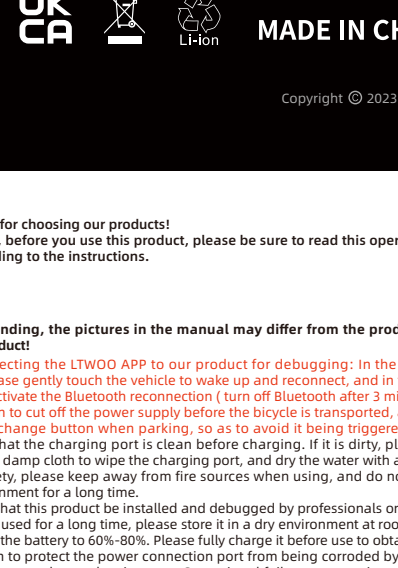


# L-TWOO

## Electronic Road Kit Series

### User Manual



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Product setup & after-sales service

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**Certifications:** CE, UK, LFBI, MADE IN CHINA  
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#### To users

Thank you very much for choosing our products! For the sake of safety, before you use the product, please be sure to read this operation manual carefully, and use it correctly according to the instructions.

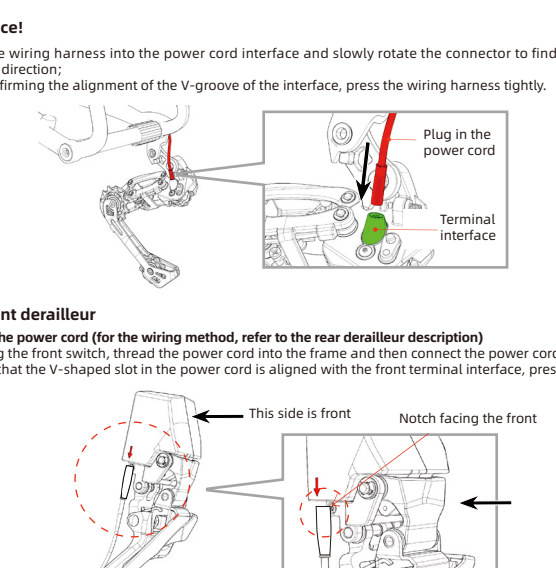


**Notice!**  
For ease of understanding, the pictures in the manual may differ from the product you purchased, please refer to the actual product!  
1. **Notes:** when connecting the L-TWOO APP to our product for debugging: in the sleep state of the product (15s into sleep), please actively touch the vehicle to wake up and reconnect, and in the working state, press the product button to activate the Bluetooth reconnection (turn off Bluetooth after 3 minutes).  
2. Please pay attention to cut off the power supply before the bicycle is transported, and please be careful not to squeeze the hand change button when parking, so as to avoid it being triggered to avoid malfunction.  
3. Please make sure that the charging port is clean before charging, if it is dirty, please use a damp cloth or a non-corrosive clean damp cloth to wipe the charging port, and dry the water with a dry cloth.  
4. For the sake of safety, please keep away from fire sources when using, and do not use this product in a high temperature environment for a long time.  
5. It is recommended that this product be installed and debugged by professionals or in stores.  
6. If the product is not used for a long time, please store it in a dry environment at room temperature. At the same time, please charge the battery to 80%-90%. Please fully charge it before use to obtain the longest working time.  
7. Please pay attention to protect the power connection port from being corroded by sediment and sewage, and it is forbidden to immerse the product in water. Operational failure or corrosion may occur if any component is wetted by rain, please clean it in time if it is dirty.  
8. Please keep the terminal connections between the battery and the rear derailleur and front derailleur clean, and observe and confirm whether the joints of the terminal wires and the inside of the terminal head are dry and clean when disconnecting and reconnecting the power supply terminal wires.  
9. The product has IPX6 waterproof function, but do not use a high-pressure cleaner to clean the bicycle, and regularly maintain the equipment and bicycle.  
10. Be careful not to disassemble or modify this product without permission, otherwise it will cause the product to run abnormally, and may cause you to fall or get injured suddenly.  
11. When you find that the shifting function of the product is abnormal, please do not continue to use it, and seek a professional qualified bike shop or contact the official after-sales service. Please do not try to disassemble and repair it privately, failing to do so will cause irreversible damage and void the warranty.

