SmartRAMS

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# Electrical Install

## DOCUMENT INFORMATION

**Document Type:** Risk Assessment & Method Statement (RAMS)

**Version:** 1.0

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**Prepared By:** SmartRams

## DOCUMENT INDEX



Note: Page numbers follow fixed section breaks for consistency.

## 1.0 Site Overview

**Site**

Electrical Install

**Start date**

07 January 2026

**Site Address**

44 Example Street, Birmingham, B78 SJ7

**Site Supervisor**

Smart

**Principal Contractor**

Smart Tech

**Site Supervisor phone**

Smart@live.co.uk

**Location**

Main Building

**Trade**

Electrician

## 1.1 Scope of Works

1. Panel Assembly (Workshop/Bench) Mount DIN rail and components within Schneider S3D enclosure (600×400×200mm) Install WAGO PFC200 controller, 6× 753-647 DALI Multi-Master modules, power supplies Internal ELV wiring (24V DC, DALI bus) using ÖLFLEX WIRE MS 2.1 Terminate WAGO 2002-series terminal blocks Label and test continuity 1. Site Installation Wall-mount enclosure in designated plant room Route DALI bus cabling to luminaires (2 lines, max 64 devices each) Install and connect occupancy sensors to digital inputs Network connection to existing UniFi infrastructure (VLAN 192.168.101.x) Mains electrical connection by qualified electrician 1. Commissioning DALI device discovery and addressing Group/scene configuration per floor PLC programming upload and testing Integration testing with fire alarm interface 1. Handover Functional demonstration Documentation provision ELV work by Cyberbyte Software; all mains work by appointed electrician (Part P/BS 7671 certified)

## 1.2 RAMS Compliance Summary

**RAMS COMPLIANCE SUMMARY**

This Risk Assessment & Method Statement has been produced using SmartRAMS from the job information provided and structured for submission on UK construction sites.

- ✔️ **CDM 2015 considered** — Structured to support duties under the Construction (Design and Management) Regulations 2015, based on the information provided.
- ✔️ **Job-input driven hazards & controls** — Assembled from job details, site conditions and selected work elements.
- ✔️ **Significant risks addressed** — Higher-risk activities associated with the described works have been considered where identified.
- ✔️ **Task-matched PPE** — Matched to the described activity and site rules, with UK standards referenced where applicable.
- ✔️ **Site-ready layout** — Formatted for review by principal contractors and site management teams.

Note: This RAMS must be reviewed by the duty holder on site and updated if conditions, scope or methods change.

# 1.3 Site Arrangements

### 1.3.1 First Aid Provision

First aid arrangements on site shall be provided in line with the Principal Contractor's site set-up and communicated during the site induction. Operatives shall familiarise themselves with the location of first aid equipment and how to contact a first aider.

### 1.3.2 Welfare Provision

Welfare facilities on site shall be provided and maintained by the Principal Contractor unless otherwise agreed. Operatives shall use designated welfare areas and maintain good housekeeping standards.

### 1.3.3 Manual Handling

Where possible, loads and materials shall be moved using mechanical or assisted means. Where manual handling is required, operatives shall plan the lift, keep loads close to the body, avoid twisting, and use team lifts for awkward or heavy items.

### 1.3.4 Tools, Plant & Equipment

All tools, plant and equipment used shall be suitable for the task, maintained in safe working order and used in accordance with the manufacturer's instructions and site rules. Defective equipment shall be removed from service immediately.

### 1.3.5 Waste & Environmental Management

All waste shall be managed in accordance with site rules and the Principal Contractor's waste management plan. Waste materials shall be disposed of in designated skips or containers as instructed.

## 2.0 Relevant Legislation & Guidance

This RAMS has been prepared with reference to the following key UK health & safety legislation and guidance.

**Core Health & Safety Law**

- Health and Safety at Work etc. Act 1974
- Management of Health and Safety at Work Regulations 1999
- Manual Handling Operations Regulations 1992
- Provision and Use of Work Equipment Regulations 1998

**Regulations & Industry Guidance**

- PPE Regulations 1992
- COSHH 2002
- Work at Height Regulations 2005
- Construction (Design and Management) Regulations 2015

## 3.0 Roles & Responsibilities

Everyone has legal duties under UK health and safety law. The cards below summarise the key responsibilities for those involved in this RAMS.

**Employer / SmartRAMS User**

- Provide a suitable and sufficient RAMS for the work activities.
- Ensure operatives are competent, trained and properly supervised.
- Provide adequate PPE, tools, equipment and welfare facilities.
- Review and update RAMS if conditions, methods or risks change.
- Co-ordinate with the Principal Contractor and other duty holders.

**Site Supervisor**

- Brief workers on this RAMS and the safe system of work before starting.
- Monitor standards on site and stop work if conditions become unsafe.
- Ensure the control measures in this RAMS are implemented and maintained.
- Record incidents, near-misses and defects and ensure corrective action is taken.
- Liaise with the Principal Contractor, Client and other trades on site.

