

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/cm², 31 psi)** or more than approx. **3138 kpa (32 kgf/cm², 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	96 (LHD)	A18	98 (LHD)	E3	B 96 (LHD)
A3	96 (LHD)	A24	98 (LHD)	E5	D 96 (LHD)
A4	96 (LHD)	A25	98 (LHD)	J6	99 (LHD)
A14	A 98 (LHD)	A26	98 (LHD)	J7	99 (LHD)
A15	B 98 (LHD)	B3	98 (LHD)	S8	99 (LHD)
A16	98 (LHD)	B4	A 98 (LHD)		
A17	98 (LHD)	B5	B 98 (LHD)		

AUTOMATIC AIR CONDITIONER (LHD)

: RELAY BLOCKS

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

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	82 (LHD)	Instrument Panel Wire and Driver Side J/B (Left Kick Panel)
1G	82 (LHD)	Engine Room Main Wire and Driver Side J/B (Left Kick Panel)
1H	82 (LHD)	Instrument Panel Wire and Driver Side J/B (Left Kick Panel)
2B	84 (LHD)	Engine Room Main Wire and Passenger Side J/B (Right Kick Panel)
2D	84 (LHD)	Instrument Panel Wire and Passenger Side J/B (Right Kick Panel)
2F		
2H		
2I		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	112 (LHD)	Engine Wire and Engine Room Main Wire (Inside of the ECU Box)
IA3	114 (LHD)	Instrument Panel Wire and Engine Room Main Wire (Near the Driver Side J/B)
ID1	114 (LHD)	Instrument Panel No.2 Wire and Instrument Panel Wire (Left Side of the Instrument Panel)
IF1	116 (LHD)	Instrument Panel Wire and A/C Sub Wire (Left Side of the Blower Unit)
IF2		

: GROUND POINTS

Code	See Page	Ground Points Location
EC	112 (LHD)	Left Fender Apron
ID	114 (LHD)	Cowl Side Panel LH
IF	114 (LHD)	Instrument Panel Reinforcement RH

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I1	116 (LHD)	A/C Sub Wire	I2	116 (LHD)	A/C Sub Wire

