

OWNER'S/OPERATOR'S MANUAL

K1 ETV

*Designed and manufactured for OFF-ROAD use only!
For age of 8 and up only to operate!*



READ THIS MANUAL CAREFULLY!

Provincial/Municipal governments have different regulations pertaining to owning and operating an off-road vehicle, learn the regulations in your area.

The manual describes the safety and maintenance information of the product. Please read the relevant warnings carefully before using this product, or it may cause injury or death.

Please keep this manual in safe place. Any rider should read it. When the product is transferred, the manual should be handed over to new owner.

All the information, images and descriptions in this manual are made according to the latest product. There are probably some differences in the manual due to product improvement or changes of production method. We reserves the right at any time to make changes to the product without notice and no obligation to make same or similar changes for the products manufactured or sold before.

This product can not run on public or main roads, because this is dangerous and violates local traffic regulations. Be sure to wear a helmet, goggle and protective clothing while riding.

August, 2022

Main technical parameters

I. Main Technical Parameters of kart

1. Net weight (No battery) : 100kg;
2. Gross weight: 120kg;
3. Carrying capacity: 60kg;
4. Maximum designed carrying capacity: 65kg;
5. Maximum designed total weight:200kg;

II. The Main Parameters of Motor:

1. Motor type: DC, brush motor
2. Rated continuous output power: $P=650W$ ($2800\pm 7.5\%$ rpm)
3. Rated speed: $2800\pm 7.5\%$ rpm
4. Rated voltage: 48V
5. Max output torque: $15N.m@2500rpm$.

III. The Main Parameters of Controller

1. Input rated voltage: 48V
2. Input voltage range: 48V
3. No-load input current: $\leq 115MA$
4. Maximum output current of Motor: $42\pm 0.5A$
5. Under-voltage protection value: $42\pm 0.5V$
6. Maximum conduction value: $\geq 95\%$ (Provided that controller output current is less than 2A)
7. Starting voltage of foot rest: $\geq 1.4V$
8. Protection voltage of foot rest: $\leq 1.8V$

IV. The Main Parameters of Charger

1. Input: 100-240 VAC, frequency 50/60 Hz, input current 1.8A Max.
2. Output: 48V DC 1.5A

V. The Main Parameters of Battery

1. Size: 181*77*170mm
2. Model plumbic acid power battery 12V20AH 4 batteries

Name of each part



1	ANTI-ROLL BAR	8	FRONT LOWER SUSPENSION ARM , L
2	SEAT	9	PROTECTING BAR
3	STERING WHEEL	10	FRONT LOWER SUSPENSION ARM , R
4	UPPER SUSPENSION ARM	11	CUSHION ASS' Y. FR
5	STEERING GEAR ASSY	12	FR. WHEEL ASSY. R
6	SPINDLE AND STRUT SUPPORT, L	13	SPINDLE AND STRUT SUPPORT, R
7	FR. WHEEL ASSY. L		



14	REAR CAGE RACK	21	Chain
15	VIN.NO	22	Brake
16	REAR WHEEL ASS Y.L	23	REAR SWING
17	Electric box	24	REAR WHEEL ASS Y.R
18	MOTOR	25	CUSHION ASSY. RR
19	Motor mount bracket	26	FRAME
20	Chain regulator	27	Controller



28	Battery case	30	Air break switch
29	Charger port		



31	Brake pedal	34	3-speed switch
32	Accelerator pedal	35	Headlamp switch
33	Forward/Reverse Switch	36	Electric door lock(Switch on/off)

Introduction

As a recreational vehicle, electric kart is only for non-road and single ride. This mini electric bicycle is suitable for the young inexperienced riders with weight less than 132 pounds.

Please understand the principles of electric kart before use. In order to protect your kart, we suggest you to maintain it well. In addition to regular maintenance, it's also very important to comply and enforce the notes and regular check summarized in this manual. You also can obtain useful safety information, instructions and tips in this manual. Take good care of the manual for reference if there's any problem in future.

When reading the manual, you will notice the information marked "Caution". This indicates this is critical information to help you avoid damage to the kart. This manual also includes basic maintenance procedures. Please carefully read the warranty content and understand the rights and obligations of individual.

Whenever you use this product, please use reasonably as instructions and gently stepping on pedals. Protect environment, keep cleanliness and openness of non-road area for convenient use in future.

Important safety information

Your personal or potential safety in using this vehicle is our greatest concern. Safe operation is the most responsibility and can not be ignored.

