SECTION BCS
BODY CONTROL SYSTEM

CONTENTS

PRECAUTIONS

PFP:00011

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

EKS00736

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. 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.**

Maintenance Information

EKS008WP

If any of following part is replaced, always replace with new* one.
If it's not (or fail to do so), the electrical system may not be operated properly.
*: New one means a virgin control unit that has never been energized on-board.

RHD MODELS

- BCM (Models without Intelligent Key system)
- Intelligent Key unit (Models with Intelligent Key system)
- ECM
- IPDM E/R
- Combination meter
- EPS control unit

LHD MODELS

- BCM (Models without Intelligent Key system)
- Intelligent Key unit (Models with Intelligent Key system)
- ECM

Wiring Diagrams and Trouble Diagnosis

EKS00737

When you read wiring diagrams, refer to the following:

- GI-14, "How to Read Wiring Diagrams".
- PG-4, "POWER SUPPLY ROUTING" for power distribution circuit.

When you perform trouble diagnosis, refer to the following:

- GI-10, "How to Follow Trouble Diagnoses".
- GI-24, "How to Perform Efficient Diagnosis for an Electrical Incident".

BCM (BODY CONTROL MODULE)

PFP:284B2

System Description

EKS007SV

BCM (Body Control Module) controls the operation of various electrical units installed on the vehicle.

BCM FUNCTION

BCM has a combination switch reading function for reading the operation of combination switches (light, wiper washer, turn signal) in addition to the function for controlling the operation of various electrical components. Also, it functions as an interface that receives signals from the A/C auto amplifier, and sends signals to ECM using CAN communication.

COMBINATION SWITCH READING FUNCTION

BCM reads combination switch (headlamp, wiper and washer, turn signal) status, and controls various electrical components according to the results.
BCM reads information of 20 switches and 5 diagnostic results by combining five output terminals (Output 1 - 5) and five input terminals (Input 1 - 5).
Refer to LT-189, "COMBINATION SWITCH" .

SYSTEMS CONTROLLED BY BCM

- Power door lock system. Refer to BL-15, "POWER DOOR LOCK SYSTEM" .
- Super lock system. Refer to BL-70, "POWER DOOR LOCK — SUPER LOCK —" .
- Multi-remote control system. Refer toBL-131, "MULTI-REMOTE CONTROL SYSTEM" .
- Power window system. Refer to GW-52, "POWER WINDOW SYSTEM" .
- Interior room lamp timer. Refer to LT-200, "INTERIOR ROOM LAMP" .
- Warning chime. Refer to DI-81, "WARNING CHIME" .
- Turn signal and hazard warning lamps. Refer to LT-121, "TURN SIGNAL AND HAZARD WARNING LAMPS" .
- Rear wiper. Refer to WW-82, "REAR WIPER AND WASHER SYSTEM" .
- Rear fog lamp. Refer to LT-100, "REAR FOG LAMP" .

SYSTEMS CONTROLLED BY BCM AND IPDM E/R

- NATS. Refer to BL-223, "NATS(Nissan Anti-Theft System)" .
- Front wiper. Refer to WW-5, "FRONT WIPER AND WASHER SYSTEM" (without rain sensor) or WW-48, "FRONT WIPER AND WASHER SYSTEM (WITH RAIN SENSOR)" .
- Front washer. Refer to WW-5, "FRONT WIPER AND WASHER SYSTEM" (without rain sensor) or WW-48, "FRONT WIPER AND WASHER SYSTEM (WITH RAIN SENSOR)" .
- Rear window defogger. Refer to GW-14, "REAR WINDOW DEFOGGER" .
- Front fog lamp. Refer to LT-74, "FRONT FOG LAMP" .
- Headlamp washer. Refer to WW-110, "HEADLAMP WASHER" .

SYSTEMS CONTROLLED BY BCM AND INTELLIGENT KEY UNIT

- Intelligent Key system. Refer to BL-152, "INTELLIGENT KEY SYSTEM" .

INPUT/OUTPUT

System	Input	Output
Multi-remote control system	Remote controller	● Door lock actuator ● Back door release actuator ● Turn signal lamp (LH, RH)
Intelligent Key system	Intelligent Key unit	● Door lock actuator ● Back door release actuator ● Turn signal lamp ● Combination meter
Power door lock system/ Super lock system	● Key switch ● Door lock/unlock switch ● Door switches	● Door lock actuator ● Back door release actuator
Power supply (IGN) to power window system	Ignition power supply	● Power window main switch ● Front power window switch (passenger side) ● Sunroof motor assembly
Power supply (BAT) to power window system	Battery power supply	● Power window main switch ● Front power window switch (passenger side) ● Sunroof motor assembly
Headlamp	Combination switch	IPDM E/R (headlamp relay)
Tail lamp	Combination switch	IPDM E/R (tail lamp relay)
Rear fog lamp	Combination switch	Rear combination lamp (Refer fog)
Turn signal lamp	Combination switch	● Turn signal lamps ● Combination meter
Hazard warning lamp	Hazard switch	● Turn signal lamps ● Combination meter
Interior room lamp timer	● Key switch ● Intelligent Key unit (key switch signal) ● Remote controller ● Door lock/unlock switch ● Front door switch (driver side) ● Door switches	Interior room lamp
Ignition key warning chime	● Key switch ● Intelligent Key unit (key switch signal) ● Front door switch (driver side)	Combination meter (warning buzzer)
Light warning chime	● Combination switch ● Key switch ● Intelligent Key unit (key switch signal) ● Front door switch (driver side)	Combination meter (warning buzzer)
Front wiper with rain sensor	● Combination switch ● Combination meter ● Rain sensor	IPDM E/R (front wiper relays)
Front washer	Combination switch	Washer motor
Rear wiper	Combination switch	Rear wiper motor
Rear washer	Combination switch	Washer motor
Headlamp washer	Headlamp washer switch	Headlamp washer relay (via IPDM E/R)

System	Input	Output
Rear window defogger	● A/C auto amp. (Rear window defogger switch) (with auto amp). ● Heater control panel (Rear window defogger switch) (with manual A/C).	IPDM E/R (rear window defogger relay)
A/C switch signal	A/C auto amp.	ECM
Blower fan switch signal	A/C auto amp.	ECM

CAN COMMUNICATION CONTROL

CAN communication is capable of dealing with a lot of information through the two communication lines (CAN L line, CAN H line) connecting control units in the system. Also each control unit functions to transmit and receive data, and reads necessary information only.

BCM STATUS CONTROL

BCM changes its status depending on the operation status in order to save power consumption.

1. CAN communication status
   - With ignition switch ON, CAN communicates with other control units normally.
   - Control by BCM is being operated properly.
   - When ignition switch is OFF, switching to sleep mode is possible.
   - Even when ignition switch is OFF, if CAN communication with IPDM E/R and combination meter is active, CAN communication status is active.
2. Pre-sleep status
   - This is the status to stop CAN communication when ignition switch is turned OFF.
   - It transmits sleep request signal to IPDM E/R and combination meter.
   - Two seconds after CAN communication with another control unit stops, it switches to CAN communication inactive status.
3. CAN communication inactive status
   - With ignition switch OFF, CAN communication is not active.
   - With ignition switch OFF, control performed only by BCM is active.
   - Two seconds after CAN communication with another control unit stops, it switches to CAN communication inactive status.
4. Sleep status
   - BCM is activated with low-current-consumption mode.
   - CAN communication is not active.
   - When CAN communication operation is detected, it switches to CAN communication status.
   - When control performed only by BCM is required by switch, it shifts to CAN communication inactive mode.
   - It changes combination switch reading function.

CAN Communication

EKS00KBK

SYSTEM DESCRIPTION

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

CAN Communication Unit

EKS00KBL

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

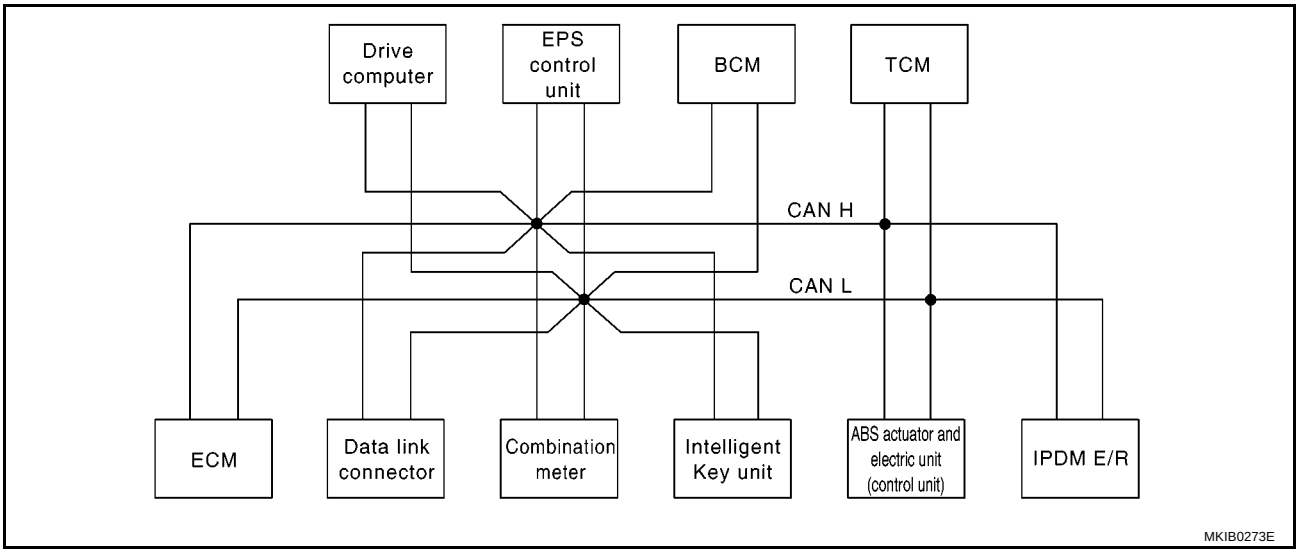
Body type	3door/5door																			
Axle	2WD																			
Engine	CR10DE/CR12DE/CR14DE								CR12DE/CR14DE								K9K			
Handle	LHD/RHD																			
Brake control	ABS system								ESP system								ABS			
Transmission	A/T				M/T				A/T				M/T				M/T			
Intelligent Key system	Applicable		Not applicable		Applicable		Not applicable		Applicable		Not applicable		Applicable		Not applicable		Applicable		Not applicable	
CAN communication unit																				
ECM	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Data link connector	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Combination meter	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Intelligent Key unit	×	×			×	×			×	×			×	×			×	×		
Drive computer	×		×		×		×		×		×		×		×		×		×	
EPS control unit	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
BCM	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
ABS actuator and electric unit (control unit)	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
TCM	×	×	×	×					×	×	×	×								
IPDM E/R	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
CAN communication type	BCS-7, "TYPE 1/ TYPE 2"				BCS-10, "TYPE 3/TYPE 4"				BCS-12, "TYPE 5/TYPE 6"				BCS-15, "TYPE 7/TYPE 8"				BCS-17, "TYPE 9/TYPE 10"			

