

RooDog Electric Bicycle



# USER MANUAL

Avatar 2.0



En 15194 official standard

# Contents

1 x Electric bike, 1 x Battery, 1 x Charger, 1 x User Manual and 1x Battery Care Manual

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# Identity:

Serial number:

Dealer stamp:

Date purchased:     /     /

Thank you for buying a RooDog electric bike. We believe that this is one of the best purchases you will ever make providing it is cared for properly.

**Important: Please read this manual carefully before use and follow instructions provided at all times.**

For your own safety check brakes, gears, lights and tyre pressures are fully operational and correct before any bike ride. Also check all fasteners, quick release bolts and anything else that may be of hazard prior to setting off.

**Important:**  
Please read and follow battery care guidelines in this booklet before first use.

### Warnings:

- Users who are not professionally trained for bicycle assembly or mechanics should not attempt to install, disassemble, or modify components. If you have any concerns about the operation of the Pedal Assist System (PAS) or its components, or you suspect damage to the battery, visit your local RooDog stockist immediately for inspection.
- Do not attempt to modify the PAS or throttle systems. The PAS is set to provide riding support in line with UK regulations (up to 15.5mph with 250w motor and 4mph for the throttle).

### Riding Safety

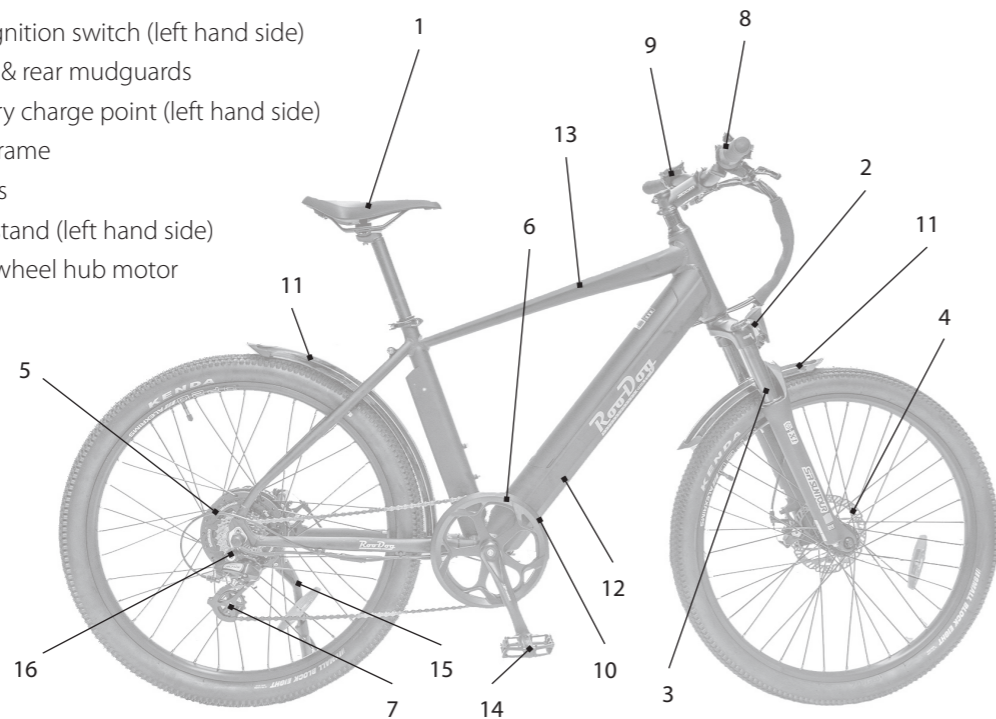
- Make sure you are familiar with your ebike before riding it on public roads or footpaths.
- Do not focus on the display console while riding.
- Please note that riding with the PAS turned off is the same as riding a normal bike.
- When switched on the PAS will start to engage as soon as you start pedalling.
- Riders should be seated on the bike with at least one brake ready to engage before pedalling begins.
- Do not start on the fastest setting – start on the lowest setting for your first few rides.

