

# 安途智能灯操作说明

Operation Instructions for Antu Smart Light



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感谢您选择安途智能灯。为确保您获得安全、持久的照明、智能娱乐与紧急求救功能，请在使用前仔细阅读本手册，并妥善保存以备查阅。本手册重点介绍安途智能灯的操作方法、参数设置及安全说明，不包含公司其他金属空气电池产品信息。

本手册基于当前最新产品版本编写，产品处于持续改进中，实物功能与手册内容若存在细微差异，属于正常升级，恕不另行通知。如有任何疑问，请联系上海宇石能源集团有限公司售后服务部。

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阅读简体中文版手册，请转至第2页。

阅读英文版手册，请转至第21页。

Thank you for choosing Antu Smart Light. To ensure safe and long-lasting lighting, intelligent entertainment, and emergency rescue functions, please carefully read this manual before use and keep it properly for future reference. This manual focuses on the operation methods, parameter settings, and safety instructions of the Antu smart light, and does not include information on other metal-air battery products of the company.

This manual is based on the latest product version and is under continuous improvement. Minor discrepancies between the actual product and this manual result from product upgrades, and no prior notice will be given. If you have any questions, please contact the after-sales service department of Shanghai Yushi Energy Group Co., Ltd.

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To read the simplified Chinese version of the manual, please turn to page 2.

To read the English version of the manual, please turn to page 21.

安途

## 使用前需知

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## 使用前需知

### 智能灯储备

#### 储存环境要求

- 请将产品储存在阴凉、干燥、避光、通风的环境中，推荐储存温度为 $15^{\circ}\text{C}\sim 25^{\circ}\text{C}$ ，相对湿度 $\leq 80\%$ ，避免阳光直射与潮湿，以保障 PCB 板、膜电极等关键部件性能稳定。
- 产品可耐受的极限储存温度为 $-40^{\circ}\text{C}\sim 60^{\circ}\text{C}$ ，但长期超出推荐温度范围或处于温度 $> 60^{\circ}\text{C}$ / $< -40^{\circ}\text{C}$ 、湿度 $> 80\%$ 、粉尘、腐蚀性气体、强静电干扰的恶劣环境，会加速部件老化甚至导致产品报废。

### 水源储备

#### 水源选择建议

- 常规使用：可选用自来水、饮用水、井水、河水、海水，优先选择自来水；使用井水、河水、海水时，需先过滤杂质。
- 应急使用：常规水源不足时，可使用尿液等替代水源，使用前需先过滤杂质。

### 充电功能说明

#### 充电模式限制

- 仅支持DCP模式（5V/1A），输出功率5W，不支持快充。

#### 应急发电注意事项

- 应急情况下，尿液或海水可临时替代清水使用，但可能影响发电效率，甚至导致无法充电（液体含盐量不低于15%）。
- 部分智能手机或USB设备可能存在兼容性问题。

### 其他

#### 环境适应性

- 盐水结冰时设备无法使用，防水等级为IPX4（仅防滴溅），禁止浸泡使用。

#### 功能限制

- 信号较差区域可能影响AI对话（含音乐播放）及SOS定位功能。

#### 废弃物处理

- 发电产生的氢氧化镁无害，但需按可燃垃圾丢弃（避免下水道堵塞）；盐水可直接倒入下水道。

## 注意事项

### 安全警示分级说明

本产品安全提示按危害程度分为三个等级：

**危险：**可能导致严重人身伤害或重大财产损失，需立即规避。

**警告：**可能造成中等程度伤害或损失，需特别防范。

**注意：**存在潜在风险，需采取预防措施。

所有安全提示均为保障使用者、他人及财产安全的重要规范，必须严格执行。



#### 危险

- 电解液对皮肤无伤害；当电解液溅入眼中时，请使用流动的清水充分清洗眼睛后就医。
- 电解液禁止饮用，如误饮用，请立刻就医。



#### 警告

- 禁止私自更换使用其他材料的金属板，以免造成产品无法正常使用。
- 使用中若发现异味、严重发热、漏液等异常现象，请立即拔出连接中的设备，并倒掉盐水终止使用。
- 请不要在水下使用；若在水下使用，会导致产品报废。
- 本产品加液后禁止倾倒。
- 请勿使产品坠落或遭受强力撞击，以防造成人身伤害及产品内部损坏、短路等故障。
- 请勿让孩童单独使用。
- 请勿将产品内腔的盐水、反应物或镁板放入口中。



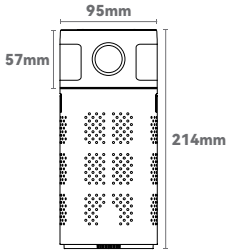
#### 注意

- 注水请在平坦的地方进行，以免本产品翻倒。
- USB接口的硅胶盖未盖紧时无法防水。被淋湿的时候，请务必确认硅胶盖是否盖紧。
- 通过USB接口充电时，请注意不要让USB接口碰到盐水。
- 清洁保养时，仅可使用拧干的湿布或干布擦拭，切勿使用各类化学清洁剂及稀释液。
- 排气硅胶塞处会冒出泡沫，这并非故障，请用卫生纸等擦拭。
- 周围温度在零度以下时，请追加盐分避免结冰。
- 停止使用超过24小时时，请倒掉槽中的盐水和反应物，并清洗本产品后晾干存放。
- 产品使用后，产生的氢氧化镁为无害的化学物质，需按可燃垃圾丢弃，剩余残渣可以用大量清水混兑后排往下水道。
- 初始放电阶段，可能出现输出功率不稳等现象，均属于正常状况。待电池内部反应稳定后，此类现象将会自动消失。

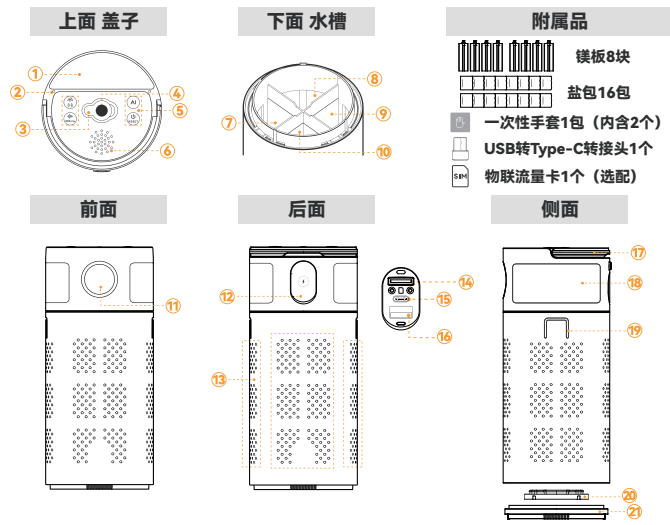
产品参数

产品概况

|         |                    |
|---------|--------------------|
| 型号      | AT-MAS-001         |
| 名称      | 安途智能灯              |
| 尺寸 (mm) | 95(L)×95(W)×214(H) |
| 加液前重量   | 约0.7kg             |
| 加液后重量   | 约1.4kg             |
| 材质      | ABS塑料、镁合金          |

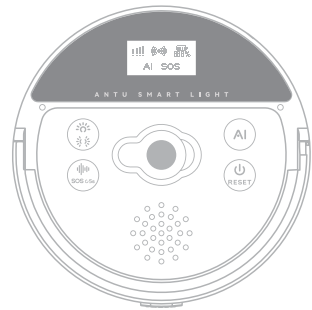


部件拆解



- ① 显示屏
- ② 麦克风孔
- ③ 透气塞
- ④ 指南针
- ⑤ 功能键
- ⑥ 喇叭孔
- ⑦ 水槽1
- ⑧ 水槽2
- ⑨ 水槽3
- ⑩ 水槽4
- ⑪ 前射灯
- ⑫ 接口处硅胶垫
- ⑬ 透气孔
- ⑭ SIM卡槽
- ⑮ TYPE-C接口
- ⑯ USB接口
- ⑰ 提环
- ⑱ 泛光灯
- ⑲ 按压卡扣
- ⑳ 底盖硅胶垫
- ㉑ 底盖

