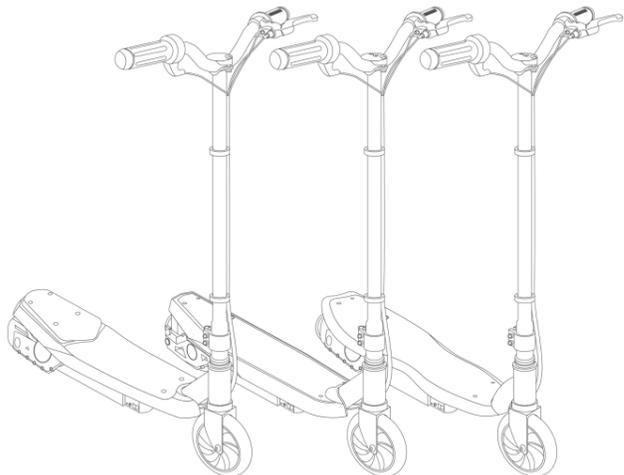


Recommended rider age 8 years and up
Adult Assembly is required

NOTE: TO OPERATE, PUSH START SCOOTER TO APPROXIMATELY 3 MPH WHILE TWISTING THROTTLE IN ORDER FOR MOTOR TO ENGAGE. THE SCOOTER MUST BE ROLLING AT 3 MPH BEFORE THE MOTOR WILL ENGAGE.



ELECTRIC SCOOTER USER MANUAL

FOR ANY PRODUCT ENQUIRES PLEASE CALL 1800 224 094. DO NOT RETURN THIS PRODUCT TO THE STORE OF PURCHASE

NOTE: Manual illustrations are for reference purposes only. Illustrations may not reflect the exact appearance of the actual product. Specifications are subject to change without notice.

This manual covers the following models:

- Charger
- Reverb
- Lightening

Contents

Safety and Warnings
Before You Start
Assembly
Hardware Maintenance
Before You Ride
Repair and Maintenance
Troubleshooting Guide
Scooter Parts
Warranty

Safety and Warnings

WARNING: Riding an electric scooter can be a dangerous activity. Certain conditions may cause components to fail without fault of the manufacturer. Scooter can and is intended to move and it is therefore possible to lose control, fall off and/or get into dangerous situations that no amount of care, instruction or expertise can eliminate. If such a thing does occur you can become seriously injured or die, even when using safety equipment and other safety precautions. **RIDE AT YOUR OWN RISK AND ALWAYS USE COMMON SENSE.**

This manual contains many warnings and cautions concerning the consequences of failing to inspect, maintain or properly use your electric scooter. Since any incident can result in serious injury or even death, we do not repeat the warning of possible serious injury or death each time such a possibility is mentioned in this manual.

APPROPRIATE RIDING ATTIRE

Always wear proper protective equipment such as:

- Approved safety helmet. (Helmet may be legally required by local law or regulation in your area.)
- Elbow pads and knees pads
- Long sleeved shirt, long pants
- Gloves
- Lace up shoes with rubber soles, never ride barefooted or in sandals, and insure that shoelaces are tied and kept out of the way of the wheels and drive system.

RIDER USE AND PARENTAL SUPERVISION

RIDER MUST NOT EXCEED THE WEIGHT LIMIT OF 110 pounds (54kg). Rider weight does not always mean a person's size is appropriate to fit or maintain control of the scooter.

This manual contains extremely important safety information. It is your responsibility to completely review this information and make sure that all riders understand all warnings, cautions, instructions and safety topics and assure that all riders are able to safely and responsibly use this scooter. Pulse advises that you periodically review and reinforce all information in this manual with all riders, and that you inspect and maintain your scooter to insure their safety. The recommended rider age is 8 and older. Any rider that is unable to fit comfortably on the scooter should never attempt to ride it. A parent's decision to allow their child to use scooter should be based on the child's maturity, skill and their ability to follow rules. Do not touch the motor or brakes on the scooter when in use or directly after use as these parts can become extremely hot. Keep this scooter away from small children and remember that it is intended for use only by persons who are, at a minimum, completely competent and comfortable while operating this product.

RIDING PRACTICES AND CONDITIONS

Check and obey any local laws or regulations which may affect the locations where the electric scooter may be used. Always ride defensively. Watch out for obstacles that could catch your wheel or force you to turn suddenly or lose control. Be careful to avoid pedestrians, other wheeled products (such as skaters, skateboards, scooters, bikes, etc.), children or animals who may enter your path. Always respect the rights and property of others. Do not activate the speed control on the hand grip unless you are on the scooter and in a safe, outdoor environment that is suitable for riding. Do not attempt or perform stunts or tricks on this electric scooter. This product is not made to withstand abuse from jumping, curb grinding or any other type of misuse or stunts. Maintain a hold with both hands on the handlebars at all times.

