

OWNERS MANUAL

Multi Mover XT, Mantis & Appliance Cart



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WARRANTY

Carts, excluding any finishes, casters and wheels are warranted for three (3) years from date of original purchase.

Power unit components are warranted for 90 days from date of original purchase.

We will repair, without charge, any defect due to faulty material or workmanship. These warranties do not cover failures due to abuse, misuse, improper installation, accidental damage or when repairs or modifications have been made or attempted to be made by anyone other than Granite Industries. Any defective products that meet warranty specifications and Granite Industries approval, may be returned to the factory to be repaired or replaced free of charge. (Granite Industries will pay to ship replacement item(s) to the customer; however the customer is responsible for shipment of products to the factory.)

This remedy is the sole remedy in contract, tort or otherwise, and Granite Industries is not liable for incidental, consequential or special damages.

These warranties give you specific legal rights, and you may have other rights which vary from state to state. Should you have any questions, contact Granite Industries (Proof of purchase may be required).

OPERATION & MAINTENANCE

How long do the batteries last on a single charge?

It is completely dependent upon how much weight is being carried, the type of terrain, and the softness or hardness of the surface. We estimate a range from a minimum of two hours of continuous use, up to six hours of continuous use. PLEASE NOTE: Most use is not continuous, so actual use time is typically much longer.

How long will the batteries last before needing to be replaced?

The batteries are designed to last for 300-500 charge/discharge cycles, which translate into approximately 1-2 years. The batteries are common, and can be purchased from Granite or at your local hardware store.

Will tipping the unit hurt the batteries, electronics, or drive system?

No. Batteries, electronics, and drives can operate in any orientation.

What is the maximum speed?

All Power Carts can operate from approximately 0 to 3 miles per hour forward, and 0-3.0 miles per hour in reverse.

While pushing my Power Cart, it suddenly decelerates aggressively. What causes this?

There is a safety feature on your Power Cart called "Push Too Fast." It is designed to prevent the cart from running away when the brake is manually disengaged.

Why does my Power Cart lose traction when one wheel is off the ground?

The drive system is an open differential that allows the machine to efficiently make turns without skidding the tires. The drawback is that if one of the drive tires leaves the ground, it will simply spin until all tires are back on the ground.

Is a balanced load important to the performance?

Yes. Balancing the load so that it is not top-heavy or side-loaded, will allow much safer operation. Furthermore, most of the load should be located over top of the drive wheel(s) for better traction.

How do I clean my Power Cart?

Simply remove all debris, hose it down with soapy water, and towel dry. We do not recommend using a pressure washer.

What maintenance is required?

Not much, really! Simply remember to always recharge when not in use. If storing for an extended period of time, leave the unit on charge – especially in cold climates. The drive system is sealed for life, thus no lubrication is required. Keep the unit dry to enhance its life and appearance. It is recommended that the batteries be replaced once every 12 months.

What is the recommended tire pressure?

Follow the tire pressure listing on the tire. You will get the best performance and range if the tires are properly inflated, but DO NOT OVER-INFLATE. The Power Cart drive tires are just like any other tube tire. We recommend taking the tire to a local service station for repair. Granite does offer filled "flat free" drive tire that will never go flat.

OPERATION & MAINTENANCE

How do you change the batteries?

Go to <http://www.graniteind.com/pdf/powercartbatteries.pdf>

Can I operate my Power Cart in the rain?

Yes. Everything is splash proof sealed. However, we do not suggest driving through deep water.

Will driving my Power Cart through deep water damage it?

Yes. If the drive system or electronics are submerged beneath water, fatal damage is likely.

How steep of a hill will my Power Cart climb?

It depends on the weight carried, traction and how soft the terrain is.

Double wheel units: 500 pounds up a 3:1 grade

Four wheel units: 500 pounds up a 3:1 grade

What is the effect of soft terrain such as soft soil, turf or loose sand?

Driving any machine on soft terrain has the effect of reducing its weight carrying capacity. In addition, battery consumption will increase significantly, reducing operational range to as much as ½ the normal range.