×: Applicable

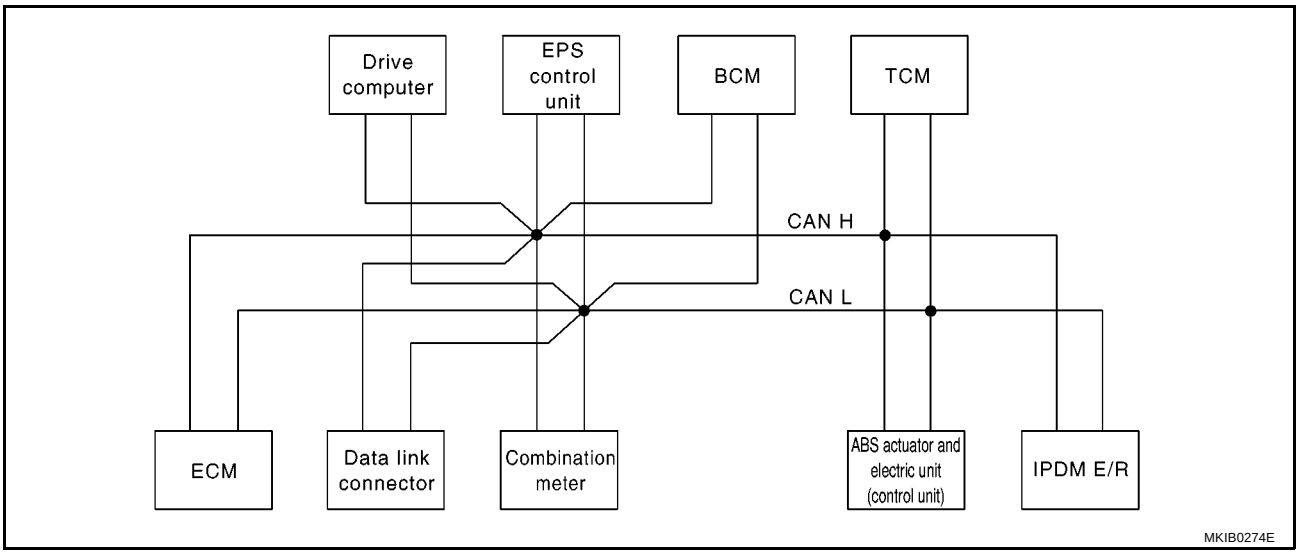
TYPE 1/TYPE 2

System diagram

- Type 1



- Type 2



Input/output signal chart

T: Transmit R: Receive

Signals	ECM	Combi-nation meter.	Intelli-gent Key unit	Drive com-puter	EPS control unit	BCM	ABS actuator and electric unit (control unit)	TCM	IPDM E/R
Engine speed signal	T	R		R	R				
Engine coolant temperature sig-nal	T	R							
A/T self-diagnosis signal	R							T	
Output shaft revolution signal	R							T	
Accelerator pedal position signal	T							R	
Closed throttle position signal	T							R	
Wide open throttle position sig-nal	T							R	

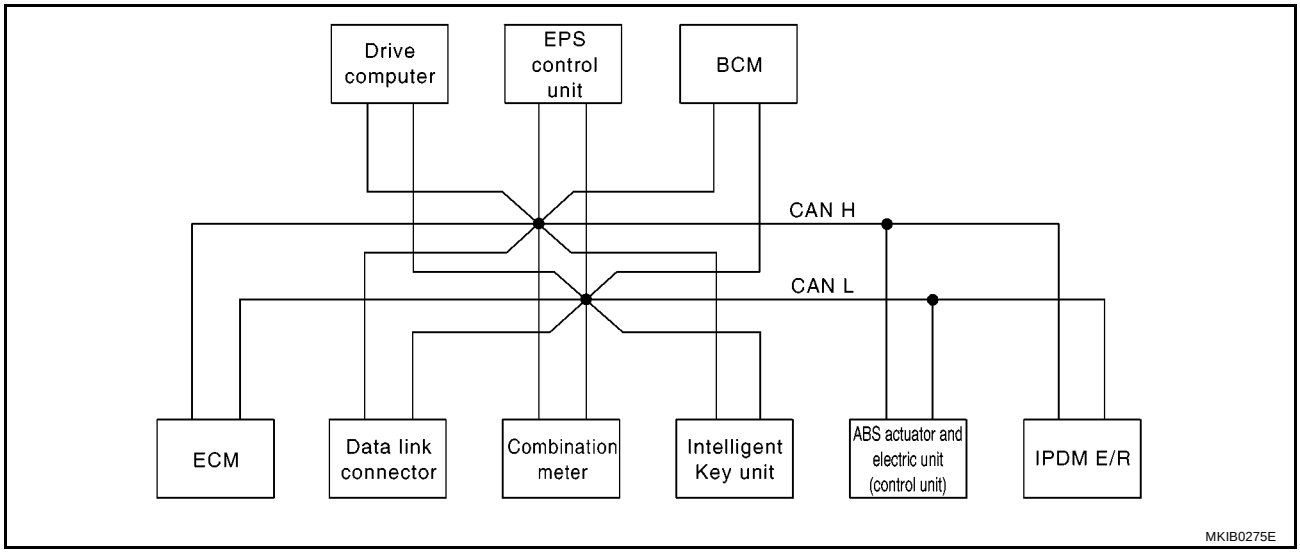
Signals	ECM	Combination meter.	Intelligent Key unit	Drive computer	EPS control unit	BCM	ABS actuator and electric unit (control unit)	TCM	IPDM E/R
A/T shift position signal		R						T	
Stop lamp switch signal		T						R	
O/D OFF indicator lamp signal		R						T	
Engine and A/T integrated control signal	T							R	
	R							T	
Fuel consumption monitor signal	T	R							
Oil pressure switch signal		R		R					T
A/C compressor request signal	T								R
Heater fan switch signal	R					T			
Cooling fan speed request signal	T								R
Cooling fan speed status signal	R								T
Position lights request signal		R		R		T			R
Position light status signal	R								T
Low beam request signal						T			R
Low beam status signal	R								T
High beam request signal		R				T			R
High beam status signal	R								T
Day time light request signal						T			R
Vehicle speed signal	R	R			R		T		
	R	T	R	R	R	R			
Sleep/wake up signal		R	R			T			R
Door switch signal		R	R	R		T			R
Turn indicator signal		R				T			
Buzzer output signal		R				T			
		R	T						
MI signal	T	R		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								T
Drive computer signal		T		R					
EPS warning lamp signal		R		R	T				
ABS warning lamp signal		R		R			T		
ABS operation signal	R						T		
Brake warning lamp signal		R		R			T		
Buck-up lamp signal					R	T			
Fuel low warning signal		T		R					
Battery charge malfunction signal		T		R					

Signals	ECM	Combi-nation meter.	Intelli-gent Key unit	Drive com-puter	EPS control unit	BCM	ABS actuator and electric unit (control unit)	TCM	IPDM E/R
Air bag system warning signal		T		R					
Brake fluid level warning signal		T		R					
Engine coolant temperature warning signal		T		R					
Front fog lamp request signal		R				T			R
Rear fog lamp status signal		R				T			
Headlamp washer request signal						T			R
Door lock/unlock request signal			R			T			
Door lock/unlock status signal			R			T			
KEY indicator signal		R	T						
LOCK indicator signal		R	T						

