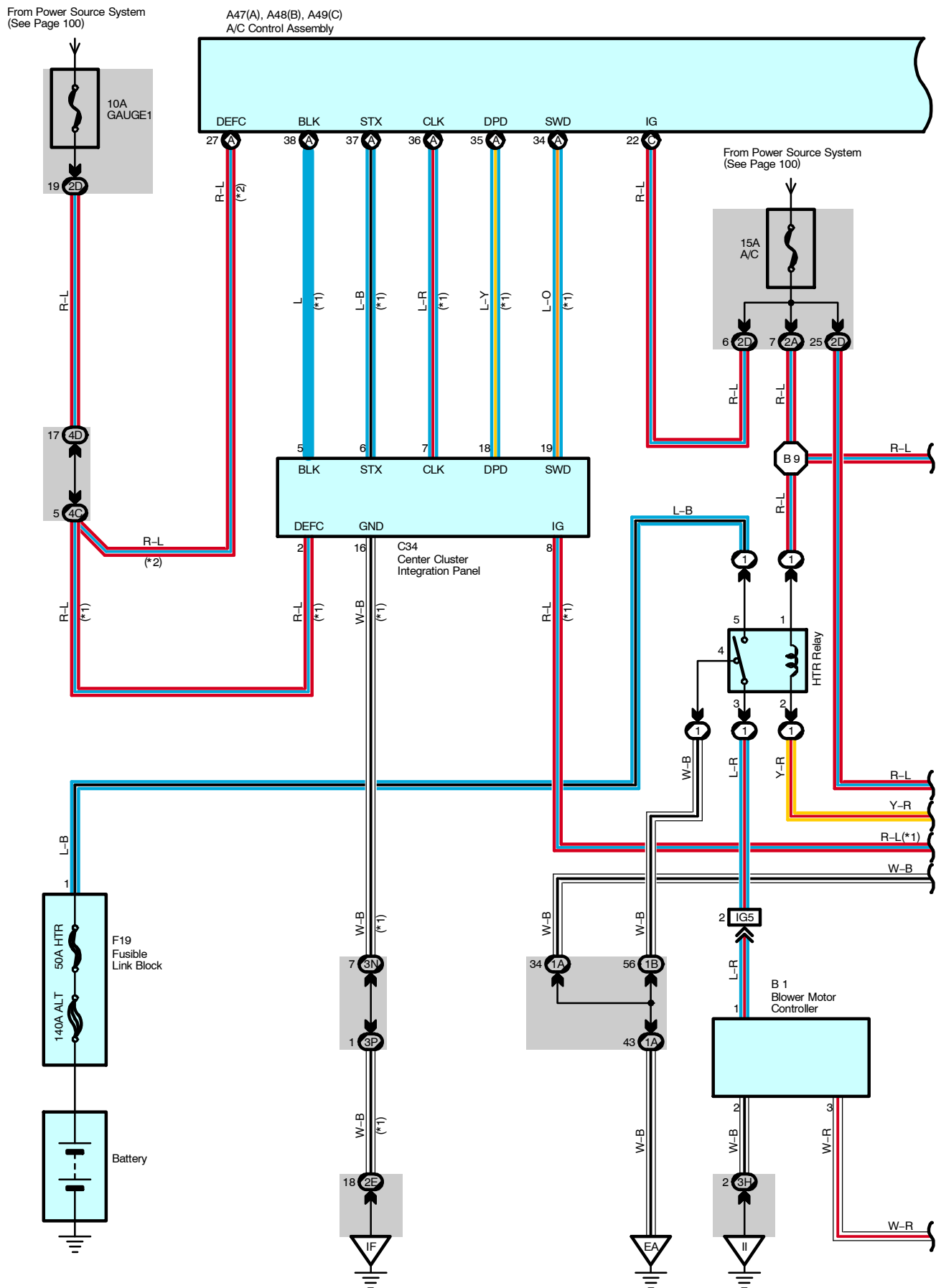