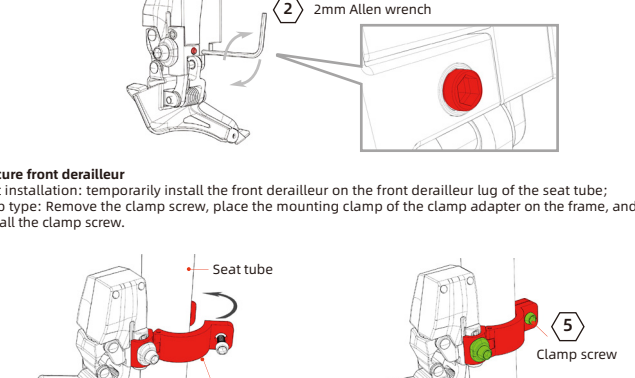


**Warning!**  
1. Do not use a damaged power cord to connect the product, otherwise it may cause a short circuit and damage the interface.  
2. This product has the risk of causing fire and burns.  
3. It is forbidden to disassemble, squeeze or incinerate this product.  
4. The surface temperature of the product shall not be higher than 60°C.  
5. There is a risk of explosion if the battery model does not match.  
6. In order to avoid injury to personnel or damage to equipment, please do not touch the battery terminals with your hands, and it is forbidden to touch the battery terminals with metal objects.  
7. Please pay attention to protect the power connection port from being corroded by sediment and sewage, and such as eating or drinking by mistake, please take first aid measures and seek medical treatment immediately.  
8. Regarding the brake fluid, in order to avoid allergies such as itching and rashes that may occur when people use it, please pay attention to protect the power connection port from being corroded by sediment and sewage, and such as eating or drinking by mistake, please take first aid measures and seek medical treatment immediately.  
9. Please use L-TWOO special mineral brake fluid, and do not use DOT type oil, otherwise it will damage the L-TWOO system!

