

FNIRSI 菲尼瑞斯

GD-02

彩屏可燃气体检测仪说明书^{v1.2}

COLOR SCREEN COMBUSTIBLE GAS DETECTOR USER MANUAL



※使用产品前请仔细阅读本说明书,并妥善保管。

※Please read this instruction manual carefully before using the product and keep it properly.

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一、安全要求

1.1 环境要求

⊙ 注意事项

必须避免的情况：

- ① 暴露于可挥发性硅化合物蒸气中传感器要避免暴露于硅粘接剂、发胶、硅橡胶、腻子或其它存在可挥发性硅化合物的场所。如果传感器的表面吸附了硅化合物蒸气，传感器的敏感材料会被硅化合物分解形成的二氧化硅包裹，抑制传感器的敏感性，并且不可恢复。确保温度测量口不被遮挡，避免设备测量出现偏差。
- ② 高腐蚀性的环境下，传感器暴露在高浓度的腐蚀性气体（如 H_2S , SOX , Cl_2 , HCl 等）中，不仅会引起加热材料及传感器引线的腐蚀或破坏，并会引起敏感材料性能发生不可逆的劣变。
- ③ 碱、碱金属盐、卤素的污染传感器被碱金属尤其是盐水喷雾污染后，或暴露在卤素如氟利昂中，也会引起性能劣变。
- ④ 接触到水溅上水或浸到水中会造成传感器敏感特性下降。
- ⑤ 结冰水在传感器敏感材料表面结冰会导致敏感层碎裂而丧失敏感特性。
- ⑥ 施加电压过高如果给传感器或加热器施加的电压高于规定值，即使传感器没有受到物理损坏或破坏，也会造成引线和/或加热器损坏，并引起传感器敏感特性下降。

尽可能避免的情况, 违反以下使用条件将使传感器特性下降:

- ① 凝结水在室内使用条件下, 轻微凝结水对传感器性能会产生轻微影响。但是, 如果水凝结在敏感层表面并保持一段时间, 传感器特性则会下降。
- ② 处在高浓度气体中, 无论传感器是否通电, 在高浓度气体中长期放置, 均会影响传感器特性。如用打火机气直接喷向传感器, 会对传感器造成极大损害。
- ③ 长期暴露在极端环境中, 无论传感器是否通电, 长时间暴露在极端条件下, 如高湿、高温或高污染等极端条件, 传感器性能将受到严重影响。
- ④ 振动频繁、过度振动会导致传感器内部引线产生共振而断裂。在运输途中及组装线上使用气动改锥/超声波焊接机会产生此类振动。

禁止以下情况:

- ① 气体传感器主要作用是检测气体成分与含量,请不要让传感器任何部位接触液体。
- ② 禁止插拔模组上的传感器。
- ③ 禁止改动、移动电子元器件安装状态。
- ④ 传感器的通气面不要阻塞、不要污染,有时候孔阻塞是导致灵敏度降低、响应时间变慢的原因。
- ⑤ 不可过度的撞击或振动,外壳有损伤等情况下请确保结构无损下使用,否则输出将不再可靠。
- ⑥ 高浓度的气体环境中长期使用后恢复到初期状态较缓慢,回复速度与超量程倍数成正比。
- ⑦ 请不要拆开传感器,拆开会损坏传感器。

废旧处理

- ① 请勿随生活垃圾丢弃废旧电池或设备,应按国家或当地法规处理

二、产品概览

2.1 产品简介

GD-02是一款性能稳定、安全可靠的彩屏可燃气体检测仪,可以测量可以精准检测出当前环境下的甲烷气体浓度,抗干扰能力很强,能够适应绝大部分环境,可以用来作为甲烷气体的检测应用、环境的温度、湿度。精度高、寿命长、耐低温,响应速度快,开机快速响应,回零快抗中毒性良好耐久可靠,3年以上优良的精度、可重复性、线性、一致性抗电磁干扰能力强,本使用说明书包括有关的安全信息和警告提示,请仔细阅读内容并严格遵守所有的警告和注意事项。

