

OPERATION MANUAL



POWERED STAIR CLIMBER

CT075C/CT105C

EC DECLARATION OF CONFORMITY FOR MACHINERY

The company XSTO CO.,LTD. herewith declares that the products of the powered stair climbers are conform to the current regulations of the European Union, EC Guidelines 2006/42/EC. This declaration becomes void if the climbers have been altered without the consent of XSTO CO.,LTD



Description of the machine: Powered Stair Climber Type:
Signature of the manufacturer: XSTO CO.,LTD.

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1 Symbols and safety instructions



WARNING-----Can lead to serious injuries and fatalities



CAUTION-----Can lead to light injuries



NOTICE-----Can lead to material or premises damage

- Before initial operation, read the user manual and take note of the warning and safety instructions.
- Before initial operation, check the electronic functions, the safety brakes and the position of the climbing wheels.
- Before initial operation, store the rated load at least one hour in a nonfreezing environment.
- Take note of the technical data as the lifting capacity cannot be exceeded.
- Stair climber operator should be trained. The person should be physically and experienced to handle it.
- When stair climber is going up and down, other personnel shall not stand under the machine .
- Wear non-slip footwear and always operate with both hands. Practice operating without a load and at a low speed to start with.
- For transportation of cargo, not people. Ensure loads are secured with attached Safety strap.
- Never put your hand under the loading plate or touch rotating or moving parts.
- Do not use it in rain, wet condition, snow or ice.
- Do not use it if the wheels broken.
- Make sure there are no obstacles on the stairs and the steps are not slippery.
- Do not use it on escalators or moving belts.

- If the drive elements blocked, turn off the machine immediately.
- Turn off machine when transporting to different locations.
- Keep the plug-in elements dry. Protect the battery and charging cable by avoiding car oil, grease, aggressive cleaning agents and thinners. otherwise they will be damaged.
- Do not use a high-pressure cleaning. Store it in dry condition.
- Repairs may only be done by certified and experienced engineer
Keep it away from ignition source.
- It may interfere with other electronic devices' sensitive electro-magnetic fields (e.g. anti-theft systems in department stores).
- Only the accessories provided by XSTO CO.LTD. are provided.

2 Description

2.1 The features



- 1: switch button
- 2: up and down switch
- 3: battery
- 4: climbing crawler
- 5: walking wheel
- 6: aluminum alloy handle
- 7: high and low speed switch
- 8: aluminum alloy body
- 9: aluminum alloy loading plate
- 10: Edge brake detection wheel

2.2 Technical data

This user manual is for CT075C/CT105C only.

2.3 Application fields

CT075C/CT105C is a kind of light Powered stair climber which can use in the following fields: Logistics, express delivery, office, household and so on.

2.4 Technical parameters

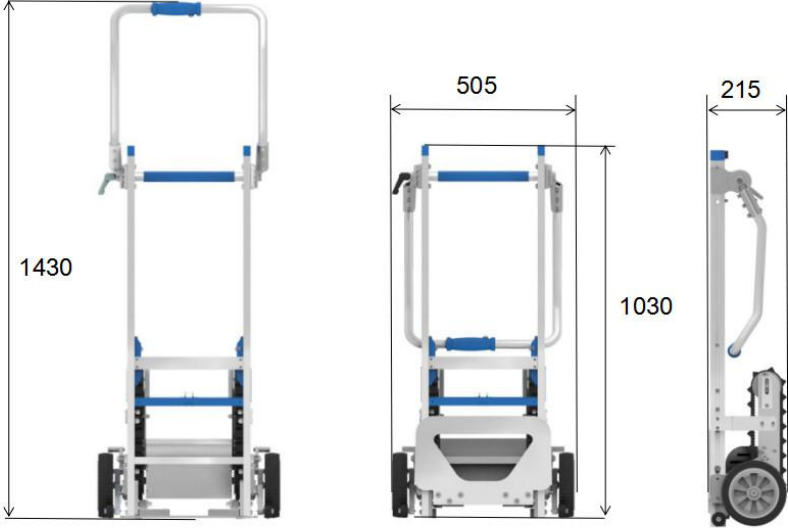
Type	CT075C		CT105C	
Size(mm)	Height: 1000-1400 Width: 500 Depth: 215		Height: 1000-1400 Width: 500 Depth: 215	
Weight (Kg)	Main unit: 19.5 Charger: 0.3 Battery:2.2 (5Ah)		Main unit: 19.5 Charger: 0.3 Battery:2.2 (5Ah)	
Capacity (Kg)	Rated: 75		Rated: 105	
Climbing speed (steps/min)	Slow: 35 Fast: 45		Slow: 35 Fast: 45	
Step count on one charge	40-50 floors (800-1000 steps)	80-100 floors (1600-2000 steps)	30-40 floors (600-800 steps)	60-80 floors (1200-1600 steps)

