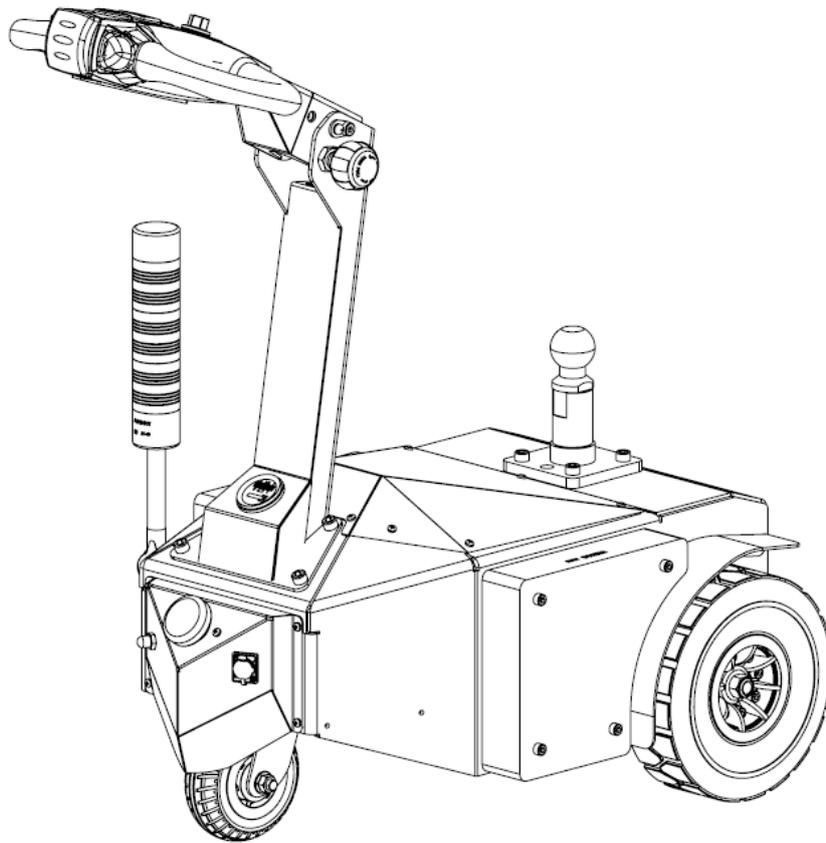




# Lithium Powered Electric Tug (TTR003)

## Instruction Manual



To ensure safe operation and optimal performance, read this manual thoroughly before use. Improper operation may result in equipment damage or personal injury.

Due to ongoing product improvements, the actual product may differ slightly from this manual. If there are differences, please check the actual product.

**IMPORTANT NOTICE:** The  symbol indicates critical safety and operational information. All instructions marked with this symbol must be followed for safe operation.