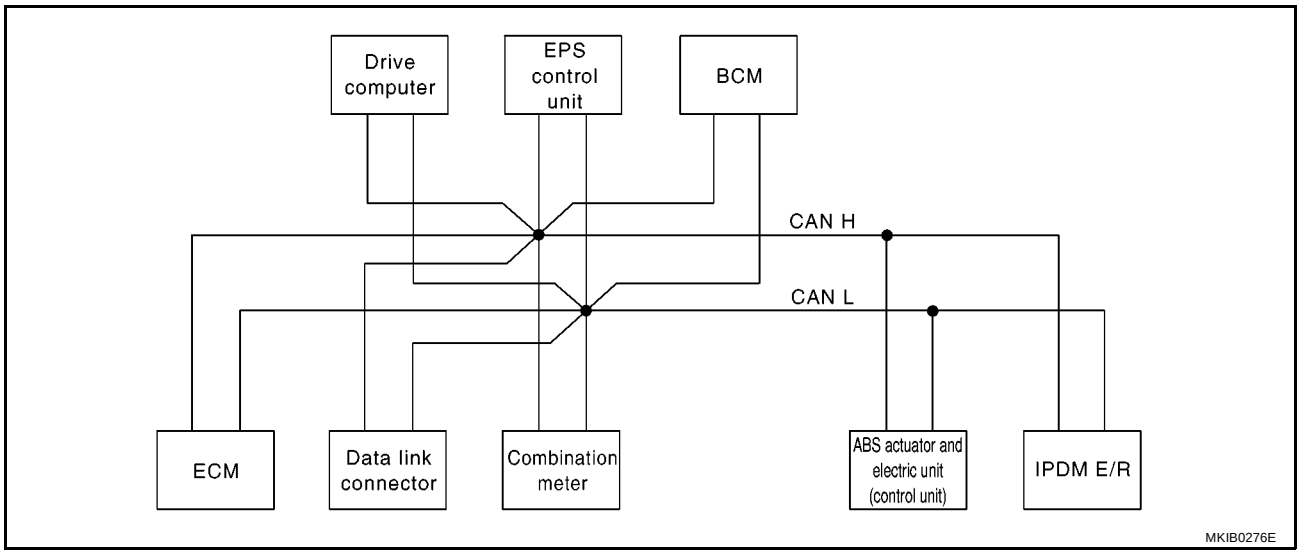
TYPE 3/TYPE 4

System diagram

- Type 3



- Type 4



Input/output signal chart

T: Transmit R: Receive

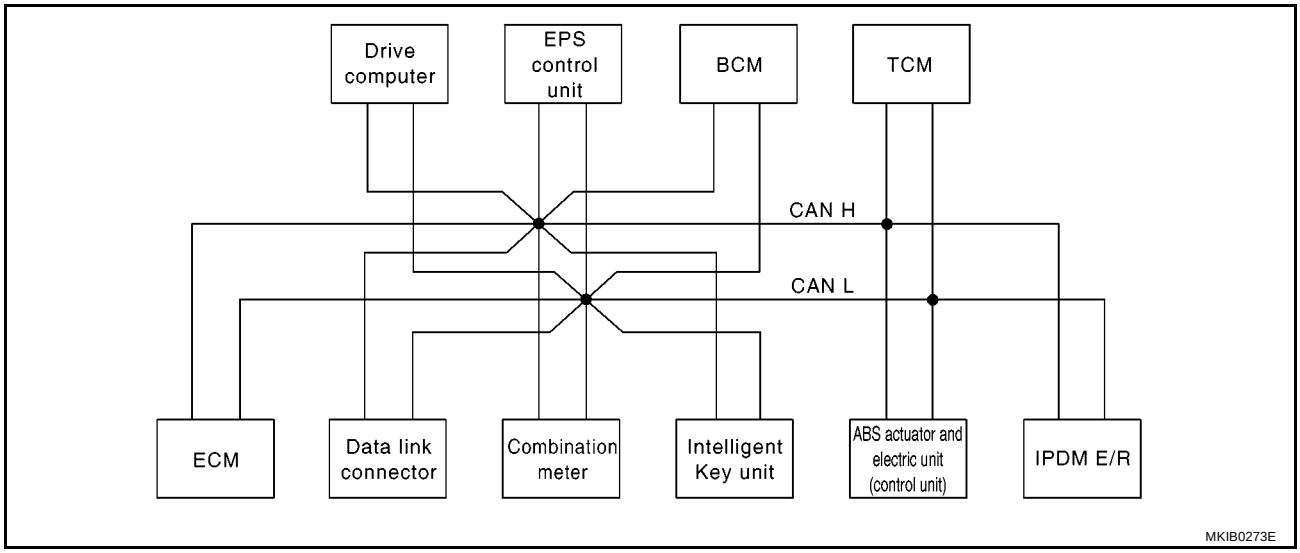
Signals	ECM	Combination meter.	Intelligent Key unit	Drive computer	EPS control unit	BCM	ABS actuator and electric unit (control unit)	IPDM E/R
Engine speed signal	T	R		R	R			
Engine coolant temperature signal	T	R						
Fuel consumption monitor signal	T	R						
Oil pressure switch signal		R		R				T
A/C compressor request signal	T							R
Heater fan switch signal	R					T		
Cooling fan speed request signal	T							R
Cooling fan speed status signal	R							T
Position lights request signal		R		R		T		R

Signals	ECM	Combination meter.	Intelligent Key unit	Drive computer	EPS control unit	BCM	ABS actuator and electric unit (control unit)	IPDM E/R
Position light status signal	R							T
Low beam request signal						T		R
Low beam status signal	R							T
High beam request signal		R				T		R
High beam status signal	R							T
Day time light request signal						T		R
Vehicle speed signal	R	R			R		T	
	R	T	R	R	R	R		
Sleep/wake up signal		R	R			T		R
Door switch signal		R	R	R		T		R
Turn indicator signal		R				T		
Buzzer output signal		R				T		
		R	T					
MI signal	T	R		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							T
Drive computer signal		T		R				
EPS warning indicator signal		R		R	T			
ABS warning lamp signal		R		R			T	
ABS operation signal	R			R			T	
Brake warning lamp signal		R					T	
Buck-up lamp signal					R	T		
Fuel low warning signal		T		R				
Battery charge malfunction signal		T		R				
Air bag system warning signal		T		R				
Brake fluid level warning signal		T		R				
Engine coolant temperature warning signal		T		R				
Front fog lamp request signal		R				T		R
Rear fog lamp status signal		R				T		
Headlamp washer request signal						T		R
Door lock/unlock request signal			R			T		
Door lock/unlock status signal			R			T		
KEY indicator signal		R	T					
LOCK indicator signal		R	T					

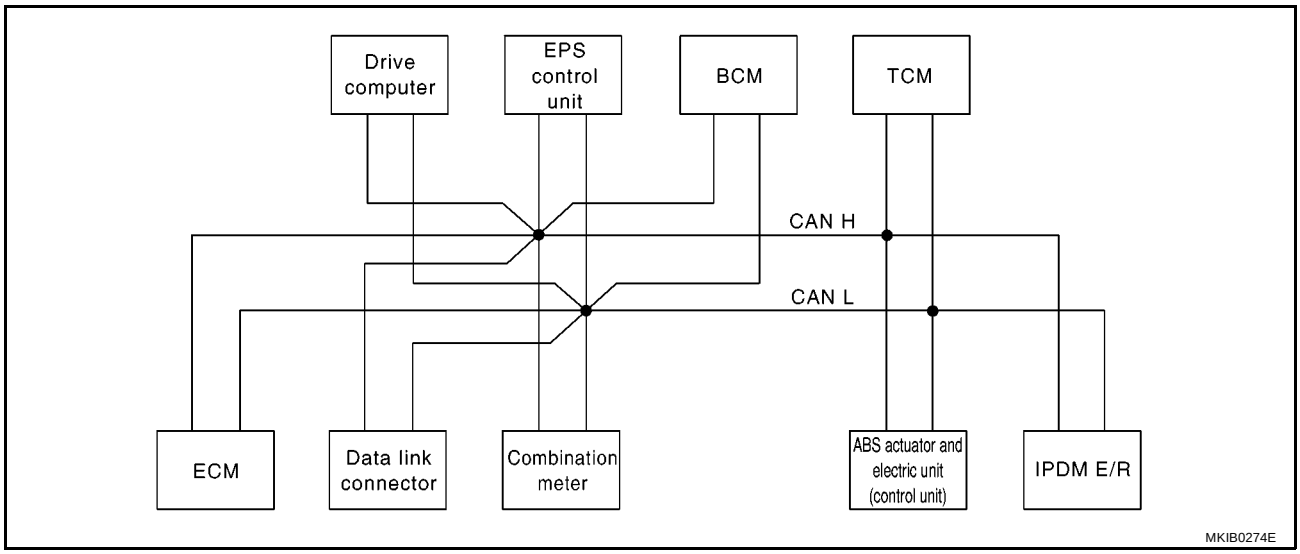
TYPE 5/TYPE 6

System diagram

- Type 5



- Type 6



Input/output signal chart

T: Transmit R: Receive

Signals	ECM	Combi-nation meter.	Intelli-gent Key unit	Drive com-puter	EPS control unit	BCM	ABS actuator and electric unit (control unit)	TCM	IPDM E/R
Engine speed signal	T	R		R	R		R		
Engine coolant temperature sig-nal	T	R							
A/T self-diagnosis signal	R							T	
Output shaft revolution signal	R							T	
Accelerator pedal position signal	T						R	R	
Closed throttle position signal	T							R	
Wide open throttle position sig-nal	T						R	R	

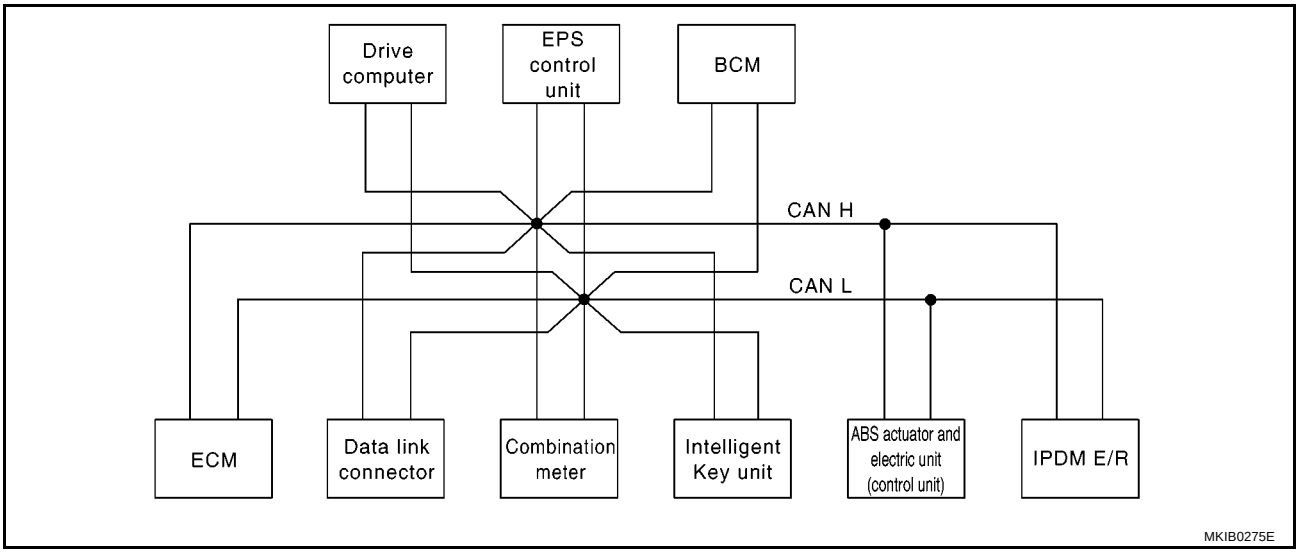
Signals	ECM	Combination meter.	Intelligent Key unit	Drive computer	EPS control unit	BCM	ABS actuator and electric unit (control unit)	TCM	IPDM E/R
A/T shift position signal		R						T	
A/T shift schedule change demand signal							T	R	
Stop lamp switch signal		T						R	
O/D OFF indicator lamp signal		R						T	
Engine and A/T integrated control signal	T							R	
	R							T	
Fuel consumption monitor signal	T	R							
Oil pressure switch signal		R		R					T
A/C compressor request signal	T								R
A/C switch signal	R								T
Heater fan switch signal	R					T			
Cooling fan speed request signal	T								R
Cooling fan speed status signal	R								T
Position lights request signal		R		R		T			R
Position light status signal	R								T
Low beam request signal						T			R
Low beam status signal	R								T
High beam request signal		R				T			R
High beam status signal	R								T
Day time light request signal						T			R
Vehicle speed signal	R	R			R		T		
	R	T	R	R	R	R			
Sleep/wake up signal		R	R			T			R
Door switch signal		R	R	R		T			R
Turn indicator signal		R				T			
Buzzer output signal		R				T			
		R	T						
MI signal	T	R		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								T
Drive computer signal		T		R					
EPS warning lamp signal		R		R	T				
ABS warning lamp signal		R		R			T		
ESP warning lamp signal		R		R			T		
ESP OFF indicator signal		R					T		
SLIP indicator lamp signal		R					T		

