

# Battery Power Portable Pulling & Lifting Tool - 24V

User manual  
Model No. 298662



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Please read the manual carefully to avoid any risk of injuries.



## WARNING

- Take time to fully read the manual in order to understand your tool and its operation.
- Always wear gloves and suitable clothes, cover any long hair.
- Always fully inspect the tool and accessories before use.
- Always tightly wind cable onto drum before or during use.
- Never touch cable or hook under load.
- Always check the studs of the battery before use.
- Always wear gloves when handling cable to avoid injury.
- Always use hook strap (included) whenever pulling cable, during installation and during operation.
- Always switch the power off when not in use or performing maintenance.
- Always stand clear of the cable and load and keep others away while pulling / lifting.
- Always remove any element or obstacle that may interfere with safe operation of the pulling tool.
- Always check cable wear and ensure the load is stable.
- Always inspect cable, hook and slings before operating pulling tool. Damaged components must be replaced immediately.
- Always keep cable in tension during operation. Tightly wound cable reduces chance of binding, protect cable and pulling tools from damage.
- Never pull out the cable over the red warning mark.
- Always stand clear of winch cable and load while winding. Ask others to keep away from scenes
- Never operate this machine when under the influence of drugs, alcohol or medication.
- Never operate this pulling tool when you feel tired, sleepiness or other physical discomfort.
- Tool can be operated only by authorized personnel.
- Always dispose of or recycle battery according to local ordinances / regulations.



## WARNING



### ELECTRICAL HAZARD

- Always disconnect charger when battery is fully charged.
- Never probe with conductive object.
- Always fully charge battery before use.
- Never completely discharge battery.
- Always charge battery every six months if not in use.
- Never operate the tool during Charging.
- Never leave the tool near heat sources.
- Always use the provided charger and battery.
- Never operate the tool if there are any violent impact or damage.
- Never use in the rain or wet environment to protect motor from water and mud.
- Never burn batteries.

### CUT AND BURN HAZARD

**Failure to observe these instructions could lead to serious injury or death. To avoid injury:**

- Always wear gloves, goggles and ear protectors.
- Never short battery terminals, it may cause sparks or burns.



## WARNING



### FALLING OR CRUSHING HAZARD

**Failure to observe these instructions could lead to serious injury or death. To avoid injury:**

- Never attach a recovery strap to the pulling tool hook to increase the length of a pull,
- Always use a hook with a latch.
- Always ensure hook latch is closed and not supporting load.
- Never apply load to hook tip or latch. Apply load only to the center of hook.
- Never use a hook that has a throat opening has been deformed or bent or twisted.
- Never attempt to tow a vehicle or object with the recovery strap attached directly to the pulling tool hook.
- Never use bungee straps that develop tremendous and potentially dangerous amounts of force when stretched.
- Always avoid side pulls which can pile up cable at one end of the drum. This can damage cable or pulling tool.
- Never hook cable back onto itself. This will damage the cable.
- Always use a choker chain, choker cable, or strap. Never use pulling tool to lift or move persons,
- Never use pulling tool to lift load over people.
- Always use suitable anchor point when handling load.

# ! WARNING



## FALLING OR CRUSHING HAZARD

Failure to observe these instructions could lead to serious injury or death. To avoid injury:

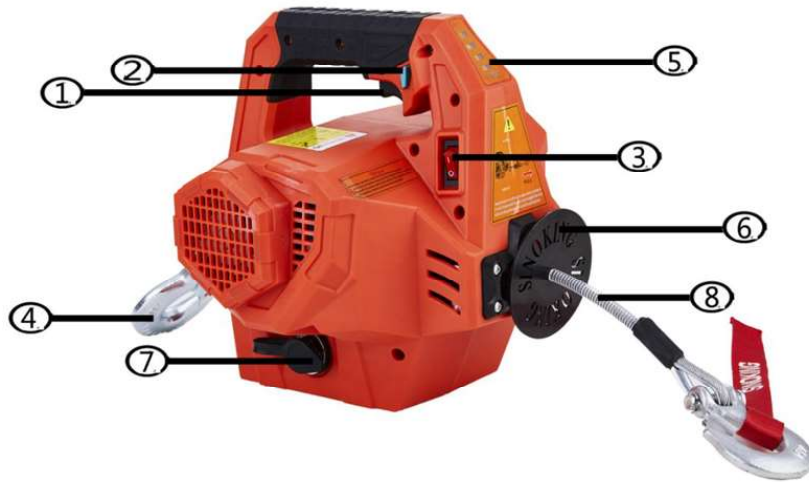
- Never use pulling tool to secure a load,
- Never shock load cable. Shock load can damage, overload and break cable.
- Never use the pulling tool's cable to tow another load.
- Vehicle or object collision during towing can exceed cable strength.
- Always make sure the anchor you select will withstand the load and the strap or chain will not slip.
- Always take time to use appropriate rigging techniques for pulling / lifting.
- Never spool out past length of red cable.
- Never exceed pulling tool or cable capacity listed on product data sheet. Using a snatch block to reduce pulling tool load.
- Never exceed 1000 lb. (454 kg) Maximum pulling capacity.
- Always use suitable anchor point capable of handling load.
- Always use factory approved mounting hardware, components, and accessories.
- Always rewind under tension load after use.
- Tightly wound cable reduces chances of “binding”, which can damage the cable.
- Always wind the cable onto the drum in the direction specified by the product warning label on the product and/or documentation.
- Always avoid turning switch on and off while using this product. This can damage motor controls unit and cable.

