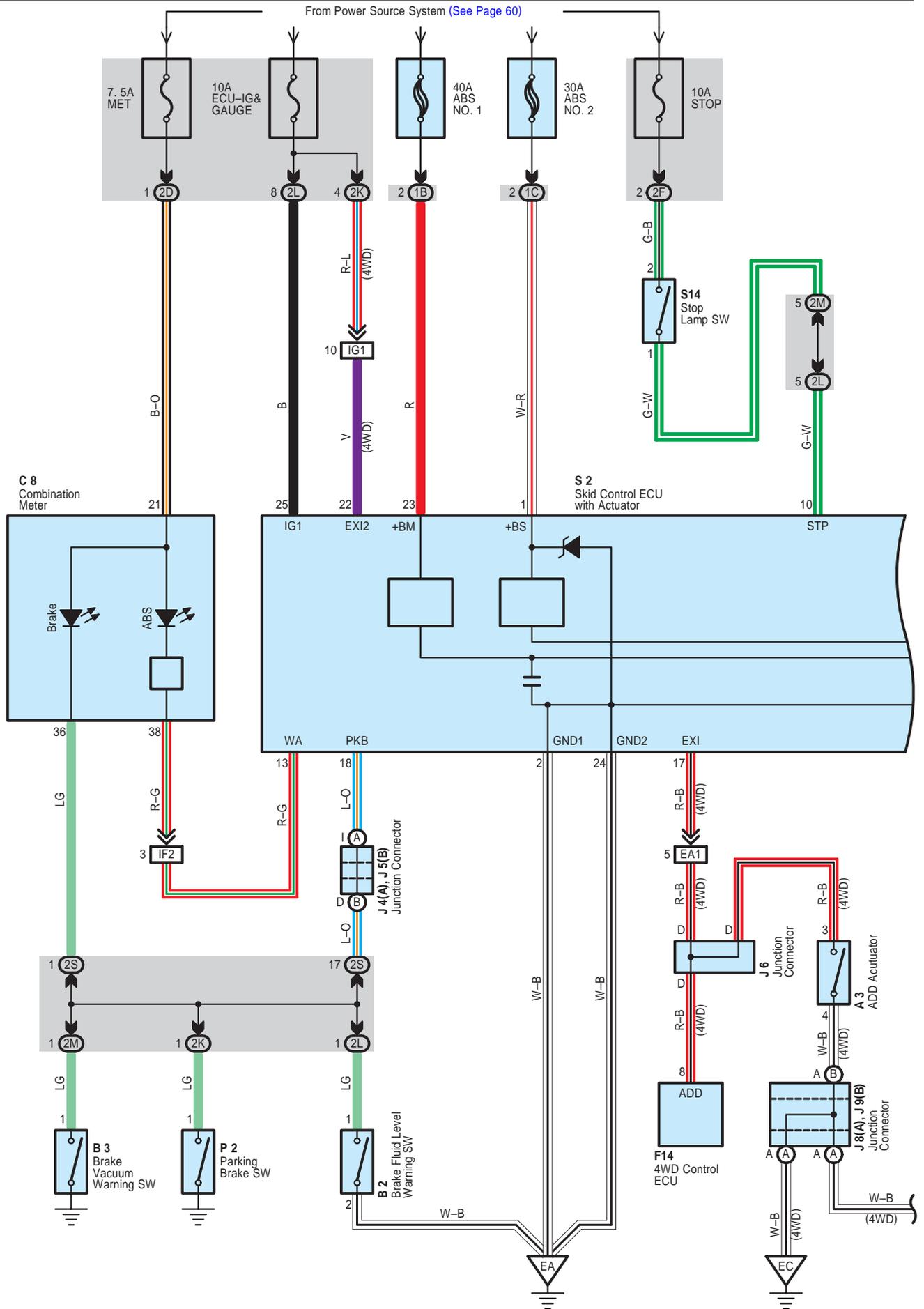
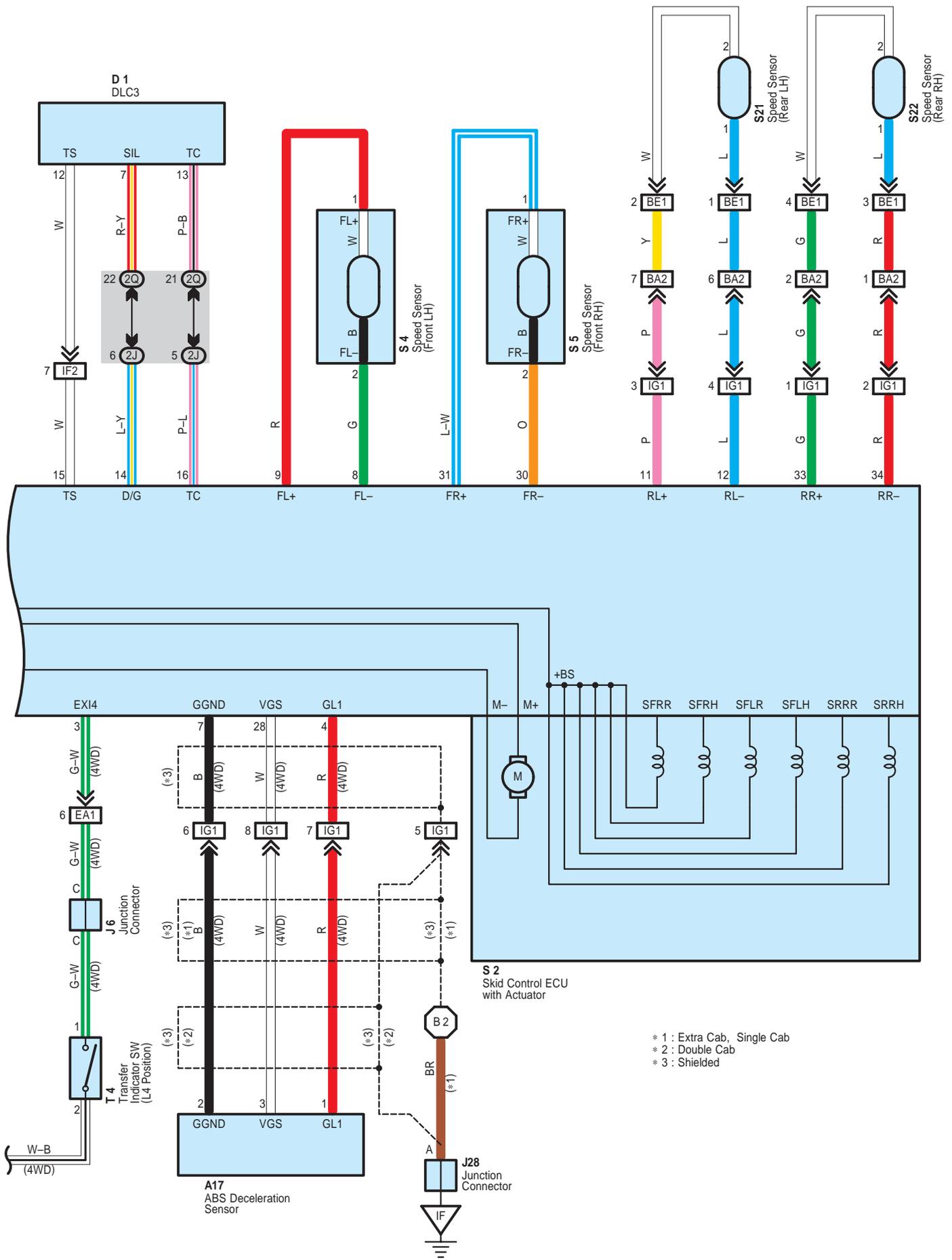