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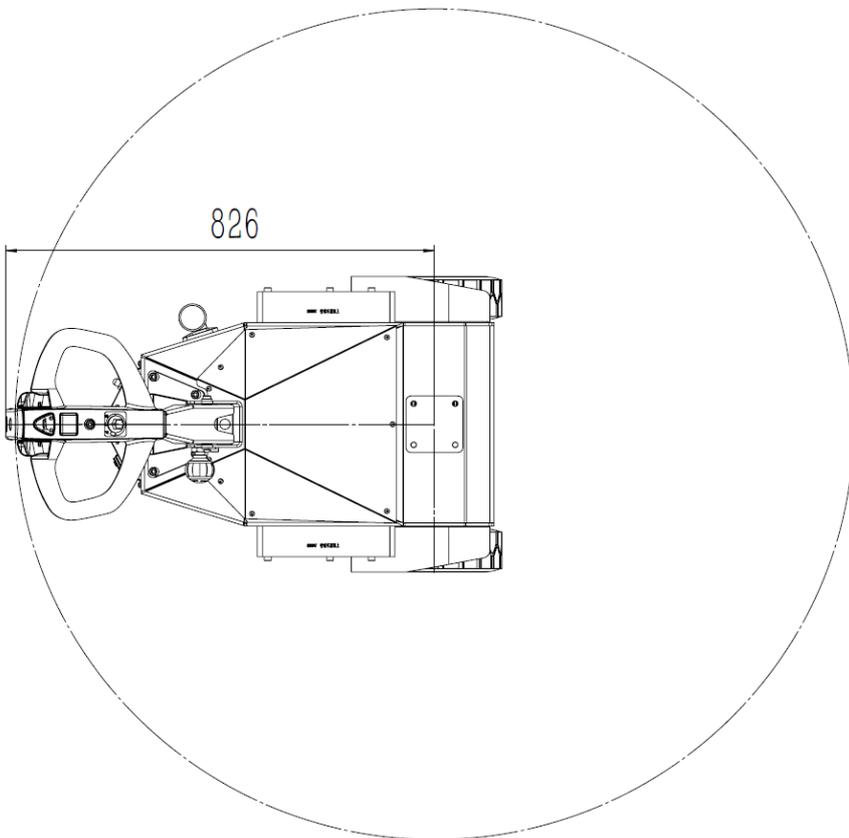
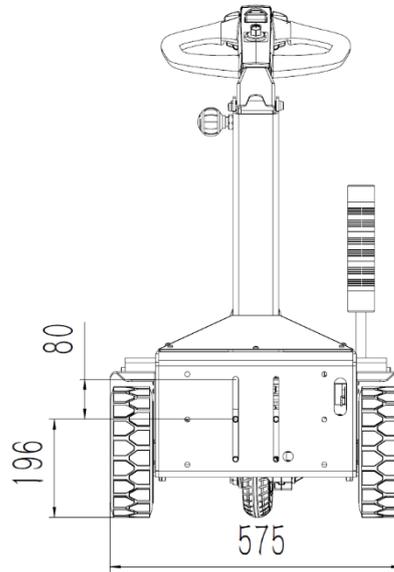
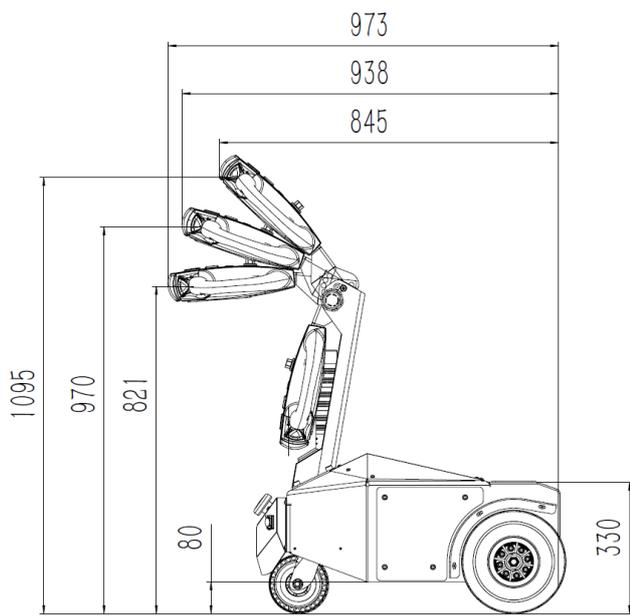
