

bathroom zoning

Bath/shower rooms are areas of increased electrical hazard. When fitting ventilation products in Zones 1 and 2 of a bath/shower room, an ingress protection rating of at least IPX4 is required, in accordance with the requirements of the IEE Wiring Regulations (16th Edition) BS 7671:2001. The following guide will assist specifiers and installers with the selection and positioning of suitable electrical products in this area. If in doubt consult the standard.

Extract from BS7671:2001

601-02 Classification of Zones

601-02-01 These requirements are based on the dimensions of four zones: Zone 0, Zone 1, Zone 2 and Zone 3. The zones are determined taking account of walls, doors, fixed partitions, ceilings and floors, where these effectively limit the extent of a zone. Figures 601A and 601B are examples of the zones.

Zone 0 - is the interior of the bath tub or shower basin.

In a location containing a shower without a basin, Zone 0 is limited by the floor and by the plane 0.05m above the floor. In this case:

1. Where the shower head is demountable and able to be moved around in use Zone 0 is limited by the vertical plane(s) at a radius of 1.2m horizontally from the water outlet at the wall, or
2. Where the shower head is not demountable, Zone 0 is limited by the vertical plane(s) at a radius of 0.60m from the shower head.

Note: Electrical appliances will require an Ingress Protection IPX7 rating, which means the product must be capable of temporary immersion in water.

Zone 1- is limited by:

1. The upper plane of Zone 0 and the horizontal plane 2.25m above the floor, and
- 2a. By the vertical plane(s) circumscribing the bath tub or shower basin and includes the space below the bath tub or shower basin where that space is accessible without the use of a tool, or
- 2b. For a shower without a basin and with a demountable shower head able to be moved around in use, the vertical plane(s) at a radius of 1.2m from the water outlet at the wall, or
- 2c. For a shower without a basin and with a shower head which is not demountable, the vertical plane(s) at a radius 0.60m from the shower head.

Note: Electrical appliances should be either IPX4 rated or Safety Extra Low Voltage.

Zone 2 - is limited by:

1. The vertical plane(s) external to zone 1 and parallel vertical plane(s) 0.60m external to Zone 1, and
2. The floor and the horizontal plane 2.25m above the floor.

In addition, where the ceiling height exceeds 2.25m above the floor, the space above zone 1 up to the ceiling or a height of 3.0m above the floor which ever is lower, is Zone 2.

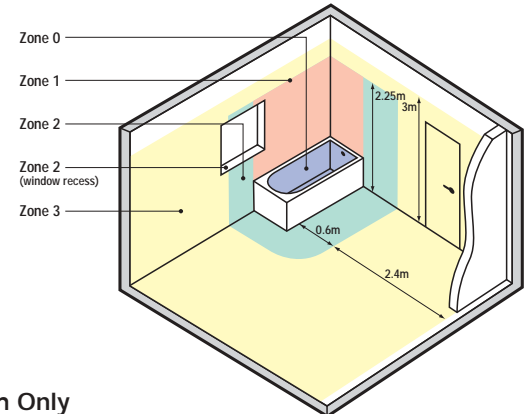
Note: Most electrical installations fall within this Zone. Electrical appliances should be either IPX4 rated or Safety Extra Low Voltage.

Zone 3 - is limited by:

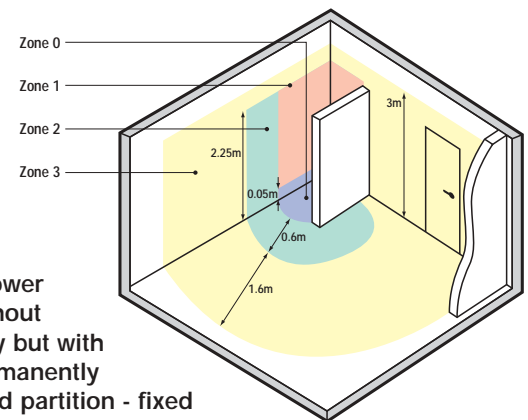
1. The vertical plane(s) external to Zone 2 and parallel vertical plane(s) 2.4m external to Zone 2, and
2. The floor and the horizontal plane 2.25m above the floor.

In addition, where the ceiling height exceeds 2.25m above the floor, the space above Zone 2 up to the ceiling or a height of 3.0m above the floor which ever is lower, is Zone 3.

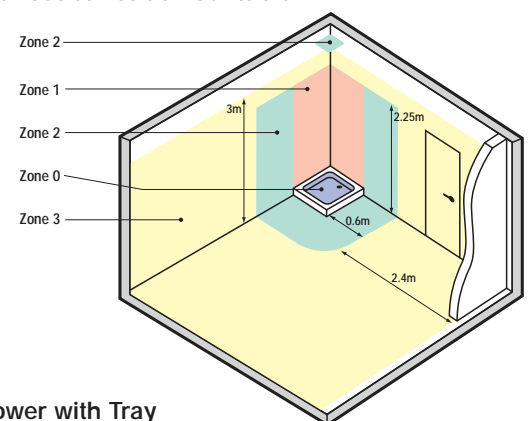
Typical Examples of Zoning



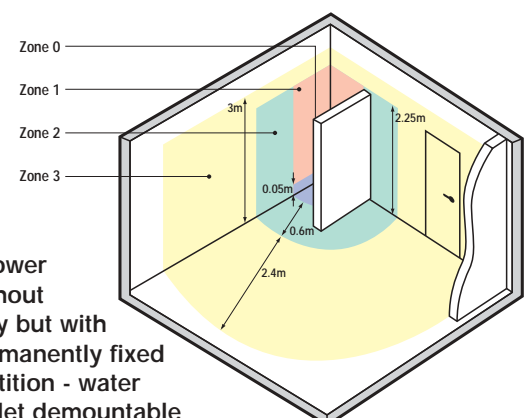
Bath Only



Shower without Tray but with permanently fixed partition - fixed water outlet not demountable



Shower with Tray



Shower without Tray but with permanently fixed partition - water outlet demountable