Last Modified: 7-13-2007		1.6 U
Service Category: Power Source/Network	**Section:** Networking	
Model Year: 2008	**Model:** ES350	**Doc ID:** RM000000XVK02LX
Title: CAN COMMUNICATION: CAN COMMUNICATION SYSTEM: TERMINALS OF ECU (2008 ES350)		

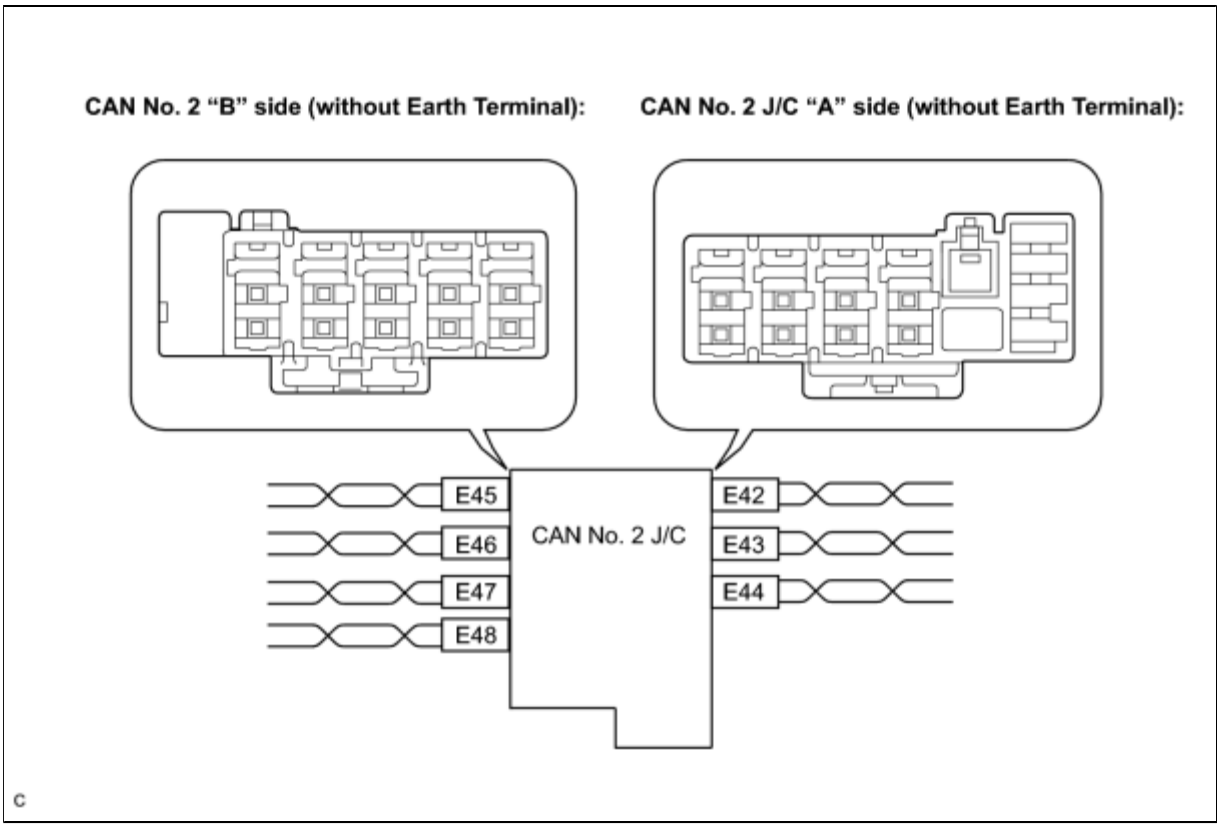
TERMINALS OF ECU

NOTICE:

- This section describes the standard CAN values for all CAN related components.
- Before measuring the resistance, leave the vehicle as is for at least 1 minute and do not operate the engine switch, any other switches, or the doors. If any doors need to be opened in order to check connectors, open the doors and leave them open.

1. JUNCTION CONNECTOR (CAN No. 2 J/C, CAN No. 5 J/C)

(a) CAN No. 2 J/C for CAN No. 1 Bus



Wiring color:

CAN NO. 2 J/C CONNECTOR ("A" SIDE, WITH EARTH TERMINAL)	CONNECTOR COLOR	COLOR (CAN-H SIDE)	COLOR (CAN-L SIDE)
CAN No. 1 Bus Wire (E42)	White	B	W
Main Body ECU (E43)	White	BR	GR
DLC3 (E44)	White	LG	P

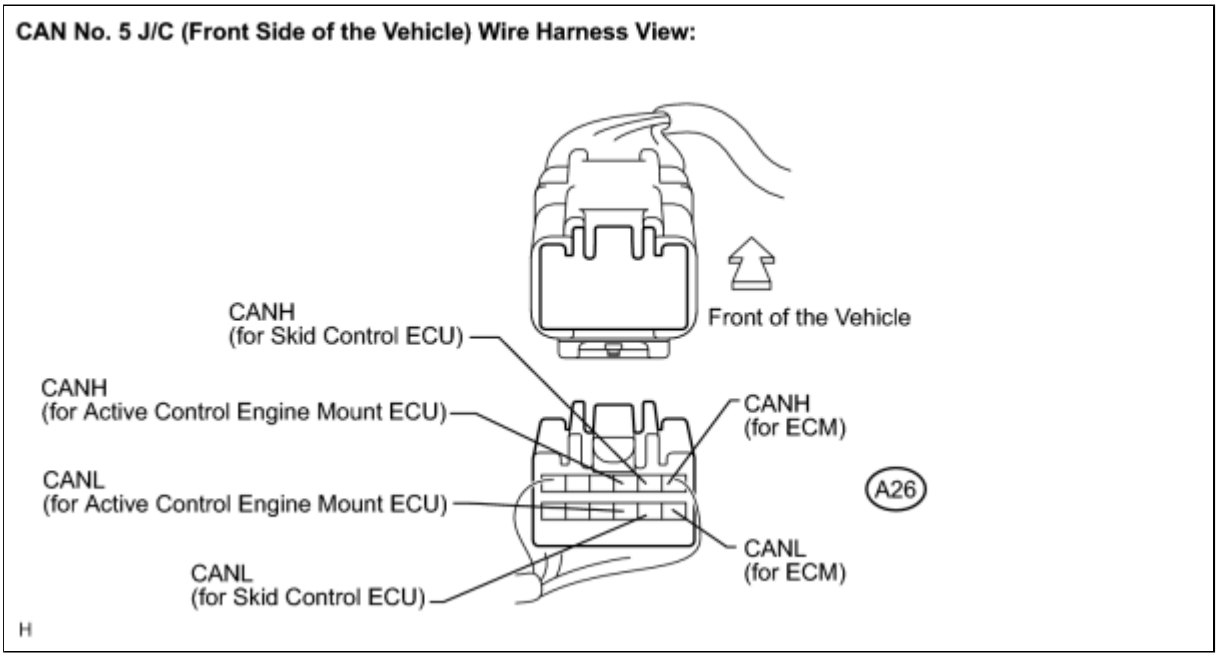
Wiring color:

CAN NO. 2 J/C CONNECTOR ("B" SIDE, WITH EARTH	CONNECTOR	COLOR (CAN-H	COLOR (CAN-L

TERMINAL)	COLOR	SIDE)	SIDE)
Yaw Rate Sensor (E47)	White	O	P
Center Airbag Sensor (E45)	White	G	Y
Steering Angle Sensor (E46)	White	V	P
Combination Meter (E48)	White	B	W

(b) CAN No. 5 J/C for CAN No. 1 Bus (FRONT SIDE OF THE VEHICLE)

CAN No. 5 J/C (Front Side of the Vehicle) Wire Harness View:

