

Alcomet

# TRITON

Portable Earthing Device

11kV Metal Clad Switchgear



The Ultimate Earthing  
& Testing Device

Alcomet

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Portable Earthing Device  
11kV Metal Clad Switchgear

As an endorsement of quality and excellence, HM Queen Elizabeth II honoured Alcomet with a Queen's Award for Enterprise: Innovation, expressly for the development and launch of the Guardian Security Range.

Alcomet has continued to work within the electrical market and responded to its needs by developing the Triton Portable Earthing Device.

We all know the expense incurred with Customer Minutes Lost and the Triton provides the total solution to being able to work safely and compliantly.

The simple deployment of the Triton, its portability and effectiveness provides a solution that will comply with local safety rules on switchgear, whilst addressing the situation where manufacturer devices are not available or fit for use.

As the electrical industry strives towards minimising costs without compromising the quality and continuity of service provision, safety remains a key objective. The Triton provides a solution to the problem of what to use when original manufacturer devices are not available or fit for use.

Tested to accommodate the worst case scenario the  
***Triton is a winner.***

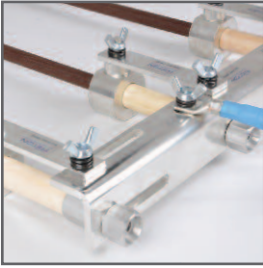


THE QUEEN'S AWARDS  
FOR ENTERPRISE:  
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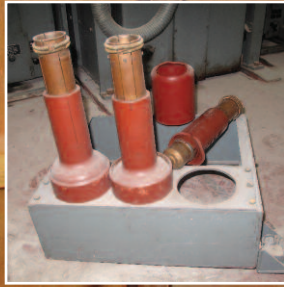
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# Current Situation

Many items of 11kV metal clad switchgear supplied with earthing device / attachment or test plugs over the years have either been lost, stolen or damaged.

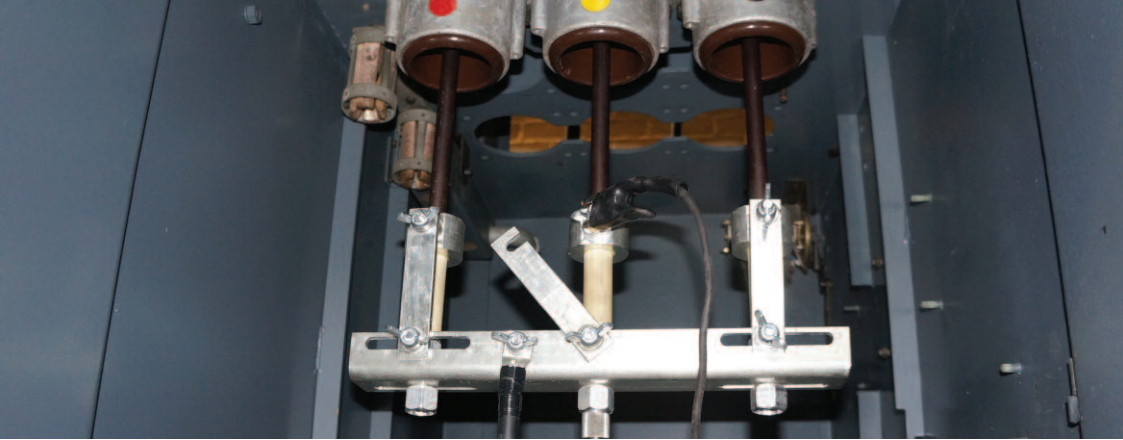
Ordering replacements from various manufacturers is in most cases impossible. Some in fact don't exist anymore !

To carry out work safely on the electricity network in conjunction with local safety rules a circuit breaker must be earthed by means of an approved and tested attachment. - New switchgear has the facility built in, however old ones do not.

