1. Description
The electroscope S is used for the demonstration of electrical charges and voltages. The electroscope features a plastic frame set on a base. The actual electroscope unit, consisting of a support and a pointer, is attached to an aluminium rod with a magnetic holder which is suspended within the frame.

2. Equipment supplied
1 Stand base
1 Frame
1 Electroscope unit
1 Aluminium rod with magnet holder

3. Technical Data
Dimensions: 280x80x280 mm³ approx.
Weight: 500 g approx.
4. Operation

To perform experiments, the following equipment is also required:

Friction rods 1002709

<table>
<thead>
<tr>
<th>Friction rod</th>
<th>Rubbing material</th>
<th>Charge polarity</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC</td>
<td>Plastic foil</td>
<td>+</td>
</tr>
<tr>
<td>Acrylic glass</td>
<td>Plastic foil</td>
<td>-</td>
</tr>
</tbody>
</table>

To indicate the charge polarity the following equipment is recommended:
Charge Indicator 1009962

4.1 Electroscope set-up
- Insert the frame into the base.
- Slide the aluminium rod vertically into the frame.
- Attach the electroscope unit to the magnetic holder.
- Place the pointer needle in such a way that it automatically points to zero.

4.2 Charging up the electroscope by touching it with a statically charged body
- Rub the friction rod with the suitable material.
- Touch the aluminium rod with the charged rod. The pointer deflects.
- Remove the friction rod, the pointer remains deflected.
- Touch aluminium rod with your hand. The pointer returns to normal.
- Repeat the experiment with the second friction rod.
- Determine the sign of the charge using the charge indicator.

4.3 Using electrostatic induction to charge up the electroscope
- Approach but do not touch the aluminium rod with the statically charged friction rod. The pointer deflects.
- Remove the friction rod. The pointer returns to normal.
- Again approach the aluminium rod with the statically charged friction rod. Once again the pointer deflects.
- Briefly touch the aluminium rod with your finger to discharge it. The pointer deflection disappears and returns to normal.
- Now remove the friction rod. The pointer again shows deflection.

Fig. 1 Charging the electroscope using a statically-charged friction rod

Fig. 2 Charging the electroscope using electrostatic induction