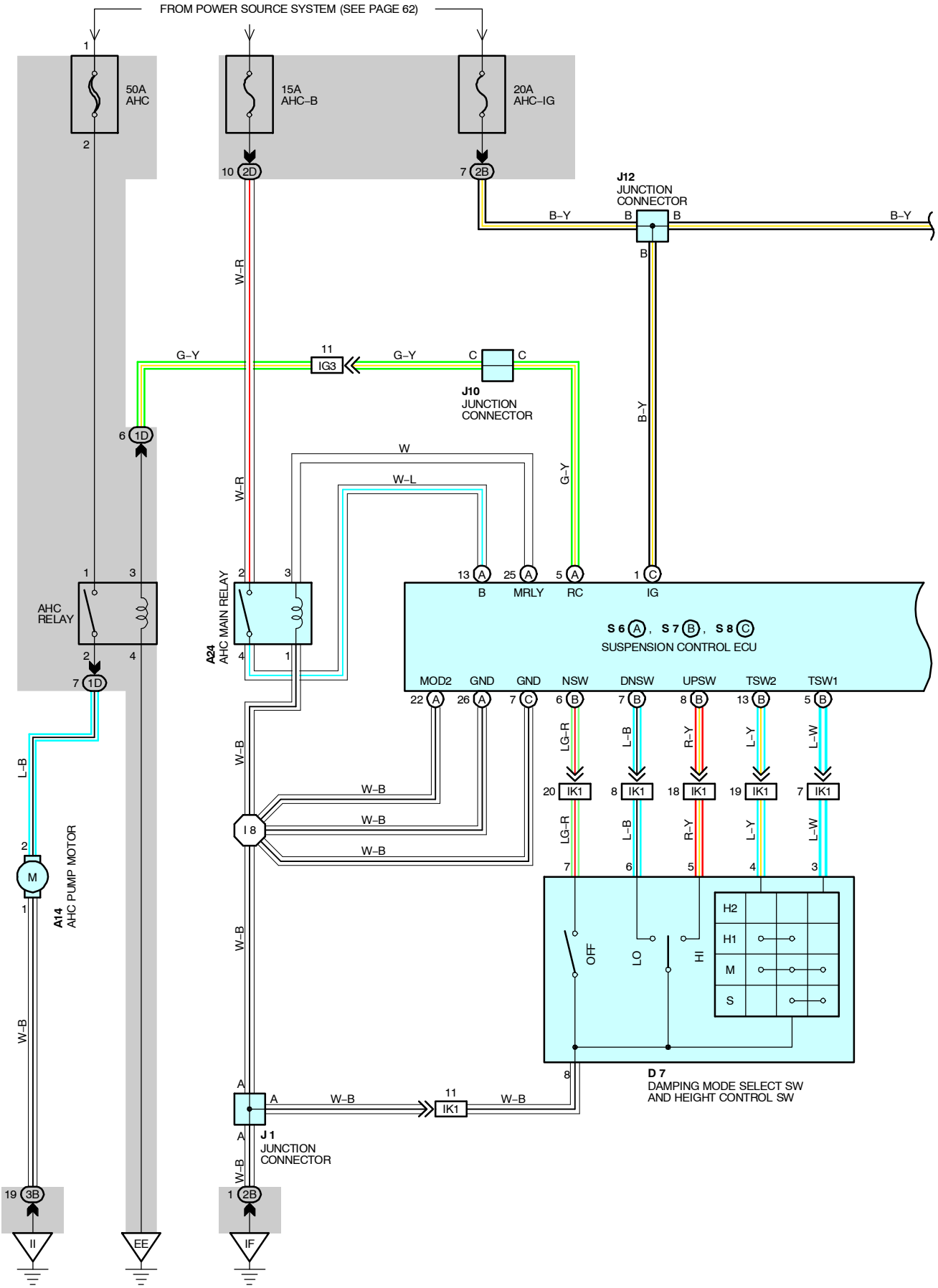
