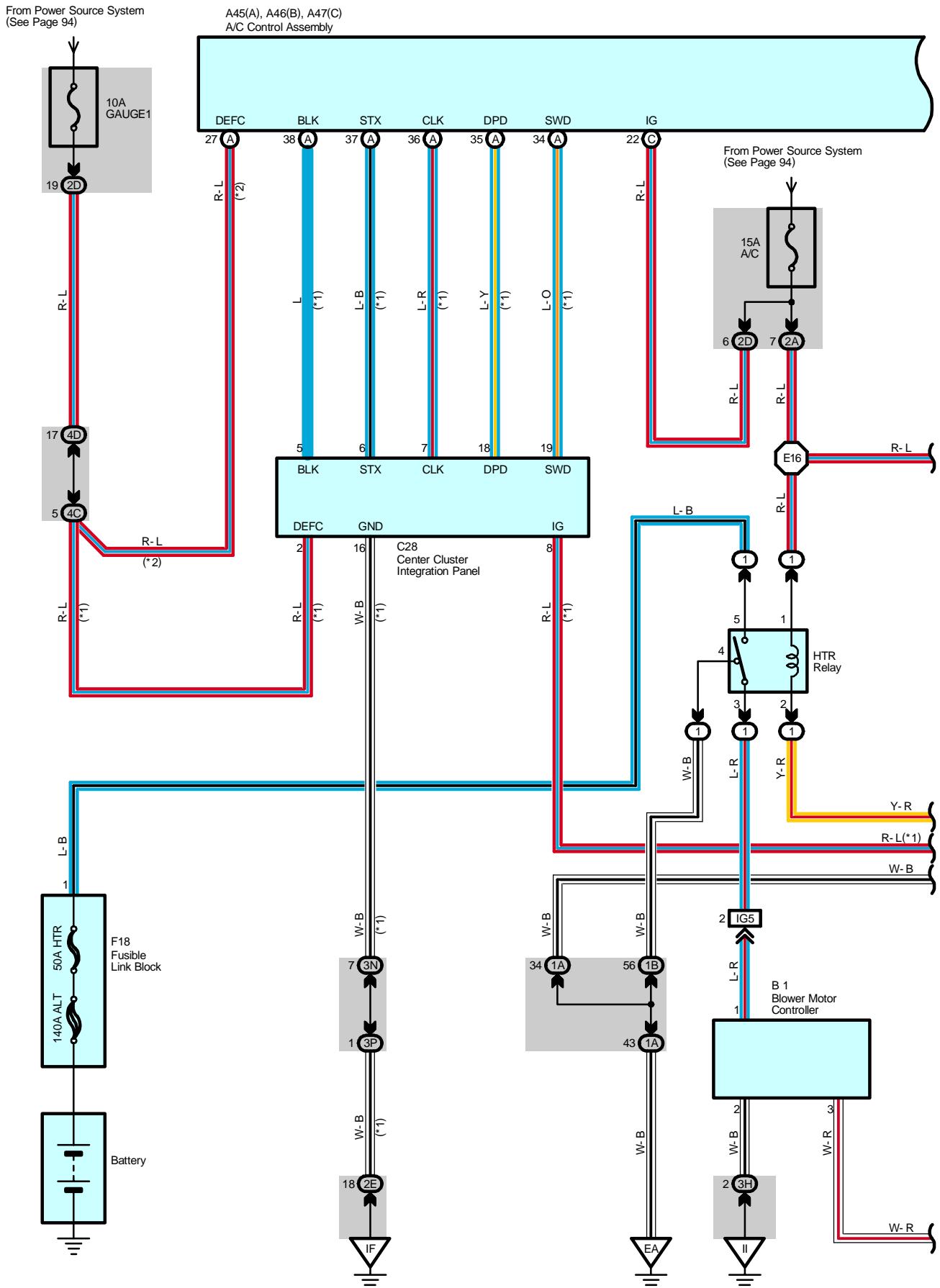
