

Please read this manual before using this product.

使用本产品前, 请阅读本手册。

Please use it correctly on the basis of fully understanding the content.

请在充分理解内容的基础上正确使用。

Please keep this book properly for future reference.

请妥善保管这本手册以备将来参考。

LiKONG

OPERATION MANUAL

操作手册

徐州力隆机车有限公司

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PREFACE 前言	02-02
GENERAL WARNING 用户须知	03-04
POSITION OF COMPONENTS 零部件位置分布	05-06
OPERATION INSTRUCTIONS 操作说明	07-09
PRE-DRIVING CHECKS 驾驶前检查	10-10
INSTRUCTIONS FOR USE OF APPLIANCES 电器使用说明	11-15
MAINTENANCE 维修保养	16-17
CIRCUIT DIAGRAM 电路图	18-18

Preface 前言

Our company is located in Feng county Electric Vehicle Industrial Park in Xuzhou City, northwest of Xuzhou City, Jiangsu Province, in the centre of Huaihai Economic Zone.我公司位于江苏省徐州市西北部徐州市丰县电动车产业园内,处于淮海经济区中心地带。

Our factory has established four production workshops including "Stamping, Welding, Painting and Assembling" as well as an experienced R&D team.我厂建立了四个工艺生产车间,包括“冲压,焊接,喷漆和组装”以及经验丰富的研发团队。

We have a professional QC team and a perfect quality management system, with ISO9001 certification and EU EEC product certification, to ensure that every tricycle produced is safe and reliable, providing excellent safety for consumers' travelling.我们拥有专业的QC团队和完善的质量管理体系,具有[S09001认证与欧照EC产品认证,以确保生产的每一辆三轮车都安全可靠,为消费者的出行提供极佳的安全性。

Thank you for being able to purchase and use the electric vehicle products manufactured by our company. In order to help you use and maintain the vehicle correctly, please be sure to read the entire contents of this manual carefully before use, and keep the manual properly after reading.感谢您能购买、使用本公司生产的电动车产品。为帮助您正确使用和保养车辆,请您在使用前务必仔细阅读本手册全部内容,阅读后并妥善保存。

LILONG recommends that you use genuine spare parts and that you use, maintain and repair your vehicle correctly in accordance with the instruction manual. Replacement or modification of the vehicle with non-genuine parts will affect the performance of the vehicle, especially its safety and durability, and any damage to the vehicle and performance problems arising from such replacement or modification will not be covered by the warranty.力隆机车有限公司建议您选用纯正配件,并按照说明手册要求正确使用、维护、维修车辆。如使用非纯正配件更换、改装车辆将影响整车性能,特别是安全性和耐久性,对此产生的车辆损坏及性能问题,均不在保修范围内。

Thank you for choosing LILONG, and we welcome your valuable comments and suggestions. In case of quality problems, please consult the dealer who sold you the product for timely feedback and problem solving.感谢您选用力隆机车,欢迎您提供宝贵意见与建议。如发生质量问题,请及时咨询向您售出产品的经销商,及时反馈与解决问题。

General Warning 用户须知

1.Before driving, please read the Instruction Manual carefully and check to make sure that all parts are intact to ensure your driving safety, if there are any problems with your Tricycle, please contact your dealer in time. 驾驶前, 请仔细阅读《使用说明书》, 检查确认各零部件是否完好, 以确保您的行驶安全, 如发现问题请及时与经销商联系。

2.To ensure your driving safety, wear safety helmets, gloves and other protective gear when driving your vehicle. Do not wear loose clothing, as it may affect your comfort and safety when driving. 为保证您驾驶的安全, 在驾驶车辆时请佩戴安全头盔, 手套等防护用品。不要穿戴松散的服装, 它会让您驾驶行车时会影响驾驶舒适与安全。

3.Please avoid driving fatigue and when you are feeling unwell so that you are in a better situation to control the vehicle. You should not drive after taking drugs, medicines or alcohol. 应确认您的健康状态良好, 且未疲倦, 以便使您在较佳状态下进行车辆控制。服用药物、药品和饮酒后不能驾车。

4.This vehicle is not afraid of rain or snow, but it can not be waded, when the water level exceeds 10 cm depth, forcibly wading through the water, may cause a short circuit of the vehicle's electrical components and circuits. Please be careful! 本生不怕雨、雪天气, 但不能涉水, 当水位超过10厘米深度时, 强行涉水通过, 有可能造成整车电气元件及线路的短路, 务请注意!

