

## Control Unit

### Construction

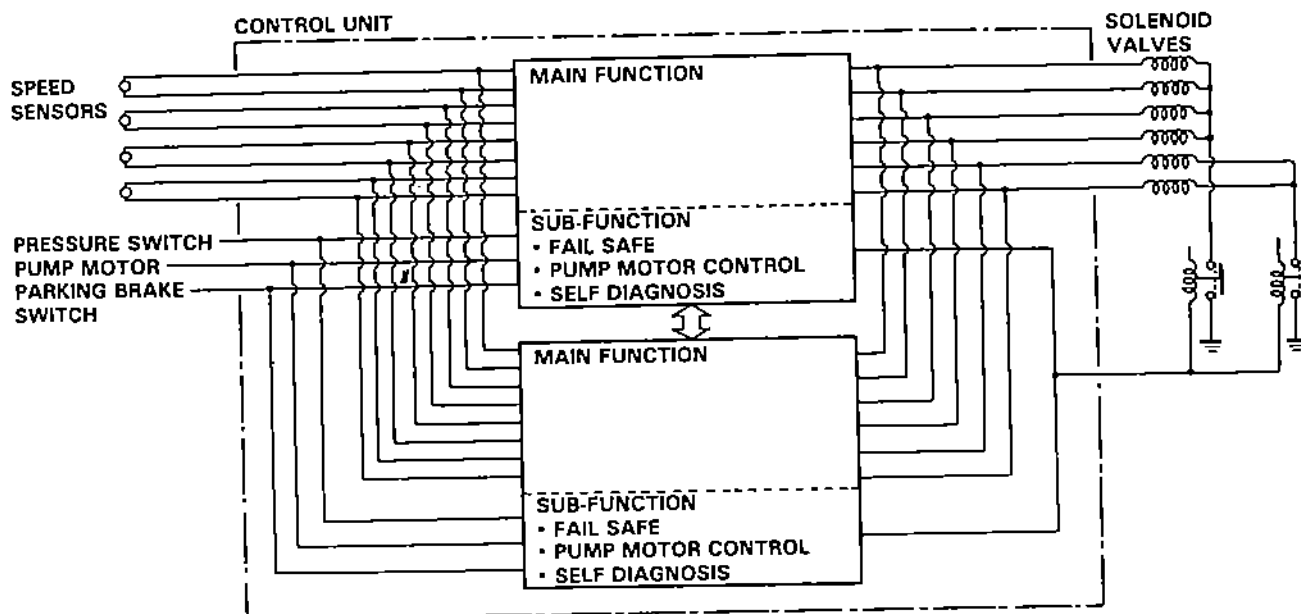
The control unit consists of a main function section, which controls the operation of ALB system, and sub-function, which controls the pump motor and "self-diagnosis."

#### 1. Main Function

The main function section of the control unit performs calculations on the basis of the signals from each speed sensor and controls the operation of the ALB system by putting into action the solenoid valves in the modulator unit for each front brake for the two rear brakes.

#### 2. Sub Function

The sub-function section gives driving signals to the pump motor and also gives "self-diagnosis" signals, necessary for backing up the ALB system.



### Self-Diagnostic Function

Since the ALB system modulates the braking pressure when a wheel is about to lock, regardless of the driver's intention, the system operation and the braking power will be impaired if there is a malfunction in the system. To prevent this possibility, at speeds above 10 km/h (6 mph), the self diagnosis function, monitors the main system functions. When an abnormality is detected, the dash warning light goes on.

There is also a check mode of the self-diagnosis system itself: when the ignition switch is first turned on, the dash warning light comes on and stays on for a few seconds after the engine starts, to signify that the self-diagnosis system is functional.

(cont'd)

# Description

## Control Unit (cont'd)

### Fail-Safe Function

If an abnormality is detected, the control unit turns off the fail-safe relays and motor relay. In this condition the ALB system is prevented from functioning, yet the basic system continues to operate normally.

### The Dash Warning Light Comes On

1. When the fluid pressure pump runs more than 120 seconds.
2. When the parking brake is applied for more than 30 seconds while the vehicle is being driven.
3. When the rear wheel(s) is (are) locked more than a specified time.
4. When the wheel rotation signal is not transmitted due to faulty wire or sensor.
5. When the operation time of the solenoid valve(s) exceeds a predetermined valve and the control unit finds an open in the solenoid circuit.
6. When the output signals from both main functions in the control unit are not transmitted to the solenoid valves(s).