Step height limitation(mm)	<210		<210	
Step width limitation(mm)	>250		>250	
Batteries	48V/5Ah (Lithium battery)	48V/10Ah (Lithium battery)	48V/5Ah (Lithium battery)	48V/10Ah (Lithium battery)
Direct current motor	48V300W		48V300W	
Noise level (1 m out from actuator)	<70dB		<70dB	
Storing/operating temperature of device	-10°C - +40°C / 0°C - +40°C (With no icing)		-10°C - +40°C / 0°C - +40°C (With no icing)	
Storing/operating temperature of battery	-5°C - +35°C / 0°C - +40°C		-5°C - +35°C / 0°C - +40°C	
Serial number	On body name plate		On body name plate	
Protection Level	IP54		IP54	

Note: all the following products are recommended to be used below 1000m altitude, and the environmental humidity is required to be within the range of 45%-85% (no coagulated snow).

Note: Product processing error leads to different weight of each product, ±0.5kg of each.

2.5 Dimensions (mm)



Units: mm

2.6 Standard Supply Accessories

			
<p>① Main unit</p>	<p>② Safety strap</p>	<p>③ Battery Pack</p>	<p>④ Normal charger</p>

Repair tooling			
CODE	DESCRIPTION	SPECIFICATION	QUANTITY
F-2-00038	Allen Key	2.5mm	1
F-2-00088	Allen Key	4mm	1
F-2-00052	Allen Key	3mm	1
F-2-00091	Open Spanner	8-10	1
F-2-00152	Screw Driver (short handle)	5.5mm	1
F-2-00155	Open Spanner	13-15	1

2.7 Optional Accessories

	
① Battery Pack	② Normal charger

3 Initial Operation

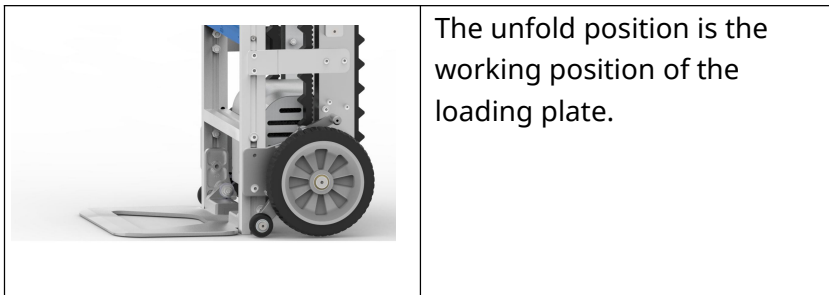


CAUTION----- Before initial operation, please ensure the machine is operated in an environment higher than 0 °C