5.Please obey traffic laws and regulations; slow down in rainy or snowy weather and on slippery roads, and increase the braking distance when braking to ensure safety. 请遵守交通法规: 雨、雪天及路滑地段应减慢车速, 刹车时应增加制动距离, 以确保安全。

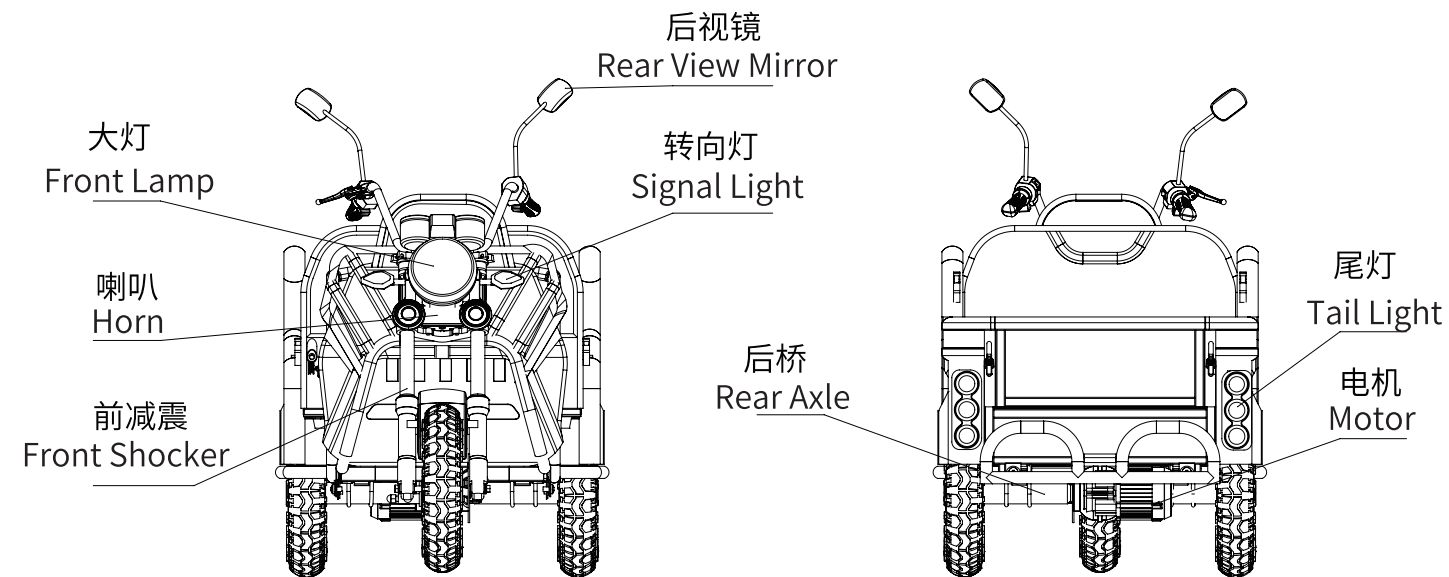
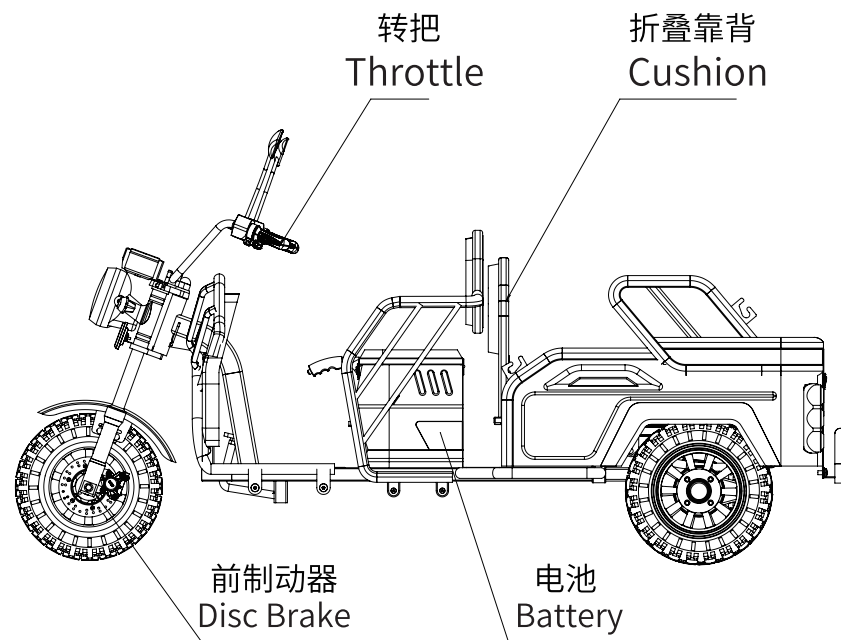
6.Electric three-wheeled motorbikes have certain requirements for the distribution of load weight. The centre of gravity of the occupants or cargo should be as close as possible to the centre of the vehicle and securely fastened to the vehicle. It is strictly prohibited to exceed the load limit of the vehicle. Improper loading of cargo will impair the performance and stability of the vehicle. 电动三轮摩托车对承载重量的分布有一定的要求。乘员或货物的重心应尽量靠近车辆中心, 并将其牢固地固定在车辆上。严禁超过车辆的负载限度。货物装载不当将会损害车辆的性能和稳定性。

