

Personnel

All operatives are to be in possession of a current CSCS/ECS card (CSCS/ECS test pass certificate will be accepted if within 14 days of the test, after this date the operative must produce a CSCS/ECS card or they will be removed from the project), or a Health & Safety Passport scheme certificate.

Roman Electrical understands that possession of a health & safety card proves the operative has adequate site safety awareness, however, we require that all health & safety cards be trade specific in relation to the operative & the task he/she intends to do.

Simply put operatives intending to work on electrical systems must hold a trade specific ECS card. These are graded as follows:

ECS CARDS	
Trainee (levels 1-3)	Must be supervised at all times
Electrician	Can undertake electrical work. Testing to initial verification level may be accepted subject to approval by ROMAN ELECTRICAL.
Approved Electrician	Can undertake all electrical work.
Technician	Can undertake all electrical work & some design elements.

CSCS cards must be trade specific. If an operative holds a trade card such as:

- Ancillary Operative
- Construction Related Occupation
- Similar

No electrical work or trade related work will be permitted.

Plumbers & mechanical engineers, including air conditioning engineers who intend to work with ROMAN ELECTRICAL will require a trade specific health & safety card.

If an operative has recently passed a qualification then the trade card he/she has at the present time will be subject to review in the case of a waiting list being enforced by the awarding body.

Inductions

INDUCTIONS	
1	ROMAN ELECTRICAL project managers need to induct their engineers to the specific ROMAN ELECTRICAL RAMS for the project. The ROMAN ELECTRICAL engineers should then sign the RAMS to confirm they understand & accept the methodology, possible hazards & risks associated with the project.
2	A standard site induction can then be given by the site manager for the project after a signature has been obtained.

Electrocution

It is preferred that Roman Electrical take on responsibility regarding the access of personnel to the electrical riser(s) for the project during construction phase. Permits to work in these areas can be issued by Roman Electrical upon request, subject to Point of Work Risk Assessments (PoWRA). The Roman Electrical engineers & trades intending to work in the electrical riser cupboard(s) must then sign the PoWRA to state they understand and agree to the methodology of works to be completed, the hazards identified & the risks involved. This must be completed **EACH** time work in the electrical riser(s) is required. A permit can be left open for a specific number of days if required, however it is advised that regular PoWRAs are completed. All this information must be kept in the Roman Electrical Site Safety File.

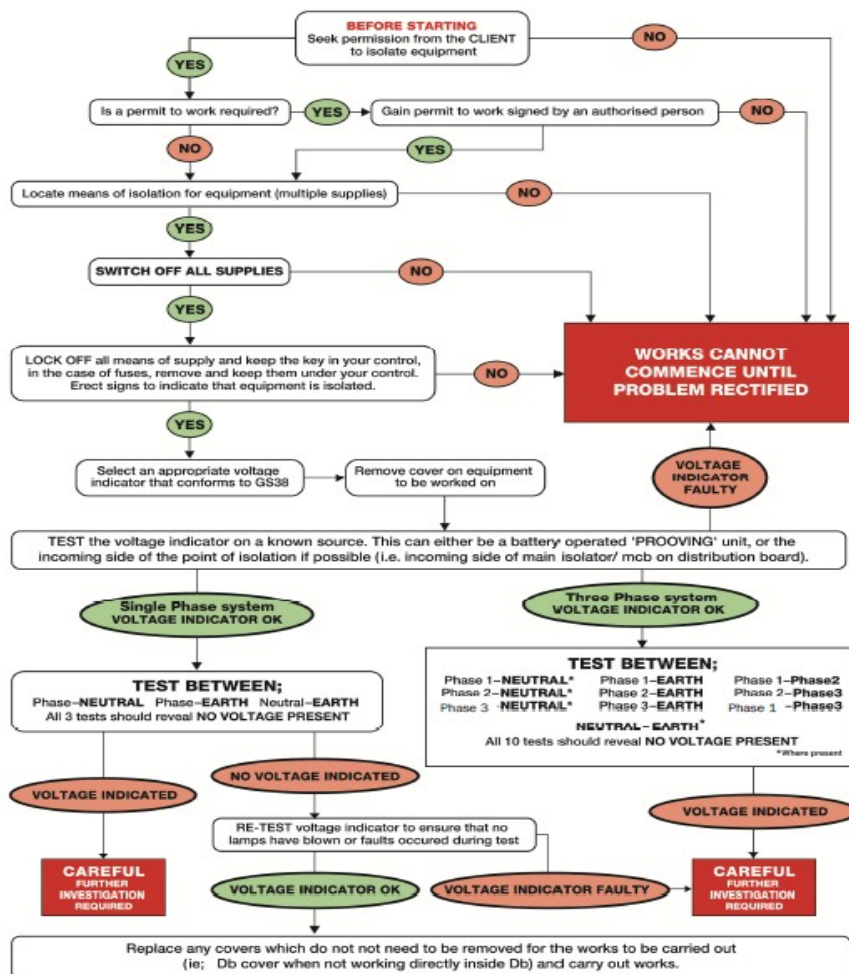
For projects where the landlord or main contractor has assumed responsibility for the electrical riser(s), Roman Electrical engineers must sign and accept the relevant permits to work. It is advised that regular PoWRA are completed.

