

BOLZZEN

COMVIANDO.

ELECTRIC SCOOTER
USER MANUAL

 www.bolzzen.com





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BEFORE READING MANUAL


This manual contains important information to help you use your scooter in the safest way possible.

 **DANGER** Indicates a hazardous situation that will result in serious injury.

 **WARNING** Indicates a hazardous situation that could result in serious injury.

 **CAUTION** Indicates a hazardous situation that could result in minor or moderate injury.

BEFORE READING MANUAL

 Please read this manual carefully before using this Scooter

General safety guidelines and restrictions

Even if your scooter is within the warranty period, you may be liable for any accident caused by any of the following causes.

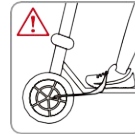


1. Be careful of water!

This product and components are **NOT** waterproof. Do not let water get into your scooter and components.

*Never use your scooter if the road is wet due to rain, snow or hailstone.

*If you wash your scooter the electrical components may be vulnerable for water ingress so please take extreme care when doing so as this can result in malfunction and/or permanent damage.



2. Beware of folding and moving parts!

If parts of the body, such as a finger or hair, get caught in the moving or folding parts of the scooter, this may lead to severe injuries. Please be careful.



3. No stunts or tricks

Stunts and tricks such as jumping, wheel-stands etc are strictly prohibited as they can cause malfunction, permanent damage & increase risk of accidents resulting in injury.



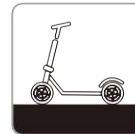
4. No companion boarding

This scooter is intended for one adult only, so children, infants, or two people are prohibited from boarding.



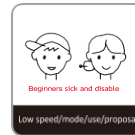
5. Self-maintenance

Do not open or modify any electrical component including but not limited to batteries, controllers or motors. Doing so will void your warranty. Changing of brake pads, tubes, tyres and other general **non-electrical** maintenance is encouraged.



6. Laws and regulations

Certain States and Territories of Australia either prohibit the use of, or have specific laws in place for the use of this Bolzen scooter. Please comply with the applicable laws and regulations of your location and operate this scooter safely, legally and with enjoyment.



7. Novice riders

Novice riders who are not experienced in riding electric scooters should avoid high speed mode riding and recommend low speed riding.



8. Use of brakes

Sudden braking should be done safely. To do this you will need to apply equal amount of pressure to both front and rear brakes. Using excess pressure on the front opposed to the rear could result in the scooter overturning forwards.

With this in mind, it is certainly not recommended to only use the rear brakes which will reduce stopping power and cause uneven wear of your brake pads.



9. Riding on inclines

Acceptable gradeability is different for each scooter. Excessive inclines exceeding the specification may cause damage to the electrical components due to temperature cut, overcurrent or low voltage cut, which may cause the scooter to malfunction.



10. Safety warning when lifting the product

Please always lift the scooter with at least one other person. When lifting the scooter, please use correct lifting procedures to avoid injury.



11. Safety gear

For your safety, be sure to wear a full face helmet and other protective gear (knees, elbows, hands, upper body) and do not wear inappropriate footwear such as thongs, high heels etc. that can hinder safe riding.

2 Precaution before riding

1 Night riding should be avoided where possible. If doing so, all scooter lights should be switched on and a high visibility vest is strongly encouraged.

2 Select the mode that best suits your riding ability. In order to handle sudden situations, be prepared to slow down and brake at all times.

3 When turning left / right, slow down to avoid the danger of overturning or slipping, then turn safely.

4 When crossing a pedestrian crossing, dismount and walk alongside the scooter.

5 Do not ride in a way that threatens any other means of transport, such as pedestrians, bicycles, motorcycles, cars and trucks etc.

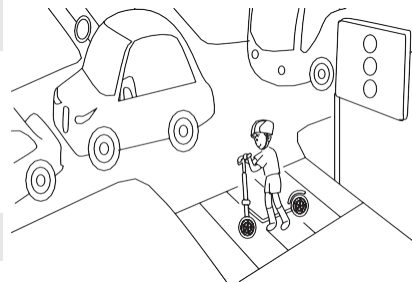
6 When passing speed bumps and road obstacles, be sure to slow down.

7 When decelerating or braking, do not stop with your foot, but by using the brake appropriately.

8 Beware of the risk of burns due to heat from the motor and brake (especially disc rotor) after riding.

9 Always keep two hands firmly on the handlebars whilst riding. Due to small diameter of scooter wheels/tyres relaxed or one-handed riding will almost certainly result in an accident.

