

# **USER MANUAL**

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In order to ensure your safety and maximize your enjoyment of your new KOBRA bike, we have outlined some important topics in this Manual. Please read them carefully before use.

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- 2 Do's and don'ts
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## **Safetytips**

Before driving your new KOBRA E-bike, please read the content of this Manual carefully. If you do not understand any section of this Manual or if any function is not operating according to this Manual, please contact your dealer immediately.

## In the box you will find the following items:

- 1 KOBRA E-Bike
- 1 KOBRA Battery
- 1 Pair of Pedals
- 2 Battery Keys
- A Warranty Card

## **ASSEMBLY INSTRUCTIONS**

Your KOBRA bike is shipped 85% assembled. Follow these final steps to get it ready and safe for you to ride.

## **To Prepare**

We recommend that you check out all the parts first before assembling. Gather all required tools. Be sure to work in a clean, dry space with plenty of room. You might wish to lay down a rug or old blanket to protect the bike from damages during assembly.

We'd recommend to stand the bike frame on a sturdy box under the battery housing to lift it from the ground and work with it in an upright position. Please watch the balance when installing wheels as weight will increase on that side.

Before you start assembling the bike we'd recommend to put the battery in the charger for it to fully charge before first use.

Do not activate the brakes until the bike is fully assembled. Squeezing brake levers while calipers have no disc rotor between them can damage the brakes.

## 1.Unpack

Carefully lift the electric bike out from the carton (we recommend to do this by at least 2 people). Cut the nylon zip ties with and remove the foam protection from the bike.

#### 2. Handlebar

- 1. Put the handlebar into the handlebar stand on the frame (as shown in Figure 1), and cross lock the mounting screws of the handlebar stand.
- 2. Lock the screws of the aluminum cover of the front fork assembly (as shown in Figure 2), and make sure the handle bar is in the right position before locking it.
- 3. Now lock the upper and lower screws on the side of the handlebar mount (as shown in Figure 3).
- 4. Now Adjust the display to the desired position (as shown in Figure 4).





Figure 1

Figure 2



Figure 3

Figure 4

## 3. Front wheel & brakesytem

#### 3.1 Install the brake disc

Take out the brake disc and the front wheel, use the Torx tool and tighten the screws 1-6 as shown below.



Tightening torque value:4-6N.M Tools needed:T25 Torx Wrench

#### 3.2 Install the front wheel

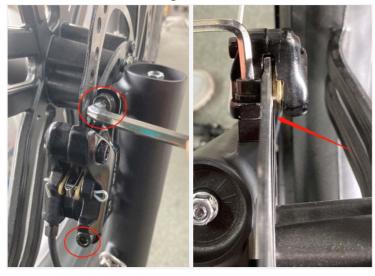
Place the front wheel axle on the front fork hook and pay attention to the brake disc, it should be in the middle of the caliper. And use an openend wrench tool to lock the front wheel in place.



Tightening torque value:30-35N.M Tools needed:16mm open end wrench

### 3.3 Adjust the brake caliper

Use an hex tool to tighten the upper and lower screws of the chuck base, so that the disc is in the middle of the chuck, and there is no noise of friction when turning the front wheel.



Tightening torque value:8-10N.M Tools needed:5mm hex tool

#### 4. Pedals

Attach the pedals to the cranks, please note letter L and R, L means Left pedal and R stand for Right pedal. Note: the pedals have opposing threads - screw in the left pedal counterclockwise and screw in the right pedal clockwise.



## That's it! Your KOBRA BIKE is now fully assembled!

Tips: We do reccommend to break in the brakes first to prevent the brakes from making noices in the future We recommend to fully charge the battery before first use as explained in the WARNINGS section

## **DO'S AND DON'TS**

Do treat your KOBRA BIKE like any bicycle you would want to last well... keep it stored somewhere secure and away from the elements.

Don't treat your KOBRA BIKE as a dirt-bike! The motor and battery are weather proof, but not water-tight. It is ok in rain, but not to ford streams, etc!