In situations where Roman Electrical have been asked to advise on or complete isolations works within electrical risers, the isolation permits located in the Site Safety File should be used and issued to the site manager until works are complete and system are ready for re-energisation.

An electrical circuit installed by Roman Electrical engineers must be locked off with a suitable lock-off & pad lock until inspection & testing of the circuit has been completed. This includes circuits that are required to be turned on to benefit the progress of the project, such as cleaner's sockets. A circuit(s) test date/time should be booked in with an approved Roman Electrical Inspection & Testing Engineer and the test results sent to the Roman Electrical Qualified Supervisor.

All 230V & 400V circuits intended to be used whilst the project is still in construction phase **MUST** have additional protection by way of 30mA RCD/RCBO.

Safe Isolation Flowchart



WORKING AT & FALLS FROM HEIGHT

ALL ACCESS EQUIPMENT MUST BE INCLUDED IN A PLANT & EQUIPMENT REGISTER , HAVE ROMAN ELECTRICAL SIGNAGE AND INSPECTION CHECK SIGN-OFF SHEETS ATTACHED TO THEM

1ST RESORT	- Low level self-propelled mechanical access equipment or Peco lifts are to be used for all projects, access permitting. - An appropriately sized Peco lift must be selected to complete the task at hand. - All engineers must have undergone MEP Peco training before use and complete the pre-use check list before each use. These check lists are to be stored in the Site Safety Folder. - Access equipment to be used on level surface with lock offs in place.
2ND RESORT	- Powered access equipment such as scissor lifts or pop-up lifts can be used if the engineers intending to use them hold valid IPAF certification. - Access equipment to be used on level surface with lock offs in place.
3RD RESORT	- Mobile tower scaffolds can be used if the engineers intending to use them must hold valid PASMA certification. A scaff-tag system must be used. - Folding platforms have a platform height of up to 1800mm. Engineers intending to use them must hold valid PASMA certification. A scaff-tag system must be used. - Access equipment to be used on level surface with lock offs in place.
4th RESORT	- Delta Decks can be considered for low level access areas. Delta Decks provide a platform height up to 870mm. - Mega step ladders are preferred to step ladders however access in confined spaces or restrictive areas may still be an issue.
LAST RESORT	- Step Ladders & Podiums - Step ladders are to be used in areas where access is restricted. - Podiums can be used in open space areas if requested by the client.