10 Do not ride with the kick stand down.



SCOOTER DIMENSIONS

Scooter size



Handlebar

NFC Reader

Display / Throttle



Lights / Indicators / Horn

Single / dual motor switch

COMPONENTS LIST / DIAGRAM



WHAT'S IN THE BOX?



Scooter



Welcome Card
(QR Code to User Manual)

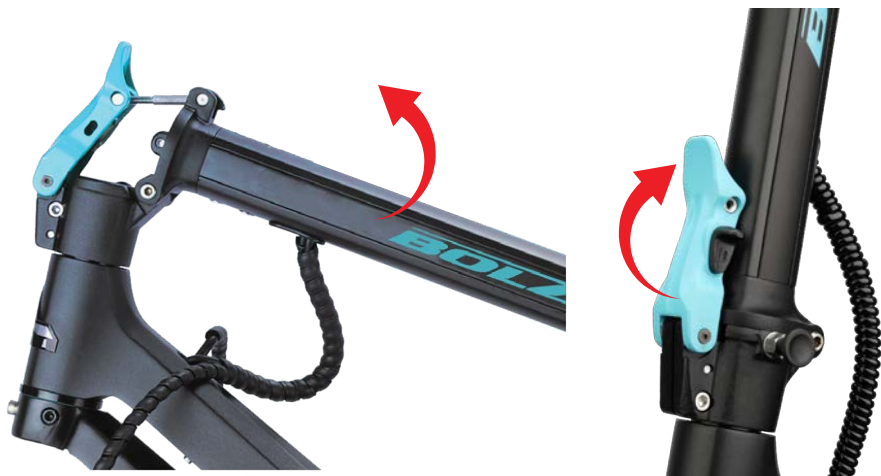


Charger



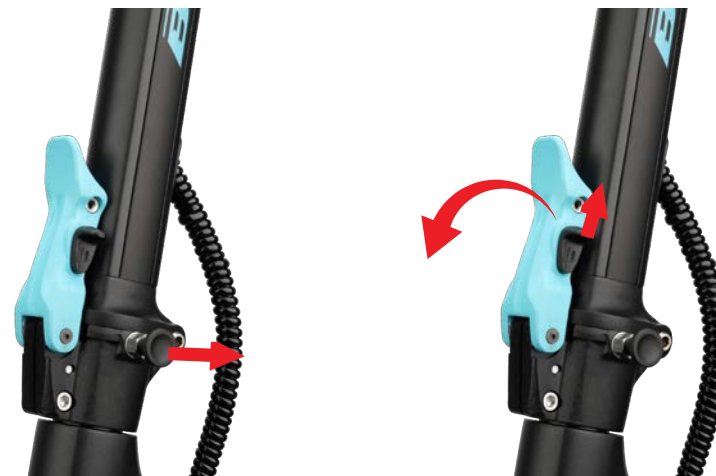
Tool

HOW TO FOLD



Lift the main stem into a vertical position and fasten locking handle.

HOW TO UNFOLD



Pull the locking pin

Pull out the locking handle

Tighten to 8Nm



DONE!

HOW TO USE THE LCD DISPLAY



1) Speed step setting

Can adjust with button.
 While the LCD Display is on, press to set the speed mode.
 The setting is completed when the selected speed mode value is selected.
 * Blinks 3 times per 10 seconds when the remaining battery power is 10%.
 It blinks continuously when the remaining battery power is < 10%.

2) Functions and settings for each main screen mode



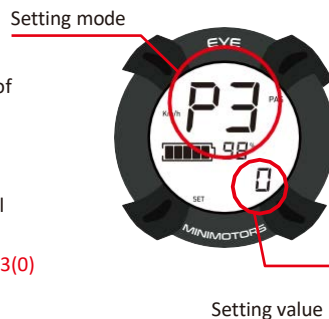
MODE	Description
PRIP	Current mileage (Press and hold mode button to reset to "0")
ODO	Accumulated mileage
CHA	Not in use
VOA	Current voltage
TIME	Ride time

3) LCD Display detailed function

You can change the setting mode by turning on the power of the dashboard and pressing for 2~3 seconds.

In the setting mode, press once to change the internal setting value

* If you change default setting value P0(13), P1(72), 3 P2(15), P3(0) the exact information is not displayed.



