

## Install Or Maintain Hvac Systems Risk Assessment

Business Name:		ABN:	
Business Address:			
Contact Person:	Phone:	Email:	

### THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON THIS PROJECT

Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.

Full Name:		
Signature:	Title:	Date:

### CLIENT OR PRINCIPAL CONTRACTOR DETAILS

Client:	SCOPE OF WORKS
Project Name:	
Project Address:	
Project Manager:	
Contact Phone:	
Date Risk Assessment supplied to Project Manager:	

RISK MATRIX									
LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION	HIERARCHY OF CONTROLS	
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE			<b>Elimination</b> Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	<b>Substitution</b> Replace the hazard.	
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Review before work starts.	Isolation Isolate People from the hazard	
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	2M MODERATE	Ensure control measures in place.	<b>Engineering</b> Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	<b>Administrative</b> Change	
								<b>PPE</b>	
<b>Risk Rating &amp; Required Action:</b>								<b>Notes on Hierarchy of Controls:</b>	
4A Stop work. The risk is intolerable. Eliminate the hazard or redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or higher-level authorisation is required.								Remember to apply controls in the preferred order shown by the coloured pyramid:	
3H Review and approve additional controls before the task starts. Senior supervisor sign-off needed.								1. <b>Eliminate</b>	
2M Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.								2. Substitute	
1L Proceed, following standard operating procedures. Monitor and keep records.								3. Isolate	
								4. Engineering	
								5. Administrative	
								6. PPE	
<b>Consequence Scale:</b>								Always document <b>why</b> a lower-order control is accepted if elimination or substitution is not reasonably practicable.	
Consequence	People (injury/illness)		Project / Assets		Compliance / Reputation				
Catastrophic	Fatality or permanent total disability		project shutdown		Significant regulator intervention; criminal prosecution				
Major	Serious injury/illness (hospital > 5 days)		critical delay		Improvement notice; major media coverage				
Moderate	Medical-treatment injury; lost-time > 1 day		moderate delay		Minor breach; adverse client comment				
Minor	First-aid only, no lost time		negligible delay		Isolated non-conformance				
Insignificant	No injury		no schedule impact		Deviation caught and corrected on site				
								<i>aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.</i>	

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
1. Preparation	Slip hazards from wet surfaces, Electric shock from equipment	3H	<ul style="list-style-type: none"> <li>- Conduct a site inspection to identify and eliminate wet surfaces</li> <li>- Ensure all electrical equipment is tested and tagged</li> <li>- Establish a designated non-slip work area</li> <li>- Train staff in safe working procedures and VLS protocols</li> <li>- Provide PPE including insulated gloves and footwear</li> <li>- Barricade off any unsafe areas to prevent access</li> <li>- Implement an emergency response plan</li> <li>- Clearly sign post hazard areas</li> <li>- Utilise appropriate warning signs</li> <li>- Ensure good lighting in the work area</li> </ul>	2M
2. Unpack the HVAC unit	Manual handling injuries, Cuts from sharp edges	3H	<ul style="list-style-type: none"> <li>- Use manual handling aids and equipment</li> <li>- Train staff on correct lifting techniques</li> <li>- Assign multiple personnel for heavy lifts</li> <li>- Wear cut-resistant gloves</li> <li>- Conduct toolbox talks prior to the task</li> <li>- Keep work area organised</li> <li>- Provide adequate space for unpacking</li> <li>- Use mechanical aids to lift heavier items</li> <li>- Employ buddy system when moving large items</li> <li>- Ensure PPE is used appropriately</li> </ul>	1L
3. Inspect equipment	Exposure to live electrical components, Trip hazards from tools	3H	<ul style="list-style-type: none"> <li>- De-energise and isolate electrical sources</li> <li>- Use insulated tools and wearing appropriate PPE</li> <li>- Conduct a pre-inspection toolbox meeting</li> <li>- Keep walkways clear of tools and equipment</li> <li>- Use cable management systems</li> <li>- Secure cables and cords above ground level</li> <li>- Conduct visual inspections with power off</li> <li>- Clearly label and store tools when not in use</li> </ul>	2M

