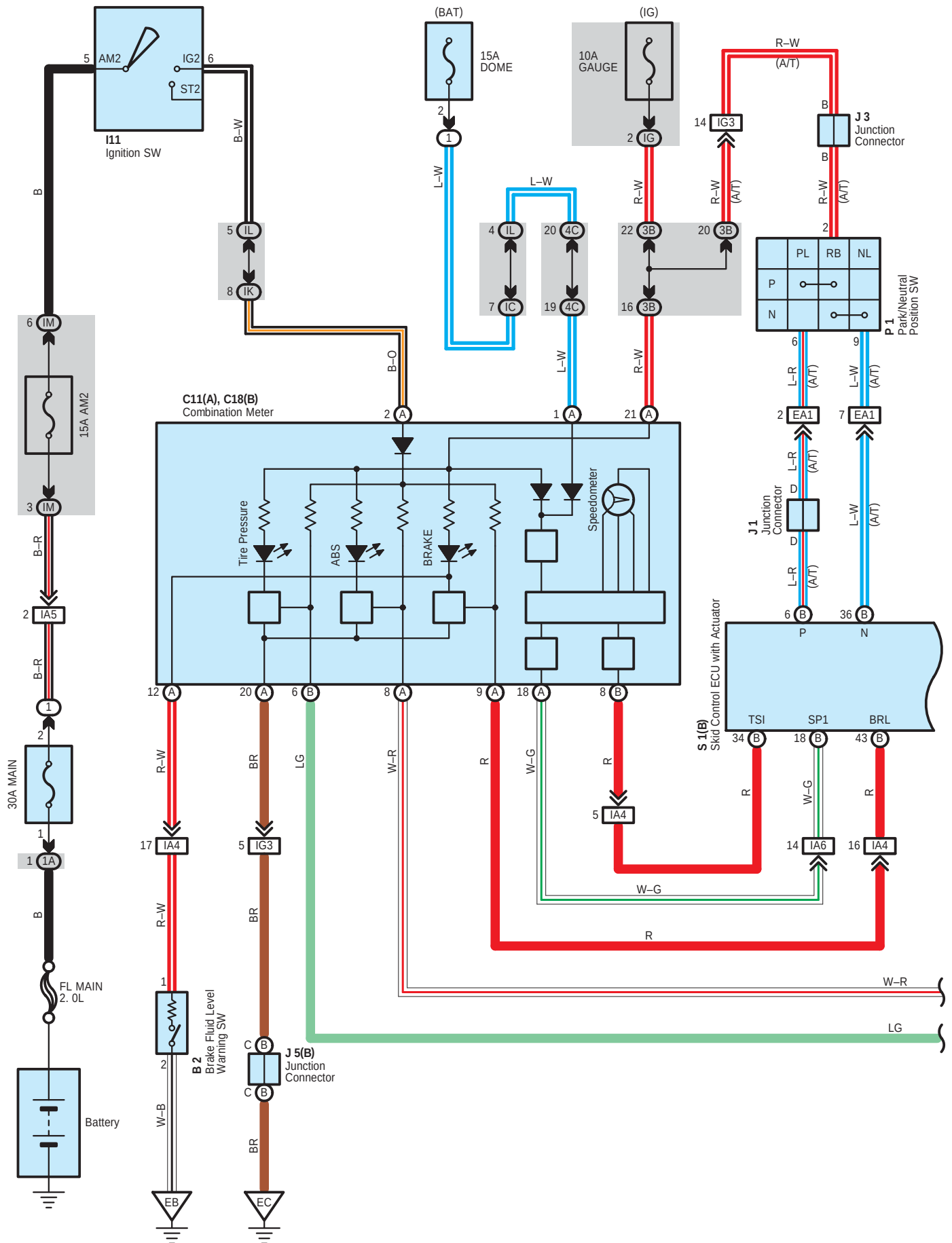
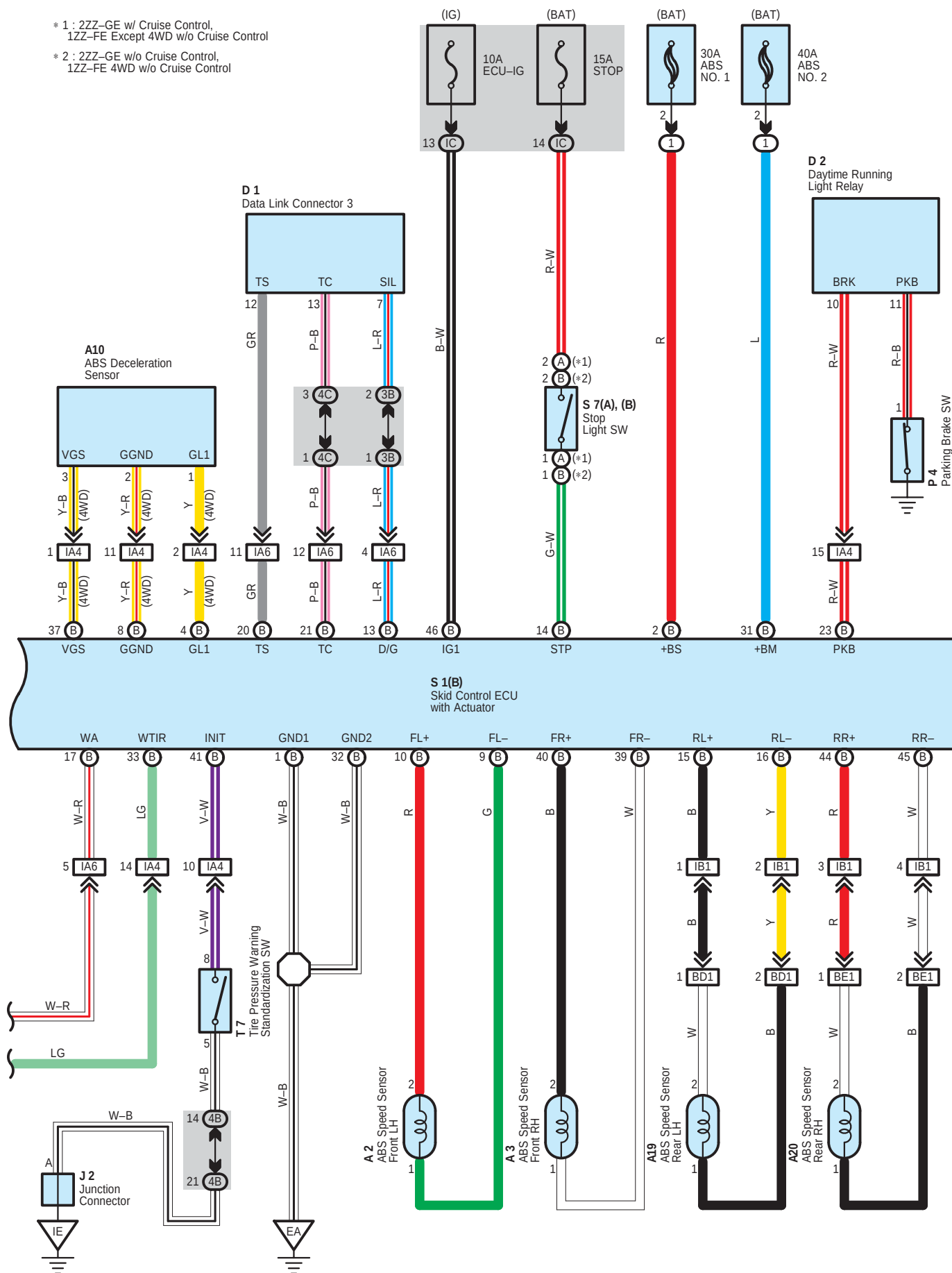


