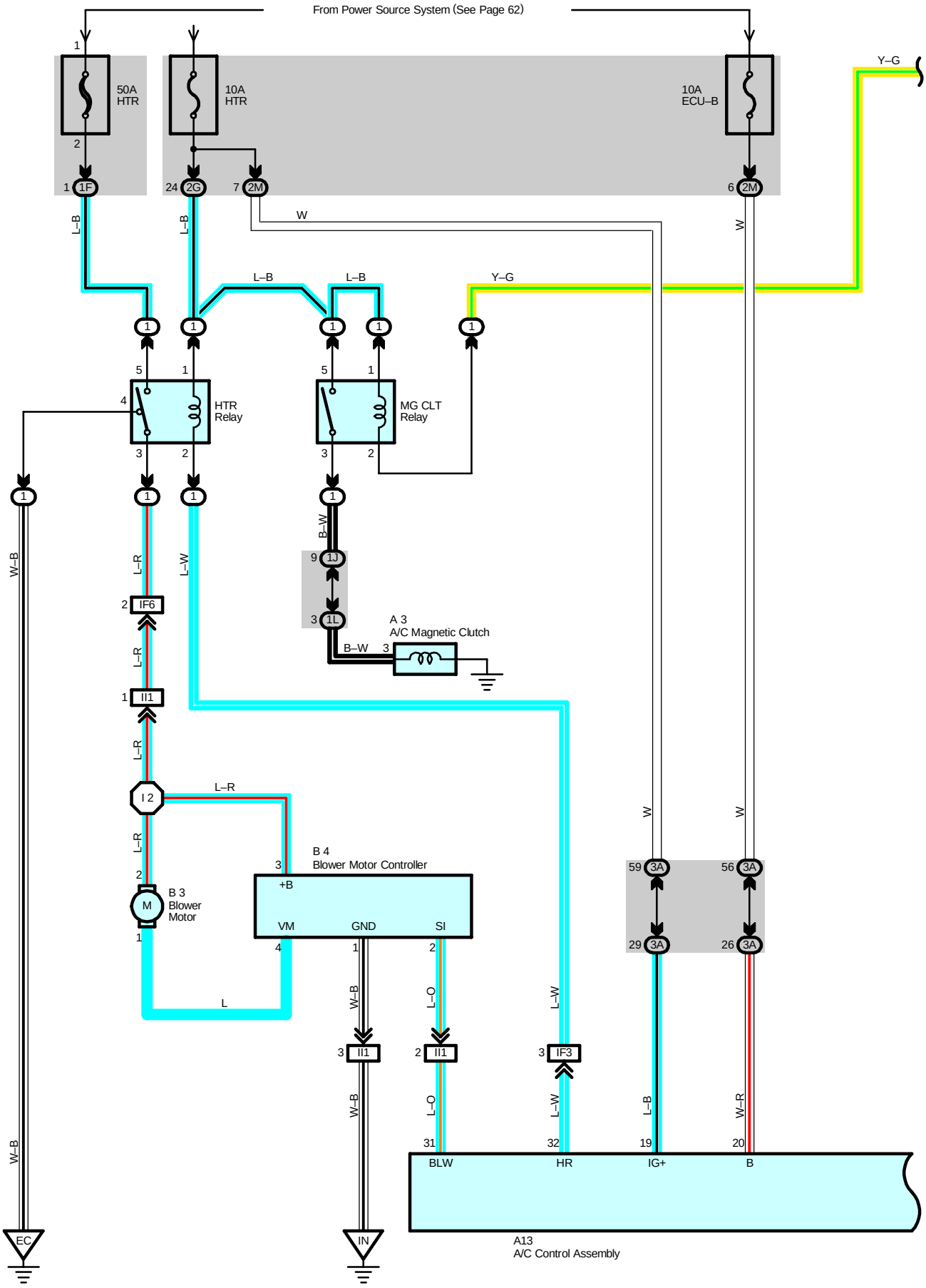