## Pulling Tool and Accessories



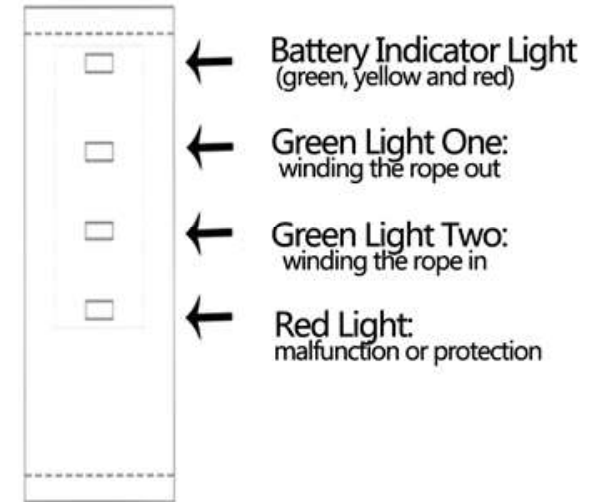
Item Number	Item Description	Quantity
①	Pulling Tool	1
②	Battery	1
③	Charger	1
④	Hook	1

## T 1.0



① Variable Speed Switch	⑤ T1.0 Display Screen
② Direction Switch	⑥ Stopping Plate
③ Power Switch	⑦ Charging Dock
④ Swiveling Anchor Hook	⑧ Cable

## T1.0 Display Screen



1. Press the power switch (“ON/I”) of pulling tool, the display light will turn on on.  
Press the direction switch “▲”. "Green Light One" will light up, and the pulling tool is releasing the cable.  
Press the direction switch “▼”, "Green Light One" will go out and "Green Light Two" will light up. The pulling tool is in the winding mode.

2. Overload and Overheating display.

- 1) When the load reaches 90% of the maximum load, the "Red Light" lights up and flashes.
- 2) When the load reaches the maximum load, the "Red Light" lights up, the product will stop working and enter the protection mode.
- 3) When the battery temperature reaches the setting maximum operating temperature, the product will stop working and then enter the protection mode.
- 4) When the electric current is too big, the fuse will break, the "Red Light" light ups, and the product will stop working.

### 3. Battery power display

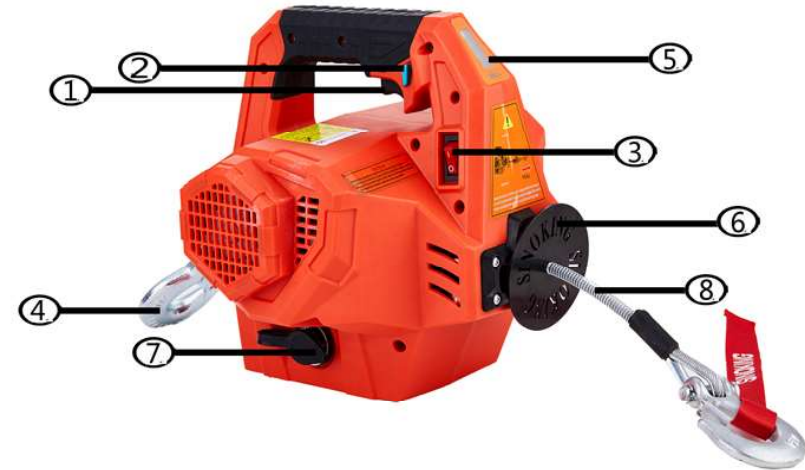
The battery indicator light has three colors.

