important information

# **MAINTENANCE** MANUAL

Icon Indication Fault maintenance Safety instructions Warnings Charging

More important information





Scan the QR code to download the latest user materials and obtain the latest updates and safety instructions.



The dream of electric technology.

 ${}^{\star}\mathsf{The}\ \mathsf{pictures}\ \mathsf{shown}\ \mathsf{are}\ \mathsf{for}\ \mathsf{illustration}\ \mathsf{purposes}\ \mathsf{only}.\ \mathsf{The}\ \mathsf{actual}\ \mathsf{product}\ \mathsf{or}\ \mathsf{app}\ \mathsf{interface}\ \mathsf{may}\ \mathsf{vary}.$ 

## APP interface

Symbol	Name	Meaning	Description
ECO	ECO	Turn on/off the eco mode.	
<b>■</b>	Imperial/Metric	Speed unit selection.	
কৈ	ccs	Travel at a constant speed without pressing the accelerator or the brake.	Activate/Deactivate the cruise control mode. The default state is off. (When the mode is activated, the electric scooter will maintain a constant speed for more than 8 seconds. At this point, the speed cruise function will automatically start. By operating the throttle again or pulling the brake handle, you can exit the cruise mode.)
PAS	PAS	Pedal activation. The scooter cannot start directly in this mode.	When PAS is activated, the PAS icon will be displayed on the LCD screen.
<b>E</b>	Starting Effect	Strong start and gentle start options.	"0" indicates the most intense start, resulting in a strong momentum. "1" represents a relatively gentle start lasting for 0.5 seconds, "2" represents a relatively gentle start lasting for 1 second, and so on. "5" indicates the mildest start. The default value is "2".
ABS	ABS	ABS function control.	0 indicates that the function is turned off, while setting it to "1" means the function is enabled. The default value is 0.
EBS	EBS	EBS strength selection.	You can choose any number between 0 and 5. 0 represents the weakest state, with no EBS functionality, while 5 represents the strongest state. The default value is 1.
<b></b>	Limit Percentage	Select the driving mode according to road conditions.	You can adjust this parameter between 5% and 100%, with the default set at 100%.

## APP Interface

Symbol	Name	Meaning	Description
<b>®</b>	Wheel Diameter	Wheel diameter of the scooter.	The default diameters of different scooters are different. These diameters are set during the factory production process. Any modifications are prohibited.
€.	Pole Pairs	Motor pole pair number of the scooter.	The number of poles of the motors equipped on different scooters varies. These parameters are set in the factory and any modifications are strictly prohibited.
J <del>_</del>	Drive Mode	Select the driving mode according to road conditions.	In the "power-saving" mode, the electric scooter operates at only 50% of its maximum torque. In the "comfort" mode, the operating torque is 75% of the maximum. In the "climbing" mode, the electric scooter runs at its maximum torque. By default, the "comfort" mode has been selected. (Note: if you ride continuously in the climbing mode for a long time, the motor's temperature will rise rapidly, which may trigger the energy-saving mode.)
<b>(3)</b>	Battery Voltage	Voltage of the scooter.	Different scooters have different default voltages. These voltages are set in the factory. Any modifications are strictly prohibited.
Ē	Battery Capacity	Battery capacity display.	Switch the selection based on the current battery capacity being used.
max	Max Gear Set	Set the maximum gear position of the electric scooter.	
	Allow Others To Connect	Allows users other than the owner to connect to the electric scooter.	After the owner is bound, this function can be enabled/disabled, allowing/barring others from connecting to the electric scooter.
<b>⊕</b> †	Drive Switching	Switch between single and dual drive modes (front motor only, rear motor only, or dual motor drive).	Available for subsequent OTA (Over-the-Air) updates.
·@·	Energy Boost Pillar	When it is turned on, if charging is being performed, the vehicle's RGB lights will dynamically indicate the charging progress.	

