

UNI-T®



UT337B

激光尘埃粒子计数器使用手册
Laser Dust Particle Counter User Manual

P/N:110401113104X

前言

尊敬的用户：

您好！感谢您选购本粒子计数器，为了正确使用本计数器，请您在使用前仔细阅读本说明书全文，特别是有关“安全须知”的部分。

若您已经阅读完本说明书全文，建议您将此说明书进行妥善保管，最好与粒子计数器一同放置或放在您随时可以查阅的地方，以便在将来使用的过程中进行查阅。

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目 录

| | |
|-------------|----|
| 一、概述 | 4 |
| 二、特点 | 4 |
| 三、配置 | 4 |
| 四、安全须知 | 5 |
| 五、产品部件及按键说明 | 6 |
| 六、LCD图标说明 | 7 |
| 七、操作说明 | 7 |
| 八、自净过滤器更换 | 11 |
| 九、产品规格 | 11 |
| 十、手机APP安装指南 | 13 |

一、概述

UT337B手持式激光尘埃粒子计数器，产品符合ISO 14644-1、JJF1190-2008标准。可以同时开启6通道测量0.3 μ m、0.5 μ m、1.0 μ m、3.0 μ m、5.0 μ m、10.0 μ m粒径数量或浓度情况。内置温度、湿度、露点温度传感器用于监测环境情况。具备10000条数据记录空间，在数据记录中可以拍照记录检测环境，并支持通过WIFI连接手机APP（iENV）或USB连接PC生成ISO、EUGMP等采样结果报告。广泛应用于电子制造业、科研部门、制药领域、食品加工行业等。

二、特点

1. 可同时检测0.3、0.5、1.0、3.0、5.0、10.0 μ m粒子；
2. 符合ISO 21501-4-2018、JJF1190-2008标准；
3. 内置多种采样方式，手动、自动、连续、ISO 14644-1、EU GMP、过滤效率、自净；
4. 7个预设模式，用户可自定义设置；
5. 内置温湿度传感器，用于监测环境温度、湿度、露点温度；
6. 可存储10000条数据，每组数据支持拍照记录检测环境状况；
7. 支持WIFI连接手机APP和Type-C连接电脑，支持采样报告导出；
8. 产品握感舒适，操作便捷，让您轻松应对各种测试场景；

三、配置

| | |
|------------|----|
| 粒子计数器 | 1台 |
| 说明书 | 1本 |
| 通用文件下载操作指南 | 1份 |
| USB数据线 | 1根 |
| 自净过滤器 | 1个 |
| 采样管 | 1根 |
| 腕带 | 1个 |
| 保修卡 | 1张 |
| 工具箱 | 1个 |

如发现部件缺少或损坏，请与您的经销商进行联系。

四、安全须知

⚠ "警告"表示会对用户造成危险的状况和操作, "小心"表示会对产品或受测设备造成损坏的因素。

1. 内含可充电锂电池, 请使用标准DC 5V适配器进行充电;
2. 内置锂电池请勿与固态废弃物一同丢弃, 废弃电池处理应由具资质的回收机构或危险材料处理机构承担, 并符合当地有关规定;
3. 内含激光装置, 请勿打开装置外壳, 激光光束会危害眼睛;
4. 使用前请检查产品和附件, 谨防任何损坏或不正常的现象。如发现产品壳体已明显损坏, 或者您认为本产品已无法正常工作, 请勿再使用产品;
5. 请勿随意拆卸产品以及更改内部接线, 以免损坏产品;
6. 请不要在高温、高湿、易燃、易爆、强电磁场环境中存放或者使用本产品;
7. 维护保养请使用软布及中性清洁剂清洁仪表外壳, 切勿使用研磨剂及溶剂, 以防外壳被腐蚀, 损坏产品, 更不可用水直接冲洗, 以免电路板进水造成产品损坏;
8. 请勿将本仪表靠近火源, 请勿淋湿仪表;
9. 本仪表的维修与服务必须由有资格的专业维修人员或受批准的维修站点完成。

五、产品部件及按键说明



1. 产品部件
















| 编号 | 名称 | 功能描述 |
|----|--------|----------|
| 1 | 硅胶帽 | 防尘 |
| 2 | 等动力采样头 | 空气入口 |
| 3 | USB接口 | 充电/连接上位机 |
| 4 | LED | 报警提示 |
| 5 | 屏幕 | 显示 |
| 6 | 按键 | 按键 |
| 7 | 照明灯 | 补光 |
| 8 | 摄像头 | 拍照记录 |
| 9 | 螺纹孔 | 连接支架 |

