

JORVIK



TRICYCLES

Instruction Manual

Jorvik Tricycles

Please take time to record the following information:



Recording Your Serial Number

Trike Serial No: _____

Battery Serial No: _____

Model: _____

Color: : _____

Date of Purchase: _____

Distributor: _____

Contact: _____



Please use this product according to the instructions.

Introduction

Dear Customer,

Before using this e-trike please take time to read this manual.

It is the Owner’s responsibility to carefully read all of the contents of this manual and to comply with all laws pertaining to the operation of tricycles and/or electric tricycles in your local jurisdiction. If you have any questions consult with your local office for clarification.

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- ▶ These electric trikes are not classified as motor vehicles; however, to drive them on the roads, various countries have differing laws.
- ▶ We have worked hard to provide you a quality product, well designed, and without defects. You too have a part to play. With proper care, maintenance and attention to tricycle safety rules, your e-trike will give you years of enjoyment.
- ▶ Do not ride this tricycle until you have read and thoroughly understand the owner's manual. It contains information critical to your safety. If you have questions about the operation of this electric tricycle, consult your authorised dealer. It is extremely important that you follow the safety guidelines contained in this manual in order to ensure your maximum safety. If you loan your trike to anyone make sure they also know how to operate it safely.
- ▶ When using the tricycle, do not exceed the maximum user weight of 136 kgs (300 lbs) and please be aware of increased braking distances during inclement weather conditions.
- ▶ This E-tricycle is fine to use in the rain and snow, however it is not advised, to ride through puddles deep enough to submerge the rear or front electronic hub as this will cause short circuitry and damage to the electric apparatus.
- ▶ The exposed metal contacts on the battery box are both positive and negative; therefore do not touch at the same time with wet hands.

CAUTION! Fully charge the batteries before the first use!

Safety Precautions

▶ Safeguard your battery to ensure continued high performance. It should be recharged after each use. The normal full-cycle battery life if it is continuously discharged and re-charged is about 600-800 cycles or recharges, after which the storage capacity of the battery will gradually decline. If it is not fully discharged and is recharged regularly, the service life of the battery will not be at its optimum. The batteries supplied are a top quality batteries specifically designed for this vehicle.

CAUTION! Fully charge the batteries before the first use!

Failure to do this can result in decreased battery performance for the life of the trike. Fully charge the battery each time you use the bike.

- ▶ Battery performance is affected by the temperature, and is generally more efficient in warmer temperatures. When the temperature drops below 32 F (0 C) the battery current may decrease by a third. Consequently the travel range on a full charge in cold environments is much less.
- ▶ Frequent braking and starting, riding uphill, travelling against a strong wind, starting from a standstill, riding on rough or muddy roads, carrying more than one person and/or heavy loads will consume extra battery power and shorten the range. A few tips to prolong the battery life during these conditions are as follows:
 - ▶ Frequent Braking – try to look ahead and coast rather than stop and go frequently.
 - ▶ Riding uphill or against a stiff wind – pedal to supplement the battery power.
 - ▶ When starting from a standstill – use the pedals to help bring you up to speed.
 - ▶ When the battery meter indicates the voltage is low, switch to manual power and avoid using the battery so you don't shorten the battery life.
- ▶ If the battery is being stored, remove the battery from the tricycle and recharge it every month.



Always turn off the power and remove the key from the battery before and during charging to prevent damage to the controller and to the batteries!

- ▶ This electric tricycle can be used in the rain, however, **it must not be submerged in water or puddles** - the controller, motor and other electrical devices may be short circuited as a result.



DO NOT use chargers or other components that have not been approved and tested by Jorvik Tricycles. Jorvik Tricycles is not responsible for damages caused by the use of other products not specifically designed and tested for use with this electric bike.

- ▶ **Battery Chargers** contain sensitive electronics. Improper use, dropping, or sudden jolts can damage the charger and its internal components.

Assembly Instructions

Carefully remove the trike from its box.

Seat Post Assembly

Seat Installation: Insure the mounting clamp is mounted on the frame over the hole on the seat. Slide the seat base into the hole and adjust to the desired height. Push down the lever on the clamp to secure the seat in the mounting hole.

