

四合一气体检测仪

4 IN 1 GAS MONITOR



用户手册
User Manual

SW-7500D

中 文 -----01-25

English -----26-51

1. 产品介绍

便携式语音型四合一气体检测仪（以下简称检测仪）是一种可连续检测泄露气体浓度的安全型设备。采用了先进的集成电路技术、嵌入式微机控制，优质的进口气体传感器，具有优秀的灵敏度和出色的重复性；外壳采用高强度工程塑料，抗振好，强度高，外型高档大气并具有防尘防水防爆功能。

本检测仪广泛应用于石油、化工、环保、冶金、炼化、燃气、生化医药、农业、消防、考古等需要安全监测有毒有害，防爆炸行业和场所。检测仪能有效预测危险气体浓度报警，保证工作人员的生命安全不受威胁，生产设备不受损失。

本产品设计、制造、检定遵守以下国家标准（标准如有升级，自动适用新版本）：

- (1) GB12358-2024《作业场所环境气体检测报警仪通用技术要求》
- (2) GB15322.3—2019《便携式可燃气体探测器第3部分：测量范围为（0-100）%LEL的便携式可燃气体探测器》
- (3) JJG693—2011《可燃气体检测报警器的检定规程》
- (4) JJG365—2008《电化学氧气测定仪检定规程》
- (5) JJG695—2019《硫化氢气体检测仪检定规程》
- (6) JJG915—2008《一氧化碳检测报警器检定规程》

产品特点：

- 2.4寸IPS彩屏
- 内置锂电3000mAh
- 中文/英文界面显示
- 中文/英文语音播报
- 泵吸式检测，内置气泵
- 可外接气管和多功能采集手柄
- 400组数据存储
- 实时数据图形分析
- IP54防水防尘等级

2. 结构特征

2.1 结构功能对比图

① 气体检测口

② 警示灯

③ 显示屏

④ 电源键

⑤ 静音/返回键

⑥ 向上/开关气泵键

⑦ 菜单/确认键

⑧ 向下键

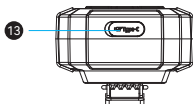
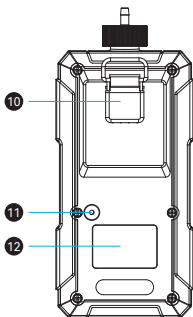
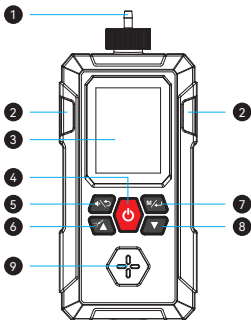
⑨ 喇叭

⑩ 背夹

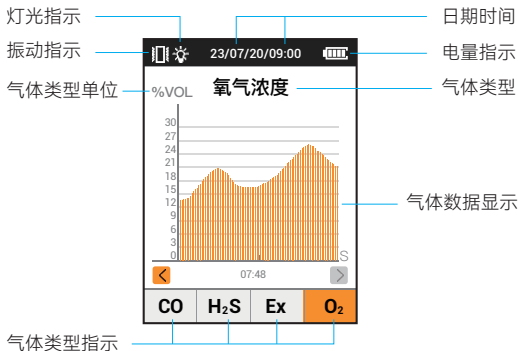
⑪ 排气孔

⑫ 铭牌贴纸

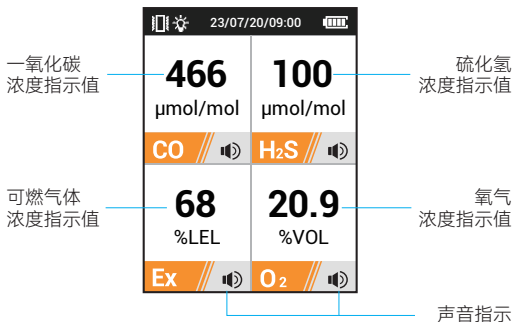
⑬ Type-C USB



2.2 柱状图显示状态



2.3 气体读数状态



3. 技术参数

常规气体检测范围

气体种类	量程	低报警点	高报警点	分辨率
CO	0~1000 $\mu\text{mol/mol}$	50 $\mu\text{mol/mol}$	150 $\mu\text{mol/mol}$	1 $\mu\text{mol/mol}$
H ₂ S	0~100 $\mu\text{mol/mol}$	10 $\mu\text{mol/mol}$	35 $\mu\text{mol/mol}$	1 $\mu\text{mol/mol}$
Ex	0~100% LEL	20% LEL	50% LEL	1% LEL
O ₂	0~30% VOL	19.5% VOL	23.5% VOL	0.1% VOL

其它参数

传感器原理	电化学式和催化燃烧式
传感器寿命	1年
采样方式	泵吸式
示值误差	$\pm 5\% \text{FS}$
响应时间	<30s
显示屏幕	2.4英寸IPS彩屏
语言界面	中文/英文切换
语音播报	中文/英文语音
时间显示	√
数据存储	最多400组
电池规格	3.8V 3000mAh锂电池
充电规格	Type-C DC5V 1A
充电时长	约4小时
满电续航	约6小时（气泵开）

开机预热	50秒
报警功能	声音/灯光/振动三种报警模式
自动关机	5分钟(无任何操作情况下，可手动取消)
自动关背光	30秒
工作温湿度	-10°C~55°C；≤95%RH无凝结
储存温湿度	-20°C~60°C；≤85%RH
防爆标志	Ex ib IIB T3 Gb
IP等级	IP54
机身尺寸	174x77x55mm
重量	318g