**Operatives**

- Read, understand and follow this RAMS and any site rules at all times.
- Use tools, plant and PPE correctly and report defects immediately.
- Do not carry out tasks for which you are not trained or authorised.
- Report hazards, unsafe conditions and near-misses without delay.
- Stop work and inform the Supervisor if you believe the work cannot be carried out safely.

**Reminder:** Signing to say the RAMS has been read is not a tick-box exercise. Operatives must actually understand the contents and ask for clarification if they are unsure about any part of the work or the control measures.

## Sequence of Works

1. Confirm the work location and immediate work area relevant to the installation of the Schneider S3D enclosure.
2. Ensure the work area is clear, accessible, and suitable for the installation of the enclosure and components.
3. Position the Schneider S3D enclosure, WAGO PFC200 controller, DALI Multi-Master modules, and power supplies in the work area.
4. Mark out routes for the DALI bus cabling and termination points for the WAGO terminal blocks.
5. Prepare the internal surfaces of the Schneider S3D enclosure for the installation of components.
6. Install, position, and secure the WAGO PFC200 controller and DALI Multi-Master modules within the enclosure.
7. Route, secure, and connect the 24V DC and DALI bus cabling to the installed components.
8. Terminate connections to the WAGO 2002-series terminal blocks as part of the installation.
9. Check connections, fixings, and the overall installation of the components for correctness and alignment.
10. Make adjustments where required to ensure the installation meets specifications.
11. Test the installed components to confirm correct operation of the electrical system.
12. Remove waste materials arising from the installation activity.
13. Leave the work area clean, tidy, and safe upon completion of the installation.

**Note:** The sequence is generated specifically for this activity. Supervisors must confirm it matches the planned method of work on site.

## Identified Hazards

- Noise exposure from powered tools and fixing operations may lead to hearing loss or other auditory issues.
- There is a risk of injury due to falls from height, which can cause serious harm.
- Electric shock or burn injuries may occur due to contact with electrical systems or components.
- Injuries may arise from the use of hand and power tools during electrical installation processes.
- There is a risk of cuts and abrasions from sharp edges on containment, trunking, or enclosures.
- Eye injuries may result from debris generated during drilling, chasing, or fixing activities.
- Slips and trips can occur due to trailing leads, cables, tools, and materials in the work area.
- Manual handling injuries may arise from lifting and positioning equipment and cable drums.
- Muskuloskeletal strain can result from repetitive wiring, overhead work, or awkward access.
- Struck-by injuries may occur from dropped tools, equipment, or materials.

## Control Measures

- Electrical work will be planned to avoid contact with live components.
- Tools and test equipment will be positioned to prevent accidental contact or damage.
- Cables will be routed and controlled to prevent snagging or trip hazards.
- Containment and enclosures will be securely fixed before cable installation.
- Work areas will be kept clear of trailing leads and loose materials.
- Equipment will be isolated from work areas where practicable during tasks.
- Tasks will be sequenced to minimise congestion and overlapping activities.
- Work will be stopped if unsafe conditions or damage to equipment is identified.
- Noise exposure will be assessed and reduced where practicable. Suitable hearing protection will be provided and enforced where required, exposure duration will be limited, and equipment will be maintained to minimise noise output. Non-essential persons will be kept clear of noisy work areas.
- Work at height will be avoided where reasonably practicable. Suitable access equipment that is inspected before use will be used, and fall prevention or edge protection measures will be implemented where required. Falling objects will be prevented by securing tools and materials and maintaining exclusion zones below.
- 110V or battery-powered tools will be used where practicable, and all electrical equipment will be suitable, inspected, and protected by RCDs. Cables will be routed and protected to prevent damage and trip hazards. Electrical supplies will be isolated before work where applicable and work on live systems will be avoided.

