

## GD-4138 series Cable Fault Locating System



GD-4138 Cable Fault Locating System is important tool to maintain all kinds of cables. It is compatible equipment that can trace, locate the underground cables, with fault distance measurement and HV generation. As it is movable device, it is convenient to carry on-site. If acoustic locator is used together, it can locate accurate position of cable fault point. Application is underground cable, aerial cable, power cable, local cable, communication cable and fiber cable.

### Typical fault to be detected includes

- ❖ High impedance flash-over fault
- ❖ High impedance leak
- ❖ High/low resistive grounding
- ❖ Short-circuit fault
- ❖ Open-circuit fault
- ❖ Poor connection/Disconnection

### GD-4138 system includes:

GD-4138 main frame (Coupling device, Sphere gap, HV generator are inside)  
GD-4133 Multiple pulse cable fault tester  
GD-4132 Cable Fault Locator

## GD-4138 Specifications

Model No.	GD-4138L	GD-4138M	GD-4138H
Test mode	Arc reflection, current sampling, DC output		Arc reflection, DC arc reflection, current sampling, DC output
Sampling signal type of distance detection	Multi-pulses arc reflection method, current sampling, LV pulse		Arc reflection, DC arc reflection, current sampling, DC output
DC HV output	0-16kV negative polarity Max. output current: 152mA	0-32kV negative polarity Max. output current: 76mA	0-8kV negative polarity Max. output current: 304mA 0-16kV negative polarity Max. output current: 152mA 0-32kV negative polarity Max. output current: 76mA
Flashover capacitance	0-16kV 8 $\mu$ F Max. output energy: 1024J	0-32kV 4 $\mu$ F Max. output energy: 2048J	0-8kV 32 $\mu$ F Max. output energy: 1024J 0-16kV 8 $\mu$ F Max. output energy:1024J 0-32kV 4 $\mu$ F Max. output energy: 2048J
Automatic sphere ball discharge	Weak current control, the discharge cycle is 3-12s adjustable, and a silencer is specially set to meet the requirements of mute for cable fault at the beginning.		
Output mode	DC withstand voltage, single discharge, cycle discharge		
DC output	16KV	32KV	32KV

Allowable input impulse voltage	16kV	32kV	32kV
Allowable input impulse energy	<2048J		
Working environment	0~40℃ <75%RH		
Working power supply	AC 220V, 50Hz		
Power consumption	3kVA		

## GD-4133 Multiple Pulse Cable Fault Tester

It is used to measure fault distance. Under LV pulse mode, it can be used alone.

- 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. The cursor can be dragged.
- PIP copy(pic. temporary storage)
  - There will be a main window and three temporary storage windows could check three waveforms together.
- Built-in embedded operating system

- Special software management for software upgrade, backup and restore.
- Scale function
  - One starting point,10 contacts, one cable fault and one full length could be setting.
  - Display scale and testing waveform at the same time
- 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</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:	3.5kg
Operating Temperature:	10°C ~ 40°C
Humidity:	5-90%RH
Elevation:	<4500m

## GD-4132 Cable Fault Locator

- Acoustic and magnetic signal are received at the same time. Strong anti-interference ability.
- Waveform display.
- Acoustic magnetic waveform display.
- Locating the fault point and route tracing.

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- With earphone to hear noise.
  - 320\*240 LCD screen display, friendly interface.
  - Built-in Li battery, with fast charger.
  - It will power off automatically if not operating after 15mins or low battery.
  - Small size, easy to carry.

## Specifications

- Acoustic signal bandwidth: center frequency 400Hz, bandwidth 200Hz
- Signal gain: 80db.
- Locating accuracy: 0.1m
- Power supply: built-in Li battery, nominal voltage 7.4V, 3000mAh, continuous working 9hours.
- Charger: Input AC220V $\pm$ 10%, 50Hz, nominal output 8.4V, DC1A
- Dimension: 270\*150\*210mm.
- Weight: 1.5kg.
- Use condition: temperature -10--40°C, humidity 5-90%RH, altitude <4500m.