7.Please note that the positive and negative electrodes of the power battery used in this vehicle should not be touched at the same time, not to mention that they should not be touched with metal objects at the same time, otherwise, it will cause damage to personal safety or produce a large short-circuit current and lead to accidents, so please pay attention to this! 电动三轮摩托车对承载重量的分布有一定的要求。乘员或货物的重心应尽量靠近车辆中心, 并将其牢固地固定在车辆上。严禁超过车辆的负载限度。货物装载不当将会损害车辆的性能和稳定性。

8.Do not disassemble disassembled parts by yourself, if you want to replace them, please contact a service station or dealer. 电动三轮摩托车对承载重量的分布有一定的要求。乘员或货物的重心应尽量靠近车辆中心, 并将其牢固地固定在车辆上。严禁超过车辆的负载限度。货物装载不当将会损害车辆的性能和稳定性。

9.For the safety of others and to avoid the risk of unnecessary damage to your e-tricycle, do not give your e-tricycle to a person who does not know how to operate it. 为了他人的安全同时避免使您的电动摩托车受到不必要的损坏的风险, 请不要给不会操作电动摩托车的人员驾驶。

Position of components 零部件位置分布



Operation instructions 操作说明

[Circuit main switch] [电路总开关]

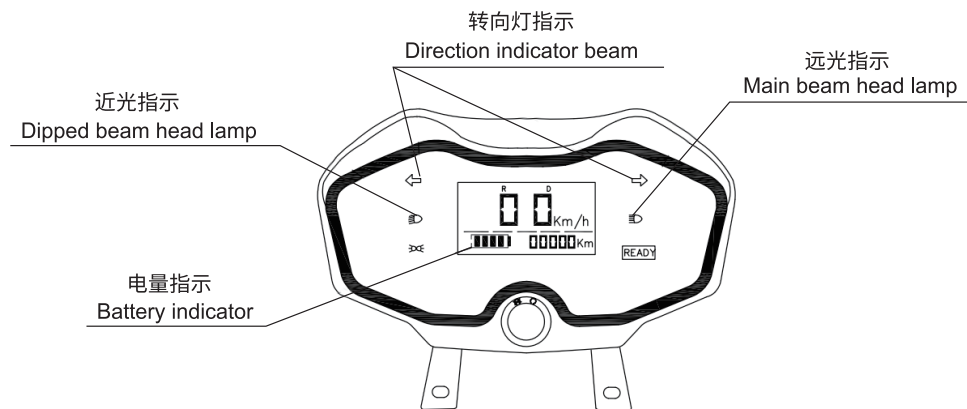
The position of the electric lock is in the middle lower part of the meter . 电门锁安装在仪表中间下部。