Manual describes the safe operation procedures and warning signs in detail. The information in this manual warns you potential danger may harm yourself and others.

Certainly, this manual is not possible to clarify all the potential hazards associated with non-road riding and maintenance. You should always keep the best judgment.

There are various forms for safety information, including:

Safety labels on electric kart.

Safety sign  and one of three signal words below: Danger, Warning and Caution.



If above instructions can not be read and complied carefully, you or others would be possible to be killed or seriously injured.

The manual contains important safety information. Please read it carefully and understand it.

Safety first. Any electric product has inherent risks, there's no exception for electric kart. Carefully read the following warnings to avoid hurting yourself, others and the electric Kart.

Rule 1

User Guide contains valuable and important safety information to ensure your personal safety and avoid your bike damaged due to negligence. Please read carefully and understand the relevant content. If you have any question

Rule 2

Adult supervision

Electric products are not toys. Children are forbidden to use this product alone. Children under age of 8 are not allowed to use. All children have to be accompanied by parents. 8-year-old age is just an estimated limit. Riding is also affected by weight, height, driving ability and other factors. Parents should make decision if your child can ride or not after considering comprehensively his / her driving level.

Rule 3 **DANGER**

At one's own risk and common sense

When using electric products, any accident is likely to cause serious injury even death. Avoid riding in front or back out of sight, not drive where there are other vehicles, avoid riding too fast. Speed should be kept in permitted range. Always comply with local traffic laws and regulations, prohibit riding within the banned range.

Rule 4 **DANGER**

Riding on public roads is prohibited.

The bike is only used for non-highway. Riding on public roads or near motor vehicles is prohibited.

Rule 5 **DANGER**

RIDE SMART

Two or more people riding one bike is prohibited. Always keep your hands on handlebars. Wearing headphones or using cell phone in riding is forbidden. Fingers and other parts of body should be away from the moving parts, such as drive chain and sprocket, which may cause injury. It's not allowed to jump off the bike on slope or near stairs, ride near pond or fountain. Related riding clothes should be kept wearing, including gloves, knee pads, antiskid shoes, helmet and goggles specified by DOT. Keep clothes and shoelaces away from the moving parts of bike, like drive chain and sprocket.

Personal injury or death would be caused if above rules and warnings are not complied with. Use cautiously and pay attention to surrounding environment, practice techniques of safe riding.

If you have agreed your child to ride this bike, please keep following in mind:

- Helmet has to be worn by child.
- Child's safety is your responsibility and can not be ignored.

- Do not let your child try to ride if he/she is not ready for it.
- You have to accompany your child when he/she is riding.
- Proper repair and maintenance are the key factors of safety ride.

⚠ DANGER Caution:

Bike performance would be affected if components which are not produced by us are adapted or added on the bike. It is strongly recommended not to remove original equipment or change the design and / or operation of vehicle.

Initial settings

This kart is shipped with the roll bar unattached. To attach the roll bar follow these steps:

- 1、 Attach the Left /Right side guards with M8X50 bolts , R Washer and M8 Lock Nuts .
- 2、 Attach the roof guards with M8X50 bolts , R Washer and M8Lock Nuts .
- 3、 Tighten all these bolts until the brush guard is completely assembled. Torque should be in 22-29N.m



⚠ DANGER The anti-roll bar has to be installed, which will affect the safety of rider.

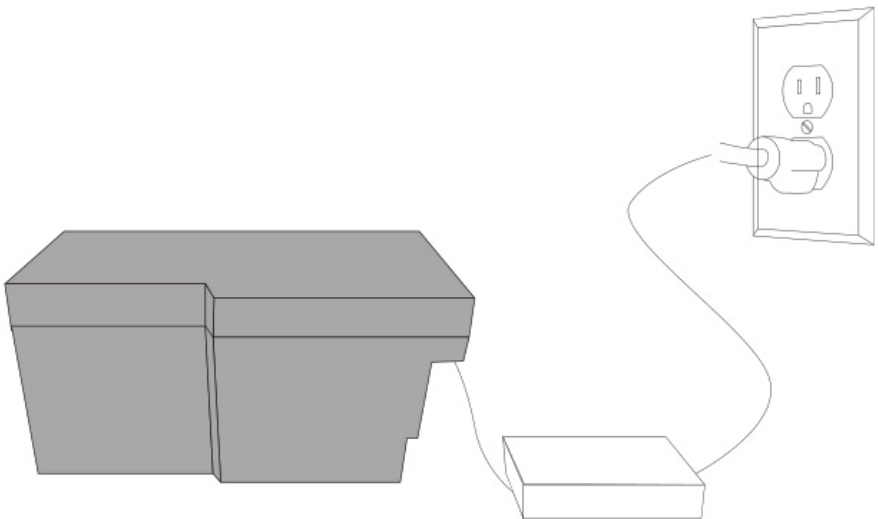
Charging the Battery

Your electric kart may not have a fully charged battery. Please charge the battery before using.