**Don't** power up the throttle while the eBike is held stationary. Motor operation for more than a few seconds while the wheel is locked/ stationary can damage the motor and controller.

Important: Your bike will arrive with the battery partially charged. You need to give it a full charge before ANY use. The batteries have been precondition-cycled, so there is no need to do 3 full discharges. Just charge and go... then just top your battery up after each use (lithium batteries prefer shallow discharge). Then give your battery a complete discharge and full charge every 3 months or so to keep the cells well balanced.

Note: The LCD battery display bars will dip under full load (on hills, etc). This is normal as the running voltage drops under high load. To get an accurate battery reading, wait about 10 sec after the motor is not in use. The 4 step capacity lights on the battery will give you a more accurate idea.

**Do** take extra care on the road as you will be travelling faster than you normally do on a bike and your bike is now power-assisted, so will behave differently.

**Don't** let others ride your eBike unless you have properly explained safe and appropriate use to them.

**Don't** attempt to open the motor or battery should your system malfunction. This will void the warranty. Return it to the store you purchased it from.

Do make sure your charger has free air movement around it as it will get quite warm.

Don't use your charger outdoors. It is for indoor use only.

Do top up your battery whenever possible.

Lithium batteries actually prefer shallow discharge (the exact opposite of older types of batteries that have memory effects). Keeping your battery topped up between rides will prolong the life of your battery and give you more power too, as a full battery is better on the hills.

**Do** disconnect your battery from the charger when it is charged. Leaving it connected permanently when not in use will shorten cell life.

**Don't** leave a fully discharged battery uncharged for more than a week... you will shorten the lifespan of your battery the langer you leave it in a fullydischarged state.

**Don't** leave your battery for more than 3 months without top-up charging it.

Note: A battery left for more than 3 months at a low voltage may suffer cell damage. This will not be covered under your warranty. It is to your advantage to properly look after your battery as it is the most expensive part of your ebike!

**Important:** Though the risk of battery fire with charging Samsung or LG 18650 cells is considerably lower than cheaper, unbranded cells (online data suggests about one in 40 million for the cells we use - i.e., you are more likely to get struck by lightening), it is still possible. Treat any charging lithium battery (including SmartMotion) as a potential fire risk (yes, this includes cellphones, computers too). If charging your battery while it is still docked into the bike simply make sure the bike (includes charger) is not on or leaning against a flammable surface. Same for charging battery off the bike, make sure the battery and charger is placed on a fire-rated surface (concrete floor, steel bench or shelf, etc).

## **Safe Riding Recommendations**

- 1. Please observe and obey any traffic regulations.
- 2. If you are in a country where wearing a cycle helmet is not obligated, we still strongly advise you to always wear one. If you are unfamiliar with cycling, we also advise you to attend a cycle course prior to using it, or gain advice from your local KOBRA dealer. Your KOBRA BIKE is'nt a toy, it should be considered a serious mode of transport.
- 3. As with all bicycles it is important that you stay within safe limits. If you teel you are traveling too quickly for the road conditions you probably are, so slow down! High speed will increase forces in the case of an accident and increase the possibility of injury.
- 4. Test your brakes prior to using the bike every time you use it and remember the bike will not stop as quickly in wet or icy conditions as it would on a dry road.
- 5. Check the tyres, rims, pedals, stem, cables, chain, etc for general condition regularly.
- 6. A rider is very difficult for motorists and pedestrians to see at dusk, at night, or at other times of poor visibility. If you must ride under these conditions, check and be sure you comply with all local laws about night riding; follow the rules of the road.

Take the following additional precautions: make sure that your bicycle is equipped with correctly positioned and securely mounted reflectors, wear light-colored, reflective clothing and or accessories (any reflective device or light source will help you get the attention of approaching motorists, pedestrians and other traffic). Make sure your clothing or anything else you are carrying on your bicycle doesn't obstruct a reflector or light. Ride slowly when conditions demand you to do so.