(⊗ OFF): the key can only be pushed in or pulled out in "⊗" this position, This position control the whole circuit ..

(⊗ 关): 钥匙只能在“Q”此位置推入或拨出, 此位置所有电路被断开。

(○ ON): the key is turned to this position, the circuit is connected and the motor can start running at any time, "○"The key cannot be pulled out in this position. (○ 开): 钥匙旋至此位置, 电路被接通, 电动机可随时启动运转, “○”此位置钥匙不能拨出。

When the circuit is connected, the “READY” lights up. 电门锁打开后, 电路被接通仪表READY点亮。



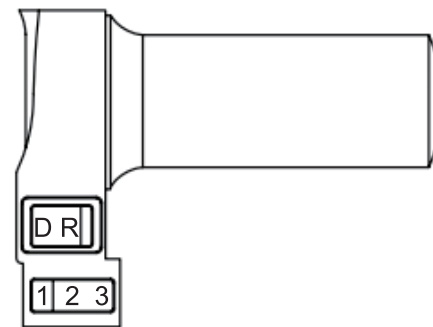
[Right throttle control switch] [右手把控制开关]

1. Speed control handle: The speed control handle is used to control the speed of the motor, turned to its own direction is accelerating, and opposite direction is decelerating. 调速手柄: 调速手柄用以控制电动机转速, 扭向自己方向是加速, 反之是减速。

2. Head lamp switch: when the head lamp switch is pushed to the "☀" position, the head lamp also lights up, and when the head lamp switch is pushed to the "○" position, all the lights go out. 照明开关: 当照明开关推至“☀”位置时, 前照灯也点亮, 当照明开关推至“○”位置时, 所有灯熄灭。

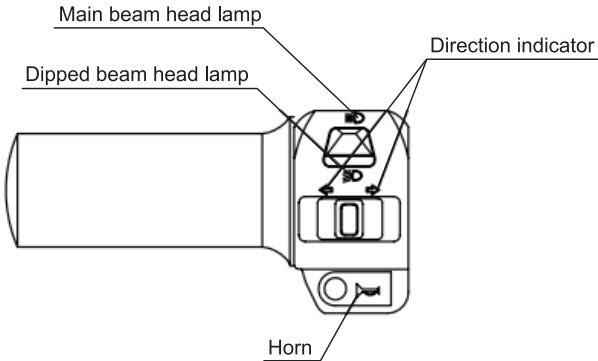
3. Reverse switch: Press left to "F" and turn the speed control handle, the vehicle moving forward; press right to "R" and turn the speed control handle, the vehicle moving backward. 倒顺开关: 向左按下至“F”, 转动调速手柄车辆前行; 向右按下至“R”, 转动调速手柄车辆后退。

4. Three -speed switch: one to three speed, adjust the number to change the speed. 3 挡调速开关: 1至3个挡位, 调整挡位改变速度。



[Left throttle control switch] 【左手把控制开关】

- 1.Dipped beam head lamp and main beam head lamp switch: when the switch is pushed to the "≡○" position. Dipped beam head lamp on. 远近光开关:当远近光开关推至“≡○”位置时,前照灯近光亮;
- 2.When the switch is pushed to the "≡○" position, the main beam head lamp on. 当远近光开关推至“≡○”位置时,前照灯远光灯亮。
- 3.Signal Light switch: when pushed to the left to the "↵" position, the front and rear left signal light flashing; when pushed to the right to the "↶" position, the front and rear right signal light flashing. 转向灯开关:向左推向“↵”位置时,前后左转向灯和左转向指示灯闪亮; 向右推至“↶”位置时,前后右转向灯和右转向指示灯闪亮
- 4.Horn button: Press the "🔊" button and the horn will make a sound. 喇叭按钮:按“🔊”按钮,喇叭会鸣响。



