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. 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. The motor is continuously rotated until the damper reaches its stop position.

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 is pressed, the ECU in the A/C control assembly sends a signal to the air mix control servo motor. This signal drives the motor to reach the temperature set by the temperature control SW, and moves the film damper.

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, 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 A/C fuse to TERMINAL 1 of the A/C COMP relay to TERMINAL 2 to TERMINAL ACMG of the engine ECU (M/T) or engine and ECT ECU (A/T) to TERMINAL MPX 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 ECU (M/T) or engine and ECT ECU (A/T) 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 A/C 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)

A14 (A) A/C CONTROL ASSEMBLY

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

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A1	104 (RHD)	A18	106 (RHD)	E3 B	104 (RHD)
A3	104 (RHD)	A24	106 (RHD)	E5 D	104 (RHD)
A4	104 (RHD)	A25	106 (RHD)	J6	107 (RHD)
A14 A	106 (RHD)	A26	106 (RHD)	J7	107 (RHD)
A15 B	106 (RHD)	B3	106 (RHD)	S8	107 (RHD)
A16	106 (RHD)	B4 A	106 (RHD)		
A17	106 (RHD)	B5 B	106 (RHD)		

: RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
3	94 (RHD)	Engine Room No.3 R/B (Engine Compartment Left)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1H	88 (RHD)	Instrument Panel Wire and Driver Side J/B (Right Kick Panel)
1I		
2D	90 (RHD)	Instrument Panel Wire and Passenger Side J/B (Left Kick Panel)
2H		
2I	90 (RHD)	Floor No.2 Wire and Passenger Side J/B (Left Kick Panel)
2L	90 (RHD)	Instrument Panel Wire and Passenger Side J/B (Left Kick Panel)
2N	90 (RHD)	Engine Room Main Wire and Passenger Side J/B (Left Kick Panel)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	122 (RHD)	Engine Wire and Engine Room Main Wire (Inside of the ECU Box)
IA3	124 (RHD)	Instrument Panel Wire and Engine Room Main Wire (Near the Passenger Side J/B)
ID1	124 (RHD)	Instrument Panel Wire and A/C Sub Wire (Right Side of the Blower Unit)
ID2		
IE1	126 (RHD)	Instrument Panel No.2 Wire and Instrument Panel Wire (Right Side of the Instrument Panel)

: GROUND POINTS

Code	See Page	Ground Points Location
EC	122 (RHD)	Left Fender Apron
IE	124 (RHD)	Instrument Panel Reinforcement LH
BJ	128 (RHD)	Front Floor Panel LH

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I2	126 (RHD)	A/C Sub Wire	I3	126 (RHD)	A/C Sub Wire