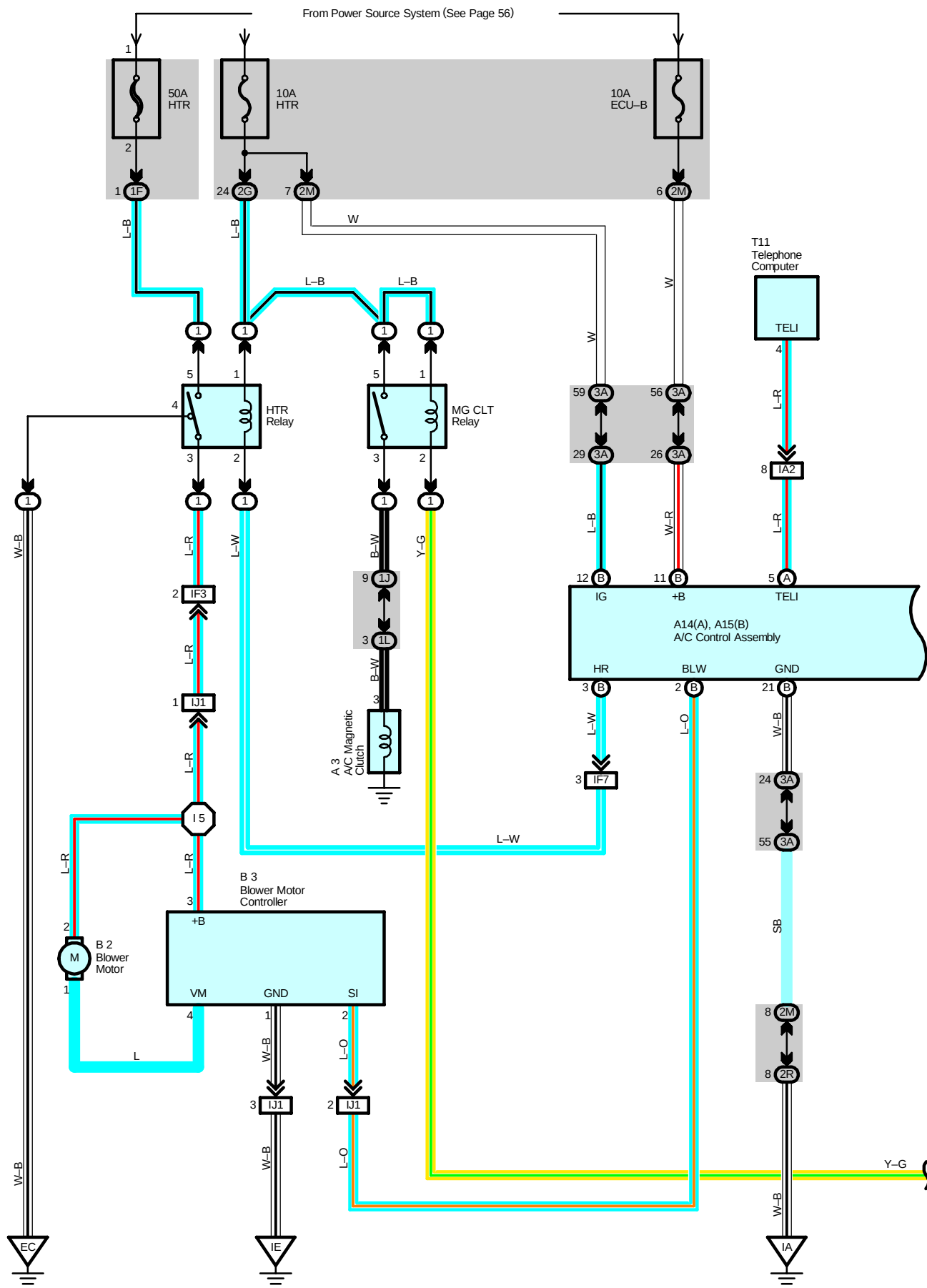