**Please note:** Bike images shown in this manual may differ from your RooDog ebike however, all information provided is applicable to your RooDog.

# Parts I.D

We continually strive to give the best products possible to our customers and therefore parts are subject to change without notice.

- |                       |   |
|-----------------------|---|
| 1. Saddle             | 10. Key Ignition switch (left hand side)  |
| 2. Lights             | 11. Front & rear mudguards                |
| 3. Front suspension   | 12. Battery charge point (left hand side) |
| 4. Front disc brake   | 13. Bike frame                            |
| 5. Rear disc brake    | 14. Pedals                                |
| 6. Front chain ring   | 15. Side stand (left hand side)           |
| 7. Rear 7 speed gears | 16. Rear wheel hub motor                  |
| 8. Gear selector      |   |
| 9. LED Display        |   |



# Bike Assembly:

*Tools Required: 4, 5 and 6mm Allen keys, 10 and 15mm spanners*

- **Remove all packaging carefully:** Select a good area to assemble the bike. Preferably on a non-abrasive surface so you don't damage the bike.
- **Easier with two people:** If possible, have someone hold the bike upright for you.
- **Front Light and Front Mudguard:** To fit the front light and mudguard align the holes with the top of the front suspension hole. Insert the Allen key bolt and loosely tighten (don't fully tighten yet). Take the bolts from the side of the forks out, place the support arms over the holes and replace the bolts to secure the mudguard in place. Once complete, tighten bolts fully.
- **Handlebars:** Remove all the 4/5mm handlebar bolts and bracket at the end of the stem, place handlebars in position then replace the bracket and bolts, tightening with fingers first. Once all 4 bolts are situated correctly tighten with the 4/5mm Allen key but do this from corner to corner and only a little bit at a time on each to keep the bracket even. For example: tighten top right corner bolt first, then bottom left corner bolt second and so on.
- **Front wheel:** Place the bike in a bike maintenance stand or turn upside down so the bike is standing on the handlebars and saddle. Try to do this on a non-abrasive surface to avoid damage. (Remove battery first to lighten and make it easier to manoeuvre the bike).

Once in position take the front wheel and the quick release skewer/axle bolt. Undo the plastic end cap and take off one spring (leaving one spring on). Slide the bolt through the centre of the front wheel until it comes out the other side, then place the spring back on (small end first) followed by the plastic end cap and loosely tighten. Pick the wheel up and slide into the slots provided on the front fork, push downwards until it stops. Once aligned you can tighten the skewer bolt. (Lever should point upward when fitted correctly)

- **Disc brake:** If not already correct adjust brake by releasing brake cable with 5mm Allen key then adjust accordingly and re-tighten. Spin the wheel to make sure it spins freely. You can make minor adjustments by turning the plastic screw located on the brake cable near the brake calliper.
- **Pedals:** Locate pedals, separate left and right pedals indicated by L/R print on threaded end of the pedal. Screw in each pedal in to the crank arms with your fingers ensuring not to cross thread them. Once located correctly, tighten with 15mm spanner.

**Note: Your wheel should fully stop once the brake lever is depressed halfway. If it does not stop, re-adjust them accordingly.**

# Getting Started & How to Use Your Pedal Assistance System (PAS)

Once your bike has been safety checked and is ready to ride the next step is to turn on the electric. To do this, ensure your battery is locked on to the bike. Switch the battery switch to the 'on' position. Press the power button on the digital display on the handlebars. In doing this the display should light up. Once turned on the display will indicate battery life and it will automatically select the lowest level of pedal assist. This will be indicated by the mode number showing in the assist part of the display. At this point if you start to ride the bike the PAS will automatically kick in and assist you whilst pedalling.

(Tip: stay on the lowest level until you become confident enough to increase the power).

You can increase the level of assistance simply by pressing the '+' button and you will see the mode number increase. You can repeat this until you reach maximum assistance. (15.5mph) and to come back down the assistance levels simply press the '-' button.