	- Step ladders & Podiums are subject to a safe system of work & must only be used in conjunction with a valid permit in place. - Step ladders & Podiums must be subject to regular checks & have in-date safe tags completed and fixed to them. - Step ladders & Podiums must be stored correctly & locked up to prevent unauthorised & misuse. - Step ladders must be constructed of fibreglass and to a minimum of a Type 1 specification. - Access equipment to be used on level surface with locking bars fully extended.
NOT AN OPTION	Hop ups

MANUAL HANDLING	
1ST RESORT	- Mechanical lifting aids are to be considered. - Engineers using mechanical lifting aids must hold appropriate certification/familiarisation training. - These could include pallet trucks, sack barrows & stair climbers etc.
2ND RESORT	- Team lifts. - Route must be assessed prior to lift. - One member of the team assumes the lead role and tells the others when to lift, when to move & when to set the load down. - Gloves should be worn.
3RD RESORT	- Break the load to be lifted up into smaller, manageable sections. - Route must be assessed prior to lift. - Gloves should be worn.
LAST RESORT	- Single lift. - Route must be assessed prior to lift. - Maximum safe lifting weight for a single lifter is considered to be 20-25Kg. However there is no law regarding this as everyone has different tolerances & levels of fitness etc. - Gloves should be worn.
NOT AN OPTION	Lifting unwieldly, unmanageable heavy loads by hand without assessing the load & the route
SLIPS TRIPS & FALLS	
1ST RESORT	- Battery powered tools are preferred, subject to the task at hand. - Any floor tiles that require removing must be stored in the agreed area with the site manager. It is preferred that floor tiles are removed out of hours to minimise the exposure of risk of other trades falling. - Areas in which floor tiles have been removed must be barriered off to prevent falls. - Tools, material & plant are all subject to good housekeeping policies & need to be stored correctly in the agreed designated area & appropriate site boxes. - Cable runs to be barriered off to prevent co-workers and other trades from tripping over the cable.
2ND RESORT	- Trailing leads need to be secured or used in areas where thoroughfare traffic will not be at risk from tripping over - Areas in which floor tiles have been removed in working hours (if out of hours working is not an option) must be barriered off to prevent falls.
NOT AN OPTION	- Leads strewn across the site. - Floor tiles removed with no barriers. - Poor storage of tools, material & plant. - Cables (we are installing/have installed) strewn across the site.

4 POINT PPE is now expected as a minimum on all ROMAN ELECTRICAL projects, please adhere to site specific requirements

1	Hard Hat to BS EN 397 and BS EN 14052. For Roman Electrical supervisors hats will be black.
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2	Hi Vis Jacket. These must be client specific.
3	Steel Toecap Boots/Safety Footwear to BS EN ISO 20345.
4	Gloves to BS EN 14328 is the standard for gloves protecting against cuts by powered knives while BS EN 407 contains the specifications for gloves intended to protect against thermal risk such as heat and/or fire. BS EN 374 Part 1 covers gloves for protection against chemicals and microorganisms. BS EN 511 covers gloves for protection against the cold. BS EN 388 covers the specification of gloves against mechanical hazards. These must be to a cut level 1 specification or specific to the task in hand.
TASK SPECIFIC PPE	
5	Dust Mask to FFP3 Filtration Level. An engineer undertaking an activity that is likely to, or expected to create dust must wear FFP3 dust masks. The engineer must hold a valid Face Fit Certificate. The engineer must be clean shaven when attempting to wear a dust mask to ensure as close as fit as possible. Failure to be clean shaven will render the dust mask useless.
6	Eye Protection to BS 7028 (Guide to Selection of Eye Protection for Industrial and Other Uses) and BS EN 166 (Specification for Eye Protectors). Engineers undertaking any works that have a risk of producing particles deemed hazardous to the operative eyes must wear eye protection suitable for the task. This will include but not be limited to: overhead drilling & jig sawing of floor tiles.
7	Kevlar Arm Protection to BS EN 14328 is the standard for armguards protecting against cuts by powered knives and sharp edges. Engineers completing work under floors or above ceiling must reduce the risk of cuts and abrasions by wearing Kevlar arm protection. Please use a common sense approach. If no hazards can be identified either below the floor or above the ceiling then arm protection may not be necessary. Please order some for your projects.
8	Hearing Protection to BS EN 352 Part 1. Assessments carried out under the 'Control of Noise at Work Regulations 2005' will determine whether personal ear protectors are required in the workplace or not, and the noise attenuation required.