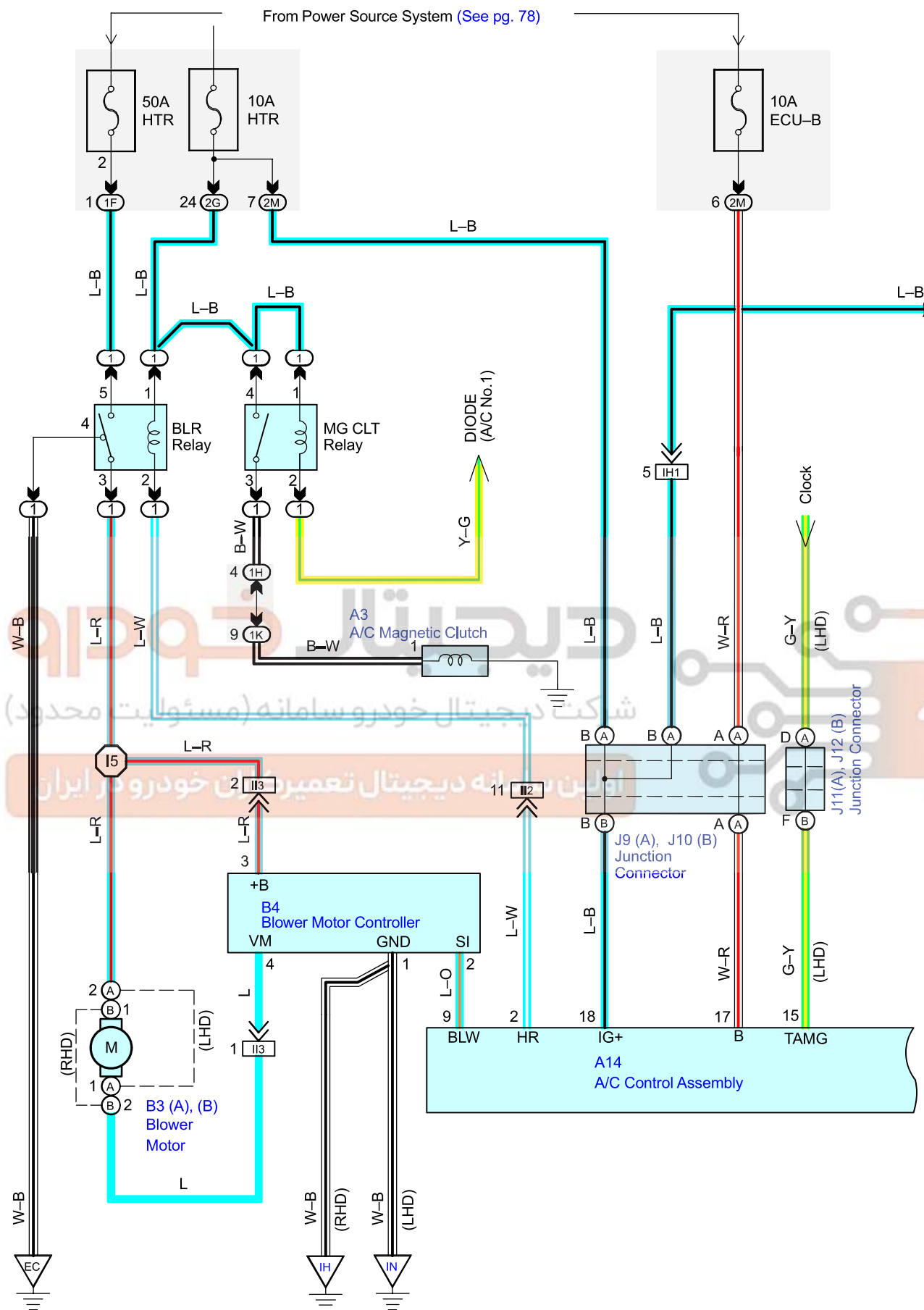