Signals	ECM	Combi-nation meter.	Intelli-gent Key unit	Drive com-puter	EPS control unit	BCM	ABS actuator and electric unit (control unit)	TCM	IPDM E/R
ESP operation signal	R						T		
TCS operation signal	R						T		
ABS operation signal	R						T		
Steering angle signal					T		R		
Brake warning lamp signal		R					T		
Buck-up lamp signal					R	T			
Fuel low warning signal		T		R					
Battery charge malfunction signal		T		R					
Air bag system warning signal		T		R					
Brake fluid level warning signal		T		R					
Engine coolant temperature warning signal		T		R					
Front fog lamp request signal		R				T			R
Rear fog lamp status signal		R				T			
Headlamp washer request signal						T			R
Door lock/unlock request signal			R			T			
Door lock/unlock status signal			R			T			
KEY indicator signal		R	T						
LOCK indicator signal		R	T						

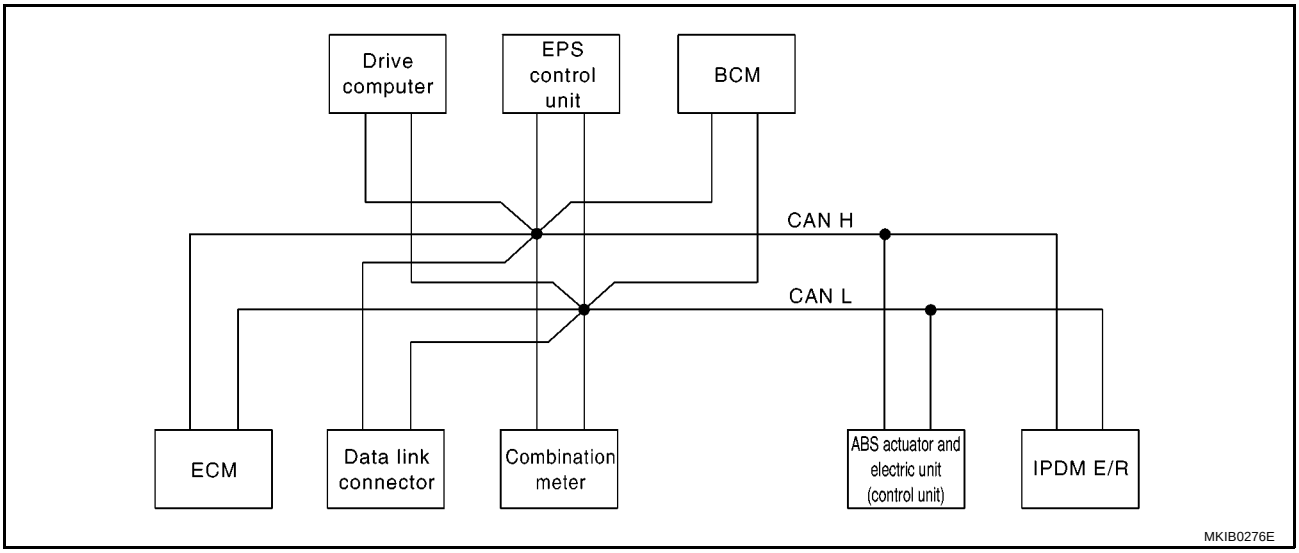
TYPE 7/TYPE 8

System diagram

- Type 7



- Type 8



Input/output signal chart

T: Transmit R: Receive

Signals	ECM	Combination meter.	Intelligent Key unit	Drive computer	EPS control unit	BCM	ABS actuator and electric unit (control unit)	IPDM E/R
Engine speed signal	T	R		R	R		R	
Engine coolant temperature signal	T	R						
Fuel consumption monitor signal	T	R						
Accelerator pedal position signal	T						R	
Oil pressure switch signal		R		R				T
A/C compressor request signal	T							R
A/C switch signal	R							T
Heater fan switch signal	R					T		
Cooling fan speed request signal	T							R

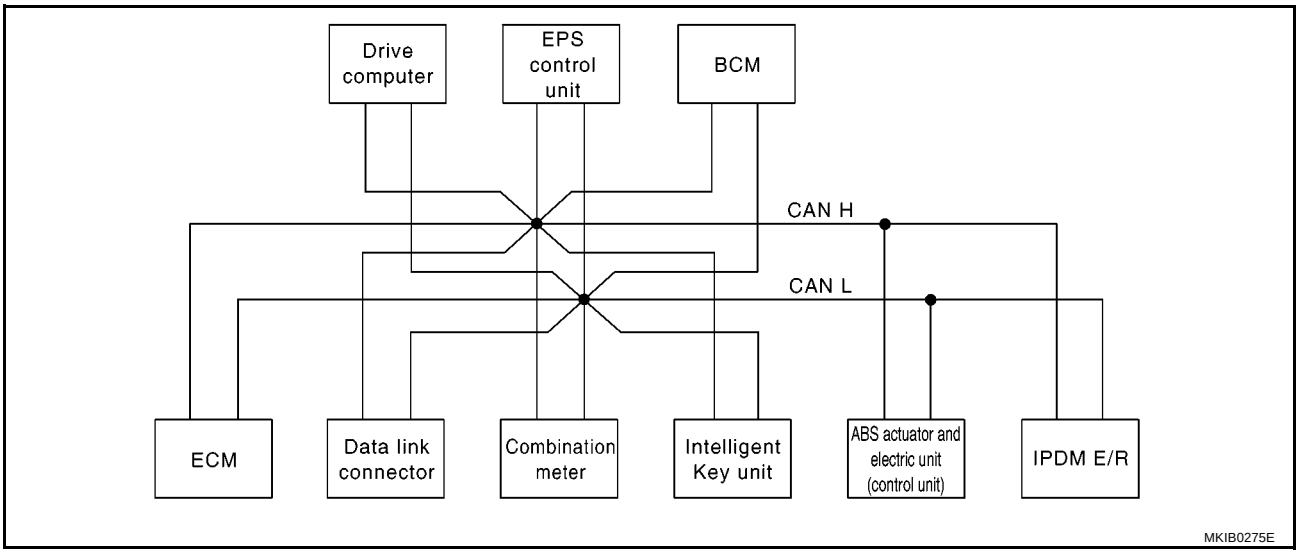
Signals	ECM	Combination meter.	Intelligent Key unit	Drive computer	EPS control unit	BCM	ABS actuator and electric unit (control unit)	IPDM E/R
Cooling fan speed status signal	R							T
Position lights request signal		R		R		T		R
Position light status signal	R							T
Low beam request signal						T		R
Low beam status signal	R							T
High beam request signal		R				T		R
High beam status signal	R							T
Day time light request signal						T		R
Vehicle speed signal	R	R			R		T	
	R	T	R	R	R	R		
Sleep/wake up signal		R	R			T		R
Door switch signal		R	R	R		T		R
Turn indicator signal		R				T		
Buzzer output signal		R				T		
		R	T					
MI signal	T	R		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							T
Drive computer signal		T		R				
EPS warning indicator signal		R		R	T			
ABS warning lamp signal		R		R			T	
ESP warning lamp signal		R		R			T	
ESP OFF indicator signal		R					T	
SLIP indicator lamp signal		R					T	
ESP operation signal	R						T	
TCS operation signal	R						T	
ABS operation signal	R						T	
Steering angle signal					T		R	
Brake warning lamp signal		R					T	
Buck-up lamp signal					R	T		
Fuel low warning signal		T		R				
Battery charge malfunction signal		T		R				
Air bag system warning signal		T		R				
Brake fluid level warning signal		T		R				
Engine coolant temperature warning signal		T		R				
Front fog lamp request signal		R				T		R
Rear fog lamp status signal		R				T		
Headlamp washer request signal						T		R

Signals	ECM	Combination meter.	Intelligent Key unit	Drive computer	EPS control unit	BCM	ABS actuator and electric unit (control unit)	IPDM E/R
Door lock/unlock request signal			R			T		
Door lock/unlock status signal			R			T		
KEY indicator signal		R	T					
LOCK indicator signal		R	T					