- Never allow more than one person at a time to ride the scooter.
- Never use near steps, water, or swimming pools.
- Keep your fingers and other body parts away from the belt, motor, steering system, wheels and all other moving components.
- Never ride while using a cell phone or wearing headphones.
- Never hitch on to or with another vehicle or pull anyone or anything.
- Never immerse the scooter in water; electrical and drive components could be damaged by water or create other possible unsafe conditions.
- Ride only on flat, dry surfaces such as pavement or level ground without loose debris, such as sand, leaves, rocks or gravel. Water, mud, ice, bumpy, uneven, slick, or rough surfaces could impair traction and contribute to possible loss of control. Avoid excessive speeds that can occur from downhill rides which could cause loss of control.
- Do not ride at night or in areas of limited visibility.
- Do not ride indoors or on surfaces that could become damaged such as carpet or flooring.

Before each ride the following checks will need to be performed to the scooter:

- Ensure that the brake system is functioning properly.
- The steering system is correctly adjusted and that all components are properly secured and are functioning according to manufactures specifications.
- Components shall be maintained and repaired in accordance with the manufacturers authorized replacement parts with installation performed by dealers or other skilled individuals.

USING THE CHARGER

The charger should be regularly examined for damage to the cord, plug, enclosure and other parts. In the event of such damage, if any is found, the scooter should not be charged until the charger has been repaired or replaced.

Safety and Warnings

Use only with the supplied recommended charger.

Always use caution when charging.

The charger is not a toy and should be operated by an adult.

Never operate charger near flammable materials or liquids.

Disconnect the charger and unplug from scooter when not in use.

Do not exceed recommended charging time.

Always disconnect the charger from the scooter prior to wiping down and cleaning with any liquid.

Do not touch the motor or brakes on the scooter when in use or directly after use as these parts can become extremely hot.

While you are using your scooter always make sure to avoid pitching and or entrapment.

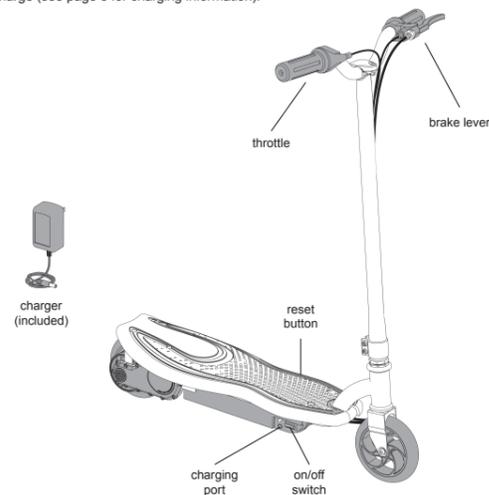
FAILURE TO HEED TO THE WARNINGS LISTED ABOVE INCREASES RISK OF POTENTIAL SERIOUS INJURY. USE THE APPROPRIATE CAUTION WHEN RIDING AND ALWAYS WEAR PROTECTIVE GEAR.

Before You Start

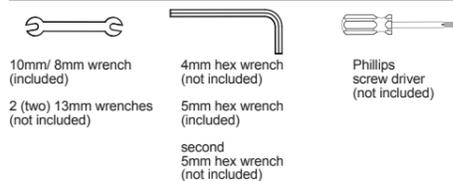
WARNING: Remove all packing and items from the display box. Make sure that the power switch is turned "OFF" before assembling the scooter.

Estimated Assembly Time

- Allow up to 25 minutes for assembly, not including initial charge time.
- Allow up to 14 hours for the initial charge (see page 5 for charging information).



Required Tools



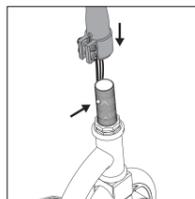
WARNING: DO NOT USE NON-PULSE PRODUCTS WITH YOUR PULSE CHARGER ELECTRIC SCOOTER.

This scooter has been built to specific Pulse design specifications and should not be modified. Altering of the original components may or may not be compatible with the design and will void the warranty.

