Earthing & Bonding

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Protecting yourself and others from shock or electrocution

Please observe the following to protect yourself and others from shock or electrocution:

- The metallic spigots of surrounding safety glass fencing or metallic fencing should be earthed
- · Pool steel must be earthed
- Do not use an electrical cord that is damaged or repaired with tape
- Keep electrical cords, wire and products out of reach and at least 5m from the water
- Use portable Ground Fault Circuit Interrupters (GFCI'S)
- Post an emergency plan within clear view of the pool
- Label power switches for pool, hot tub, spa equipment and lighting
- Use battery powered products wherever possible
- Re Underwater lights, look for signs of mould or other growth on the inside of the lens which can indicate water leakage. Have an electrician inspect the underwater lights and make certain that junction boxes and wiring connections to the lighting are correctly and safely installed. Be certain that the power switch and the GFCI for underwater lights are clearly marked and easy to get to in case of an emergency

- Always have dry hands and feet and wear dry rubber-soled shoes while using electrical products
- Avoid touching electrical products or wires when you are wet or in contact with wet surface
- Know where the electrical switches and circuit breakers are for the pool, hot tub and spa equipment, where the lights are located and how to turn them off in an emergency.



THE METALLIC SPIGOTS OF SURROUNDING SAFETY GLASS FENCING OR METALLIC FENCING SHOULD BE ALSO EARTHED.







WATER AND ELECTRICITY DON'T MIX. MANDATORY ELECTRICAL WORK IS REQUIRED WHEN INSTALLING A SWIMMING OR SPA POOL. DON'T PUT THE SAFETY OF YOUR FAMILY AT RISK!

The Law

Bonding is Licensed Electrical Work

Electrical equipment and conductive metalwork in the general pool area is required to be Equipotentially Bonded (earthing). This work is legally required to be performed by a licensed Electrician.

Plan Ahead

Discuss the electrical work with your pool builder:

- Engage with your electrical contractor early in the design/planning process
- Install bonding conductors prior to the build of pool & landscape construction
- If possible, eliminate any conductive metal near the pool edge.





What needs to be Equipotentially Bonded

Equipotential bonding to the electrical earthing system is required for:*

- Installations where the pool structure is conductive (sheet metal structure - above ground pool) or contains metal within its structure (reinforcing steel of the pool shell or immediate surrounding deck)
- Any conductive metal greater than 100mm in any dimension within 1.25m of the pool edge
- Conductive ladders and diving boards associated with the pool
- Conductive fencing that is within 1.25m of the pool edge.



These shall be connected by an Equipotential Bonding conductor to the electrical earthing system of the property.

Equipment selection / installation

An Equipotential Bonding conductor and connection method shall be:*

- Appropriately designed and constructed (specifically for swimming and spa pool applications)
- The earthing cable connecting the metal parts to the earthing system requires corrosion and mechanical resistant protection
- Electrically tested to ensure the earth bonding cable and the associated conductive metal fixtures and fittings, reinforcing steel and conductive parts of electrical equipment are of the required low resistance.

NOTE: This is general guidance of the intent of the Wiring Rules. State regulators may have variances to this advice. You are strongly advised to engage with a Licensed Electrical Contractor (Master Electrician) to seek the best possible outcome.

^{*}as per AS/NZS3000:2018 (The Wiring Rules)