



* Zone 0	Inside the bath or shower. Any fittings used here must be SELV (Separated Extra Low Voltage - max. 12Volts) and have a minimum rating of IPX7 (IP67) (protected against immersion in water - total immersion proof);
* Zone 1	Above the bath or shower to a height of 2.25m. A minimum rating of IPX4 (IP44) is required. In this zone, if there is likelihood of water jets being used for cleaning purposes, a minimum of IPX5 is required. Also, subject to IP rating, SELV or 240V luminaires may be used in this zone; if the fitting is 240 volts, a 30mA residual current device (RCD) must also be used to protect the circuit in this zone.
* Zone 2	The area stretching to 0.6m outside the bath or shower and above the bath or shower if over 2.25m. An IP rating of at least IPX4 (IP44) is required. In this zone, if there is likelihood of water jets being used for cleaning purposes, a minimum of IPX5 is required. Also, subject to IP rating, SELV or 240V luminaires may be used in this zone. In addition, it is a good practice to also consider the area around a wash basin (within a 60cm radius of any tap) as Zone 2.
* Zone 3	anywhere outside zones 0, 1, and 2. Where water jets are not to be used for cleaning purposes, the general rules of BS7671 apply. Here, there is no requirement for any lighting solutions to be protected against particles or solid objects, e.g. IPX4 - no IP rating required.

Bathrooms are considered to be a 'special location' for electrical installations because they have an increased risk of electric shock for the users, due to the proximity of water.

Electrical contractors make bathroom installations as safe as possible with careful adherence to wiring and building regulations, wise choice of equipment and common sense.

There are many different electrical products that can be found in bathrooms, lighting, showers, fans, heaters, shaver sockets and towel rails. But what are the rules for the installation of these products that contractors must follow and can, using certified products, help them comply with the regulations?

The rules: Wiring regulations in the UK: all fixed electrical installations in dwellings must legally comply with BS7671 the 'Requirements for Electrical Installations'. This Standard gives specific guidance on the design, installation, testing, verification and certification of such installations. Section 601, particularly covers 'Locations containing a bath or shower'.

Section 601, divides a bathroom into zones which take into account windows, doors, walls ceilings and partitions and is based on a perceived level of risk zone. Each zone has specific requirements regarding the electrical equipment that can be used in that zone.