boulevard

e-bike manual. Model year 2019-20

Table of Contents

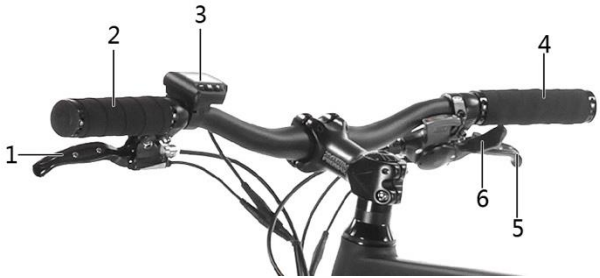
1. Rider Safety Warnings

1. Before riding please read the manual carefully and check if each component is secure to ensure a safe ride. If there are any problems, please contact your nearest dealer.
2. While riding on the road, abide by all local traffic laws. In wet conditions, ride at a slower speed than normal. Do not ride with more than one rider on the e-bike.
3. Store your e-bike in dry, ventilated areas and do not submerge in water. If the e-bike is submerged deeper than the bottom bracket, it can lead to internal circuit short-outs and damage the electrical system.
4. The battery used on this e-bike is a safe power source. To avoid any risk of electrical shock to the rider, the anode and cathode of the battery cannot come into contact with wet hands and metal at the same time. This will generate a large circuit current causing injury to the user. Please exercise extreme caution around this.
5. Do not allow inexperienced riders to ride your e-bike to avoid damage to your bike or injury to the rider. Make sure they are confident riders, and you give them suitable instruction before riding.
6. Select the lowest level of assistance on the display controller before you start riding the bike.
7. Make sure your tire pressure is in the normal PSI range (indicated on the tyre sidewall) before riding.
8. Make sure the screws on each component are tight and secure before riding.
9. This e-bike's controller has an 'overload protection' function. This function will automatically cut-off the power supply when the e-bike's electrical system is overloaded, and automatically resume when levels return to normal.
10. Turn off the power on the display when you finish your ride to avoid damaging the electrical system.
11. Turn off the power when you are walking the vehicle to avoid accidentally pressing the handle throttle or pushing the cranks around. This will cause your bike to start moving and can cause injury. Alternatively, you can use the 'walk' function (see pg 18).

2.1 Description of Boulevard Road e-bike

1. Seat post quick-release
2. Stem
3. Handlebar
4. Frame
5. Front disc brake
6. Battery location
7. Pedal
8. Rear derailleur
9. Cassette
10. Rear disc brake
11. Crankset and chainring
12. Taillight
13. Saddle
14. Seat post

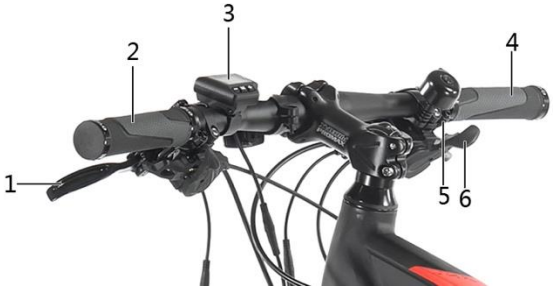
1. Left brake lever
2. Left handlebar grip
3. Meter (display)
4. Right handlebar grip
5. Right brake lever
6. Rear gear shifter



2.2 Description of Boulevard Trail e-bike

1. Seat post quick-release
2. Stem
3. Handlebar
4. Frame
5. Front disc brake
6. Battery location
7. Pedal
8. Rear derailleur
9. Casette
10. Rear disc brake
11. Crankset and chainring
12. Taillight
13. Saddle
14. Seat post

1. Left brake lever
2. Left handlebar grip
3. Meter (display)
4. Right handlebar grip
5. Right brake lever
6. Rear gear shifter



2.3 Description of Boulevard City e-bike

1. Seat post quick-release
2. Stem
3. Handlebar
4. Frame
5. Front disc brake
6. Battery location
7. Pedal
8. Rear derailleur
9. Cassette
10. Rear disc brake
11. Crankset and chainring
12. Taillight
13. Saddle
14. Seat Post

1. Left brake lever
2. Left handlebar grip
3. Meter (display)
4. Right handlebar grip
5. Right brake lever
6. Right derailleur controller

3. E-bike Unpacking and Assembly

Unpack the bike box and carefully set aside any extra accessories.

