Grammar ELECTRICAL

COMMERCIAL AND INDUSTRIAL 24 HOURS INSTALLATION AND MAINTENANCE

Safe Work Method Statement

Switchboard Upgrade

Routine	✓	**Non-Routine**	
New	✓	**Revised**	

Job Description	Upgrade existing switchboard, including potentially relocating switchboard to new position		
Project/Site	<Site Address>	**Date**	<date>
PPE Required for task *(refer PPE for Site on SSSP as Hi-Viz and Hard Hat may be required)*	Ear Muffs, Safety Glasses, Steel-toe Boots, Gloves, Dust Masks, Knee Pads		
Plant/Equipment Required *(edit list as required per site)*	Power drill, battery drill, hand tools, cable roller. If using conduit/trunking will also require hacksaw, conduit cutters, conduit glue. If concrete block walls may require Hammer drill. Ladder/s or Scaffold		
Signage Required	Electrical Work in Progress sign		

SEQUENCE OF BASIC STEPS	POTENTIAL HAZARDS/RISKS	HAZARD/RISK CONTROL METHOD
Carry out risk assessment (Job Safety Analysis) prior to commencing work		
Isolate incoming power supply to switchboard	Network Contractors	Meet contractor when they get to site. Observe the isolation
	Other people on site	Use Electrical Work in Progress sign. Notify all property occupants and anyone at property of power isolation. Tell people must NOT go anywhere near area where you are working or point of power supply isolation
	Electric Shock	Test using test prove test method to ensure that power supply correctly isolated. If incoming power isolated at Master Switch inside meter box, esnure correct safety lock off device fitted to ensure cannot be relivened by anyone but yourself. Check hot water supply feed to ensure is
Remove switchboard cover	Battery Tools	Check tool in safe working condition prior to use. Ensure any safety guards are in correct position. Only operate if have been shown and understand safe operation guidelines. Select correct tool for task.
	Electric Shock	Immediately on removal of switchboard cover test all cabling to ensure ALL incoming power correctly isolated. This is to remove risk that there are multiple incoming power supplies to switchboard.
	Abrasive and/or sharp surfaces	Be aware of sharp tips on screws, can cut skin or damage cabling (file away any exposed screw tips). Be aware of rough edges on timber framing for splinters, remove splinters from edge of
	Hand Tools	Use only the correct tool for the task, store safely in tool belt with any sharp edges pointing down.
Label Cabling prior to disconnection from circuit breakers	Future Fire Risk	Ensure all cabling into switchboard is accurately labelled with circuit number to ensure no future fire risk from incorrect circuit loading when put board back together
	Abrasive and/or sharp surfaces	Be aware of sharp tips on screws, can cut skin or damage cabling (file away any exposed screw tips). Be aware of rough edges on timber framing for splinters, remove splinters from edge of timber if possible. Ensure any exposed edges of cabinet metal frames are smooth or shielded(ie
Disconnect cabling from MCBs and isolators	Hand Tools	Use only the correct tool for the task, store safely in tool belt with any sharp edges pointing down.
	Muscle Fatigue	When doing repetitive work, stop, take a few minutes, stretch the effected area
	Abrasive and/or sharp surfaces	Be aware of sharp tips on copper when cables removed from board. Ensure any exposed edges of cabinet metal frames are smooth or shielded(ie will not cut skin or damage cable)
Remove old switchboard mounting	Abrasive and/or sharp surfaces	Be aware of sharp tips on screws, can cut skin or damage cabling (file away any exposed screw tips). Be aware of rough edges on timber framing for splinters, remove splinters from edge of timber if possible. Ensure any exposed edges of cabinet metal frames are smooth or shielded(ie
	Hand Tools	Use only the correct tool for the task, store safely in tool belt with any sharp edges pointing down.
	Power Tools	Only operate power tool if current test tag. Check lead and tool are in safe working condition prior to use. Ensure all safety guards are in correct position. Only operate if have been shown and understand safe operation guidelines. Select correct power tool for task.
	Battery Tools	Check tool in safe working condition prior to use. Ensure any safety guards are in correct position. Only operate if have been shown and understand safe operation guidelines. Select correct tool for task.
Install new switchboard mounting in desired location	Location	Ensure location meets electrical safety regulations
	Abrasive and/or sharp surfaces	Be aware of sharp tips on screws, can cut skin or damage cabling (file away any exposed screw tips). Be aware of rough edges on timber framing for splinters, remove splinters from edge of timber if possible. Ensure any exposed edges of cabinet metal frames are smooth or shielded(ie will not cut skin or damage cable). Cable ties can cause cuts. Wear gloves to protect hands
	Power Tools	Only operate power tool if current test tag. Check lead and tool are in safe working condition prior to use. Ensure all safety guards are in correct position. Only operate if have been shown and understand safe operation guidelines. Select correct power tool for task. Wear correct PPE
	Battery Tools	Check tool in safe working condition prior to use. Ensure any safety guards are in correct position. Only operate if have been shown and understand safe operation guidelines. Select correct tool for task.
	Hand Tools	Use only the correct tool for the task, store safely in tool belt with any sharp edges pointing down.

