PQWT-L50 Indoor Pipeline Water Leak Detector Operation Manual

Production

PQWT-L50 Indoor Pipeline Water Leak Detector is the latest generation of intelligent water leak detector independently developed by Hunan Puqi Geologic Exploration Equipment Institute, it is designed for household pipe water leakage. This device is equipped with a triangular sensor and a square sensor. It is applied to different detecting environment like indoor floors, walls, cabinets, etc.This device achieves high accuracy by collection and analysis of leaking sound signal, effectively solving the problem of water leakage in the household pipeline.

Working Principle

PQWT-L50 indoor Pipeline Water Leak Detector collects leaking sound signal through its sensor, collected signal will be processed by host machine and displayed on the host machine screen in the form of visual spectrum and signal bars. At the same time, the sound will also be output to its earphone through the host machine. Water leakage point can be found out easily through the combination of "listening to the abnormal sound" and "observing the abnormal signal bars"

Components
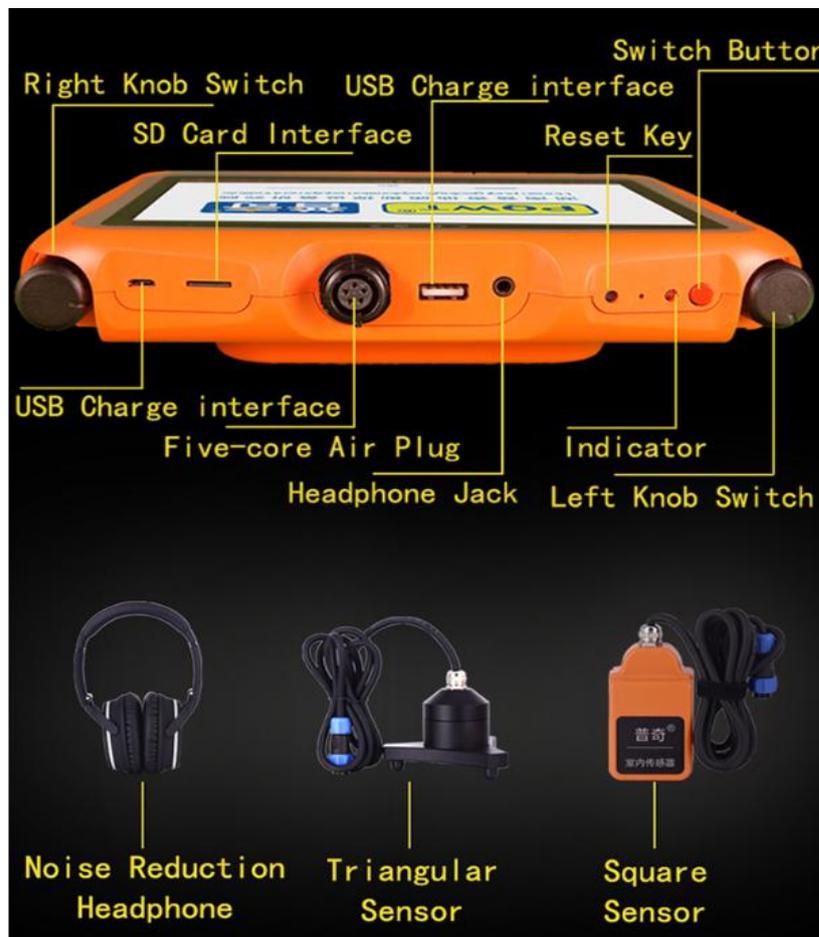
1. Strap buckle

2. USB Charge interface(5V) : used for host machine charging and computer connection

3. SD card interface: for system upgrade

4. Five-core air plug: used to connect the sensor

5. USB interface: expansion interface

6. Headphone jack: used to connect headphone

7. Reset button：Host system reset, shutdown

8. Indicator: switch indicator and charge indicator

9. Switch button: for host machine on/off

