



# Tianjin Grewin Technology Co.Ltd



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**PCLC-900C**

**Cable fault multi-impulse coupler**

**User Guide**

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## Introduction

Matched with HVSG-500GN HV generator and PCLC-901D pre-locator to do location of the power cable high resistance leaking fault, flash fault, low resistance fault and break fault.

PCLC-900C Cable fault multi-impulse coupler is used to offer the multi-impulse signal coupling path for the cable fault locator. It adopts the latest multiple impulse method to simple the judgment of the cable fault waveform.

It transfers the complex voltage surging breakdown waveform into the easy distinguished fault waveform. And the requirement to the tech. stuffs is reduced.

## Design Features

### **PCLC-900C Cable fault multi-impulse coupler**

- Latest multiple impulse tech. and impulse balance tech., make the reflected waveform of the fault point obvious and easy to distinguish
- Adopt high voltage protection tech. to realize the isolation of measuring circuit and the high voltage surging power
- Simple wiring and matched with generator of other brands
- No high voltage release

## Tech. Specifications

<b>Input surge voltage</b>	below 32kV
<b>Input surge current</b>	Below 4000J(instant) and the mean value should below 2000J
<b>Tested impulse voltage</b>	300Vpp
<b>Impulse period</b>	Above 5s
<b>Power</b>	AC 220V,50Hz
<b>Volume</b>	419mm×320mm×341mm
<b>Weight</b>	10kgs
<b>Operating Temperature</b>	-10℃ – 40℃
<b>Humidity</b>	5-90%RH
<b>Elevation</b>	<4500m