#### Packaging accessories

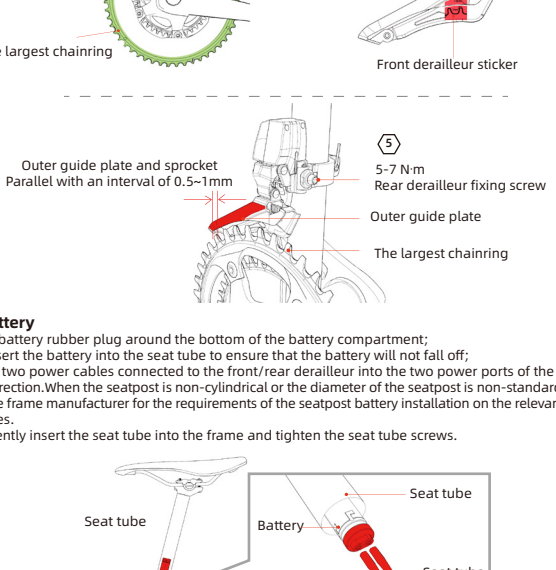


#### Product Structure Introduction



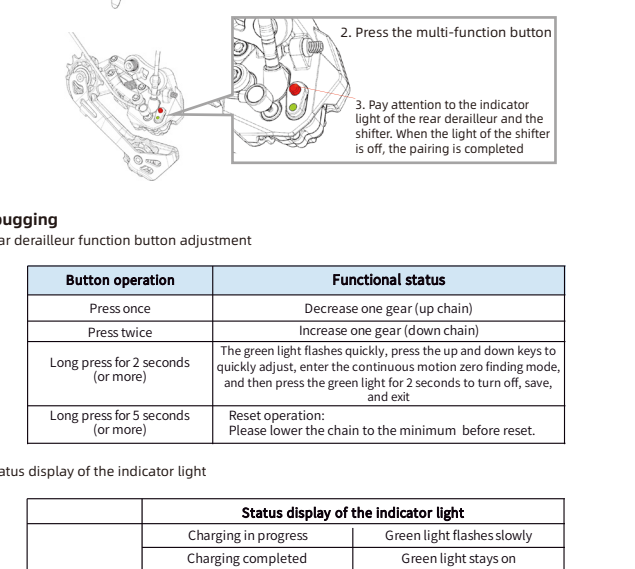
#### Installation/removal

Our Electronic road kit uses wireless connection + wired power supply. The shift command of the dual-control shifter to the front and rear derailleurs is a wireless connection method, and the front and rear derailleurs are powered by the battery installed in the seat tube through the terminal wire. Note that before installing each component, please pass the wire through the inside of the frame, and do not connect the power cord to the battery during the wire installation process.



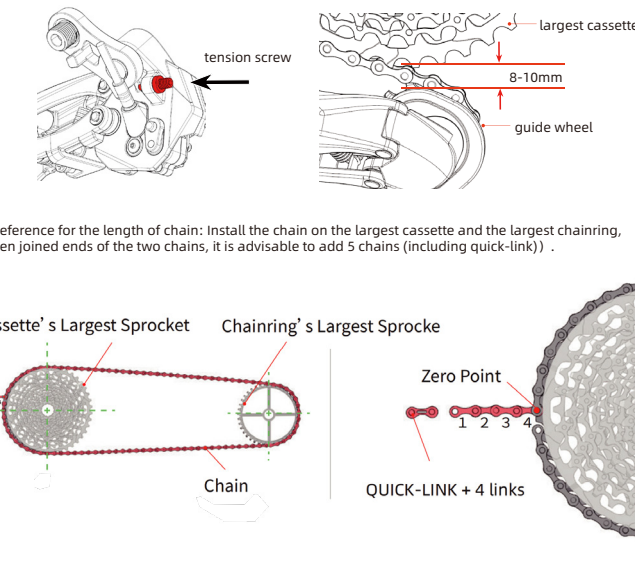
#### Install shifter

\*Please refer to the "Disc Series Product Installation Manual" for details on brake oil filling and calipers installation.  
1. Flip the brake rubber sleeve over the wire. Use both hands to gently flip the ends of the shifter sleeve over from the back, and then gently push it down.  
2. Loosen the clamp screw and put the clamp through the handlebar. When flipping the bracket rubber sleeve, there should be a clamp screw on the top of the handlebar.  
3. Temporarily install the shifter on the handlebar to prevent it from moving.



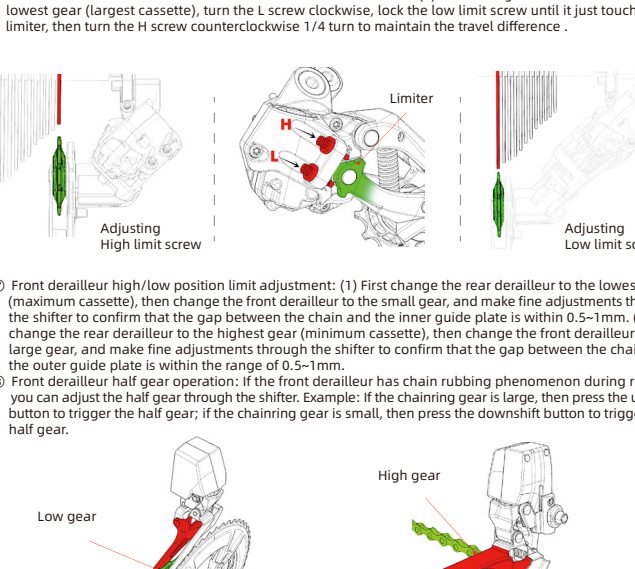
#### Install the rear derailleur

1. **Secure the rear derailleur**  
Please be careful not to insert the rear derailleur fixing screw obliquely into the tail hook. Also, when installing the derailleur, ensure that the stop plate is in seamless contact with the tail hook blocker. After locking, the derailleur and lifting lug should be able to rotate relative to the tail hook, but there should be no obvious axial shaking.  
2. **Connect the power cord**  
Please insert the power cord correctly according to the steps shown in the figure, and do not insert the wire forcibly to prevent the connector from being damaged. At the same time, please avoid excessive bending of the wire ends of the wire harness to prolong the service life of the wire harness. When the wire harness becomes loose or cannot be firmly fixed with the front and rear derailleurs, please replace the wire harness in time.



