SYSTEM OUTLINE

1. HEATER BLOWER OPERATION

Manual operation

When the blower speed is set to a certain level using the blower control SW, the A/C control assembly sends the signals to the blower control to control the blower motor speed.

Auto operation

When the auto SW is turned on, the A/C control assembly sends the signals from various sensors and temperature SW to the blower control to automatically control the blower motor speed.

2. AIR INLET CONTROL SERVO MOTOR CONTROL

When the FRESH/RECIRC select SW is set to RECIRC, the motor in the air inlet control servo motor starts rotating to move the damper toward the RECIRC side. Since the damper position is detected by the **TERMINAL TP1** of the A/C control assembly, the motor is continuously rotated until the damper reaches its stop position.When the FRESH/RECIRC select SW is set to FRESH, the motor in the air inlet control servo motor starts rotating to move the damper toward the FRESH side. Since the damper position is detected by the **TERMINAL TP1** of the A/C control assembly, the motor is continuously rotated until the damper reaches its stop position.When the FRESH/RECIRC select SW is set to AUTO, the exhaust gas sensor installed in the engine room monitors contents in the exhaust gas and FRESH or RECIRC is automatically switched.

3. AIR VENT MODE CONTROL SERVO MOTOR CONTROL

When the mode select SW is pushed, the ECU in the A/C control assembly activates the air vent mode control servo motor. This causes the servo motor to rotate to the position (FACE, BI–LEVEL, FOOT, FOOT/DEF, DEF) selected using the mode select SW, and moves the film damper.

4. AIR MIX CONTROL SERVO MOTOR CONTROL

When the temperature control SW on the driver's side is pressed, the ECU in the A/C control assembly sends a signal to the air mix control servo motor on the driver's side. This signal drives the motor to reach the temperature set by the temperature control SW on the driver's side, and moves the film damper. Passenger's side is operated as same as the driver's side.

5. AIR CONDITIONER OPERATION

The A/C control assembly receives various signals, I.E., the engine RPM from the crankshaft position sensor, outlet temperature signal from the A/C ambient temp. sensor, coolant temperature from the water temp. sensor and the lock signal from the A/C compressor, etc. When the engine is started and the A/C SW is on, a signal is input to the ECU (Built into the A/C control assembly). As a result, the ground circuit in A/C control assembly is closed and current flows from **HTR** fuse to **TERMINAL 1** of the A/C COMP relay to **TERMINAL 2** to **TERMINAL ACMG** of the engine and ECT ECU to **TERMINAL MPX2** to **TERMINAL MPX+** of the A/C control assembly to **TERMINAL GND** to **GROUND**, turning the relay on so that the A/C magnetic clutch is on and the A/C compressor operates. At the same time, the engine and ECT ECU detects the magnetic clutch is on and the A/C compressor operates and rotates the motor to the open direction to avoid lowering the engine RPM during A/C operation. When any of the following signals are input to the A/C control assembly, the control assembly operates to turn off the air conditioner.

* Coolant temp. signal is high.
* A signal that the temperature at the air outlet is low.
* A signal that there is a large difference between engine speed and compressor speed.
* A signal that the refrigerant pressure is abnormally high or low.

SERVICE HINTS

A4 A/C DUAL PRESSURE SW

1–4 : Open with the refrigerant pressure at less than approx. **216** kpa (**2.2** kgf/cm^2, **31** psi) or more than approx. **3138** kpa (**32** kgf/cm^2, **455** psi)

A16 (A) A/C CONTROL ASSEMBLY

+B–GROUND : Always approx. **12** volts
ACC–GROUND : Approx. **12** volts with ignition SW at **ACC** or **ON** position
AIF–GROUND : Approx. **12** volts with FRESH SW on
AIR–GROUND : Approx. **12** volts with RECIRC SW on
GND–GROUND : Always continuity