Is it possible to overload my Power Cart?

Yes. If the power required to move the load exceeds the machine's capability, the unit will slow down and eventually come to a stop. This is due to a thermal overload with in the controller. It is design to "trip" before damage to the electric motors occurs. If the happens, simply remove some of the load, wait a few minutes until the unit cools down, and then cycle the power switch to reset the overload.

Can I operate my Power Cart indoors?

Yes. Since the Power Carts are completely electric, they emit no fumes and virtually no noise.

Can I operate my Power Cart on uneven ground?

Yes, however two and four wheeled units will follow the contour of the terrain, which can make loads tilt from side to side.

My Power Cart is powered on, but will not operate. What's wrong?

Check the transaxle brake. Engage the transaxle brake via the lever, and toggle the power button off and back on. This will reset the brake system.

The unit will not operate until this has been done.

This process will need to be repeated every time the brake is manually disengaged.

ASSEMBLY OF THROTTLE



Contents:
(1) Throttle Controller
(2) 10-24 Screws
(2) 10-24 Washers
(4) #10 Washers
(4) Wire Ties



Connect Throttle Control to cart using 10-24 Screws, Washers and Nuts. DO NOT OVER TIGHTEN.



Plug throttle cable connector into the batter box connector. Make sure connectors latch together.



Use three wire ties to secure cable to inside of handle bar.



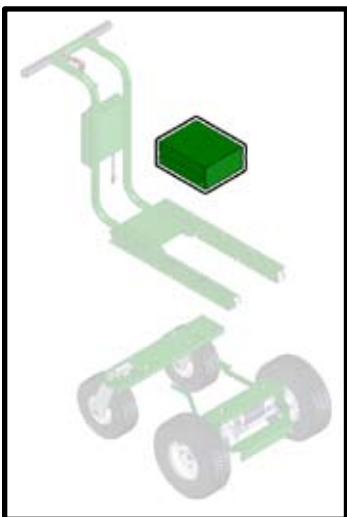
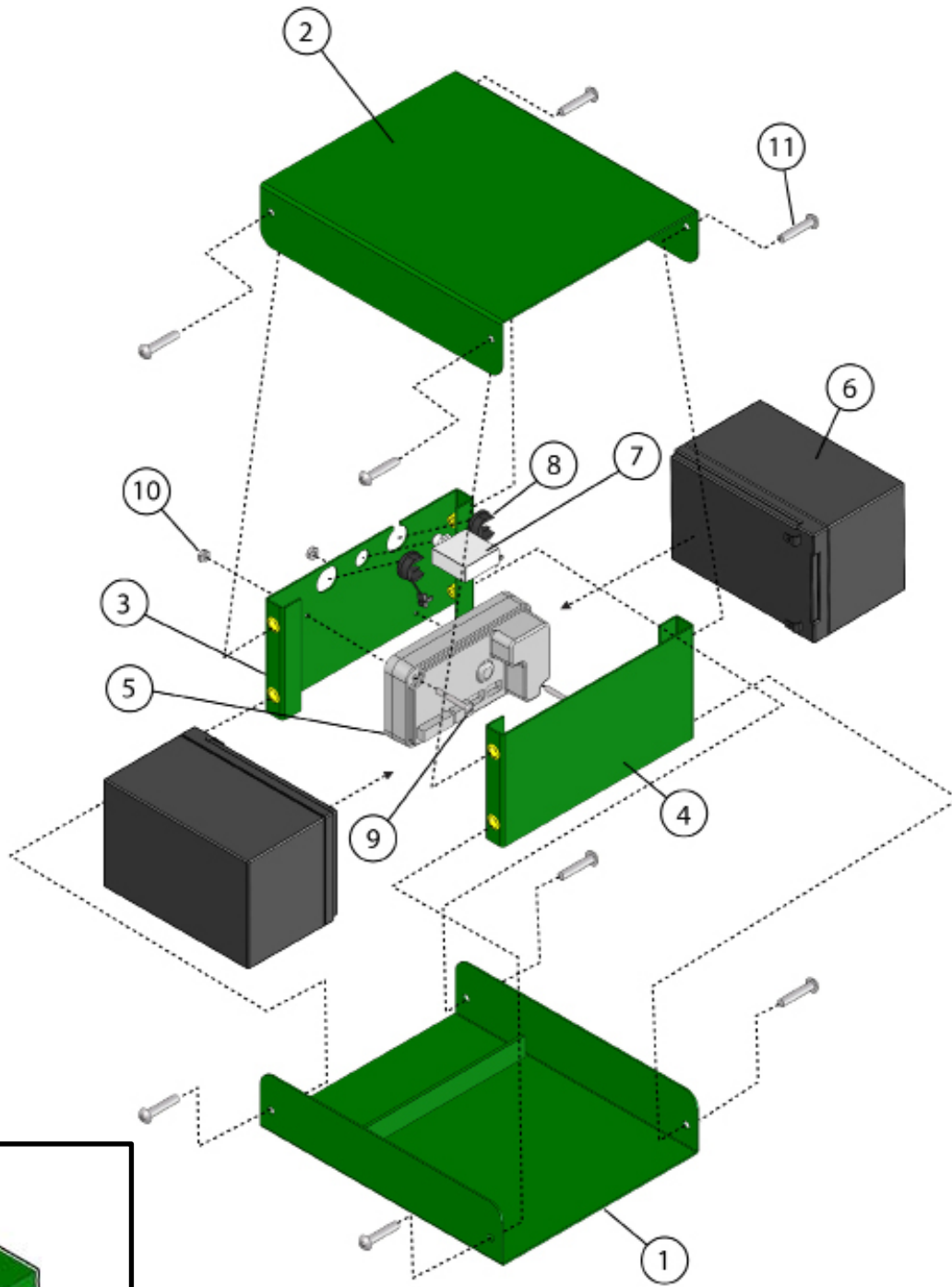
Loop excess cable and secure with wire tie.

