

# ROTTNEST IS

## Electricity Safety Manual



### Rottnest Island



Rottnest Island Authority (RIA)

# General Information on the Safe Use of Electricity

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## ELECTRICAL SAFETY IN AND AROUND THE HOME

### *Switches, power points and light fittings*

- The maximum power rating of a standard power point is 2.4 Kilowatts (or 10 Amps x 240 Volts = 2,400 Watts). The total consumption of all electrical devices plugged into a power board or double power point must not exceed this rating. If more than 10 Amps is being drawn through a standard power point, it may overheat and cause a fire. Always ensure that the wattage of globes never exceed the ratings of the light fittings they are connected to. Information on power consumption can usually be found on the compliance plate attached to electrical equipment. If in doubt seek expert advice.
- Do not attempt to carry out electrical work unless you are a licensed electrical contractor. Electrical work includes re-wiring or replacing power points, moving or replacing light switches and the installation of permanently connected appliances such as ceiling fans. Damaged switches, power points and light fittings are dangerous and must also be replaced by a licensed electrical contractor.
- When painting, never remove switches or fittings. Even when the switch is off, there are still live wires connected. Use masking tape to keep paint off fittings and switches. Switch the power off before changing light bulbs.

### *Power cords and extension cords*

- Replace worn, damaged or frayed cords, especially extension cords. Do not use PVC insulation tape to repair them. Although it is legal to connect your own plugs to flexible cords, a faulty connection can kill. Ready-made extension cords will be safer and may even be cheaper.
- Switch off the power before removing a plug from a power point. Always remove a plug from the power point by firmly grasping the plug. Do not pull the cord or push your fingers between the plug and the power point. If you accidentally touch the pins of the plug while pulling it out you may receive an electric shock.
- Never insert metal objects into an appliance or power point. Cover exposed power points within reach of children with plastic safety inserts.
- Don't wipe power points or switches with a wet cloth or spray them with household cleaners.

- Use only one double adaptor per power point. If you need to connect more than two appliances to a single power point, use a power board with overload protection, as this will prevent it from overheating.
- Extension leads should only be regarded as a temporary arrangement for power distribution. Unwind long cords fully before use to prevent overheating. Don't run cords across roads, pedestrian traffic areas, driveways, wet grass, pool areas or wet floors. Make sure that doors and windows do not close on cords. Leads should be run overhead or behind structures for protection and to avoid creating hazards. Disconnect leads from the power source when not in use.

## ***Appliances***

- Rottneest Island supplies electricity at a voltage of 240V and a frequency of 50 Hz (50 cycles per second). Prior to plugging in and turning on your appliances, ensure that they will safely operate from a 240V 50Hz mains power supply. Connected appliances not designed for this voltage / frequency could be damaged and create a safety hazard.
- Never use an ageing or faulty electrical appliance, including an appliance with a frayed cord, blown fuse, cracked or broken plug, or any appliance that has overheated, sparked or given someone any kind of shock. Frayed or damaged cords should be replaced immediately or the appliance disposed of. Many old plugs do not have safety barriers between the connections – replace them with modern plugs or dispose of the appliance. It is very dangerous to repair any kind of appliance yourself. Faulty repairs may be deadly for you or the next person who uses the appliance. Contact a licensed electrical contractor or service agent.
- Never use electrical appliances where they could come into contact with water and ensure that they are not positioned where children may be able to pull them into the bath, shower or basin. Do not leave electrical appliances unattended around children. Never touch appliances or switches with wet hands. If an appliance falls into water dispose of it immediately (remove the cord so it can't be used again). Water and electricity can be a lethal mixture. Tap water and pool water are good conductors of electricity. Electric shocks received in wet areas are more likely to be fatal. The combination of electricity, water, minimum clothing and bare feet can result in death.
- Appliance manufacturers are required to provide 'how-to-use' instructions with their products. Always check that these instructions are provided and always read and follow the instructions before using the appliance. While electricity appliances are very reliable they do need to be maintained to ensure they remain safe. Read and follow the maintenance requirements provided by the manufacturer of the appliance. Some instructions are simple, such as cleaning the appliance. Others may require a licensed skilled technician to carry out the work.

- Switch off appliances when not in use and before removing the plug from the power point (particularly heaters, electric blankets, stoves and ovens). Some appliances such as televisions may still have electricity running through them even though they may appear to be switched off. Check electric blankets at the start of each winter for damaged wires, plugs, leads and hot spots – dispose of any electric blanket that is damaged.
- Where possible, appliance maintenance and cleaning should always be done with the appliance switched off and disconnected from the power point.

### ***Meter boxes, fuses, circuit breakers, RCDs and earth wires***

- Meter boxes normally house a main switch to control the flow of electricity into your home. It is important to know where your meter box is and maintain accessibility in case of emergency. Shrubs and trees should not be allowed to grow close to meter boxes.
- Earth wires from within and around your house join to a main earth wire, normally attached to a metal pipe and/or special metal electrode and driven into the ground.
- Check your meter box and earth wire periodically. If your meter box (or earth wire) shows any signs of burn marks, worn wires, a strange smell or is repeatedly blowing fuses / tripping circuit breakers, contact a licensed electrical contractor for an inspection.
- Fuses or circuit breakers are found in the meter boxes of all homes and provide protection for the wiring in your home. Always be extremely careful when replacing fuses or resetting circuit breakers. They should be clearly labelled for easy identification and replaced only when the main switch is off.
- Residual Current Devices (RCDs) installed in your meter box are designed to protect you from electrocution. RCDs turn off the electricity very quickly if an earth leakage or fault is detected, for example, if you contact a live wire. RCDs may also prevent fires by stopping current leaking directly to earth when a fault occurs.
- In the event of an electrical accident, earth wires should also help stop electricity passing through your body. Ensure that the earth wires of your appliances are always securely fixed and in good condition.
- The presence of RCDs and an earth wire are not substitutes for proper electrical safety practices, such as those in this document.

