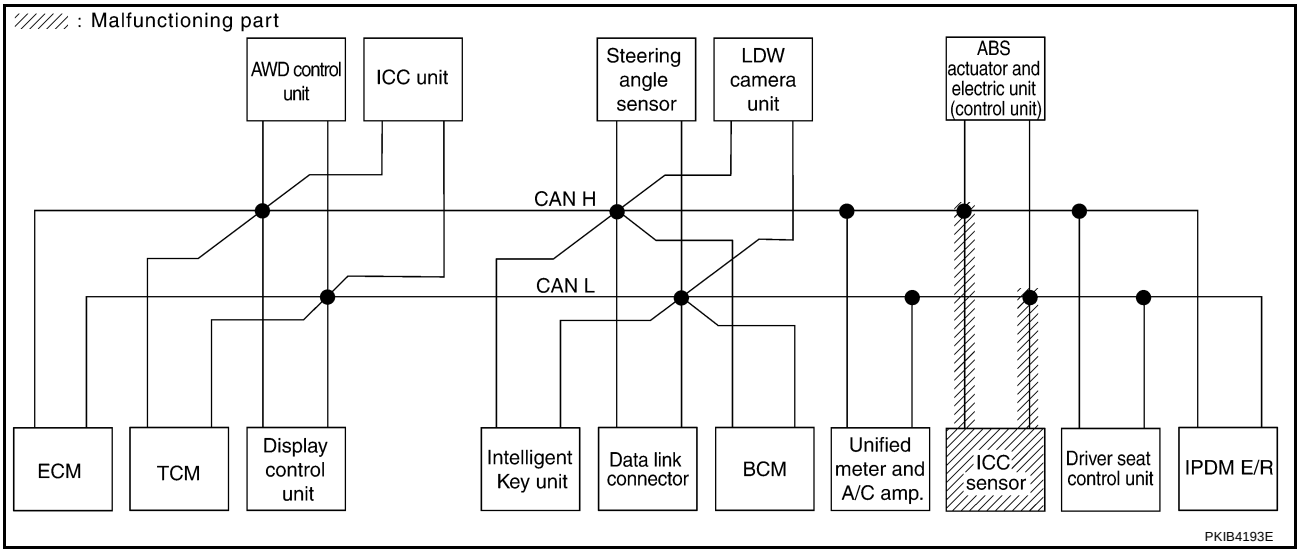


Case 16

Check ICC sensor circuit. Refer to LAN-390, "ICC Sensor Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4334E



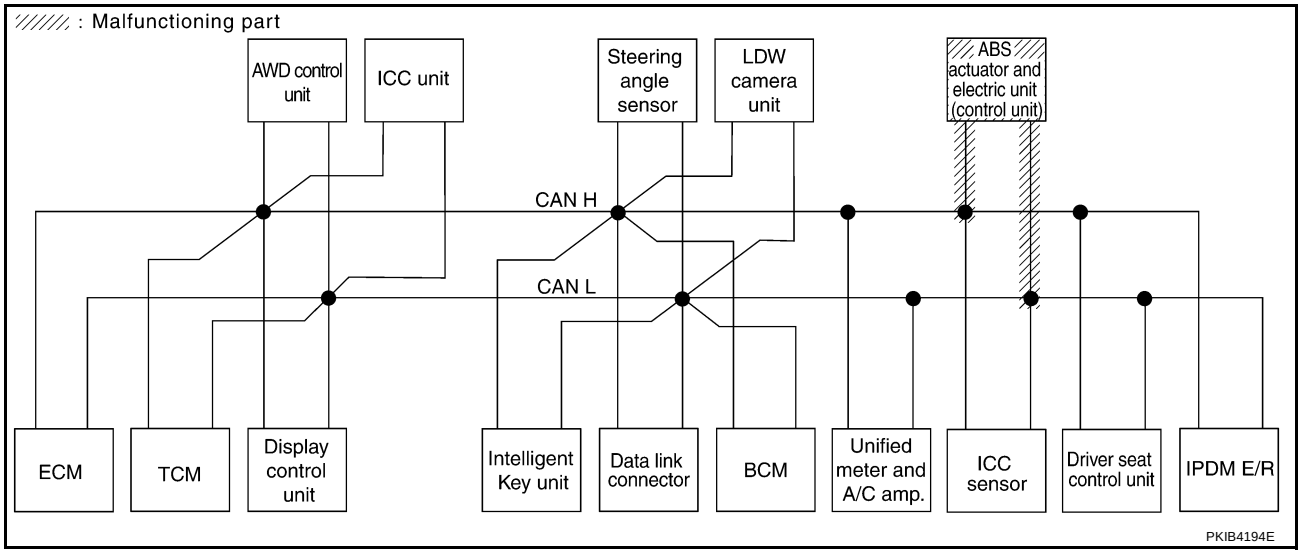
PKIB4193E

Case 17

Check ABS actuator and electric unit (control unit) circuit. Refer to LAN-390, "ABS Actuator and Electric Unit (Control Unit) Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4335E

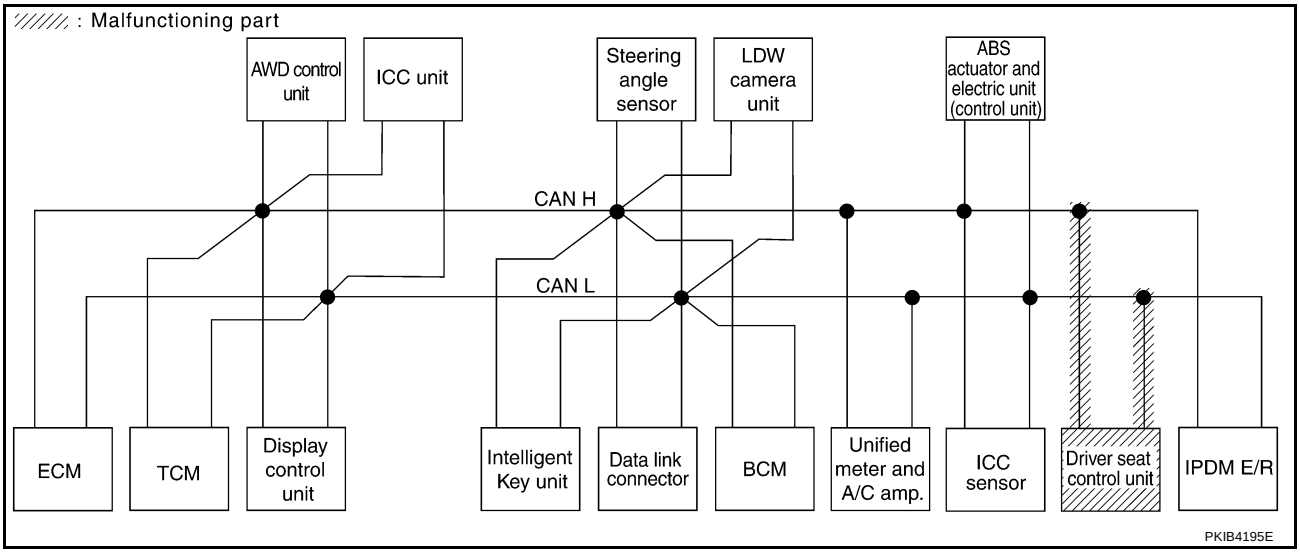


Case 18

Check driver seat control unit circuit. Refer to LAN-391, "Driver Seat Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4336E



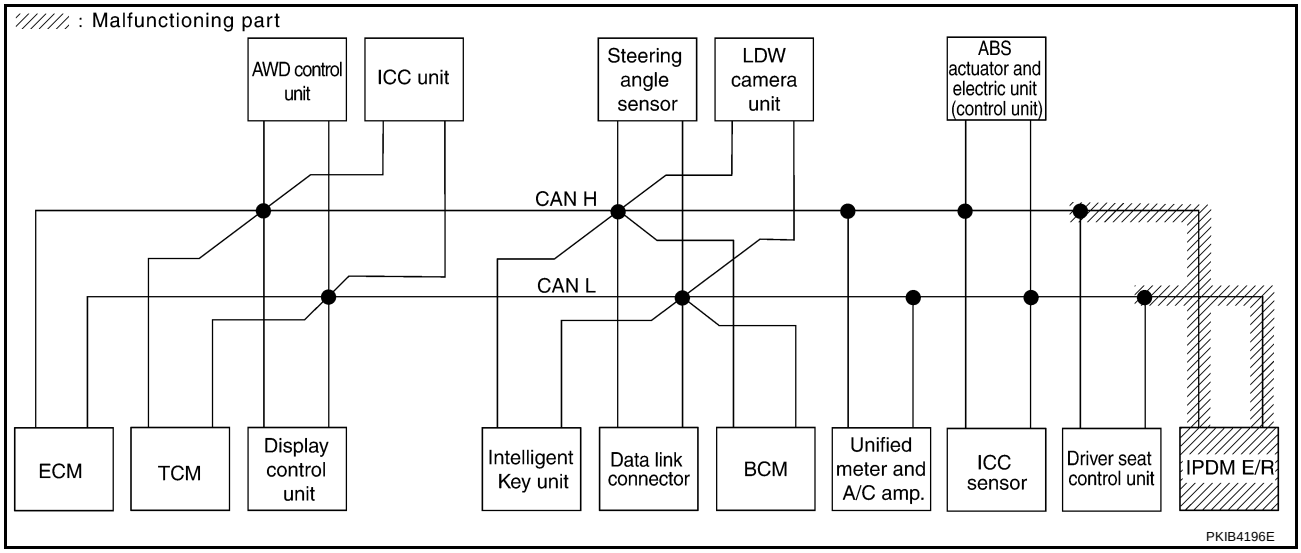
PKIB4195E

Case 19

Check IPDM E/R circuit. Refer to LAN-391, "IPDM E/R Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN ✓	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN ✓	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN ✓	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication ✓	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIB4337E



Case 20

Check CAN communication circuit. Refer to LAN-392, "CAN Communication Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	—	—	—	—	—	—	—	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4338E

Case 21

Check IPDM E/R ignition relay circuit continuously sticks “OFF”. Refer to LAN-399, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR													SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis												
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R	
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4339E

Case 22

Check IPDM E/R ignition relay circuit continuously sticks “ON”. Refer to LAN-399, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR														SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis													
				ECM	TCM	DISPLAY	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	—	—	—	—	—	—	—	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display control unit	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ICC	—	NG	UNKWN	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
INTELLIGENT KEY	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	UNKWN	—	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
LDW	No indication	—	—	UNKWN	UNKWN	—	—	—	—	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	—	UNKWN	—	—	—	—	—	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
AUTO DRIVE POS.	No indication	NG	UNKWN	—	UNKWN	—	—	—	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIB4340E

Inspection Between TCM and Data Link Connector Circuit

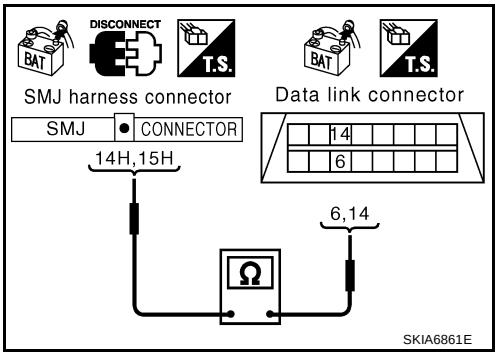
AKS00CAY

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and harness connector M82.
4. Check continuity between harness connector M82 terminals 14H (L), 15H (R) and data link connector M5 terminals 6 (L), 14 (R).

14H (L) - 6 (L) : Continuity should exist.

15H (R) - 14 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness.

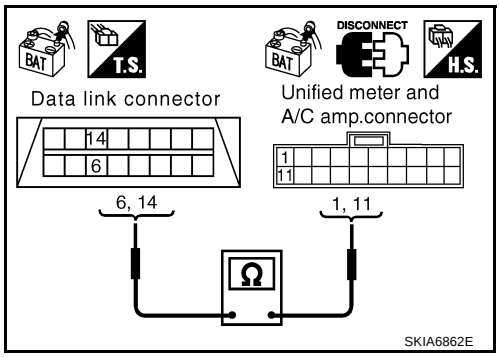
Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit

AKS00CAZ

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and unified meter and A/C amp. connector.
4. Check continuity between data link connector M5 terminals 6 (L), 14 (R) and unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R).

6 (L) - 1 (L) : Continuity should exist.
14 (R) - 11 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit

AKS00CBI

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 M41
- Harness connector E211

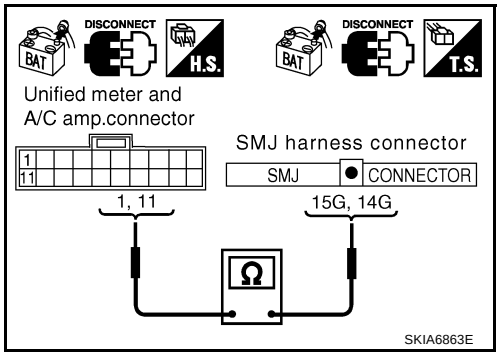
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector and harness connector M41.
2. Check continuity between unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R) and harness connector M41 terminals 15G (L), 14G (R).

1 (L) - 15G (L) : Continuity should exist.
11 (R) - 14G (R) : Continuity should exist.



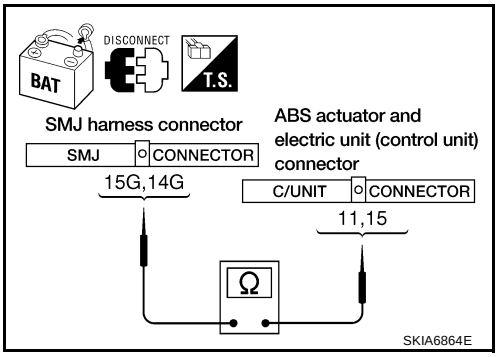
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check continuity between harness connector E211 terminals 15G (L), 14G (R) and ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R).

15G (L) - 11 (L) : Continuity should exist.
14G (R) - 15 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit Circuit

AKS00CB0

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 E205
- Harness connector B5

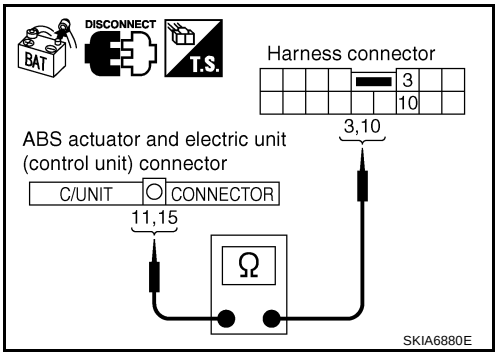
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and harness connector E205 terminals 3 (L), 10 (R).

11 (L) - 3 (L) : Continuity should exist.
15 (R) - 10 (R) : Continuity should exist.



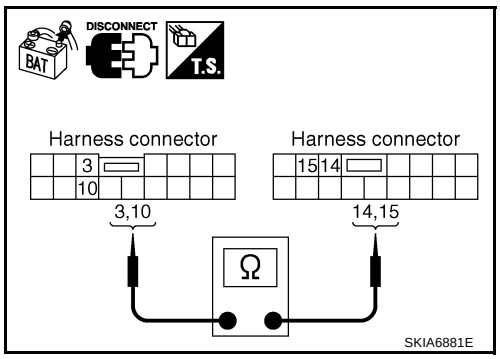
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect harness connector B8.
2. Check continuity between harness connector B5 terminals 3 (L), 10 (R) and harness connector B8 terminals 14 (L), 15 (R).

3 (L) - 14 (L) : Continuity should exist.
10 (R) - 15 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

ECM Circuit Inspection

AKS00CB1

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).

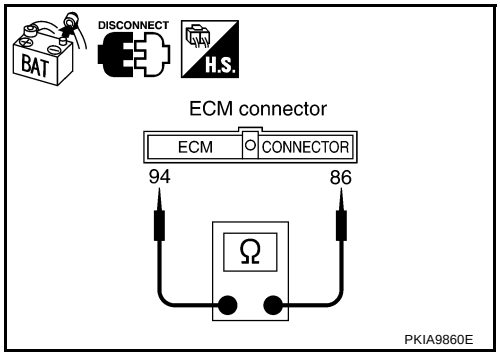
OK or NG

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 M90 terminals 94 (L) and 86 (R).

94 (L) - 86 (R) : Approx. 108 - 132Ω



OK or NG

OK >> Replace ECM.
NG >> Repair harness between ECM and harness connector M82.

TCM Circuit Inspection

AKS00CB2

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 (control module side and harness side).

- A/T assembly connector
- Harness connector F102
- Harness connector M82

OK or NG

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

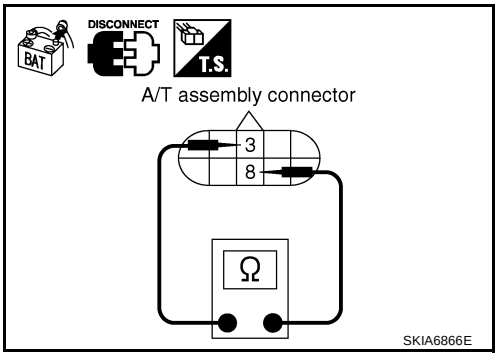
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect A/T assembly connector.
2. Check resistance between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Approx. 54 - 66Ω

OK or NG

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



Display Control Unit Circuit Inspection

AKS00CB3

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of display 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.

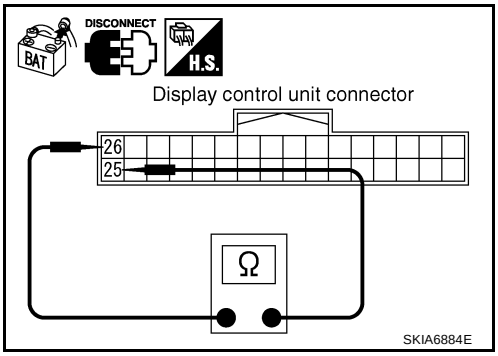
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect display control unit connector.
2. Check resistance between display control unit harness connector M76 terminals 25 (L) and 26 (R).

25 (L) - 26 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace display control unit.
NG >> Repair harness between display control unit and harness connector M82.



AWD Control Unit Circuit Inspection

AKS00CB4

1. CHECK CONNECTOR

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

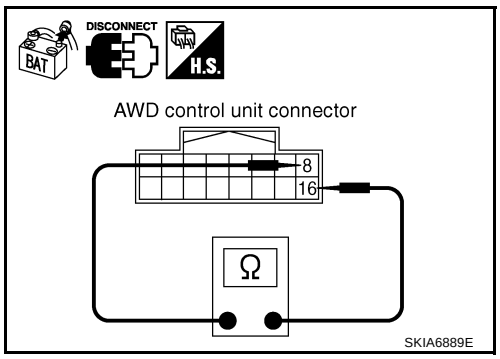
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect AWD control unit connector.
2. Check resistance between AWD control unit harness connector M92 terminals 8 (L) and 16 (R).

8 (L) - 16 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace AWD control unit.
NG >> Repair harness between AWD control unit and harness connector M82.

ICC Unit Circuit Inspection

AKS00CB5

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).

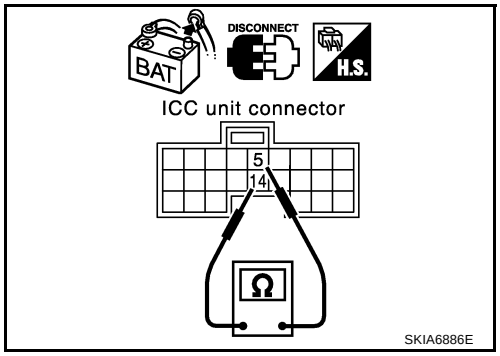
OK or NG

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 M88 terminals 14 (L) and 5 (R).

14 (L) - 5 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace ICC unit.
NG >> Repair harness between ICC unit and harness connector M82.

Intelligent Key Unit Circuit Inspection

AKS00CB6

1. CHECK CONNECTOR

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

OK or NG

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

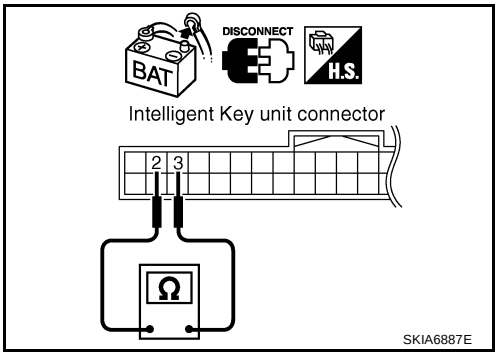
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect Intelligent Key unit connector.
2. Check resistance between Intelligent Key unit harness connector M34 terminals 2 (L) and 3 (R).

2 (L) - 3 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace Intelligent Key unit.
NG >> Repair harness between Intelligent Key unit and data link connector.



Data Link Connector Circuit Inspection

AKS00CB7

1. CHECK CONNECTOR

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

OK or NG

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

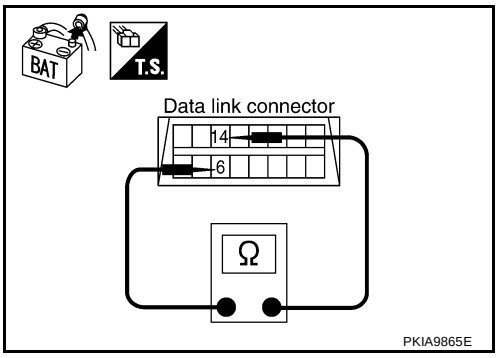
2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness between data link connector and BCM.



BCM Circuit Inspection

AKS00CB8

1. CHECK CONNECTOR

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

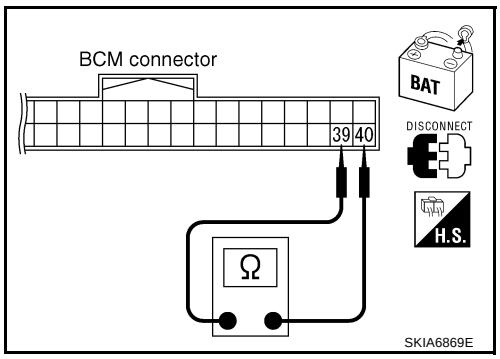
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect BCM connector.
2. Check resistance between BCM harness connector M3 terminals 39 (L) and 40 (R).

39 (L) - 40 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace BCM. Refer to BCS-16, "Removal and Installation of BCM" .
NG >> Repair harness between BCM and data link connector.

Steering Angle Sensor Circuit Inspection

AKS00CB9

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).

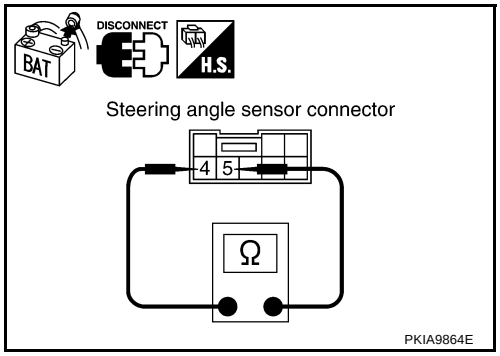
OK or NG

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 M14 terminals 4 (L) and 5 (R).

4 (L) - 5 (R) : Approx. 54 - 66Ω



OK or NG

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

LDW Camera Unit Circuit Inspection

AKS00CBJ

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 (unit side and harness side).

- LDW camera unit connector
- Harness connector R1
- Harness connector M31

OK or NG

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

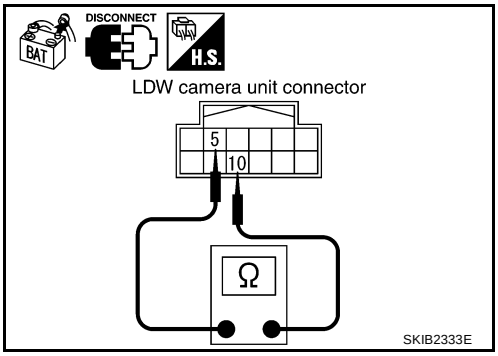
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect LDW camera unit connector.
2. Check resistance between LDW camera unit harness connector R9 terminals 10 (L) and 5 (R).

10 (L) - 5 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace LDW camera unit.
NG >> GO TO 3.



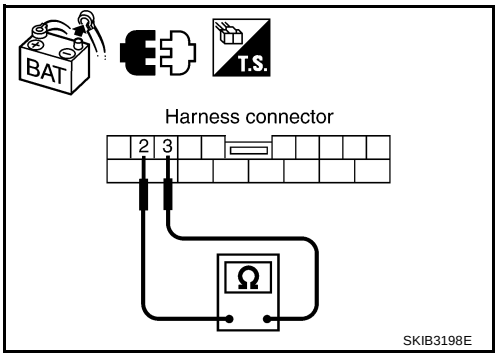
3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect harness connector R1.
2. Check resistance between harness connector M31 terminals 2 (L) and 3 (R).

2 (L) - 3 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Replace harness between LDW camera unit and harness connector R1.