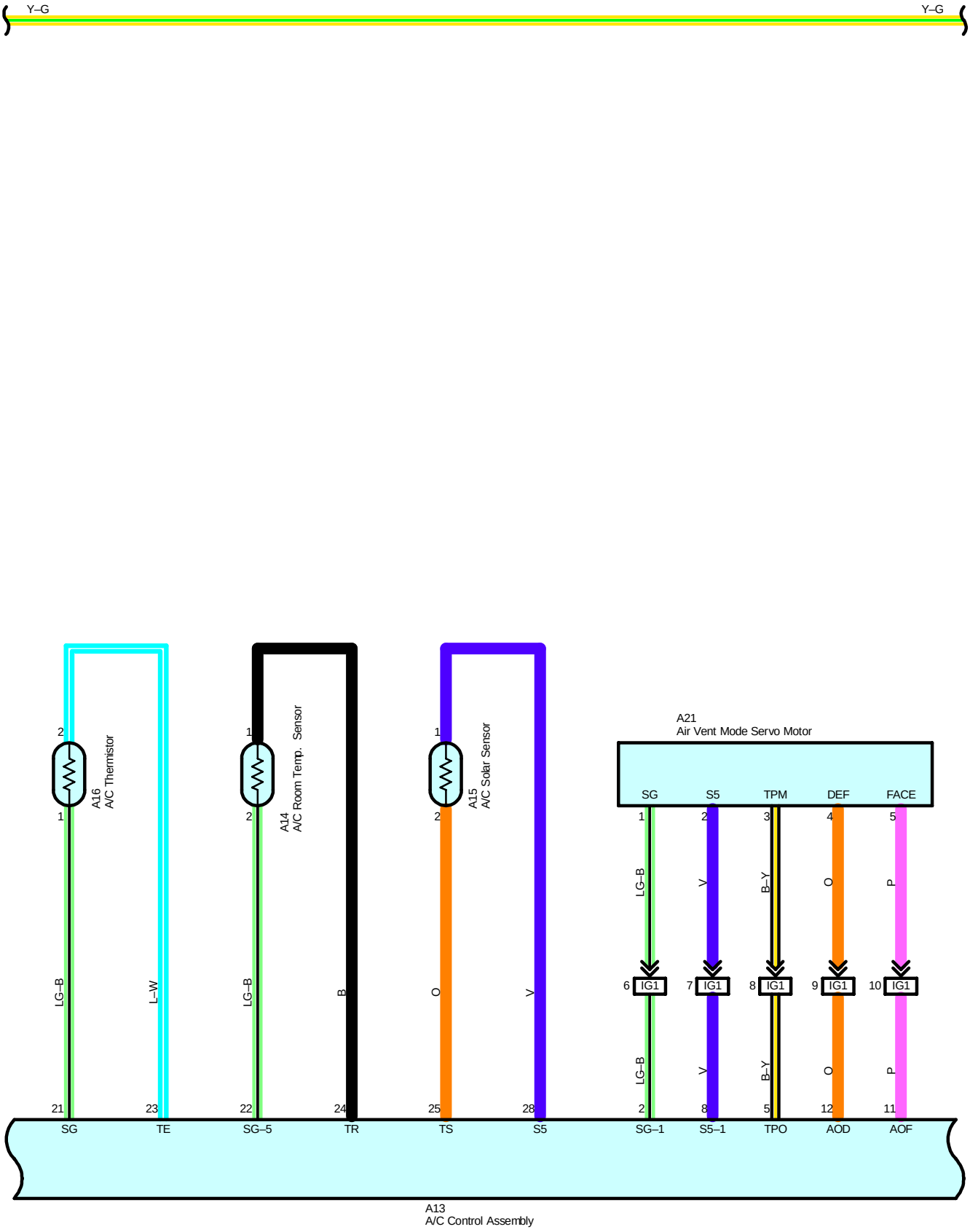
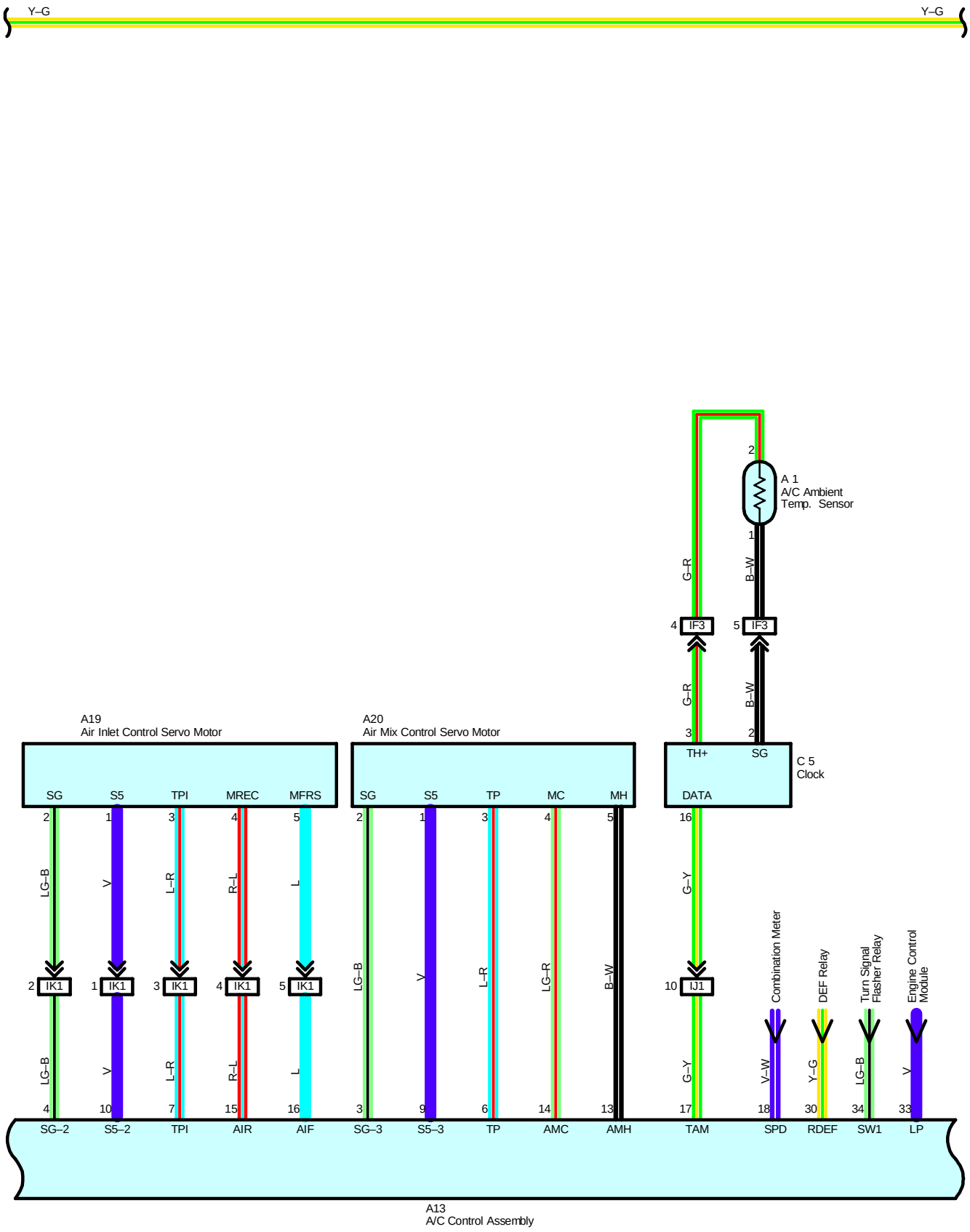