ABS and Tire Pressure Warning System



- * 1 : 2ZZ-GE w/ Cruise Control,
1ZZ-FE Except 4WD w/o Cruise Control
- * 2 : 2ZZ-GE w/o Cruise Control,
1ZZ-FE 4WD w/o Cruise Control



ABS and Tire Pressure Warning System

System Outline

ABS is a brake system designed to improve the operating ability and securing the stability of the vehicle by preventing the lock-up of the vehicle by controlling the wheel cylinder pressure of all the four wheels at the time of sudden braking.

1. Input Signals

(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 light SW signal

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

2. System Operation

When the wheels are locked-up, the solenoid inside the actuator is controlled by the signal from the skid control ECU with actuator, and the brake fluid in the wheel cylinder will flow through the reservoir and reduce the hydraulic pressure.

While the ABS is in operation, as the skid control ECU with actuator always outputs the operation signal to the pump inside the actuator, and the brake fluid stored inside the reservoir will be sucked up by the pump inside the actuator and returned to the master cylinder.

When the hydraulic pressure of the wheel cylinder is decompressed or increased until the necessary hydraulic pressure, the solenoid inside the actuator is controlled by the control signal from the skid control ECU with actuator and as a result, hydraulic pressure of the wheel cylinder will be closed at both the master cylinder and reservoir sides routes, and the hydraulic pressure of the wheel cylinder will be in the hold condition.

If increase of the hydraulic pressure volume of the wheel cylinder becomes necessary, the control signals from the skid control ECU with actuator control the solenoid inside the actuator, to resume to the normal condition. Thus the brake fluid of the master cylinder will be sent to the wheel cylinder and will increase the hydraulic pressure of the wheel cylinder. At this time, in the case that the brake fluid is left in the reservoir, it will be sucked up by the pump inside the actuator and will be sent to the wheel cylinder.



: Parts Location

Code	See Page	Code	See Page	Code	See Page
A2	34 (2ZZ-GE)	C11	A	38	P1
	36 (1ZZ-FE)	C18	B	38	P4
A3	34 (2ZZ-GE)	D1	38	S1	B
	36 (1ZZ-FE)	D2	38		
A10	38	I11	39	S7	A
A19	40	J1	37 (1ZZ-FE)		B
A20	40	J2	39	T7	
B2	34 (2ZZ-GE)	J3	39		
	36 (1ZZ-FE)	J5	B	39	



: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	23	Engine Room R/B (Engine Compartment Left)



: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
IC	25	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
IG	25	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
IK	24	
IL		
IM		
1A		
23	23	Engine Wire and Engine Room J/B (Engine Compartment Left)
3B	29	Instrument Panel Wire and RH J/B (Right Side of the Instrument Panel Reinforcement)
4B	32	Instrument Panel Wire and Center J/B (Behind the Combination Meter)
4C		

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

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	43 (1ZZ-FE)	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B)
IA4	44	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Reinforcement LH)
IA5		
IA6		
IB1	44	Engine Room Main Wire and Floor Wire (Cowl Side Panel LH)
IG3	45	Engine Wire and Instrument Panel Wire (Blower Unit RH)
BD1	46	Skid Control Sensor Wire LH and Floor Wire (Quarter Wheel House LH)
BE1	46	Skid Control Sensor Wire RH and Floor Wire (Quarter Wheel House RH)

 : **Ground Points**

Code	See Page	Ground Points Location
EA	42 (2ZZ-GE)	Front Right Fender
	43 (1ZZ-FE)	
EB	42 (2ZZ-GE)	Front Left Suspension Tower
	43 (1ZZ-FE)	
EC	42 (2ZZ-GE)	Left Side of the Cylinder Head
	43 (1ZZ-FE)	
IE	44	Behind Combination Meter