显示屏



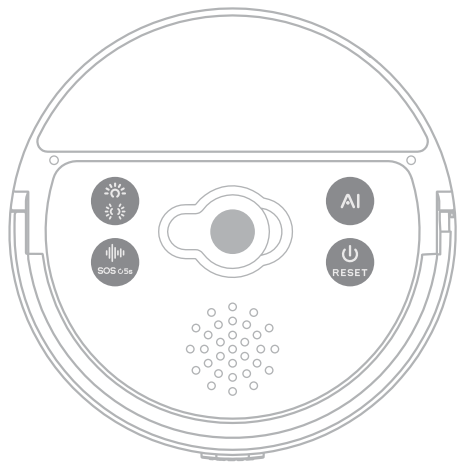
· 图中是显示屏全显模式时效果，实际效果与功能开启情况相关



- 网络信号、定位信号、剩余电量均为实时显示。
- AI、SOS图标，仅在相关功能开启时显示。



功能按键



前射灯 | 泛光灯-----短按切换功能



AI 语音对话-----长按开启/关闭功能



SOS+定位-----长按开启/关闭功能



电源开关 | 复位-----长按开关机 | 双击复位

功能介绍

|          |                                                                                                       |
|----------|-------------------------------------------------------------------------------------------------------|
| 前射灯      | 一个按钮循环控制:射灯半亮-射灯全亮-射灯全亮闪烁-泛光灯亮(两边白色)-泛光灯亮(一边红一边蓝闪烁)-关。<br>功率:射灯半亮:1W,全亮:2.5W;泛光灯(白光):1.5W,红蓝光单边:0.75W |
| 泛光灯      |                                                                                                       |
| AI语音对话   | 长按5s开启/关闭AI语音对话功能,支持AI唤醒音乐播放。具体操作详见《APP及语音控制指令操作说明》                                                   |
| SOS+定位   | 长按5s激活SOS+定位功能,同时发出报警声;再次长按5s关闭SOS+定位功能                                                               |
| 电源开关     | 一个按键控制:长按5s开机,显示屏亮起,再长按5s关机,显示屏熄灭;双击复位,复位后重新计时及统计输出功率                                                 |
| 复位开关     |                                                                                                       |
| 指南针      | 指南针需从硅胶塞中取出使用,否则会受磁场干扰影响准确度                                                                           |
| USB-A放电  | 可充当移动电源给手机充电(5V/1A),产品附赠转接头,用于适配不同规格接口                                                                |
| Type-C充电 | 给内部锂电池充电(优选手机充电器)                                                                                     |
| 流量卡槽     | 国际通用流量卡槽                                                                                              |
| 屏幕显示     | 显示4G信号;位置信号;剩余电量(锂电池电量);AI语音对话状态;SOS+定位状态                                                             |

性能参数

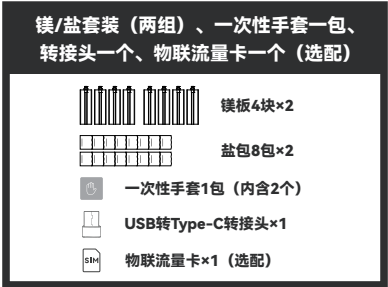
|             |                                        |
|-------------|----------------------------------------|
| 射灯亮度(1米间距)  | 射灯全亮:800Lux;射灯半亮:80Lux                 |
| 泛光灯亮度(1米间距) | 泛光灯白光:50Lux<br>泛光灯红蓝交替:红光30Lux;蓝光60Lux |
| 总发电量        | 100Wh(每套镁板)                            |
| USB口输出电压    | 5V/1A                                  |
| 最大输出功率      | 5W                                     |
| 单次注液放电时长    | 8小时(5W功率条件,8小时后可倒掉,重新注新液)              |
| 注液次数        | 2次(每套镁板2次后需更换镁板)                       |
| 电解液         | 盐水(浓度15%)                              |
| 电解液量        | 150ml(单个腔体)                            |
| 总加液量        | 600ml                                  |
| 工作环境温度      | -10~45℃                                |
| 储存温度        | -40~60℃                                |

# 常见问题解答

| 问题            | 解答                             |                                    |
|---------------|--------------------------------|------------------------------------|
|               | 检查                             | 处理                                 |
| 配置的盐水, 无法全部加入 | 水槽1-4是否有反应产物堆积                 | 用水将水槽1-4冲洗干净                       |
| 发电功率低         | 水量和盐量是否适当                      | 各水槽内的水和盐需达指定量, 且水和盐需按比例配制盐水        |
|               | 加入盐水温度过低 (10℃以下)               | 等待电池温度逐渐上升或更换温度较高的盐水               |
|               | 请确认是否过度损耗, 镁板随使用时间的增长会变薄, 消耗殆尽 | 请更换新镁板                             |
|               | 请检查灯体上下两部分导电针连接处有无异物、接触是否良好    | 清理异物并正确安装                          |
|               | 请确认镁板和上盖是否正确安装                 | 正确安装                               |
|               | 请确认使用原厂配备的镁板                   | 使用原厂提供的镁板, 并按照说明书所述更换镁板            |
|               | 请确认是否按时更换盐水                    | 喇叭提示更换盐水时必须更换                      |
|               | 请确认水槽1-4上次使用完内部是否清洗干净          | 用水将水槽1-4冲洗干净                       |
|               | 是否使用饮料、海水或尿水等可能会影响发光量          | 用水和盐按比例配制盐水                        |
| USB无法充电       | 没反应或充电不正常                      | 注水后请勿立即充电, 待盐水发电正常运行约 15 分钟后方可进行充电 |
|               |                                | 充电皆为DCP模式, 部分型号的智能手机无法直接充电         |
|               |                                | 根据智能手机的状态而异, 可能无法直接充电              |
|               |                                | 请使用合规 USB 充电线进行充电                  |

|                  |                                             |                                                      |
|------------------|---------------------------------------------|------------------------------------------------------|
| USB无法充电          | 没反应或充电不正常                                   | 对智能手机等需要充电的机器进行充电时, 请关闭照明及其它功能                       |
|                  |                                             | 低温无法充电时, 在水槽1-4各追加一大勺的盐至上限后, 有可能可以进行充电, 但追加盐会让发电时间变短 |
| 漏液               | 请确认上盖、下盖和硅胶塞是否确实紧闭                          | 正确安装                                                 |
|                  | 水量过多可能导致漏水                                  | 水槽1-4装适量的盐水                                          |
|                  | 上盖的硅胶盖会冒出泡沫, 这并非故障                          | 用卫生纸或软布擦拭干净                                          |
|                  | 底部排水旋盖是否拧紧                                  | 紧固排水旋盖                                               |
|                  | 设备长时间发电运行, 尤其大功率工作时, 产品下外壳表面及内部产生水汽凝水属于正常现象 | 定期打开底部旋盖, 将积水倒出并擦拭干净                                 |
|                  | 使用完毕后该如何处理?                                 | 反应物(氢氧化镁)以可燃垃圾, 镁板以不可燃垃圾处理。详细请参阅本说明书排水及清洗方法          |
| 开封但未使用的镁板能长期存放吗? | 镁板开封后请尽早使用完毕                                |                                                      |

# 标准配置



## 1. 镁板4块为一组，共2组（含镁板保护座及导电件）

每组使用：

|       |           |
|-------|-----------|
| USB充电 | 16+3≈19小时 |
| LED照明 | 25+5≈30小时 |