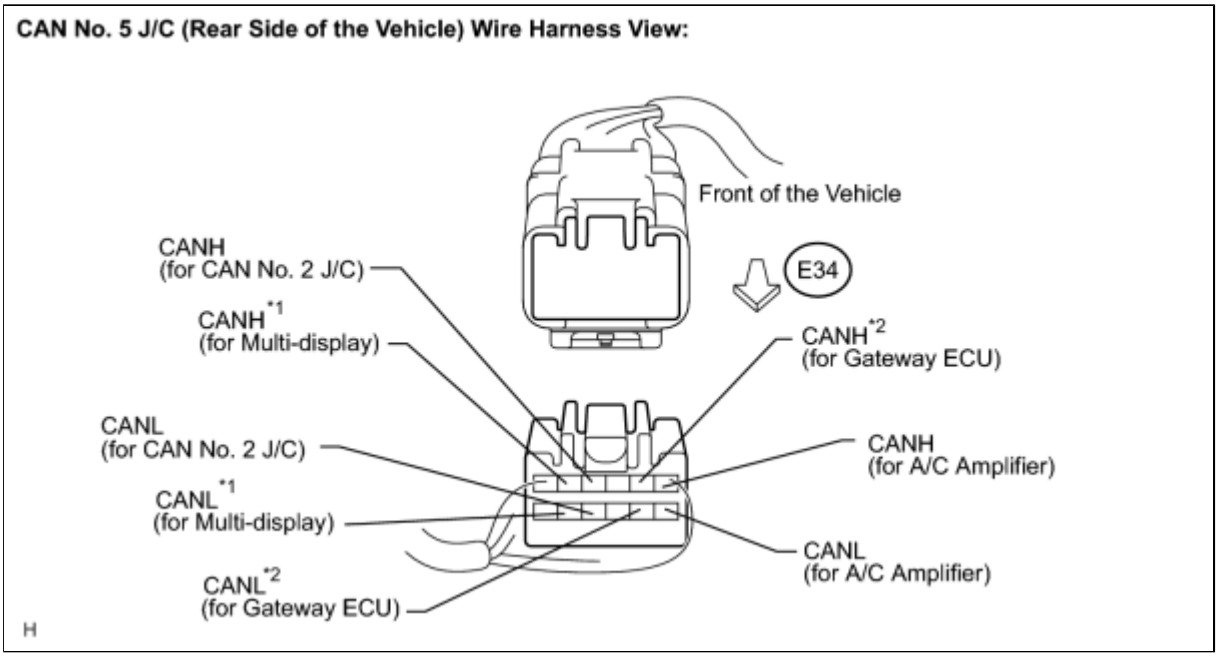


Wiring color:

TERMINAL	WIRING COLOR	DESTINATION
A26-1 (CANH)	B	ECM (CANH)
A26-7 (CANL)	W	ECM (CANL)
A26-2 (CANH)	L	Skid Control ECU (CANH)
A26-8 (CANL)	LG	Skid Control ECU (CANL)
A26-3 (CANH)	G	Active Control Engine Mount ECU (CANH)
A26-9 (CANL)	R	Active Control Engine Mount ECU (CANL)

(c) CAN No. 5 J/C for CAN No. 1 Bus (REAR SIDE OF THE VEHICLE)

CAN No. 5 J/C (Rear Side of the Vehicle) Wire Harness View:



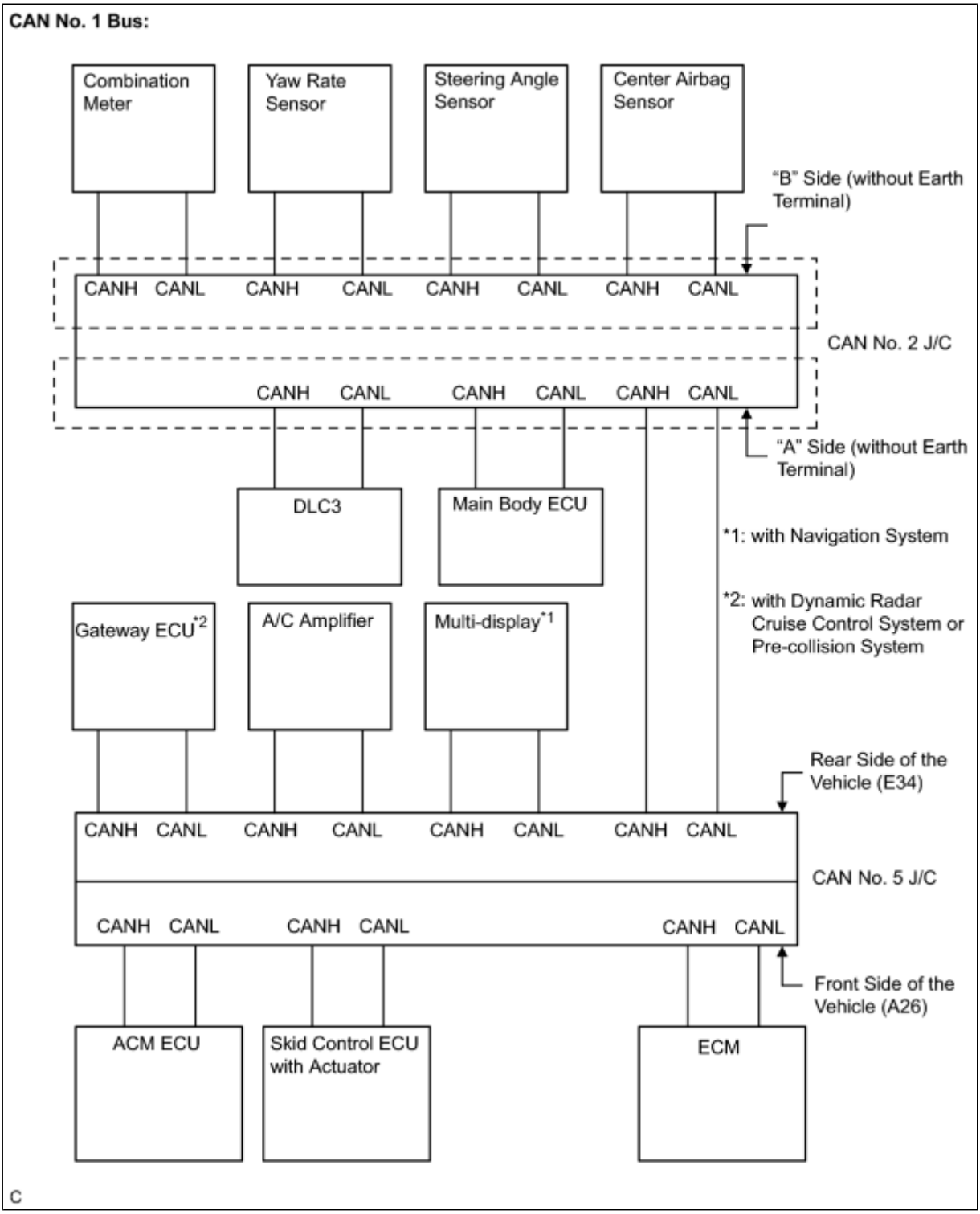
Wiring color:

TERMINAL	WIRING COLOR	DESTINATION
E34-1 (CANH)	GR	A/C Amplifier (CANH)
E34-7 (CANL)	BR	A/C Amplifier (CANL)
E34-2 (CANH) *2	P	Gateway ECU (CANH)
E34-8 (CANL) *2	O	Gateway ECU (CANL)
E34-4 (CANH)	B	CAN No. 2 J/C (CANH)
E34-10 (CANL)	W	CAN No. 2 J/C (CANL)
E34-5 (CANH) *1	L	Multi-display (CANH)
E34-11 (CANL) *1	Y	Multi-display (CANL)

HINT:

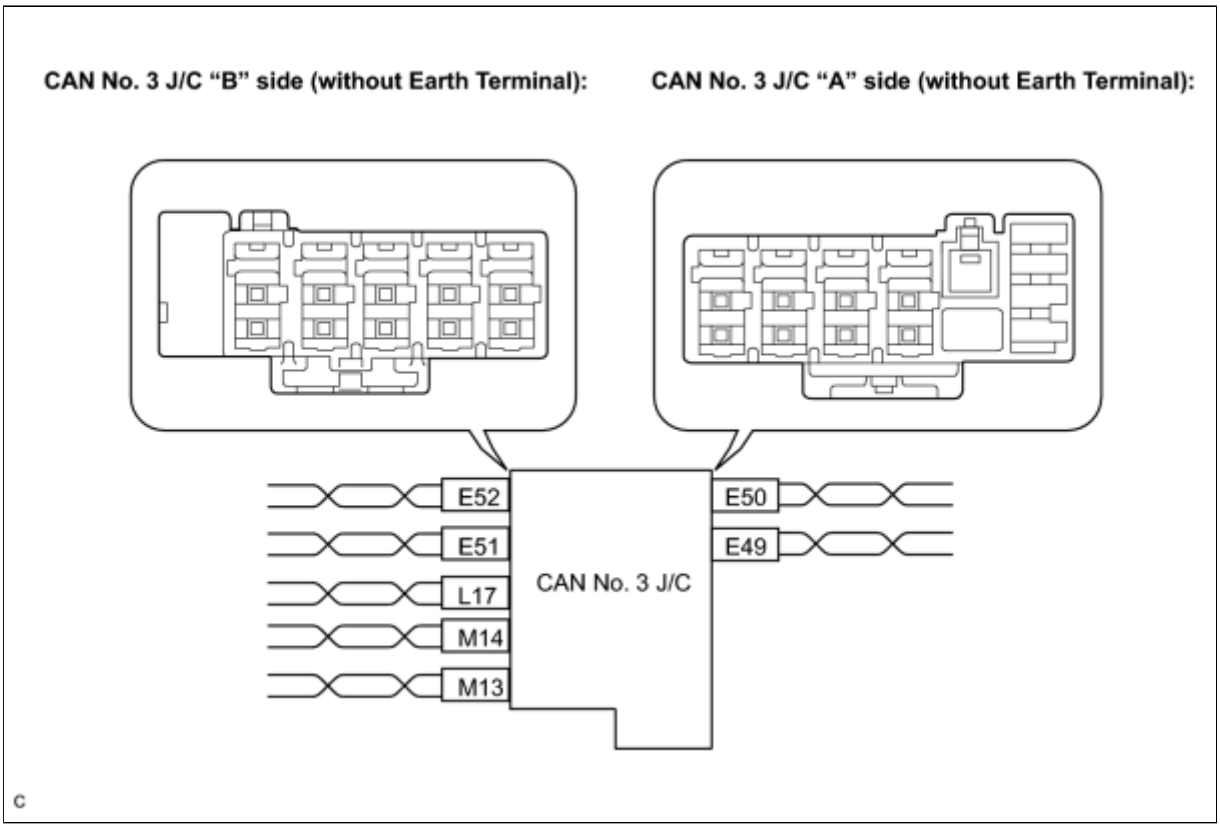
- *1: with Navigation system
- *2: with dynamic radar cruise control system or pre-collision system

(d) The connection diagram of the components which are connected to the CAN J/C



2. JUNCTION CONNECTOR (CAN No. 3 J/C)

(a) CAN No. 3 J/C for CAN MS Bus



Wiring color:

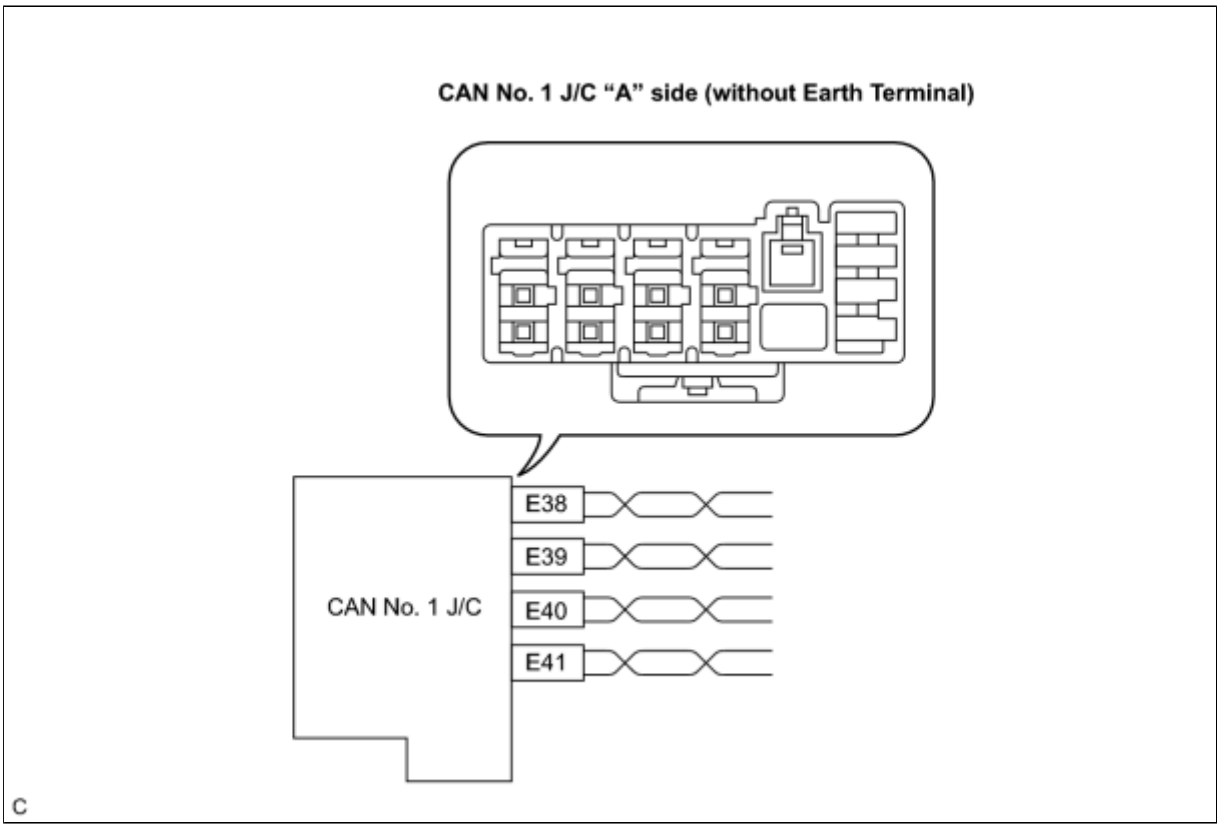
CAN NO. 3 J/C CONNECTOR ("A" SIDE, WITH EARTH TERMINAL)	CONNECTOR COLOR	COLOR (CAN-H SIDE)	COLOR (CAN-L SIDE)
Certification ECU (E50)	White	R	W
Main Body ECU (E49)	White	B	W

Wiring color:

CAN NO. 3 J/C CONNECTOR ("B" SIDE, WITH EARTH TERMINAL)	CONNECTOR COLOR	COLOR (CAN-H SIDE)	COLOR (CAN-L SIDE)
Outer Mirror Control ECU (E52)	White	O	P
Multiplex Tilt and Telescopic ECU (E51)	White	BR	GR
Seat Position Control ECU (Front LH Side) (L17)	Blue	LG	L
Clearance Warning ECU (M13)	Gray	Y	L
Seat Position Control ECU (Front RH Side) (M14)	Black	V	P