- 1) When the indicator light is green, battery charge is enough, and pulling tool can be used normally.
- 2) When the indicator light is yellow, charge it before use.
- 3) When the indicator is red, the battery power is running out. Please charge as soon as possible.

### 4. Limit switch

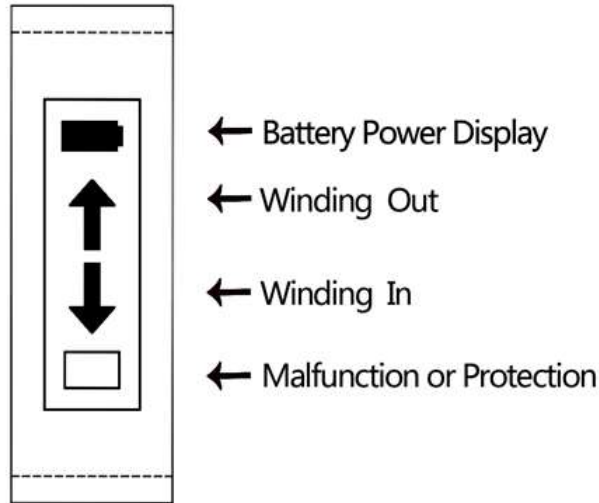
During normal operation, the stopping switch is turned on. When the stopping pate reached the upper limit switch, the operator's signal will be ignored. Stop winding the cable, when the Red Light lights up, and reverse the operation direction.

T 1000



① Variable Speed Switch	⑤ T1000 Display Screen
② Direction Switch	⑥ Stopping Plate
③ Power Switch	⑦ Charging Dock
④ Swiveling Anchor Hook	⑧ Cable

## T1000 Display Screen



1. Display of battery power: five grids are green. When the battery power displays only one grid, please charge it soon.
2. Pulling out the cable and winding back the cable status indicator are displayed in green.
3. When the red code appears, please resolve the problem according to the following table.

Error Code	Problems	Solution
Sign !	The load reaches 80% of the setting load.	Remind the user of the weight.
Code 1	pulling tool stops working	The load reaches the setting protection load; you need to reduce the weight.
Code 2		The motor temperature reaches the maximum temperature; Stop using pulling tool and let it cool to room temperature before using it again.
Code 3		maximum current reached, fuse brakes; Please contact customer service.
Code 4		Stopping limit reached; stop winding cable.

4. When the battery temperature reaches the set temperature, the product stops working and enters the protection state.

Sometimes, the product will stop working because it has entered protection mode. At this point, please refer to the error code to reset the product.

## Battery installation and unloading

During the installation, please confirm that the power switch is at “OFF /O” position. Battery release button must be at the top, align the contact point of the battery against the corresponding contact point on the battery slot, slide the battery in, and gently press until the battery is locked in place.

When removing the battery from the pulling tool, confirm the power switch is in the “OFF/O” position. Press down the battery release button and remove the battery.

## Battery power

1. When the battery is installed in the pulling tool, the battery status can be examined by opening the pulling tool and looking at the battery frame in the display screen on the fuselage.
2. There is a power display button and three LED power indicator lights on the top of the battery. After pressing the button, the battery status will be displayed:
  1. Three LED lights are on and green, indicating a full battery.
  2. One LED light is off, the other two are green. If the indicator does not flicker, the power level is between 40% and 70%.
  3. When only one LED light is green, use it after charging.
  4. If the indicator light is red, please charge as soon as possible.



## Charging

You need to use the original charger to charge the battery, after the battery loaded into pulling tool, insert the power cord of the charger into power outlet, and then insert the plug of the charger into the charging port of pulling tool:

1. When the red lights on the charger light up, the battery is charging.
2. When the red light turns green, the battery has been fully charged. If the battery is not fully discharged, the light will turn green in a shortly.

When the charger is not in use, please unplug the charger from the power outlet. A charger connected to the power outlet will consumes power even if it is not connected to pulling tool. The battery will be hot when charging, before using pulling tool, let the battery cool to room temperature.



Protection functions:

- 1) short circuit protection:  
the power value of short circuit protection:  $\leq 3 \text{ W}$ , the battery supply appliance can resume normal operation when the short circuit is fixed.
- 2) High current protection:  
High current protection value:  $I < 1.8\text{A}$ , the power supply will automatically return to normal operation after the current value return to normal.