镁板规格：

|    |     |
|----|-----|
| 材质 | 镁合金 |
|----|-----|

注：使用时间仅供参考，根据使用状况、环境差异  
使用自来水以外的液体时，发电能力会降低

## 2. 盐包8包为一组，共2组

盐包规格（每包）：

|   |       |
|---|-------|
| 盐 | 22.5g |
|---|-------|

## 3. 一次性手套一包（内含2个）

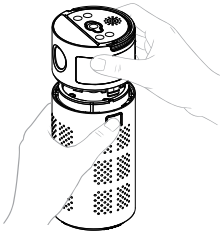
## 4. USB转Type-C转接头一个

## 5. 物联流量卡一个（选配）

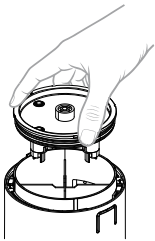
# 产品使用

## 使用方法

1. 按压任意一侧卡扣，待上盖翘起后，可拿起拆下上盖。



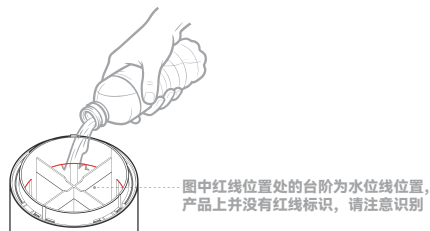
2. 拔出镁板固定件，注意硅胶密封圈不要脱落与移位。



3. 往水槽1-4里面各放1包盐(22.5g)，盐量不均等会降低发电能力。放盐的时候，  
请注意导电片不要附着盐。导电片附着盐的状态下使用的话，会导致生锈。



4. 注水到水槽内侧的水位线处（膜的上边缘台阶），水槽1-4都需要注水。

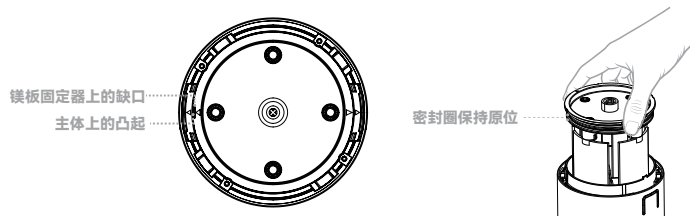


（注：注水过多会造成溢水，水槽1-4不是相连的，各水槽请注入同量的水；紧急时盐水可用尿液或海水替代，但因混有不纯物，发电能力会比用盐水差，且可能无法进行USB充电）

5. 按图示箭头方向，将四块镁板分别安装在镁板固定器上。



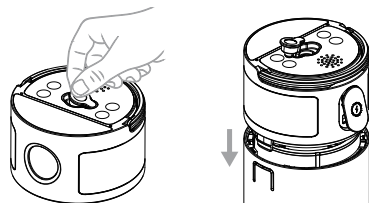
6. 安装镁板固定器时，请将固定器上的缺口对准主体上的凸起后，将镁板固定器插入水槽，注意镁板固定器上的密封圈保持原位且不松动。



7. 用手指堵住设备下端的透气孔，手持设备以左右方向均匀晃动约30次，确保内部盐粒完全溶解，与水充分混合均匀。

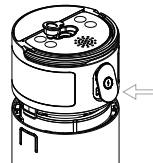


8. 打开设备上端的透气塞并旋转180°。将上盖一侧的卡扣对准机身对应的卡扣位置，轻轻向下按压，待听到「咔嚓」声扣合后，再压下另一侧卡扣。确认上盖两侧卡扣完全扣合、盖合到位且无松动。



（重要提示：设备工作期间会发生化学反应并产生无害气体，请始终保持透气塞处于打开状态，切勿关闭，以免影响设备正常运行或造成内部压力异常。）

9. 使用产品前，请务必将接口处硅胶垫完全扣合，确保其与对应位置贴合紧密，无缝隙留存。



（注：该硅胶垫用于防护接口、防止灰尘或液体侵入，未扣合时使用可能导致设备故障或安全风险；产品插电充电期间，禁止启动或使用本产品，此举可避免电气故障、设备过热等安全隐患，同时保障充电效率与产品使用寿命）

## 功能解析

### 1. SIM 卡安装操作（产品使用前准备）

- 打开产品上盖背面接口处硅胶塞，找到 SIM 卡卡槽。
- 确认 SIM 卡类型，按照卡槽内标识的缺口方向，将 SIM 卡平稳放入卡槽，确保芯片面朝向正确且贴合卡槽底部。
- 轻轻按压 SIM 卡至完全固定，将硅胶塞扣回原位，确保密封良好。

（注：SIM 卡安装需在设备关机状态下进行，避免通电操作损坏卡槽或 SIM 卡；安装后请确保 SIM 卡无松动，否则可能影响 SOS 定位、网络功能。本设备配套物联网流量卡为专用定向卡片，使用规则详见后文《物联网流量卡使用注意事项》，请严格遵守，避免违规锁停。）

### 2. 电源+复位键操作说明-----



- 开机操作：长按5秒，显示屏亮起，镁空空气电池开始输出功率，设备进入就绪状态。
- 关机操作：长按5秒，显示屏熄灭，镁空空气电池停止输出，设备关机。
- 复位操作：每次更换盐水后，需双击（1秒内按2次）激活复位功能。复位成功后，设备将重新计算镁空空气电池消耗时长及输出功率。

### 3. 照明模式操作-----



短按“照明功能”开关可切换照明模式，每按一次切换一次，循环顺序如下：  
射灯半亮 - 射灯全亮 - 射灯全亮闪烁 - 泛光灯亮（两边白色） - 泛光灯亮（一边红一边蓝闪烁） - 关。

### 4. AI模式操作-----



长按5秒“AI”键可开启或关闭 AI 功能，功能开启时，显示屏上将显示对应图标。

### 5. 救援模式操作-----



按“救援功能”开关可启动救援相关功能：  
长按5秒开启 SOS + 定位功能，启动后发送SOS求救信号并同步定位信息至紧急联系人，并发出报警声（紧急联系人可在APP上预先设置）  
功能开启时，显示屏上会亮起SOS图标。

### 6. 充放电功能操作

- 输入充电（给设备本身充电）：通过Type-C接口连接充电设备，可为本设备充电。
- 输出供电（给外用设备充电）：通过 USB-A 接口输出，产品附赠转接头，用于适配不同规格接口。

### 7. 警报提醒与盐水更换说明

将镁板放入盐水、对接设备腔体即可启动发电，设备运行期间满足以下任一条件即触发警报：

①换水提醒：产品连续运行满8小时，或连续累计输出功率达35Wh时，自动提醒更换盐水；电解液长时间反应会衰减导电性能，更换新盐水保障发电效率。

设备断电关机后累计计时自动清零，间歇分段开机无法累计使用时长，无法自动触发换水提醒：

- 不再使用设备：立刻倒净腔内全部盐水，清洁设备腔体、晾干后收纳；
- 后续继续使用：排空残余旧盐水，更换全新盐水后开机使用。

②4G 通讯信号弱；③设备内置电池电量偏低。

### 8. 复位后工作阈值

执行手动复位操作后，设备累计时长、输出功率统计数据清零并重新核算，换水警报触发标准不变：

- 连续运行时间达到8小时
- 累计输出功率达到35Wh

### 9. 指南针使用注意事项：

- ① 使用时请将指南针水平放置或手持，避免置于铁桌等影响磁性的位置，确保读数准确。
- ② 使用时请远离高压线、手机、音响、螺丝刀、磁铁等带磁性、带电或金属制品，防止指针错乱。
- ③ 请勿敲击指南针，以免影响测量精度。
- ④ 请勿将指南针长期置于高温或低温环境，避免暴晒，以防影响使用寿命。
- ⑤ 请保持外壳与镜面光洁，勿用脏布或酒精擦拭。
- ⑥ 不使用时，请将指南针放回原位。

### ⚠️【重要安全使用须知】

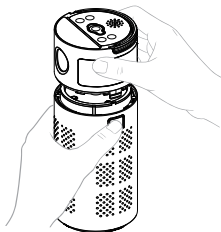
- 强制使用规范：无论设备处于开机工作或关机静置状态，盐水均不可在设备腔体内留存超过8小时，超时存放会腐蚀内部零件，造成产品永久性损坏；
- 因关机计时重置问题，断续使用场景下设备警报功能无法自动生效，不可依靠机器提醒换水，需用户自行把控存放时限，满8小时务必排空废液或更换新盐水。