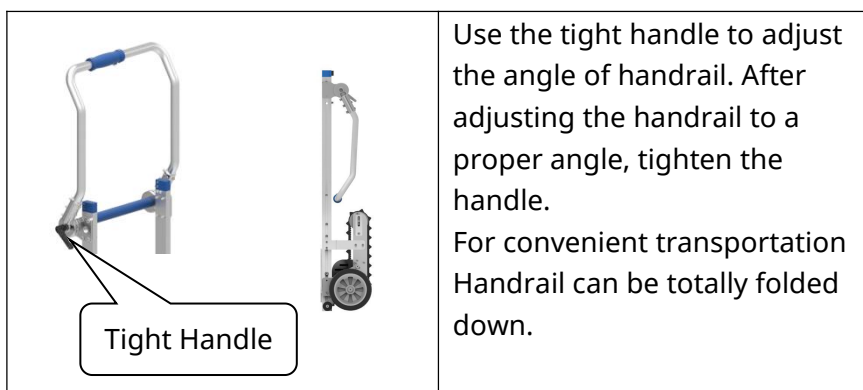


CAUTION-----The machine is light and easy to be push down, During operation, the machine should be controlled by hand or simply fixed.

3.1 Foldable Loading plate



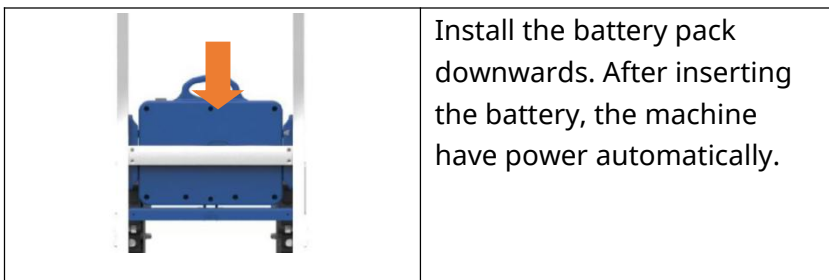
3.2 Adjustable handrail



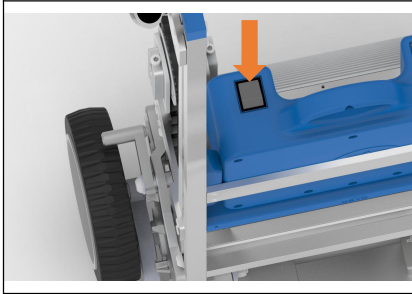
3.3 Battery Pack



NOTE-----Keep the plug-in dry and clean!



3.4 Turning on the stair climber



Turning on the power switch.
The LED lights will light up.

3.5 Climbing status and flat ground status

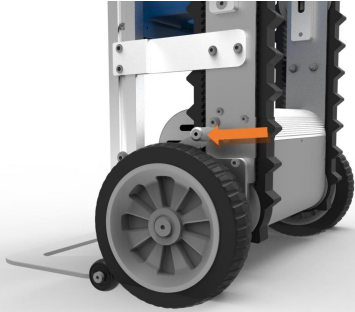
switching



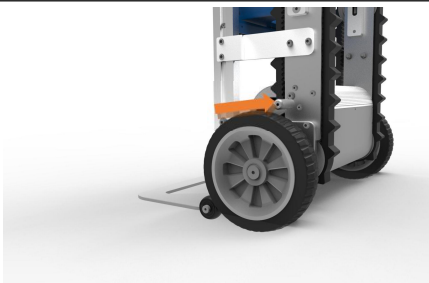
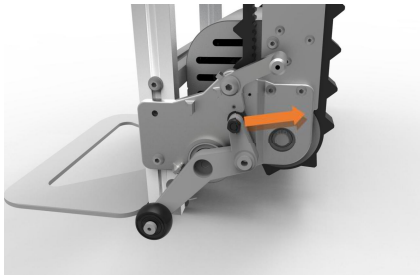
CAUTION-----The machine is light and easy to push. In operation, control the machine by hand or simply fix the machine before proceeding!



CAUTION-----Improper handling can be pinched by the machine.

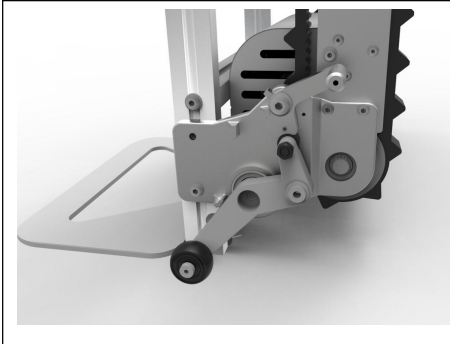


When the climbing machine is dragging on the ground, kick the switch key to the direction of the loading plate with your foot until the arc clamp is detached, so that the walking wheel can turn freely.

