

## Bathroom Zones Explained

### Zone 0

Zone 0 for a bathroom is the area inside the bath.

Zone 0 for a shower room is the area inside the shower basin. If there is no shower basin, zone 0 is 10cm high from the finished floor level and extends to 1.2m around the fixed shower head.

### Zone 1

Zone 1 for a bathroom is the same width as zone 0 (the width of the bath) extending to 2.25m above the finished floor level.

Zone 1 for a shower room is 2.25m from the finished floor level or the height of the fixed shower head from the finished floor level if more than 2.25m, and the width of the shower basin. If the shower has no basin then zone 1 extends to 1.2m around the fixed shower head.

Zone 1 does not include zone 0.

The space under the bath tub or shower basin is considered to be zone 1. However, if the space under the bath or shower basin is only accessible with a tool, it is considered to be outside the zones.

### Zone 2

Zone 2 for a bathroom is the same height as zone 1 (2.25m) extended to 0.6m around the bath.

Zone 2 for a shower room is the same height as zone 1 extended to 0.6m around the shower basin. If there is no shower basin zone 2 is replaced by zone 1 extended to 1.2m around the fixed shower head.

The extent of the zones in a bath or shower room can be limited by floors, ceilings and walls. For more detailed information see BS 7671 diagrams 701.1 & 701.2. Any electrical equipment installed on the surface of floors, ceilings and walls that limit a zone is subject to the requirements of that zone.

RCDs are required for all circuits in locations that contain a bath or shower. The requirements for local supplementary bonding have been relaxed if certain conditions are met.

## PROTECTION AND IP RATINGS

Typical electrical items which are marked with IP numbers include:

- Extractor fans
- Lighting
- Heaters
- Electrical shower units
- Shower pumps

Shaver power points are not IP rated, however, if they comply with BS EN 60742 Chapter 2, Section 1, they can be located in zone 2 (or beyond) providing they are unlikely to be the subject of direct spray from any shower.

As well as IP numbers, items may be classed as PELV or SELV.

Protective Extra-Low Voltage (PELV) - As the name suggests, the item uses low voltage but it is connected to earth.

Separated Extra-Low Voltage (SELV) - Again a low voltage system but the output is isolated from the input.

Standard electrical wall fittings (such as wall sockets, flexible cord outlets and fused switches etc) are not IP rated so cannot be installed within zones 0, 1 or 2. No standard socket outlets are allowed within 3m of the outer limit of zone 1, and any socket fitted would be on a RCD protected circuit (as per Protection above).

## Use of Equipment

Any electrical item approved for use in a zone may be used in another zone with a higher number, but not in a lower number zone.

### Zone 0

Requires electrical products to low voltage (max. 12 volts) and be IPX7 (the mechanical protection is unimportant).

### Zone 1

Requires electrical products to be IPX4 or better, or SELV with the transformer located beyond zone 2.

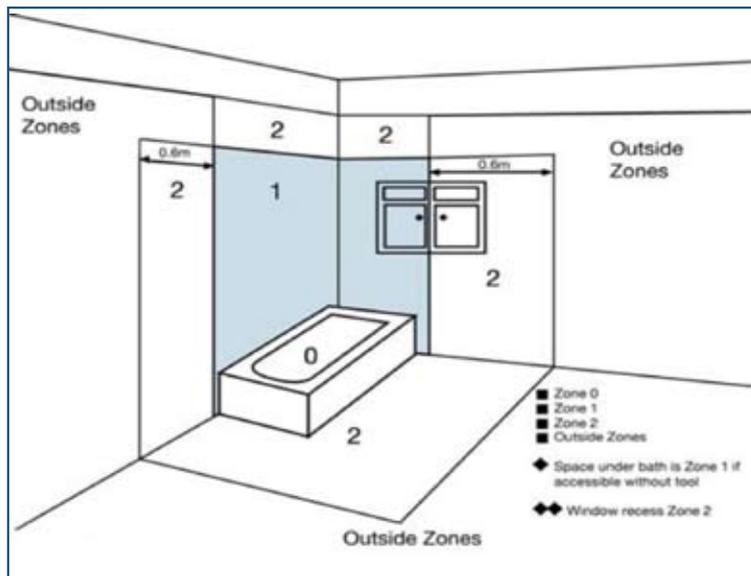
### Zone 2

Requires electrical products to be IPX4 or better, or SELV with the transformer located beyond zone 2.

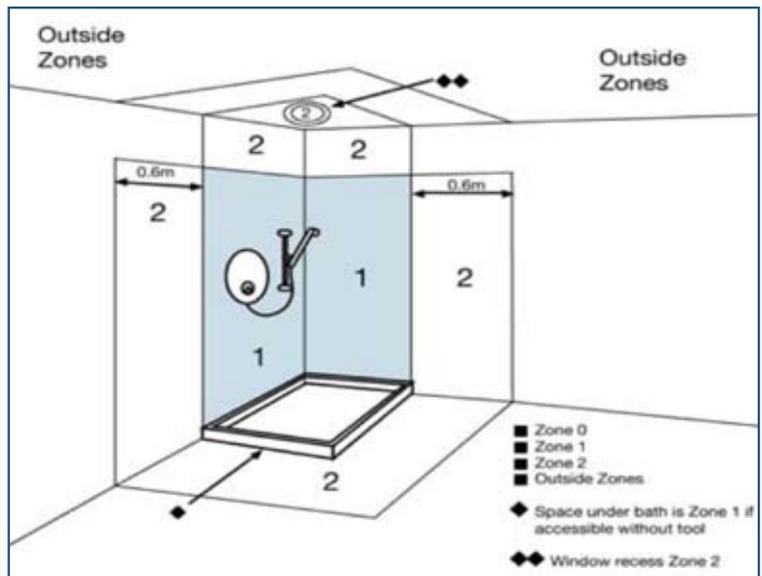
### Beyond zone 2

When the size of bathroom extends beyond zone 2, portable equipment is allowed, however they should be positioned such that their flex length does not enable them to be used in zone 2.

## Zone Diagram for Bath Areas



## Zone Diagram for Shower Areas



Please note that this guide is only to be used as general reference. Please ensure that you are fully aware that any electrical and installation work must be carried out in accordance with IEE Wiring Regulations, The Building Regulations and any further compliancy that might be required. If in any doubt, consult professional help from a qualified individual or company.