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# Southern Shield

## Good/ Best Practice feedback

Nature of works	Use of ST-CRID
Date of good practice note	09/09/2020

## Using the Self-Testing Current Rail Indicating Device (ST-CRID)

Product Image



### Product Description

The Self-Testing Current Rail Indicator Device (ST-CRID) is a portable traction voltage indicating device for use in fourth and third rail areas.

## Description of the good practice

### Introduction:

The Southern Shield Electrical Safety Group have recently undertaken a review of electrical test devices that can be used to reduce the electrical risks associated with conductor rails.

The ST-CRID has been identified as an approved device that can be used for two purposes. One is to prove at track level whether the traction current is switched off or not; the other is to act as a Live Conductor Rail Indicator where sections of live conductor rail (e.g. Live Floaters) encroach into a working area.

The device can only be used by staff who have been trained and hold a valid competency to use Live Line Testers.

The ST-CRID is an alternative to the Seaward Live Line Tester.

The Electrical Safety Group has carried out a trial of the ST CRID device, which is already approved by NR and in use by both Maintenance Teams and MOMs, with a view to a wider use as a Live Line Indicator and Tester device.

**Using the ST-CRID:** The following must be adhered to:

**Self- test operating procedure:**

- Ensure the CRID is in date and valid for use.
- Visually check for damage to the enclosures and cable.
- Ensure that the rail magnets are free of any contamination.
- Holding the Test and Indicator units by the carrying handles connect them together base to base with the two arrows aligned.
- Press and hold down the self- test push button.

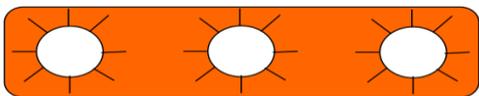
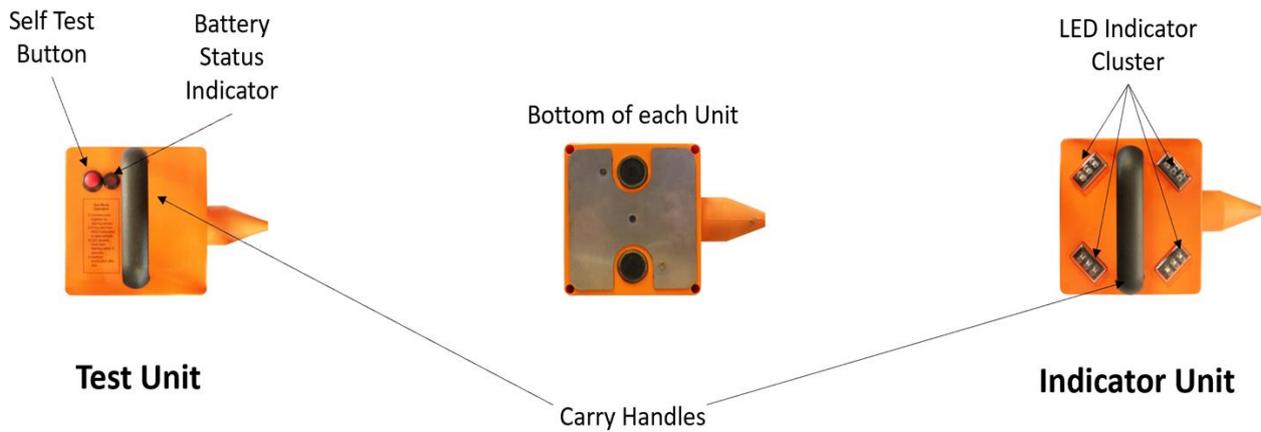
Observe that the red battery status indicator LED illuminates immediately.

Observe that the LED indicator clusters start flashing within 5 seconds of pressing the self-test button

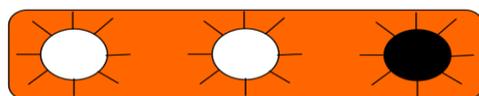
Release the self-test button.

Rotate the units to separate.

