

SYSTEM OUTLINE

The servo motor and the blower motor is controlled automatically according to the set temperature.

1. AIR MIX CONTROL SERVO MOTOR CONTROL

The temperature is adjusted to the temperature set using the dial in the control panel, by rotating the air mix control servo motor according to the temperature detected by respective sensors.

2. BLOWER CONTROL

* Manual operation

The air flow volume is adjusted to the volume set using the blower dial.

* Auto operation

When the AUTO SW of the control panel is turned ON, the stepless air volume control, warm-up control, time-lagged air flow control, and sunlight air flow control system operates according to the input conditions from respective sensors.

A) Stepless air volume control

When the AUTO SW of the control panel is turned ON, the blower motor linear controller is controlled by the voltage of the a/c control assembly, and the air flow volume is controlled at several steps.

B) Warm-up control

When the blower mode is set at FOOT or BI-LEVEL, in case it is cold, the blower motor is turned OFF until the coolant temperature reaches a certain level. When the coolant temperature reaches 37C, the blower motor starts to rotate at LO, and when the temperature reaches 68C, it rotates at HI.

C) Time-lagged air flow control

According to the temperature detected by the A/C evaporator temp. sensor, two types of air flow volume delay control prevents sending hot air from the center register, when the blower mode is at FACE or BI-LEVEL.

D) Sunlight air flow control

According to the signal from the A/C solar sensor, the air flow volume at LO level is controlled in 5 steps automatically, when the blower mode is at FACE or BI-LEVEL. When the sunlight is strong, the blower speed is increased, and when it is weak, the blower speed is decreased.

3. AIR VENT MODE CONTROL SERVO MOTOR CONTROL

* Manual operation

The blower mode is switched to the position selected using the dial.

* Auto operation

When the AUTO SW of the control panel is turned ON, the blower position is switched by rotating the air vent mode control servo motor, according to the air temperature.

4. AIR INLET CONTROL SERVO MOTOR CONTROL

When the Fresh/Re-circulation SW is turned ON, the A/C control assembly detects the signal and outputs a switch signal to the servo motor, and the mode is switched among Fresh/Re-circulation.

SERVICE HINTS

A13 (A), A14 (B) A/C CONTROL ASSEMBLY

(B)11-GROUND : Always approx. **12** volts

(B)22-GROUND : Approx. **12** volts with the ignition SW at **ON** or **ST** position

(A) 9 (LHD), (B) 8 (RHD)-GROUND : Always continuity

AUTOMATIC AIR CONDITIONER

: PARTS LOCATION

Code		See Page	Code	See Page	Code		See Page
A1		88 (LHD 1ZZ–FE)	A15	98 (RHD)	C11	A	90 (LHD)
		94 (RHD 1ZZ–FE)	A16	90 (LHD)			98 (RHD)
A3		88 (LHD 1ZZ–FE)		A17	98 (RHD)	C12	B
		94 (RHD 1ZZ–FE)	90 (LHD)		98 (RHD)		
A4		88 (LHD 1ZZ–FE)	A21	98 (RHD)	E3	A	88 (LHD 1ZZ–FE)
		94 (RHD 1ZZ–FE)		90 (LHD)			94 (RHD 1ZZ–FE)
A12		90 (LHD)	A22	98 (RHD)	E4	B	88 (LHD 1ZZ–FE)
		98 (RHD)		90 (LHD)			94 (RHD 1ZZ–FE)
A13	A	90 (LHD)	A23	98 (RHD)	J1		89 (LHD 1ZZ–FE)
		98 (RHD)		90 (LHD)			95 (RHD 1ZZ–FE)
A14	B	90 (LHD)	B3	98 (RHD)	J3		99 (RHD)
		98 (RHD)		90 (LHD)			99 (RHD)
A15		90 (LHD)		98 (RHD)	J11		91 (LHD)

: RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	82	Engine Room R/B No.1 (Engine Compartment Left)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
IB	81	Engine Room Main Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IC		
ID		
IE	81	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IM		
IP	81	Cowl No.2 Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IQ		
2B	79	Engine Wire and Engine Room J/B (Engine Compartment Left)
2F	79	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2G		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	102 (LHD 1ZZ-FE)	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B No.1)
	110 (RHD 1ZZ-FE)	
ID1	104 (LHD)	Cowl No.2 Wire and Instrument Panel Wire (Instrument Panel Brace LH)
	114 (RHD)	
IE3	104 (LHD)	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
	114 (RHD)	
IE5	104 (LHD)	
IG2	106 (LHD)	Engine Room No.2 Wire and Instrument Panel Wire (Right Kick Panel)

**: GROUND POINTS**

Code	See Page	Ground Points Location
EB	102 (LHD 1ZZ-FE)	Front Left Fender
	110 (RHD 1ZZ-FE)	
ED	102 (LHD 1ZZ-FE)	Cylinder Head Cover LH
	110 (RHD 1ZZ-FE)	
IE	114 (RHD)	Cowl Side Panel LH
IF	104 (LHD)	Instrument Panel Brace RH
	114 (RHD)	
IG	104 (LHD)	Cowl Side Panel RH
IH	104 (LHD)	
	114 (RHD)	

**: SPLICE POINTS**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I2	106 (LHD)	Cowl No.2 Wire	I2	116 (RHD)	Cowl No.2 Wire