RooDog Electric Bicycle

# USER MANUAL

## Mayfair

EN 15194 official standard.

# Identity:

Serial number: ☐☐☐☐☐☐☐☐☐☐☐☐☐

Dealer stamp:

Date purchased: / /



Thank you for buying a RooDog electric bike. 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 & follow battery care guide lines in this booklet before first use.

# Contents

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

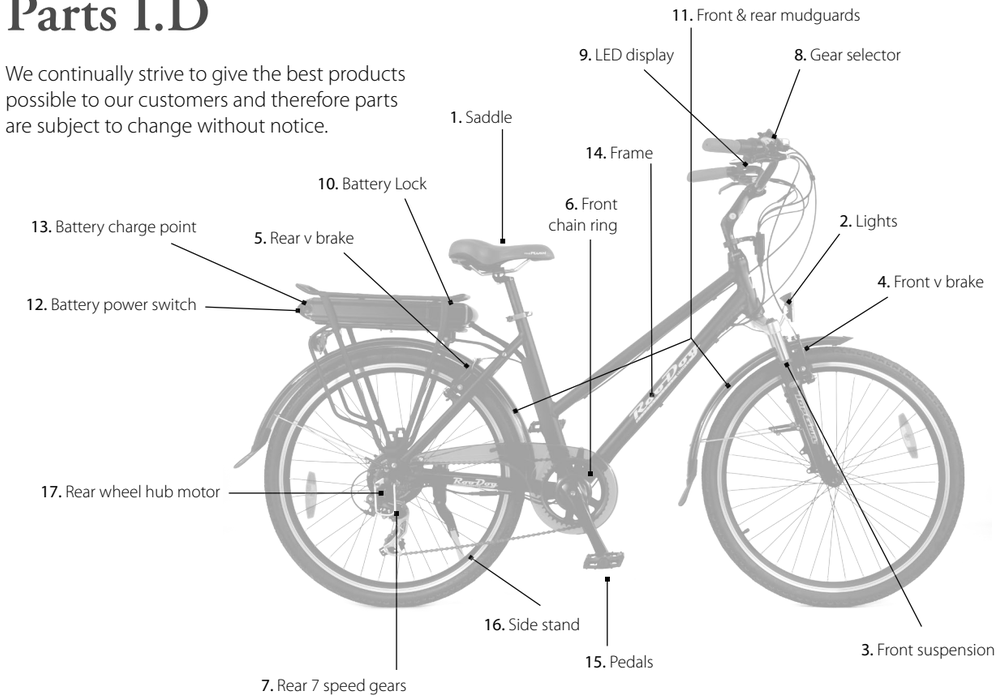
# Index





# Parts I.D

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



# Bike Assembly:

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

- **Remove all packaging carefully:** and 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:** Have someone hold the bike upright for you. Then remove the bolt on the arch of the front suspension fork using the 10mm spanner and the 5mm Allen key.
- **Front Light:** Assemble the front light (you will find this in your accessories pack) Place the front light bracket over the bolt hole and replace the bolt fully but do not put the nut back on. Then fit the two small wires to the light assembly by simply pushing them on to the metal spades.
- **Front mudguard:** On the back of the fork arch hang the loop of the front mudguard over the bolt and then replace the 10mm nut and tighten with the spanner and Allen key. Then remove the two bolts on the side of the suspension fork with the 4mm Allen key. Locate the brackets holes over where you just removed the bolts from. Once lined up replace the bolts and tighten.
- **Handle bars:** Pick up handle bar and stem and remove the plastic cover from the bottom. Slide the stem down the front suspension shaft. Locate the 6mm Allen key hole at the top of the stem, adjust the height to suit the rider then align the bars straight and tighten the Allen key bolt.
- **Front wheel:** Place bike in a bike maintenance stand or turn up side down so the bike is standing on the handlebars and saddle but again try to do this on a non abrasive surface to avoid damage. (remove battery first in order 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 first (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 and push downwards until it stops. Once aligned you can tighten up the skewer bolt. (lever should point upward when fitted correctly)
- **V brake:** Release brake cable with 5mm Allen key then adjust accordingly and re-tighten. Spin the wheel to make sure it spin freely. You can make minor adjustments if one side is touching the rim and the other isn't by turning the small screws located on the side of the lever arms.
- **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 and how to use your power assistance:

Once your bike has been safety checked and is ready to ride the next step is to turn on the electric. To do this, locate the ignition key at the left hand side of the battery. Place the key in the ignition and turn it clockwise until it stops.

Press the power button on the LED display on the handlebars. In doing this the display should light up with red LED lights.

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 one red LED light nearest the minus sign of the assist part of the display.