2.2 产品操作示意图



2.3 彩屏可燃气体检测仪页面示意图



- ① **日期时钟**: 年月日, 时间。
- ② **数据保持**: 短按 开关键, 实现HOLDS数据保持功能。
- ③ **震动功能**
- ④ **蜂鸣器报警**: 指示是否开启报警功能。
- ⑤ **手电筒**: 长按左键打开手电筒, 再次长按取消。
- ⑥ **电量指示**: 指示系统电量。
- ⑦ **气体浓度值**: 此区域显示设备测量的气体浓度值。
- ⑧ **浓度单位**。
- ⑨ **温度值**: 此区域实时显示设备测量的温度值。
- ⑩ **气体浓度等级**: 无数值时候显示准备, 低于阈值显示正常, 高于阈值则显示高报、低报。
- ⑪ **湿度值**: 此区域实时显示设备测量的湿度。

按键	操作	功能描述
	长按	切换开机/关机
	短按	HOLD数据保持功能
	长按	进入设置界面
	长按	打开手电筒
	短按	进入切换曲线页面, 曲线页面0.5S更新一次

2.4 通用设置页面示意图

报警设置:ON/OFF 左右键选择是否开启指示灯、振动器、蜂鸣器。

阈值设置:上下键选择高低报选项,再按ok键进入四级导航,进入详细各位的

数值调节,单击或者长按上下键调节阈值,报警会根据阈值进行响应和记录。



语言切换:ON/OFF左右键选择中英文。

单位切换:上下键调节单位,无需再按OK键。

风格切换:左右键选择深色/浅色模式。

2.5 系统设置页面示意图

日期时间:任意方向选中,ok键进入后单击或者长按上下调节数值。

休眠设置:①ON/OFF 左右键选择是否开启休眠。

②进度条

左右键调节休眠亮度。

③进入休眠、自动关机

左右键调节数值,休眠会降低屏幕亮度和功耗,检测到动作会退出休眠。



亮度设置:进度条单击或者长按左右键调节亮度。

音量设置:①进度条 左右键调节音量

②ON/OFF

左右键选择是否开启音量,这里的音量是对全局声音开关,并不对报警声有效。

恢复出厂设置:左右键选择是否恢复出厂,OK键确定。

2.6 报警记录页面示意图

报警记录		
序号	时间	类型
01	2024/06/10 07:30	低报
02	2024/06/10 07:30	低报
03	2024/06/10 07:30	低报
04	2024/06/10 07:30	低报
05	2024/06/10 07:30	低报

警报记录:记录超过高低阈值的
时间、类型,最多三十条,超过后会全部清除重新记录,仅在报警等级提升时候记录,单击上下键进行浏览。

三、技术规格

3.1 机型参数

参数	规格
产品型号	GD-02
屏幕材质	2.0寸彩屏
检测气体	甲烷, 丙烷, 异丁烷
测量范围	0~50000ppm (甲烷)
	0~100 (A%LEL)
分辨率	1ppm/1%LEL
测量范围(%LEL)	0~100
工作温度	-10~55℃
预热时间	15-16秒左右
响应时间(T90)	<5s
恢复时间(T10)	<10s
寿命	>3年
采样时间	≈0.5s
产品尺寸	≈63×28×139(+360)mm
产品重量	≈296g

四、操作指南

4.1 开机

长按电源开关键  开机, 等待系统加载, 进入彩屏可燃气体检测仪主界面。

4.2 语言设置

在主界面**长按右键(设置)** , 进入系统菜单, 短按**选择键**选择通用设置, 短按**OK确认键**进入通用设置, 短按**选择键**选择语言设置 , 后短按**OK确认键**进入语言设置 , ON/OFF左右键选择中英文。

4.3 调整气体浓度阈值与浓度单位

气体浓度阈值调节:

在主界面**长按右键(设置)** , 进入系统菜单, 单击**选择键**选择通用设置, 单击**OK确认键**进入通用设置, 单击**选择键**选择阈值设置, 后单击**OK确认键**进入阈值设置, 上下键选择高低报选项, 再按**ok键**进入四级导航, 进入详细各位的数值调节, 单击或者长按上下键调节阈值。

浓度单位调节:

在主界面**长按右键(设置)** , 进入系统菜单, 单击**选择键**选择通用设置, 单击**OK确认键**进入通用设置, 单击**选择键**选择单位切换, 后单击**OK确认键**进入单位切换, **上下键**选择浓度单位, 无需单击**确认键**保存可直接单击**返回键**即可。

通用设置其他功能调节:

对应功能选择与开启同以上两点操作导航大致相同, 省略步骤描述。

4.4 日期时间与亮度调节

日期时间设置：

在主界面**长按右键(设置)** ，进入系统菜单，单击**选择键**选择系统设置，单击**确认键**进入系统设置，单击**选择键**选择日期时间 ，后单击**OK确认键**进入日期时间 ，**选择键**选择需要调整的日期时间，再按**ok键**进入数字调整，点击**上下选择键**数值调节，单击**返回键**进行保存。

亮度调节：

在主界面**长按右键(设置)** ，进入系统菜单，单击**选择键**选择系统设置，单击**确认键**进入系统设置，单击**选择键**选择亮度设置 ，后单击**OK确认键**进入亮度设置 ，左右**选择键**实时调整亮度，单击**返回键**进行保存。

系统设置其他功能调节：

对应功能选择与开启同以上两点操作导航大致相同，省略步骤描述。

五、快速入门

5.1 快速测量

- 开启彩屏可燃气体检测仪，等待气体测试预热，加载进入主界面即可正常使用。
- 将设备放置待测试区域，可检测可燃气体（甲烷，丙烷，异丁烷）。
- 查看屏幕主界面实时气体浓度，温度，湿度等。
- 短按电源开关键，实现HOLDS数据保持功能。
- 点击左右键，切换曲线页面，数据可视化，分析数据与记录数据。
- 若环境可见度低，可以长按左键，打开手电筒即可。

5.2 固件升级

- 设备关机，同时按住右键和电源键，此时设备会弹出Bootloader界面，插入USB Type-c数据线连接电脑，进入Bootloader界面进行固件升级。
- 进入Bootloader后，电脑识别出U盘，把固件文件直接拷贝到U盘即可。
- 在Bootloader界面无操作一分钟后会自动运行已有的固件。

六、故障排查

6.1 无法开机

可能原因：

- 电池电量耗尽。
- 电池连接松动或损坏。

解决方法：

- 检查电池电量，若电量不足请充电。
- 如果电池无法充电或设备依然无法开机，尝试重新安装电池，或更换电池。

6.2 屏幕无法显示

可能原因：

- 屏幕背光关闭。
- 显示屏硬件故障。
- 系统软件异常。

解决方法：

- 按照手册检查并调节背光亮度设置。
- 尝试重启设备，确保系统恢复正常。
- 如果屏幕仍无法正常显示，可能需要维修或更换显示屏。

七、维护保养

清洁设备外部：

频率：每月清洁一次，具体取决于使用环境。

方法：使用柔软的布轻轻擦拭设备表面。避免使用化学清洁剂，特别是含有酒精或强酸、强碱的清洁剂，以免损坏外壳或屏幕。

注意事项：

- 定期清理气体检测口和按钮周围的灰尘，以保持设备洁净。
- 确保设备无任何液体、灰尘或杂物进入设备接口。

检查电池与电源：

电池保养：对于内置电池的示波器，定期检查电池的健康状态。避免电池完全放电，建议定期充电并避免长时间不使用设备。

充电规范：使用官方提供的充电器进行充电，避免过充或过放，确保电池处于适宜的工作电压范围。

电池更换：若电池表现出过度衰减（如无法正常充电或极快放电），应及时更换。

存放与携带：

存放环境：设备应存放在干燥、通风的环境中，避免高温、高湿或剧烈的温度变化。避免将其放置在阳光直射的地方。

携带：使用时应小心避免摔落，尤其是在携带过程中。推荐使用保护套或专用包进行携带。

软件更新：

- 定期检查设备是否有新的固件更新。最新的固件可以修复已知的BUG并提升设备性能。
- 更新时确保操作步骤正确，使用官方发布的固件文件，并避免断电或其他干扰。

恢复出厂设置：

- 若设备出现异常或无法正常工作，可尝试恢复出厂设置。恢复设置后，设备将清除所有自定义配置，恢复到初始状态。
- 恢复出厂设置的方法可以参考用户手册或联系厂商客服。

