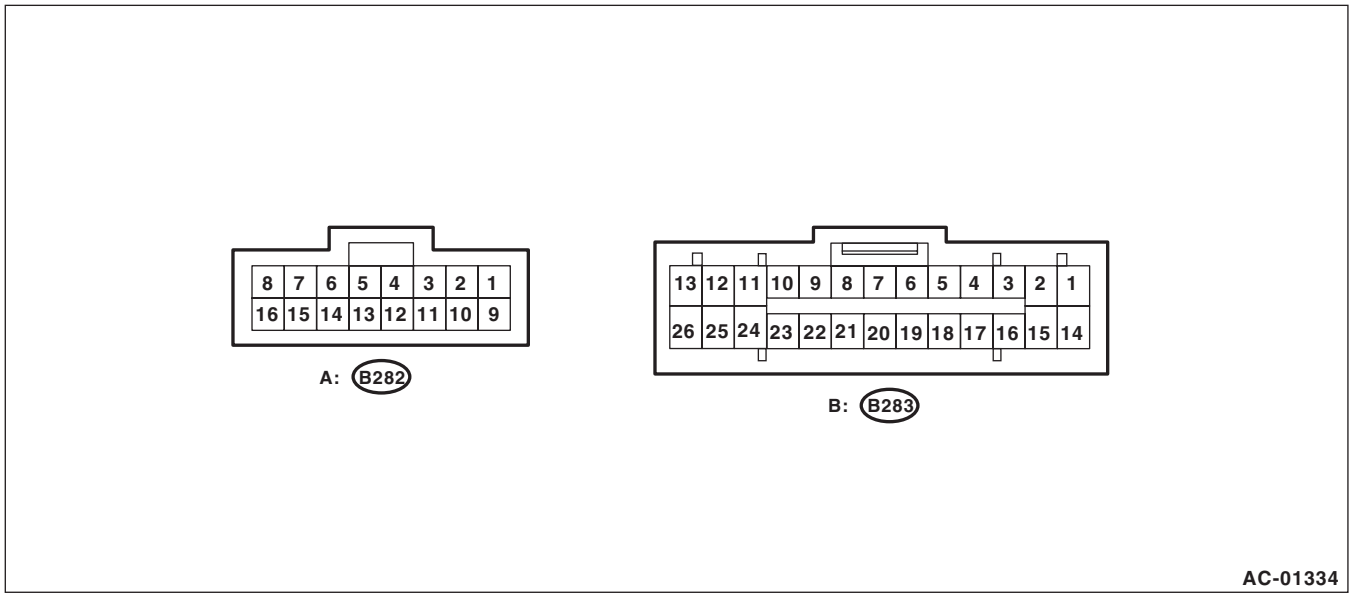
4. Auto A/C Control Module I/O Signal

A: ELECTRICAL SPECIFICATION



Terminal No.	Description	Measuring condition	Specification
A1	Battery power supply	Ignition switch: OFF	Battery voltage
A2	ACC power supply	Ignition switch: ACC	Battery voltage
A3	Mode door actuator position signal	Mode door: FACE position	4 V
		Mode door: DEF position	1 V
A4	Passenger's side air mix door actuator position signal	Air mix door: Maximum cool position	4 V
		Air mix door: Maximum hot position	1 V
A5	In-vehicle sensor	Ignition switch: ON	Less than 5 V
A6	Sunload sensor	Ignition switch: ON, With Sunload (No sunload: 0.8 V)	3 V
A7	Driver's seat heater temperature sensor	Ignition switch: ON	Less than 5 V
A8	Sensor power supply	Ignition switch: ON	5 V
A9	Ignition power supply	Ignition switch: ON	Battery voltage
A10	A/C cut signal	Ignition switch: ON	Battery voltage
		When pressure SW is operating	0 V
A12	Driver's side air mix door actuator position signal	Air mix door: Maximum cool position	4 V
		Air mix door: Maximum hot position	1 V
A13	Evaporator sensor	Ignition switch: ON	Less than 5 V
A14	Passenger's seat heater temperature sensor	Ignition switch: ON	Less than 5 V
A15	Sensor ground	Continuity to chassis ground	0 Ω
A16	Ground	Continuity to chassis ground	0 Ω
B1	CAN communication (HI side)	Ignition switch: ON	Pulse signal*1
B2	Blower motor voltage feedback signal	Blower level: Manual Lo	7.6 V
		Blower level: Manual M3	3.7 V
		Blower level: Manual Hi	Less than 1 V
B3	Blower motor power MOS gate control signal	Ignition switch : ON, Blower switch : ON	1 V — battery voltage
B6	Magnet clutch signal	Temperature setting: Maximum COOL, MODE: Manual DEF, A/C: ON	Battery voltage

Terminal No.	Description	Measuring condition	Specification
B7	Mode door actuator power supply (FACE)	When switching mode door from DEF → FACE	Battery voltage — 2.5 V or more*2
		When switching mode door from FACE → DEF	1V or less*2
B8	Passenger's side air mix door actuator power supply (COOL side)	When switching air mix door from HOT → COOL	Battery voltage — 2.5 V or more*2
		When switching air mix door from COOL → HOT	Less than 1 V*2
B9	Driver's side air mix door actuator power supply (COOL side)	When switching air mix door from HOT → COOL	Battery voltage — 2.5 V or more*2
		When switching air mix door from COOL → HOT	Less than 1 V*2
B10	Inlet opening motor (FRESH side)	FRESH	Less than 1 V
		RECIRC	Battery voltage
B11	Driver's seat heater	Driver's seat heater: ON (3 stages)	Less than 1 V*3
B13	Passenger's seat heater	Passenger's seat heater: ON (3 stages)	Less than 1 V*3
B14	CAN communication (Lo side)	Ignition switch: ON	Pulse signal*1
B16	Blower motor relay	Blower motor: When stopped	Battery voltage
		Blower motor: During operation	Less than 1 V
B18	Panel communication (transmitter side)	Ignition switch: ON	Pulse signal*1
B19	Panel communication (receiver side)	Ignition switch: ON	Pulse signal*1
B20	Mode door (DEF) side	Mode: DEF ⇒ FACE	Less than 1 V
		Mode: FACE ⇒ DEF	Battery voltage — 2.5 V or more
B21	Passenger's side air mix door	Air mix: Maximum HOT ⇒ maximum COOL	Less than 1 V
		Air mix: Maximum COOL ⇒ maximum HOT	Battery voltage — 2.5 V or more
B22	Driver's side air mix door	Air mix: Maximum HOT ⇒ maximum COOL	Less than 1 V
		Air mix: Maximum COOL ⇒ maximum HOT	Battery voltage — 2.5 V or more
B23	Inlet opening motor (RECIRC side)	RECIRC	Less than 1 V
		FRESH	Battery voltage
B24	Driver's seat heater ground	Continuity to chassis ground	0 Ω
B26	Passenger's seat heater ground	Continuity to chassis ground	0 Ω

*1: Unable to measure the voltage for digital signal.
*2: The mode door and air mix door values are values immediately after switching operation of FACE ⇔ DEF, and after switching between max cooling ⇔ max heating, respectively (value during damper door movement)
*3: The seat heater value shows the value immediately after operation. (If the target value is reached, an ON/OFF operation will occur, so the measurement should be taken just after seat heater ON.)

B: WIRING DIAGRAM

1. AIR CONDITIONER AUTO A/C MODEL

<Ref. to WI-63, WIRING DIAGRAM, Air Conditioning System.>