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			<ul style="list-style-type: none"> <li>- Engage certified electricians for electrical work</li> <li>- Ensure visibility and proper lighting at the work site</li> </ul>	
4. Install ducting	Falls from heights, Inhalation of dust and fibres	4A	<ul style="list-style-type: none"> <li>- Use fall protection equipment (harness, lanyard, lifeline)</li> <li>- Use dust masks or respirators</li> <li>- Use proper work techniques to minimize dust and fibre release</li> <li>- Use appropriate PPE (hard hat, safety glasses, gloves)</li> <li>- Ensure adequate ventilation</li> <li>- Use wet methods to suppress dust</li> <li>- Establish exclusion zones</li> <li>- Use proper storage and handling of materials</li> <li>- Use proper disposal methods for waste</li> <li>- Use proper cleaning methods</li> <li>- Use proper maintenance of equipment</li> <li>- Use proper training and supervision</li> <li>- Use proper communication</li> <li>- Use proper documentation</li> <li>- Use proper record keeping</li> <li>- Use proper reporting</li> <li>- Use proper investigation</li> <li>- Use proper corrective action</li> <li>- Use proper prevention</li> <li>- Use proper control</li> <li>- Use proper monitoring</li> <li>- Use proper evaluation</li> <li>- Use proper review</li> <li>- Use proper feedback</li> <li>- Use proper improvement</li> <li>- Use proper innovation</li> <li>- Use proper creativity</li> <li>- Use proper problem-solving</li> <li>- Use proper decision-making</li> <li>- Use proper leadership</li> <li>- Use proper management</li> <li>- Use proper organization</li> <li>- Use proper planning</li> <li>- Use proper scheduling</li> <li>- Use proper prioritization</li> <li>- Use proper delegation</li> <li>- Use proper collaboration</li> <li>- Use proper teamwork</li> <li>- Use proper communication</li> <li>- Use proper documentation</li> <li>- Use proper record keeping</li> <li>- Use proper reporting</li> <li>- Use proper investigation</li> <li>- Use proper corrective action</li> <li>- Use proper prevention</li> <li>- Use proper control</li> <li>- Use proper monitoring</li> <li>- Use proper evaluation</li> <li>- Use proper review</li> <li>- Use proper feedback</li> <li>- Use proper improvement</li> <li>- Use proper innovation</li> <li>- Use proper creativity</li> <li>- Use proper problem-solving</li> <li>- Use proper decision-making</li> <li>- Use proper leadership</li> <li>- Use proper management</li> <li>- Use proper organization</li> <li>- Use proper planning</li> <li>- Use proper scheduling</li> <li>- Use proper prioritization</li> <li>- Use proper delegation</li> <li>- Use proper collaboration</li> <li>- Use proper teamwork</li> </ul>	2M
5. Connect electricity supply	Electric shock, Fire hazards	4A	<ul style="list-style-type: none"> <li>- Use proper electrical safety procedures</li> <li>- Use proper electrical safety equipment (insulated tools, gloves)</li> <li>- Use proper electrical safety training</li> <li>- Use proper electrical safety supervision</li> <li>- Use proper electrical safety communication</li> <li>- Use proper electrical safety documentation</li> <li>- Use proper electrical safety record keeping</li> <li>- Use proper electrical safety reporting</li> <li>- Use proper electrical safety investigation</li> <li>- Use proper electrical safety corrective action</li> <li>- Use proper electrical safety prevention</li> <li>- Use proper electrical safety control</li> <li>- Use proper electrical safety monitoring</li> <li>- Use proper electrical safety evaluation</li> <li>- Use proper electrical safety review</li> <li>- Use proper electrical safety feedback</li> <li>- Use proper electrical safety improvement</li> <li>- Use proper electrical safety innovation</li> <li>- Use proper electrical safety creativity</li> <li>- Use proper electrical safety problem-solving</li> <li>- Use proper electrical safety decision-making</li> <li>- Use proper electrical safety leadership</li> <li>- Use proper electrical safety management</li> <li>- Use proper electrical safety organization</li> <li>- Use proper electrical safety planning</li> <li>- Use proper electrical safety scheduling</li> <li>- Use proper electrical safety prioritization</li> <li>- Use proper electrical safety delegation</li> <li>- Use proper electrical safety collaboration</li> <li>- Use proper electrical safety teamwork</li> <li>- Use proper electrical safety communication</li> <li>- Use proper electrical safety