

Owner's Manual

Warnings

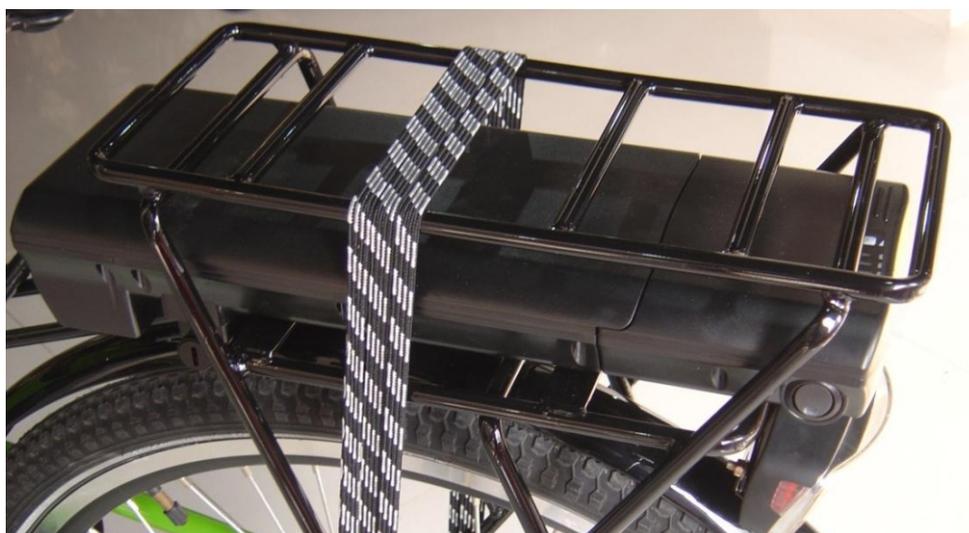
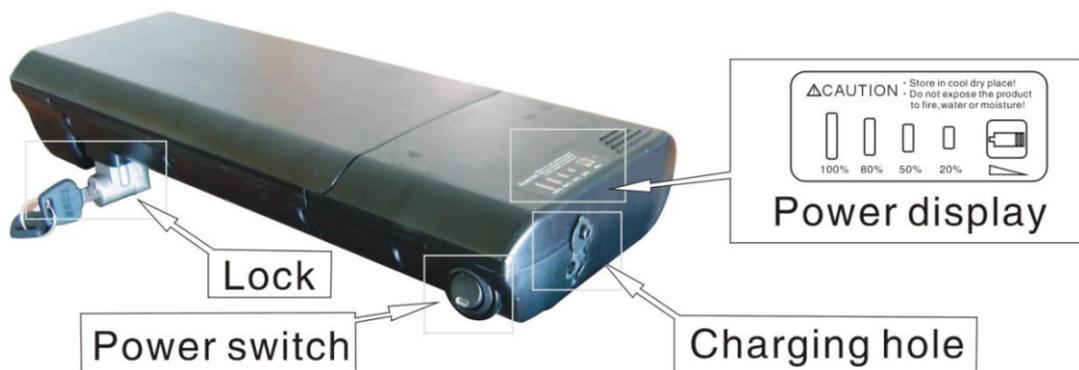
Failure to obey all of the warnings and instructions contained in this manual may result in serious injury, permanent damage to your **CARGO BIKE**, or legal problems.

- Always wear a properly fitted and fastened helmet when riding. This is required by law in most states and is an important safety precaution. Failure to wear an approved safety helmet can result in severe injury or death.
- Always obey all traffic laws.
- The purchaser, owner, and/or riders of this **CARGO BIKE** are directly responsible to know and obey all local, state, and federal laws regarding the riding and use of this **CARGO BIKE**.
- Always ride cautiously, maintaining complete control and a reasonable speed (<20km/h).
- You have to inform every body sitting that you will start riding. The rider should hold the handlebar and slow down the speed to get on and take off the **CARGO BIKE**. Sit well when riding. Slow down the speed to 10km/h below before turning the corner in order to avoid rolling over or throwing out the children.
- This **CARGO BIKE** is not suitable for stunt riding, jumping, competition, or racing.
- Always check that brakes and throttle function properly before each ride.
- Only one rider at a time. **Carrying more than 4 kids or objects in the box may interfere with your control of the CARGO BIKE**, and can result in loss of control.
- Do not ride at night or in conditions when visibility is impaired, unless you install head lamps and tail lamps that make you visible to all pedestrians and vehicles.

- Wet weather significantly detracts from brake performance. You will need more distance to safely stop in the rain, or on a wet or icy street.
- Always with kids come and down from the cargobike, and help kids with the helmet..
- This product should not be used by minors without adult supervision.
- The products cant be allowed to make any modification.
- Do not tow, pull or be towed or pulled with the **CARGO BIKE**.
- Keep fingers away from moving parts and belt.

ALWAYS WEAR A HELMET.

1-1 Battery



Li-ion Battery Specification

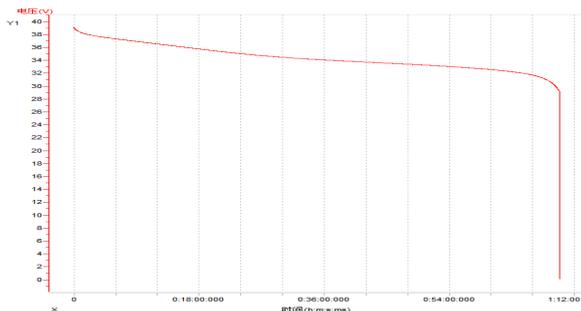
Model: 36V/12.8A

| | | | | |
|---|--------------------------|--------------|-------------------------------|-------------|
|  | Rated Voltage | 36V | Over-current Protection | 50±10A |
| | Rated Capacity | 10.4Ah | Discharging current threshold | 2.7±0.025V |
| | Rated Current | 10A | Full Charge voltage | 4.25±0.025V |
| | Constant working current | 7-9A | Charging Current | 2±0.1A |
| | Peak discharging current | 12A | Weight of battery | 2.95±0.2Kg |
| | Discharge wire | 3135-16# | Charger | 42V/2A |
| | Size | 407x148x74mm | | |

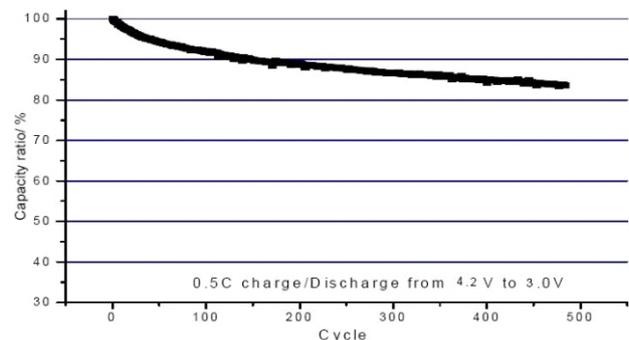
Specification of PCM :

| Item | Sing | Specifications | Standard |
|-----------------------------|-------|---------------------------------|---------------------|
| Over-charging protection | VDET1 | Overcharge test voltage | 4.25±0.025V |
| Over-discharging Protection | VDET2 | Over-discharge test voltage | 2.7±0.025V |
| | IDP | Over-current protection current | 50±10A |
| Impedance | RD3 | Main circuit Impedance | R≤30mΩ |
| Current Draw | IDD | Working current draw | 10μA Type 100μA Max |

No 1:1C Discharging Chart



Picture 2: chart of Cycling life for single battery cell



Instruction on plug:

1. Charging plug



2. Discharging plug



Caution

Do not use the battery where static electricity in excess of 1000V is generated as it may damage the protection circuit, and cause hidden trouble of safety.

Statement:

This Specifications only apply for Battery pack produced by HANGZHOU LIN'AN BEYONDER CO.,LTD

Statement One:

The customer is requested to contact Beyonder in advance, if the customer needs other applications or operating conditions out of those described in this document. Additional experimentation may be required to verify performance and safety under such conditions.

Statement Two:

Beyonder will take no responsibility for any accident when the battery is used under other conditions than those described in this Document.

Statement Three:

Beyonder will inform the customer in a written form regarding proper use and handing of the cell, if it is necessary.

1. Charging

1.1 Charging Current

Charging current can not be over the Max charging current in this specification. If charging battery in current bigger than Max charging current , it will cause Mechanical , safy problem, and also cause to heating and leaking .

1.2 Charging Current

Charging voltage can not be over Max charging voltage . 42V is the Max charging voltage .The charger should be designed as per the Max charging voltage. If charging voltage is more than

42V, it will cause the battery to leak, generate heat, or result in serious damage. It may also cause the battery's performance and life to deteriorate.

1.3 Charging temperature

Only charge the battery between 0°C and 45°C. Charging outside of this temperature range may cause the battery to leak, generate heat, or result in serious damage. It may also cause the battery's performance and life to deteriorate.

1.4 Do not attach or insert battery with polarity reversed.

2. Discharging

2.1 Discharging current

Discharging current can not be over the Max discharging current. The over discharging current Will cause the battery's performance and life to deteriorate.

2.2 Discharging current

Battery pack should be discharged between -10°C and 60°C.. If Discharging temperature is lower -10°C, Discharging capacity will decrease when temperature is getting lower.

2.3 Over discharging

The batteries should be stored at room temperature, charged to about 30% to 60% of capacity. In case of over-discharge, batteries should be charged to 3.90/Cell with standard charge method for one time every 3 months while storing and batteries should be charge-discharged with standard method for one time after being stored more than one year in order to activate it and restore energy.

2.4 Storage

The batteries should be charged to 1-2 times every 2 months. In case of non-use more than 1 month, charge battery for more 24 hours , and then store battery at about 60% of capacity . We suggest to charge the battery by our matched charger.

Charger

COMPOSITION



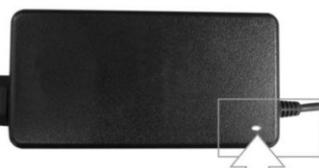
6 output plugs are available, can be used in different charging socket



SPECIFICATIONS

| Model | ACK2804 | ACK2812 | ACK4201 | ACK4211 |
|----------------|--------------------------------|-----------------------------|-------------------------------|-----------------------------|
| Application | For 24V / 20Ah Li-ion Battery | For 24V / 20Ah LiFe Battery | For 36V / 20Ah Li-ion Battery | For 36V / 20Ah LiFe Battery |
| Input | 100-240V~50/60Hz 1.2A (MAX) | | 100-240V~50/60Hz 1.2A (MAX) | |
| Output Voltage | 29.4VDC ±0.3V | 28.8VDC ±0.3V | 42.0VDC ±0.5V | 39.6VDC ±0.5V |
| Output Current | 1.5A ±0.2A | | 1.35A ±0.2A | |
| Output Power | Max. 45W | | Max. 60W | |
| Color | Black | | | |
| Measurement | 115.15 x 58.9 x 31.3 mm | | | |
| | Length of DC Output Cord: 1.8M | | | |
| Weight | Approx. 365g | | Approx. 280g | |

LED INDICATOR



STATUS:
 RED: Charging
 GREEN: Standby / Fully Charged

The LED Indicator will show the status of the Battery Charger.

POWER CORDS

We have 5 types of AC Power Cord for choice:



Australian



Britannic



European



Japanese



American

Provided with a molded-on , non-polarized attachment plug with a 15A , 125V or 250V configuration , and a molded-on connector mated with the Power inlet.

**IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS
DANGER - TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK,
CAREFULLY FOLLOW THESE INSTRUCTIONS**

| Basic Cord Type | Other Suitable Types |
|-----------------|----------------------|
| ST | STO |
| SP-2 | SPE-2, SPT-2 |
| SP-3 | SPT-3 |
| SV | SVE, SVT |
| SJ | SJE, SJO, SJT, SJTO |
| S | SE, SO, ST, STO |

3 x 18 AWG, minimum rated 300 V,
105degC, VW-1, minimum 1.8 m

For connection to a supply not in the U.S.A., use an attachment plug adapter of the proper configuration for the power outlet, if needed.

Charger Manual specification

Company: WUXI SANS ELECTRONIC CO.,LTD

Model/Type Reference:

Model: SSLC058V29M/DZLM2420-M2/SSLC084V42M/DZLM3620-M2

Specification: Input: 100-240V,50-60Hz 1.8A MAX Output: 42.0V , 2.0A

Input: 100-240V,50-60Hz 1.4A MAX Output: 29.4V , 2.0A

Applicability

1. SSLC058V29M/DZLM2420-M2:The product is designed for charging 7-lithium-ion batteries, 29.4 V, 8-20 AH.
2. SSLC084V42M/DZLM3620-M2:The product is designed for charging 10-lithium ion batteries, 42 V, 8-20 AH.

Read this instruction carefully. Keep this instruction for later reference. All cautions and warnings should be followed.

1. The socket-outlet shall be installed near the equipment and shall be easily accessible.
2. The input voltage range is at 100-240 Vac, the operating and storage temperature range is between 0 to 30°C.
3. The adapter is used as power supply only for specified household appliances.
4. This switch mode power supply incorporating a non-inherently short circuit proof safety isolating transformer.

5. The product is in door use only.
6. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
7. Do not open the equipment to reduce the risk of electrical shock. For safety reasons it is only allowed to be opened by qualified service personnel.
8. Protect equipment from humidity.
9. Disconnect equipment from power supply before cleaning. Do not use any liquid or aerosol cleaner. Use only moisture cloth.
10. Equipment should be placed on a reliable surface. A drop or fall could cause damages.
11. If the equipment is not used for long time, disconnect the equipment from power supply to avoid being damaged by voltage peaks or lightning strike.
12. If one of the following situations arise, equipment has to be checked by qualified service personnel
 - Plug is damaged.
 - Liquid has penetrated into the equipment.
 - Equipment has been exposed to humidity.
 - Equipment has been dropped and/or is damaged.
 - Equipment has obvious sign of breakage.
 - Equipment does not work well or you cannot get it working according to user's manual.
13. The fuse of product cannot be replaceable or interchangeable in after service
- 14 This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision. Children should be supervised to ensure that they do not play with the appliance.

Meaning of crossed –out wheeled dustbin:

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact you local government for information regarding the collection systems available.

If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

When replacing old appliances with new ones, the retailer is legally obligated to take back your old appliance for disposals at least free of charge.



ABOUT THE USER MANUAL

Dear users,

To ensure better performance of your e-bike, please read through the LCD-P product introduction carefully before using it. We will inform you all the details concisely (including hardware installation, setting and normal operations) when using our display. Meanwhile, the introduction will also help you solve possible confusion and malfunction.

OUTLOOK AND COLOR

MATERIAL AND SIZE

LCD-P products are made of black ABS material and the bracket is made of nylon material. Under the temperature of -20 to 60℃ , the shell material can ensure normal usage and good mechanical performance of the products.

Dimension figure (unit: mm)

DISPLAY MANUEL

LCD_P Instructions



CHUBUT PRECISE ELECTRONIC COMPANY LIMITED

ABOUT THE USER MANUAL

Dear users,

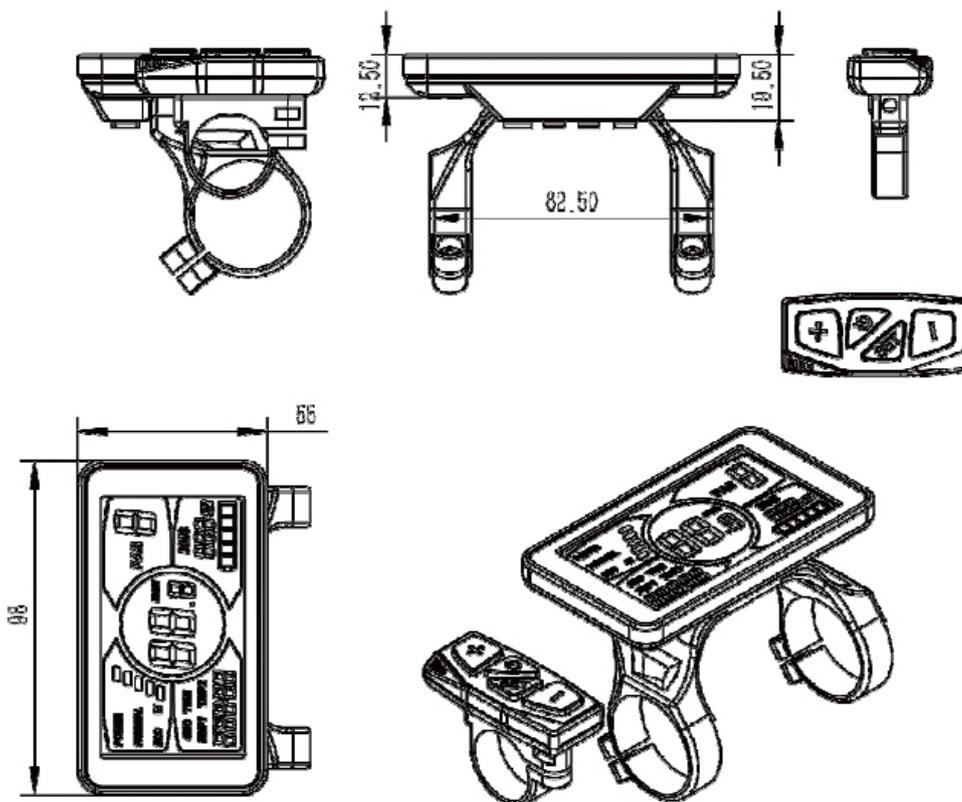
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OUTLOOK AND COLOR

MATERIAL AND SIZE

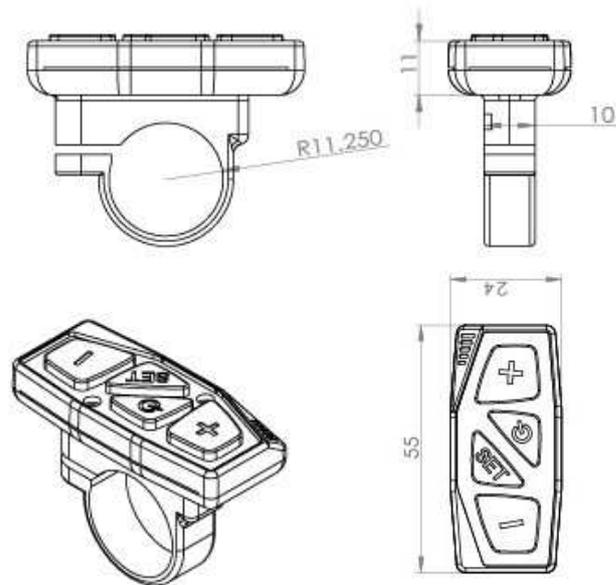
LCD-P products are made of black ABS material and the bracket is made of nylon material. Under the temperature of -20 to 60°C, the shell material can ensure normal usage and good mechanical performance of the products.

Dimension figure (unit: mm)



BUTTON DEFINITION

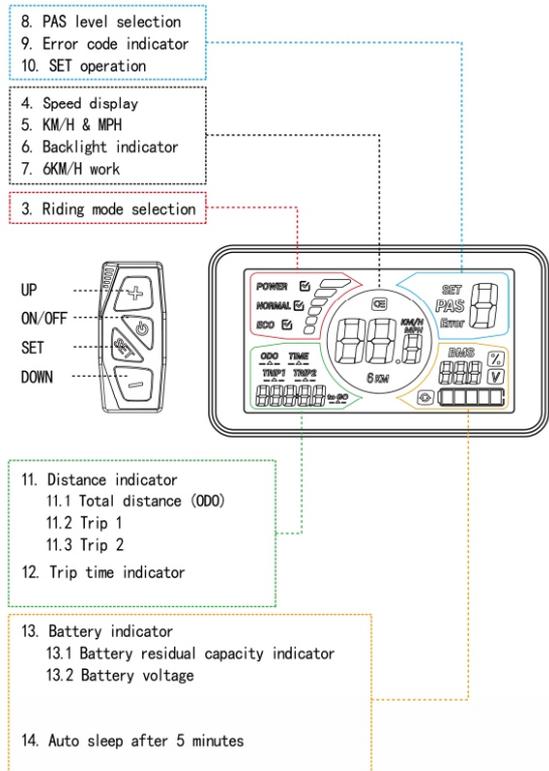
LCD-P has four buttons, including ON/OFF、SET、UP and DOWN
 “ON/OFF” names to “”, “SET” names to “SET” ; “UP” names to “+” and “DOWN” names to “-” .



FUNCTION SUMMARY

LCD-P provides a wide range of functions and indicators to fit the users’ needs.
 The indicated contents are as below.

1. ON/OFF
2. Current display
3. Riding mode selection
4. Speed display
5. KM/H & MPH
6. Backlight indicator
7. 6KM/H work
8. PAS level selection
9. Error code indicator
10. SET operation
11. Distance indicator
 - 11.1 Total distance (ODO)
 - 11.2 Trip 1
 - 11.3 Trip 2
12. Trip time indicator
13. Battery indicator
 - 13.1 Battery residual capacity indicator
 - 13.2 Battery voltage
14. Auto sleep after 5 minutes



Operation Instruction Of The Power Battery Pack

- 1.Charge the battery pack before use. Please refer to the user manual of the Adaptor.
- 2.Place the battery pack properly and safely on the bicycle's battery rack.
- 3.Connect the power cable of the electric bicycle to the output socket of the battery pack and tighten the screw-lock to secure the connector.
- 4.Switch on the power by turning the key lock of the battery pack to "ON" position and the power on indicator light on the electric bicycle will turn on. The bicycle is ready for use.
- 5.Switch off the power by turning the key lock of the battery pack to "OFF" position when the electric bicycle is not in use.
- 6.Use the battery pack at the temperature range of $-20 \sim 50^{\circ}\text{C}$.The running mileage will be less than normal if the battery pack is being used out of this range.
- 7.Should the electric bicycle be placed under open area from long period, the battery pack should be dismantled from the electric bicycle to avoid it from exposing to sun and rain for prolong period.
- 8.The LED indication and its relationship to the remaining capacity of the battery pack, please refer to the Battery Specification of this booklet. When the power of the battery pack is totally consumed, it will turn off automatically to avoid damage.
- 9.Store the battery pack in cool, dry and ventilated place with temperature between $-20\sim 40^{\circ}\text{C}$.

► Warning

- I . If the battery is found overheating, leaking, deforming, giving out odd smell and smokes,stop using the battery pack immediately. Put it in open area and away from the crowd.
- II . The battery pack is designed for using with the designated electric bicycle. Do not use the battery pack on other applications.
- III . Use only the specified adaptor to charge the battery. It is prohibited to use adaptor not certified by our company for charging to avoid damaging the battery pack.
- IV . Do not place the battery pack over the radiator or any heated objects, particularly microwave oven and high-pressure container, to avoid the heat from damaging the battery pack. It is also important that the keep the battery pack way from reach by children.
- V . For extended storage of the battery pack, it is recommended that you charge the battery with 30%~50% capacity, i.e. with 2~3 LEDs on. Repeat the same procedure every 4 months. Totally discharged battery should be recharged immediately afterwards.
- VI . If the battery pack or adaptor is found defective, please return it to our Service Center for repair immediately. Please do not attempt to open the casing of the battery pack and the adaptor to avoid hazard or damaging the parts inside. Warranty will be voided if the battery pack or the adaptor is found being opened.
- VII . Do not use gasoline and other chemical solvents to cleanse the casing of the battery pack and the adaptor. Use soft cloth to wipe clean any water or dirt on the surface of the battery pack and the adaptor.
- VIII . Do not place the battery pack at exposed environment for long period of time to avoid rain and strong sunlight damaging the battery pack.

User Manual Of The Adaptor

1. Before charging the battery pack, you should connect the DC jack from the adaptor to the socket on the pack properly and then connect the adaptor to the AC wall outlet. The POWER indicator on the adaptor will grow red.
2. During charging, the charging indicator will grow red and turn green when charging is completed.
3. After charging, unplug the AC plug from wall socket first and disconnect the DC jack from the battery pack.
4. This adaptor should only be used to charge the Li-ion power battery packs manufactured and supplied by our company. Use for other devices is not allowed.
5. The operating temperature of this adaptor is 0°C ~45°C.
6. Avoiding using this adaptor in humid and wet locations. To fully charge a 24V/36V 9Ah Li-ion battery pack requires approximately 5 hours.
7. Do not allow water to go into the adaptor.

► Warning

1. Do not attempt to open or modify this unit. All work should be carried out by authorized service personnel only.
2. Use only with compatible batteries, Charging non-compatible batteries may cause fire, electrical shock or other accidents.
3. When connecting to the battery, be sure the DC output plug is connected to the charging socket firmly.
4. During charging, the temperature of the charger will rise, this is normal and not a malfunction. Do not put anything above the cover of the adaptor. Do not place inflammable substances within the distance of 30cm from the adaptor to avoid danger.
5. A short circuit between the plus (+) and minus (-) charger pins may cause fire, electrical shock or other accidents. Make sure that the charger connector is isolated from any metal parts when a battery is not connected.
6. Only use the AC power cord included with the charger or the ones specified.
7. Stop charging immediately if charging does not complete in designated time. In case of abnormal smell, leak or case deformity during use, turn off the power and unplug the cable from socket to avoid possible injury.
8. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
9. Children should be supervised to ensure that they do not play with appliance.
10. Never attempt to charge non-rechargeable batteries. It might explode!
11. See instruction manual for use in countries other than the U.S.A.
12. Risk of injury. Charge only Li-ion/FeLi type rechargeable batteries, other types of batteries may burst causing personal injury and damage.



1-4 Operation and Safety

- Take time to familiarize yourself with your **CARGO BIKE**.
- Always observe all traffic regulations.
- Always park in right place.
- Avoid high speed sharp turns,as your **CARGO BIKE** may tip over.
- Make sure that there is an enough braking distance when with carried. Must use rear brake every time when braking.
- Some localities require that the owner or rider equip their **ELECTRIC CARGO BIKE** with a horn,bell,or other sound making device to use for warning others of your approach.
- Check handlebar and seat adjustments before riding.
- Check all axle,motor mounting,and drive system mounting nuts.
- Check your tires for cuts,exposed casing casing cords,and proper inflation before each ride.
- Check your helmet for proper fit and damage before each ride.**NEVER RIDE WITHOUT A HELMET.**

1-5 Circuit interconnect pattern