To strictly follow the above way, you will be comfortable in using it and bring you a better and safer driving experience.
要严格按照上述方式进行操作,使用中会得心应手,为您带来更好、更安全的驾乘体验。

Pre-driving checks 驾驶前检查

It is important to check the following carefully before driving and not to overlook the importance of these checks
驾驶前务必细心检查以下各项,决不可忽视这些检查的重要性

Project 项目	Inspection content 检查内容
Braking system 制动器	1.Adjustment clearance for brake pedal.制动踏板的调整间隙。 2.No "spongy" state where the brakes don't work. 没有刹车不灵的“海绵性”状态。
Lighting 灯光	Operate all lights - headlights, tail lights, brake lights, dashboard lighting, turn signals.操作所有的灯—前照灯、尾灯、制动灯、仪表盘照明灯、转弯信号灯。
Speed control handle 调速手柄	Check the operation, condition and clearance of the speed control handle and adjust if necessary. 检查调速手柄的操作、状态和游隙,如有必要应进行调整。
Handle Bar 方向把	1.Sleek and smooth 圆滑 2.Flexible steering 转向灵活 3.No gaps and no looseness 没有间隙或不松动
Parking handle(emergency brake) 驻车手柄(应急制动)	Check for flexible and smooth operation and lubricate/adjust if necessary. 检查操作是否灵活平稳,如有必要应进行润滑/调整
Tyres/wheels 轮胎/车轮	Check tyre pressure, wear and damage. 检查轮胎气压、磨损和损坏情况。
Parts/Fasteners 零件/紧固件	Check all chassis parts and fasteners. Tighten and adjust if necessary. 检查全部底盘零件和紧固件。如有必要应拧紧和调整。
Horn 喇叭	Normal function. 功能正常

Instructions for use of appliances 电器使用说明

[Use and maintenance of electric motors] 【电动机的使用和维护】

- 1.The motor is not allowed to disassemble privately. 电动机使用时,不允许在没有任何负载的情况下运转。
- 2.Prolonged overloading is strictly prohibited. 电动机使用时,严禁长时间超载。
- 3.Keep using environment clean and the airflow dry and unobstructed. 电动机使用时,要保持环境清洁,,气流干燥畅通。

[Use and maintenance of the charger] 【充电器的使用和维护】

1.Insert charger plug before connecting household socket, and the power indicator light is on afterwards. At the same time check whether the charger output plug is loose or the contacting surface is oxidated. These phenomena will lead to plug heating, Excessive heating time will cause short circuit and damage to the charger. Therefore, when above situations occurred, remove the oxides or replace the connector in time. 充电时,先将充电器引线插头插入蓄电池充电插座上,再把电源插头接上,电源开关打开,此时电源指示灯亮。同时检查充电器输出插头是否松动,松动、接触面氧化等现象都会导致充电插头发热,发热时间过长会导致充电插头短路,直接损害充电器,带来不必要的损失。所以发现上述情况时,应及时清除氧化物或更换接插件。

2.At the beginning of charging, the current is relatively large. With rising of the battery voltage, approximately in 1 or 2 hours the floating light indicator will be on, the charger turn into float charging state, charging during this state for extra 2-3 hours is recommended. But if it didn't change to the state after 10 hours, it is necessary to check whether the battery pack (at least of one battery pack has problems) or the charger is damaged. 刚开始始充电时电流比较大,随着蓄电池电压的升高,大约1~2 小时后浮充电会亮,此耐充电器转为浮充状态,转为浮充后继续充电2~3小时为好。当出现即使充电超过 10小时也不能转为浮充时,此时需检查蓄电池组是否损坏(最少有一块电池出现问题)或充电器是否损坏。