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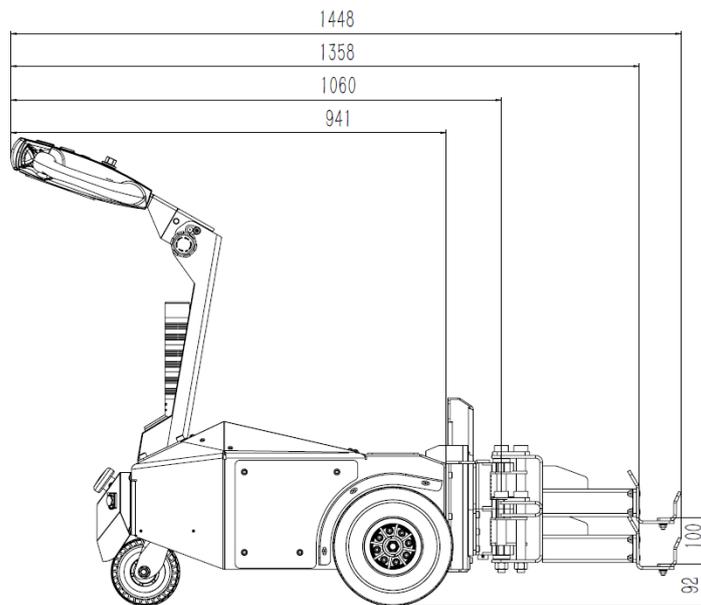
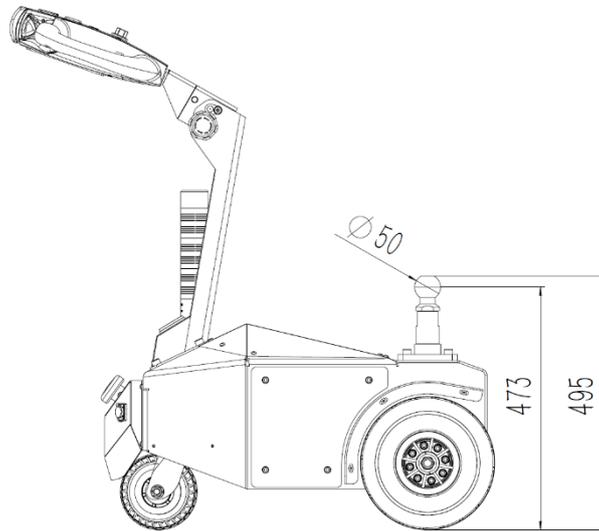
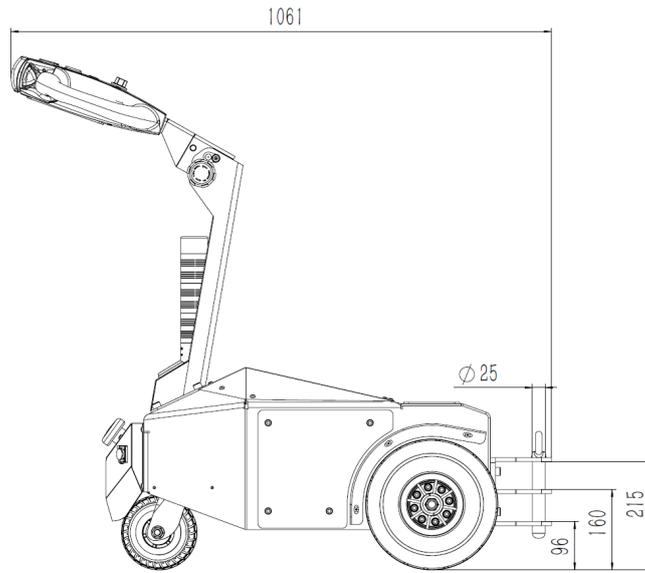
# User Safety Guide

