

ELECTRONIC DERAILLEUR SYSTEM

WHEEL TOP™

WHEEL TOP

用户手册
USER MANUAL

EDS

EDS 1×12S WIRELESS

无线电子变速系统

三鼎铁打电传动科技有限公司

LANKE SUPER SMART CYCLING (GUANGDONG) SPORTS SCIENCE & TECHNOLOGY CO., LTD.

TEL: +86 (874) 82881676 82881678



SAFETY INSTRUCTIONS

安全说明

Read and understand this manual before proceeding with installation. Improperly install extreme danger and could result in severe or fatal injuries. If you have any questions about the installation of these components, consult a qualified bicycle mechanic.

进行安装之前，您必须阅读并理解产品随附的安全说明书。部件安装不当是极为危险的，可能导致严重甚至致命的人身伤害。如果您对部件安装有任何疑问，请咨询专业的自行车技工。

NOTICE

注意

This manual is a complete system installation guide, from unboxing each component till heading out for a ride. Complete the installation and setup in described order in the manual. Do not begin a new step without completing current step.

本手册是完整的系统安装指南，涵盖从每个部件拆箱直至骑行启程的整个过程。按照本手册所述的顺序，完成相应的安装与设置。完成上一步操作后，方可开始下一步操作。

This device complies with part 15 of the FCC Rules.

本设备符合FCC规则第15部分。

NOTICE

注意

Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTICE

注意

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

操作必须满足以下两个条件:

- (1) 本设备不得造成有害的干扰。
- (2) 本设备必须接受收到的任何干扰, 包括可能导致不希望的操作的干扰。

任何未经制造商任方明确批准的更改或修改都可能使用户操作设备的权力无效。

注: 根据FCC规则第15部分, 本设备已经过测试, 符合8级数字设备的限制。这些限值旨在提供合理的保护, 防止住宅安装中的有害干扰。本设备产生、使用和辐射射频能量, 如果不按照说明书安装和使用, 可能对无线电通信造成有害干扰。但是, 不能保证在特定的安装中不会发生干扰。如果本设备确实对电子设备造成有害干扰, 这可以通过关闭和打开设备来确定, 鼓励用户尝试通过下列一项或多项措施来纠正干扰:

- 调整接收天线的方向。
- 增加设备与接收器之间的距离。
- 将设备连接到与接收器连接的不同电路上的一个出口。
- 向经销商或有经验的技术人员寻求帮助。

该装置已经过评估, 以满足一般射频暴露要求。
该装置可在便携式暴露条件下使用, 不受限制。

无线电子变速器

Wireless Electronic Derailleur System

目录
CATALOGUE

Tools and Supplies/需要用到的工具	4
Controller/拨缆	4
Rear Derailleur/后拨链器	5
Battery Charging/电池充电	6
Battery Installation/电池安装	7
System Pairing/系统配对	8
Shifting/变速	11
Derailleur Installation/变速器安装	13
Controller Installation/拨缆安装	14
Derailleur Adjustments/变速器调整	15
Overview of Indicator lights/指示灯概述	18
Maintenance/维修保养	19

TOOLS AND SUPPLIES

需要用到的工具

It requires very professional tools and articles. Our suggestion is through a professional bicycle mechanic installation.

安装部件需要非常专业的工具和用品。我们建议您让专业的自行车技工安装。



CONTROLLER

控制器



- A. Push Buttons
- B. LED Indicator
- C. Clamp
- D. Plug Screw
- E. Dip switch (pairing/mode switching)
- F. Battery Cover