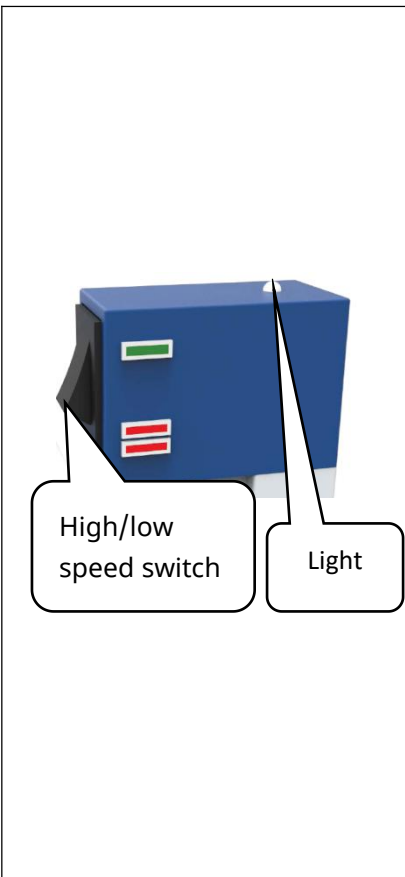


When the stair climbing machine is in the stair climbing state, hold the machine with one hand to ensure that the stair climbing machine is in the vertical state, and kick the switch to the direction of the track with your foot to combine the circular clamping groove with the supporting bearing of the walking wheel





3.6 Two-speed climbing mode

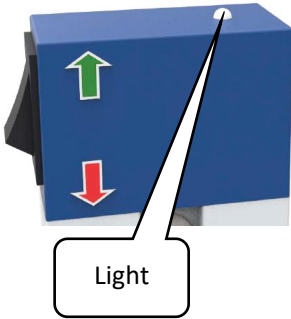


Press the high/low speed switch approx 0.2 seconds to switch modes. The lights will switch colors, gear “—” is low speed mode (flash green), gear “=” is high speed mode (flash red). The initial state of each power-on is low speed mode (flash green).


This machine has Angle control, starting the stair climbing machine at too large or too small Angle, the crawler will not rotate. Once the Angle is back to normal, the click operation will return to normal. This is an Angle error, not a fault. Long press the high and low speed switch (about 3 seconds) to

	<p>switch the color of the lamp. The rear light goes out and the Angle control can be turned off. After power off, Angle control will automatically restore the initial opening state.</p>
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3.7 Upstair and downstair switch

	<p>Press the up/down stair speed about 0.2 seconds, to switch modes. LED lights will switch colors, with green light means going upstairs and red light means going downstairs. The initial state of each power-on is upstairs mode (green).</p>
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3.8 Check battery capacity

	<ol style="list-style-type: none">1. Press the battery power ON/OFF switch, the battery capacity will be displayed on the left side of the battery
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4 Operation



WARNING-----Only trained personnel can operate this machine!



WARNING-----You must practice when empty load during practice and you must adjust to a low speed!



WARNING-----Please use two hands to operate!




WARNING--Note:Motor 65% working time[Continuons Operating Hours/(Continuous Operating Hours+Continuous rest hours)≤65%],Rated load of 70% or above,the maximum continuous running time is less than 25 minutes.Rated load of less than 70%,the maximum continuous running time is less than 60 minutes.