## APP | APP interface

Symbol	Name	Meaning	Description
<b>8</b>	Unconscious Unlock	When the owner binds the Bluetooth APP, they can unlock the vehicle by bringing their phone close to it (when the password protection function in the APP is turned on).	
<b>⋈</b> ))	AVAS(Low Speed Sound)	Low-speed operation warning sound.	
TCS	TCS(Traction Control)	Traction control system(TCS).	
0	Nickname	Change the owner's name	Only support modification of English names.(Up to 30 English letters can be entered.)
<b></b> ₽D	Automatic headlight switch	Turn on or off the automatic headlight function.	Automatic sensor headlights on/off.
₩.	Headlight Brightness	Adjust the brightness of the headlights.	
BMS	Battery BMS detection	Check the status of the battery at any time.	You can check the battery-related status through the APP, such as temperature monitoring and the parameters of each cell.
<b>-</b>	Battery Monitor	Enable/Disable Battery Monitoring Function.	Enable/Disable the battery monitoring function (it can only be re-enabled via the APP). Once disabled, the smoke sensor and the battery pack temperature will no longer be monitored. This can prevent frequent false triggering of alarms.
JS.	GPS Tracker	This system allows remote tracking and locking of the scooter.	
SAFE	Safe Mode	Prevent the scooter from starting if it accidentally touches the accelerator.	When the scooter is turned on and remains stationary for N seconds (i.e., no operation, no speed), it will automatically switch to the safety mode. In the safety mode, this symbol will appear on the screen. (The time range for N seconds is from 0 to 300 seconds. 0 seconds indicates that the safety mode is not enabled.)
<del>[-</del> ]	Prevent BMS CUT	When the battery capacity drops below 20%, the scooter automatically switches to the ECO mode.	Enable/Disable the BMS power-off prevention mode. The default state is disabled. When the scooter is in energy-saving mode, it is not possible to manually turn off the energy-saving mode; if you want to manually turn off the energy-saving mode in the current mode, you need to first disable the "Prevent BMS Power-off" mode.



Symbol	Name	Meaning	Description
(i) (OFF)	Auto Power-OFF	The device will automatically shut down when not in use.	The setting range for the automatic shutdown time is from 1 to 30 minutes. The default time is 5 minutes. Note: The timing begins when the scooter stops running and has no speed.
(8)	Protection(Password)	Password protection. (You need to enter the correct password to drive.)	
G	GPS Locked	The red icon indicates that the vehicle is in a locked state.	Clicking the red icon remotely unlocks the vehicle and disables anti-theft protection.
6	GPS Not Locked	The green icon indicates that the vehicle is in an unlocked state.	Clicking the green icon enables remote GPS locking and activates anti-theft protection, even from thousands of miles away. Once locked, the vehicle becomes difficult to move due to strong resistance.  For safety, if the vehicle is moving, remote locking is only allowed when the speed is10 km/h or below.
<b>(a)</b>	Change Password	Reset a password.	
•	Firmware Update	Upgrade the system software to optimize performance and enhance functionality.	
₩.	System Reset	Force the system to shut down.	

The dashboard interfaces of different software versions may have differences in icons. The specific display is subject to the actual version of your device. The operation logic of the functions remains consistent, while the icon styles may be optimized and adjusted with version updates.

### **Trademark And Copyrights**

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We have attempted to include descriptions and instructions for all the functions of the scooter at the time of printing.

However, due to constant improvement of product features and changes of design, your scooter may differ slightly from the one shown in this document. Scan the QR Code on the cover of this manual, or visit the www.dual-tron.com to download the latest electronic version. Please note that there are multiple models with different functions, and some of the functions mentioned herein may not be applicable to your unit. The manufacturer reserves the right to change the design and functionality of the scooter product and document without prior notice. Zhejiang Dualtron Escooter Co. Ltd. All rights reserved.

(XThe Dualtron App can support scooter with built-in Bluetooth)





The product functions may be adjusted due to technological advancements, regulatory requirements, or differences in production batches. The specific range of function support is subject to the actual identification by the equipment and the display on the APP.

Single Drive	Right turn signal indicator	Brake power-off circuit activation indicator	RANGE	TRIP	<b>≣</b> A
The rear motor provides the power, and the APP can be used to manually adjust.	It is green when turned on, and gray when not turned on.	It is blue when turned on, and gray when not turned on.	Mileage - Remaining Driving Range	Mileage - Single Mileage	Automatic high-beam light activation
Double-Drive	Left turn signal indicator	** Bluetooth connected	km/h	ODO	<b>E</b>
Both the front and rear motors provide power, and the APP allows for manual adjustment.	It is green when turned on, and gray when not turned on.	Connected state is blue, disconnected state is gray.	Speed unit - kilometers per hour	Mileage - Cumulative Mileage	Automatic low beam headlights activation

### **Automatic Headlight Function Description**

Function control:

Only supports enabling/disabling the automatic headlights function via the mobile app.