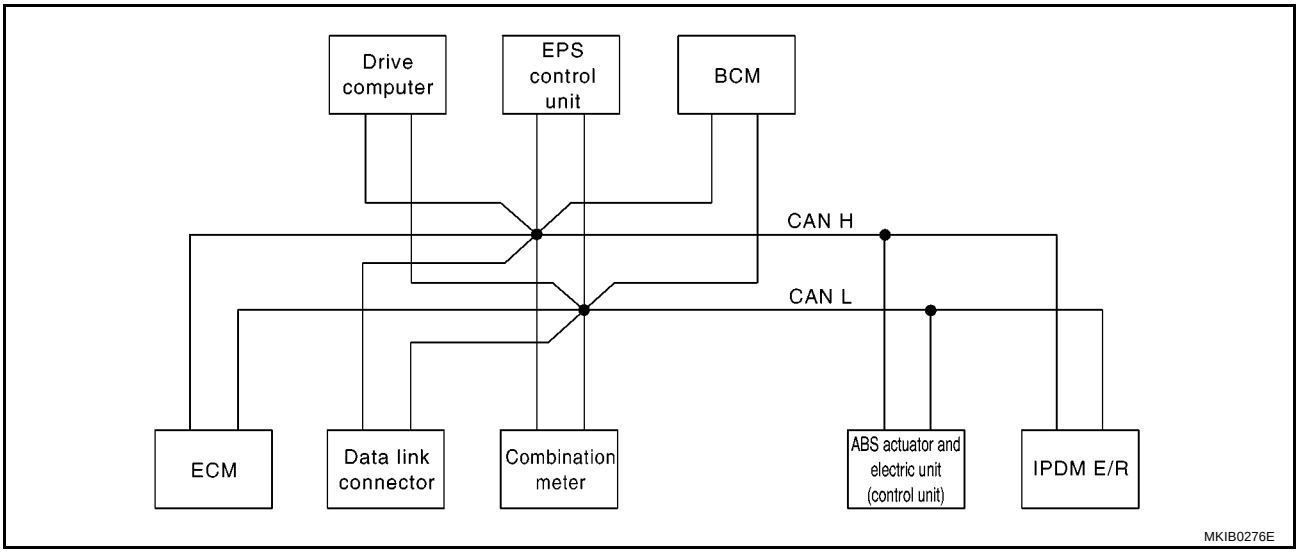
TYPE 9/TYPE 10

System diagram

- Type 9



- Type 10



Input/output signal chart

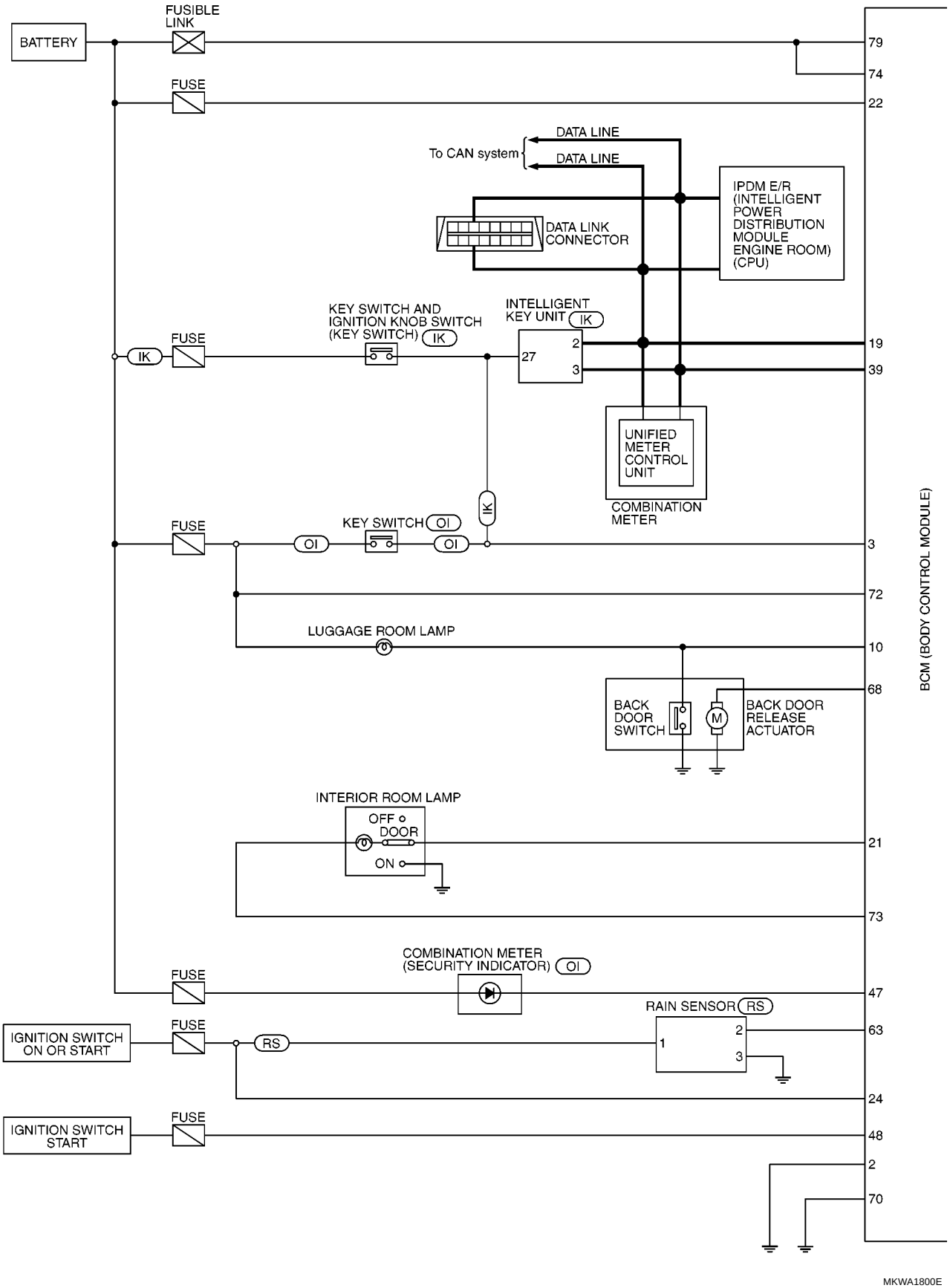
T: Transmit R: Receive

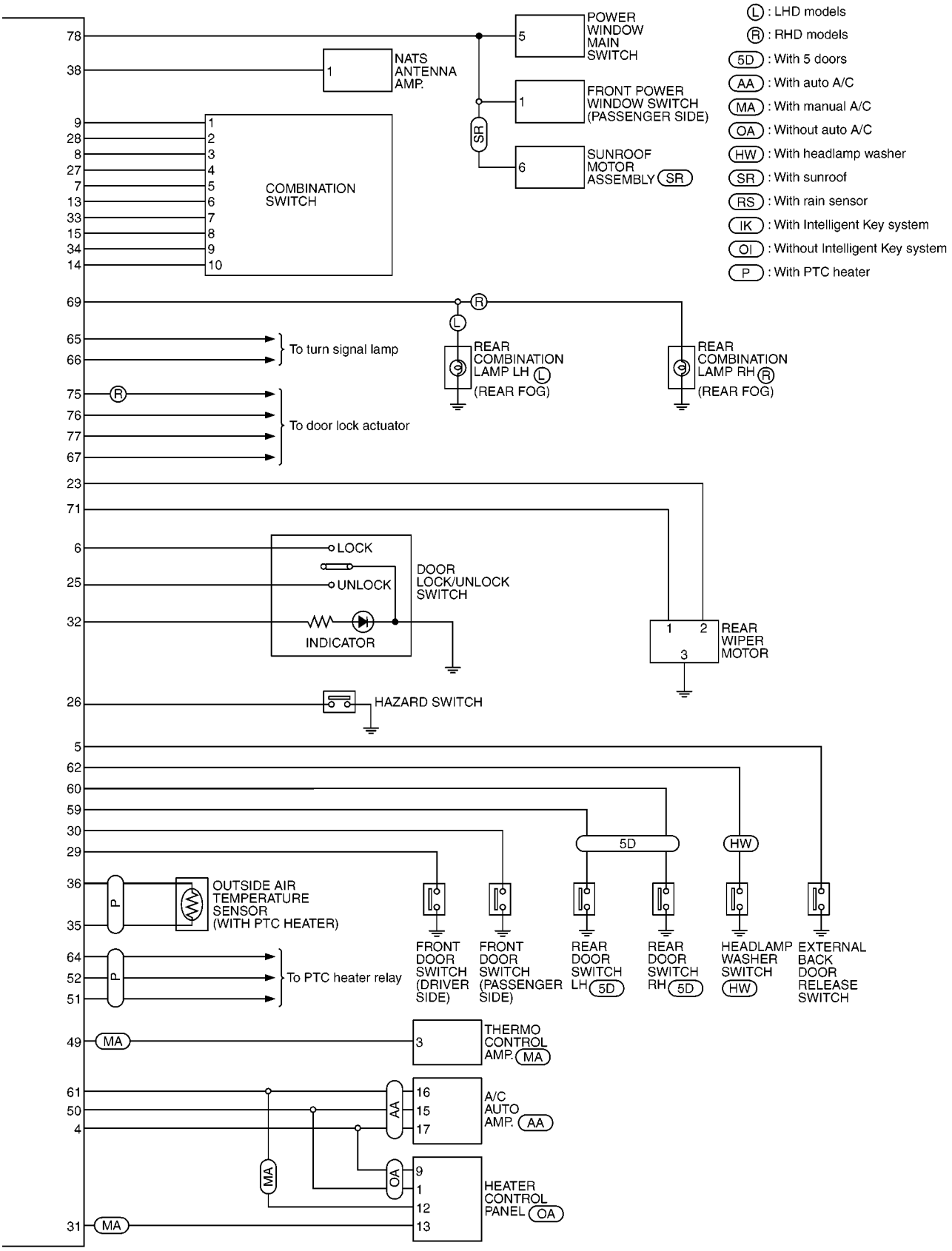
Signals	ECM	Combination meter.	Intelligent Key unit	Drive computer	EPS control unit	BCM	ABS actuator and electric unit (control unit)	IPDM E/R
Engine speed signal	T	R		R	R			
Engine coolant temperature signal	T	R				R		
Fuel consumption monitor signal	T	R						
Oil pressure switch signal		R		R				T
A/C compressor request signal	T							R
Heater fan switch signal	R					T		
Cooling fan speed request signal	T							R
Position lights request signal		R		R		T		R
Low beam request signal						T		R
High beam request signal		R				T		R
Day time light request signal						T		R
Vehicle speed signal	R	R			R	R	T	
	R	T	R	R	R			
Sleep/wake up signal		R	R			T		R
Door switch signal		R	R	R		T		R
Turn indicator signal		R				T		
Buzzer output signal		R				T		
		R	T					
MI signal	T	R		R				
Front wiper request signal						T		R
Front wiper stop position signal						R		T
Rear window defogger switch signal						T		R
Drive computer signal		T		R				
EPS warning indicator signal		R		R	T			
ABS warning lamp signal		R		R			T	
ABS operation signal				R			T	
Brake warning lamp signal		R					T	
Buck-up lamp signal					R	T		
Fuel low warning signal		T		R				
Battery charge malfunction signal		T		R				
Air bag system warning signal		T		R				
Brake fluid level warning signal		T		R				
Engine coolant temperature warning signal		T		R				
Front fog lamp request signal		R				T		R
Rear fog lamp status signal		R				T		
Headlamp washer request signal						T		R
Door lock/unlock request signal			T			R		
Door lock/unlock status signal			R			T		