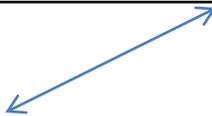
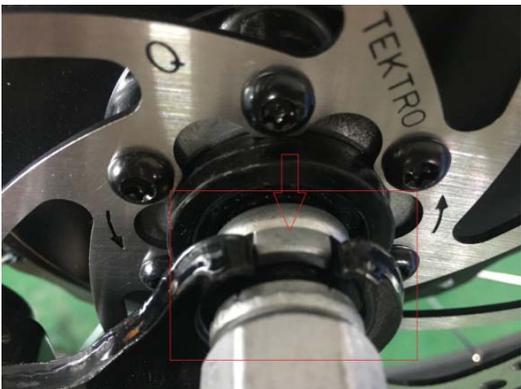


Front Wheel Assembly Instructions

On a clean material or clean floor, put the tricycle upside down to assemble the front wheel. Loosen the nuts from the front axle. Slide the wheel into the slots at the end of the forks. Make sure the disk for the brake slides into the front brake caliber cleanly.



****Please make sure the washer's finger are assembled correctly. (please assemble like below picture, if the finger isn't assembled correctly the front wheel will be inclined to one side) . Check that the wheel is centered into the fork and the disk is free in the brake caliber. Ensure the wheel turns freely. Tighten the nuts with a spanner. Do not over tighten.**



Ensure the wheel motor waterproof patch cord fits together according to the arrows which indicates the direction (As the right picture shows) Press together firmly.



For the hydraulic disc brake, front wheel assembly is the same as above

Assembly Instructions

Handlebar Assembly

Put the Stem into the frame head tube, As the picture shows.
Use allen key to tighten (clockwise rotation).



How to assemble the front light and front fender

1. Match the fender hole to the front fork hole. Insert the light support and hexagon socket head cap screw like the below picture then tighten the screw.



2. Match the light hole to the support. Insert the cross head cap screw through and tighten the screw.

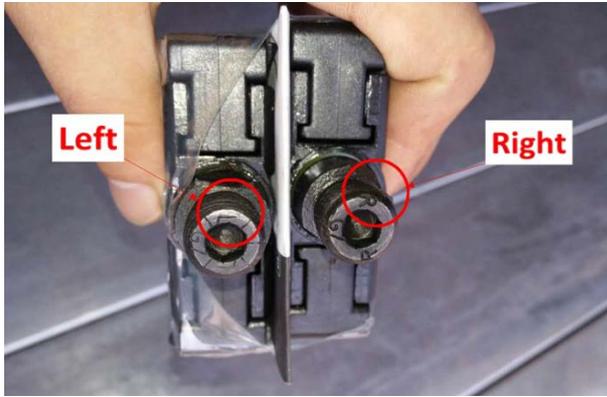


3. The light is now successfully assembled.



4. Match the fender stay to the fork hole and tighten the screw. (Same on the other side). Then the fender assembly is now complete.

Pedal Assembly



L or R on the pedal axle.

L means left pedal. R means right pedal.



Tighten clockwise for the right pedal and anti-clockwise for the left pedal.

Recommended Torque for main part's assembly

No.	Parts	Torque required (N.M)
01	Handle bar	18~25
02	Stem	18~25
03	Saddle	18~25
04	Seat post	18~25
05	Front hub	40~45
06	Rear hub	18~20
07	B.B.Parts	40~45

Congratulations you have now assembled your e-trike!

Charging instructions

1. Out of the box, the battery is only semi-charged. Charge to its full capacity before first use.
2. For the first three charges, charge the battery for at least 12 hours.
3. Put the female plug of the charger into charging socket of the battery box. Insert the male end of the plug into the outlet. The power is on when the indicator lamp of the charger is on. It is charging when the indicator light is red.
4. When the light turns from red to green, the battery is fully charged.
5. After the green light is on, the charger is in “trickle charge” and will charge slowly and maintain the charge.