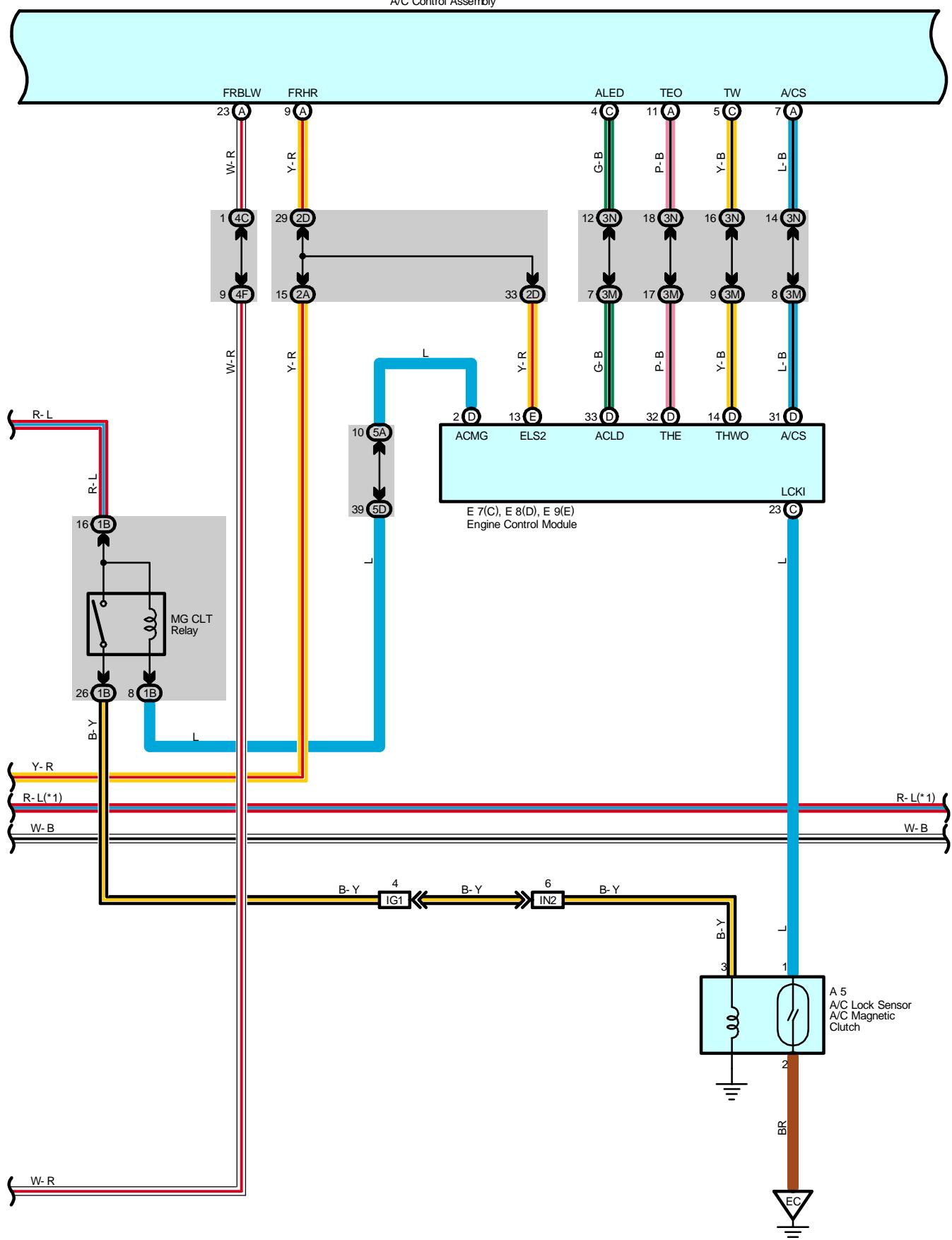
