Last Modified: 2-12-2007		1.6 U
Service Category: Power Source/Network	**Section:** Networking	
Model Year: 2008	**Model:** xB	**Doc ID:** RM000000XVK02BX
Title: CAN COMMUNICATION: CAN COMMUNICATION SYSTEM: TERMINALS OF ECU (2008 xB)		

TERMINALS OF ECU

NOTICE:

- Turn the ignition switch off before measuring the resistances of the CAN main wire and the CAN branch wire.
- After the ignition switch is turned off, check that the key reminder warning system and light reminder warning system are not in operation.
- Before measuring the resistance, leave the vehicle as is for at least 1 minute and do not operate the ignition switch, any other switches or the doors. If doors need to be opened in order to check connectors, open the doors and leave them open.

HINT:

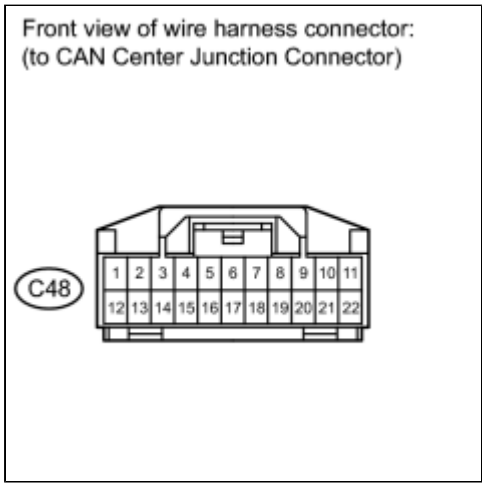
Operating the ignition switch, any switches or any doors triggers related ECU and sensor communication with the CAN, which causes resistance variation.

1. JUNCTION CONNECTOR

(a) CAN Center Junction Connector

Wiring color:

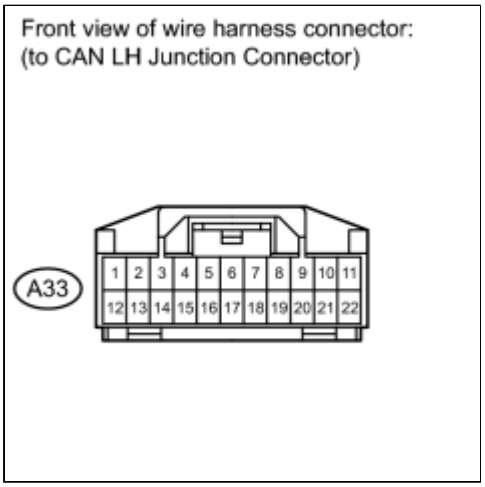
CAN CENTER JUNCTION CONNECTORS	TERMINALS NO. (SYMBOLS)	COLOR
Steering sensor (CAN-H)	C48-5 (CANH)	BR
Steering sensor (CAN-L)	C48-16 (CANL)	W
DLC 3 (CAN-H)	C48-7 (CANH)	LG
DLC 3 (CAN-L)	C48-18 (CANL)	W
Air conditioning amplifier (CAN-H)	C48-4 (CANH)	V
Air conditioning amplifier (CAN-L)	C48-15 (CANL)	W
Center airbag sensor assembly (CAN-H)	C48-9 (CANH)	Y
Center airbag sensor assembly (CAN-L)	C48-21 (CANL)	W
CAN Main wire (between CAN center junction connector and CAN LH junction connector (CAN-H))	C48-10 (CANH)	B



CAN Main wire (between CAN center junction connector and CAN LH junction connector (CAN-L))	C48-21 (CANL)	W
Yaw Rate Sensor (CAN-H)	C48-6 (CANH)	L
Yaw Rate Sensor (CAN-L)	C48-17 (CANL)	W
Combination Meter ECU (CAN-H)	C48-2 (CANH)	G
Combination Meter ECU (CAN-L)	C48-13 (CANL)	W
Power Steering ECU (CAN-H)	C48-3 (CANH)	SB
Power Steering ECU (CAN-L)	C48-14 (CANL)	W
Main Body ECU (CAN-H)	C48-8 (CANH)	R
Main Body ECU (CAN-L)	C48-19 (CANL)	W
Bus Buffer (CAN-H)	C48-1 (H)	P
Bus Buffer (CAN-L)	C48-12 (L)	W