Matched Standard charger (plug) and Lithium Battery

Charger Kit



Caution:

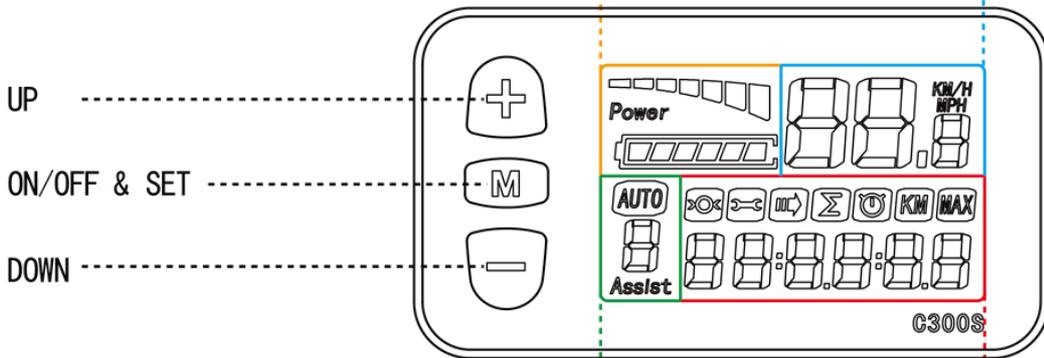
1. Please make sure that the voltage in your country is suitable for the charger’s input/output requirements.
2. Please ensure the e-trike power switch is off and the key has been removed before charging.
3. This charger is recommended for **INDOOR** use only.
4. When charging, please try to place out of reach of children.
5. Charger repairs should be carried out by a qualified technician – **Do Not Attempt to Repair Yourself.**
6. Do not touch the two electrodes on the battery by hand.
7. When the bike is not in use, charging the battery is still recommend at least once every month; for a minimum of two hours each time.
8. **Do not use non Jorvik Tricycles recommended chargers.**
9. Only use this charger in a dry, clean, well ventilated environment out of direct sunlight.
10. Do not shake or hit the battery violently.
11. **Do Not Open** the battery casing this will void your Warranty.

LCD DISPLAY FUNCTION OVERVIEW



- 3. Speed display
- 4. KM/H & MPH
- 5. Backlight indicator

- 12. Battery indicator
- 13. Cable definition
- 14. Auto sleep after 5 minutes



- 6. 6KM/H work
- 7. Assist level selection

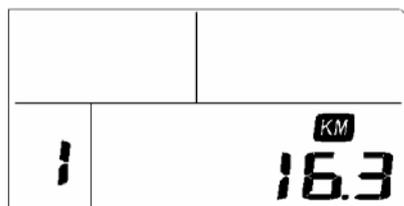
- 8. Error code indicator
- 9. SET operation
- 10. Distance indicator
 - 10.1 ODO
 - 10.2 Trip distance
- 11. Trip time indicator

SET OPEARATION OF METER

Hold DOWN & UP for 2 seconds to enter into the mode of setting. Click MODE to choose setting parameters and click DOWN & UP to exit setup.

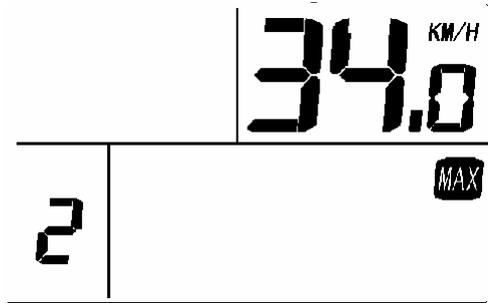
Reset trip distance, trip time and max speed

Click DOWN to clear trip distance, trip time and max speed.



Max speed setting

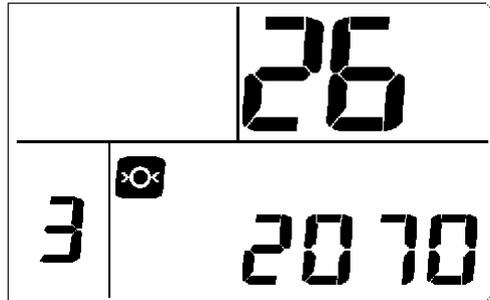
The max speed is 40 km/h for the default. User can modify the value of max speed, when the riding speed exceeds the set value, the controller will stop supplying power to the e-trike, in order to ensure the safety of the rider. The max speed ranges from 20 km/h to 34 km/h and then the max speed is 40km/h



※ Click UP or DOWN to select the limited speed.