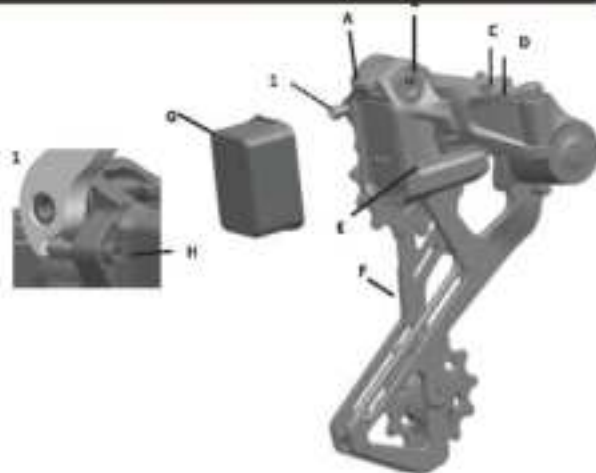


- A. 按钮
- B. LED指示灯
- C. 钳环
- D. 安装螺栓
- E. 拨码开关 (配对/模式切换)
- F. 电池盖

4

REAR DERAILLEUR

后拨链器



- A. Battery Latch
- B. Mounting Bolt
- C. High Limit Screw
- D. Low Limit Screw
- E. LED Indicator
- F. Guide roller
- G. Battery
- H. Adjust Screw

- A. 电池扣
- B. 安装螺栓
- C. 高限位螺栓
- D. 低限位螺栓
- E. LED指示灯
- F. 导轮
- G. 电池
- H. 调节螺栓

BATTERY CHARGING

电池充电



Charging operation

充电操作

1. Push in the battery
2. Start charging Remove battery after
3. Remove battery after

1. 放入电池
2. 开始充电
3. 充电结束取出电池

LED indicator Description

LED指示灯光

- A. Blue: waiting for battery access
- B. Red: charging
- C. Green: Charged

- A. 蓝色：等待电池接入
- B. 红色：正在充电
- C. 绿色：充电结束

Precautions

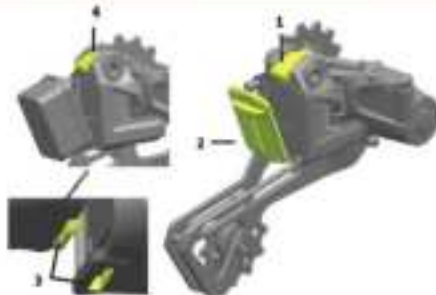
注意事项

1. Please confirm that the DC connector with USB port with 5.0Vdc voltage and a current $\geq 1.0\text{A}$ dc.
2. If LED light doesn't show green after 6 hours charging, please stop charging and remove battery.
3. Make sure your hands or gloves are dry when operating this

1. 请确认带USB端口的DC连接器电压为5.0Vdc, 电流大于等于1.0Adc.
2. 如果电池充电6个小时后仍未充满, 请停止充电.
3. 操作充电时确认手或手套干燥.

