

Refrigeration and air-conditioning restricted electrical licence

Installation, maintenance and repair of refrigeration and air-conditioning (R&AC) equipment forms an important part of the electrical industry in Western Australia.

Qualified R&AC mechanics are often required to work on electrical components within R&AC equipment. To carry out electrical work within Western Australia, a person must be authorised by a licence or permit.

Electrical work is defined in the Electricity (Licensing) Regulations 1991 as work on electrical machines, instruments, appliances, equipment or installations where electricity is supplied, or intended to be supplied, above 50 volts AC or 120 volts ripple free DC.

Regulation 20 of the Electricity (Licensing) Regulations 1991 requires electrical workers to hold an electrical licence endorsed according to the qualifications of the person issued the licence.

Qualified R&AC personnel must hold a restricted electrical licence (REL) where electrical work on refrigeration and/or air-conditioning electrical machines, instruments, appliances, equipment or installations is carried out.

Due to the safety risk posed by unlicensed electrical work it is important all electrical work on R&AC equipment is carried out by licensed REL holders and that those workers understand, and work within, the scope and limits of their REL.

Understanding the scope and limits assists R&AC REL holders in ensuring they do not carry out unlicensed electrical work and breach the regulations.

The maximum scope of work* a R&AC REL may contain:

1. Disconnect/reconnect R&AC equipment.
2. Fault find R&AC power and control circuits.
3. Modify, replace or repair within the R&AC "package".
4. Modify R&AC control circuits in switchboards/panels.
5. Assemble factory supplied cable between R&AC split system components (up to 4kW).

R&AC REL holders are **not** authorised to install or alter installation fixed wiring.

***Note:** Each person's R&AC REL scope is based on the qualifications provided when their licence was applied for. Individuals may not hold all 5 items listed in the maximum scope of work. To confirm the scope of work a R&AC REL holder can complete, refer to the back of their physical REL.

The below table is a guide to the type of work a person with the maximum R&AC REL scope* can (within scope) and cannot (outside scope) complete.

Description of work	Within scope	Outside scope
Carry out electrical fault finding and repair within a split system air-conditioner.	✓	
Disconnect/reconnect a split system air-conditioner, or internal electrical components within it, on a like-for-like basis.	✓	
Install interconnect wiring, not factory supplied, for a split system air-conditioner.		✓
Install factory supplied interconnect wiring for a split system air-conditioner up to 4kW.	✓	
Install, replace, or work within the electrical isolator for a split system airconditioner		✓
Install electrical wiring between the split system and its isolator.		✓
Install air-conditioner split system circuit wiring between the switchboard and air-conditioner isolator.		✓
Fault find the split system electrical circuit between the switchboard to air-conditioner isolator.		✓
Replace electrical components, associated with the split system air-conditioner's electrical circuit, within the installation switchboard.		✓
Fault find electrical circuits within refrigeration equipment.	✓	
Disconnect/reconnect refrigeration equipment, or internal electrical components within it, on a like-for-like basis.	✓	
Install interconnect wiring for refrigeration equipment.		✓
Install, replace, or work within the electrical isolator for refrigeration equipment.		✓
Install electrical circuit wiring between the refrigeration equipment and its isolator.		✓
Install refrigeration equipment circuit wiring between the installation switchboard and refrigeration equipment's electrical isolator.		✓
Fault find the refrigeration equipment electrical circuit between the installation switchboard and the refrigeration equipment's electrical isolator.		✓
Replace electrical components, associated with the refrigeration equipment's circuit, within the installation switchboard.		✓

Description of work	Within scope	Outside scope
Fault find electrical circuits within an evaporative cooler.	✓	
Disconnect/reconnect an evaporative cooler, or internal electrical components within it, on a like-for-like basis.	✓	
Install, replace, or work within the electrical isolator for an evaporative cooler		✓
Install electrical wiring between the evaporative cooler and its electrical isolator.		✓
Install evaporative cooler circuit wiring between the installation switchboard and the evaporative cooler isolator.		✓
Fault find an evaporative cooler electrical circuit between the installation switchboard and the evaporative cooler isolator.		✓
Replacement of electrical components, associated with the evaporative cooler's electrical circuit, within the installation switchboard.		✓
Carry out electrical fault finding and repair within a heat pump hot water system.	✓	
Disconnect/reconnect a heat pump hot water system, or internal electrical components within it, on a like-for-like basis.	✓	
Install, replace, or work within the electrical isolator for a heat pump hot water system.		✓
Install electrical wiring between a heat pump hot water system and its isolator.		✓
Install heat pump hot water system circuit wiring between the switchboard and heat pump hot water system isolator.		✓
Replace electrical components, associated with a heat pump hot water system's electrical circuit, within the installation switchboard.		✓

Disclaimer – The information contained in this document is provided as general information and a guide only. It should not be relied upon as legal advice or as an accurate statement of the relevant legislation provisions. If you are uncertain as to your legal obligations, you should obtain independent legal advice.

Building and Energy

Department of Energy, Mines, Industry Regulation and Safety

08 6251 1900 – 8.30am – 4.30pm

Level 1 Mason Bird Building
303 Sevenoaks Street (entrance Grose Avenue)
Cannington Western Australia 6107

M: **Locked Bag 100, East Perth WA 6892**

W: www.demirs.wa.gov.au/building-and-energy

E: be.energy@dmirs.wa.gov.au

Goldfields/Esperance

(08) 9021 9494

Great Southern

(08) 9842 8366

Kimberley

(08) 9191 8400

Mid-West

(08) 9920 9800

North-West

(08) 9185 0900

South-West

(08) 9722 2888

National Relay Service: 13 36 77

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