

# emuu

## QUICK START GUIDE & USER MANUAL

EVO MK 1



[www.emubikes.com](http://www.emubikes.com)

# USER MANUAL – CONTENTS

<b>1. COMPONENTS</b>	<b>2</b>
<b>2. INTENDED USE</b>	<b>3</b>
<b>3. USING YOUR EMU ELECTRIC BIKE</b>	<b>3</b>
Using the Display	3
Understanding Pedal Assistance	4
Battery and Battery Care	5
<b>4. GETTING TO KNOW YOUR EMU</b>	<b>6</b>
Stem, Handlebar & Display angle	6
Saddle & Seat Post	6
Pedals	7
Bottom Bracket & Cranks	8
Brakes	8
Chain	9
Derailleur Gears (Shimano/ LTWOO)	9
Mudguards	9
Front Wheel	9
Rear Wheel	10
Rims & Spokes	11
<b>5. CARE, CLEANING &amp; SERVICING</b>	<b>11</b>
Care	11
Cleaning	11
Servicing	12
<b>6. SAFETY TIPS</b>	<b>12</b>
<b>7. UK DECLARATION OF CONFORMITY</b>	<b>14</b>
<b>8. EU DECLARATION OF CONFORMITY</b>	<b>15</b>

This instruction manual is written in accordance with BS EN:15194:2017

## COMPONENTS

# 1. COMPONENTS



1. Frame
  - a. Top tube (not on Step Through)
  - b. Down tube
  - c. Head tube
  - d. Seat tube
  - e. Chain stay
  - f. Rear stay
2. Battery
3. Seat post clamp
4. Saddle
5. Seat post
6. Rear light
7. Rear mudguard
8. Rear brake
9. Motor
10. Kickstand
11. Derailler
12. Chain
13. USB connection
14. Headset
15. Front light
16. Front mudguard
17. Front fork
18. Spokes
19. Rim
20. Front brake
21. Tyre
22. Pedals
23. Crank set
24. Display
25. Brake lever
26. Stem
27. Handlebar
28. Gear shifter

## 2. INTENDED USE

Your new Emu electric bike or EPAC (Electronically Power Assisted Cycle) is built in accordance with BS EN 15194:2017 which means it has specific and regulated characteristics. EPACs have an auxiliary electric motor which will only provide assistance when the pedals are propelled by the rider. When the pedals are not turning, the electric motor will stop providing assistance.

The level of electric assistance given by the motor varies and can be selected by the controls on the display. Pedal assistance is provided up to a max of 15.5mph (25km/h).

The only time your Emu bike will provide electric assistance without the pedals turning is when using 'walk mode'. This is designed to give assistance (up to a speed of 3.7mph or 6km/h) when starting up the bike or pushing the bike up a hill.

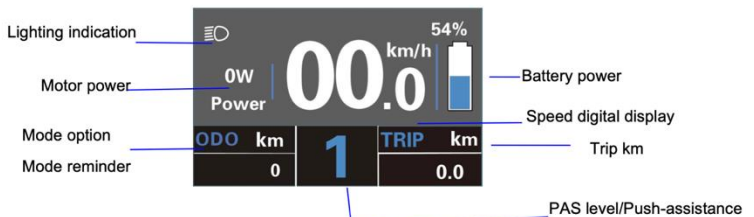
The bike, its components, motor and electrical system is designed predominantly for leisure use and commuting on roads and light trails. Use outside of these conditions could lead to damage to the bike, risk of injury and will void the warranty.

The bike has a maximum permissible total weight (rider weight + luggage) of 120kg. Information on your bike can be found on the frame sticker at the bottom on the seat tube.

## 3. USING YOUR EMU ELECTRIC BIKE

### Using the Display

Your Emu bikes functions are controlled by the display (KD-286) on your handlebar.



Press and hold the power button for 1 second to turn on/off the display. The display will automatically shut down when it is not in use.

## USING YOUR EMU ELECTRIC BIKE

To turn the bike on, ensure the battery is on by pressing the button at the bottom of the battery. Blue indicates the battery is close to fully charged, green means it has some charge and red means it has no charge.

### Basic Controls:

#### Function

Power assist level up  
Power assist level down  
Mode (Max Speed, Avg Speed, Trip Time, ODO)  
Lights on / off  
Walk mode on / off

#### Control

→ Press '+', 5 is the highest level of assist  
→ Press '-', 1 is the lowest level of assist, 0 is no assist  
→ Press ON/OFF button to cycle through  
→ Hold down '+' button  
→ Hold down '-' button, release to stop



The display has a USB connection which can be used to charge your phone or most other mobile devices. If you have no use for this facility, the USB connector can be removed.