八、生产信息

产品名称:彩屏可燃气体检测仪

品牌/型号:FNIRSI/GD-02

生产商:深圳市菲尼瑞斯科技有限公司

地址:广东省深圳市龙华区大浪街道伟华达工业园C栋西侧8楼

服务热线:0755-28020752

服务邮箱: support@fnirsi.com

商务邮箱: business@fnirsi.com

官方网站: www.fnirsi.cn

执行标准: GB 16808-2008

九、保修说明

※此页为保修卡基本凭证,请妥善保管

感谢您选择本公司产品,本产品自销售之日起计保修期。在产品保修期内,凡按照产品使用,说明书安装使用。于正常环境、条件使用之下,因原物料及加工过程中之瑕疵而导致故障,可依据本保修条款的内容享受无偿维修服务,本保修卡请用户妥善保管,以作保修凭证,丢失恕不补发。

以下情况将实施有偿维修服务

- 1.不能出示有效保修卡原件;
- 2.产品安装不符合产品要求、标准和相关规范造成的损坏;
- 3.产品安装环境中相关配件不符合产品要求、标准和相关规范造成的损坏;
- 4.用户对产品使用不当、保管不妥或擅自拆机、私自维修等原因造成的损坏;
- 5.超过保修期。

1.Safety Requirements

1.1 Environmental requirement

⊗ Precautions

Situations to Avoid

- ①The sensor must be protected from exposure to silicone adhesives, hairspray, silicone rubber, putty, or any other environments containing volatile silicone compounds. If silicone compound vapors adsorb onto the sensor's surface, the sensitive material of the sensor may become coated with silica formed from the decomposition of these compounds, which will inhibit the sensor's sensitivity and cause irreversible damage. Make sure the temperature measurement port is not blocked to avoid measurement deviations in the device.
- ②When the sensor is exposed to high concentrations of corrosive gases such as H_2S , SOX , Cl_2 , HCl , etc. in highly corrosive environments, it can lead to corrosion or damage to the heating elements and sensor leads. Additionally, it may cause irreversible degradation of the sensitive material's performance.
- ③If the sensor contamination by Alkalis, Alkali Metal Salts, and Halogens. its performance may degrade.
- ④Exposure to water, either from splashes or immersion, can cause a decline in the sensor's sensitivity.

- ⑤Ice formation on the surface of the sensor's sensitive material can cause the sensitive layer to crack, resulting in the loss of sensitivity.
- ⑥Applying a voltage higher than the specified value to the sensor or heater, even if no physical damage occurs to the sensor, can result in damage to the leads and/or heater, leading to a decline in the sensor's sensitivity.

Situations to Avoid, which may lead to a decline in the sensor's performance

- ①Minor condensation under indoor conditions has little effect on sensor performance. However, if water remains on the sensitive layer for a while, it will degrade the sensor's performance.
- ②Prolonged exposure to high-concentration gases will affect its performance, whether or not the sensor is powered on. For example, spraying lighter fluid directly onto the sensor can cause severe damage.
- ③Prolonged exposure to extreme conditions such as high humidity, high temperature, or heavy pollution will severely affect the sensor's performance, whether powered on or not.
- ④Frequent or excessive vibration can cause resonance in the sensor's internal leads, leading to breakage. Such vibrations can occur during transportation or on the assembly line, especially when using pneumatic screwdrivers or ultrasonic welding tools.

The following situations are prohibited

- ① Please avoid allowing any part of the sensor to come into contact with liquids, the gas sensor is designed to detect gas composition and concentration.
- ② Do not insert or remove the sensor from the module.
- ③ Do not alter or move the installation of electronic components.
- ④ Do not block or contaminate the sensor's venting surface, it will cause a decrease in sensitivity and slower response time
- ⑤ Do not subject the sensor to excessive impact or vibration. If the casing is damaged, the output may become unreliable. Please ensure the structure is intact before use.
- ⑥ Do not perform testing immediately after detecting in high-concentration environments. After in high-concentration gas environments, recovery to the initial state is slow. The recovery speed is proportional to the overrange factor.
- ⑦ Do not disassemble the sensor, as disassembly may damage it.