Remove the e-bike from the box, clipping the ties from the front wheel and handlebar. Next, remove the foam padding attached to the frame.

3. E-bike Unpacking and Assembling

For e-bikes that come with mud-guards, assemble the front mud-guard and headlight using an allen key on the bolt at the top of the fork.

Next, secure the mud-guard supports using a Philips head screwdriver on the screws at the bottom of the fork.

3. E-bike Unpacking and Assembly

Secure the front disc brakes with the inner six screws on the front fork disc brake mount. There are two installation methods: radial mounting and axial mounting.

Radial Mounting

OR

Axial Mounting

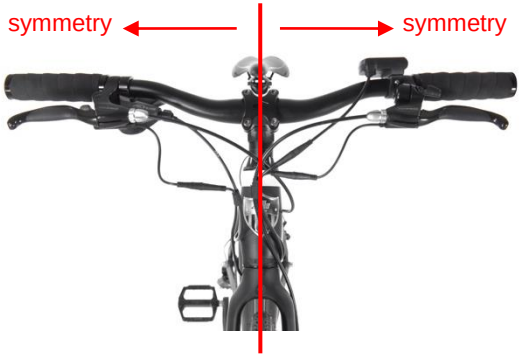
Attach the front wheel by loosening the quick-release handle, inserting the wheel into the fork so the brake rotor sits in the middle of the brake pads. Firmly tighten the front wheel using the quick release handle on the front fork while keeping the front wheel centered.

3. E-bike Unpacking and Assembly

Put the kickstand in the down position to keep the bike stationary. Place the knurled part of the handlebar into the stem faceplate and tighten the screws with an Allen key.

A. Make sure that the screws are all evenly tightened, and that there is an even gap on the top and the bottom of the stem faceplate.

B. Ensure that the handlebar is perfectly centred and set to the desired angle.



3. E-bike Unpacking and Assembly

Grease the seat post, then insert the seat post into the seat tube, adjusting to the appropriate height. Firmly tighten your seatpost using the quick-release lever.

A). The seat post must be placed into the frame deeper than the MINIMUM INSERT safety line indicated on the post.

3. E-bike Unpacking and Assembly

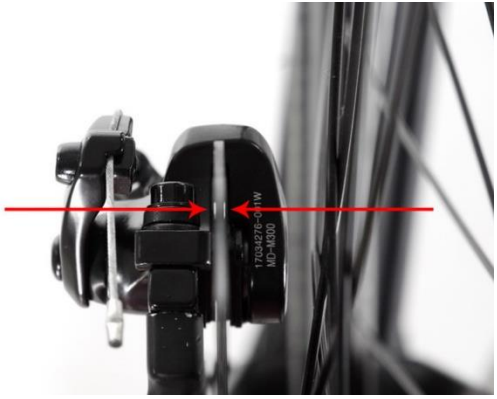
Put the pedals onto the cranks. Ensure that you have the correct left pedal going into the left crank, and vice versa. They are marked with an ‘L’ and ‘R’ accordingly. The left pedal tightens anti-clockwise, and the right pedal tightens clockwise.

4. E-bike Tuning Instructions

4.1 Disc brake Adjusting:

A). Adjust the amount of space to the right and left of the disc rotor so that the rotor does not rub on the brake pads. This is done by adjusting the position of the brake on the fork/frame by loosening off the mounting bolts, making small corrections and re-tightening them.

B). You can adjust the position of the right side brake pad by tightening or loosening the bolt on the side of the brake calliper.