10. Right knob switch: clockwise volume +, counterclockwise volume -, press to turn on/off sound

11. Left knob switch: clockwise gain +, counterclockwise gain -, press to turn on/off sound

Parameters

Model	PQWT-L50
Charging time	7-8 Hours
Standby time	15 Hours
Charger	5V 2A USB Charging
Weight	0.7Kg（Host Machine）
Working temperature	$-20℃ \sim +50℃$
Gain	10 levels adjustable
Volume	10 levels adjustable
Frequency Range	1HZ—10000HZ
Power	≈2W
Size	L：214mm，W：146mm，D：48mm

**Operation Instruction**

1. Select appropriate sensor according to different indoor detection environment. Triangular sensor is suitable for most indoor environments such as floor detection. Square sensor is suitable for narrow spaces such as walls and cabinets;

2. Connect the strap to the host machine;

3. Connect the air plug of the sensor cable to the host machine air plug. There are white small dot on the air plug, align them and insert.

4. Connect the earphone to the host machine by earphone line;

5. Long press and hold "Switch Button" button to boot and enter the boot interface, as shown in Figure 1 below:

6.Enter the host machine main interface, as shown in Figure 2 below:

Sensor detecting

Battery

Time
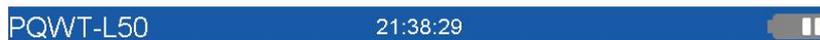
7. Enter the "General Detection" mode, as shown in Figure 2 below:

【General Detection】 which is mainly used to check the indoor pipeline water leakage in large areas.
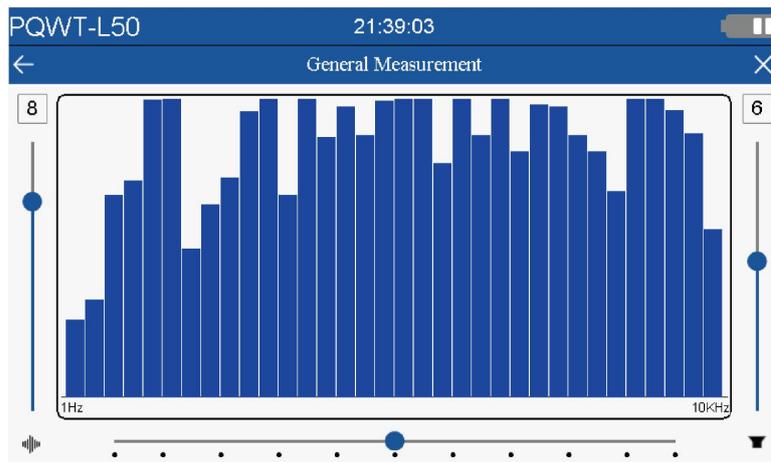
Gain: The default gain is level 8

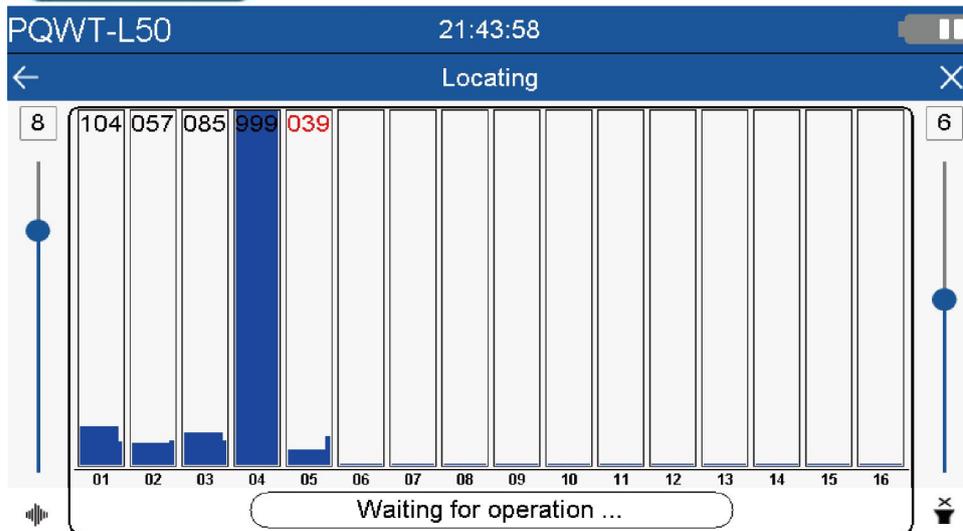**Volume: The default volume is level 6**

