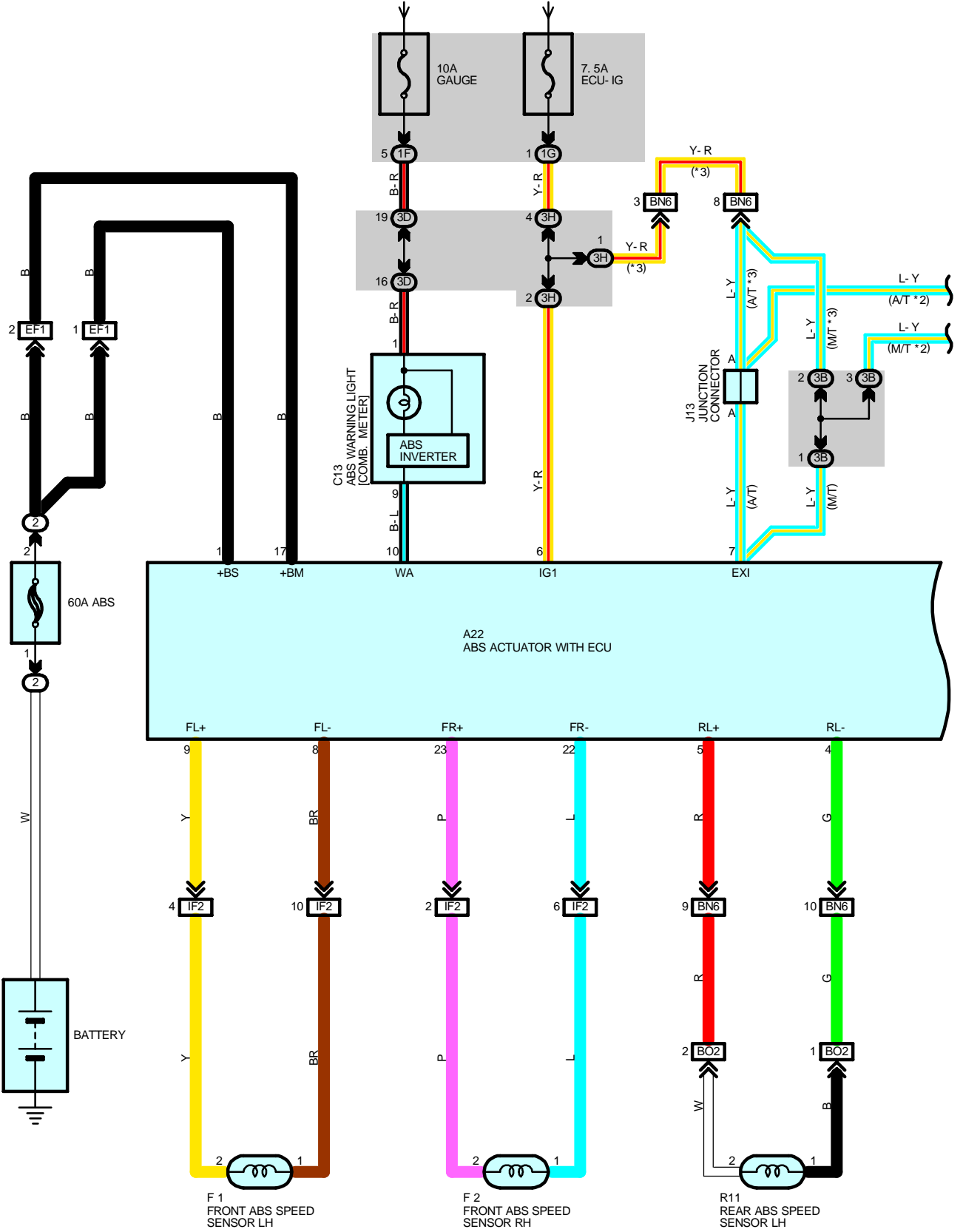
