

# ***Handle-iT***

## **HI-POW Battery Powered Trolley (1000Kg Capacity)**

### **User Guide**

25<sup>th</sup> June 2021



Handle-iT Ltd  
Unit 19, Bulleigh Barton Farm and Commercial Units  
Ipplepen, Devon  
TQ12 5UA  
United Kingdom

Tel: +44 (0)1803 875222  
Web: [www.handle-it.com](http://www.handle-it.com)  
Email: [info@handle-it.com](mailto:info@handle-it.com)

## SAFETY WARNINGS



It is essential to read and follow all the instructions and safety information contained in this Operation Manual prior to use. Before you operate the trolley, we recommend that you practice in an open area for at least one hour to get familiar with controls and gain the operation skills.

**ALWAYS** disconnect the battery before adjusting, repairing or shipping the trolley

**EMERGENCY STOP** In the event that control of the trolley is lost, press the emergency stop button immediately and deactivate power.

**NEVER** exceed the stated maximum Uniform Distributed Load (UDL).

## SAFETY RULES

**DO NOT** try to climb or descend kerbs.

**DO NOT** drive over obstacles exceeding 3 cm in height.

**DO NOT** make abrupt changes of direction at high speed or especially when on an incline.

**DO NOT** climb/descend inclines greater than 11 degrees or a rise of 2 meters in 10 meters.

**DO NOT** attempt to operate your unit in a stalled condition, such as traveling up too steep an incline. This may cause the circuit breaker or thermal cut out to trip, rendering your unit temporarily immobile.

**DO NOT** operate your unit when the red battery indicator light is flashing. Immediately charge the battery to ensure safe operation and prevent damage to the battery.

**DO NOT** use hand-held personal communication devices, such as citizens band (CB) radios and cellular phones, while using the Power Trolley.

**DO NOT** operate the unit whilst under the influence of alcohol or drugs.

**DO NOT** allow anyone under 18yrs old to operate the unit.

**DO NOT** allow any person to ride on the trolley,

**ENSURE** all operators are suitably trained.

**ENSURE** all operators wear safety shoes.

## TRANSPORTING OR MOVING TROLLEY MANUALLY

**Failure to follow these instructions when transporting or manually moving the trolley may result in serious permanent damage, which will invalidate the warranty.**

When shipping, transporting or manually moving the trolley the Manual/Power Operation lever (J) (See page 4) must be raised to the Manual Operation position.

## SAFETY FEATURE

**Power Turntable trolleys are equipped with an additional safety feature. When the tiller handle is in the fully raised or fully lowered position the trolley will become disabled.**

**The trolley will operate normally once the tiller handle is returned to normal operating height.**

## INTRODUCTION

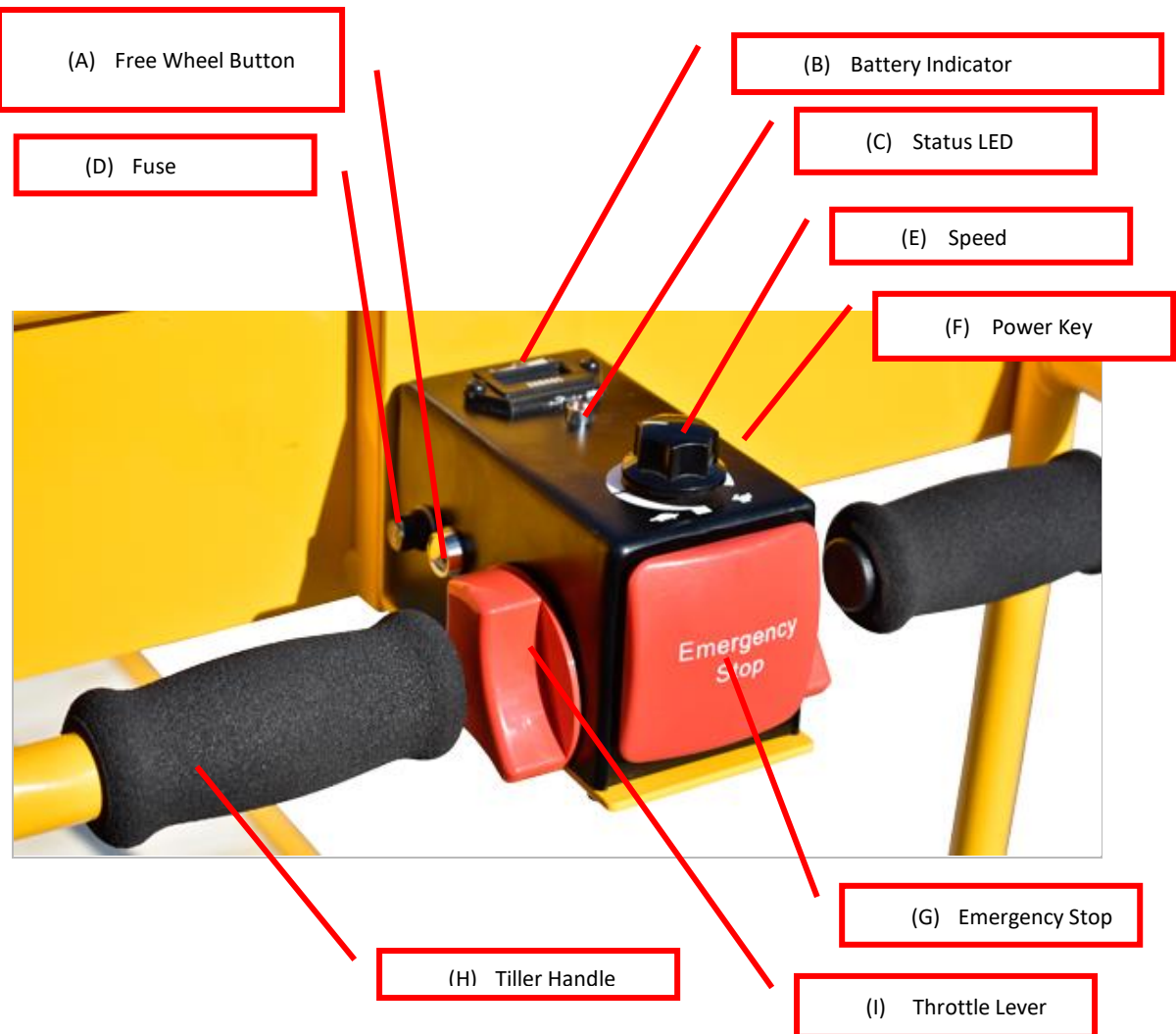
We hope the Handle-iT Battery Powered Trolley will make your manual tasks easier and provide you with many years of reliable service.