BATTERY INSTALLATION

电池安装



Installation instructions

安装说明

1. Open the battery latch
2. Remove cover
3. Insert the battery into the transmission
4. Close the battery buckle

1. 打开电池扣
2. 取下前护罩
3. 将电池插入变速箱
4. 闭合电池扣

Precautions

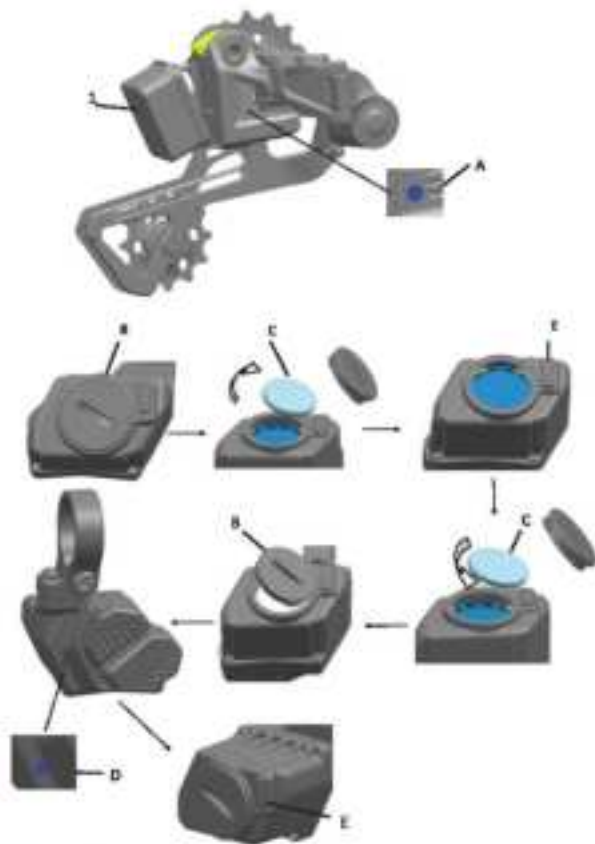
注意事项

1. Only proper installation of battery could latch be tightly closed.
2. Replace the battery repeat the operation described in the installation instructions
3. Do not disassemble by force, which could easily damage the battery or transmission.

1. 正确的安装电池, 电池卡扣可以扣到位
2. 更换电池, 请重复安装说明所描述的操作.
3. 请勿强行拆装电池, 容易损坏电池或变速箱

SYSTEM PAIRING

系统配对



Pairing operation

配对操作

1. Push the battery onto rear dial shell. At this time, the rear dial indicator light should show blue.

1. 将电池安装与后拨安装好此时后拨指示灯A蓝色闪烁。

2. Open battery cover B according to the arrow direction. Remove battery C. Turn the dial code E from "N" to "T". Install the battery C into the dial and close the battery cover B. At this time, the dial indicator light D showing blue flashes meaning pairing.

2. 将拨码电池盖B根据箭头所指方向打开，取下电池C将拨码码E从"N"拨到"T"。在将电池C装入拨码并盖好电池盖B，此时拨码指示灯D蓝色持续闪烁，寻找可以接入的后拨。

3. Wait for 5-15 seconds. When the flashing light goes out, it means pairing finished.

3. 等待5-15秒当后拨接受的拨码的配对请求后，后拨指示灯A熄灭。

4. Dial E from "T" to "N".

4. 将拨码码E从"T"拨到"N"。

5. If you can shift the rear dial by pressing the dial button, it means installation complete. Otherwise, repeat steps 1 to 4

5. 拨动拨码按键如果能够对后拨进行换挡控制则配对完成反之重复1-4步骤。

Precautions

注意事项

1. The derailleur has been paired before unpacking, and new pairing is not required.
 2. The battery does not need to be removed when dialing the controller.
 3. In case of wrong operation during pairing, the pairing operation shall be repeated.
 4. Every time the rear derailleur detects the battery, the LED indicator will flash blue, and it will enter the allocated state. If the battery is matched, it can be controlled directly with the dial.
 5. New pairing is not needed in case of battery replacement (rear dial / controller).
 6. If any parts are replaced, added or removed, the pairing process must be repeated.
1. 开箱前拨链器已经完成配对，无需重新配对。
 2. 在对指拨进行拨码操作时无需拆卸电池。
 3. 在配对过程中出现错误操作，需从新重复配对操作。
 4. 后拨链器每一次检测到电池时LED指示灯都会闪烁蓝色，进入配码状态，如果以配码无需在意可直接用指拨进行控制。
 5. 若发生电池的更换（后拨/指拨）无需重新配对。
 6. 若发生任何部件更换、增加或删除，配对流程必须再次进行。

SHIFTING

变速



Operate the shift button to move the transmission inwards and close to the large tooth plate. Long press to complete multiple speed changes.



Each time the dial lever is toggled, the finger LED will flash, and the finger LED will flash continuously when the dial lever is continuously toggled.

操作换挡按键使变速器向内侧移动并靠近大齿盘。长按，可完成多次变速。

每拨动一次拨杆指拨指拨LED会闪烁一次，持续拨动指拨指LED—持续闪烁。



Operate the shift button so that the transmission moves outwards and close to the small tooth plate. Long press to complete multiple speed changes.



Each time the dial lever is toggled, the finger LED will flash, and the finger LED will flash continuously when the dial lever is continuously toggled.