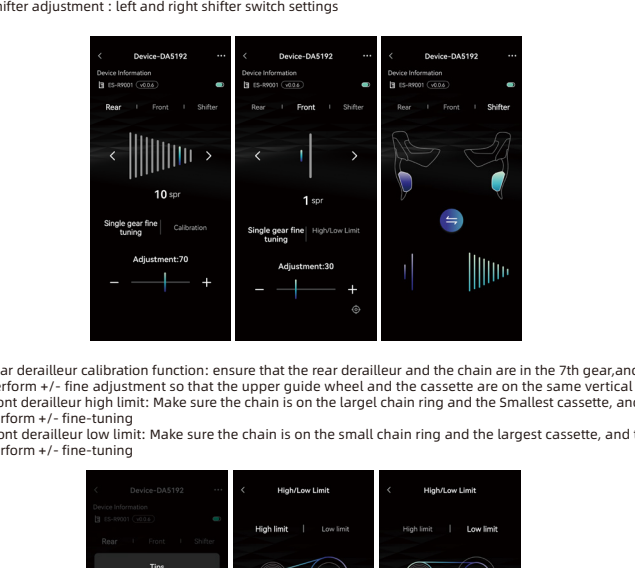
#### Install front derailleur

1. **Install the power cord (for the wiring method, refer to the rear derailleur description)**  
Before fixing the front shifter, thread the power cord into the frame and then connect the power cord. After confirming that the V-shaped slot in the power cord is aligned with the front terminal interface, press the wiring harness in.  
2. **Adjust the installation stability**  
In order to increase the stability of the front derailleur installation, you can adjust the stability adjustment screw on the back of the front derailleur, unscrew it so that it can be supported on the front derailleur lug/clamp ring of the frame, and choose a suitable position to fix it after trying.



#### Install battery

1. Wrap the battery rubber plug around the bottom of the battery compartment;  
2. Slowly insert the battery into the seat tube to ensure that the battery will not fall off;  
3. Insert the two power cables connected to the front/rear derailleurs into the two power ports of the battery in an aligned direction. When the seatpost is non-cylindrical or the diameter of the seatpost is non-standard 27.2, please consult the frame manufacturer for the requirements of the seatpost battery installation on the relevant installation position;  
4. Finally, gently insert the seat tube into the frame and tighten the seat tube screws.

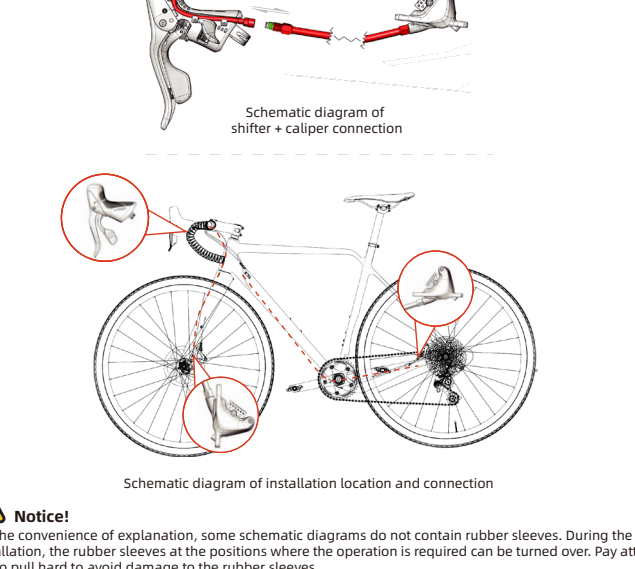


#### Bind

Note: When using, please make sure the power cord is inserted correctly so that the front/rear derailleur is always connected to the power supply.  
1. Once all components are installed and secured, then check the wire connections and start pairing. After the L-TWOO road electronic shifter is newly installed or replaced with a shifter/rear derailleur, it needs to be paired before use.