## What Do You Do ?

The **Triton Portable Earthing Device** is the *answer to the problem.*





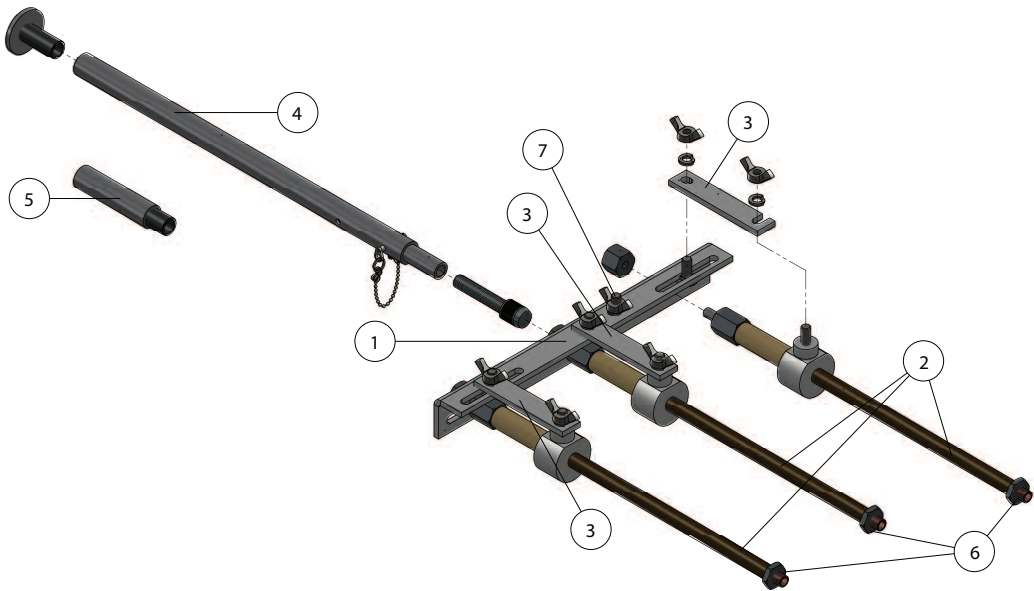
# Triton – What is it ?

The Triton is an approved 3 phase portable earthing and testing device which has been tested to withstand 13.1 kA for 3 seconds to provide an effective earth against inadvertent re-energizing of the supply. Developed for use with existing 11kV metal clad switchgear to provide an earthing solution when the manufacturers device is not available or suitable for use.

The Triton has been designed to accommodate a full range of isolating contacts that will fit into most switchgear that's on the distribution network. In addition to the Triton's ability to earth equipment its unique design also enables it to be used to carry out fault location / pressure testing on 11kV apparatus.

The Triton is strong, compact and is stored in a specially developed robust carry case. It can be assembled and fitted in minutes saving time and money. The key focus for distribution network operators is the “Customer” and the Triton helps minimize CML (customer minutes lost).





# Assembly Guide

- Attach one **Phase Rod** ( 2 ) to the centre of the **Main Frame** ( 1 ).
- Connect **Test Link** ( 3 ) to centre **Phase Rod** ( 2 ) and tighten.
- Attach the outer **Phase Rods** ( 2 ) and connect **Test Links** ( 3 ) but do not tighten.
- Set the outer **Phase Rod** ( 2 ) alignments to match circuit breaker isolating contact spacing's.
- Tighten outer **Phase Rods** ( 2 ) and **Test Links** ( 3 ).
- Select correct set of 3 Isolating Contacts, screw and tighten to the 3 **Phase Rod** connection points ( 6 ).
- Attach **Earthing Clamp** to **Earth Lead**.
- Connect **Earth Lead** to Main Frame Connection Point ( 7 ).
- The Triton is assembled and ready for use, now install to apparatus.
- Insert **Support Leg** ( 4 ) to centre of Triton at desired length securing with safety pin.  
Fine tune with threaded adjuster.
- NOTE – **Support Leg Extension** ( 5 ) can be used when extra length is required.





# Advantages / Benefits

- Always available.
- Quick and easy to assemble and install.
- Saves time when earthing / testing – engineers estimate minimum 2 hours per job.
- Reduces CML (customer minutes lost), less downtime for customers on planned and fault works.
- Triton is tested, approved and fit for use.
- Multi purpose fits most types of UK switchgear.
- Easy to transport in engineers vehicles.
- Portable and supplied in a robust case.
- Can be used as earthing and testing device .
- Bespoke isolating contacts can be made to order.
- Accessories available.
- All sets serial numbered for registration and traceability.
- Has facility to be used for fault location and pressure testing.





# Triton's Specification

Narac testing laboratories conducted the test required to meet the demands needed to be able to use safely.

Certificates are available to cover the following ;

- **46.8kV AC 5 minutes phase to phase.**
- **46.8kV DC 5 minutes phase to phase.**
- **32.5kV AC 5 minutes phase to earth.**
- **32.5kV DC 5 minutes phase to earth.**
- **2 hour 200A 50Hz continuous rating.**
- **Short Circuit Test 13.1kA for 3 seconds**
- **Short Circuit Test 33.4kA peak current for 100ms.**

Certificates are available for the tested criteria.