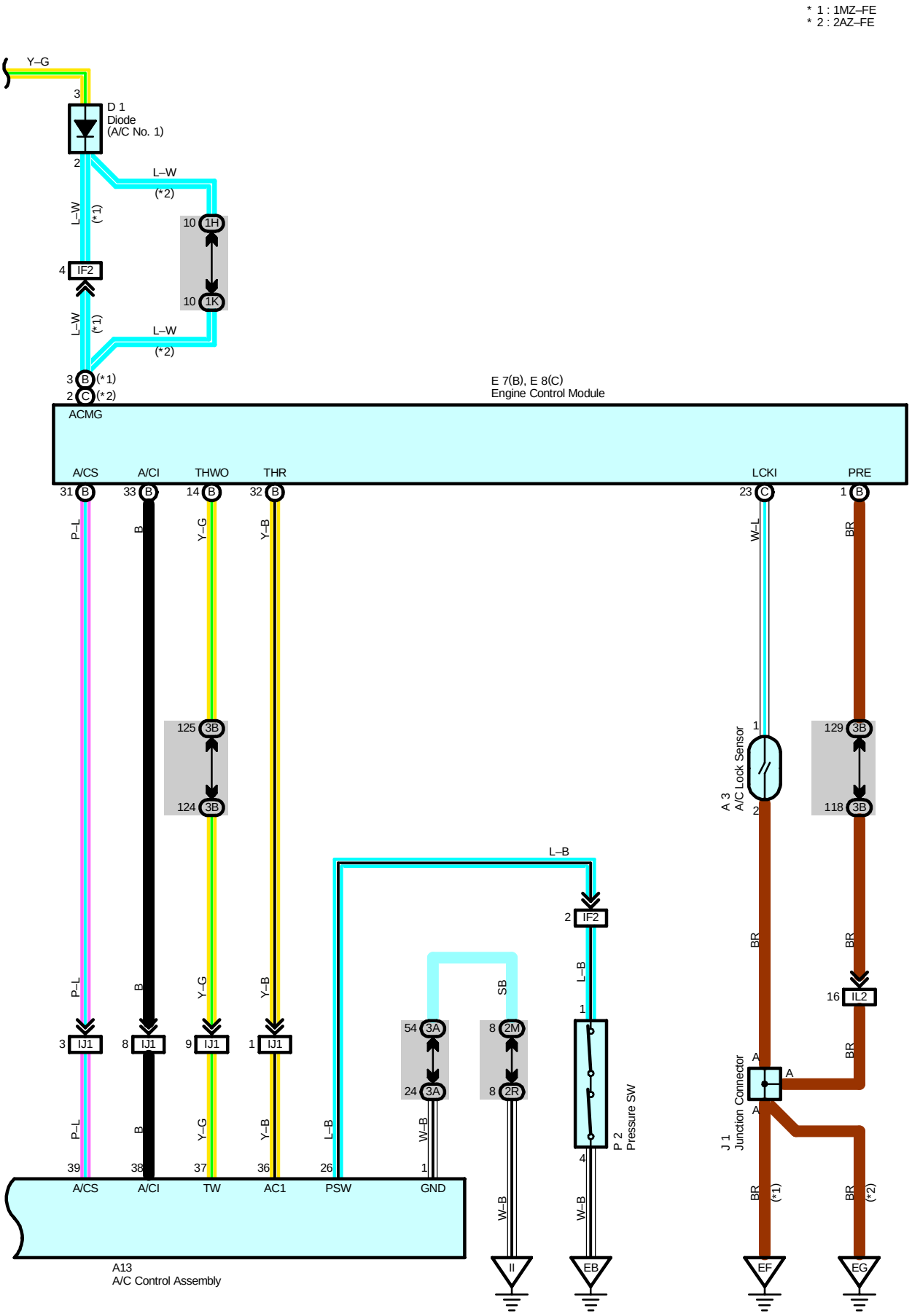