Unified Meter and A/C Amp. Circuit Inspection

AKS00CBA

1. CHECK CONNECTOR

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

OK or NG

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

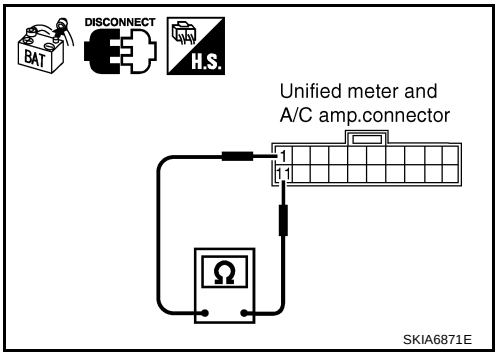
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector.
2. Check resistance between unified meter and A/C amp. harness connector M55 terminals 1 (L) and 11 (R).

1 (L) - 11 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace unified meter and A/C amp.
NG >> Repair harness between unified meter and A/C amp. and harness connector M41.



ICC Sensor Circuit Inspection

AKS00CBB

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).

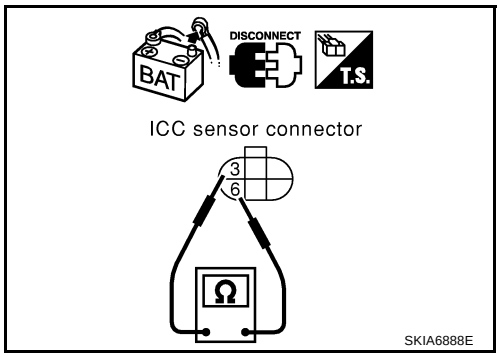
OK or NG

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 E39 terminals 3 (L) and 6 (R).

3 (L) - 6 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace ICC sensor.
NG >> Repair harness between ICC sensor and ABS actuator and electric unit (control unit).

ABS Actuator and Electric Unit (Control Unit) Circuit Inspection

AKS00CBC

1. CHECK CONNECTOR

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

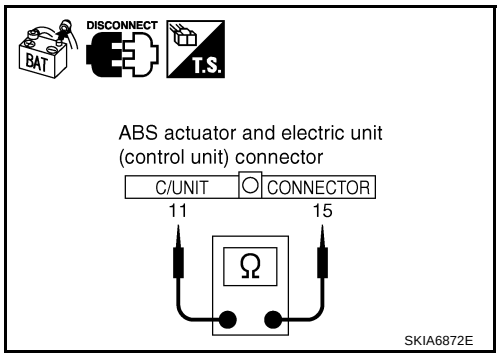
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check resistance between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace ABS actuator and electric unit (control unit).
NG >> Repair harness between ABS actuator and electric unit (control unit) and ICC sensor.

Driver Seat Control Unit Circuit Inspection

AKS00CBD

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 (control unit side and harness side).

- Driver seat control unit connector
- Harness connector B151
- Harness connector B8

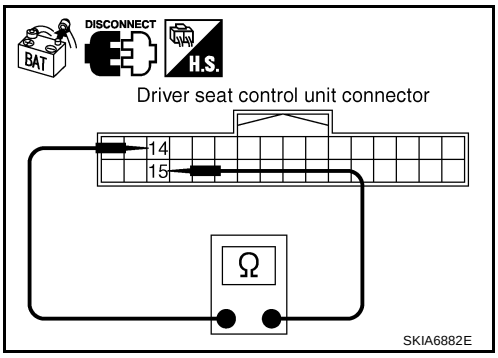
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check resistance between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

14 (OR) - 15 (SB) : Approx. 54 - 66Ω



OK or NG

OK >> Replace driver seat control unit.
NG >> Repair harness between driver seat control unit and harness connector B5.

IPDM E/R Circuit Inspection

AKS00CBE

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 (control module side and harness side).

- IPDM E/R connector
- Harness connector E205
- Harness connector B5

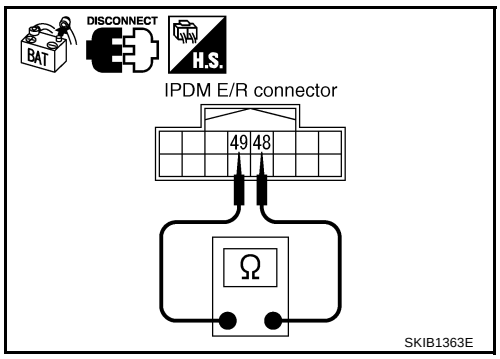
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check resistance between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Approx. 108 - 132Ω



OK or NG

OK >> Replace IPDM E/R.
NG >> Repair harness between IPDM E/R and harness connector B8.

CAN Communication Circuit Inspection

AKS00CBF

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 (control module side, control unit side, unit side, sensor side, meter side and harness side).

- ECM
- A/T assembly
- Display control unit
- AWD control unit
- ICC unit
- Intelligent Key unit
- BCM
- Steering angle sensor
- LDW camera unit
- Unified meter and A/C amp.
- ICC sensor
- ABS actuator and electric unit (control unit)
- Driver seat control unit
- IPDM E/R
- Between ECM and IPDM E/R
- Between ECM and A/T assembly
- Between ECM and LDW camera unit
- Between ECM and driver seat control unit

OK or NG

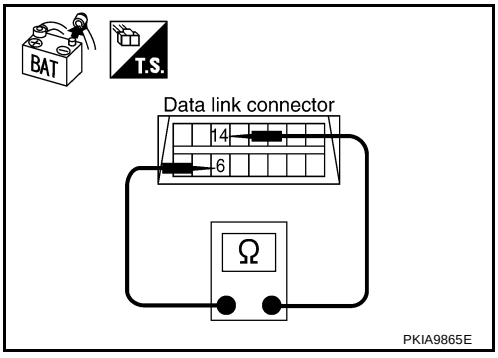
OK >> GO TO 2.
NG >> Repair terminal or connector.

2. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect following connectors.
- ECM connector
- Harness connector M82
- Display control unit connector
- AWD control unit connector
- ICC unit connector
- Intelligent Key unit connector
- BCM connector
- Steering angle sensor connector
- Harness connector M31
- Unified meter and A/C amp. connector
- Harness connector M41

2. Check continuity between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R) : Continuity should not exist.



OK or NG

OK >> GO TO 3.

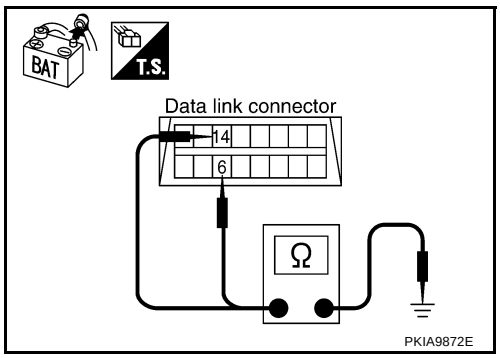
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display control unit
- Harness between data link connector and AWD control unit
- Harness between data link connector and ICC unit
- Harness between data link connector and Intelligent Key unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and harness connector M31
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

3. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between data link connector M5 terminals 6 (L), 14 (R) and ground.

6 (L) - Ground : Continuity should not exist.

14 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 4.

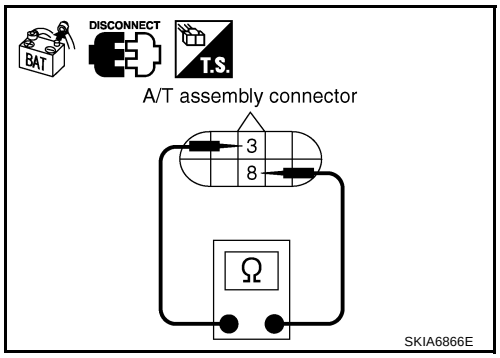
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display control unit
- Harness between data link connector and AWD control unit
- Harness between data link connector and ICC unit
- Harness between data link connector and Intelligent Key unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and harness connector M31
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

4. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect A/T assembly connector.
2. Check continuity between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Continuity should not exist.



OK or NG

OK >> GO TO 5.

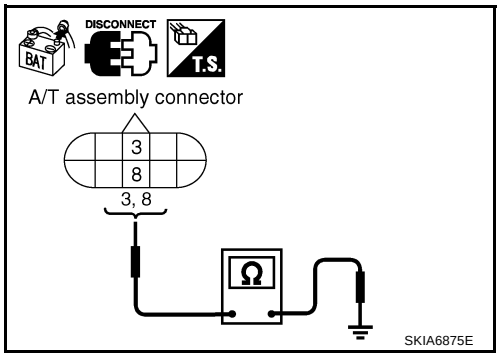
NG >> Repair harness between A/T assembly and harness connector F102.

5. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between A/T assembly harness connector F44 terminals 3 (L), 8 (R) and ground.

3 (L) - Ground : Continuity should not exist.

8 (R) - Ground : Continuity should not exist.



OK or NG

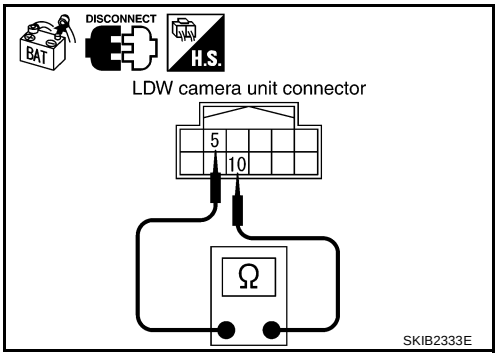
OK >> GO TO 6.

NG >> Repair harness between A/T assembly and harness connector F102.

6. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect LDW camera unit connector.
2. Check continuity between LDW camera unit harness connector R9 terminals 10 (L) and 5 (R).

10 (L) - 5 (R) : Continuity should not exist.



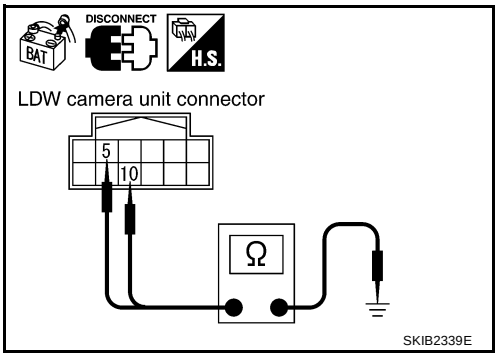
OK or NG

OK >> GO TO 7.
NG >> Replace harness between LDW camera unit and harness connector R1.

7. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between LDW camera unit harness connector R9 terminals 10 (L), 5 (R) and ground.

10 (L) - Ground : Continuity should not exist.
5 (R) - Ground : Continuity should not exist.



OK or NG

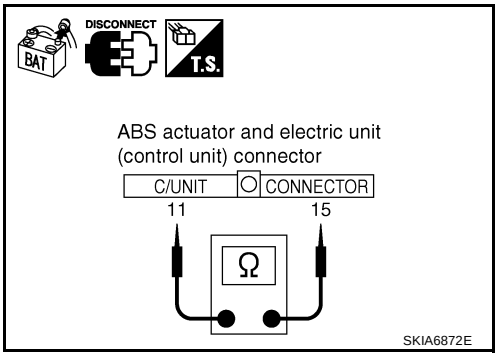
OK >> GO TO 8.
NG >> Replace harness between LDW and harness connector R1.

8. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect following connectors.
- ICC sensor connector
- ABS actuator and electric unit (control unit) connector
- Harness connector E205

2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Continuity should not exist.



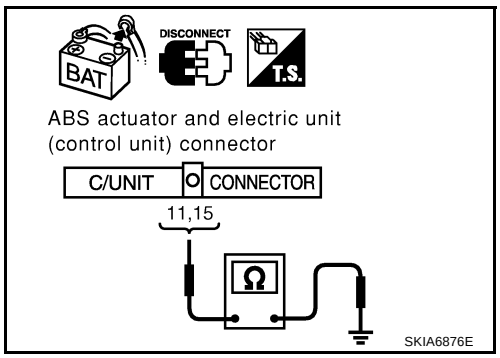
OK or NG

OK >> GO TO 9.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and ICC sensor
- Harness between ABS actuator and electric unit (control unit) and harness connector E205

9. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and ground.

11 (L) - Ground : Continuity should not exist.
15 (R) - Ground : Continuity should not exist.



OK or NG

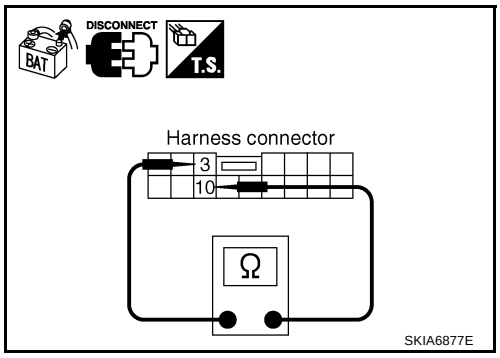
OK >> GO TO 10.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and ICC sensor
- Harness between ABS actuator and electric unit (control unit) and harness connector E205

10. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect harness connector B8.
2. Check continuity between harness connector B5 terminals 3 (L) and 10 (R).

3 (L) - 10 (R) : Continuity should not exist.



OK or NG

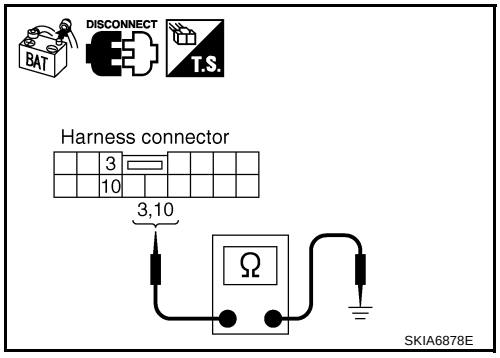
OK >> GO TO 11.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between harness connector B5 and harness connector B8
- Harness between harness connector B5 and harness connector B5

11. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between harness connector B5 terminals 3 (L), 10 (R) and ground.

3 (L) - Ground : Continuity should not exist.
10 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 12.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between harness connector B5 and harness connector B8
- Harness between harness connector B5 and harness connector B5

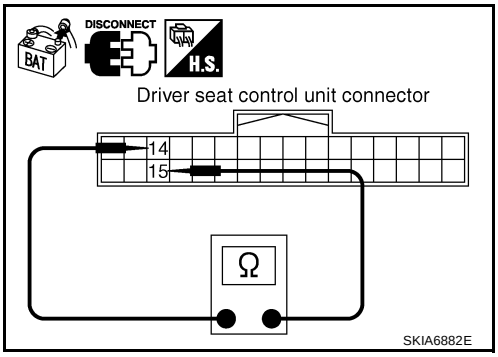
12. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect driver seat control unit connector.
2. Check continuity between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

14 (OR) - 15 (SB) : Continuity should not exist.

OK or NG

OK >> GO TO 13.
NG >> Repair harness between driver seat control unit and harness connector B151.



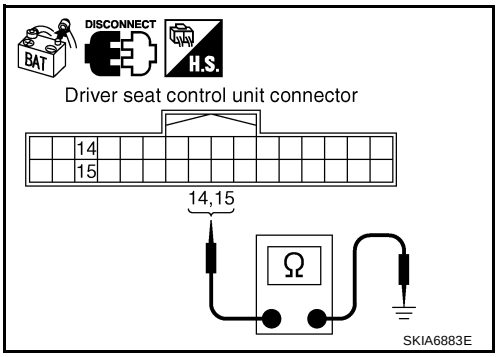
13. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between driver seat control unit harness connector B152 terminals 14 (OR), 15 (SB) and ground.

14 (OR) - Ground : Continuity should not exist.
15 (SB) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 14.
NG >> Repair harness between driver seat control unit and harness connector B151.



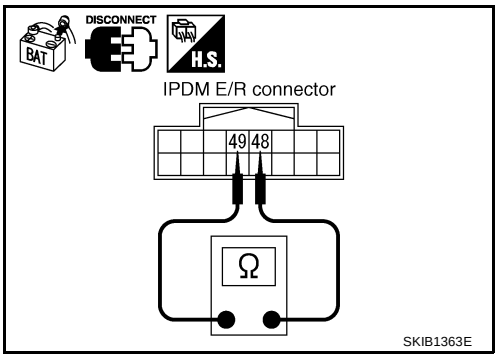
14. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check continuity between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 15.
NG >> Repair harness between IPDM E/R and harness connector E205.



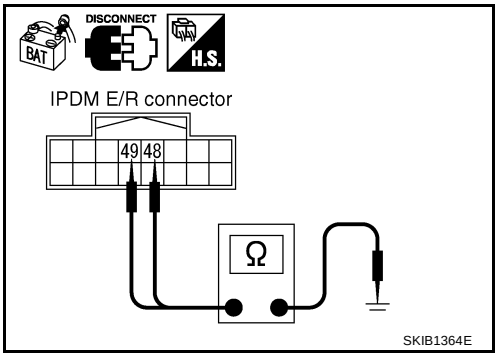
15. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between IPDM E/R harness connector E9 terminals 48 (L), 49 (R) and ground.

48 (L) - Ground : Continuity should not exist.
49 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 16.
NG >> Repair harness between IPDM E/R and harness connector E205.



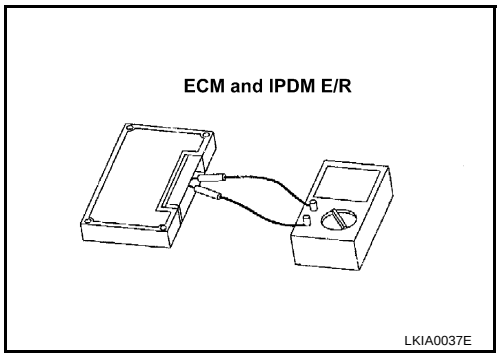
16. CHECK ECM AND IPDM E/R INTERNAL CIRCUIT

1. Remove ECM and IPDM E/R from vehicle.
2. Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. 108 - 132Ω

3. Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132Ω



OK or NG

OK >> GO TO 17.
NG >> Replace ECM and/or IPDM E/R.

17. 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 18.
NG >> Refer to LAN-16, "Example of Filling in Check Sheet When Initial Conditions Are Not Reproduced".

18. CHECK UNIT REPRODUCIBILITY

Performs the following procedure for each unit, 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.

- A/T assembly
- Display control unit
- AWD control unit
- ICC unit
- Intelligent Key unit
- BCM
- Steering angle sensor
- LDW camera unit
- Unified meter and A/C amp.
- ICC sensor
- ABS actuator and electric unit (control unit)
- Driver seat control unit
- ECM
- IPDM E/R

Check results

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

IPDM E/R Ignition Relay Circuit Inspection

AKS00CBG

Check the following. If no malfunction is found, replace the IPDM E/R.

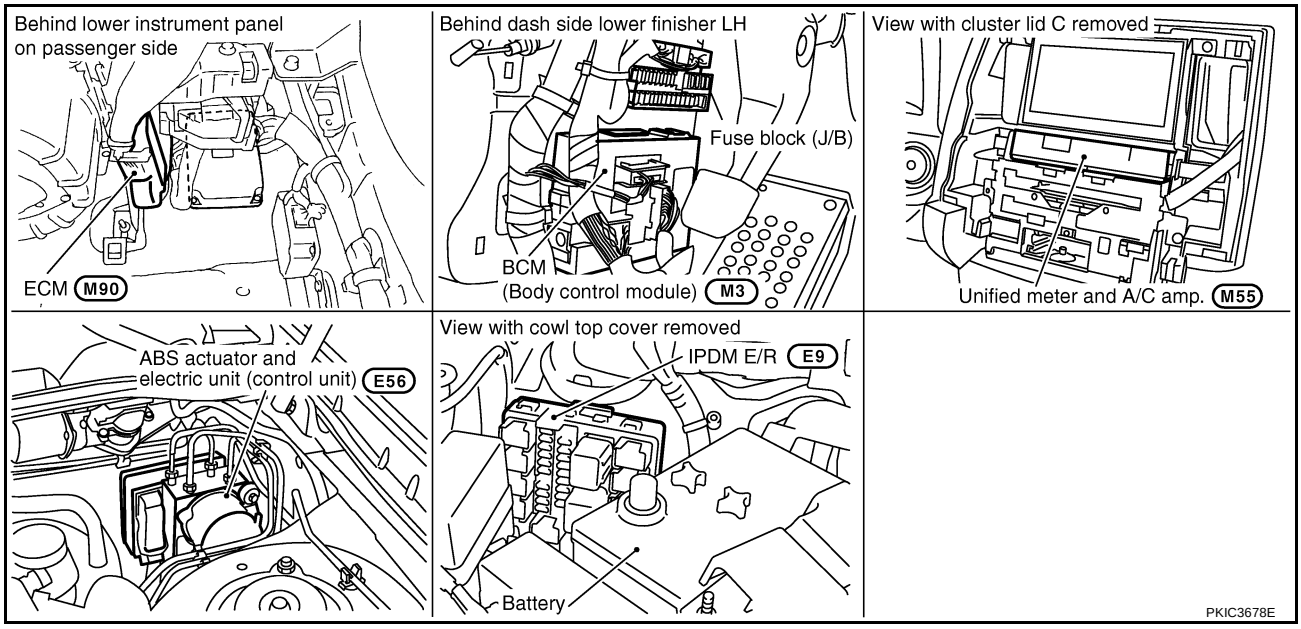
- IPDM E/R power supply circuit. Refer to PG-28, "IPDM E/R Power/Ground Circuit Inspection" .
- Ignition power supply circuit. Refer to PG-12, "IGNITION POWER SUPPLY - IGNITION SW. IN “ON” AND/OR “START”" .

CAN SYSTEM (TYPE 9)

PFP:23710

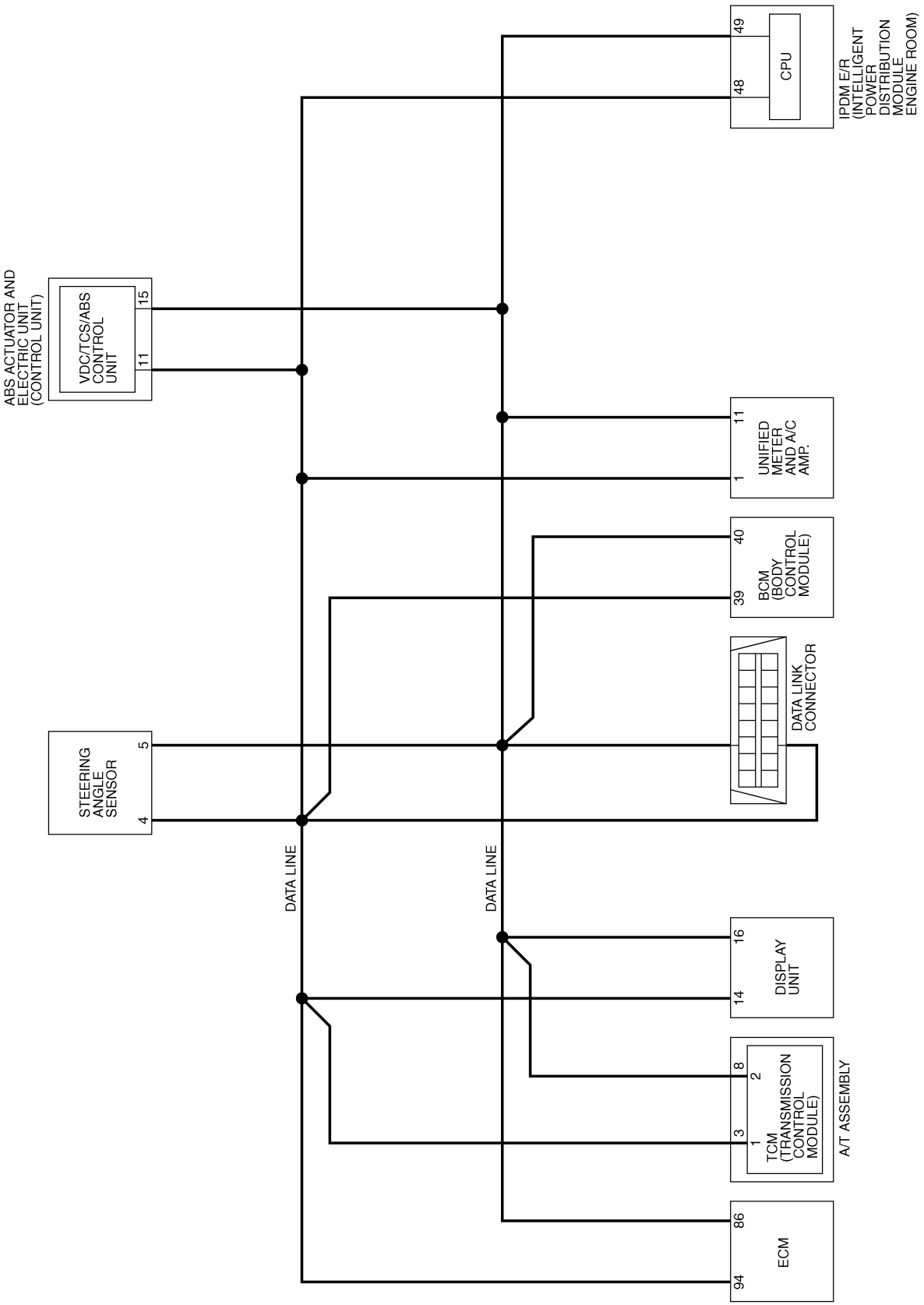
Component Parts and Harness Connector Location