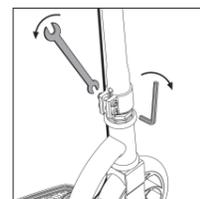
Assembly

Handlebar Steer Tube Assembly

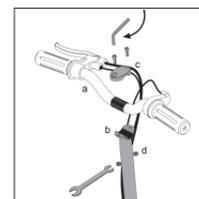
Tools required: 5 mm hex wrench, 10 mm wrench



1. Depress the push button located on the rear of the fork and insert the handlebar steer tube onto the fork. The push button should align with the locator hole in the handlebar steer tube and lock the steer tube securely in place.



2. Tighten the bolts with the 5mm hex wrench and 10 mm wrench. Tighten bolts evenly and securely.



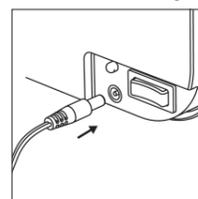
3. Align handlebars both vertically and horizontally (a) onto handlebar steer tube clamp (b) install handlebar clamp and hardware (c&d) and tighten evenly and securely with the 5mm hex wrench and 10mm wrench.

WARNING: Batteries must be fully charged before you ride your electric scooter.

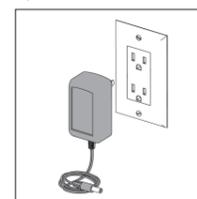
Charging the Battery

Required components: Charger

- Initial battery charge time- 14 hours
- Recharges after initial charge- Up to 10 hours
- When scooter is not in regular use batteries need to be charged on a monthly basis to maximize performance.



1. Make sure power switch is in the OFF position before plugging in the charger. Insert charger into charging port on the right side of the battery box.



2. Plug the charger into a wall power outlet. The light on the charger housing should illuminate. Red LED light indicates battery is charging and a green LED light indicates battery is fully charged.

WARNING: Do not use this product for the first time until you have charged the battery for at least 14 hours. Failure to follow these instructions may damage your product and void your warranty.

Note: The charger has a small window with one LED light that indicates the charge status. Refer to the illustration on the charger unit for the actual "charging" and "charged" status indication. Your charger may get warm during use; this is normal and is no cause for concern.

Note: Batteries must be recharged at least once a month even when the scooter is not in use. Failure to do so may result in batteries that will no longer accept a charge.

Hardware Maintenance

Brake

Check the brakes for proper function. When you squeeze the lever, the brake should provide positive braking action. When you apply the brake with the speed control on, the brake cut off switch should stop the motor. Make sure that the brakes are not rubbing.

Frame, Fork and Handlebars

Check for cracks or broken connections. Although broken frames are rare, it is possible for aggressive rider to run into a curb or wall and bend or break a frame. Get in the habit of inspecting your scooter on a regular basis.

Tires

Periodically inspect the wheels for excess wear.

Safety Gear

Always wear proper protective gear such as an approved safety helmet. Elbow pads and knee pads are recommended. Always wear athletic shoes (lace up shoes with rubber soles), never ride barefooted or in sandals, and keep shoelaces tied and out of the way of the wheels, motor and drive system.

Battery

Make sure the power switch is turned off whenever the scooter is not in use. Never store the product in freezing or below freezing temperatures! Freezing will permanently damage the battery.

Before You Ride

Before you ride always check and for the following:

Safety Gear

Always wear proper protective gear such as:

- Approved safety helmet. (Helmet may be legally required by local law or regulation in your area.)
- Elbow pads and knees pads
- Long sleeved shirt, long pants
- Gloves
- Lace up shoes with rubber soles.

Brake

Check the brakes for proper function. When lever is squeezed it should slow/stop the rear wheel without excessive effort. When you apply the brake with the throttle on, the brake cut off switch should stop the motor. Make sure that the brakes are not rubbing when the lever is not being squeezed. Do not ride the scooter if the brakes are not functioning properly.

Throttle

Make sure that before throttle is twisted that you are in an open and safe area to ride, you are balanced on the scooter and have both hands on the handlebar controls. Push start scooter to approximately 5 kmh while twisting throttle in order for motor to engage. The scooter must be rolling at 5 kmh before the motor will engage.

Tires

Inspect the wheels for excess wear and replace if necessary.

Frame, Fork and Components

Always carefully inspect your scooter before you ride. Check for cracks, broken worn or loose components which should be repaired or replaced before you ride.

Battery

Always make sure the power switch is in the "off" position whenever the scooter is not in use. Never store the product in freezing or below freezing temperatures. These low temperatures will permanently damage the battery.