Run and/or extend all cabling to new switchboard position (if relocating)	Future Fire Risk	Ensure all cable joins are done safely and correctly as per electrical safety regulations to remove future fire risk from incorrectly protected cable join
	Abrasive and/or sharp surfaces	Be aware of sharp tips on screws, can cut skin or damage cabling (file away any exposed screw tips). Be aware of rough edges on timber framing for splinters, remove splinters from edge of timber if possible. Ensure any exposed edges of cabinet metal frames are smooth or shielded(ie
	Cable Drums	Ensure cable drums are properly in cable roller prior to pulling cable. Cable pulled off a drum not in a cable roller could cause injury to other people or damage to property
	Hand Tools	Use only the correct tool for the task, store safely in tool belt with any sharp edges pointing down.
	Physical strain	Brace yourself prior to pulling cabling. Bend with your knees not your back. Be aware of your surroundings prior to applying pull force so no impact injury when pulling
	Power Tools	Only operate power tool if current test tag. Check lead and tool are in safe working condition prior to use. Ensure all safety guards are in correct position. Only operate if have been shown and understand safe operation guidelines. Select correct power tool for task.
	Cable Burn	If running cabling down existing holes inside finished walls lubricate cabling to ensure that TPS cables rubbing together does not cause "cable burn". Cable burn damages the insulation of the
Reconnect main earth and main netural	Hand Tools	Use only the correct tool for the task, store safely in tool belt with any sharp edges pointing down.
	Abrasive and/or sharp surfaces	Be aware of sharp tips on screws, can cut skin or damage cabling (file away any exposed screw tips). Be aware of rough edges on timber framing for splinters, remove splinters from edge of
Fit off main phase into main switch and feed all RCDs and MCBs. Fit off earth and neutral bars	Muscle Fatigue	When doing repetitive work, stop, take a few minutes, stretch the effected area
	Hand Tools	Use only the correct tool for the task, store safely in tool belt with any sharp edges pointing down.
	Unconnected cables (Future electric shock or fire risk)	Check on completion to ensure ALL CABLES are correctly terminated into the correct MCB, RCD, earth or neutral bar, or isolator.
	Poor termination (Future electric shock or fire risk)	Ensure copper inside cabling is folded over and twisted well if multicore to ensure copper does not break and lose termination causing future risk of fire or electric shock
	Loose or Over tightened terminal screws (future fire or electric shock risk)	Ensure terminal screws into MCBs, RCDs, earth/neutral bars, isolators are tighted with sufficient force that they will not come out due to vibration or movement. Pull on cables to check this. However, ensure terminal screws are not overtightened whereby the copper may break and cause loss of safe termination. Terminal screws should be tightened to the point of moderate (not excessive) resistance
	Abrasive and/or sharp surfaces	Be aware of sharp tips on screws, can cut skin or damage cabling (file away any exposed screw tips). Be aware of rough edges on timber framing for splinters, remove splinters from edge of
Testing of board prior to livening	Tester unit (incorrect test results)	Ensure tester is calibrated annually and batteries are not too low
	Muscle Fatigue	When doing repetitive work, stop, take a few minutes, stretch the effected area
Install Switchboard Cover	Access to live parts (Future electrick shock risk)	Ensure switchboard cover is correctly installed and there is no way anyone can access live parts of the installation without using a tool to remove the switchboard cover
	Hand Tools	Use only the correct tool for the task, store safely in tool belt with any sharp edges pointing down.
	Muscle Fatigue	When doing repetitive work, stop, take a few minutes, stretch the effected area
Labelling	Future electric shock risk	Ensure all circuit breakers are accurately labelled so the building occupant can quickly and safely isolate electricity to circuits and areas as necessary. Ensure main earth is clearly labelled
	Muscle Fatigue	When doing repetitive work, stop, take a few minutes, stretch the effected area
Reliven & Final Testing	Electric Shock	Ensure switchboard cover is correctly installed and there is no way anyone can access live parts of the installation without using a tool to remove the switchboard cover. Ensure you and others stand back from board when turn on main switch incase a mistake during wiring causes a short
	People (potential electric shock)	Ensure all property occupants are well away from Network connection contractor when he/she relivens and also well away from switchboard incase there is an error which causes a short
	Tester unit (incorrect test results)	Ensure tester is calibrated annually and batteries are not too low

Task Analysis Completed by	<Name>
Date	<date>