Disposal of Waste

- ① Please do not dispose of used batteries or equipment with regular household waste. They should be handled according to national or local regulations.

2. Product Overview

2.1 Product Introduction

The GD-02 is a stable, safe, and reliable color-screen combustible gas detector. It accurately measures methane gas concentrations in the current environment and offers strong anti-interference capabilities, making it suitable for most environments. This device is ideal for methane gas detection, as well as for monitoring temperature and humidity in the environment. It features high accuracy, long lifespan, low-temperature resistance, fast response

time, quick startup, rapid zeroing, and excellent resistance to poisoning. The device is durable and reliable, maintaining excellent accuracy, repeatability, linearity, and consistency for over 3 years. Additionally, it offers strong resistance to electromagnetic interference. This user manual includes important safety information and warnings. Please read it carefully and adhere strictly to all warnings and precautions.

2.2 Operation diagram



2.3 Combustible Gas Detector Interface Diagram

① **Date/Time:** Year, Month, - Day; Time

② **Data Hold:** Short press the power button to activate the HOLD data hold function

③ **Vibration function**

④ **Buzzer alarm:** Indicates whether the alarm function is enabled

⑤ **Flashlight:** Long press the left button to turn on the flashlight, press again to turn it off.

⑥ **Battery Indicator:** Displays the system battery level.

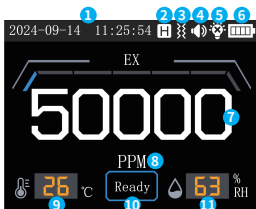
⑦ **Gas Concentration:** This area displays the gas concentration value measured by the device.

⑧ **Concentration Units**

⑨ **Temperature:** This area displays the real-time temperature value measured by the device.

⑩ **Gas Concentration Level:** When there is no value, it shows "Ready." Below the threshold, it shows "Normal." Above the threshold, it shows "High Alarm" or "Low Alarm."

⑪ **Humidity:** This area displays the real-time humidity measured by the device.



Key	Operation	Function description
	Long press	Switch on/off
	Short press	HOLD Data Hold Function
	Long press	Enter setting page
	Long press	Turn On Flashlight
	Short press	Enter Curve Switching Page, with Curve Updating Every 0.5 Seconds

2.4 General Settings Page

Alarm Settings: Use the left/right buttons to choose whether to enable the indicator light, vibrator, and buzzer (ON/OFF).

Threshold Settings: Use the up/down buttons to select high or low alarm options.

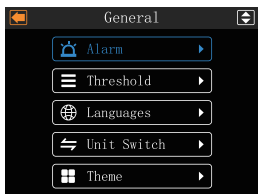
Press the OK button to enter the four-level navigation menu, where you can adjust the values. Press or hold the up/down buttons to adjust the threshold. The alarm will respond and record based on the set threshold.

Language switch: Press the left or right key to select Chinese and English.

Language: Use the left/right buttons to select between Chinese and English (ON/OFF).

Unit Switch: Use the up/down buttons to change the unit, no need to press the OK button.

Interface Style: Use the left/right buttons to select between dark mode and light mode.



2.5 System Settings

Time Setting: Select any direction, press the OK button to enter, then long press the up/down buttons to adjust the values.

Sleep Mode: ① Left or right key to select ON/OFF to turn on the sleep.



②Left or right key to adjust percentage bar for the sleep brightness.

③Use the left/right buttons to adjust the values for entering sleep mode or automatic shutdown.Sleep mode will reduce screen brightness and power consumption. The device will exit sleep mode when motion is detected.

Brightness: Use the progress bar and press or hold the left/right buttons to adjust the brightness.

Volume:① Use the left/right buttons on the progress bar to adjust the volume.

② Use the left/right buttons to select whether to enable volume (ON/OFF). The volume here controls the global sound switch but does not affect the alarm sound.

Restore Factory Settings: Use the left/right buttons to choose whether to restore factory settings, then press the OK button to confirm.

2.6 Alarm Records Page

Alarm Log: Records the time and type of alarms, exceeding the thresholds, with a maximum of 30 entries. Older entries will be cleared and overwritten once this limit is exceeded.

Records are created only when the alarm level increases. Use the up/down buttons to browse through the log.

