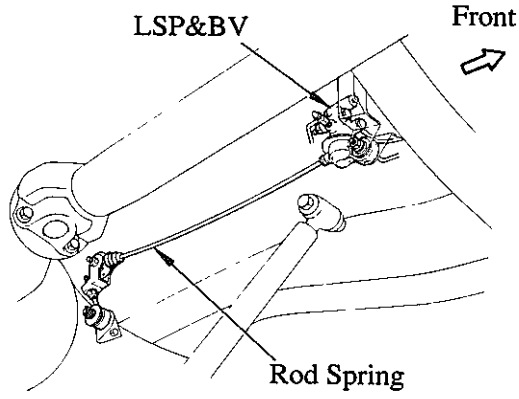
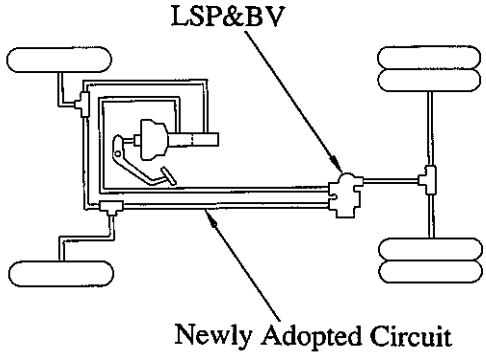
■ BRAKE CONTROL VALVE

1. General

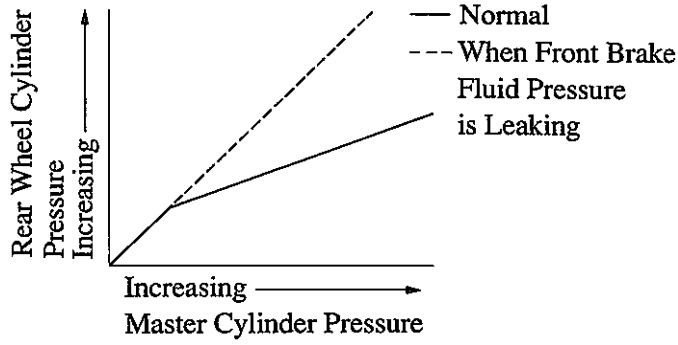
The brake control valve on models for Australia has been changed from the rod spring-type LSPV (Load Sensing Proportioning Valve) to a rod spring-type LSP&BV (Load Sensing Proportioning and Bypass Valve). This enables the master cylinder pressure to bypass the LSPV and apply directly to the rear wheel cylinders, in the case of a front brake hydraulic failure.



▶ Hydraulic Circuit ◀

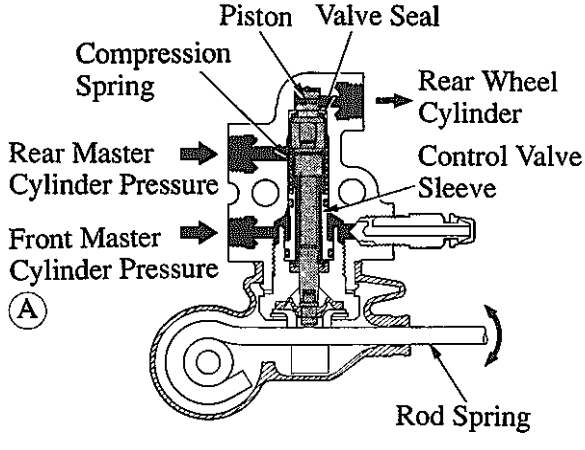


▶ LSPV&BV Performance Characteristics ◀

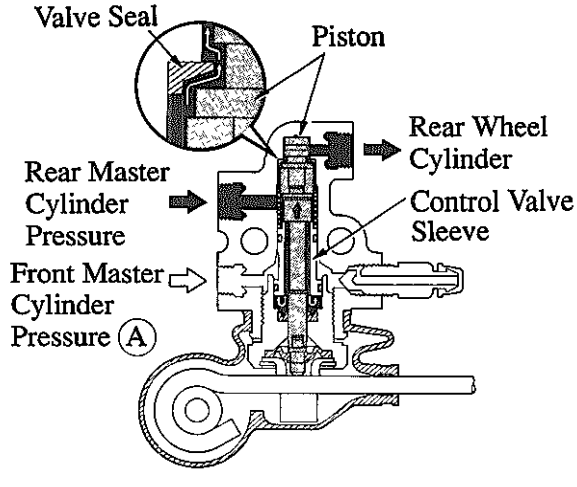


2. LSP&BV (Load Sensing Proportioning and Bypass Valve)

As in the previous model, the vehicle load regulates the master cylinder pressure applied to the rear wheel cylinders. However, in case of a front brake hydraulic failure, pressure (A) applied to the front master cylinder drops. Therefore, the balance between the hydraulic pressures applied to the front and back of the control valve sleeve is lost, and the control sleeve moves up. The control sleeve makes contact with the piston, and pushes it up. The non-regulated hydraulic pressure will then be applied directly to the rear wheel cylinders, ensuring an adequate rear side braking force.



Normal Operation



Operation with Failed Front Brake Circuit