### ***In the bathroom***

- Ensure hands are dry when touching appliances or switches.
- Never use or leave electrical appliances where they can fall into the bath or basin.
- Never use a portable electric radiator in the bathroom. A permanently installed heater is much safer.
- Remove any build-up of materials around the electric motor of exhaust fans, such as fluff, dust, lint etc.

### ***In the kitchen***

- Ensure hands are dry when touching appliances or switches.
- If liquid spills into an appliance, unplug the appliance and have it checked and tested before using it again.
- Only immerse appliances into water to clean them if instructions clearly allow it.
- Never dislodge toast from a toaster with a metal knife or other metal objects.
- Clean rangehood filters regularly.
- Clean ovens and cooktops regularly to prevent the build-up of spilled fats and burnt foods.
- Do not spray cleaning solutions onto power connections or electrical cables as they can cause damage to insulating plastics which could result in electric shock.

### ***In the laundry***

- Ensure hands are dry when touching appliances or switches.
- Wear footwear with rubber or plastic soles when using the washing machine.
- Clean up water spills on the floor.
- Clean the lint filter in your clothes dryer after each use.
- If the power fails switch off all heaters and irons. These heating appliances can cause fires if the power turns on unexpectedly.

### ***In the roof space***

- Before you enter a roof space, switch off the electricity at the main switch.
- If you are working in the roof space use a torch to light the work areas, do not disturb or alter any electrical junction boxes and keep thermal insulation away from light fittings.
- If you see any damaged or bare wires, call your licensed electrical contractor immediately.

### ***Outdoors, maintenance and renovations***

- Switch the power off at the main switch if you are doing any household maintenance or renovations. Never do your own electrical work. It is dangerous and illegal. Always use a licensed electrical contractor.
- Ensure that you do not contact electrical cabling when nailing and fixing metal roofing and tile battens.
- Ensure outdoor power points are weatherproof, approved and suitable for outdoor use.
- Do not use portable appliances, power tools or extension leads in water or when it is raining.

- Ensure that party and Christmas tree lights are suitable for outdoor use and string them away from pools and other water sources.
- Don't attach swings, clotheslines or hanging baskets on beams or trees that have electrical wires attached to them or have power lines close to them.
- Be aware of electrical infrastructure on your property such as underground electricity green domes or mini pillars which contain live electricity cables and can cause electric shock or electrocution if exposed.
- Know where power lines are located and avoid them when working or enjoying leisure activities.
- Don't work near green power domes (there is a 0.5m exclusion zone around the base of green domes). This includes planting, digging, building any structure or moving soil within this exclusion zone. Don't allow children to play in the vicinity of green domes and avoid growing plants and trees with invasive roots around green domes.
- Do not use metal ladders, metal scaffolds or metal painters' trestles when working close to wiring, as they conduct electricity. Take care not to make contact with electrical cabling when nailing and fixing metal roofing and tile battens.
- Wear rubber or plastic soled shoes in the laundry or when using electrical appliances outside.
- To prevent damage, keep the flexible cord well clear of your electric trimmer, chainsaw, lawn mower or other power tool when in use. If the cord is damaged, don't touch the appliance – switch power off at the plug.
- Only use approved hand lamps fitted with guards to protect the lamp. Home-made hand lamps are dangerous.
- Strictly adhere to all safety precautions when using electric arc welders. Human contact between the electrode and the work can be fatal.

### ***Around the swimming pool***

- Ensure hands are dry when touching appliances or switches.
- Never use a portable electrical appliance or place an extension cord where it could be splashed or fall into the pool.
- String your party lights away from the pool.

## IN THE EVENT OF ELECTRIC SHOCK (OR ACCIDENTS NEAR POWER LINES)

1. DO NOT TOUCH THE VICTIM - you may also receive an electric shock.
2. If there has been an accident in or around a property, turn off the main switch immediately. This will either be located in the meter box or inside your home, away from the meter box. The main switch turns off the mains electricity supply to your property. If you have a second supply of electricity this will need to be disabled too.
3. If there has been an accident near power lines (such as that involving a motor vehicle or conductors are swaying and clashing) do not go near, touch or interfere with the power lines or anything that is touching the power lines. Always assume power lines are live. Electricity from power lines can jump or 'arc' up to 6m through the air and travel to earth through your body, resulting in electrocution. Urge other bystanders to also keep a safe distance.
4. **Dial 000.**
5. Report the incident to the **Island Facilities Management Contractor** on **1300 044 534** and if required, instruct them to disconnect power to the affected power line.
6. Do not touch the victim until you are sure that they are no longer in contact with the electrical current. When near power lines keep clear until the proper authorities have declared the area safe.
7. If the area is safe, check the victim for a response, breathing and pulse. If necessary start resuscitation.
8. Do not touch burns, break blisters or remove burned clothing. Always seek medical advice after an electric shock, even if injury is not apparent.
9. If you get an electric shock from taps or water pipes, switch off the power at the main switch and call the **Island Facilities Management Contractor** on **1300 044 534** immediately. This could mean that your house is unsafe because the wiring is faulty.

## NEED TO REPORT A FAULT OR EMERGENCY?

- Report any electrical incidents or faults immediately by contacting the **Island Facilities Management Contractor** on **1300 044 534** (24hr fault line).
- **Dial 000** in emergency situations.