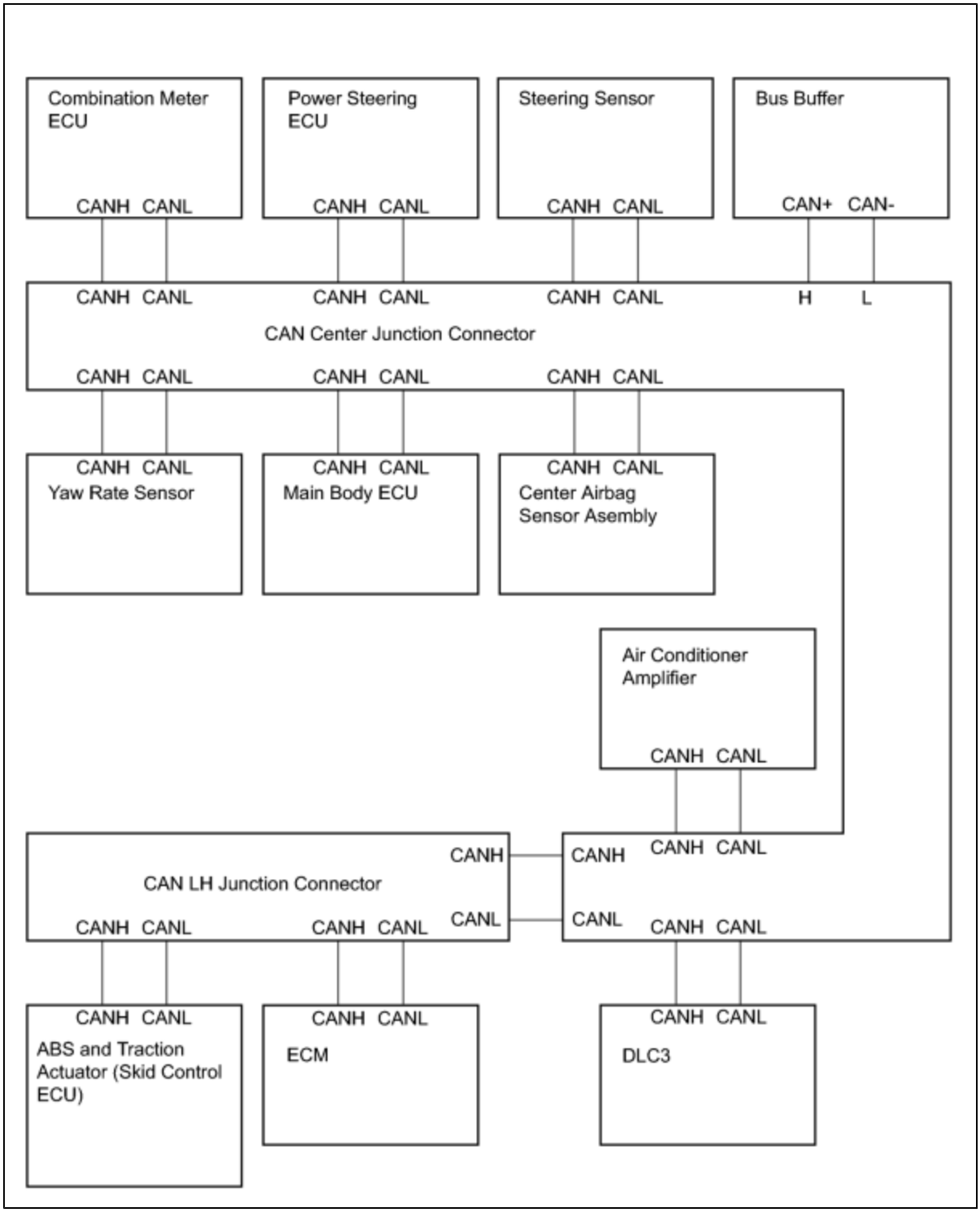
(b) CAN LH Junction Connector

Wiring color:



CAN LH JUNCTION CONNECTORS	TERMINALS NO. (SYMBOLS)	COLOR
ABS and traction actuator (skid control ECU) (CAN-H)	A33-8 (CANH)	R
ABS and traction actuator (skid control ECU) (CAN-L)	A33-19 (CANL)	W
ECM (CAN-H)	A33-10 (CANH)	Y
ECM (CAN-L)	A33-21 (CANH)	W
CAN Main wire (between CAN LH junction connector and CAN center junction connector (CAN-H))	A33-9 (CANH)	B
CAN Main wire (between CAN LH junction connector and CAN center junction connector (CAN-L))	A33-20 (CANL)	W