When vehicle is not in regular use, recharge battery at least once a month until normal use is resumed. If you have left the power switch on or your product has not been charged for a long period of time the battery may reach a stage at which it will no longer hold a charge.

The battery can be charged whether it's on the kart or took off. Please follow the outlined procedures for charging the battery.

1. Connect the charger to the battery.
2. Connect the charger to an electrical outlet.
3. Charge until the red 'Charging' light turns green.
4. When the 'Charging' light turns green, detach the charger from the outlet.
5. Detach the charger from the Electric kart.
6. Put the charger in safe place.



Operation controls

Operate accelerator, brake and other controlling parts of this electric kart without looking. Please learn carefully the following diagram and be familiar with the functions and position of each control part.



1	ANTI-ROLL BAR	8	FRONT LOWER SUSPENSION ARM , L
2	SEAT	9	PROTECTING BAR
3	STERING WHEEL	10	FRONT LOWER SUSPENSION ARM , R
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On/Off Switch:1

Throttle works while the button is at position of ON, and it does not work while the button is at position of OFF. Switch should be kept off to protect the battery if no use for the vehicle.



Throttle:4

It controls the speed of the motor and is located in the front right corner of the cockpit. To increase the motor speed, push the throttle pedal downward. To decrease the speed, let up on the pedal and it will automatically return to the upright position and the motor will stop running.

⚠ DANGER Throttle should be turned slowly to avoid sudden speed up when you rotate throttle pedal.



Disk Brake:5

Disc brake is at rear wheel. The brake pedal is operated manually, in the front left corner of the cockpit. Carefully press the pedal with increasing force until vehicle stops.

⚠ DANGER If brake too fast, the vehicle will slip and be out of control.



3-speed Limit Key:2

Parents can use it to set the max speed of this vehicle. 3 numbers stand for the different max speed as follows,

1. Lowest speed around 11KM/h.
2. Middle speed around 22KM/h.
- 3: Top speed around 35KM/h.



Forward/Reverse Switch

R: Reverse

F: Forward

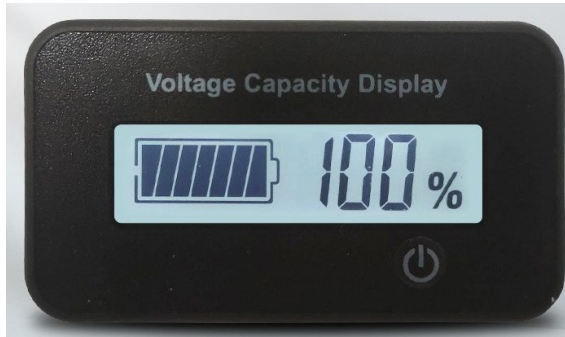
⚠ WARNING Turn the switch only when the vehicle stops completely. Otherwise the spare parts like controller and motor may be broken.



Battery Indicator

Battery indicator shows the battery level.

⚠ WARNING The battery should be fully charged after every use.



Before Riding


Please make sure that both you and kart are ready before riding. The following is checklist before ride. Every time before ride, be sure to check the following items.

Checklist before ride

1. **Have you read and fully understood all content of manual?**
2. **Have you noticed and understood the security information about the kart?**
3. **Do you know the location of operating components and how the kart is operated by these components?**
4. **Are you healthy both physically and mentally?**
 1. **Do you drink and take drugs?**
 2. **Do you wear the helmet?**
 3. **Do you wear goggles?**
 4. **Do you wear antiskid shoes and protective clothes?**

Other suggestions about protective clothes

1. Gloves can protect your hands.
2. Antiskid shoes can protect your ankles.
3. Wear pants with pads for knee and waist.
4. Wear sport shirts with elbow pads for knee and waist.

 DANGER Children are not allowed to ride without helmet, which can significantly reduce the probability and severity of head injuries. Motorcycle helmet is one of the most important parts in security measures. Choose a suitable and comfortable one and wear it.

