S30 Tracer Gas Detector

User Manual

Shijiazhuang Bondi Technology Co., Ltd

preface

Dear customers!

Thank you for choosing to use the S30 pipeline leak detector. If you are using this product for the first time, please read the following product instructions and use instructions carefully.

The S30 operation manual details the composition, function, operation process, precautions of the underground pipeline leakage detector, and the methods of pipeline inspection and leakage positioning by using the S30 pipeline leakage detector. Please carefully read and fully understand the use manual before operating or using the S30 pipe leak detector. If you have any questions about the operation and use of S30, you can call our company at any time, and our company will provide you with timely and sincere technical support and service. Thank you for your cooperation!

Please keep the manual properly for reference when necessary. If the manual is lost or damaged, please contact us immediately.

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1. Main purposes and scope of use

Hydrogen (H2) tracer gas pipeline leak detector is a special

instrument used to find and determine the location of the leakage point of the pressure pipeline, inject the detection gas into the pipeline to be tested, the gas will leak out of the pipeline through the leakage point of the pipeline, and drift to the ground through the gap of the soil, use the tracer gas detector to detect along the ground laid with the pipeline, when the instrument finds the leakage of gas, the instrument will sound an alarm and display the gas concentration. The hydrogen (H2) tracer gas pipeline leak detector is mostly used for the detection of small leaks in fire fighting, tap water, heating and other pressure pipelines, which has the advantages of high efficiency and speed.

2. Technical parameters of the equipment

Model	Bondi S30 Tracer Gas Pipeline Leak Detector
Carton size	375mm*310mm*150mm
Host size	180mm*100mm*45mm
Sensor	Semiconductor
Sample Gas	Hydrogen (H2)
Measuring range	1PPM-4000PPM
Resolution	1PPM
Low/high alarm points	200PPM-4000PPM
Power supply	7.4V 5000mAh lithium battery
Charger	8.4V 1A Li-ion charger
Duration	10 hours (fully charged)

3. Instrument composition

The product components of the S30 Gas Pipeline Leak Detector are

shown in Table 1.1

Table 1.1 Components of the instrument

Main unit	Gas sensor	Connecting cables
		
Shoulder straps	Gas Collector Hood	Telescopic rods and clips
		
Charger	Equipment box	
		

Host

The most important part of the gas pipeline leak detector, so pay

attention to protection and do not enter water during use.

Connecting cables

It is used to connect the main unit to the gas sensor.

Gas sensors

The gas sensor is an important part of the leak detector, so pay attention to protection and do not enter water during use.

Gas Collector Hood

The gas sensor is an important part of the leak detector, so pay attention to protection and do not enter water during use.

Telescopic rods and clips

When using the leak tester, attach the sensor to the telescopic rod and clip for easy use during inspection.

Shoulder straps

The shoulder strap is mounted on the main unit and can be hung on the chest when using the leak detector.

Charger

The leak detector needs to be charged when it needs to be charged (input: AC100-240V 50/60Hz output: 8.4V 1A).

Equipment box

It is easy to transport and protects the instrument from damage during transportation.

4. Main interfaces and buttons

The main interfaces and buttons on the main unit are distributed on the left and right sides and top of the main unit. As shown in Figure 4.1

and Figure 4.2

Figure 4.1

Figure 4.2

5. Operator interface functions

The scene selection screen is shown in Figure 4.3

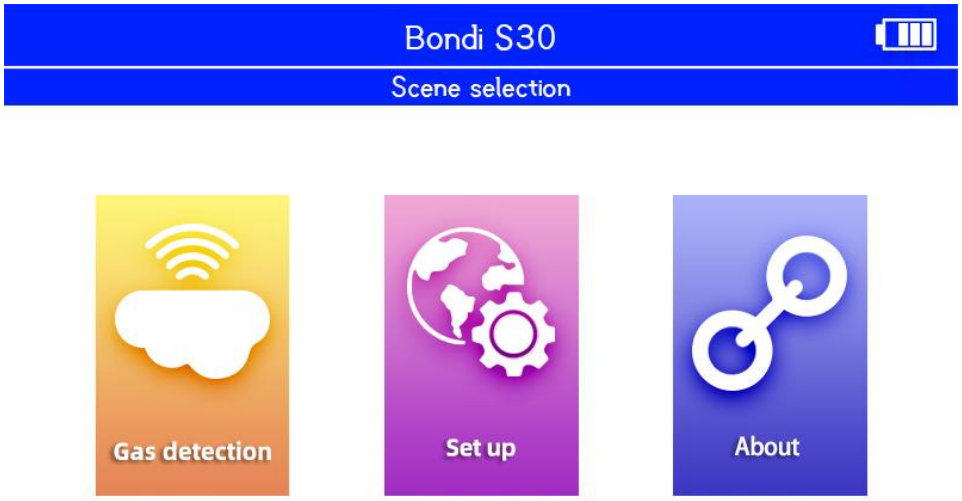

Figure 4.3 Scene Selection Screen

Gas Detection: Enter the gas detection interface.