**IMPORTANT:** Please be aware that the assistance is also sensitive to how fast you pedal and will only give you maximum assist when you are pedalling relatively fast. (This applies in most levels selected). To turn off the assistance so you are only using manual pedalling either press the power button or move down through the assist modes with the - button until the mode number reads '0'.

**Throttle:** On the right-hand side of the handlebars, you will find a half twist grip throttle. When the bike is turned on, the throttle is active and operates independently of pedalling, a bit like a moped (no requirement to pedal).

**Please note:** The red isolation button also needs to be in the depressed position and the PAS must be in at least level 1 for the throttle to be active. Slowly twist the half grip throttle and it will propel the bike. It is limited by law to 4mph. (Remember using the throttle will use more battery life up quicker).

**IMPORTANT:** Throttle is not designed for hill starts or to replace pedalling altogether. It is purely a support function to use when setting off.

**Turning the lights On/Off:** To turn the lights on/off, have the power turned on for the LCD display and simply hold down the + button for a few seconds. Repeat to turn off.

## Twist Grip Throttle



Isolation button to turn throttle on/off

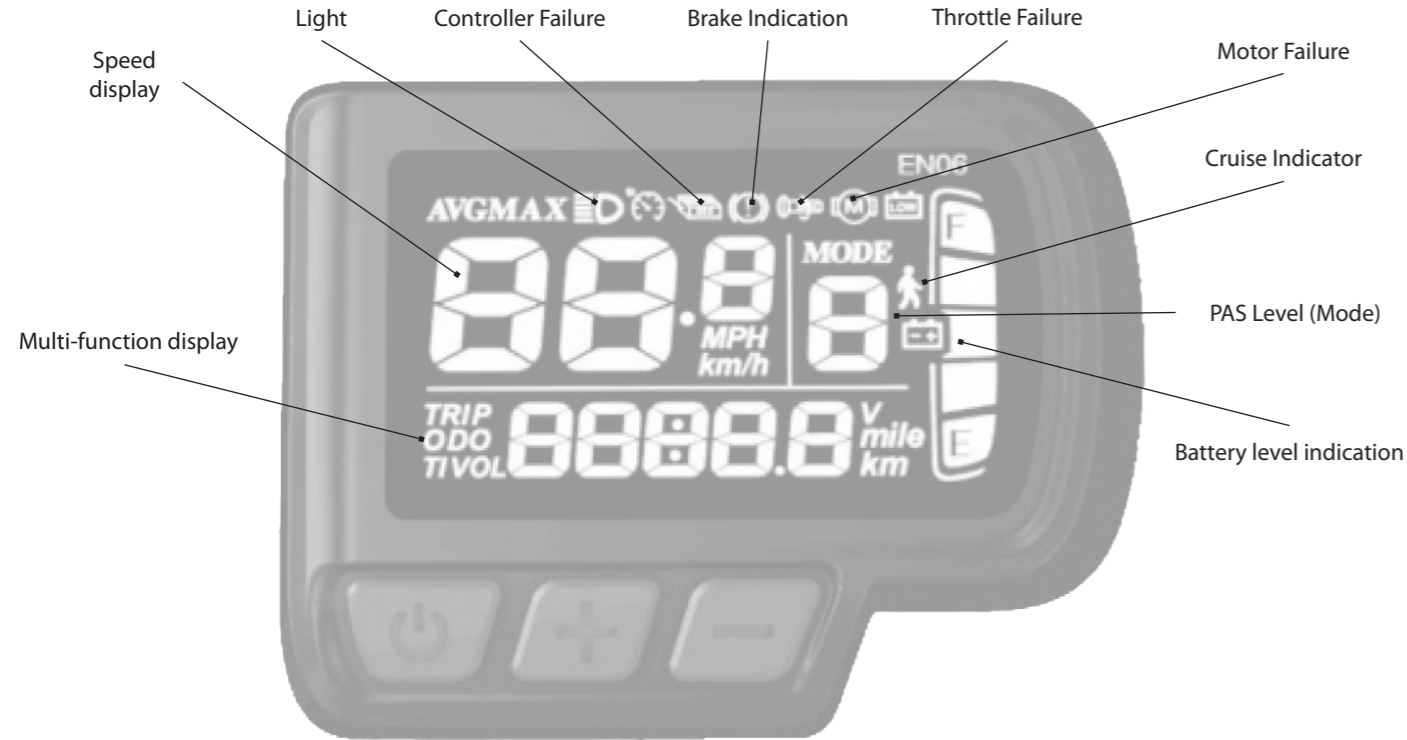
Twist to operate

## LCD Display



Pedal Assist System (PAS) level

# LCD Display - Display Interface



## Multi-function display

ODO:	Total mileage
TRIP:	Single trip mileage
ERROR:	Error code
WATT:	Power
TI:	Start time
VOL:	Battery voltage

## LCD Display Error Codes

Error Code (decimal)	Indications
0	Normal
1	Reserved
2	Brake
3	PAS sensor failure
4	6km/h cruise