Signals	ECM	Combination meter.	Intelligent Key unit	Drive computer	EPS control unit	BCM	ABS actuator and electric unit (control unit)	IPDM E/R
KEY indicator signal		R	T					
LOCK indicator signal		R	T					

Schematic

EKS007SY




Ⓛ : LHD models
Ⓡ : RHD models
5D : With 5 doors
AA : With auto A/C
MA : With manual A/C
OA : Without auto A/C
HW : With headlamp washer
SR : With sunroof
RS : With rain sensor
IK : With Intelligent Key system
OI : Without Intelligent Key system
P : With PTC heater
POWER WINDOW MAIN SWITCH
NATS ANTENNA AMP.
FRONT POWER WINDOW SWITCH (PASSENGER SIDE)
SUNROOF MOTOR ASSEMBLY SR
COMBINATION SWITCH
To turn signal lamp
REAR COMBINATION LAMP LH Ⓛ (REAR FOG)
REAR COMBINATION LAMP RH Ⓡ (REAR FOG)
To door lock actuator
LOCK
UNLOCK
INDICATOR
DOOR LOCK/UNLOCK SWITCH
REAR WIPER MOTOR
HAZARD SWITCH
OUTSIDE AIR TEMPERATURE SENSOR (WITH PTC HEATER)
To PTC heater relay
FRONT DOOR SWITCH (DRIVER SIDE)
FRONT DOOR SWITCH (PASSENGER SIDE)
REAR DOOR SWITCH LH 5D
REAR DOOR SWITCH RH 5D
HEADLAMP WASHER SWITCH HW
EXTERNAL BACK DOOR RELEASE SWITCH
THERMO CONTROL AMP. MA
A/C AUTO AMP. AA
HEATER CONTROL PANEL OA

MKWA1550E

CONSULT-II Function (BCM)

EKS007SZ

CONSULT-II can display each diagnostic item using the diagnostic modes shown following. Data is recieved and transmitted via the control module communication line.

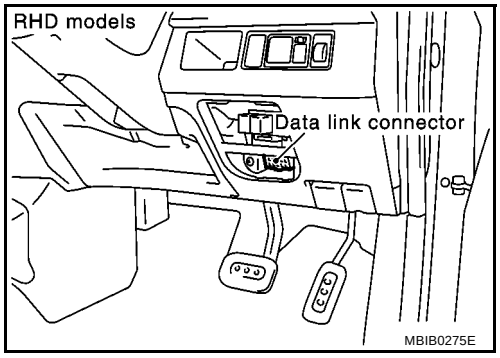
BCM diagnostic test item	Check item, diagnostic test mode	Content
Inspection by part	SELF-DIAGNOSTIC RESULTS	BCM performs self-diagnosis of CAN communication.
	DATA MONITOR	Displays the input data of BCM in real time.
	CAN DIAG SUPPORT MNTR	The results of transmit/receive diagnosis of CAN communication can be read.
	ACTIVE TEST	Gives a drive signal to a load to check the operation.
	ECM PART NUMBER	Displays BCM parts number

CONSULT–II INSPECTION PROCEDURE

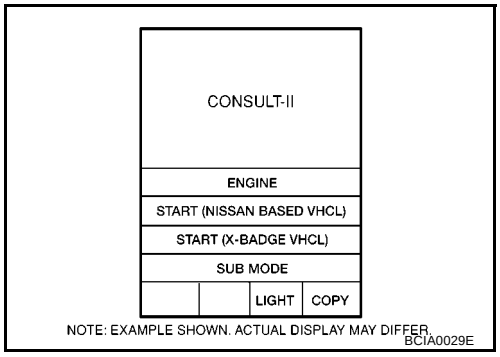
CAUTION:

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

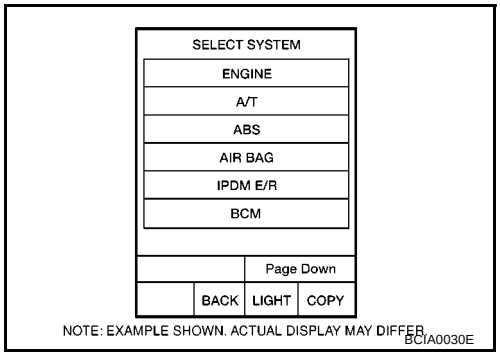
1. With the ignition switch OFF, connect “CONSULT-II” and “CONSULT-II CONVERTER” to the data link connector, then turn the ignition switch ON.



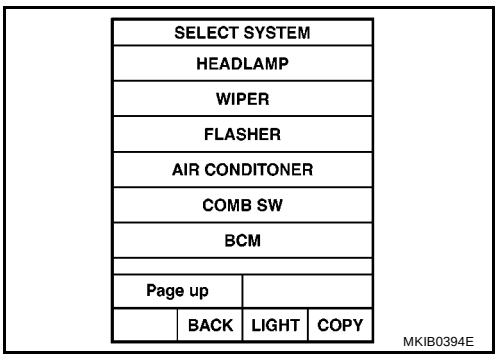
2. Touch “START (NISSAN BASED VHCL)”.



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



4. Select the desired part to be diagnosed on the “SELECT TEST ITEM” screen.



ITEMS OF EACH PART

×:Applicable

System and item	“TEST ITEM” screen		Diagnostic test mode (Inspection by part)				
			WORK SUPPORT	SELF-DIAG RESULTS	DATA MONITOR	ACTIVE TEST	ECU PARTS NUMBER
Power door lock system	DOOR LOCK		×		×	×	
Rear window defogger	REAR DEFOGGER				×	×	
Ignition key warning chime	BUZZER	KEY REMINDER WARN			×	×	
Light warning chime		LIGHT WARN ALM			×	×	
Back door warning chime		BACK DR OPEN WARN			×	×	
Door warning indicator		DOOR WARN-ING IND			×	×	
Interior room lamp timer	INT LAMP				×	×	
Multi-remote control system	MULTI REMOTE ENT				×		
Headlamp	HEAD LAMP		×		×	×	
Wiper	WIPER		×		×	×	
Turn signal lamp Hazard warning lamp	FLASHER		×		×	×	
A/C switch signal Blower fan switch signal	AIR CONDITIONER				×	×	
Intelligent Key system	INTELLIGENT KEY				×		
Combination switch	COMB SW				×		
BCM	BCM			×	×		×
Theft warning system (Dealer option)	THEFT ALM		×		×		

Configuration

EKS00EJ8

DESCRIPTION

There are two CONFIGURATION functions, as follows.
READ CONFIGURATION is a function for confirming vehicle configuration written on BCM.
WRITE CONFIGURATION is a function for writing a vehicle configuration to BCM.

CAUTION:

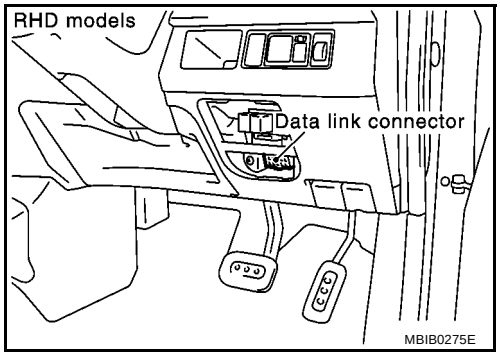
- **When replacing BCM, completely perform WRITE CONFIGURATION with CONSULT-II.**
- **Orderly complete the procedure of WRITE CONFIGURATION.**
- **If you set incorrect WRITE CONFIGURATION, vehicle operation will not be correct.**
- **Configuration is different by each vehicle model, confirm configuration in each case.**

READ CONFIGURATION PROCEDURE

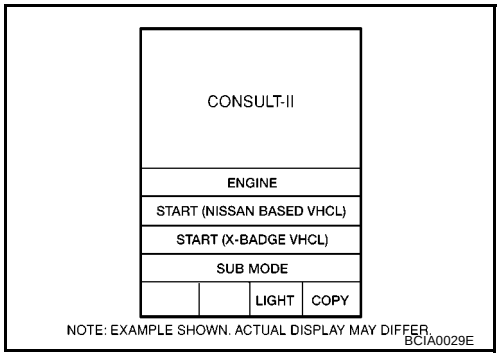
CAUTION:

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

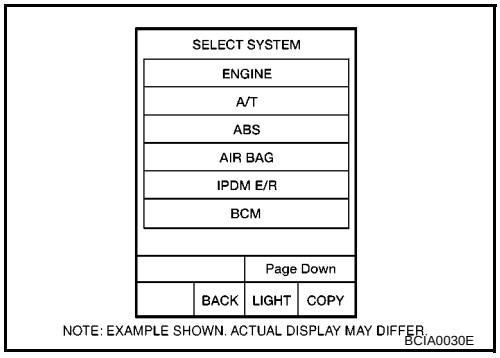
1. With the ignition switch OFF, connect CONSULT-II and CONSULT-II CONVERTER to the data link connector, then turn the ignition switch ON.