AKS00FDC



Schematic

AKS00FDD

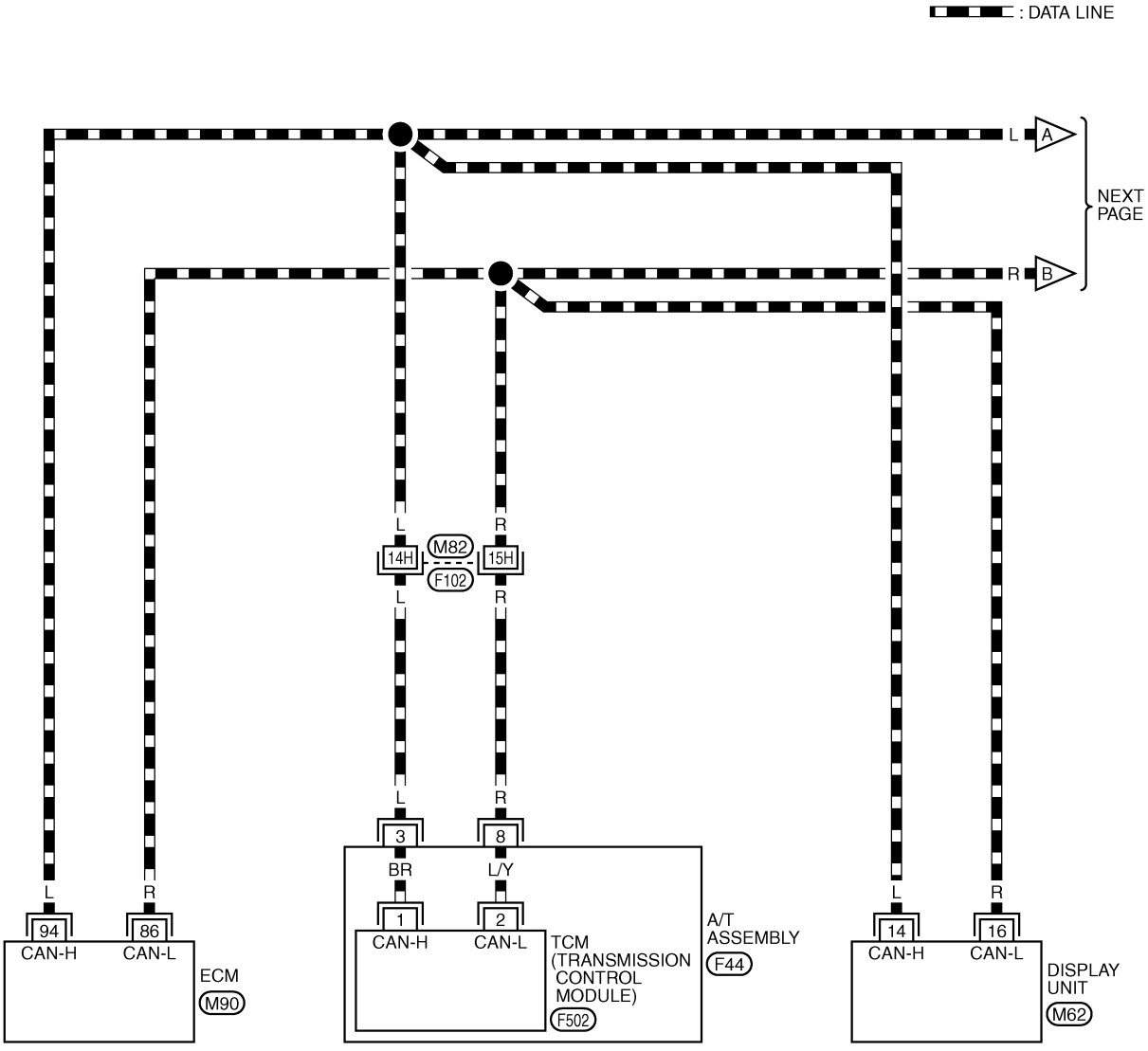


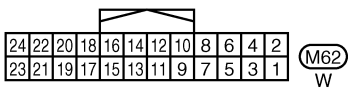
TKWB2711E

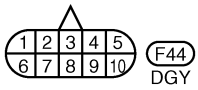
Wiring Diagram - CAN -

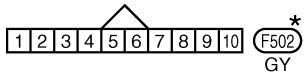
AKS00FDE

LAN-CAN-25







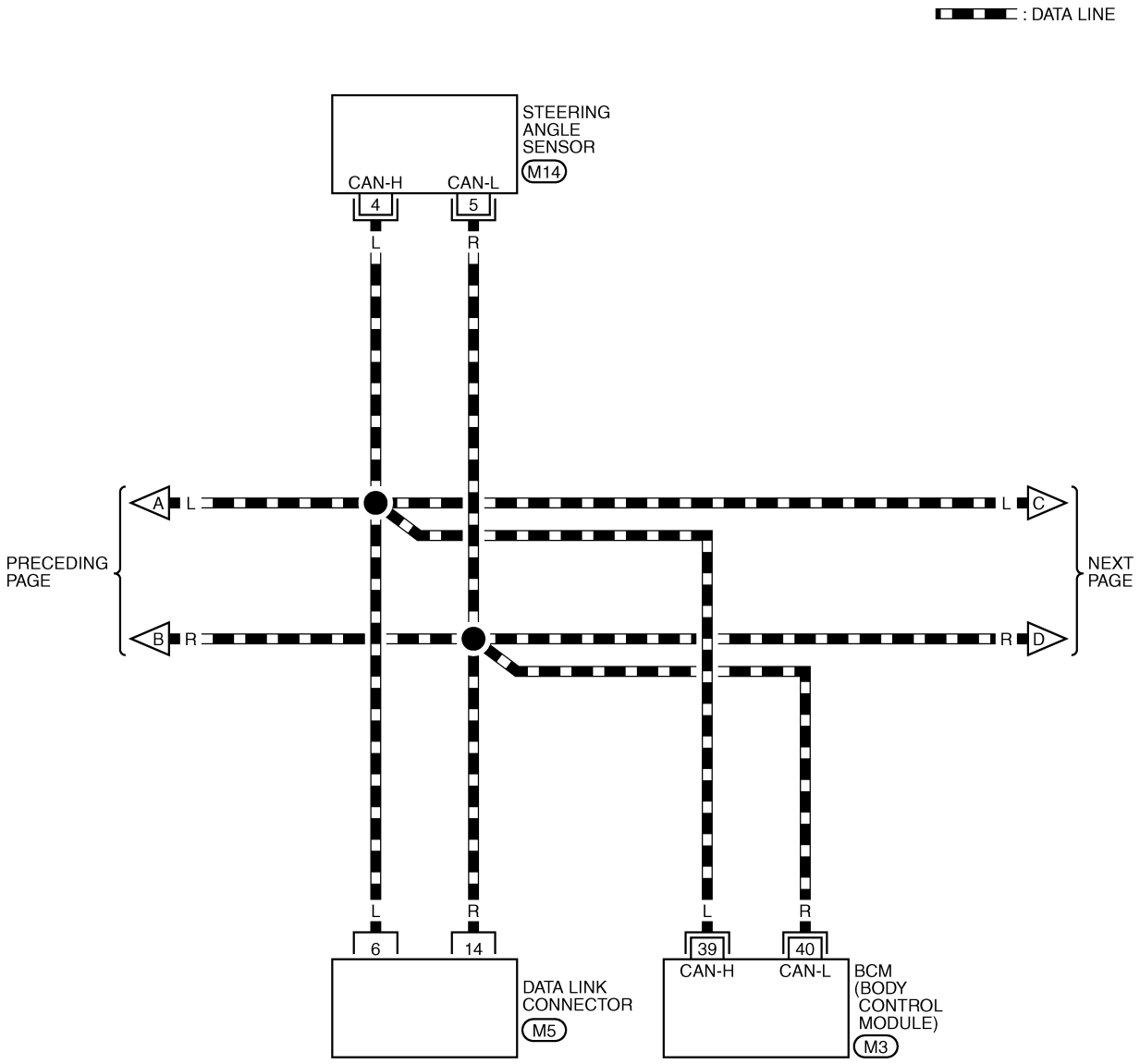


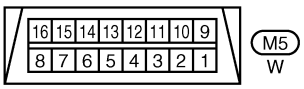
REFER TO THE FOLLOWING.
F102 -SUPER MULTIPLE JUNCTION (SMJ)
M90 -ELECTRICAL UNITS

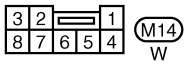
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TKWB2712E

LAN-CAN-26





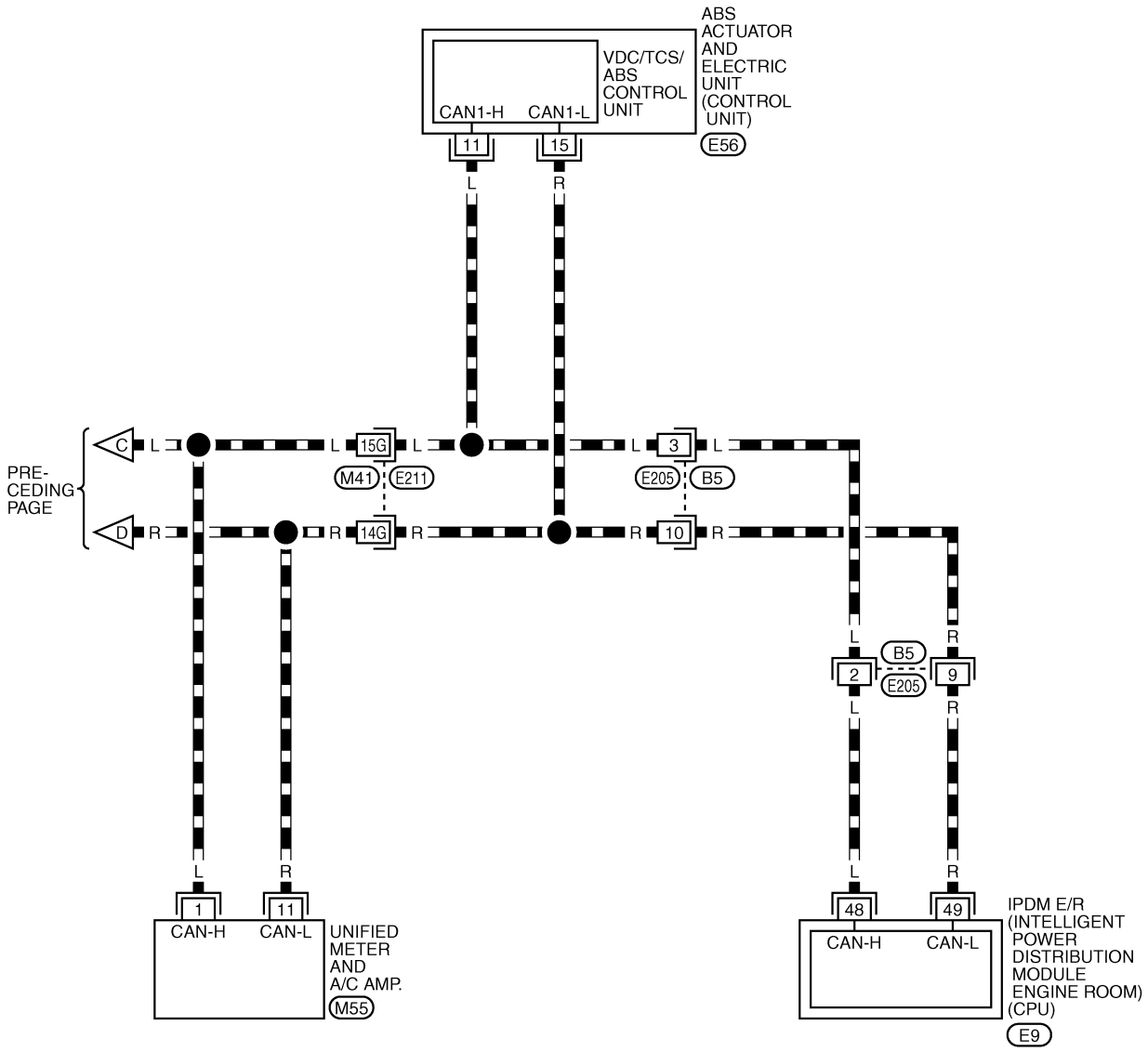


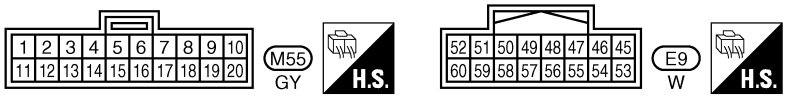
REFER TO THE FOLLOWING.
M3 -ELECTRICAL UNITS

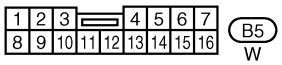
TKWB2713E

LAN-CAN-27

: DATA LINE







REFER TO THE FOLLOWING.

E211 -SUPER MULTIPLE JUNCTION (SMJ)

E56 -ELECTRICAL UNITS

TKWB2714E

Check Sheet

AKS00FDF

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	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

Symptoms :

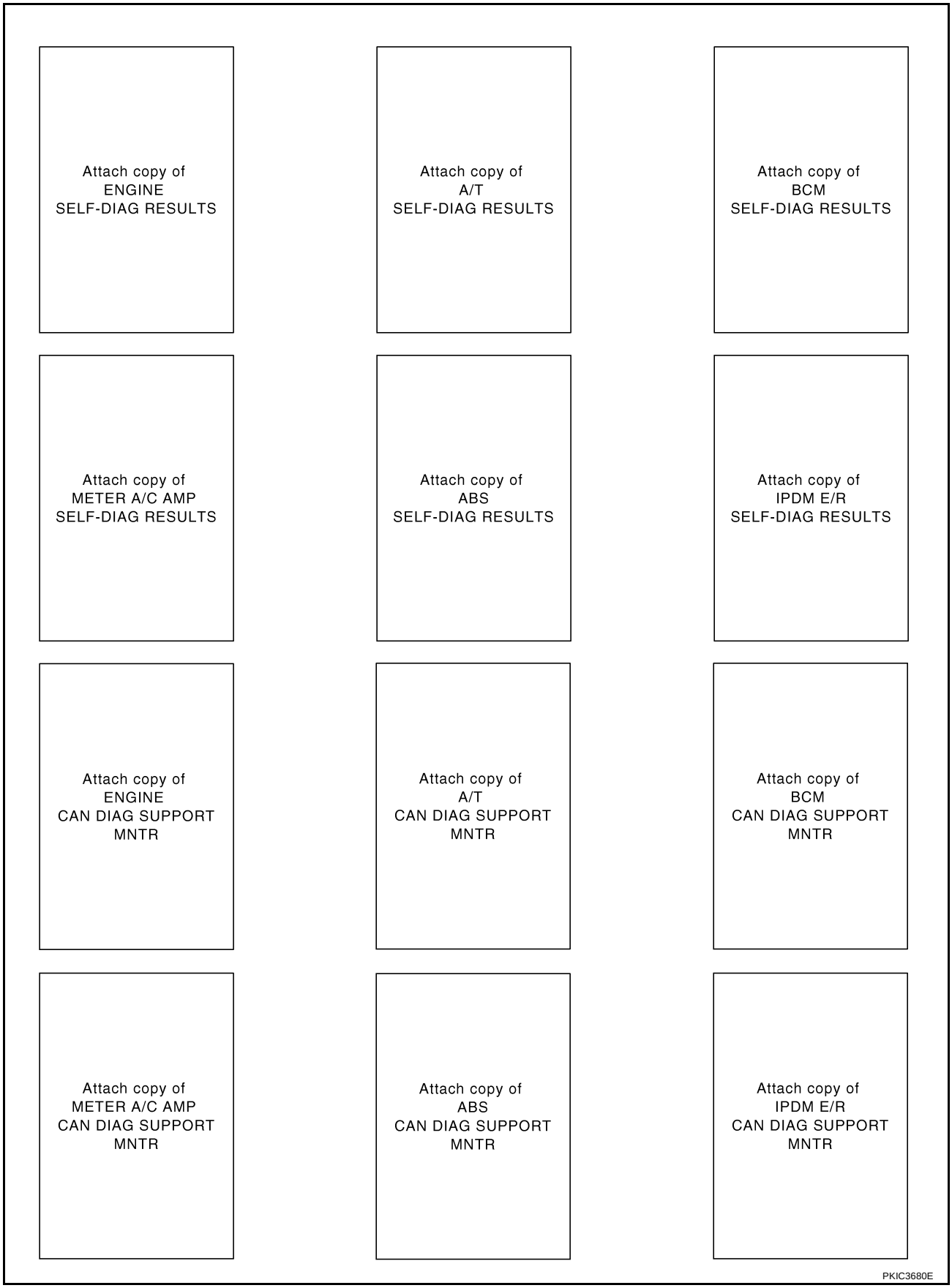
Attach copy of
SELECT SYSTEM

Attach copy of
SELECT SYSTEM

Display unit Translation Sheet: Rewrite the following names, and put a check mark on the check sheet table.			
Confirmation/Adjustment Display	Check sheet table Display	Confirmation/Adjustment Display	Check sheet table Display
CANCOMM	Initial diagnosis	CAN5	METER/M&A
CAN1	Transmit diagnosis	CAN6	—
CAN2	BCM/SEC	CAN7	IPDM E/R
CAN3	ECM	CAN8	—
CAN4	—	CAN9	—

Attach copy of
display unit
CAN DIAG MONITOR check sheet

PKIC3682E


Attach copy of
ENGINE
SELF-DIAG RESULTS
Attach copy of
A/T
SELF-DIAG RESULTS
Attach copy of
BCM
SELF-DIAG RESULTS
Attach copy of
METER A/C AMP
SELF-DIAG RESULTS
Attach copy of
ABS
SELF-DIAG RESULTS
Attach copy of
IPDM E/R
SELF-DIAG RESULTS
Attach copy of
ENGINE
CAN DIAG SUPPORT
MNTR
Attach copy of
A/T
CAN DIAG SUPPORT
MNTR
Attach copy of
BCM
CAN DIAG SUPPORT
MNTR
Attach copy of
METER A/C AMP
CAN DIAG SUPPORT
MNTR
Attach copy of
ABS
CAN DIAG SUPPORT
MNTR
Attach copy of
IPDM E/R
CAN DIAG SUPPORT
MNTR
PKIC3680E

CHECK SHEET RESULTS (EXAMPLE)

NOTE:

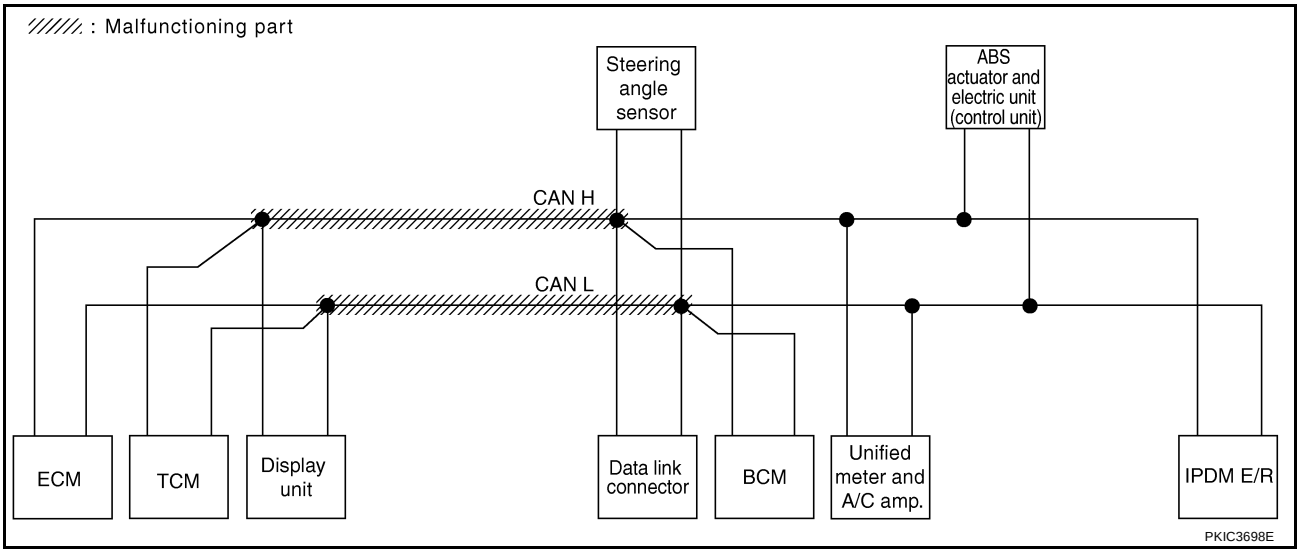
If a check mark is put on “NG” on “INITIAL DIAG (Initial diagnosis)”, replace the control unit.

Case 1

Check harness between TCM and data link connector. Refer to LAN-421, "Inspection Between TCM and Data Link Connector Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN ✓	—	UNKWN ✓	UNKWN ✓	UNKWN ✓	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN ✓	—	UNKWN ✓	—	UNKWN ✓	—	—
BCM	No indication	NG	UNKWN	UNKWN ✓	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000) ✓	—
METER A/C AMP	No indication	—	UNKWN	UNKWN ✓	UNKWN ✓	UNKWN ✓	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN ✓	UNKWN ✓	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN ✓	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIC3683E

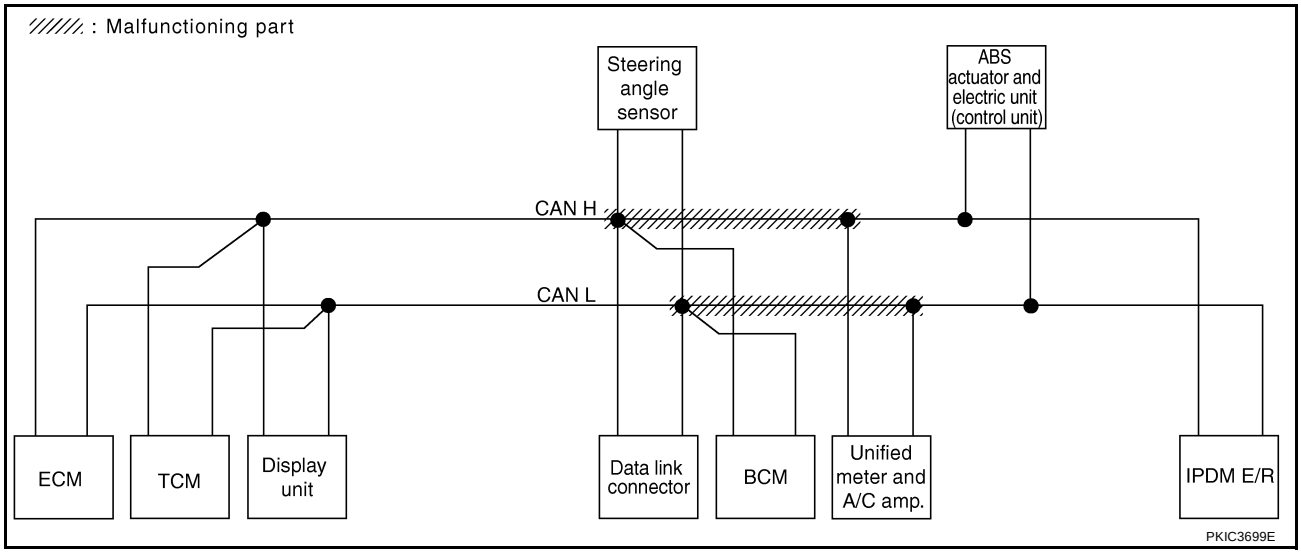


Case 2

Check harness between data link connector and unified meter and A/C amp. Refer to LAN-422, "Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN ✓	UNKWN ✓	UNKWN ✓	CAN COMM CIRCUIT (U1000) ✓	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN ✓	—	UNKWN ✓	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	—	UNKWN ✓	CAN COMM CIRCUIT (U1000) ✓	—
METER A/C AMP	No indication ✓	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN ✓	UNKWN ✓	—	—	UNKWN ✓	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication ✓	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIC3684E

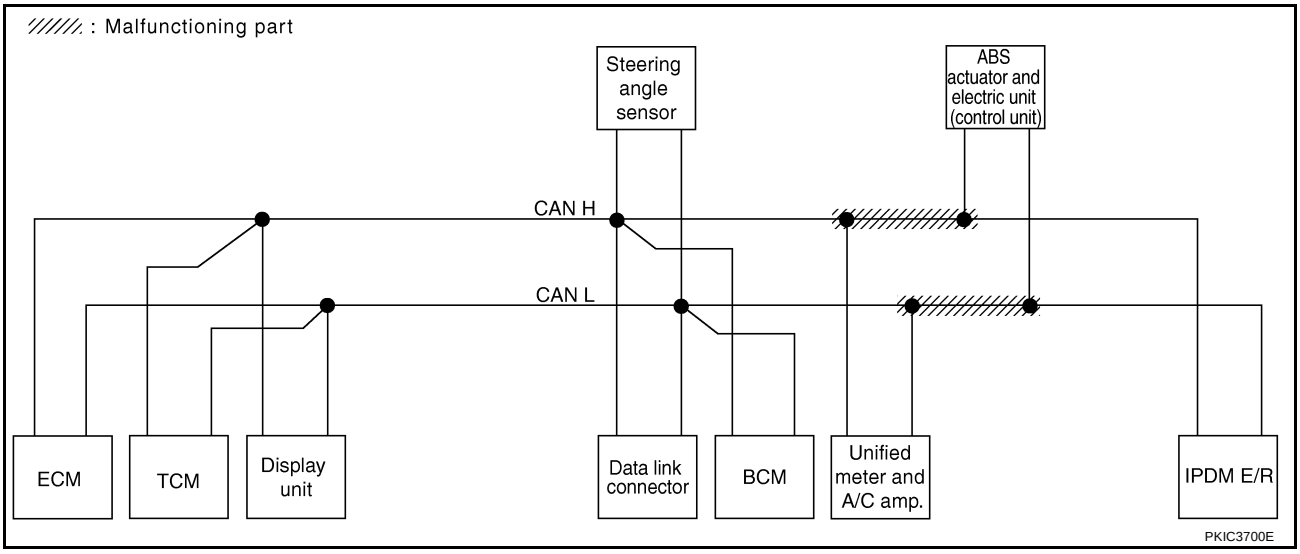


Case 3

Check harness between unified meter and A/C amp. and ABS actuator and electric unit (control unit). Refer to LAN-422, "Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3685E



