

Lock Out Tag Out (LOTO)

QUICK REFERENCE HANDOUT

WARNING: All electrical conductors and parts, including neutral and earthing conductors, shall be treated as energized until proven de-energized. Always test before touching.

WHEN IS LOTO REQUIRED?

LOTO is required whenever electrical equipment is isolated for installation, maintenance, testing or repair. It must also be used where multiple energy sources exist, stored energy is present or where there is a risk of accidental re-energisation.

Who can carry out electrical isolations?

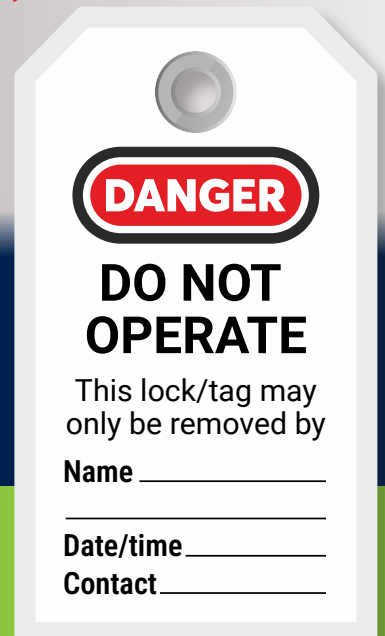
Only workers who are trained and competent in Lock Out Tag Out procedures may apply locks and tags. Electrical isolation must be carried out by a **licensed electrician** or, where permitted, an apprentice under direct supervision, in accordance with relevant supervision requirements.

LOTO Requirements **What you must do**

- Identify and isolate **all known** sources of supply, including backup systems, to prevent re-energisation.
- Locking devices should be applied at the source of supply to prevent energising **any part** of the installation.
- Locking off must be done by the person performing the work.
- Each worker must apply their own locking device & tag.
- If multiple workers are involved a multi locking device must be used i.e. Hasp.
- Tags must be durable, legible and securely fixed. Use a “DO NOT OPERATE” or personal danger tag showing:

- Your full name
- Date and time applied
- Contact number

- Tags alone are not enough, always apply a lock at every isolation point where a lockable facility exists.
- Locks and tags must remain in place until work is complete, and the worker has signed off.
- If someone is unavailable to remove their lock, follow a formal authorised removal procedure.
- Always test for dead before starting work — **test the tester**, test the circuit and test the tester again.



Lock Out/Tag Out procedure

1 Identify and Notify

- Notify affected persons that work will be carried out and the equipment will be isolated.
- Determine all energy sources, including hidden or secondary supplies.

2 Shut Down Equipment

- Use normal stop/shut down procedures to ensure equipment is shutdown safely.

3 Isolate Energy Sources

- Turn off all isolation points (main switches, breakers, etc.).
- Discharge or block any stored energy (e.g. capacitors, hydraulic pressure, etc.).

4 Lock and Tag

- Apply a personal padlock to each isolation point—One lock for each person. Locks should be individually keyed and red in colour.
- Attach a durable “DANGER - DO NOT OPERATE” tag with:
 - Your Name and Contact Number
 - Date and Time of isolation.

5 Test for Dead

- Use appropriate testing equipment (e.g. voltage tester or multi-meter—CATIII or CATIV rated).
- Verify isolation at the work location — **Test the tester** — **Test the circuit for de-energisation** — **then re-test the tester** again on a known live source.
- Confirm isolation of all live conductors before touching anything.

Note A proximity tester is not a valid indicator of isolation.

6 Perform the Work

- Only begin work once you've confirmed isolation.
- Maintain all LOTO controls for the duration of works.

7 Restore to Service

- Remove all tools and test equipment.
- Ensure all persons are clear of the area and all works are completed.
- Each worker removes their own lock and tag.
- Complete all mandatory testing as per **AS/NZS 3000:2018 – Section 8**.
- Re-energise equipment following safe startup procedure.
- Notify affected persons that work is complete and that power has been restored.

Standards and Guidance

For a detailed procedure refer to:

- **Safe Work Australia Code of Practice**— Managing Electrical Risks in the Workplace.
- **AS/NZS 4836** — Safe working on or near low-voltage electrical installations.
- **AS/NZS 3017** — Electrical installations— Verification guidelines.