#### Binding:

Before use, you need to pair the left and right shifters with the rear derailleur once.  
1. Press and hold the rubber button on the inside of the right-hand shifter for more than 4 seconds, observe that the indicator light is always green, and then press the multi-function button on the rear derailleur, and the indicator light inside the hand transmitter will go out, and the pairing is completed.  
2. Then use the same method to complete the pairing of the left hand shifter and the rear derailleur. After pairing is completed, please refer to the package for the left and right shifter buttons to be paired. For example, press and hold the right hand variable function button for a long time, and press the downshift button or upshift button at the same time to fine-tune the rear derailleur.  
3. There are small pinholes in the package. If the front derailleur has chain rubbing phenomenon during riding, you can adjust the half gear through the shifter. Example: if the chaining gear is large, then press the upshift button to trigger the half gear; if the chaining gear is small, then press the downshift button to trigger the half gear.



#### Debugging

1. Rear derailleur function button adjustment

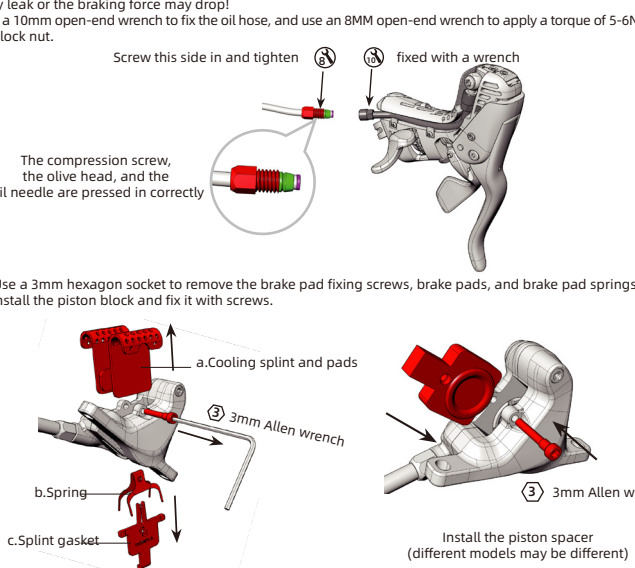
Button operation	Functional status
Press once	Decrease one gear (up chain)
Press twice	Increase one gear (down chain)
Long press for 2 seconds (or more)	The green light flashes quickly, press the up and down keys to quickly adjust, enter the continuous motion zero finding mode, and then press the green light for 2 seconds to turn off, save, and exit.
Long press for 5 seconds (or more)	Reset operation: Please lower the chain to the minimum before reset.

2. Status display of the indicator light

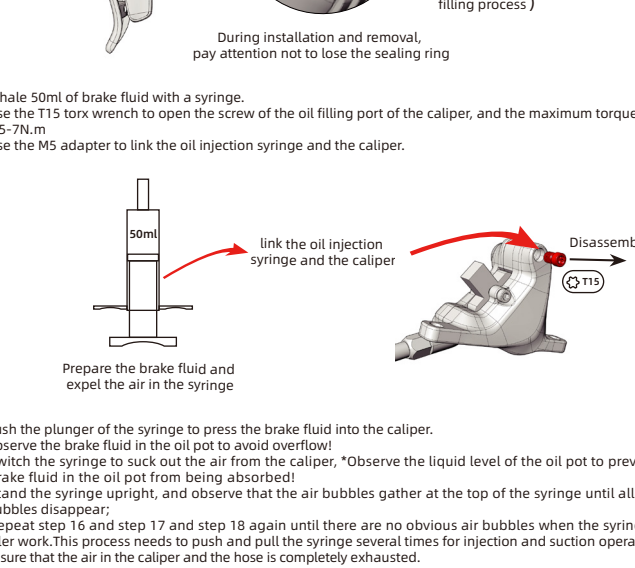
Charging status	Status display of the indicator light	
	Charging in progress	Green light flashes slowly
Charging completed	Green light stays on	
Low battery (>30%)	Yellow light flashes slowly	
Low battery (<5%)	Red light flashes slowly and shifts gears	
Working status	Shift up command	Green light flashes once
	Shift down command	Green light flashes once
	No response to shift up/down command when in highest gear	Red light flashes once
	No response to shift down command when in lowest gear	Red light flashes once
	When the battery is low (<5%) during work	Red light flashes slowly after receiving the shift signal

