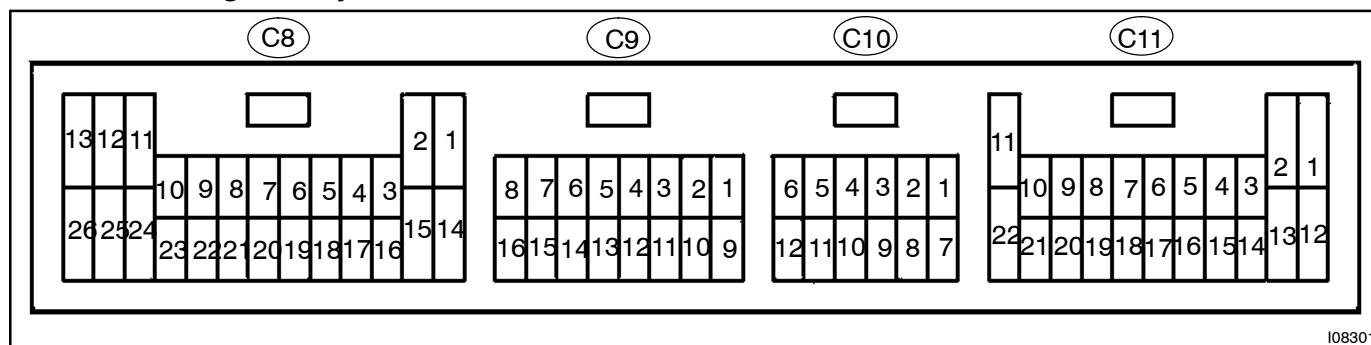


TERMINALS OF ECU

A/C AMPLIFIER

w/o Lexus navigation system:

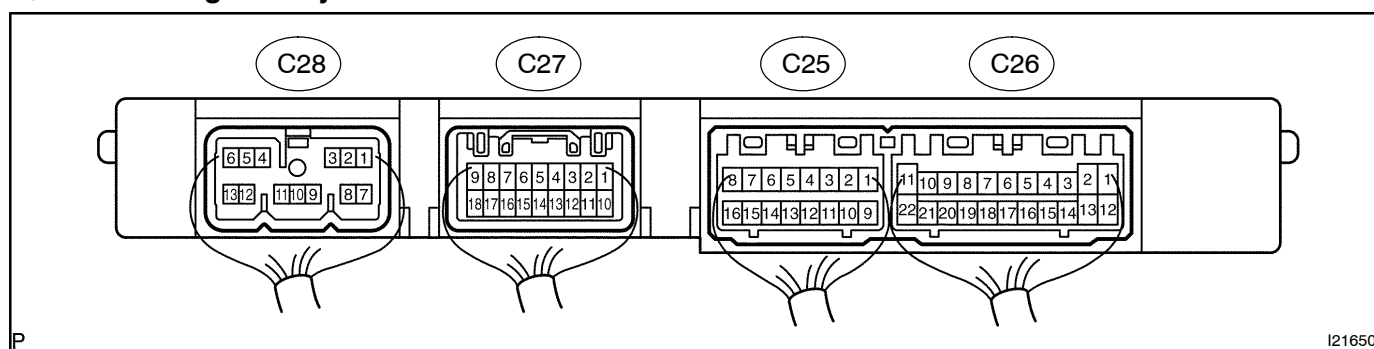


I08301

Symbols (Terminals No.)	Wiring Color	Condition	STD Voltage (V)
IG ↔ GND (C11-1 ↔ C11-22)	R-L ↔ W-B	IG switch OFF → ON	10 – 14 V
ACC ↔ GND (C11-2 ↔ C11-22)	GR ↔ W-B	Turn ignition switch ACC	10 – 14 V
AIF ↔ GND (C11-6 ↔ C11-22)	G-W ↔ W-B	IG ON. Push FRS switch	Below 1.0 V
		IG ON. Push REC switch	10 – 14 V
AIR ↔ GND (C11-7 ↔ C11-22)	LG-B ↔ W-B	IG ON. Push FRS switch	10 – 14 V
		IG ON. Push REC switch	Below 1.0 V
FrAMC ↔ GND (C11-8 ↔ C11-22)	P-G ↔ W-B	IG ON. Set temp. : Max. Cool	10 – 14 V
		IG ON. Set temp. : Max. Hot	Below 1.0 V
FrAMH ↔ GND (C11-9 ↔ C11-22)	P-B ↔ W-B	IG ON. Set temp. : Max. Cool	Below 1.0 V
		IG ON. Push REC switch	10 – 14 V
+B ↔ GND (C11-12 ↔ C11-22)	G-R ↔ W-B	Always	10 – 14 V
FrS5 ↔ FrSG (C10-1 ↔ C10-12)	G-R ↔ Y-G	IG ON	4.5 – 5.5 V
FrTR ↔ FrSG (C10-2 ↔ C10-12)	B ↔ Y-G	IG ON. Cabin temp. : 25 °C (77 °F)	1.8 – 2.2 V
		IG ON. Cabin temp. : 40 °C (104 °F)	1.2 – 1.6 V
TAM ↔ FrSG (C10-3 ↔ C10-12)	L-Y ↔ Y-G	IG ON. Ambient temp. : 25 °C (77 °F)	1.3 – 1.8 V
		IG ON. Ambient temp. : 40 °C (104 °F)	0.8 – 1.3 V
FrTE ↔ FrSG (C10-4 ↔ C10-12)	GR-B ↔ Y-G	IG ON. Evaporator temp. : 0 °C (32 °F)	2.0 – 2.4 V
		IG ON. Evaporator temp. : 15 °C (59 °F)	1.4 – 1.8 V
TS ↔ FrSG (C10-6 ↔ C10-12)	B-Y ↔ Y-G	IG ON. Sensor subjected electric light	0.8 – 4.3V
		IG ON. Sensor covered by a cloth	Below 0.8 V
FrTP ↔ FrSG (C10-8 ↔ C10-12)	B-Y ↔ Y-G	IG ON. Set temp. : Max. Cool	3.5 – 4.5 V
		IG ON. Set temp. : Max. Hot	0.5 – 1.5 V
TPI ↔ FrSG (C10-9 ↔ C10-12)	L-R ↔ Y-G	IG ON. Push REC switch	3.5 – 4.5 V
		IG ON. Push FRS switch	0.5 – 1.5 V
FACE ↔ GND (C9-3 ↔ C11-22)	GR ↔ W-B	Mode control switch except FACE → FACE	From 10 – 14 V to below 1.0 V
B/L ↔ GND (C9-4 ↔ C11-22)	BR-W ↔ W-B	Mode control switch except BI-LEVEL → BI-LEVEL	From 10 – 14 V to below 1.0 V
FOOT ↔ GND (C9-5 ↔ C11-22)	W ↔ W-B	Mode control switch except FOOT → FOOT	From 10 – 14 V to below 1.0 V