5	Real-time cruise
6	Low battery
7	Motor failure
8	Throttle failure
9	Controller failure
10	Communications receiving failure
11	Communications sending failure
12	BMS communications failure
13	Light failure

## To change the display information and trip data

- Enter programming mode – press and hold the plus '+' and minus '-' buttons
- Use the power button to change programming modes and plus '+' and minus '-' buttons to change setting

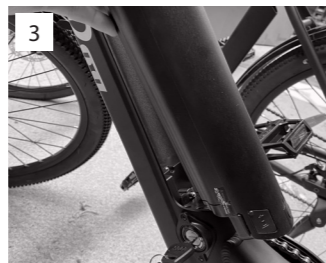
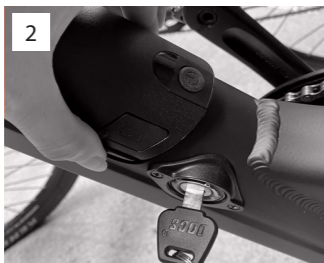
**Please note: Only modes P01, P02, P04, P06 and P016 are adjustable.**

- P01: Backlight Brightness (1: darkest; 3: brightest)
- P02: Mileage Unit (0: KM; 1: MILE)
- P03: Voltage Class (Pre-set to 36v)
- P04: Display Sleep Interval (1–60-minute options only)
- P05: PAS Gear (Not Applicable)
- P06: Wheel Diameter Unit: inch Precision: 0.1 (supports odometer mileage calculation – all RooDog bikes are either 20" or 26")
- P07: Magnet Steel Number (for Speed Test) Range: 1-100 (Pre-set, no changes needed)
- P08: Speed Limit Range: (Pre-set – UK Law)
- P09: Direct Start / Kick-to-Start (Not Applicable)
- P10: Drive Mode (Not Applicable)
- P11: PAS Sensitivity (Not Applicable)
- P12: PAS Starting Intensity (Not Applicable)
- P13: Power Magnet Steel Number 5 / 8 / 12pcs (Pre-set @12, no change needed)
- P14: Current Limit Value (Not Applicable)
- P15: Unspecified
- P16: Odometer Zero-Out: press and hold the up key for 5 seconds and ODO value will be erased.

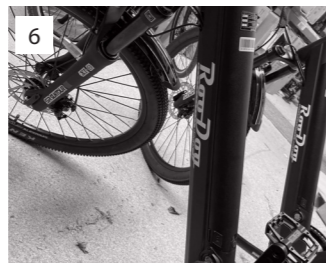
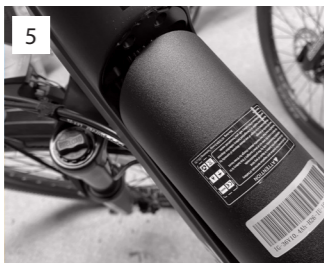
# Battery Charging & Removal:



**To charge the battery** - The battery can be charged either on or off the bike using the charge point as shown located next to the battery lock.



