

# MB6

## USER MANUAL

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4. Structure and Technical Parameters of Complete Vehicle
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Dear Users;

Our company makes RKS brand electric bicycle become a kind of environmental protection type leisure traffic tool instead of walk with elegant, beautiful shape and modern luxurious feeling by virtue of novel management model, abundant technical force, perfect quality system, first-class workmanship equipment and an excellent professional team of technology.

This bicycle has safe and reasonable structure and design, adopts high-efficient and superior-performance electric hub, high-energy seal type free of maintenance jelly battery and front fork shock-preventing device to improve the comfort of riding. It has one kind of function for riding by pedal driving. It is a kind of ideal traffic tool instead of walk.

In order that this bicycle can offer better services for you, please read carefully this user's manual before use, please make sure to follow the requirements of this user's manual in order to make your electric bicycle in the best status and make you to travel more safely, comfortably and successfully.

This product is designed for transportation and is environmental friendly. Below are the characteristics and advantages of this electric bicycle.

- High-efficient brushless DC motor.
- Digital controller with indicator and protection from over voltage and under voltage.
- Brake system with power cut-off ability to ensure safe riding.
- Battery with high performance offering stronger current and longer distance for drive.
- Front and rear suspension system providing a smooth and comfortable riding

Please note the following important safe matters in order to ensure your safe driving and use this bicycle better.

1. Please read the user manual carefully and check whether all spare parts is perfect before driving in order to ensure your safe driving.
2. Overloading is prohibited strictly.
3. It is recommended to carry out charging every day, to charge after electric quantity of battery exhausts is prohibited strictly
4. Inside the battery box of this bicycle there is a safety power source, when battery box is taken out, both jacks in lower end (namely positive pole + and negative pole - of battery) can't be touched by hand (particularly damp hands) at the same time, and also be prohibited to touch metal body (like key, etc.) or else unlimited short-circuit current produced will cause an accident and burn of human body. Please give a great attention to the above.
5. Please don't detach and disassemble spare parts or rebuild electric bicycle by itself, please purchase standard spare parts from the dealer RKS MOTOR EUROPE brand electric bicycle if to replace spare parts. Please repair timely if find power-cut don't happen when do a front or rear brake.
6. This bicycle can drive normally under the condition that depth of deposit water don't surpass center of electric hub when driving on road surface with dropsy in rainy weather. Electric hub will be infiltrated by water and cause a trouble from electric hub if dropsy of road surface surpass center of electric hub.

## General Rules

- Always wear an approved helmet when riding your bike, and follow the helmet manufacturer's instructions for fit, use and care of your helmet.
- When riding obey the same road laws as all other road vehicles, including giving way to pedestrians, and stopping at red lights and stop signs.
- Ride predictably and in a straight line. Never ride against traffic.
- Use correct signal lights to indicate turning or stopping.
- Ride defensively. To other road users, you may be hard to see.
- Concentrate on the path ahead. Avoid potholes, gravel, wet road markings, oil, curbs, speed bumps, drain grates and other obstacles.
- Expect the unexpected such as opening car doors or cars backing out of concealed driveways.
- Be very careful at intersections and when preparing to pass other vehicles.
- Familiarize yourself with all the bike's features. Practice signal lights, braking and the use of horns.
- Don't carry packages or passengers that will interfere with your visibility or control of the bike. Don't use items that may restrict your hearing.
- Maintain a comfortable stopping distance from all other riders, vehicles and objects. Safe braking distance and forces are subject to the prevailing weather conditions.

## Wet Weather

- In wet weather you need to take extra care.
- Brake earlier, you will take a longer distance to stop.
- Decrease your riding speed, avoid sudden braking, and take corners with additional caution.
- Be more visible on the road.
- Wear reflective clothing and use safety lights.
- Potholes and slippery surfaces such as line markings and train tracks all become more hazardous when wet.

### **Night Riding**

- Ensure that the front lights are on.
- Wear reflective and light coloured clothing.
- Ride at night only if necessary. Slow down and use familiar roads with street lighting, if possible.