1. The operator must read this manual and understand all warning labels on the Electric Towing Tug.
2. Do not operate the Electric Towing Tug without proper training or authorisation.
3. Do not place hands, feet, or any objects under the machine.
4. Keep clear of the Electric Towing Tug during operation.
5. Do not stand under the platform. Keep all body parts clear of the underside of the machine.
6. Do not overload the machine.
7. Keep feet away from the wheels at all times.
8. Do not operate on uneven ground.
9. Do not operate on soft ground.
10. Maintain the Electric Towing Tug according to this manual.
11. Do not operate in wet or humid environments.
12. Do not modify the Electric Towing Tug without authorisation.
13. Maintain a safe distance during operation and brake in time.
14. The unit is equipped with overload protection. The indicator will flash twice continuously. Reduce the load immediately, otherwise the machine will stop automatically. After reducing the load, press the protection reset button to resume operation.
15. If any abnormal condition occurs (such as high temperature or unusual smell), stop using the machine immediately, turn off the power, and contact your dealer or manufacturer.

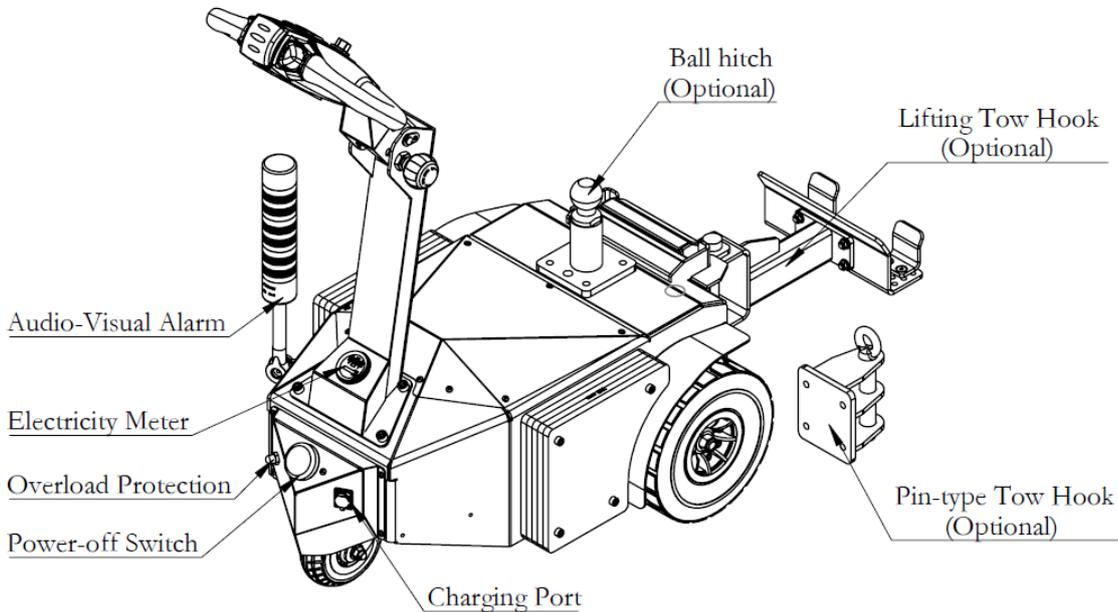
## Technical Specifications

Motor:	1500W
Rated drawbar pull:	1000 N
Max drawbar pull:	1500N
Overall Length:	845~938~973mm
Overall Width:	580mm
Tiller Height	821~970~1095mm
Brake:	Electromagnetic
Controller:	48V 90A
Speed:	1~4.5 Km/h Stepless speed regulation
Driving Wheel:	2 * Ø265x85 Solid tire
Steering Wheel:	1 * Ø150x50 TPR
Battery:	48V 52Ah LiFePo4 Lithium battery
Charger:	48V 8A
Optional	Tail hook

