



## OGFL-200

### Over head line grounding fault locator

## Table of Contents

- Introduction ..... 2
- Equipment Composition ..... 4
- Method of application ..... 7
- Method of application ..... 12

## OGFL-200 Over head line grounding fault locator



Transmitter



Receiver



Sensor



Transmitter patch board

### 1.Introduction:

#### Overview:

Good solution of the pinpointing of single phase to earth fault

It applies to overhead line small current grounding power system.

It is use to pinpoint the earth fault when line break down when single phase grounding fault happen.

The kit includes transmitter (OGFL-200T), sensor (OGFL-200S) and receiver (OGFL-200R) and the accessories.

After the overhead line stop running, the transmitter will inject ultralow frequency HV signal to the line to reappear the fault. Detect along with the line by the sensor and it will transmit data to the receiver by wireless mode. The receiver will collect and display this detect result. When detect before fault point, the current will continue but after the fault, the current will can't be tested.

First use this device to find the fault by areal survey, then pinpoint to find the fault point.



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### Function introduction:

- Apply to small current neutral grounding distribution power system. It is used to detect the overhead line metallic grounding fault, arc grounding fault, resistance grounding fault and so on.
- Workable for broke down line, apply for branch line
- Ultralow frequency signal to avoid capacitor influence. Easy to find the high resistance fault
- Recreate fault by high voltage signal, easy to locate
- Safe transmitter by black and short-circuit function
- High sensitive sensor, open design and easy to hang on the line
- Wireless transmission, safe and reliable
- Flexible power supply. Transmitter is workable by Utility power and electric generator. Sensor and receiver are by dry battery
- Light and easy to carry
- Receiver has large LCD display interface, which can show the current waveform and current value

### 1.2 Specification

- Location accuracy:0.2m
- Specification of transmitter:
  - \*open-circuit voltage: fundamental wave valid 0~2800kV (impulse DC, peak value 8kV, amount to the phase voltage peak value of 10kV cable)
  - \*short-circuit current: fundamental wave valid 0~35mA(impulse DC, peak value 100mA )
  - \*output frequency1Hz
- Communication distance between receiver and transmitter: no less than 100m
- Transmitter power: AC 220V,or electric generator (output voltage  $\geq 1500\text{W}$ )
- Transmitter power: Max. 900 W
- Sensor supply power: Three AAA alkaline batteries
- Receiver supply power: Five AA alkaline batteries
- Dimension: transmitter 417mmx234mmx318mm
  - Sensor 180mmx100mmx35mm
  - Receiver 205mmx100mmx35mm
- Weight: transmitter 16.8kg
  - Sensor 0.45kg
  - Receiver 0.45kg
- Working condition :
  - Temperature  $-10^{\circ}\text{C}$ - $40^{\circ}\text{C}$
  - Humidity 5-90%
  - Elevation  $\leq 4500\text{m}$

## 2.Equipment Composition

OGFL-200 system includes a transmitter, a sensor, a receiver and the accessories. Below is the introduction.

### 2.1 Transmitter

It is used to inject ultralow frequency pulsating DC signal to the fault line to reappear the grounding fault.The current output by the transmitter and through the fault line to ground at the fault point and back to the receiver.

The transmitter panel as below:

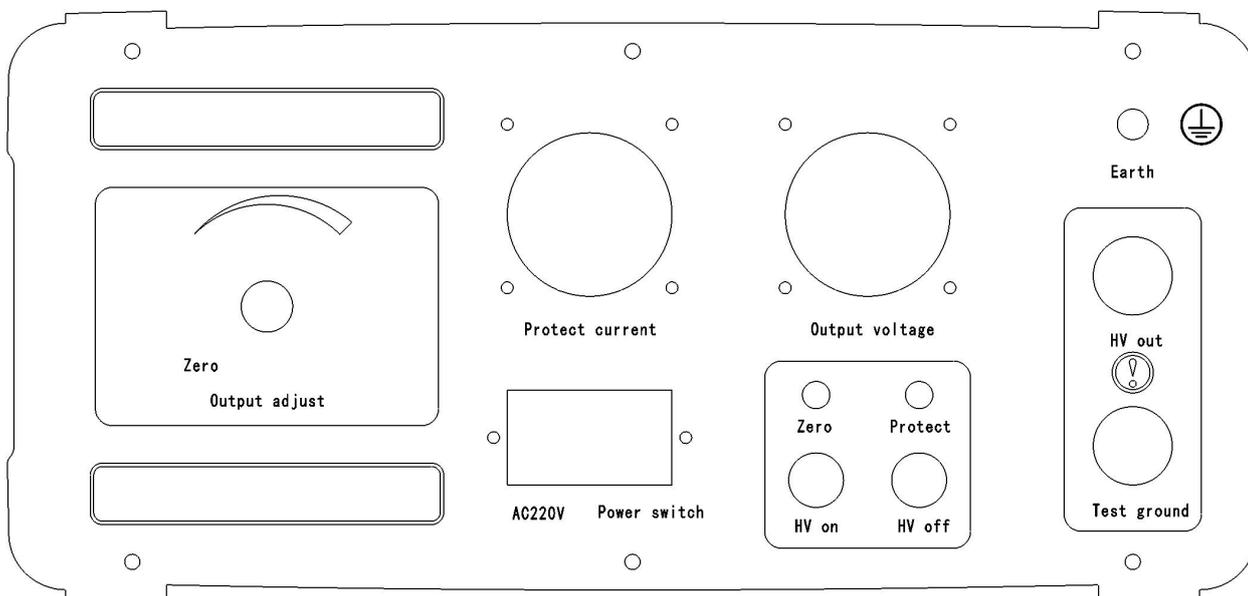


Fig.1 transmitter panel

**Power socket:** contact with 220V power

**Protective tube:** change protective tube if needed

**Power switch:** turn on/off the device

**HV on:** when turn on the device, press this button when output adjustment on the ZERO position to output HV signal.

**HV off:** Stop HV output

**Zero:** indicate that the output voltage on the zero position

**Protect:** when the device become protect mode, this indicator will be bright to show the device is in protect blocking state. Adjust the Output adjust button to Zero position to reset the indicator.

**Output adjust:** adjust the output current and voltage. When it on the Zero position, to press HV on button to start the transmitter signal output function.

**Protect current:** indicate the input current value. If current is over default max. 4A,the device will be stopped. Then it is needed to zero the output adjustment button to set protective circuit to readjustment the current.

**Output voltage:** indicate the value of output voltage

**Earth:** earth terminal to contact with the earth line to connect the earth mat.

**HV out:** connect the fault line. According the local state to clip the switchgear wire or connect the faulty line with rod of patch board

**Test ground:** connect with earth mat.

## 2.2 Sensor

It is used to hang on the fault line and test the current signal, and transmit data to the receiver by the wireless mode.

Panel as below:



**Comm. Indicator:** flicker when normal communication; Lighting-off then communication disconnect.

**Power indicator:** light when normal; Flicker when low battery.

**Power on/off:** long-time press to turn on the device

## 2.3 Receiver

The receiver is used to receive data and display the result. Panel refer below fig.

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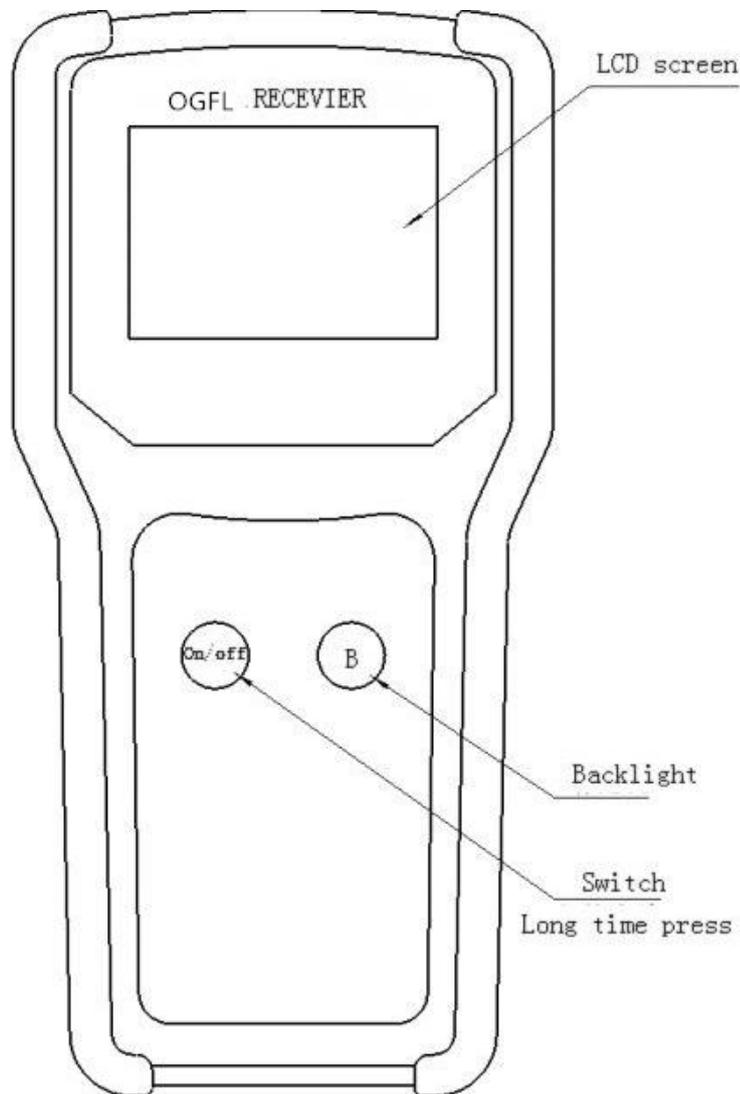


Fig.3 Receiver panel