Symbols (Terminals No.)	Wiring Color	Condition	STD Voltage (V)
F/D ↔ GND (C9-10 ↔ C11-22)	P-L ↔ W-B	Mode control switch except FOOT/DEF → FOOT/DEF	From 10 – 14 V to below 1.0 V
DEF ↔ GND (C9-11 ↔ C11-22)	B-W ↔ W-B	Mode control switch except DEF → DEF	From 10 – 14 V to below 1.0 V
FrBLW ↔ GND (C9-12 ↔ C11-22)	W-R ↔ W-B	Blower fan OFF → ON	From 10 – 14 V to below 1.0 V
FrHR ↔ GND (C9-13 ↔ C11-22)	Y-R ↔ W-B	Blower fan OFF → ON	From 10 – 14 V to below 1.0 V
MGC ↔ GND (C9-14 ↔ C11-22)	L ↔ W-B	A/C compressor OFF → ON	From 10 – 14 V to below 1.0 V
LOCK ↔ FrSG (C8-7 ↔ C10-12)	W-L ↔ Y-G	A/C compressor ON	Pulse
TW ↔ GND (C8-9 ↔ C11-22)	Y-B ↔ W-B	IG ON.	Pluse
PSW ↔ GND (C8-10 ↔ C11-22)	L-W ↔ W-B	A/C refrigerant pressure: less than 0.19 MPa (2.0 kgf/cm ²) or more than 3.14 MPa (32 Kgf/cm ²)	From 10 – 14 V to below 1.0 V
IGN ↔ GND (C8-13 ↔ C11-22)	B ↔ W-B	Engine idling	Pulse
SPD ↔ GND (C8-22 ↔ C11-22)	V ↔ W-B	Turn propeller shaft slowly	Pulse
ACT ↔ GND (C8-23 ↔ C11-22)	L-B ↔ W-B	Start engine. A/C switch: ON Magnetic clutch: Engaged	10 – 14 V
		Start engine. A/C switch: ON Magnetic clutch: Not engaged	Below 1.0 V

w/ Lexus navigation system:



Symbols (Terminals No.)	Wiring Color	Condition	STD Voltage (V)
B ↔ GND (C26-1 ↔ C26-11)	G-R ↔ W-B	Always	10 – 14 V
ILL+ ↔ GND (C26-2 ↔ C26-11)	G ↔ W-B	IG ON. Taillight switch: TAIL	10 – 14 V
PSW ↔ GND (C26-4 ↔ C26-11)	L-W ↔ W-B	A/C refrigerant pressure: less than 0.19 MPa (2.0 kgf/cm ²) or more than 3.14 MPa (3,140 kgf/cm ²)	From 10 – 14 to Below 1.0
SPD ↔ GND (C26-6 ↔ C26-11)	V ↔ W-B	IG ON. Turn front wheel slowly	Pulse generation
TW ↔ GND (C26-7 ↔ C26-11)	Y-B ↔ W-B	IG ON.	Pulse generation
ACT ↔ GND (C26-8 ↔ C26-11)	L-B ↔ W-B	Start engine. A/C switch: ON Magnetic clutch: Engaged	10 – 14 V
		Start engine. A/C switch: ON Magnetic clutch: Not engaged	Below 1.0 V