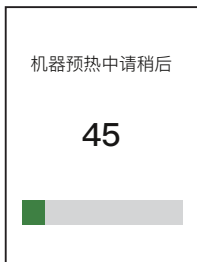
4. 设置与操作

4.1 开关机及充电指示

4.1.1 开机

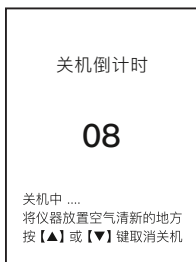
在关机状态下，长按  6秒屏幕显示“自检中”。

自检完成后，语音播报“欢迎使用智能语音型气体检测仪”，仪器进入预热50秒倒计时状态。



4.1.2 关机

长按  3s后屏幕显示“关机倒计时”（如果不需要关机，可短按  或  键取消关机），倒计时完成后语音播报“谢谢使用，再见”，然后屏幕熄灭关机。



4.1.3 充电提示

本仪器采用3.8V (3000mAh) 锂电池供电。

开机状态下充电：

屏幕右上角的电池符号由空格到满电循序渐进循环显示。
(注：该状态下无法关机)

关机状态下充电：

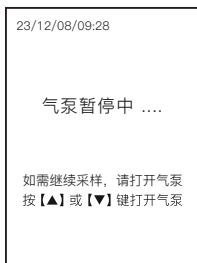
屏幕中间显示大电池符号从空格到满电循序渐进循环显示，
充满电后会提示：充电完成（注：该状态下无法开机）

4.2 语音开/关

在气体读数状态下，长按  键2s即可禁止语音播报，
再长按  键即可恢复语音播报。

4.3 气泵暂停采样

在气体读数状态下，短按  或  键进入暂停气泵
采样界面，此时采样气泵关闭，如需继续采样，短按  或
 键。



5. 菜单选项

在气体读数状态下，按  键，即可进入配置菜单选项模式。有九个配置选项：报警记录、气体标定、零点平移、报警值设置、振动与声光设置、时间日期设置、自动关机设置、语言设置和恢复出厂设置。



5.1 报警记录查看

在菜单设置状态下，按  和  键选择“报警记录”选项，然后按  键进入有四个报警记录选项的菜单：氧气报警记录、硫化氢报警记录、一氧化碳报警记录、可燃气体报警记录。需查看其中一种气体报警记录，按  和  键选择其一，按  键进入查看页面，按  和  键可翻页查看，按  键返回上一级。每种气体最多可记录100笔最近的报警记录。

注：在报警记录查看界面长按  键可以删除当前选择气体类型的全部报警记录。

报警记录	
氧气报警记录	
硫化氢报警记录	
一氧化碳报警记录	
可燃气体报警记录	
↶ BACK	✓ ENTER

报警记录选项

按

键

氧气报警记录	
1	23/09/13 07:42 19.1 %VOL
2	23/09/13 07:42 19.1 %VOL
3	23/09/13 07:44 18.8 %VOL
4	23/09/13 07:44 18.9 %VOL
5	23/09/13 07:45 19.0 %VOL
6	23/09/13 07:45 19.1 %VOL
7	23/09/13 07:51 18.9 %VOL
8	23/09/13 07:51 19.1 %VOL
9	23/09/13 07:52 19.0 %VOL
10	23/09/13 07:53 19.1 %VOL

报警记录查看

5.2 气体标定

应根据仪器使用情况、周围的气体和环境条件，定期使用已知浓度的标准气体对仪器进行测试。频率最好由公司政策或当地监管机构确定。如果仪器未能通过测试，或者出现损坏，建议进行完全校准。最安全的方法是每天使用前进行一次准确度测试。

在菜单设置中，按   键切换至“气体标定”选项，此时按  键进入有三个选项的菜单：标定值设置、氧气标定和三合一标定。

菜单设置	
报警记录	
气体标定	
零点平移	
报警值设置	
振动与声光设置	
时间日期设置	
自动关机设置	
语言设置	
恢复出厂设置	
↶ BACK	✓ ENTER

按

键

气体标定	
标定值设置	
氧气标定	
三合一标定	
↶ BACK	✓ ENTER

5.2.1 标定值设置

此页面下，按  和  键选择需要设置的选项，然后按  键进入下一级：

进入后是四个选项的菜单：氧气标定值、硫化氢标定值、一氧化碳标定值和可燃气体标定值。此页面下，按  键和  键选择需要设置的选项，然后按  键进入设置界面：

气体标定	
标定值设置	
氧气标定	
三合一标定	
↶ BACK	✓ ENTER

按
M/↵
键

标定值设置	
氧气标定值	
硫化氢标定值	
一氧化碳标定值	
可燃气体标定值	
↶ BACK	✓ ENTER

氧气标定值:

此页面下，按  和  键设置需要的数值后，按  键确认并完成，按  键取消设置并返回上一级。

硫化氢标定值:

此页面下，按  和  键设置需要的数值后，按  键确认并完成，按  键取消设置并返回上一级。

一氧化碳标定值:

此页面下，按  和  键设置需要的数值后，按  键确认并完成，按  键取消设置并返回上一级。

可燃气体标定值:

此页面下，按  和  键设置需要的数值后，按  键确认并完成，按  键取消设置并返回上一级。

注：此图仅以一种气体为例，其余3种气体类型操作方法一致。



5.2.2 氧气标定

在气体标定状态下，按 和 键选择氧气标定，按 键进入输入密码界面，输入密码‘1111’（按键输入操作：在密码输入界面下，按 和 键设置数字0-9，然后按 键移至下一位，同上一步按 和 键设置数字0-9 如此直至四位数字设置完成），再按 键进入零点标定，此时等待30s后自动完成校准，并且显示校准情况。若校准成功，则显示“标气校准完成”，若校准失败，则显示“标定失败”，1s后自动返回气体检测界面，校准过程按 键取消设置并返回上一级。