**DO NOT USE THE ST-CRID IF THE SELF-TEST FAILS**



Three indicator lamps flashing,  
ST-CRID is working correctly.



Two indicator lamps flashing,  
use ST-CRID to end of shift only.



One indicator lamp flashing,  
**DO NOT USE ST-CRID.**



No indicator lamps flashing,  
**DO NOT USE ST-CRID.**

**Use as a live line indicator -**

When instructed by a competent person to identify a residual electrical hazard -

- Use the self-test facility to prove that the CRID is functioning correctly.
- Place the Test unit on the return rail and the Indicator unit (the one with the LED clusters) on the conductor rail.

**Notes -**

Place the tester unit on the return rail and the indicator unit on the conductor rail with the handles in line with the rails.

It is preferable that the indicator unit (the ones with the LED clusters) goes on the conductor rail as it is elevated and will provide better visibility.

The STCRID can be left on live rail for the full duration of the isolation.

However, if that rail is subsequently de-energised as a result of the isolation being extended, the ST-CRID unit must be removed as it is no longer required.

## What are the benefits?

The ST-CRID already has PADs approval, it is currently being used successfully by the Maintenance Teams within NR.

It is robust construction and eliminated the need for probes which are prone to damage.

It can be used to indicate conductor rails that are still live and which present a hazard to staff in the work site.

It is simple to use but needs a competent person to deploy it.

## Are there any drawbacks?

Procurement of ST-CRID is currently difficult as the manufacturer has changed the location and some of the components. Once NR can re-certify the Manufacturer's processes and components, the unit will become available again.

Due to magnetic attachment method of ST-CRID, it will not stick to the surface of Aluminium Composite (ASC) conductor rails. It can be used as a Live Line Tester on ASC rails but not as an indicator.

## Supporting Information

Certificate of Acceptance PA05/06069

Manufacturer: Unipart Rail Issue : 2  
Valid From : 23-02-2015

Self-Testing Current Rail Indicator Device (ST-CRID)

Product Description

The Self-Testing Current Rail Indicator Device (ST-CRID) is a portable traction voltage indicating device for use in fourth and third rail areas.

Product Image



Scope of Acceptance

Full Acceptance

Accepted for use on all Network Rail controlled DC Conductor Rail Electrified Lines

Network Rail Acceptance Panel (NRAP) hereby authorises the product above for use and trial use on railway infrastructure for which Network Rail is the Infrastructure Manager under the ROGS regulations.  
Authorised by:

Cosmas Okoye  
Technology Introduction Coordinator

Richard Stainton  
Professional Head

Certificate of Acceptance PA05/06069

Manufacturer: Unipart Rail Issue : 2  
Valid From : 23-02-2015

Specific Conditions

The following Conditions are specific to the approved product/s contained within this Certificate. These conditions must be adhered to in addition to the Network Rail General Conditions contained within the "General Terms and Conditions" section.

Failure to adhere to these conditions may result in the withdrawal or suspension of Acceptance of some, or all of the items contained within the accepted configuration.

Manufacturer

- 1) None

User

- 1) The ST-CRID is not to be used as a Line Live Indicator or as a Line Dead Indicator (subject to Note 3 below) on Aluminium/Steel Composite conductor rail as it depends on the rail being magnetic. The stainless steel used as the running surface on ASC rail is non-magnetic and although the ST-CRID will make contact, it will not be positively retained in position.  
It may be used as a Live Line Tester on ASC rail as this involves only momentary contact and pressure is applied by the user whilst the test is undertaken.
- 2) Users of ST-CRID units are to ensure that details are maintained on the Insulated Tools database and that each unit is subject to annual inspection and calibration.
- 3) Not to be used as Line Dead Indicator during planned isolations. May be used to indicate line dead only during unplanned, ie emergency, isolations where necessary to manage incidents.

Conditions for Use

Product Configuration

System or Complete Assembly

Part No.	Description	Catalogue No.
ST-CRID	Self-Testing Current Rail Indicating Device	0054/213040

Hardware (Maintenance Spares and Line Replaceable Units)

Part No.	Description	Catalogue No.

