



The Electrician
ABN: 71448302665 | Lic: EC-2011-8823
5 Barrier Street Fyshwick ACT 2609
0412 337 908 · amybruce86@gmail.com

Job Safety Analysis

JSA-003 | Linked SWMS: [SWMS no.] | Date: 15/8/2026

JOB DETAILS

Task / job description Main switchboard upgrade at occupied commercial office building — isolate and remove existing switchboard, install new switchboard with RCDs, run new sub-circuits through ceiling cavity, test and commission. Building constructed circa 1985; asbestos-containing materials (ACM) presumed present until confirmed otherwise.	Site / workplace address Level 2, Emu Bank Corporate, 18 Emu Bank, Belconnen ACT 2617
Site type Commercial — occupied office building, Level 2. Principal contractor obligations may apply.	Project manager [Name + phone]
Site supervisor [Your Name] — [Your Mobile]	Linked SWMS no. [SWMS no.]
Date 15/8/2026	Number of workers 2 workers
Permit to work required? Confirm with building manager on arrival	

RISK MATRIX REFERENCE — CONSEQUENCE × LIKELIHOOD

Likelihood \ Consequence	1 Insignificant	2 Minor	3 Moderate	4 Major	5 Catastrophic
E — Almost certain	M	H	E	E	E
D — Likely	M	M	H	E	E
C — Possible	L	M	M	H	E
B — Unlikely	L	L	M	M	H
A — Rare	L	L	L	M	M

L Low — routine monitoring **M** Medium — management responsibility **H** High — senior management attention **E** Extreme — stop work, immediate action

STEP-BY-STEP JOB SAFETY ANALYSIS

#	Task step	Potential hazards	Risk	Control measures	Person responsible	Done ✓
1	Site induction, pre-start briefing and hazard identification	Unfamiliarity with site layout, emergency egress, and building-specific hazards; failure to identify ACM, confined spaces, or energised equipment prior to commencing work; inadequate communication with building management and occupants	H	Conduct pre-start toolbox talk with both workers. Obtain site induction from building manager or principal contractor. Confirm emergency evacuation routes, assembly point, and first aid locations. Obtain and review the building's asbestos register — building constructed circa 1985, ACM presumed present until a licensed asbestos assessor confirms otherwise. Confirm confined space entry permit requirements for ceiling cavity. Notify building management and affected tenants of planned works, expected noise, and temporary power interruptions. Confirm site-specific JSA and SWMS have been reviewed and signed by all workers.	Supervising Electrician	☐



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2	Asbestos risk assessment — ceiling cavity and switchboard area	Disturbance of ACM in ceiling tiles, wall linings, pipe lagging, or switchboard backing boards in a pre-2004 building; inhalation of asbestos fibres; exposure of building occupants	H	Building constructed circa 1985 — treat all suspect materials as ACM until confirmed otherwise by a licensed asbestos assessor. Do not disturb any suspect materials. Review the asbestos register prior to commencing work — if no register exists or materials are unidentified, stop work and arrange licensed assessment before proceeding. Cordon off work area to prevent occupant access. If ACM is identified or suspected during work, cease work immediately, isolate the area, and contact a licensed asbestos removalist. Mandatory PPE: P2 respirator and disposable coveralls when working in ceiling cavity or near suspect materials.	Supervising Electrician	■
3	Establish exclusion zone and isolate work area from building occupants	Unauthorised persons entering live electrical work zone; occupants exposed to electrical hazards, falling tools, or debris from ceiling cavity; inadequate barricading in occupied office environment	H	Erect physical barriers (witches hats, barrier tape, and signage) around the switchboard room and ceiling access points. Place 'Electrical Work in Progress — Authorised Personnel Only' signage at all entry points. Liaise with building manager to restrict access to affected areas for the duration of works. Confirm occupants in adjacent offices are notified of temporary power outages and any noise or dust. Maintain exclusion zone throughout both days of work.	Both Electricians	■
4	Isolation of main switchboard — LOTO procedure	Electrocution or arc flash from contact with live conductors during isolation; inadvertent re-energisation by building management or other trades; residual stored energy in capacitors or UPS systems	H	Follow AS/NZS 4836:2011 safe isolation procedure. Identify all energy sources including supply authority mains, sub-mains, and any UPS or backup systems. Notify the building manager and supply authority (ActewAGL Distribution) of planned isolation — obtain written confirmation if required. De-energise the switchboard using the appropriate upstream isolation point. Apply lockout/tagout (LOTO) — fit personal locks and danger tags to all isolation points. Test for dead using a calibrated voltage tester (CAT IV rated) — test tester, test circuit, test tester. Confirm absence of voltage on all phases and neutral before commencing removal. Both workers to apply individual LOTO locks. Do not rely on a single lock.	Supervising Electrician	■
5	Live voltage testing and verification prior to removal	Arc flash, electrocution, or burns when testing conductors that may be energised; inadequate PPE for arc flash exposure; use of uncalibrated or incorrect category test equipment	H	Wear arc flash PPE: arc-rated face shield (minimum 8 cal/cm ²), arc flash gloves, and arc-rated long-sleeve shirt or jacket. Use only CAT IV rated, calibrated test instruments. Follow the test-before-touch principle at all times. Confirm voltage absence on all incoming conductors, busbars, and sub-circuit terminals before physical contact. If any conductor cannot be confirmed as de-energised, treat as live and do not proceed — reassess isolation. Record test results.	Both Electricians	■
6	Removal of existing switchboard	Residual live conductors not identified during isolation; heavy switchboard panel causing manual handling injury; sharp edges on enclosure; ACM in backing board or wall lining behind existing board; falling components	H	Confirm isolation and LOTO in place before commencing removal. Two-person lift for heavy switchboard enclosure — assess weight before lifting; use mechanical aids if required. Wear cut-resistant gloves when handling enclosure panels and sharp edges. Inspect backing board and surrounding wall materials for suspect ACM — if identified, stop work and follow asbestos management procedure (Step 2). Label and safely store all removed components. Photograph existing wiring layout before disconnection for reference during reinstallation.	Both Electricians	■



