

# Ground Fault Locator

Model: GFL3836

The PITE GFL3836 Ground Fault Locator is an essential instrument to identify faulty grounding where electrical cables have breakage and loss to the ground. The unit identifies the inadvertent ground by injecting a low frequency signal on the faulted polarity. By following the signal using the current clamps and the portable receiver, the physical location of the ground fault can be found. Measurement of online DC systems is possible as the output current of the GFL3836 is very low but the output voltage can be up to 1000V.

Compliance with NERC PRC-002-6 requires that the battery and DC power system be inspected for inadvertent grounds every four months. If a ground fault exists the GFL3836 is the tool by which that fault can be located without the need to de-energize the live circuit

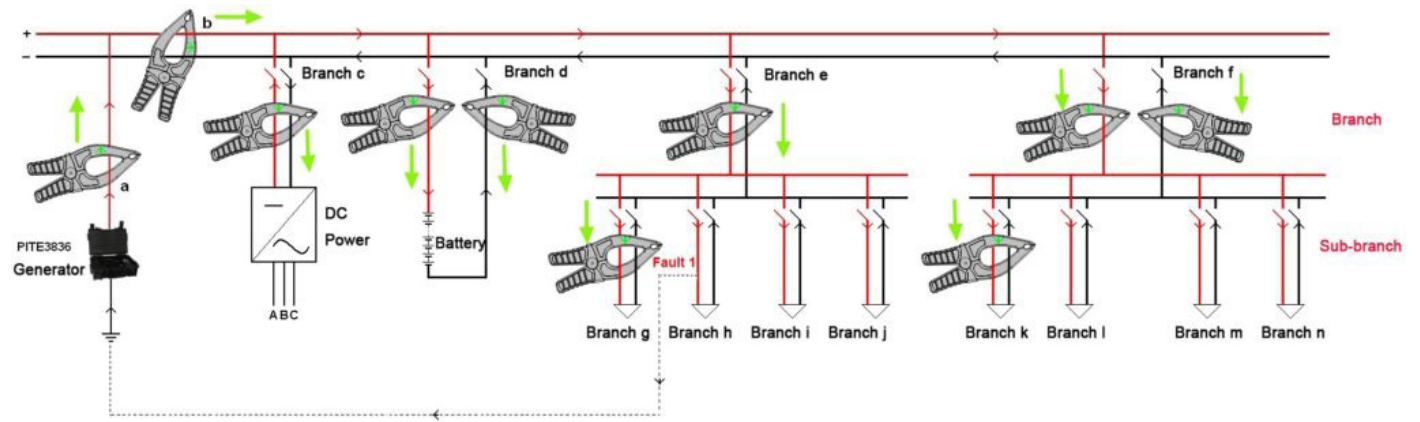


## Technical Specifications

Output Voltage:	24, 48, 110, 220, 500, 1000 VDC
Output Frequency:	10 Hz
Output Current Limitation:	5 mA or Unlimited (Max 25mA)
Fault Location Sensitivity:	$\leq 1 \text{ M}\Omega$
Current Detect Sensitivity:	AC/DC Circuit: $\geq 0.5 \text{ mA}$
Quick Search Clamp:	55 mm (diameter), 60 mm (jaw opening)
Current Sensor:	$\phi 8$ and $\phi 20$
Jaw Opening:	60 mm (2.36 in)
Display:	Backlit Color LCD
Operating Environment:	Temperature: $-5 - 40 \text{ }^{\circ}\text{C}$ ( $23 - 104 \text{ }^{\circ}\text{F}$ )
Power Requirements:	8.4 VDC Li-ion Battery
Dimensions:	360 x 260 x 135 mm (14.2 x 10.2 x 5.3 in)
Weight:	7 kg (15.4 lbs)

- Patented technology, pinpoint current leakage fault with grounding resistance lower than  $1\text{M}\Omega$
- Innovative dual-clamp for signal receiver, each clamp has two sizes of opening jaw for different conductors
- One pair of clamp working together, effective cancel capacitive interference when DC system is online
- Precise current direction (positive or reversed) indicating for leaking current help fast locate the faulty grounding
- 10Hz output frequency on signal receiver effectively avoids interference from DC system itself
- Signal receiver can set reference in different points for signal comparison, very fast for fault orientation
- Digital signal processing technology for detecting grounding resistance and capacitive resistance
- With built-in band pass filter to bypass different interference signals in the ambient environment.
- No disconnection of the electrical installation, ground fault location is carried out during operation
- Frequency spectrum analysis can test ambient frequencies, which helps analyze the surrounding environment.
- Signal generator with adjustable output voltage (24V~1000V) for different DC systems
- Multi-ways to indicate ground fault: sensitive current direction, phase angle, comparison of signal strength.

## Package



**EBO**

### CERTIFICATE OF CONFORMITY

No.: EBO1907106-V201

The following product has been tested by us with the listed standards and found in conformity with the European directive LVD 2014/35/EU.

**Applicant:** PITE TECH. INC.

**Address:** 4/F, Bldg A, Chiwan Industrial Park, Shaodi Road, Shekou Area, Shenzhen, China

**Manufacturer:** PITE TECH. INC.

**Address:** 4/F, Bldg A, Chiwan Industrial Park, Shaodi Road, Shekou Area, Shenzhen, China

**EUT:** GROUND FAULT LOCATOR

**Brand Name:** PITE

**Model No.:** PITE3836

**Test Report No.:** EBO1907106-E200

Sufficient samples of the product have been tested and found to be in conformity with

**Test Standards:** EN 61010-1:2010+A1:2019

The test report was carried out from submitted type samples of a product in conformity with the specification of the respective standards. The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives.

*Kevin Wang*

Kevin Wang  
Laboratory Manager  
Issue Date: July 24, 2019



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### GFL3836 uses comprehensive ways to pinpoint the faults with the following working rules:

- Signal generator has two testing leads connected with DC system. And it injects a low-frequency current signal with direction to the DC system. This signal will flow from testing lead to circuit, outflow from the faulty grounding point and finally flow back to the signal generator. This makes a return circuit that will be useful for signal tracing in the next step.
- Signal receiver will trace this current signal with the help of current direction judgment. Direction of current signal always goes to the faulty point. With one clamp on two busbars or two clamps respectively on two busbars, it could work effectively with strong anti-interference when system is online.
- Strength and phase angle of current signal will have big changes before and after the grounding fault. They also help pinpoint the fault.

### Kit Includes

- GFL3836 Signal Generator
- Power Adapter
- Qty. (2) Signal Testing Leads
- Qty. (2) Alligator Clips

- Punctuation Clip
- Signal Receiver
- Qty. (2) Dual-Range Current Detector
- Qty. (2) Batteries
- 120/220 50/60 Hz Battery Charger
- Carrying Case