3. JUNCTION CONNECTOR (CAN No. 4 J/C)

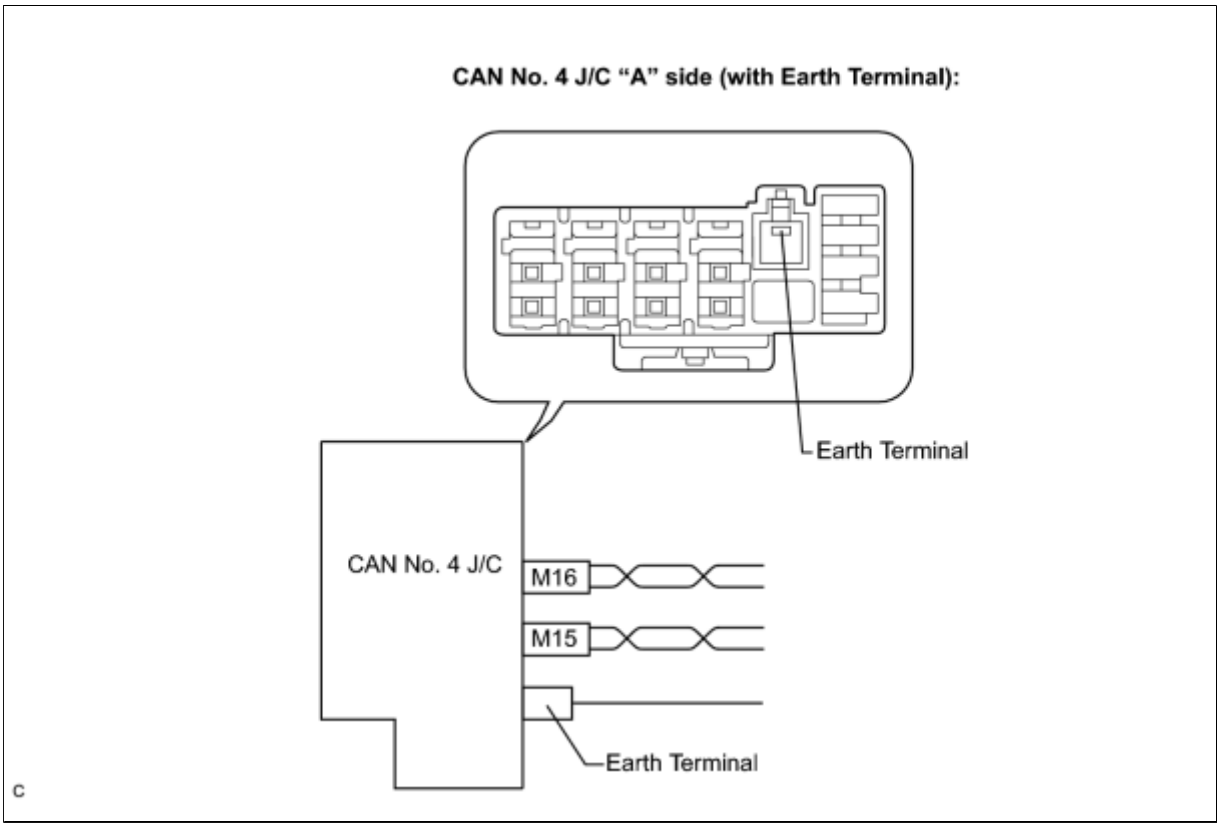
(a) CAN No. 1 J/C for CAN No. 2 Bus



Wiring color:

CAN NO. 1 J/C CONNECTOR ("A" SIDE, WITH EARTH TERMINAL)	CONNECTOR COLOR	COLOR (CAN-H SIDE)	COLOR (CAN-L SIDE)
Gateway ECU (E38)	White	B	W
AFS ECU (E39)	White	L	Y
Distance Control ECU (E40)	White	GR	BR
CAN No. 2 Bus Wire (E41)	White	LG	P

(b) CAN No. 4 J/C for CAN No. 2 Bus



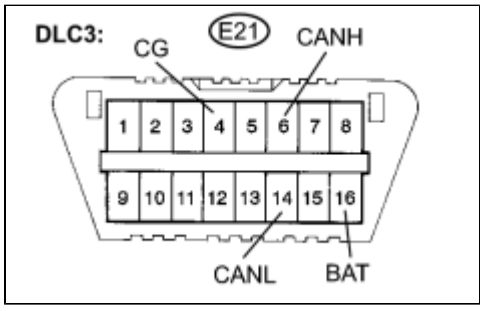
Wiring color:

CAN NO. 4 J/C CONNECTOR ("A" SIDE, WITH EARTH TERMINAL)	CONNECTOR COLOR	COLOR (CAN-H SIDE)	COLOR (CAN-L SIDE)
CAN No. 1 J/C (M15)	White	LG	P
Seat Belt Control ECU (M16)	White	L	Y

4. DLC3

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

Standard resistance:



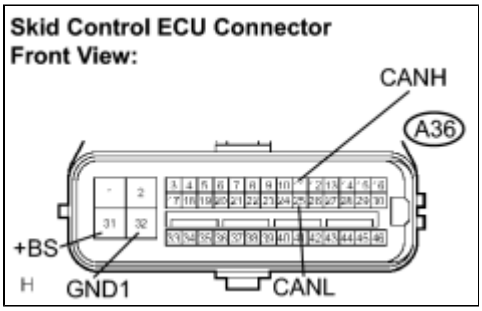
TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
E21-6 (CANH) - E21-14 (CANL)	LG - P	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	54 to 69 Ω
E21-6 (CANH) - E21-4 (CG)	LG - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E21-14 (CANL) - E21-4 (CG)	P - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E21-6 (CANH) - E21-16 (BAT)	LG - O	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
E21-14 (CANL) - E21-16 (BAT)	P - O	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher

5. SKID CONTROL ECU WITH ACTUATOR

(a) Disconnect the connector from the skid control ECU.

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

Standard resistance:



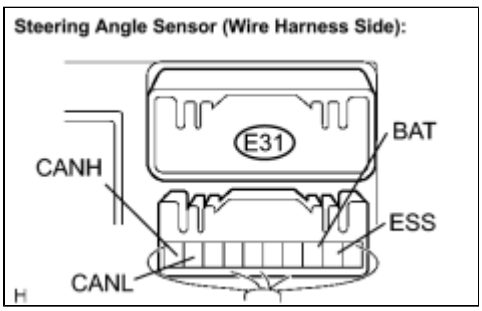
TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
A36-11 (CANH) - A36-25 (CANL)	L - LG	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	54 to 69 Ω
A36-11 (CANH) - A36-32 (GND1)	L - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
A36-25 (CANL) - A36-32 (GND1)	LG - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
A36-11 (CANH) - A36-31 (+BS)	L - L	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
A36-25 (CANL) - A36-31 (+BS)	LG - L	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher

6. STEERING ANGLE SENSOR

(a) Disconnect the connector from the steering angle sensor.

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

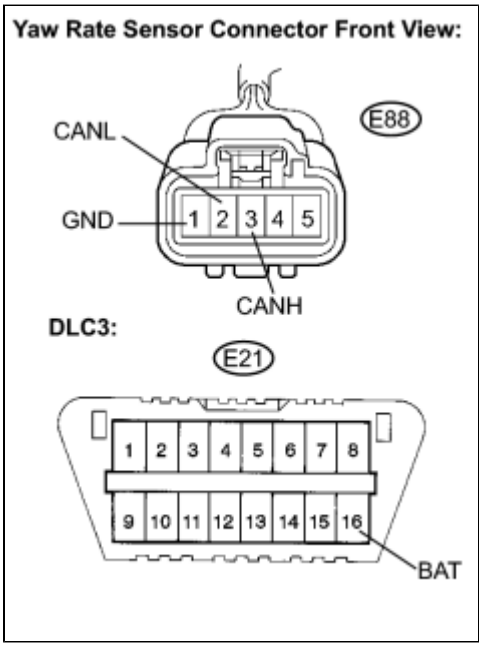
Standard resistance:



TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
E31-10 (CANH) - E31-9 (CANL)	V - P	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	54 to 69 Ω
E31-10 (CANH) - E31-2 (ESS)	V - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E31-9 (CANL) - E31-2 (ESS)	P - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E31-10 (CANH) - E31-3 (BAT)	V - V	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
E31-9 (CANL) - E31-3 (BAT)	P - V	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher

7. YAW RATE SENSOR

(a) Disconnect the connector from the yaw rate sensor.



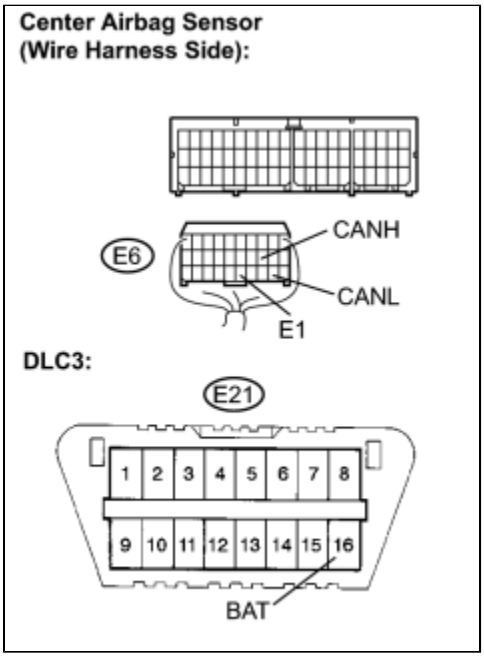
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance:

TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
E88-3 (CANH) - E88-2 (CANL)	O - P	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	54 to 69 Ω
E88-3 (CANH) - E88-1 (GND)	O - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E88-2 (CANL) - E88-1 (GND)	P - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E88-3 (CANH) - E21-16 (BAT)	O - O	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
E88-2 (CANL) - E21-16 (BAT)	P - O	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher

8. CENTER AIRBAG SENSOR

(a) Disconnect the connector from the center airbag sensor.