- 7. Check the front and rear rim's safety line. Replace wheel when any part of the Rim Wear Groove is not visible. It is dangerous not to do so.
- 8. You must not leave the bike unattended or use the kickstand to stand the bike without your support when a child is in the rear seat as the bike could tip over and cause serious injury.
- 9. Make sure the wheels underside of your seat is out of reach of your child to avoid finger or feet injury.
- 10. Your bicycle must be serviced by a certified dealer within the given time as stated in warranty clause. Not living up to this can void your warranty due to unnecessary wear.

#### **Pre-ride Checklist**

| Please make sure the brake lever sequence is correct for your country before riding. In UK, NZ and Australia the left brake lever is for rear brake and the right brake is tor the front brake. In all other countries it is the other way: left tor front, right tor rear. |
|---|
| Check the tyres tor any visible damage. Check tyre pressures are 30psi, and adjust if necessary.  |
| Check for any loose nuts, balts, or fixings. Check brake functions, cable tension, pad clearance, etc.  |
| Check if all electronic functions are in order  |
| Check the reflectors and if the lights are functioning  |

## **Torque Settings**

Check if the bolts are tightened according to the following recommendations before you set off tor the first time. me.

a. Seat pillar clamp nut/bolt 5N.M-8N.M

**b.** Brake cable anchor bolt 5N.M

| c. Front wheel axle nuts | 30-35N.M |
|--------------------------|----------|
| d. Seat angle clamp bolt | 24N.M    |
| e. Crank axle nuts       | R:42N.M  |
|                          | L: 46N.M |
| f. Gear shifter nuts     | 4N.M     |
| g. Rear carrier nuts     | 8N.M     |
| h. Mudguard bracket nuts | 8N.M     |
| I. Handle bar clamp nut  | 17-20N.M |
| j. Quill stem bolt       | 19N.M    |
| k. Seat tube clamp nut   | 4-7N.M   |
| I. Rear wheel axle nuts  | 40-45N.M |
|                          |          |

**m.** Quick release front axle. Measured torque not typically used. Common industry practice is resistance at lever half way through swing from open to fully closed.

For all other nuts, the torque depends on the nut

diameter: M4 2.5-4.0N.M M5 4.0-6.0N.M M6 6.0-7.5N.M

**Note:** make sure the axles are always done up tight on both wheels as connections to the motor and the dropouts can be damaged due to the axle spinning.

## Maintenance & Adjustment

### 1. Gear Adjustment

We recommend you to contact your dealer if found any problems with the gear changes. They can adjust it and set it to the appropraite tension. If you are experienced in tooling on bikes, you can adjust it by the screws on the back of the rear derailleur.

## 2. Cleaning your electric bike

Warm soapy water and a cloth can be used to clean the frame of your bike, but care must be taken not to immerse any of the electrical components; they are rainproof but cannot be immersed in water. The motor can be cleaned with a soapy cloth, but also must not be immersed in water. The battery can be cleaned with a damp cloth, then dried afterwards. Note: in salty conditions it is essential to clean and lube your bike regularly.

#### 3.Lubrication

- 3.1 Once a month lubricate all pivot points on your derailleur and the derailleur pulleys with suitable chain lube.
- 3.2 Every three months lubricate the brake lever pivots, gears and chain with suitable oil.

#### 4.0ther Maintenance

Your bicycle must be returned to your servicing dealer as stated in the warranty conditions for a general service and thorough inspection. Failure to do this can void your warranty due to unnecessary wear and tear.

Excluding the electric drive side of things, your bicycle is a normal bicycle, with normal components. Your dealer will be able to explain to you the general care and maintenance of the normal bicycle components. We recommend you to pop your bike in for a check-up after about a month's use as new gear and brake cables will stretch, then every 6 months after that.

The electric drive system is maintenance free and has self-diagnostic codes that will be displayed on the LCD console (detailed later in this user guide) should anything go wrong. Again, speak to your dealer should any issues arise.