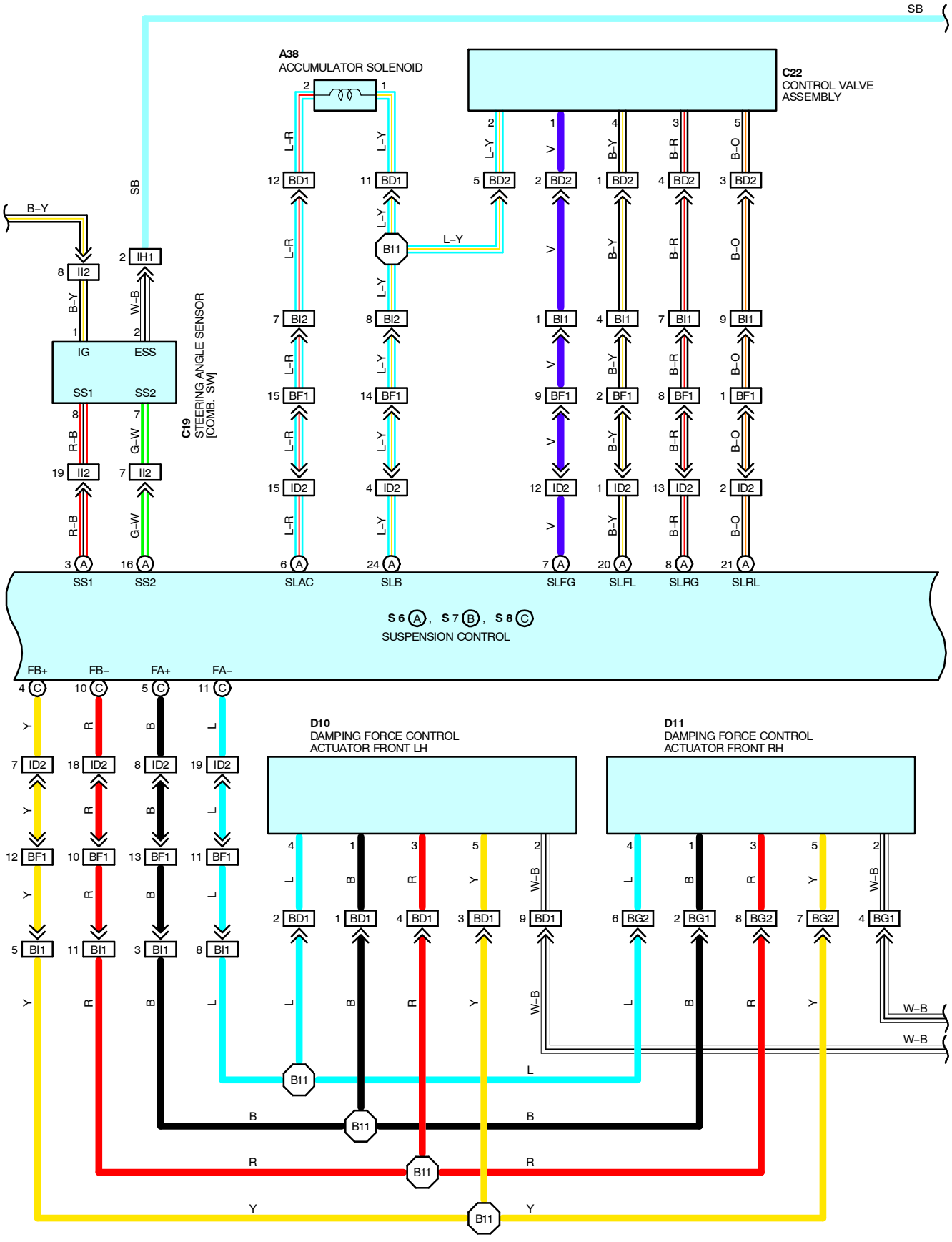