2. 按键说明

| | |
|--|---------|
| | 功能键/补光灯 |
| | 电源键 |
| | 记录查看键 |
| | 返回键 |
| | 开启/确认键 |

| | |
|--|--------|
| | 向右键 |
| | 向左键 |
| | 向下键/加键 |
| | 向上键/减键 |

六、LCD图标说明

| | | | |
|---|----------|---|--------|
|  | 温度 |  | 差分计数 |
|  | 相对湿度 |  | 模式设置 |
|  | 露点温度 |  | WiFi信息 |
|  | 面积 |  | 参数设置 |
|  | (采样点数)位置 |  | 应用 |
|  | 采样次数 |  | 未应用 |
|  | 采样体积 |  | USB |
|  | 累计计数 |  | 电池 |


七、操作说明

1. 开、关机操作与LED补光灯开关操作


1) 开机

关机状态下，长按“”键开机，启动屏幕，进入测量界面。

2) 关机

在任何界面下，长按“”键弹出关机界面，选择“确定”选项关机，或持续长按，直至关机；开机状态下，打开自动关机，非测量状态下，到达预设的时间后，将会自动关机。

3) 补光灯

长按“”功能键，打开/关闭LED补光灯。

4) 当显示屏显示“”“低电符号”时，应及时对仪表进行充电，以保证仪表的正常使用和测试结果。

2. 测量操作

主界面下，短按“”开启或结束测量。

1) 手动测量：根据设定的采样时间进行一次测量；

2) 连续测量：无测量时间限制，手动结束测量。

3) 自动测量：设定采样点及采样次数计算出各采样点平均值；

4) ISO14644-1：根据标准测量，报告结论按照累计浓度计算；

5) EU GMP：根据标准测量，报告结论按照累计浓度计算；

6) 自净模式：全通道测量值持续20秒为0，重复开启关闭3次连续20秒检测为0，自净时间按照2次时间累计值；

7) 过滤效率：完成第二次采样后会显示过滤效率，测试结果=（第二次测试累计浓度/第一次测试累计浓度）×100%；

8) 计数：







a) 累计计数（ $\Sigma \#$ ）：测量大于或等于被测粒径的累加粒子个数；

b) 累计浓度（ $\Sigma \# / L$, $\Sigma \# / m^3$, $\Sigma \# / ft^3$ ）：测量大于或等于被测粒径的累加粒子个数除以测量到的气体体积，浓度单位由气体体积单位决定；

c) 差分计数（ $\Delta \#$ ）：测量期间内测量到包含大于或等于选定粒径，但小于等于第二大粒径粒子数量；

d) 差分浓度（ $\Delta \# / L$, $\Delta \# / m^3$, $\Delta \# / ft^3$ ）：测量期间内测量到，包含大于或等于选定粒径，但小于等于第二大粒径粒子数量除以测量到的气体体积，浓度单位由气体体积单位决定；

3. 预设菜单

测量界面按下“”键，选择“”，按下“”键进入模式预设界面，按“”、“”键，可向上或向下移动，按下“”键，弹出菜单，如选择“应用”，测量时使用该模式测量，如果选择“编辑”，进入预设值进行模式设置，模式设置包含以下界面：

1) 采样：手动、连续、自动、ISO14644-1:2015、EU GMP-ISO:2015、自净、效率；

2) 洁净等级：ISO*~*（ISO14644-1:2015）、*级静态~*级动态（EU GMP-ISO:2015）；

3) 面积：采样区域面积，单向流通宜考虑垂直与气体流动方向横截面面积，紊流则考虑洁净区域平面面积；

4) 采样点：输入面积后会根据ISO14644-1:2015要求自动计算采样点；

5) 采样次数：1~1000可设（采样点与采样次数的乘积不超1000）；

6) 采样时间：可设置5s~6h（ISO14644-1:2015、EU GMP采样时，根据标准生成最少采样时间，用户可根据实际需求修改）；

7) 采样间隔：5s~1h；

8) 延迟时间：5s~1h；

9) 计数：累计计数（ $\Sigma \#$ ）、累计浓度（ $\Sigma \# / m^3$ ）、差分（ $\Delta \#$ ）、差分（ $\Delta \# / m^3$ ）；