P0 9(Fixed)	P1 48V-48 (Fixed)	P2 15(Fixed)	P3 0(Fixed)	P4 Speed unit 0(km/h),1(mp/h)
P5 Start method 0(Acceleration start), 1(Kick start)	P6 Cruise mode 0(OFF), 1(ON)	P7 Slow start 0(Off:Power start) ~5(Slow start)	P8 Max output 5~100% (User adjust)	P9 Battery save 1(MAX SAVE) 2(MID SAVE) 3(NO SAVE)
PA Electronic LCD brake power 0(Off) ~5(Power full)	Pb LCD brightness control 0(Backlightoff) ~5(Brightest)	PC Auto off time setting 5~30 minutes	Pd ABS setting 0(OFF), 1(ON)	

4) Features of cruise mode (automatic riding)

The cruise control function allows you to maintain the riding speed automatically. Take advantage of cruise features to reduce fatigue when traveling long distances and to increase mileage of riding due to constant speed riding.

- To start cruise function
To activate cruise function, P6 in settings must be turned on. Once selected, maintain the same speed for 7 seconds. Cruise function will then start.



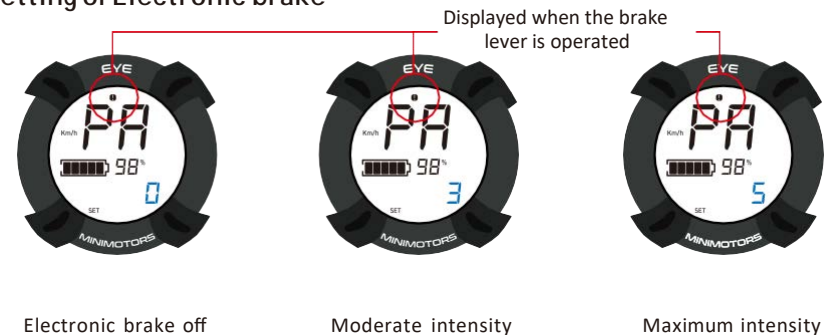
- Cancel cruise function
When you hold and release the brake while cruise mode is in effect, the cruise mode is automatically cancelled.

• Precautions when using the cruise function

While using cruise function, please ride in a position where brakes can be used immediately so that cruise function is canceled, and braking is possible in preparation for safety situation while riding.



5) Setting of Electronic brake



Electronic brake off

Moderate intensity

Maximum intensity

HOW TO USE THE LCD DISPLAY

Precautions when using electronic brake after a full battery charge



The electronic brakes do not operate when the battery is fully charged, so be sure to check and operate this device.

When the battery is used a little, the electronic brake will operate normally.

6) ABS function setting guide

All electric scooters are subject to sudden braking, causing the wheels to stop spinning (Tire Lock). As a result, the slip of tire can cause the driver to fall down, which can cause accidents. This product is equipped with ABS brake function to reduce the tire lock, enabling more secure braking.



Set the ABS function part Pd of the dashboard to 1.

- (1) ABS function ON
- (2) ABS function OFF

Set the ABS function part Pd of the dashboard to 0.

※ If Pd - ABS function 1 (ON), PA - electronic brake function will operate maximum, when the ABS function is disabled, the previously set electronic brake actuation value is applied.

※ ABS brake is an abbreviation of Anti-Lock Brake System. It uses the principle that maximum static friction force is larger than kinetic friction, so that braking distance (distance from breaking to stopping) is shorter than the normal brake. It is a brake assist system designed to increase the safety of stopping by decreasing tyre slip when the wheel is rotating & prevent tyre lock.

Electric scooter Anti-Lock Brake System Patent pending : 10-2018-0045825

* Precautions when using the ABS function



ABS has the advantage of being able to stop at the shortest braking distance that can be obtained from the tyres and road conditions.

However, due to repeatedly holding and releasing the brake several times in a second, multiple vibrations occur in the motor and the body of the scooter.

Repetitive vibration caused by this action may result in frequent loosening of the motor, rim, fixing part, and body fixing bolt.

7) Self-diagnosis through dashboard

Fault type	Diagnosis	Solution
2	System error	If the error information appears, immediately stop using the scooter and take it to your nearest service center before use.
4	Motor error	
5	Accelerator error	
6	Controller error	Excessive use can result in damage to the scooter and harmful accidents.
7 8 9	None	

^AThe number 1 is displayed when the cruise function is executed at a constant speed.