### 5. Fork adjustment

RST front fork GUIDE 26-ML has springs that can rebound and adjust.

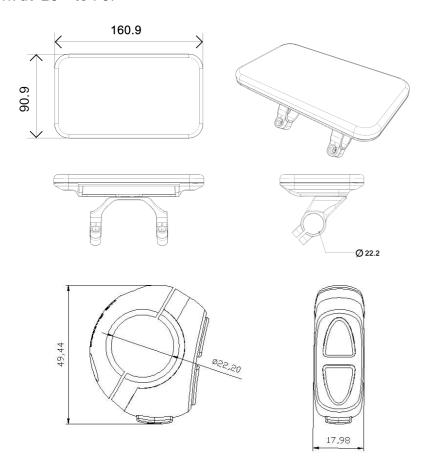
- 5.1 The front fork is the suspension fork. When sitting on the saddle, the suspension part will go down about 30%.
- 2.2 There is a black locker on the top of the right side of the fork, which can be locked follow the direction of the arrow and close it more when riding in the city. If riding on more bumpy terrain, please open the suspension loocker to soften the suspension.

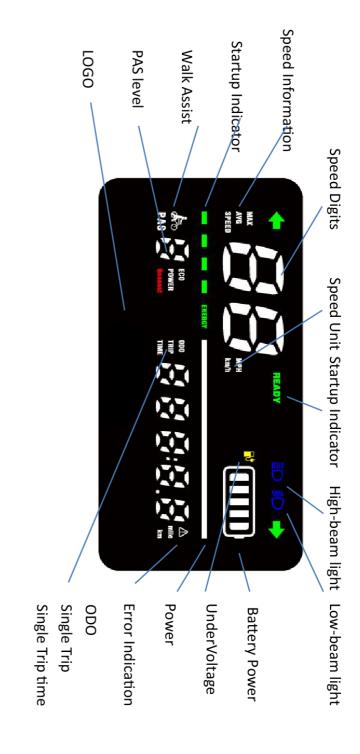
# **Display**



## 1. Exterior Parameters

The MS-01 product housing is made of plastic material. The material of the housing is made to work at-20 to 70.





#### 2. Functions

The KOBRA display provides you with a variety of function modes, to meet your riding needs.

2.1 On/off

After Long pressing [MODE], the display starts up and provides power to the controller. When on, long press [MODE] to power off the electric bike. When powered off, the display no longer uses the battery power supply, and the leakage current of the meter is less than 1uA.

If the E-bike is not used for more than 10 minutes, the display will automatically shut off.

#### 2.2 Speed/Trip/ODO info

After turning on, the display defaults to indicate real-time speed. Short press [MODE] to switch the indicated information.

Indicated in order:

Running Real-time speed (Km/h)  $\rightarrow$  Average Speed (Km/h)  $\rightarrow$  Max Speed (Km/h) (unit : Km/h)

Real-time speed (Km/h).

At the same time, the mileage information will also be switched, successively displayed as: ODO (unit: Km)  $\rightarrow$  single trip (unit: Km) $\rightarrow$  single trip time $\rightarrow$  ODO (unit: Km).

When it is in the TRIP display interface, long press [DOWN] and [MODE] at the same time, it will clear the single trip zero.

#### 2.3 Walk Assist

After pressing the [DOWN] button for >2seconds, the e-bike enters the mode of walk assist state. The e-bike will go on at a uniform speed of about 6 Km/h. 6KM icon flashes on the screen.



#### 2.3 Lights

The KOBRA bike has a large front and a tail light installed. The tail light includes a brake light. To turn the lights on/off, long press the [UP] button.

### 2.4 Driving modes

The bike features different driving modes, which limit the power and top speed of the electronic paddle assistance. You can switch modes by short pressing the 【UP】 and

【DOWN】 button selecting level 1 (low) to 5 (high). Small tip: the lower the mode the more km's you can do on one charge. So you'll have a longer range when driving in a lower mode.