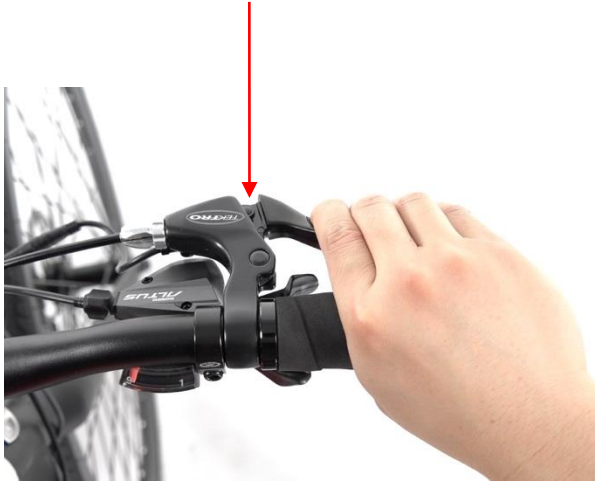
A

B

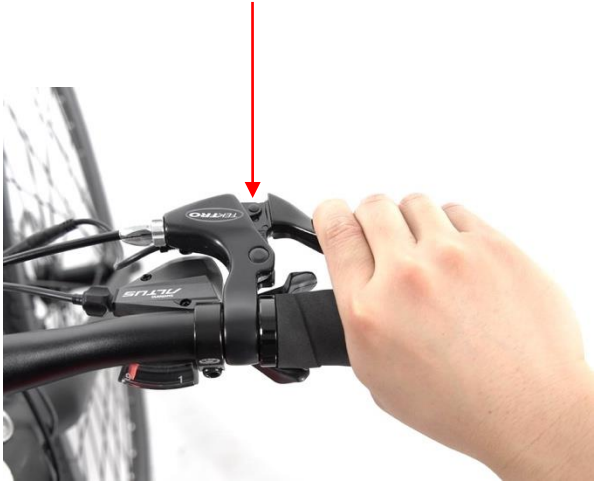
4. E-bike Tuning Instructions

C). You can adjust the brake cable tension using the micro adjuster on the brake calliper or on the brake lever.

D). Your wheel should completely stop turning when the brake lever is pulled to the halfway position.



C



D

4. E-bike Tuning Instructions

4.2. Derailleur Tuning:

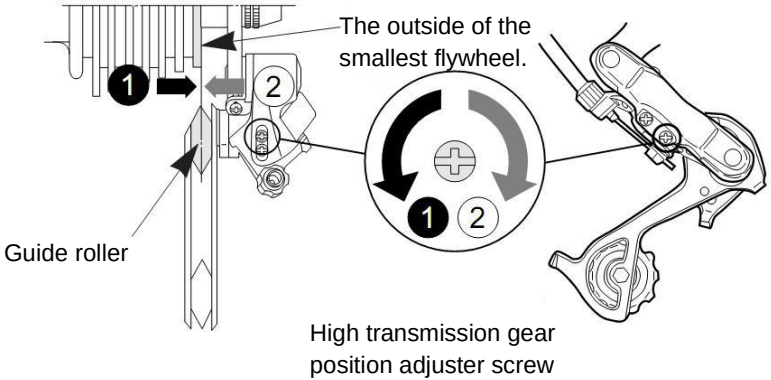
The principle of derailleur tuning: some e-bikes have a front and rear derailleur - some models only have one at the rear. For e-bikes with both, adjust the rear derailleur first and then adjust the front derailleur.

Tuning the rear derailleur:

A) Adjust the upper limit bolt with the chain in the smallest chainring at the back so that the chain cannot move past the smallest chainring.

B) Shift the chain into the largest chainring at the back.

C) Adjust the lower limit bolt so that the chain cannot move past the largest chainring.



4. E-bike Tuning Instructions

D) Shift the chain into the smallest chainring at the back and then apply appropriate tension to the gear cable using some needle nose pliers.

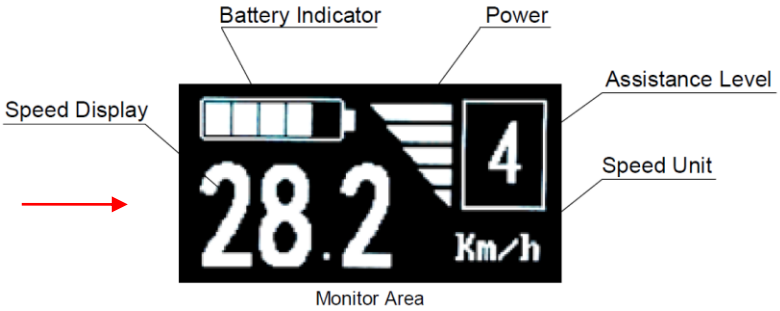
E) Fix the gear cable in place by tightening the cable clamp on the derailleur while still applying tension to the gear cable.