### **Battery Use Caution**

- Do not short circuit.
- Must be disposed of properly.
- Use specified charger only.
- Do not expose the product to fire, water or moisture!
- Store in cool and dry place!
- Do not forget to lock your battery, charge the battery every month even if you do not use it.

### **Charger Use Caution**

- To reduce the risk of electric shock. Do not remove cover (or back).
- No user serviceable parts inside.
- Refer servicing to qualified service personnel before charging read the instructions.

## FIND THE MOTOR NUMBER AND FRAME NUMBER

MB6

Please find the “frame number” & “motor number” according to the next instruction of picture.



### WARNING!

**The product is not allowed to use by handicapped people!**

### Check Before Driving

Please do a check before driving in order to ensure your safety of driving

- Open power lock, check whether all indication of bicycle head is normal, brake power cut is effective?
- Whether tyre pressure is normal?(Short inflation will influence running speed or continual mileage.)
- Whether nut of front and rear wheel is locked
- Where electric energy is enough?
- Whether braking system is adjusted suitably and reliably?
- Whether handlebar and saddle is adjusted well and tightened?
- Structure and technical parameters of complete vehicle



# STRUCTURE AND TECHNICAL PARAMETERS OF COMPLETE VEHICLE

**MB6**

## Structure and Technical Parameters of Complete Vehicle

There can be differences between the illustrated vehicles and the vehicles in real.

<b>Standart</b>	EN15194:2017
<b>Engine Type</b>	Brushless Engine
<b>Maximum Motor Rated Power - Watt</b>	250W
<b>Motor Rated Voltage - V</b>	36V
<b>Speed</b>	25 km/h
<b>Range</b>	30 - 45 km
<b>Load Capacity</b>	100 kg.
<b>Front Brake</b>	V Brake
<b>Rear Brake</b>	V Brake
<b>Battery Type</b>	Lithium Battery
<b>Battery Capacity - Ah</b>	10Ah
<b>Battery Charging Time - h</b>	4- 6 Hour
<b>Tare Weight - Net</b>	27 kg.

*\* Informative Values*

## STRUCTURE AND TECHNICAL PARAMETERS OF COMPLETE VEHICLE

1. Rear Tire/Tubes
2. Rearwheel
3. Spoke
4. Rear Disc Brake
5. Freewheel
6. Derailleur
7. Chain
8. Rear Reflector
9. Seat Clamps
10. Seat Tubes
11. Saddles
12. Pedal
13. Wheel Stand
14. N/A
15. Battery Packs
16. Frame
17. Handle
18. Bar End Grips
19. Tube of Force
20. Headset
21. N/A
22. Front Forks
23. Front Brake
24. Left Brake Lever
25. Right Brake Lever
26. Shifter
27. LED Meter
28. N/A
29. Wheel Reflector
30. Shift Cables
31. Charger
32. Front Hub
33. Rear Motor
34. Spoke
35. Sensor
36. Chainwheel & Crank
37. Front Wheel
38. Front Tire/Tube



# PROFILE FOR CHARACTERISTIC OF PRODUCT

# MB6

- Tri-dimensional design body is carried out a scientific design to get the best riding effect according to body engineering and esthetics.
- Light, simple and elegant shape, exquisite selection of parts and materials make you get more comfortable driving effect..
- Operation of driving is simple, pedal design to get more comfortable effect.
- Be equipped with head light, it is safe and convenient for driving in the dark.
- In order to ensure your safety during driving, electric safety system will power cut automatically when brake.
- Its rated vehicle speed is 25km/h, that make driver secure and family relieved.
- It has one kind of driving method by pedal driving.
- In order to ensure life of battery, please charge timely when indicating point of electric quantity is closing red area. Part of electric quantity will be consumed if turn on headlight when drive in the dark, therefore that will cause continual mileage is reduced correspondently. Please note that the lighting time of headlight in the dark should be controlled suitably.

In order to ensure the life of battery, the users with enough conditions should keep charging as soon as possible anytime after use to make the battery keeping in full status. You have to charge timely when indication of electric quantity is only at a red light.