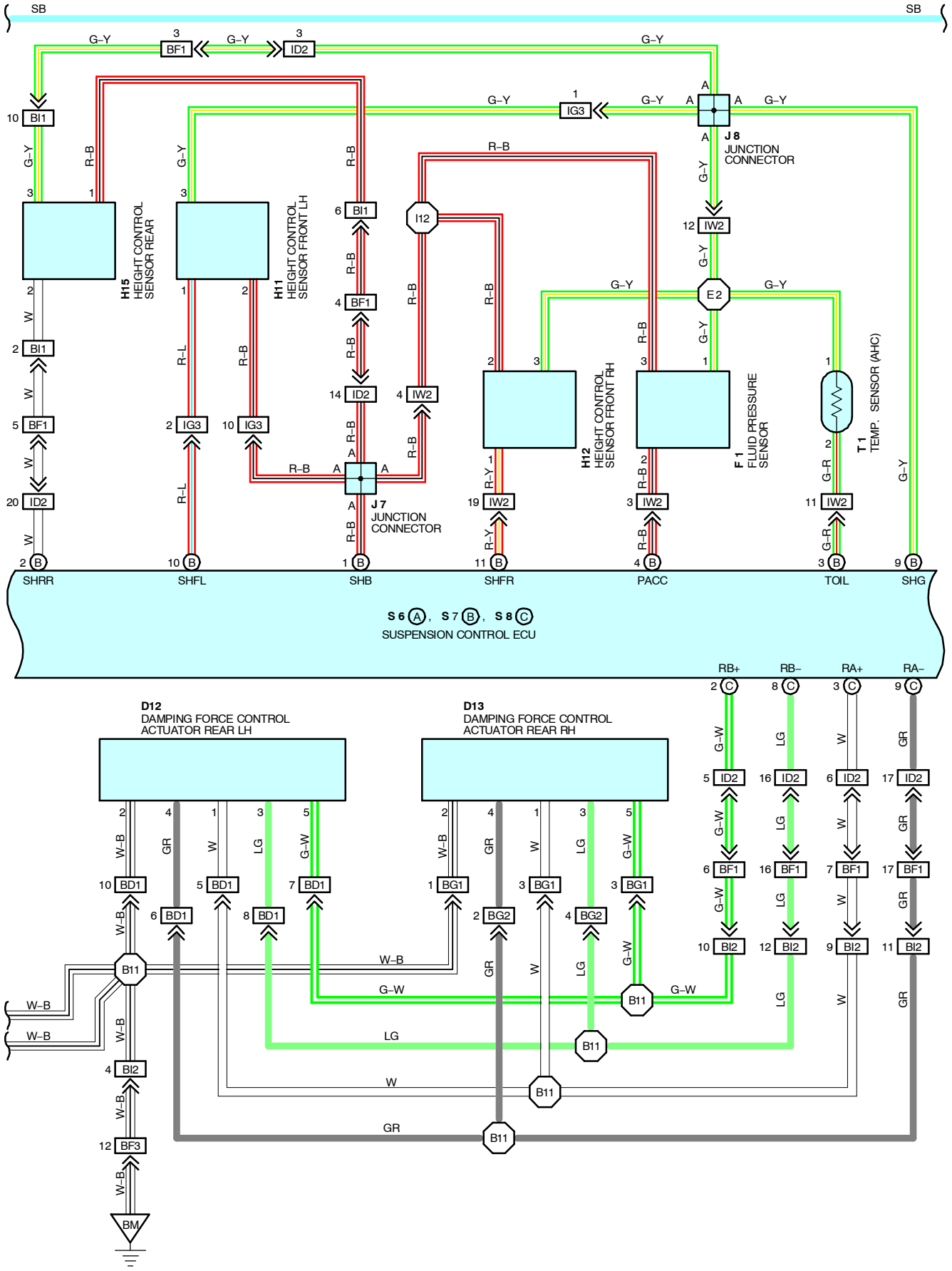