When the automatic headlights are on, operating the mechanical headlights button will immediately deactivate this function (to re-enable the function, the vehicle needs to be restarted)

Light Memory:

When the function is enabled, the lighting status will revert to the previous one.

Automatic headlights function activated:

- 1. Headlights turned off: Displays "Auto" (the new icon)
- 2. Headlights turned on: Displays high and low beams (with "A" icon)
- Automatic headlight function deactivated:
- 1. Headlights are turned off, no icons are displayed.
- 2. Headlights are on: Displays the icon for high and low beams without the letter "A".



Dipped Headlight Headlights On Full Beam



## **Common Failures and Solutions**

Error Symbol	Possible Causes	Solution
<b>₩</b>	Throttle failure	Please contact after-sales service or an authorized dealer.
[M]	Motor failure	Please contact after-sales service or an authorized dealer.
-\ECU	Controller failure	Please contact after-sales service or an authorized dealer.
<b>B</b> °	Over-temperature protection	Please try to apply heat dissipation for the scooter.
(BMS)	BMS error	Please contact the after-sales service or the authorized dealer.
⚠	Double flashing / warning light activation indicator	Confirm whether the double flash/warning lights were activated manually.
શુ	Multiple Fault Alert	Please contact the after-sales service or the authorized dealer.

When the scooter breaks down, you need to check the APP to view the specific error code. When there is a fault, please contact after-sales service or an authorized dealer.





### Trickle charge

Normal charging state

When charging with a single or combined charger, if the total charging current is less than 7A, it will enter the normal charging state.



## High battery pack temperature

After engaging in aggressive driving, the battery pack temperature exceeded 55°C immediately. / Other external factors caused the battery pack temperature to rise above 55°C.

Wait until the battery pack temperature returns to the normal range before charging.



The product functions may be adjusted due to technological advancements, regulatory requirements, or differences in production batches. The specific range of function support is subject to the actual identification by the equipment and the display on the APP.



### Quick charge Fast charging status

When charging with a single or combined charger, if the total charging current exceeds 7A, it will enter the fast charging mode.



### Parking gear

Just guide the operation with your fingers (grab the brake handle and then press the TURBO switch), and the parking gear can be released.



## The charger model is not compatible.

Excessive charging power / Using a charger of an incompatible model

Replace with a charger of the matching model



### System upgrade

During the system upgrade, the instrument display screen shows the following information. For the actual system upgrade operation, please refer to the official announcement.





### Ride Mode

### Status:

The default cycling interface is displayed in blue.

#### Function:

In this mode, the vehicle operates at standard power, providing a balanced speed and power output.

### Operation:

No additional actions are required. Once the vehicle is started, it will automatically enter this mode.



### ECO mode

### Status:

The interface has switched to green.

#### • Function:

Reduce output current and speed to increase the range of travel, suitable for smooth riding or energy-saving needs.

### Operation:

Manually turn on/off via the function key of the APP. **Note:** 

## In this mode, the Turbo mode cannot be enabled. The response to the power is relatively gentle. It is recommended to use it when the road conditions are good.



### TURBO mode

### • Status:

The interface switches to red.

### • Function:

Temporarily boosts the output current to achieve greater power (lasting at least 20 seconds), suitable for overtaking or climbing hills. After the countdown ends, the Turbo mode automatically exits and returns to standard power output.

#### Operation:

Press the Turbo button briefly to enter Turbo mode. The Turbo light will remain on constantly. Exit the mode (automatically exit when any of the following conditions are met):

The countdown ends (the Turbo light will flash in the last 5 seconds to indicate the end of the Turbo function is approaching).

Release the accelerator to trigger exit.

Note: The Turbo mode cannot be enabled in ECO mode.





- Scooters are not a means of transportation and are prohibited from riding on public transport roads. Please abide by local laws, regulations and policies when riding.
- 2. Scooter is an entertainment product. You need to master the riding skills through practice. Dualtron will not be liable for any damage caused by inexperience of riders or failure to use this product according to this manual.
- 3.In order to reduce the risk of injury, please read and follow all the "CAUTION" and "WARNING" in this manual. Do not exceed the speed limit.