其他注意事项：

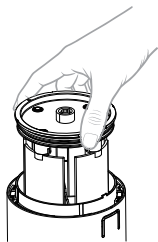
1. 长按操作需保持按压状态至对应功能触发（显示屏亮/灭），确保按压到位。
2. 短按需快速按压后松开，两次复位短按间隔不超过1秒。
3. 各功能开关操作需在设备就绪状态（显示屏点亮）下进行。
4. 充放电操作需使用合规充电线及充电设备，避免设备损坏。
5. 若 SIM 卡安装后无网络信号，可检查 SIM 卡是否安装正确、是否已开通服务。

## 排水及清洗

1. 按压任意一侧卡扣，待上盖翘起后，可拿起拆下上盖。



2. 从水槽中取出使用后的镁板。



3. 保持底盖与本体锁紧状态，用水将设备内部冲洗干净。  
(禁止用牙刷等器具清洗本体内部，可能会造成本体内部损伤和故障)

4. 要连续使用时：

清洗完成后无需拆卸底盖，直接向水槽内加入新的盐、水，更换新的镁板，扣合上盖并确保卡扣完全扣合，即可继续使用。

5. 要保管时：

① 清洗完成后，为了防止生锈，请轻轻擦拭本体和导电片，完全擦干；使用中的镁板，也请擦干后保管。



② 逆时针旋转打开底盖并取出底盖硅胶垫，将底盖、硅胶垫彻底擦干。



③ 待所有部件完全晾干后，扣上底盖硅胶垫，顺时针旋转底盖将底盖与本体锁紧，置于干燥处保管。



(注：每次设备停止工作后，需及时将内部反应液彻底倒出，避免残留液长时间留存影响设备性能；随后对反应腔及相关接触组件进行清洗，确保洗净残留杂质，清洗完毕后晾干，以备下次使用)

## 注意事项

1. 照明亮度减弱或无法使用USB充电时，请更换镁板和盐水（USB充电会比照明更耗电，因此能使用照明不一定能充电）
2. 本机24小时以上不使用时，请倒掉盐水并清洗晾干。
3. 给智能手机充电时，注水后请勿立即充电，待盐水发电正常运行约 15 分钟后方可进行充电。
4. 气体会从通气口排出，请不要塞住或让通气口泡在水中。
5. 内部有4个分离的水槽(水槽1-4)，必须各自加入指定量的水和盐才能给智能手机进行充电。
6. 根据智能手机的状态而异，可能无法充电到100%
7. 本设备充电采用 DCP 模式，部分设备可能因兼容性问题无法正常充电。
8. 请用需要充电的智能手机的原厂USB线充电。
9. 充电中请注意不要被水淋湿。
10. 低温无法充电时，在水槽1-4各追加适量盐可以进行充电。但追加盐会让发电时间变短。
11. 照明与充电功能同时开启时，可能因设备兼容性差异导致无法正常充电，建议关闭照明后再充电。
12. 使用中，本体的温度会升高，不是故障。最大发电时，本体温度会比体温稍微高一点（45℃左右），可能会导致低温烫伤，请不要长时间直接接触皮肤。
13. 设备长时间发电运行，尤其是大功率运行时，产品下外壳表面及内部会产生水汽形成水，这是正常现象。定时打开底部旋盖，倒出水并擦干即可。

## 物联流量卡使用注意事项

本产品配套物联流量卡为智能终端专用通信卡片，仅支持数据传输功能，不支持语音通话、短信收发，仅限智能家居、车载设备、监控摄像头等智能设备使用。为规范使用、避免卡片停机、封停及财产损失，请严格遵守以下使用规则：

1. 合规使用与设备绑定规则
  - 本卡为定向专用物联卡，严禁插入手机、平板等个人通信设备使用。运营商后台实时监测设备使用场景，若检测到违规联网使用行为，将直接触发机卡锁定、停机，甚至永久封停，造成卡片及账户作废。
  - 本卡支持机卡绑定功能，卡片首次激活后，将与当前设备IMEI码自动绑定。严禁随意拔卡、更换设备混用，擅自更换设备会触发安全风控机制，导致设备停机、无法正常使用，请严格做到专卡专用。

## 2.套餐与卡片生命周期说明

- 本卡不同套餐流量结算规则不同，部分月度、年度套餐到期后流量自动清零，套餐有效期结束将自动断网停机，请用户知悉套餐规则，合理规划流量使用。
  - 未激活的物联卡拥有1年待机有效期，超时未激活将自动触发激活机制。请定期查看卡片使用状态，避免因长期闲置、过期失效造成资源浪费及设备离线问题。
- 温馨提示：因违规使用、私自换设备、逾期未处理等人为操作导致的卡片停机、封停、失效，不予售后保障，请严格遵照本规则使用。

## 保修服务条款

### 保修范围与流程

自产品购买当日起的 12 个月质保期内，在用户按产品说明书规范使用的前提下，若出现非人为性能故障，用户可携带故障产品、本保修卡及有效购买凭证，前往我司官方维修受理点或原购买门店申请售后，我们将为符合条件的产品提供免费维修服务。（补充说明：用户与购买门店间的运输及相关杂费，需由用户承担。）

### 付费修理情形（保修期内仍适用）

以下情况，即使产品处于质保有效期内，维修服务也将收取相应费用，具体包括但不限于：

1. 因用户操作不当、错误使用或不当滥用产品引发的故障；
2. 由非我司授权的第三方进行拆解、改装、维修，或因外接电源电压异常导致的故障；
3. 火灾、地震、洪涝、战争等不可抗力灾害或公共公害事件造成的产品损坏；
4. 未依照产品说明书要求进行定期清洁与维护，从而引发的故障；
5. 无法出示有效保修凭证，或保修凭证上购买日期、销售门店等关键信息缺失、填写不全。

### 其他注意事项

1. 本保修卡为售后凭证，遗失后不予补发，请用户妥善保管；
2. 本服务约定的最终解释权归本公司所有，如就条款内容产生争议，用户可与我司协商解决；
3. 我司可为用户提供产品使用咨询及付费维修服务，但质保期内的退换货、免费维修业务，均需通过原购买渠道办理。

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# Instructions Before Use

## Smart light reserves

### Storage environment requirements

- Please store the product in a cool, dry, dark, and ventilated environment. The recommended storage temperature is 15 °C~25 °C, with a relative humidity of ≤ 80%. Avoid direct sunlight and humidity to ensure stable performance of key components such as PCB boards and membrane electrodes.
- The maximum storage temperature that the product can tolerate is -40 °C~60 °C, but if it exceeds the recommended temperature range for a long time or is in a harsh environment with temperature>60 °C/<-40 °C, humidity>80%, dust, corrosive gas or strong static interference, it will accelerate component aging and even lead to product scrap.

## Water source reserves

### Suggestions for water source selection

- Conventional use: Tap water, drinking water, well water, river water, and seawater can be selected, with tap water being preferred; When using well water, river water, and seawater, impurities need to be filtered first.
- Emergency use: When the conventional water source is insufficient, alternative water sources such as urine can be used, and impurities must be filtered before use.

## Charging function descriptions

### Charging mode restrictions

- Only supports DCP mode (5V/1A), with an output power of 5W, and does not support fast charging.

### Precautions for emergency power generation

- In emergency situations, urine or seawater can temporarily replace clean water, but it may affect power generation efficiency and even result in inability to charge (the salt content of the liquid should not be less than 15%).
- Some smartphones or USB devices may have compatibility issues.

## Others

### Environmental adaptability

- When salt water freezes, the equipment cannot be used. The waterproof level is IPX4 (only splash-proof), and immersion is prohibited for use.

### Functional limitations

- Areas with poor signal may affect AI conversation (including music playback) and SOS positioning functions.