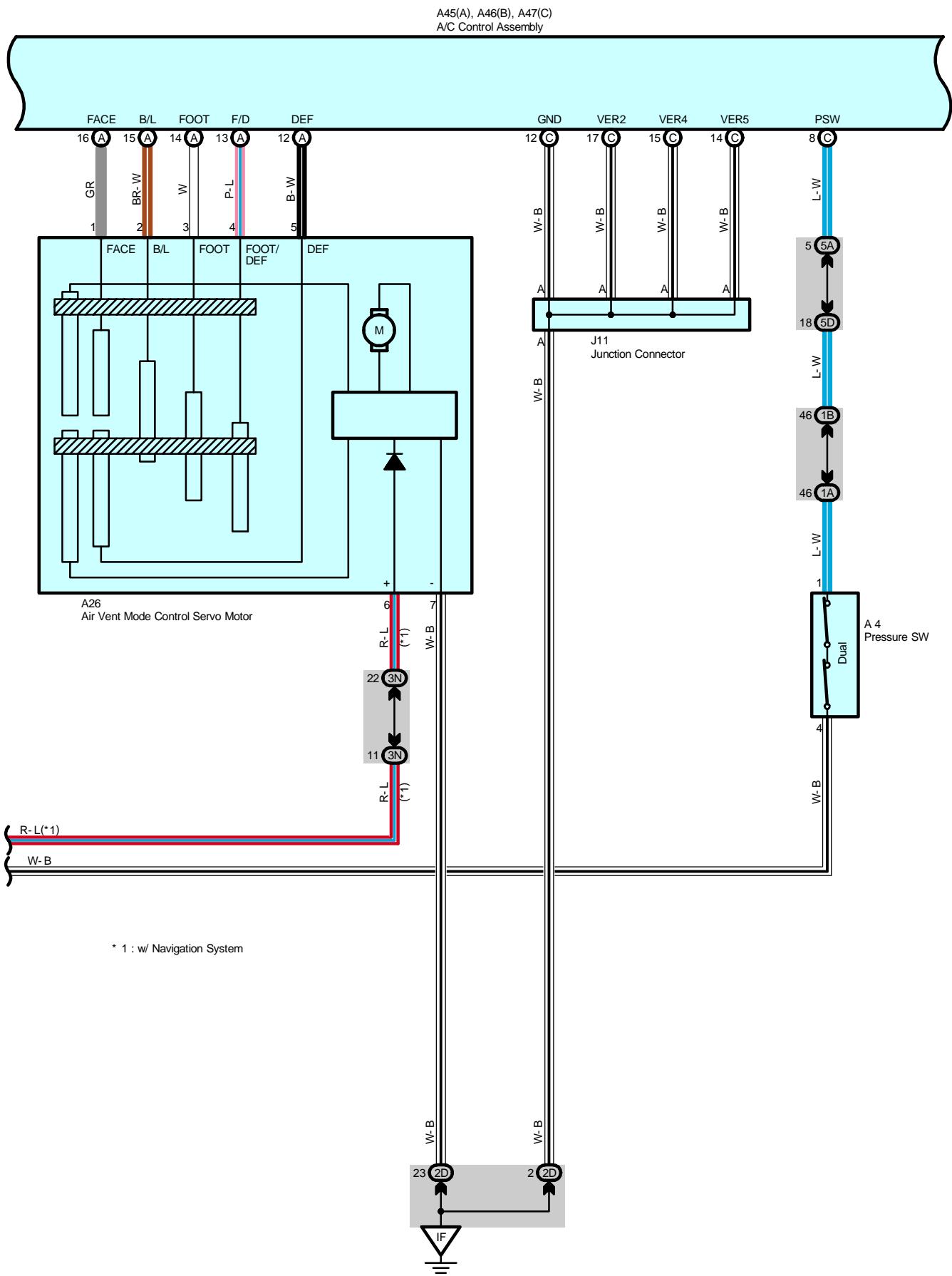