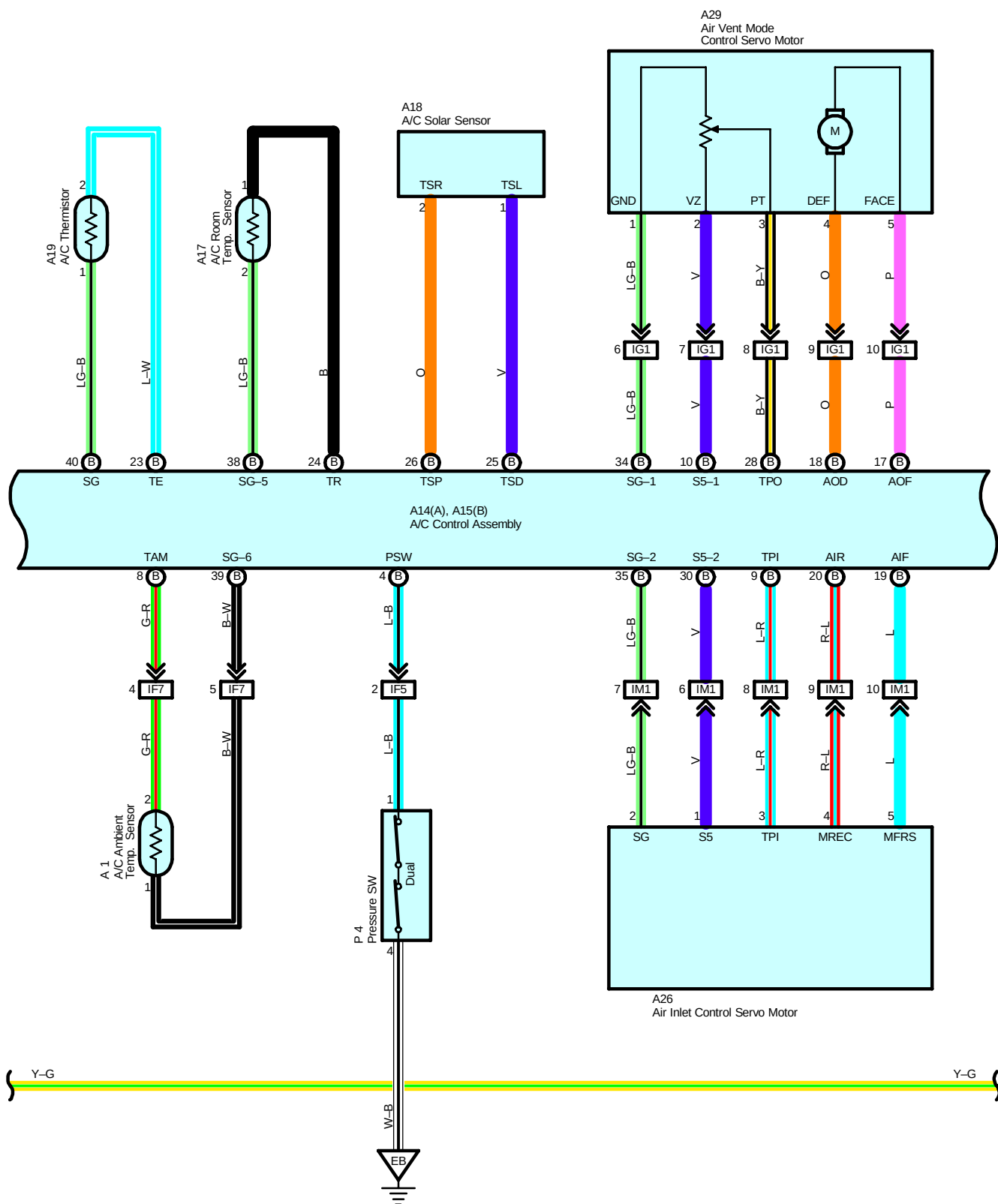