Checklist before ride

1. Check tire pressure with tire gauge in toolbox, ensuring tire pressure at 15-20 psi.
2. Check whether the rim is bent or damaged.
3. Check the battery power.
4. Check whether the drive chain needs lubrication or fixed.
5. Check whether brake parts can work normally.
6. Check if all screws, nuts and other parts are loose.
7. Check if accelerator can be rotated freely and automatically positioned after release
8. Ensure steering wheel is flexible turned.

⚠ DANGER Crash accidents or even serious injury or death can be caused if improper maintenance is made. Be sure to check the kart before t ride, ensuring kart is in good condition to make full use of electric kart.

Basic operation

The power of electric kart is 650 watts with voltage 48V. The power can not be underestimated to prevent harm.

Step One: Turn on the power

The kart is equipped with power lock switch, which is convenient to operate for owners. The switch can cut off all power. Turn on the switch, the power will be connected.

⚠ DANGER In case of nobody on the kart, do not rotate the accelerator. Or the kart will initiatively move forward which may cause great danger.

Turn off the switch, the kart will slowly stop. It should be noted that the key should be removed from kart after turning off the switch.

Step Two: Accelerate slowly

When the switch has been turned on and there's a person on kart, keep hands on steering wheel and feet on brake and accelerator. Slowly step the accelerator and you'll feel the kart begins to move forward. Slowly speed up after the kart get power.

Step Three: Braking

The kart is equipped with disc brakes at rear wheel. To use it you must press gently until it works. Be careful in using the brakes because the kart will slip or be out of control if brake too quickly.

Step Four: Stop


It's best to park kart on a smooth and plane ground to prevent damage caused by accidentally overturned. Turn off switch and the cover.

Note: pay attention to protect the kart avoiding the damage by weather factors. Although the electric system is covered, it may not be waterproof. So be sure to pay attention to rain damage caused by weather. If the kart is not properly kept, it's not under warranty service.

Repair and maintenance

As electric bicycles, maintenance cost of the kart is relatively low. However, proper maintenance keeps the kart in good safety performance. The following are the parts which need maintenance periodically.

Not exposed to the rain and snow

 It is extremely important that the kart should always be kept indoor, not exposed to the rain and snow. Electric system is not sealed. Water can cause damage to the power system.

The kart which was wet is not covered by warranty.

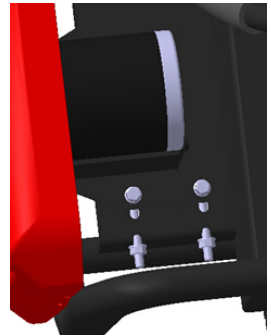
Tension of drive chain

The drive chain transfers the power from motor to rear wheels. In order to ensure the normal work, it must be lubricated and tensioned at all times.

Check the tension of the drive chain by vertical movement of half distance between sprockets. The vertical slack of more than 1/2 inch is not allowed between drive chains. The drive chain is likely to fall if slack in riding.

To adjust the tension of drive chain, below steps should be followed:

1. Ensure the kart parks on smooth ground with a single support.
2. Loosen the spindle nut on both side of rear wheel with a wrench of 15mm.
3. After spindle nut loosened, rotate the tensioner bolt clockwise beside sprocket with a wrench of 10mm, and then repeat the action to the tensioner bolt on the other side of sprocket.
4. Check the tension of drive chain.



Check if the tension reaches ideal level. If not, repeat steps 3 and 4 until requirement has been met.

5. Tighten axle bolt to 15 foot-pounds.

Note: To loosen the drive chain tension, follow the above steps, except this step that loosen the tensioner bolt clockwise.

Lubrication of drive chain

The drive chain of the vehicle should be often lubricated to prevent excessive wear. Below steps should be followed:

1. Park the kart on smooth ground .
2. Rear wheel 1-2 inches off the ground.
3. When turning the rear wheels, wipe off the dust from chain with clean cloth.
4. Turn rear wheel again, spray lubricant to all chains and ensure all chains are covered. You can use any spray lubricant, household oil such as 3-in-1 oil or specialized lubricant for bicycle chain. But WD-40 lubricant is not recommended, because it will dilute and remove the lubricating oil on the chains.

⚠ WARNING

The chains must be completely lubricated, but not too much, because it will absorb dust and grit and damage the chains.