Alarm Log		
Num	Time	Type
01	2024/06/10 07: 30	Low
02	2024/06/10 07: 30	Low
03	2024/06/10 07: 30	Low
04	2024/06/10 07: 30	Low
05	2024/06/10 07: 30	Low

3. Technical Specifications

3.1 Model Parameters

Parameter	Specification
Model Parameters	GD-02
Screen Material	2.0-inch Color Screen
Detectable Gases	Methane, Propane, Isobutane
Measurement Range	0~50000ppm (甲烷Methane)
	0~100 (A%LEL)
Resolution	1ppm/1%LEL
Measurement Range (%LEL)	0~100
Operating Temperature	-10~55°C
Warm-up TimeResponse Time	Around 15-16 seconds
(T90)	<5s
Recovery Time (T10)	<10s
Service Life	>3 years
Sampling Time	≈0.5s
Size	≈63×28×139(+360)mm
Product Weight	≈296g

4. Operation Manual

4.1 Power On

Long press  power button to turn on the device. Wait for the system to load and enter the main interface of the color screen combustible gas detector.

4.2 Language Settings

Long press the  button to enter the system menu. Short press the Select button to choose General Settings, then press **OK** to confirm. Use the Select button to choose Language Settings  and press **OK** to enter. Use the Left/Right buttons to select Chinese / English.

4.3 Gas Concentration Threshold and Unit Settings

Gas Concentration Threshold Adjustment:

Long press the  button to enter the system menu. Click the selection button to choose General Settings and press the **OK** button to confirm. In the General Settings, click the selection button to choose Threshold Settings and press **OK** to confirm. Use the up and down buttons to select the high or low alarm options, then press **OK** to enter the four-level navigation for detailed value adjustment. Use the up or down buttons to adjust the threshold value by either clicking or holding the buttons.

Concentration Unit Adjustment:

Long press the  button to enter the system menu. Click the selection button to choose General Setting and press the **OK** button to confirm. In the General Settings, click the selection button to choose Unit Switch, and press **OK** to confirm. Use the up and down buttons to select the concentration unit. No need to press the confirm button to save, simply press the back button to exit.

Other Function Adjustments in General Settings:

The navigation for selecting and enabling corresponding functions is similar to the above two steps, so it is omitted.

4.4 Date and Brightness Adjustment

Time Setting:

Long press the  button to enter the system menu. Click the selection button to choose System Settings and press the **OK** button to confirm. In the System Settings, click the selection button to choose Date  , then press **OK** to confirm. Use the selection button to choose the date or time you want to adjust, then press **OK** to enter the numeric adjustment. Use the up and down buttons to adjust the values. Press the back button to save the settings.

Brightness:

Long press the  button to enter the system menu. Click the selection button to choose System Settings and press the **OK** button to confirm. In the System Settings, click the selection button to choose Brightness  , then press **OK** to confirm. Use the left and right buttons to adjust the brightness in real time. Press the back button to save the settings.

Other Function Adjustments in General Settings:

The navigation for selecting and enabling corresponding functions is similar to the above two steps, so it is omitted.

5.Quick Start Guide

5.1 Quick Measurement

Power on the combustible gas detector with a color screen and wait for it to warm up. Once ready, the main interface will load, and the device is ready to use.

- Place the device in the area to be tested. It can detect combustible gases (methane, propane, isobutane).
- Check real-time gas concentration, temperature, and humidity on the main screen.
- Short press the power button to activate the HOLDS function and freeze the data.
- Use the left and right buttons to switch between curve pages for data visualization and analysis.
- Long press the left button to turn on the flashlight, If visibility is low.

5.2 Firmware Upgrade

To turn off the device, press and hold both the right button and the power button. The device will then enter the Bootloader interface. Insert a USB Type-C cable to connect to the computer and enter the Bootloader interface for firmware upgrade.

- Once in the Bootloader, the computer will recognize the USB drive. Simply copy the firmware file to the drive.
- The device will automatically run the existing firmware, if no action is taken in the Bootloader for 1 minute.

6. Troubleshooting

6.1 Unable to Power On

Possible causes:

- Low battery
- Loose or damaged battery connection

Solution:

- ①Check battery charge and charge if low
- ②If battery fails to charge or device still does not power on, try reinstalling or replacing the battery.