F) Fine tune the cable tension until the gears shift smoothly using the micro adjuster on the derailleur.

G) Adjust the chain tension screw so that the gears shift smoothly.

5. E-bike Display Instructions

A). Display Button instructions



There are three buttons () on the display that represent the following functions respectively: ‘Down’, ‘Mode’ and ‘Up’.

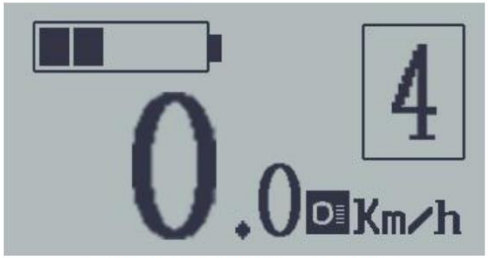
5. E-bike Display Instructions

B). Check that all the bicycle's electrical connections are in normal condition before the circuit test.

C). Hold the M button for 2 seconds to switch ON the electric bike system and display.

D). Press the + button for 2 seconds to turn ON the DISPLAY BACKGROUND LIGHT (and turn on the headlight if the e-bike has one).

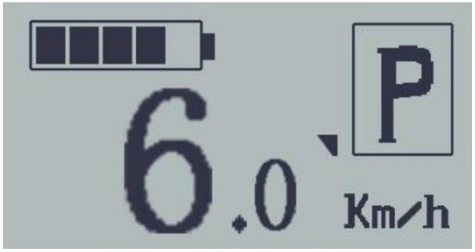
Press the + button again for 2 seconds to turn OFF the DISPLAY BACKGROUND LIGHT and headlight.



Switch On/Off the Lighting

5. E-bike Display Instructions

E). If you are walking your e-bike up a hill for instance, you can enter WALK MODE by holding the  button continuously. The bike will power beside you at a maximum speed of 6kmph. “P” is displayed on the screen at the same time. The walk-mode function switches off as soon as you release the  button.



Push-assistance Mode

F). Press  or  to change between assistance levels. Assistance Level 1 is the slowest level. The higher the number, the faster the assistance.

Assistance Level “4”

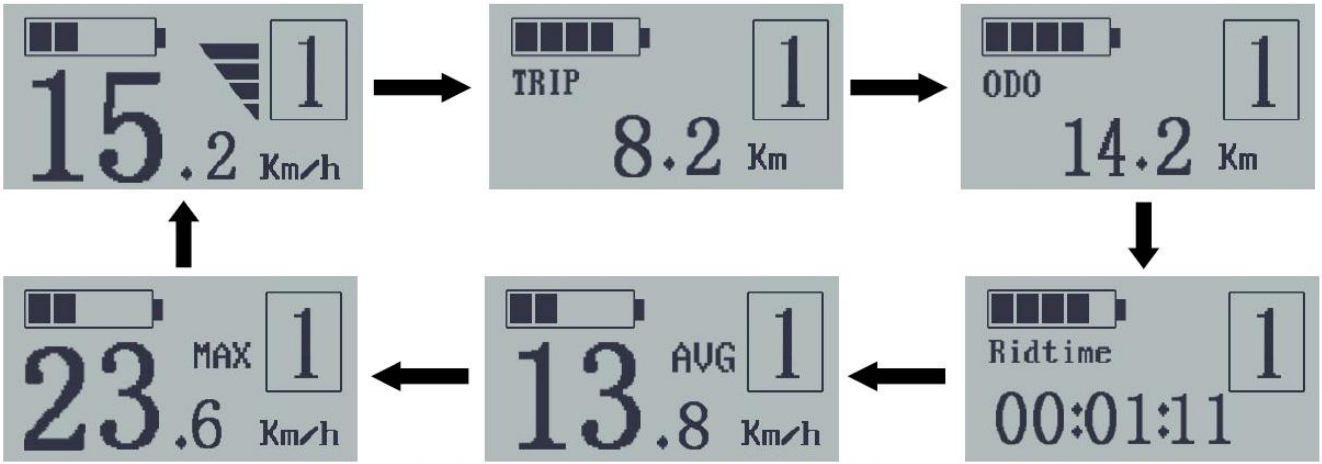
5. E-bike Display Instructions

G). After switching on the electric Bike system by holding the M button for 2 seconds, the display shows Current Speed.