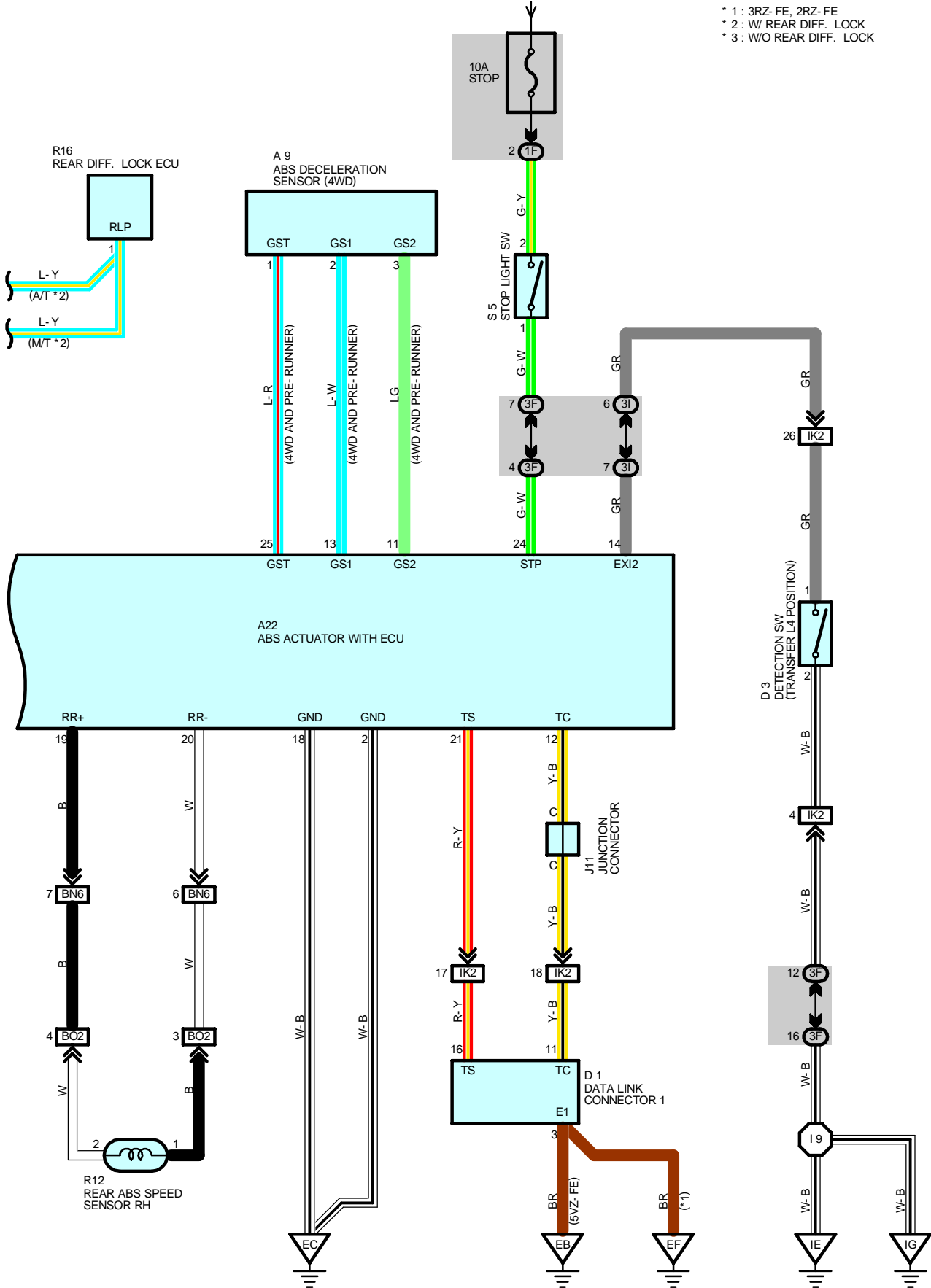


