

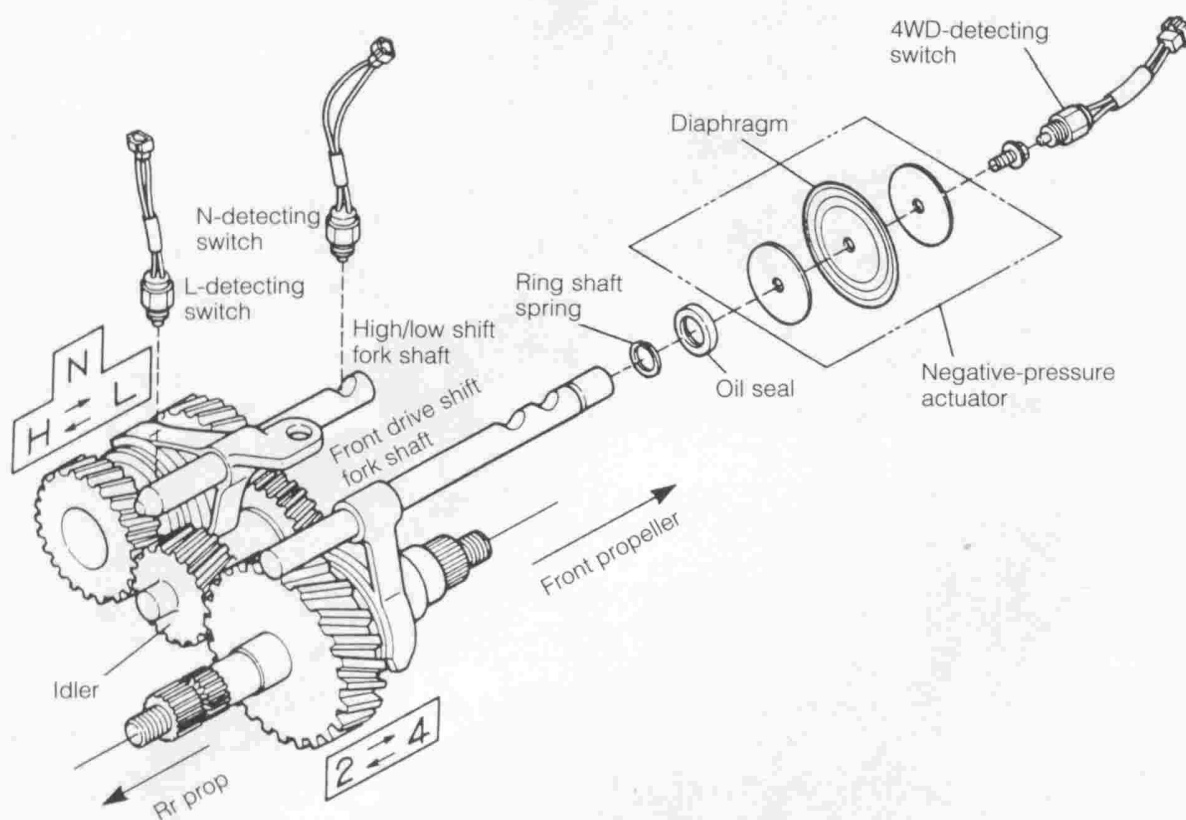
GENERAL INFORMATION

11-2. POWER SHIFT MECHANISM

The shift from the two-wheel drive to the four-wheel drive and vice versa can be performed by means of power shift switch which utilizes a negative pressure actuator.

The negative pressure which has been generated by the vacuum pump is transmitted to a diaphragm actuator provided inside the transfer case. Consequently, the thrust generated by the actuator is transmitted directly to the drive shift fork shaft. In this way, the shift from the two-wheel drive to the four-wheel drive and vice versa is performed.

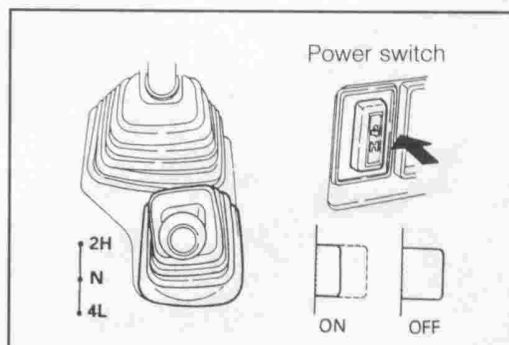
This device is available as optional equipment with 5-speed transmission.



