

ELECTRICAL HAZARDS

1.0 Classes of Work by Definition – Service and Office Work

There are six classes of work under the *Electrical Safety Regulation 2002* all with different requirements for electrical safety management including testing and inspection of equipment and safety switch protection.

The six classes of work are:

- Construction work
- Manufacturing work
- **Service work**
- **Office work**
- Amusement work
- Rural industry work.

1.1 Service Work and Office Work Requirements

Employers and self-employed people must make sure:

- Specified electrical equipment is inspected and tested by a competent person at prescribed intervals and immediately withdrawn from use if it is not safe to use

or

- Specified electrical equipment is connected to a type 1 or 2 safety switch. The safety switch must be tested at prescribed intervals and withdrawn from use if it is not working properly

2.0 Who can Test Electrical Equipment?

By law only a person deemed competent by their employer can test and tag electrical equipment.

It is an offence under the *Electrical Safety Act 2002* to repair any electrical equipment that you find is faulty, unless you have the appropriate electrical work licence.

Competence is based on knowledge and skills gained through training, experience, qualifications or a combination of these.

2.1 How Often to Test

How often specified electrical equipment and safety switches are tested depends on the class of workplace they are used in:

Category	Specified electrical equipment	Type 1 or 2 safety switch (fixed)	Type 1 or 2 safety switch (portable)
Service work	At least 12 monthly intervals by a competent person or Connected to a safety switch.	Use the inbuilt test button, at least every 3 months. An operating time/current test by a competent person, at least every 12 months. Longer test intervals may apply. Consult the <i>Electrical Safety Regulation 2002</i> (and <i>AS/NZS 3760 In-service safety inspection and testing of electrical equipment</i>)	Use the inbuilt test button at least every 3 months or before each use, whichever is longer. An operating time/current test by a competent person, at least every 12 months. Longer test intervals may apply. Consult the <i>Electrical Safety Regulation 2002</i> (and <i>AS/NZS 3760 In-service safety inspection and testing of electrical equipment</i>)
Office work	At least 5 yearly intervals by a competent person or Connected to a safety switch	Use the inbuilt test button at least every 6 months. An operating time/current test by a competent person, at least every 2 years.	Use the inbuilt test button at least every 3 months. An operating time/current test by a competent person at least every 2 years.

Note: On completing tests, and on achieving satisfactory results, you must attach a durable tag to the electrical equipment showing when next it is due for an inspection and test. Electrical equipment that fails testing should immediately be withdrawn from use and you must attach a durable tag war.

The work you are doing at this workplace is either service or office work. The requirements for electrical testing for either of these 2 types of work is: EITHER inspection and testing of specified electrical equipment, OR connection to a Safety Switch. Since you have a safety switch on the premises, technically there is no need to have an electrician test and tag equipment.

3.0 Safety Switches

Safety switches monitor the flow of electricity through a circuit. They automatically shut off the electricity supply when current is detected leaking from faulty switches, wiring or electrical appliances. This stops the chance of current flowing to earth, through a person, electrocuting them. Safety switches can be either installed on the switchboard or be portable.

3.1 Which Switch is Which?

Safety switches are often confused with circuit breakers and surge protectors. Here is a quick guide to help understand the differences:

3.1.1 Surge Protectors

Surge protectors safeguard your appliances and wiring from voltage surges such as those resulting from a lightning strike.

Safety switches and surge protectors play entirely different roles – surge protectors protect electrical appliances, safety switches protect people.

3.1.2 Circuit Breakers

Circuit breakers cut the power off when electrical wiring in a building has too much current flowing through it. Too much current flowing through a circuit would heat an electrical appliance's wires or the building wiring to unsafe levels. This could result in an electrical fire.

Fuses work in the same way as circuit breakers. Both fuses and circuit breakers do not provide personal protection against electrical shock.

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3.1.4 Portable Safety Switch

A portable safety switch unit is ideal when using plug-in electrical equipment used indoors or outdoors. They are convenient to use where permanent safety switch protection is not available.

However the portability of these devices means they can be subject to damage and should be inspected regularly.

Safety Switches are not the same as circuit breakers or fuses. They are an additional form of protection to be used with circuit breakers and fuses.

3.2 Testing of the Safety Switch

If you are using a safety switch you should ensure that the switchboard mounted safety switches are tested (i.e. tripped by a member of staff) at least every 6 months and inspected and tested by a competent person every 2 years. You should make records of the testing of the safety switch.

4.0 Types of Electrical Equipment

'Specified electrical equipment' is equipment that meets any of the following criteria – it is an extension lead or portable outlet device.

Specified electrical equipment does not include a portable safety switch.

Electrical Equipment Register

Workplace:

Plant ID N0:	Description of Electrical Equipment	Location	Test Period	Due Test Date	Date Tested	Passed/Failed	Record of Repairs	Signature of Competent Person