(c) Wiring diagram for identifying CAN Junction Connectors

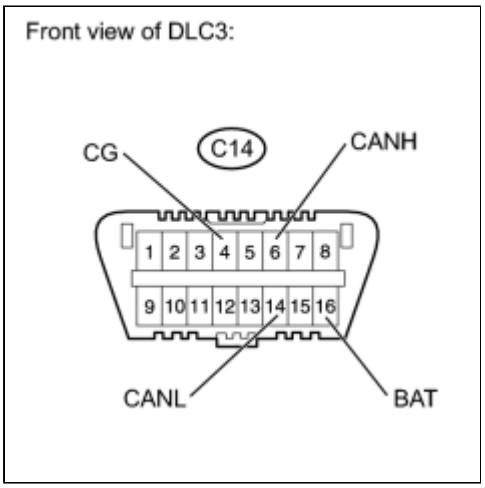


2. DLC3

(a) Turn the ignition switch off.

(b) Measure the resistance according to the value(s) in the table below.

Standard resistance:



TERMINALS NO. (SYMBOLS)	WIRING COLOR	SWITCH CONDITION	SPECIFIED CONDITION
C14-6 (CANH) - C14-14 (CANL)	LG - W	Ignition switch off	54 to 69 Ω
C14-6 (CANH) - C14-4 (CG)	LG - W-B	Ignition switch off	200 Ω or higher
C14-14 (CANL) - C14-4 (CG)	W - W-B	Ignition switch off	200 Ω or higher
C14-6 (CANH) - C14-16 (BAT)	LG - G	Ignition switch off	6 kΩ or higher
C14-14 (CANL) - C14-16 (BAT)	W - G	Ignition switch off	6 kΩ or higher

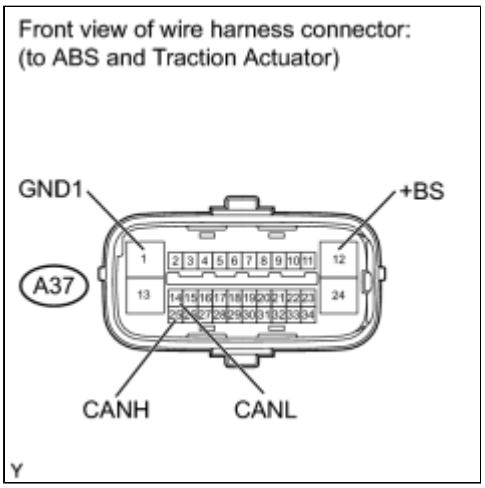
3. ABS AND TRACTION ACTUATOR (SKID CONTROL ECU)

(a) Turn the ignition switch off.

(b) Disconnect the A37 ABS and traction actuator (skid control ECU) connector.

(c) Measure the resistance according to the value(s) in the table below.

Standard resistance:



TERMINALS NO. (SYMBOLS)	WIRING COLOR	SWITCH CONDITION	SPECIFIED CONDITION
A37-25 (CANH) - A37-14 (CANL)	R - W	Ignition switch off	54 to 69 Ω
A37-25 (CANH) - A37-1 (GND1)	R - W-B	Ignition switch off	200 Ω or higher
A37-14 (CANL) - A37-1 (GND1)	W - W-B	Ignition switch off	200 Ω or higher
A37-25 (CANH) - A37-12 (+BS)	R - W	Ignition switch off	6 kΩ or higher
A37-14 (CANL) - A37-12 (+BS)	W - W	Ignition switch off	6 kΩ or higher

4. STEERING SENSOR

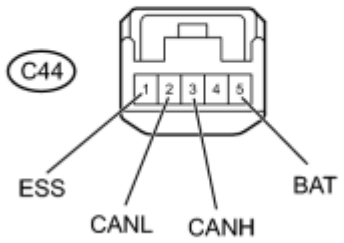
(a) Turn the ignition switch off.

(b) Disconnect the C44 steering sensor connector.

(c) Measure the resistance according to the value(s) in the table below.