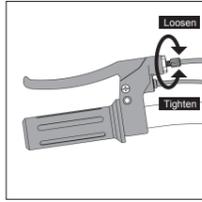
WARNING: Always ensure that you are in a safe open area to ride before you engage the throttle. Never twist the throttle without being on the scooter in a balanced, ready to ride position with both hands on the handlebar controls. Failure to follow these instructions may damage your scooter and void your warranty.

Repair and Maintenance

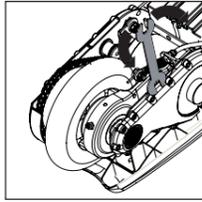
▲ WARNING: Turn the power switch "OFF" before conducting any maintenance procedures.

Adjusting the Brakes

Tools required: 10mm wrench



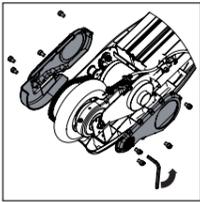
1. To adjust the brake cable thread clockwise (loosen) or counter clockwise (tighten) the adjuster barrel on the brake lever. Only turn the barrel in small increments until the desired adjustment is reached. If brake continues to need further adjustment proceed to the next step.



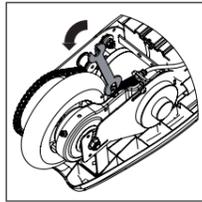
2. If the brake cable is still either too tight or too loose use a 10mm wrench to loosen the brake cable pinch bolt for further adjustment on the cable. Ensure that the 10mm nut is securely tightened after the adjustment is made.

Chain and Rear Wheel Replacement

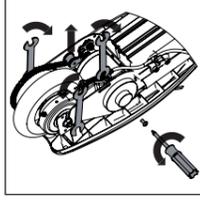
Tools required: 4mm hex wrench, 5mm hex wrench, two 13mm wrenches, 10mm wrench, Phillips screwdriver



1. Using a 4mm hex wrench remove the 4 bolts from the rear axle cover on both sides of the scooter.

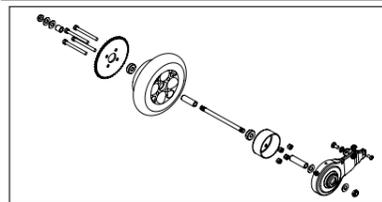


2. Loosen brake cable pinch nut with 10mm wrench.

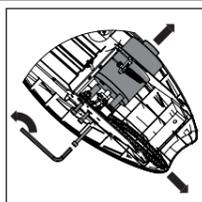


3. Remove the brake arm bolt with a Phillips screwdriver and 8mm wrench. Using two 13mm wrenches loosen the rear wheel axle nuts. Pull up on the chain tensioner and remove the rear wheel from the frame.

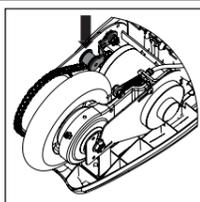
▲ WARNING: The brake could be capable of locking up and skidding the rear wheel if not applied correctly. Always try and avoid skidding as this could cause you to lose control of the scooter and will cause damage to the rear tire. Practice using the brake in an unobstructed open area to become familiar with its function and can make smooth controlled stops.



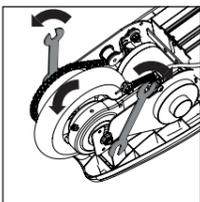
4. Note the location of all rear wheel hardware and ensure to properly reinstall all items.



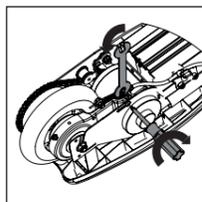
5. If replacing the chain remove the motor bolts with a 4mm hex wrench. Slide motor out of the frame slightly so that there is enough room to remove/replace the chain onto the motor gear. Replace spacers and retighten bolts.



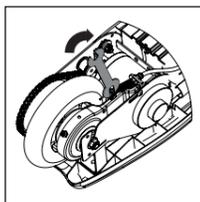
6. Place the chain under tensioner wheel and onto the rear chain wheel gear and install replacement wheel into the frame. Do not tighten axle nuts yet. Install brake arm hardware, do not tighten yet.



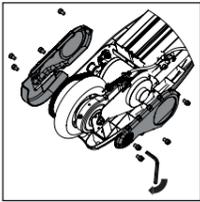
7. Ensure axle washers are seated correctly against the frame. After tightening axle nuts with a 13mm wrench check wheel alignment and the tracking of the chain by rotating the wheel counter clockwise with your hand. Adjustment washers may need to be readjusted to align belt. Wheel should spin freely and easily.