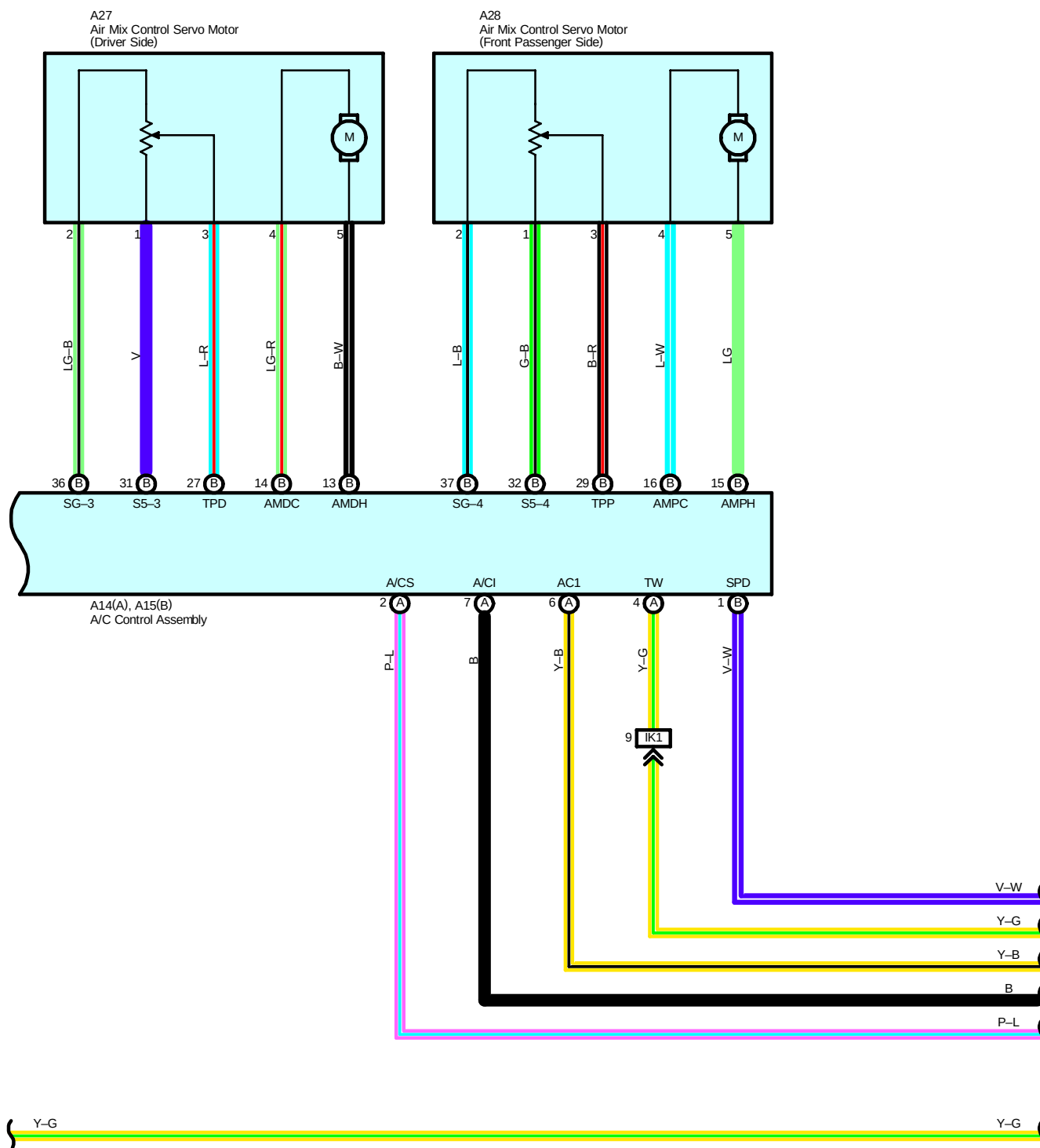