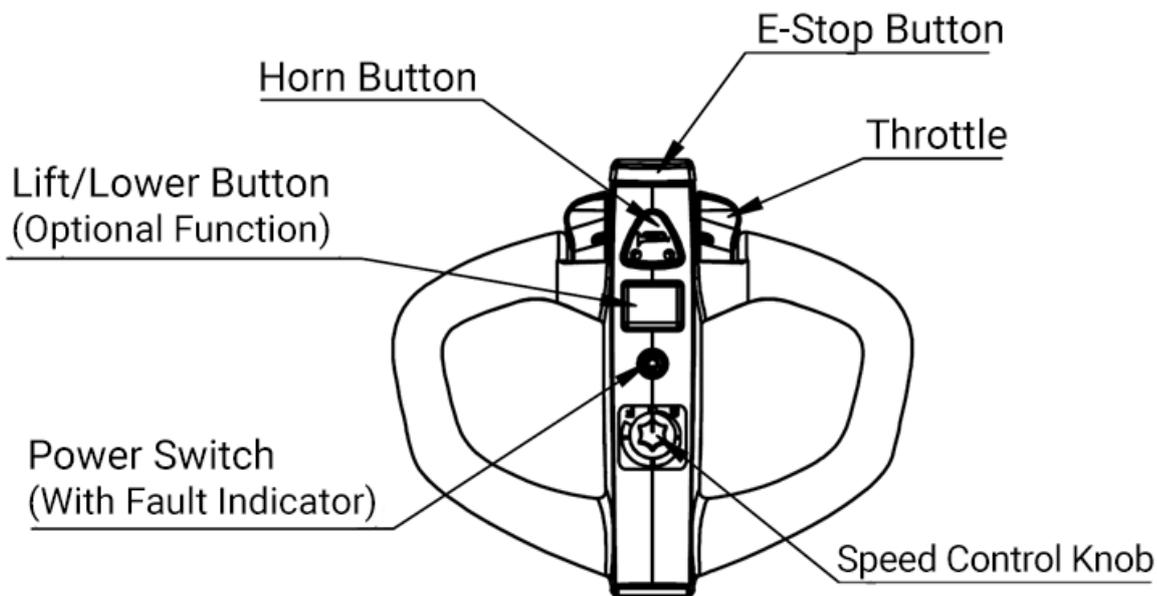




# Operation



1. **Audio-visual alarm:** Flashes and sounds while the machine is in motion.
2. **Battery Indicator:** Displays the battery level and records usage time.
3. **Overload protection:** When overloaded, the machine will alarm and stop automatically. The red indicator light will turn OFF.  
**Recovery: Power OFF → Reduce load → Press battery reset button → Restart.**
4. **Power cut-off switch:** Press to cut off the power supply.
5. **Charging port:** Used for battery charging. Do not charge continuously for more than 12 hours.
6. **Brake release handle:** Used to manually switch the electromagnetic clutch on/off.
  - Upper position: releases the electromagnetic brake, allowing manual pushing of the device
  - Lower position: Engages the electromagnetic brake, enabling electric-powered operation.
7. **Tow Hook:**
  - **Pin tow hook (optional):** Uses a pin connection to secure the load to the machine. The load drawbar is aligned with the hitch and locked in place using a pin.
  - **Ball hook (optional):** Uses a tow ball connection. The load coupling is placed over the tow ball and secured in position.
  - **Lifting tow hook (optional):** Designed for applications where the load needs to be lifted and connected. Allows the towing point to be raised to engage with the load.



## 1. Control Handle

1.1. **Power Switch (with Fault Indicator):** Turns the machine on. The indicator light stays on during normal operation. Flashing light or no light indicates a fault.

1.2. **Lift/Lower Button (Optional Function):** Controls the raising and lowering of the tow hook.

1.3. **Horn Button:** Press to sound the horn and alert surrounding personnel.

1.4. **Emergency Stop (E-Stop) Button:** Press to immediately stop the machine and cut power in an emergency.

1.5. **Throttle:** Controls the device's forward/backward movement and travel speed.

- **To move forward:** face the direction of travel, hold the control handles firmly, and gently push the throttle forward. The machine will move forward.
- **To move in reverse:** check the area behind the machine, hold the control handles firmly, and gently pull the throttle backward. The machine will move in reverse.
- When the throttle is released, the electromagnetic brake will engage automatically. The machine will stop and remain in position.

1.6. **Speed Control Knob:** Adjusts the vehicle's travel speed.

- **S** - indicates the slowest speed;
- **F** - indicates the fastest speed.
- For first-time use, set the speed to the lowest setting. After becoming familiar with the machine, adjust the speed as required.

# Parts List

- Electric Towing Tug
- Charger
- Tow Hook
- Tools

## How to Charge

1. Turn off the power and connect the charger.
2. Charge the machine indoors in a dry, well-ventilated area. Ambient temperature must not exceed 40°C.
3. After daily use, recharge the battery if the remaining power is below 80%. Recharge immediately if the battery level reaches 20%.

### Charging Note

1. Before charging, ensure the charger plug is properly connected. Keep the charging cable in a safe place out of reach of children.
2. Do not operate the machine while charging. The machine cannot be used when the charger is connected.
3. Use only the specified charger. Do not use chargers from other brands or third parties.
4. The charger contains high voltage components. Do not open or disassemble.
5. Do not cover the charger during operation.
6. Use the charger indoors in a dry, well-ventilated environment.
7. If there is any unusual smell or excessive heat during charging (battery temperature above 45°C), stop charging immediately and contact your dealer or manufacturer.
8. Do not charge continuously for more than 12 hours. If charging time exceeds 12 hours, stop charging and contact your dealer.

# Maintenance

Users should carry out regular inspections and maintenance to keep the machine in good working condition. Perform the following checks before operation:

## Pre-operation checks

1. Check the machine for any deformation, damage, or cracks.
2. Check that the wheels rotate freely.
3. Check that the brake is functioning correctly.
4. Check that all fasteners (bolts and nuts) are secure.
5. Turn on the machine and check that:
  - The battery level is sufficient
  - All functions operate normally from the control panel and handle
6. Check that the front and rear wheel bolts are tightened.
7. Check the tyres for wear or damage and ensure correct tyre pressure.
  - For solid tyres, check for deformation
8. Check that all joints and bearings are in good condition, and that the electromagnetic brake is operating normally.

## Battery maintenance

9. Charge the battery at least once per month, even if the machine is not in use.
10. Recharge the battery promptly after each use. Long-term low battery levels will reduce battery life.
11. It is normal for battery capacity to decrease gradually over time. This is irreversible at the end of the battery life.
12. Deep discharge will shorten battery life.
13. In low temperatures, battery performance will decrease. As a guide, for every 1°C drop (from 25°C), operating time may reduce by approximately 1%.
  - Avoid using the battery below -10°C
  - Monitor operating and charging time in cold conditions

## Lubrication

14. The following parts require regular lubrication:
  - Roller or sliding surfaces - apply lubricating oil
  - Connecting pins - apply lubricating oil