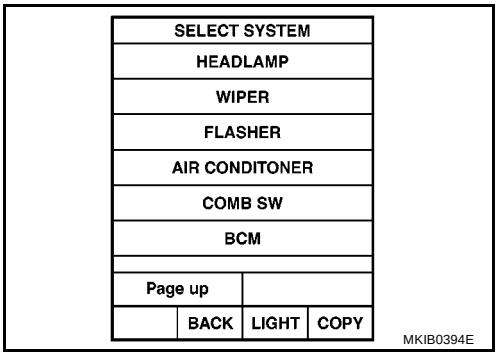
2. Touch “START(NISSAN BASED VHCL)”.



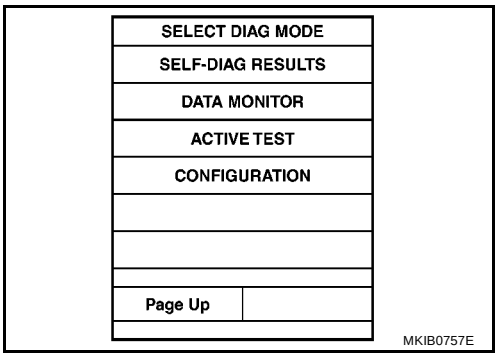
3. Touch “BCM” on “SELECT SYSTEM” screen.
If “BCM” is not indicated, go to GI-36, "CONSULT-II Data Link Connector (DLC) Circuit" .



4. Touch “BCM” on “SELECT TEST SYSTEM” screen.

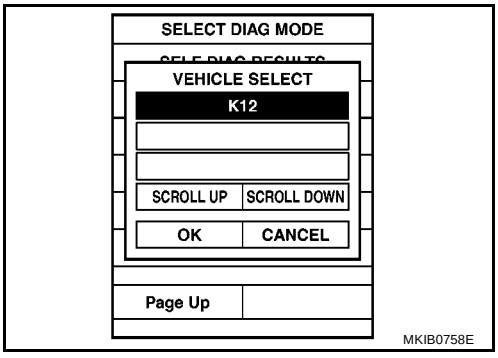


5. Touch “CONFIGURATION” on “SELECT DIAG MODE” screen.

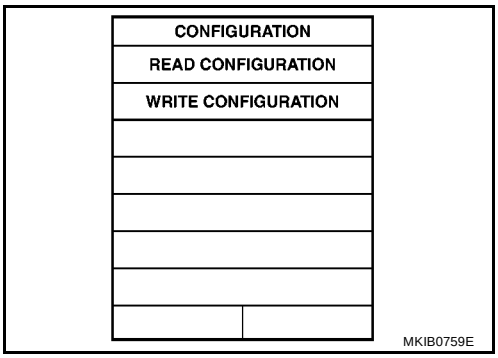


6. Touch “K12”, and “OK” on “VEHICLE SELECT” screen.
For canceling, touch “CANCEL” on “VEHICLE SELECT” screen.

NOTE:
Confirm vehicle model on GI-47, "IDENTIFICATION PLATE" .



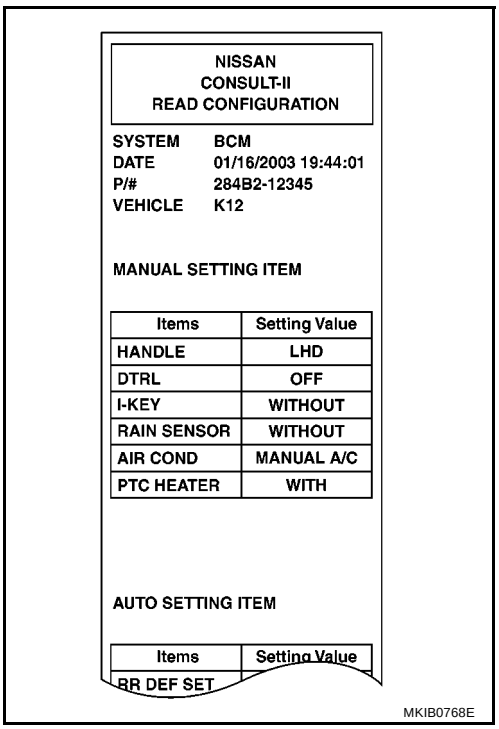
7. Touch “READ CONFIGURATION” on “CONFIGURATION” screen.



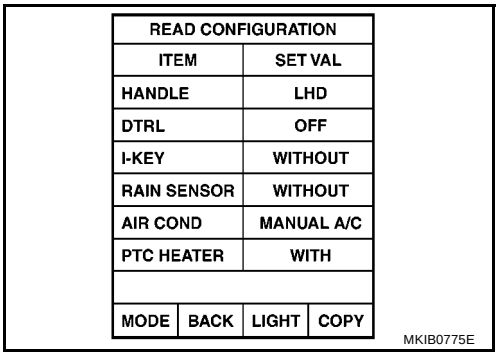
8. Configuration of brand-new BCM are printed out automatically. Configuration of brand-new BCM before executing “WRITE CONFIGURATION” is as follows.

MANUAL SET ITEM	
ITEM	SET VAL
HANDLE	LHD
DTRL	OFF
I-KEY	WITHOUT
RAIN SENSOR	WITHOUT
AIR COND	HEATER
PTC HEATER	WITHOUT

AUTO SET ITEM	
RR DEF SET	YET
H/L WASH FREQ	5
DONGLE	OFF
SUPER LOCK	WITH
DOOR LCK SET 1	5
DOOR LCK SET 2	7
LIT OFF TIMER	ON



9. Touch “BACK” on “ READ CONFIGURATION“screen.

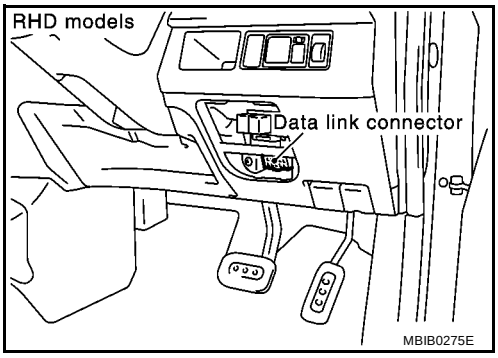


WRITE CONFIGURATION PROCEDURE

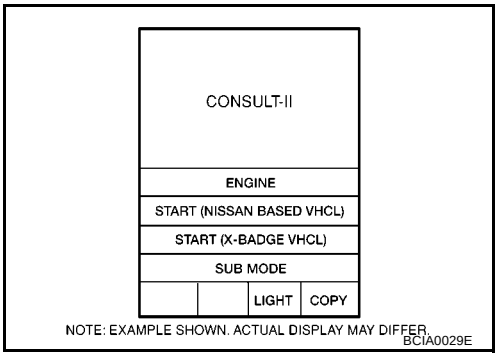
CAUTION:

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

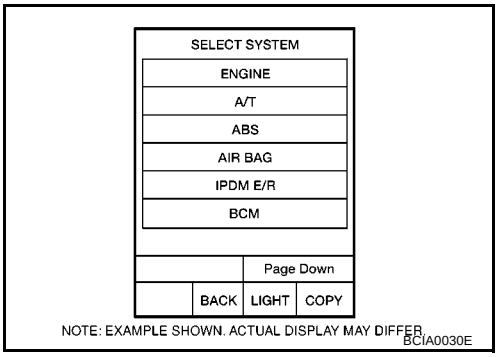
1. With the ignition switch OFF, connect CONSULT-II and CONSULT-II CONVERTER to the data link connector, then turn the ignition switch ON.



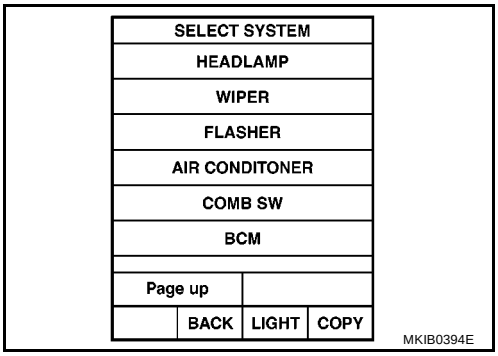
2. Touch “START(NISSAN BASED VHCL)”.



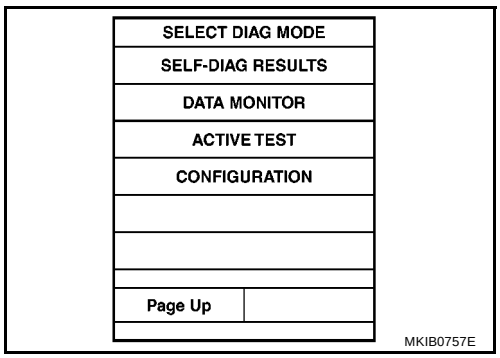
3. Touch “BCM” on “SELECT SYSTEM” screen.
If “BCM” is not indicated, go to GI-36, "CONSULT-II Data Link Connector (DLC) Circuit" .



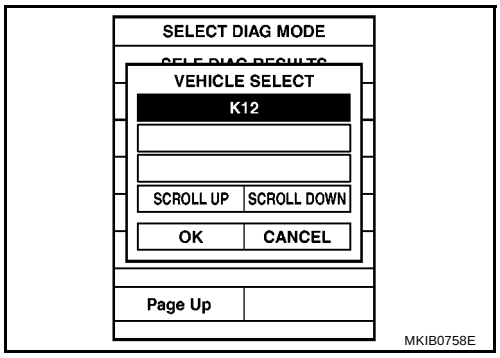
4. Touch “BCM” on “SELECT TEST SYSTEM” screen.



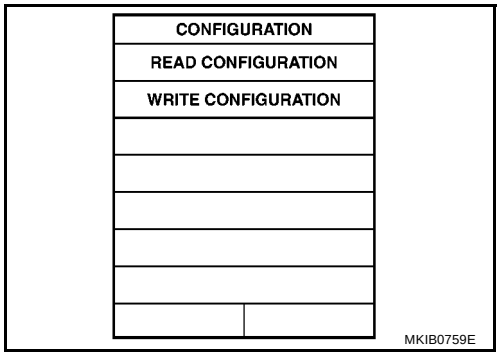
5. Touch “CONFIGURATION” on “SELECT DIAG MODE” screen.