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

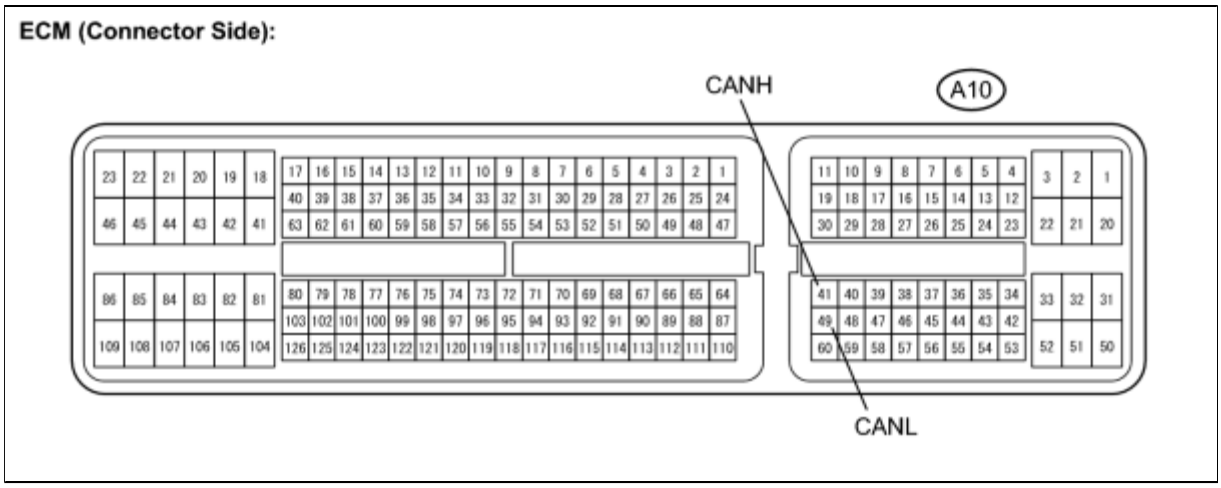
Standard resistance:

TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
E6-13 (CANH) - E6-22 (CANL)	G - Y	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	54 to 69 Ω
E6-13 (CANH) - E6-25 (E1)	G - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E6-22 (CANL) - E6-25 (E1)	Y - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E6-13 (CANH) - E21-16 (BAT)	G - O	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
E6-22 (CANL) - E21-16 (BAT)	Y - O	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher

9. ECM

(a) Disconnect the connector from the ECM.

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

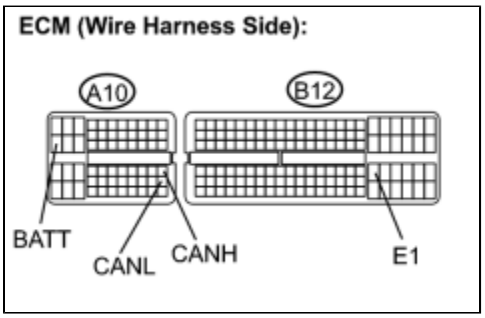


Standard resistance:

TERMINALS	CONDITION	SPECIFIED VALUE
A10-41 (CANH) - A10-49 (CANL)	Engine switch off	108 to 132 Ω

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

Standard resistance:



TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
A10-41 (CANH) - A10-49 (CANL)	B - W	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	108 to 132 Ω
A10-41 (CANH) - B12-81 (E1)	B - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
A10-49 (CANL) - B12-81 (E1)	W - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
A10-41 (CANH) - A10-20 (BATT)	B - Y	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
A10-49 (CANL) - A10-20 (BATT)	W - Y	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher

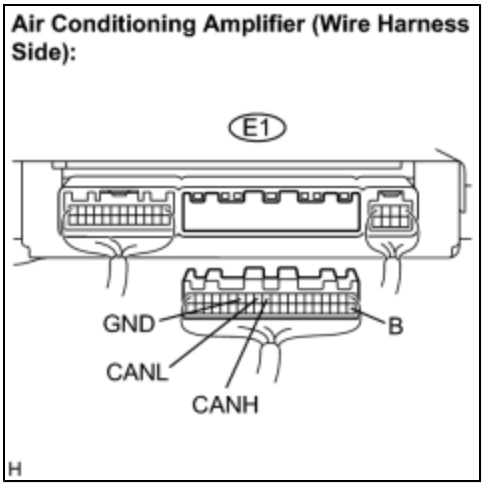
10. AIR CONDITIONING AMPLIFIER

(a) Disconnect the connector from the air conditioning amplifier.

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

Standard resistance:

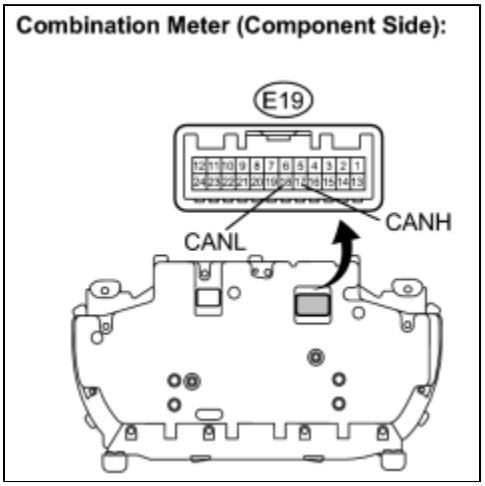
TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
E1-11 (CANH) -	GR - BR	HIGH-level CAN bus wire - LOW-level CAN	Engine	54 to 69 Ω



E1-12 (CANL)		bus wire	switch off	
E1-11 (CANH) - E1-14 (GND)	GR - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E1-12 (CANL) - E1-14 (GND)	BR - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E1-11 (CANH) - E1-21 (B)	GR - GR	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
E1-12 (CANL) - E1-21 (B)	BR - GR	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher

11. COMBINATION METER

(a) Disconnect the connector from the combination meter.



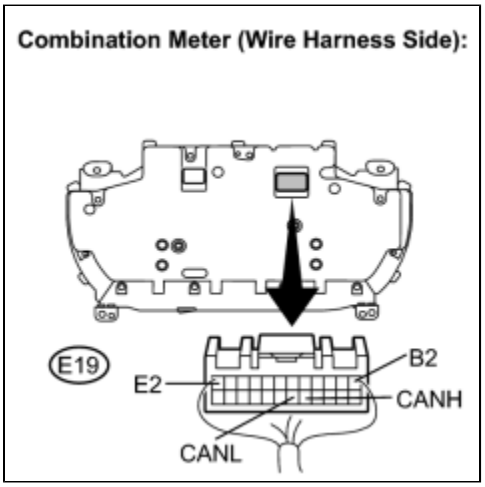
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance:

TERMINALS	CONDITION	SPECIFIED VALUE
E19-17 (CANH) - E19-18 (CANL)	Engine switch off	108 to 132 Ω

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

Standard resistance:

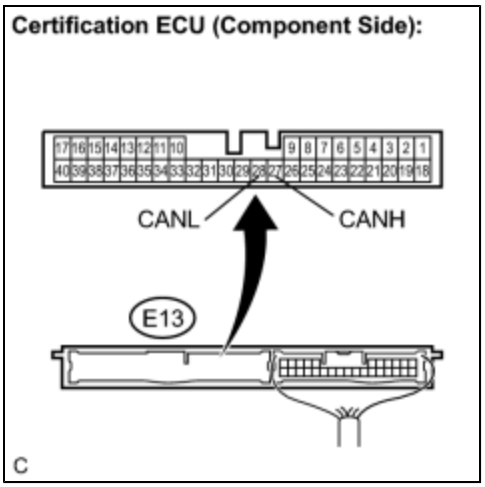


TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
E19-17 (CANH) - E19-18 (CANL)	B - W	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	108 to 132 Ω
E19-17 (CANH) - E19-12 (E2)	B - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E19-18 (CANL) - E19-12 (E2)	W - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E19-17 (CANH) - E19-1 (B2)	B - R	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
E19-18 (CANL)		LOW-level CAN bus	Engine	6 kΩ or

- E19-1 (B2)	W - R	wire - Battery positive	switch off	higher

12. CERTIFICATION ECU

(a) Disconnect the connector from the certification ECU.