**To remove the battery** - Put the silver key in the lock located in the frame and turn 90 degrees to the right to the 'unlock' position (fig. 1). The battery will spring up to open and can be lifted easily out of the frame (fig. 2 & 3).



**To replace the battery** - Put the top section of the battery into the bike frame first (fig. 4 & 5) then click the base into place and the battery is flush with the frame again and lock (fig. 6).

# Maintenance:

Maintaining your bike ensures you will get the most out of every ride and increases the longevity of your RooDog electric bike.

How much you can do yourself really depends on your skill, knowledge, experience level and if you have the necessary tools for the job.

If there is anything you do not understand or are unsure of how certain things work, it is always best to contact your RooDog dealer for advice.

**Important:** Please be aware general maintenance is not covered by the warranty and is therefore a service that will be chargeable.

## Before every ride:

- › Check brakes, lights, gears and tyre pressures are correct.
- › Check fasteners, bolts and anything else that may come loose over time. Check battery is fully charged, or at least has enough charge to complete your planned journey.

## Weekly:

- › Clean the bike, including chainring and gears – (do not use excessive water around electrical parts)
- › Oil the chain and keep all moving parts well lubricated and free from damp.

## Every month:

- › Check for worn brake pads and replace if necessary.
- › Check headset for looseness by rocking the bike back and forth whilst having the brakes applied. If loose have your dealer check it.
- › Check free movement of handlebar. If tight have dealer check it.
- › Check cables for free movement, rust, kinks and fraying. Replace if necessary.
- › Check wheel spokes are all tight and wheel spins true. Have your dealer fix it if they are not. (spokes can break and wheel rims can be bent if this is not regularly checked)
- › Check tyre for tread and check sidewalls are in good condition. Replace if necessary.

## Every 3000 miles or annually:

- › Have the bike inspected and serviced at your local dealer including general inspection of the hub motor and all electrical parts.

## Maintenance Continued:

### Tyre pressures:

- › Tyres should be routinely checked for correct pressure (this is stated on the tyre side wall). Failure to do this will result in tyre or rim damage, more energy will be required to propel the bike (meaning less miles per charge) and possibly may even result in a puncture.

### Repairing a puncture:

- › If you have a puncture, we recommend you have it repaired by a specialist.
- › To remove the rear wheel, you must first separate the electric hub motor from the bike. In order to do this, locate the cable coming out of the hub motor and follow it along to the quick release (QR) plug. Disconnect the plug and all clips and ties before attempting to remove the rear wheel.
- › Prior to removing the wheel from the frame take note how all the washers are situated so you can replace them in the correct order in which they come off.
- › When replacing the wheel back in the frame, ensure the bolts are aligned correctly (you may need a 10mm spanner to help) and seated right and all washers are in correctly before tightening up the nuts to hold it in position.
- › Finally reconnect the motor plug fully so the clip clicks in. (incorrect replacement may result in a sudden lose of power or may even damage the contacts connecting the motor).



