

Electricity guide

Fixing electrical problems:

Power shortage:

You can lose power to your home for several reasons from a planned interruption from your supplier through to a switch tripping or a fault with your wiring or an electrical appliance.

If you lose power but you are not aware of a planned interruption and your neighbours/the rest of the street still seem to have power then you may well have tripped the system. You will usually not lose power throughout the whole house if this happens, it will usually be only one circuit which has gone; check weather perhaps the lights still work if an electrical item has gone out or vice versa.

You will need to locate your trip switch and fuse box, this will usually be close to your electrical meter- you should always make yourself aware of its location when you move into a new property.

On the box, each of the switches will relate to a certain section of the electrics, For example there will be one for the lights, one for the sockets in each area of the house etc. If one of the switches is flicked off (the opposite direction to the others), you will need to flick it back up to restore the power supply to this area. After restoring the power, you should plug electrical items back in one by one so you can find out where the fault appliance is if there is one. If when you plug something back in, the switch trips again, then you will know that particular item is faulty.

When handling any electrical equipment, do not attempt to fix something if you are not confident of how it works or exactly what action you need to take.

Changing a fuse in a plug:

If an electrical appliance stops working then the first thing you can check is whether the fuse has blown in the plug.

Unplug the item and carefully unscrew the back of the plug using a screwdriver. You will see three different coloured wires coming into the plug and the fuse. You simply need to unscrew the screw holding in the fuse and take it out and replace it with a new one. Ensure you replace it with the same type of fuse that was there before. E.g., Replace a 3A with a 3A.

Screw the fuse back in, ensuring the wires are all secured in the correct position and screw the back onto the plug.

If it was the fuse that has blown then when you plug the appliance in, it should now work. If there is still a problem, then there may be a more serious problem and the item may need to be returned to the manufacturer or repaired.

- *The live wire is Brown*
- *The Neutral wire is Blue*
- *The Earth wire is Green and Yellow stripes*

In a plug the fuse is there for protection. It contains a piece of wire that melts easily. If the current through a fuse is too large then the wire will melt and break the circuit. Fuses come in standard ratings, 3A, 5A and 13A and the fuse used should be a higher current than needed for the appliance. So a 10A device would have a 13A fuse.

Safety section:

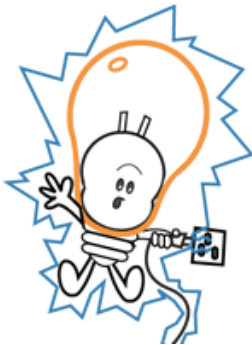
Electricity safety tips around the home

Always hire a licensed electrician to carry out any repairs.

- Don't remove a plug from a power point by pulling on the cord; pull the plug instead.
- Never plug adaptors into adaptors and avoid using adaptors filled with plugs where possible.
- Switch off electrical items that are not in regular use at the plug and ensure that when you are away from the house for any length of time that you unplug and switch off electrical items as items left plugged in can be a fire risk and waste energy if left on standby.
- Do not use any electrical items in the bathroom unless specifically designed for use there, eg. Shavers and electric toothbrushes. Even with these items, take care not to get wet and avoid plugging and unplugging with wet hands.
- Do not use items with damaged cords so that the wires are exposed. Either repair or replace. Check items regularly.

- Do not use damaged sockets, replace with care when necessary.
- Always turn the electrics off at the mains if carrying out any electrical repairs and only attempt repairs if you know what you are doing.
- Ensure any electrical items are approved by standards when purchasing and keep them correctly maintained where necessary. Look for the BEAB seal of approval.
- Do not use electrical equipment outside if it's raining.
- Use the correct wattage light bulb for all light fittings.
- Circuit breakers and fuses should be the correct size current rating for their circuit.

What to do in an emergency.



Electric shock

Most of us take electricity for granted as an easy way to power our homes but we should also be aware of the dangers. Electric shocks can cause anything from a slight discomfort, to severe burns to heart failure and our safety section explains how they can be best avoided.

Electric shock can be caused by any of the following:

- Faulty appliances
- Damaged cords or extension leads
- An electrical appliance coming in contact with water
- Faulty household wiring.