### Waste disposal

- Magnesium hydroxide produced by power generation is harmless, but it should be disposed of as combustible waste (to avoid sewer blockage); Saltwater can be directly poured into the sewer.

## Precautions

### Classification explanation of safety warning

The safety reminder of this product is divided into three levels according to the degree of harm:

**Danger:** May cause serious personal injury or significant property damage, immediate avoidance is required.

**Warning:** May cause moderate injury or loss, requiring special precautions.

**Caution:** Potential risks exist and preventive measures need to be taken. All safety tips are important regulations for ensuring the safety of users, others, and property, and must be strictly implemented.



### Danger

- Electrolyte has no harm to the skin; When electrolyte splashes into the eyes, please rinse the eyes thoroughly with flowing water and seek medical attention.
- Electrolyte should not be consumed. If accidentally consumed, please seek medical attention immediately.

## Warning

- It is prohibited to replace metal sheets with other materials without authorization, in order to avoid causing the product to malfunction.
- If any abnormal phenomena such as odor, overheating, or leakage are found during use, please immediately unplug the connected device and discard the salt water to terminate use.
- Please do not use underwater; If used underwater, it will result in the product being scrapped.
- Do not pour this product after adding liquid.
- Do not let the product fall or be subjected to strong impacts to prevent personal injury, internal damage, short circuits, and other malfunctions.
- Do not allow children to use it alone.
- Do not put saltwater, reactants, or magnesium sheets inside the product cavity into your mouth.

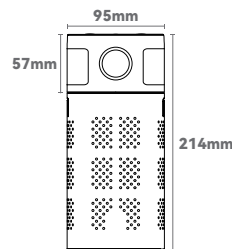
## Caution

- Please fill the water on a flat surface to prevent the product from tipping over.
- The silicone cover of the USB interface cannot be waterproof when not tightly closed. When getting wet, please make sure to confirm whether the silicone cover is tightly closed.
- When charging through the USB interface, please be careful not to let the USB interface touch saltwater.
- During cleaning and maintenance, only use a wrung-out damp or dry cloth for wiping. Do not use any chemical cleaners or dilution solutions.
- Foam coming out of the vent silicone plug is normal and not a malfunction. Please wipe with toilet paper, etc.
- When the ambient temperature is below zero degrees, please add salt to avoid freezing.
- When the product has been out of use for more than 24 hours, please pour out the saltwater and reactants from the tank, clean the product, and air dry for storage.
- After product use, the magnesium hydroxide produced is a harmless chemical substance that needs to be disposed of as combustible waste. The remaining residue can be mixed with a large amount of water and discharged into the sewer.
- In the initial discharge stage, there may be phenomena such as unstable output power, which are all normal conditions. After the internal reaction of the battery stabilizes, this phenomenon will automatically disappear.

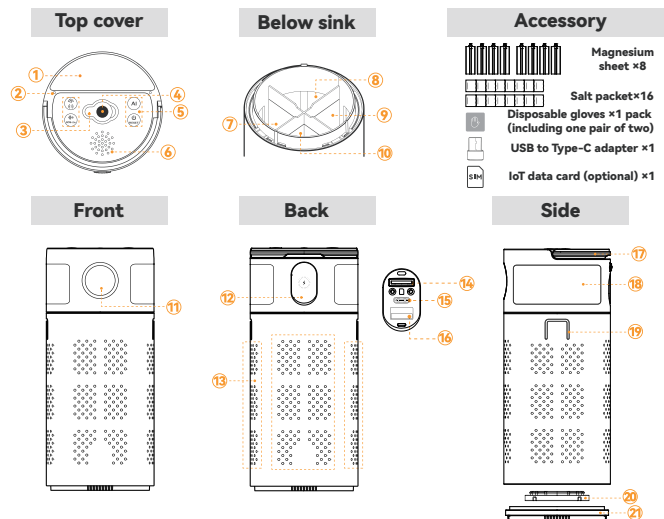
## Product Parameters

### Product overview

|                             |                              |
|-----------------------------|------------------------------|
| Model                       | AT-MAS-001                   |
| Name                        | Antu Smart Light             |
| Size(mm)                    | 95(L)×95(W)×214(H)           |
| Weight before adding liquid | About 0.7kg                  |
| Weight after adding liquid  | About 1.4kg                  |
| Material                    | ABS plastic, magnesium alloy |

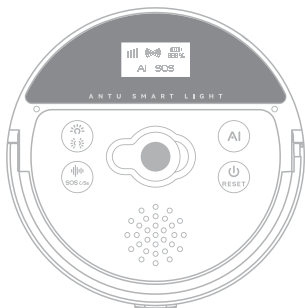


### Component disassembly



- |                   |                           |                        |
|-------------------|---------------------------|------------------------|
| ① Display screen  | ⑧ Sink 2                  | ⑮ TYPE-C interface     |
| ② Microphone hole | ⑨ Sink 3                  | ⑯ USB port             |
| ③ Vent plug       | ⑩ Sink 4                  | ⑰ Lifting ring         |
| ④ Compass         | ⑪ Front spotlight         | ⑱ Floodlight           |
| ⑤ Function key    | ⑫ Silicone pad(Interface) | ⑲ Pressing buckle      |
| ⑥ Horn hole       | ⑬ Vent hole               | ⑳ Silicone pad(Bottom) |
| ⑦ Sink 1          | ⑭ SIM card slot           | ㉑ Bottom cover         |

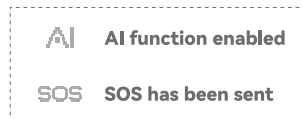
## Display screen



· The picture shows the effect when the display screen is in full display mode, and the actual effect is related to the activation of the function.



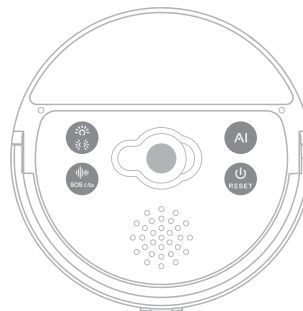
Real time display of icons



Display only when turned on

- The network signal, positioning signal, remaining battery are all displayed in real-time.
- AI and SOS icons are only displayed when the relevant functions are enabled.

## Function key



Front spotlight | Floodlight

Short press to switch functions



AI voice interaction

Long press to turn on/off the function



SOS+Location

Long press to turn on/off the function



Power switch | Reset switch

Long press to turn on/off | Double click to reset

## Introductions to the function

|                      |                                                                                                                                                                                                                                                                                                                                              |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Front Spotlight      | One button controls in a loop:Spotlight half lit - Spotlight fully lit - Spotlight fully lit flashing - Floodlight on (white on both sides) - Floodlight on (red on one side and blue on the other, flashing) - Off. Power: Spotlight half lit: 1W, Fully lit: 2.5W; Floodlight (white light): 1.5W, Red and blue light single-sided: 0.75W. |
| Floodlight           |                                                                                                                                                                                                                                                                                                                                              |
| AI Voice Interaction | Long press for 5 seconds to turn on/off AI Voice Interaction function. Support AI to wake up music playback; For specific operations, please refer to the "Operation Instructions for APP and Voice Control Commands".                                                                                                                       |
| SOS+Location         | Press and hold for 5 seconds to activate the SOS+positioning function, while emitting an alarm sound; Press and hold for 5 seconds again to turn off the SOS+positioning function.                                                                                                                                                           |
| Power Switch         | One button controls: Press and hold for 5 seconds to turn on the device, and the display screen will light up. Press and hold for another 5 seconds to turn off the device, and the display screen will turn off; Double click to reset, restart timing and count output power after reset                                                   |
| Reset Switch         |                                                                                                                                                                                                                                                                                                                                              |
| Compass              | The compass needs to be removed from the silicone plug for use, otherwise it may be affected by magnetic field interference and affect accuracy.                                                                                                                                                                                             |
| USB-A Discharge      | As a mobile power bank for charging mobile phones (5V/1A). The product includes a converter for adapting to different interface specifications.                                                                                                                                                                                              |
| Type-C Charging      | Charge the internal lithium battery(preferred mobile phone charger).                                                                                                                                                                                                                                                                         |
| SIM Card Slot        | International universal SIM card slot.                                                                                                                                                                                                                                                                                                       |
| Screen Display       | Display 4G signal; Position signal; Remaining battery capacity (lithium battery capacity); AI voice dialogue status; SOS+positioning status.                                                                                                                                                                                                 |

