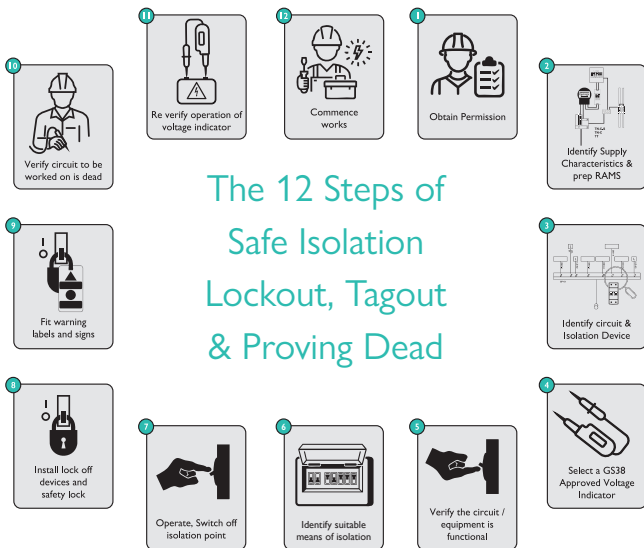


On-Site Guide to Safe Isolation Procedures



GCS Doncaster Ltd
Electrical compliance solutions

INTRODUCTION

This On-Site Guide provides comprehensive guidance on safe electrical isolation procedures, including regulatory compliance, step-by-step instructions, and best practices.

OBJECTIVES

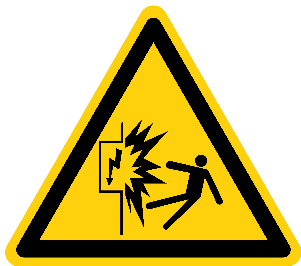
By the end of this guide you will understand:

- Why safe isolation is critical
- Legal requirements under Electricity at Work Regulations 1989
- Tools and equipment required for isolation
- The 12-step isolation process
- Lockout/Tagout principles

WHY DO WE NEED A SAFE ELECTRICAL ISOLATION PROCEDURE?

To ensure that any item of electrical equipment or plant is electrically disconnected from all sources of electrical supply, to prevent danger to anyone that needs to work on or near it!

THE CONSEQUENCES OF FAILING TO UNDERTAKE SAFE ELECTRICAL ISOLATION CAN BE LIFE CHANGING OR FATAL!



ALWAYS PROVE DEAD AT THE POINT OF WORK!

Never put your fingers or tools on or in any electrical components without first testing for dead on the terminals or conductive parts you are about to work on!

PROVE - TEST - PROVE



PROVE



TEST



PROVE

The Electricity at Work Regulations 1989 reinforce how critical it is to do this in 3 separate locations!

Regulation 4 GN72, Regulation 13 GN196 & Regulation 14 GN219

Step 1 - Obtain Permission



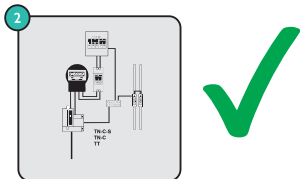
All signed in, permission granted, good to go, move on to **step 2**



Permission not granted, Organise isolation for another time

Check with the Duty Holder / Senior Engineer on site that it is acceptable to isolate the circuit/equipment, that it's not going to affect something, and it's safe to carry out the isolation.

Step 2 - Identify Supply Characteristics



Supply characteristics identified, RAMS completed, move on to **step 3**

Identify the type of supply system:

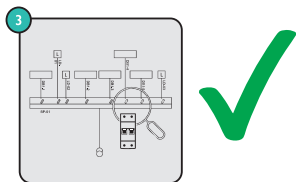
TN-S – Phase Isolation (SP/TP)

TN-C-S – Phase Isolation (SP/TP)

TT – All Live Conductors to be Isolated (DP,4P)

Prep RAMS for the work!

Step 3 - Identify Circuit & Isolation Devices



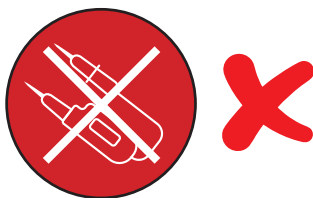
Circuit & Isolation points identified, move on to **Step 4**

Locate and identify the circuit/equipment to be isolated, including any alternative sources of supply. Using available drawings, schematics and labelling if required.