3.Charging speed will be slower in cold weathers, so extending charging time 1-2 hours is recommended. 冬季蓄电池的充放电性
能会变差,所以冬天最好延长充电1-2小时,以便改善充电效果。

4.If battery power kept in low level over several months, the charger may heat up rapidly when recharge the battery. Discon-
nect the charger for 30 minutes after half of hour of charging, repeating it several times until it enters into the state of floating
charging, and then start continuous charging.如果蓄电池亏电严重,充电器会发热迅速,充电 30 分钟后可拔掉电源,停 30 分钟使充电器冷
却后再继续充电(连续充电会因温度太高而烧坏变压器引起火灾),如此反复几次,直至进入浮充状态,再连续充电使用。

NOTE:

◆ **The charger is strictly prohibited to be placed on the seat cushion when charging, and the surrounding area should be ventilated, otherwise the charger may burn out or cause a fire.** 充电器严禁放在软座椅上充电,四
周应能通风换气,否则会烧坏充电器或引起火灾。

◆ **Replace the broken fuse with same model and cannot use metal wire instead.** 保险烧断,应查明原因后再换同
型号备用保险管,不能用金属线代替。

[Use and maintenance of batteries] 【蓄电池的使用和维护】

1.It is strictly prohibited to be stored in a low-power state for a long time. The damage to the battery caused by that state is
irreversible. Batteries should be fully charged before storage and recharge it at least once a month to keep in a healthy state.
电动车在长期不使用的情况下,蓄电池在存放前要将充满电,严禁处于亏电状态存放,电池容量下降。亏电状态闲置时间越长,电池损坏越重。因此,
电动车闲置不用时,应每月补充电一次,这样能较好地保持电池健康状态。

2.Real charging time should be based on actual usage situation, with reference to the usual frequency of use and mileage, generally the charging time is about 8 hours. If charging happens just after short mileage usage, user should shorten charging time. Overcharging may result in loss of battery water, heating and reducing lifespan. 实际充电时间应根据实际使用情况,参考通常的使用频率和里程,一般充电时间约为8小时。若充电发生在短里程使用后,用户应缩短充电时间。过度充电可能会导致电池失水、发热和寿命缩短。

3.Regular inspection. If endurance range sharply dropped 10+ kilometers in a short time, it is likely one of the battery packs met short-circuit phenomena such as the internal electrode plate disconnected, softening, or active substance shedding. And the battery inspection and repairing should be operated by professional personnel. 在使用过程中,如果电动车的续行里程在短时间内突然下降十几公里,则很有可能是电池组中最少有一块电池出现断格、极板软化、极板活性物质脱落等短路现象。此时,应及时到专业电池修复机构进行检查、修复或配组。

4.Long term exposure of electric vehicles to hot sunlight is strictly prohibited. High temperature environment will increase the internal pressure of the battery and force the pressure limiting valve to open automatically and hasten water loss, decrease battery activity, accelerate the softening of the pole plate, cause charging shell heating, bulge, deformation and other fatal injuries.温度过高的环境会使蓄电池内部压力增加而使电池限压阀被迫自动开启,后果就是增加电池的失水量,而电池过度失水必然引发电池活性下降,加速极板软化,充电时壳体发热,壳体起鼓、变形等致命损伤。

5.Positive terminal of the battery may produce brownish red lead dioxide film in the process of long-term use, get rid of the film by gauze (or use boiling water to rinse the terminal and fastening bolt nut), the positive terminal will turn into cinerous colour after removing. 蓄电池正极接线柱,经常会产生棕红色的二氧化铅薄膜,在使用过程中,应经常用纱布将薄膜除掉(或用开水冲洗接线柱,将螺栓螺帽紧固),使正极接线柱呈青灰色,否则接触不良将影响使用。

6.The bolts and nuts connection between the battery packs may be loosened due to corrosion or vibration, regularly check and tighten them to avoid sparks, terminals burning, or explosion caused by gas concentration.蓄电池组之间螺栓螺帽方式连接会因腐蚀或者震动造成松动,需经常检查旋紧连接的螺栓螺帽,以免产生火花,烧坏接线柱,气体集中时会引起爆炸。