10) 通道：设置显示采样通道，以及设置报警阈值。







| 模式 | 手动 | 连续 | 自动 | ISO | EU GMP |
|------|----|----|----|-----|--------|
| 计数 | √ | √ | √ | √ | √ |
| 面积 | | | √ | √ | √ |
| 洁净等级 | | | | √ | √ |
| 通道 | √ | √ | √ | √ | √ |
| 采样点 | | | √ | √ | √ |
| 采样次数 | | | √ | √ | √ |
| 采样时间 | √ | | √ | √ | √ |
| 采样间隔 | | | √ | √ | √ |
| 延迟时间 | √ | √ | √ | √ | √ |

4. WIFI：设置打开或关闭WIFI传输

- 1) 打开WIFI后可以通过手机APP扫描产品上显示的二维码进行连接；
- 2) 连接成功后，可以通过手机APP查看测量数据以及对产品进行设置。

5. USB：U盘模式，通讯模式；U盘模式仅在该模式下生效

6. 设置菜单速查

开机状态，测量界面按下" "键，选择" "模式，按下" "键进入预设界面，" "键、" "键向上或向下移动，按下" "键弹出菜单，如选择"应用"，测量使用该模式测量，如选择"编辑"，进入该预设值进行模式设置，模式设置包含以下界面。

1) 单位：

- ① 粒子 ($\#/ft^3$ 、 $\#/m^3$ 、 $\#/L$)；
- ② 体积 (ft^3 、 m^3 、 L)；
- ③ 面积 (m^2 、 ft^2)；
- ④ 温度 ($^{\circ}C$ 、 $^{\circ}F$)；

2) 显示：设置测量参数显示选项；

- ① 温度、湿度、露点温度：打开、关闭测量界面显示采集的到温度；
- ② 亮度：设置屏幕背光亮度，1~100可设；
- ③ 自动熄屏：5s~1h可设；

3) 蜂鸣器：

- ① 测量提示：单次（点）测完后，蜂鸣器长鸣一声提示结束；
- ② 报警：测试过程中超过阈值，相应粒径显示数值红色显示（报警），蜂鸣器滴滴响；

4) LED指示灯：测量时显示绿色，报警提示时显示红色；

5) 自动关机：非测量状态下，无按键操作时开始计时，时间达到预设时间后，就自动关机；测量状态，无按键操作时开始计时，测量期间达预设时间，在测量结束1分钟后关机；

6) 时间日期：

- ① 时间格式：12小时制、24小时制；
- ② 日期、时间：当前时间设置；
- ③ 校准日期：设备校准日期时间，报告上体现；

7) 语言：中文、英文、法语、德语、意大利语、西班牙语、瑞典语、波兰语、捷克语；

8) 设备：设备相关信息，包括设备型号、序列号、软件版本、SD卡容量、校准日期；






9) 存储：

- ① 数据清除：将会清除测量数据、照片以及备注的信息；
- ② 存储方式：手动储存、自动存储，手动存储需按"START/ENTER"键存储数据，自动存储，测量结束后，数据将自动保存。

10) 恢复出厂设置：恢复到出厂时的状态（数据和设置将会清零，请谨慎选择）。

备注：U盘状态下，删除文件同样效果，System文件夹内文件为配置文件，请勿随便删除。

7. 历史记录查看

- 1) 在主界面下，按" "键进入历史记录列表，上下键选择需要查看的内容，按" "键进入记录内容，按" "返回键，返回上一层。
- 2) 在记录内容界面下，按" "键与左右键可以选择照相和查看图片，按" "返回键，返回上一层。

八、自净过滤器更换

此部分简要介绍自净过滤器的更换说明。
将“自净过滤器”(图一)安装在采样管上, 自净过滤器有类似小方块图案的一面朝上(图二), 安装到如下(图三)状态后, 取下产品“等动力采样头”, 将自净装置安装到产品上即可。



