EXPOSED VS EXTRANEOUS CONDUCTIVE PARTS

DOES A RADIATOR NEED BONDING?

Exposed conductive part

A

metal

part of the electrical installation that

you installed

and that someone can touch. It isn't normally live, but could become live under a fault.

Examples:

metal conduit, a metal-clad socket or switch, a metal consumer unit, a metal shower case, a metal light fitting.

Extraneous conductive part

Metalwork that is

not part of the electrical installation

(you didn't install it) and that comes

into the building from the ground

, so it can introduce earth potential.

Examples:

metal water and gas pipes, oil pipes, central heating and air-conditioning pipework, exposed metal structural parts (beams, steel studs), lightning protection.

Rule of thumb: metal and *you* installed it means exposed. Metal and you *didn't* install it (it comes in from outside) means extraneous. If it's plastic it isn't conductive, so it's neither.

BS 7671 · Part 2 Definitions · "Extraneous-conductive-part" and "Exposed-conductive-part"

HIGHLIGHT BOTH DEFINITIONS. THEY'RE ALSO IN THE ELECTRICIAN'S GUIDE AND THE ON-SITE GUIDE.

Myth: radiators don't automatically need bonding. They aren't something you install, and they don't come in from the ground. An **electric** towel rail is different: it's part of the installation, so it's an exposed conductive part.

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