Quick charging function:

The charger can fully charge a battery in two hours.



## WARNING

### Charging Note

**Failure to observe these instructions could lead to serious injury or death. To avoid injury:**

- Make sure the machine is turned off when charging, this could avoid damaging the machine and battery.
- Never use pulling tool while charging.
- When the battery temperature higher than  $70 \text{ }^\circ\text{C}$  ( $158 \text{ }^\circ\text{F}$ ) or below  $-20 \text{ }^\circ\text{C}$  ( $-4 \text{ }^\circ\text{F}$ ), the battery will stop discharge in order to protect the battery, you need to wait for the battery to cool down to room temperature before using the product again.
- Please do not charge the battery when the ambient temperature is above  $50 \text{ }^\circ\text{C}$  ( $122 \text{ }^\circ\text{F}$ ) or lower than  $0 \text{ }^\circ\text{C}$  ( $32 \text{ }^\circ\text{F}$ )
- It takes two hours to charge. When the battery is fully charged, be sure to disconnect the charger.
- If the battery is flooded or damaged, it cannot be charged.
- Never charge or use battery in a dangerous environment, for example close to flammable liquids, gases or dust.
- Never store the battery in an extreme environment, or it will damage the battery.
- Never open the battery pack. If the battery pack is broken, please stop using it immediately, don't charge the battery and then replace the battery.
- While not using the machine, please place the power switch in OFF/O position to save power.
- Charge the battery before it runs out of power, which can help extend battery life.
- Disposal or recycling: please dispose of waste batteries according to local laws and regulations.

### If the battery can't charge normally:

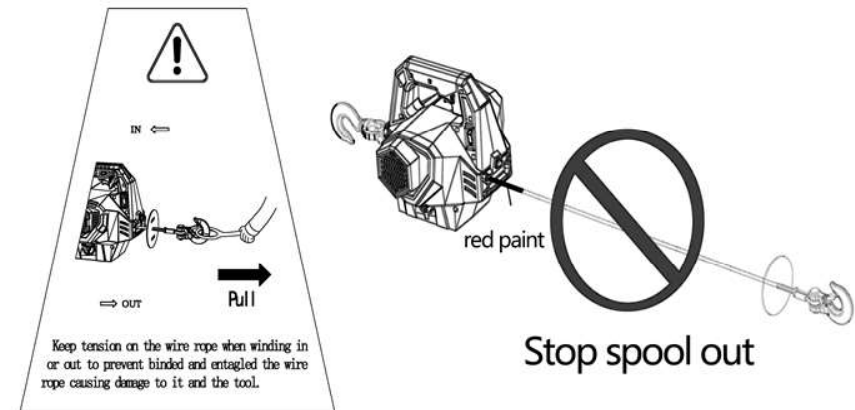
- 1) Insert other electrical equipment and check the voltage of the power outlet.
- 2) Confirm the charger voltage is about 29.4VDC. See the charger pin here or on the charger label.
- 3) Check the battery terminal for dirt. If so, clean with a cotton swab and alcohol.
- 4) If you still can't charge the battery, please contact the customer service.

## OPERATION

Before using this machine to lift or pull a load, you should familiarize yourself with your machine and it is important to know how it works.

This tool is a portable machine for lifting and pulling. This powerful tool has a power switch, a directional switch and a speed controller. The directional switch controls the forward and reverse rotation of the drum. The speed controller can change the speed when winding in or out.

When spooling out or rewinding the cable, it is necessary to keep a tension on the cable to prevent binding and entangling the cable, causing damage to it and the tool. Do not spool out any more when you see the red paint on the cable. Always keep at least 5 wraps of cable around the drum, avoid spooling the drum in the wrong direction. Never spool the cable out pass the red painted on the cable.





The following situations will cause the system to enter the protection state automatically.

- a. At 90% of the pulling capacity the overload indicator turns red
- b. The battery is overheating.
- c. Low battery.

When this occurs, please follow these steps:

- 1) Turn off the power switch.
- 2) Remove the battery.
- 3) Overload: Release the loading or increase the distance of the anchor point or use a snatch block to increase the pulling power.

Overheating: Allow the battery to cool to room temperature.

Low battery: Charge the battery.

- 4) Install the battery back into the product.
- 5) Turn on the power switch.

The tool is now ready to be operated again.

Take some time and practice using it before pulling or lifting a load, that way you will be familiar with all the operations.