## Performance parameters

|                                             |                                                                                                     |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Brightness of spotlight (1 meter spacing)   | Spotlight fully lit: 800Lux;<br>Spotlight semi bright: 80Lux                                        |
| Brightness of floodlight (1 meter spacing)  | Floodlight white light: 50Lux;Floodlight red blue alternating: red light 30Lux / blue light 60Lux   |
| Total power generation                      | 100Wh (Each set of magnesium sheet)                                                                 |
| Voltage output from USB port                | 5V/1A                                                                                               |
| Maximum output power                        | 5W                                                                                                  |
| Discharge duration after a single injection | 8 hours (5W power condition. After 8 hours, it needs to be poured out and refilled with new liquid) |
| Injection frequency                         | Two times (Each set of magnesium sheets needs to be replaced after 2 cycles)                        |

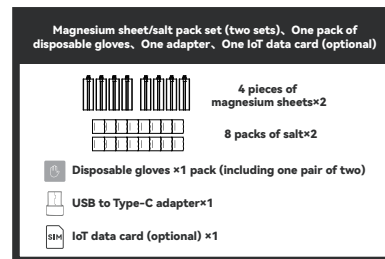
|                                 |                               |
|---------------------------------|-------------------------------|
| Electrolyte                     | Saltwater (concentration 15%) |
| Electrolyte quantity            | 150ml (Single cavity)         |
| Total liquid dosage             | 600ml                         |
| Working environment temperature | -10~45°C                      |
| Storage temperature             | -40~60°C                      |

## FAQ

| Problem                                         | Answer                                                                                                                                                                |                                                                                                                                      |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
|                                                 | Check                                                                                                                                                                 | Solution                                                                                                                             |
| The configured saltwater cannot be fully added. | Is there any accumulation of reaction products in sinks 1-4 ?                                                                                                         | Please rinse sinks 1-4 with water.                                                                                                   |
| Low power generation                            | Is the amount of water and salt appropriate ?                                                                                                                         | The water and salt in each sink must reach the specified amount, and saltwater must be prepared in proportion to the water and salt. |
|                                                 | The temperature of adding saltwater is too low (below 10 °C)                                                                                                          | Wait for the battery temperature to gradually rise or replace with higher temperature saltwater.                                     |
|                                                 | Please confirm if there is excessive wear and tear. The magnesium sheet will become thinner over time and be completely depleted.                                     | Please replace with new magnesium sheets.                                                                                            |
|                                                 | Please check if there are any foreign objects and if the contact is good at the connection between the conductive pins on the upper and lower parts of the lamp body. | Clean up foreign objects and install them correctly.                                                                                 |
|                                                 | Please confirm if the magnesium sheet and upper cover are installed correctly.                                                                                        | Install correctly.                                                                                                                   |
|                                                 | Please confirm that the magnesium sheets you are using are provided by the original factory.                                                                          | Use the original magnesium sheets provided by the factory and replace them according to the instructions.                            |
|                                                 | Please confirm if the saltwater has been replaced on time.                                                                                                            | The horn prompts that when replacing saltwater, it must be replaced.                                                                 |
|                                                 | Please confirm if the interior of sinks 1-4 were cleaned thoroughly after the last use.                                                                               | Please rinse sinks 1-4 with water.                                                                                                   |
|                                                 | Whether to use beverages, seawater, or urine may affect the luminescence level.                                                                                       | Prepare saltwater in proportion with water and salt.                                                                                 |

|                                                                                    |                                                                                                                                                                                                              |                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unable to charge through USB interface.                                            | No response or abnormal charging.                                                                                                                                                                            | Do not start charging right after adding saltwater. Wait about 15 minutes for power generation to stabilize.                                                                                           |
|                                                                                    |                                                                                                                                                                                                              | Charging is in DCP mode, and some models of smartphones cannot be charged directly.                                                                                                                    |
|                                                                                    |                                                                                                                                                                                                              | Depending on the status of the smartphone, it may not be possible to charge directly.                                                                                                                  |
|                                                                                    |                                                                                                                                                                                                              | Please use a compliant USB charging cable for charging.                                                                                                                                                |
|                                                                                    |                                                                                                                                                                                                              | When charging smartphones and other devices that require charging, please turn off lighting and other functions.                                                                                       |
|                                                                                    |                                                                                                                                                                                                              | When charging is not possible at low temperatures, adding a tablespoon of salt to each of tanks 1-4 to the upper limit may allow for charging, but adding salt will shorten the power generation time. |
| Water leakage                                                                      | Please confirm if the upper cover, lower cover, and silicone plug are securely closed.                                                                                                                       | Install correctly.                                                                                                                                                                                     |
|                                                                                    | Excessive water volume may lead to water leakage.                                                                                                                                                            | Fill sinks 1-4 with an appropriate amount of saltwater.                                                                                                                                                |
|                                                                                    | The silicone cover on the upper cover will emit foam, which is not a fault.                                                                                                                                  | Wipe clean with toilet paper or soft cloth.                                                                                                                                                            |
|                                                                                    | Is the bottom drain plug tightened ?                                                                                                                                                                         | Tighten the drainage screw cap.                                                                                                                                                                        |
|                                                                                    | It is normal for water vapor condensation to occur on the surface and inside of the lower shell of the product during long-term power generation operation, especially during high-power operation.          | Regularly open the bottom screw cap, pour out the accumulated water and wipe it clean.                                                                                                                 |
| How to handle it after use ?                                                       | The reactant (magnesium hydroxide) is treated as combustible waste, while the magnesium sheet is treated as non combustible waste. Please refer to this manual for details on drainage and cleaning methods. |                                                                                                                                                                                                        |
| Can magnesium sheets that have been opened but not used be stored for a long time? | Please use the magnesium sheet as soon as possible after opening.                                                                                                                                            |                                                                                                                                                                                                        |

## Standard Configuration



- Four magnesium sheets are grouped together, totaling two sets (including magnesium sheet protective seats and conductive components)

Each group uses:

|              |               |
|--------------|---------------|
| USB charging | 16+3≈19 hours |
| LED lighting | 25+5≈30 hours |

Magnesium sheet specifications:

|          |                 |
|----------|-----------------|
| Material | Magnesium alloy |
|----------|-----------------|

Note: The usage time is for reference only and may vary depending on usage conditions and environmental factors; When using liquids other than tap water, the power generation capacity will decrease.

- Eight packs of salt are grouped together, totaling two sets

Salt pack specifications (per pack):

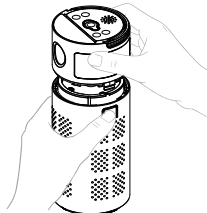
|      |       |
|------|-------|
| Salt | 22.5g |
|------|-------|

- Disposable gloves ×1 pack (including one pair of two)
- One USB to Type-C adapter
- One IoT data card (optional)

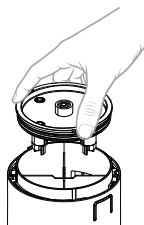
# Product Usage

## Instructions for use

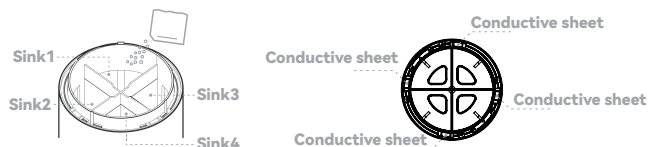
1. Press either side of the buckle, and after the upper cover lifts up, you can pick it up and remove the upper cover.