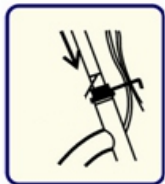


Fig 1

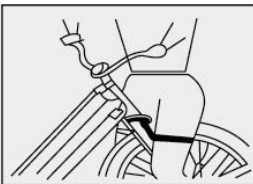


Fig 2

## Adjustment of Steering Wheel

- Inserted depth of vertical tube of wheel should be not lower than minimum depth (red safety mark); safety mark must be inserted into below hexagonal nut. (See fig. 1)

Stand in the front of wheel, clamp the front wheel by both legs and hold the handgrip with both hands to adjust the angle degree at between cross tube of handgrip and vehicle body. (See fig. 2)Screw down the fastening screw of wheel core, the torque recommended should be not less than 18N.m. (See fig. 2)

### Adjustment of Saddle

- Inserted depth of saddle tube should be more than minimum depth of insert (safety mark is for reference of minimum depth) to ensure the safety.
- Loosen the clamping screw of saddle and put into saddle tube, tighten the screw suitably, and then insert saddle tube into vertical tube of frame; put your both legs on the saddle to adjust the position of saddle tightly in order to ensure you can drive comfortably. (See fig. 4)
- Screw down clamping screw of saddle and saddle tube, recommended torque should be not less than 18N.m. (See fig 3)

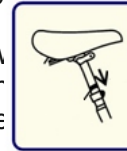


Fig 4



Fig 3

### Adjustment of Brakes



Set up a 3mm distance between the wheel and the brake pads, and then adjust (see the picture below) Keep the brake in the middle, and make sure the two brake pads work properly.

Level up the brakes (in its normal condition)

Adjust the brake pads, to keep it in line with the curve of the wheel.

At the end, Make sure the brake pads can have fully touch with the surface of the steel wheel.

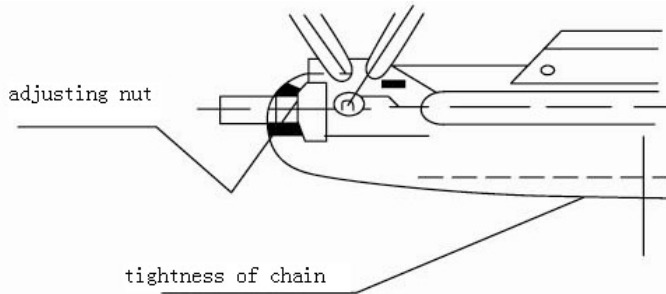
If only one side of the brakes works, adjust the nut.

# METHOD OF ADJUSTMENT OF ALL PARTS

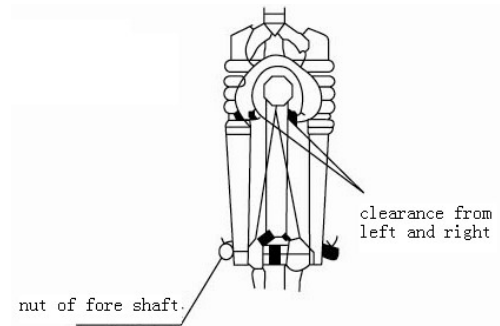
# MB6

## Adjustment on Tightness of the Chain

When adjusting the chain, please first loose the nut of back shaft and then adjust the screw of chain-adjusting screw, making the tightness of the chain in a proper degree and agile driving motion. Back wheel should be placed in the position of central symmetry. As soon as the chain droops 10-15mm, tight the nut of back shaft at once. The recommended tightening torque should not be less than 30N.m.(See Pic. 7)



Picture 7



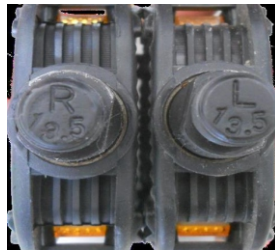
Picture 8

## Pedals

Check the sign on the pedal.

**R:** pedal for the right pedal-arm

**L:** pedal for the left pedal-arm



- Before riding the electric bike for the first time, you must charge the batteries for 4-6 hours using the supplied charger. To charge, remove the protective cover from the charging socket. Then plug in the charger into the charging socket, before plugging the charger into a wall outlet.