#### 3. Error codes

When the e-bike electronic control system fails, the display will automatically indicate the error code. Each error code indicates a different problem. The bikes electronic system will stop functioning when an error occurs and can only be activated once the underlying problem has been fixed.

#### 3.1 Explaining the codes

You may find the explaination for each code on the right side.

#### 3.2 How to fix

After identifying the defenition of the code, we want to ask you to check if al cables are connected properly and if there are any visible damages. We'd like to ask you to turn off the bike, afterwards turn off the battery, take out the battery en then fully charge it. If after reconnecting the battery with a full charge the problem still exists, we'd recommend you to contact a certified KOBRA bike dealer.

| Error Code | Definition                |
|------------|---------------------------|
| 21         | Current problem (battery) |
| 22         | Throttle problem          |
| 23         | Motor phase problem       |
| 24         | Motor Hall defect         |
| 25         | Brake failure             |
| 30         | Communication failure     |

# **Battery Instructions**

## 1. Charging the battery

The battery can be charged on the bike or detached from it. The charging port is located on the right side of the battery. Rotate the cover and insert the charger. The red indicater led on the charger will turn green once the battery is fully charged.

Note: We reccommend you to charge the battery at least once every two months. We advice you to check if the charging port cover is in place before each ride to protect the battery from any possible damage.

## 2. Removing the battery

Removing the battery from the bike is possible. This makes it easy to swap batteries. This way you can always enjoy a full charge when in possession of a second battery.

You can remove the battery from the bike by inserting your key inside of the lock on the left side of the battery and turn. When unlocked you may slide the battery forward and afterwards you can lift it out. To place back the battery reverse these steps.

## 3.Battery functions

On the right side of the battery you may find a red switch. For the battery to function, you'll need to turn it on. Turning the battery on can be done by flipping over the red switch.

Once the battery has been turned on you can check the charge level on the battery itself. On the front of the battery you may find a LED indicator, which shows you the current charge after pressing the button on the indicator. This indicator shows you the most accurate charge.

# Warranty

All KOBRA bikes come with a 24 month warranty against manufacturing defects in materials or defects on the frame, battery, controller and motor, not linked to wear and tear due to negligence in maintenance or abnormal use off the ebike.

#### **Terms and conditions**

The frame, battery, controller and motor are all warrented for a period of 24 month starting from the delivery date of the KOBRA bike. Always feel free to contact a certified dealer if anything will go defect after this period, so that they can provide you with spare parts or help you with a repair. If any of the parts are damaged during the shipping process, please contact us within 24 hours after delivery so that we can sort this out with you by replacing the damaged part(s).

If any defects occur during this time span, then we recommend you to get in touch with your local dealer. If you bought the KOBRA bike online, feel free to contact us so that we can make a repair on location or setup an appointment with a local bike repair shop. The KOBRA bike is limited to 25km/h. Modifying the bike/settings and doing repairs by yourself will void warranty for all parts linked to the modification or repair.

We recommend you to have all repairs done by a certified KOBRA dealer/repairshop. Every KOBRA bike should have a service checkup by a certified dealer/repairshop after one month starting from delivery date or after reaching 100km, whichever comes first. The first servicing is covert by the KOBRA dealer/repairshop. After that the KOBRA bike should be brought back to service every 6 months or 500km, whichever comes first to stay egligible for warranty. If not followed up on this advice the warranty will be voided and your bike may experience problems due to unnecsessary wear and tear. If bought online, always feel free to contact us so that we can recommend the closest service point.

KOBRA bikes is not responsable and can't be hold accountable for any damages. In no event will we be responsable for incedental or concequential damages, personal injury, property damage or economic losses, whether based on contact, warranty, negligence, modifications or other theories. You are responsable for your own actions when using a KOBRA bike. The above warranty does not cover regular wear and tear (like brakes and tires etc.). All warranty is void when the bike is used for different means then 'normal bike usage' like of roading and doing stunts. This bike is made for city/road use.

Thank you for your trust in KOBRA bikes! We hope that you may enjoy every ride!