

GoKWh

USER MANUAL

GoKWh 12V&24V Lithium-titanate(LTO)
Battery Series



Dongguan GoKWh Technology Co., Ltd.
Version - 2025



Important Safety Instructions

Please save these instructions.

DISCLAIMER

The user manual provides important operation and maintenance instructions for the GoKWh 12V & 24V Lithium-titanate Battery Series (hereinafter referred to as the battery or battery pack).

Before use, please read all specifications, usage, storage conditions and warnings on this document and save for future reference. Always follow our instructions for the handling and use of this battery pack. Abuse of battery can cause battery failure, performance degradation or shortened life, overheating, explosion or fire.

Note

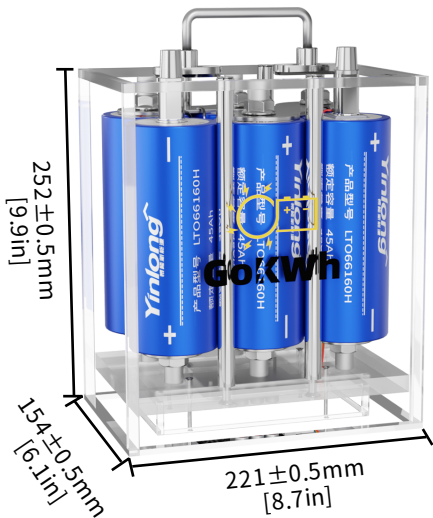
- Users should install and use the battery in accordance with the requirements of the user manual. If the user uses the battery under conditions or equipment beyond the conditions specified in this user manual, GoKWh does not assume any responsibility or liability for direct or indirect personal and property losses.
- The illustrations in the user manual are for demonstration purposes only. Details may vary slightly based on product version and market region
- GoKWh reserves the right to make changes to the user manual without prior notice.
- Please carefully check all the configurations and batteries in the package. If any accessories are missing or for any technical support, please contact GoKWh Customer Service Center in time.

1. APPEARANCE AND DIMENSIONS

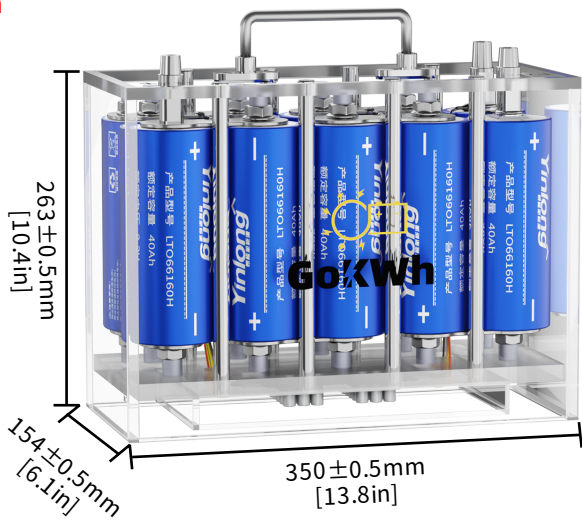
Battery Dimensions

There shall be no such defect as scratch, bur and other mechanical scratch, and the connector should be no rust dirt. The structure and dimensions see attached drawing of the product.

12V 40Ah / 45Ah



24V 40Ah / 45Ah



2. TECHNICAL SPECIFICATION



Model	GWT1240	GWT1245	GWT2440	GWT2445
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BATTERY

Cell Type	Lithium-titanate(LTO)			
Nominal Voltage	13.8V		23V	
Max. Charge Voltage	16.8V		28V	
Rated Capacity	40Ah	45Ah	40Ah	45Ah
Nominal Energy	552Wh	621Wh	920Wh	1035Wh
Max. Charge Current	40A	45A	40A	45A
Max. Discharge Current	40A	45A	40A	45A
Max. Discharge Voltage	16.8V		28V	
Cycle Life	≥25,000 Cycles			
Warranty	5 Years			

