

Client help sheet

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The logo for Watt & Co. Electrical is located in the top right corner. It consists of the text "Watt & co." in a red, cursive-style font, with a small red star on either side. Below this, the word "Electrical" is written in a red, bold, sans-serif font, also with a small red star on either side. The entire logo is set against a yellow, rounded rectangular background.

What is equipotential bonding?

Bonding, while generally unnoticed is a vital safety feature of your electrical installation. Your gas and water pipes* are 'bonded' using a bonding conductor. One end is connected to your water pipe with a clamp and the other end is connected to your fuseboard. Bonding essentially connects all earthed equipment in the electrical installation i.e. a metal hob to the metal water pipes so they are at the same 'potential'.

Scenario

If you have a metal hob that has an electrical fault, the metal casing could become live. If you touch the live casing and a metal pipe that has not been bonded, you're likely to receive a severe electric shock due the 'potential difference'.

What is potential difference?

Potential difference is the difference in voltage between 2 parts of an electrical installation. Going back to the metal hob scenario, the metal hob will be connected by the earth in the cable which is connected at the fuseboard. If a fault occurs and the hob becomes live, you could have 100 volts running down the earth.

If the hob is at 100 volts and the metal water pipes are at 0 volts then there is potential difference.

*gas and water pipes are the 2 most common things that need to be bonded in a domestic premises.