DIAGNOSTICS – AIR CONDITIONING SYSTEM

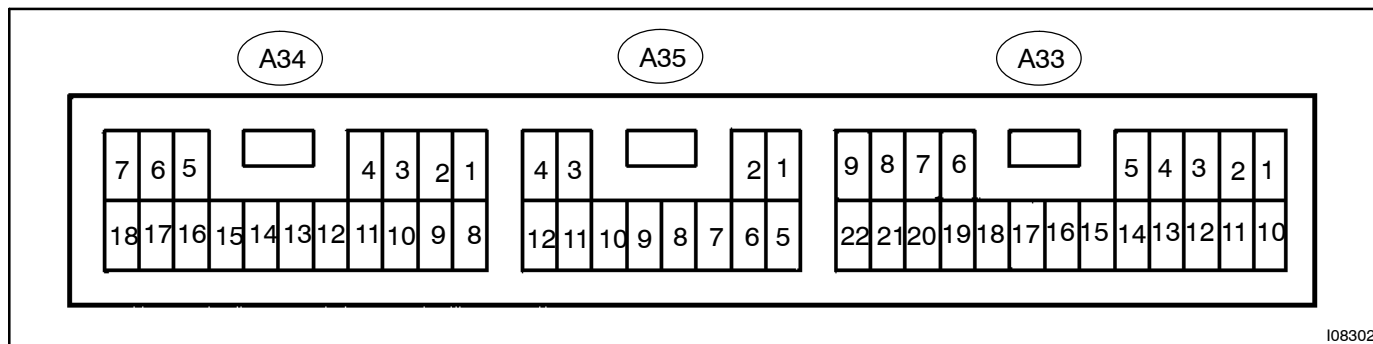
Symbols (Terminals No.)	Wiring Color	Condition	STD Voltage (V)
GND ↔ Body ground (C26-11 ↔ Body ground)	W-B	Alwways	Continuity
IG ↔ GND (C26-12 ↔ C26-11)	P-L ↔ W-B	IG ON.	10 – 14 V
ACC ↔ GND (C26-13 ↔ C26-11)	GR ↔ W-B	IG ACC.	10 – 14 V
RrMGV ↔ GND (*1) (C26-15 ↔ C26-11)	LG-R ↔ W-B	IG ON. Rear A/C: ON	Below 1.0 V
		IG ON. Rear A/C: OFF	10 – 14 V
AIR ↔ GND (C26-16 ↔ C26-11)	LG-B ↔ W-B	IG ON. Air intake selector: RECIRCULATE	10 – 14 V
		IG ON. Air intake selector: FRESH	Below 1.0 V
AIF ↔ GND (C26-17 ↔ C26-11)	G-W ↔ W-B	IG ON. Air intake selector: RECIRCULATE	Below 1.0 V
		IG ON. Air intake selector: FRESH	10 – 14 V
FrAMH ↔ GND (C26-18 ↔ C26-11)	P-B ↔ W-B	IG ON. Set temp. (Front A/C): MAX. COOL	Below 1.0 V
		IG ON. Set temp. (Front A/C): MAX. WARM	10 – 14 V
FrAMC ↔ GND (C26-19 ↔ C26-11)	P-G ↔ W-B	IG ON. Set temp. (Front A/C): MAX. COOL	10 – 14 V
		IG ON. Set temp. (Front A/C): MAX. WARM	Below 1.0 V
VER2 ↔ GND (C26-21 ↔ C26-11)	W-B ↔ W-B	Alwways	Continuity
VER3 ↔ GND (*1) (C26-22 ↔ C26-11)	W-B ↔ W-B	Alwways	Below 1.0 V
TS ↔ FrSG (C25-2 ↔ C25-1)	G-R ↔ B-Y	IG ON. Solar sensor is subjected to electric light	0.8 – 4.3 V
		IG ON. Solar sensor is covered by a cloth	Below 0.8 V
TAM ↔ SG (C25-3 ↔ C25-1)	L-Y ↔ Y-G	IG ON. Ambient temp.: 25 °C (77 °F)	1.8 – 2.2 V
		IG ON. Ambient temp.: 40 °C (104 °F)	1.2 – 1.6 V
FrTP ↔ SG (C25-5 ↔ C25-1)	B-Y ↔ Y-G	IG ON. Set temp. (Front A/C): MAX. COOL	3.5 – 4.5 V
		IG ON. Set temp. (Front A/C): MAX. WARM	Below 1.0 V
FrLAT ↔ GND (C25-7 ↔ C26-11)	W ↔ W-B	Communication circuit (between front A/C amplifier and rear A/C amplifier)	–
FrCID ↔ GND (C25-8 ↔ C26-11)	L ↔ W-B	Communication circuit (between front A/C amplifier and rear A/C amplifier)	–
FrS5 ↔ SG (C25-9 ↔ C26-1)	G-R ↔ Y-G	IG ON.	4.5 – 5.5 V
FrTR ↔ SG (C25-10 ↔ C25-1)	B ↔ Y-G	IG ON. Cabin temp. (Front side): 25 °C (77 °F)	1.8 – 2.2 V
		IG ON. Cabin temp. (Front side): 40 °C (104 °F)	1.2 – 1.6 V
FrTE ↔ SG (C25-11 ↔ C25-1)	GR-B ↔ Y-G	IG ON. Evaporator temp. (Front A/C): 0 °C (32 °F)	2.0 – 2.4 V
		IG ON. Evaporator temp. (Front A/C): 15 °C (59 °F)	1.4 – 1.8 V
TPI ↔ SG (C25-13 ↔ C25-1)	L-R ↔ Y-G	IG ON. Air intake selector: RECIRCULATE	3.5 – 4.5 V
		IG ON. Air intake selector: FRESH	Below 1.0 V
FrCSD ↔ GND (C25-15 ↔ C26-11)	R ↔ W-B	Communication circuit (between front A/C amplifier and rear A/C amplifier)	–
FrCLK (C25-16)	G	Communication circuit (between front A/C amplifier and rear A/C amplifier)	–
MPX- (C27-1)	P-B	Multiplex communication circuit	–
CLK ↔ GND (C27-2 ↔ C26-11)	L-R ↔ W-B	Communication circuit (between front A/C amplifier and clock)	–