Standard resistance:

Front view of wire harness connector:
(to Steering Sensor)



TERMINALS NO. (SYMBOLS)	WIRING COLOR	SWITCH CONDITION	SPECIFIED CONDITION
C44-3 (CANH) - C44-2 (CANL)	BR - W	Ignition switch off	54 to 69 Ω
C44-3 (CANH) - C44-1 (ESS)	BR - BR	Ignition switch off	200 Ω or higher
C44-2 (CANL) - C44-1 (ESS)	W - BR	Ignition switch off	200 Ω or higher
C44-3 (CANH) - C44-5 (BAT)	BR - W	Ignition switch off	6 kΩ or higher
C44-2 (CANL) - C44-5 (BAT)	W - W	Ignition switch off	6 kΩ or higher

5. YAW RATE SENSOR

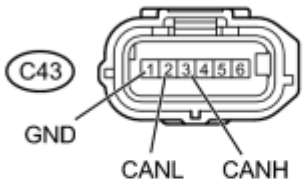
(a) Turn the ignition switch off.

(b) Disconnect the C43 yaw rate sensor connector.

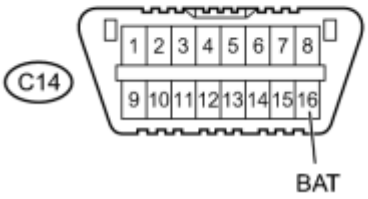
(c) Measure the resistance according to the value(s) in the table below.

Standard resistance:

Front view of wire harness connector:
(to Yaw Rate Sensor)



Front view of DLC3:



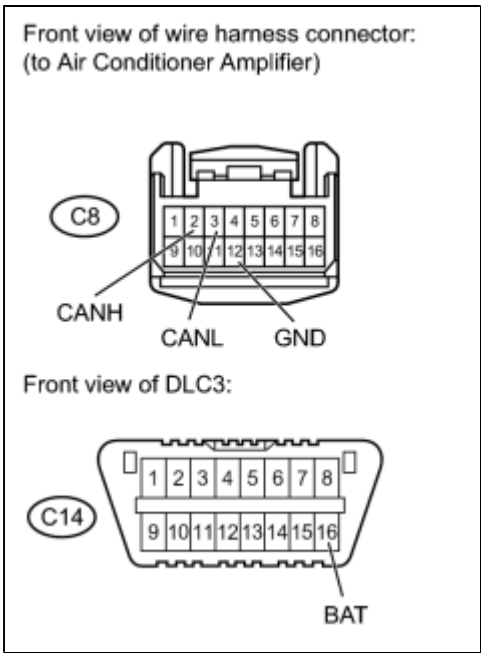
TERMINALS NO. (SYMBOLS)	WIRING COLOR	SWITCH CONDITION	SPECIFIED CONDITION
C43-3 (CANH) - C43-2 (CANL)	L - W	Ignition switch off	54 to 69 Ω
C43-3 (CANH) - C43-1 (GND)	L - BR	Ignition switch off	200 Ω or higher
C43-2 (CANL) - C43-1 (GND)	W - BR	Ignition switch off	200 Ω or higher
C43-3 (CANH) - C14-16 (BAT)	L - G	Ignition switch off	6 kΩ or higher
C43-2 (CANL) - C14-16 (BAT)	W - G	Ignition switch off	6 kΩ or higher

6. AIR CONDITIONING AMPLIFIER

(a) Turn the ignition switch off.

(b) Disconnect the C8 air conditioning amplifier connector.

(c) Measure the resistance according to the value(s) in the table below.



Standard resistance:

TERMINALS NO. (SYMBOLS)	WIRING COLOR	SWITCH CONDITION	SPECIFIED CONDITION
C8-2 (CANH) - C8-3 (CANL)	V - W	Ignition switch off	54 to 69 Ω
C8-2 (CANH) - C8-12 (GND)	V - W-B	Ignition switch off	200 Ω or higher
C8-3 (CANL) - C8-12 (GND)	W - W-B	Ignition switch off	200 Ω or higher
C8-2 (CANH) - C14-16 (BAT)	V - G	Ignition switch off	6 kΩ or higher
C8-3 (CANL) - C14-16 (BAT)	W - G	Ignition switch off	6 kΩ or higher

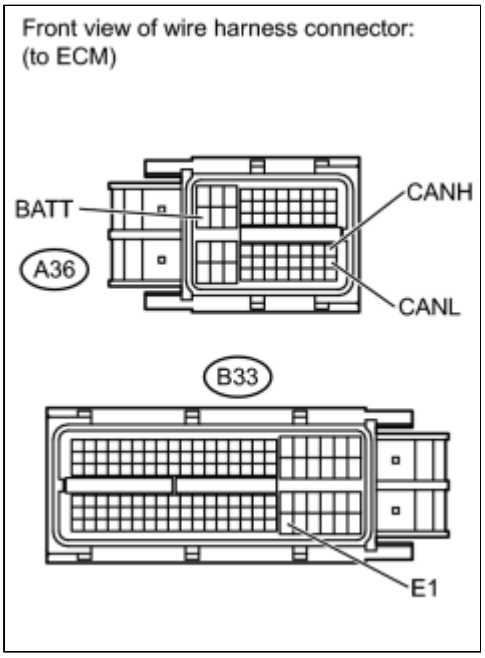
7. ECM

(a) Turn the ignition switch off.