NOTE:

- ◆ **The new battery should be stored in a dry and ventilated place without direct sunlight, and the temperature should be 5-40 ℃. And cannot be placed upside down, lying down or be subjected by mechanical shock, heavy pressure, and avoid contacting with any liquid and harmful substances, and should not fall into any metal and impurities.**新蓄电池应存放在干燥通风无阳光直射的地方,室温应在 5-40℃范 围内,不得倒置及卧放,不得受任何机械冲击和重压,要避免与任何液体和有害物质接触,不得掉入任何金属及杂质。
- ◆ **The sulfuric acid and water required for the battery shall be battery specific sulfuric acid, deionized water or distilled water.** 蓄电池任何时间所需硫酸和水均应为蓄电池专用硫酸、去离子水或蒸馏水。
- ◆ **Keep the battery away from sparks, flames and other open flame type of substances.** 蓄电池要远离火花、火焰等明火类物质。
- ◆ **When the battery has abnormal conditions, please contact the vehicle manufacturer or a professional battery manufacturer.** 当蓄电池有异常情况时,自己不能正确处理时,请与整车厂或专业蓄电池生产厂联系。

[Use and maintenance of the controller] 【控制器的使用和维护】

1.The controller should be inspected without power at least once every 3 months.

控制器的检查应在断电的情况下进行,至少3个月一次。

2.The functions of the controller have been adjusted at the factory and should not be disassembled and adjusted during inspection. 控制器的各项功能出厂时已经调好,检查时不应拆开和调整。

3.The controller wiring must not be adjusted; the capacitors in the controller power unit should be kept discharged for a few minutes after disconnecting the power supply. 控制器接线不得调整;断开电源后,控制器功率单元内的电容器要保持几分钟的放电时间。

4.Clean the exterior of the controller frequently of dust and debris, but do not rinse the capacitors with water! Dust can be removed with a brush or high-pressure gas. 经常清洁控制器外表的灰尘和杂物,切记不得用水冲洗电容器件!可以用刷子或高压气体去灰尘。

5.It is strictly prohibited to touch the forward and reverse switches during the exercise of the vehicle, or to change the direction of travel before the vehicle has come to a standstill or when the hand is still exerting force on the speed control handle. 车在行使过程中严禁触动前进后退开关,严禁在车辆未停稳或手对加调速手柄还产生作用力的情况下转换行驶方向。

Maintenance 维修保养

1.Please keep the battery clean & dry, prevent dirt & moisture; no loose connection wires and no electrolyte leakage; clean the electrolyte stains on the surface of the battery with insulator in time to prevent leakage and damage to the electrical components. 保持蓄电池整洁、干燥、防止脏污受潮:连接线无松动及电解液无泄漏,及时用绝缘体清理蓄电池上表面的电解液污渍,以防漏电损坏电器元件。

2.If vehicles not be used for a long period of time, it should be charged once a month.长期不用的车辆应注意,每月应充电一次。

3.Mechanical rotation, running parts in a timely manner to add lubricant to ensure that all parts of the operation of flexible, reduce wear and tear. 机械转动,运转部位及时添加润滑油保证各部件运转灵活,减小磨损。

4.Frequently check whether the contact points of each circuit (e.g., wire connections, controller, reverse switch (combination switch), speed controller, and wiring of the motor) are in reliable contact, and there should be no looseness. Especially the main line part, because of the large current flowing through it, should ensure that the contact points of each circuit are in good contact. 经常检查各电路接触点(如导线连接处、控制器、倒顺开关(组合开关)、调速控制器、电机的连线)接触是否可靠,应无松动现象。尤其是主线路部分,因其流过的电流较大,应确保各电路接触点接触良好。