FROM POWER SOURCE SYSTEM (SEE PAGE 54)



FROM POWER SOURCE SYSTEM (SEE PAGE 54)

- * 1 : 3RZ-FE, 2RZ-FE
- * 2 : W/ REAR DIFF. LOCK
- * 3 : W/O REAR DIFF. LOCK



SYSTEM OUTLINE

This system controls the respective brake fluid pressures acting on the disc brake cylinders of the right front wheel, left front wheel, and rear wheels when the brakes are applied in a panic stop so that the wheels do not lock. This results in improved directional stability and steerability during panic braking.

1. INPUT SIGNAL

(1) Speed sensor signal

The speed of the wheels is detected and input to TERMINALS FL+, FR+, RL+ and RR+ of the ABS actuator with ECU.

(2) Stop light SW signal

A signal is input to TERMINAL STP of the ABS actuator with ECU when the brake pedal is depressed.

(3) Deceleration sensor signal (4WD)

Longitudinal acceleration is detected and a signal is input to the ABS actuator with ECU.

2. SYSTEM OPERATION

During sudden braking, the ABS actuator with ECU which has signals input from each sensor lets the hydraulic pressure acting on each wheel cylinder escape to the reservoir.

The pump inside the ABS actuator with ECU is also operating at this time and it returns the brake fluid from the reservoir to the master cylinder, thus preventing locking of vehicle wheels.

If the ABS actuator with ECU judges that the hydraulic pressure acting on the wheel cylinder is insufficient, the current acting on the solenoid is controlled and the hydraulic pressure is increased.

Holding of the hydraulic pressure is also controlled by the ECU, by the same method as above, by repeated pressure reduction. Holding and increase are repeated to maintain vehicle stability and to improve steerability during sudden braking.

SERVICE HINTS

F1, F2 FRONT ABS SPEED SENSOR LH, RH

1-2 : 0.92- 1.22 kΩ (20°C, 68°F) (2WD)

1.40- 1.80 kΩ (20°C, 68°F) (4WD)

R11, R12 REAR ABS SPEED SENSOR LH, RH

1-2 : 0.89- 1.29 kΩ (20°C, 68°F)

A22 ABS ACTUATOR WITH ECU

6-GROUND : 10- 14 volts with ignition SW on

24-GROUND : 10- 14 volts with stop light SW on (Brake pedal depressed)

2, 18-GROUND : Always continuity

S5 STOP LIGHT SW

2-1 : Closed with brake pedal depressed

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A9	34	D3	32 (3RZ-FE, 2RZ-FE)	R11	36 (Double Cab)
A22	30 (5VZ-FE)	F1	30 (5VZ-FE)		37 (Except Double Cab)
	32 (3RZ-FE, 2RZ-FE)		32 (3RZ-FE, 2RZ-FE)	R12	36 (Double Cab)
C13	34	F2	30 (5VZ-FE)		37 (Except Double Cab)
D1	30 (5VZ-FE)		32 (3RZ-FE, 2RZ-FE)	R16	35
		32 (3RZ-FE, 2RZ-FE)	J11	S5	35
D3	30 (5VZ-FE)	J13	35		

○ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
2	21	R/B No.2 (Engine Compartment Left)

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	23	Cowl Wire and J/B No.1 (Lower Finish Panel)
1G		
3B	24	Cowl Wire and J/B No.3 (Behind the Instrument Panel Left)
3D		
3F		
3H	26	Cowl Wire and J/B No.3 (Behind the Instrument Panel Center)
3I		

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EF1	40 (5VZ-FE)	Cowl Wire and Engine Room Main Wire (Front Right Fender)
	42 (3RZ-FE, 2RZ-FE)	
IF2	44	Engine Room Main Wire and Cowl Wire (Left Kick Panel)
IK2	44	Engine Wire and Cowl Wire (Above the Glove Box)
BN6	46 (Double Cab)	Frame Wire and Cowl Wire (Under the Driver's Seat)
	48 (Except Double Cab)	
BO2	46 (Double Cab)	Frame Wire and Diff. Lock Wire (Rear Side Member LH)
	48 (Except Double Cab)	

 : GROUND POINTS

Code	See Page	Ground Points Location
EB	40 (5VZ-FE)	Near the Throttle Body
EC	40 (5VZ-FE)	Front Right Fender
	42 (3RZ-FE, 2RZ-FE)	
EF	42 (3RZ-FE, 2RZ-FE)	Ignition Coil Bracket
IE	44	Around the Right Edge of the Reinforcement
IG	44	Around the Left Edge of the Reinforcement

 : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I9	44	Cowl Wire			