  In any case don't drive on the road where there are motor vehicles.
- 4. Following the tips and warnings in this manual can reduce risks, but not eliminate all risks. Please remember that you may be at risk of injury or death due to loss of control, collision and fall when using the scooter. The scooter is only suitable for flat and hard roads, and it is recommended to use it in a relatively closed and open road environment. Do not pass through places with obstacles and protrusions. When entering a strange environment, keep alert and slow down.

### **Riding Safety**

- 1. Please do not accelerate or decelerate suddenly. When riding, please always hold the handlebars with both hands and stand on the pedals with both feet. Please do not drive at a speed exceeding the limit of the scooter, otherwise you may lose control, collide and fall.
- 2. In order to avoid distraction when riding a scooter, do not wear earphones, earplugs, make calls, take photos, take videos or do any activities unrelated to riding, so as to monitor the external environment well when riding.
- 3. For whatever reason, please do not ride the scooter under the conditions of snow, rain, wet, muddy and ice. When riding in rainy and snowy days, water may enter the scooter, leading to the risk of functional damage, fire and even explosion caused by the damp battery. Damages and losses caused by water ingress are not covered by the warranty.
- 4. This product is suitable for users aged between 16 and 60.
- 5. Riders should wear helmets, knee pads, elbow pads and other safety protective equipment. Please use a qualified bicycle or scooter helmet and tie the strap at a suitable position on your chin.
- 6. High heels, slippers and open toed shoes are prohibited. Long hair needs to be tied up to avoid accidents due to the fact that the hair blocks the sight and affects the normal riding.
- 7. Before riding the skateboard vehicle, please carefully check the vehicle body to ensure that there is no sign of looseness or damage in any part including wheels, brakes, screws, etc., and that the vehicle is in a proper waiting state.
- 8. Only use parts and accessories specified or approved by dualtron. Do not modify your scooter. The modification of the scooter may affect the operation of the scooter, resulting in serious damage and warranty invalidation.

# Warnings





Be sure to wear safety equipment! Always wear a helmet, elbow pads and knee pads when riding.



Be careful of water!

This product and components are not waterproof. Don't let water get into the product and components.



No acrobatics

DO NOT ride up and down stairs or jump over obstacles.



No companion boarding DO NOT carry any passengers



Don't tune by yourself!

Do not open or tune the electric parts (battery, controller or motor system,





Comply with local laws

to the place of use.



driving at low speed

Beginners who are not accustomed to use the product, seniors and others should avoid high speed mode driving and recommend low speed driving.



### Do not suddenly brake with front brake

If there is a risk of overturning. safely.Do not apply any unusual behaviors or artificial forces, such as proper brake use. stopping with your feet.



### Do not accelerate downhill

Slow down at downhill. When reducing the speed, to prevent brake sudden deceleration should be done overheat, use the brakes properly to reduce the heat on the disk with



### Do not drive on steep slopes

Each product has a different degree of acceptable climbing, do not ride excessively on mountain roads.





Unlicensed, driving after drinking, loading

cargo on the scooter is prohibited. (More

than bike or bicycle license is required)

Please comply with the Road Traffic.Act

and related laws and regulations according

### Safety warning when lifting the product

If the product is lifted by holding only the handle, there is a possibility that the product may be damaged due to deformation of the folding part due to load or movement of the product. When lifting the product, be sure to hold the product's body (footrest) with one hand and hold the handle with the other hand so that you do not get hurt in your back or knees.

### NOTE

\*Kickstand must be deployed when the scooter is not in use.

\*Any type of load attached to the handlebar will affect the vehicle's stability.

\*The vehicle must be used by only one person at a time.

\*Must keep plastic covers out of reach of children to prevent possible choking.

\*Please avoid areas with heavy traffic and overcrowding.

\*Please anticipate trajectory and speed to respect traffic rules and vulnerable road users.

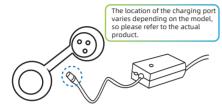
\*Please notify presence to other road users when not seen or heard.

\*Please cross protected passages on foot

\*Please remove sharp edges that may have formed on the scooter through use.