At this point if you start to ride the bike the PAS assistance will automatically kick in and assist you whist pedaling. (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, this will be indicated by the LED light moving closer to the + sign. You can repeat this until you reach maximum assistance. (15.5 M.P.H) 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 pedaling relatively fast. (this applies in most levels selected)

To turn off the assistance so you are only using manual pedaling either press the power button or move down through the assist modes with the - button until the LED no longer is lit up.

On the right hand side of the handlebars you will find (if fitted) a half twist grip throttle. When the bike is turned on, the throttle is active and operates independently of pedaling, a bit like a moped. (no requirement to pedal) Please note the red isolation button also needs to be in the depressed position for the throttle to be on.

Simply twist the half grip throttle and it will propel the bike. It is limited though to what level of assistance you have selected on the PAS. (remember using the throttle will use more battery life up quicker).

To turn the lights on/off simply hold down the + button for a few seconds

**IMPORTANT: When using the throttle try to avoid hill starts and only use pedaling when the bike seems under strain to avoid motor burnout. In not doing this it can also void your warranty.**

*See the next page if your bike is fitted with LCD display

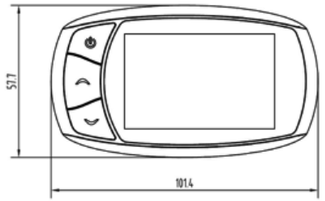
**LED display**

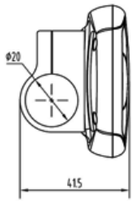
5 Speed pedal assist (PAS)/Lights

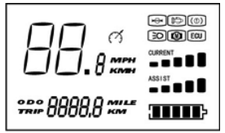

Twist to operate

Isolation button to turn throttle on/off.

# TC480 LCD Display Manual




| | Model | | | | | |
|---|---|---|---|---|---|---|
| **Function** | TC428 | TC430 | TC470 | TC480 | TC485 | TC486 |
| Battery indicator | ■ | ■ | ■ | ■ | ■ | ■ |
| Auto dormancy | ■ | ■ | ■ | ■ | ■ | ■ |
| 3 Speed PAS | ■ | ■ | ■ | | | |
| Manual cruisehrottle propel | | ■ | | | ■ | ■ |
| Pedal/throttle | ■ | ■ | ■ | | | |
| 5Speed PAS | | | | ■ | ■ | ■ |
| Instantaneous power display | | | | ■ | ■ | ■ |
| Speed | | | | ■ | ■ | ■ |
| ODO/TRIP | | | | ■ | ■ | ■ |
| Average speed display | | | | | ■ | ■ |
| Intelligent error codes display | | | | | ■ | ■ |
| Kilometer/mile Unit switch | | | | | ■ | ■ |

| **Display Description** | | |
|---|---|---|
| **Display** | **Function** | **Description** |
|  | Speed | Speed, display unit by MPH |
|  | ODO/TRIP | ODO for accumulative total mileage<br>TRIP for single mileage<br>Switch by function key |
|  | Battery indicator | Residual electricity display |
|  | Cruise identification | Display, for cruise state |
|  | Wheel diameter set | Manufacturer used to set up the diameter of the wheel |
|  | Throttle fault | Display, throttle abnormal |
|  | Brake instruction | Display when brake, If displayed when not braking, possible brake fault. Contact dealer |
|  | Light instruction | Display, lighting backlight |
|  | Motor fault | Display, Motor hall fault |

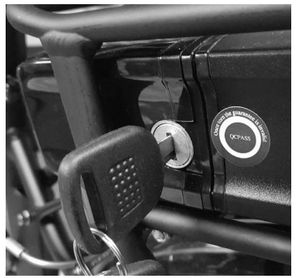
| Display Description | | |
|---|---|---|
| **Display** | **Function** | **Description** |
|  | Controller fault | Display, Controller failure |
|  | Current instruction | Points 5 level display the current current value |
|  | PAS instruction | 1-5 file display speed PAS |

| Key | Operation | Display | Function | Description |
|---|---|---|---|---|
|  | 1x briefly |  | ON, Once briefly when on turns lights ON/OFF | Press once turns on TC480. After this, Illumination is switched on/off with a key press |
| | 2 x briefly |  | Resets the Trip Meter | Click and turn on /off the light |
| | 1x long |  | OFF | Pressing this button for longer switches the display off |
|  | 1x briefly |  | PAS Increase | Every click, PAS increase a level, total of five assist levels |
| | 2 x briefly |  | ODO Mileage | Press 2 twice, ODO mileage is displayed |
| | 1x long |  | ODO Mileage Reset | Long press for 5 seconds resets the ODO mileage |



| Key | Operation | Display | Function | Description |
|---|---|---|---|---|
|  | 1x briefly |  | PAS Decrease | Every click, PAS moves down a level,five levels to choose from, when bottom bar is flashing PAS is off |
| | 2 x briefly |  | Trip Mileage | Press 2 times ,TRIP, mileage is displayed |
| | 1x long |  | Triggers walk assist | Long press/hold = walk assist (6kmh) |
|  | 1x long |  | Set wheel diameter | Long press at the same time, Speed display adjustment. Release then Press again setting wheel diameter. After setting,long press at the same time to return to home screen. |
|  | 1x long |  | Set the working voltage | Press and hold three buttons for 8 seconds and select the right voltage using the up/down button |