**Motor QR plug:**  
Press here to release  
then pull apart.

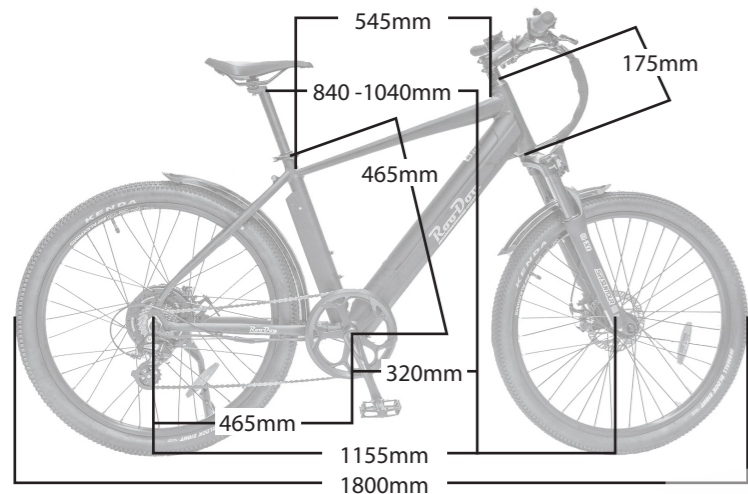
## General Specifications

<b>Motor:</b>	250w 36v last generation rear wheel hub brushless motor with max speed of 15.5 mph which is allowed by UK/EU regulation	<b>Gears:</b>	Shimano 7 speed megarange.
<b>Battery:</b>	36v 11Ah lithium-ion (standard) or 36v 15Ah upgrade. Both of which are hidden in the bike frame.	<b>Tyres:</b>	Kenda 26 inch
<b>Charge time:</b>	4 - 6 hours from flat	<b>Frame:</b>	6061 aluminium alloy
<b>Range:</b>	Up to 30 miles per full charge, dependent on weight of cyclist, frequent use of pedal assist, pressure in tyres & terrain etc. (please note frequent use of throttle and hill climbing will significantly reduce the range of the battery)	<b>Lights:</b>	LED lights front and rear (rear is solar powered)
<b>Digital Display:</b>	Battery indicator, management of 5 speed PAS, LED lights, Trip/Odo mileage meter.	<b>Front fork:</b>	XCR black suspension fork.
<b>Power mode:</b>	Pedal only, pedal assist PAS (a combination of pedaling and motor) If applicable throttle only mode. (no pedaling required)	<b>Brake:</b>	Tektro disk brakes. Front 180mm, rear 160mm.
<b>Rims:</b>	Aluminium alloy, double wall. 75mm wide.	<b>Max load:</b>	120KG (18.9 stone). Including rider and all luggage.
<b>Weight:</b>	22.5KG including battery, 20KG without		

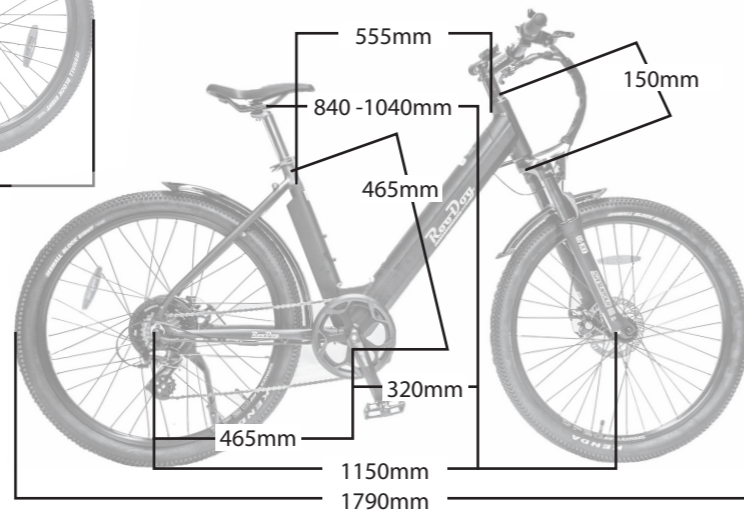


# General Specifications Continued:

## Avatar S.O



## Avatar S.T



# Warranty:

### Requirements for warranty:

- › Bike **warranty must be registered** to benefit from **extended 2-year warranty**
- › Please **retain your receipt** as proof of purchase as this is your **1-year warranty** and warranty will start from the date of purchase.
- › Warranty is **nontransferable** and only applies to original owner.
- › Warranty covers - main bike frame, front forks, mud guards, wheel rims, gears, bearings, motor casing and hub motor, LCD controller display, brakes (excluding brake pads), battery and charger.