^AThe number 3 is displayed when the brake lever is operated. (When the indicator lights, the accelerator does not operate.)

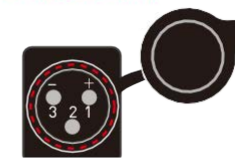


CHARGING YOUR SCOOTER

3P charger connector

1) Basic charging method

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



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



3. Be sure to close the charger port cap when driving or storing except when charging.
4. When connecting the connector to the charger port, there may be metallic sparks due to voltage difference, but this is normal.

2) Basic charging method * Failure of the charger and abnormal conditions can cause electric shock and fire. Learn the correct usage and prevent safety accidents in advance.

<p>Manufacturers and sellers are not responsible for any problems arising from any disassembly, modification, or mixing with other chargers.</p>	<p>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.</p>
<p>The charger is not waterproof. It is thoroughly controlled to prevent moisture from entering the charger.</p>	<p>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.</p>
<p>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</p>	<p>Unplug the charger when you are away from the home for long periods.</p>

7. Use only genuine charger.
8. Do not insert conductors into the charging port.
9. Do not touch the plug for about 10 seconds after unplugging the charger. There is a risk of electric shock from instantaneous discharge
10. Do not remove the terminal during charging. Otherwise you may charge the internal circuit of the charger and cause malfunction.
11. Do not operate the product during charging
12. Charging terminals should be firmly contacted during charging and should not be used if terminals are corroded or damaged
13. When disconnecting the charger from the product, it is safe to hold the terminal without holding the wire
14. 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.



SAFETY PRECAUTIONS FOR LITHIUM BATTERY

- 1) Care** Lithium batteries should be protected from direct exposure to children and pets.
- 2) Performance**
- 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.
 - 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**
- 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.
 - Charging the lithium battery with a non-genuine charger may cause malfunction or fire.
 - 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.
 - 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.
 - 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**
- 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).
 - When storing for more than 3 months, charge the remaining battery level to 70 ~ 80% (do not store full charge).
- 5) Trouble symptom, safety**
- 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.
 - 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.
 - 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 person being present to avoid the risk 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 short-circuited. Dispose of it as industrial waste.



Battery disassembly prohibited

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

SAFETY GUIDELINES BEFORE DRIVING

1) Required checking before use

1. Check throttle and handle

- Operate the accelerator throttle lever about 2 ~ 3 times to check whether it returns to the home position.
- Be careful that excessive throttle leaning and manipulation of the throttle can cause malfunction due to internal parts damage.
- Check for free gap in the handlebars before using.



2. Check brake and cable

- The brake braking force is sufficient to check the operating condition. If the braking force is significantly lowered, use it immediately after inspection and action.
- Check that the brake pad is not worn, that the cable is not loose, that the cable is not damaged, and that there is no leakage in the case of hydraulic brakes
- If there is an unusual feeling or noise during operation, check for breakage, wear, and deformation of the inner wire of the brake cable.
- Check that the bolts and nuts of the brake fixing parts are not loose and that the disc is not deformed or damaged.



3. Check tire pressure and abnormal tread wear

- Check the front and rear tires for wear and punctures and check the value marked on the surface of the tire. When the air pressure is shortened, the possibility of puncture increases, so check always.
- It is necessary to judge the replacement time by observing the appearance of the tire such as tire damage, uneven wear.



4. Tightening check such as folding part and handle part

- Make sure that the bolts and nuts of all parts of the product are tight and safe from loosening. Check the fastening condition and clearance of the folding and fixing parts of the handle (folding knob, swing arm, etc. folding related parts, suspension arm bolt, swing arm bolt).



* In these cases, stop driving immediately.

If you encounter any of the following situations while driving, stop driving immediately and contact your nearest branch or service center for proper measures.

If you provide pictures and videos to get an accurate diagnosis, professional counseling is available.

- Unusual heating of the motor
- Abnormal noise is generated
- Brake braking status error
- Product smoke, ignition, sour odor
- Error messages on the instrument panel
- When rain or wet with water or in a similar situation
- When the throttle is not returned to its original position
- When other driving is judged to be unreasonable
- When the battery doesn't fully charge and shorter riding distance after a full charge (Battery explosion may cause due to faulty battery cell or battery cell breakdown)