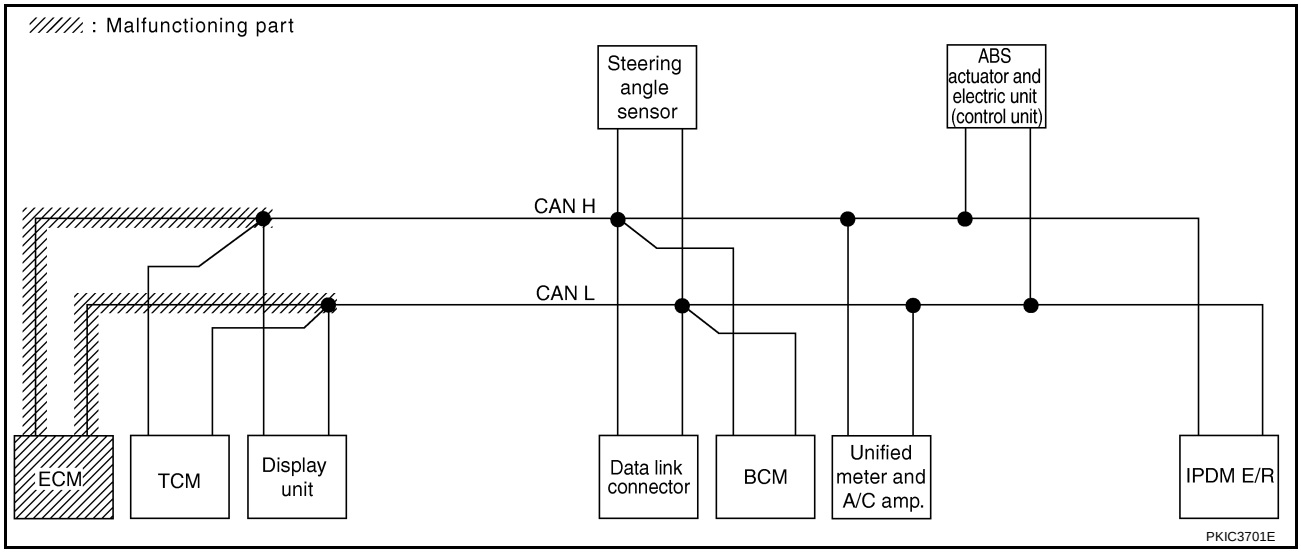
PKIC3700E

Case 4

Check ECM circuit. Refer to LAN-423, "ECM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3686E



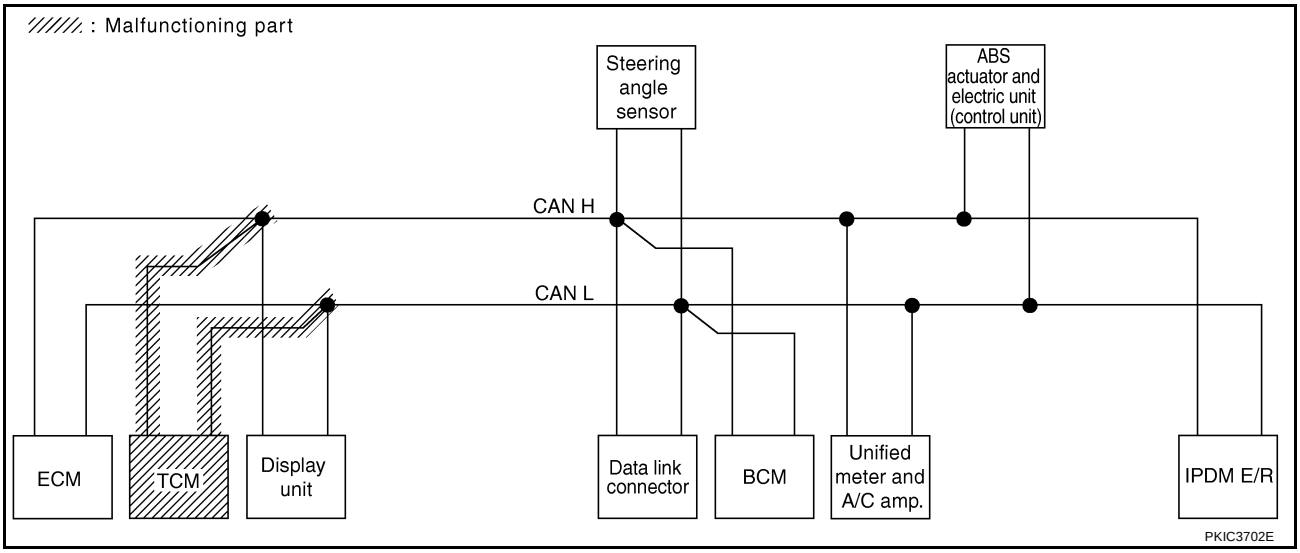
PKIC3701E

Case 5

Check TCM circuit. Refer to LAN-423, "TCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3687E

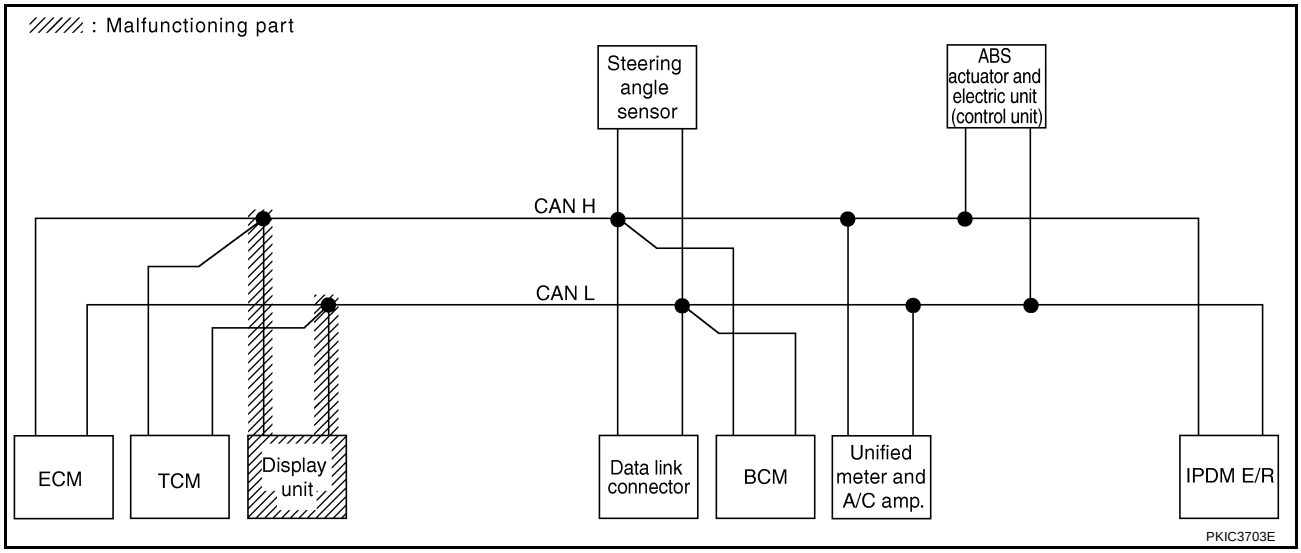


Case 6

Check display unit circuit. Refer to LAN-424, "Display Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN ✓	UNKWN ✓	—	—	UNKWN ✓	—	UNKWN ✓	—	UNKWN ✓	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3688E

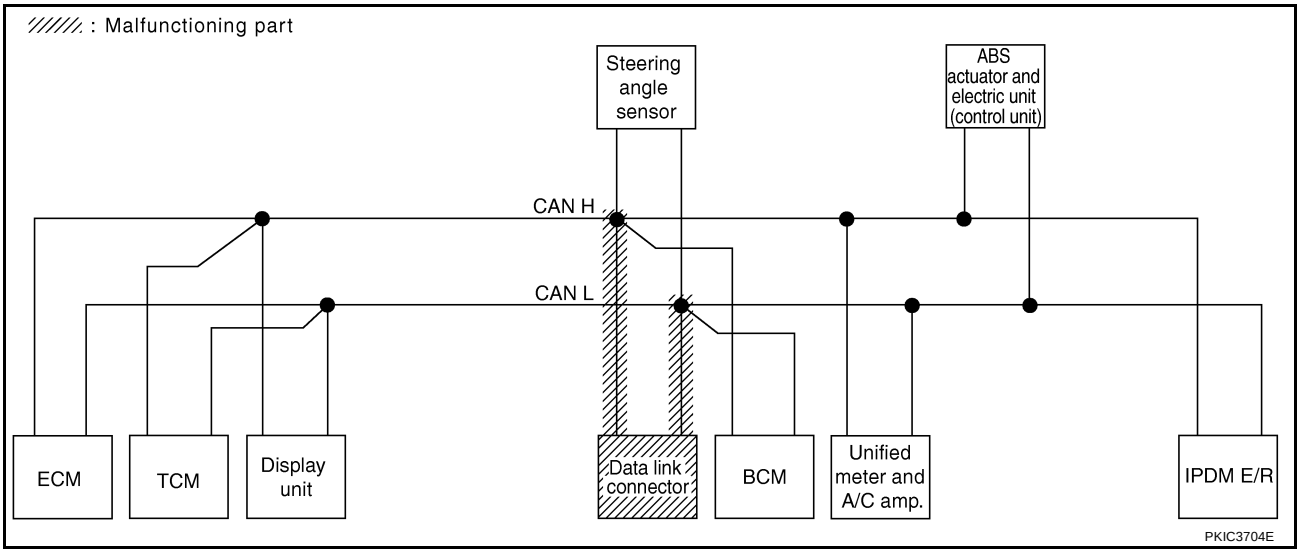


Case 7

Check data link connector circuit. Refer to LAN-424, "Data Link Connector Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3689E



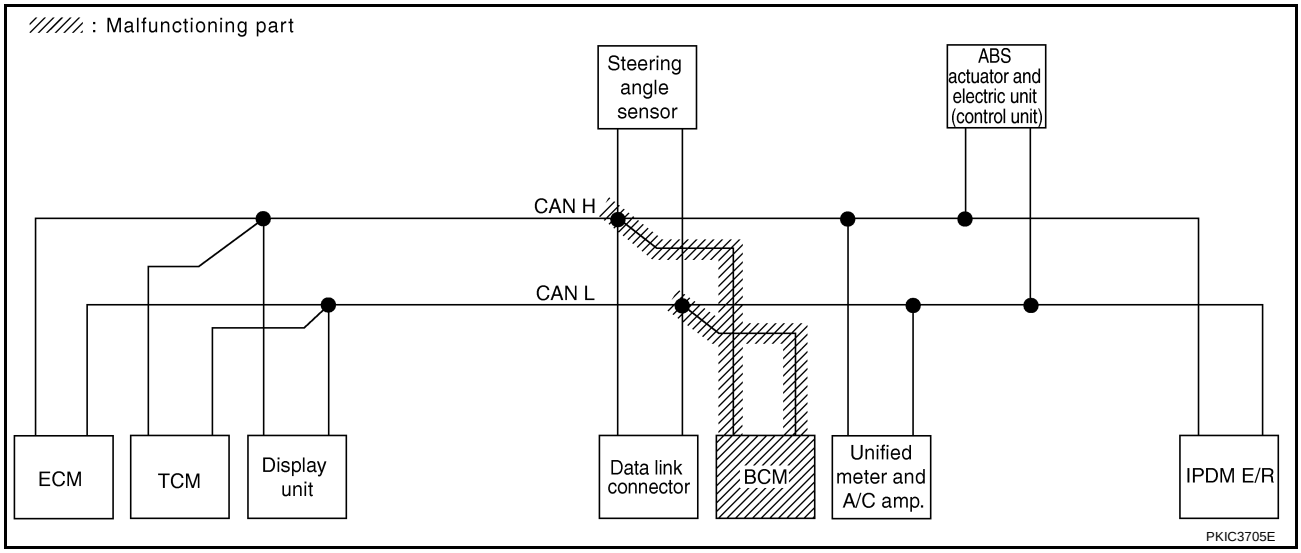
PKIC3704E

Case 8

Check BCM circuit. Refer to LAN-425, "BCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3690E

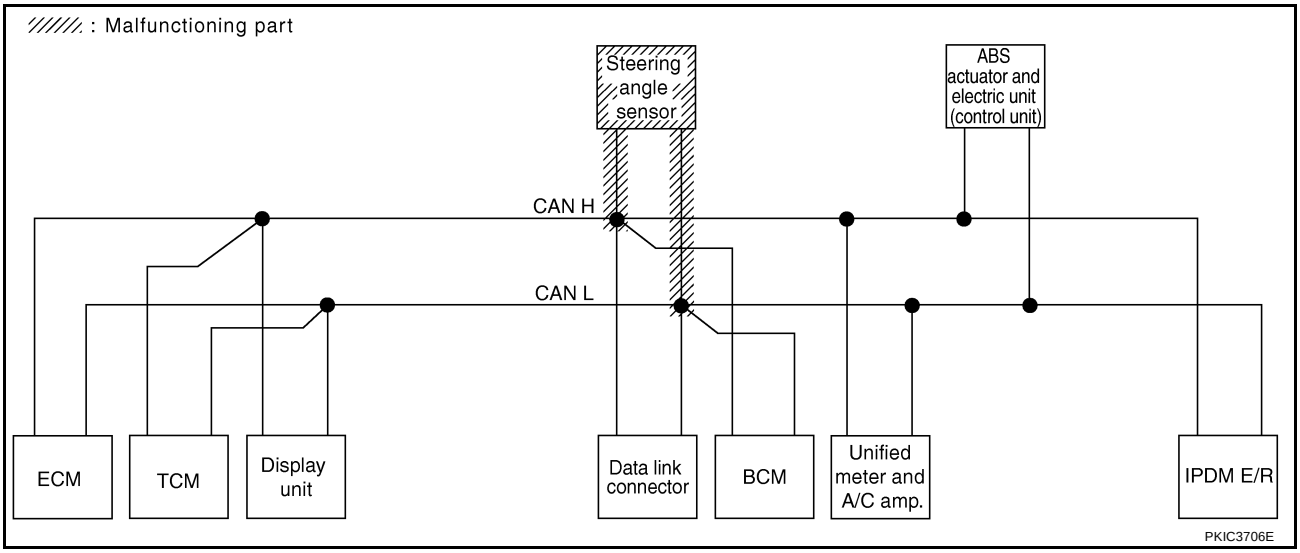


Case 9

Check steering angle sensor circuit. Refer to LAN-425, "Steering Angle Sensor Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN ✓	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3691E



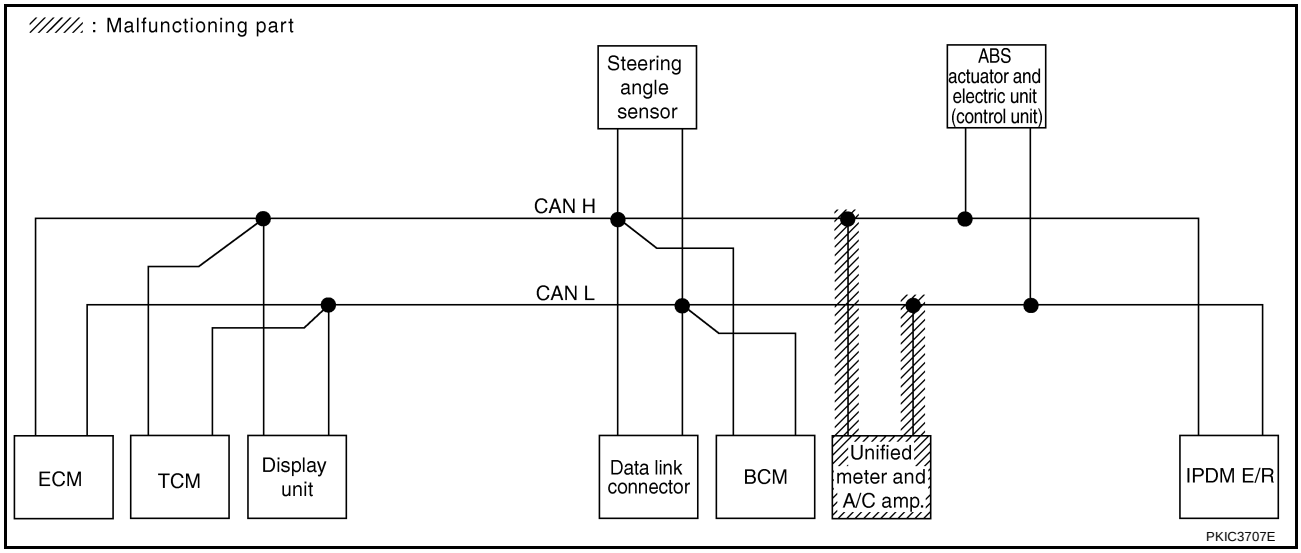
PKIC3706E

Case 10

Check unified meter and A/C amp. circuit. Refer to LAN-426, "Unified Meter and A/C Amp. Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN ✓	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN ✓	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication ✓	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3692E

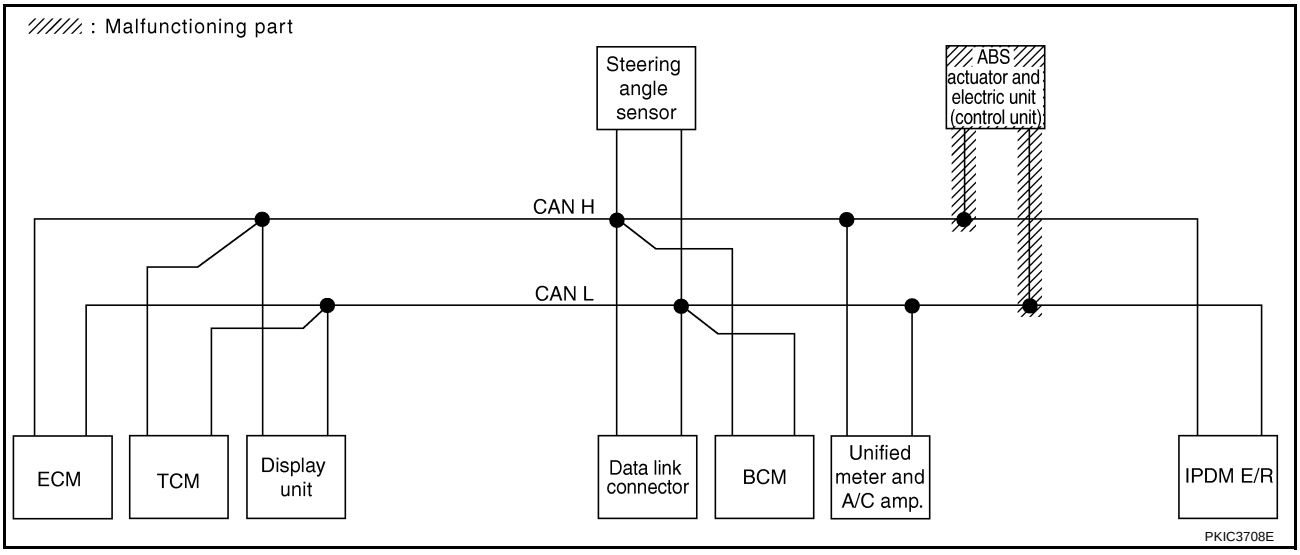


Case 11

Check ABS actuator and electric unit (control unit) circuit. Refer to LAN-426, "ABS Actuator and Electric Unit (Control Unit) Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN ✓	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG ✓	UNKWN ✓	UNKWN ✓	UNKWN ✓	—	—	UNKWN ✓	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3693E

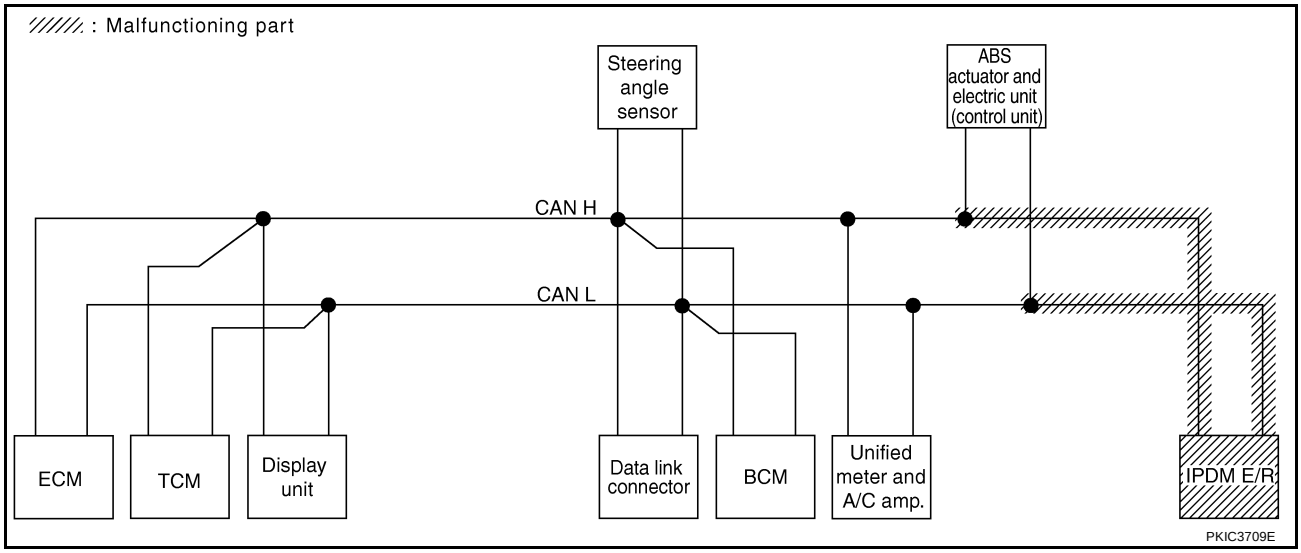


Case 12

Check IPDM E/R circuit. Refer to LAN-427, "IPDM E/R Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3694E



Case 13

Check CAN communication circuit. Refer to LAN-428, "CAN Communication Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3695E

Case 14

Check IPDM E/R ignition relay circuit continuously sticks “OFF”. Refer to LAN-433, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN ✓	—	UNKWN	—	UNKWN	UNKWN ✓	UNKWN	CAN COMM CIRCUIT (U1000) ✓	CAN COMM CIRCUIT (U1001) ✓
A/T	—	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	—	—	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3696E

Case 15

Check IPDM E/R ignition relay circuit continuously sticks “ON”. Refer to LAN-433, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR										SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis									
				ECM	TCM	DISPLAY	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	—	—	—	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	—	UNKWN	—	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3697E

Inspection Between TCM and Data Link Connector Circuit

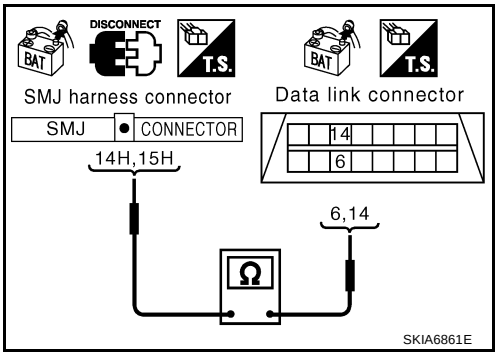
AKS00FDG

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and harness connector M82.
4. Check continuity between harness connector M82 terminals 14H (L), 15H (R) and data link connector M5 terminals 6 (L), 14 (R).

14H (L) - 6 (L) : Continuity should exist.

15H (R) - 14 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness.

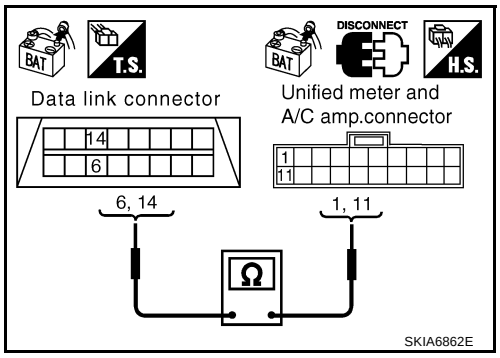
Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit

AKS00FDH

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and unified meter and A/C amp. connector.
4. Check continuity between data link connector M5 terminals 6 (L), 14 (R) and unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R).