6.2 Not Displaying

Possible causes:

- Screen backlight is off
- Display hardware malfunction
- System software error

Solution:

- ①Check and adjust the backlight brightness settings according to the manual.
- ②Restart the device to ensure the system returns to normal.
- ③If the screen still doesn't display properly, it may need to be repaired or replaced.

7.Maintenance

Cleaning the Device Exterior:

- Frequency: Clean once a month, depending on the usage environment..
- Method: Gently wipe the device surface with a soft cloth. Avoid using chemical cleaners, especially those containing alcohol or strong acids/alkalines, as they may damage the casing or screen.
- Notes:
 - Regularly clean the gas detection port and around the buttons to keep the device clean.
 - Ensure no liquid, dust, or debris enters the device ports.

Battery and Power Check:

- Battery Maintenance: For the combustible gas detector with built-in batteries, regularly check the battery's health. Avoid fully discharging the battery, it is recommended to charge it periodically and avoid leaving the device unused for extended periods.
- Charging Guidelines: Use the official charger for charging, avoid overcharging or deep discharging, and ensure the battery stays within the proper working voltage range.
- Battery Replacement: If the battery shows excessive wear (e.g., failure to charge properly or rapid discharge), it should be replaced promptly.

Storage and Transportation:

- **Storage Environment:** The device should be stored in a dry, well-ventilated environment, away from high temperatures, high humidity, or extreme temperature fluctuations. Avoid placing it in direct sunlight.
- **Transportation:** Handle the device carefully to prevent drops, especially during transportation. It is recommended to use a protective case or a dedicated carrying bag.

Software Update:

- Regularly check for new firmware updates for the device. The latest firmware can fix known bugs and improve device performance.
- When updating, ensure the correct procedure is followed, use the official firmware files, and avoid power loss or other interruptions during the update.

Factory Reset:

- If the device malfunctions or doesn't work properly, you can try performing a factory reset. This will erase all custom configurations and restore the device to its original state.
- Refer to the user manual or contact customer support for instructions on how to perform a factory reset.

8.Contact US

Any FNIRSI users who contact us with questions will receive our promise of a satisfactory solution, plus an extra 6-month warranty as a token of our appreciation for your support! By the way, we have created an exciting community, and we welcome you to contact FNIRSI staff to join.

SHENZHEN FNIRSI TECHNOLOGY CO.,LTD

Add.: West of Building C , Weida Industrial Park , Dalang Street , Longhua District , Shenzhen , Guangdong , China

Tel: 0755-28020752

Web: www.fnirsi.com

E-mail: business@fnirsi.com (Business)

E-mail: service@fnirsi.com (Equipment Service)



<http://www.fnirsi.com/>

9. Warranty Instructions

※**This page is the basic warranty card. Please keep it.**

Thank you for choosing our company's products. The warranty period of this product starts from the date of sale. During the product warranty period, if the product is installed and used in accordance with the product manual and used in normal environment and conditions, and the fault is caused by defects in the original materials and processing, you can enjoy free repair services according to the content of this warranty clause. Please keep this warranty card properly as a warranty certificate. No reissue will be issued if it is lost.

The following situations will incur paid repair services

- 1.Unable to present the original valid warranty card.
- 2.Damage caused by improper installation not meeting product requirements, standards, or relevant specifications.
- 3.Damage caused by accessories in the installation environment not meeting product requirements, standards, or relevant specifications.
- 4.Damage caused by improper use, improper storage, unauthorized disassembly, or unauthorized repairs by the user.
- 5.Expiration of the warranty period.

保修卡



产品型号	GD-02	数量	
渠道商名称 (购买商店)			
联系方式			
渠道商地址			
发票号 (订单号)			
购买时间	年	月	日
客户姓名:	地址: 		
联系方式: 	故障说明: 		

Warranty Card



Product Model	GD-02	Qty.	
Distributor Name (where to buy)			
Contact			
Address			
Invoice Number (Order Number)			
Purchase Date (as per invoice)	Year	Month	Day
User Name:	Address:		
			
Contact:	Fault Description:		
			



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