# Battery Charging & Removal:



To charge the battery: This can either be done in situ or via removing the battery first. The charge point is situated on the right hand side of the battery.

Turn on the charger first prior to plugging it in to the battery (the charger should indicate a green light). When plugging the charger in to the charge point the light will turn from green to red to indicate it is charging. It will then change from red to green to indicate when it is charged. (you can then remove the charger)

**Step 1**
Insert the key in to the lock found near the front of the battery rack. Push the key in and turn the key anticlockwise 180 degrees. This should release the lock.

**Step 2**
Once the lock has released place fingers on the underside of the battery at the back and your thumb on the battery rack. Using you thumb for leverage pull the battery backwards until it starts to slide out. It may be a little stiff but it should still pull out relatively easily. If it doesn't check the lock has been turned the correct way. Clockwise will lock, anticlockwise will unlock.



# Battery Charging & Removal Continued

## *Replacement*

To replace the battery it is imperative you line up the grooves on the battery casing with the locating plate. If you Fail to do this unnecessary damage can be caused when later trying to remove it. Also the battery will not fit correctly at the connection end.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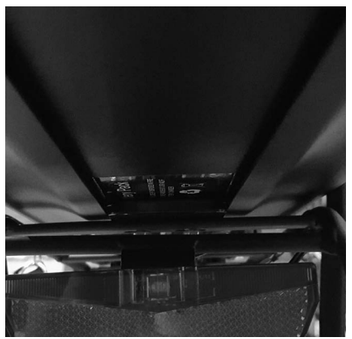
Do Not: force the battery in and out if it is stiff to do so. When fitted correctly it should slide in and out easily.



✓

Once the battery is located correctly slide it all the way down until it stops. If fitted correctly the battery should slide all the way in with out the need for excessive force being required. Lock it back in by turning the key 180 degrees clockwise and your ready to go riding.

# 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 your self really depends on your skill, knowledge, experience level and if you have the necessary tools for the job.

If there is 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. Disclaimer:…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 chain ring 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:**

- CHARGE BATTERY IF NOT IN USE FOR AT LEAST 1 – 2 HOURS TO KEEP FROM AFFECTING YOUR WARRANTY
- 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 deal check it.
- Check cables for free movement, rust, kinks and fraying. Replace if necessary
- Check wheel spokes are all tighjt 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:**

- Tyre 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.

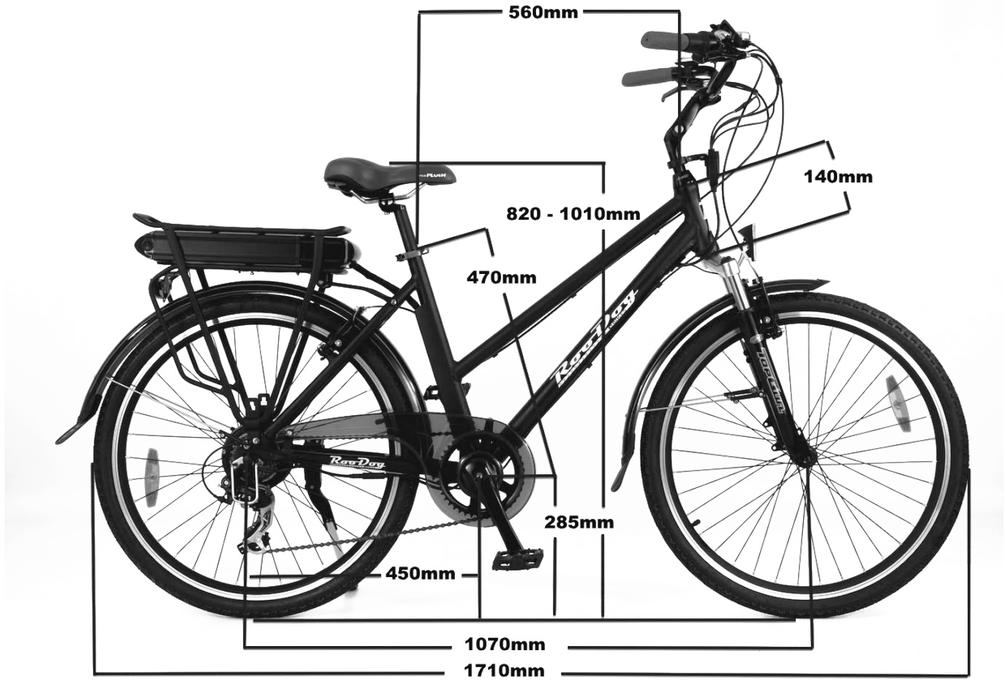
**Repairing a puncture:**

- 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 came 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 making sure the arrows line up correctly. (incorrectly replaced in 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