6 (L) - 1 (L) : Continuity should exist.
14 (R) - 11 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit

AKS00FDI

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 M41
- Harness connector E211

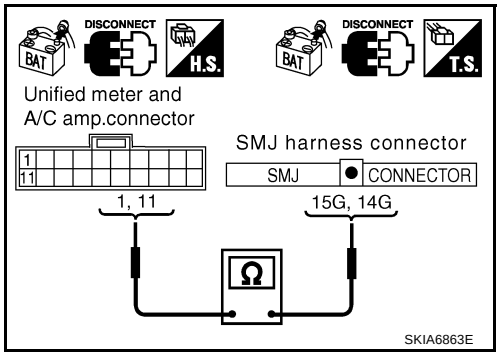
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector and harness connector M41.
2. Check continuity between unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R) and harness connector M41 terminals 15G (L), 14G (R).

1 (L) - 15G (L) : Continuity should exist.
11 (R) - 14G (R) : Continuity should exist.



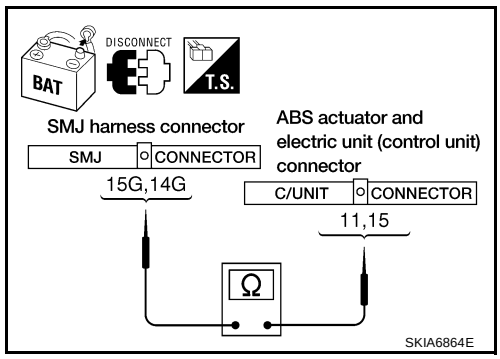
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check continuity between harness connector E211 terminals 15G (L), 14G (R) and ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R).

15G (L) - 11 (L) : Continuity should exist.
14G (R) - 15 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

ECM Circuit Inspection

AKS00FDJ

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.

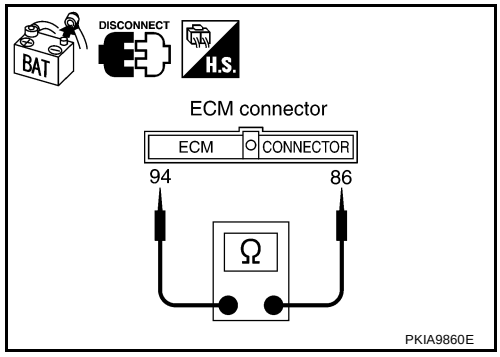
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ECM connector.
2. Check resistance between ECM harness connector M90 terminals 94 (L) and 86 (R).

94 (L) - 86 (R) : Approx. 108 - 132Ω

OK or NG

OK >> Replace ECM.
NG >> Repair harness between ECM and harness connector M82.



TCM Circuit Inspection

AKS00FDK

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 (control module side and harness side).

- A/T assembly connector
- Harness connector F102
- Harness connector M82

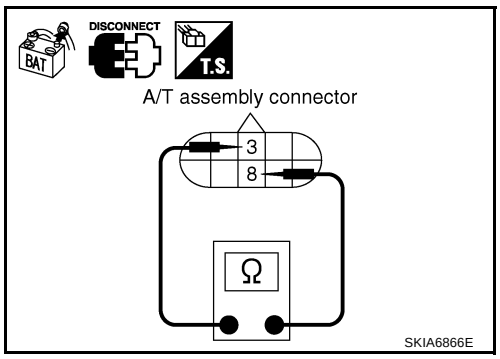
OK or NG

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 F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Approx. 54 - 66Ω



OK or NG

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

Display Unit Circuit Inspection

AKS00FDL

1. CHECK CONNECTOR

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

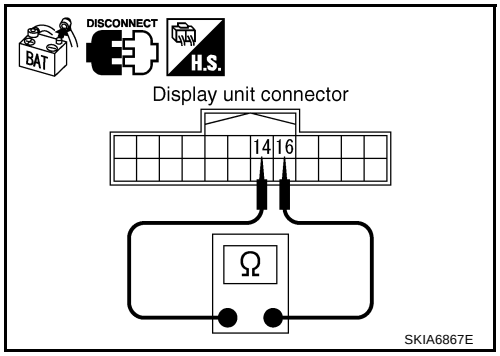
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect display unit connector.
2. Check resistance between display unit harness connector M62 terminals 14 (L) and 16 (R).

14 (L) - 16 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace display unit.
NG >> Repair harness between display unit and harness connector M82.

Data Link Connector Circuit Inspection

AKS00FDM

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check data link connector and terminals 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

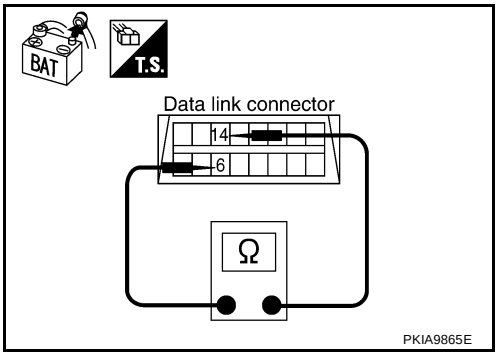
Check resistance between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness between data link connector and BCM.



BCM Circuit Inspection

AKS00FDN

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of BCM 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

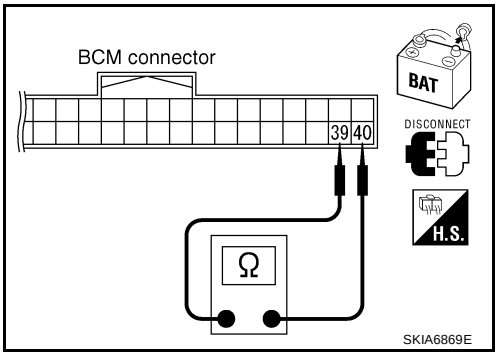
1. Disconnect BCM connector.
2. Check resistance between BCM harness connector M3 terminals 39 (L) and 40 (R).

39 (L) - 40 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace BCM. Refer to BCS-16, "Removal and Installation of BCM" .

NG >> Repair harness between BCM and data link connector.



Steering Angle Sensor Circuit Inspection

AKS00FDO

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

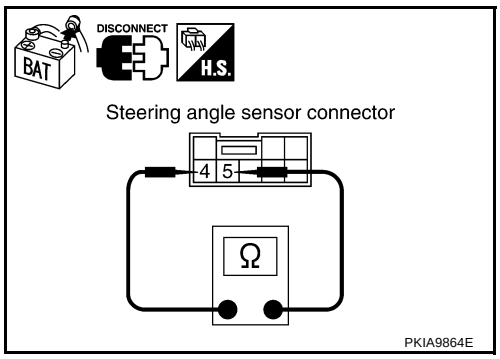
OK >> GO TO 2.

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 M14 terminals 4 (L) and 5 (R).

4 (L) - 5 (R) : Approx. 54 - 66Ω



OK or NG

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

Unified Meter and A/C Amp. Circuit Inspection

AKS00FDP

1. CHECK CONNECTOR

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

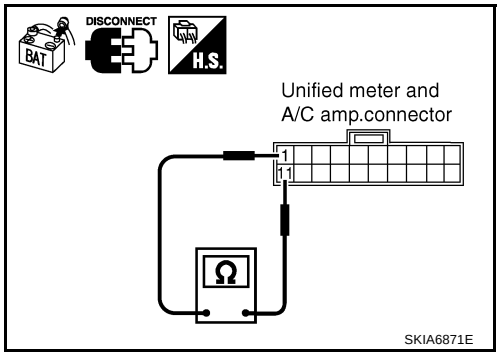
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector.
2. Check resistance between unified meter and A/C amp. harness connector M55 terminals 1 (L) and 11 (R).

1 (L) - 11 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace unified meter and A/C amp.
NG >> Repair harness between unified meter and A/C amp. and harness connector M41.

ABS Actuator and Electric Unit (Control Unit) Circuit Inspection

AKS00FDQ

1. CHECK CONNECTOR

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check terminals and connector of ABS actuator and electric unit (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.

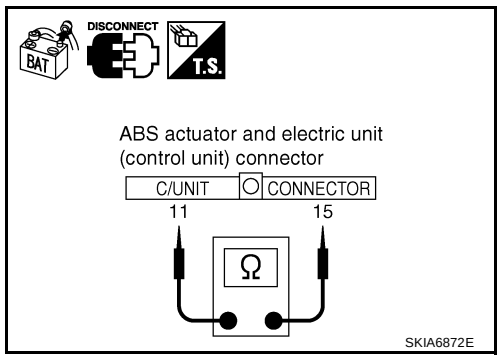
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check resistance between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace ABS actuator and electric unit (control unit).
NG >> Repair harness between ABS actuator and electric unit (control unit) and harness connector E205.



IPDM E/R Circuit Inspection

AKS00FDR

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 (control module side and harness side).

- IPDM E/R connector
- Harness connector E205
- Harness connector B5

OK or NG

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

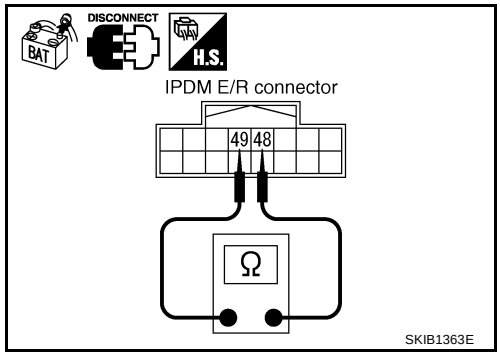
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check resistance between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Approx. 108 - 132Ω

OK or NG

OK >> Replace IPDM E/R.
NG >> Repair harness between IPDM E/R and ABS actuator and electric unit (control unit).



CAN Communication Circuit Inspection

AKS00FDS

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 (control module side, control unit side, unit side, sensor side, meter side and harness side).

- ECM
- A/T assembly
- Display unit
- BCM
- Steering angle sensor
- Unified meter and A/C amp.
- ABS actuator and electric unit (control unit)
- IPDM E/R
- Between ECM and IPDM E/R
- Between ECM and A/T assembly

OK or NG

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

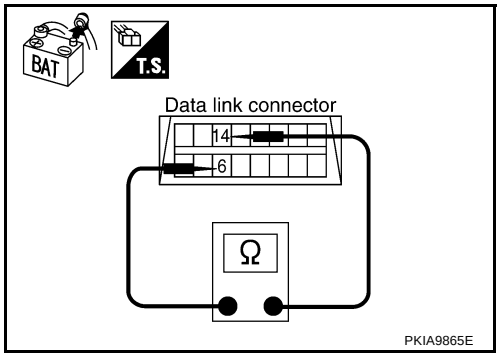
2. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect following connectors.

- ECM connector
- Harness connector M82
- Display unit connector
- BCM connector
- Steering angle sensor connector
- Unified meter and A/C amp. connector
- Harness connector M41

2. Check continuity between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R) : Continuity should not exist.



OK or NG

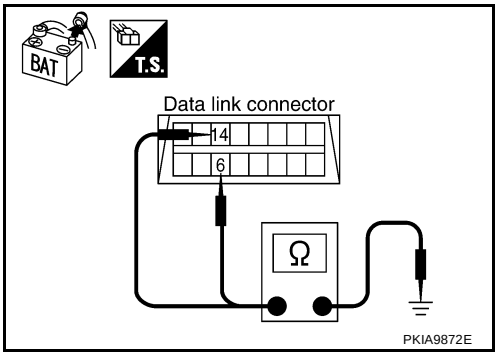
OK >> GO TO 3.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

3. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between data link connector M5 terminals 6 (L), 14 (R) and ground.

6 (L) - Ground : Continuity should not exist.
14 (R) - Ground : Continuity should not exist.



OK or NG

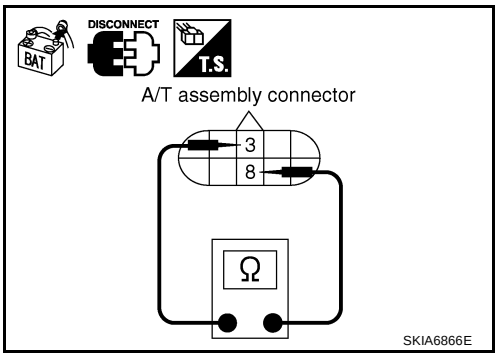
OK >> GO TO 4.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

4. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect A/T assembly connector.
2. Check continuity between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Continuity should not exist.



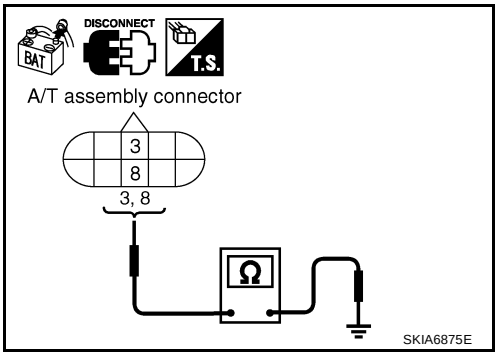
OK or NG

OK >> GO TO 5.
NG >> Repair harness between A/T assembly and harness connector F102.

5. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between A/T assembly harness connector F44 terminals 3 (L), 8 (R) and ground.

3 (L) - Ground : Continuity should not exist.
8 (R) - Ground : Continuity should not exist.



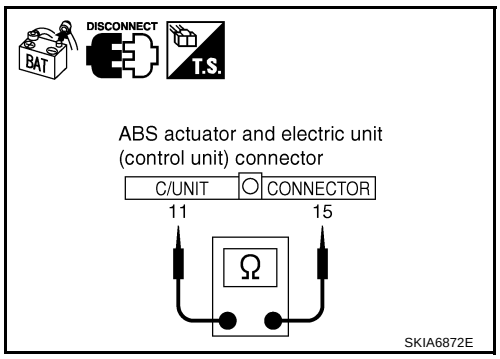
OK or NG

OK >> GO TO 6.
NG >> Repair harness between A/T assembly and harness connector F102.

6. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Continuity should not exist.



OK or NG

OK >> GO TO 7.

NG >> Check the following harnesses. If any harness is damaged, repair the harness.

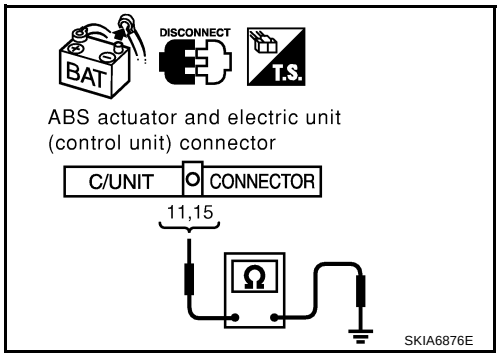
- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and harness connector E205

7. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and ground.

11 (L) - Ground : Continuity should not exist.

15 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 8.

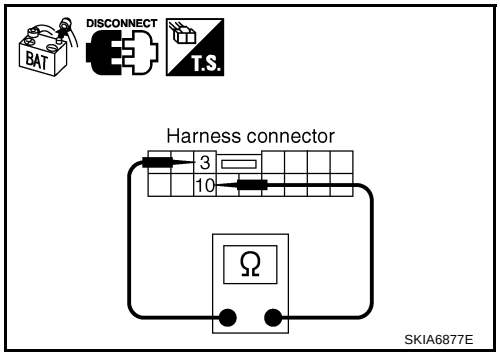
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and harness connector E205

8. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between harness connector B5 terminals 3 (L) and 10 (R).

3 (L) - 10 (R) : Continuity should not exist.



OK or NG

OK >> GO TO 9.

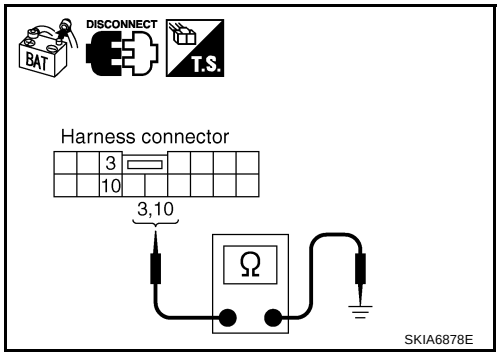
NG >> Repair harness between harness connector B5 and harness connector B5.

9. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between harness connector B5 terminals 3 (L), 10 (R) and ground.

3 (L) - Ground : Continuity should not exist.

10 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 10.

NG >> Repair harness between harness connector B5 and harness connector B5.

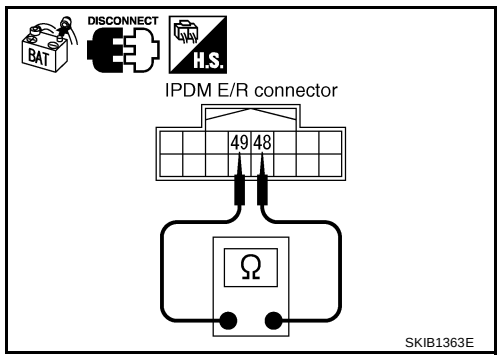
10. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check continuity between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 11.
NG >> Repair harness between IPDM E/R and harness connector E205.



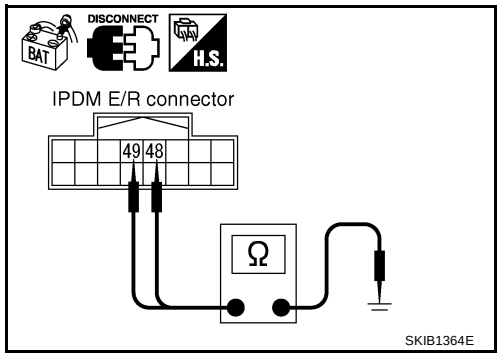
11. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between IPDM E/R harness connector E9 terminals 48 (L), 49 (R) and ground.

48 (L) - Ground : Continuity should not exist.
49 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 12.
NG >> Repair harness between IPDM E/R and harness connector E205.



12. CHECK ECM AND IPDM E/R INTERNAL CIRCUIT

1. Remove ECM and IPDM E/R from vehicle.
2. Check resistance between ECM terminals 94 and 86.

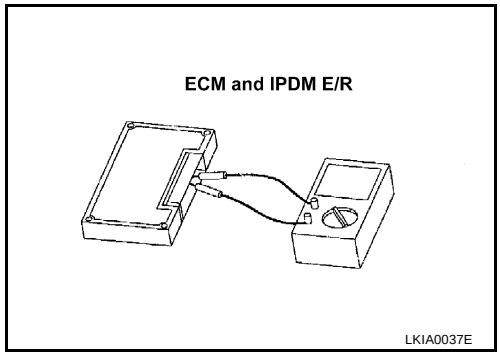
94 - 86 : Approx. 108 - 132Ω

3. Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132Ω

OK or NG

OK >> GO TO 13.
NG >> Replace ECM and/or IPDM E/R.



13. 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 14.
NG >> Refer to LAN-16, "Example of Filling in Check Sheet When Initial Conditions Are Not Reproduced"
.

14. CHECK UNIT REPRODUCIBILITY

Performs the following procedure for each unit, 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.

- A/T assembly
- Display unit
- BCM
- Steering angle sensor
- Unified meter and A/C amp.
- ABS actuator and electric unit (control unit)
- ECM
- IPDM E/R

Check results

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

IPDM E/R Ignition Relay Circuit Inspection

AKS00FDT

Check the following. If no malfunction is found, replace the IPDM E/R.

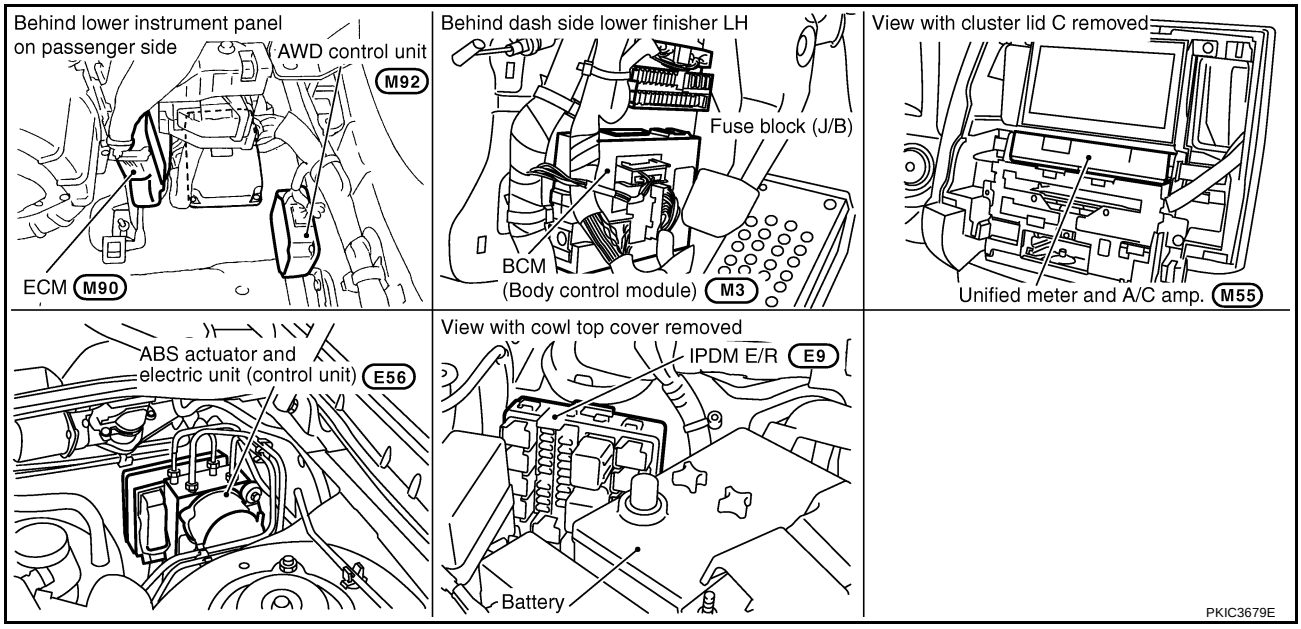
- IPDM E/R power supply circuit. Refer to PG-28, "IPDM E/R Power/Ground Circuit Inspection" .
- Ignition power supply circuit. Refer to PG-12, "IGNITION POWER SUPPLY - IGNITION SW. IN “ON” AND/OR “START”" .