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A1	68 (LHD)	A28	72 (LHD)	E10	68 (LHD)
	82 (RHD)		86 (RHD)		82 (RHD)
A3	68 (LHD)	A29	72 (LHD)	J2	70 (LHD)
	82 (RHD)		86 (RHD)	J8	74 (LHD)
A4	68 (LHD)	A30	72 (LHD)	J13 A	74 (LHD)
	82 (RHD)		86 (RHD)	J18	74 (LHD)
A16 A	72 (LHD)	B2	72 (LHD)	J19 A	74 (LHD)
	86 (RHD)		86 (RHD)	J26	84 (RHD)
A17 B	72 (LHD)	B3 A	72 (LHD)	J31 B	88 (RHD)
	86 (RHD)		86 (RHD)	J32	88 (RHD)
A18	72 (LHD)	B4 B	72 (LHD)	J37	88 (RHD)
	86 (RHD)		86 (RHD)	J41 B	88 (RHD)
A19	72 (LHD)	E2 A	68 (LHD)	J42	88 (RHD)
	86 (RHD)		82 (RHD)	M2	74 (LHD)
A20	72 (LHD)	E3 B	68 (LHD)		88 (RHD)
	86 (RHD)		82 (RHD)	T5	74 (LHD)
A27	72 (LHD)	E5 D	68 (LHD)		88 (RHD)
	86 (RHD)		82 (RHD)		

: RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	54 (LHD)	Engine Room No.1 R/B (Engine Compartment Right)
	54 (RHD)	Engine Room No.1 R/B (Engine Compartment Left)
3	56	Engine Room No.3 R/B (Engine Compartment Left)
4	57 (LHD)	Passenger Side R/B (Right Kick Panel)
	57 (RHD)	Passenger Side R/B (Left Kick Panel)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	58 (LHD)	Instrument Panel Wire and Driver Side J/B (Left Kick Panel)
	58 (RHD)	Instrument Panel Wire and Driver Side J/B (Right Kick Panel)
1F	58 (LHD)	Cowl Wire and Driver Side J/B (Left Kick Panel)
	58 (RHD)	Cowl Wire and Driver Side J/B (Right Kick Panel)
1G	59 (LHD)	Cowl Wire and Driver Side J/B (Left Kick Panel)
	59 (RHD)	Cowl Wire and Driver Side J/B (Right Kick Panel)
2F	60 (LHD)	Cowl Wire and Passenger Side J/B (Right Kick Panel)
	60 (RHD)	Cowl Wire and Passenger Side J/B (Left Kick Panel)
3A	62	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Reinforcement Center)
3E	63	
3G		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	96 (LHD)	Engine Wire and Cowl Wire (Inside of the ECU Box)
	106 (RHD)	
EA2	96 (LHD)	
	106 (RHD)	
EB1	96 (LHD)	Cowl Wire and Relay Block Wire (Inside of the Engine Room No.3 R/B)
	106 (RHD)	
IA3	108 (RHD)	Engine Room Main Wire and Cowl Wire (Near the Passenger Side R/B)
ID1	108 (RHD)	Instrument Panel Wire and Cowl Wire (Right Side of the Blower Unit)
IE1	108 (RHD)	Cowl Wire and A/C Sub Wire (Right Side of the Blower Unit)
IF1	108 (RHD)	Instrument Panel Wire and A/C Sub Wire (Right Side of the Blower Unit)
IG1	98 (LHD)	Cowl Wire and A/C Sub Wire (Left Side of the Blower Unit)
IH1	98 (LHD)	Instrument Panel Wire and A/C Sub Wire (Left Side of the Blower Unit)
II1	100 (LHD)	Engine Room Main Wire and Cowl Wire (Near the Passenger Side R/B)
IJ1	100 (LHD)	Instrument Panel Wire and Cowl Wire (Left Side of the Blower Unit)

: GROUND POINTS

Code	See Page	Ground Points Location
EB	96 (LHD)	Left Fender
EC	96 (LHD)	Front Side of the Intake Manifold
	106 (RHD)	
ED	96 (LHD)	Rear Side of the Intake Manifold
	106 (RHD)	
IF	98 (LHD)	Left Kick Panel
	108 (RHD)	
IG	108 (RHD)	Behind the Combination Meter
II	98 (LHD)	Right Side of the Cowl Panel
	108 (RHD)	Cowl Side Panel RH

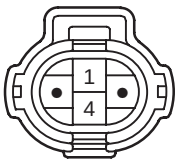
: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	96 (LHD)	Engine Wire	E4	106 (RHD)	Cowl Wire
	106 (RHD)		I2	100 (LHD)	A/C Sub Wire
E4	96 (LHD)	Cowl Wire	I3	110 (RHD)	