Wheel diameter setting

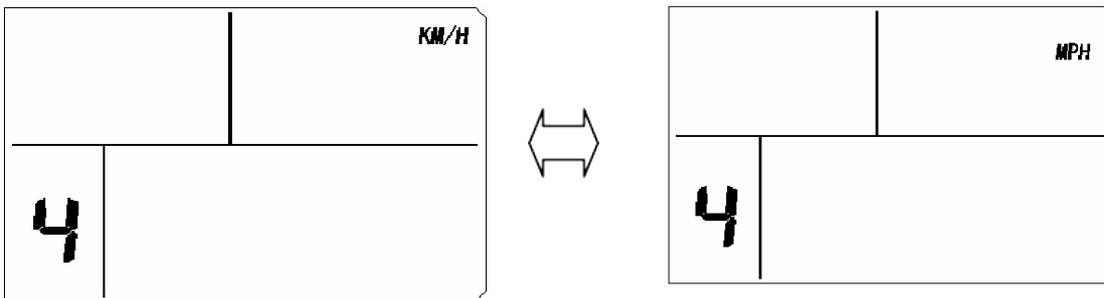
Select the accurate wheel diameter value to ensure the accuracy of display about speed and mileage.



※ Click UP or DOWN to set the wheel diameter.

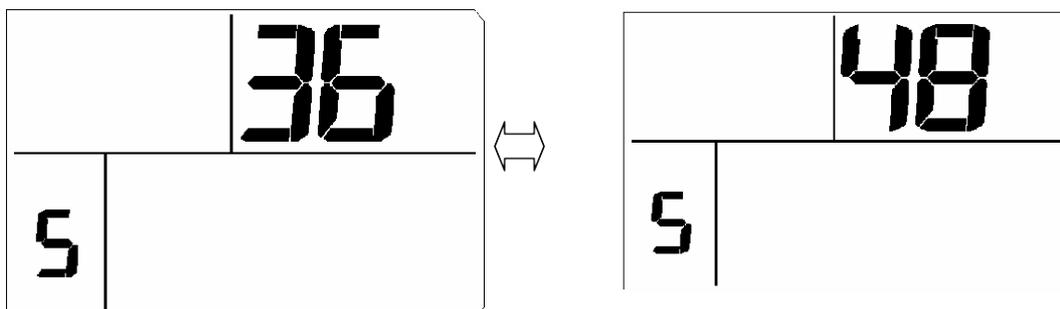
KM/H & MPH

Click UP or DOWN to switch the KM/H & MPH selection.



Voltage choose

Click UP or DOWN to switch the 36V & 48V selection.



ERROR CODE INDICATOR

If there is something wrong with the electronic control system, the display will flash at 1 HZ and show the error code automatically. Different error codes is corresponding with different fault information, please see the following Error code table for details.

ERROR CODE TABLE

The error code is corresponding with the fault definition

Error code	definition
1	Current error or MOS damaged
2	Throttle error(Start detection)
3	Motor no phase position
4	Hall error
5	Brake error(Start detection)
6	Under voltage
7	Motor stalling
8	Communication controller receiving error
9	Communication display receiving error

Operating instructions

1. To use the Pedal Assist feature, start to pedal and after you reach a speed of 3 mph (5km/h) the motor will start to assist you to the maximum speed set in (5).
2. **Throttle:** Your throttle is on the right hand side of your handlebars. Push the thumb throttle down while seated on the trike. When the throttle is fully pressed it will assist you to the maximum speed set in (5).



To use the throttle push the thumb lever down.

Caution: Only use the throttle whilst seated on the trike.

3. If your trike is without throttle, you could use thumb gear shifter or use the pedal to start
4. The left brake lever controls the rear disc brake, and the right brake controls the front disc brake.
5. There is an automatic SHUT OFF of the throttle on the brake levers i.e. every time a brake lever is pressed, the power from the motor is discontinued.
6. Maximum load for this bike is 136 kgs (300 lbs), (incl: load on rear basket)
7. The maximum load for the rear basket is 55 lbs (25 KG). The rear part is not suitable for installing baby chairs and trailers.