CAN SYSTEM (TYPE 10)

PFP:23710

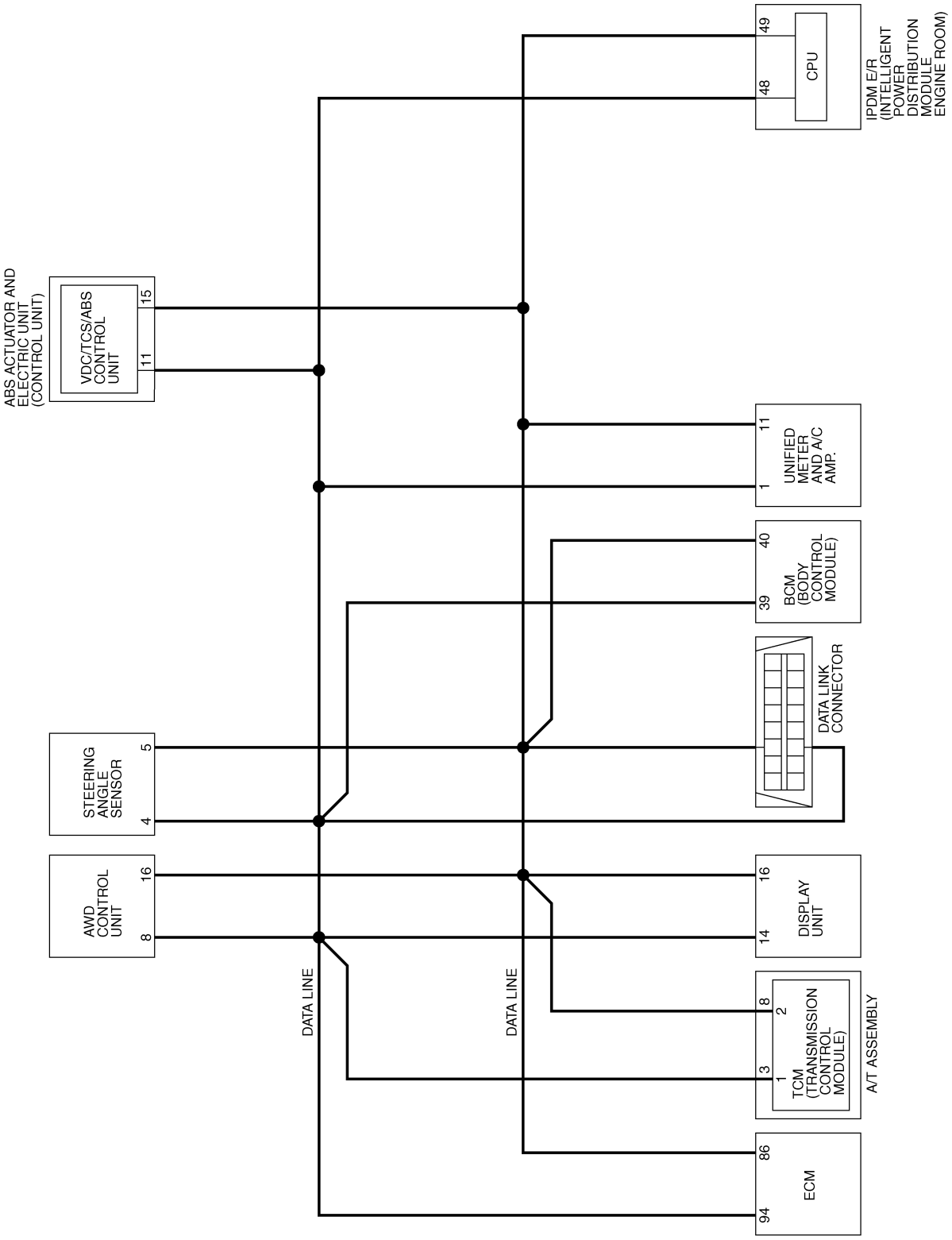
Component Parts and Harness Connector Location

AKS00FDU



Schematic

AKS00FDV

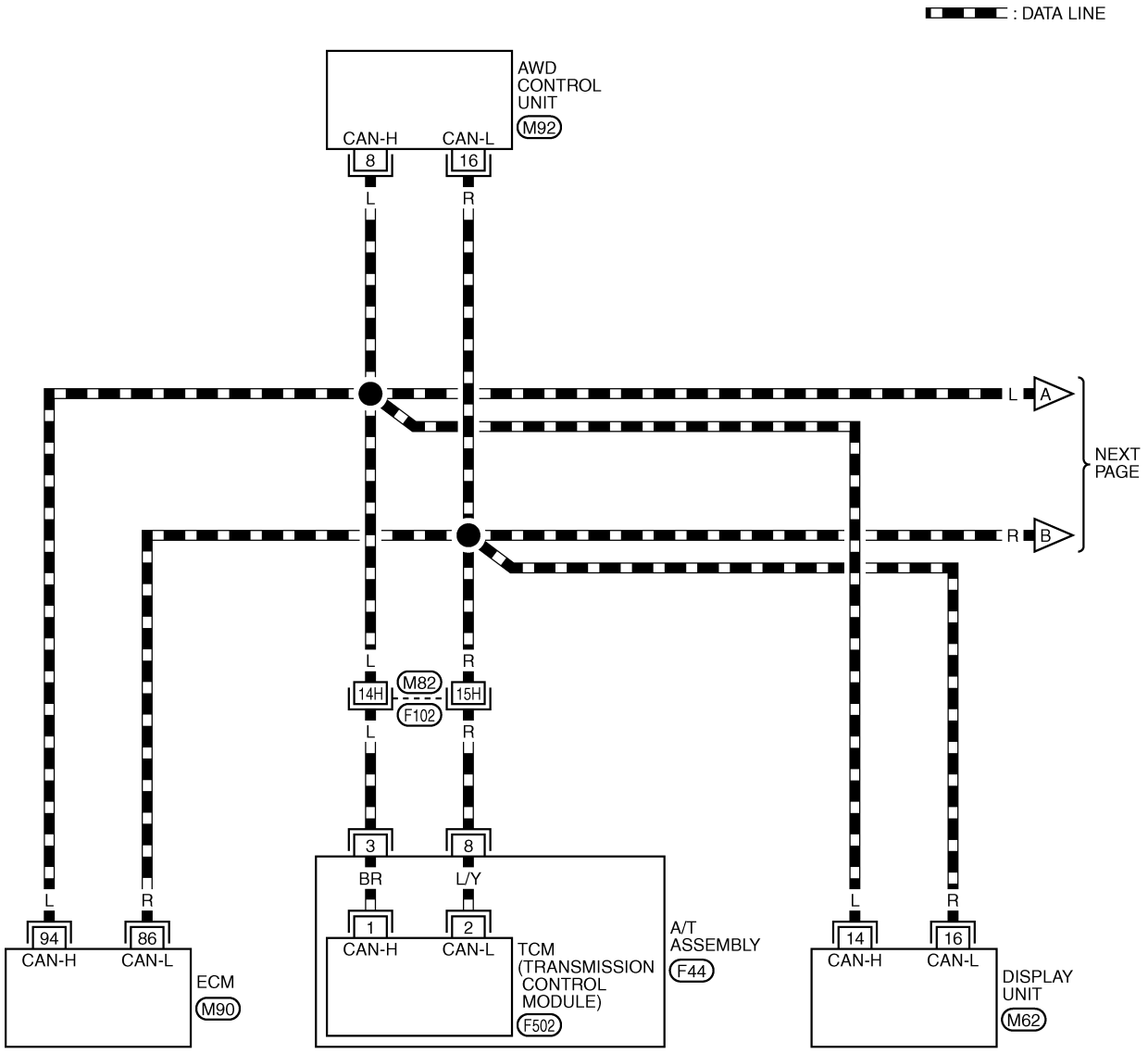


TKWB2715E

Wiring Diagram - CAN -

AKS00FDW

LAN-CAN-28



REFER TO THE FOLLOWING.

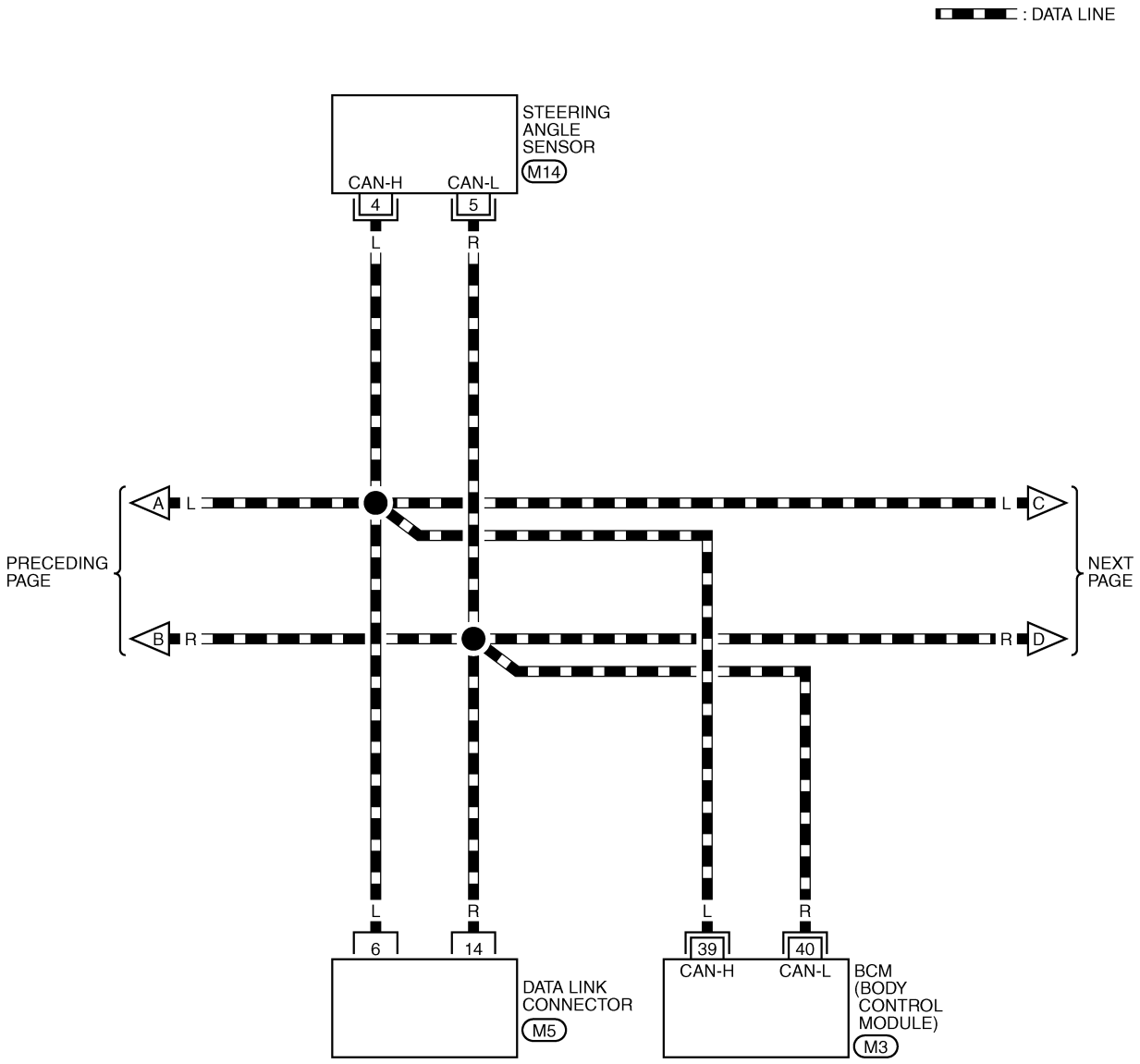
F102 -SUPER MULTIPLE JUNCTION (SMJ)

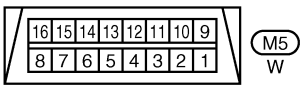
M90 -ELECTRICAL UNITS

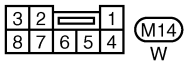
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TKWB2716E

LAN-CAN-29





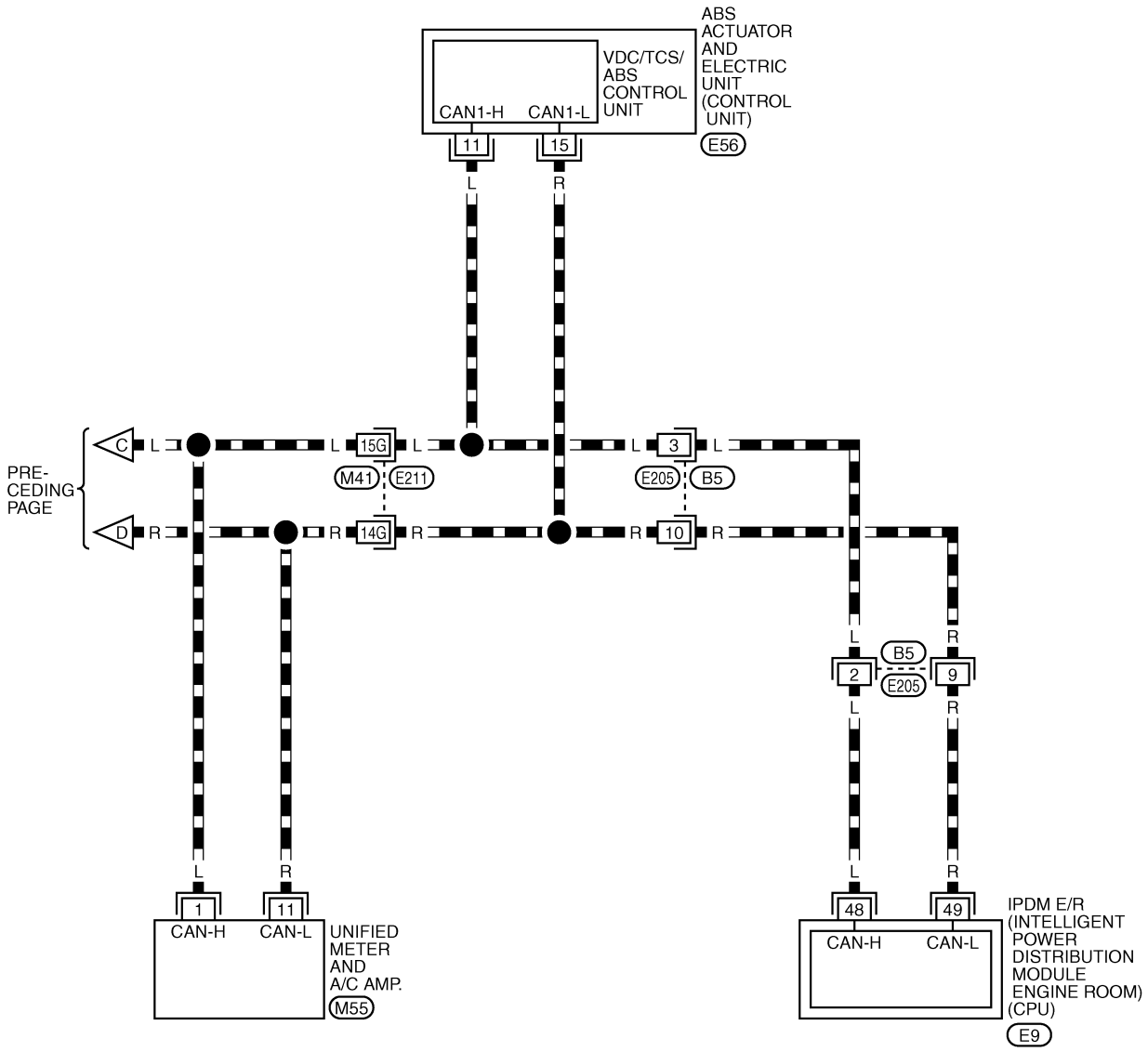


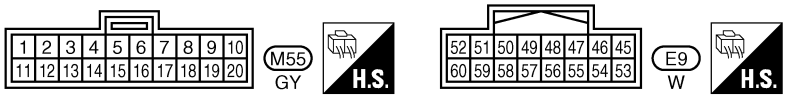
REFER TO THE FOLLOWING.
M3 -ELECTRICAL UNITS

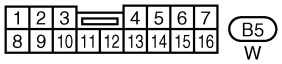
TKWB2717E

LAN-CAN-30

: DATA LINE







REFER TO THE FOLLOWING.

E211 -SUPER MULTIPLE JUNCTION (SMJ)

E56 -ELECTRICAL UNITS

TKWB2718E

Check Sheet

AKS00FDX

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	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

Symptoms :

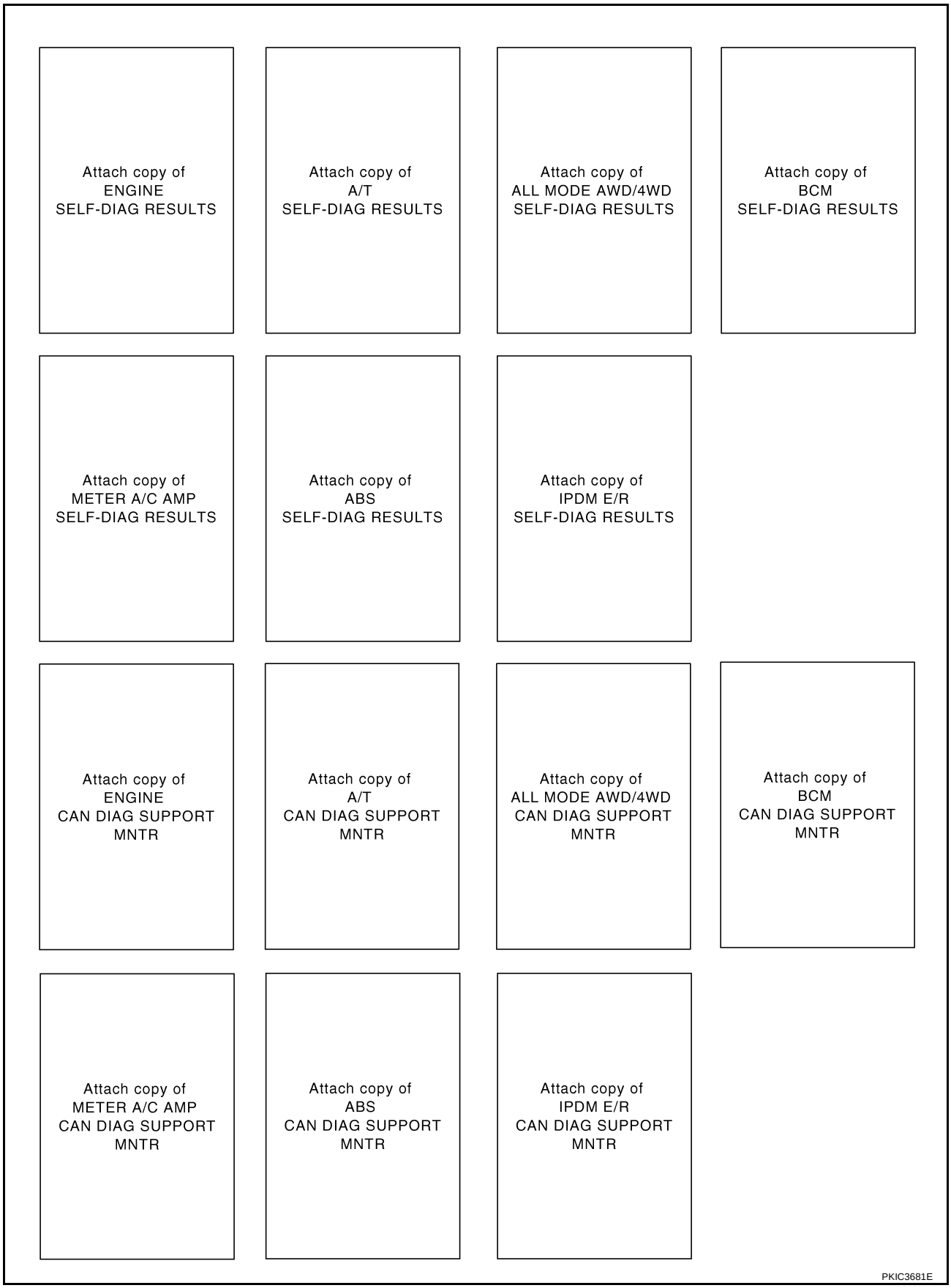
Attach copy of
SELECT SYSTEM

Attach copy of
SELECT SYSTEM

Display unit Translation Sheet: Rewrite the following names, and put a check mark on the check sheet table.			
Confirmation/Adjustment Display	Check sheet table Display	Confirmation/Adjustment Display	Check sheet table Display
CANCOMM	Initial diagnosis	CAN5	METER/M&A
CAN1	Transmit diagnosis	CAN6	—
CAN2	BCM/SEC	CAN7	IPDM E/R
CAN3	ECM	CAN8	—
CAN4	—	CAN9	—

Attach copy of
display unit
CAN DIAG MONITOR check sheet

PKIC3710E


Attach copy of
ENGINE
SELF-DIAG RESULTS
Attach copy of
A/T
SELF-DIAG RESULTS
Attach copy of
ALL MODE AWD/4WD
SELF-DIAG RESULTS
Attach copy of
BCM
SELF-DIAG RESULTS
Attach copy of
METER A/C AMP
SELF-DIAG RESULTS
Attach copy of
ABS
SELF-DIAG RESULTS
Attach copy of
IPDM E/R
SELF-DIAG RESULTS
Attach copy of
ENGINE
CAN DIAG SUPPORT
MNTR
Attach copy of
A/T
CAN DIAG SUPPORT
MNTR
Attach copy of
ALL MODE AWD/4WD
CAN DIAG SUPPORT
MNTR
Attach copy of
BCM
CAN DIAG SUPPORT
MNTR
Attach copy of
METER A/C AMP
CAN DIAG SUPPORT
MNTR
Attach copy of
ABS
CAN DIAG SUPPORT
MNTR
Attach copy of
IPDM E/R
CAN DIAG SUPPORT
MNTR
PKIC3681E

CHECK SHEET RESULTS (EXAMPLE)

NOTE:

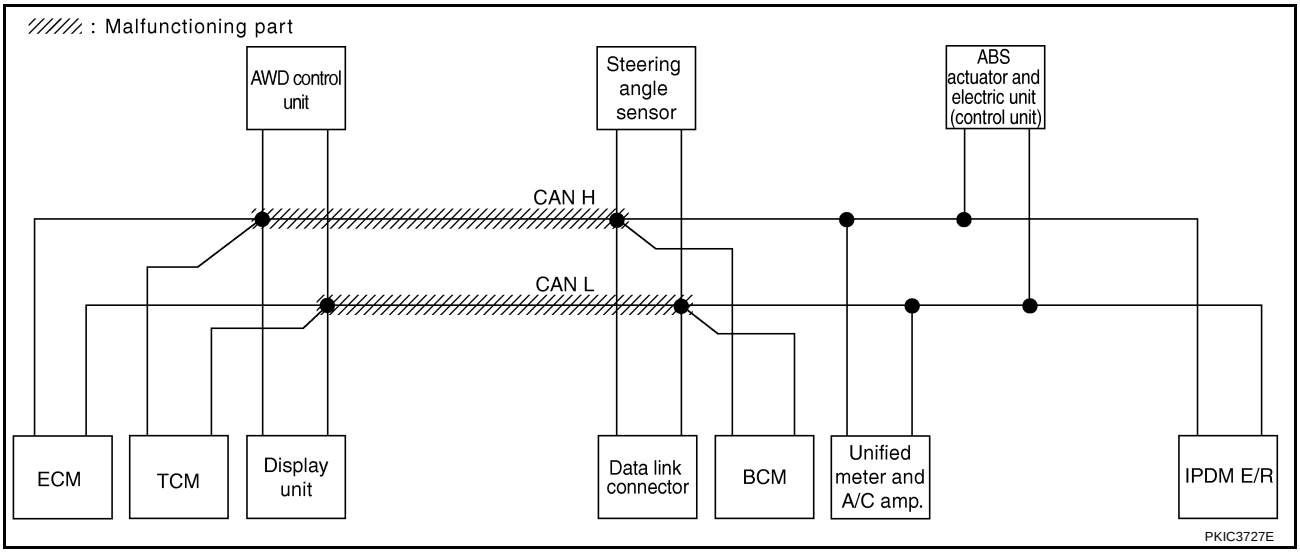
If a check mark is put on “NG” on “INITIAL DIAG (Initial diagnosis)”, replace the control unit.

Case 1

Check harness between TCM and data link connector. Refer to LAN-456, "Inspection Between TCM and Data Link Connector Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	✓	—	✓	✓	✓	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	—	✓	✓	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	✓	—	✓	—	✓	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	—	—	—
BCM	No indication	NG	UNKWN	✓	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	✓	✓	✓	✓	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	✓	✓	—	✓	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	✓	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3711E

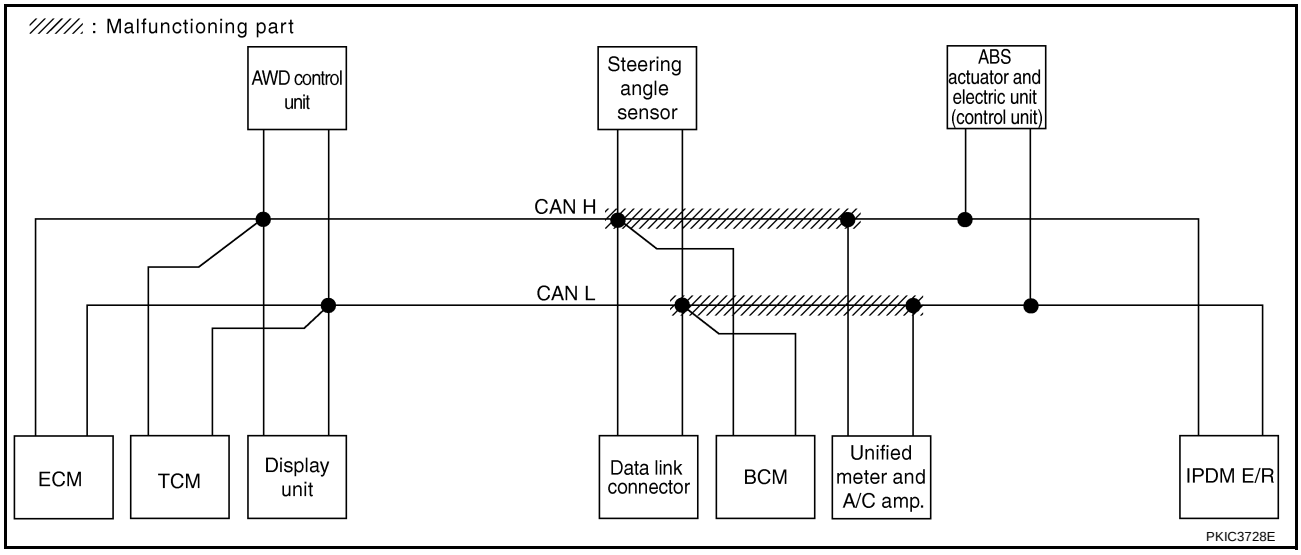


Case 2

Check harness between data link connector and unified meter and A/C amp. Refer to LAN-457, "Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	—	—	—	—	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3712E