Follow the information in this manual to ensure you operate the Power Trolley properly and safely.

## SPECIFICATION

Motor	24 volt/2200 watts
Battery	2 x 12 v/100 Ah sealed lead acid battery
Battery Charger	Input 110-240VAC 50Hz
Std Charge Time	10 hours
Controller	Dynamic Controls Rhino 2

## CONTROLS



## BASIC OPERATION

### 1. Turn ON Power

Insert the Power Key(F) into the switch lock and turn clockwise to the “ON” position.

**Power Turntable trolleys are equipped with an additional safety feature. When the tiller handle is in the fully raised or fully lowered position the trolley will become disabled.**

**The trolley will operate normally once the tiller handle is returned to normal operating height.**

### 2. All the Battery Indicator(B) lights should be on indicating the batteries are full and ready to work.

### 3. Check the Status LED

The RED Status LED(B) should be on steadily, this indicates the electric and driving systems are OK.

**If the RED Status LED(B) flashes a sequence of 5 Flashes, the Power/Manual Operation Lever (J) is in the manual mode position.**

### 4. Setting the Speed.

Adjust the Speed Controller (E ) to a suitable speed, starting at the lowest speed and gradually increasing the speed to suit the task, conditions and operators experience

### 5. Moving Forwards

Stand behind the Tiller(H) and hold the handles firmly with both hands and look straight ahead. Press the Throttle Lever (I) forwards with your thumbs, the speed will increase as you press more. Gently release the Throttle Lever(I) and the trolley will stop.

### 6. Moving in Reverse

Stand behind the Tiller(H) and hold the handles firmly with both hands and look over your shoulder, checking for obstacles. Press the Throttle Lever (I) backwards by your thumbs, the speed will increase as you press more. Gently release the Throttle Lever(I) and the trolley will stop.

### 7. Emergency Stop

If the trolley is out of control the operators should press the Emergency Stop Button (G). The trolley will stop within 4.5 feet at full forward speed.