A1 BLACK

A3 GRAY

A4 BLACK



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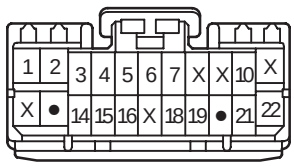

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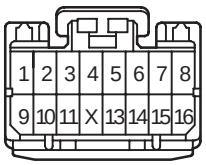

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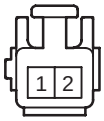

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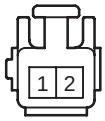

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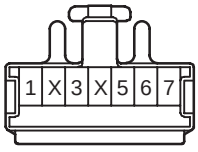

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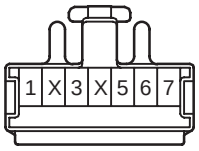

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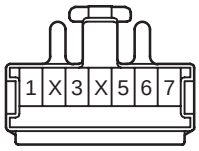

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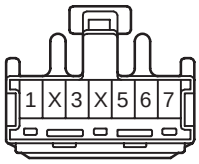

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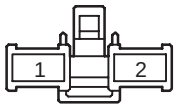

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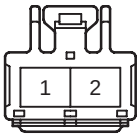

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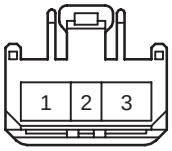

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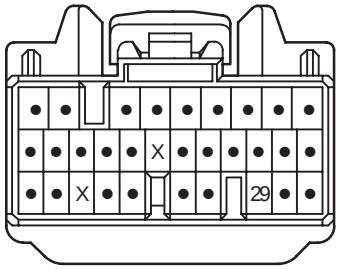

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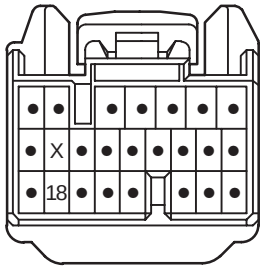
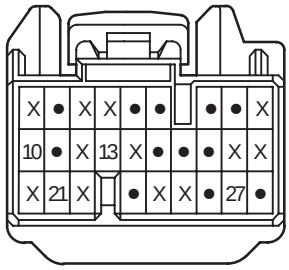
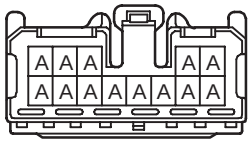


E5 (D)



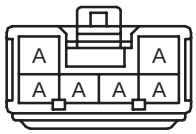
E10 BLACK

J2 ORANGE



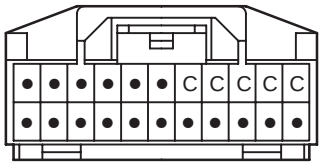
(Hint : See Page 7, 23, 39)

J8



(Hint : See Page 7, 23, 39)

J13 (A)

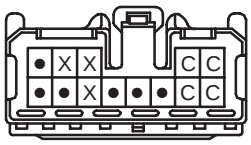


(Hint : See Page 7, 23, 39)

J18

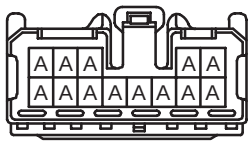
(Hint : See Page 7, 23, 39)

J19 (A) BLUE



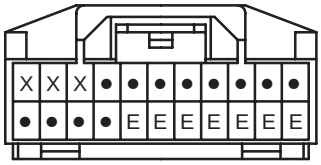
(Hint : See Page 7, 23, 39)

J26 ORANGE



(Hint : See Page 7, 23, 39)

J31 (B)



(Hint : See Page 7, 23, 39)

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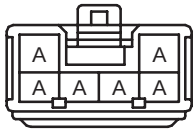
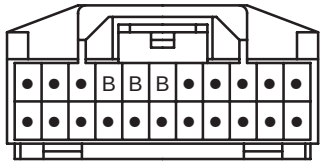


(Hint : See Page 7, 23, 39)

J37

(Hint : See Page 7, 23, 39)

J41 (B)



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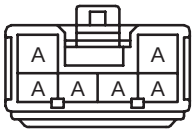
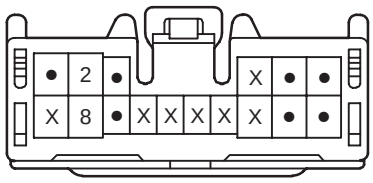


(Hint : See Page 7, 23, 39)

M2 BLUE



T5 GRAY