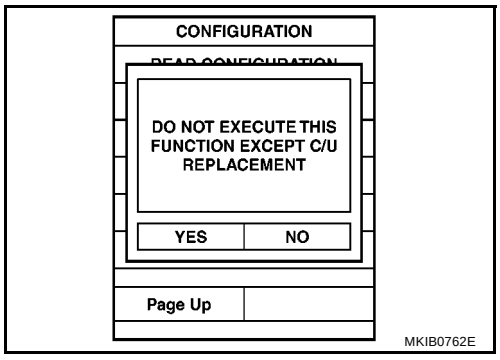
6. Touch “K12”, and “OK” on “VEHICLE SELECT” screen.
For canceling, touch “CANCEL” on “VEHICLE SELECT” screen.
NOTE:
Confirm vehicle model on GI-47, "IDENTIFICATION PLATE" .



7. Touch “WRITE CONFIGURATION” on “CONFIGURATION“screen.

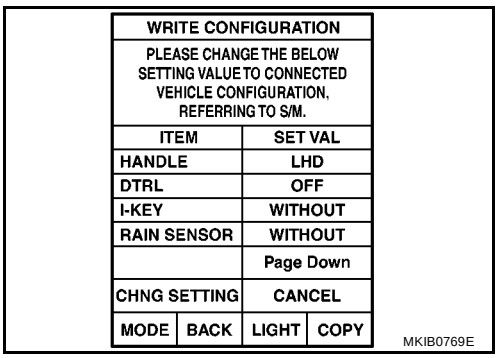


8. Touch “YES”.
For canceling, touch “NO”.

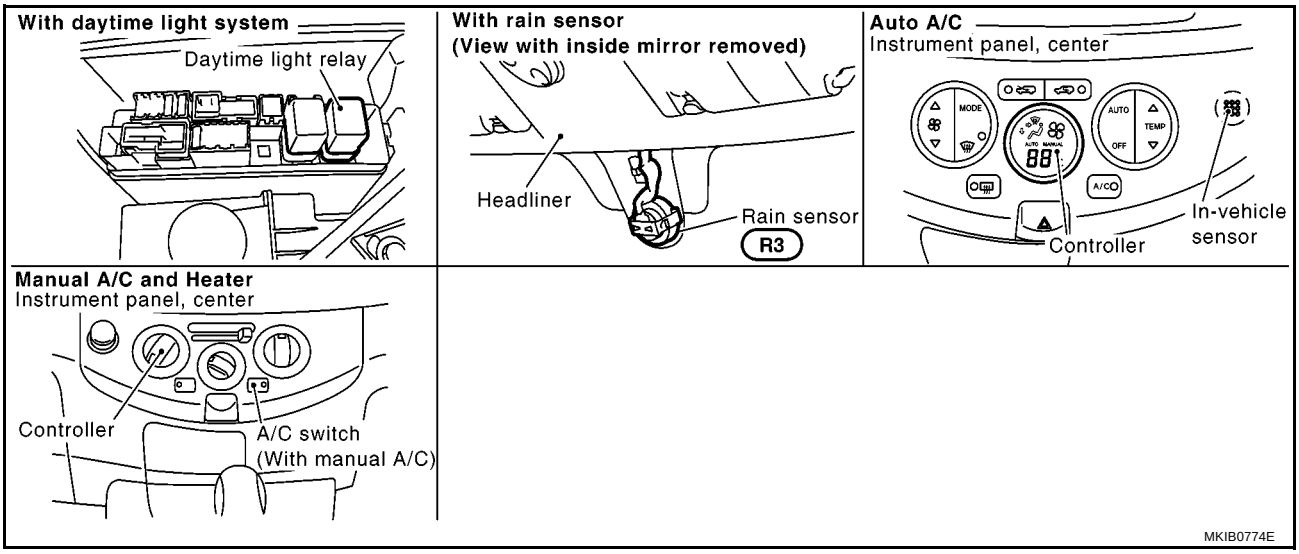


9. Select the configuration for the vehicle on “WRITE CONFIGURATION”screen based on the following ITEM LIST.
< ITEM LIST>

ITEM	SET VAL	NOTE
HANDLE	LHD	For LHD models
	RHD	For RHD models
DTRL (Day time Running Light)	ON	With day time light system*
	OFF	Without day time light system*
I-KEY (Intelligent Key system)	WITH	With Intelligent Key system
	WITHOUT	Without Intelligent Key system
RAIN SENSOR	WITH	With rain sensor*
	WITHOUT	Without rain sensor*
AIR COND	AUTO A/C	With auto A/C*
	MANUAL A/C	With manual A/C*
	HEATER	Heater*
PTC HEATER	WITH	PTC heater is equipped, if 14 digits of the applied model code is marked with “H” or “J”. i.e.:EDHARAFK12EEA “H” …
	WITHOUT	PTC heater is not equipped, if 14 digits of the applied model code is marked without “H” or “J”. i.e.:EDHARAFK12EEA “E” …



*: Refer to bottom illustration to specify the items for “SET VAL”.

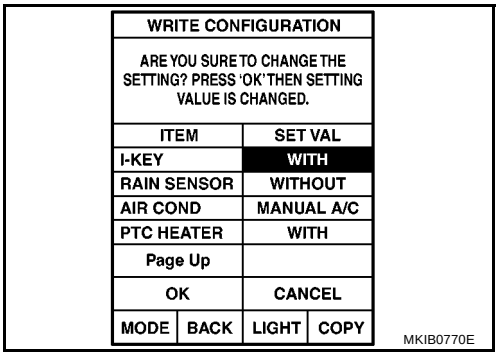


For canceling, touch “CANCEL”.

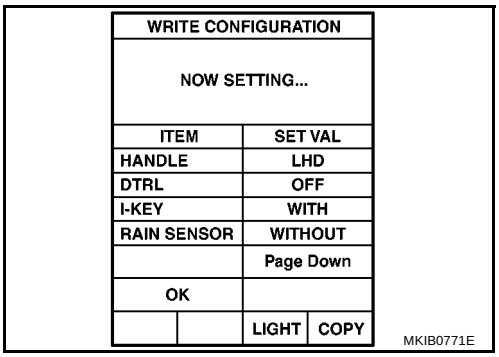
10. Touch “CONFIG” on “WRITE CONFIGURATION“screen.

CAUTION:
Make sure to touch “CONFIG” even if the indicated configuration of brand new BCM is same as the desirable configuration.
If not, configuration which is set automatically by selecting vehicle model can not be memorized.

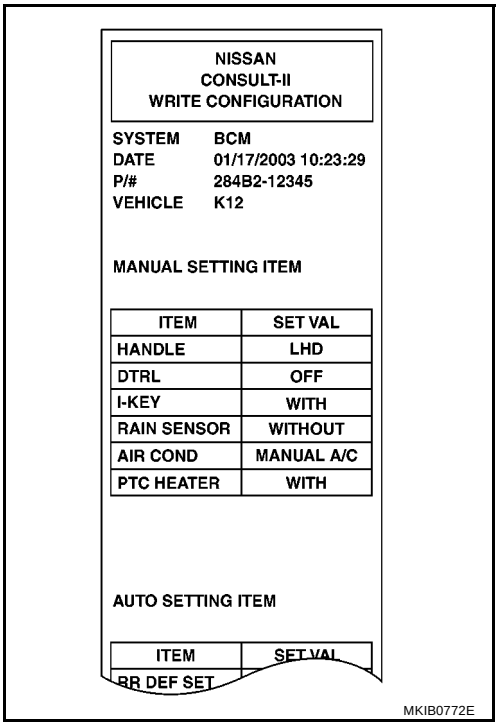
11. Touch “OK” on “WRITE CONFIGURATION”screen. When touched “CANCEL”, go to previous screen.



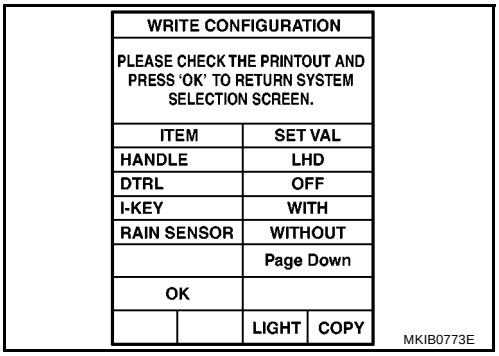
12. Wait until the next screen during setting.



13. WRITE CONFIGURATION results are printed out automatically. Check “WRITE CONFIGURATION” is correctly executed by comparing sheet automatically printed out with desirable configuration.



14. Touch “OK” on “WRITE CONFIGURATION“screen. WRITE CONFIGURATION is completed.



CAN Communication Inspection With CONSULT-II (Self-Diagnosis)

EKS007T0

Go to LAN-4, "Precautions When Using CONSULT-II" .

Removal and Installation of BCM

EKS007T2

CAUTION:

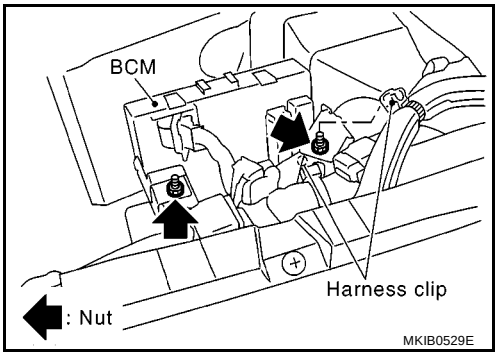
Always replace with new* BCM when the BCM replacement is required.
***: New one means virgin control unit that has never been energized on-board.**

REMOVAL

NOTE:

If possible, before removing BCM, retrieve current BCM configuration to use for reference when configuring brand-new BCM after installation. Refer to BCS-24, "Configuration" .

1. Remove instrument upper panel. Refer to IP-4, "INSTRUMENT PANEL ASSEMBLY" .
2. Remove harness clip.
3. Remove screws to remove BCM.



INSTALLATION

- Install in the reverse order of removal.