#### 4. Road Electronic Shifter Debugging Method (important!)

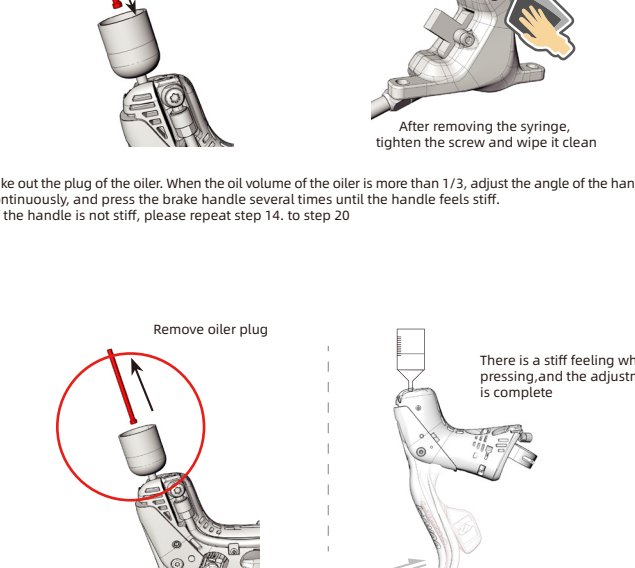
ⓐ After the bicycle is assembled, enter the debugging process. First adjust the tension screw, shift the rear derailleur and front derailleur to the lowest gear (the largest cassette and the smallest sprocket), so that the gap between the largest sprocket and the guide wheel is within 8-10mm.  
ⓑ Press the tension screw to adjust the tension of the chain. The distance between the largest sprocket and the guide wheel is 8-10mm.  
ⓒ Reference for the length of chain: Install the chain on the largest cassette and the largest chaining, then joined ends of the two chains, it is advisable to add 5 chains (including quick-links).  
ⓓ Cassette's Largest Sprocket, Chaining's Largest Sprocket, Zero Point, QUICK-LINK - 4 links.