DPD (C27-3)	L-W	Communication circuit (between front A/C amplifier and center cluster integration panel)	-
DEF ↔ GND (C27-6 ↔ C26-11)	B-W ↔ W-B	IG ON. Air flow selector: DEF.	Below 1.0 V
		IG ON. Air flow selector: Except DEF.	10 – 14 V
B/L ↔ GND (C27-8 ↔ C26-11)	BR-W ↔ W-B	IG ON. Air flow selector: B/L	Below 1.0 V
		IG ON. Air flow selector: Except B/L	10 – 14 V
IGN ↔ GND (C27-9 ↔ C26-11)	B ↔ W-B	IG ON.	Pulse generation
MPX+ (C27-10)	P-L	Multiplex communication circuit	-
BLK (C27-11)	L	Communication circuit (between front A/C amplifier and center cluster integration panel)	-
STX (C27-12)	L-B	Communication circuit (between front A/C amplifier and center cluster integration panel)	-
SWD (C27-13)	L-Y	Communication circuit (between front A/C amplifier and center cluster integration panel)	-
LOCK ↔ GND (C27-15 ↔ C26-11)	W-L ↔ W-B	Start engine. Magnetic clutch: Engaged	Pulse generation
F/D ↔ GND (C27-16 ↔ C26-11)	P-L ↔ W-B	IG ON. Air flow selector: FOOT/DEF.	Below 1.0 V
		IG ON. Air flow selector: Except FOOT/DEF.	10 – 14 V
FOOT ↔ GND (C27-17 ↔ C26-11)	W ↔ W-B	IG ON. Air flow selector: FOOT	Below 1.0 V
		IG ON. Air flow selector: Except FOOT	10 – 14 V
FACE ↔ GND (C27-18 ↔ C26-11)	GR ↔ W-B	IG ON. Air flow selector: FACE	Below 1.0 V
		IG ON. Air flow selector: Except FACE	10 – 14 V
RDFGR ↔ GND (C28-3 ↔ C26-11)	LG ↔ W-B	IG ON. Rear deffogger switch: ON	Below 1.0 V
		IG ON. Rear deffogger switch: OFF	10 – 14 V
AC1 ↔ GND (C28-4 ↔ C26-11)	W-G ↔ W-B	Start engine. Magnetic clutch: Engaged	Below 1.0 V
		Start engine. Magnetic clutch: Not engaged	10 – 14 V
RHR ↔ GND (*2) (C28-7 ↔ C26-11)	L-B ↔ W-B	IG ON. Rear heater switch (Front side): ON	Below 1.0 V
		IG ON. Rear heater switch (Front side): OFF	10 – 14 V
MGC ↔ GND (C28-11 ↔ C26-11)	L ↔ W-B	Start engine. Magnetic clutch: Engaged	Below 1.0 V
		Start engine. Magnetic clutch: Not engaged	10 – 14 V
FrHR ↔ GND (C28-12 ↔ C26-11)	Y-R ↔ W-B	IG ON. Blower motor: Operate	Below 1.0 V
		IG ON. Blower motor: Not operate	10 – 14 V
FrBLW ↔ GND (C28-13 ↔ C26-11)	W-R ↔ W-B	IG ON. Blower motor: Operate	Below 1.0 V
		IG ON. Blower motor: Not operate	10 – 14 V