图一



图二



图三

九、产品规格

| | |
|-----------|--|
| 型号 | UT337B |
| 通道 | 6通道 |
| 粒度范围 | 0.3μm, 0.5μm, 1.0μm, 3.0μm, 5.0μm, 10.0μm |
| 计数效率 | 0.3μm ≥50% ; 0.5μm:100% |
| 采样流量 | 2.83L/min (±5%) , 0.1CFM |
| 粒径分布误差 | 0.5μm、5.0μm粒径挡分布误差不超±30% |
| 粒径浓度示值误差 | 粒子计数器处于正常工作状态后, 0.5μm粒径挡粒子浓度示值误差不超±30FS |
| 重复性相对误差 | 在相同测量条件下, 粒子浓度连续测量值重复性≤10% |
| 自净时间 | ≤10min (10min内计数连续2次为零, 95%置信度) |
| 最大采样浓度 | 2000000个/L |
| 采样时间 | 5s~6h |
| 采样点数 (位置) | 1000 (采样点与次数的乘积最大是1000) |
| 采样次数 | 1000 (采样点与次数的乘积最大是1000) |

| | |
|-----------|---|
| 采样延迟 | 5s~1h |
| 间隔时间 | 5s~1h |
| 计数模式 | 累计、差分 (浓度或个数) |
| 数据存储 | 10000条 |
| 温度 (量程) | ±0.5℃ (-10℃~50℃) |
| 相对湿度 (量程) | ±5.0% (0.1%~99.9%) |
| 露点温度 (量程) | ±0.5℃ (0℃~50℃) |
| 充电电源 | DC 5V 2A |
| 充电时间 | 约4小时 |
| 内置电池 | 7.4V聚合物锂离子电池 |
| 通讯 | WiFi/USB-C |
| 工作时间 | 约6小时 |
| 工作环境 | 0~50℃, 0~95% (非冷凝) |
| 存储环境 | -30~50℃, 0~95% (非冷凝) |
| 尺寸 | 290*103*62mm |
| 重量 | 约710g |
| 参考标准 | ISO 21501-4-2018、JJF1190-2008 |
| 安规标准 | EN61326-1: 2021 (Class A) EN60825-1: 2014 |

十、手机APP安装指南

手机APP下载，可通过以下方式下载手机APP

- 1) IOS设备请在App Store搜索iENV 下载；
- 2) Android设备请在Google Play搜索iENV下载，或者扫描以下二维码安装；



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PREFACE

Thank you for purchasing the new Laser Particle Counter. In order to use this product safely and correctly, please read this User Manual thoroughly, especially the Safety part. After reading this guideline, it is recommended to keep the manual and product at an easily accessible place, preferably close to the device, for future reference.

LIMITED WARRANTY AND LIABILITY

Uni-Trend guarantees that the product is free from any defect in material and workmanship within one year since the purchase date. This warranty does not apply to damages caused by accident, negligence, misuse, modification, contamination and improper handling. The dealer shall not be entitled to give any other warranty on behalf of Uni-Trend. If you need warranty service within the warranty period, please contact your seller directly.

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Content

1. Product Overview -----18

2. Product Features ----- 18

3. Configurations ----- 18

4. Safety -----19

5. Components & Buttons -----20

6. LCD Icons ----- 21

7. Operations -----21

8. Purge Filter Replacement ----- 25

9. Specification ----- 26

10. Mobile APP Installation ----- 27

1. Product Overview

UT337B Handheld Laser Particle Counter meets ISO 14644-1 and JJF1190-2008 standards. It simultaneously set 6 channels (0.3µm, 0.5µm, 1.0µm, 3.0µm, 5.0µm, 10.0µm) for measurement of particle amount or concentration. Its built-in temperature, humidity, and dew-point temperature sensors are used for monitoring environmental conditions. It equips recording space for 10000 data, records measurement environment through photo-capturing during the data recording, and supports to connect mobile APPs (iENV) via Wi-Fi or connect PC via USB to generate sampling reports, such as ISO and EUGMP, widely used in the fields of Electronics Manufacturing Industry, Scientific Research Department, Pharmaceuticals, Food Processing, etc.

2. Product Features

- 1) Simultaneously measure particles of 0.3, 0.5, 1.0, 3.0, 5.0, 10.0µm.
- 2) Meet ISO 21501-4-2018 and JJF1190-2008 standards.
- 3) Built-in multiple sampling ways: Auto, Manual, Continuous, ISO 14644-1, EU GMP, Filter Efficiency, Purge.
- 4) 7 preset modes are user-defined.
- 5) Built-in temperature and humidity sensor for monitoring ambient temperature, humidity, and dew-point temperature.
- 6) 10000 data storage; each data is supported to be captured to record the ambient conditions.
- 7) Support to connect mobile APPs via Wi-Fi or connect PC via Type-C cable, and export sampling reports.
- 8) Comfortable grip feeling; easy to operate in various scenes.