气体标定	
标定值设置	
氧气标定	
三合一标定	
↶ BACK	✓ ENTER

按
M/↵
键
→

气体标定	
请输入密码	
1	1
1	1
↶ BACK	✓ ENTER

氧气标定	
标定值	20.9
内码值	2812
标定进程	
标气校准完成	
↶ BACK	✓ ENTER

按
M/↵
键
等待30s后
←

5.2.3 三合一标定

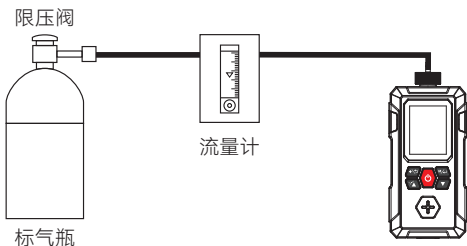
标定前准备好标气、限压阀、流量计、气管、螺丝固定好标定气罩。

在选择三合一标定时，按 **M/↵** 键，输入密码：1111，仪器会显示零点标定，再按 **M/↵** 键，仪器会自动校准零点，校准完成后，通入指定浓度的四合一标准气体*，按 **M/↵** 键进入校准状态，30秒后显示标准校准完成，按 **M/↵** 键返回至菜单界面。没有标准气体，请勿进行此项操作。

* 四合一标气：氧气18%VOL,一氧化碳100μmol/mol, 硫化氢25μmol/mol, 可燃气体50%LEL（甲烷）

气体标定		三合一标定
请输入密码		标定值 100 50 27
1 1 1 1	按 M/↵ 键 →	内码值 0007 1733 0005 CO CH ₄ H ₂ S
		标定进程
		标气校准完成
↶ BACK		↶ BACK
✓ ENTER		✓ ENTER

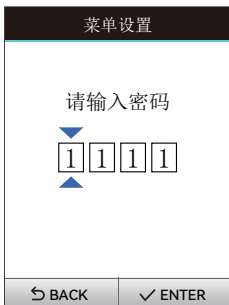
警告：非专业人员严禁进行此操作，否则一切后果自行承担！
检测仪在出厂时已经统一进行过标定测试，如果用户想重新进行标定，请严格按照步骤，先零点设置，再进行重新标定设置。用户如误操作此设置，请及时联系生产厂家退回重新标定处理。



标定示意图

5.3 零点平移

在菜单设置状态下，选择零点平移，按 **M/↵** 键，输入密码：1111，切换到零点平移界面，进度条动态推进完成后，仪器自动返回气体检测界面。此项操作，请在自然通风环境好的环境下操作。



按
M/↵
键
→



5.4 报警值设置

在菜单设置状态下，选择“报警值设置”，按  键进入有四个报警值设置选项的菜单：氧气报警值、硫化氢报警值、一氧化碳报警值、可燃气体报警值。此页面下，按  和  键选择需要设置的选项，然后按  键进入下一级：

注意：低限报警值小于高限报警值。

5.4.1 氧气报警值

按  键进入设置选项的菜单：低限报警值设置和高限报警值设置。此页面下，按  和  键选择需要设置的选项，然后按  键进入下一级：

低限报警值设置（出厂默认19.5%VOL）

按  键进入设置操作界面，按  和  键设置想要的数值后按  键确认并返回上一级菜单；不需要设置，按  键返回上一级。

高限报警值设置（出厂默认23.5%VOL）

按  键进入设置操作界面，按  和  键设置想要的数值后按  键确认并返回上一级菜单；不需要设置，按  键返回上一级。

5.4.2 硫化氢报警值设置

按  键进入设置选项的菜单：低限报警值设置和高限报警值设置。此页面下，按  和  键选择需要设置的选项，然后按  键进入下一级：

低限报警值设置（出厂默认10 μ mol/mol）

按  键进入设置操作界面，按  和  键设置想要的数值后按  键确认并返回上一级菜单；不需要设置，按  键返回上一级。

高限报警值设置（出厂默认35 μ mol/mol）

按  键进入设置操作界面，按  和  键设置想要的数值后按  键确认并返回上一级菜单；不需要设置，按  键返回上一级。

5.4.3 一氧化碳报警值设置

按  键进入设置选项的菜单：低限报警值设置和高限报警值设置。此页面下，按  和  键选择需要设置的选项，然后按  键进入下一级：

低限报警值设置（出厂默认50 μ mol/mol）

按  键进入设置操作界面，按  和  键设置想要的数值后按  键确认并返回上一级菜单；不需要设置，按  键返回上一级。

高限报警值设置（出厂默认150 μ mol/mol）

按  键进入设置操作界面，按  和  键设置想要的数值后按  键确认并返回上一级菜单；不需要设置，按  键返回上一级。

5.4.4 可燃气体报警值设置

按  键进入设置选项的菜单：低限报警值设置和高限报警值设置。此页面下，按  和  键选择需要设置的选项，然后按  键进入下一级：

低限报警值设置（出厂默认20%LEL）

按  键进入设置操作界面，按  和  键设置想要的数值后按  键确认并返回上一级菜单；不需要设置，按  键返回上一级。

高限报警值设置（出厂默认50%LEL）

按  键进入设置操作界面，按  和  键设置想要的数值后按  键确认并返回上一级菜单；不需要设置，按  键返回上一级。

5.5 振动与声光设置

在菜单设置状态下，选择“振动与声光设置”，按  键进入有三个报警设置选项的菜单：振动设置、声音设置、灯光设置。此页面下，按  和  键选择需要设置的选项，然后按  键进入设置界面：

菜单设置	
报警记录	
气体标定	
零点平移	
报警值设置	
振动与声光设置	
时间日期设置	
自动关机设置	
语言设置	
恢复出厂设置	
↶ BACK	✓ ENTER

按



键

振动与声光设置	
振动设置	
声音设置	
灯光设置	
↶ BACK	✓ ENTER

5.5.1 振动设置

设置界面下，按 和 键设置为“开启”或“关闭”，按 键确认并返回上级菜单；按 键取消设置并返回上级菜单。

5.5.2 声音设置

设置界面下，按 和 键设置为“开启”或“关闭”，按 键确认并返回上级菜单；按 键取消设置并返回上级菜单。

5.5.3 灯光设置

设置界面下，按 和 键设置为“开启”或“关闭”，按 键确认并返回上级菜单；按 键取消设置并返回上级菜单。

5.6 日期设置

在菜单设置状态下，选择“日期设置”按  键进入有两个设置选项菜单：日期设置和时间设置，此页面下，按  和  键选择需要设置的选项，然后按  键进入设置界面：

菜单设置	
报警记录	
气体标定	
零点平移	
报警值设置	
振动与声光设置	
时间日期设置	
自动关机设置	
语言设置	
恢复出厂设置	
 BACK	 ENTER