\*Please contact the seller to get where to find a maintenance shop for your scooter.





### **Basic charging method**



 Manufacturers and sellers are not responsible for any problems arising from any disassembly, modification, or mixing with other chargers.



4. Children and pets should not be allowed to approach the charger when they come into contact with them, as they may cause an electric shock.



 The charger is forbidden to be used in places subject to high humidity, heat, flammable materials, confined spaces, or where there is no ventilation such as in a car.

household outlet.

difference, but this is normal.



5. If the charger lamp does not light, charger fall down, strong external shock, long time charge, or cable cover damage, discontinue use immediately and contact the service center.



1. Open the charger port cap and connect it to the connector of the charger and connect it to the

4. When connecting the connector to the charger port, there may be metallic sparks due to voltage

\*Never connect charger to the household outletthe socket when not in use. If the charger connected to the power socket but not to the scooter more than 1 min, charging protection function would be activated. The charger will remain green light and have no output. Need to unplug all the connectors

\* Failure of the charger and abnormal conditions can cause electric shock and fireLearn the correct

3. Be sure to close the charger port cap when driving or storing except when charging.

of the charger and leave it for more than 3 minutes to remove the protection.

2. Charging status indicator (Red) Charging, (Green) Charging complete.

usage and prevent safety accidents in advance.

3. The charger is not waterproof. It is thoroughly controlled to prevent moisture from entering the charger.



Unplug the charger when you are away from the home for long periods.

- 7. Use only genuine charger.
- 8. Do not touch the plug for about 10 seconds after unplugging the charger. There is a risk of electric shock from instantaneous discharge.
- 9. Do not remove the terminal during charging. Otherwise you may charge the internal circuit of the charger and cause malfunction.
- 10. Do not operate the product during charging.
- 11. Charging terminals should be firmly contacted during charging and should not be used if terminals are corroded or damaged.
- 12. When disconnecting the charger from the product, it is safe to hold the terminal without holding the wire.
- 13. Be sure to keep the charger disconnected from the product after the charging is complete. The charger must be disconnected if it is not used for longer than a few days, as there is a risk of overcharging when charging more than the time indicated on the product specifications.



### **Basic charging method**

- 1) Care Lithium batteries should be protected from direct exposure to children and pets.
- 2) Performance 1. Lithium battery is affected by external temperature. In the winter, when the temperatures are low, the performance of the battery may be temporarily deteriorated and the mileage and power output is reduced.
- 2. Lithium battery has a characteristic that discharge performance is reduced by more than 15% when charging / discharging 300 times or more. If usage time is shortened due to long usage, it should be replaced with a genuine one through the nearest point.
- 3) Charging 1. Lithium battery should be used only with genuine battery and charger supplied from the manufacturer. Any problems caused by use of battery made by the manufacturer, mixed use, or using the charger are not covered by the manufacturer.
- 2. Charging the lithium battery with a non-genuine charger may cause malfunction or fire.
- 3. The lithium battery should be charged in a well-ventilated, dry place and around the charger in a place where there is no flammable material.
- 4. Lithium battery should be charged at 0 ~ 45°C and discharged within -10 ~ 60°C. The sub-battery must be charged at 0 to 50°C and discharged within -20 to 75°C. Charging or discharging at a temperature outside this range may cause malfunction, fire or explosion.
- 5. In case of moving from cold outside to warm indoor, please charge it after 1 ~ 2 hours. This is to prevent condensation from occurring inside the product due to the temperature difference.
- 4) Storage 1. Lithium batteries should be kept away from snow, rain and direct sunlight. Do not store or charge them in a trunk or hot room. Select a dry place and store at room temperature (10 ~ 20°C).
- 2. When storing for more than 3 months, charge the remaining battery levelto 70 ~ 80% (do not store full charge).
- 5) Trouble symptom, safety 1. Lithium battery should be discontinued immediately if it is damaged or there is leakage of battery, sour odor, appearance deformation, etc. Please contact the place of purchase to get technical support and service.
- 2. If overheat, smoke, or ignition is detected in a product with lithium battery, immediately stop charging and use, move the product outdoors as soon as possible, and then use a fire extinguisher to extinguish flames. Do not spray water or immerse the product in any situation, which can lead to more danger.
- 3. Lithium battery pack has very high energy density, so if you charge the battery for a long time and there is a case of short-circuit, leakage, bad battery, etc., it can lead to ignition. Therefore, you should avoid charging for a long time without a personbeing present to avoid therisk of unexpected fire.
- 6) Misuse If the lithium battery is short-circuited, the polarity is changed, or if the battery is impacted, malfunction or fire may result. If you think that the battery has been impacted, you should stop charging and using it and visit the nearest service center for inspection.
- 7) Water inflow It should be controlled to prevent water inflow into the lithium battery. There is a risk of fire or electric shock if the charger is connected while moisture is present.
- 8) Caution Disconnect the battery from the main unit except when recharging and reinstalling. Do not use for any other purpose.
- 9) Disposal When disposing of the lithium battery, the battery should be separated from the product at the point of purchase or near the service center and the charge and discharge terminals are not shortcircuited. Dispose of it as industrial waste.



