

自行车前灯通用使用说明书（中英文版）

第一部分：中文版本 自行车前灯通用说明书

一、产品适用范围

本款自行车前灯为骑行专用夜间/低光环境照明警示配件，适配市面上绝大多数标准直径自行车车把（常规 22.2mm 直把、雁把、弯把），涵盖山地车、公路车、通勤车、折叠车、休闲单车、学生单车及电动助力自行车等各类车型，分为 USB 充电款、干电池款两大主流类型，部分款式具备强光、弱光、爆闪、SOS 求救多模式切换、防水防摔、续航持久、亮度可调的特点。产品核心作用是夜间、傍晚、雾天、雨天等低能见度环境下提供前方道路照明，同时警示过往车辆与行人注意避让，避免碰撞意外，适用于夜间通勤、夜骑锻炼、户外骑行、雾天雨天出行等全场景，安装便捷、通用性强，是保障夜间骑行安全的必备核心配件，严禁用于照明以外的其他高危场景。

二、产品核心结构与材质

- 灯体主体：**高强度 ABS 工程塑胶材质，轻量化设计，外壳耐磨抗摔，具备 IPX4 等级及以上防水性能，应对雨天、雾天、轻微溅水无压力，户外使用不易损坏，适配各类复杂骑行路况
- 光源核心：**大功率 LED 灯珠，亮度高、光线柔和不刺眼，光照射程适中，兼顾近距离路面照明与远距离警示，能耗低、使用寿命长，无频闪，缓解视觉疲劳
- 固定支架：**可调节快拆式硅胶/塑胶支架，弹性强，适配标准车把直径，无需工具即可快速安装拆卸，自带防滑硅胶垫，固定牢固，骑行颠簸不松动、不转动、不位移
- 功能部件：**模式切换开关/按键、充电接口（充电款，带防水塞）、电池仓（电池款）、电量指示灯（部分款），操作简单，单手即可完成模式切换，防水塞有效保护充电接口，防止进水短路

三、使用前准备

- 配件清点与检查：**取出灯体主体、快拆支架、固定配件，充电款额外核对 USB 充电线，电池款核对对应型号电池；检查灯体无破损、无开裂、无凹陷，按键回弹灵敏无卡顿，支架无断裂、无老化，防水塞完好无脱落，整体功能无异常。

- 电池安装/充电预处理：电池款打开电池仓，按照仓内正负极标识装入对应型号电池，盖紧电池仓盖，确保密封严实；充电款连接 USB 充电线充满电量，充电时指示灯常亮/闪烁提示，充满后及时断电，首次使用建议完全充满再使用。
- 安装位置确认：选择车把前部空旷位置安装，优先安装在左手或右手车把中间位置，确保灯光朝前直射，不遮挡车把转动、不触碰刹车/变速手柄、不影响手部握把与操控，折叠车需确认展开后无部件干涉。
- 功能预测试：短按按键测试各照明模式切换，确认灯光正常亮起、无暗闪、无熄灭，电量指示灯（部分款）显示正常，测试完成后关闭灯光，等待安装。

四、分步安装与使用步骤

（一）快速安装步骤

1. 将快拆支架套在车把指定安装位置，调整支架松紧，贴合车把后扣紧卡扣，无需螺丝固定，新手也可快速操作，确保支架无晃动、不歪斜。
2. 将灯体底部卡槽对准支架凸起部位，用力向下按压，听到“咔哒”声即代表卡紧固定，轻晃灯体测试，无松动、无转动、无脱落。
3. 调整灯体照射角度，让灯光水平朝前照射，略微向下倾斜照亮前方路面，避免过高直射对向行人、车辆眼睛造成眩光，角度调试完毕后即可使用。

（二）灯光模式操作方法

1. 开机/关机：短按功能按键，即可开启灯光；开机状态下，长按按键 3-5 秒，或连续短按切换至关机模式，即可关闭灯光，禁止频繁快速开关机，避免损坏按键。
2. 模式切换：开机后，每短按一次按键，依次切换**强光模式**→**弱光模式**→**爆闪模式**→**SOS 求救模式**→**关机**，循环切换，可根据场景灵活选择。
3. 模式适配：夜间黑暗路段选用强光模式，保障路面照明；傍晚、有路灯路段选用弱光模式，延长续航；雾天、雨天、人流密集区选用爆闪模式，强化警示；紧急情况选用 SOS 模式，发出求救信号。