(b) Disconnect the A36 and B33 ECM connectors.

(c) Measure the resistance according to the value(s) in the table below.

Standard resistance:

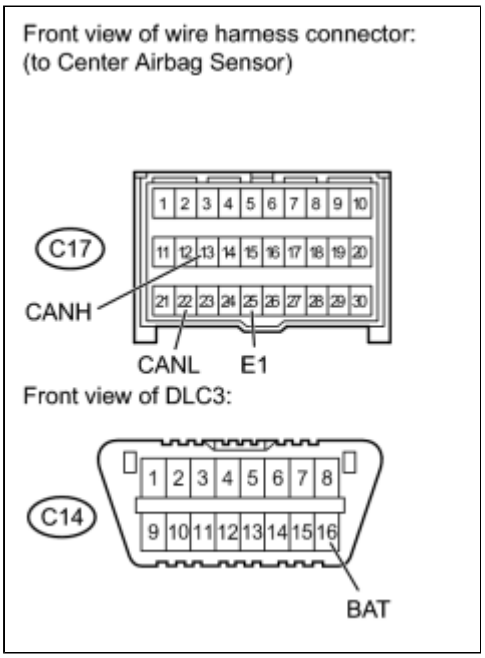


TERMINALS NO. (SYMBOLS)	WIRING COLOR	SWITCH CONDITION	SPECIFIED CONDITION
A36-41 (CANH) - A36-49 (CANL)	Y - W	Ignition switch off	108 to 132 Ω
A36-41 (CANH) - B33-104 (E1)	Y - BR	Ignition switch off	200 Ω or higher
A36-49 (CANL) - B33-104 (E1)	W - BR	Ignition switch off	200 Ω or higher
A36-41 (CANH) - A36-20 (BATT)	Y - P	Ignition switch off	6 kΩ or higher
A36-49 (CANL) - A36-20 (BATT)	W - P	Ignition switch off	6 kΩ or higher

8. CENTER AIRBAG SENSOR ASSEMBLY

(a) Turn the ignition switch off.

(b) Disconnect the C17 center airbag sensor assembly

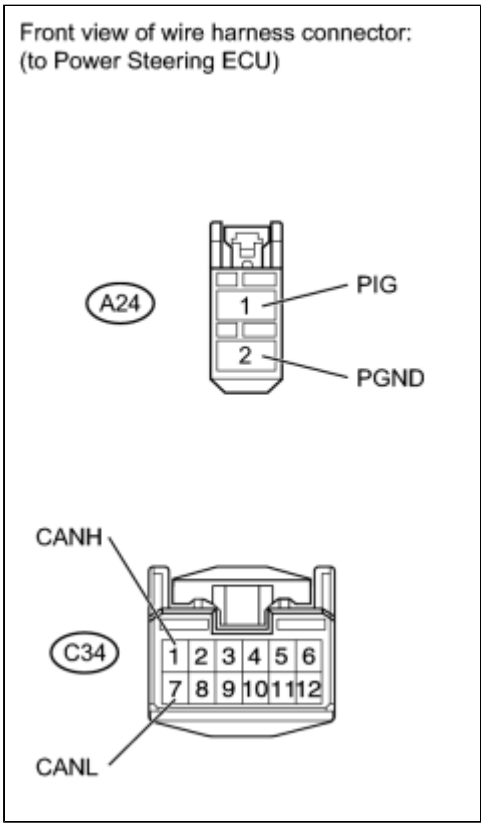


connector.

(c) Measure the resistance according to the value(s) in the table below.

Standard resistance:

TERMINALS NO. (SYMBOLS)	WIRING COLOR	SWITCH CONDITION	SPECIFIED CONDITION
C17-13 (CANH) - C17-22 (CANL)	Y - W	Ignition switch off	54 to 69 Ω
C17-13 (CANH) - C17-25 (E1)	Y - W-B	Ignition switch off	200 Ω or higher
C17-22 (CANL) - C17-25 (E1)	W - W-B	Ignition switch off	200 Ω or higher
C17-13 (CANH) - C14-16 (BAT)	Y - G	Ignition switch off	6 kΩ or higher
C17-22 (CANL) - C14-16 (BAT)	W - G	Ignition switch off	6 kΩ or higher



9. POWER STEERING ECU

(a) Turn the ignition switch off.