3. Configurations

Particle Counter -----1

User Manual -----1

Download Guide of Common Files -----1

USB Cable -----1

Purge Filter -----1

Sampling Tube -----1

Hand Strap -----1

Warranty Card -----1

Tool Box -----1

Please contact your dealer directly if any components are missing or damaged.

4. Safety

⚠ "Warning" identifies the dangerous situations and operations may cause to users.
 "Caution" identifies the potential damages may cause to products or test equipment.

- 1) Charge the device through the standard DC 5V adapter due to its built-in rechargeable lithium battery.
- 2) Do not dispose of the built-in lithium battery with solid waste. The disposal of waste battery should be undertaken by a qualified recycling agency or hazardous material handling agency, and in accordance with the relevant local regulations.
- 3) Do not open the housing of device due to its built-in laser, harming your eyes.
- 4) Check the device and accessories before you use the device. Do not use it any more if the housing of device is damaged or it fails to work normally.
- 5) Do not disassemble the device or change the internal wires randomly to avoid device damage.
- 6) Do not store or use the device in the high temperature, high humidity, flammable, combustible and strong electromagnetic environment.
- 7) Use soft cloth and neutral detergent to clean the housing of device. Do not use abrasives and solvents to avoid housing corrosion and device damage. Do not wash the device directly to avoid circuit board get wet to cause device damage.
- 8) Do not place the device close to the fire; do not get the device wet.
- 9) The maintenance and repair service must be done by the qualified professional staffs or specified maintenance department.

5.Components & Buttons



1) Components

















| No. | Name | Functions |
|-----|--------------------------|-------------------------|
| 1 | Silicone Cap | Dustproof |
| 2 | Isokinetic Sampling Head | Air Inlet |
| 3 | USB Interface | Charge/Connect PC |
| 4 | LED | Alarm Indication |
| 5 | Screen | Display |
| 6 | Buttons | Functional Buttons |
| 7 | Flashlight | Fill Light |
| 8 | Camera | Photo-Capturing; Record |
| 9 | Threaded Hole | Connecting Bracket |

2) Buttons

| | |
|--|-------------------------------|
| | Functional Buttons/Fill Light |
| | POWER |
| | Record-Check Button |
| | RETURN |
| | START/ENTER |

| | |
|--|-------------|
| | RIGHT |
| | LEFT |
| | DOWN/Add |
| | UP/Subtract |


6. LCD Icons

| | | | |
|---|----------------------------|---|-----------------------|
|  | Temperature |  | Differential Counting |
|  | Relative Humidity |  | Mode Settings |
|  | Dew-Point Temperature |  | Wi-Fi |
|  | Area |  | Parameter Setting |
|  | (Sampling Points) Location |  | Applied |
|  | Sampling Times |  | Not Applied |
|  | Sampling Volume |  | USB |
|  | Cumulative Counting |  | Battery |



7. Operations

1) Power On/Off & LED Fill Light


①. Power On

In OFF state, long press  button to power on, enable the screen and enter the measurement interface.

②. Power Off

Under any interface, long press  button to popup 'Power-Off' and press "ENTER" button to power off, or long press  button until power off; In ON state, open 'Auto-Power-Off', the device will auto power off when it reaches to the preset time in the non-measurement state.

③. Fill Light

Long press  button to make LED fill light ON/OFF.

④. When low battery icon shows on the screen, charge the battery in time for accurate measurement and normal use.

2) Measure Operations

In the main interface, short press  to start or stop measuring.

①. Manual Measurement: Measure once as per the set sampling time.

②. Continuous Measurement: No time limit of measurement; manually stop measuring.

③. Auto Measurement: Set sampling points and sampling times to calculate AVG of each sampling point.

④. ISO14644-1: Based on the standard measurement, make conclusion as per the cumulative concentration.

⑤. EU GMP: Based on the standard measurement, make conclusion as per the cumulative concentration.

⑥. Purge Mode: The measured value of whole channel is 0 for 20s, repeatedly open and close the mode for 3 times, and the measured value is still 0 for 20s, and the purge time is the cumulative time of 2 purge times.