按

键

时间日期设置	
日期设置	
时间设置	
 BACK	 ENTER

5.6.1 日期设置

通过按  键增加数值，按  键减少数值，按  键切换年月日，最后按  键进行保存。

5.6.2 时间设置

通过按  键增加数值，按  键减少数值，按  键切换时分秒，最后按  键进行保存。

5.7 自动关机设置

在菜单设置状态下，选择“自动关机设置”，按 **M/↵** 键进入设置界面，此节目有五个选项：05分钟、10分钟、20分钟、30分钟和关闭。按 **↶** 和 **↷** 键选择想要的选项后，按 **M/↵** 键确认并完成设置；按 **↶↷** 键取消设置并返回上级菜单。

菜单设置	
报警记录	
气体标定	
零点平移	
报警值设置	
振动与声光设置	
时间日期设置	
自动关机设置	
语言设置	
恢复出厂设置	
↶ BACK	✓ ENTER

按
M/↵
键

自动关机设置	
05 分钟	
10 分钟	
20 分钟	
30 分钟	
关闭	
↶ BACK	✓ ENTER

5.8 语言设置

在菜单设置状态下，选择“语言设置”，按 **M/↵** 键进入设置界面，按 **↶** 和 **↷** 键选择“中文”或“ENGLISH”选项后，按 **M/↵** 键确认并完成设置；按 **↶↷** 键取消设置并返回上级菜单。（检测仪支持中英文语言切换，播放的提示语音和系统设置的语言保持一致）

菜单设置	
报警记录	
气体标定	
零点平移	
报警值设置	
振动与声光设置	
时间日期设置	
自动关机设置	
语言设置	
恢复出厂设置	
↶ BACK	✓ ENTER

按
M/↵
键

语言设置	
中文	
ENGLISH	
↶ BACK	✓ ENTER

5.9 恢复出厂设置

在菜单设置状态下，选择“恢复出厂设置”，按 **M/↵** 键进入设置界面；再按 **M/↵** 键确认恢复出厂设置；按 **↶↷** 键取消设置。

菜单设置	
报警记录	
气体标定	
零点平移	
报警值设置	
振动与声光设置	
时间日期设置	
自动关机设置	
语言设置	
恢复出厂设置	
↶ BACK	✓ ENTER

按
M/↵
键

恢复出厂设置 您确定吗？	
↶ BACK	✓ ENTER

6. 使用注意事项

1. 防止本机从高处跌落或受剧烈振动。
2. 在高浓度气体存在时，或许检测仪无法正常使用。
3. 请严格按照说明书操作和使用，否则可能导致检测结果不准或者损坏检测仪。
4. 检测仪不得在含有水蒸气、酸性气体、碱性气体、强氧化性气体及灰尘过高的环境中使用。
5. 本产品不得在含有腐蚀性体（如氯、含硅气体等）的环境中存放或使用，也不要其它苛刻环境，包括过高、过低的温度、较大的湿度、电磁场以及强烈的日光照射）下使用和储藏本机。
6. 检测仪表面有污物时，请用干净的软布蘸水轻轻擦拭，不要使用带腐蚀性的溶剂和硬物擦拭本机表面，否则可能导致检测仪表面划伤或损坏。
7. 任何超出本说明书叙述的应用或故障请联络我公司寻求解决。

7. 常见故障及解决方法

故障现象	可能的故障原因	处理方式
无法开机	电压过低	请及时给仪器充电
	死机	请联系经销商或制造商维修
	电路故障	请联系经销商或制造商维修
对检测气体没有反应	电路故障	请联系经销商或制造商维修
显示不准确	传感器超期	请联系经销商或制造商更换传感器
	长期未标定	请及时标定
时间显示错误	电池电量完全耗尽	及时充电并重新设置时间
	强电磁干扰	重新设置时间
零点设置失败	传感器漂移过多	及时标定或更换传感器
仪器正常检测不归零(氧除外)	传感器漂移	进行零点校准
当仪器正常检测界面显示满量程	传感器故障	请联系经销商或制造商更换传感器

8. 储存

检测仪应储存在环境温度 0℃ ~ 40℃、相对湿度不大于 85% 的通风室内。避免阳光直射，且空气中不能含有对检测仪起腐蚀作用的有害气体或杂质。

9. 装箱清单

请按下列清单认真检查仪器所有附件是否完整。如不完整，请及时联系经销商或生产厂家。

序号	名称	单位	数量	备注
1	主机	台	1	
2	Type-C线	条	1	
3	彩盒	个	1	
4	说明书	本	1	
5	布包盒	个	1	旗舰款配PP盒
6	保修卡	张	1	
7	软管	根	1	
8	多功能采集手柄	个	1	仅旗舰款配

1. Product Introduction

Portable voice type 4-in-1 gas monitor (hereinafter referred to as detector) is a kind of safe equipment that can continuously detect the concentration of leaking gas. It adopts advanced integrated circuit technology, embedded microcomputer control, high-quality imported gas sensor, and has excellent sensitivity and repeatability; Its housing is made of high-strength engineering plastic, with good vibration resistance, high strength, simple appearance and dustproof, waterproof and explosion-proof features.

The monitor is widely used in petroleum, chemical industry, environmental protection, metallurgy, refining, gas, biochemical medicine, agriculture, fire protection, archaeology and other safety monitoring industries and places. The monitor can effectively predict the dangerous gas's concentration and alarm to ensure that the life safety of the staff is not threatened, and the production equipment is not damaged.