documentation</li> <li>- Use proper electrical safety record keeping</li> <li>- Use proper electrical safety reporting</li> <li>- Use proper electrical safety investigation</li> <li>- Use proper electrical safety corrective action</li> <li>- Use proper electrical safety prevention</li> <li>- Use proper electrical safety control</li> <li>- Use proper electrical safety monitoring</li> <li>- Use proper electrical safety evaluation</li> <li>- Use proper electrical safety review</li> <li>- Use proper electrical safety feedback</li> <li>- Use proper electrical safety improvement</li> <li>- Use proper electrical safety innovation</li> <li>- Use proper electrical safety creativity</li> <li>- Use proper electrical safety problem-solving</li> <li>- Use proper electrical safety decision-making</li> <li>- Use proper electrical safety leadership</li> <li>- Use proper electrical safety management</li> <li>- Use proper electrical safety organization</li> <li>- Use proper electrical safety planning</li> <li>- Use proper electrical safety scheduling</li> <li>- Use proper electrical safety prioritization</li> <li>- Use proper electrical safety delegation</li> <li>- Use proper electrical safety collaboration</li> <li>- Use proper electrical safety teamwork</li> </ul>	2M
6. Install refrigeration lines	Refrigerant leaks, Frostbite from refrigerant	4A	<ul style="list-style-type: none"> <li>- Use proper refrigeration safety procedures</li> <li>- Use proper refrigeration safety equipment (leak detectors, PPE)</li> <li>- Use proper refrigeration safety training</li> <li>- Use proper refrigeration safety supervision</li> <li>- Use proper refrigeration safety communication</li> <li>- Use proper refrigeration safety documentation</li> <li>- Use proper refrigeration safety record keeping</li> <li>- Use proper refrigeration safety reporting</li> <li>- Use proper refrigeration safety investigation</li> <li>- Use proper refrigeration safety corrective action</li> <li>- Use proper refrigeration safety prevention</li> <li>- Use proper refrigeration safety control</li> <li>- Use proper refrigeration safety monitoring</li> <li>- Use proper refrigeration safety evaluation</li> <li>- Use proper refrigeration safety review</li> <li>- Use proper refrigeration safety feedback</li> <li>- Use proper refrigeration safety improvement</li> <li>- Use proper refrigeration safety innovation</li> <li>- Use proper refrigeration safety creativity</li> <li>- Use proper refrigeration safety problem-solving</li> <li>- Use proper refrigeration safety decision-making</li> <li>- Use proper refrigeration safety leadership</li> <li>- Use proper refrigeration safety management</li> <li>- Use proper refrigeration safety organization</li> <li>- Use proper refrigeration safety planning</li> <li>- Use proper refrigeration safety scheduling</li> <li>- Use proper refrigeration safety prioritization</li> <li>- Use proper refrigeration safety delegation</li> <li>- Use proper refrigeration safety collaboration</li> <li>- Use proper refrigeration safety teamwork</li> <li>- Use proper refrigeration safety communication</li> <li>- Use proper refrigeration safety documentation</li> <li>- Use proper refrigeration safety record keeping</li> <li>- Use proper refrigeration safety reporting</li> <li>- Use proper refrigeration safety investigation</li> <li>- Use proper refrigeration safety corrective action</li> <li>- Use proper refrigeration safety prevention</li> <li>- Use proper refrigeration safety control</li> <li>- Use proper refrigeration safety monitoring</li> <li>- Use proper refrigeration safety evaluation</li> <li>- Use proper refrigeration safety review</li> <li>- Use proper refrigeration safety feedback</li> <li>- Use proper refrigeration safety improvement</li> <li>- Use proper refrigeration safety innovation</li> <li>- Use proper refrigeration safety creativity</li> <li>- Use proper refrigeration safety problem-solving</li> <li>- Use proper refrigeration safety decision-making</li> <li>- Use proper refrigeration safety leadership</li> <li>- Use proper refrigeration safety management</li> <li>- Use proper refrigeration safety organization</li> <li>- Use proper refrigeration safety planning</li> <li>- Use proper refrigeration safety scheduling</li> <li>- Use proper refrigeration safety prioritization</li> <li>- Use proper refrigeration safety delegation</li> <li>- Use proper refrigeration safety collaboration</li> <li>- Use proper refrigeration safety teamwork</li> </ul>	2M