For more information on the controls of your display, how to access the settings and a list of error codes, please read the full display manual available online at [www.emubikes.com](http://www.emubikes.com).

## Understanding Pedal Assistance

1. The front hub electric motor will smoothly kick in as you start to pedal with a barely audible sound. When setting off for the first time, use the lowest level of pedal assistance.
2. The power assistance provided by the motor enables you to cycle longer distances and with minimum effort to enjoy a comfortable, sweat-free ride, yet still arriving at your destination faster than a normal bike. If you add your own pedalling power, you can gain a physical work-out and take even more time off your journey.
3. The power-assist function kicks in once you start pedalling and stops shortly after you stop pedalling and immediately upon braking.
4. In accordance with EU regulations, the motor is restricted to giving a maximum output of 250 watts. The maximum speed permitted is 15.5mph (25km/h).

## USING YOUR EMU ELECTRIC BIKE

- The motor is maintenance-free and any work should only be performed by a recommended specialist cycle workshop. Contact us for advice and information. Any work done on the motor or electrical parts by a non-recommended cycle shop will void the warranty.

### Battery and Battery Care

Before first use, ensure the battery is fully charged using only the supplied battery charger, charge the battery. The light indicator on the charger will remain red until it is fully charged when it will turn green. Do not leave the battery charging once fully charged.



Only charge the battery with the supplied charger. **Do not** use any other manufacturer.



Lithium-ion batteries can heat up. **Do not** cover the battery or the charger. **Never** leave your battery in direct sunlight. Charge in cool, dry room.

The state of charge is shown on the display when turned on.

The Evo battery is fully integrated and is not designed to be removed by the user.

Your battery will operate most efficiently in temperatures between 10-30°C. Use outside this range may cause a temporary loss of capacity, especially in lower temperatures and winter months.

Please note that your battery will age over time whether in use or not, which may result in reduced range. To maintain maximum possible range, see care instructions below.

#### Correct care and storage:

When not in use, store your bike and battery at room temperature at an approximate charge of between 30-60%. Fully charge before each use. Regular charging is best for maintaining a long service life.



Storage of your battery fully charged or fully discharged for extended periods can shorten the life of your battery.



Long periods without charging may shorten the life of your battery (even with no use a battery life reduces with time).



**Always** follow instructions contained on the label of the battery and battery charger.



**Do not** leave the battery plugged in once it is fully charged.




**Do not** use the bike whilst charging. This can damage the bike and the battery.


## 4. GETTING TO KNOW YOUR EMU

### Stem, Handlebar & Display angle

1. **Stem angle** – To adjust the tilt on the Emu quill stem you need to loosen the single bolt located underneath the stem. Once the bottom bolt is loosened you can adjust the angle of the stem to a more flat or upright riding position. Retighten the bolt securely to the recommended torque.
2. **Handlebar angle** – To adjust the angle of the handlebars, loosen the handlebar bolts using the 5mm Allen key and move the handlebars to a comfortable riding position. Tighten the bolts to 10Nm
3. **Display** – Loosen the handlebar display clamp screw with the 3mm hex key and adjust the handlebar display position as necessary. Tighten the screw securely to 2-3Nm.
4. **Brake lever angle** – Loosen the brake lever clamp screw with the 5mm hex key to adjust the brake lever position. The rider's fingers, hand and lower arm should be in a straight line when sitting on the saddle. Tighten screw to 6-8Nm. The bell is integrated into the brake lever.



 **Do not** loosen the bolts on the side of the stem; these are pivot points and allow the stem to tilt up and down.

 Overtightening the display mount bolt may break the mount. **Do not overtighten.**

### Saddle & Seat Post

1. **Saddle height** – To adjust the saddle height, loosen quick release clamp and slide the post up or down. Ensure the post is extended no further than the maximum mark shown on it. Tighten the quick release to finger tight. Do not move the saddle beyond the minimum insert line as this will damage the bike or cause potential injury.

## GETTING TO KNOW YOUR EMU

- Saddle angle** – The bike saddle is supported underneath by a 'holder'. The holder allows you to slide the saddle forward or backwards. Use the 8mm Allen key to loosen the clamp that secures the saddle to the seat post. After positioning the saddle correctly, re-tighten the bolt to 20Nm. The seat clamp also allows you to raise or lower the nose of the saddle. Set this initially so the saddle is horizontal. Once you have ridden a few miles you may wish to adjust the nose for improved comfort.