FROM POWER SOURCE SYSTEM (SEE PAGE 62)
50A AHC
15A AHC–B
20A AHC–IG
J12 JUNCTION CONNECTOR
B–Y
W–R
G–Y
IG3
J10 JUNCTION CONNECTOR
W
W–L
AHC RELAY
A24 AHC MAIN RELAY
S6 A, S7 B, S8 C
SUSPENSION CONTROL ECU
B
MRLY
RC
IG
MOD2
GND
GND
NSW
DNSW
UPSW
TSW2
TSW1
LG–R
L–B
R–Y
L–Y
L–W
IK1
W–B
I 8
A14 AHC PUMP MOTOR
D 7 DAMPING MODE SELECT SW AND HEIGHT CONTROL SW
OFF
LO
HI
H2
H1
M
S
J1 JUNCTION CONNECTOR
II
EE
IF

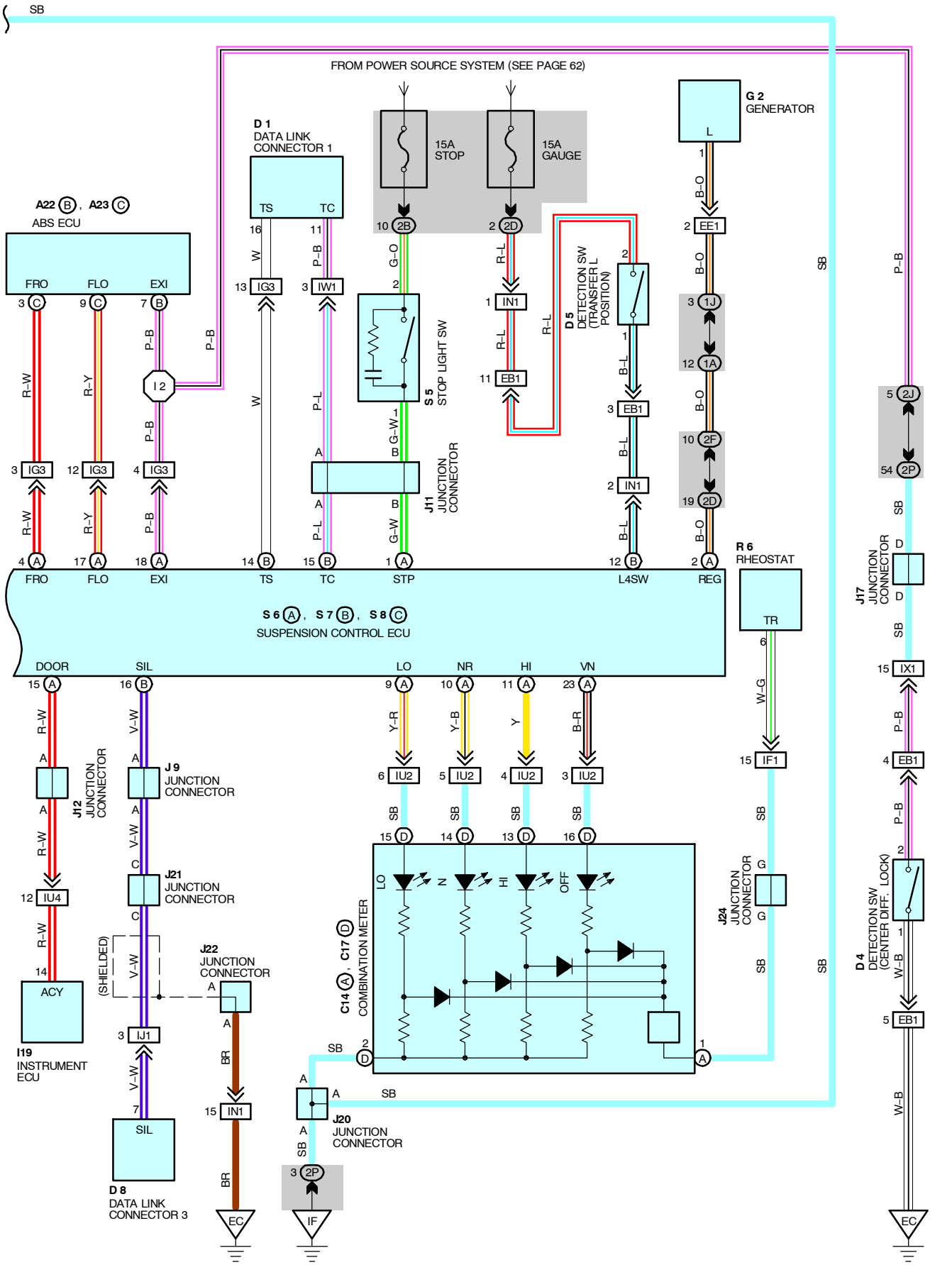
ADAPTIVE VARIABLE SUSPENSION



ACTIVE HEIGHT CONTROL SUSPENSION AND



ADAPTIVE VARIABLE SUSPENSION



ACTIVE HEIGHT CONTROL SUSPENSION AND

SYSTEM OUTLINE

The system is a combined system of the vehicle height adjustment system and damping force control system.

1. INPUT SIGNALS

(1) Height control sensor signal
The vehicle height and the distance between the tire and body frame is detected, and is input to suspension control ECU **TERMINAL SHFL, SHFR, SHRR**.

(2) Fluid pressure sensor signal
The hydraulic pressure is detected, and the signal is input to suspension control ECU **TERMINAL PACC**.