五、日常使用规范

- 强制使用场景：夜间、傍晚、雾天、雨天、隧道等低能见度环境骑行，必须开启前灯；骑行经过路口、人流量大区域、昏暗楼道时，提前开启灯光，起到照明与双重警示作用。
- 使用禁忌：严禁将灯光直射对向行人、骑行者、车辆驾驶员眼睛，避免造成眩光致盲，引发交通事故；严禁长时间开启强光模式闲置，浪费电量且缩短灯珠寿命。

- **防水使用：**本产品具备基础防水性能，可应对雨天、溅水场景，但严禁长时间浸泡在水中、暴雨中直冲，严禁在水下使用，避免进水短路损坏灯体。
- **拆卸与携带：**到达目的地后，可快速拆卸灯体随身携带，防止被盗；支架可留在车把上，下次使用直接卡入灯体即可，无需重复安装支架。

六、日常充电/换电池与保养

（一）充电款保养规范

- **充电操作：**充电时抠开充电口防水塞，连接 USB 充电线与电源，指示灯亮起代表正在充电，充满后指示灯变色/熄灭，及时拔掉充电线，盖紧防水塞，防止灰尘、水分进入接口。
- **续航维护：**长期不使用时，每 1-2 个月补充充电一次，避免内置电池亏电老化，损坏电池寿命；禁止用大功率快充、非原装充电线充电，防止损伤电池。

（二）电池款保养规范

- **电池更换：**电量耗尽时，及时打开电池仓，更换同型号全新电池，严格按照正负极标识安装，禁止新旧电池混用、不同型号电池混用；长期不使用时，取出电池，防止电池漏液腐蚀灯体内部零件。

（三）整体日常保养

- **日常清洁：**每次使用后，用干布擦拭灯体表面灰尘、泥沙、雨水，保持表面干燥清洁，禁止用强酸强碱清洁剂、酒精、钢丝球擦拭，避免腐蚀外壳、损伤灯珠。
- **定期检查：**每次骑行前检查灯光亮度、模式切换是否正常，支架固定是否牢固，防水塞是否盖紧；长途骑行前确认电量/电池充足，避免中途断电。
- **收纳存放：**不使用时，放置在干燥、通风、阴凉处，避免高温暴晒、靠近明火、重物挤压、摔落磕碰，防止灯体变形、灯珠损坏、电池故障。

七、重要注意事项（核心安全警示）

强制性安全警示：1. 本自行车前灯仅为骑行辅助照明与警示配件，不可替代专业道路照明、交通信号灯，骑行时仍需专注路况、减速慢行，不可完全依赖灯光；2. 夜间骑行必须同时配合自行车尾灯使用，前后双重警示，全方位提升骑行安全性；3. 严禁改装、拆解灯体内部结构，禁止私自更换灯珠、电池，避免短路、漏电、爆炸风险；4. 儿童需在成人监护下安装、使用，避免儿童玩耍灯体、误食电池、直视强光损伤视力；5. 灯光出现频闪、变暗、无法开机、进水短路等故障，立即停止使

用，切勿继续充电或使用。

- 避免将前灯长时间放置在高温环境（如汽车中控台、暴晒窗台），防止电池鼓包、外壳老化、灯珠烧坏。
- 安装时确保支架固定牢固，灯光角度调试合理，骑行中避免灯体松动偏移，失去照明与警示作用。
- 废旧电池、废弃灯体请勿随意丢弃，按照环保垃圾分类处理，避免污染环境；充电款请勿随意丢弃，交由专业回收机构处理。
- 本产品仅适用于自行车骑行使用，严禁用于潜水、工业作业、电焊等其他场景，防止发生危险。

八、常见问题与处理方法

- 灯光不亮、无法开机：充电款检查是否电量耗尽，及时充电；电池款更换全新电池，确认正负极安装正确；检查按键是否卡顿，清理按键缝隙杂质。
- 灯光暗、频闪、续航变短：充电款彻底充满电量，电池款更换新电池；清理灯珠表面灰尘污渍；长期亏电导致电池老化，直接更换电池或灯体。
- 灯体松动、易偏移：重新扣紧支架卡扣，调整支架松紧，加装防滑垫片，确保灯体卡合到位。
- 充电接口充不进电：清理接口内灰尘杂质，更换充电线；确认防水塞盖紧，避免接口进水氧化；接口损坏需停止使用，更换新品。

Part Two: English Version General Instructions for Bicycle Front Light

1. Product Scope of Application

This bicycle front light is a special lighting and warning accessory for riding at night or in low-light environments, suitable for most standard-diameter bicycle handlebars on the market (conventional 22.2mm flat bars, rise bars and drop bars), covering various types of bicycles such as mountain bikes, road bikes, commuter bikes, folding bikes, leisure bikes, student bikes, electric and electric-assisted bicycles.