Mute

Left Slider: Gain adjustment, Slide up to increase the gain, Slide down to decrease the gain.

Right Slider: Volume adjustment, Slide up to increase the volume, Slide down to decrease the volume.

Bottom Slider: Timbre adjustment, 11 levels adjustable, The default is in the middle frequency, Please adjust the slider according to different indoor detection environment till the sound is clear.

8. Turn on the knob switch to receive sound, and detect the point along the pipeline. Pay attention to the sound volume in the headset and observe the spectrum change on the screen. When the spectrum on the instrument' screen is high and the sound in the headset is significantly increased, the area can be identified as a suspected leakage area and marked.

9. Enter the "locating" mode, as shown in Figure 4 below:

PQWT-L50　　　　　　21:43:58

Locating

| 8 | 104 | 057 | 085 | 999 | 039 | | | | | | | | | | | | 6 |

01　02　03　04　05　06　07　08　09　10　11　12　13　14　15　16

Waiting for operation ...

【**Locating**】 which is mainly used to locate the leak points in suspected leakage areas.

(1) Signal of 16 points can be displayed on the screen, click any position in the spectrum bar, and the signal value will be displayed on the top of the spectrum bar.

(2) 16 signal bars in total from left to right, the detection should start from the first point.

(3) The spectrum bar has thick and thin bar. The thin bar is the instantaneous noise of the environment, which changes with the detection environment.
The thick bar is the sound from the underground, we mainly observe the thick bar signal.

(4) After the thick bar is stable, click any position in the spectrum bar again to lock it, the signal value changes from red to black, and the detection at this point is completed.
Click any position of the locked spectrum bar again can refresh and detect the point again to confirm.

(5) The same method is used to collect and compare signal of different points in this area. The detecting mode can collect 16 points, and we can compare the spectrum bar of each point directly . As shown in Figure 4 above, When the detected point has the highest thick spectrum bar, and the signal value is the biggest, it can be judged as suspected leaking point.

Others

1. Click and enter the interface "Settings", Adjust the host machine of Date Settings, Time Settings, Brightness Settings and Language. As shown in Figure 5 below
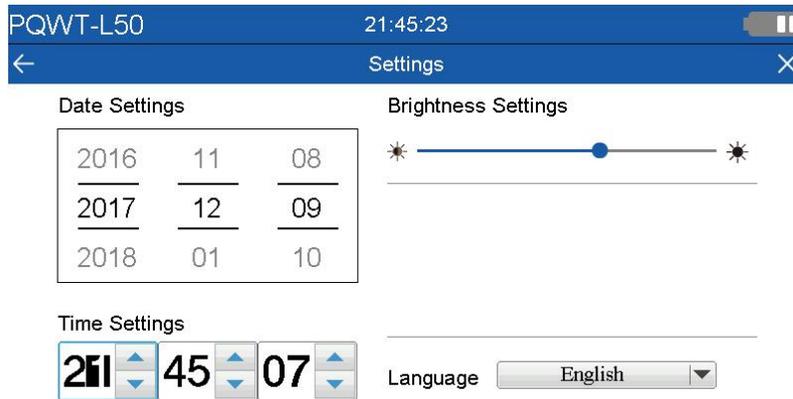
2. Click and enter the interface "About", Check the host machine information, Please contact us if you need the after-sales service supporting. As shown in Figure 6 below