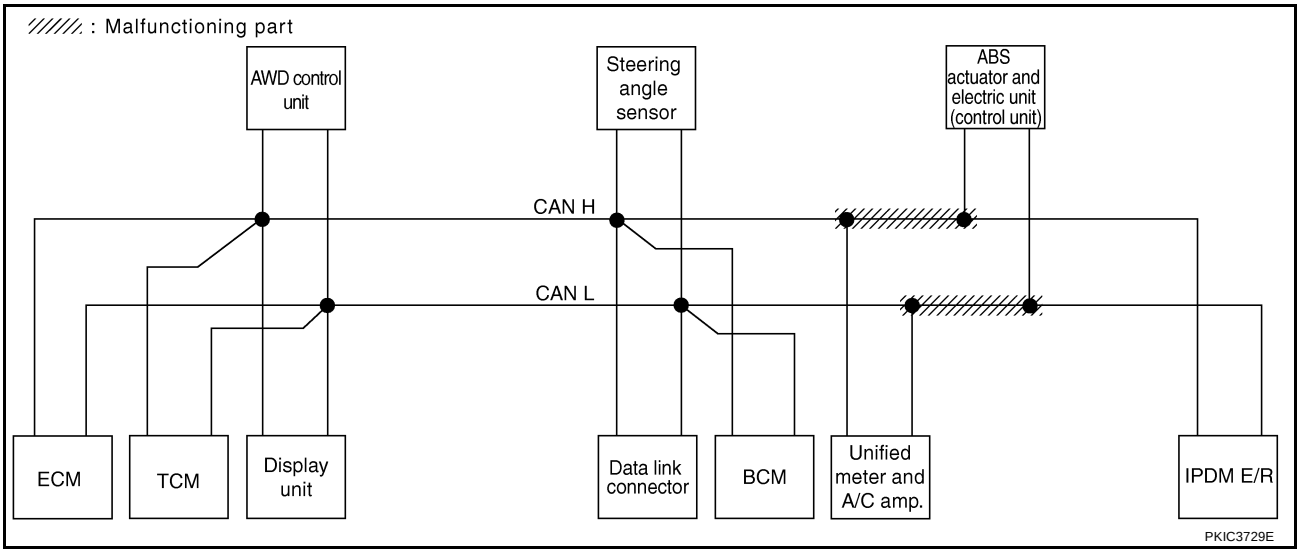


Case 3

Check harness between unified meter and A/C amp. and ABS actuator and electric unit (control unit). Refer to LAN-457, "Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	✓	✓	CAN COMM CIRCUIT (U1000)	✓ CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	UNKWN	—	—	UNKWN	—	—	UNKWN	✓	—	✓ CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	✓	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	✓	—	✓ CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	✓	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	✓	—	✓ CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	✓ UNKWN	✓ UNKWN	—	✓ UNKWN	—	✓ UNKWN	—	—	—	✓ CAN COMM CIRCUIT (U1000)	—
IPDM E/R	✓ No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	✓ CAN COMM CIRCUIT (U1000)	—

PKIC3713E

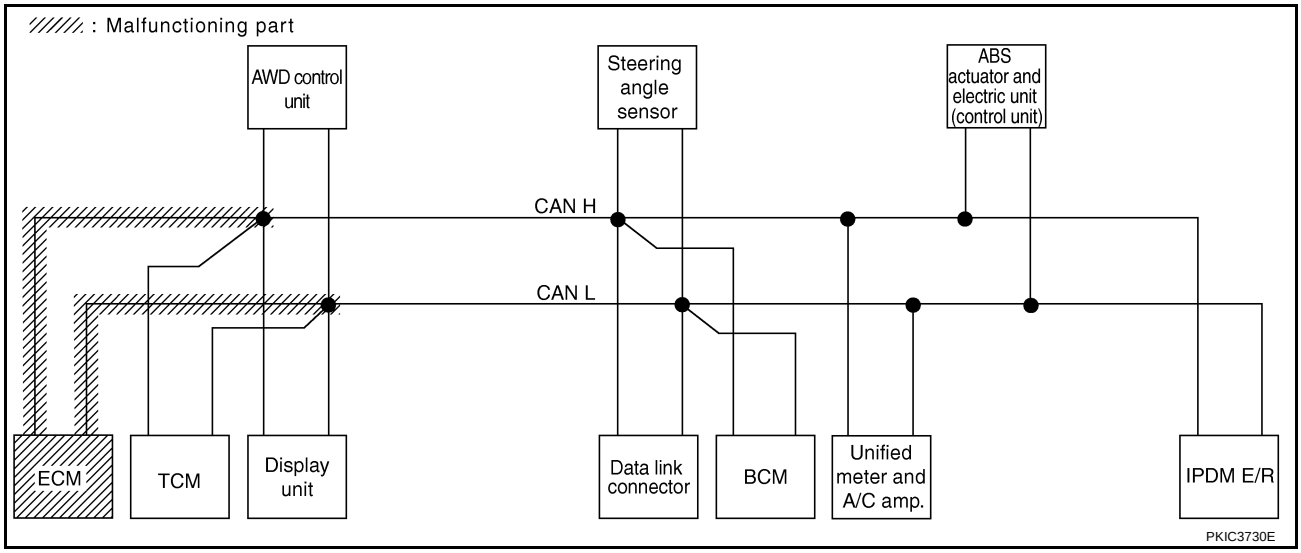


Case 4

Check ECM circuit. Refer to LAN-458, "ECM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3714E



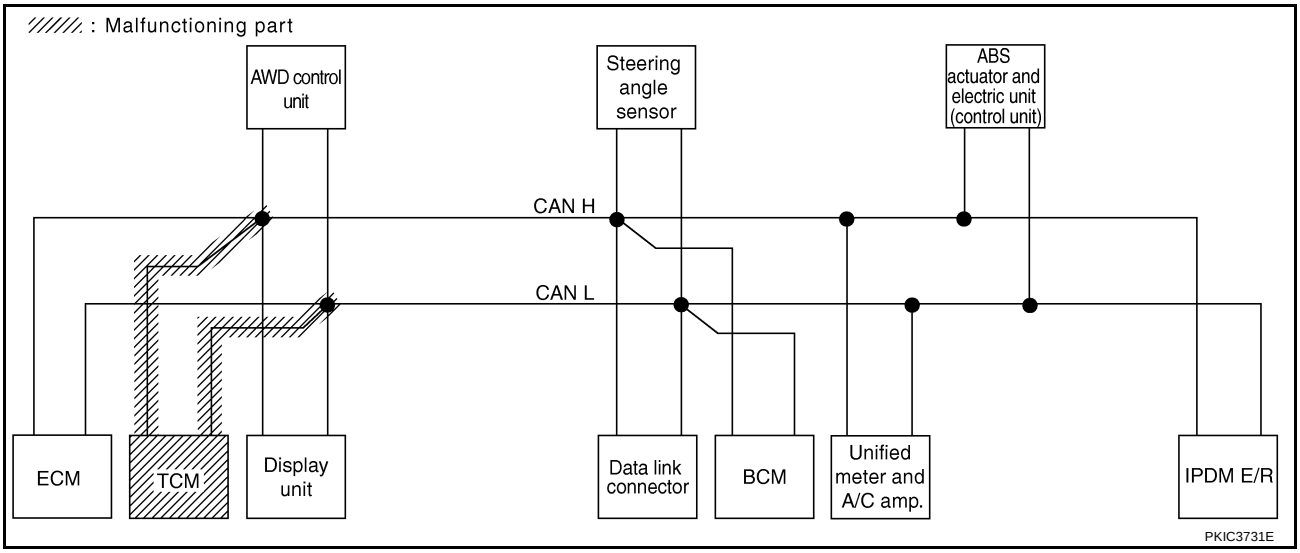
PKIC3730E

Case 5

Check TCM circuit. Refer to LAN-458, "TCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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) ✓	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN ✓	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3715E



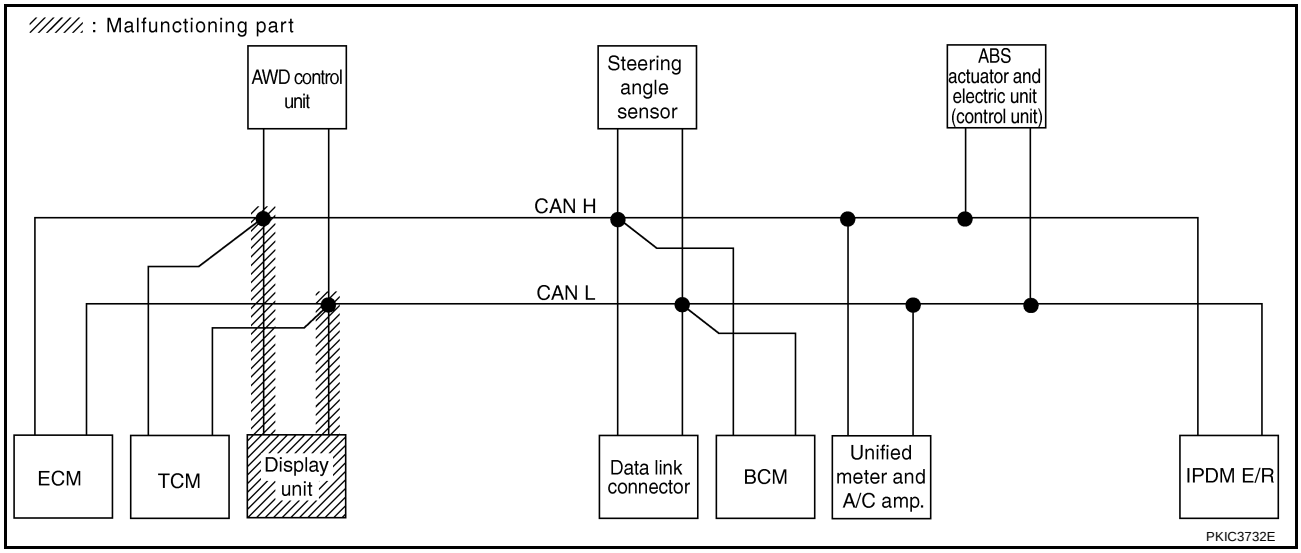
PKIC3731E

Case 6

Check display unit circuit. Refer to LAN-459, "Display Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN ✓	UNKWN ✓	—	—	—	UNKWN ✓	—	UNKWN ✓	—	UNKWN ✓	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3716E

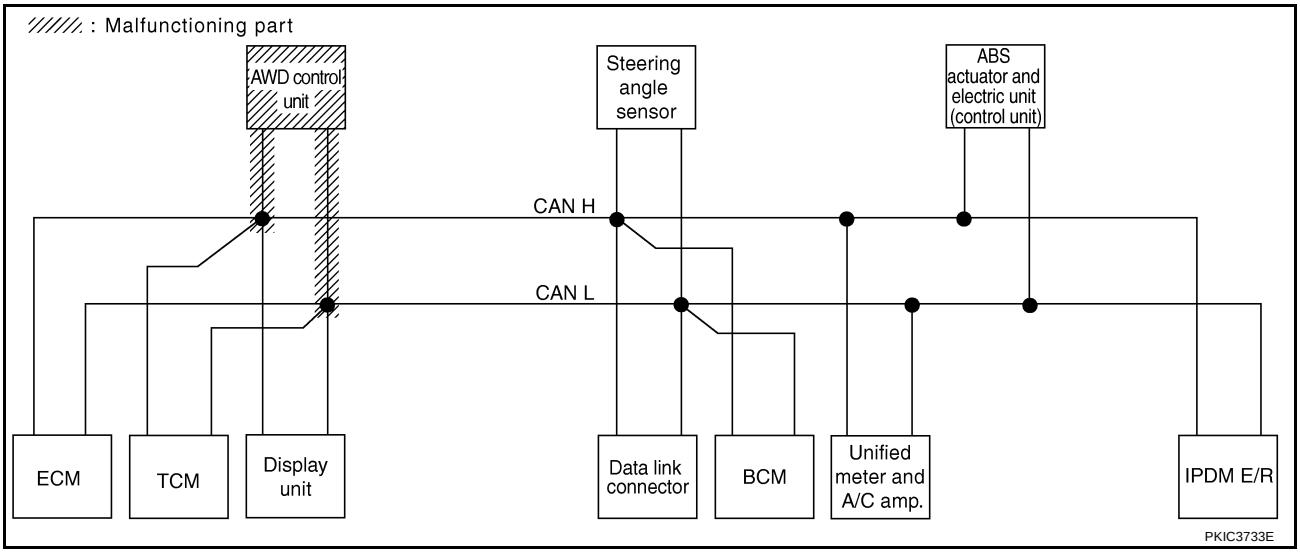


Case 7

Check AWD control unit circuit. Refer to LAN-459, "AWD Control Unit Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN ✓	—	—	—	—	—	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN ✓	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN ✓	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3717E



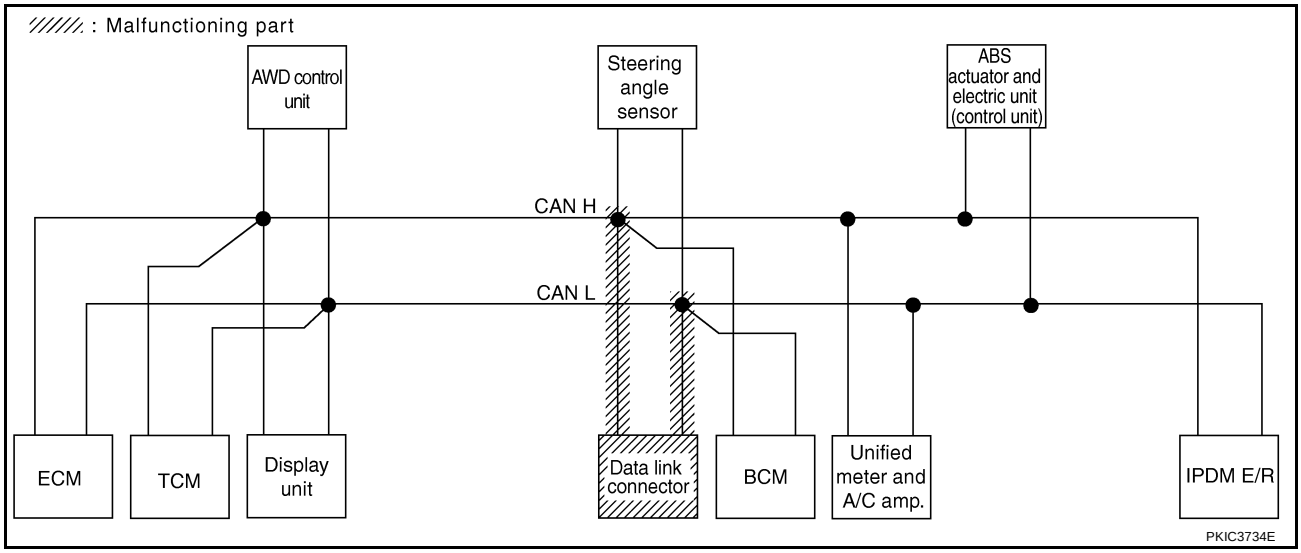
PKIC3733E

Case 8

Check data link connector circuit. Refer to LAN-460, "Data Link Connector Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	✓ No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	✓ No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	✓ No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3718E



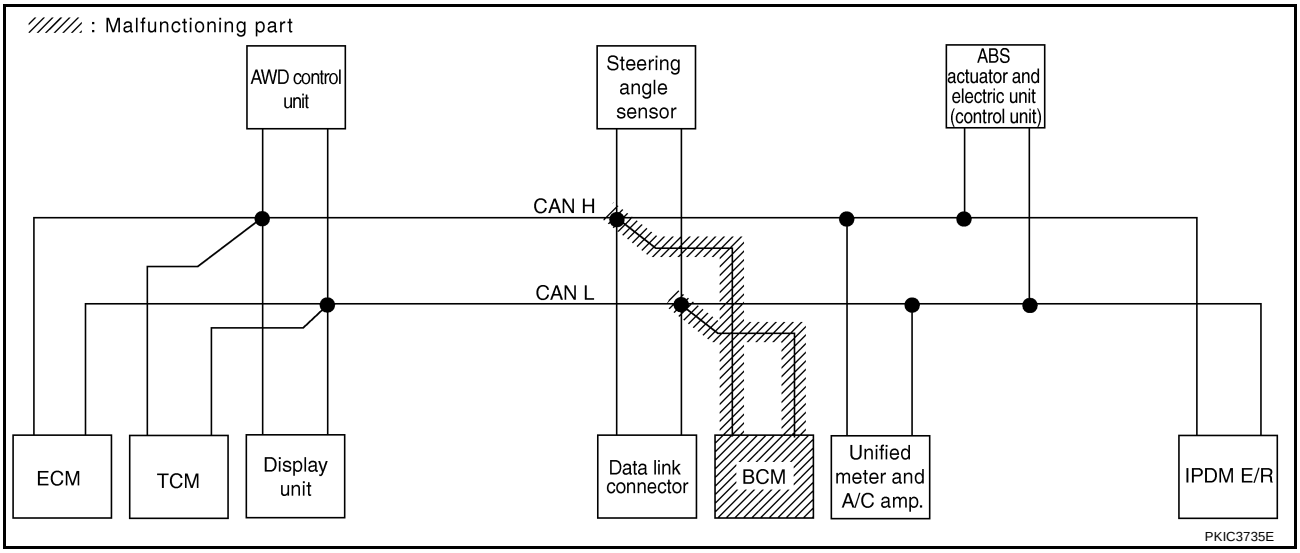
PKIC3734E

Case 9

Check BCM circuit. Refer to LAN-460, "BCM Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3719E

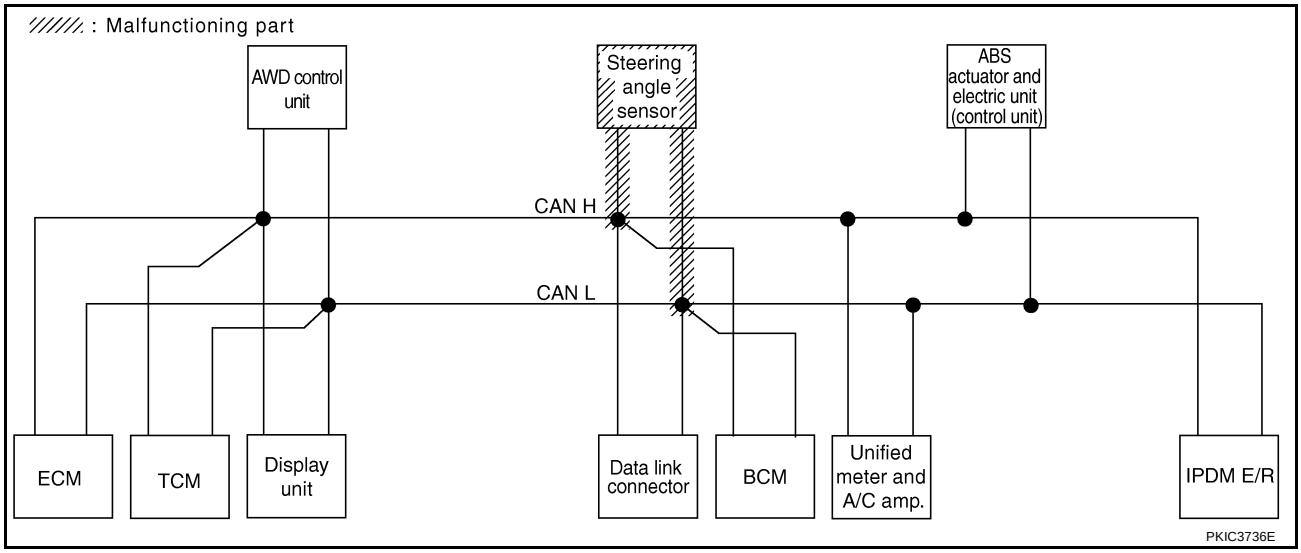


Case 10

Check steering angle sensor circuit. Refer to LAN-461, "Steering Angle Sensor Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3720E



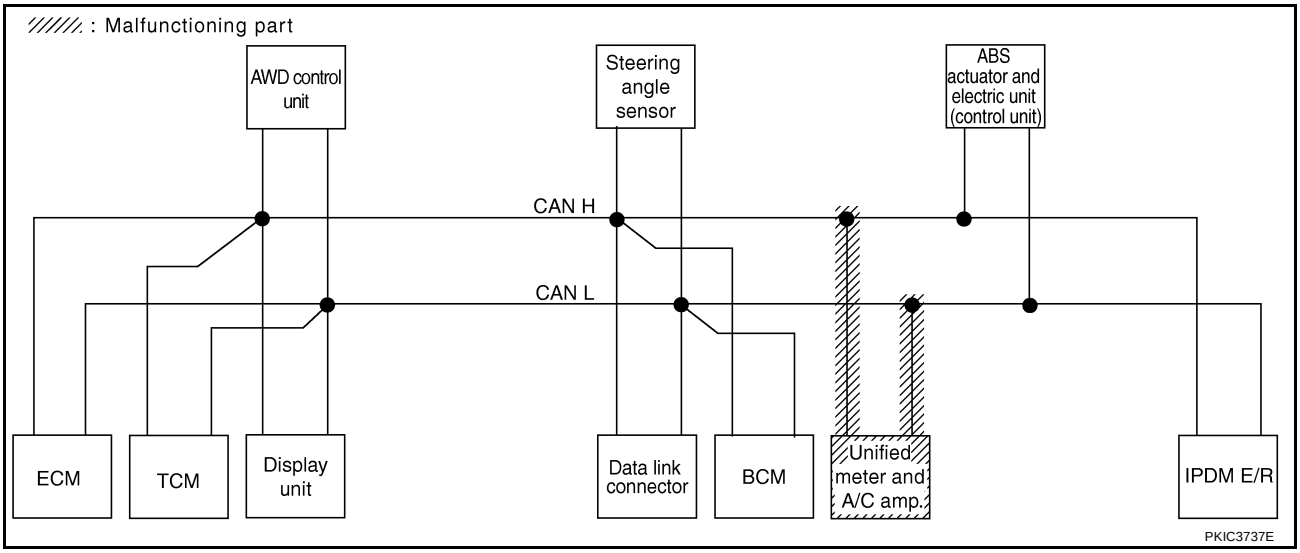
PKIC3736E

Case 11

Check unified meter and A/C amp. circuit. Refer to LAN-461, "Unified Meter and A/C Amp. Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3721E

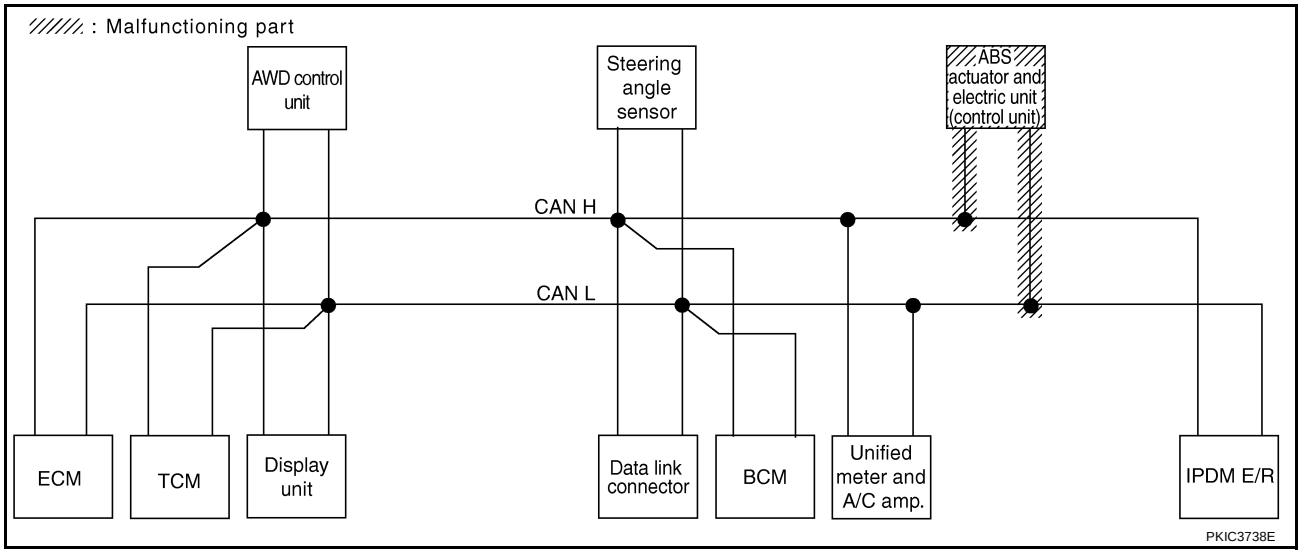


Case 12

Check ABS actuator and electric unit (control unit) circuit. Refer to LAN-462, "ABS Actuator and Electric Unit (Control Unit) Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3722E

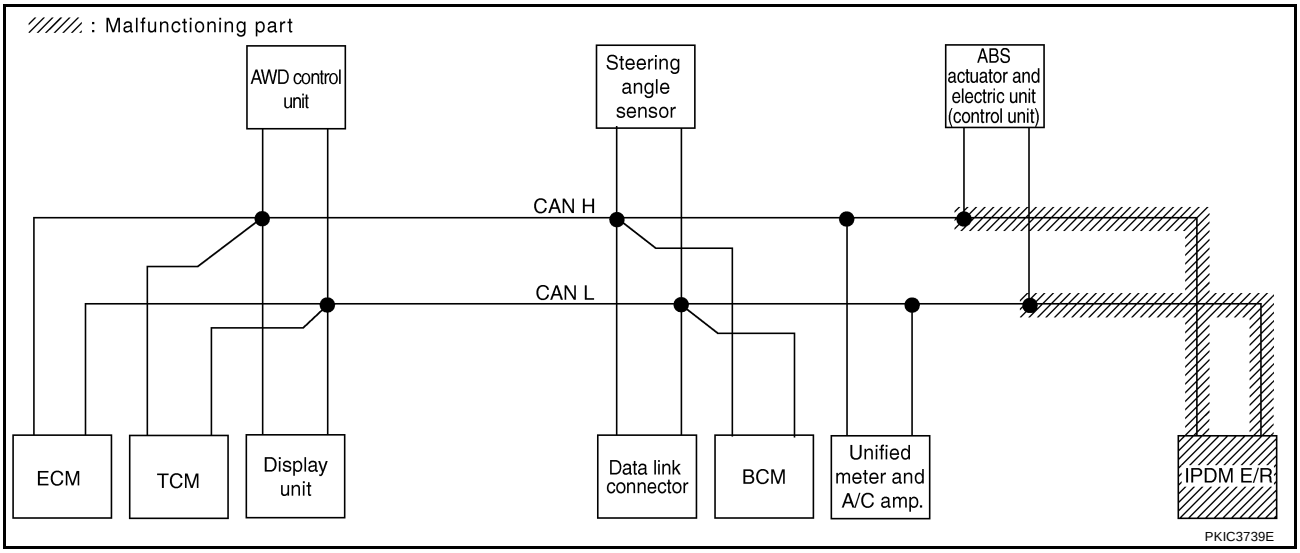


Case 13

Check IPDM E/R circuit. Refer to LAN-462, "IPDM E/R Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN ✓	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN ✓	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication ✓	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000) ✓	—

PKIC3723E



Case 14

Check CAN communication circuit. Refer to LAN-463, "CAN Communication Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	—	—	—	—	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3724E

Case 15

Check IPDM E/R ignition relay circuit continuously sticks “OFF”. Refer to LAN-469, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	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)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN ✓	UNKWN	UNKWN	UNKWN	—	—	UNKWN ✓	—	CAN COMM CIRCUIT (U1000) ✓	—
ABS	—	NG	UNKWN	UNKWN	UNKWN	—	UNKWN	—	UNKWN	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3725E

Case 16

Check IPDM E/R ignition relay circuit continuously sticks “ON”. Refer to LAN-469, "IPDM E/R Ignition Relay Circuit Inspection" .

