

## GD4136L Cable Fault Locating System



### General Information

GD4136L Cable Fault system is important tool to maintain all kinds of cables. It uses various detection way to test cable faults, which is suitable for different levels voltage power cables and communication cables.

The system contains below units:

1. GD-2131L Impulse Generator
2. GD-4132 Cable Fault Locator
3. GD-4133 Multi-pulse Cable Fault Tester
4. GD-4133S Multi-pulse Coupler
5. Other accessories

### GD-2131L Impulse Generator



It is used to generate HV impulse when using impulse flashover method to detect high

impedance fault.

## Features

- Strong burning ability, max. burning power is 1000W, breakdown point can be burned in short time and the resistance of breakdown point is decreased.
- If working together with GD-4133 Cable Fault Tester, there are two locating ways:
  - a. Low voltage pulse: If only using GD-4133, open circuit and low impedance grounding faults of cable can be located, and the length of cable can be measured, or wave speed of cable can be detected.
  - b. High voltage flashover: The discharging pulse voltage waveform of fault point is sampled by discharging sphere gap, which can locate fault distance.
- Generate impulse of fixed frequency. If working together with GD-4132 Cable Fault Locator, there are following functions:
  - a. Audio frequency: locate high impedance, flash-over faults.
  - b. To pinpoint cable's route, identify special cable.
  - c. To metallic breakdown (dead grounding), using magnetic-field measurement to locate accurately.
- It also can be used in DC HV withstand test.

## Specifications

- Input power supply: AC 220V,50Hz
- Output voltage: DC 0-16kV (adjustable)
- Rated power: 1kVA
- Max. energy: 1024J, 8uF
- DC flashover voltage: 16kV
- DC flashover current: 63mA
- Max. impulse current: 500mA
- Discharging method: DC HV, one time, cycle
- Cycle discharging time: 3-6 seconds
- Environmental temperature:0-40°C
- Humidity:<75% RH

- Altitude:<1000m
- Insulation level: A
- Dimension: 430\*540\*410mm
- Weight: bout 31kg.

## GD-4132 Cable Fault Locator

Including main unit, acoustic and magnetic sensor, anti-noise headphone and charger.

It is suitable to test all kinds of power cable with metallic conductor.

Its main function is locating poor insulation point, detecting circuit and depth of power cable.

### Features

- Acoustic Magnetic receiving at the same time,
- Strong anti-interference ability
- With anti-noise headphone.
- 320\*240 LCD screen display
- Built-in big capacity Li-battery, with fast charger.
- Acoustic and Magnetic signal waveform display, signal and noise is easy to distinguish.
- Using cursor to measure acoustic and magnetic delay, accurately determine fault point.
- According to initial polarity of magnetic waveform, it can locate and route detection.



### Specifications

#### 1. Locating function

- a. Acoustic signal transmission band: center frequency 400Hz, bandwidth 200Hz
- b. Signal gain: 80dB
- c. Locating accuracy: 0.1m

#### 2. Power Supply

- a. Built-in Li-battery, nominal voltage 7.4V, capacity 3000mAH.
- b. Power consumption: 300mA, continuous working time 9hours.
- c. Charger: input AC220V±10%, 50Hz. Nominal output 8.4V, DC 1A
- d. Charging time: 4hours

3. Dimension: 270mm\*150mm\*210mm

4. Weight: 1.5kg.

5. Use condition

Temperature -10°C--40°C, humidity 5-90%RH, altitude <4500m

## GD-4133 Cable Fault Detector

GD-4133 Cable Fault Locator is used to measure distance between cable faults. It's easy to operate and with friendly interface.

It can be used alone under the low voltage pulse mode. Under the mode of pulse current, it needs to work with GD-2131 high voltage generator. Under the multiple pulse mode, GD-4133S coupler should be worked together. After distance locating, GD-4132 fault locator should be used for fault pinpointing. These products can be combined into a set of high performance and innovative cable fault testing system.



## Features

- 7inch LCD screen, friendly interface.
- Multiple distance locating method:
  - Low voltage pulse method: it is suitable for the locating of the low resistance fault, short circuit fault, open circuit fault. It also can be used in the measurement of the cable length, the intermediate joints, T joints, and cable termination joint. This method also can be used to correct the wave velocity.
  - Pulse current method: It is suitable for distance measurement of the high resistance fault, breakdown fault. Using the current coupler to collect signals from the earth wire, it makes the user far away from the high voltage. This method is safe and reliable.
  - Multiple pulse: the advanced way to measure distance. The waveform is easy to identify and the accuracy is high.
- 200MHz real-time sampling. Max. 0.4m measurement resolution. It has small dead zone and is special for the short cable and near fault cable.
- Touch screen and press key operation
- PIP copy (pic. temporary storage)
  - There will be a main window and three temporary storage windows could check three waveforms together.
- Built-in operating system

- Special software management for software upgrade, backup and restore.
- Scale function
  - A starting point,10 contacts, one cable fault and one full length could be setting.
  - Display scale and testing waveform together
- Waveform storage and communication with computer.
  - Internal storage of waveforms.
  - With USB, to download or upload data
  - Communication with computer
- Power management
  - Backlight weakens if no operation in 2mins and power off in 10mins if no operation.
  - Built-in Polymer Lithium-ion battery.
  - Working time is up to 5 hours for each use.
  - Strong case, easy to carry.

## Specifications

Locating methods:	<ul style="list-style-type: none"> <li>● Low voltage impulse method</li> <li>● Impulse current method</li> <li>● Multiple impulse method if matched with GD-4133S</li> </ul>
Max. Sampling frequency:	200MHz
Gain range:	0-70dB
Low voltage impulse voltage:	30V
Max. resolution:	0.4m
Max. Locating range:	100km
Dead zone:	2m
Battery:	Nickel-metal hydride rechargeable batteries, endurance time over 5 hours
Communication interface:	USB
Power supply:	Input AC220V,50Hz, current 2A, charge for 8 hours
Dim.:	274x218x81mm
Weight:	3.5kgs
Operating Temperature:	10°C ~ 40°C
Humidity:	5-90%RH
Elevation:	<4500m

## GD-4133S Multiple Pulse Coupler



It is working together with GD-4133 Cable Fault Detector, used for detecting high impedance leak fault, flashover fault, low impedance earth and open circuit fault of power cables. GD-4133S supplied pulse coupling signal for GD-4133 and isolate it from high voltage equipment.

- Using the most advanced technology of multiple pulse and pulse balance. The reflected waveform is easier to identify.
- With safety HV protection, the measuring circuit and high voltage impulse power is electrically isolated.
- Easy wiring, safe and reliable.

### Specifications

- Pulse voltage: 300V(P-P)
- Allowable input impulse voltage: <35kV
- Allowable input impulse energy: <2000J
- Power input: 220V AC, 50Hz
- Dimension: 560\*230\*220mm
- Weight: 7kg.