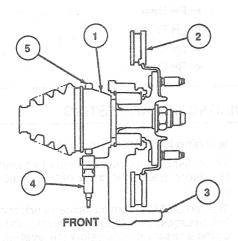
## **DESCRIPTION (Continued)**



Item	Part Number	Description	
1,5	3B436 RH 3B437 LH	CV Joint	
2	1125	Rotor	
3	3K170 RH 3K171 LH	Spindle Assy	
4	2C204 RH 2C205 LH	Anti-Lock Sensor	

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ltem	Part Number	Description	
5	2C182	Anti-Lock Sensor Ring Anti-Lock Sensor Ring	
6	2B664		
7	2C026	Rotor	
8		Rear Spindle	
9	2C216 LH 2C190 RH	Anti-Lock Sensor	
10	2C101 LH 2C100 RH	Rear Disc Adapter	

## **Pedal Travel Switch**

The anti-lock brake system uses a pedal travel switch which monitors brake pedal travel and sends this information to the ABS module through the wire harness. The switch adjustment is critical to pedal feel during ABS cycling.

The switch is mounted in a hole in the RH side wall of the brake pedal support and to a pin on the dump valve adapter bracket.

The switch is normally closed. When brake pedal travel exceeds the switch setting during an anti-lock stop, the electronic controller senses that the switch is open and grounds the pump motor relay coil. This energizes the relay and turns the pump motor on. When the pump motor is running, the master cylinder is filled with high pressure brake fluid and the brake pedal will be pushed up until the switch closes. When the switch closes, the pump is turned off and the pedal will drop some with each ABS control cycle until the travel switch opens again and the pump is turned on again. This minimizes pedal feedback during ABS cycling.

If the pedal travel switch is not adjusted properly or is not electrically connected, it will result in objectionable pedal feel during ABS stops. Most concerns with the switch or its installation will result in the pump running during the entire ABS stop. The pedal will become very firm, pushing the driver's foot up to an unusually high position.

## **OPERATION**

When the brakes are applied, fluid is forced from the master cylinder outlet ports to the hydraulic control unit (HCU) inlet ports. This pressure is transmitted through four normally open solenoid valves contained inside the HCU, then through the outlet ports of the HCU to each wheel. The primary (rear) circuit of the master cylinder feeds the right front and left rear brakes. The secondary (front) circuit of the master cylinder feeds the left front and right rear brakes. If the ABS module senses that a wheel is about to lock, based on wheel speed sensor data, it pulses the normally open solenoid valve closed, for that circuit. This prevents any more fluid from entering that circuit. The ABS module then looks at the sensor signal from the affected wheel again. If that wheel is still decelerating, it opens the normally closed solenoid valve for that circuit. This dumps any pressure that is trapped between the normally open valve and the brake back to the reservoir. Once the affected wheel comes back up to speed, the ABS module returns the valves to their normal condition allowing fluid flow to the affected brake.

The ABS module monitors the electro-mechanical components of the system. Malfunction of the anti-lock brake system will cause the ABS module to shut off or inhibit the system. However, normal power assisted braking remains. Malfunctions are indicated by one or two warning indicators inside the vehicle.

Loss of hydraulic fluid in the HCU reservoir will disable the anti-lock system.