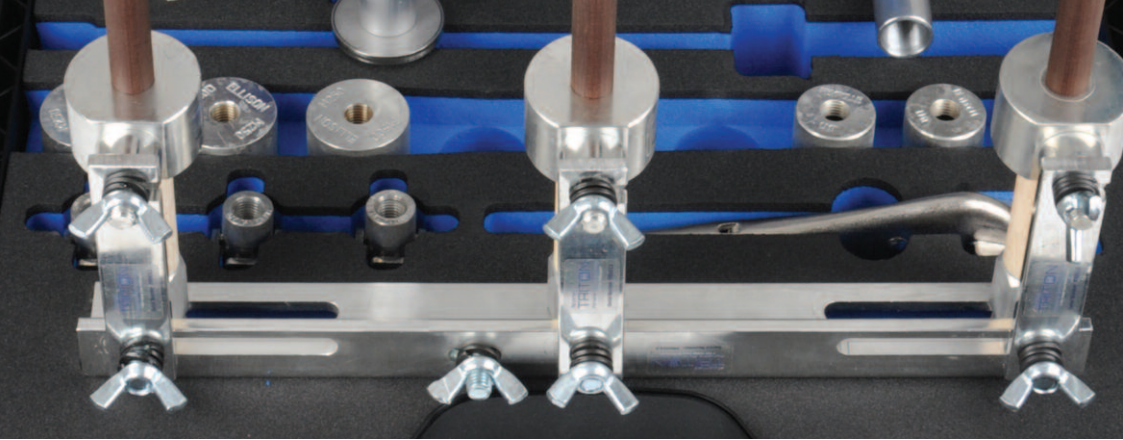
# Isolating Contacts

MANUFACTURE	MODEL	RATING	REF NUMBER
<b>Reyrolle *</b>	<b>LMT</b>	<b>630 AMP</b>	<b>TR401</b>
<b>Ellison *</b>	<b>AP400</b>	<b>400AMP</b>	<b>TR402</b>
<b>Ellison *</b>	<b>F150D/M250</b>	<b>400AMP</b>	<b>TR403</b>
<b>South Wales Switchgear *</b>	<b>C4X</b>	<b>400AMP</b>	<b>TR404</b>
South Wales Switchgear	C6X-C8X	600-800AMP	TR405
South Wales Switchgear	D8	1200 AMP	TR406
South Wales Switchgear	D20	2000 AMP	TR407
<b>GEC *</b>	<b>KN(DDA4-K4/2)</b>	<b>up to 1500 AMP</b>	<b>TR408</b>
<b>Brush *</b>	<b>VSI/VTD</b>	<b>up to 630 AMP</b>	<b>TR409</b>
Brush	VSI/VTD	2000 AMP	TR410
Brush	VBAD	800 AMP	TR411
AEI/GEC	BVRP17	400 AMP	TR412
AEI/GEC	BVRP17	630 AMP	TR413
AEI/GEC	BVRP22	2000 AMP	TR414
British Tompson Houston (BTH)	JB721	400 AMP	TR415

\* Standard contacts supplied within the Triton box set.

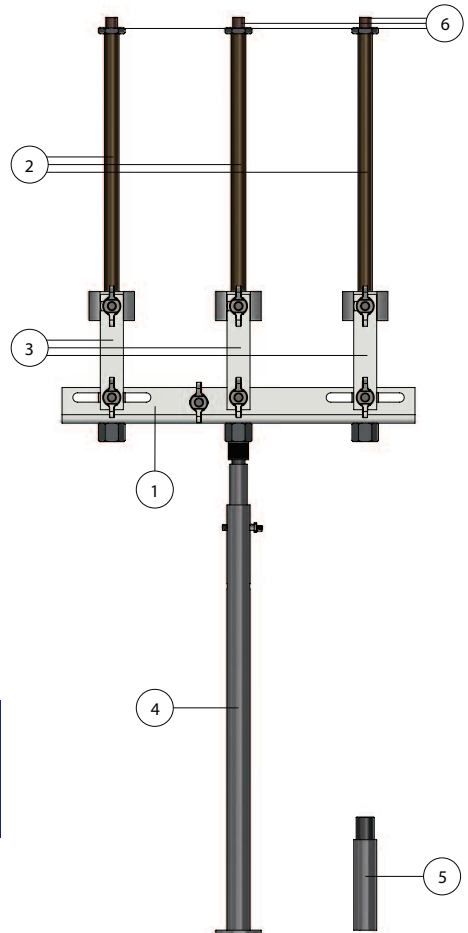
*Others are available on request.*





# Parts / Re-Order List:

Part	Description	Code
1	Main Frame	TR901
2	Phase Rod	TR902
3	Test Link	TR903
4	Support Leg	TR904
5	Support Extension Piece	TR905
6	Connection Point (not a re-order part)	
7	Earth Clamp	TR907
8	Earth Lead	TR908
9	Triton Carry Case	TR909



**Extra Isolating Contacts are available, bespoke engineered to be compatible for the Triton.**



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We are constantly reviewing and updating our products, for the latest information please call us on: **01384 404488** or visit our website at: **[www.alcomet.net](http://www.alcomet.net)**

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