### Items covered under 2-year warranty:

- › Battery (provided cared for in conjunction with battery care instructions)
- › Motor casing & hub motor
- › Bike frame

**All other parts covered by the warranty are guaranteed for a period of 12 months.**

### Items not covered under warranty:

Brake pads, tyres, lights and cables or anything else that can be seen as consumables or general wear and tear of such items. These parts can however be purchased from RooDog Ltd or from your local retailer/bike shop.

### Exclusions from warranty:

- › When subject to neglect or misuse or resulting in damage due to an accident.
- › Poor maintenance or modifications that no longer complies with regulations or original technical specifications.
- › Damage due to external causes such as left out in heavy rain, or long-term weathering causing rust and decay etc.
- › The bike is put up for hire.
- › The Battery is used incorrectly or tampered with (warranty seal is broken). This also applies to charging. (always use the charger provided by the manufacturer)
- › Battery is not cared for in conjunction with the battery care instructions provided

**To register your warranty please go to:**  
<https://www.roodog.co.uk/warranty-registration-form/>  
**Or use the QR code here:**



# Troubleshooting

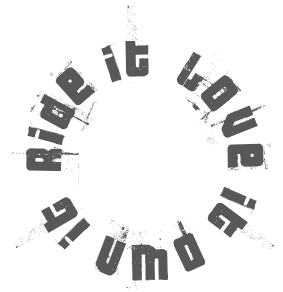
Problem	Possible Causes	Solution
Power on but motor not working:	<ul style="list-style-type: none"> <li>➤ Motor not connected correctly.</li> <li>➤ Brake lever is pulled in triggering the cut off sensor.</li> <li>➤ Loose connection or controller fault.</li> <li>➤ Throttle working but no PAS.</li> <li>➤ No throttle and no PAS.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Check connection plug is pushed together fully.</li> <li>➤ Make sure both brake levers are fully out not triggering the sensor.</li> <li>➤ Contact stockist.</li> </ul>
No Power at all:	<ul style="list-style-type: none"> <li>➤ Uncharged or dead battery.</li> <li>➤ Key not turned on.</li> <li>➤ Faulty switch or loose connection somewhere. i.e., the LCD display.</li> <li>➤ Faulty controller.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Recharge the battery and try again. If problem remains, contact your dealer.</li> <li>➤ Check the key is on position</li> <li>➤ Check the connections of the LCD display, the motor and the battery.</li> <li>➤ Contact stockist.</li> </ul>
Traveling shorter distances per charge than rated:	<ul style="list-style-type: none"> <li>➤ Hill climbing, frequent stop/starting, head wind or heavy load, excessive use of throttle.</li> <li>➤ Tyre pressures too low.</li> <li>➤ Battery under charged or faulty charger.</li> <li>➤ Battery capacity loss or damage.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Use 1.1 PAS and pedal harder. Reduce the use of throttle and lighten the load whenever possible.</li> <li>➤ Inflate tyre to correct amount indicated on tyre sidewall.</li> <li>➤ Charge the battery or contact dealer.</li> <li>➤ Contact stockist.</li> </ul>

# Troubleshooting Continued:

Problem	Possible Causes	Solution
Charging: Charger light stays green when I plug in to the battery. Why? (the light should turn red to indicate the battery is charging and green when it is full)	<ul style="list-style-type: none"> <li>➤ Battery is already full.</li> <li>➤ Charger lead not connected to the battery properly.</li> <li>➤ Fault with the charger.</li> <li>➤ The battery has gone in to sleep mode due to not been charged to protect the cells.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Drain some power by riding the bike and then retry charging.</li> <li>➤ Check the connection.</li> <li>➤ Contact stockist.</li> </ul>
Charger doesn't work:	<ul style="list-style-type: none"> <li>➤ Fuse has blown.</li> <li>➤ Has been damaged through misuse.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Change fuse and retry.</li> <li>➤ Contact stockist.</li> </ul>

**Important:**

**Always use the charger supplied by the manufacturer to avoid damaging your battery**



[www.RooDog.co.uk](http://www.RooDog.co.uk)