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7	Ceiling cavity access — running new sub-circuit cables	Confined space hazards in ceiling cavity (limited egress, poor ventilation, heat stress); fall from ladder or through ceiling; contact with ACM in ceiling tiles or insulation; electrical contact with existing unidentified cables; manual handling strain from working in restricted space	H	Ceiling cavity classified as a confined space — confined space entry permit required before entry. Trained standby person to remain at entry point at all times during cavity access — standby person must not enter the space. Assess atmosphere if required (heat, oxygen levels). Use a rated industrial ladder (AS/NZS 1892) positioned on stable, level surface — secure ladder at top and base. Do not overreach — reposition ladder as required. Wear P2 respirator and disposable coveralls in ceiling cavity due to presumed ACM in insulation and ceiling tiles. Identify and avoid all existing cables — use cable detector prior to drilling or cutting. Carry only necessary tools into cavity. Limit time in cavity — rotate workers to manage heat stress. Ensure adequate lighting (head torch).	Both Electricians	■
8	Ladder and working at heights — access to ceiling and elevated switchboard positions	Fall from ladder causing serious injury; ladder slipping on polished or tiled commercial floor surface; overreaching; unsecured ladder in occupied building with passing foot traffic	H	Use a rated industrial ladder (AS/NZS 1892.1 or 1892.2 as applicable) — inspect before use and remove from service if damaged. Position ladder on stable, level surface — use non-slip feet and rubber mat on hard floors. Secure ladder at top where possible; second worker to foot the ladder at all times when in use. Maintain three points of contact when climbing. Do not overreach — maintain belt buckle within ladder stiles. Erect barriers around ladder base to prevent foot traffic collision in occupied building. Do not carry tools or materials up ladder by hand — use a tool bag or hoist line.	Both Electricians	■
9	Installation of new switchboard, RCDs, and circuit breakers	Contact with live incoming supply conductors if isolation has been compromised; incorrect installation of RCDs or circuit breakers leading to future fault; manual handling of heavy switchboard enclosure; working in confined switchboard room	H	Confirm LOTO remains in place before commencing installation — re-verify isolation with calibrated tester. Follow AS/NZS 3000:2018 for all wiring, labelling, and protection requirements. Install RCDs on all required circuits in accordance with AS/NZS 3000 and ACT regulatory requirements. Ensure all connections are torqued to manufacturer specifications. Label all circuits clearly and accurately. Two-person lift for switchboard enclosure. Inspect enclosure for sharp edges before handling — wear cut-resistant gloves. Photograph completed installation before energisation.	Both Electricians	■
10	Removal of LOTO and controlled re-energisation	Premature re-energisation before installation is complete; arc flash or fault on re-energisation due to wiring error; unexpected energisation injuring workers or building occupants; damage to building equipment from power surge	H	Conduct a full visual inspection of completed installation before removing LOTO. Confirm all workers are clear of the switchboard and exclusion zone before re-energisation. Remove LOTO locks in reverse order — supervising electrician removes last. Notify building manager immediately before re-energising. Energise progressively — close main switch first, then sub-circuit breakers one at a time. Wear arc flash PPE (arc-rated face shield, arc flash gloves) during re-energisation. Stand to the side of the switchboard, not directly in front, when closing breakers. Have fire extinguisher (CO ₂ , Class E) accessible.	Supervising Electrician	■
11	Testing and commissioning — RCD trip times, polarity, earth continuity, and insulation resistance	Electric shock during testing if circuits are incorrectly assumed to be de-energised; incorrect test results leading to unsafe installation being commissioned; RCD failure not identified prior to handover	M	Use calibrated, CAT IV rated test instruments throughout. Test insulation resistance on all new circuits before energisation. After energisation, test all RCDs for correct trip time and current in accordance with AS/NZS 3000 and manufacturer specifications. Test polarity and earth continuity on all circuits. Record all test results on a compliant test and inspection certificate (Electrical Safety Certificate as required by ACT legislation). Do not commission any circuit that fails testing — investigate and rectify before re-testing. Notify building manager of any circuits that cannot be restored.	Supervising Electrician	■