Battery disassembly prohibited
Battery disassembly, modification, and repair are not covered under warranty.





WARNING Sun exposure and extreme temperature conditions (overheating and extreme cold) will accelerate the aging of plastic parts and may lead to a decrease in battery life.

### **Recommended Maintenance Schedule**

For your riding safety, please be sure to maintain and check your scooter regularly. You are familiar with and understand the frequency, condition and place of use of your scooter, and are responsible for regular inspection of your scooter. If any abnormality is found, please stop using it immediately and go to the authorized outlet for inspection and maintenance in time. The following table is our recommended regular maintenance items and cycles.

The description of the propulsion system technology and its detailed method of operation.

"WARNING! Stop using the product when damaged"

"WARNING! As with any mechanical component, a vehicle is subject to high stresses and wear. The various materials and components may react differently to wear or fatigue. If the expected service life for a component has been exceeded, it may break suddenly, therefore risking causing injuries to the user. Cracks, scratches and discoloration in the areas subject to high stresses indicate that the component has exceeded its service life and should be replaced."

An instruction to keep the printed instructions for further reference and to be read carefully before use.

In all cases, take care of yourself and others.

Do not divert the use of the vehicle.

ltem	Component	Maintenance Method	Every 3 months	Every 6 months or every 310 miles (500 km)	After 1 year or the total mileage>1864 miles(3000km)
	Mainframe parts	Use a soft, wet cloth to wipe the mainframe clean.	V	√	√
	Tire pressure	Inflate the tires to 32–38 psi. Note: Don't forget to tighten the valve cap after inflation.	J	J	V
	Tire wear	Check if the tires are cracked, deformed, or significantly worn.		1	J
Mainframe maintenance		Tighten the screws that secure the handlebar to the stem.  The recommended torque is 6–8 N·m.	J	V	V
	Screws on the stem top	Tighten the throttle screw. The recommended torque is 4–4.5 N·m. Tighten the brake lever screws. The recommended torque is $8.5\pm0.5$ N·m. Tighten the stem top screws. The recommended torque is $2.4$ N·m.		√	J

## Maintenance and Care

Item	Component	Maintenance Method	Every 3 months	Every 6 months or every 310 miles (500 km)	After 1 year or the total mileage> 1864miles (3000km)
	Screws on the folding mechanism	Tighten the screws on the folding mechanism. The recommended torque is $15\pm1\mathrm{N}\cdot\mathrm{m}$ . If the stem becomes shaky while riding, tighten the screws again when the scooter is in its folded state.		√	√
Mainframe maintenance	Brake disc assembly	Tighten the screws on the brake disc assembly. The suggested torque is 8.5±0.5 N⋅m.		√	√
	Front & rear suspension	Before each ride, check whether the suspension screws are loose or have slipped. Maintenance is required at a service center every 500 km.		V	
	Hub motor	During acceleration and deceleration, check whether the hub motor is stalled or making abnormal sounds.		1	V
	Rear wheel maintenance	Check whether the rear wheel is stalled or wobbles, or if the axle shaft is unbalanced.		V	√
Function Inspection	Brake adjustment	Squeeze the brake levers 5 to 8 times to ensure the caliper grips the rotor with the brake pads     Tighten the caliper bolts. The recommended torque is 8.5 + 0.5 N.m.     Release the brake levers and spin the wheels. If the brake pads contact the rotor, loosen the caliper bolts and repeat step 1.  4.If necessary, adjust the pushrod using a 2 mm wrench. Rotate clockwise to increase the distance between the brake lever and the handlebar, or counterclockwise to decrease it.		J	J
	Brake pads	The disc brake has a self-repairing function, but the brake pads must be replaced when they are significantly worn.  If the brake levers feel spongy when pressed or the rotor makes abnormal sounds, stop riding immediately and replace the brake pads.	V	√	V