Step 4 - Select a GS38 Approved Voltage Indicator



Voltage Indicator functioning correctly and no damage, move on to **Step 5**



Voltage Indicator not working, replace and try again

2 pole cat VI, Voltage Indicator complying with BS EN 61243-3, maximum of 4mm of exposed tip! Check the condition of the Voltage Indicator before using it! Verify the operation of the indicator on a proving unit.

Step 5 - Verify the circuit/equipment is functional



Equipment/Circuit proved functional, move on to **Step 6**



Voltage Indicator not working! Change VI

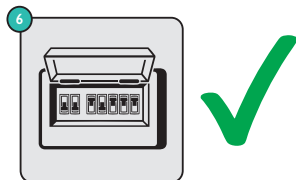
Go back to **Step 4**

Service already dead! Refit any covers removed,
re-identify source of supply and means of isolation

Go back to **Step 3**

You may or may not need to use your Voltage Indicator at this stage, but if you do, verify the operation of the Indicator on a proving unit. **Before & After Use!**

Step 6 - Identify suitable means of isolation



Isolation points identified, and are safe to be used as points of isolation, move on to **Step 7**

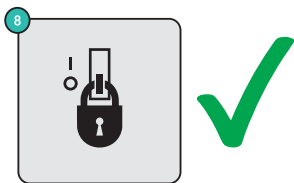
Identify suitable means of Isolation, ensure the selected isolation point can be used for “isolation” as defined by BS7671 Table 537.4

Step 7 - Operate (switch off) Isolation point



Isolation points switched off, move on to **Step 8**

Step 8 - Install lock off device and safety lock

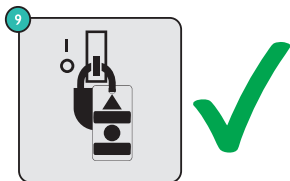


Lock off devices and safety locks fitted, move on to **Step 9**

Fit the appropriate lock-off device and safety lock.

Always retain control of the safety lock key!

Step 9 - Fit warning labels & signs



Signage/labels fitted, move on to Step 10

A caution notice should be placed at the point of Isolation!
(HSG85) GN52

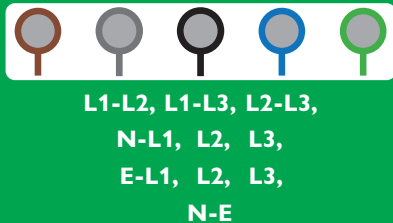
Step 10 - Verify circuit to be worked on is dead



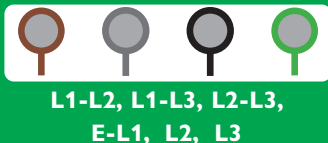
Single Phase Tests,
3 Tests



Three Phase Tests,
10 Tests



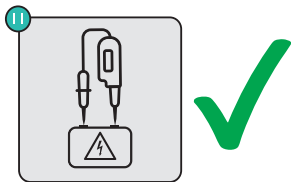
3 Phase Motor,
6 Tests



Verify the circuit/equipment is dead, using a BS EN61243-3 Voltage Indicator, Test between all conductors.

0 Volts AT THE POINT OF WORKS!

Step 11 - Re Verify operation of voltage indicator



Voltage Indicator functioning correctly and no damage, move on to **Step 12**



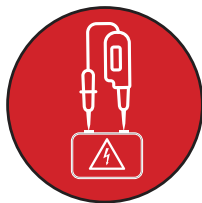
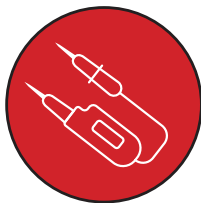
Voltage Indicator not working!
Go back to **Step 4** and select another VI

Re-verify the operation of the voltage indicator. Check the voltage indicator is still functioning correctly on a proving unit!