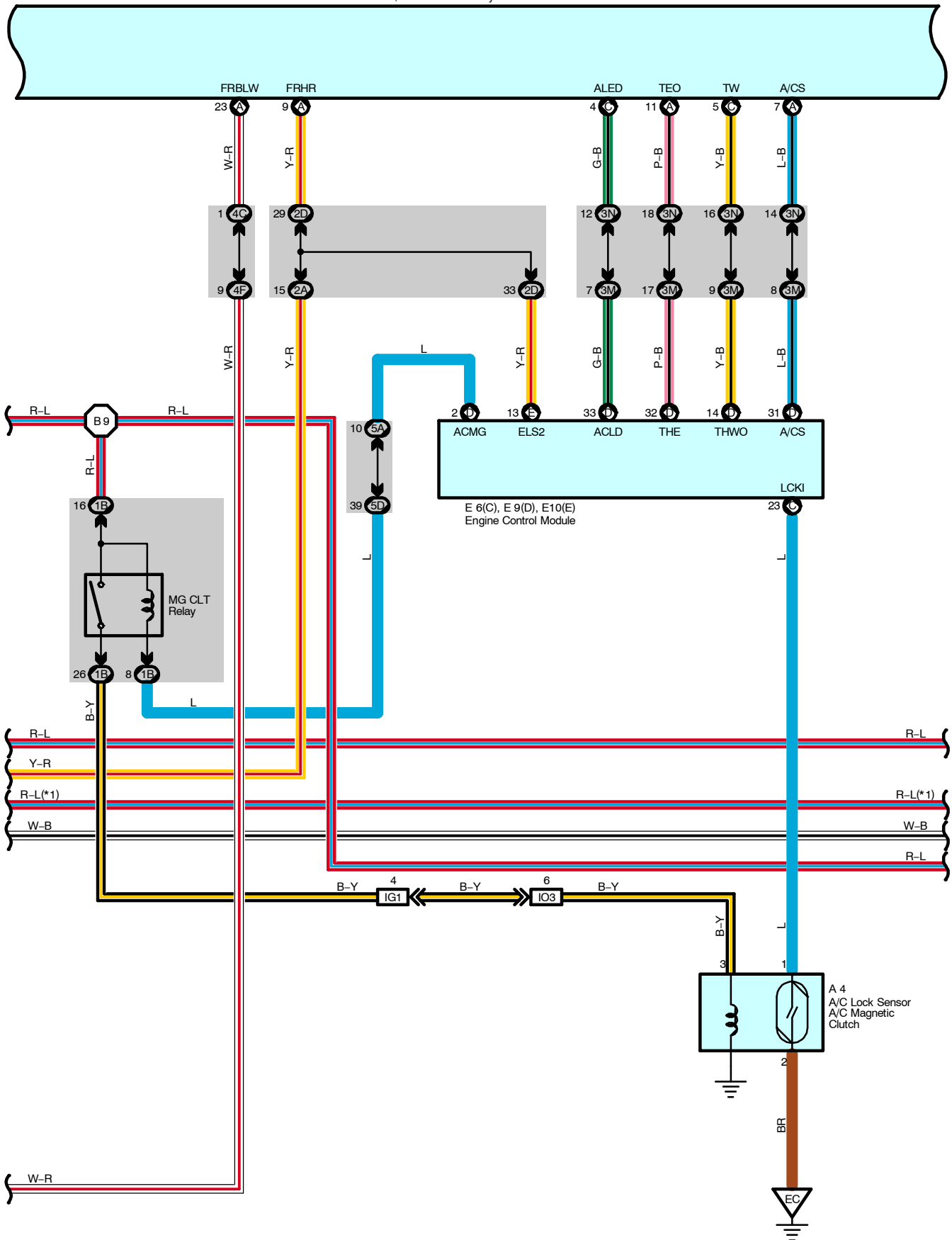