From Power Source System (See Page 62)
50A HTR
10A HTR
10A ECU–B
Y–G
L–B
W
HTR Relay
MG CLT Relay
B–W
L–R
L–W
IF6
II1
I 2
B 3 Blower Motor
B 4 Blower Motor Controller
+B
VM
GND
SI
L–O
IF3
A 3 A/C Magnetic Clutch
1J
1L
3A
BLW
HR
IG+
B
W–R
EC
IN
A13 A/C Control Assembly


Y–G
Y–G
A16
A/C Thermistor
A14
A/C Room Temp. Sensor
A15
A/C Solar Sensor
A21
Air Vent Mode Servo Motor
SG
S5
TPM
DEF
FACE
IG1
LG–B
L–W
B
O
V
B–Y
P
SG
TE
SG–5
TR
TS
S5
SG–1
S5–1
TPO
AOD
AOF
A13
A/C Control Assembly


Y–G
Y–G
A 1
A/C Ambient
Temp. Sensor
G–R
B–W
4 IF3
5 IF3
G–R
B–W
3
2
TH+
SG
C 5
Clock
DATA
A19
Air Inlet Control Servo Motor
SG
S5
TPI
MREC
MFRS
A20
Air Mix Control Servo Motor
SG
S5
TP
MC
MH
LG–B
V
L–R
R–L
L
LG–B
V
L–R
LG–R
B–W
G–Y
2 IK1
1 IK1
3 IK1
4 IK1
5 IK1
10 IJ1
Combination Meter
DEF Relay
Turn Signal Flasher Relay
Engine Control Module
V–W
Y–G
LG–B
V
4
10
7
15
16
3
9
6
14
13
17
18
30
34
33
SG–2
S5–2
TPI
AIR
AIF
SG–3
S5–3
TP
AMC
AMH
TAM
SPD
RDEF
SW1
LP
A13
A/C Control Assembly