Air break switch:30



Controller & air break switch box



Air break switch

The kart is equipped with air break switch to prevent short circuit. When short circuit or overload occurs, the break switch turns off automatically to protect the wiring to avoid fires.

Turn on the air break switch when the short circuit or overload problems are

solved.

1. Open the controller and air break switch box.
2. Turn the air break switch on.

⚠ WARNING

Wiring worn or compressed in system may cause short circuit.

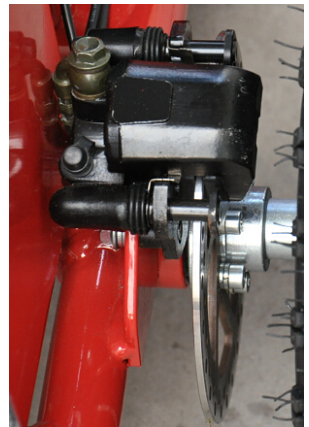
Water gets into system may cause short circuit.

Adjust the brake

If you feel the brake is soft, or step very hard to get the braking force, you can adjust the brakes.

Adjust the brakes to increase braking force:

1. Park the kart on flat ground, turn off the engine, find the brake master cylinder on the left side of seat on the frame.
2. Remove the cotter pin on the axle pin of brake master cylinder; take out the fork of pedal arm from the brake master cylinder arm.
3. Loosen the adjustment nut, and rotate brake arm fork anticlockwise.
4. Install fork arm to brake master cylinder, and insert the axle pin.



5. Test braking to see if it's properly adjusted, if brakes work smoothly, brake friction block does not touch the brake pads; otherwise it will lead to braking dragging and wear of brake friction block.
6. If you still feel brake is soft, repeat Step 2 to 5.
7. Once brake is properly adjusted, replace the cotter pin.

Note: Do not drive if brakes do not work properly. If you are unable to adjust and repair brakes, you may need to replace the brake friction block.

Check tire pressure

It's very important to check tire pressure before ride. Low tire pressure can result in that the vehicle is not operated properly and out of control. To check the tire pressure, gas bar must be placed inside each wheel rim and remove black plastic cover. Use tire pressure gauge to check, ensuring tire pressure is at least 15 pounds but not more than 20 pounds.



Remove battery

The battery of the kart is removable and replaceable. The procedures below have to be followed if you want to remove the battery.

1. Open plastic battery box by removing the screws on battery box.
2. Unlock the rubber belt which fixes battery.
3. Remove the terminal by unplugging the cradle. Remove negative terminal first.

WARNING: Do not touch the negative cable connecting positive cable. This may cause a fire.

4. Disconnect wiring and terminals, then you can remove the battery.

Warning: lead-acid batteries are used in the kart and it must be handled carefully. Send used batteries to the place selling the batteries of electric vehicles. Batteries can not be handled as household waste, nor incinerated, which may cause an explosion.

Warning: if the battery leaks, do not touch it, because the leaking is corrosive, toxic and dangerous. If skin or eyes contact the battery, rinse with cold water for at least 15 minutes and immediately go to hospital for treatment.

Warning: new and old batteries can not be mixed to use. Do not mix alkaline,

standard or rechargeable batteries; use only the specialized batteries of our company.

Guidance for failure handling

Problems	Possible reasons	Solutions
Kart does not run.	Battery level is low or bad wiring connections.	<p>Check if battery is fully charged.</p> <p>Check if Ignition key is on.</p> <p>Reverse/Neutral/Reverse switch is not in neutral position.</p> <p>Check all battery connection wiring.</p> <p>Check if air brake switch is on.</p>
Kart stops suddenly in traveling.	Air break switch turns off.	Keep motor off for 20 minutes, then reset air break switch as page 23, 24.
Power shortage	<p>Brake line tight.</p> <p>Battery not fully charged.</p> <p>Tires not fully aerated.</p> <p>Uneven terrain.</p> <p>Overloaded</p>	<p>Adjust brake according to instructions on Page 24 of this manual.</p> <p>Charge at least 8 hours. If battery can not be fully charged, it must be replaced.</p> <p>Aerate tires according to instructions on Page 24 of this manual.</p> <p>Use on smooth road</p> <p>Rider's weight not exceeding 100 pounds. One person only</p>

Charger becomes hot when charging	Normal	None operation is needed.
Kart can not be stopped.	Brake failure	Adjust brake according to instructions on Page 23 of this manual.
Kart squeaks in traveling.	Chains lubrication adjustment.	need and Lubricate the chains as maintenance section of manual.