**Do not** move the saddle beyond the minimum insert line as this will damage the bike or cause potential injury.



**Always** ensure the saddle is clamped within its limits indicated on the rails.



## Pedals

- Look closely at the pedal axles, you should see a small 'R' and 'L' for the 'right' and 'left' (when sitting on the bike).
- Choose the appropriate pedal for each side and insert it into the correct crank arm, turn the pedal axle towards the front of the bike (both pedals thread in this direction, so the left pedal turns anti-clockwise, and the right pedal turns clockwise). If it doesn't turn easily, do not force it. Check you have the correct pedal and are inserting it level at 90° to the crank
- Thread both pedals into the crank arm as far as you can by hand. Then fully tighten to 30Nm using the 15mm spanner.
- Pedals are assigned to left and right, they are not interchangeable.





### Bottom Bracket & Cranks

1. **Chainrings** – these are subject to wear; their service life depends on various factors such as maintenance, type of use and distance travelled. Always check for wear and tear.
2. **Cranks** – must be securely fastened as this could otherwise damage the crank set. Cranks can come loose which is why you should regularly check whether they are securely fastened by attempting to rock them to and from the frame. If there is play in the cranks, have the bike checked and the cranks fastened securely by a professional bike workshop.

### Brakes

Pulling the left brake lever engages the rear brake and the right lever engages the front brake.

#### **Check the brakes:**

- Test the brakes by pulling the levers while standing over the bike. Push the bike forwards, the front wheel should not move, and the bike should tip forwards. Pull the bike backwards, the rear wheel should not move and the bike tip backwards.
- The gap between the brake block and the rim should be roughly 1 mm.
- If required, you can readjust the rebound force via the spring adjustment screws so that both brake arms move symmetrically.
- Once you have done this, check that the brake is working properly.

#### **Adjusting the brake with brake cable adjusting bolt:**

- Your bike is fitted with hydraulic brakes and should only be adjusted by a trained mechanic.

#### **Wear of brake pads:**

- Most brake pads for disc brakes come with wear indicators. If these are worn and can no longer be seen, this is normally a sign that the brake pads need replacing.

## GETTING TO KNOW YOUR EMU

- Do not ride your bike if the brake pads are worn. Have them replaced by a professional bike workshop.
- Check the brake pads regularly for signs of wear.
- Have them replaced by a professional bike workshop.

### Chain

1. **Lubricating the chain** – Clean and lubricate your bike chain regularly, especially if the bike has been ridden in rain. Only use products recommended for bicycle chains.
2. **Check the wear of the bike chain** – Take the section of the chain that rests on the front chainring between your thumb and forefinger. Pull the bike chain off the chainring. If the bike chain can be lifted by a significant amount, it is worn and must be replaced by a new one. The chain should be replaced by a professional bike workshop after roughly 2000 miles.



Test your brakes away from public roads before first use and if you are not familiar with them.



Contact points with high amounts of friction (e.g., brakes) can become hot after heavy use. **Do not touch** after heavy use.

### Derailleur Gears (Shimano/ LTWOO)

1. **Operation** – The Evo is fitted with either a Shimano, or LTWOO, 7 speed derailleur gear system. The stepped gear system is easily operated by using the gear shifter on the right-hand side of the handlebar.
2. **Maintenance** – Derailleur gears will require adjustment and alignment from time to time, for which we recommend visiting your local bike shop or an EMU Dealer. See 'Rear Wheel' for removal instructions.

### Mudguards

1. **Checking the mudguards** – regularly check that the mudguard stay bolts are secure to 5Nm.

### Front Wheel

1. **Front wheel removal** – Ensure the bicycle is turned off. Loosen the quick release. Remove the front wheel from the front dropout.