The following steps describe how to use the tool with a single cable. A snatch block can improve the pulling capacity.

## OPERATION

**NOTE:** Take some time and practice using it before pull or lift a load, that way you will be familiar with all the operations.

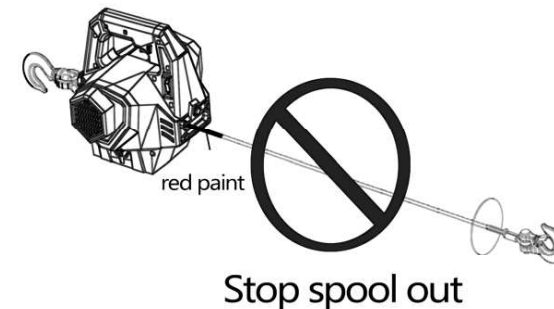
The following steps describe how to use the tool with single cable. A snatch block can improve the pulling capacity.

Step 1: Put on gloves and attach the strap to the hook.

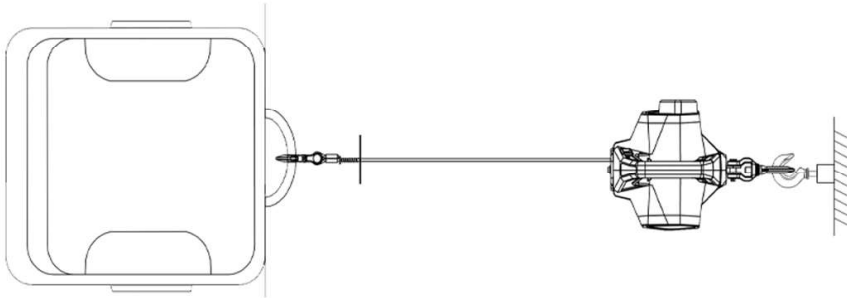
Step 2: Install the battery. Make sure the position of power switch is at “OFF/O”. Put the battery into this product, ensure the latch is fully engaged.

Step 3: Power on the tool. Turn the power switch to the position “ON/I”. Always turn the power switch to “off” when not in use.

Step 4: Spool out. Press the directional switch to “▲”, then press and hold the speed controller. Always keep some tension on the cable to prevent binding and entangling the cable, causing damage to it and the product. Never spool the cable out pass the red painted on the cable.

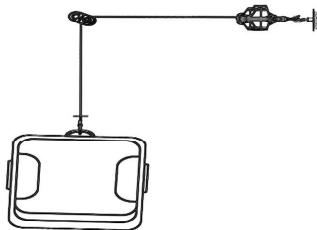


Step 5: Secure an anchor point. Using the swiveling anchor hook to attach the anchor point. Always make sure that the anchor you intend to use is capable of withstanding the load. Never hook the cable back onto itself. This could damage the cable. A tree saver or choker chain is recommended.



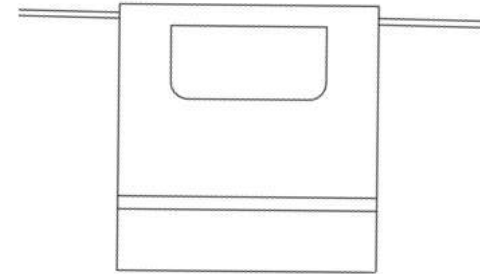
Step 6: Attach your load. Establish a load point, use a shackle or strap when attaching the hook to your load. Always use a hook with a latch and insure hook latch is secure.

Snatch Block can change the direction of the pull



Step 7: Give the cable some tension. Press the directional switch to “▼”, then press and hold the speed controller to slowly wind the cable until the cable is winded tightly. Never touch cable or hook while in tension or under load.

Step 8: Using a damper when pulling. When pulling, put a damper, blanket or other heavy-duty material over the cable.



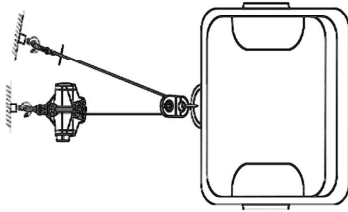
Step 9: Plan to pull or lift. Ensure all the connections are secured. Line up your pulling direction as straight as possible. Side pulls can cause the cable to bunch at one side of the drum, damage cable and the product.

Step 10: Start pulling or lifting. Press the directional switch to “▼”, then press and hold the speed controller to wind in the cable. Never exceed pulling capacity listed on product data sheet. Double the cable number using a snatch block to reduce load.

