

# Inspection and Testing of Electrical Equipment

Electricity has the potential to cause serious injury or death from damaged or faulty electrical equipment.

If you are a business, employer or any other person conducting a business or undertaking (PCBU), you must make sure that electrical equipment is regularly inspected and tested by a competent person if the electrical equipment is—

- a) supplied with electricity through an electrical socket outlet; and
- b) used in an environment in which the normal use of electrical equipment exposes the equipment to operating conditions that are likely to result in damage to the equipment or a reduction in its expected life span, including conditions that involve exposure to moisture, heat, vibration, mechanical damage, corrosive chemicals or dust.

Expiation fee:

- In the case of an individual—\$432.
- In the case of a body corporate—\$2,160

## Competent person

Only a competent person can carry out the inspection and testing of electrical equipment. A competent person is someone who has acquired through training, qualification or experience the knowledge and skills to carry out the task. This could be a person who has successfully completed a nationally accredited training course, run by a registered training organisation, on the use of a Portable Appliance, or a licensed electrical worker who is deemed to be competent for the purpose of electrical inspection and testing.

## Inspection and Testing frequency

Most workplaces require a risk management approach to determine the type of inspection and if necessary, any testing required. The class of work and the risks associated with the use of specified electrical equipment will determine how often equipment is tested.

A person with management or control of a workplace must take all reasonable steps to ensure that residual current devices (RCD's) used at the workplace are tested regularly by a competent person to ensure that the devices are operating effectively.

Expiation fee:

- In the case of an individual—\$432.
- In the case of a body corporate—\$2,160.

Guidance on general inspecting and testing of electrical equipment and RCDs is included in [AS/NZS 3760:2010 In-service safety inspection and testing of electrical equipment](#) and may also be included in the manufacturer's recommendations.

Type of environment and/or equipment	Intervals between inspection and tests				
	Equipment including Class I and Class II, cord sets, cord extension sets and EPOD's	Residual Current Devices (RCD's)		Operating time and push button test	
		Push button test – by user			
	Portable	Fixed	Portable	Fixed	

1. Factories, workshops, places of work or repair, manufacturing, assembly, maintenance, or fabrication	6 months	Daily, or before every use, whichever is the longer	6 months	12 months	12 months
2. Environments where the equipment or supply flexible cord is subjected to flexing in normal use OR is in a hostile environment.	12 months	3 months	6 months	12 months	12 months
3. Environments where the equipment or supply cord is <b>NOT</b> subject to flexing in normal use and is <b>NOT</b> open to abuse and is <b>NOT</b> in a hostile environment.	5 years	3 months	6 months	2 years	2 years
4. Residential type areas: hotels, residential institutions, motels, boarding houses, halls, hostels accommodation and the like.	2 years	6 Months	6 Months	2 years	2 years
5. Equipment used for commercial cleaning	6 Months	Daily, or before every use, whichever is the longer	N/A	6 Months	N/A
6. Hire equipment - Inspections	Prior to hire	Including push-button test by hirer prior to hire		N/A	N/A
Hire equipment - Test and tag	3 months	N/A		3 months	12 months
7. Repairs, serviced and second-hand equipment	After repair or service which could effect electrical safety, or on reintroduction to service, refer to AS/NZS 5762				

For construction and demolition sites, inspecting and testing of electrical equipment and RCDs is included in [AS/NZS 3012:2010 Electrical installations – Construction and demolition sites](#).

Environment	Transportable structures, Class I (earthed conductive parts) and Class II (double insulated electrical equipment)		Residual Current Devices (RCDs)			
	Transportable structures, fixed and transportable equipment and construction wiring including switchboards	Portable electrical equipment	Pushbutton test (by user)		Operating time (RCD tester)	
			Portable	Non-portable fixed	Portable	Non-portable fixed
Construction and demolition sites	6 months	3 months	After connection to a socket before connection of equipment, and at least once every day in use.	1 month	3 months	12 months

## Electrical testing records

Record of any testing of electrical equipment and RCDs must be kept until the next test or until the equipment is permanently removed from the workplace or disposed of.

A record must specify:

- the name of the person carrying out the testing

- the date of the testing
- the outcome of the testing
- the date on which the next testing can be carried out

This record can be in the form of a tag attached to the electrical equipment, however, other methods such as logbooks, a register or computerised database can also be used.

Expiation fee:

- In the case of an individual—\$144.
- In the case of a body corporate—\$720.

## Electrical testing records – Construction and Demolition sites

The results of the inspection and testing of electrical equipment must be recorded and kept on site or made available for audit. Information recorded includes:

- A register of all equipment
- A record of formal inspection and tests
- A repair register
- A record of all faulty equipment showing details of services or corrective actions.

Results of RCD tests shall be recorded and kept on site or made available for audit and kept for a minimum period of five (5) years (excluding the daily push button test for portable RCDs).

Expiation fee:

- In the case of an individual—\$144.
- In the case of a body corporate—\$720.

Portable RCDs, portable equipment and fixed equipment when tested shall be fitted with a durable, non-reusable, non-metallic tag.

The tag must include the following information:

- the name of the person or company who performed the tests
- the test or retest date.

## New electrical equipment

Newly purchased electrical equipment are deemed to have been tested by the manufacturer, although they must be inspected for obvious damage before being used.

Expiation fee:

- In the case of an individual—\$432.
- In the case of a body corporate—\$2,160.

New electrical equipment used for construction work must be tagged to indicate the next due date for testing.

## More information

[Managing electrical risks in the workplace](#) - Approved code of practice

[Electrical risks at the workplace](#) – SafeWork SA

Building and Construction Industry Guideline for Safe Electrical Practices on Construction and Demolition Sites – SafeWork SA