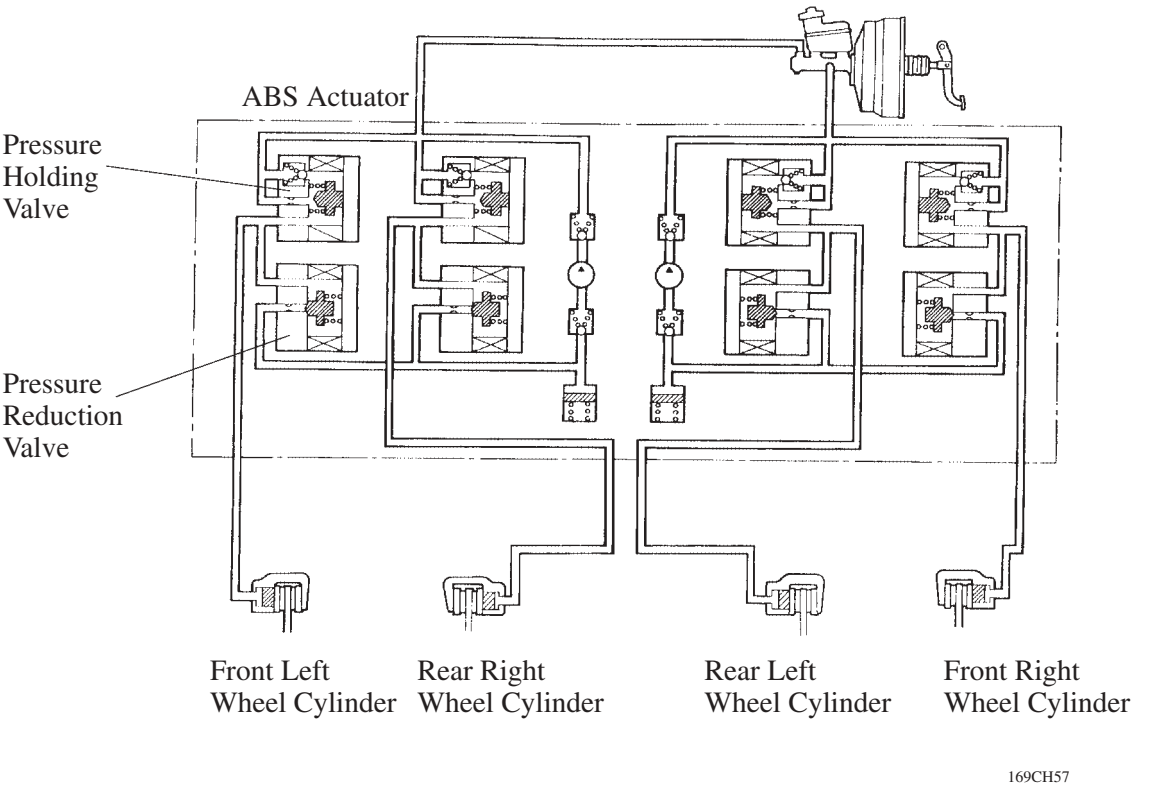
■ ABS with EBD (Electronic Brake force Distribution)

1. General

ABS (Anti-lock Brake System) equipped with the EBD control is adopted for Australian model as an option and for European model as standard equipment. The EBD control utilizes ABS, realizing the proper brake force distribution between front and rear wheels in accordance with the driving conditions. In addition, during cornering braking, it also controls the brake forces of right and left wheels, helping to maintain the vehicle stability.

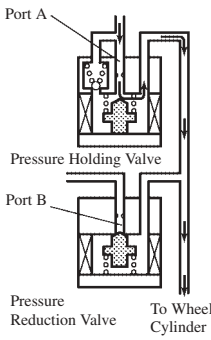
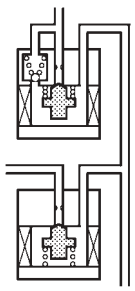
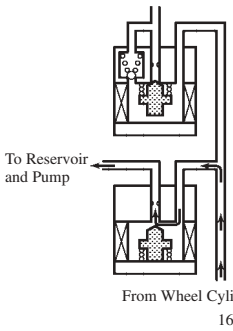
2. Hydraulic Circuit



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3. Operation

Based on the signals received from the 4 wheel speed sensors, the ABS ECU calculates each wheel speed and deceleration, and checks wheel slipping condition. And according to the slipping condition, the ECU controls the pressure holding valve and pressure reduction valve in order to adjust the fluid pressure of each wheel cylinder in the following 3 modes: pressure reduction, pressure holding and pressure increase modes.

System Not Activated	Normal Braking	–	–
System Activated	Pressure Increase Mode	Pressure Holding Mode	Pressure Reduction Mode
Hydraulic Circuit			
Pressure Holding Valve (Port A)	OFF (Open)	ON (Close)	ON (Close)
Pressure Reduction Valve (Port B)	OFF (Close)	OFF (Close)	ON (Open)
Wheel Cylinder Pressure	Increase	Hold	Reduction

4. Self Diagnosis

The ABS ECU stores the codes of the malfunctions. The diagnostic code can be accessed from the ABS warning light. A hand-held tester can be used to access the diagnostic code and to perform an active test. See the CELICA Chassis & Body Repair Manual (Pub. No. RM734E) for the diagnostic trouble code check method, diagnostic code and diagnostic code clearance.

5. Fail Safe

In the event of a malfunction in the ABS, the ABS ECU turns on the ABS warning light and prohibits the ABS control. In the case of the malfunction that the EBD control can not be carried out, the ABS ECU also turns on the brake system warning light and prohibits the EBD control.