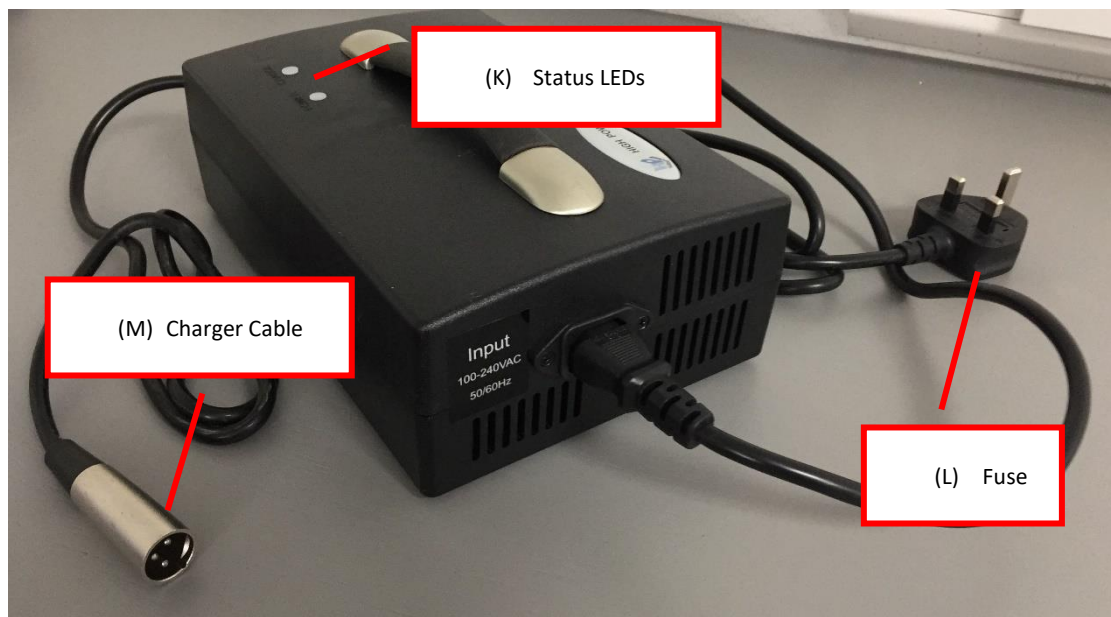
## 8. Move Manually

The trolley can be pulled/pushed manually by disengaging the clutch in the transaxle. Press and hold the Free Wheel Button (A) and at the same time pull/push the trolley. Or, raise the Manual/Power Operation lever (J) to the Manual Operation position.

## CHARGING THE BATTERIES

**WARNING: The Power Key (F) must be switched off before charging. Otherwise damage may occur to the control circuit.**

**Only use the battery charger supplied with the power trolley.**



To ensure the best performance and maximum battery life, we recommend frequent battery charging. It is not possible to overcharge the battery; you may start charging at the end of the day and disconnect the charger the following morning.







The Battery Indicator (B) displays the current battery charge. When the battery is fully charged the right-most green LED will be lit. As the battery charge decreases, successive LEDs light up. The 3rd-from-left red LED flashes, indicating “energy reserve” (30% charge). The 3 left-most LEDs alternately flash, indicating “empty” (20% charge).

Follow these steps for battery charging.

1. Park the Power Trolley on a dry level surface.
2. Switch the Power Key (F) to off.
3. Plug the Charger Cable (M) into the Power Trolley.
4. Plug the AC cord into a grounded wall outlet.

The battery will take up to 10 hours to fully charge depending on the state of the battery.

Observe the Status LEDs (M) as below.

	Mains supply disconnected		Battery charger switched off.
	Main supply connected		Battery charging
			Battery fully charged
			Battery charger not connected

When charging is complete....

5. Disconnect the Charger Cable (M) from the Power Trolley.
6. Remove the AC cord from the wall outlet.
7. Switch the Power Key (F) to on.
8. Check the Battery Indicator (B)

**If the charger fails to operate check fuse (L)**

# DAILY CHECKLIST

Date	
Initials	
<b>BASIC CHECKS</b>	
Visual Check - Damage/Missing Parts	
No Rust	
No Sharp Edges	
No Missing/Loose Nuts & Bolts	
Load Area - No Splits, Dents, Cracks	
Wheels/Tyres - No Excessive Wear	
No Chips , Cracks or Flatspots	
Even tyre pressures 35psi	
Castors - No excessive wear	
No Chips , Cracks or Flatspots	
<b>POWER TROLLEY COMPONENTS</b>	
Battery charge not in Red	
Warning beep in reverse	
Emergency stop operates	
Speed control operates	
No sign of battery leaks	
Control module LED remains steady	
Trolley moves smoothly forward/reverse	
<b>LIFT TABLE OPTION</b>	
No leaking fluids	
Release handle operates correctly	
Load platform holds position	
Load platform rises/lowers smoothly	
<b>MESH/PLASTIC CLAD OPTION</b>	
Sides securely fixed	
Gas struts keep lid raised.	
Restraining chains in Place.	
<b>BEACON OPTION</b>	
Warning beacon Operation	
<b>BELL/SOUNDER OPTION</b>	
Bell/Sounder Operation	
<b>RESULT</b>	
Pass/Fail	



## TROUBLESHOOTING

Issue	Solution
No power	Check battery is connected. Recharge batteries. Check fuse (D)
Trolley moves slowly	Recharge the batteries.
Trolley Status LED(C ) flashing.	Flash Sequences <ul style="list-style-type: none"> <li>• Low battery. Recharge battery.</li> <li>•• Low battery. Recharge battery</li> <li>•••• Manual/Power Operation Lever(J) in manual.</li> </ul> <p>All other flash sequences see below and seek product support.</p>
Battery fails to charge	Remove battery box and visually check battery condition. Check the Battery Charger Cable (N) for damage. Check battery charger Status LEDs(L) as above. Check Fuse(D) on Power Trolley Check Fuse (L) in the AC plug

