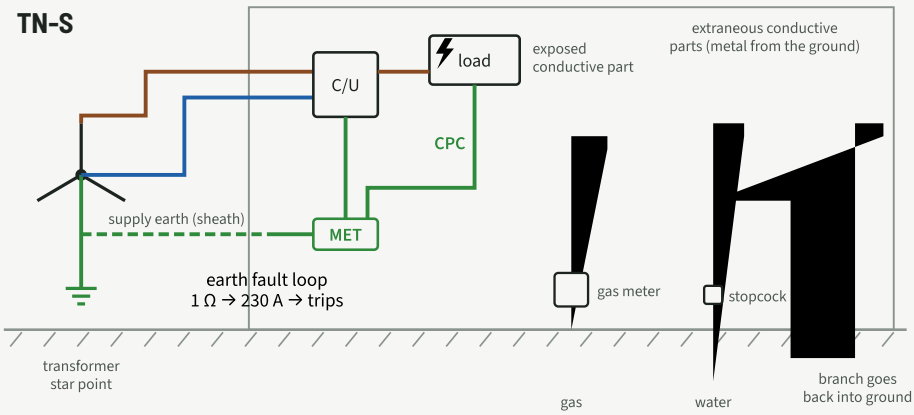
PROTECTIVE CONDUCTORS AND CONDUCTIVE PARTS

EXPOSED OR EXTRANEOUS. WHAT'S THE DIFFERENCE?

All the green and yellow conductors get called "earth", but they have **different names**, connect to **different places** and do **different jobs**. They all share one end goal: **automatic disconnection of supply (ADS)**.

Earthing conductor	Joins the **MET** (main earthing terminal) to the supply earth (the means of earthing).
CPC	Circuit protective conductor. Joins **exposed conductive parts** back to the MET.
Main protective bonding conductor (MPBC)	Joins **extraneous conductive parts** (e.g. incoming gas and water pipes) to the MET.
Supplementary bonding conductor	Links exposed and extraneous conductive parts **locally**, e.g. in a bathroom.



Our TN-S installation. The red dashed line is the **earth fault loop**: from the star point, along the line conductor, through the fault, back along the CPC to the MET, through the earthing conductor and the supply earth to the star point. The metal pipes aren't bonded yet.

Exposed conductive part

A

conductive (metal) part

of the electrical installation that is

not normally live

but

can become live under a fault

.

Examples:

an oven, a metal switch, socket or light fitting, metal conduit, trunking and cable tray, the steel wire armour of an SWA cable, a metal consumer unit, a metal kettle.

Extraneous conductive part

A

conductive part

that is

not part of the electrical installation

and can

introduce a potential

, usually

earth potential

, into the premises.

Examples:

metal water and gas pipes, an oil supply pipe, exposed structural steel that goes into the ground.

BS 7671 · Part 2 Definitions · "Exposed-conductive-part" and "Extraneous-conductive-part" · check your copy for the page

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