To cycle through the different metrics, press the “MODE” button multiple times to show the following information:

Running Speed (Km/h) → Trip Distance (Km) →Trip Time (Hour) → Average Speed (Km/h) → Max Speed (Km/h).

Each state will display for 6 seconds and then automatically returns to the Current Speed screen. On the condition that the speed is 0 km/h, Trip Distance will be added to the circulation interface.



The circulation interface of the condition that the speed is 0 km/h

6. E-bike Troubleshooting – Dealers Only

To access the Boulevard settings menu, press the + and the − button simultaneously for 2 seconds while the bike is on. Press + or − to navigate, and use the M button to select options.

Note: This is for authorised dealer use only. Customers are not permitted to change these settings – doing so will void the warranty and Boulevard will not take any responsibility for any incidents that occur as a result of unauthorised changes.

To check if the motor is working normally, spin the cranks with any assistance level selected (except for zero) while the bike is placed up in a work stand. The indicator light underneath the bottom bracket will light up - This means the motor is working normally.

To check if the brake motor-cutout function is working correctly, hold the − button (this will enter walk mode and start the motor). At the same time, squeeze the brake to confirm that the motor stops running.

6. E-bike Troubleshooting - Dealer use only

6.1. Display Error Codes

Display error codes indicate there is a fault with the electrical system. If you encounter an error code on your display, contact your local dealer immediately for assessment/repair. Back-end settings can only be altered by authorized dealers.

Attached list 1: Error code definition

Error Code	Definition
21	Current Abnormality
22	Throttle Abnormality
23	Motor Abnormality
24	Motor Hall Abnormality
25	Brake Abnormality
30	Communication Abnormality

6. E-bike Troubleshooting – Dealer use only

A). Error “21” current abnormality:

Step 1: Check if the connectors of the controller, the battery and the display are loose or damaged, or if the contact pin is inserted crookedly;

Step 2: swap the controller for a new one and see if the error code is still displayed;

Step 3: if the problem persists, swap the motor with a new one and check if the error is still displayed;

Step 4: If the problem still persists, then change to a new wiring harness to check if the error persists;

B). Error “22” Throttle abnormality:

Step 1: Check if the connectors of the throttle and wiring harness are loose or damaged, or whether the contact pin is inserted crookedly;

Step 2: use a new throttle to test;

Step 3: If the problem persists, then change to a new wiring harness to check;

C). Error “23” Motor Abnormality and “24” Motor hall abnormality：

Step 1: Check if the connectors of the controller and motor are loose or damaged, or whether the contact pin is inserted crookedly;

Step 2: Check if the sensor light is working (i.e the light under the bottom bracket turns on when pedalling with the motor on and an assistance level is selected);

Step 3: Check if the motor is working correctly (use the walk mode test and brake motor-cutout function);

Step 4: If they are working correctly, change to a new controller;

D). Error “25” brake abnormality：

Step 1: Check whether the connectors of the brake lever, wiring harness and controller are loose or damaged, or whether the contact pin is inserted crookedly;

Step 2: Check if the left or right brake levers have any problems. Swap the levers around to check if the issue persists;

Step 3: Change to a new controller to test;
Step 4: Change to a new wiring harness to test;

E). Error "30" communication abnormity:
Step 1: Check whether the connector of display , the controller and wiring harness are loose or damaged, or whether the contact pin is inserted crookedly;
Step 2: Change to a new display to test;
Step 3: Change to a new controller to test;
Step 4: Change to a new wiring harness to test;

Problem: Motor does not assist when pedaling, the display and throttle work fine

The Display lights up, the motor works when the throttle is used or the 6km/h walk function is used, but there is no assistance when the rider pedals.