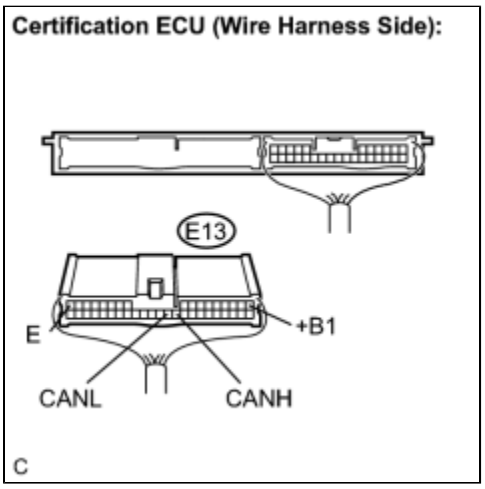
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance:

TERMINALS	CONDITION	SPECIFIED VALUE
E13-27 (CANH) - E13-28 (CANL)	Engine switch off	108 to 132 Ω

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

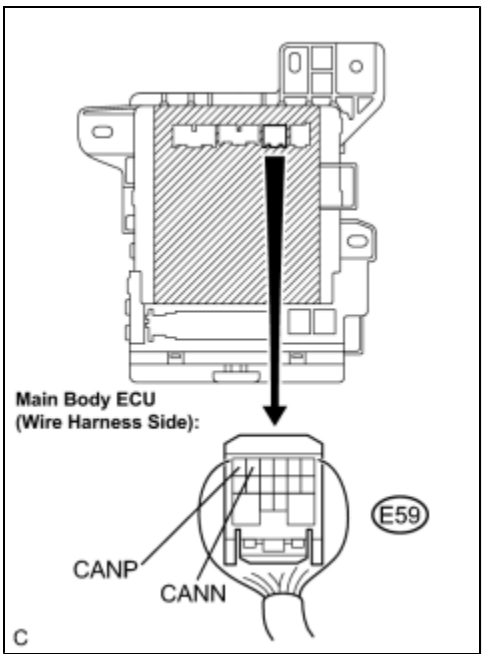
Standard resistance:



TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
E13-27 (CANH) - E13-28 (CANL)	R - W	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	108 to 132 Ω
E13-27 (CANH) - E13-17 (E)	R - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E13-28 (CANL) - E13-17 (E)	W - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E13-27 (CANH) - E13-1 (+B1)	R - W	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
E13-28 (CANL) - E13-1 (+B1)	W - W	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher

13. MAIN BODY ECU (INSTRUMENT PANEL J/B)

(a) Disconnect the connector from the main body ECU.

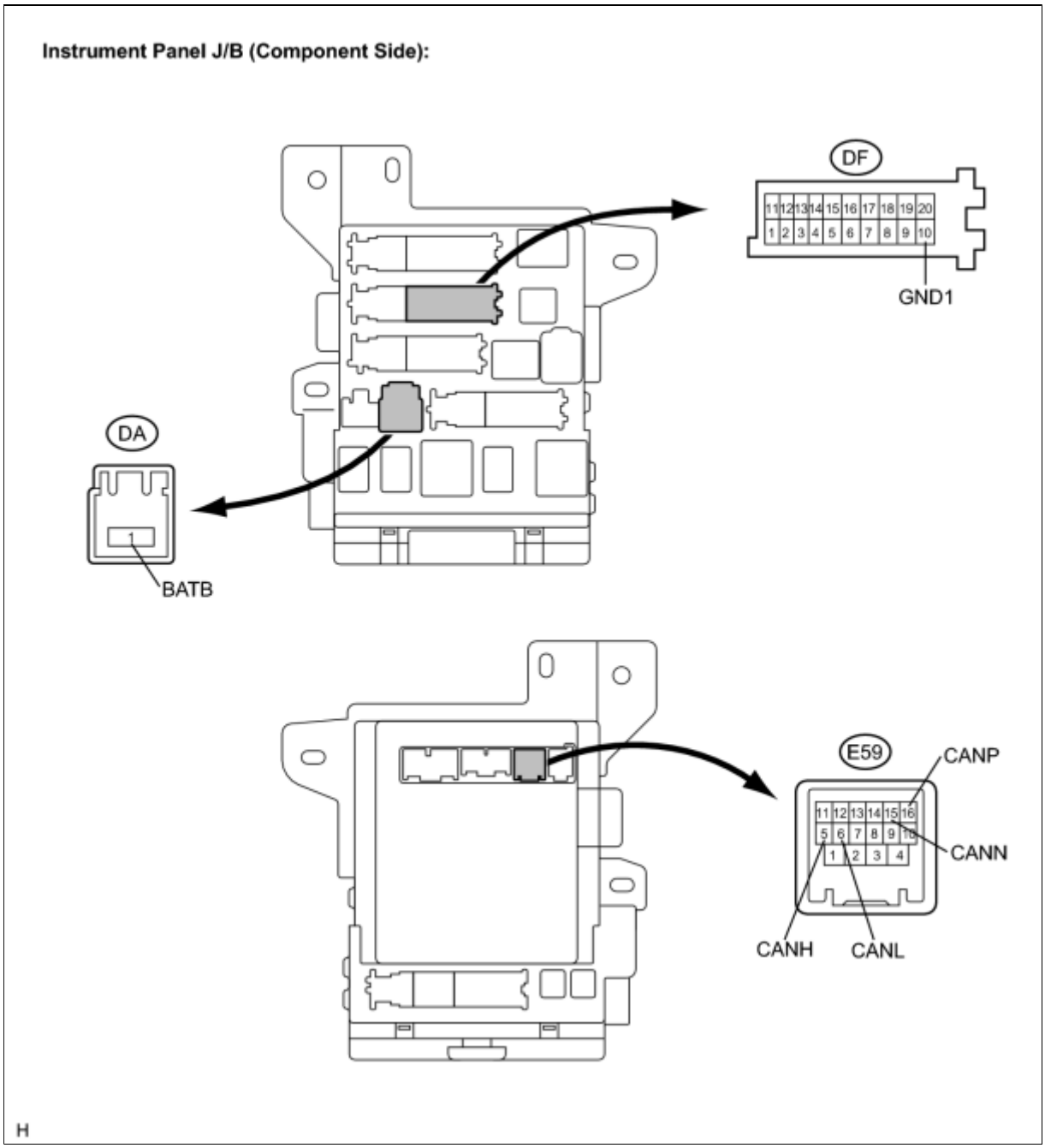


(b) Measure the resistance according to the value(s) in the table below.

Standard resistance:

TERMINALS	CONDITION	SPECIFIED VALUE
E59-16 (CANP) - E59-15 (CANN)	Engine switch off	108 to 132 Ω

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



Standard resistance:

TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
E59-5 (CANH) - E59-6 (CANL)	BR - GR	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	54 to 69 Ω
E59-5 (CANH) - DF-10 (GND1)	BR - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E59-6 (CANL) - DF-10 (GND1)	GR - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E59-5 (CANH) - DA-1 (BATB)	BR - W	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
E59-6 (CANL) - DA-1 (BATB)	GR - W	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
E59-16 (CANP) - E59-15		HIGH-level CAN bus wire - LOW-level CAN	Engine switch	

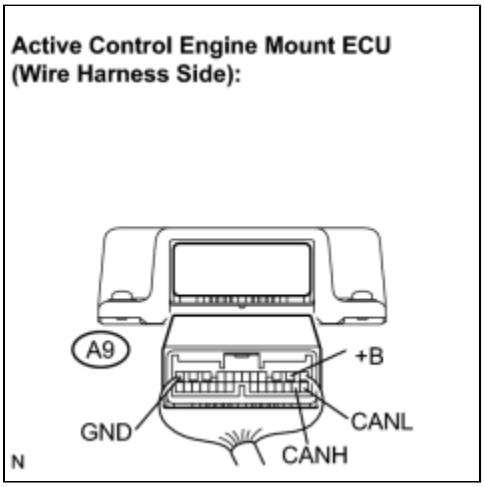
(CANN)	B - W	bus wire	off	108 to 132 Ω
E59-16 (CANP) - DF-10 (GND1)	B - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E59-15 (CANN) - DF-10 (GND1)	W - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E59-16 (CANP) - DA-1 (BATB)	B - W	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
E59-15 (CANN) - DA-1 (BATB)	W - W	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher

14. ACTIVE CONTROL ENGINE MOUNT ECU

(a) Disconnect the connector from the active control engine mount ECU.