It is divided into two mainstream types: USB rechargeable type and dry battery type. Some models have multi-mode switching (strong light, low light, strobe, SOS distress), waterproof and drop-resistant, long battery life and adjustable brightness. The core function is to provide road lighting in low-visibility environments such as night, dusk, fog and rain, and warn passing vehicles and pedestrians to avoid,

preventing collisions. It is suitable for night commuting, night riding exercise, outdoor riding and other scenarios, easy to install and highly versatile, a necessary core accessory to ensure night riding safety. It is strictly forbidden to use in other high-risk scenarios except lighting.

2. Core Product Structure and Materials

- **Light Body:** High-strength ABS engineering plastic, lightweight design, wear-resistant and drop-resistant shell, with IPX4 or above waterproof performance, resistant to rain, fog and slight splashing, not easy to damage in outdoor use, suitable for various complex riding road conditions
- **Light Source Core:** High-power LED lamp bead, high brightness, soft and not dazzling, moderate illumination range, taking into account close road lighting and long-distance warning, low energy consumption, long service life, no stroboscopic, relieving visual fatigue
- **Fixed Bracket:** Adjustable quick-release silicone/plastic bracket, strong elasticity, suitable for standard handlebar diameter, quick installation and disassembly without tools, with anti-slip silicone pad, firm fixation, no looseness, rotation or displacement during bumpy riding
- **Functional Parts:** Mode switch/button, charging port (rechargeable type, with waterproof plug), battery compartment (battery type), power indicator (some models), simple operation, one-handed mode switching, waterproof plug effectively protects the charging port from water short circuit

3. Pre-use Preparation

- **Accessory Check & Inspection:** Take out the light body, quick-release bracket and fixed accessories. For rechargeable type, additionally check the USB charging cable; for battery type, check the corresponding model batteries. Check no damage, crack or dent on the light body, sensitive button rebound without jamming, no breakage or aging of the bracket, intact waterproof plug without falling off, and no abnormal overall function.
- **Battery Installation/Charging Pre-treatment:** For battery type, open the battery compartment, install batteries of the corresponding model according to the positive and negative marks in the compartment, close the battery compartment cover tightly to ensure tight sealing; for rechargeable type, connect the USB charging cable to fully charge, the indicator lights up/flashes during charging, power off in time after full charge. It is recommended to fully charge before first use.
- **Installation Position Confirmation:** Choose an open position on the front of the handlebar, preferably installed in the middle of the left or right handlebar, ensure the light shines straight forward, does not block handlebar rotation, touch brake/shift levers, or affect hand grip and control. For folding bikes, confirm no component interference after unfolding.

- Function Pre-test: Short press the button to test each lighting mode switching, confirm the light turns on normally without dim flash or extinction, the power indicator (some models) displays normally, turn off the light after testing and wait for installation.

4. Step-by-step Installation and Usage Steps

4.1 Quick Installation Steps

1. Put the quick-release bracket on the specified installation position of the handlebar, adjust the tightness of the bracket, fasten the buckle after fitting the handlebar, no screw fixation needed, easy for beginners to operate, ensure no shaking or skew of the bracket.
2. Align the slot at the bottom of the light body with the protrusion of the bracket, press down hard, a "click" sound means firm fixation. Shake the light body gently to test, no looseness, rotation or falling off.
3. Adjust the irradiation angle of the light body, let the light shine forward horizontally, tilt slightly downward to illuminate the road ahead, avoid direct glare to the eyes of opposite pedestrians and vehicles too high. The light is ready for use after angle adjustment.

4.2 Light Mode Operation Method

1. Power On/Off: Short press the function button to turn on the light; in the on state, long press the button for 3-5 seconds or continuously short press to switch to off mode to turn off the light. Do not turn on/off frequently and quickly to avoid damaging the button.
2. Mode Switch: After power on, short press the button once to switch cyclically in turn: **Strong Light** → **Low Light** → **Strobe** → **SOS Distress** → **Off**, flexible selection according to scenarios.
3. Mode Adaptation: Choose strong light mode for dark night roads to ensure road lighting; low light mode for dusk and street lamp roads to extend battery life; strobe mode for fog, rain and crowded areas to enhance warning; SOS mode for emergencies to send distress signals.

5. Daily Usage Specifications

- Mandatory Use Scenarios: The front light must be turned on when riding in low-visibility environments such as night, dusk, fog, rain and tunnels; turn on the light in advance when passing intersections, crowded areas and dark corridors, playing a dual role of lighting and warning.
- Usage Taboos: It is strictly forbidden to direct the light at the eyes of opposite pedestrians, riders and vehicle drivers to avoid glare blindness and traffic accidents; do not leave the strong light mode on for a long time to waste power and shorten the

service life of the lamp bead.