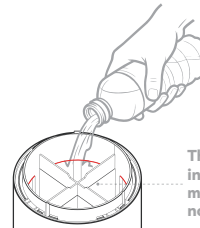
2. Pull out the magnesium sheet fixing parts and be careful not to let the silicone sealing ring fall off or shift.



3. Put 1 packet of salt (22.5g) into each of sinks 1-4. Unequal salt content will reduce power generation capacity. When adding salt, please be careful not to attach salt to the conductive sheets. If used with salt attached to the conductive sheets, it can cause rusting.



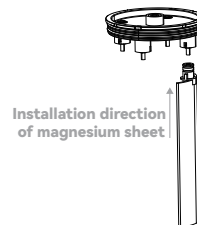
4. Fill the water to the water level line inside the sink (the step at the upper edge of the membrane) , sinks 1-4 all need to be filled with water.



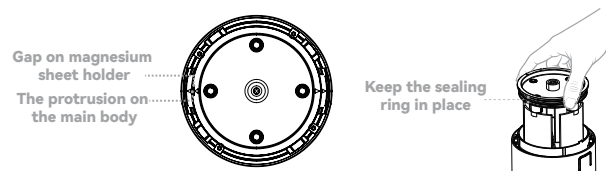
The step marked by the red line in the diagram indicates the water level position, which is not marked with a red line on the product. Please note this for identification.

( Note: Excessive water injection can cause overflow. Water sinks 1-4 are not connected. Please inject the same amount of water into each sink; In emergency situations, saltwater can be replaced with urine or seawater, but due to impurities mixed in, the power generation capacity may be inferior to saltwater, and USB charging may not be possible.)

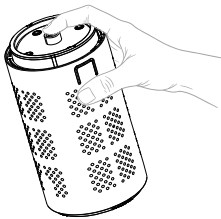
5. Install the four magnesium sheets onto the magnesium sheet holders in the direction of the arrows shown in the diagram.



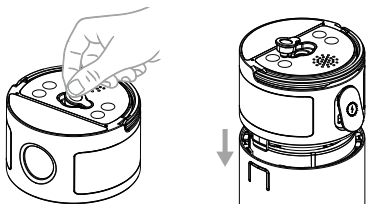
6. When installing the magnesium sheet holder, align the gap on the holder with the protrusion on the main body, and then insert the magnesium sheet holder into the water sink. Pay attention to keeping the sealing ring on the magnesium sheet holder in place and not loose.



7. Block the ventilation hole at the bottom of the device with your fingers, and shake the device left and right roughly 30 times to fully dissolve the salt.

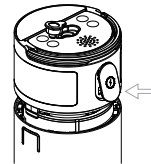


8. Open the vent plug on the top of the device and rotate it 180°. Align the buckle on one side of the upper cover with the corresponding buckle position on the body, gently press down, and wait for a "click" sound to fasten, then press down on the other side of the buckle. Confirm that the buckles on both sides of the upper cover are fully engaged, the cover is in place, and there is no looseness.



( Important reminder: Chemical reactions and harmless gases may occur during the operation of the equipment. Please always keep the vent plug open and do not close it to avoid affecting the normal operation of the equipment or causing abnormal internal pressure.)

9. Before using the product, please make sure to fully fasten the silicone pad at the interface to ensure that it fits tightly with the corresponding position without any gaps remaining.



( Note: This silicone pad is used to protect the interface, prevent dust or liquid from entering, and may cause equipment failure or safety risks when not fastened; During the product's plug-in charging period, it is prohibited to start or use this product. This can avoid safety hazards such as electrical failures and equipment overheating, while ensuring charging efficiency and product lifespan. )

## Functional analysis

### 1. SIM card installation operation (Preparation before using the product)

- Open the silicone plug on the back interface of the product cover and find the SIM card slot.
- Confirm the SIM card type, place the SIM card smoothly into the slot according to the direction of the notch marked in the slot, ensuring that the chip face is facing correctly and fits snugly against the bottom of the slot.
- Gently press the SIM card until it is fully secured, then snap the silicone plug back into place to ensure a good seal.

(Note: SIM card installation should be carried out when the device is turned off to avoid damaging the card slot or SIM card during power on operations; After installation, please ensure that the SIM card is not loose, otherwise it may affect SOS positioning and network functions. The IoT traffic card that comes with this device is a dedicated directional card. The usage rules are detailed in the "Precautions for Using IoT Traffic Cards" section below. Please strictly follow them to avoid unauthorized locking.)

### 2. Power + Reset button operation -----



- Power-on procedure: Press and hold for 5 seconds until the display lights up, the magnesium-air battery begins outputting power, and the device enters ready mode.

- Shutdown operation: Press and hold for 5 seconds, the display screen will turn off, the magnesium-air battery will stop outputting, and the device will shut down.
- Reset operation: After each change of salt water, double-click (press twice within 1 second) to activate the reset function. After successful reset, the device will recalculate the consumption time and output power of the magnesium air battery.

### 3. Lighting mode operation-----



Short press the "Lighting Function" button to switch the lighting modes. Each press will switch once, and the cycle sequence is as follows:  
Spotlight half lit - Spotlight fully lit - Spotlight fully lit flashing - Floodlight on (white on both sides) - Floodlight on (red on one side and blue on the other, flashing) - Off.

### 4. AI mode operation-----



Press and hold the "AI" button for 5 seconds to enable or disable the AI function. When the function is enabled, the corresponding icon will be displayed on the screen.

### 5. Rescue mode operation-----



Press the "Rescue Function" button to activate rescue related functions: Press and hold for 5 seconds to activate the SOS+positioning function. After activation, send an SOS distress signal and synchronize the positioning information to the emergency contacts and emit an alarm sound. (Pre-set on the APP for emergency contacts)  
When the function is turned on, the SOS icon will light up on the display screen.

### 6. Charge and discharge function operation

- Input charging (charging the device): Connect the charging device through the Type-C interface to charge this device.
- Output power supply (charging external devices): Output through USB-A interface. The product includes a converter for adapting to different interface specifications.

### 7. Alarm reminder and saltwater replacement instructions

Put the magnesium sheets into saltwater and connect it to the equipment chamber to start generating electricity. During the operation of the equipment, if any of the following conditions are met, an alarm will be triggered:

- ① Water replacement reminder: When the product runs continuously for 8 hours or accumulates a continuous output power of 35Wh, it will automatically remind to replace the saltwater; The long-term reaction of electrolyte will weaken its conductivity, so replacing it with new salt water ensures power generation efficiency. After the device is powered off and turned off, the cumulative timer automatically resets to zero. Intermittent segmented startup cannot accumulate usage time and cannot automatically trigger a water change reminder:
  - No longer using the device: Immediately pour out all saline water from the chamber, clean the device chamber, air dry and store it;
  - Continued use: Drain the residual old saline water, replace it with brand new saline water, and then turn it on for use.
- ② Weak 4G communication signal;
- ③ The built-in battery level of the device is low.

### 8. Working threshold after reset

After performing a manual reset operation, the accumulated duration and output power statistics of the device are reset to zero and recalculated, and the triggering criteria for the water change alarm remain unchanged:

- Continuous operation time reaches 8 hours
- Accumulated output power reaches 35Wh

### 9. Precautions for using the compass:

- ① When using, please place the compass horizontally or hold it in hand, avoid placing it on iron tables or other positions that affect magnetism, and ensure accurate readings.
- ② Please keep away from high voltage lines, mobile phones, speakers, screwdrivers, magnets, and other magnetic, charged, or metal products when using to prevent pointer misalignment.
- ③ Do not strike or tap the compass to avoid affecting measurement accuracy.
- ④ Do not place the compass in high or low temperature environments for a long time, avoid direct sunlight, to prevent affecting its service life.
- ⑤ Please keep the outer shell and mirror smooth, and do not wipe with dirty cloth or alcohol.
- ⑥ When not in use, please put the compass back in its original position.