## Air Conditioning (Front)

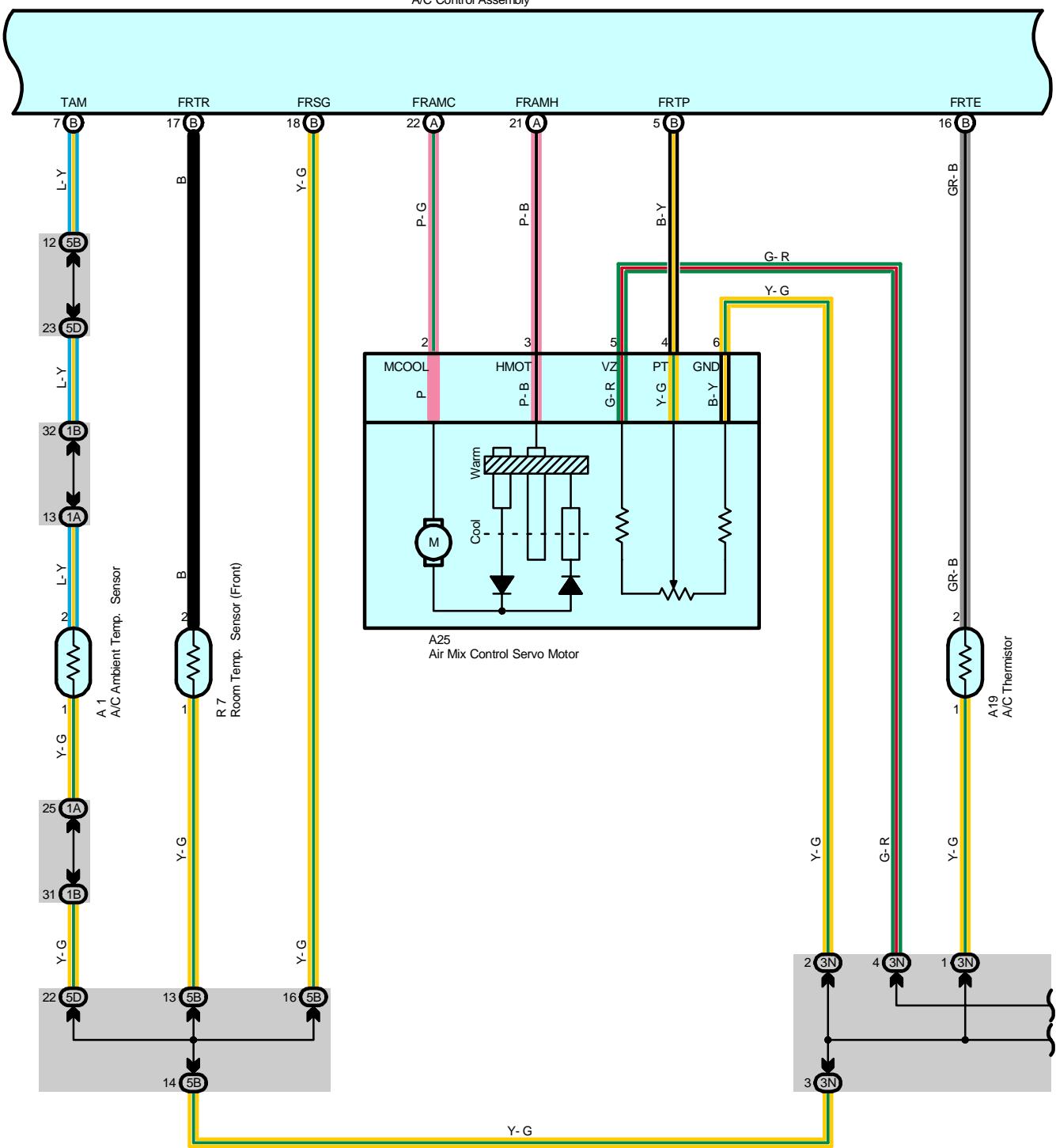