ABS





System Outline

This system controls the respective brake fluid pressures acting on the 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 skid control ECU with actuator.

(2) Stop lamp SW signal

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

2. System Operation

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

The pump inside the skid control ECU with actuator 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 skid control ECU with actuator 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

S4, S5 Speed Sensor (Front LH), (Front RH)

1-2 : 0.9-1.3 kΩ (25°C, 77°F)

S2 Skid Control ECU with Actuator

25-Ground : Approx. 12 volts with the ignition SW at ON position

10-Ground : Approx. 12 volts with the stop lamp SW on (Brake pedal depressed)

2, 24-Ground : Always continuity

1, 23-Ground : Always approx. 12 volts

S14 Stop Lamp SW

2-1 : Closed with the brake pedal depressed

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A3	36	J4	A 38	S5	37
A17	40 (Double Cab)	J5	B 38	S14	39
	42 (Extra Cab)	J6 38		S21	41 (Double Cab)
	44 (Single Cab)	J8	A 38		43 (Extra Cab)
B2	36	J9	B 38		45 (Single Cab)
B3	36	J28 38		S22	41 (Double Cab)
C8	38	P2	39		43 (Extra Cab)
D1	38	S2	37		45 (Single Cab)
F14	39	S4	37	T4	37

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	23	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1C		
2D	28	Instrument Panel Wire and Driver Side J/B (Instrument Panel Brace RH)
2F	28	Engine Room Main Wire and Driver Side J/B (Instrument Panel Brace RH)
2J		
2K	28	Floor Wire and Driver Side J/B (Instrument Panel Brace RH)
2L	28	Engine Room Main Wire and Driver Side J/B (Instrument Panel Brace RH)
2M		
2Q	29	Instrument Panel Wire and Driver Side J/B (Instrument Panel Brace RH)
2S		

 : **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	46	Engine Wire and Engine Room Main Wire (Inside of Engine Room R/B and Engine Room J/B)
IF2	50	Engine Room Main Wire and Instrument Panel Wire (Behind the Driver Side J/B)
IG1	50	Engine Room Main Wire and Floor Wire (Near the Driver Side J/B)
BA2	52 (Double Cab)	Frame Wire and Floor Wire (Under the Front Seat LH)
	54 (Extra Cab)	
	56 (Single Cab)	
BE1	52 (Double Cab)	Frame Wire and Skid Control Sensor Wire (Rear of the Rear Differential)
	54 (Extra Cab)	
	56 (Single Cab)	

 : **Ground Points**

Code	See Page	Ground Points Location
EA	46	Right Side of the Fender Apron
EC	46	Rear Side of the Cylinder Block
IF	48	Cowl Side Panel RH

 : **Splice Points**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B2	54 (Extra Cab)	Frame Wire	B2	56 (Single Cab)	Frame Wire