Riding Tips

1. Before riding, check to make sure the battery is fully charged, that the air pressure in the tyres is normal, and make sure the front and back brakes are working properly. Check the tightness of the front and back wheels, handlebar and that the seat is fastened tightly enough.
2. When climbing steep hills, a certain amount of pedalling is advisable so as not to drain the battery power too quickly.
3. It's a good idea to remove the battery key when leaving the trike unattended.
4. We recommend the wearing of safety helmets at all times whilst riding this trike.
5. Obey all traffic laws relevant to the operation of tricycles and electric tricycles.
6. Only one person at a time is permitted to ride this trike.
7. Please avoid deep puddles.
8. KEEP both hands on the handlebars at all times.
9. DO NOT hang objects on or under the handlebars
10. DO NOT brake suddenly in the rain or on slippery wet surfaces.
11. USE extreme caution when near other vehicles. Assume they do not see you, and be careful at junctions and when starting from a stopped position.
12. Wear bright clothing to help make you visible to other motor vehicles.
13. Do not wear loose clothing that can become caught on the tricycle.

Maintenance

- **Wheels:** Wheels should be centred in the fork or dropouts. If you hear any irregular noise from the wheels or brakes, the wheels should be checked and repaired. Regularly check the spokes of the wheels for tightness and rim alignment. The wheels should rotate smoothly without wobbling from side to side. Check the bearing play of the hubs by lifting the tricycle and spinning the wheel. It should continue to spin for several turns after you stop spinning. To check the play of the hubs try to move the rim from side to side between the forks. No substantial play should exist. If you detect play or if the wheel is difficult to turn, the bearings must be adjusted or replaced. Please contact a local bicycle dealer, to have the hub bearings adjusted for new bearings.
- **Rims:** The rims should be smooth and without cracks, breaks or bulges.
- **Spokes:** Check the tension of the spokes regularly. About the same tension should be on all the spokes. If there is some minor loosening of the spokes, you may tighten the nipples, but it is recommended that you take it to a bicycle shop. If there are loose spokes or if the rim has side play of more than 4mm, immediately have the wheel trued by a bicycle engineer. **Riding with loose spokes may cause the wheel to fail!**
- **Tyres:** Inflate your tyres to the pressure embossed on the sidewall before use of your new bike. It is recommended that the tyre pressure for your Electric Trike be around 25 psi. **Every time you ride, make sure the tyres are inflated according to the pressure on the sidewall.** Improper tyre pressure will make riding more difficult, cause excessive wear, and premature failure of the tyre. The tyre should be properly seated in the rim and the fitting of the tyre bead and rim bead should be checked. If the tube is pinched between the rim and the tyre, it will fail when inflated. Make sure that the tyre is not cracked or worn unevenly. Check for bulges. Check and make sure that the valve stem is straight in the rim. Irregular tyres should be replaced immediately.
- **Handlebar and Display:** We have created the handlebar display so that you can easily see it while riding. Loose or damaged grips on your handlebars are dangerous! If your grip comes off you could lose control of your tricycle.
- **Brakes:** Riding with brakes that are worn or damaged, or with worn cables or wheels in poor condition may result in losing control of your e-trike. Wet weather hinders the braking performance. You need more distance to safely stop in the rain or in a wet or icy conditions. Before each ride, check to make sure your brake cables are free of obstacles, and are working properly before operating your vehicles.

- **Hydraulic brakes:** It is better to keep the tricycle in normal temperature to avoid oil leak of the Caliper piston. Please use hot water to spray on the Caliper before riding if the tricycle has been stored in low temperatures. After 6 months, it is better to clean the brake Lining, brake lever and Caliper . At the same time, please use alcohol to wipe the disc brake. **After 1 year**, we suggest to change the oil.

Batteries: There is a locking key to lock your battery onto the bike frame to discourage theft. **Do not attempt to open any of these batteries in any way!** Doing so may cause chemical, electrical, and/or fire hazards.

Lubricating the front axle, back-shaft and pivot etc. once every three months. Oil the bike chain and brake cable pipe at least once every month.