(*1): Dual A/C

(*2): w/ rear heater

REAR A/C AMPLIFIER



Symbols (Terminals No.)	Wiring Color	Condition	STD Voltage (V)
+B ↔ GND (A33-1 ↔ A33-22)	B ↔ W-B	Constant	10 - 14 V
IG1 ↔ GND (A33-2 ↔ A33-22)	R-L ↔ W-B	IG ON.	10 - 14 V
VMrc ↔ GND (A33-3 ↔ A33-22)	W-L ↔ W-B	Rr FACE mode. Rr blower switch: Lo → ME → HI	7.2 → 4.2 → 0.5 V
BLWrc ↔ GND (A33-4 ↔ A33-22)	R ↔ W-B	Rr FACE mode. Fr blower switch: OFF → Lo	Below 1.0 V → 1.5 - 3.0 V
S51 ↔ SG1 (A33-5 ↔ A33-9)	R-Y ↔ Y-G	IG ON.	4.5 - 5.5 V
TPr ↔ SG1 (A33-6 ↔ A33-9)	GR-R ↔ Y-G	Rr temp. control switch: Max. COOL → Max. HOT	4.0 - 1.0 V
TEr ↔ SG1 (A33-7 ↔ A33-9)	Y ↔ Y-G	Rr evaporator temp.: 0 °C (32 °F)	2.0 - 2.4 V
		Rr evaporator temp.: 15 °C (59 °F)	2.0 - 2.4 V
Tinr ↔ SG1 (A33-8 ↔ A33-9)	GR-G ↔ Y-G	Rr inlet air temp.: 25 °C (77 °F)	1.5 - 1.9 V
		Rr inlet air temp.: 40 °C (104 °F)	1.2 - 1.6 V
SG1 ↔ GND (A33-9 ↔ A33-22)	Y-G ↔ W-B	Constant	Continuity
MCr ↔ GND (A33-11 ↔ A33-22)	W-L ↔ W-B	Rr temp. control switch: Max. HOT → Max. COOL	Below 1.0V → 10 - 14 V for 16 sec.
MHr ↔ GND (A33-12 ↔ A33-22)	Y ↔ W-B	Rr temp. control switch: Max. COOL → Max. HOT	Below 1.0V → 10 - 14 V for 16 sec.
HRrc ↔ GND (A33-13 ↔ A33-22)	R-Y ↔ W-B	Rr FACE mode. Rr blower control switch: OFF → LO	10 - 14 V → Below 1.0 V
HRrh ↔ GND (A33-14 ↔ A33-22)	L-B ↔ W-B	Rr FOOT mode. Rr blower control switch: OFF → LO	10 - 14 V → Below 1.0 V
VMrh ↔ GND (A33-15 ↔ A33-22)	R-W ↔ W-B	Rr FOOT mode. Rr blower control switch: LO → ME → HI	7.2 → 4.2 → 0.5 V
BLWrh ↔ GND (A33-16 ↔ A33-22)	R-G ↔ W-B	Rr FOOT mode. Rr blower control switch: OFF → LO	Below 1.0 V → 1.5 - 3.0 V
CID ↔ GND (A33-18 ↔ A33-22)	L ↔ W-B	IG ON.	Pulse
CSD ↔ GND (A33-19 ↔ A33-22)	R ↔ W-B	IG ON.	Pulse
CLK ↔ GND (A33-20 ↔ A33-22)	G ↔ W-B	IG ON.	Pulse
LAT ↔ GND (A33-21 ↔ A33-22)	W ↔ W-B	IG ON.	Pulse
GND ↔ Body ground (A33-22 ↔ Body ground)	W-B	Constant	Continuity