8. Retighten the brake arm bolt with a Phillips screwdriver & 8mm wrench.



9. Retighten brake cable pinch nut with 10mm wrench. Refer to the instructions on page 7 for proper adjustment.

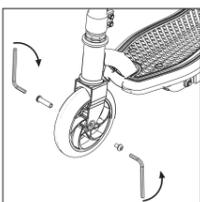


10. Reinstall side covers with a 4mm hex wrench. Do not over tighten bolts.

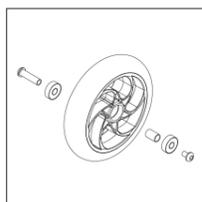
▲ WARNING: Self-locking nuts and other self-locking fixings may lose their effectiveness. Please check before every use and if needed proceed to fix.

Front Wheel Replacement

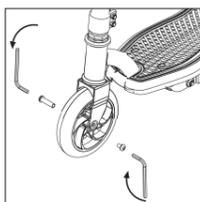
Tools required: Two 5mm hex wrenches



1. Using two 5mm hex wrenches loosen and remove the front axle by turning the wrenches counter clockwise.



2. Reinstall new replacement wheel ensuring to note the order and location of all components.



3. Reinstall hardware and tighten clockwise with a 5mm hex wrench.

▲ WARNING: For proper performances we recommend from time to time to clean the bearings by simply soaking in a common bearing cleaner to remove dirt and dust. Before assembling spray a little oil.

Battery Care and Disposal

Do not store the battery in temperatures above 70°F (21°C) or below 32°F (0°C).



THIS SCOOTER CONTAINS SEALED LEAD ACID BATTERIES WHICH MUST BE RECYCLED IN ACCORDANCE TO YOUR LOCAL AND STATE LAWS. PLEASE CAREFULLY READ AND UNDERSTAND THE FOLLOWING DISPOSAL INSTRUCTIONS:

Disposal: This product contains sealed lead acid batteries which must be disposed or recycled in an environmentally safe manner. Do not dispose of the batteries in your household trash. Do not dispose of the batteries in a fire, this could cause the batteries to leak or explode. The incineration, disposal in landfill and or placing sealed lead acid batteries with household trash is prohibited by law in most areas. Return exhausted batteries to a state or federal approved lead acid battery recycler or check with your local retailer or vehicle batteries.

▲ WARNING: Do not mix old and new batteries. Do not mix alkaline, standard (carbon-zinc), or rechargeable (nickel-cadmium) batteries. Do not store the battery in temperatures above 70°F (21°C) or below 32°F (0°C).

Charger

Only use the supplied battery charger. If charger is damaged discontinue use immediately and replace with a Pulse recommended charger.

Wheels

Wheels and drive system components are subject to normal wear and tear. It is the responsibility of the user to regularly inspect wheels for excess wear and adjust and replace drive train components as required.

Replacement Parts

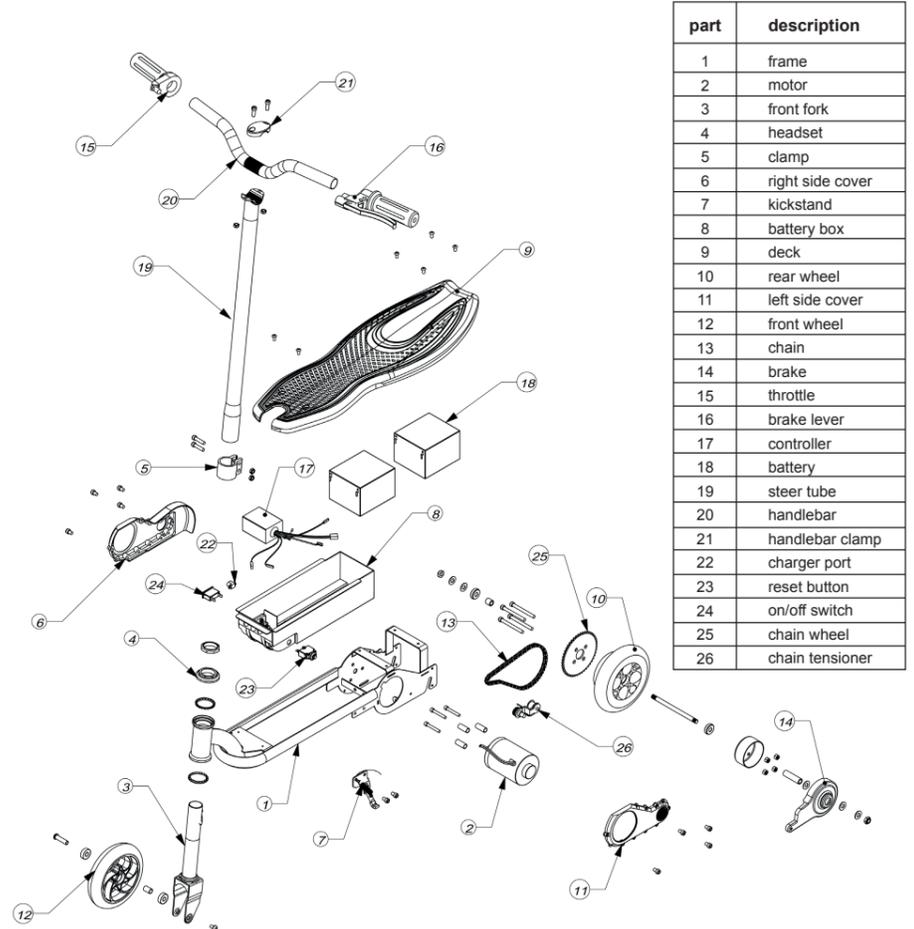
Most of the common replacement parts are available for purchase on line at www.pulsescooters.com/shop.