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR											SELF-DIAG RESULTS	
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	—	NG	UNKWN	—	UNKWN	—	—	UNKWN	—	UNKWN	UNKWN	UNKWN	CAN COMM CIRCUIT (U1000)	CAN COMM CIRCUIT (U1001)
A/T	—	NG	UNKWN	—	—	—	—	—	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
Display unit	—	NG	UNKWN	UNKWN	—	—	—	UNKWN	—	UNKWN	—	UNKWN	—	—
ALL MODE AWD/4WD	—	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
BCM	No indication	NG	UNKWN	UNKWN	—	—	—	—	—	UNKWN	—	UNKWN	CAN COMM CIRCUIT (U1000)	—
METER A/C AMP	No indication	—	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	—	—	UNKWN	—	CAN COMM CIRCUIT (U1000)	—
ABS	—	NG	UNKWN	—	UNKWN	—	—	—	—	—	—	—	CAN COMM CIRCUIT (U1000)	—
IPDM E/R	No indication	—	UNKWN	UNKWN	—	—	—	UNKWN	—	—	—	—	CAN COMM CIRCUIT (U1000)	—

PKIC3726E

Inspection Between TCM and Data Link Connector Circuit

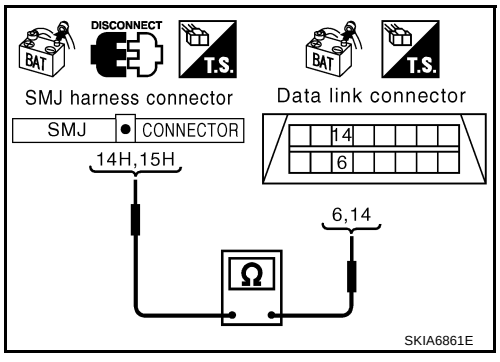
AKS00FDY

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and harness connector M82.
4. Check continuity between harness connector M82 terminals 14H (L), 15H (R) and data link connector M5 terminals 6 (L), 14 (R).

14H (L) - 6 (L) : Continuity should exist.

15H (R) - 14 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .

NG >> Repair harness.

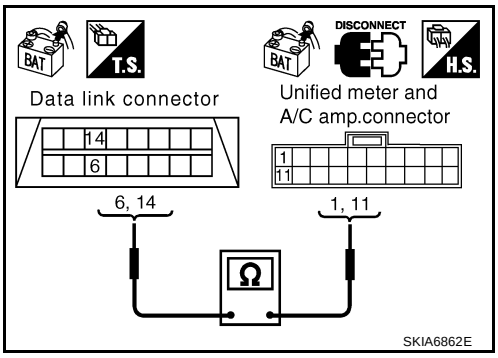
Inspection Between Data Link Connector and Unified Meter and A/C Amp. Circuit

AKS00FDZ

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Disconnect ECM connector and unified meter and A/C amp. connector.
4. Check continuity between data link connector M5 terminals 6 (L), 14 (R) and unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R).

6 (L) - 1 (L) : Continuity should exist.
14 (R) - 11 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

Inspection Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit) Circuit

AKS00FE0

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 M41
- Harness connector E211

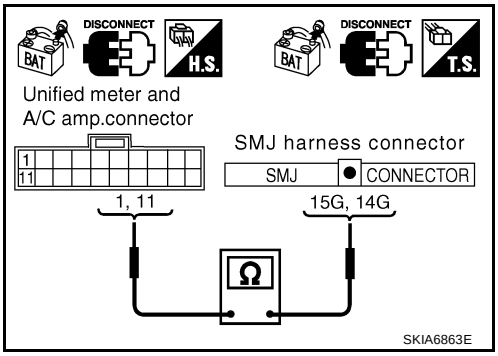
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector and harness connector M41.
2. Check continuity between unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R) and harness connector M41 terminals 15G (L), 14G (R).

1 (L) - 15G (L) : Continuity should exist.
11 (R) - 14G (R) : Continuity should exist.



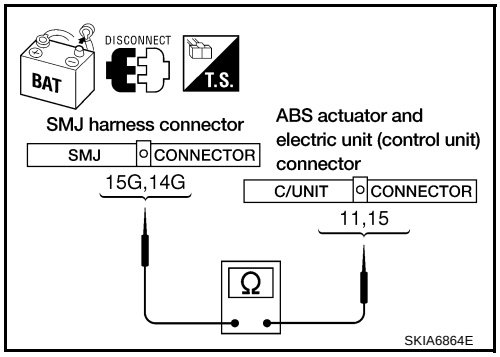
OK or NG

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

3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check continuity between harness connector E211 terminals 15G (L), 14G (R) and ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R).

15G (L) - 11 (L) : Continuity should exist.
14G (R) - 15 (R) : Continuity should exist.



OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness.

ECM Circuit Inspection

AKS00FE1

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).

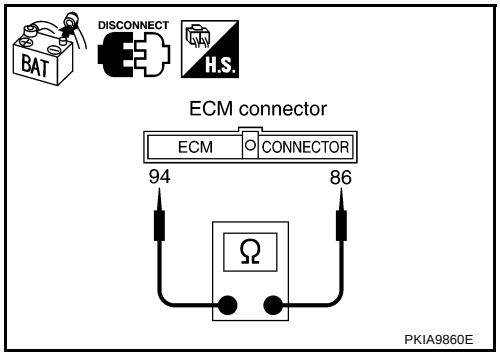
OK or NG

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 M90 terminals 94 (L) and 86 (R).

94 (L) - 86 (R) : Approx. 108 - 132Ω



OK or NG

OK >> Replace ECM.
NG >> Repair harness between ECM and harness connector M82.

TCM Circuit Inspection

AKS00FE2

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 (control module side and harness side).

- A/T assembly connector
- Harness connector F102
- Harness connector M82

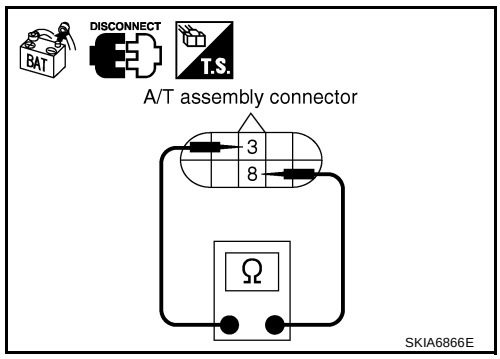
OK or NG

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 F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Approx. 54 - 66Ω



OK or NG

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

Display Unit Circuit Inspection

AKS00FE3

1. CHECK CONNECTOR

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

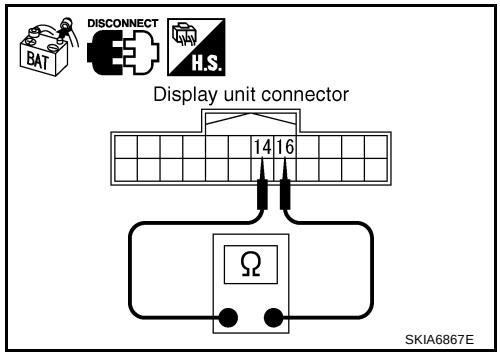
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect display unit connector.
2. Check resistance between display unit harness connector M62 terminals 14 (L) and 16 (R).

14 (L) - 16 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace display unit.
NG >> Repair harness between display unit and harness connector M82.

AWD Control Unit Circuit Inspection

AKS00FE4

1. CHECK CONNECTOR

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

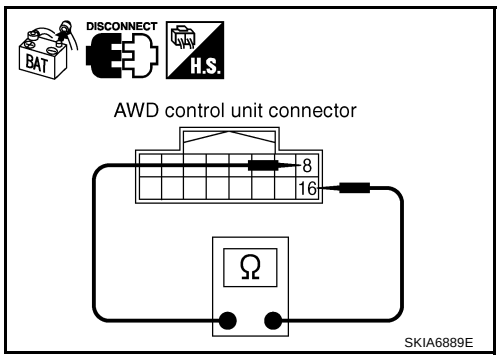
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect AWD control unit connector.
2. Check resistance between AWD control unit harness connector M92 terminals 8 (L) and 16 (R).

8 (L) - 16 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace AWD control unit.
NG >> Repair harness between AWD control unit and harness connector M82.

Data Link Connector Circuit Inspection

AKS00FE5

1. CHECK CONNECTOR

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

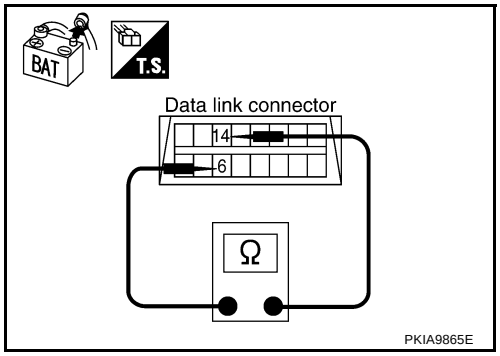
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Diagnose again. Refer to LAN-7, "TROUBLE DIAGNOSES WORK FLOW" .
NG >> Repair harness between data link connector and BCM.

BCM Circuit Inspection

AKS00FE6

1. CHECK CONNECTOR

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

OK or NG

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

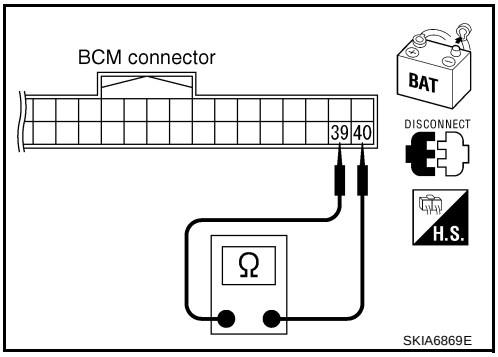
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect BCM connector.
2. Check resistance between BCM harness connector M3 terminals 39 (L) and 40 (R).

39 (L) - 40 (R) : Approx. 54 - 66Ω

OK or NG

OK >> Replace BCM. Refer to BCS-16, "Removal and Installation of BCM" .
NG >> Repair harness between BCM and data link connector.



Steering Angle Sensor Circuit Inspection

AKS00FE7

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.

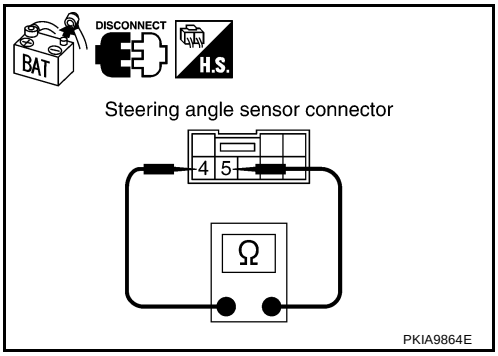
2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect steering angle sensor connector.
2. Check resistance between steering angle sensor harness connector M14 terminals 4 (L) and 5 (R).

4 (L) - 5 (R) : Approx. 54 - 66Ω

OK or NG

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



Unified Meter and A/C Amp. Circuit Inspection

AKS00FE8

1. CHECK CONNECTOR

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

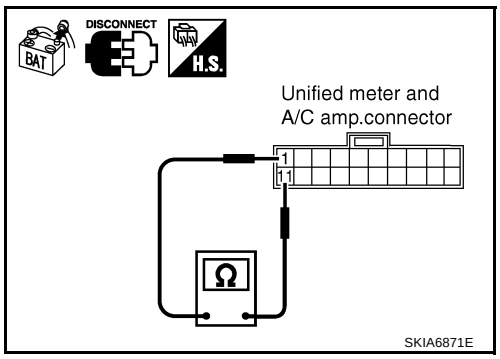
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect unified meter and A/C amp. connector.
2. Check resistance between unified meter and A/C amp. harness connector M55 terminals 1 (L) and 11 (R).

1 (L) - 11 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace unified meter and A/C amp.
NG >> Repair harness between unified meter and A/C amp. and harness connector M41.

ABS Actuator and Electric Unit (Control Unit) Circuit Inspection

AKS00FE9

1. CHECK CONNECTOR

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

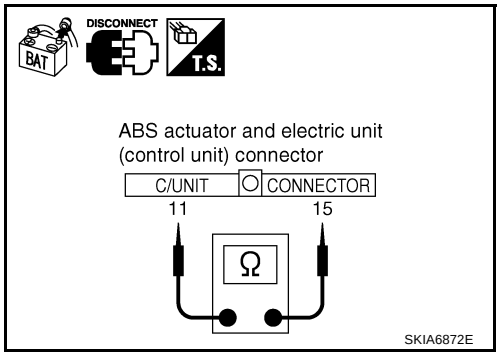
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check resistance between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Approx. 54 - 66Ω



OK or NG

OK >> Replace ABS actuator and electric unit (control unit).
NG >> Repair harness between ABS actuator and electric unit (control unit) and harness connector E205.

IPDM E/R Circuit Inspection

AKS00FEA

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 (control module side and harness side).

- IPDM E/R connector
- Harness connector E205
- Harness connector B5

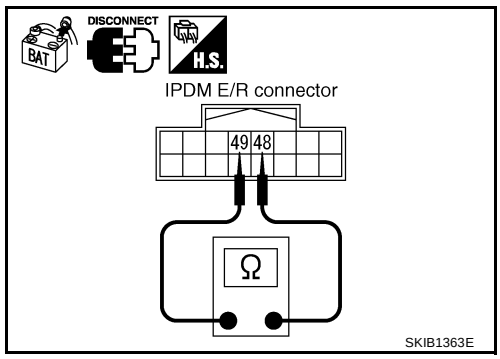
OK or NG

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

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check resistance between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Approx. 108 - 132Ω



OK or NG

OK >> Replace IPDM E/R.
NG >> Repair harness between IPDM E/R and ABS actuator and electric unit (control unit).

CAN Communication Circuit Inspection

AKS00FEB

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 (control module side, control unit side, unit side, sensor side, meter side and harness side).

- ECM
- A/T assembly
- Display unit
- AWD control unit
- BCM
- Steering angle sensor
- Unified meter and A/C amp.
- ABS actuator and electric unit (control unit)
- IPDM E/R
- Between ECM and IPDM E/R
- Between ECM and A/T assembly

OK or NG

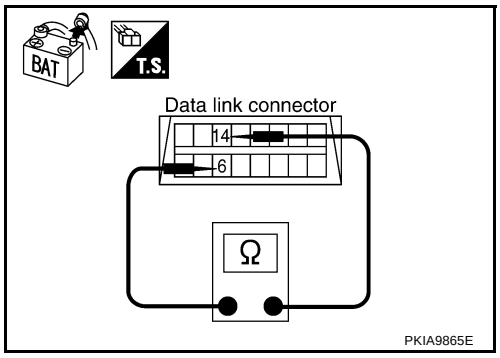
OK >> GO TO 2.
NG >> Repair terminal or connector.

2. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect following connectors.
- ECM connector
- Harness connector M82
- Display unit connector
- AWD control unit connector
- BCM connector
- Steering angle sensor connector
- Unified meter and A/C amp. connector
- Harness connector M41

2. Check continuity between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R) : Continuity should not exist.



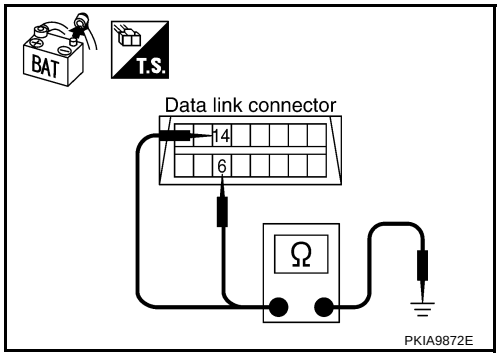
OK or NG

OK >> GO TO 3.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display unit
- Harness between data link connector and AWD control unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

3. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between data link connector M5 terminals 6 (L), 14 (R) and ground.

6 (L) - Ground : Continuity should not exist.
14 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 4.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display unit
- Harness between data link connector and AWD control unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor
- Harness between data link connector and unified meter and A/C amp.
- Harness between data link connector and harness connector M41

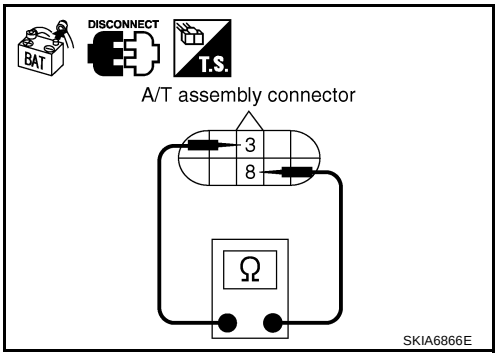
4. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect A/T assembly connector.
2. Check continuity between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 5.
NG >> Repair harness between A/T assembly and harness connector F102.



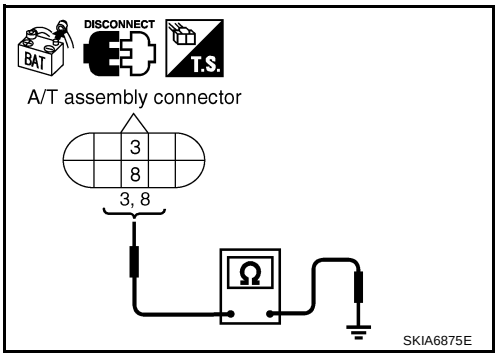
5. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between A/T assembly harness connector F44 terminals 3 (L), 8 (R) and ground.

3 (L) - Ground : Continuity should not exist.
8 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 6.
NG >> Repair harness between A/T assembly and harness connector F102.



6. CHECK HARNESS FOR SHORT CIRCUIT

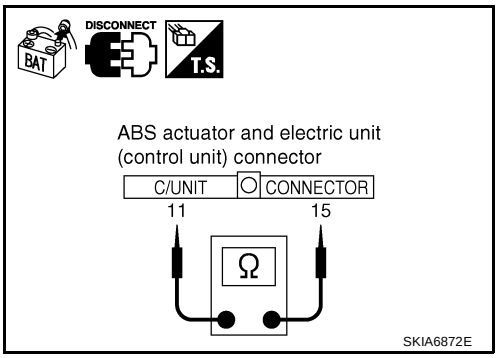
1. Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 7.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.

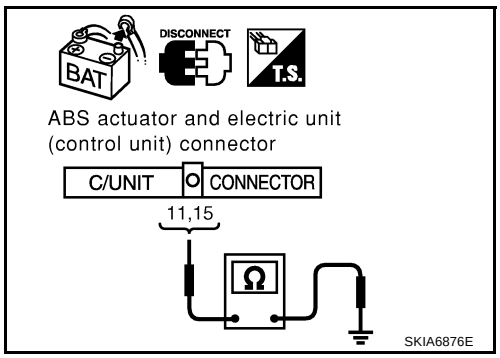
- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and harness connector E205



7. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and ground.

11 (L) - Ground : Continuity should not exist.
15 (R) - Ground : Continuity should not exist.



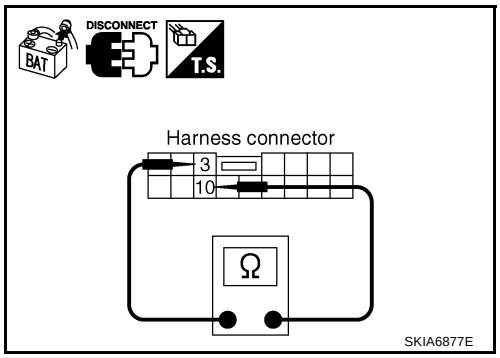
OK or NG

OK >> GO TO 8.
NG >> Check the following harnesses. If any harness is damaged, repair the harness.
- Harness between ABS actuator and electric unit (control unit) and harness connector E211
- Harness between ABS actuator and electric unit (control unit) and harness connector E205

8. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between harness connector B5 terminals 3 (L) and 10 (R).

3 (L) - 10 (R) : Continuity should not exist.



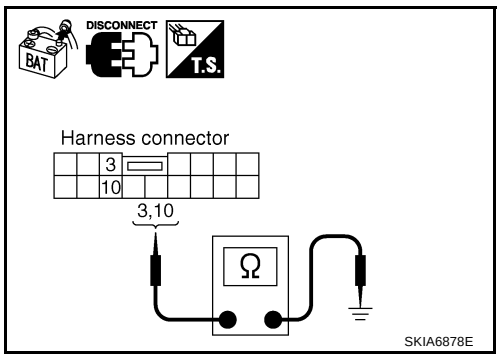
OK or NG

OK >> GO TO 9.
NG >> Repair harness between harness connector B5 and harness connector B5.

9. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between harness connector B5 terminals 3 (L), 10 (R) and ground.

3 (L) - Ground : Continuity should not exist.
10 (R) - Ground : Continuity should not exist.



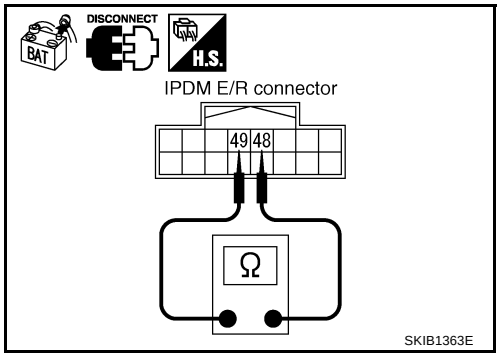
OK or NG

OK >> GO TO 10.
NG >> Repair harness between harness connector B5 and harness connector B5.

10. CHECK HARNESS FOR SHORT CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check continuity between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Continuity should not exist.



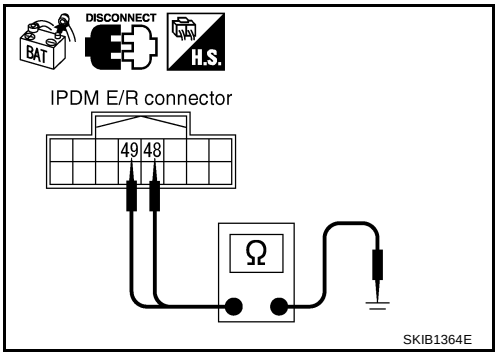
OK or NG

OK >> GO TO 11.
NG >> Repair harness between IPDM E/R and harness connector E205.

11. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between IPDM E/R harness connector E9 terminals 48 (L), 49 (R) and ground.

48 (L) - Ground : Continuity should not exist.
49 (R) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 12.
NG >> Repair harness between IPDM E/R and harness connector E205.

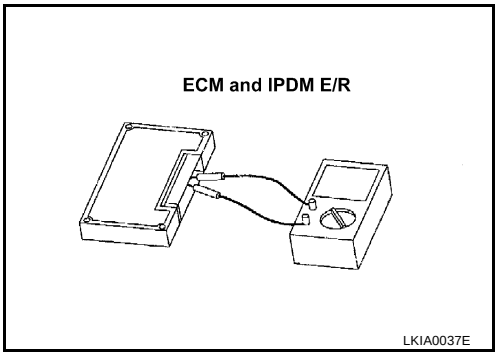
12. CHECK ECM AND IPDM E/R INTERNAL CIRCUIT

1. Remove ECM and IPDM E/R from vehicle.
2. Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. 108 - 132Ω

3. Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132Ω



OK or NG

OK >> GO TO 13.
NG >> Replace ECM and/or IPDM E/R.

13. 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 14.
NG >> Refer to LAN-16, "Example of Filling in Check Sheet When Initial Conditions Are Not Reproduced".

14. CHECK UNIT REPRODUCIBILITY

Performs the following procedure for each unit, 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.

- A/T assembly
- Display unit
- AWD control unit
- BCM
- Steering angle sensor
- Unified meter and A/C amp.
- ABS actuator and electric unit (control unit)
- ECM
- IPDM E/R

Check results

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

IPDM E/R Ignition Relay Circuit Inspection

AKS00FEC

Check the following. If no malfunction is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to PG-28, "IPDM E/R Power/Ground Circuit Inspection" .
- Ignition power supply circuit. Refer to PG-12, "IGNITION POWER SUPPLY - IGNITION SW. IN “ON” AND/OR “START”" .