1.1 Fixing The USB Cable At Workstation And Keyboard

**Problem**

The USB cable gets disconnected at the RTA board or the keyboard because the USB cable does not have any strong fixing.

**Solution**

Fix the USB cable at the workstation with a cable strap. Attach a self adhesive cable strap holder underneath the USB keyboard where the cables exit.

![Figure 1-1. Fixing the USB Cable at the Workstation and at the Keyboard](image-url)
1.2 USB Mouse Stops Working

Problem
Suddenly the USB mouse does not work any more.

Solution #1
Fix the mouse cable with a cable strap underneath the keyboard as shown above.

Solution #2
The sensitivity to electric disturbances varies between different mices. Please use the following HP USB mouse available on ABB price lists:

<table>
<thead>
<tr>
<th>Type designation</th>
<th>Article number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IH590</td>
<td>3BSC 640 068 R1</td>
<td>USB scroll mouse. With two buttons and a scroll wheel. A 2.85m (9.5 ft) USB cable attached. Type A cable connector. Connected to one of the downstream ports of the ABB USB Operator, Universal, and Annunciator keyboards. <strong>Hewlett Packard product no: A4983-60101</strong></td>
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</table>

1.3 USB Keyboard Stops Working When Authority Key Is Operated

Problem
On Master Operator keyboards there is an authority key available at the rear. Sometimes when this is operated the keyboard stops working. This is due to Electrostatic Discharge through the key.

Solution
Put a plastic or rubber cover on the key handle. This will prevent Electrostatic Discharge through the key.

*Figure 1-2. ESD Protection Cover on Authority Key*
1.4 Choke On Keyboard Power Cord

Problem

Various disturbances may be picked up by the power cable from the keyboard power supply.

Solution

Put a choke on the DC power cable as close to the keyboard as possible. Make at least one turn with the cable around the choke.

Also fix the power cable with a cable strap.

Figure 1-3. Choke On Power Supply Cable