操作换挡按键,使变速器向外侧移动并靠近小齿盘。长按,可完成多次变速。

每拨动一次拨杆指源指源LED会闪烁一次,持续拨动指源指LED—持续闪烁



Use a 5mm Allen wrench to mount the Rear Derailleur to the frame hook, and use a suitable chain to alternately pass through the two guide wheels of the transmission.

选用5mm的内六角扳手将变速器安装到车架吊钩上,选用合适的链条交替穿过变速器的两个导轮。

Precautions

注意事项

1. Mounting bolt locking torque 8.0-10N.M.
2. If the tightening operation is not correct, it may lead to the following phenomena: deformation of hook hole, and installation or disassembly cannot be carried out. Poor shifting performance.
3. Do not apply grease to the installation bolts or hook threaded holes.
4. Incorrect chain selection will reduce the reliability of shifting, which may lead to failure in serious cases.
5. Transmission compatible with 10-52T freewheel.
6. The transmission performance is best when the distance between the freewheel locking cover and the inner plane of rear lower fork is 5mm.

1. 安装螺栓锁紧扭矩8.0-10N.M.
2. 如果拧紧操作不正确,可能导致以下的现象:吊钩孔的变形,安装或拆卸无法进行,欠佳的变速性能。
3. 请勿在安装螺栓或吊钩螺纹孔涂抹润滑油。
4. 链条选用不正确会导致变速可靠性降低,严重时可能导致故障。
5. 变速器兼容10-52T飞轮。
6. 飞轮锁紧盖与后下叉内侧平面距离为5mm,变速性能最佳。

CONTROLLER INSTALLATION

拨接安装



Use a 4mm Allen wrench to install the transmission on the handlebar, rotate to the appropriate position, and tighten the lock nut

选用4mm的内六角扳手将变速器安装到车把手上，旋转到合适的位置，拧紧安装螺母

2.0-5.0 N·m

Precautions

注意事项

1. Mounting bolt locking torque 2.0-5.0N.M
2. Do not apply grease to the mounting bolts or inner side of the lock rings

1. 安装螺栓锁紧扭矩2.0-5.0N.M.
2. 请勿在安装螺栓或锁环内侧涂抹润滑油。

DERAILLEUR ADJUSTMENTS

变速器调整



Fine Tuning

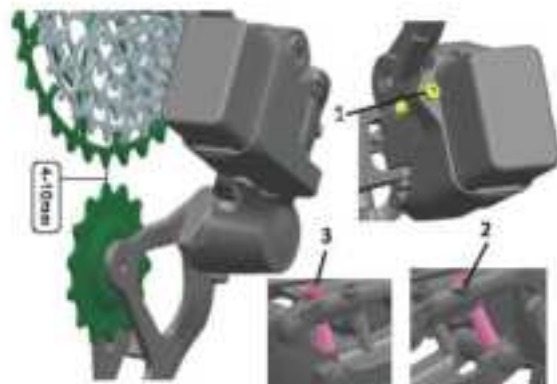
微调

1. Dial the dial code B from "N" to "T", and press the dial button, and the blue indicator will flash once every time you press it.

2. to align the center a of the guide wheel of the rear derailleur "A" and the center of the minimum toothed disc; turn the dial code from "T" to "N" to exit the fine tuning mode.



1. 将指拨代码B从 "N" 调到 "T"，拨动指拨按钮，每拨动一次指拨指示灯蓝色闪烁一次。
2. 直到后拨导轮中心A和最小齿盘中心对齐；将指拨代码从 "T" 调到 "N"，退出微调模式。



Adjust the derailleur

调整变速器

1. Turn the finger lever until the center of the rear derailleur guide wheel is aligned with the center of the maximum gear, and adjust the adjusting screw until the distance between the guide wheel and the maximum gear is 4-10 mm. (Different rear sprocket sizes will be different, and the optimal distance will be different. The size here is only for reference)

2. Adjust the high limit screw until it lightly touches the inner joint, then turn the bolt for 1/4 turns.

3. Turn the finger lever until the center of the rear derailleur guide wheel is aligned with the center of the minimum gear, adjust the bottom limit screw until it lightly touches the inner joint, and then turn the bolt 1/4 turns.