(b) Disconnect the A24 and C34 power steering ECU connectors.

(c) Measure the resistance according to the value(s) in the table below.

Standard resistance:

TERMINALS NO. (SYMBOLS)	WIRING COLOR	SWITCH CONDITION	SPECIFIED CONDITION
C34-1 (CANH) - C34-7 (CANL)	SB - W	Ignition switch off	54 to 69 Ω
C34-1 (CANH) - A24-2 (PGND)	SB - W-B	Ignition switch off	200 Ω or higher
C34-7 (CANL) - A24-2 (PGND)	W - W-B	Ignition switch off	200 Ω or higher
C34-1 (CANH) - A24-1 (PIG)	SB - L	Ignition switch off	6 kΩ or higher
C34-7 (CANL) - A24-1 (PIG)	W - L	Ignition switch off	6 kΩ or higher

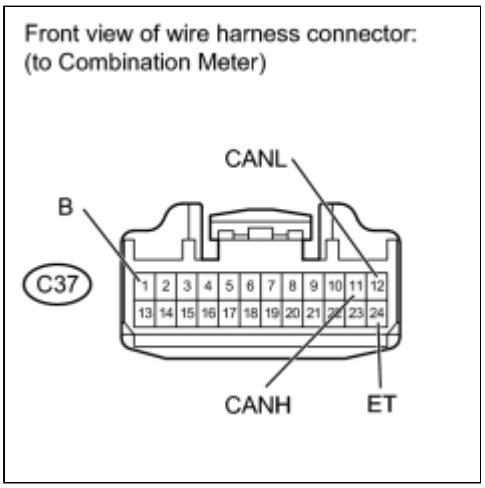
10. COMBINATION METER ECU

(a) Turn the ignition switch off.

(b) Disconnect the C37 combination meter assembly connector.

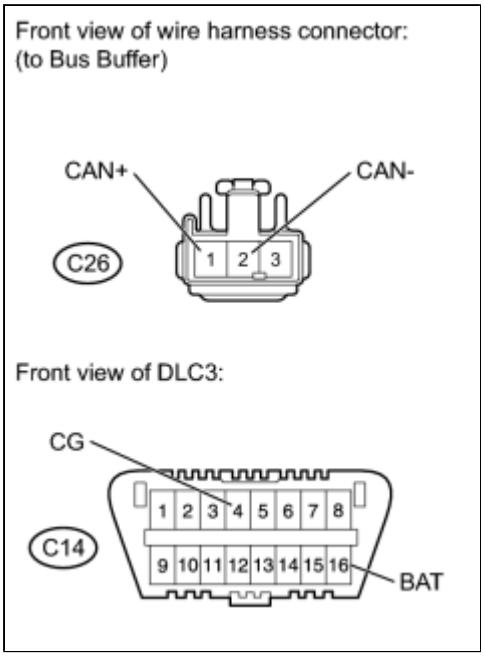
(c) Measure the resistance according to the value(s) in the table below.

Standard resistance:



TERMINALS NO. (SYMBOLS)	WIRING COLOR	SWITCH CONDITION	SPECIFIED CONDITION
C37-11 (CANH) - C37-12 (CANL)	G - W	Ignition switch off	108 to 132 Ω
C37-11 (CANH) - C37-24 (ET)	G - BR	Ignition switch off	200 Ω or higher
C37-12 (CANL) - C37-24 (ET)	W - BR	Ignition switch off	200 Ω or higher
C37-11 (CANH) - C37-1 (B)	G - W	Ignition switch off	6 kΩ or higher
C37-12 (CANL) - C37-1 (B)	W - W	Ignition switch off	6 kΩ or higher

11. BUS BUFFER ECU



(a) Turn the ignition switch off.

(b) Disconnect the C26 bus buffer connector.

HINT:

For vehicles without Accessory, take the connector out for inspection.