(3) Temperature sensor signal
The fluid pressure is detected, and the signal is input to suspension control ECU **TERMINAL TOIL**.

(4) Height control SW signal
Detects the change in the target vehicle height, and the signal is input to suspension control ECU **TERMINAL DNSW, UPSW**.
Detects the changes in the vehicle height control, and the signal is input to suspension control ECU **TERMINAL NSW**.

(5) Differential lock detection SW signal
Detects the differential lock, and the signal is input to suspension control ECU **TERMINAL EXI**.

(6) L detection SW signal
Detects the transfer gear L, and the signal is input to suspension control ECU **TERMINAL L4SW**.

(7) Stop light SW signal
Detects the brake signal, and the signal is input to suspension control ECU **TERMINAL STP**.

(8) Generator signal
Detects whether the engine is running or not, and the signal is input to suspension control ECU **TERMINAL REG**.

(9) Door courtesy SW signal
Detects whether the door is open or closed, and the signal is input to suspension control ECU **TERMINAL DOOR**.

(10) Steering sensor signal
Detects the rotation number of the steering wheel, and the signal is input to suspension control ECU **TERMINAL SS1, SS2**.

(11) Wheel speed sensor signal
Detects the wheel speed signal, and the signal is input to suspension control ECU **TERMINAL FLO, FRO**.

(12) Damping mode select SW signal
Detects whether the damping force is selected or not, and the signal is input to suspension control ECU **TERMINALS TSW1, TSW2**.

(13) Intelligent tester communication signal
The intelligent tester requirement signal is input to suspension control ECU **TERMINAL SIL**. The suspension control ECU also sends back a signal to the intelligent tester.

2. VEHICLE HEIGHT ADJUSTMENT FUNCTION

(1) Vehicle height adjustment by the SW
By operating the SW, the vehicle height can be adjusted to three height, low, normal and high.

(2) Automatic leveling
The vehicle height is maintained at a certain level when the load is within the specified load capacity.

(3) Vehicle speed detection function
The height is adjusted automatically in response to the vehicle speed.

(4) Extra HI mode
In L range with the height at HI mode, the height is raised **20** mm automatically when the wheels are idling on a bumpy road surface.

(5) Vehicle height control SW
When the vehicle height control SW is turned off, the vehicle height control functions could be inhibited.

3. DAMPING FORCE CONTROL FUNCTION

(1) Bouncing control

The front and rear wheels are independently controlled electronically to ensure adequate damping force at all times, in response to the bumpy road surface.

(2) Harshness control

The damping force is controlled not to increase when the road condition does not require damping force, to ensure smooth and comfortable riding.

(3) Unsprung vibration control

When unsprung sympathetic vibration is detected, the damping force is controlled so that it does not decrease below a certain level, to prevent such vibration and converge it, to ensure road holding.

(4) Vehicle speed sensing control

To ensure optimal balance of comfortable riding and road holding, the minimum damping force is increased as the vehicle speed increases.

(5) Anti−roll control

When the driver makes a turn, the damping force is controlled electronically according to the condition, and slows down the vehicle rolling speed.

(6) Anti−dive control

The vehicle dive condition is detected at an early stage through braking and the vehicle wheel speed signal, and the damping force is controlled according to the condition, to slow down the dive speed when decelerating.

(7) Anti−squat control

The vehicle squat condition at acceleration is detected at an early stage, and the damping force is switched to a higher level to avoid squat.

(8) Damping mode select SW

The damping mode select SW has **4** modes, and can be changed according to the driver preference.

4. WHEEL DISCONNECTION FUNCTION

Usually the right and left wheels are connected, but when the driver turns the steering wheel the wheels are disconnected in response to the condition. This is to prevent roll angle increase when making a turn.