### IMPORTANT CHARGING INSTRUCTION

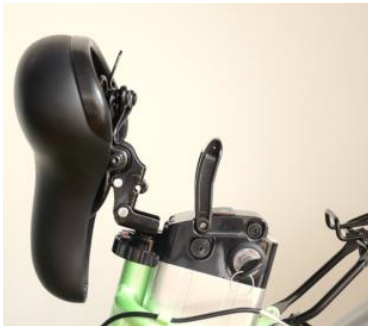
**The Power Switch Lock must be in the off position when the electric bicycle is being charged**

All batteries charge simultaneously. You should charge your electric bike after each ride. You must charge your electric bike if it has not been used for 30 days or more. Recharging time is between 4-6 hours.

### **WARNING:**

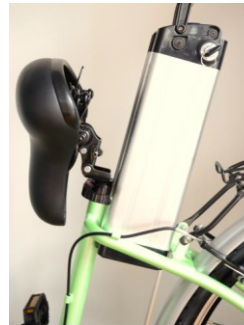
**Do not place the battery near heat or fire. Do not expose the charger near water.**

### Removing the Battery



Turn the key clockwise,  
unlocking the battery pack

Lift the battery pack



Put the bottom right in the place  
when installing

Aim the top to the lock and press,  
then it is locked

# ABOUT CHARGING



Open the dust cap, then plug in



## Battery Indicator Shows the Electricity Allowance.

**Green:** the battery is fully charged.

**Orange:** the battery is declining

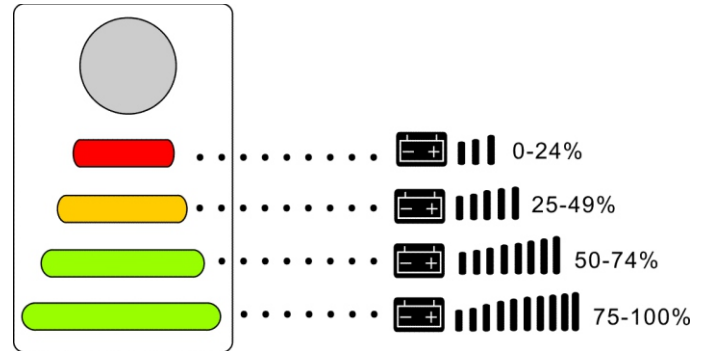
**Red:** only 20% is left. Connect your charger.

## LED Indicator of the Charger:

**Blue :** Power is connected. Please connect the charger

**Red :** Charging

**Green :** Charged



### When the Battery is Being Removed for Charging

After the battery box is removed, as we mention before, please notice that the electrode “+” “-” can never be touched by hands especially wet hands and the electrodes are also prohibited to be touched by other metal conductor!

Do not charge the battery up-side down, otherwise the life time of the battery will be severely affected.

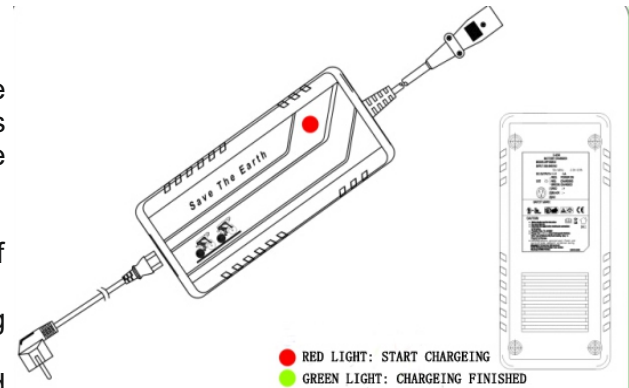
Put the battery charger in a flat level, and first plug in the output plug to the charging socket of the battery box.

Then, plug in the input plug (230V) to the power socket and charging is started. (See Pic. 9)

- After charging is finished, first pull out the power input plug (230V) and then pull out the output plug.