Balancer

Balancer	5A
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CHARGE

Charge Method	CC/CV	
Charge Voltage	≤16.8V	≤28V
Charging Time	<1.5 h	

MECHANICAL

Terminal Type	M8 Bolt	
Dimensions (L*W*H)	8.7*6.1*9.9 in/ 221*154*252 mm	13.8*6.1*10.4 in/ 350*154*263 mm
Weight	25.5 lbs./ 11.6 kg	39.9 lbs./ 18.14 kg
Case Material	Transparent Acrylic	

TEMPERATURE

Charge	-20°C~35°C / -4°F~ 95°F
Discharge	-40°C~65°C / -40°F~149°F
Storage	-40°C~45°C / -13°F~113°F

3. 24V SYSTEM VOLTAGE SWITCHING INSTRUCTIONS

*This description is only for the functions of the 24V system models (GWT2440 & GWT2445), and is not applicable to the 12V battery models.

The top of the 24V battery has three battery terminals, including the 12V positive terminal, the 24V positive terminal, and the battery total negative terminal. By connecting different positive terminals to the total positive terminal, a simple switch between 12V and 24V voltage can be achieved in one battery.

a. Connect the battery to a 12V system

After connecting the 12V positive terminal of the battery and the total positive terminal of the battery, the battery will output as a 12V system.

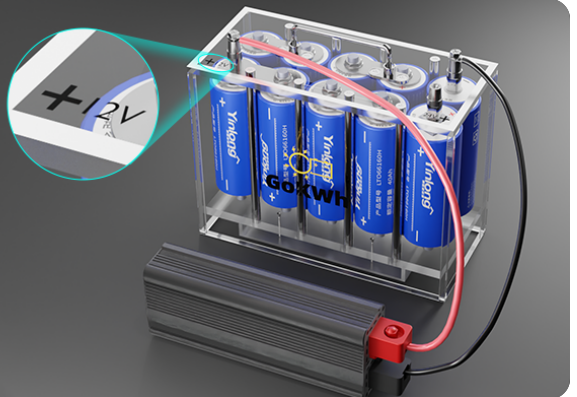
b. Connect the battery to a 24V system

After connecting the 24V positive terminal of the battery and the total positive terminal of the battery, the battery will output as a 24V system.

The connection method is shown in the figure below:

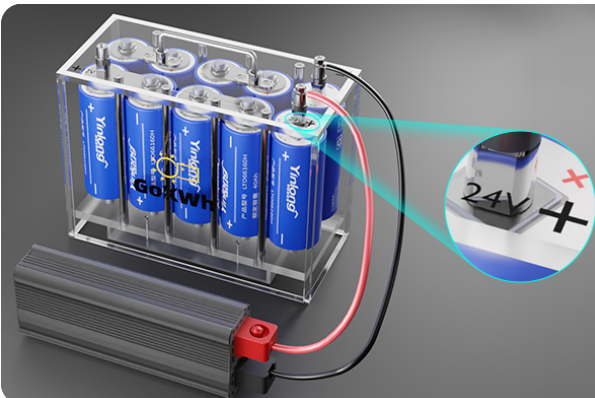
12V Output:

Connect the 12V Positive to the Battery's Negative Terminal



24V Output:

Connect the 24V Positive to the Battery's Negative Terminal



4.INSTRUCTIONS FOR USE

a.Confirm the positive and negative polarity of the battery before use. Do not turn on the power when connecting the positive and negative terminals of the battery to the load to prevent a large number of electric sparks from being generated during the connection process and causing danger. Turn on the load switch after the connection is turned on.

b.Pay attention to the matching of load power. Forcible use beyond the power range may damage the power supply and cause danger.

c.When multiple LTO batteries are connected in parallel, the maximum voltage difference between the batteries should be less than 3V before parallel connection.