SERVICE HINTS

S6,(A), S7 (B), S8 (C) SUSPENSION CONTROL ECU

(C) 1−GROUND : Approx. **12** with ignition SW at **ON** or **ST** position
(C) 1−GROUND : Approx. **12** with brake pedal depressed
(C)12−GROUND : Approx. **12** with detection SW (Transfer **L** position) on
(C)26, (C) 7−GROUND : Always continuity

C19 STEERING ANGLE SENSOR [COMB. SW]

1−GROUND : Approx. **12** with ignition SW at **ON** or **ST** position
2−GROUND : Always continuity

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A14	36	D10	40	J10	39
A22 B	38	D11	40	J11	39
A23 C	38	D12	40	J12	39
A24	38	D13	40	J17	39
A38	40	F1	36	J20	39
C14 A	38	G2	36	J21	39
C17 D	38	H11	37	J22	39
C19	38	H12	37	J24	39
C2	40	H15	40	R6	39
D1	36	I19	38	S5	39
D4	36	J1	39	S6 A	39
D5	36	J7	39	S7 B	39
D7	38	J8	39	S8 C	39
D8	38	J9	39	T1	37

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	21	Engine Room No. 2 Wire and Engine Room J/B (Engine Compartment Left)
1D		
1J	21	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B	24	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		
2F	24	Engine Room No. 2 Wire and Cowl Side J/B LH (Left Kick Panel)
2J		
2P	26	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3B	30	Engine Room No. 2 Wire and Cowl Side J/B RH (Right Kick Panel)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	44	Engine Wire and Transmission Wire (On the Transmission)
EE1	44	Engine Room Main Wire and and Alternator Wire (Near the Battery)
ID2	46	Dash Wire and Floor Wire (Left Kick Panel)
IF1	46	Instrument Panel Integration Wire and Instrument Panel Wire (Left Side of Instrument Panel)
IG3	48	Engine Room No. 2 Wire and Dash Wire (Behind the Combination Meter)
IH1	48	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
II2	48	Column Wire and Dash Wire (Near the Ignition SW)
IJ1	48	Dash Wire and Detector Wire (Instrument Panel Center)
IK1	48	Console Box Wire and Dash Wire (Left Side of Front Console)
IN1	50	Engine Wire and Dash Wire (Behind the Glove Box)
IU2	50	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU4		
IW1	52	Engine Room No. 2 Wire and Dash Wire (Behind the Glove Box)
IW2		
IX1	52	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
BD1	54	Frame No. 2 Wire and Frame Wire (Near the Left Rear Suspension Support)
BD2		
BF1	54	Floor No. 3 Wire and Floor Wire (Left Rear Side Quarter Panel)
BF3		
BG1	54	Frame No. 3 Wire and Frame Wire (Near the Right Rear Suspension Support)
BG2		
BI1	56	Frame Wire and Floor No. 3 Wire (Left Side of Rear Floor Crossmember)
BI2		

: GROUND POINTS

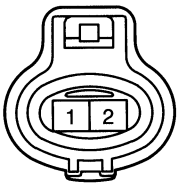
Code	See Page	Ground Points Location
EC	44	Rear Bank of Right Cylinder Head
EE	44	Front Left Side of Fender Apron
IF	46	Set Bolt of Cowl Side J/B LH
II	46	Set Bolt of Cowl Side J/B RH
BM	54	Left Rear Side Quarter Panel

: SPLICE POINTS

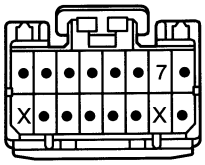
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	44	Engine Room No. 2 Wire	I12	48	Engine Room No. 2 Wire
I2	48	Engine Room No. 2 Wire	B11	56	Frame Wire
I8	48	Dash Wire			

ADAPTIVE VARIABLE SUSPENSION

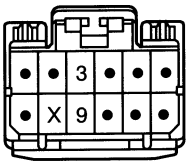
A14
BLACK



A22 (B)

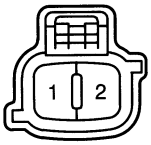


A23 (C)

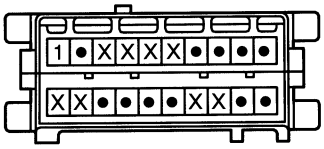


A24

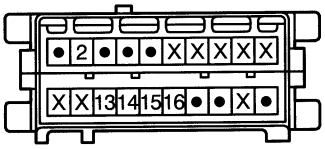
A38
GRAY



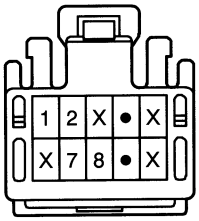
C14 (A)
GRAY



C17 (D)