Solutions：

A). Check that the sensor works normally;
Please check the space between Magnets disc and sensor (2-3mm is normal);
Please check if the sensor light is flashing or not when the bike is pedaled;
B). Check whether the contact pin between the controller and the sensor is disconnected or inserted crookedly;
C). Change to a new controller to test.

6. E-bike Troubleshooting – Dealer use only

<u>Problem: Motor assistance does not work at all, display works fine</u>

The display lights up but the motor doesn't work – even if the throttle is used, the bike is pedalled or if the 6km/h walk mode is selected.

Solutions：

A). Check if the controller and the connecting line are loose or damaged, or if the contact pin is inserted crookedly;
B). Check if the motor connector is loose or damaged, or if the contact pin is inserted crookedly;
C). Check whether the sensor works normally or abnormally;
Please check the space between Magnets disc and sensor (2-3mm is normal);
Please check if the sensor light is flashing or not when pedaling;
D). Change to a new motor to check if the problem persists;
E). Change to a new controller to check if the problem persists;
F). If there is a motor patch cord, please check if the patch cord works normally or not;

Problem: Front or rear light does not work

Firstly, check if the batteries of the front or rear light are flat – if so, replace with new ones;

Check if the batteries are inserted correctly (positive to negative) and that they are seated correctly. Try testing with a new light to see if the issue is with the light itself rather than the battery. If there is a light module, please check if the wiring sequence is correct. If there is a head light patch cord, check if the wiring connection sequence is correct.

If the above methods are unsuccessful, please change the controller.

6. E-bike Troubleshooting – Dealer use only

<u>Problem: Motor assistance does not work and the display can not be turned on</u>

A). Please use a Multimeter to check the battery discharge voltage (36V battery voltage is generally more than 31.5V, 48V battery voltage is generally more than 42.5V.)

B). Check whether there is voltage at the battery discharge terminal by using multimeter（36V battery voltage is commonly presented higher than 31.5V, 48V battery voltage is commonly presented higher than 42.5V）

C). Check whether the battery plug is properly installed, and whether the positive and negative electrodes are installed in reverse.

D). If the display is non-functional, swap to a new display to test;

E). If the controller is non-functional, swap to a new controller to test;

F). To check if the wiring harness is normal, swap to a new harness to test.

7. Daily Maintenance Tips and Best Practice

Just like a regular bike**,** lubrication is important for maintaining your e-bike. The front fork attachment, front and rear axles, bottom bracket, pedal threads and seat posts should be greased once a year. The rest of the drivetrain, including the derailleurs and chain, should be lubricated once a week in Winter and every two weeks over Summer with a bike specific lubricant. The brake levers and cassette can also be lubricated once a month.

Battery Care

To extend the life of your battery: • Keep your battery at room temperature and avoid exposing it to extreme temperatures • Do not leave your battery in direct sunlight • Do not leave your battery for more than two months without charging it • Batteries like to be charged frequently, the ideal range is to keep your battery between 20 - 80% • Prevent draining your battery completely • Use the velcro strap around your battery to secure it to the bike frame.

Battery Safety

To protect your property and prevent harm:

- Never charge your battery unattended
- Always have smoke/fire alarms at your property
- Never charge or use a damaged battery - if in doubt, contact your dealer
- When charging on the bike, keep 1-metre of clear space around the bike
- Switch on your charger AFTER plugging it into the bike and the wall socket

Daily Maintenance Tips and Best Practice

Bike Care

- Lightly rinse your bike with fresh water if exposed to salt water/air
- Never pressure wash your bike (e.g. water blaster)
- Dry your bike and components off with a soft dry cloth
- Cover your bike if transporting it in wet weather on car carrier racks
- Recommended servicing intervals: Check-up 6 weeks after purchase, then every 3-6 months after (higher kms = more frequent service intervals)
- Check your tyre pressure every fortnight or couple of rides (PSI range is on the tyre sidewall)
- Lubricate your chain every week in Winter, and every two weeks over Summer
- Clean your bike once a week if you are using it regularly