- **Waterproof Use:** This product has basic waterproof performance, can cope with rain and splashing scenarios, but is strictly forbidden to soak in water for a long time, direct impact in heavy rain, or use underwater to avoid water short circuit damaging the light body.
- **Disassembly & Carrying:** After arriving at the destination, the light body can be quickly disassembled and carried around to prevent theft; the bracket can be left on the handlebar, and the light body can be directly inserted for next use without repeated bracket installation.

6. Daily Charging/Battery Replacement and Maintenance

6.1 Maintenance Specifications for Rechargeable Type

- **Charging Operation:** Pry open the charging port waterproof plug during charging, connect the USB charging cable to the power supply, the indicator lights up during charging, the indicator changes color/turns off after full charge, unplug the charging cable in time and cover the waterproof plug tightly to prevent dust and water from entering the port.
- **Battery Life Maintenance:** When not in use for a long time, recharge every 1-2 months to avoid built-in battery over-discharge aging and damage to battery life; do not use high-power fast charging or non-original charging cables to avoid battery damage.

6.2 Maintenance Specifications for Battery Type

- **Battery Replacement:** When the power is exhausted, open the battery compartment in time and replace with new batteries of the same model, install strictly according to the positive and negative marks, do not mix old and new batteries or different models; take out the batteries when not in use for a long time to prevent battery leakage from corroding internal parts of the light body.

6.3 Overall Daily Maintenance

- **Daily Cleaning:** After each use, wipe dust, sediment and rainwater on the surface of the light body with a dry cloth, keep the surface dry and clean. Do not wipe with strong acid and alkali cleaners, alcohol or steel wool to avoid corroding the shell and damaging the lamp bead.
- **Regular Inspection:** Check the light brightness, mode switching and bracket fixation before each ride, and ensure the waterproof plug is covered tightly; confirm sufficient power/battery before long-distance riding to avoid power failure midway.
- **Storage:** When not in use, store in a dry, ventilated and cool place, avoid high-

temperature exposure, open flames, heavy extrusion, falling and bumping to prevent light body deformation, lamp bead damage and battery failure.

7. Important Safety Notes (Core Safety Warnings)

Mandatory Safety Warnings: 1. This bicycle front light is only a riding auxiliary lighting and warning accessory, cannot replace professional road lighting and traffic lights. Riders still need to focus on road conditions and slow down, not rely entirely on the light; 2. A bicycle rear light must be used together at night for dual front and rear warnings to improve riding safety in all directions; 3. It is strictly forbidden to modify or disassemble the internal structure of the light body, and privately replace lamp beads and batteries to avoid short circuit, electric leakage and explosion risks; 4. Children need to be supervised by adults to install and use, avoid children playing with the light body, ingesting batteries or looking directly at strong light to damage eyesight; 5. Stop using immediately if the light has faults such as stroboscopic, dimming, failure to turn on or water short circuit, do not continue charging or use.

- Avoid placing the front light in a high-temperature environment (such as car center console, exposed windowsill) for a long time to prevent battery bulging, shell aging and lamp bead burning.
- Ensure firm bracket fixation and reasonable light angle adjustment during installation, avoid light body looseness and deviation during riding, losing lighting and warning functions.
- Do not discard waste batteries and light bodies at will, dispose of them according to environmental protection garbage classification to avoid environmental pollution; rechargeable type should not be discarded at will, handed over to professional recycling institutions.
- This product is only suitable for bicycle riding, strictly forbidden for diving, industrial operations, electric welding and other scenarios to prevent danger.

8. Troubleshooting

- Light Not Working, Failure to Turn On: For rechargeable type, check if the power is exhausted and charge in time; for battery type, replace with new batteries and confirm correct positive and negative installation; check if the button is jammed and clean impurities in the button gap.
- Dim Light, Stroboscopic, Short Battery Life: For rechargeable type, fully charge the power; for battery type, replace with new batteries; clean dust and stains on the lamp bead surface; replace batteries or light body directly if the battery is aged due to long-term over-discharge.
- Light Body Loose, Easy to Shift: Refasten the bracket buckle, adjust bracket tightness, add anti-slip gaskets to ensure the light body is firmly engaged.

- Charging Port Unable to Charge: Clean dust and impurities in the port, replace the charging cable; confirm the waterproof plug is covered tightly to avoid water oxidation of the port; stop using and replace with a new product if the port is damaged.