The design, manufacture and verification of this product comply with the following national standards (If the standard is upgraded, the new version automatically applies):

- (1) GB12358-2024 "General Technical Requirements for Environment Gas Detection & Alarm Detector in Workplaces"
- (2) GB15322.3—2019 "Portable combustible gas detector - Part 3: Portable combustible gas detector with measurement range of (0-100)% LEL"
- (3) JJG693—2011 "Verification Regulations for Combustible Gas Detection Alarms"
- (4) JJG365—2008 "Verification regulation for electrochemical oxygen detector"
- (5) JJG695—2019 "Verification regulation of hydrogen sulfide gas detector"
- (6) JJG915—2008 "Verification regulation of carbon monoxide detection alarm"

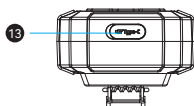
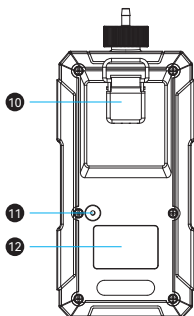
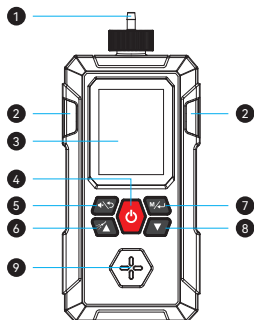
Product Features:

- 2.4" IPS color screen
- Built-in Li-ion 3000mAh
- Chinese/English interface
- Chinese/English voice broadcast
- Pump detection, built-in air pump
- Connect the external gas pipe and multi-function detection handle
- 400 sets of data storage
- Real-time data graph analysis
- IP54

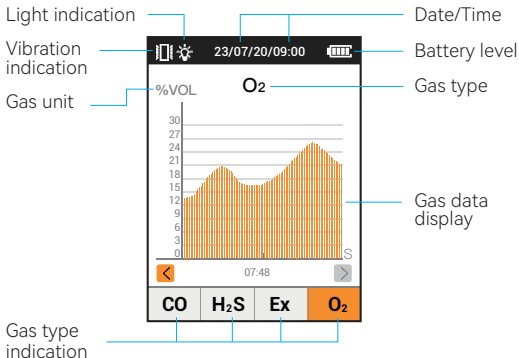
2. Structural Features

2.1 Structure and Functions

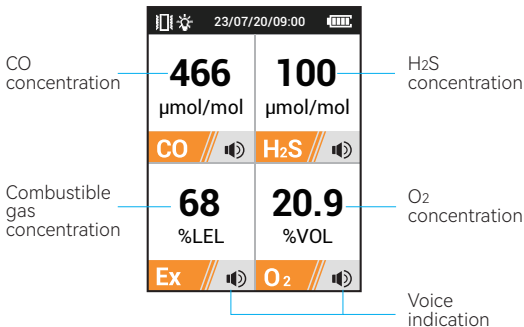
- | | |
|--------------------------|---------------------|
| ① Gas detection port | ⑧ Down key |
| ② Warning light | ⑨ Loudspeaker |
| ③ LCD | ⑩ Back clamp |
| ④ Power key | ⑪ Vent hole |
| ⑤ Voice/Return key | ⑫ Nameplate sticker |
| ⑥ Up/On/Off air pump key | ⑬ Type-C USB |
| ⑦ Menu/Confirm key | |



2.2 Bar Chart Display



2.3 Gas Reading State



3. Specifications

Conventional Gas Detection Range				
Gas Type	Range	Low Alarm Value	Max Alarm Value	Resolution
CO	0~1000 $\mu\text{mol/mol}$	50 $\mu\text{mol/mol}$	150 $\mu\text{mol/mol}$	1 $\mu\text{mol/mol}$
H ₂ S	0~100 $\mu\text{mol/mol}$	10 $\mu\text{mol/mol}$	35 $\mu\text{mol/mol}$	1 $\mu\text{mol/mol}$
Ex	0~100% LEL	20% LEL	50% LEL	1% LEL
O ₂	0~30% VOL	19.5% VOL	23.5% VOL	0.1% VOL

Other Specifications	
Sensor Principle	Electrochemical/Catalytic combustion
Sensor Life	1 year
Sampling Method	Air pump
Reading Error	$\pm 5\%$ FS
Response Time	<30s
Screen	2.4" IPS color LCD
Language	Chinese/ English
Voice Broadcast	Chinese/ English
Time Display	√
Memory	400 units
Battery	3.8V 3000mAh Li-ion
Charging Specification	Type-C DC5V 1A
Charging Time	About 4h
Battery Life	About 6h (air bump on)

Startup preheat	50s
Alarm	Sound/Light/Vibration
Auto-off	5 minutes (changeable)
Auto Backlight-off	30s
Working Temperature/ Humidity	-10°C~55°C; ≤95%RH no condensing
Storage Temperature/ Humidity	-20°C~60°C; ≤85%RH
Explosion-proof Grade	Ex ib IIB T3 Gb
IP Grade	IP54
Dimension	174x77x55mm
Weight	318g

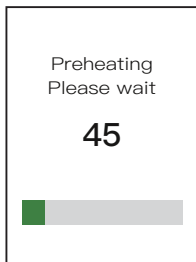
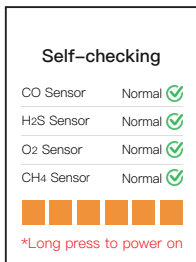
4. Setting & Operation

4.1 Turn On/Off, Charging Indication

4.1.1 Turn On

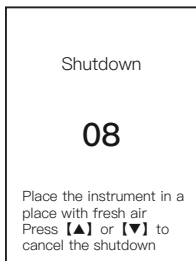
In off state, long press  for 6s, the screen will display "Self-checking".

After the self-checking is completed, the instrument will announce "Welcome to use Intelligent voice Gas detector", and enter preheat 50 seconds countdown state.



4.1.2 Turn Off

Long pressing  for 3s, the screen will display "Shutdown"
(If user do not need to shut down, please short press  or  key to cancel the shutdown). After the countdown is completed, the device will announce "Thank you for using bye", and then the screen will shut down.