### When the Battery is Charging on the Bike

- Please switch off power and remove the key.
- Remove (rotate to open) rubber stopper in the charging hole and the stopper should be kept well. Then, first plug in output plug of charger to the socket of battery box, after that, plug in power input plug (230V) to household power socket to start charging.
- After charging is finished, first pull out the power input plug (230V) and then pull out the output plug.



Picture 9



## Duration of Charging

- When the input and output terminal are connected, the red indication light of the charger will be turned on, showing that the power is being connected.
- When the battery is charged for the first time, 8-10 hours should be spent for charging. When the green indication light of the charger is turned on, showing that the battery is basically full and it will switch to trickle charge mode to ensure that over-charging will not occur. It takes 2-8 hours for normal charging.
- This charger has the protection device for over-charging. Long-time charging should not be more than 24 hours without affecting the life time of the battery.

## Matters Need Attention for Charging

- The charge doesn't need to be grounded.
- During charging, please place the charger in safety location which is beyond the reach of children.
- The battery should not be used when it is not full, otherwise the life time of the battery will be affected.
- Do not charge with charger from other brands and the charger is also not for other storage battery.
- The charger has 230V circuit; please do not dismantle.

## **WARNING!**

**The attached cables of the battery charger can be used for the battery-charger only!**

### Preparation Before Powering on

Make sure you have your connector tightly connected, and then switch the power on.

### Powering on and Entering Into Settings

Press Power button to switch on.

Press + and – at the same time to set parameter after powering on..

### Setting Wheel Diameter and Impulse Number per Cycle

When in the setting mode, set the wheel diameter first. In the displayscreen, it will show the current number. Press + and – to choose the right diameter (Inch). Next, pressing Power button to confirm and to set impulse number per cycle. For current number, see the display screen. Press + and – to set impulse per cycle. Finally, press the Power button to exit.

### Operation

#### Powering ON/OFF

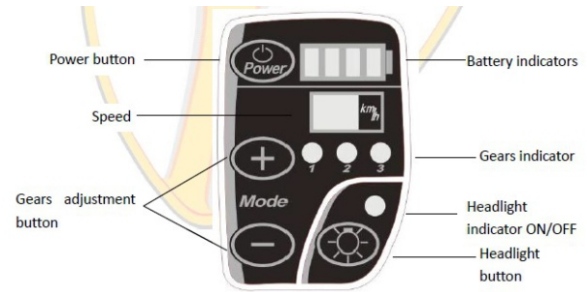
Press Power button to start the meter and the controller.

When powered on, press the Power button to power off. When powered off, meter and the controller will no longer consume electricity

Attention: After a 5-minute parking, you meter will automatically power off. Please press the button to start the meter.

#### Switch Gears

Press + or – to change the output of the motor, from 1st to 3rd gear. The 1st gear is the lowest, and the 3rd is the highest.



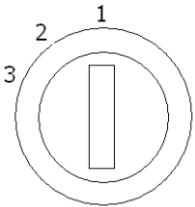
When a failure of the electric system occurs, a failure code will show on the display screen. See as follows: code

### INDICATOR

- E0: Communication failure between the meter and the controller
- E1: Excessive temperature of the controller
- E2: Temperature sensor failure
- E3: Current sensor failure
- E6: System initializing failure
- E7: System failure
- E8: Motor Hall failure
- E9: Motor phase line failure

### Matters Need Attention During Journey

- Pedaling is better for economic use of battery and motor during climbing and it's prolong the life time effectively.
- When the bike is started just now, the bike should be driven slowly to avoid wasting power during instantaneous speed-up or damaging electrical parts.
- On the precondition of safety, he should try his best not to brake or start too much in order to save power.



1. "ON" position
2. "OFF" position
3. "Unlock" position – unlocks the battery box

Once you have completed the initial charge you are ready to ride. You must be aware of all local laws and ordinances that govern and/or restrict the use of electric bicycle. The laws and ordinances vary greatly from municipality to municipality. It is your responsibility to know and abide by your local restrictions.

To ride, turn the power switch lock to the “on” position. The power switch is located on the front bottom of the seat. The battery gauge and the power indicator located at the panel will illuminate when the power is on.