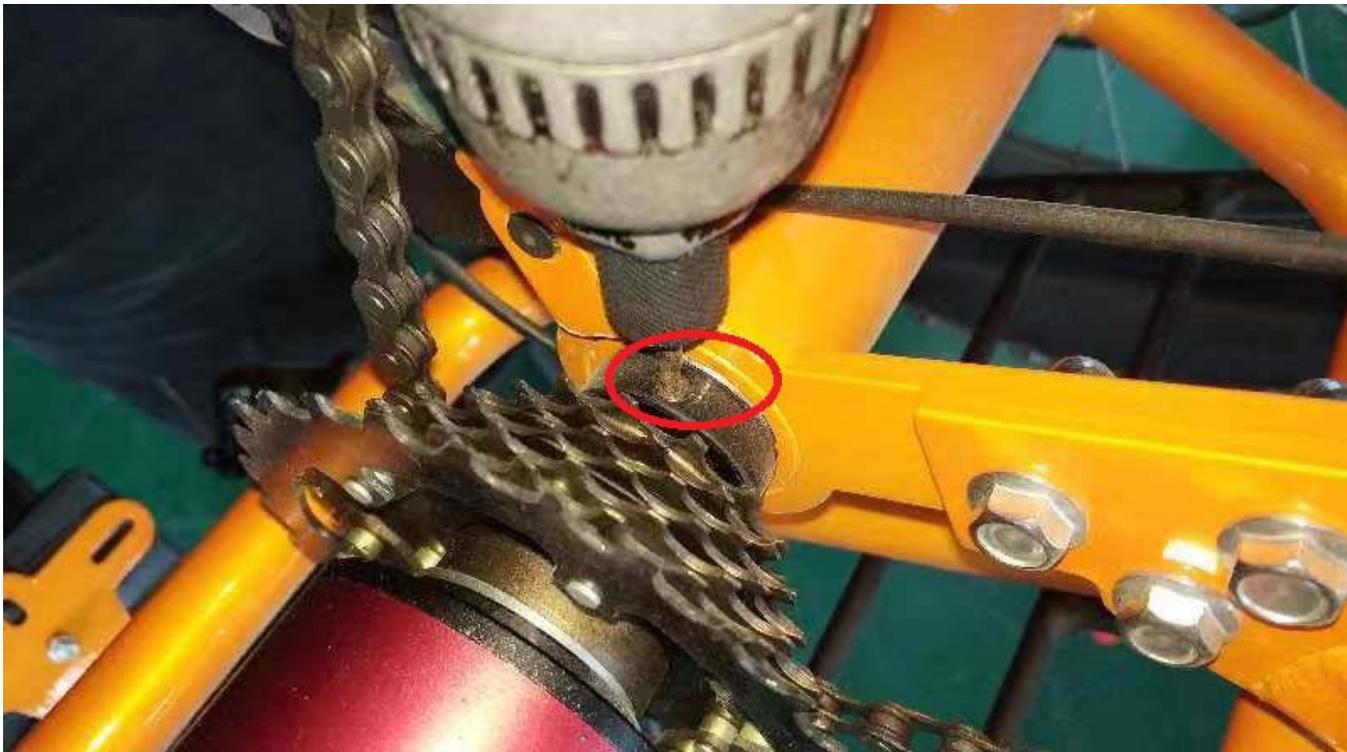
Troubleshooting

Problem	Solution
The switch is turned to the "ON" position, but the E-trike does not work.	Check whether the battery and battery box seat are lined up, and whether the battery box is locked.
After stopping, the trike doesn't restart.	Check whether the brakes are stuck.
In 'Power mode' the trike runs slowly	Is the throttle opened fully? Check to see if the battery is fully charged.
The Charger indicator is dimmed and doesn't appear to be charging correctly.	Check whether there is electricity to the charger.
A yellow light is illuminated on the charger whilst charging.	Check whether the plug end of the charger has been inserted properly.
If the above doesn't solve your problem or if your particular issue isn't listed here, then call the Service department for assistance.	

How to remove the rear axle, rear diff and bearing.



Use the tool to remove the screws marked with red circles. (for hydraulic brakes, please remove the screw like pictured to the right)



use the tool (3mm Inner Hexagon) to remove the above screw



Push the wheel from inside to remove the wheel axle



After removing the wheel axle, put a rod inside, and use a wood/rubber hammer to knock the rod to remove the bearing.

How to change the tyre



1. Remove the screws with screwdriver

2. Remove the screw of the fender stays



Finally, put the tricycle upside down to change the tyre.