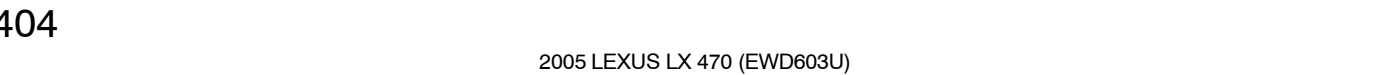
Air Conditioning (Front)



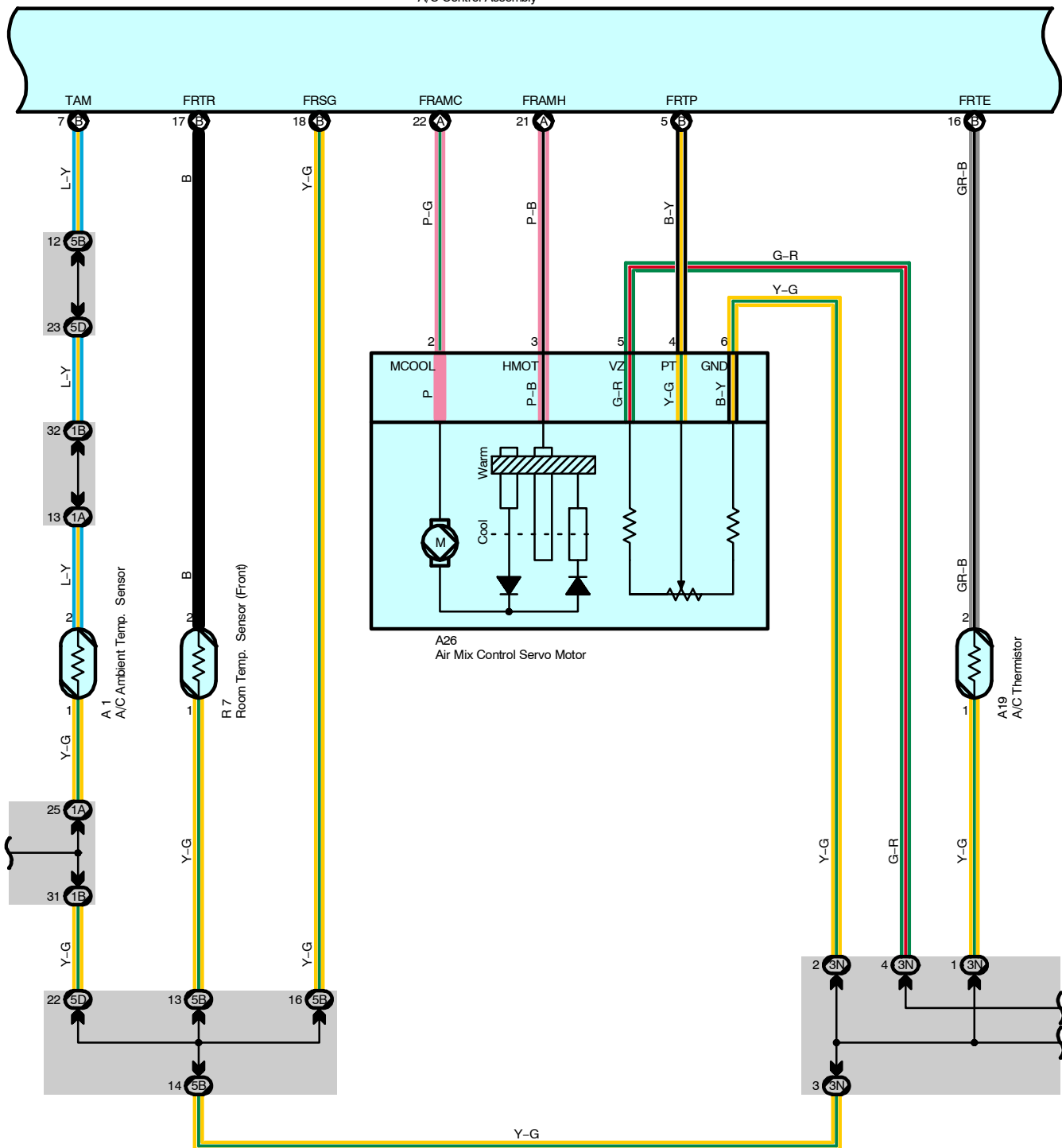
A47(A), A48(B), A49(C)
A/C Control Assembly

* 1 : w/ LEXUS Navigation System
* 2 : w/o LEXUS Navigation System

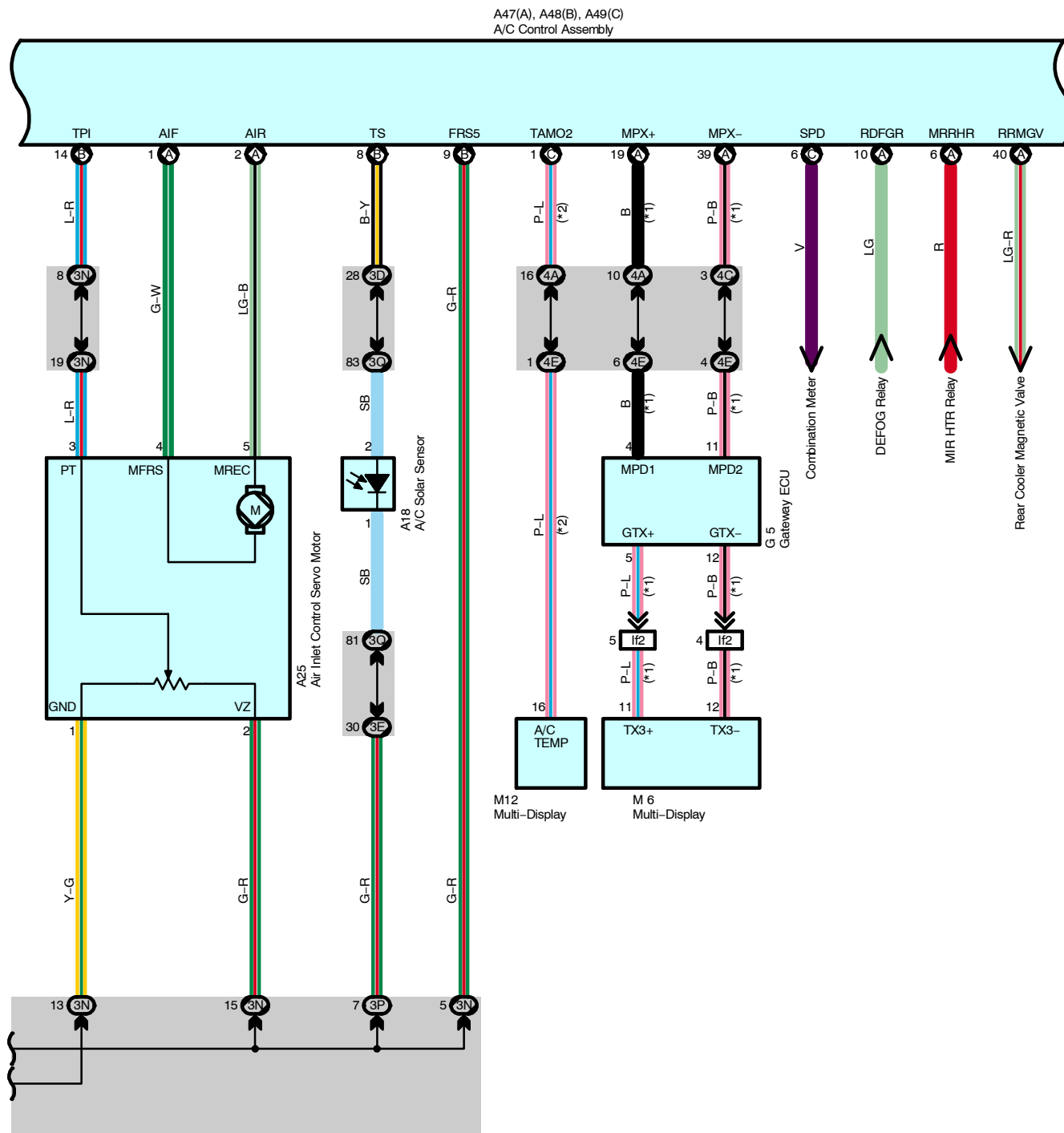


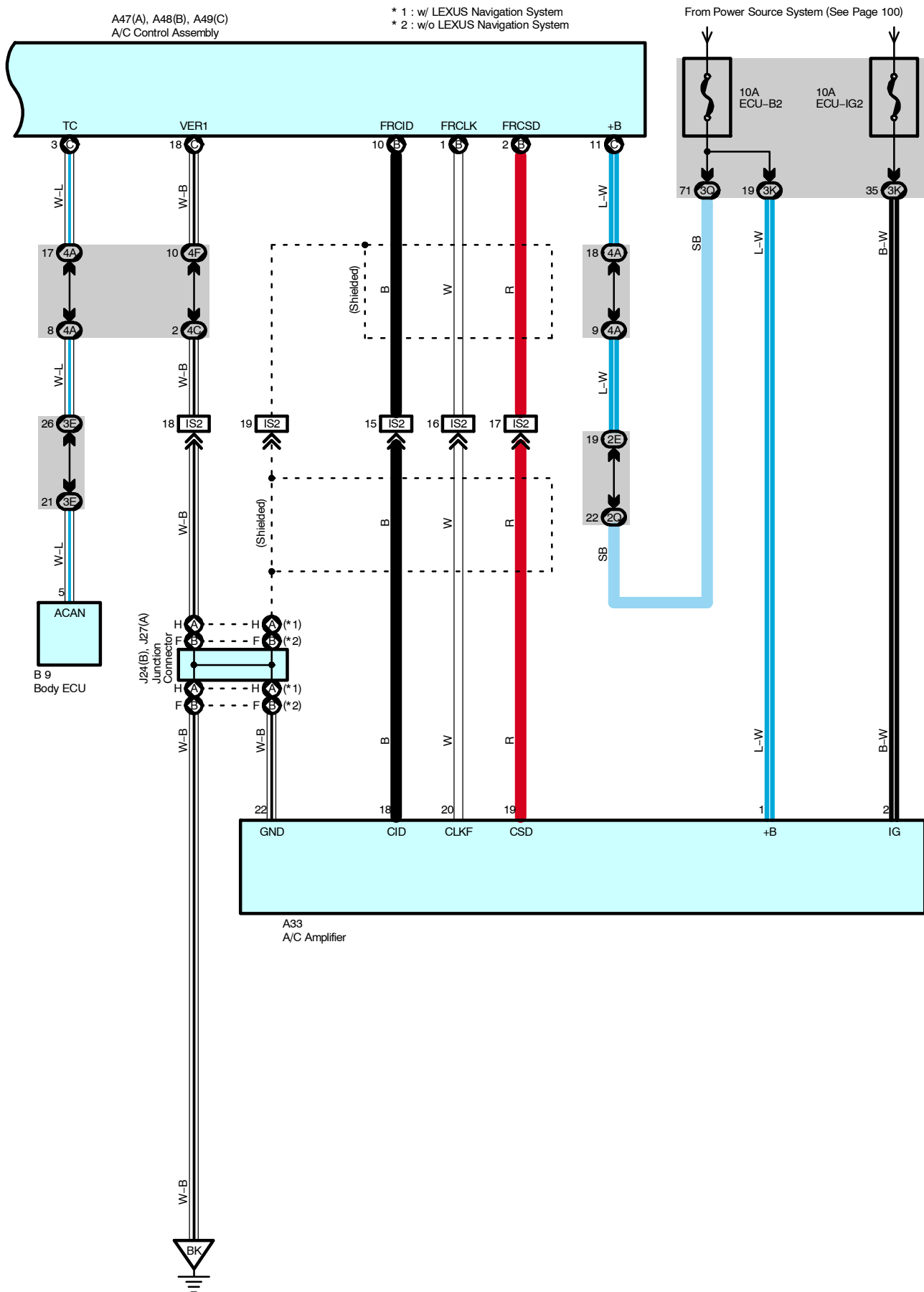


A47(A), A48(B), A49(C)
A/C Control Assembly



Air Conditioning (Front)





Air Conditioning (Front)

System Outline

1. Heater Blower Operation

Manual operation

When the blower speed is set at any speed by the blower control SW, the A/C control assembly sends a signal to the blower motor controller, and controls the blower motor speed.

Auto operation

When the auto SW is operated, the A/C control assembly sends signals to the blower motor controller, according to the signals from respective sensors, commands from the temperature SW etc., and controls the blower motor automatically.

2. Air Inlet Control Servo Motor Control

When the FRESH/RECIRC select SW is switched to RECIRC, the motor in the air inlet control servo motor rotates to move the damper to the RECIRC side. The damper position is recognized by the A/C control assembly TERMINAL TPI, and rotates the motor until the damper reaches its position.

When the FRESH/RECIRC select SW is switched to FRESH, the motor in the air inlet control servo motor rotates to move the damper to the FRESH side. The damper position is recognized by the A/C control assembly TERMINAL TPI, and rotates the motor until the damper reaches its position.

When the FRESH/RECIRC select SW is set to auto, the exhaust gas sensor in the engine room detects the ingredient of the exhaust emission, and switches the FRESH/RECIRC mode automatically.

3. Air Vent Mode Control Servo Motor

When the mode select SW in the A/C control assembly is pushed, a signal is sent from the A/C control assembly, and activates the air vent mode control servo motor. This causes the servo motor to rotate to the position selected using the mode select SW (FACE, BI-LEVEL, FOOT, FOOT/DEF, DEF), and moves the damper.

4. Air Mix Control Servo Motor

When the temperature control SW in the A/C control assembly is pushed, a signal is sent from the A/C control assembly, and activates the air mix control servo motor. The motor and damper is moved until it reaches the temperature set by the temperature control SW.

5. Air Conditioning Operation

The A/C control assembly receives various signals, i. e., the engine RPM from the crankshaft position sensor, outlet temperature from the A/C ambient temp. sensor, coolant temperature from the engine coolant temp. sensor, and the lock signal from the A/C compressor, etc. When the engine is started and the A/C SW is turned on, a signal is sent to the A/C control assembly. As a result, the magnetic clutch is turned on and operates the compressor.

In addition, when the engine control module detects that the magnetic clutch is on and the A/C compressor is operating, it controls the engine in the direction to avoid lowering the engine RPM during A/C operation.

When any of the following signals are sent to the A/C control assembly, the A/C is turned off.

- * Coolant temp. is high.
- * Outlet air temp. is low.
- * Large difference between the engine speed and compressor speed.
- * The refrigerant pressure is abnormally high or low.

Service Hints

A47 (A), A49 (C) A/C Control Assembly

(C)11-Ground : Always approx. 12 volts

(C)22-Ground : Approx. 12 volts with ignition SW at ON or ST position

(A)27-Ground : Approx. 12 volts with ignition SW at ON or ST position (w/o LEXUS navigation system)

(C)12, (C) 15, (C) 17, (C) 18-Ground : Always continuity

C34 Center Cluster Integration Panel (w/ LEXUS Navigation System)

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

16-Ground : Always continuity

 : Parts Location

Code	See Page	Code		See Page	Code		See Page
A1	68	A47	A	70	E12	68	
A4	68	A48	B	70	F19	68	
A5	68	A49	C	70	G5	71	
A18	70	B1		70	J14		72
A19	70	B9		70	J24	B	74
A25	70	C34		71	J27	A	74
A26	70	E6	C	71	M6		72
A27	70	E9	D	71	M12		72
A33	74	E10	E	71	R7		73

 : 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)
1A	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2A	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E		
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3E		
3H		
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3M	43	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3N		
3P		
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4A	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4C		
4D		
4E		
4F		
5A	56	Dash Wire and J/B No.5 (Behind the Combination Meter)
5B		
5D	56	Engine Room No.2 Wire and J/B No.5 (Behind the Combination Meter)

 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	82	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IG5		
IO3	82	Engine Wire and Dash Wire (Behind the Glove Box)
IS2	84	Dash Wire and Floor No.2 Wire (Right Kick Panel)
If2	88	Dash Wire and Dash Wire (Behind the Center Panel)

Air Conditioning (Front)



: Ground Points

Code	See Page	Ground Points Location
EA	78	Front Right Side of Fender Apron
EC	78	Rear Bank of Right Cylinder Head
EE	78	Front Left Side of Fender Apron
IF	80	Set Bolt of Cowl Side J/B LH
II	80	Set Bolt of Cowl Side J/B RH
BK	90	Front Side Under the Front Passenger's Seat



: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B9	92	Floor No.2 Wire			