Hold onto the handlebars with both hands. Assume a well-balanced position on the scooter and push off with your foot. Your hands will control the handlebars. Twist the pedal slowly to avoid a sudden rush of speed forward. The speed of the bike will increase as you twist the pedal more. Release the pedal and apply the brakes to stop your bike. You will control the speed of the bike by the brakes. When the brake handle is squeezed it cuts power to the pedal.

### Motor Starting:

Press the POWER button for more than 2 sec.



- The controller of the bike has the function of over-load protection. If it is over-loaded, the power will be cut automatically, when everything goes back to normal, the power will be connected automatically.
- During driving, it should be avoided turning pedal handle after braking, to prevent damaging the machine part or motor by over-load (stuck rotation) of electrical motor.
- The maximum carrying capacity is 110kg, it is better to ride under the rated carrying capacity 110kg (including the driver). Do not drive overspeed.

## **Matters Need Attention for Parking**

- When you get off the bike and push it forward, the power switch should be shut off to avoid unintentional accident by sudden start-up of the bike.
- It is suggested that the bike should be parked indoor or within carport. Don't forget to shut off power and take off the key.
- In public places, the bike should be parked in the regulated spot according to traffic regulations. Don't forget to shut off power and take off the key.

## **MAINTENANCE AND SERVICE**

For the safety of driving, please keep your bike in optimal condition at the same time and carry out periodical maintenance and washing.

### **Items for Periodical Maintenance and Self-Checking**

- Check whether the nuts of fore wheel and back wheel are tight or not. Check whether the fore fork and the bike frame work well with deviation.
- Check whether the groove pattern of cover tyre is worn or splits and if air pressure of fore tyre and back tyre is normal or not.

- Check whether the gear system is working smoothly or not.
- Check whether the horn and back reflector are intact or not.
- Check whether the braking thread is working under lubrication and there is no clamping stagnation.
- If the bike has not been used for long, please notice that charging should be executed periodically (normally, one time in a month to maintain life time of the battery)
- In the winter, place the battery at a warm place.

### Explanation on Maintenance and Washing

Do not wash with high pressure water column to avoid accidents caused by wet inner electrical parts.

The dirt on paint surface or the surface of plastic parts should be cleaned with cloth, neutral agent should be used, and then clean with dry cloth.

Please use lubrication oil to maintain metal parts of the bike.

Oil should not be applied to fore brake rubber and back brake rubber, hold brake, rim, tyre battery and controller.

### Troubles and Solutions

No	Description of Malfunction	Analysis of Malfunction	Way of Eliminating
1	Can not be started	(1) low voltage of battery (2) bad touching between battery box and socket (3) power lock switch is not in correct position	(1) charge the battery (2) clean the dirt on the touching piece (*) (3)turn to correct position

No	Description of Malfunction	Analysis of Malfunction	Way of Eliminating
2	Fail to adjust the speed or max speed is relatively slow	(1) low voltage of battery	(1) charge the battery (2) clamp after welding (*) (3) look for projectionists or maintenance station.
3	Motor doesn't work after switching on	(1) wire connection is loose (2) connectors of motor wire connection loose or damage	(1) connect after repair (*) (2) clamp after welding (*) (3) look for projectionists or maintenance station.
4	Driving miles is not enough after one charge	(1) air pressure low in the tyre (2) not enough charging or charger fault (3) too much upslope, heavy dead wind, brake quite often, big load (4) discharge battery completely for long time, and not charge in time, the battery is aging or damaged (5) low temperature in winter affects driving miles obviously	(1) charge air (2) fully charge or check the touching of connectors (*) (3) suggest use feet under these situations (4) change the battery (5) suggest charge longer indoor

No	Description of Malfunction	Analysis of Malfunction	Way of Eliminating
5	Charger doesn't charge	(1) socket of charger falls off or loose between plug and socket (2) burnt fuse in battery box (3) wire connection of battery falls off	(1) tighten socket and connector(*) (2) change the fuse (3) welding the connection wire(*)
6	Electric wheel has a strange sound	(1) abrasion of motor bearing (2) abrasion of carbon brush (3) big deviation of the wheel or deform	(1) change the bearing (*) (2) change the carbon brush(*) (3) adjust the rim

For the sake of your safety, please often carry out upkeep and check whether the fasteners of net basket, support, mandrel and centre shaft are loose or not. Please tighten at any moment, otherwise danger may occur.