## STATUS LED FAULT CODES

Flash*	Description	Meaning
1	Battery Low	The batteries are running low or are in an over-discharged state. Recharge the batteries.
2	Low Battery Fault	The batteries have run out of charge. Recharge the batteries. Check the battery and associated connections and wiring.
3	High Battery Fault	Battery voltage is too high. This may occur if overcharged &/or travelling down a long slope. If travelling down a slope, reduce your speed to minimise the amount of regenerative charging.
4	Current Limit Time-out or Controller too hot	The motor has been exceeding its maximum current rating for too long. The trolley may have stalled. Turn the controller off, leave for a few minutes and turn back on again. The motor may be faulty. Check the motor and associated connections and wiring.
5	Trolley Set to Manual Operation	The Manual/Power Operation Lever (J) is set to the Manual position.
6	Drive Inhibit	Either a Stop function is active or a Charger Inhibit or OONAPU condition has occurred. Release the Stop condition (seat raised etc.) Disconnect the Battery Charger Ensure the throttle is in neutral when turning the controller on. The Throttle may require re-calibration.
7	Speed Pot Fault	The throttle, speed limit pot, SRW or their associated wiring may be faulty. Check the throttle and speed pot and associated connections and wiring.
8	Motor Voltage Fault	The motor or its associated wiring is faulty. Check the motor and associated connections and wiring.
9	Other error	The controller may have an internal fault. Check all connections and wiring.

# GENERIC RISK ASSESSMENT

RISK ASSESSMENT	<b>HI-POW</b>	SUBJECT	<b>Power Trolley Operation</b>
ASSESSMENT DATE	<b>15/06/2021</b>	ASSESSOR	<b>Daniel Farrar</b>
TASK ASSESSED			
<b>Generic Operation of Electrically Powered Trolley HI-POW</b>			

Hazards Identified	Potential Outcome	Control Measures in Place	Like-lihood	Score	Rating
Overload Trolley	8	Safe working load displayed on trolley.	2	16	Low
Trolley Toppling Over	10	Trolley should only be used on flat level surfaces. Loads should be uniformly distributed. Follow Operators Manual.	1	10	Low
Foot Crush Injury	8	Operators to wear safety footwear.	2	16	Low
Collision with Operators	8	Trolley stops immediately once controller is released. Emergency Stop button. Beeps when reversing. Cost Options: Flashing Beacons and Bell/Siren can be fitted	2	16	Low
Collision with Pedestrians	8	Trolley stops immediately once controller is released. Emergency Stop button. Cost Options: Flashing Beacons and Bell/Siren can be fitted	2	16	Low
Acid Burns, Splashes or Fumes from Batteries.	8	Batteries are completely sealed and do not require any maintenance.	1	8	Low
Fire	10	Batteries are of 24v sealed lead acid type and do not have the fire risk associated with Lithium batteries.	1	10	Low
Electrocution	10	The trolley operates on 24v so there is no risk of electrocution. The charger operates on 110v/230v and is fused. The charger should be annually PAT tested.	1	10	Low

## GENERIC RISK ASSESSMENT (CONTINUED)

Assessment Review Date: (Maximum annually)	July 2022	Assessment Review Date: (Maximum annually)	
New Risk Assessment Required:		New Risk Assessment Required:	
Completed by (Name):	Daniel Farrar	Completed by (Name):	
Position:	Managing Director	Position:	
Signature:		Signature:	

10	8	5	3	1		10	8	5	2	1			
Fatality	Severe Injury	Lost Time Injury	Minor Injury	No Injury		Certain/ Imminent	Very Likely	Likely	Unlikely	Remote		High Medium Low	50-100 20-49 1-19

## LIMITED WARRANTY

This warranty is extended only to the original purchasers of the Handle-iT Battery Powered Trolley.

The warranty is split into 2 parts

- The chassis of the trolley is warranted against defects for 5 years from the date of purchase.
- All electronics of the trolley are warranted against defects for 1 year from the date of purchase.

This warranty excludes wear and tear, and faults caused by customer abuse or by lack of maintenance.

This warranty does not include any shipping charges incurred in replacing parts or repair of the unit.

Handle-iT's sole obligation and your exclusive remedy under this warranty shall be limited to such re-pair and/or replacement.

For warranty service, please contact the dealer from whom you purchased your unit. In the unlikely event that you do not receive satisfactory service, please contact HANDLE-IT LTD directly at the above address, providing dealer's name and address, date of purchase and indicating the nature of the defect.

**DO NOT RETURN THE TROLLEYS TO US WITHOUT FIRST OBTAINING A RETURNS  
AUTHORISATION.**