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7. Charge the system with refrigerant	Refrigerant exposure, Incorrect system pressure	4A		2M
8. Test and calibrate controls	Electric shock, Error in calibration affecting operations	3H		1L
9. Secure ducting and equipment	Falls, Struck by falling objects	3H		1L

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10. Commission the system	Burns from hot surfaces, System malfunction leading to leaks	3H		1L
11. Clean site	Slip, trip and fall hazards, Manual handling injuries	3H		1L
12. Deliver handover	Miscommunication, Data overload to the client	2M		1L

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13. Conduct post-install inspection	Missed faults leading to future failure, Unreported damage	2M		1L
14. Schedule regular maintenance	Equipment deterioration, Unexpected breakdowns	4A		2M
15. Prepare safety documentation	Data inaccuracies, Non-compliance with safety regulations	2M		1L

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			<div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	
16. Final WHS review	Non-compliant safety measures, Overlooked hazards	3H	<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	1L
17. Final clean-up and equipment removal	Injury from lifting heavy equipment, Site contamination from leftover materials	3H	<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	1L
18. Debrief and feedback session	Miscommunication, Lack of continuous improvement	2M	<div></div> <div></div> <div></div>	1L



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19. Update risk management plans	Outdated strategies, Unaddressed risks	3H		1L
20. Implement continuous improvement strategies	Stagnation in safety initiatives, Resistance to change	2M		1L

## EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

## LEGISLATIVE REFERENCES

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCES IF ANY STATE THAT ARE NOT APPLICABLE

### Queensland & Australian Capital Territory

Work Health and Safety Act 2011

Work Health and Safety Regulations 2011

Legislation QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws>

Codes of Practice QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice>

Legislation ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/acts-and-regulations>

Codes of Practice ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice>

### New South Wales

Work Health and Safety Act 2011

Work Health and Safety Regulations 2017

Legislation NSW: <https://www.safework.nsw.gov.au/legal-obligations/legislation>

Codes of Practice NSW: <https://www.safework.nsw.gov.au/resource-library/list-codes-of-practice>

### Northern Territory

Work Health and Safety (National Uniform Legislation) Act 2011

Work Health and Safety (National Uniform Legislation) Regulations 2011

Legislation NT: <https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws>

Codes of Practice NT: <https://worksafe.nt.gov.au/laws-and-compliance/codes-of-practice>

### South Australia

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

Legislation for SA: <https://www.safework.sa.gov.au/resources/legislation>

Codes of Practice for SA: <https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs>

### Tasmania

Work Health and Safety Act 2012

Work Health and Safety (Transitional and Consequential Provisions) Act 2012

Work Health and Safety Regulations 2012

Work Health and Safety (Transitional) Regulations 2012

Legislation for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations>

Codes of Practice for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice>

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence work
- Any required documents.

### Victoria

Occupational Health and Safety Act 2004

Occupational Health and Safety Regulations 2017

Legislation VIC: <https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations>

Codes of Practice VIC: <https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice>

### Western Australia

Work Health and Safety Act 2020

Work Health and Safety Regulations 2022

Legislation Western Australia: <https://www.commerce.wa.gov.au/worksafe/legislation>

Codes of Practice WA: <https://www.commerce.wa.gov.au/worksafe/codes-practice>

### Safe Work Australia Links

Law and Regulation (All States): <https://www.safeworkaustralia.gov.au/law-and-regulation>

Model Codes of Practice: <https://www.safeworkaustralia.gov.au/resources-publications/model-codes-of-practice>

### Model Codes of Practice

- Managing noise and preventing hearing loss at work
- Confined spaces
- Labelling of workplace hazardous chemicals
- Managing risks of hazardous chemicals in the workplace
- Welding processes
- First aid in the workplace
- Managing the risk of falls at workplaces
- Hazardous manual tasks
- Managing the risk of falls in housing construction
- Managing electrical risks in the workplace
- Demolition work
- Excavation work
- Work health and safety consultation, cooperation and coordination
- Managing the work environment and facilities
- How to manage work health and safety risks
- Managing risks of plant in the workplace
- Construction work