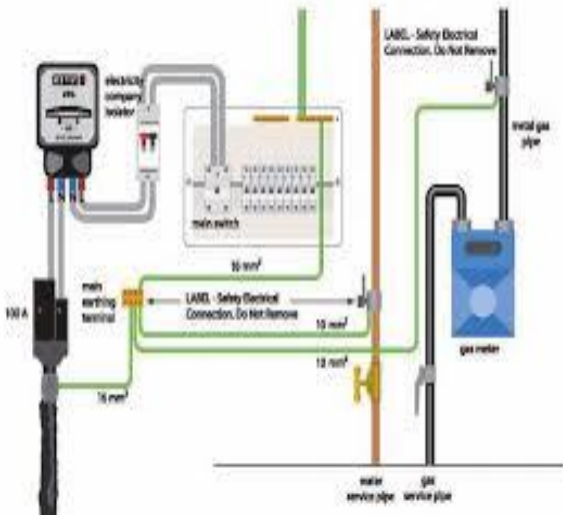


EXPLAINING EARTHING & BONDING



Earthing and bonding is a less 'glamorous' aspect of the work an electrician carries out in your home.

It is a highly essential safety element in your home and as the title suggests, earthing and bonding work is carried out to ensure the electrical installation in your home is correctly earthed and bonded ensuring metal surfaces such as the metal cases of cookers, washing machines, fridge freezers etc do not become live if a fault develops with the electrical installation or the appliance.

Instead, the electrical current will flow down the earth connection thereby minimising the risk of electric shock. A qualified Electrician will always ensure earthing and bonding work is carried out on your electrical installation, however this very important work is nearly always overlooked by an unqualified person.

What is Bonding?

Bonding should not be confused with earthing. You may have heard of the term 'earth bonding' but this is a meaningless term, as the earth and bonding are two separate connections.

Bonding is a connection of metallic parts with a protective bonding conductor. As an example, a protective bonding conductor is simply a connection between a cooker and a water pipe and tap. Without the bonding conductor, a faulty oven could become live, you could touch the oven and then touch the tap. You would then become the electricity's path to earth which means you would receive a potentially fatal electric shock.

Neill Jenkins is a qualified electrician with over 25 Years in the Electrical and Telecommunications industry, Neill owns and runs Jenkins Electrical Maintenance Services, who specialise in domestic electrical installations, in particular, Fault finding & Upgrades. He holds a wide range of qualifications from Electronics & Communications, Electrical Installation Through to Electrical Testing, Electrical Vehicle Testing & Smart home systems.

Jenkins Electrical MS is based in Southampton and serves the Southampton, Hampshire & New Forest Areas. Please visit our webpage for more info or we can be found at: YOUTUBE, FACEBOOK, INSTAGRAM & TWITTER

EXPLAINING EARTHING & BONDING

Why do we bond the gas and water pipes?

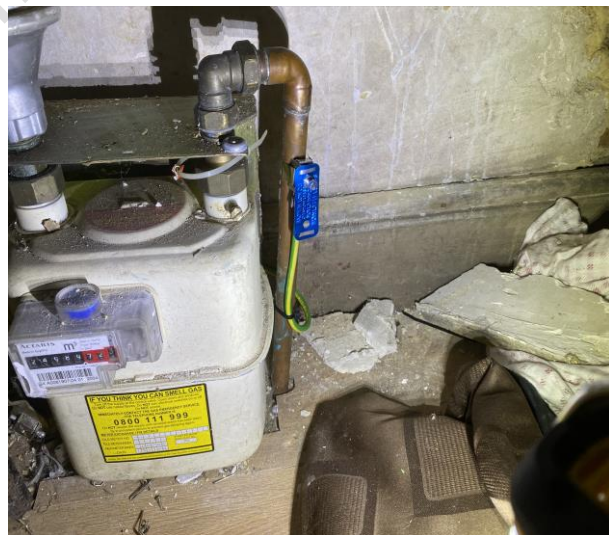
OK, so now the importance of earthing and bonding is known, why does an electrician also bond to gas and water? Due to an electrical fault your pipework may become live. In this case the bonding conductor will lead this current directly back to earth without putting your life in danger. It's also a very important electrical regulation and your electrical installation cannot be certified without it.

How to recognize if your home has correct earth bonding

To find out if your electrician has carried out earth and bonding correctly, take a look at your main gas meter. You should see a green and yellow 10mm cable attached to it. In addition, also take a look at your main water stopcock, you should see a similar connection. Earthing and bonding work are both visually similar in terms of the green and yellow colour identification. Do remember though that in order for an electrical installation to be deemed safe, satisfactory earthing AND bonding must be carried out within 600mm of the meter or stopcock.



This picture shows incorrect size of cable & Bonded to old disconnected pipe.



This picture shows a newly Bonded connection

Examples of incorrect and Correct forms of Bonding.

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