Step 11: Disconnect the hook from load and anchor point. Be sure to secure the load completely. Press the directional switch to “▲”, then press and hold the speed controller, release tension in the cable. Disconnect the hook from the load and anchor point.

## Accessories

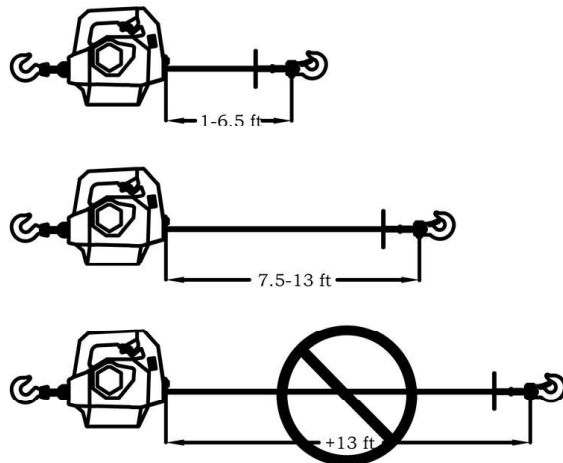
Snatch Block can reduce load



Step 12: Rewind cable. Press the directional switch to “▼”, then press and hold the speed controller to slowly wind in the cable. Always keep a tension on the cable to prevent bind and entangle the cable, causing damage to it and the tool. Do not let cable slide through your hand.

Step 13: Turn off the pulling tool. Make sure the position of power switch is “OFF/O”. Store in a clean and dry place and avoid children to contact and play.

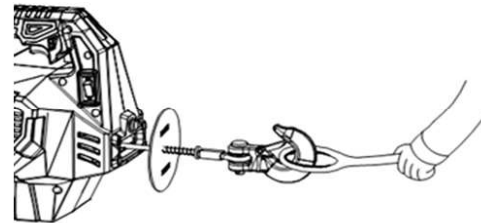
The operation is now complete.



Gloves: Gloves play an important role in the installation and operation of pulling tool. The steel cable of pulling tool is easy to cause skin damage and bleeding. Protective gloves protect your hands.



Hook Strap: used to pull the hook. During the operation, you need to connect the hook belt to the hook and provide some tension when laying and winding the cable.



Snatch Block: change the pulling direction, increase the pulling force of pulling tool, reduce the damage of the steel cable.



D-Shackle: The shackle is used to connect the Snatch Block and the Tree Saver. The shackle pin is threaded for easy removal. The use of the shackle shall should not exceed the specified safety load.



Tree Saver: A tree saver has a strong breaking force. You can use it to create an anchor convenient for you to pull and lift.



# Maintenance

**When there are some problems with the machine, please follow the table to solve them.**

number	problem	Solutions to Malfunction
1	The product failure light (red light) light up and flashes.	Indicates the load reaches more than 80% of the rated load, which needs attention.
2	The product stop working, and the temperature is too high.	Stop using pulling tool until the motor cools to room temperature.
3	Product stop working	Please check the battery power. If power low, please charge it.
4	Product stop working	Exceeds the rated load. try to reduce the load
5	(T1.0 red light up, T1000 display code)	The current is too big, resulting in damaged fuse brakes. Need to replace the fuse or contact customer service.
6	Drum sound when laying or winding cable	The cables on the drum are wound together, you need pull the cable out and rewind it.
7	After operating according to charging requirements, the battery is still can't be charged.	Check the power socket problem. If so, replace the socket.
8		Check surroundings
9		Check whether the charger and battery are faulty. If so, please purchase a new one or contact the customer service.
10	Water damage	Replace the unit
11	Remove protection	Close the pulling tool, unplug the battery, reload, and restart the machine.

**Both pulling tool, accessories and cables must be carefully maintained to prevent damage and wear after use. If the cable is damaged, it is recommended not to use it. Replace it as soon as possible. It is dangerous to use damaged cable. Before using, it is best to examine pulling tool and battery parts carefully. Battery components also need to be inspected or replaced regularly to make sure they are not damaged.**



## Specifications

Rated line pulls:	1000 Lbs. (454kgs)
The power supply:	25.2V DC
Cable:	ø6mm*4.5m
Battery:	Lithium Battery
Battery capacity:	2.0Ah
Battery charger input:	100-240V AC 50-60Hz 75W
Battery charger output:	30V
Dimensions:	24"×10"×10.5" (610mmX256mmX267mm)
N.W:	17.2LBS (7.8KGS)

## Dimensions