1. 拨动指拨按鍵，直到后拨接链器导轮中心与最大齿轮中心对齐，调整高位螺丝，直到导轮与最大齿轮距离为4-10mm。（不同的后链轮尺寸会有所差异，最优距离会有所差异，此处尺寸仅提供参考）

2. 调整高位限位螺丝，直至其轻轻接触到内连接处，然后将螺栓回转1/4圈。

3. 拨动指拨按鍵，直到后拨接链器导轮中心与最小齿轮中心对齐，调整低位限位螺丝，直至其轻轻接触到内连接处，然后将螺栓回转1/4圈。

Precautions

注意事项

1. The Fine Tuning function can finely adjust the axial distance between the transmission and the sprocket (0.2mm each time), which can optimize the performance of the transmission and improve the smoothness of gear shifting.

2. When adjusting the transmission, be sure to rotate the sprocket, otherwise it may damage the transmission.

3. In the fine tuning mode, press the finger lever continuously, derailleur will move continuously and quickly, ignoring the gear.

4. The transmission will return to the previous position when encountering the force hindering the shift during gear shifting or Fine-Tuning.

1. 微调功能能够精细的调整变速器与链轮的轴向距离（0.2mm每次），可以优化变速器的性能，提升换档的平顺性。

2. 在进行变速器的调整时，务必要转动链轮，否则有可能损伤变速器。

3. 在微调模式下，持续拨动指拨按鍵，变速器会连续快速移动，无视档位。

4. 在换档过程中或者微调中遇到阻碍换档的力时，变速器会退回上一个位置。

OVERVIEW OF INDICATOR LIGHTS 指示灯概述



Controller

描述

Green: Normal Shifting Mode

绿：正常换挡模式

Blue: Fine Tuning Mode \ Pairing Mode

蓝：微调模式 / 配对模式

Red: Battery power is less than 5%

红：电池电量低于5%

Rear Derailleur

后拨链器

Battery check: flashing 1-4 times indicates the battery capacity (power on each time)

电池检查：闪烁1-4次表示电池量（每次上电）

Pairing mode: Indicator light flashes continuously

配对模式：指示灯持续闪烁

Firmware upgrade: the indicator light is always on.

固件升级：指示灯常亮

Charger

充电器

Green: Charged

绿：充电完成

Blue: Waiting for battery access

蓝：等待电池接入

Red: Charging

红：正在充电

MAINTENANCE

维修保养

Controller Battery

微控电池

Use coins to rotate the battery cover counterclockwise, remove the battery, insert the new CR2032 battery into the negative electrode first, and rotate the battery cover clockwise.

使用硬币逆时针旋转电池盖，取下电池，安装新的CR2032电池时先插入负极，顺时针旋转电池盖。

Spare parts replacement

配件更换

If the rear derailleur or the finger is damaged separately, please refer to "Controller installation" or the "derailleur installation" when replacing it. Replacement of any accessory requires a new pairing.

后拨链器或者拨链单片损坏，需要更换时请参考相应的安装或后拨链器的安装。

更换任意配件都需要重新进行配对。

Precautions

注意事项

1. Only CR2032 can be used for the finger battery
2. It is recommended to clean the derailleur regularly.
3. The operating temperature of the derailleur is -10°C - 50°C
4. The derailleur is not used for a long time. It is recommended to remove the battery and install the derailleur protection cover.
5. The derailleur battery can only use special battery

1. 拨链电池只能选用CR2032
2. 建议定期清洗拨链器
3. 拨链器的工作温度为 -10°C - 50°C
4. 长时间不使用拨链器建议拆下电池，安装拨链器保护罩
5. 拨链器电池只能选用专用电池