# Maintenance and Care

Item	Component	Maintenance Method	Every 3 months	Every 6 months or every 310 miles (500 km)	After 1 year or the total mileage>1864 miles(3000km)
	Hydraulic brake	If you experience poor brake performance, it is recommended to contact the after-sales service or an authorized dealer to replace the brake fluid (mineral oil model: BK407).		V	V
	Brake rotor	Spin the wheels. The caliper should be aligned with the rotor, and it should not rub against the brake pads.  WARNING: Do not touch the disc brake after riding or braking, as it can become hot.		1	1
	Taillight	Squeeze the brake levers, the taillight works normally.		J	J
	Headlight	Check the headlight and see if it lights brightly.		1	1
Fault	Dashboard	Power on the scooter, the dashboard works properly.		<b>√</b>	√
detection	Horn	Press the button, the sound is loud.		V	V
	Throttle	Twist the throttle and release it, checking for acceleration and deceleration.  Note: After releasing it, check whether the throttle handle returns to its original position.		√	√
	Fault detection	After connecting with the Dualtron app: Update the firmware to the latest version. Check whether a notification showing the corresponding error code and its possible causes appears when the scooter detects an error.		√	1
	Charging	Check the charging indicator on the dashboard. Check the LED indicator on the battery charger. Charging: Red   Fully charged: Green		<b>√</b>	J
	Control switches	Press or rotate the left/right control switches three times without malfunction.		<b>V</b>	√
	Turning	Test left and right turns. There should be no resistance or lag while turning.		1	J

## Maintenance and Care

Item	Component	Maintenance Method	Every 3 months	Every 6 months or every 310 miles (500 km)	After 1 year or the total mileage>1864 miles(3000km)
Important parts	Battery assembly	The battery needs to be replaced after it has been charged and discharged 500 times, or when the total mileage exceeds 6,213 miles (10,000 km).  Note: For long-term storage, it is recommended to charge the battery once every 60 days.			
	Controller				
	Hub motor				
	Rear wheel assembly				
Functional	Throttle & Brake levers				
parts	Front fork assembly	It is required that original Dualtron parts shall be used for repairs and replacements.			√
	Folding mechanism				
	Brake rotor				
	Disc brake assembly				
	Dashboard				

# Legal Statement

IMPORTANT: A user shall carefully read the entire User Manual and fully understand it (especially for the content related to warnings, caution statements, product operation and safety), and adhere to the foregoing instructions herein before using this scooter. A user shall always use his / her common sense and best judgment when using the product. An owner of this product shall not allow anyone and/or cause another person to use it unless that person is clearly informed of the foregoing warnings and agrees to comply with it.

- 1. Before using this product, riders must carefully read this manual to ensure the correct use of this product. If the rider cannot ride in full accordance with the instructions in this manual, please do not try to ride the scooter.
- 2. Please purchase insurance in time after purchasing the product, so as to minimize the use risk.
- 3. You have the obligation to know all the relevant laws and regulations on riding scooters in your area, and strictly abide by the applicable laws, regulations and policies when riding this product.
  - Do not ride scooters in areas prohibited by local laws. When riding in countries and regions where there are no relevant regulations on electric scooters, please strictly abide by the safety requirements for riders in this manual. Dualtron will not assume any responsibility for any property loss, personal injury / death, accident or legal dispute caused by the use behavior violating the safety tips in this manual.
  - When you receive this product, please immediately check whether the product and accessories are intact and complete. All components must be correctly installed in accordance with the instructions. Improper installation may lead to the risk of runaway, collision or falling.
- 5. Please avoid using non original batteries and accessories. It is forbidden to disassemble, crack and modify this product and components without authorization. Any damage and loss caused thereby will be borne by you.
- 6. The data and parameters of the scooter are different with different models, and are subject to change without notice.

Thank you again for your choice and trust in this product.