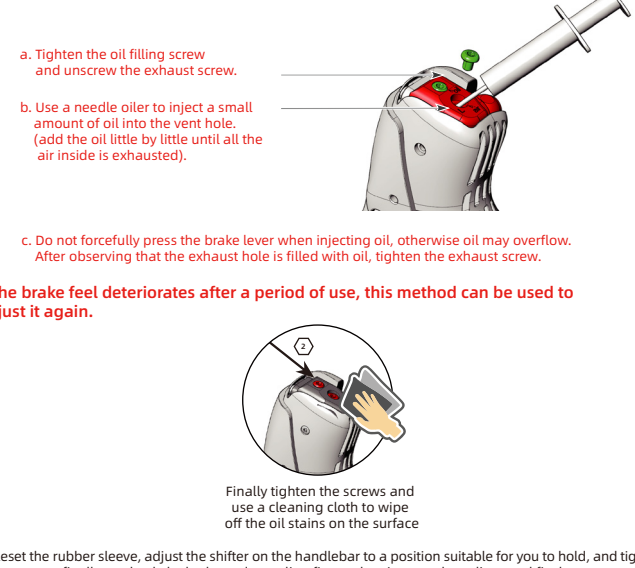
ⓔ Press the shifter again to shift the rear cassette from the 7th to small, make sure the chain is on the 7th freewheel!  
ⓕ Press and hold the multi-function button for more than 2 seconds until the indicator light enters the green light flashing state, then change the front derailleur to the inner side gear, and make fine adjustments through the shifter to confirm that the gap between the chain and the inner gear plate is within 0.5-1mm.  
ⓖ Adjust the upshift/downshift button on the right shifter. When the rear derailleur upper guide wheel is on the same vertical plane as the cassette, press and hold the rear derailleur multi-function button for more than 2 seconds until the indicator light goes out, and save the setting. (Note that short press for 1 second will also turn off the indicator light, but will not be saved.)  
ⓗ Operate the upshift key and downshift key of the shifter to check whether the shifting is accurate and smooth, and will also turn off the indicator light, but will not be saved.  
ⓓ Operate the upshift key and downshift key of the shifter to check whether the shifting is accurate and smooth, and will also turn off the indicator light, but will not be saved.  
ⓔ Front derailleur high limit adjustment: (1) First shift the rear derailleur to the highest gear (smallest cassette), turn the H screw clockwise, lock the fine-tune limit screw until it just touches the limiter, and then turn it counterclockwise H screw 1/4 turn to maintain lateral difference. (2) Then change the rear derailleur to the lowest gear (largest cassette), turn the L screw clockwise, lock the fine-tune limit screw until it just touches the limiter, then turn the H screw counterclockwise 1/4 turn to maintain the lateral difference.



ⓕ Front derailleur high limit position limit adjustment: (1) First change the rear derailleur to the lowest gear (smallest cassette), then change the front derailleur to the inner side gear, and make fine adjustments through the shifter to confirm that the gap between the chain and the inner gear plate is within 0.5-1mm. (2) First adjust the rear derailleur to the highest gear (minimum cassette), then change the front derailleur to the large gear, and make fine adjustments through the shifter to confirm that the gap between the chain and the outer guide plate is within the range of 0.5-1mm. (3) Front derailleur has chain rubbing phenomenon during riding, you can adjust the half gear through the shifter. Example: if the chaining gear is large, then press the upshift button to trigger the half gear; if the chaining gear is small, then press the downshift button to trigger the half gear.



**APP debugging operation**  
(1) Install the APP (scan the QR code on the home page to download), log in or register the APP  
(2) Click "Find Device" to bind the eXK electronic shifter (for example: RS-89001)  
(3) Set the device password (default: 000) of the eXK electronic shifter, and it will prompt that the binding is successful.



(4) Rear derailleur adjustment: gear +/-, single gear fine-tuning, Calibration  
(5) Front derailleur high limit adjustment: single gear fine-tuning, high and low limit setting, one key reset  
(6) Shifter adjustment: left and right shifter switch settings



(7) Rear derailleur calibration function: ensure that the rear derailleur and the chain are in the 7th gear, and then perform +/- fine-tuning.  
(8) Front derailleur high limit: Make sure the chain is on the largest chain ring and the smallest cassette, and then perform +/- fine-tuning.  
(9) Use a 10mm open-end wrench to fix the oil hose, and use an 8MM open-end wrench to apply a torque of 5-6N.m to the lock nut.  
(10) Click "... in the upper right corner of the device connection interface to enter the device management page, where you can modify the device password, check the status of the shifter, upgrade the firmware, restore factory settings, Speed shifting, Gear protection, Speed setting for rear derailleur continuous shifting, etc.  
(11) Other APP operations: My-personal information modification, Personal Information Settings, account setting, device list management, Version update, etc.



