

Low Pressure Warning Switches

LOW PRESSURE WARNING SWITCHES

Description

Three low pressure warning switches are fitted in the air system. One switch fitted to each service line feed into the dual brake valve 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 the parking brake warning light on the instrument panel, when the pressure in the parking brake circuit falls below the Data figure.

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.

Operating Test

Depressurise the service system by operating the brake pedal.

Start the engine, and during charging, check that the buzzer cuts out at the Data figure. With the system fully charged, stop the engine. Operate the parking brake and check that the parking brake warning light operates correctly.

Air Leakage Test

With the system fully charged, coat the low pressure warning switches 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, contact plate, contact terminal, piston and gasket.

Remove diaphragm from body.

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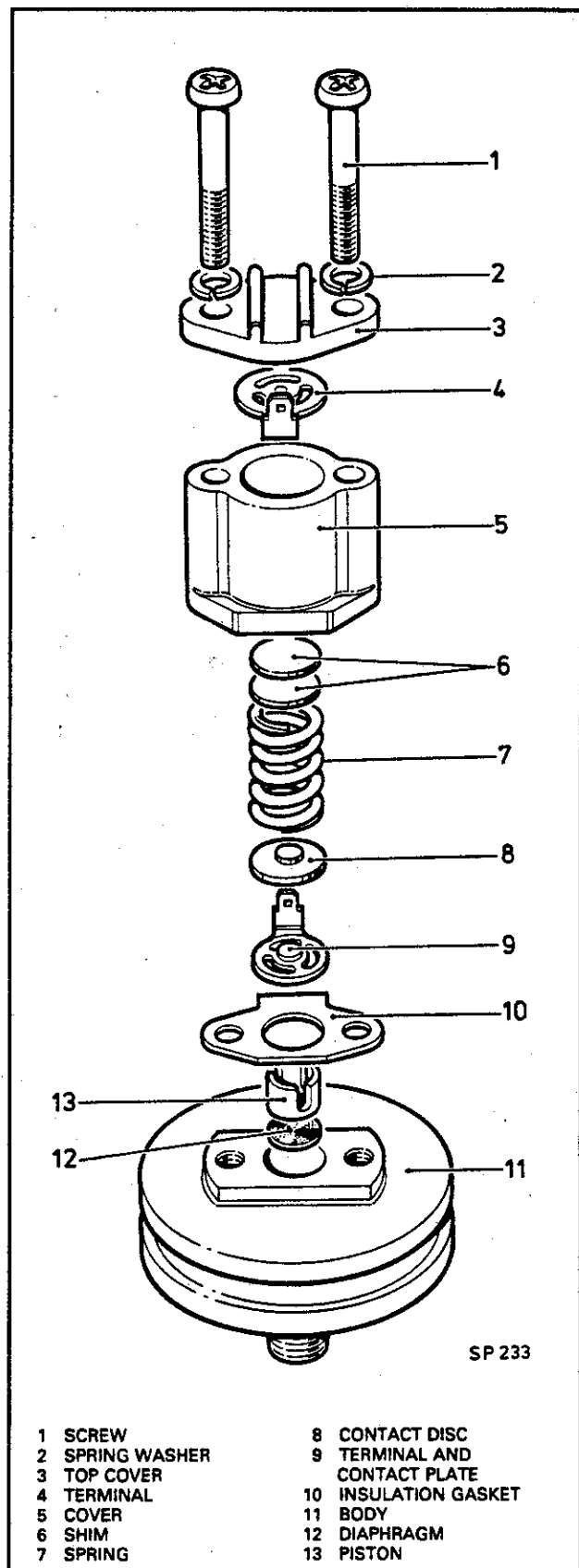


Fig. 1 Switch details

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 gaiter.

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.