

Lead-Acid to **Lithium-Ion** Advantages and Operation Guide



TECHNOLOGY, INFINITE POWER

Vision: To become a leading global supplier of lithium-ion battery power system solutions for off-road vehicles.



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Advantage of lithium-ion battery



Energy saving

Compared to lead-acid batteries 80% charging efficiency, lithium-ion battery's charging efficiency reach up to 98%. Saving almost 20% in energy costs.



Fast charging

Lithium-Ion batteries are capable of up to 2C charging. This means it can be fully charged within 2 hours with fast charging eliminating the need for spare batteries.



Durable

After more than 3500 cycles of regular charging and discharging the battery capacity of lithium-ion batteries can remain over 70% of its starting value.



Reduced pollution

Lithium-ion batteries create less environmental pollutants during their production in respect to lead-acid batteries. Lead-acid batteries also release hydrogen gas (which combines with acid mist to form a toxic gas) under conditions such as overcharging or damage, while lithium batteries do not produce such toxic gases during normal use.



Maintenance free

Lithium-ion batteries feature a fully enclosed design, thus they are truly maintenance free.



Safe

Lithium-ion batteries have to pass rigorous safety tests including; impact, crush, puncture, fire, high and low temperature to ensure their safety.



Resistant to change in temperature

Lithium-Ion batteries can work in extreme conditions from -35°C to 65°C, working their best in 25°C to 60°C.



Which lithium-ion battery is the best for your forklift?

24V Battery System

for pallet jack and stackers



48V Battery System

for counterbalance forklift, reach-truck and tri-lateral forklift



80V-96V Battery System

for heavy-duty counterbalance and lateral forklift



309V-750V Battery System

for heavy-duty forklift, reach stacker



Smallest standard battery (SSB) solution

Universal Compatibility:
Fit for more than 90% forklift models in the market.

High Flexibility:
Interchangeable between different trucks, boosting flexibility by 100%
Separate counterweight allowed to be prepared by local partners.

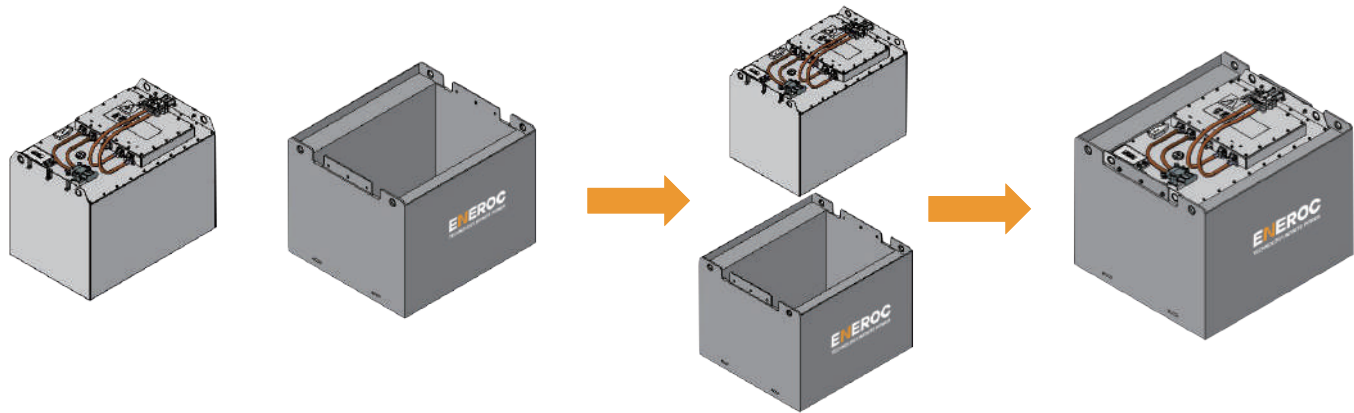
Cost Reduction:
Save up to 40% on logistics and import costs.

Fast Delivery:
sales in stock, reducing delivery time by 50%

Easy Maintenance:
Uniform components for easier maintenance



- High Cost Performance
- Complete Certification
- Fast Delivery



*Counterweight
*SSB: Smallest Standard Battery

Compatible forklift brands



Covering brands and models such as STILL, TCM, Toyota, Hyundai, IOADHOG, EHONCLAD, and RCKET (e.g., 18BR-X, Z1078, etc.)

Removal method classification

■ Side-Shift Removal



■ Side-Shift Removal & Exterior/Non-Exterior



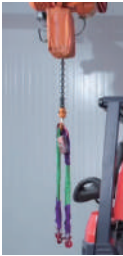
■ Top-Lift Removal



■ Exterior/Non-Exterior



Tools

Taxonomy	Tool names		Explanation of Use
Hoisting Equipment	Crane/electric hoist		Lift and place the battery
	Sling/hook		Connect the battery lifting hole
General Tools	Socket wrench set		Disassemble and assemble frame mounting screws
	Torque wrench		Control torque when fixing battery to the frame
	Allen wrench		Install battery cover and instrument
Electrical Category	Insulating gloves		Prevent electric shock
	Multimeter/detector		Detect battery status
	Insulating tape		Short circuit protection
Installation Aids	Fixing frame/bracket		Install instrument
	Cable tie/cable duct		Organize wire harness
Safety Protection	Safety glasses		Protects against sparks or debris
	Anti-static wrist strap		Prevent electrostatic discharge from damaging circuits

Lithium-ion battery installation procedure