⑦. Filter Efficiency: The filter efficiency will be showed after completing the second sampling, and the measured result = (cumulative concentration in second measurement/ cumulative concentration in first measurement) * 100%.

⑧. Counting







a) Cumulative Counting ($\Sigma \#$): The cumulated particles greater than or equal to the measured particle size.

b) Cumulative Concentration ($\Sigma \#/\text{L}$, $\Sigma \#/\text{m}^3$, $\Sigma \#/\text{ft}^3$): The cumulated particles greater than or equal to the measured particle size divided by measured air volume; the unit of concentration is up to the unit of air volume.

c) Differential Counting ($\Delta \#$): The particles counting of greater than or equal to the selected particle size, smaller than or equal to the second big particle size.

d) Differential Concentration ($\Delta \#/\text{L}$, $\Delta \#/\text{m}^3$, $\Delta \#/\text{ft}^3$): The particles counting of greater than or equal to the selected particle size, smaller than or equal to the second big particle size divided by measured air volume; the unit of concentration is up to the unit of air volume.

3) Preset Menu

In the measurement interface, press  button, select  mode, press  button to enter the 'Preset' interface, press  and  to move up and down, and press  to popup the menu; If you select the "Applications", and measurement will be done in this mode; If you select the "Edit", you will enter to set the mode. See followings for modes setting:

①. Sampling: Manual, Continuous, Auto, ISO14644-1: 2015, EU GMP-ISO: 2015, Purge, Efficiency.

②. Cleanliness: ISO*~*(ISO14644-1: 2015), ~*static~*dynamic (EU GMP-ISO: 2015).

③. Area: Sampling area; Cross sectional area (the unidirectional flow vertical to air flow); Area of plane in clean area (turbulence);

- ④. Sampling Point: Based on ISO14644-1: 2015, auto calculate the sampling point after entering the area.
- ⑤. Sampling Times: 1~1000 can be set (The product of sampling points and sampling times is ≤ 1000).
- ⑥. Sampling Time: 5s~6h can be set (In the sampling of ISO14644-1:2015 and EUGMP-ISO: 2015, generate the minimum sampling time as per the standard, and it is user-defined for actual demands.)
- ⑦. Sampling Interval: 5s~1h.
- ⑧. Delay Time: 5s~1h.
- ⑨. Counting: Cumulative counting ($\Sigma \#$); Cumulative concentration ($\Sigma \#/\text{m}^3$); Differential counting ($\Delta \#$); Differential concentration ($\Delta \#/\text{m}^3$).
- ⑩. Channel: Set the sampling channel and alarm threshold.





| Modes | Manual | Continuous | Auto | ISO | EU GMP |
|---------------------|--------|------------|------|-----|--------|
| Counting | √ | √ | √ | √ | √ |
| Area | | | √ | √ | √ |
| Cleanliness Class I | | | | √ | √ |
| Channel | √ | √ | √ | √ | √ |
| Sampling Point | | | √ | √ | √ |
| Sampling Times | | | √ | √ | √ |
| Sampling Time | √ | | √ | √ | √ |
| Sampling Interval | | | √ | √ | √ |
| Delay Time | √ | √ | √ | √ | √ |

4) Wi-Fi ON/OFF

- ①. Open Wi-Fi and use mobile APPs to scan the QR code on the device to connect.
- ②. After the connection, use mobile APPs to view the measured data and set the functions.

- 5) USB: USB Flash Disk Mode; Communication Mode;
The USB flash disk mode is only effective in the USB mode.

6) Settings Menu

In power-on state, press  button in the measurement interface, select  mode, press  button to enter the Preset interface, press  and  to move up and down, and press  button to popup the menu; If you select the "Applications", and measurement will be done in this mode; If you select the "Edit", you will enter to set the mode. See followings for modes setting:

①. Units

- a) Particle ($\#/\text{ft}^3$, $\#/\text{m}^3$, $\#/\text{L}$);
- b) Volume (ft^3 , m^3 , L);
- c) Area (m^2 , ft^2);
- d) Temperature ($^{\circ}\text{C}$, $^{\circ}\text{F}$);

②. Display: Set the parameter options for measurement.

- a) Temperature, Humidity, Dew-Point Temperature: Displayed in the measurement interface.
- b) Brightness: The brightness of screen backlight can be set within 1~100.
- c) Auto-Screen-Off: 5s~1h can be set.

