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 Signals

(1) Speed sensor signal

The speed of the wheels is detected and input to TERMINALS (B) 5, (B) 3, (C) 3 and (C) 1 of the skid control ECU.

(2) Stop light SW signal

A signal is input to TERMINAL (C) 11 of the skid control ECU when the brake pedal is depressed.

2. System Operation

During sudden braking the skid control 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 skid control 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 skid control 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.

Service Hints

A7, A8 ABS Speed Sensor Front LH, RH

2-1 : Approx. 1.6 $k\Omega$

A33, A34 ABS Speed Sensor Rear LH, RH

2–1 : Approx. 1.6 k Ω

S10 (A), S11 (B), S12 (C) Skid Control ECU

(C) 7–Ground : Approx. 12 volts with the ignition SW at ON position (C) 11–Ground : Approx. 12 volts with the brake pedal depressed

(A) 11, (A) 22, (B) 15, (B) 14, (A) 16, (A) 20-Ground: Always continuity

: Parts Location

Code	See Page	Code		See Page	Code		See Page
A4	38 (*1)	A34		52 (RHD)	P3		41 (LHD)
	48 (*2)	C7	А	40 (LHD)	F3		51 (RHD)
A6	38 (*1)	O/		50 (RHD)	S10	А	41 (LHD)
	48 (*2)	- C8	В	40 (LHD)			51 (RHD)
A7	38 (*1)			50 (RHD)	S11	В	41 (LHD)
1	48 (*2)	- D3		40 (LHD)	311		51 (RHD)
A8	38 (*1)			50 (RHD)	S12	С	41 (LHD)
A0	48 (*2)	J7		41 (LHD)	312	C	51 (RHD)
A33	42 (LHD)			51 (RHD)	S14		41 (LHD)
	52 (RHD)	J12		41 (LHD)			51 (RHD)
A34	42 (LHD)			51 (RHD)			

^{* 1 :} LHD 2AZ-FE, 1AZ-FE

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)	
2	23	ABS R/B (Radiator Side Support LH)	

^{* 2 :} RHD 2AZ-FE, 1AZ-FE

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)			
1C					
1E	25	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)			
1G]				
2B	28	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)			
2G	28	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)			
2L					
2M	29	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)			
20					
2P					
2R					
2S]				
3A	34 (LHD)	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH)			
JA	35 (RHD)	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH)			
3B	34 (LHD)	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH)			
36	35 (RHD)	Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH)			

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)			
IC1	72 (RHD)	Instrument Panel Wire and Floor Wire (Right Kick Panel)			
IC2	60 (LHD)	Instrument Panel Wire and Floor Wire (Left Kick Panel)			
IK1	62 (LHD)				
I IKI	74 (RHD)	Engine Wire and Instrument Panel Wire (Behind the Glove Box)			
IK2	62 (LHD)	ingline white and mistrument rather white (Denimornie Glove Dox)			
IINZ	74 (RHD)				
IM1	62 (LHD)	Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)			
IM3	74 (RHD)	Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)			

: Ground Points

Code	See Page	Ground Points Location	
EA	58 (*1)	Right Fender	
	70 (*2)		
ED	58 (*1)	Left Fender	
	70 (*2)		
II	60 (LHD)	Cowl Side Panel LH	
IN	72 (RHD)	Instrument Panel Reinforcement RH	

^{* 1 :} LHD 2AZ-FE, 1AZ-FE

^{* 2 :} RHD 2AZ-FE, 1AZ-FE



: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	70 (*2)	(*2) Engine Room Main Wire		70 (*2)	Engine Room Main Wire