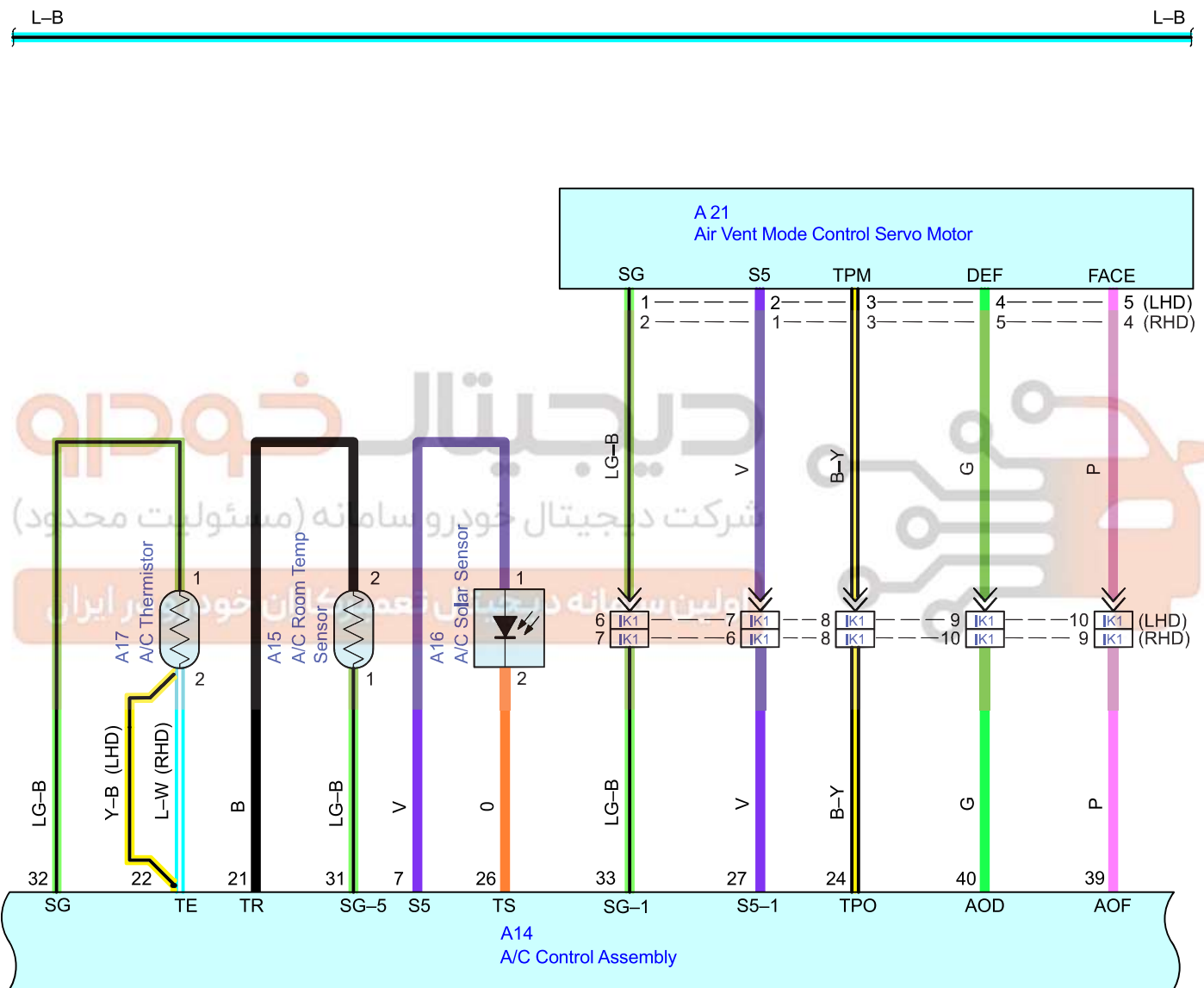