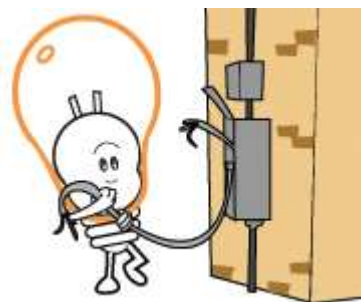
If someone has been shocked

- They may be unconscious, have a weak pulse, have difficulty in breathing or not breathing at all and may have signs of burns.

- The human body conducts electricity so the electric current may still be running through them so do not touch them as you are likely to be shocked too.
- Turn off the main power to the house to prevent any further damage.
- Call the emergency services and notify them that it is an electrical accident.
- When the person is no longer in contact with the electrical source and there is no danger of the current being transmitted then breathing and pulse can be checked and emergency first aid can be administered. Start resuscitating the victim if necessary. If you are unsure of the procedure, the ambulance caller can take you through this over the phone- resuscitation as soon as possible will increase the victim's survival chances.
- If the patient is breathing, then talk reassuringly to them until the ambulance arrives. Try not to move them and attend any other injuries if possible.
- Cover any burns and blisters with dressings that won't stick but never use any ointments or oils onto burns.

Checking your Trip Switch

Modern electric circuits are fitted with a circuit breaker fuse system. If a fault develops, a switch is tripped. If you have a trip switch, it will be on or near your fusebox; your fusebox will always be near to your electricity meter. You should always locate your trip switch and fuse box when you first move into a property- before an emergency occurs. Your trip switch should have a 'push to test' or a 'reset' button.



Switches can trip for a number of reasons:

- An over loaded circuit – too many electrical appliances used at once
- A faulty appliance
- Over filled kettle

- Faulty connections on appliance leads.
- Faulty immersion heater.

If a switch has tripped because of one of these reasons, you should flick it back on and then re-plug items one by one. If the switch trips again, you will know that particular item is faulty.

Troubleshooting

Switch **ON**

If a switch is on, then turn it off and back on - the mechanism can trip inside the box but not move the actual switch. If this does not restore the supply then push the 'push to test' button. If the switch now trips it means you have a problem with your wiring or perhaps a faulty appliance as this button can only trip the switch if you have a good electricity supply. The switch will now be in the off position. This is a problem within your home, so do not call your supplier. You will need to call a qualified electrician to come out and fix the problem.

Switch **OFF**

If when you go to the box, a trip switch is off, then you should flick it back on. If it stays on but you still have no electricity, then make sure you have not switched off the main fuse box switch. If the switch trips straight away then it means you have a problem with your wiring - you should call out a qualified electrician to look into this.

If the fuse box and trip switch are separate then turn off the fuse box and turn the trip switch back on - it should stay on. If it flicks to off again then there is a fault with the fuse box or trip switch itself.

Power cut

The first thing you should do in the event of a power cut is check your trip switch, wiring and appliances. If it seems that there is no fault here then you should call your suppliers emergency number.

Before you call, check whether your neighbors or the rest of the street has lost power also as your supplier will usually ask this. Your supplier will take some standard name and address details from you, ask what time your electricity went off and may ask you to check your trip switch and your meter.

If the supplier is aware of the loss of power in the area and are dealing with it , then you may receive a recorded message when calling, giving you the relevant information. If you have any particular information about why the loss of power occurred you should let them know so the supply can be restored as soon as possible.

If there is a planned interruption to your electricity supply you should have been previously informed by your supplier. Planned supply interruptions may rarely occur and your Electricity Company and National Grid have certain agreements in place as to informing you with enough notice and restoring supply as soon as possible. If these promises are not kept to, you may be entitled to compensation.

What to do during a Power Cut

- Always have candles or a torch in the house to use as emergency lighting, ensure candles are lit safely and never left unattended.
- Try and stay in one room and wrap up warm.
- Leave a light switch turned on so you know when the power has been restored.
- Unplug electrical appliances and keep use of fridges and freezers to a minimum. Check that food has not thawed when power is restored.