



## Electrical safety for refrigeration and air conditioning tradespeople licensed to perform electrical work

### Scope

This fact sheet aims to ensure that electrical work performed by refrigeration and air-conditioning tradespeople who hold an electrical work licence, is performed in an electrically safe manner and that the work is tested to ensure it is electrically safe.

### Risk assessment

A prior risk assessment must identify and address the risk associated with electricity, particularly where live electrical work will be performed or when working near exposed live parts.

For live electrical work the risk assessment must be documented.

### Live work

Proving de-energised (testing for 'dead'), fault finding and testing of electrical equipment when energised is live electrical work. Live electrical work must be performed in accordance with all requirements of s.12 of the *Electrical Safety Regulation 2002*.

### Proving de-energised

Before working on electrical equipment it is important to prove the equipment is de-energised. This requires more than simply turning off a circuit breaker or isolating switch, or pulling a fuse.

A suitable test instrument, (e.g. a multimeter), must be used to prove the equipment is de-energised.

Procedures for proving de-energised need to ensure test equipment is functioning correctly both before and after use.

In general:

- Prove the instrument is working (e.g. on a known energised source).
- Perform the isolation and prove the equipment to be worked on is de-energised.
- Re-test the test instrument to ensure it is still functioning correctly.

### Isolation of electrical circuits

Once the equipment is proven de-energised, it is important that it cannot be inadvertently re-energised while electrical work is being performed. This can be achieved through the use of suitable lockout devices and by fitting warning tags (refer: s.20 of the *Electrical Safety Regulation 2002*).

### Inspection and verification of electrical work

Whenever electrical work is performed on electrical equipment the work needs to be tested and verified as being electrically safe.

In particular, testing needs to ensure that the work performed has not affected the electrical safety of the electrical installation or electrical equipment. (refer: s.14 of the *Electrical Safety Regulation 2002*).

## Testing of instruments

Test instruments used in the performance of electrical work may need to be tested on a six-monthly basis to ensure they are functioning correctly. Records of these tests must also be kept (refer: s.18 of the *Electrical Safety Regulation 2002*).

## RCD (safety switch) protection

When performing any work (not just electrical work) where leads, power boards or electric power tools are being used, the use of a 30mA RCD is required. The RCD needs to be tested to ensure it is operational. Testing requirements for RCDs vary, depending on the type of work being performed (refer: Part 5, Division 5 of the *Electrical Safety Regulation 2002*) and AS/NZS 3760:2010.

## Use of safety equipment and personal protective equipment (PPE)

Safety equipment or PPE must be used when it has been identified as a necessary control measure for electrical risk.

When performing electrical work or working near exposed live electrical parts consideration should be given to using insulated ladders and tools, and where there may be an increased risk due to the work environment, other control measures, such as insulated rubber mats, should be used.

Insulated gloves must be worn whenever live electrical work is performed.

Safety equipment may also need to be tested and inspected on a six-monthly basis in accordance with s.17 of the *Electrical Safety Regulation 2002*.

PPE should be stored, tested and inspected in accordance with manufacturer's specifications and instructions.

## Monitoring of workers

Employers need to ensure workers performing electrical work are competent and licensed.

Workers must be trained in procedures relating to the performance and testing of electrical work. Employers need to ensure workers are audited for compliance with these procedures.

Safe work procedures and risk management processes relating to the performance of electrical work need to be reviewed regularly.

## Licensing requirements

Restricted electrical licence holders must only perform electrical work, as defined by the *Electrical Safety Act 2002*, within the scope of their licence.

There is no restricted electrical work licence that permits the performance of electrical installation work.

Where electrical work is performed as part of a person's business they must also be the holder of a QBSA licence or a restricted electrical contractor's licence issued by the Electrical Safety Office.

## For more information

Visit [www.electricalsafety.qld.gov.au](http://www.electricalsafety.qld.gov.au) to download:

- Electrical Safety Code of Practice 2010 – Working Near Exposed Live Parts
- Electrical Safety Code of Practice 2010 – Electrical Work

Or call the Electrical Safety Infoline on 1300 650 662.

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