



Unconnected cables

Multiple incidents involving contact with live unconnected cables have recently been investigated by the electrical team within Consumer, Building & Occupational Services (CBOS). These incidents have the potential to cause severe harm or even electrocution.

What is the Hazard?

Contact with exposed live unconnected cables can cause electric shocks and burns.

How does this occur?

Investigations have indicated the predominant causes of these incidents include:

- Cables left with the downstream end unterminated or unconnected but energised
- Unused cables not effectively protected (terminated) on both ends and are situated near live cables allowing induction to produce a voltage

Examples of these incidents include:

- Carpenter received a shock from live cables intended for a future power point while fitting skirting
- Plasterer received a shock from live cables intended for a future light fitting
- Metering installer identified live unconnected metering load tails in a new switchboard installation while doing a prestart check

Requirements

Electrical work is required to meet the requirements of AS/NZS 3000. In particular:

- Rule 1.5.3 *Protection against electric shock*
- Rule 1.5.11.1(b) *Protection against abnormal voltages*

All cables that are left energised but not connected must be appropriately terminated in a suitable enclosure that requires a tool or a key to access. Insulation or plastic tape alone is not sufficient.

Redundant cables should preferably be removed from the installation. If this is not possible, both ends must be terminated in a suitable enclosure. Good practice would be to mark the enclosure with “Redundant cables” or similar text.

Meter Tails

Unconnected meter tails must have either a “heat-shrink” type of insulation installed or terminated in individual insulated connectors and withdrawn behind the meter panel. The meter installer can then easily remove the termination and refit through the meter panel before connecting the meter.

Again, insulation or plastic tape alone, is not a suitable method of termination.

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1.0	October 2023	Original release

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