③. Buzzer

- a) Measurement Prompts: The buzzer alarms once to prompt the single measurement is finished.
- b) Alarm: The buzzer alarms and the reading of particle size showed in red when it exceeds the threshold.

④. LED Indicators: Measuring in green; Alarming in red;

- ⑤. Auto-Power-Off: In the non-measurement state and no button operations, start to timing, auto power off when time reaches to the preset one; in the measurement state and no button operations, start to timing, auto power off in 1 minute after measuring when time reaches to the preset one.

⑥. Date & Time

- a) Time Format: 12-hour or 24-hour time system.
- b) Date and Time: See the current settings.
- c) Calibration Date: The calibration date and time will be showed on the report.

⑦. Languages: Chinese, English, French, German, Italian, Spanish, Swedish, Polish, Czech

- ⑧. Device: About device, including model, SN, software version, SD card storage, calibration date.






⑨. Storage

- a) Data Zeroing: Zeroing the measured data, images and notes.
- b) Storage Ways: Manual; Auto;
In manual storage, press 'START/ENTER' button to save the data; in auto storage, data will be automatically saved after completing the measurement.

⑩. Factory Reset: Restore the settings to the factory state. (Zeroing the data and settings, please think twice)

Notes: Same as deleting files in the USB flash disk; do not delete the files in the System folder, the configuration files.)

7) Record History Check

- ①. In the main interface, press  button to enter the history list, press UP and DOWN button to check what you want, press  button to enter the record details, and press  button to back to the previous interface.
- ②. In the interface of record details, press  and LEFT/RIGHT buttons to capture or view image, and press  button to back to the previous interface.

8. Purge Filter Replacement

This part briefly introduces the replacement of purge filter.

Fix the 'Purge Filter' (Figure1) to the sampling tube, and its one side with square pattern is facing up (Figure 2). Fixed like Figure 3, take down the 'Isokinetic Sampling Head' and fix the purge configuration to the device.



Figure 1



Figure 2



Figure 3

9. Specification

| | |
|---------------------------------|--|
| Model | UT337B |
| Channels | 6-Channel |
| Particle Size | 0.3μm, 0.5μm, 1.0μm, 3.0μm, 5.0μm, 10.0μm |
| Counting Efficiency | 0.3μm ≥ 50% ; 0.5μm:100% |
| Sampling Flow | 2.83L/min (±5%) ,0.1CFM |
| Particle Distribution Error | 0.5μm and 5.0μm particle distribution error is ≤ ±30% |
| Particle Concentration Error | 0.5μm particle concentration error is ≤ ±30FS when the device runs normally. |
| Relative Error of Repeatability | The repeatability of particle concentration in continuous measurement is ≤10%. |
| Purge Time | ≤10min (Continuous 0 for 2 times in 10 minutes; 95% of reliability) |
| Maximum Sampling Concentration | 2000000pcs/L |
| Sampling Time | 5s~6h |
| Sampling Points (Location) | 1000 (The product of sampling points and times is maximum 1000.) |
| Sampling Times | 1000 (The product of sampling points and times is maximum 1000.) |
| Sampling Delay | 5s~1h |
| Time Interval | 5s~1h |
| Counting Modes | Cumulative; Differential concentration/counting |
| Data Storage | 10000 |
| Temperature (Range) | ±0.5°C (-10°C~50°C) |

| | |
|-------------------------------|--|
| Relative Humidity (Range) | ±5.0% (0.1%~99.9%) |
| Dew-Point Temperature (Range) | ±0.5°C (0°C~50°C) |
| Power Supply | DC 5V 2A |
| Charging Time | About 4h |
| Built-in Battery | 7.4V polymer li-ion battery |
| Communication | WiFi/USB-C |
| Working Time | About 6h |
| Working Environment | 0~50°C, 0~95% (Non-condensation) |
| Storage Environment | -30~50°C, 0~95% (Non-condensation) |
| Size | 290*103*62mm |
| Weight | About 710g |
| Reference Standard | ISO 21501-4-2018; JJF1190-2008 |
| Safety Standard | EN61326-1: 2021 (Class A) EN60825-1:2014 |

10. Mobile APP Installation

Download the phone APP via following ways:

- 1) For IOS, search and download iENV in the App Store.
- 2) For Android, search and download iENV in the Google Play, or scan the following QR code to download.



The User Manual is subject to change without prior notice!

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