

Always make sure that the machine is disconnected from the power supply before opening any covers or attempting to replace any parts.

## **CHANGING MOTOR BRUSHES in a “PARVALUX- SD1CSS or a PM 11 MIW MOTOR. - Parvalux Part Nr. S240**

### **How to get to the brushes-**

The 2 motor brushes are located in the black plastic end cover on the motor at the opposite end to the gearbox. To check the brushes the end cap has to be removed. It may be necessary on some models to remove the lower motor mounting bolt and loosen the top motor mounting bolt (10mm spanners), this allows you to swing the motor down so that both brushes may be inspected.

Inspecting the brushes-

The brushes are located in brush holders and held down onto the commutator ring by a spring. In order to remove the brushes the springs have to be lifted and rested in the small notch provided. Never lift out the spring and move it towards the gearbox end of the motor- it will come off its mounting peg and it is very difficult to put it back. The brushes have a braided copper wire, which is connected by a small Phillips screw. To check the brush length, simply draw the brush out of its holder. One brush will always wear faster than the other. If the brushes are less than 5mm long they should be replaced.

### **Changing the brushes-**

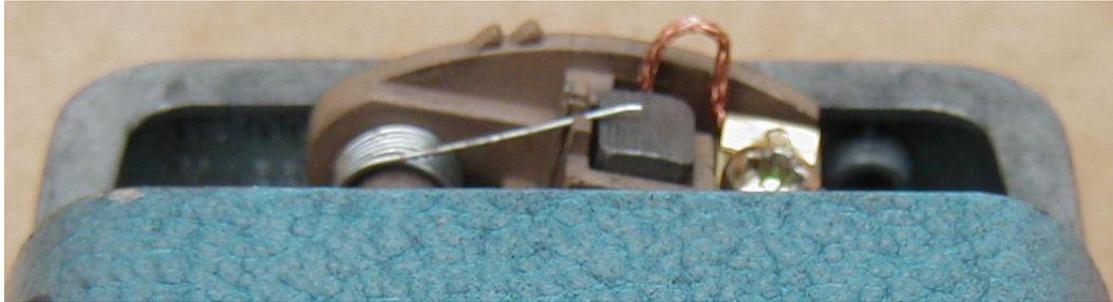
Take out the screw and remove the old brush. It is advisable to blow out as much carbon dust and accumulated t-shirt lint as possible before putting the motor back together. The ends of the brushes are pre-shaped to make full contact with the rotating commutator ring on which they must make contact. Make sure that they go in the correct way round and that they are free to slide in their holders. The back side of the brush-holder is recessed to allow the copper pigtail to fit in. Screw down the end of the braided copper wire and replace the spring on the top of the brush. Make sure that the spring is in such a position that as the brush wears down the spring will be able to follow it down the slot in the side of the brush holder. Replace the end-cap and the earth wire and bolt the motor back into position.



**The picture above shows the wrong way to replace the brush. 🚫😡**

The copper wire is trapped and the brush will not slide down onto the commutator ring. The result is that there is no circuit and the motor does not run.

**The picture below shows the correct way to replace the brush. 👍😊**



### **Useful hints-**

Occasionally new brushes do not make good contact with the commutator ring at first. The motor may run roughly or spasmodically. This can usually be cured by gripping the black plastic end-cap at the points where the brushes are located and pressing them onto the commutator ring. The rotating ring soon wears the end of the brush to the correct shape to make full contact.

Running the motor with worn brushes or allowing the motor to become clogged up with lint will shorten the life of the motor.

We recommend blowing out dust and lint regularly and replacing the brushes after 2 years on a well used motor.

S 240 carbon motor brushes can also be obtained from RS counter shops; the RS Part Nr. is 441-546