▲ WARNING: If you do not feel comfortable performing the adjustments, consult an authorized Pulse customer service representative or a qualified bicycle or motorcycle mechanic. The belt should be "taut" - in other words snug. BE CAREFUL NOT TO ADJUST TOO TIGHT. If the belt is over tightened damage could occur to the motor/drive components.

Troubleshooting

Problem	Possible Cause	Solution
Scooter will not run	Battery is not charged Wires or connectors are loose or unplugged	Fully charge the battery. First charge should be 14 hours and up to 10 hours for recharges. Check to ensure that charger is tightly plugged into both the wall and the scooter.
Scooter run time is short	Battery requires charging Battery will not accept full charge Brakes are not adjusted correctly	Fully charge the battery. First charge should be 14 hours and up to 10 hours for recharges. Check to ensure that charger is tightly plugged into both the wall and the scooter. Make sure power flow to the wall outlet is on. Battery may need to be replaced. Even with proper care, rechargeable batteries do not last forever. The average rechargeable battery life is 1 to 2 years depending on scooter conditions and use. Replace only with Pulse replacement batteries. Refer to the instructions on adjusting the brakes on page 5.
Scooter suddenly stops working	Circuit breaker has tripped	The reset button (on the left side of the battery box) will automatically trip and turn off the power if the motor is overloaded. An excessive overload (steep incline or too heavy of a rider) could have caused the motor to overheat and tripped the breaker. If this occurs (scooter suddenly stops running) wait a few seconds and then push the reset button in to reset the circuit. Avoid repeatedly tripping the breaker. Check all wires and connectors to make sure they are connected and tight.
Scooter runs sluggishly	Brakes are not adjusted correctly Scooter is overloaded Unsuitable riding conditions	Refer to the instructions on adjusting the brakes on page 5. Make sure you do not overload the scooter by exceeding the 110 lbs. (50kg.) maximum weight limit, going up steep inclines or towing objects behind the scooter. Avoid overloading the scooter as this will prematurely wear out the batteries and componentry. Ride only on solid, flat, clean and dry surfaces such as pavement or level ground.

Scooter Components



part	description
1	frame
2	motor
3	front fork
4	headset
5	clamp
6	right side cover
7	kickstand
8	battery box
9	deck
10	rear wheel
11	left side cover
12	front wheel
13	chain
14	brake
15	throttle
16	brake lever
17	controller
18	battery
19	steer tube
20	handlebar
21	handlebar clamp
22	charger port
23	reset button
24	on/off switch
25	chain wheel
26	chain tensioner

Warranty

Pulse Limited Warranty

The manufacturer warrants this product to be free of manufacturing defects for a period of 2 years from the date of purchase. This Limited Warranty does not cover normal wear and tear, tires, cables, or any damage, failure or loss caused by improper assembly, maintenance, storage or use of this Pulse electric scooter.

This Limited Warranty will be void if the product is ever
 • used in a manner other than for recreation or transportation
 • modified in any way
 • used as a rental

The manufacturer is not liable for incidental or consequential loss or damage due directly or indirectly to the use of this product. For your records, keep your original sales receipt with this manual.

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