WRE91-GI050

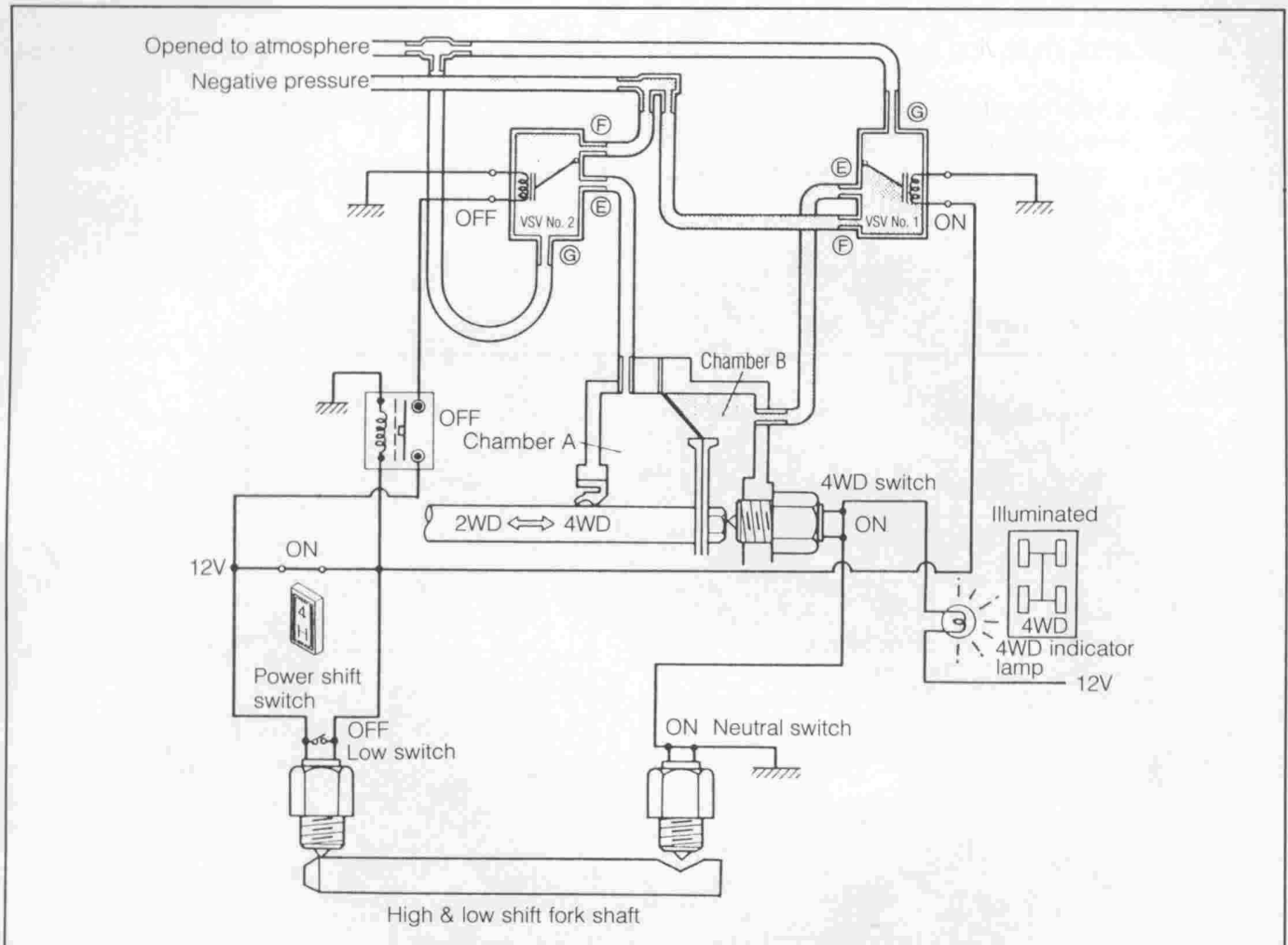
(1) Power switch operation

- 2H: 2-wheel drive, high speed range.
Shift the transfer shift lever into 2H position and turn OFF the power switch.
- 4H: 4-wheel drive, high speed range.
Shift the transfer shift lever into 2H position and turn ON the power switch.
- 4L: 4-wheel drive, low speed range.
Shift the transfer shift lever into 4L position. even if the turn ON the power switch, do not operate to shift 4H.



ORE91-GI051

(2) Operation diagram



WRE91-GI052

(3) Operating conditions of each switch

	2H		N		4L
Power switch	ON	OFF	ON	OFF	ON/OFF
VSV No. 1	ON	OFF	ON	OFF	ON
VSV No. 2	OFF	ON	OFF	ON	OFF
Low SW	OFF	OFF	OFF	OFF	ON
Neutral SW	ON	ON	OFF	OFF	ON
4WD SW	ON	OFF	ON	OFF	ON

WRE91-GI053

(4) Description

- High speed range (2H)**
 A negative pressure is applied to the chamber B of the actuator through the VSV No. 1. At this stage, the atmospheric pressure is applied to the chamber A of the actuator from the VSV No. 2. Consequently, because of the difference in pressure being applied to the diaphragm, the front drive shift fork which is connected directly to the diaphragm will be shifted to the four-wheel drive side.
- Low speed range (4L)**
 The negative pressure is transmitted in the same way as with cases where transfer shift lever is in the 2H position with the power switch turned ON. Since the low switch is turned ON, the VSV No. 2 is OFF regardless of the state of the power shift switch. As a result, the vehicle is driven on the four-wheel drive.

WRE91-054