

## Low Pressure Warning Switches and Stop Light Switches

## LOW PRESSURE WARNING SWITCHES AND STOP LIGHT SWITCH

### Description

The low pressure warning switches and stop light switch are identical, except for the operating pressures. The pressure is governed by the number of shims fitted in each switch.

Three low pressure warning switches are fitted in the air system. One switch fitted to each service reservoir operates a buzzer in the cab, when the pressure falls to the Data figure. The third switch, is coupled to the quick release valve, and operates a red warning light on the instrument panel, when the pressure in the park brake circuit falls to the Data figure.

A stop light switch coupled to the quick release valve operates when the park brake is applied.

### Operation

When compressed air enters the switch it builds up pressure under the diaphragm, overcomes the spring pressure, and the diaphragm and piston move upwards separating the contact points. This cuts out the driver's warning devices. If the air pressure in the system falls below the switch setting, the spring overcomes the air pressure acting on the diaphragm and the contacts close completing the circuit to the warning device.

When used as a stop light switch in the park brake circuit, the operation is as above, except, the switch operates the stop lights when the air is exhausted from the spring brake actuator, when the park brake is applied.

### Operating Test

Depressurise the system by operating the brake pedal.

Start the engine and during charging, check that the buzzer and warning light cut-out at the Data figure. With the system fully charged, stop the engine. Operate the park brake and check that the stop lights operate correctly.

### Air Leakage Test

With the system fully charged, coat the low pressure warning switches with soap solution. Leakage is not permissible.

With the park brake in the "OFF" position, coat the stop light switch with soap solution. Leakage is not permissible.

### To Remove

Disconnect the battery.

Drain the air system by operating the brake pedal.

Slide back the gaiter and disconnect the two lucar connections.

Unscrew and remove switch.

Plug the pipe to prevent entry of dirt.

### To Dismantle

Remove the two cross-head screws and washers.

Collect the top cover, terminal, shims, spring, cover, contact plate, contact terminal, piston and gasket.

Remove diaphragm from body.

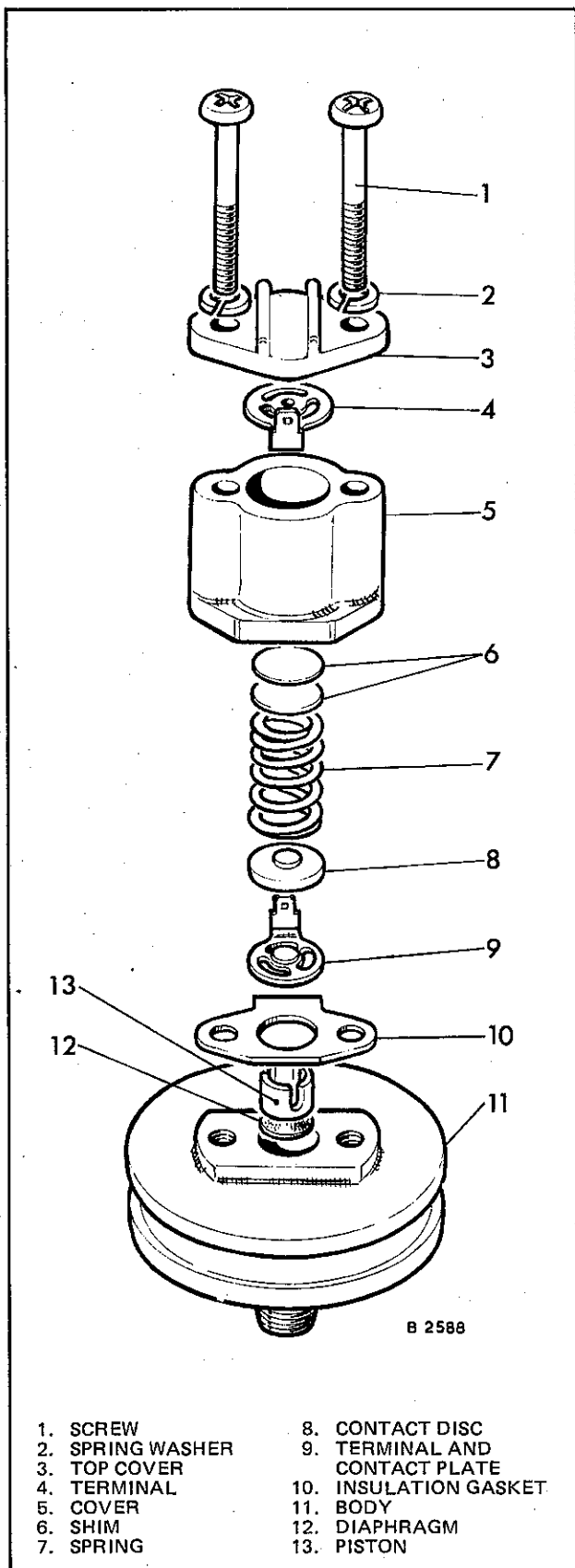


Fig. 1 Switch details

#### Inspection and Overhaul

Thoroughly clean all parts.

Check the top cover, cover and body for cracks or other damage.

Check the spring for corrosion or "set".

Check the contact plates for corrosion.

Renew the diaphragm.

#### To Re-Assemble

Lightly smear the diaphragm and piston with CDS 156 or Rocal E1A.

Carefully fit the diaphragm into the body, flat side uppermost.

Position the piston on the diaphragm, flat side towards the diaphragm.

Position the gasket on the body.

Position the contact terminal on the piston, ensuring the terminal leg is covering the gasket.

Position the contact plate on the contact terminal, fit the cover on the body, with the slot in the cover base over the contact terminal. Hold the cover in position.

Place the spring inside the cover, position the shims and terminal on the spring with the terminal located in cover slot.

Place the top cover on the cover and secure with two cross-head screws and washers.

#### To Refit

Apply Loctite 572 to the threads of the switch, screw into position and tighten securely. Refit the lucar connections and gaitor.

Reconnect the battery.

Test the switch as given under Operating Test. If the switch is outside the Data figure, add or remove shims to give the required pressure.