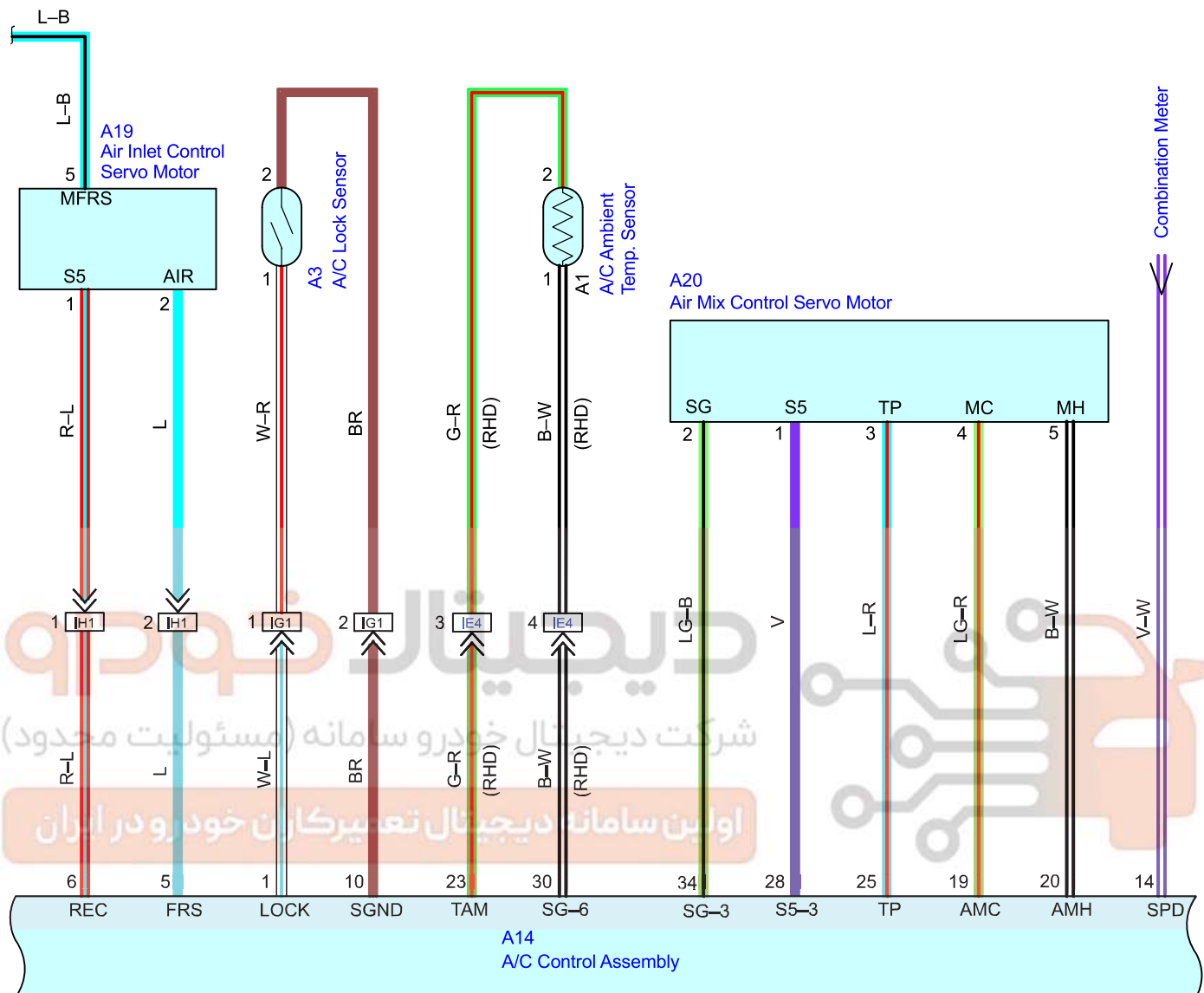
Automatic Air Conditioner

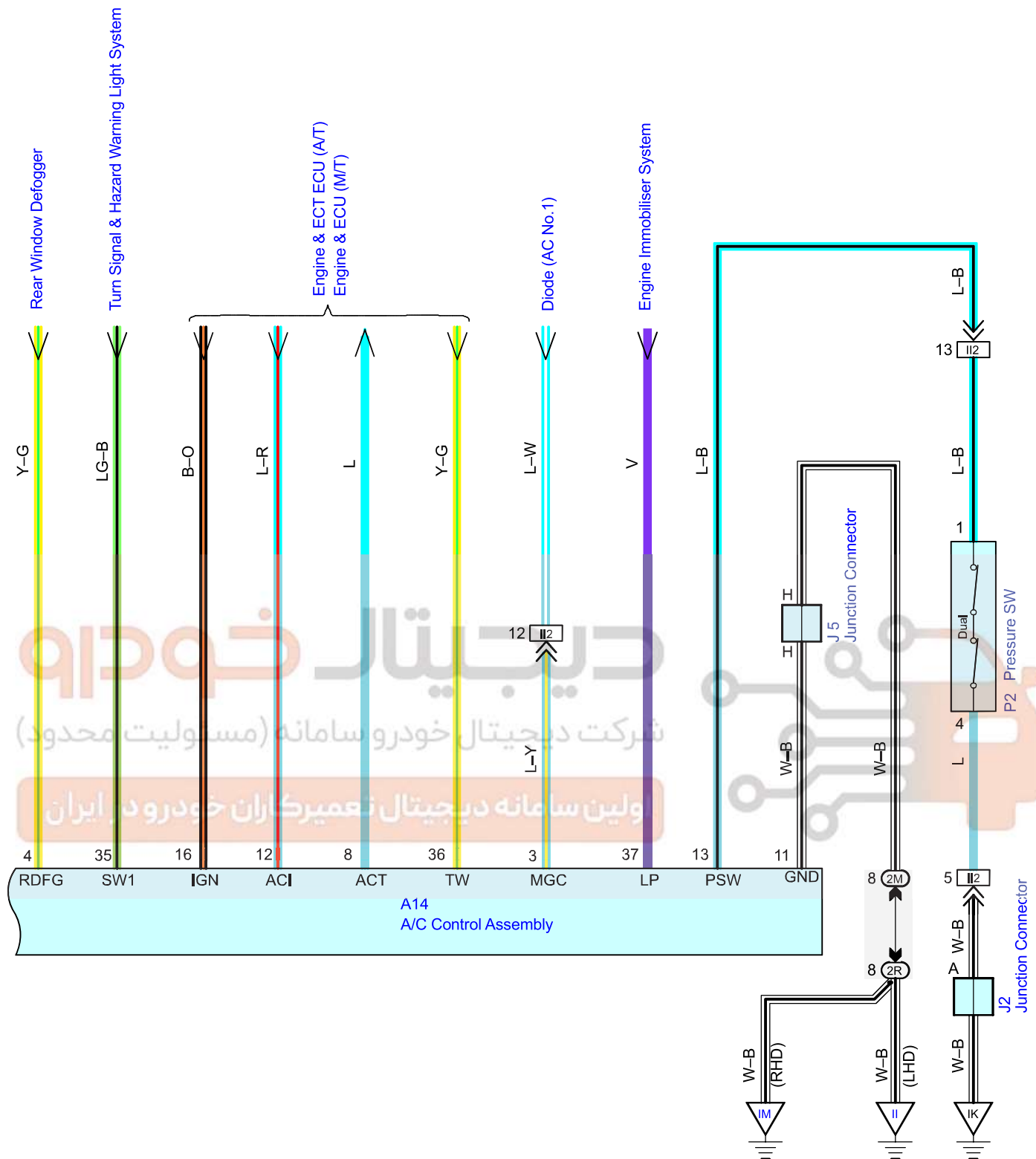
System Outline

Service Hints









Automatic Air Conditioner

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. 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.

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 damper.

5. Air Conditioner Operation

The A/C control assembly receives various signals, I.E., the engine RPM from the engine and ECT ECU (A/T), engine ECU (M/T), outside air temperature signal from the A/C ambient temp. sensor, coolant temperature from the engine and ECT ECU (A/T), engine ECU (M/T) and the lock signal from the A/C compressor, etc.