5.BATTERY TRANSPORTATION

- When transporting the battery, please ensure that the battery power is around 50%.
- During transportation, please use insulating and shockproof materials to pack the battery to avoid collision and extrusion during transportation, which may cause damage to the battery.
- Please handle with care during transportation and loading to avoid dropping or bumping the battery.
- Do not transport together with flammable, explosive or sharp metal objects.

6.BATTERY STORAGE

- When storing the battery, keep the battery charge between 35%-50%.
- The battery is to be stored in a condition that the temperature of $23\pm 2^{\circ}\text{C}$ and the humidity of 45%- 75%.
- The battery should be stored in a ventilated and dry environment to avoid contact with corrosive substances.
- Keep away from high temperature and open flame environment.
- During storage, it is recommended to charge the battery every 180 days and fully charge the battery.

7.WARNING

- DO NOT immerse the battery in water or allow it to get wet.
- DO NOT use or store the battery near sources of heat such as a fire or heater.
- DO NOT reverse the positive (+) and negative (-) terminals.
- DO NOT connect the battery directly to wall outlets or car cigarette-lighter sockets without proper charging equipment.
- DO NOT allow exposed ends of cables connected to opposite terminals to touch.

- DO NOT put the battery into a fire or apply direct heat.
- DO NOT use the battery if the battery casing has been pierced, broken, cracked, or otherwise visibly damaged.
- DO NOT throw the battery or heavily strike the battery in any way.
- Never solder anything directly to the battery terminals.
- DO NOT mix batteries of different capacities, types, and brands.
- Stop using the battery if it has an odor, is abnormally hot, deformed, has its cover discolored, or has any other abnormalities.
- When the battery is in use or charging, the above conditions may occur. Please disconnect the charger immediately and stop using it

Note.

The electrolyte in the battery is harmful to human skin and eyes. If the electrolyte leaking from the battery contacts your eyes, please do not rub it, rinse it with clean water immediately, and go to the hospital for treatment. If not handled properly, the electrolyte may damage your eyes.

8.WARRANTY & AFTER-SALES SERVICE

GoKWh guarantees that all batteries are brand new and are fully tested before shipment. If you encounter any problems when using the product, please feel free to contact us through the official email for after-sales service. If you need to use the warranty service, please refer to the warranty terms in this booklet:

- All 12V & 24V Lithium-titanate Battery Series come with a 5-year manufacturer's warranty from the date of purchase.
- This warranty covers the following 12V & 24V Lithium-titanate Battery Series models:

a.12V 40Ah Lithium-titanate Battery

b.12V 45Ah Lithium-titanate Battery

c. 24V 40Ah Lithium-titanate Battery

c. 24V 45Ah Lithium-titanate Battery

- Warranty applies only to the original owner and is not transferable.
- We will require proof of purchase and usage before processing any warranty claim or return.

a.If GoKWh provides technical support and battery repair services for non-manufacturer defects, the customer will be responsible for the corresponding shipping costs.

b.If the product is confirmed to have a manufacturer defect, GoKWh will bear the shipping costs of replacing the battery.

- Warranty service will not be provided if the battery fails due to the following conditions or reasons:

a.Improper battery maintenance, incorrect charging, reverse polarity, improper use, improper installation

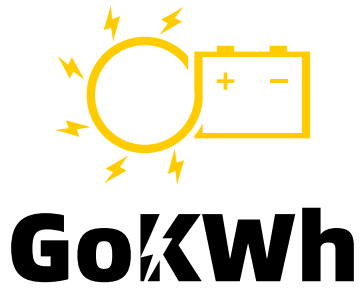
b.Damage to the battery caused by use in an overheated environment, fire, freezing, accidental entry into any body of water (lakes, streams, ponds or oceans)

c.Failure to maintain proper battery charge or use beyond the rated charge/discharge cycle

d.Battery damage caused by unauthorized tampering or repair


e.Force majeure or external causes, misuse, accident, negligence

f.The buyer intentionally conceals or fails to cooperate in providing purchase or use information



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