## [Important safety instructions for use]

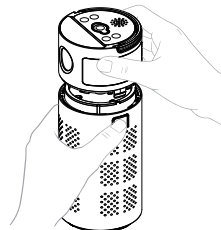
- **Mandatory usage regulations:** Regardless of whether the device is in a startup or shutdown state, saltwater should not be stored in the device chamber for more than 8 hours. Storage beyond this time limit will corrode internal parts and cause permanent damage to the product;
- Due to the issue of timer reset upon shutdown, the device's alarm function cannot activate automatically in intermittent usage scenarios. Relying on machine alerts for water replacement is not feasible. Users must manually monitor the storage duration and ensure the waste liquid is drained or the salt solution is replaced within 8 hours.

### Other precautions:

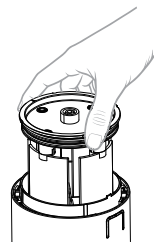
1. Long press operation needs to maintain the pressing state until the corresponding function is triggered (display screen on/off), ensuring that the pressing is in place.
2. Short press requires quick press and release, with a reset interval of no more than 1 second between two short presses.
3. The operation of each function switch should be carried out in the ready state of the device (with the display screen lit up)
4. Charging and discharging operations require the use of compliant charging cables and charging equipment to avoid equipment damage.
5. If there is no network signal after installing the SIM card, you can check if the SIM card is installed correctly and if the service has been activated.

## Drainage and cleaning

1. Press either side of the buckle, and after the upper cover lifts up, you can pick it up and remove the upper cover.



2. Remove the used magnesium sheets from the sink.



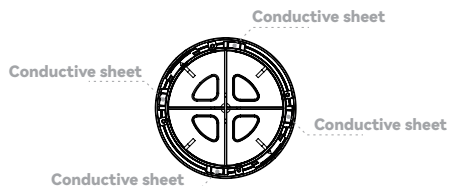
3. Keep the base cover tightly locked to the main body and rinse the interior of the equipment clean with water. (Do not use tools such as toothbrushes to clean the interior of the device, as this may cause internal damage and malfunction.)

### 4. To continue using:

After cleaning, there is no need to remove the bottom cover. Simply add new salt and water to the sink, replace the magnesium sheet with a new one, close the cover and ensure that the buckle is fully engaged before continuing to use.

## 5. When it comes to storage:

- ① After cleaning, to prevent rusting, gently wipe the body and conductive sheet and completely dry them; Please dry and store the magnesium sheets in use.



- ② Rotate counterclockwise to open the bottom cover and remove the silicone pad from the bottom cover. Thoroughly dry the bottom cover and silicone pad.



- ③ After all components are completely dried, fasten the silicone pad on the bottom cover, rotate the bottom cover clockwise to lock it with the body, and store it in a dry place.



( Note: After each equipment stop working, the internal reaction solution should be thoroughly poured out in a timely manner to avoid residual liquid remaining for a long time and affecting equipment performance; And then clean the reaction chamber and related contact components to ensure the removal of residual impurities. After cleaning, air dry them for future use.)

## Precautions

1. When the brightness of the lighting decreases or USB charging cannot be used, please replace the magnesium sheet and salt water. (USB charging consumes more power than lighting, so being able to use lighting may not necessarily be able to charge)
2. When the machine is not in use for more than 24 hours, please pour out the salt water and clean it to dry.
3. When charging a smartphone, do not charge it immediately after filling it with water. Wait for about 15 minutes for the saltwater power generation to run normally before charging.
4. Gas will be discharged from the vent, please do not plug or let the vent soak in water.
5. There are four separate water sinks (sinks 1-4) inside, each of which must be filled with a specified amount of water and salt to charge the smartphone.
6. Depending on the status of the smartphone, it may not be able to charge to 100%
7. This device uses DCP mode for charging, and some devices may not charge properly due to compatibility issues.
8. Please use the original USB cable of the smartphone that needs to be charged for charging.
9. Please be careful not to get wet while charging.
10. When charging is not possible at low temperatures, adding an appropriate amount of salt to each of the water sinks 1-4 can be used for charging. But adding salt will shorten the power generation time.
11. When the lighting and charging functions are turned on at the same time, it may not be possible to charge properly due to differences in device compatibility. It is recommended to turn off the lighting before charging.

12. During use, the temperature of the main body will increase, which is not a malfunction. At maximum power generation, the equipment temperature will be slightly higher than body temperature (about 45°C). That may cause low-temperature burns, please do not directly contact the skin for a long time.

13. When the equipment operates for extended periods, especially under high-power conditions, condensation may form on the surface and inside the lower housing of the product. This is a normal phenomenon. Simply remove the bottom screw cap at regular intervals, drain the water, and wipe it dry.

## Usage precautions for IoT Data Card

The IoT data card included with this product is a communication card specifically designed for smart terminals. It only supports data transmission, and cannot be used for voice calls or SMS services. It is exclusively for use with smart devices such as smart home systems, in-vehicle equipment, and surveillance cameras. To ensure proper usage and prevent service suspension, card deactivation, or financial loss, please strictly adhere to the following usage guidelines:

### 1. Compliance usage and device binding rules

- This card is a targeted IoT card and is strictly prohibited from being inserted into personal communication devices such as mobile phones and tablets for use. Real time monitoring of device usage scenarios in the operator's backend. If violations of human internet usage are detected, it will directly trigger card locking, shutdown, or even permanent suspension, resulting in card and account invalidation.
- This card supports device-card binding function. After the card is activated for the first time, it will be automatically bound with the current device IMEI code. It is strictly prohibited to randomly remove cards, replace equipment and mix them up. Unauthorized replacement of equipment will trigger the safety risk control mechanism, resulting in equipment shutdown and inability to use normally. Please strictly adhere to the principle of dedicated cards.

### 2. Package and Card Lifecycle Description

- The data settlement rules for different packages of this card are different. Some monthly and annual packages will automatically reset the data after expiration, and the package will automatically shut down after the expiration of the validity period. Users are advised to be aware of the package rules and plan their data usage reasonably.
- Unactivated IoT cards have a 1-year standby validity period, and failure to activate them after the timeout will automatically trigger the activation mechanism. Please regularly check the card usage status to avoid resource waste and equipment offline issues caused by long-term idle or expired expiration.

Reminder: Card shutdown, sealing, or invalidation caused by human activities such as illegal use, unauthorized equipment replacement, and overdue processing will not be covered by after-sales support. Please strictly follow these rules when using the card.

## Warranty Service Terms

### Warranty scope and process

During the 12-month warranty period from the date of purchase, provided that the user uses the product according to the specifications in the product manual. If there is non-artificial performance faults, the user can bring the faulty product, this warranty card, and valid purchase voucher to our official repair acceptance point or original purchase store to apply for after-sales service. We will provide free repair services for eligible products. (Additional explanation: The transportation and related miscellaneous expenses between the user and the purchasing store shall be borne by the user.)

## **Repairs Subject to Charges (still applicable during the warranty period)**

In the following situations, even if the product is within the warranty period, corresponding fees will be charged for repair services, including but not limited to:

1. Malfunctions caused by improper user operation, incorrect use, or misuse of the product;
2. Disassembly, modification, maintenance by a third party not authorized by our company, or faults caused by abnormal external power supply voltage;
3. Product damage caused by force majeure (including fire, earthquake, flood, war, etc.) or public hazards;
4. Malfunctions caused by failure to regularly clean and maintain according to the product manual requirements;
5. Unable to present a valid warranty certificate, or key information such as purchase date and sales store is missing or incomplete on the warranty certificate.

## **Other precautions**

1. This warranty card is an after-sales certificate and will not be reissued if lost. Please keep it safe for the user;
2. The final interpretation right of this service agreement belongs to our company. If there is a dispute over the content of the terms, the user can negotiate with our company to resolve it;
3. Our company can provide users with product usage consultation and paid repair services, but returns, exchanges, and free repairs during the warranty period must be processed through the original purchase channel.