# Risk Assessment Summary Table

| HAZARD | LIK. (BEF) | SEV. (BEF) | RISK (BEF) | CONTROL MEASURES | LIK. (AFT) | SEV. (AFT) | RESIDUAL | CTRL BY |
|---|---|---|---|---|---|---|---|---|
| Manual handling | 4.00 | 4.00 | 16.00 | Loads assessed prior to lifting, materials planned and sequenced, mechanical aids used where possible, and safe lifting techniques followed | 2.00 | 3.00 | 6.00 | Operative |
| Slips and trips | 4.00 | 3.00 | 12.00 | Work areas kept tidy, access routes maintained, spillages cleared promptly, and suitable footwear worn | 2.00 | 2.00 | 4.00 | Operative |
| Hand tools | 3.00 | 3.00 | 9.00 | Tools maintained in good condition, used correctly, and appropriate PPE worn | 2.00 | 2.00 | 4.00 | Operative |
| Power tools | 3.00 | 4.00 | 12.00 | Equipment suitable for task, inspected before use, guards in place, and operators trained | 2.00 | 3.00 | 6.00 | Operative |
| Noise exposure | 3.00 | 3.00 | 9.00 | Exposure minimised through planning, quieter equipment used where practicable, and hearing protection provided | 1.00 | 2.00 | 2.00 | Operative |
| Electrical contact | 2.00 | 4.00 | 8.00 | Services identified prior to work, isolation confirmed where required, and safe systems followed | 1.00 | 3.00 | 3.00 | Supervisor |
| Working in occupied premises | 3.00 | 3.00 | 9.00 | Work coordinated with site management, areas segregated, and occupants informed | 2.00 | 2.00 | 4.00 | Operatives, Members of the public |
| Unauthorised access | 3.00 | 3.00 | 9.00 | Access routes maintained clear, signage installed, and work areas controlled | 2.00 | 2.00 | 4.00 | Supervisor |
| Contact with sharp edges | 3.00 | 3.00 | 9.00 | Edges managed and contact avoided | 2.00 | 2.00 | 4.00 | Operative |
| Musculoskeletal strain | 4.00 | 4.00 | 16.00 | Tasks planned to reduce repetitive movements, adequate breaks taken, and correct posture maintained | 2.00 | 3.00 | 6.00 | Operative |
| Working at height | 3.00 | 4.00 | 12.00 | Work planned to avoid height where possible, suitable access equipment used, edge protection provided, and operatives trained | 2.00 | 3.00 | 6.00 | Operatives |

Overall Project Risk Level: Medium **Medium**

## Personal Protective Equipment (PPE)


Safety Helmet (EN 397)


Hi-Vis Vest (EN ISO 20471)


Safety Glasses (EN 166)


Safety Footwear (EN ISO 20345)

**PPE requirements**

**Standard PPE requirements**

All standard PPE required for site work shall be provided and worn at all times by company operatives and contractors in accordance with site rules and this RAMS.

Whilst on site, all operatives shall wear the above PPE unless otherwise stated within this document.

**Specific PPE requirements**

Any additional PPE requirements over and above the standard PPE identified above shall be detailed within the relevant COSHH assessment or specific risk assessments contained within this document.

Where additional PPE is required that is not considered standard, this shall be provided by the Principal Contractor, who will also ensure suitable information, instruction and training is given as required.

## Compliance Measures, Monitoring & Review

Works will be planned and sequenced to facilitate the execution of activities in an organised manner and to minimise disruption within the immediate work area.

Communication will be sustained with site management and nearby operatives and occupants to assist in the coordination of activities and the orderly progression of tasks.

The immediate work area will be maintained in a tidy and controlled condition during operations, with materials and waste managed to prevent unnecessary obstruction.

Local access routes associated with the works will be kept clear where practicable to enable safe movement around the area.

The working environment will be monitored throughout the activities, and any issues or unsafe conditions observed will be reported to site supervision.

Cooperation will be upheld with others working in or around the area to allow the activities to proceed in a controlled and coordinated manner.

Upon the completion of the activities, the area will be left tidy and appropriate for continued use.

## Method Statement

Commence the operation by attending site to confirm the work area, access arrangements, and scope of works. Following this, prepare the work area appropriately and position the required materials and equipment in readiness for the tasks ahead.

Proceed to install containment and associated components along the planned routes as required, ensuring that all components are securely fixed and appropriately aligned according to the specified layout.

Following the installation of containment, install and connect the cabling and electrical accessories to their designated locations. This includes mounting the DIN rail and components within the Schneider S3D enclosure, followed by the installation of the WAGO PFC200 controller, DALI Multi-Master modules, and power supplies as outlined in the method steps.

Upon completion of the installation works, complete the necessary testing and checks to verify the integrity of the connections and the system. This includes testing for continuity and ensuring all components function correctly as intended.

Next, carry out commissioning activities, which involve DALI device discovery and addressing, group/scene configuration, and PLC programming upload and testing. Conduct integration testing with the fire alarm interface as required to ensure full system functionality.

Finally, conduct a functional demonstration of the installed system before provision of all necessary documentation. Following this, ensure all waste materials are cleared and the work area is left tidy for handover.

# Emergency Procedures

### Immediate actions

- Stop work immediately and make the area safe if it is safe to do so.
- Raise the alarm and notify the Site Supervisor / Principal Contractor.
- Do not put yourself at risk — follow site emergency arrangements.

### Emergency services

- Dial **999** and request Police / Fire / Ambulance as required.
- Provide the site address and clear directions to the incident location.

### First aid & incident reporting

- First aid to be provided by a trained first aider in line with site arrangements.
- All injuries, near-misses, and dangerous occurrences must be reported to site management immediately.

### Fire / evacuation

- If fire is suspected, raise the alarm, stop works, and evacuate via the nearest safe route.
- Proceed to the site muster point and await further instructions.
- Do not re-enter until authorised by site management / emergency services.

### Spills & environmental incidents

- Stop the source if safe, contain the spill, and notify the Site Supervisor / Principal Contractor.
- Dispose of contaminated materials as instructed by site management.

# Briefing & Operative Sign-Off

| Operative Name | Signature | Date |
|---|---|---|
| SmartRams | | |
| Example | | |