# Physical Characteristics

## 1.PCLC-900C 3D drawing

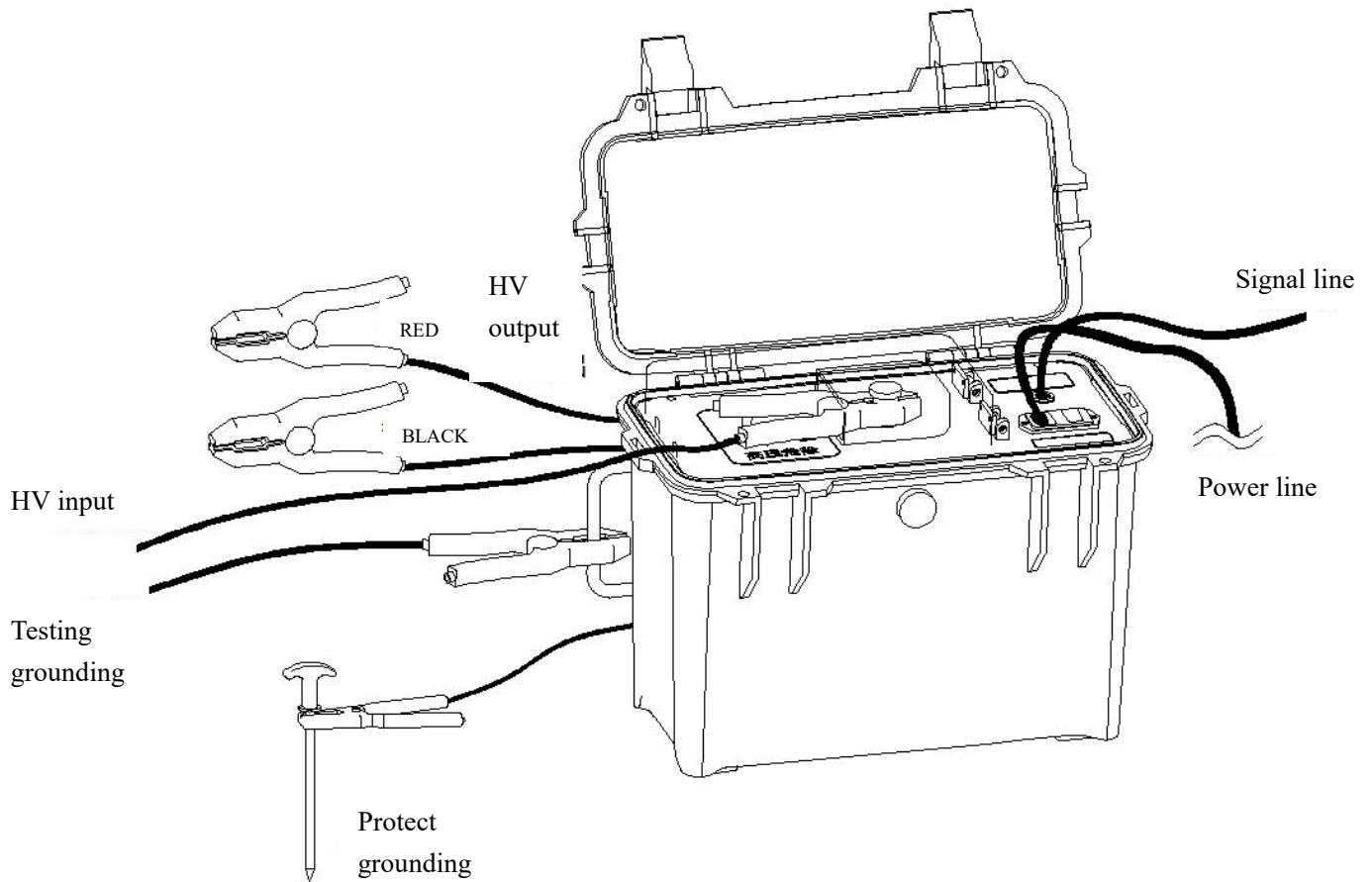


Figure1. Device

## 2. Front panel

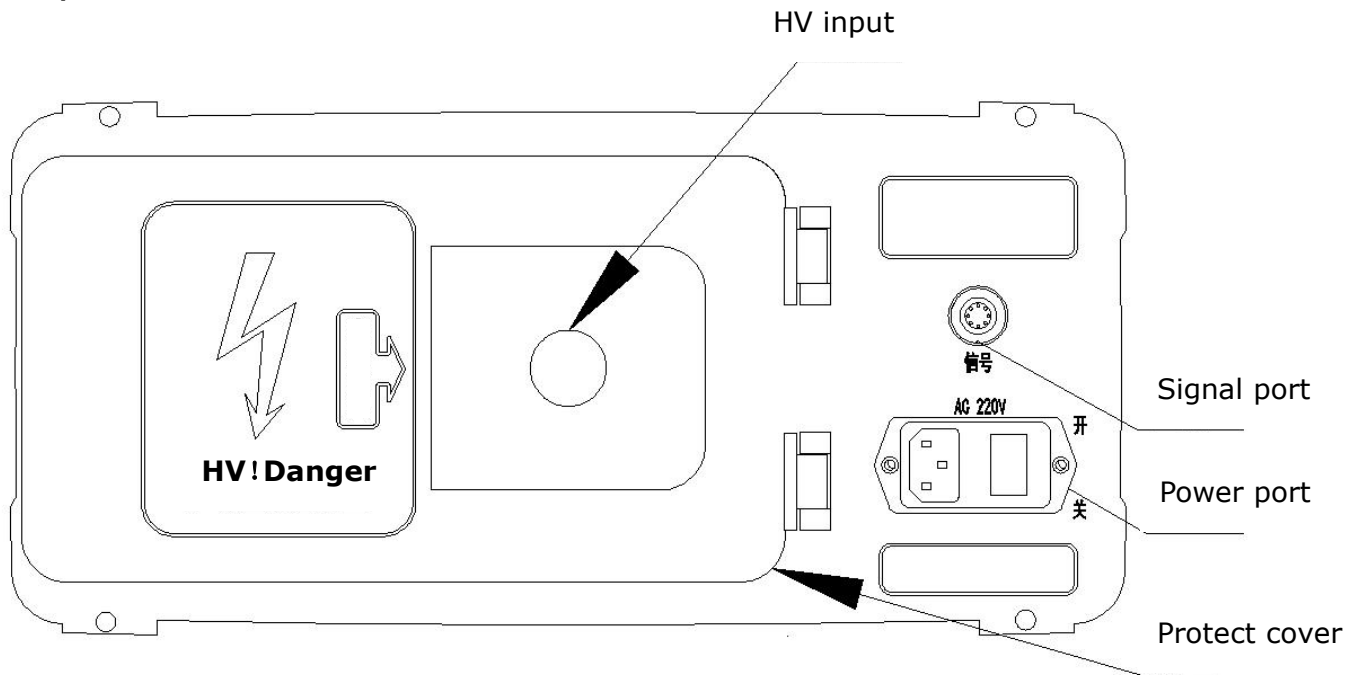
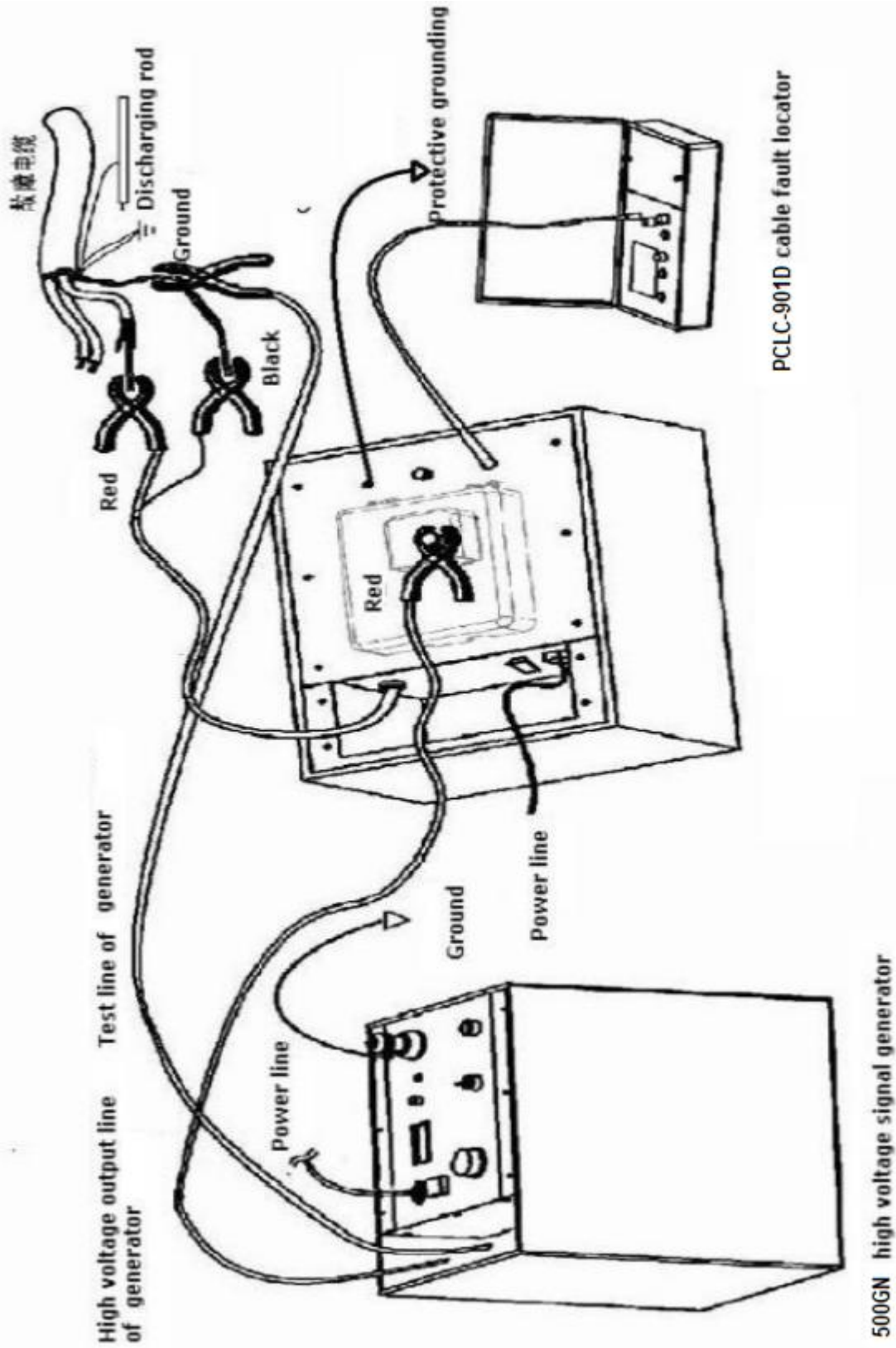