When the engine is started and the A/C SW (A/C control assembly) is on, a signal is input to the A/C control assembly.

As a result, the ground circuit in A/C control assembly is closed and current flows from HTR (10A) fuse to TERMINAL 1 of the MG CLT relay to TERMINAL 3 of the diode to TERMINAL MGCL of the engine and ECT ECU (A/T), engine ECU (M/T) to TERMINAL PRE to GROUND, turning the MG CLT relay on, so that the magnetic clutch is on and the A/C compressor operates.

At the same time, the engine and ECT ECU (A/T), engine ECU (M/T). Detects the magnetic clutch is on and the A/C compressor operates.

If the A/C control assembly detects the following conditions, it stops the air conditioner:

- * Evaporator outlet air is too low.
- * There is a marked difference between the compressor speed and the engine speed.
- * The refrigerant pressure is abnormally high or abnormally low.
- * The engine speed is too low.
- * Rapid acceleration occurs.

Service Hints

P2 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

IG-Ground : Approx. 12 volts with ignition SW at ON or ST position

GND-Ground : Always continuity

 : Parts Location

Code	See Page	Code	See Page	Code	See Page
A1	32 (LHD 1MZ-FE)	A19	36 (LHD)	J5	37 (LHD)
	42 (RHD 1MZ-FE)		46 (RHD)		47 (RHD)
A3	32 (LHD 1MZ-FE)	A20	36 (LHD)	J9	A
	42 (RHD 1MZ-FE)		46 (RHD)		
A14	36 (LHD)	A21	36 (LHD)	J10	B
	46 (RHD)		46 (RHD)		
A15	36 (LHD)	B3	36 (LHD)	J11	A
	46 (RHD)		46 (RHD)		
A16	36 (LHD)	B4	36 (LHD)	J12	B
	46 (RHD)		46 (RHD)		
A17	36 (LHD)	J2	37 (LHD)		
	46 (RHD)		47 (RHD)		

 : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	22	Engine Room R/B

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	24	Engine Room Main Wire and Engine Room J/B
1H		
1K		
2G	26	Engine Room Main Wire and Driver Side J/B
2M	27	Instrument Panel Wire and Driver Side J/B
2R		

 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE4	58 (LHD)	Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube)
	67 (RHD)	Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)
IG1	58 (LHD)	Engine Room and Instrument Panel Wire (Behind Glove Box)
	70 (RHD)	
IH1	58 (LHD)	Instrument Panel Wire and Instrument Panel No.3 Wire (Behind Glove Box)
	70 (RHD)	
II2	58 (LHD)	Engine Room Main Wire and Instrument Panel Wire (Right Kick Panel)
	70 (RHD)	Engine Room Main Wire and Instrument Panel Wire (Left Kick Panel)
II3	58 (LHD)	Engine Room Main Wire and Instrument Panel Wire (Right Kick Panel)
	70 (RHD)	Engine Room Main Wire and Instrument Panel Wire (Left Kick Panel)
IK1	58 (LHD)	Instrument Panel Wire and Instrument Panel No. 3 Wire (Behind Glove Box)
	70 (RHD)	

Automatic Air Conditioner



: Ground Points

Code	See Page	Ground Points Location
EC	52 (LHD 1MZ-FE)	Left Fender
	64 (RHD MZ-FE)	
	54 (LHD 2AZ-FE)	
	66 (RHD 2AZ-FE)	
II	55 (LHD)	Instrument Panel Reinforcement LH
IH	67 (RHD)	Instrument Panel Reinforcement LH
IK	55 (LHD)	Instrument Panel Brace LH
	67 (RHD)	Instrument Panel Brace RH
IM	67 (RHD)	Instrument Panel Reinforcement RH
IN	55 (LHD)	Instrument Panel Reinforcement RH



: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I5	58 (LHD)	A/C Sub Wire			
	70 (RHD)				

دیجیتال خودرو

شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران