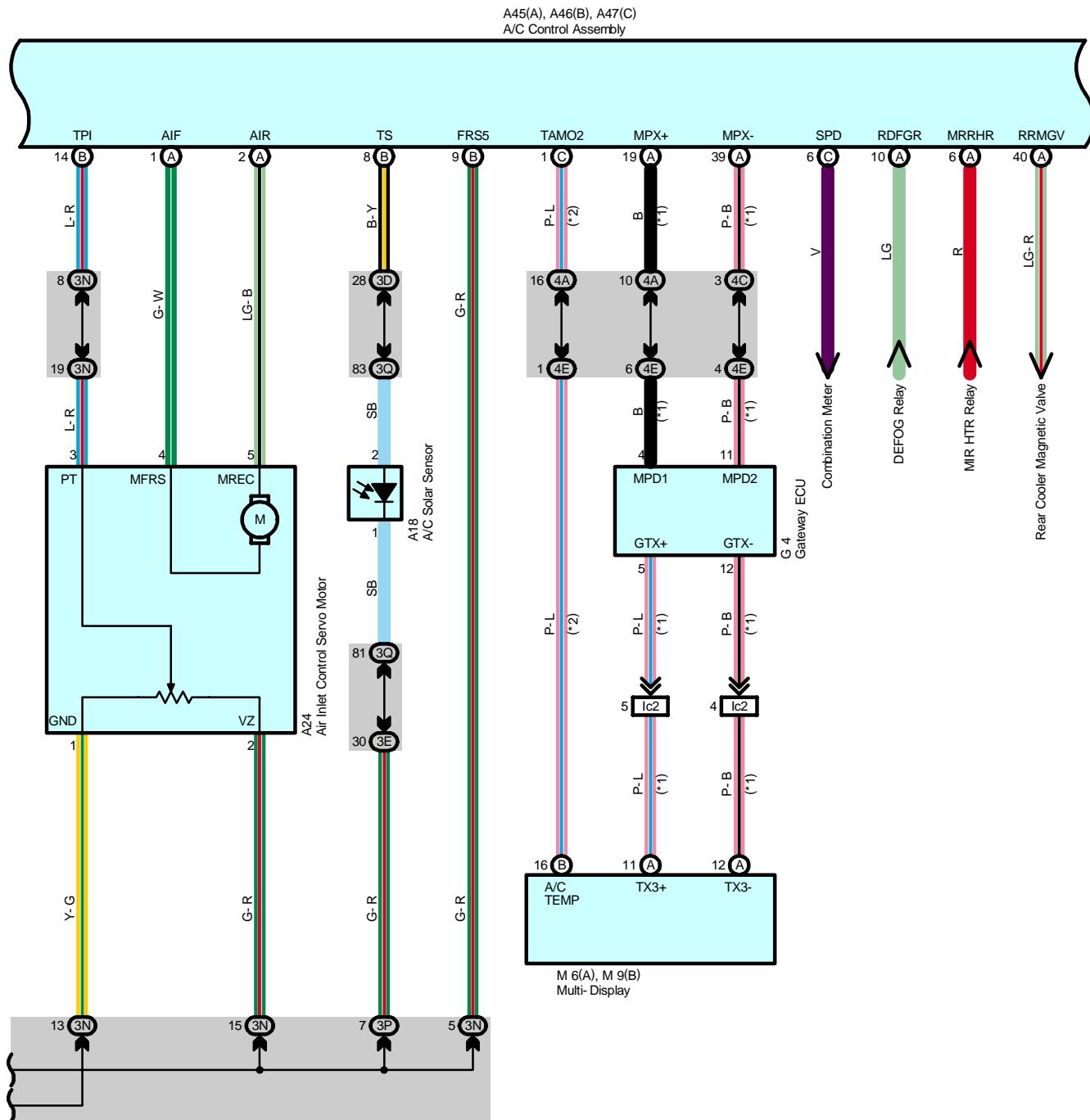
# Air Conditioning (Front)