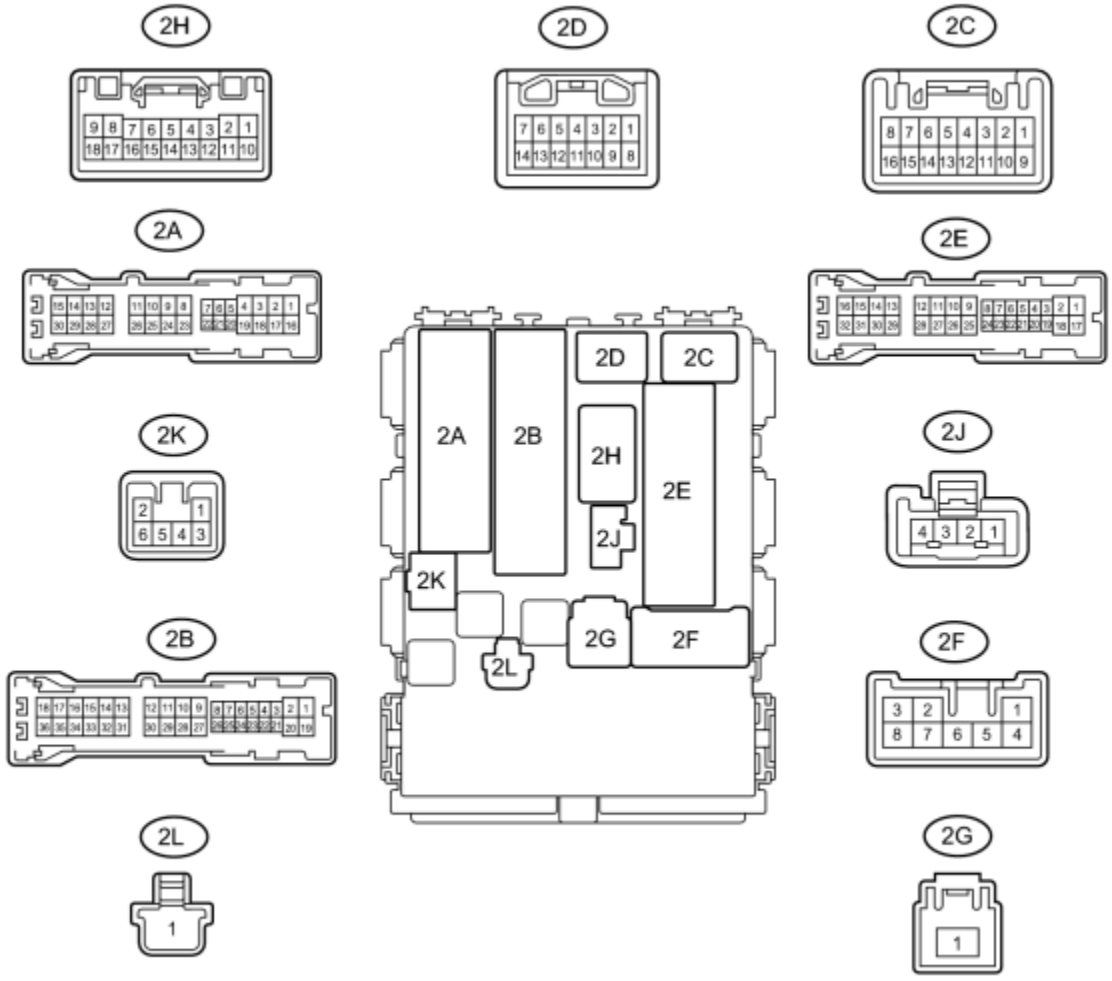
(c) Measure the resistance according to the value(s) in the table below.

Standard resistance:

TERMINALS NO. (SYMBOLS)	WIRING COLOR	SWITCH CONDITION	SPECIFIED CONDITION
C26-1 (CAN+) - C26-2 (CAN-)	P - W	Ignition switch off	54 to 69 Ω
C26-1 (CAN+) - C14-4 (CG)	P - W-B	Ignition switch off	200 Ω or higher
C26-2 (CAN-) - C14-4 (CG)	W - W-B	Ignition switch off	200 Ω or higher
C26-1 (CAN+) - C14-16 (BAT)	P - G	Ignition switch off	6 kΩ or higher
C26-2 (CAN-) - C14-16 (BAT)	W - G	Ignition switch off	6 kΩ or higher

12. MAIN BODY ECU

Component without harness connected:



