FIREFIGHTER'S SWITCHES — AND THE VOLTAGE BANDS

WHEN DO YOU NEED A FIREFIGHTER'S SWITCH?

Worth highlighting this one specifically. First, though, you need the voltage bands, because the requirement is written in terms of them.

ELV
Extra-low voltage
Up to and including **50 V** AC

LV
Low voltage
Exceeding **50 V**, up to and including **1000 V** AC

✋ **Low voltage does not stop at 230 V.** It goes to **1000 V AC**. So when a regulation says "exceeding low voltage", it means **over 1000 V** — not over 230. Get that wrong and the firefighter's switch questions make no sense at all.

WHERE A FIREFIGHTER'S SWITCH IS REQUIRED

- **Exterior electrical installations** operating at a voltage **exceeding low voltage** — e.g. an outdoor lighting installation over 1000 V.
- **Interior discharge lighting installations** exceeding low voltage.
- It applies to **single-phase and three-phase** alike.

An installation over 1000 V is hard to find in practice — not a football stadium. The usual case is **high-voltage neon or cold-cathode signs and illuminations**. Which tells you something useful: this is a regulation that exists for genuinely niche installations, and the exam asks it precisely because you have to look it up.

Discharge lighting
covers the old-style lamps that preceded LED, but ordinary fluorescent tubes run at low voltage and don't bring the regulation in. The case it is aimed at is **high-voltage neon and cold-cathode** signs and illuminations, which exceed low voltage.

WHAT THE SWITCH ITSELF MUST BE

REQUIREMENT	DETAIL
Position	**Conspicuous** — obvious, you must be able to see it
Access	**Reasonably accessible** — not so placed that specialised equipment is needed to reach it
Height	Not more than **2.75 m** from the ground
Appearance	Easily visible — generally **red**, or red metal. The regulation also sets out what must be marked on it

Put 2.75 m in perspective: a domestic door is about 2 m. Someone of around 5 ft 3 can reach about 6 ft — so a switch at the full permitted height needs a taller colleague, a step, or one of the reach poles firefighters carry. In practice you'll see them fitted at around 2 m, a little above head height, on garage and petrol-station forecourts.

Reference caution.
The firefighter's switch requirements are **537.4**, which is also the number of the isolation table a couple of pages earlier. Highlight the regulation in your own copy and check the number as printed there.

537 · firefighter's switches · conspicuous, reasonably accessible, max **2.75 m** ★

Part 2 · voltage band definitions · ELV ≤ 50 V, LV 50–1000 V AC ★

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