

This Information Sheet provides guidance regarding the practical steps to take when working with electrical equipment in a laboratory environment.




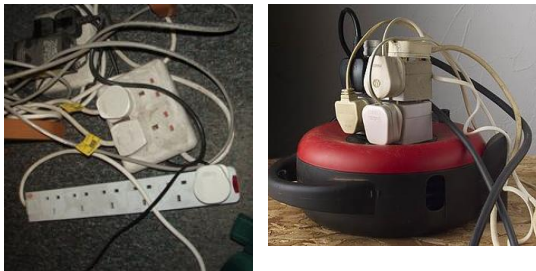


## General Information

Unsafe use of electricity and electrical equipment can lead to fires, property / equipment damage, electric shock, major injury and even death.

As a result, the Law requires that electrical equipment is maintained to prevent danger and is used in a suitable manner. Inspection and Testing is part of this process, helping to determine if equipment is safe to use or if it needs repairing, maintenance or disposal. Visual User Checks as described in this Information Sheet form part of this process.

## Visual User Checks

Before using an item of electrical equipment always visually check for the following faults. If you find anything wrong do not use the item of equipment and report it to your Supervisor immediately. If you can, 'lock it away' to prevent others using it or put a sign on it saying 'Do Not Use.'

Look for	✓ Right	✗ Wrong
<b>CORDS:</b> Cut / damaged / taped electrical cords		
<b>EXTENSION LEADS:</b> Overloaded or with cables caught up. They should also have surge protection (usually indicated on the lead)		
<b>COILED LEADS:</b> Must be fully unwound. If they are not, they can melt and cause a fire. <b>Be mindful of trailing cables though!</b>		

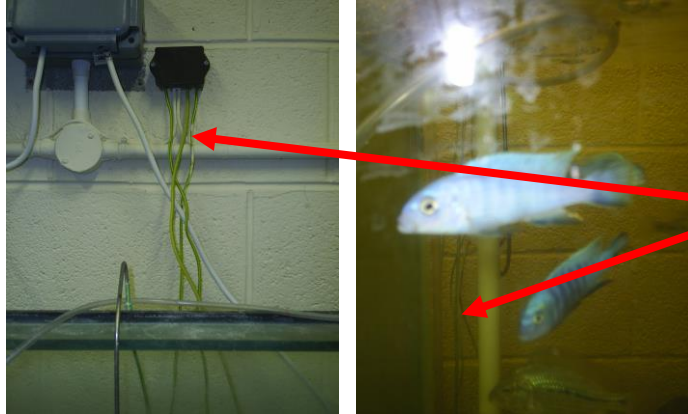

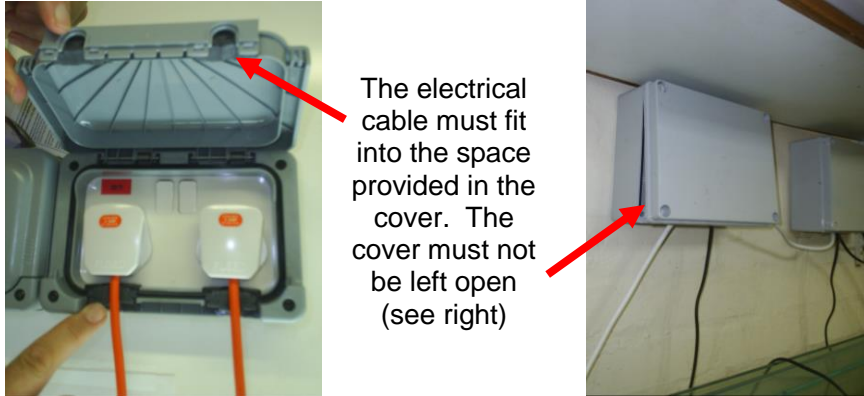
Look for	✓ Right	✗ Wrong
<b>PLUGS:</b> Cracks / burns to the casing		
<b>PINS:</b> Damaged / bent / corroded pins		
<b>CORDS:</b> Poorly connected / damaged cord		
<b>2-PIN:</b> Two pin plugs must only be used with a CE Marked Adaptor		<b>NEVER</b> force a 2 pin plug into a 3 pin socket 

<b>EQUIPMENT</b>
<p><b>Look for:</b></p> <ul style="list-style-type: none"> <li>Loose switches</li> <li>Burn marks</li> <li>Loose panels</li> <li>Cracks</li> <li>Corrosion</li> <li>Damage</li> <li>Water damage</li> </ul> <p style="text-align: center;">Check the Test and Inspection label</p> <p><b>NOTE:</b> Aquaria labels may be a different colour</p>

**Working with Aquariums**

Aquariums use both water and electricity which when mixed, can be dangerous if not handled correctly, leading to serious injuries.

Always check the following before working in and around aquariums.

Aquariums	What to look for
The tank is earthed	 <p>Earth wire and earth wire into tank</p>
IP Rated Electrical Sockets – ensure sockets have covers to protect them from water	
IP Rated Electrical Sockets – make sure covers are shut properly	 <p>The electrical cable must fit into the space provided in the cover. The cover must not be left open (see right)</p>
The equipment is approved:	<b>For use in 'Wet Labs'</b>

**Further Information**

For additional information regarding electrical safety, please see the [Electrical Safety Policy Standard and associated Information Sheets](#).