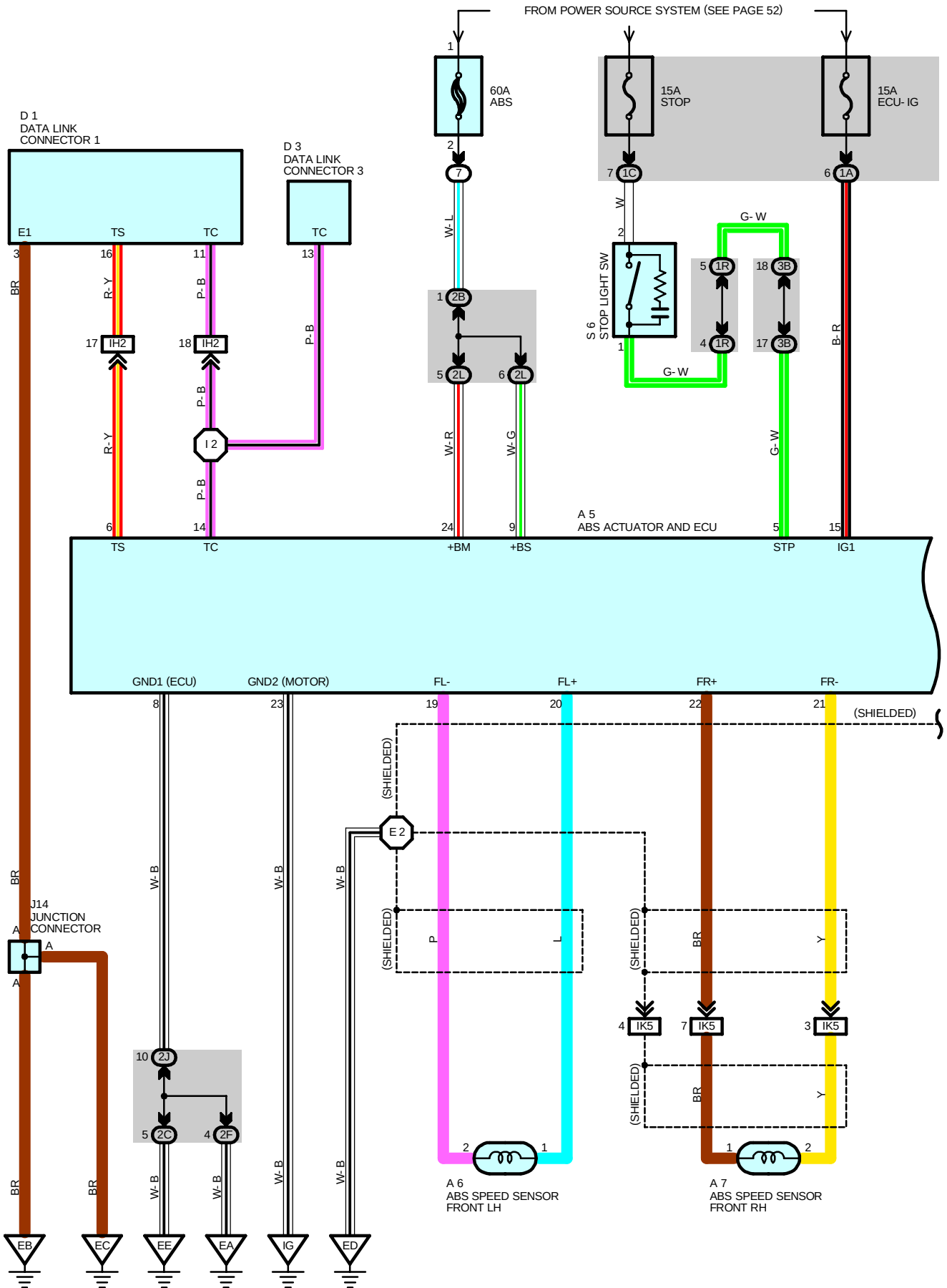




SYSTEM OUTLINE

ABS 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.

Tire pressure warning system turns on the tire pressure warning light and warns the driver of low tire pressure, when driving with a low tire pressure, which may cause trouble driving.

However, this system can detect the low tire pressure condition only if one of the tires has such a condition in particular compared to other tires, and it cannot detect. Therefore, it can not detect natural (Gradual) air loss occurring to the tires.