4.1.3 Charging Indication

The instrument is powered by 3.8V (3000mAh) lithium battery.

Charging at on state:

The battery symbol in the upper right corner of the screen is shown below (Note: It cannot be shut down in this state).

Charging at off state:

The screen is displayed as follows. After full charging, it will prompt: Complete charging (Note: It cannot be started in this state)

4.2 Sound On/Off

In the gas reading state, long press  to for 2s to turn off the sound, and long press  to turn on the sound.

4.3 Air Pump Suspends Sampling

In the gas reading state, short press  or  to enter the interface of suspending air pump sampling. At this time, the sampling air pump is closed. If user need to continue sampling, short press  or  short.

23/12/08/09:28

Air pump suspended..
To continue sampling
press **【▲】** or **【▼】** to
turn on the air pump

5. Menu Setting

In the gas reading state, press  to enter the menu option mode. There are nine options: Alarm recording, Gas calibration, Zero shift, Alarm value setting, Vibration and sound&light setting, Time and date setting, Auto-off setting, Language setting and Factory reset.

MENU	
Alarm record	
Calibration	
Zero offset	
Alarm limit	
Alarm setting	
Date and time	
Auto off	
Language	
Factory reset	
↶ BACK	✓ ENTER

5.1 Alarm Records Viewing

In the menu setting state, press  and  to select the "Alarm records" option, and then press  to enter the menu with four alarm record options: O₂ alarm record, H₂S alarm record, CO alarm record, combustible gas alarm record. To view the alarm records of one gas, press  and  to select them; Press  to enter the viewing page; Press  and  to turn pages; Press  key to return to the previous page. Up to 100 recent alarm records can be recorded for each gas.

Note: Long press  in the alarm record viewing interface to delete all alarm records of the currently selected gas type.

Alarm Record	
O ₂ alarm record	
H ₂ S alarm record	
CO alarm record	
Ex alarm record	
↶ BACK	✓ ENTER

Alarm records options

Press

key

O ₂ Record	
1	23/09/13 07:42 19.1 %VOL
2	23/09/13 07:42 19.1 %VOL
3	23/09/13 07:44 18.8 %VOL
4	23/09/13 07:44 18.9 %VOL
5	23/09/13 07:45 19.0 %VOL
6	23/09/13 07:45 19.1 %VOL
7	23/09/13 07:51 18.9 %VOL
8	23/09/13 07:51 19.1 %VOL
9	23/09/13 07:52 19.0 %VOL
10	23/09/13 07:53 19.1 %VOL

Alarm record viewing

5.2 Gas Calibration

The instrument should be tested periodically with standard gases of known concentrations, depending on the use of the instrument, surrounding gases and environmental conditions. The frequency is best determined by the company or local regulatory authority. If the instrument fails the test or is damaged, a full calibration is recommended. The safest way is to test the accuracy once a day before use.

In the menu setting, press   to switch to the "Gas Calibration" option, then press  to enter the menu with three options: Calibration value setting, O₂ calibration and 3-in-1 calibration.

MENU	
Alarm record	
Calibration	
Zero offset	
Alarm limit	
Alarm setting	
Date and time	
Auto off	
Language	
Factory reset	
 BACK	 ENTER

Press

key

Calibration	
Span settings	
O ₂ calibration	
Three in mult Calibration	
 BACK	 ENTER

5.2.1 Calibration Value Setting

Under this page, press  and  to select the option to be set, and then press  to enter the next page:

There are four options: O₂ calibration value, H₂S calibration value, CO calibration value and combustible gas calibration value. On this page, press  and  to select the options to be set, and then press  to enter the setting page:

Calibration	
Span settings	
O2 calibration	
Three in mult Calibration	
↶ BACK	✓ ENTER

Press

 key

Span Setting	
O2 span value	
H2S span value	
CO span value	
Ex span value	
↶ BACK	✓ ENTER

O2 calibration value:

On this page, press  and  to set the required value; Press  to confirm and complete; Press  to cancel the setting and return to the previous page.

H2S calibration value:

On this page, press  and  to set the required value; Press  to confirm and complete; Press  to cancel the setting and return to the previous page.

CO calibration value :

On this page, press  and  to set the required value; Press  to confirm and complete; Press  to cancel the setting and return to the previous page.

Combustible gas calibration value:

On this page, press  and  to set the required value; Press  to confirm and complete; Press  to cancel the setting and return to the previous page.

Note: This figure only takes one gas as an example, and the operation method of the other 3 gases is the same.

Span Setting	
O2 span value	
H2S span value	
CO span value	
Ex span value	
↶ BACK	✓ ENTER

Press

 key

Span Setting	
▲ 29.0 ▼ %VOL	
↶ BACK	✓ ENTER

5.2.2 O2 Calibration

In the gas calibration state, press  and  to select O2 calibration; Press  to enter the password input interface and enter password 1111, (Operation: in the password input interface, press  and  to set the first digit from 0-9, and then press  to move to the next digit until the four digits setting is completed); Then press  to enter the zero calibration. After 30s, the calibration will automatically complete, and the calibration result will be displayed. If the calibration is successful, "Gas Calibration Complete" is displayed. If calibration fails, "Gas Calibration failed" is displayed. Finally, automatically return to the gas detection interface after 1 second. Press  during calibration to cancel settings and return to the previous page.

