

SAFEARTH INSTRUMENTS

# CS3 Site Continuity Meter

## Fast and accurate integrity testing

The CS3 is purpose-built for testing earthing systems and can identify defects before they fail under fault conditions. Electrical connections can be verified across a large distance, or in a noisy environment such as a live substation.

- Accurate measurements across large distances
- Measure multiple connections in a single test
- Up to 4x faster than traditional testing methods
- High AC and DC noise rejection
- High accuracy - even identify a loose joint
- Reliably test in-service assets



**safeearth**  
instruments



## The CS3 is a milli-ohmmeter that accurately measures the resistance between metallic structures in an installation.

It has the unique capability of overcoming electrical noise while measuring across large distances, which provides accurate continuity measurements across the full extent of in-service earthing and lightning protection systems. It is now possible to detect potentially compromised earth connections in an efficient and cost-effective way.

Australian and International  
Patents Pending

## Overview

Measuring the electrical continuity of earthing conductors in a power installation, such as a high voltage (HV) substation, or a lightning protection system, is a necessary verification test of the system condition. The difference between an effective and ineffective earthing connection could be as small as a few m $\Omega$ . A 1kA fault or strike through a 10m $\Omega$  joint results in 10kW of heat, which could immediately destroy the connection, and result in a hazardous scenario.

Safearth has developed the CS3 to meet the needs of earthing system installers, in-service inspectors/testers and asset owners. Its award-winning design represents the culmination of years of research and experience and gives you previously unachievable insight into the condition of your assets.

## Key Specifications

Resistance Measurement Method	4-Wire
Maximum Lead Length	200m
Measured Resistance Range	0.1m $\Omega$ – 10 $\Omega$
Measurement Time	3s (typical)
Measurements on Single Charge	>5000

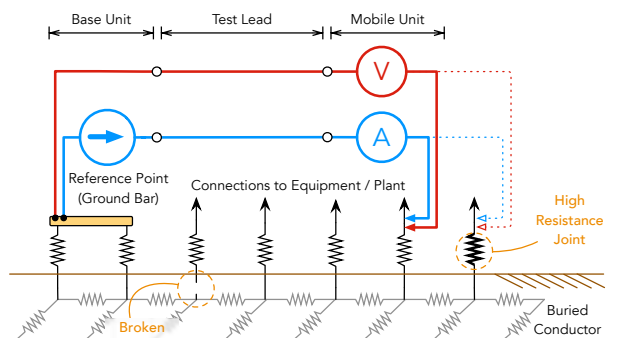
## Inclusions

- Base Unit and Handheld Meter
  - Plug Pack Charger
  - Kelvin Clamp & Lead (3m)
  - Hand Probe & Lead (1.2m)
  - Base-Meter Lead (3m)
  - Site Calibration Board
- Optional Base-Meter Leads:**
- 20m on hand reel
  - 80m on hand reel
  - 200m on engineered plastic spool with geared stainless steel winder
  - Black or orange cable

## Features

The CS3 has a number of advanced features that have been developed especially for the particular requirements of earthing system integrity testing.

- Accurate measurements across large distances
- Measure multiple connections in a single test
- Up to 4x faster than traditional testing methods
- High AC and DC noise rejection
- Sufficiently accurate to identify a loose joint
- Reliably test in-service assets
- LeadSure® test lead continuity verification



CS3012A

**For sales, support, or training:**

Phone: 1800 EARTHING (1800 327 844)

Email: [instruments@safearth.com](mailto:instruments@safearth.com)

[safearth.com](http://safearth.com)

**safearth**  
instruments