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 ABS actuator and ECU.

(2) Stop light SW signal

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

(3) Standardization SW Signal

A signal is input to TERMINAL INIT of the ABS actuator and ECU when the tire pressure warning standardization SW is operated.

(4) Parking position signal

A signal is input to TERMINAL P of the ABS actuator and ECU when the Shift lever at "P" position.

(5) Neutral position signal

A signal is input to TERMINAL N of the ABS actuator and ECU when the Shift lever at "N" position.

2. ABS SYSTEM OPERATION

During sudden braking the ABS actuator and ECU has signals input from each sensor, which controls the current to the solenoid inside the actuator and lets the hydraulic pressure acting on each wheel cylinder escape to the reservoir. The pump inside the actuator is also operating at this time, and it returns the brake fluid from the reservoir to the master cylinder, thus preventing locking of the vehicle wheels.

If the ABS actuator and ECU judges that the hydraulic pressure acting on the wheel cylinder is insufficient, the current on the solenoid is controlled and the hydraulic pressure is increased. Holding of the hydraulic pressure is also controlled by the ABS actuator and ECU, by the same method as above. Pressure reduction, holding and increase are repeated to maintain vehicle stability and to improve steerability during sudden braking.

3. OPERATION OF TIRE PRESSURE WARNING SYSTEM

In accordance with the reduction of tire pressure, tire diameter becomes small and the tire rotation speed becomes greater.

In the relation between the difference of the vehicle speed of normal wheels and the low pressure wheel and the tire pressure, based on the speed signal detected during driving, it detects the change of the tire pressure.

As a result, if the system judges that the tire pressure has reduced, it turns on the tire pressure warning light and warn the driver using the signal from the ABS actuator and ECU.

SERVICE HINTS

A6, A7 ABS SPEED SENSOR FRONT LH, RH

2-1 : Approx. 1.6 kΩ

A17, A18 ABS SPEED SENSOR REAR LH, RH

2-1 : Approx. 1.1 kΩ

A5 ABS ACTUATOR AND ECU

(Disconnect the ABS actuator and ECU connectors)

14-GROUND : Approx. 12 volts with the ignition SW at **ON** position and the data link connector 1
TC-E1 not connected

6-GROUND : Approx. 12 volts with the ignition SW at **ON** position and the data link connector 1
TS-E1 not connected

8,23-GROUND : Always continuity

15-GROUND : Approx. 12 volts with the ignition SW at **ON** position

5-GROUND : Approx. 12 volts with the brake pedal depressed

9,24-GROUND : Always approx. 12 volts

: PARTS LOCATION

Code		See Page		Code		See Page		Code		See Page	
A5		32		C11	C	34		J14		35	
A6		32		D1		32		J17		35	
A7		32		D3		34		P1		33	
A17		36		D12		34		S6		35	
A18		36		J2	A	35		T6		35	
C10	A	34		J3	B	35					

: RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
7	29	R/B No.7 (Engine Compartment Left)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	22	Cowl Wire and Driver Side J/B No.1 (Lower Finish Panel)
1C		
1D		
1J		
1M		
1R	24	Engine Room Main Wire and Engine Room J/B No.2 (Engine Compartment Left)
2B		
2C		
2F	24	Cowl Wire and Engine Room J/B No.2 (Engine Compartment Left)
2J		
2L	26	Cowl Wire and J/B No.3 (Behind the Combination Meter)
3A		
3B		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC2	42	Cowl Wire and Floor Wire (Left Cowl Side Panel)
ID1	42	Instrument Panel Wire and Cowl Wire (The Back Side of the Lower Finish Panel)
IH1	44	Engine Wire and Cowl Wire (Front Side of the Blower Motor)
IH2		
IK5	44	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
BA2	46	Gauge Wire and Floor Wire (On the Left Rear Wheel House)

: GROUND POINTS

Code	See Page	Ground Points Location
EA	40	Front Side of the Right Fender Apron
EB	40	Right Side of the Surge Tank
EC	40	Rear Side of the Surge Tank
ED	40	Near the Left Front Suspension Support
EE	40	Front Side of the Left Fender Apron
IG	42	Left Cowl Side Panel
IH	42	Right Instrument Panel Brace
IJ	42	Right Cowl Side Panel

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	40	Cowl Wire	B6	46	Floor Wire
I2	44				