TRr ↔ SG2 (A35-7 ↔ A35-12)	B ↔ G-Y	IG ON. Rr room temp.: 25 °C (77 °F)	1.8 – 2.2 V
		IG ON. Rr room temp.: 40 °C (104 °F)	1.2 – 1.6 V
TSETr ↔ SG2 (A35-8 ↔ A35-12)	L-O ↔ G-Y	Rr temp. control switch: Max. COOL → Max. HOT	5.0 → 0 V
SG2 ↔ SG1 (A35-12 ↔ A33-9)	G-Y ↔ Y-G	Constant	Continuity
AUTO-S ↔ RG (A34-1 ↔ A34-8)	W-G ↔ G-W	Rr A/C control panel AUTO switch: OFF → ON	10 – 14 V → Below 1.0 V during pushed switch
OFF-S ↔ RG (A34-2 ↔ A34-8)	Y-B ↔ G-W	Rr A/C control panel OFF switch: OFF → ON	10 – 14 V → Below 1.0 V during pushed switch
LO-S ↔ RG (A34-3 ↔ A34-8)	GR ↔ G-W	Rr A/C control panel LO switch: OFF → ON	10 – 14 V → Below 1.0 V during pushed switch
ME-S ↔ RG (A34-4 ↔ A34-8)	L-Y ↔ G-W	Rr A/C control panel ME switch: OFF → ON	10 – 14 V → Below 1.0 V during pushed switch
AUTO-I ↔ GND (A34-5 ↔ A33-22)	L-R ↔ W-B	Rr A/C control panel switch: except. AUTO → AUTO	10 – 14 V → Below 1.0 V
LO-I ↔ GND (A34-6 ↔ A33-22)	L-W ↔ W-B	Rr A/C control panel switch: except. LO → LO	10 – 14 V → Below 1.0 V
ME-I ↔ GND (A34-7 ↔ A33-22)	L ↔ W-B	Rr A/C control panel switch: except. ME → ME	10 – 14 V → Below 1.0 V
RG ↔ GND (A34-8 ↔ A33-22)	G-W ↔ W-B	Constant	Continuity
HI-S ↔ GND (A34-9 ↔ A33-22)	GR-R ↔ W-B	Rr A/C control panel HI switch: OFF → ON	10 – 14 V → Below 1.0 V during pushed switch
FACE-S ↔ GND (A34-10 ↔ A33-22)	R-L ↔ W-B	Rr A/C control panel FACE switch: OFF → ON	10 – 14 V → Below 1.0 V during pushed switch
B/L-S ↔ GND (A34-11 ↔ A33-22)	R-Y ↔ W-B	Rr A/C control panel B/L switch: OFF → ON	10 – 14 V → Below 1.0 V during pushed switch
FOOT-S ↔ GND (A34-12 ↔ A33-22))	R-G ↔ W-B	Rr A/C control panel FOOT switch: OFF → ON	10 – 14 V → Below 1.0 V during pushed switch
FACE-I ↔ GND (A34-15 ↔ A33-22)	G ↔ W-B	Rr A/C control panel switch: except. FACE → FACE	10 – 14 V → Below 1.0 V
B/L-I ↔ GND (A34-16 ↔ A33-22)	W-G ↔ W-B	Rr A/C control panel switch: except. B/L → B/L	10 – 14 V → Below 1.0 V
FOOT-I ↔ GND (A34-17 ↔ A33-22)	W-R ↔ W-B	Rr A/C control panel switch: except. FOOT → FOOT	10 – 14 V → Below 1.0 V
HI-I ↔ GND (A34-18 ↔ A33-22)	L ↔ W-B	Rr A/C control panel switch: except. HI → HI	10 – 14 V → Below 1.0 V