Settings: After entering, you can adjust the screen display brightness.

About: The device details will be displayed after entering.

The gas detection interface is shown in Figure 4.4

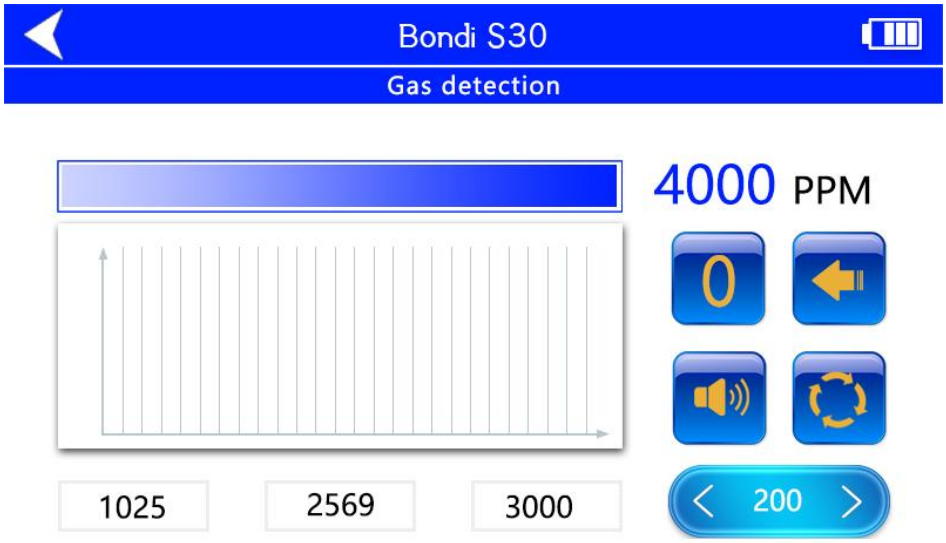

Figure 4.4 Scene Selection Screen

1. 

Click the button, and the page will display the word "Success", which means that the sensor is connected normally, and the current environmental detection reference point will be calibrated.

	When calibrating the detection datum, Please use a clean environment where there is no gas being measured，If there is a measured gas in the field environment when the test reference point is calibrated, the calibration base point will be based on the gas concentration value in the environment（For example, if the concentration of the measured gas in the environment is 10, the concentration value below 10 will not be detected after calibration）。

2.  is the save key,By clicking the Save button, the instrument will store the highest currently detected PPM or LEL value and store it in the box at the bottom left of the screen, up to a maximum of 3 values.
3.  Alarm sound button，Click to turn off the alarm sound, The mute icon is displayed  。
4.  PPM value and percentage toggle button。
5. 

Alarm threshold adjustment, the alarm threshold can be adjusted freely according to the situation of the work site, when the threshold is set to "200", the instrument will start to alarm when the PPM value is higher than 200.。

The setup interface is shown in Figure 4.5

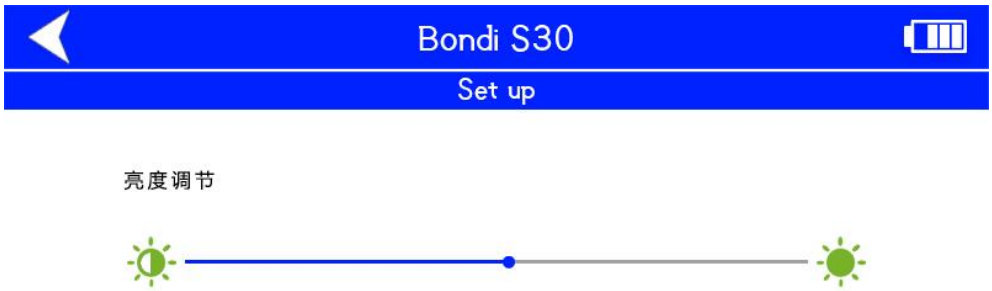

Figure 4.5 Setup Interface

Enter the settings interface to adjust the brightness of the LCD screen.