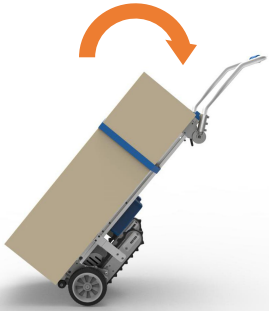
4.1 Loading goods

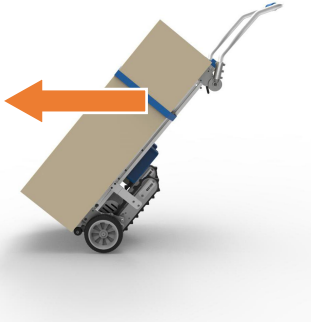


1.Adjust the stair climber to the flat ground state, which is convenient for dragging, as shown in the figure.

	<p>2. Insert the loading plate under the cargo and keep the cargo on the loading plate smoothly and without shaking. Use the safety belt to fix the goods.</p>
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4.2 Operating on the ground

	<p>1. Adjust the stair climber to flat ground status so that the synchronous track does not touch the ground when it is pushed on the ground.</p>
	<p>2. Tilt the stair climber and keep the balance.</p>

	<p>3. When the stair climber is transported on the flat ground, let the stair climber always be in the balance.</p>
<p>Note: Ensure to turn off the power switch during ground operation to avoid malfunction.</p>	

4.3 Go up the stairs



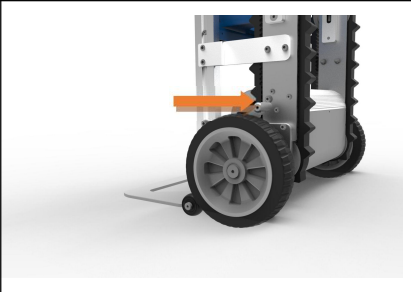
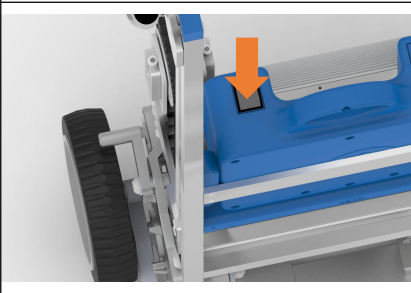
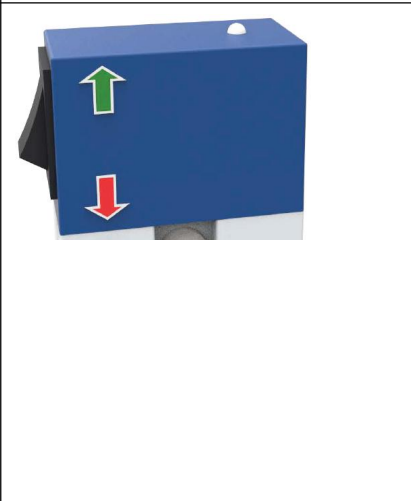
WARNING-----When the stair climber starts to go upstairs, the operator will feel a support force. At this time, the operating angle of the stair climber can be appropriately adjusted to maintain the balance of the center of gravity of the climber, thereby offsetting this support force!

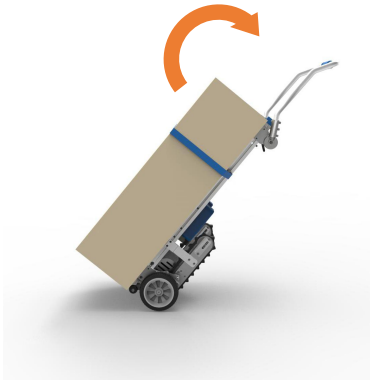
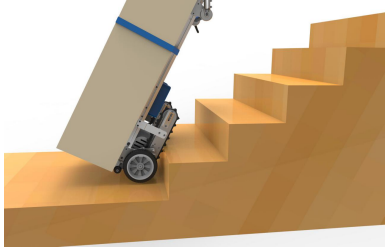
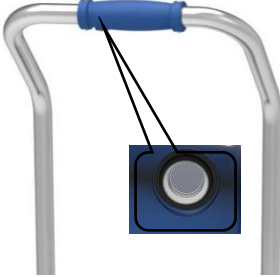



WARNING-----Always keep the machine balanced!



WARNING-----It is forbidden to be under the machine!

	<p>Adjust the stair climber to the of climbing state.</p>
	<p>Press the battery power switch, the power indicator will turn on</p>
	<p>Set the "Up/down switch" to up mode. (Note: If more than 10 minutes, no switch operation, the machine for safety protection, press the button at this time, the machine will not move. Power restart is required for normal operation.)</p>

	<p>Adjust the armrests to the proper condition, Tilt the machine to Proper angle and keep balance.</p>
	<p>Pull the Stair Climber backwards. The operator holds the handrail and stands 2 or 3 steps above the machine.</p>
	<p>Adjust the operating angle of the climber, press run button to start going upstairs.</p>
	<p>Pull the stair climber to next step, then repeat the climbing action. Operator should hold the climber handrails during this process.</p>

4.4 Climbing down Stairs



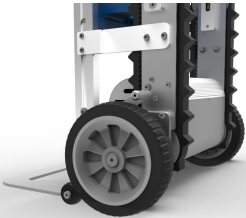
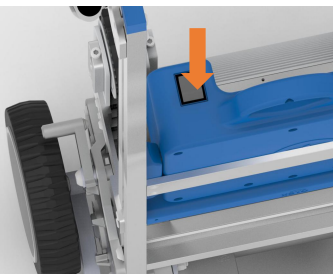
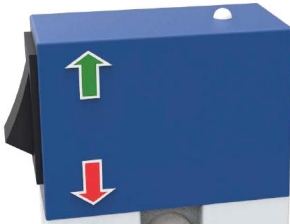
WARNING ----- when climbing stairs, the operator will feel an initial force. Adjust the angle of the stair climber to keep the balance of gravity to counteract the force.

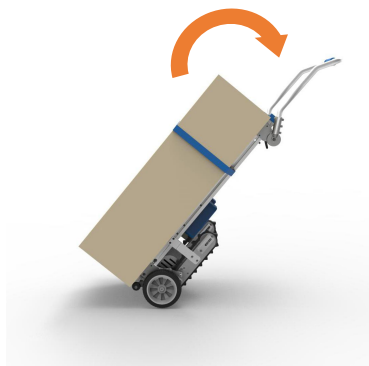

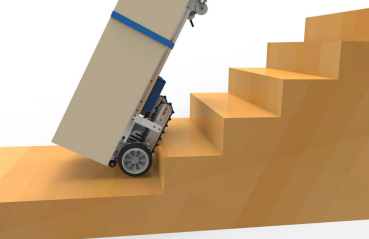


WARNING ----- Always keep the machine balanced .



WARNING ----- Do not allow people to obstruct the machine.


	Adjust the stair climber to the of climbing state.
	Press the battery power switch, the power indicator will turn on
	Set the "Up/down switch" to down mode.

	<p>Adjust the armrests to the proper condition, tilt the machine to Proper angle and keep balance.</p>
	<p>Push the stair climber forward to the edge of the stair. Note that the stair climber has edge brake function and will stop automatically at the edge of the stair. When the stair climber stops automatically, press the switch to go downstairs and hold the handle tightly to keep balance.</p>
	<p>Climb down the stairs and repeat the operation until the downstairs is completed</p>

4.5 Park



CAUTION-----Ensure to turn off the power after each use.

	<p>When the machine is parked, be sure it is vertical located on the ground, steady without swagging.</p>
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4.6 Transport



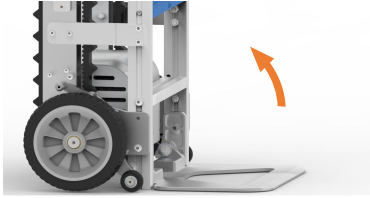


WARNING -----Please aware of the weight and specifications.



WARNING -----During transportation in vehicles, secure the climber according to the relevant legal regulations!.



CAUTION ----- Please turn off the equipment when transport.

	<p>Fold the loading plate.</p>
	<p>Fold the adjustable armrest.</p>
	<p>Lay down the stair climber when transport, As shown in the left picture. please make sure to fix the stair climber if can not lay down as the picture.</p>

5. Maintenance

5.1 Battery Pack



CAUTION-----Do not operate the equipment with wet hand!



