

## SLE 200Z Surge Wave Receiver



### Description

Surge Wave Receiver SLE 200Z is a highly sensitive equipment to exactly locate the fault point in a short time. It can be used on low, medium and high voltage power networks effectively.

The success of locating exact fault point on the underground cable depends on the search carried out on the lay of the cable. This calls for an indication to guide the operator to walk precisely on the cable route.

### Application

The SLE 200Z Surge Wave Receiver is an easy operation device used to pinpoint the fault point. It integrated the function of acoustic magnetic synchronization method, the step voltage method, the magnetic field strength method to make the pinpointing accuracy.

### Features

- The function and parameter adjustment part adopts a one-button programmable pulse code keyboard, making the operation panel more concise as well as user friendly.
- The instrument will collect and display the waveform of the audio part in real time. It can roughly observe the distance from the fault point by observing the repeatable waveform features.
- There are single and continuous modes in the acoustic magnetic pinpointing mode. If the discharge frequency is too fast and the gap time is too short, the user can choose the single mode for careful analysis of the waveform and other relevant data, while the single mode supports waveform turning.
- In the acoustic signal acquisition, four kinds of filtering frequency bands are adopted, namely, low frequency band, middle frequency band, high frequency band and full frequency band. Users can choose according to the actual situation of the site.
- The system has bright 4.3-inch OLED color liquid crystal display for data and wave form.
- The step voltage part adopts waveform display, and the signal is continuously sampled and refreshed, so that the user can enhance the continuity analysis of the signal and the resolution of the jump signal.
- The step voltage part is divided into multiple stalls, which automatically attenuates the large signal in the adjustment process to ensure that the maximum voltage range within the test range is input, and the display signal is unlimited.
- Audio filter processing using FIR digital filtering technology, making the characteristic frequency band more obvious, better filtering performance.
- Display the distance of the fault point. The distance of the fault point can be displayed within the range of 0-15m.
- In continuous mode, the compression waveform within 15m can be displayed, and in single mode, the waveform within 15m can be analyzed.



## Working Principle

Acoustic magnetic synchronous pinpointing method is a accuracy and based on traditional audio magnetic pin-pointing method but with improvement.

Traditional method use the high voltage generator to impact the fault cable by DC high voltage to make the fault point breakdown and discharge. The mechanical vibration from this delivered to the earth and be collected by the sensor, which is synchronous with the special sound.

The traditional method only use the earphone to monitor and use the meter pointer to help to distinguish the discharging sound. Because this discharging sound is fleeting and difficult o distinguish from the environment noise, it common requires rich experience user.

To modify the traditional method, we now use acoustic magnetic synchronous pinpointing method.

Because the magnetic transmission velocity is much quicker than the acoustic transmission velocity, It's definitive sample to find the faulty point by testing the time difference between magnetic signal and audio signal. Keep moving the sensor to find the point with min. time difference, and this will be the fault point.

Please also notice, because there's no exact data for the acoustic velocity in the cable and have no exact data of the cable depth, it is difficult to calculate the distance between the sensor and the faulty point.

## Standard Accessories

- Ground Sensor
- Headphones
- Carrying Stick - Connect to Sensor
- Connecting Cables
- Carrying Case
- Instruction Manual

Standard Warranty

**One Year**

Other models available

**Surge Wave Receiver SLE 90**

Associated Surge tester use to pin-point cable faults with surge receiver

**Surge Tester SWT 4, SWT 16 & SWT 32**

## Specifications

84dB maximum volume limit	Audio gain greater than 110dB
Display fault distance upto 15 meter	Frequency range: 100Hz-- 1500Hz
Audio test accuracy 0.1m	Low pass: 100-- 400Hz
Audio waveform display	Band pass: 150-- 600Hz
Electromagnetic intensity display: rectangular bar display, maximum value record function	High pass: 200-- 1500Hz
Automatic detection of pulse signals	Step voltage sensitivity: 0.1mV-- 75V
Step voltage waveform display	Isolation of interference: 50Hz, DC
Multi-tap gain adjustment of stepping voltage	Volume: 240mm × 130mm × 120mm
Display : 4.3-inch high-brightness OLED display 480 × 272 pixel	Weight: ≤1.4kg
Continuous use time is about 7h	Battery: 12 rechargeable batteries

**Note : Step voltage function is optional and not available in standard unit**

**Telemetry Equipments Pvt. Ltd.**

**Pune**

[www.telemetry.in](http://www.telemetry.in)

5, 7 & 8 Electronic Sadan II, MIDC,  
Bhosari, Pune - 411026  
Maharashtra, INDIA.

[sales@telemetry.in](mailto:sales@telemetry.in)

+91-20-27122936 / 27123176  
9011083682

CIN  
U99999MH1976PTC 018745

### Regional Offices

**Kolkata**

[Kunal@telemetry.in](mailto:Kunal@telemetry.in)  
09748487005

**Delhi**

[vijayp@telemetry.in](mailto:vijayp@telemetry.in)

**Chennai**

[vinoth@telemetry.in](mailto:vinoth@telemetry.in)  
09791715130

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