Figure2. Operation panel

- 1.Power port: Working power supply, AC 220V,50Hz
- 2.Signal port: connect with the pre-locator signal port
- 3.Power indicator: When power on,the power indicator bright
- 4.High voltage input: Connect with high voltage signal generator,such as our HVSG-500GN generator. Pls notice, the input voltage should no high than 35kV.The impact energy is below 2000J.Otherwise,the device may be destroyed if too high surge voltage and large surge energy.
- 5.High voltage output: Connect the high voltage output line of the target cable. Apply high voltage signal and the multi impulse signal to the target cable. The red clip is negative high voltage output. The black clip is the test grounding.  
When phase-sheath fault, the black clip connected with the sheath and read clip connect with the faulty core. When phase-phase fault, the black clip connect with the two faulty cores.  
When high voltage generator work,away from the output clamp.After use,pls release before wire apart.  
**NOT MISTAKE THE POLARITY OTHERWISE THE DEVICE WILL BE DESTROYED**
- 6.protect grounding: it is the device protect point and must well grounding.

# Operation method





### **1.As above fig.3:**

- Connect the high voltage output clip with the input of the PCLC-900C.Then connect the high voltage output line of PCLC-900C coupler with the target cable.And connect the ground with the ground grid through grounding line.Make sure well grounding and connect the earth stake with the ground.
- Detailed steps:
  - Check the wiring
  - Connect the power supply line,turn on and the power indicator is bright
  - Change the HVSG-500GN generator into manual mode
  - Connect the distance test port of PCLC-900C with PCLC-901D cable fault locator
  - Start the HVSG-500GN high voltage signal generator
  - Adjust the range of PCLC-901D cable fault locator.Before every test,press test key to enter the waiting state
    - Adjust the high voltage to the breakdown value,common higher than 5kV.Press HVSG-500GN,manual release and the PCLC-901D cable fault locator will simple and record the multiple impulse then analysis to get the fault distance
    - Adjust voltage,range as above until getting ideal waveform
    - After use,fully discharge before removing wire.

## Notify!!!

- The high voltage device,use need to be strictly comply with the user guide.Make sure the output end to fully discharge after working.Otherwise may bring hurt to the user.
- Device disassembly is forbidden.Part of the inner circuit have high voltage storage,so it might bring hurt to user even when power off.
- If some problem with the machine,pls don't try to modify it.Pls contact us for the solution suggestion.
- The input voltage should be below 30kV.The energy should be below 2000J.Otherwise,maybe some destroys to the device.

## Security warming

- The max voltage of the machine is 30kV.Pls caution.
- When the device working,pls keep away from the output clamp!
- Disassemble is forbidden to avoid heavy current shock

Contact with us if any problems during the using!