NOTICE----- Keep the stair climber away from wet condition!



NOTICE----- Charge the battery pack after each use!



NOTICE----- Keep the charger and charging cable away from oil;grease; aggressive cleaning agents or any destructive goods!



NOTICE----- Please follow the operating instruction to charge, use 2A output charger, more than 2A output charger is forbidden!

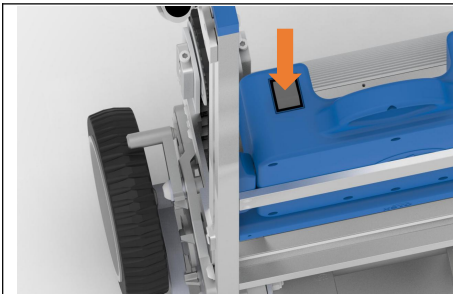


NOTICE----- It will drop in the battery performance and reduce the service life of the battery pack with no any electricity inside of the battery!


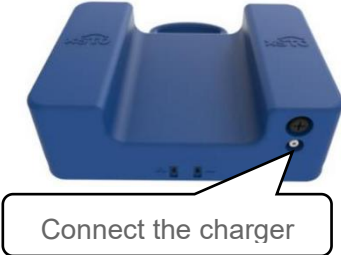



NOTICE----- Please keep the electric plug dry!

New battery will reach the best situation after several charging!



Turn off the main switch.

	<p>Pull out the battery pack upward.</p>
	<p>Connect the charger</p>
	<p>Please follow the charger instructions when charging.</p>



Battery instructions and precautions

(1) Storage

When the battery pack to be long-term stored, charge the battery pack to about 50% capacity, store in dry and ventilated place, charge for every 3 months.

The battery pack and charger should be stored in clean, dry and ventilated place, avoid contacting with corrosive materials and be away from fire and heat.

The charging temperature range is 0-40°C. If the range is exceeded,

the battery performance will be reduced and the battery life will be reduced.

(2) Transportation

The battery pack and charger should be packaged for transport to prevent excessive vibration, shock or extrusion in transport process and prevent the sun and rain.

(3) Maintenance

- a) The battery pack should be stored in 40% ~ 60% charged capacity.
- b) If battery pack is not used for a long period, it should be charging completely and discharging completely one time for every three month, then charge the battery pack to about 50% capacity, use the specific charger,.
- c) In the maintenance process, please do not disassemble the battery pack, otherwise battery performance will decline.
- d) Forbid to remove any cell in the battery pack. Unauthorized dissembling of batteries is prohibited, and may invalidate your warranty.
- e) Problem handling

Symptom	Trouble Reason	Troubleshooting
Battery with no-output	Battery output cable is not connected. Battery pack is out of power	Connect the output line properly in accordance with the specifications. Charging the battery pack
Charger power light is off	Input charger plug is not properly inserted	Enter the charger plug into the mains supply plug according to the operation manual
Battery pack cannot be charged	Charger output plug loose; Battery pack is fully	Check the charger output plug and battery plug is firm or

	charged	not; Battery pack can be used normally
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f) Warranty period

Warranty period of this product is 12 months from delivery date.Cycles:500 times, capacity≥80%.