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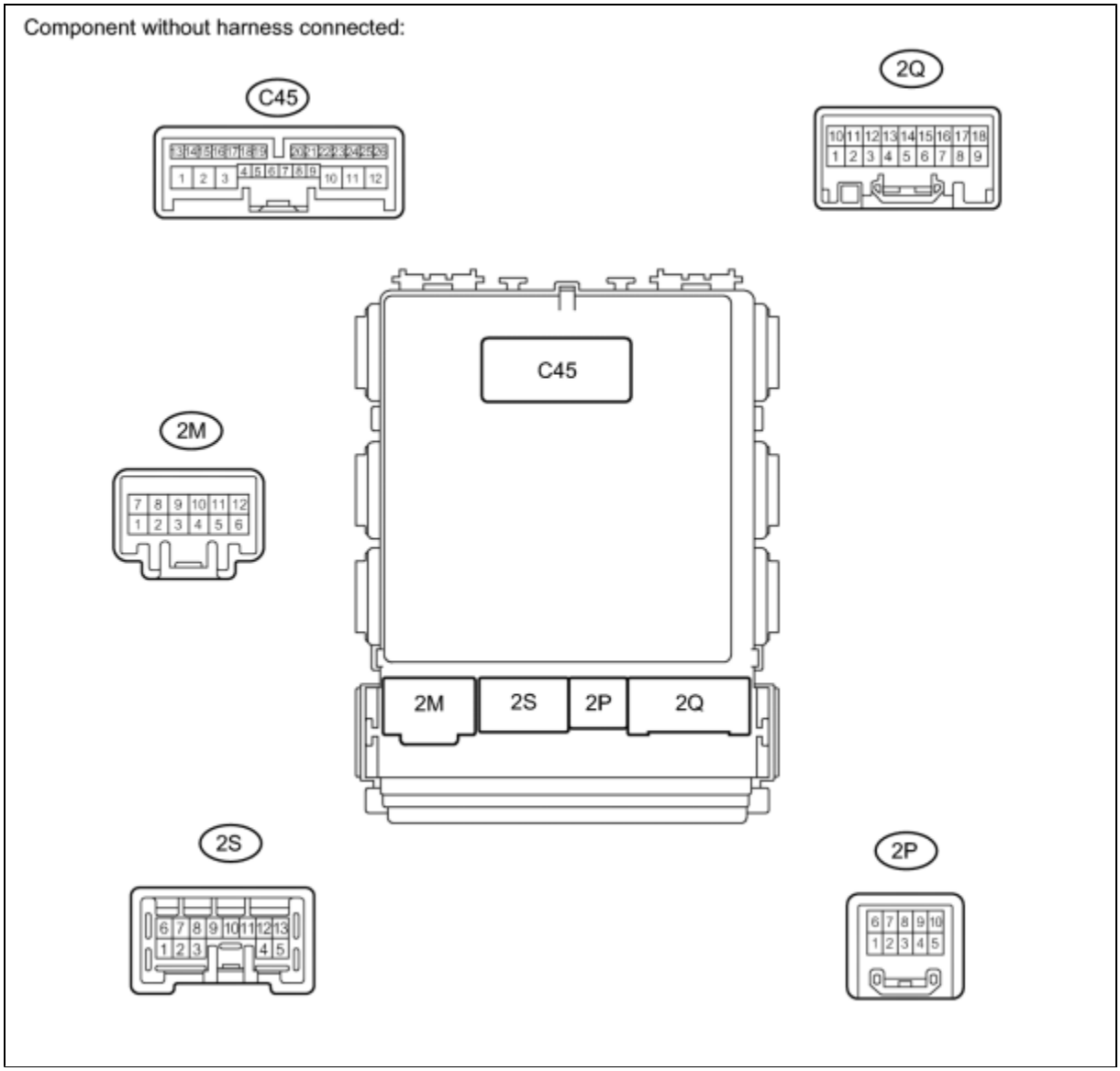

(a) Turn the ignition switch off.

(b) Disconnect the C45, 2B and 2E connectors.

(c) Measure the resistance according to the value(s) in the table below.

Standard resistance:

TERMINALS NO. (SYMBOLS)	WIRING COLOR	SWITCH CONDITION	SPECIFIED CONDITION
C45-23 (CANH) - C45-22 (CANL)	R - W	Ignition switch off	54 to 69 Ω
C45-23 (CANH) - 2E-17 (GND1)	R - W-B	Ignition switch off	200 Ω or higher
C45-22 (CANL) - 2E-17 (GND1)	W - W-B	Ignition switch off	200 Ω or higher
C45-23 (CANH) - 2B-30 (ECUB)	R - W	Ignition switch off	6 kΩ or higher
C45-22 (CANL) - 2B-30 (ECUB)	W - W	Ignition switch off	6 kΩ or higher