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12	Site clean-up, waste disposal, and handover	Injury from sharp waste materials (old switchboard components, cable offcuts); improper disposal of electrical waste; failure to restore building to safe condition for occupants; incomplete documentation	L	Remove all tools, equipment, and waste from site. Dispose of old switchboard components and electrical waste in accordance with ACT waste regulations — do not place in general building waste. If any materials removed are suspected ACM, bag, label, and dispose of via a licensed asbestos waste disposal facility. Remove all barriers and signage once work area is confirmed safe. Conduct final walk-through with building manager — confirm all circuits are operational and labelled. Provide completed Electrical Safety Certificate and test records to client (Lakeside Corporate Services Pty Ltd). Retain copies for contractor records.	Supervising Electrician	■
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PPE REQUIRED FOR THIS JOB

- ✓ Arc-rated face shield (minimum 8 cal/cm²)
- ✓ Arc-rated long-sleeve shirt or jacket
- ✓ P2 respirator (mandatory in ceiling cavity and near suspect ACM)
- ✓ Cut-resistant gloves
- ✓ Hard hat (where overhead hazard exists)
- ✓ Arc flash rated gloves
- ✓ Safety glasses
- ✓ Disposable coveralls (mandatory in ceiling cavity and near suspect ACM)
- ✓ Steel-capped safety boots
- ✓ High-visibility vest

EMERGENCY CONTACTS

Emergency services 000 — Police · Fire · Ambulance	First aid officer on site [Name + mobile]
Nearest hospital / ED [Confirm on site arrival]	Assembly point [Confirm with building manager on arrival]
PC / Building manager [Name + mobile]	WHS regulator notification Notify immediately for serious incidents (WHS Act s38)

ELECTRIC SHOCK RESPONSE: Do NOT touch casualty if still in contact with source. Isolate power at the board first. Call 000. Begin CPR if trained and casualty is unresponsive and not breathing normally. Do not leave casualty. Notify WHS regulator immediately for all serious electrical incidents.

JSA PREPARED, REVIEWED & APPROVED BY

Prepared by	Reviewed by / Supervisor	PC / Building manager approved

WORKER ACKNOWLEDGEMENT — ALL WORKERS SIGN BEFORE COMMENCING



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SCAN TO SIGN ON — NO APP NEEDED

Workers: scan with your phone camera, enter your name, licence number and role, and sign on screen. Each sign-on is recorded against this exact document number and revision with a date-time stamp, and forms part of this document's sign-on register. The table below remains available as a paper backup.

<https://paperwrk.com.au/sign.html?t=b7a003c1f6ae4d215b262f55285a9593>

Worker name	Licence / cert no.	Role	I have read and understood this JSA	Date
[Name]	[Lic no.]	[Role]	_____	[Date]
[Name]	[Lic no.]	[Role]	_____	[Date]
[Name]	[Lic no.]	[Role]	_____	[Date]