

# Preventative Maintenance & Statutory Testing

## Emergency Evacuation Lighting - Inspection and Maintenance

It is an Occupational Health and Safety Act requirement that employers have a legal duty of care to ensure that emergency and exit lights work to specifications, in a power outage or other emergency. This enables personnel to exit a building quickly and safely.

### ➤ Testing Intervals

Emergency lighting tests are carried out at 6 monthly and 12 monthly intervals, to Australian Standard AS2293.

Power will be disconnected to the lighting circuits and the emergency and exit lights will be required to operate under battery control for a minimum of 90 minutes.



An electrician will be able to repair or replace fittings and any defective lamps. At the 12 month interval all fittings will be cleaned and all reflective surfaces will be checked to ensure correct operation.

### ➤ Compliance Reporting

- An asset register of all emergency and exit fittings will be maintained
- A record of all tests will be listed in hard copy and digital format and maintained for seven years
- All maintenance records including repair and replacement will be maintained
- Both hardcopy and digital format will be available for client use

By undertaking the exit and emergency light testing, not only will you comply with exit testing regulations, but you will have greater peace of mind in knowing that your emergency exit lighting is fully operative.

## Residual Current Device Testing

It is an Occupational Health and Safety Act requirement that employers have a legal duty of care to ensure that RCDs operate in the specified tripping times. Otherwise personnel will be in danger of electrocution and serious injury.

A residual current device is a safety device that disconnects a circuit when it detects an imbalance of the electrical current. The RCD is designed to turn the power off almost immediately to prevent electrocution.

The use of RCD's in installations has significantly reduced the number of electrical fatalities in Australia. Residual current devices also protect against fire caused by faults in appliances, tools and wiring by early disconnection of supply.



Whether the installation is construction, mining, office, retail or domestic the compulsory testing of residual current devices must be conducted. Testing may include the removal of switchboards and therefore, only licensed electricians should perform these tests.

Residual current device testing involves tripping the circuit and measuring the operational time taken for each device to trip. This can only be undertaken by a qualified electrician.

Pushbutton testing should also be checked for safe operation.

### ➤ Compliance reporting

The following documentation must be kept for all residual current devices within installation:

- Test conducted to Australian Standard AS 3760:2010
- A register of all equipment with residual current devices
- A record of each formal inspection and test
- A repair or replacement register
- A record of all faulty equipment showing details of services and corrective action

### ➤ Residual current devices test results

- The testers name who carried out the test
- Date testing carried out and retest date
- Result from testing, including time details pass or fail
- Licence number of the electrician carrying out the testing
- Asset ID number of the items tested

Our experienced electrical staff will ensure compliance with the with regular testing of fixed residual current devices at 12 month intervals and a portable residual current devices can be tested at three monthly intervals in conjunction with normal testing and tagging procedures.

**Cockburn Electrical Company** is responsible for maintaining both digital and hardcopy records for a minimum period of **seven years**. This information is available at all times to our customers. Our electrical staff will communicate to clients when testing is required so that compliance is maintained.

## Testing and Tagging

It is an Occupational Health and Safety Act requirement that employers have a duty of care to ensure testing and tagging maintains safety in the use of electrical equipment.



Testing and tagging may be carried out by a **competent person** who has been trained in the use of portable testing equipment. This is usually a half-day short course.

A competent person is limited to testing and tagging portable equipment, power cords and portable RCTs.

They are not able to conduct or repair electrical equipment.

At Cockburn Electrical Company, A-grade electricians carry out all testing and tagging procedures to Australian Standard AS3760:2010. A-grade electricians have completed an extensive apprenticeship which includes experience in domestic, commercial and industrial applications.

A-Grade Electricians, are able to identify faults and then determine the causes of these faults. They are qualified to repair equipment, RCD's installed in switchboards and carry out risk assessments.

### ➤ Testing intervals

**For construction and trades**, testing must be conducted at three monthly intervals. Colour tags will be attached to all equipment.

**Mining operations**, testing must be conducted at three monthly intervals. Colour tags will be attached to all equipment.

**Factories, workshops, commercial kitchens and all hostile environments**, testing will be conducted at six monthly intervals.

**Office environments or non-hostile environments**, testing will be conducted at 12 monthly intervals for portable electrical equipment and up to 5 years for stationery equipment.

Testing interval periods for all workplaces are dependent upon the type of environment, equipment and if a hostile or non-hostile environment based on a risk assessment.

### ➤ Reporting and Data storage

Documentation must be kept for all electrical equipment and RCD's. This includes:

- A register of all equipment
- A record of formal inspection and tests
- A repair register
- Record of all faulty equipment showing details of service and corrective action

**The Asset Register** will include:

- The name of the tester who carried out the test
- The date testing was carried out and the re-test date
- Result from testing- pass or fail
- License number of the electrician or certificate number of a competent person who conducted the tests
- Asset ID number of each item tested

All data will be recorded electronically and a hardcopy given to the client. Records will be maintained for a minimum of seven years and are available to clients at any time for audit purposes.

Equipment that fails will be labelled and taken out of service.

Brand-new equipment that has not been put into use can be labelled as new to service, the date of entry to service and the date at which the first electrical safety test is required. This equipment should be added to the asset register.

**Cockburn Electrical Company**, has a dedicated testing and tagging section comprised of a grade electricians with significant industrial experience in risk assessment, testing and repairing of electrical equipment in domestic, industrial, commercial and the mining industry.

Our dedicated electricians maintain a service schedule that will ensure that your installation will be tested at regular intervals to ensure compliance with occupational health and safety standards.

***You may rely on Cockburn electrical company to provide you with the very best service and reliability in all areas of electrical testing, maintenance and installation.***

## Thermographic Testing

Thermography is an effective method of locating equipment faults due to temperature rise in switchboards or large electrical equipment. It is also common practice for a company to meet their insurance requirements.



**Cockburn Electrical Company** has trained electricians utilising thermographic software and testing equipment to identify potential hazards in electrical switchboards or equipment due to overheating or increases in temperature over time.

Thermographic testing is a non-invasive inspection and does not require shutdowns or interruptions to production. Scanning is carried out with equipment operating and the objective is to locate and identify any areas of abnormal heating in equipment which is online / on load.

New switchboards should also have thermographic scanning as it provides confirmation of correct installation and acts as a reference point for all ongoing maintenance and scanning reports.

### ➤ **Testing Interval**

Thermographic scanning is conducted at 12 monthly intervals.

### ➤ **Reports**

**Cockburn Electrical Company** will provide reports that include data and thermographic images and analysis will also be made by the testing electrician. These reports will be maintained in hard copy and digital for a minimum of seven years and be available to clients.