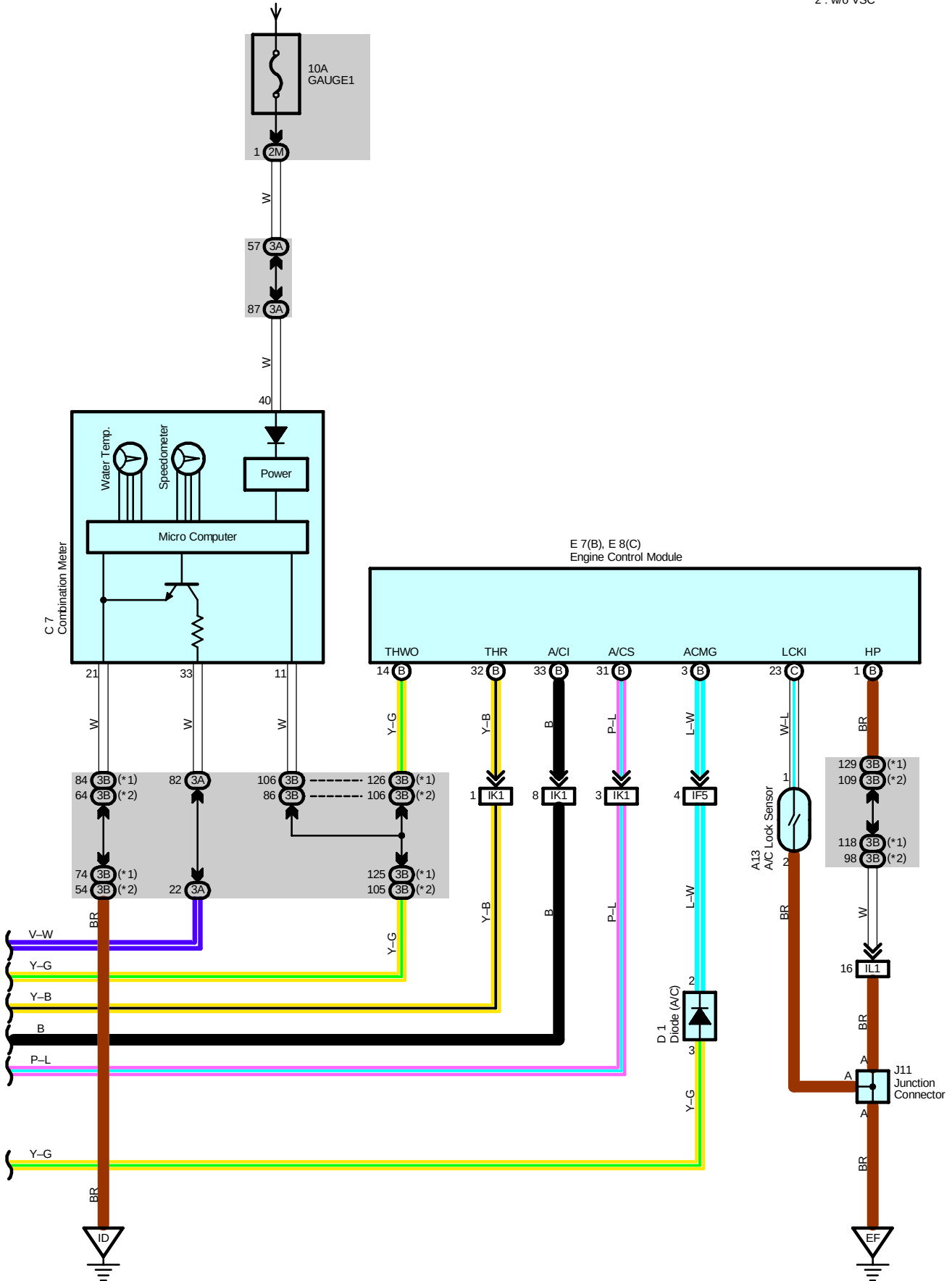


Air Conditioning



From Power Source System (See Page 56)

* 1 : w/ VSC
* 2 : w/o VSC



Air Conditioning

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 TPI 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 TPI of the A/C control assembly, 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 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 damper. Passenger's side is operated as same as the driver's side.

5. Air Conditioning Operation

The A/C control assembly receives various signals, I.E., the engine RPM from the engine control module, outside air temperature signal from the A/C ambient temp. sensor, coolant temperature from the engine control module 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 2 to TERMINAL 3 of the diode (A/C) to TERMINAL 2 to TERMINAL ACMG of the engine control module to TERMINAL HP 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 control module 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 conditioning:

- * 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

P4 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)

A15 (B) A/C Control Assembly

+B-Ground : Always approx. 12 volts

IG-Ground : Approx. 12 volts with ignition SW at ON or ST 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	36	A19	38	C7	38
A3	36	A26	38	D1	36
A13	36	A27	38	E7	B 38
A14	A 38	A28	38	E8	C 38
A15	B 38	A29	38	J11	39
A17	38	B2	38	P4	37
A18	38	B3	38	T11	41

 : Relay Blocks

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

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1J		
1L	25	Engine Wire and Engine Room J/B (Engine Compartment Left)
2G	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2M	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2R		
3A	34 (w/ VSC) 35 (w/o VSC)	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH)
3B	34 (w/ VSC) 35 (w/o VSC)	

 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA2	46	Instrument Panel Wire and Floor No.1 Wire (Left Kick Panel)
IF3	46	Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube)
IF5		
IF7		
IG1	48	Instrument Panel Wire and Engine Room Main Wire (Instrument Panel Brace LH)
IJ1	48	Instrument Panel Wire and Instrument Panel No.3 Wire (Left Side of A/C Unit)
IK1	48	Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement RH)
IL1	48	Engine Wire and Instrument Panel Wire (Behind the Glove Box)
IM1	48	Instrument Panel Wire and Cowl No.2 Wire (Behind the Glove Box)

 : Ground Points

Code	See Page	Ground Points Location
EB	44	Right Fender
EC	44	Left Fender
EF	44	Intake Side of Cylinder Block
IA	46	Instrument Panel Reinforcement LH
ID	46	Instrument Panel Brace RH
IE	46	Instrument Panel Reinforcement RH

 : Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I5	48	Instrument Panel No.2 Wire			