Calibration	
Span settings	
O ₂ calibration	
Three in mult Calibration	
↶ BACK	✓ ENTER

Press

 key


Calibration	
Please Enter PassWord	
 1 1 1 1 	
↶ BACK	✓ ENTER

O ₂ Span Value	
SPAN:	20.9
ADC:	2812
Calibration process	
Gas Calibration Complete	
	
↶ BACK	✓ ENTER

Press

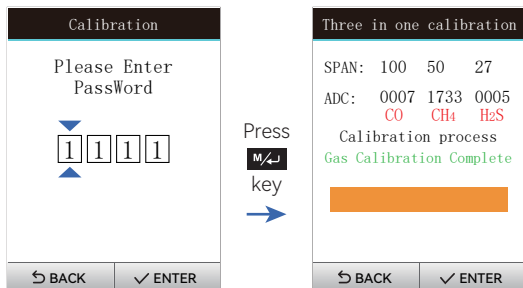
 key
 After waiting
for 30s


5.2.3 3 In 1 Calibration

Before calibration, please prepare the standard gas, pressure limiting valve, flow meter, gas pipe, screw, and fix the calibration gas hood.

When selecting 3-in-1 calibration, press **M/↵** and enter password: 1111, the instrument will display zero calibration. Press **M/↵** again, the instrument will automatically calibrate the zero point. After the calibration is completed, inject the specified concentration of 4-in-1 standard gas *. Press **M/↵** to enter the calibration state, and the calibration will be completed after 30 seconds. Press **M/↵** to return to the menu page. Do not perform this operation without standard gas.

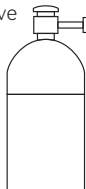
* 4-in-1 standard gas: O₂ 18%VOL, CO 100μmol/mol, H₂S 25μmol/mol, combustible gas 50%LEL (methane)



Warning: Non-professional personnel are strictly prohibited to perform this operation, otherwise the consequences are their own!

The detector has been unified calibration test when leaving the factory, if user want to re-calibrate, please strictly follow the steps, first set zero, and then re-calibrate the setting. If the user misoperates this setting, please contact the manufacturer in time to return for re-calibration.

Pressure limiting
valve



Standard
gas bottle



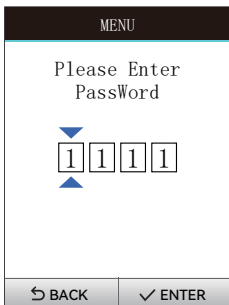
Flow meter



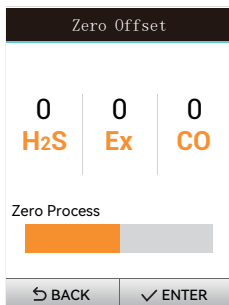
Calibration diagram

5.3 Zero Shift

In the menu setting state, select zero shift. Press **M/↵** and enter password 1111 to switch to the zero shift page. When the progress bar is completed dynamically, the instrument automatically returns to the gas detection interface. Please perform this operation in a well-ventilated environment.



Press
M/↵
key
→



5.4 Alarm Value Setting

In the menu setting state, select "Alarm value setting" and press  to enter the menu with four alarm value setting options: O₂ alarm value, H₂S alarm value, CO alarm value, combustible gas alarm value. Under this page, press  and  to select the option to be set, and then press  to go to the next page.

Note: the Min alarm value is less than the Max alarm value.

5.4.1 O₂ Alarm Value

Press  to enter the menu for setting options: low alarm value setting and high alarm value setting. Under this page, press  and  to select the option to be set, then press  to enter the next page:

Low alarm value setting (default 19.5%VOL)

Press  to enter the setting operation page. Press  and  to set the desired value, then press  to confirm and return to the previous menu. If no set is needed, press  to return to the previous page.

High alarm value setting (default 23.5%VOL)

Press  to enter the setting operation page. Press  and  to set the desired value, then press  to confirm and return to the previous menu. If no set is needed, press  to return to the previous page.

5.4.2 H₂S Alarm Value Setting

Press  to enter the menu for setting options: Low limit alarm value setting and High limit alarm value setting. Under this page, press  and  to select the option to be set, and then press  to enter the next page:

Low limit alarm value setting (default 10 μ mol/mol)

Press  to enter the setting operation page. Press  and  to set the desired value, then press  to confirm and return to the previous menu. If no set is needed, press  to return to the previous page.

High limit alarm value setting (default 35 μ mol/mol)

Press  to enter the setting operation page. Press  and  to set the desired value, then press  to confirm and return to the previous menu. If no set is needed, press  to return to the previous page.

5.4.3 CO Alarm Value Setting

Press  to enter the menu for setting options: Low limit alarm value setting and High limit alarm value setting. Under this page, press  and  to select the option to be set, and then press  to enter the next page:

Low limit alarm value setting (default 50 μ mol/mol)

Press  to enter the setting operation page. Press  and  to set the desired value, then press  to confirm and return to the previous menu. If no set is needed, press  to return to the previous page.

High limit alarm value setting (default 150 μ mol/mol)

Press  to enter the setting operation page. Press  and  to set the desired value, then press  to confirm and return to the previous menu. If no set is needed, press  to return to the previous page.

5.4.4 Combustible Gas Alarm Value Setting

Press  to enter the menu for setting options: Low limit alarm value setting and High limit alarm value setting. Under this page, press  and  to select the option to be set, and then press  to enter the next page:

Low limit alarm value setting (default 20%LEL)

Press  to enter the setting operation page. Press  and  to set the desired value, then press  to confirm and return to the previous menu. If no set is needed, press  to return to the previous page.

High limit alarm value setting (default 50%LEL)

Press  to enter the setting operation page. Press  and  to set the desired value, then press  to confirm and return to the previous menu. If no set is needed, press  to return to the previous page.

5.5 Vibration and Sound&Light Setting

In the menu setting state, select "Vibration and sound & light setting", press  to enter the menu with three alarm setting options: vibration setting, sound setting, light setting. On this page, press  and  to select the options to be set, and then press  to enter the setting page:

MENU	
Alarm record	
Calibration	
Zero offset	
Alarm limit	
Alarm setting	
Date and time	
Auto off	
Language	
Factory reset	
↶ BACK	✓ ENTER

Press

 key

Alarm Setting	
Vibration setting	
Sound setting	
Lighting setting	
↶ BACK	✓ ENTER

5.5.1 Vibration Setting

Under the setting page, press  and  to set "On" or "Off", press  to confirm and return to the previous menu; Press  to cancel the setting and return to the previous menu.