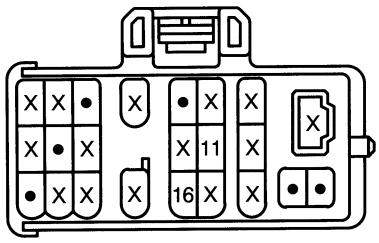


C19

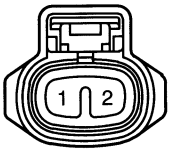


C22
BLACK

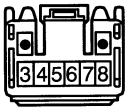
D1
BLACK



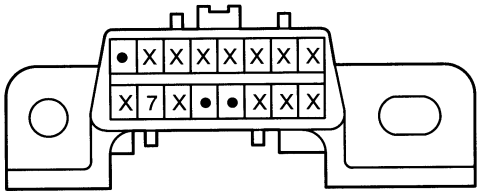
D4, D5
GRAY



D7
BLACK



D8
BLACK

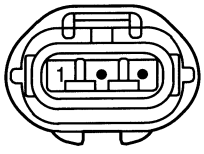


D10, D11
GRAY

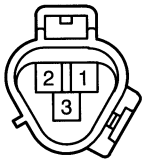
D12, D13
GRAY

F1
BLACK

G2
BLACK

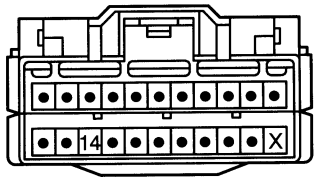


H11, H12

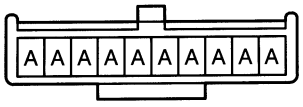


H15
GRAY

I19

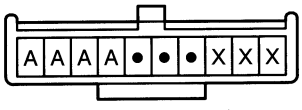


J1



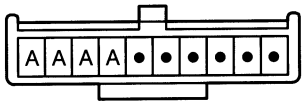
(Hint : See Page 7)

J7
BLUE



(Hint : See Page 7)

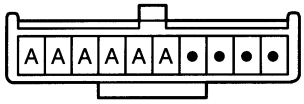
J8
BLUE



(Hint : See Page 7)

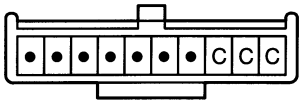
ACTIVE HEIGHT CONTROL SUSPENSION AND ADAPTIVE VARIABLE SUSPENSION

J9
BLACK



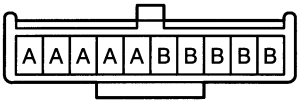
(Hint : See Page 7)

J10
BLUE



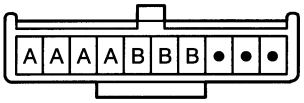
(Hint : See Page 7)

J11
GREEN



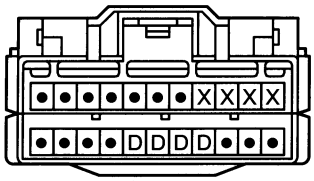
(Hint : See Page 7)

J12
BLUE



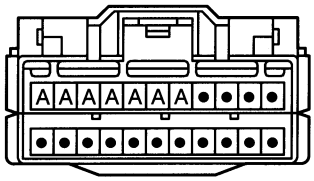
(Hint : See Page 7)

J17



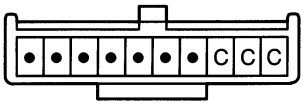
(Hint : See Page 7)

J20
GRAY



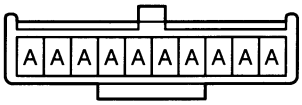
(Hint : See Page 7)

J21
BLUE



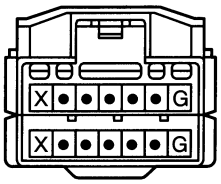
(Hint : See Page 7)

J22



(Hint : See Page 7)

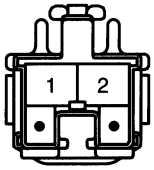
J24
GRAY



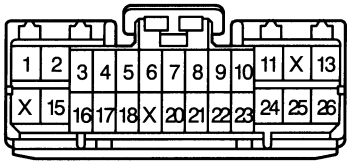
(Hint : See Page 7)

R6
BLUE

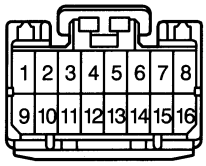
S5
BLUE



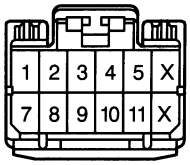
S6 (A)



S7 (B)



S8 (C)



T1
GRAY