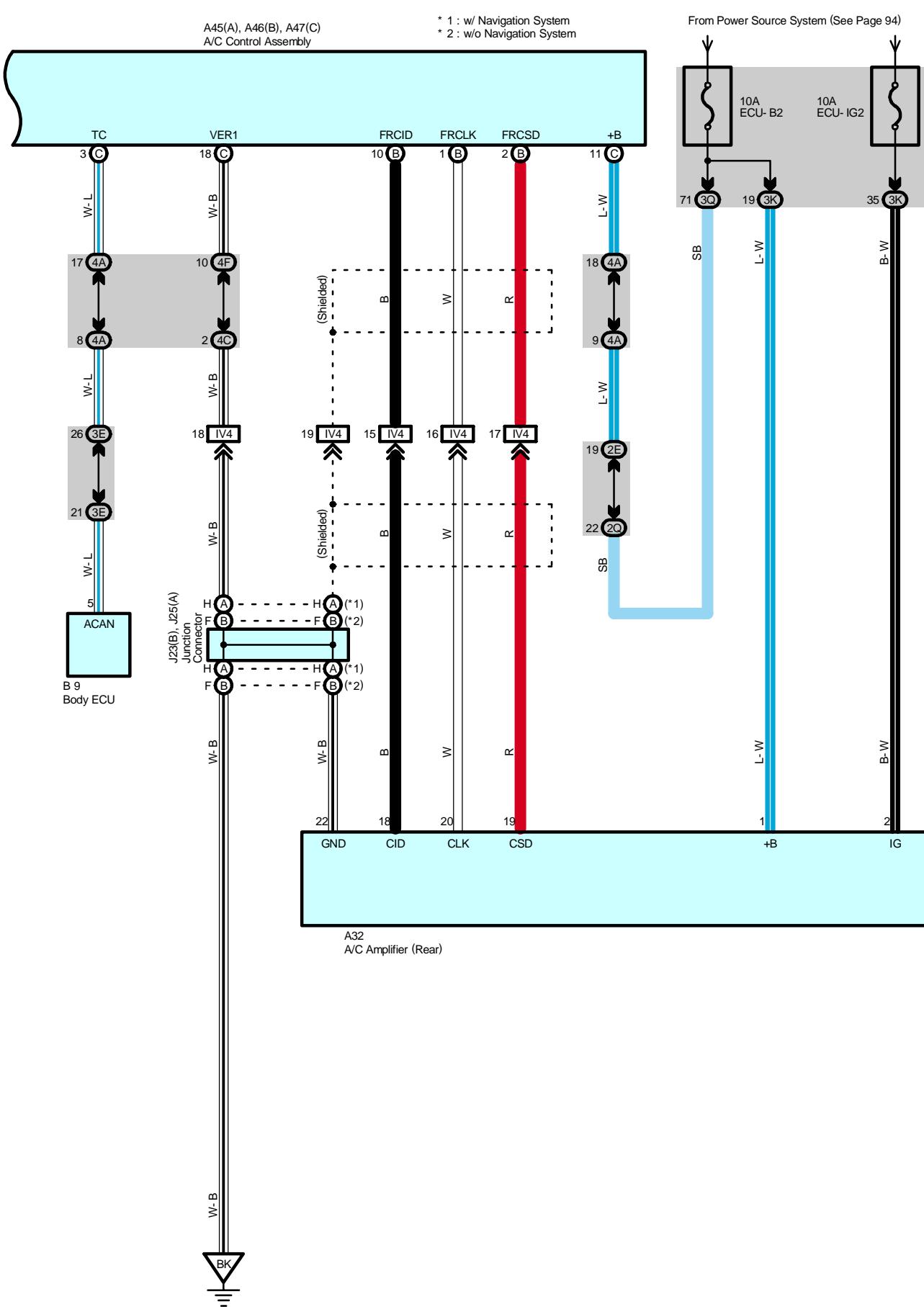


A45(A), A46(B), A47(C)  
A/C Control Assembly



# 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

### A45 (A), A47 (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 navigation system)

(C)12, (C) 14, (C) 15, (C) 17, (C) 18-Ground : Always continuity

### C28 Center Cluster Integration Panel (w/ 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	A45	A	70	F18		68
A4	68	A46	B	70	G4		70
A5	68	A47	C	70	J11		71
A18	70	B1		70	J23	B	72
A19	70	B9		70	J25	A	72
A24	70	C28		70	M6	A	71
A25	70	E7	C	70	M9	B	71
A26	70	E8	D	70	R7		71
A32	72	E9	E	70			

: 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		
2E	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3D		
3E	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3H		
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3M		
3N	43	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3P		
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4A		
4C		
4D	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4E		
4F		
5A		
5B	56	Dash Wire and J/B No.5 (Behind the Combination Meter)
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	78	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IG5		
IN2	80	Engine Wire and Dash Wire (Behind the Glove Box)
IV4	82	Dash Wire and Floor No.2 Wire (Right Kick Panel)
Ic2	84	Dash Wire and Dash Wire (Behind the Center Panel)

## Air Conditioning (Front)

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 : **Ground Points**

Code	See Page	Ground Points Location
EA	<a href="#">76</a>	Front Right Side of Fender Apron
EC	<a href="#">76</a>	Rear Bank of Right Cylinder Head
IF	<a href="#">78</a>	Set Bolt of Cowl Side J/B LH
II	<a href="#">78</a>	Set Bolt of Cowl Side J/B RH
BK	<a href="#">86</a>	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
E16	<a href="#">76</a>	Engine Room No.2 Wire			