About the interface is shown in Figure 4.6

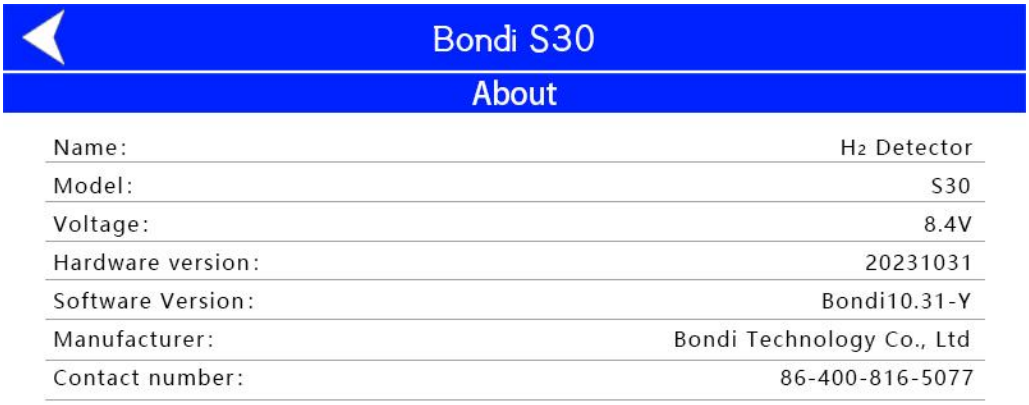

Figure 4.6 About the Interface

6. Use the Bondi S30 gas detector

6.1.1Install the Bondi S30 gas detector

1. Take out the main unit, connecting cable, telescopic rod, gas

sensor, and gas collection hood from the instrument case.

2. Connect one end of the cable to the main unit.

3. Connect the other end of the cable to the sensor.

4. Install the gas collection hood to the front of the gas sensor.

5. Attach the gas sensor to the telescopic rod clamp.

The Bondi S30 gas detector is connected and installed, as shown in Figure 6.1。

Figure 6.1 Installation and connection of the Bondi S30 gas detector

6.1.2Check before use

Please ensure that the following 3 steps are checked before using the Bondi S30 gas detector to ensure that the detector is in optimal working condition during leak detection.

1. Check the instrument parts connection

Check whether the main unit and accessories and other parts are complete; whether the sensor connection is reliable; Whether the shoulder straps are clean, strong and reliable.

2. Check the battery level

3. Use a small amount of detected gas to check whether the sensor is

normal.

Before starting to use this instrument, be sure to check the battery level to ensure that the battery level of the instrument is sufficient. The way to check the battery level is to turn on the power switch, turn on the host, and there is a battery level icon in the status area in the upper right corner of the host display, as shown in Figure 6.2 show.

Figure 4.8 The work interface shows the battery level

The battery level icon has 4 filled cells to indicate the amount of battery power remaining. During use, the power consumption is gradually reduced. When all the cells in the battery capacity disappear, turn off the power switch and charge the battery immediately.

Check the operation of the instrument

Connect the sensor and headset to the console separately and check as follows:

(1) Turn on the power switch, turn on the display screen to enter the system self-test, and see if the self-test is completed to see if it enters the scene selection interface;

(2) Click to enter the gas working interface, Click the button to see if it is displayed 0 “UCCEED”；

If any problems are found during the inspection, please check the back of this instruction manual "7. Troubleshooting", if there are still problems that cannot be solved, please contact the company.

6.1.3 Boot process

1. The host is connected to the sensor;

2. Turn on the power switch;

3. The display screen lights up, enters the system self-test interface, and waits for the self-test to complete and automatically enter the scene selection interface.

4. Click Gas Detection to enter the gas detection interface.

5. Enter the detection page，click  display “SUCCEED”。

7. Troubleshooting

Fault phenomenon	cause	Exclusions
The instrument cannot be turned on	The battery is low.	Charge the instrument
The calibration datum display failed	The connection between the sensor and the host is unreliable.	Check that the connector is connected reliably
No alarm is given when contact with the detection gas	Faulty cable or damaged sensor.	Check the cable or replace the sensor
Since a short time after booting Powered off	The battery voltage is insufficient	Charge the battery in time or replace it with a new one
The LCD page is garbled	Operational errors or overshoots	Turn the instrument back on after shutting it off and back on to normal.