### About Maintenance of Storage Battery and Know-How of Power Saving

- This bicycle adopts Lithium storage battery out of service as power source. Life of battery is relevant closely with correct method of application.
- Users with enough conditions should keep charging anytime after use.
- Please deposit it under the conditions of full charges, and charge timely at regular intervals if don't use it for a long time.
- In general the vehicle speed at 15-18km/h is the most saving.
- Excessive braking action should be avoided when you drive the electric bicycle.



### Representation of Oiling Position Prohibited

- Oiling position required (to oil it once at the interval of 1~2months)
- Replace lubricating grease of front shaft and middle shaft once at the interval of 2 years.
- Chain should be added machine oil every year after it is cleaned by gasoline.
- Inside cover tube of brake steel rope should be added machine oil at the interval of half year.

### Special Hints

1. Pattern of this user's manual is only used for explanation of operation, not for reference of product inspection.
2. Diagrammatic representation of this user's manual may be different with actual products; please refer to actual sale products of shop.
3. Our company owns right of change in order to improve the performance of products, further notice won't be given.

This bicycle is equipped with speed limit device, which is prohibited strictly to detach! That vehicle speed will be out of control will have a safe danger to your driving if the speed limit device is detached.

Inspection items	2 Months	6 Months	12 Months	18 Months	24 Months
Tightness of the head set	Tighten	Check, Lubricate	Check, Lubricate	Check, Lubricate	Check, Lubricate
Tightness of the front and back hubs	Tighten	Check, Lubricate	Check, Lubricate	Check, Lubricate	Check, Lubricate
Tightness of the axis bowl group	Tighten	Check, Lubricate	Check, Lubricate	Check, Lubricate	Check, Lubricate
Degree of the rim	Check	Adjustment	Check	Adjustment	Check
Tightness of the chain	Check	Adjustment	Check	Adjustment	Check
Condition of reflectors	Check	Check	Check	Check	Check
Condition of the steel line	Check	Check	Check	Check	Check
Condition of the pedal	Check	Check, Lubricate	Check	Check, Lubricate	Check
Condition of the rotation and the crank	Check	Check	Check	Check	Check
Condition of the front fork	Check	Check	Check	Check	Check
Effect of the shifter	Check	Adjustmen, Cehck	Check	Adjustmen, Cehck	Check
Effect of brakes	Check	Check	Check	Check	Check
Condition of the tires	Check	Check	Replace	Check	Replace
The distance between the handle and the handle bar	Check	Adjustment	Adjustment	Adjustment	Adjustment
Battery pack	Check	Check	Check	Check	Check
Motor unit	Check	Tighten	Check	Tighten	Check
Condition of the meter	Check	Check	Check	Check	Check

# REGULAR MAINTENANCE

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**Lubricating:** Front and back hub, axles, and headsets; usually, solid lubricating grease is used; for some sophisticated parts, liquid lubricating oil is suggested. Or, you can use more specific oil for parts like chains.

**Adjustment:** Adjust relative parts according to your habits for a better riding experience.

**Replacement:** For damaged or worn parts

**Regular Check:** Brakes, tire pressure, lever, and lighting.

Purchase Record Card

Fill in immediately and retain as a record of your purchase

*\* Please retain your sales receipt for any possible warranty claims*

**Your Name:**

**Address:**

**Date Purchased:**

**Place of Purchase:**

**Model & Brand Information:**

**Wheel Size:**

**Color:**

**Serial Number:**

**Manufacturer**  
**Kuba Otomotiv İnşaat Sanayi ve Ticaret A.Ş.**

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**[www.rksmotor.eu](http://www.rksmotor.eu)**

RKS; reserves the right to process the product specifications, color and permits.