| | | | |
|---|---|---|---|
| **Motor:** | 250w 36v last generation rear wheel hub brushless motor with max speed of 15.5 mph which is allowed by UK/EU regulation | **Gears:** | Shimano 7 speed megarange |
| **Battery:** | 36v 13.2 Ah lithium-ion (standard) or 36v 16Ah upgrade | **Tyres:** | Kenda 26 inch |
| **Charge time:** | 4 - 6 hours from flat | **Frame:** | 6061 aluminum alloy |
| **Range:** | Up to 40 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) | **Lights:** | LED lights front and rear |
| **LCD Display:** | Battery indicator, management of 5 speed PAS, LED lights, trip meter and speed read out. | **Front fork:** | Top Gun aluminum alloy suspension fork. |
| **Power modes:** | Pedal only, pedal assist PAS (a combination of pedaling and motor) If applicable throttle only mode. (no pedaling required) | **Brake:** | Front & Rear v brake |
| **Rims:** | Aluminium alloy, double wall. Inner 19mm | **Max load:** | 120KG (18.9 stone). Including rider and all luggage. |
| **Weight:** | 23 KG including battery 20 KG without | | |



# Warranty:

**Requirements for warranty:**

- Please retain your receipt as proof of purchase as this is your warranty and warranty will start from the date of purchase.
- Warranty is non transferable and only applies to original owner.
- Warranty covers – main bike frame, front forks, mud guards, wheel rims, gears, bearings, motor casing and hub motor, LED controller display, brakes (excluding brake pads), battery and charger.

**Items covered by 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.**

**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.

**Items not covered:**

Brake pads, tyres, lights and cables or anything else that can be seen as consumables. These parts can however be purchased from RooDog Ltd or from your local Retailer/bike shop.



# Troubleshooting

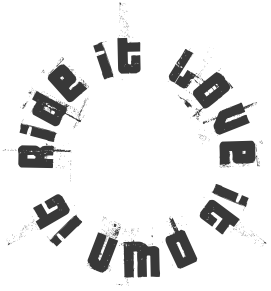
| Problem | Possible Causes | Solution |
|---|---|---|
| Power on but motor not working: | › Motor not connected correctly.<br>› Rotation disc damaged or not close enough to sensor.<br>› Brake lever is pulled in triggering the cut off sensor.<br>› Loose connection or controller fault. | › Check connection plug is pushed together fully.<br>› Clean and push closer if needed. Contact dealer if damaged.<br>› Make sure both brake levers are fully out not triggering the sensor.<br>› Contact your dealer. |
| No Power at all: | › Uncharged or dead battery.<br>› Key not turned on.<br>› Faulty switch or loose connection somewhere. i.e the LED display.<br>› Faulty controller | › Recharge the battery and try again. If problem remains then contact your dealer.<br>› Check the key is on position<br>› Check the connections of the LED display, the motor and the battery.<br>› Contact your dealer. |
| Travelling shorter distances per charge than rated: | › Hill climbing, frequent stop/starting, head wind or heavy load, excessive use of throttle.<br>› Tyre pressures too low.<br>› Battery under charged or faulty charger.<br>› Battery capacity loss or damage | › Use 1.1 pedal assist and pedal harder. Reduce the use of throttle and lighten the load when ever possible.<br>› Inflate tyre to correct amount indicated on tyre sidewall.<br>› Charge the battery or contact dealer.<br>› Contact dealer to inspect. |

# Troubleshooting Continued:

| Problem | Possible Causes | Solution |
|---|---|---|
| Charging:<br>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) | › Battery is already full.<br>› Charger lead not connected to the battery properly<br>› Fault with the charger.<br>› The battery has gone in to sleep mode due to not been charged to protect the cells. | › Drain some power by riding the bike and then retry charging.<br>› Check the connection.<br>› Contact Dealer.<br>› Contact Dealer. |
| Charger doesn't work: | › Fuse has blown.<br>› Has been damaged through misuse. | › Change fuse and retry.<br>› Contact dealer. |

**Important:**

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




RooDog eBIKES

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