#### Disc series product installation manual

Get the following tools ready:

- 2mm Allen wrench
- 3mm Allen wrench
- 5mm Allen wrench
- 8mm open end wrench
- 10mm open end wrench
- T15 ring wrench
- Cutter
- Oil needle presser
- Oil injection special kit
- Solid oil
- L-TWOO mineral brake fluid
- Detergent, Cleaning cloth

1. Keep the bike fixed parallel to the ground.  
2. Remove the brake hose from the end of the shifter, and insert it into the hose connection of the brake handle (depth 13mm). \*Please be sure to fully insert the oil hose and lock the nut, otherwise the brake fluid may leak or the braking force may drop!  
3. Use a 10mm open-end wrench to fix the oil hose, and use an 8MM open-end wrench to apply a torque of 5-6N.m to the lock nut.  
4. Use a 3mm hexagon socket to remove the brake pad fixing screws, brake pads, and brake pad springs.  
5. Install the piston screw and the T15 with screws.



6. Release the fine adjustment screw first, so that the lever is at the maximum position. Keep the top of the shifter's oil drain screw level.  
7. **Notice!**  
4. Cut the brake hose to the required length.  
5. Please use a special tool for cutting hose.  
6. The cutting tool should be sharp, please use it carefully!  
7. Use a special press-in tool to install the oil needle. The press-in tool should be used vertically and flatly. The cutting length is appropriate before cutting!  
8. Pass the hose through the tight screw and the olive head in turn.  
9. Apply a small amount of high-quality solid grease to the outer surface of the pressing screw and olive head.  
10. Use a 3mm hexagon socket to remove the brake pad fixing screws, brake pads, and brake pad springs.  
11. Install the piston screw and the T15 with screws.



12. Use a 2mm hex wrench to remove the oil filling screw at the top of the shifter.  
13. Inject 1/4 of the brake fluid into the cylinder with the oiler.  
14. Inhale 50ml of brake fluid with a syringe.  
15. Use the MS adaptors to lock the injection screw of the oil filling port of the caliper, and the maximum torque value is 5-7N.m.  
16. Use the MS adaptors to lock the oil injection syringe and the caliper.



17. Push the plunger of the syringe to press the brake fluid into the caliper.  
18. \*Observe the brake fluid in the oil pot to avoid overflow!  
19. Switch the syringe to suck out the air from the caliper, \*Observe the liquid level of the oil pot to prevent the brake fluid in the oil pot from being absorbed!  
20. Stand the syringe upright, and observe that the air bubbles gather at the top of the syringe until all the air bubbles have risen to the top.  
21. Repeat step 16 and step 17 and step 18 again until there are no obvious air bubbles when the syringe and oiler are used. This process needs to push and pull the syringe several times for injection and suction operations to ensure that the air is completely removed. Note: the oiler may be exhausted.  
22. Use the plug of the oil pot to block the oil pot, remove the syringe and use the T15 ring wrench to lock the screw of the oil filling port of the caliper. Simply wipe the oil filler port with detergent and a cleaning cloth. \*The torque value of the caliper oil filling port is 5-7N.m.  
23. Insert the oiler plug to remove the oil filling funnel.  
24. Use a 2mm hex wrench to tighten the oil filling screw at the top of the shifter.  
25. Inhale 50ml of brake fluid into the oil injection syringe and the caliper.



**Note:**  
In order to get a better brake feel, we need to continue to adjust the oil injection:  
a. Tighten the oil filling screw and unscrew the exhaust screw.  
b. Use a needle caliper to inject as little as possible amount of oil into the vent hole. (add the oil little by little until all the air is sucked out).  
c. Do not forcefully press the brake lever when injecting oil, otherwise oil may overflow.  
After observing that the exhaust hole is filled with oil, tighten the exhaust screw.



25. Reset the rubber sleeve, adjust the shifter on the handlebar to a position suitable for you to hold, and tighten the screws. Finally, adjust the screws, and then give the shifter a push-pull test to see if it is OK.  
26. Finally tighten the screws and use a cleaning cloth to wipe off the oil stains on the surface.  
27. Reseat the rubber sleeve, adjust the shifter on the handlebar to a position suitable for you to hold, and tighten the screws. Finally, adjust the screws, and then give the shifter a push-pull test to see if it is OK.  
28. Effect diagram after installation



Now that the installation is complete, you can continue to install and debug other components.  
29. Thank you again for choosing and using L-TWOO products!