5.5.2 Sound Setting

Under the setting page, press  and  to set "On" or "Off", press  to confirm and return to the previous menu; Press  to cancel the setting and return to the previous menu.

5.5.3 Light Setting

Under the setting page, press  and  to set "On" or "Off", press  to confirm and return to the previous menu; Press  to cancel the setting and return to the previous menu.

5.6 Date Setting

In the menu setting state, select "Date setting" and press  to enter the menu with two settings options: date setting and time setting. On this page, press  and  to select the options to be set, and then press  to enter the setting page.

MENU	
Alarm record	
Calibration	
Zero offset	
Alarm limit	
Alarm setting	
Date and time	
Auto off	
Language	
Factory reset	
 BACK	 ENTER

Press

key

Date And Time	
Date setting	
Time setting	
 BACK	 ENTER

5.6.1 Date Setting

Press  to increase the value, press  to reduce the value, press  to switch the year, month and date, and finally press  to save.

5.6.2 Time Setting

Press  to increase the value, press  to reduce the value, press  to switch the hour, minute and second, and finally press  to save.

5.7 Auto-off Setting

In the menu setting state, select "Auto-off setting" and press **M/↵** to enter the setting page. There are five options: 05 minutes, 10 minutes, 20 minutes, 30 minutes, and off. Press **↶** and **↷** to select the desired option, press **M/↵** to confirm and complete the setting; Press **↶↷** to cancel the setting and return to the previous menu.

MENU	
Alarm record	
Calibration	
Zero offset	
Alarm limit	
Alarm setting	
Date and time	
Auto off	
Language	
Factory reset	
↶ BACK	✓ ENTER

Press
M/↵
key

Auto off	
05 mins	
10 mins	
20 mins	
30 mins	
OFF	
↶ BACK	✓ ENTER

5.8 Language Setting

In the menu setting state, select "Language setting" and press **M/↵** to enter the setting page. Press **↶** and **↷** to select "Chinese" or "ENGLISH" option, then press **M/↵** to confirm and complete the setting. Press **↶↷** to cancel the setting and return to the previous menu.
(The detector supports English and Chinese language switching, and the voice prompt is consistent with the language set by the user)

MENU	
Alarm record	
Calibration	
Zero offset	
Alarm limit	
Alarm setting	
Date and time	
Auto off	
Language	
Factory reset	
↶ BACK	✓ ENTER

Press
M/↵
key

Language	
中文	
ENGLISH	
↶ BACK	✓ ENTER

5.9 Factory Reset

In the menu setting state, select "Factory reset" and press M/↵ to enter the setting page; Press M/↵ again to confirm the setting. Press ↶↷ to cancel the setting.

MENU	
Alarm record	
Calibration	
Zero offset	
Alarm limit	
Alarm setting	
Date and time	
Auto off	
Language	
Factory reset	
↶ BACK	✓ ENTER

Press
M/↵
key

Factory reset	
Are you sure?	
↶ BACK	✓ ENTER

6. Notes

1. Prevent the instrument from falling from the height or violent vibration.
2. In the presence of high concentrations of gas, the instrument may not be used normally.
3. Please strictly follow the instructions to operate, otherwise the test result may be inaccurate or damaged.
4. The instrument shall not be used in an environment containing vapor, acidic gas, alkaline gas, strong oxidizing gas and dust.
5. Do not store or use this product in an environment containing corrosive substances (such as chlorine, silicon-containing gas, etc.), and do not use and store this machine in other harsh environments, including too high, or too low temperature, high humidity, electromagnetic field and strong sunlight exposure.
6. If there is dirt on the surface of the instrument, wipe it gently with a clean soft cloth dipped in water. Do not use corrosive solvents or hard objects to wipe the surface of the instrument, otherwise the surface of the instrument may be scratched or damaged.
7. Please contact us for any application or fault beyond the description in this manual.

7. Common Problems and Solutions

Problem	Reason	Solution
Unable to start	Low voltage	Charge it in time
	Crash	Contact dealer or manufacturer for repair
	Circuit fault	Contact dealer or manufacturer for repair
No reaction to the detected gas	Circuit fault	Contact dealer or manufacturer for repair
Inaccurate display	Sensor expiration	Contact dealer or manufacturer to replace the sensor
	Uncalibrated for long time	Calibration in time
Wrong time display	Battery dead	Charge and reset the time in time
	Strong electromagnetic interference	Reset time
Zero setting failure	Excessive sensor drift	Calibrate or replace the sensor in time
Normal detection non-return to zero (except O ₂)	Sensor drift	Zero calibration
The interface displays full scale when the instrument is in normal test	Sensor failure	Contact dealer or manufacturer to replace the sensor

8. Storage

The instrument should be stored in a ventilated room with an ambient temperature of 0 °C ~ 40 °C and a relative humidity of no more than 85%. Avoid direct sunlight, and the air can not contain harmful gases or impurities that will corrode the instrument.

9. Packing List

Please check carefully whether all accessories of the instrument are complete according to the following list. If incomplete, please contact the dealer or manufacturer in time.

No.	Name	Unit	QTY	Remark
1	Meter	PC	1	
2	Type-C cable	PC	1	
3	Color box	PC	1	
4	User manual	PC	1	
5	Cloth bag	PC	1	PP box for flagship
6	Hose	PC	1	
7	Multi-function detection handle	PC	1	Only flagship

深达威科技(广东)股份有限公司
Sndway Technology (Guangdong) Co., LTD

地 址: 东莞市虎门镇虎门团结路58号深达威科技园
Add: Sndway Science & Technology Industrial Park, 58
Tuanjie Road, Humen 523930, Dongguan, China

全国咨询服务热线/Service Hotline: 400-125-6969

电 话/Tel: 0769-85265688

网 址/Web: www.sndway.com

邮 箱/E-mail: market@sndway.com