## GETTING TO KNOW YOUR EMU

- 2. Removing the tyre and inner tube** – Unscrew the valve cap from the valve. Allow the remaining air to escape from the inner tube. Place the tyre lever on the inner edge of the tyre opposite the valve. Lever the tyre sidewall over the rim flange. Push the second tyre lever between the rim and tyre approx. 10 cm away from the first one. Continue levering the tyre off the rim until the tyre has detached round the entire circumference. Take the inner tube out of the tyre.
- 3. Spare tyres and tubes** – refer to side wall of tyre.
- 4. Fitting the tyre and inner tube** – Make sure that the rim tape covers the spoke nipples and is undamaged. Put the rim with one edge inside the tyre. Push one side of the tyre completely into the rim. Insert the valve through the valve hole in the rim and fit the inner tube inside the tyre. Push the tyre over the rim sidewall. Pull the tyre forcefully into the centre of the rim. The area that has already been fitted will slip into the base of the rim. Check once again that the inner tube is seated correctly. Push the other side of the tyre completely over the rim flange using the heel of your hand. Inflate the inner tube slightly. Check that the tyre is correctly seated and is true using the indicator ring on the rim sidewall. Adjust the seating of the tyre by hand if it does not run straight. Inflate the inner tube up to the recommended tyre pressure.
- 5. Pumping the tyre** – Unscrew the valve cap to inflate the tyre. Inflate to the recommended tyre pressure (refer to sidewall of tyre). The optimum and maximum pressure values are also embossed on the sidewall of the tyre. Never exceed the maximum value! When inflating tyres out and about, if you press your thumbs hard into the inflated tyres, there should not be much give.
- 6. Front wheel reinstallation** –Place wheel on dropout ensuring that the disc slides neatly into the calliper (do not force it). Tighten the quick release finger tight. Check that the brake is working.

### Rear Wheel

- 1. Removing the rear wheel** – Unplug the motor cable. Shift the gears so the chain is on the smallest gear (7). Loosen the wheel nuts with a #15 spanner. Remove the C-Clips of the shifting cable underneath the chain stay. Pull the derailleur gently towards the back of the bike to make the chain slack and remove the rear wheel from the rear dropout.
- 2. Installing the rear wheel** – Press the derailleur down to open the chain and create slack. Place the chain on the smallest gear of the wheel and pull the wheel up, keeping it straight. Adjust the wheel so the axle fits snug within the dropouts on the frame. Fit the fixing washers so the projections precisely engage in the slits in the dropouts on the front or rear of the axle. Ensuring the wheel is centred, tighten the wheel nuts to 30-40Nm with a #15 spanner.

## CARE, CLEANING & SERVICING

Check the chain has the correct tension, the derailleur is correctly aligned and the wheel spins freely. Check that the brake is working.

### Rims & Spokes

1. **Checking the rims and spokes** – Check spokes are tight, check rims for distortion. If you notice cracks or form changes in the rims, have them checked or replaced by a professional bike workshop.



**Regularly check** brake pads and discs for wear. Worn out brake pads and/or discs can lead to a reduction in braking effectiveness and could lead to injury. Contaminated discs can have the same effect. If unsure always have your bike checked by a trained mechanic.

## 5. CARE, CLEANING & SERVICING

### Care

This bike, its components, motor and electrical system is designed predominantly for leisure use and commuting on roads and light trails. Use outside of these conditions could lead to, increased wear and tear, damage to the bike, risk of injury and will void the warranty.



**WARNING** — As with all mechanical components, an EPAC is subjected to wear and high stresses. Different materials and components may react to wear or stress fatigue in different ways. If the design life of a component has been exceeded, it may suddenly fail, possibly causing injuries to the rider. Any form of crack, scratches or change of colouring in highly stressed areas indicate that the life of the component has been reached and it should be replaced.



**Always** remove the battery during maintenance.



**Do not** use a high-pressure washer to clean your bike.



**Do not** leave the bike out in wet conditions. If the bike gets wet during use, dry after use ensuring all electrical components are completely dry.

### Cleaning

Regular washing and cleaning of your Emu bike and its components is recommended in order to lengthen the life of your Emu bike. To prevent corrosion and the dilution of lubricants, remove mud and dirt by washing with as little water as possible and then immediately dry your Emu bike. Suitable cleaning materials are supplied by specialist cycle suppliers.

## SAFETY TIPS

Do not use high-pressure washers to clean your bike. These are likely to lead to water penetrating the protective seals on your bike increasing the likelihood of corrosion, reducing the lifespan of components and could ultimately lead to failure of the electrical system.

### Servicing

An annual service is required in order to maintain a valid warranty. A map of Emu approved dealers is available at [www.emubikes.com](http://www.emubikes.com) for details.

Maintenance and repairs must only be done by a specialist cycle shop, recommended by us at EMU bikes.

In addition to an annual service, regularly inspect your bike for damage or worn components which may become necessary to replace. Regular replacement of safety-critical parts should also be considered.

Always replace components with the appropriate and correctly fitting and sized components. For example, tyres and tubes should be replaced with the exact size originally supplied (indicated on the side wall of the tyre).



When replacing safety-critical components, always use genuine replacement parts.



**Unauthorised** changes or manipulation to the bike, its components and electrical system (tampering) may put the rider at risk and will void your warranty.