Step 12 - Commence Work



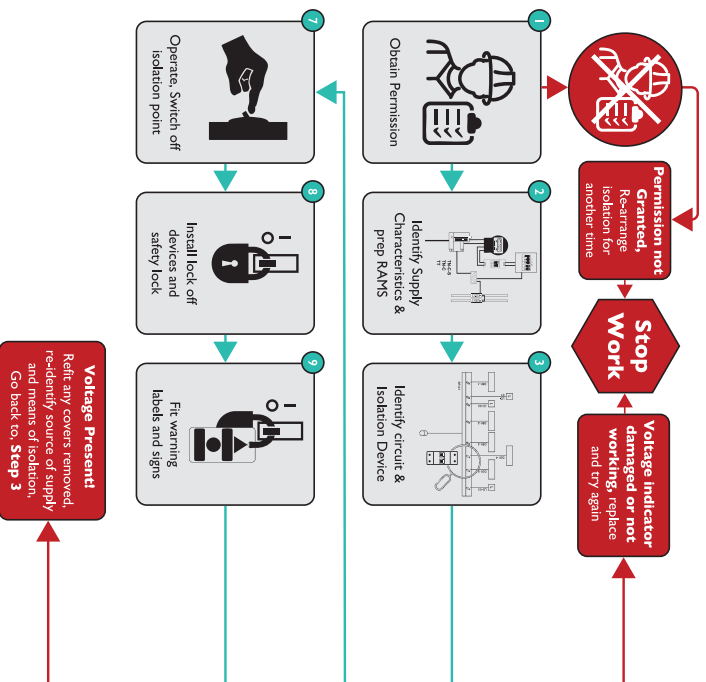
Always remain vigilant!



Always re check with voltage indicator and proving device when moving away and returning to the circuit/equipment, to be worked on!

Consider any other potential Sources of supply or inputs? Be aware of potential change, such as borrowed neutrals, input controls such as stats etc!!

12 Steps of Safe Isolation, Lockout, Tagout & Proving Dead

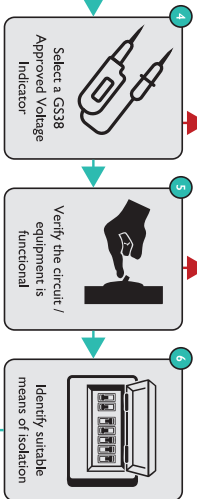




Service already dead! Reft any covers removed, reidentify source of supply and means of isolation. Go back to **Step 3 Voltage Indicator not working!** Change VI
Go back to **Step 4**

Process for re-energising

the circuit/system.

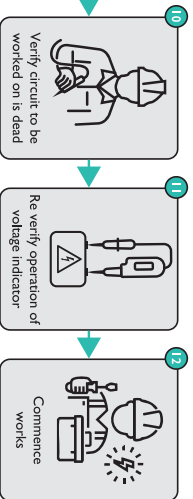


Step 1: After completing the work, inspect and test in accordance with Part 6 of BS7671 (dead testing).

Step 2: When safe to do so, remove lock-off devices, locks & labels.

Step 3: Carry out any live testing in accordance with BS7671 & Regulation 14 of EAWR1989.

Step 4: Cancel any permits, complete and issue the necessary test certificates/reports.



Voltage Indicator not working!
Change VI
Go back to **Step 4**



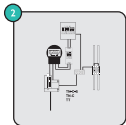
The 12 steps of Safe Isolation and the EAWR1989 Regulations



Obtain
Permission

Regulations
3,4,12,13,15,16

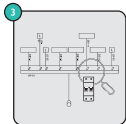
Absolute



Identify Supply
Characteristics &
prep RAM

Regulations
3,4,12,13,15,16

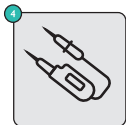
Absolute



Identify circuit &
Isolation Device

Regulation 4

Absolute



Select a GS38
Approved Voltage
Indicator

Regulation 4

Absolute



Verify the circuit/
equipment is
functional

Regulation 4

Absolute

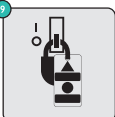
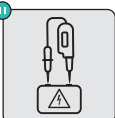


Identify suitable
means of isolation

Regulation 4 & 12

Absolute

The 12 steps of Safe Isolation and the EAWR1989 Regulations

	Operate, Switch off isolation point	Regulations 4 & 12	Absolute
	Install lock off devices and safety lock	Regulations 13 & 14	Absolute
	Fit warning labels and signs	Regulations 13 & 14	Absolute
	Verify circuit to be worked on is dead	Regulations 13 & 14	Absolute
	Re verify operation of voltage indicator	Regulation 4, 13 & 14	Absolute
	Commence works	Regulation 13, 15 & 16	Absolute

The information in this guide is based on the process recommended by both the HSE and Electrical Safety First's "Safe Isolation Best-Practice Guide – 4th Edition"



Electrical safety, compliance and training specialists, focusing on providing support to clients regarding electrical compliance and legislation. We help clients & duty holders to identify their risks and legal non-compliances, assisting them with the implementation of compliant systems, processes, and training.



General Enquiries



Training

Please get in touch if we can be of any assistance regarding your electrical training or compliance requirements.

info@GCSDoncaster.co.uk

Landline: 01302 495775

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This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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