(4) Battery Handling Precautions

- *Forbid to immerse battery in water or juice or other liquids, and do not get wet!
- *Don't charge, use and store battery near a heat source such as fire and heater! Stay away from flammable and explosive materials.If the battery leaks or releases strange odor, please remove it from near fire place immediately. Fully charge the battery before first-time using.
- *Forbid to reverse the positive and negative pole!
- *Forbid to throw the battery pack into fire or heat it!
- *Forbid to short-circuit battery with wire or other metal objects!
- *Forbid to nail, knock or trample battery!
- *Forbid to disassemble the battery and battery pack in any way!
- *Forbid to put the battery into microwave oven or pressure vessel!
- *Forbid to use batteries on other devices!
- *Forbid charging in outdoor exposure to high temperature and sun, or rainy days!
- *Forbid to charge in corridors, evacuation routes, safe entrances and exits, and indoor houses!
- *The battery should be charged, used and stored in a place away from static electricity.
- *Stop charging if it is not fully charged for too long.
- *It should be charged in the daytime under the supervision of someone. When people leave, pay attention to unplug the charging plug. It is forbidden to charge overnight.
- *Prohibit the use of series and parallel battery!
- *If the battery pack gives off odor, gets heat, deformation, discoloration or appears any abnormal phenomenon, stop using it;

please remove the battery from electrical appliances and stop using it, when the battery is being used or charged!

*Forbid to use battery pack in a very hot environment, such as under direct sunlight or in car on hot day. Otherwise, the battery pack will overheat, which will affect battery performance and shorten battery life!

*Do not over charged. Unplug the charger as soon as possible after the charger indicates full charge.

*If the battery teaks and electrolyte leakage enter into the eyes, do not rub, rinse with water immediately and seek immediate medical assistance. If not in time, eyes will be hurt!

*Forbid to disassemble by yourself.

5.2 Exchange the fuse



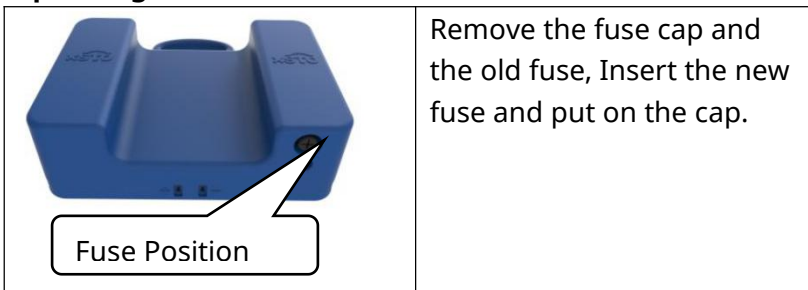
NOTICE----- Before exchanging the fuses, please disconnect the charger or car charging cable!



CAUTION-----Never mend or bridge defect fuses!



CAUTION-----Please replace the fuse that suitable for XSTO corresponding models!



5.3 Check stair climbing synchronous track



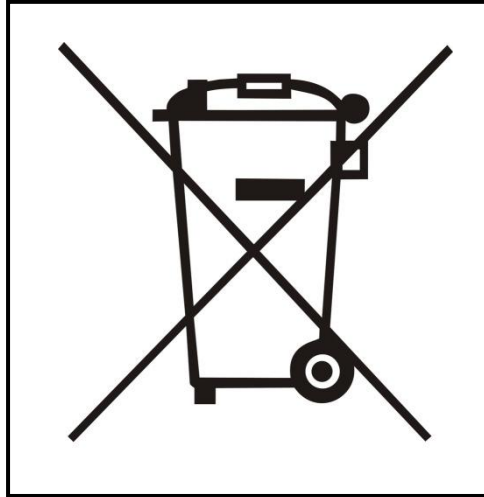
CAUTION-----Check for the wear of the stair climbing synchronous track regularly, if you find the stair climbing synchronous track damaged or heavy wear, please contact the authorized professional person or the manufacturer!



Check the stair climbing synchronous track, be noted of the wear limit.

5.4 Recycling

The powered stair climber is product of long durability. However, if your machine is old and has reached the end of its lifespan you may return its components to XSTO or the distributor of XSTO to be recycled.



6 Malfunction and Troubleshooting

Problem	Check and Solution
The climber machine can't start or can't go up or down stairs	check the battery pack. If it shows low power (<20%), please charge.If the above situation is turned out. Please contact the supplier.
The battery can't be recharged	Please contact the supplier.
Failure of high and low speed switching control	Check whether the power is connected. then remove and check the speed switch. If the switch connection is working. the speed switch is mostly broken. replace it. If the problem remains, please contact your supplier.