* 1 : 1MZ–FE
* 2 : 2AZ–FE
Y–G
3
D 1
Diode
(A/C No. 1)
2
L–W
(*2)
L–W
(*1)
10 1H
4 IF2
10 1K
L–W
(*1)
L–W
(*2)
3 B (*1)
2 C (*2)
ACMG
E 7(B), E 8(C)
Engine Control Module
A/CS
A/CI
THWO
THR
LCKI
PRE
31 B
33 B
14 B
32 B
23 C
1 B
P–L
B
Y–G
Y–B
W–L
BR
125 3B
124 3B
129 3B
118 3B
A 3
A/C Lock Sensor
1
2
L–B
2 IF2
BR
BR
16 IL2
3 IJ1
8 IJ1
9 IJ1
1 IJ1
SB
L–B
54 3A
24 3A
8 2M
8 2R
1
A
A
A
J 1
Junction Connector
P 2
Pressure SW
4
W–B
W–B
BR
(*1)
BR
(*2)
39
38
37
36
26
1
A/CS
A/CI
TW
AC1
PSW
GND
II
EB
EF
EG
A13
A/C Control Assembly

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 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 Conditioning Operation

The A/C control assembly receives various signals, I.E., the engine RPM from the engine control module, out side 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 3 of the diode to TERMINAL MGCL of the engine control module 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 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

P2 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)

A13 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	38 (1MZ–FE)	A16	42	D1		38 (1MZ–FE)
	40 (2AZ–FE)	A19	42			40 (2AZ–FE)
A3	38 (1MZ–FE)	A20	42	E7	B	42
	40 (2AZ–FE)	A21	42	E8	C	42
A13	42	B3	42	J1		43
A14	42	B4	42	P2		39 (1MZ–FE)
A15	42	C5	42			41 (2AZ–FE)

: 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)
1H		
1J		
1K	25	Engine Wire and Engine Room J/B (Engine Compartment Left)
1L		
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 (*1)	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH)
	35 (*3)	
3B	34 (*1)	
	35 (*3)	

∗ 1 : TMC Made Automatic A/C ∗ 3 : TMMK Made Automatic A/C

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF2	52	Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube)
IF3		
IF6		
IG1	52	Instrument Panel Wire and Engine Room Main Wire (Instrument Panel Brace LH)
II1	54	Instrument Panel Wire and Instrument Panel No.3 Wire (Behind the Glove Box)
IJ1	54	Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement RH)
IK1	54	Instrument Panel Wire and Instrument Panel No.3 Wire (Behind the Glove Box)
IL2	54	Engine Wire and Instrument Panel Wire (Behind the Glove Box)

 : **Ground Points**

Code	See Page	Ground Points Location
EB	48 (1MZ–FE)	Right Fender
	50 (2AZ–FE)	
EC	48 (1MZ–FE)	Left Fender
	50 (2AZ–FE)	
EF	48 (1MZ–FE)	Rear Side of Surge Tank
EG	50 (2AZ–FE)	Left Side of Cylinder Head
II	52	Cowl Side Panel LH
IN	52	Instrument Panel Reinforcement RH

 : **Splice Points**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I2	54	Instrument Panel No.3 Wire			