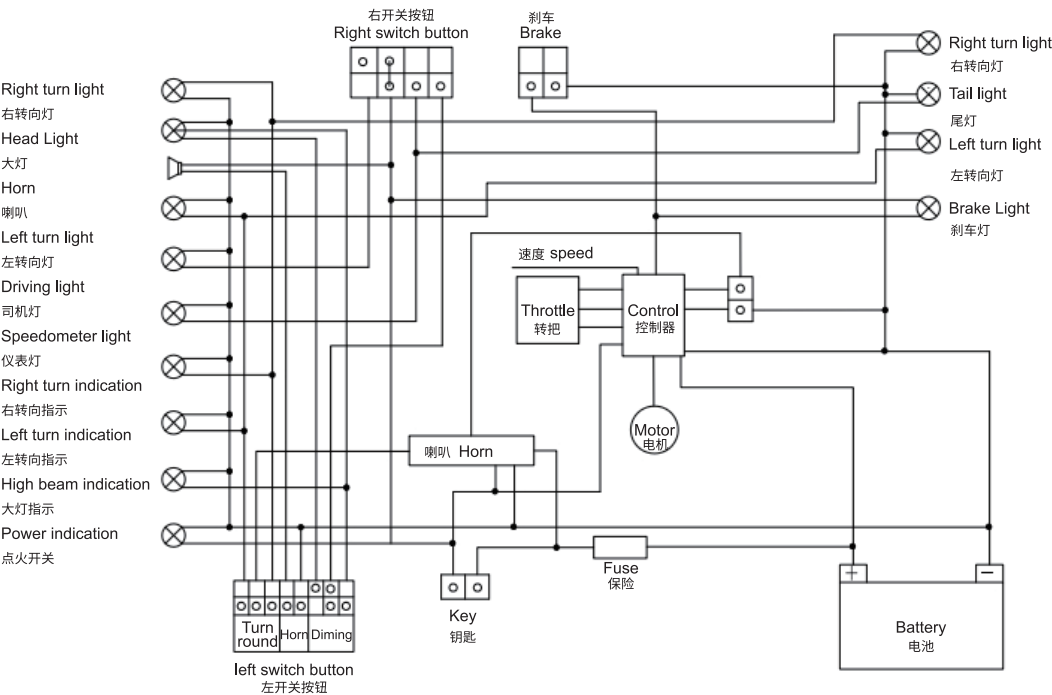
5.In normal use, if you find any problem that cannot be solved, please send the faulty vehicle to the seller or designated repair station for repair. If you dismantle the vehicle without authorisation, the faults and damages caused will not be repaired free of charge by our company. 正常使用中,发现有不能解决的问题,请将故障车辆送到销售商或指定维修站修理,若擅自拆卸本车,造成的故障和损坏,本公司将不免费维修。

6.After 200 kilometres of breaking in your new e-vehicle with proper use, servicing is an essential item to follow to ensure your e-vehicle is safe and often fully functional. 正确地使用新车磨合了 200 公里后,维修是必须遵循的项目,可使您的摩托车确保安全并且经常能够发挥全部功能。

Periodic lubrication gauge (in km)
定期润滑表(单位:km)

Time Lubrication parts 时间间隔/润滑部位	Every 6000 km or 6 months 开始和每 6000 公里或6个月	Every 12,000 km or 12 months 每 12000 公里或 12 个月
Wheel,motor bearings 车轮、电机轴承	—	Medium and Heavy Duty Wheel Bearing Lubricants 中重型车轮轴承润滑油
Brake lever / pedal shaft 制动杆/踏板轴	lubricant 润滑	lubricant grease 润滑油脂
Steering bearing 转向轴承	Check / fill loading 检查/适量装填	Medium and Heavy Duty Wheel Bearing Lubricants 中重型车轮轴承润滑油
Rear axle differential 后桥差速器	Cleaning lubrication 清洗润滑	Cleaning lubrication 清洗润滑

Circuit diagram 电路图



NOTE:
This manual applies only to the configuration and circuits of the standard version model, which may differ from the actual purchased model. In case of malfunction, please visit offline shops and dealers for prompt repair.
注意：
本手册仅适用配置和标准电路版本型号，其中可能与实际不同购买的模型。万一出现故障，请访问线下商店和经销商要求及时维修。