## 6. SAFETY TIPS

- **Always** ride wearing a helmet.
- Be visible to other users of the road. Wear a reflective jacket at all times.
- **Always** switch on front and rear lights when the light conditions are poor and as dusk approaches, and ensure you have reflectors, especially when riding on public roads.
- Your Emu electric bike can be considerably faster than a non-electric bike. Stopping distances will therefore be marginally longer. Take the time to get to know your electric bike before riding near traffic, or pedestrians.
- Adjust your speed and expectations according to the road conditions. In icy, or wet weather the roads become more slippery, and you will need to allow greater braking distances.
- Avoid potholes, loose terrain, spills, and obstacles.
- **Do not** carry adult passengers or overload the bike.

## SAFETY TIPS

- You do not legally need a driving licence to ride an electric bike, but you should know the Highway Code relating to Rules for Cyclists – on [www.gov.uk](http://www.gov.uk) website.
- Be aware that live parts connected to the electric motor may be live if covers or wires are exposed. Do not allow children to play with the Emu electric bike.
- Eye protection - good vision is vital for cycling safely. Many cyclists find it more comfortable to wear visors or glasses, to avoid such hazards as insects, dust or spray from rain.
- Braking - learn how to stop your bike safely. Apply both front and rear brakes at the same time with a steady pull on the levers. A good habit in traffic is to keep two of your fingers placed over the brake levers as you cycle so that you can brake quickly if necessary. Practice braking in dry and wet conditions so that you feel in control at all times. Wet conditions greatly increase the stopping distances needed and make roads slippery. Be aware of how your bike reacts in different conditions and adjust your speed accordingly. Cycling with the power assistance turned on enables you to go faster with less effort. You should be aware that the increase in speed means you need to allow for a greater stopping distance.
- Pedalling - always pedal with the ball of your foot, not the instep. To pedal efficiently ensure your foot is tilting slightly downwards as you reach the bottom of the pedalling stroke and then slightly upwards at the top of the stroke.
- Finally, always remember, be alert and anticipate so that you can react in good time to other road users, road conditions and potential hazards like potholes etc. Position yourself well on the road so that you are visible and have good visibility yourself. Be seen! Be safe!

The A-weighted emission sound pressure level at the driver ears is less than 70 dB(A).

## 7. UK DECLARATION OF CONFORMITY

### UK Declaration of Conformity

**EMU ELECTRIC BIKE COMPANY LIMITED**  
**PO Box 722**  
**WD3 0LY RICKMANSWORTH**  
**UNITED KINGDOM**

**As the manufacturer we hereby declare that the following product(s):**

**Product models: Emu Classic / Emu Roam / Emu Evo**

**are in compliance with the essential requirements of the following Directives:**

- **Supply of Machinery (Safety) Regulations 2008**
- **Electromagnetic Compatibility Regulations 2016**

**And with the following harmonised standards:**

- **BS EN 15194:2017**

**Technical file contact name and address:**

**Ben Nurse, Sales Manager, EMU ELECTRIC BIKE COMPANY LIMITED,  
PO Box 722, WD3 0LY, Rickmansworth, United Kingdom**

**Authorised signatory on behalf of EMU ELECTRIC BIKE COMPANY LIMITED:**

**Signed:** 

**Name and role:**

**Ben Nurse, Commercial Manager, EMU ELECTRIC BIKE COMPANY  
LIMITED, PO Box 722, WD3 0LY, Rickmansworth, United Kingdom**

**Date: 30/04/21**

## 8. EU DECLARATION OF CONFORMITY

### EU Declaration of Conformity

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**Product models: Emu Classic / Emu Roam / Emu Evo**

**are in compliance with the essential requirements of the following Directives:**

- **Directive 2006/42/EC (Machinery)**
- **Directive 2014/30/EU (EMC)**


**And with the following harmonised standards:**

- **EN 15194:2017**

**EU technical file contact name and address:**

**Ben Nurse, Sales Manager, EMU ELECTRIC BIKE COMPANY LIMITED,  
PO Box 722, WD3 0LY, Rickmansworth, United Kingdom**

**Authorised signatory on behalf of EMU ELECTRIC BIKE COMPANY LIMITED:**

**Signed:** 

**Name and role:**

**Ben Nurse, Commercial Manager, EMU ELECTRIC BIKE COMPANY  
LIMITED, PO Box 722, WD3 0LY, Rickmansworth, United Kingdom**

**Date: 30/04/21**



# emu

**Editor:**

Emu Electric Bikes

PO Box 772

Rickmansworth

WD3 0LY

United Kingdom

(+44) 0203 797 7555

[www.emubikes.com/contact-emu-bikes/](http://www.emubikes.com/contact-emu-bikes/)