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

Standard resistance:

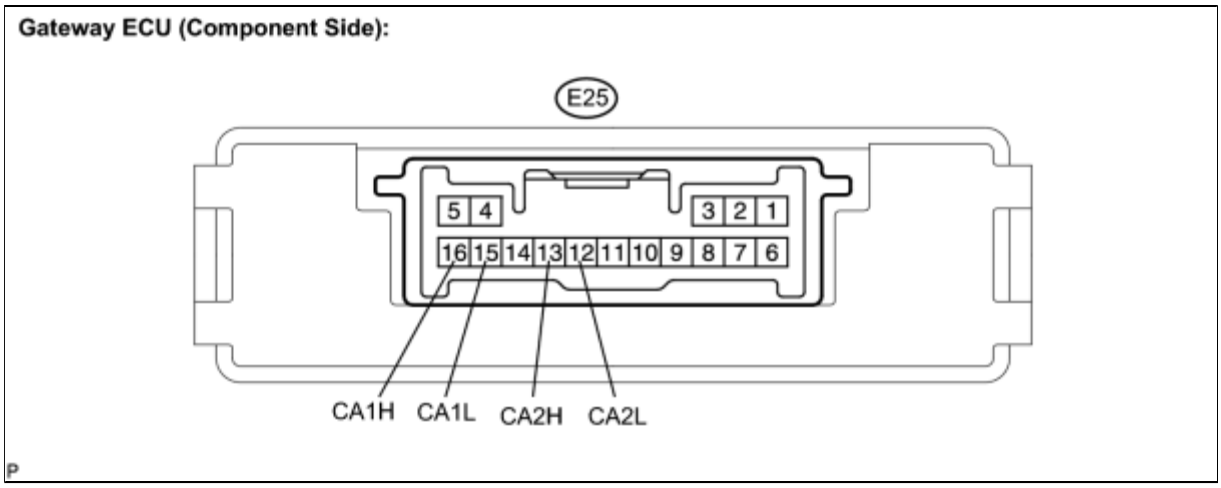


TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
A9-14 (CANH) - A9-13 (CANL)	G - R	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	54 to 69 Ω
A9-14 (CANH) - A9-12 (GND)	G - GR	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
A9-13 (CANL) - A9-12 (GND)	R - GR	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
A9-14 (CANH) - A9-2 (+B)	G - B	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
A9-13 (CANL) - A9-2 (+B)	R - B	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher

15. GATEWAY ECU

(a) Disconnect the connector from the gateway ECU.

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

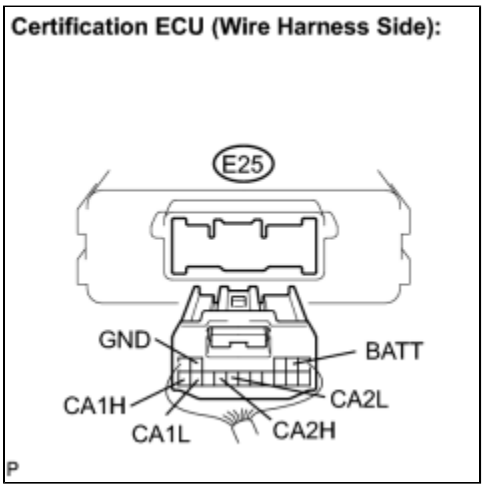


Standard resistance:

TERMINALS	CONDITION	SPECIFIED VALUE
E25-13 (CA2H) - E25-12 (CA2L)	Engine switch off	108 to 132 Ω

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

Standard resistance:



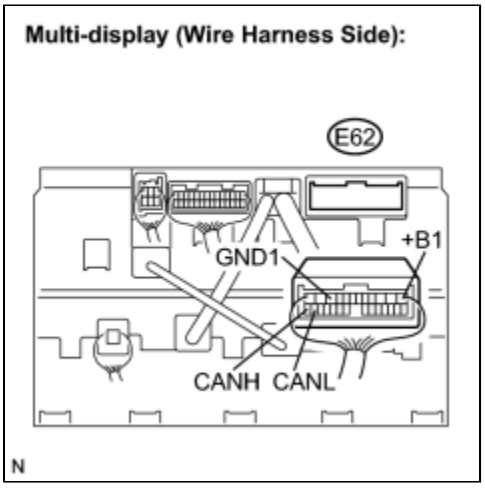
TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
E25-16 (CA1H) - E25-15 (CA1L)	P - O	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	54 to 69 Ω
E25-16 (CA1H) - E25-4 (GND)	P - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E25-15 (CA1L) - E25-4 (GND)	O - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E25-16 (CA1H) - E25-2 (BATT)	P - V	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
E25-15 (CA1L) - E25-2 (BATT)	O - V	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
E25-13 (CA2H) - E25-12 (CA2L)	B - W	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	108 to 132 Ω
E25-13 (CA2H) - E25-4 (GND)	B - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E25-12 (CA2L) - E25-4 (GND)	W - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E25-13 (CA2H) - E25-2 (BATT)	B - V	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
E25-12 (CA2L) - E25-2 (BATT)	W - V	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher

16. MULTI-DISPLAY

(a) Disconnect the connector from the multi-display.

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

Standard resistance:



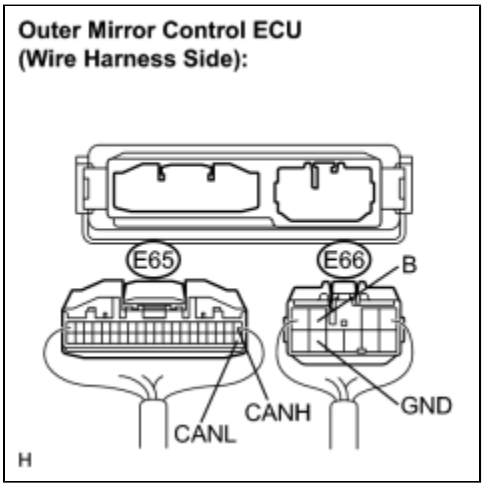
TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
E62-26 (CANH) - E62-25 (CANL)	L - Y	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	54 to 69 Ω
E62-26 (CANH) - E62-10 (GND1)	L - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E62-25 (CANL) - E62-10 (GND1)	Y - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E62-26 (CANH) - E62-1 (+B1)	L - GR	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
E62-25 (CANL) - E62-1 (+B1)	Y - GR	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher

17. OUTER MIRROR CONTROL ECU

(a) Disconnect the connector from the outer mirror control ECU.

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

Standard resistance:



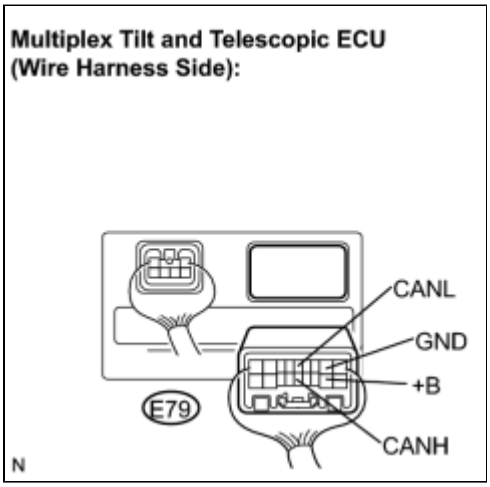
TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
E65-1 (CANH) - E65-21 (CANL)	O - P	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	54 to 69 Ω
E65-1 (CANH) - E66-9 (GND)	O - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E65-21 (CANL) - E66-9 (GND)	P - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E65-1 (CANH) - E66-3 (B)	O - V	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
E65-21 (CANL) - E66-3 (B)	P - V	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher

18. MULTIPLEX TILT AND TELESCOPIC ECU

(a) Disconnect the connector from the multiplex tilt and telescopic ECU.

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

Standard resistance:



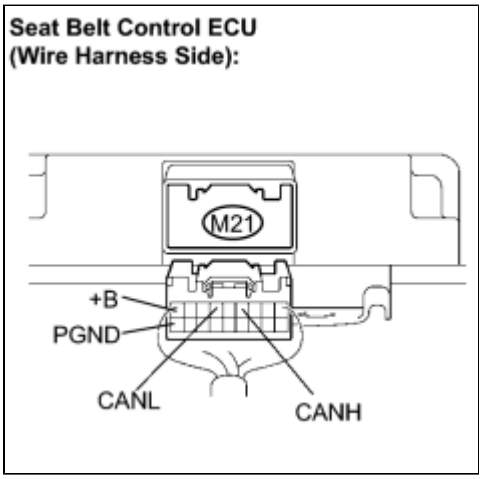
TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
E79-5 (CANH) - E79-14 (CANL)	BR - GR	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	54 to 69 Ω
E79-5 (CANH) - E79-11 (GND)	BR - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E79-14 (CANL) - E79-11 (GND)	GR - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
E79-5 (CANH) - E79-2 (+B)	BR - W	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
E79-14 (CANL) - E79-2 (+B)	GR - W	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher

19. SEAT BELT CONTROL ECU

(a) Disconnect the connector from the seat belt control ECU.

