

This document details general plug and socket safety advice.

1.0 RCDs

Falcon recommends that supplementary electrical protection is used with all appliances. We recommend the use of an appropriate residual current device (RCD).

An RCD can reduce the likelihood of an electrical injury, but a shock can still cause very serious or fatal injuries, so an RCD should only be used as a secondary means of reducing the risk of people being injured by electricity.

The best place for an RCD is built into the main switchboard, as this means that the electrical supply is permanently protected. If this is not possible, an electrical socket outlet incorporating an RCD, or a plug in RCD adaptor, can also provide additional safety.

To reduce the likelihood of injury to people the RCD should have a tripping current of not more than 30 milliamps (mA). RCDs with a higher tripping current are used to protect against fire.

2.0 Plugs & Sockets - How to check your plugs and socket are safe

Before and after using the appliance, the plug, mains cable and socket that will be used should be checked for damage.

2.1. Check the plug:

- Ensure the plug is removed from the socket.
- Check the plug meets British standard BS 1363 – It will be marked on the plug (Fig 1.)
- Look for cracks or damage on the casing.
- Look for signs of overheating, such as a discoloured or melted casing (Fig 2.) or cable.
- Check that the pins are straight and uniform in length (Fig 3.).
- Check the plug meets British Standard BS 1363 – it will be marked on the plug (Fig 1.)
- Check the plug is the correct fuse rating for the appliance – it will be marked on the plug (Fig 1.)

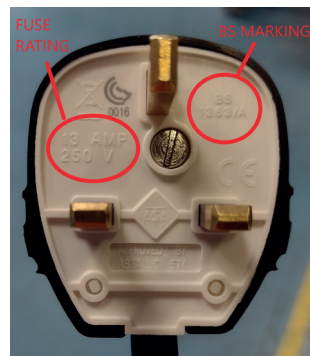


Fig 1. MK Plug marking



Fig 2. Melted plug



Fig 3. Bent pins

2.2. Check the cable:

- Check that the plug cable is firmly clamped into the plug and no coloured plug wires are showing (Fig 4.)
- Is the cable cut, nicked or damaged in any way?
- The cable should have no joints and no repairs with insulating tape.

If there are any signs of damage to the plug, mains cable or socket the appliance **MUST NOT** be used and it should be reported immediately to the maintenance team/responsible person.



Fig 4. Exposed plug wires

3.0 Sockets

3.1. Check the socket:

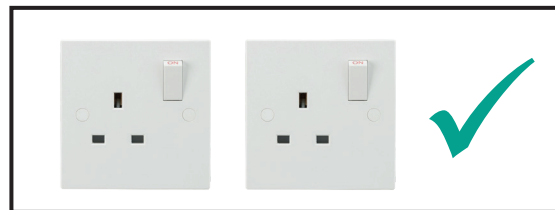
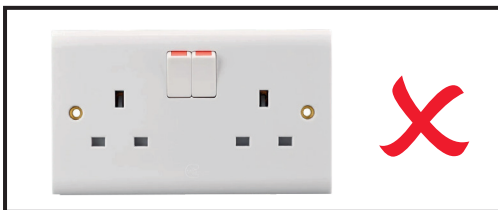
- With no plug fitted check the socket for signs of damage such as cracks or breaks in the plastic housing.
- Check for signs of overheating such as discoloration or melting (Fig 5.)



Fig 5. Damaged socket

3.2. Overloading sockets.

- Sockets are rated to 13A so appliances rated more than 13A amps should not be plugged into the socket.
- For two appliances that draw up to 13A, or for appliances with dual 13A supplies it is not recommended to plug both supplies into a twin 13A socket.



- To ensure that the twin socket is not overloaded it is recommended that both supplies are separated.
- If you suspect that one plug in a twin-outlet socket is heavily loaded, try to only use low-power devices in the other one, or use a different socket.

4.0 Extension leads.

Extension leads with multiple sockets can be used to increase the number of appliances that can be plugged into a wall socket. However, although there is space to plug in multiple appliances, this does not mean it is always safe to do so.

You can avoid overloading sockets and risk of fire by following these steps:

- Check the current rating (Fig 6.) of the extension lead before plugging appliances into it. Most are rated at 13A, but some are rated at only 10A or less.



Fig 6. Extension reel

The rating should be clearly marked on the back or underside of the extension lead. If not, refer to manufacturer's instructions.

- Extension leads on a cable reel have different current ratings for when they are fully wound or fully unwound, so this should also be taken into consideration.
- Extension cables should be fully extended.
- Only one socket extension lead should be used per socket, never plug an extension lead into another extension lead.
- Never overload an extension lead by plugging in appliance that together will exceed the maximum current rating stated for the extension lead (Fig 7.). This could cause the plug in the wall socket to overheat and possibly cause a fire.

Examples of appliance not to pair up using an extension lead are shown here.

- Consider having multiple sockets installed if extension leads are regularly being relied upon. Use a registered electrician to carry out the installation work.



Fig 7. Example appliances that shouldn't be paired up using an extension lead.

References

Which? – How to avoid overloading your plugs at home - <https://www.which.co.uk/news/article/how-to-avoid-overloading-your-plug-sockets-at-home-aTSuv5g17VME>

Health & Safety Executive – Work using electrically powered equipment - <https://www.hse.gov.uk/electricity/electricequip.htm>

Electrical Safety First – Safety Advice Plugs & Fuses - <https://www.electricalsafetyfirst.org.uk/guidance/safety-around-the-home/plugs-and-fuses/>

Electrical Safety First – Overloading socket - <https://www.electricalsafetyfirst.org.uk/guidance/safety-around-the-home/overloading-sockets/>