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

Standard resistance:



TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
M21-4 (CANH) - M21-6 (CANL)	L - Y	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	54 to 69 Ω
M21-4 (CANH) - M21-18 (PGND)	L - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
M21-6 (CANL) - M21-18 (PGND)	Y - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
M21-4 (CANH) - M21-9 (+B)	L - BR	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
M21-6 (CANL) - M21-9 (+B)	Y - BR	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher

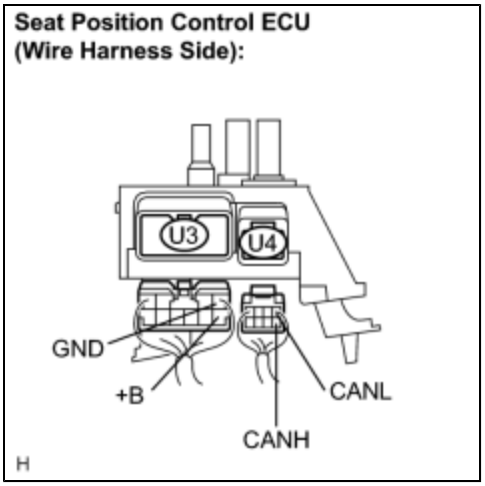
20. SEAT POSITION CONTROL ECU (Front LH Side)

(a) Disconnect the connector from the seat position control ECU.

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

Standard resistance:

TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE



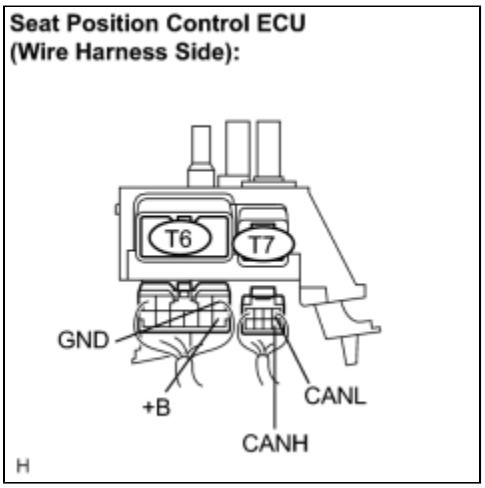
U4-5 (CANH) - U4-1 (CANL)	LG - L	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	54 to 69 Ω
U4-5 (CANH) - U3-1 (GND)	LG - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
U4-1 (CANL) - U3-1 (GND)	L - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
U4-5 (CANH) - U3-5 (+B)	LG - G	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
U4-1 (CANL) - U3-5 (+B)	L - G	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher

21. SEAT POSITION CONTROL ECU (Front RH Side)

(a) Disconnect the connector from the seat position control ECU.

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

Standard resistance:



TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
T7-5 (CANH) - T7-1 (CANL)	V - P	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	54 to 69 Ω
T7-5 (CANH) - T6-1 (GND)	V - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
T7-1 (CANL) - T6-1 (GND)	P - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
T7-5 (CANH) - T6-5 (+B)	V - G	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
T7-1 (CANL) - T6-5 (+B)	P - G	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher

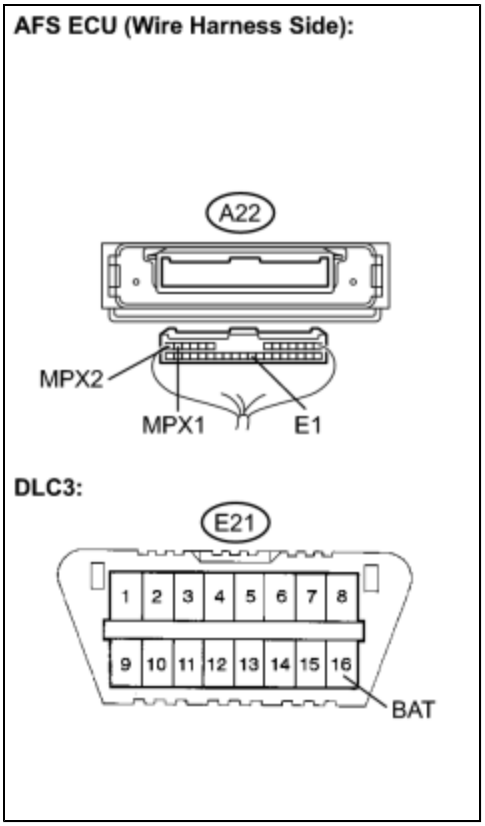
22. AFS ECU

(a) Disconnect the connector from the AFS ECU.

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

Standard resistance:

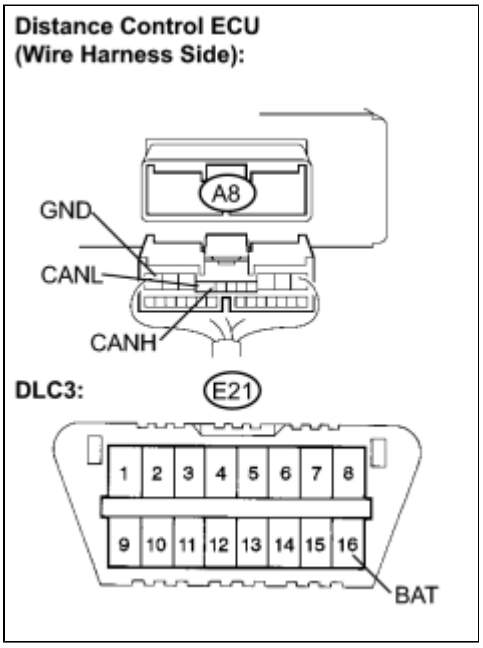
TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
A22-12 (MPX1)		HIGH-level CAN bus		



- A22-13 (MPX2)	L - Y	wire - LOW-level CAN bus wire	Engine switch off	54 to 69 Ω
A22-12 (MPX1) - A22-22 (E1)	L - W	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
A22-13 (MPX2) - A22-22 (E1)	Y - W	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
A22-12 (MPX1) - E21-16 (BAT)	L - O	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
A22-13 (MPX2) - E21-16 (BAT)	Y - O	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher

23. DISTANCE CONTROL ECU

(a) Disconnect the connector from the distance control ECU.



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

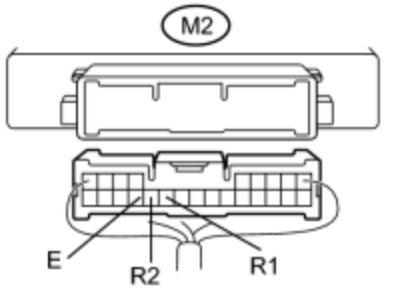
Standard resistance:

TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
A8-8 (CANH) - A8-9 (CANL)	GR - BR	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	54 to 69 Ω
A8-8 (CANH) - A8-12 (GND)	GR - GR	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
A8-9 (CANL) - A8-12 (GND)	BR - GR	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
A8-8 (CANH) - E21-16 (BAT)	GR - O	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
A8-9 (CANL) - E21-16 (BAT)	BR - O	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher

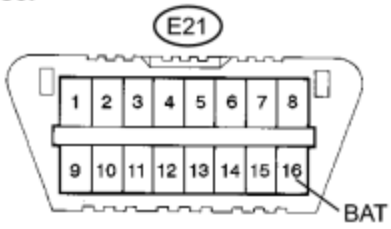
24. CLEARANCE WARNING ECU

(a) Disconnect the connector from the clearance warning ECU.

Clearance Warning ECU (Wire Harness Side):



DLC3:



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

Standard resistance:

TERMINALS	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED VALUE
M2-19 (R1) - M2-20 (R2)	Y - L	HIGH-level CAN bus wire - LOW-level CAN bus wire	Engine switch off	54 to 69 Ω
M2-19 (R1) - M2-21 (E)	Y - W-B	HIGH-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
M2-20 (R2) - M2-21 (E)	L - W-B	LOW-level CAN bus wire - Ground	Engine switch off	200 Ω or higher
M2-19 (R1) - E21-16 (BAT)	Y - O	HIGH-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher
M2-20 (R2) - E21-16 (BAT)	L - O	LOW-level CAN bus wire - Battery positive	Engine switch off	6 kΩ or higher