After throttle control is installed, engage the transaxle brake via the lever, and toggle the power button off and back on. This will reset the brake system.

The unit will not operate until this has been done.

This process will need to be repeated every time the brake is manually disengaged.

BATTERY PACK ASSEMBLY



BATTERY PACK ASSEMBLY

No	Part No	Description	Qty
1	MI-12-3611	BATTERY BOX TOP/BOTTOM WELDMENT	1
2	MI-08-0843	FORMED POWER CART BATTERY BOX TOP/BOTTOM	1
3	MI-08-0842	FORMED POWER CART BATTERY BOX END W/ HOLES	1
4	MI-08-0841	FORMED POWER CART BATTERY BOX END	1
5	PI-11-0149	CONTROL DRIVE	1
6	PI-11-0148	SM-BATTERY 12V 15A.H.	2
7	PI-08-0045	FUSE-THERMAL CIRCUIT BREAKER 30A TYCO W58-XC4C12A-30	1
8	PI-08-0047	RELIEF-STRAIN RELIEF	2
9	PI-01-0469	SCREW-#8-32 x 1-1/4" MACHINE SCREW COMBO ROUND HEAD	2
10	PI-01-0220	NUT-NYLON 8-32 LOCKNUT PLATED	2
11	PI-01-0470	SCREW-1/4"-20 x 3/4" MACHINE SCREW PHILLIPS BUTTON HD	8
12	PI-08-0039 ¹	WIRE ASSEMBLY - 4 WIRE W/BRAIDED TUBING	1
13	PI-08-0040 ¹	WIRE ASSEMBLY - 8 CONDUCTOR WIRE HARNESS	1
14	PI-08-0041 ¹	WIRE ASSEMBLY - RD 10 AWG W/YL RECEP TERMS	1
15	PI-08-0042 ¹	WIRE ASSEMBLY - RD 10 AWG W/ .250 X RING	1
16	PI-08-0043 ¹	WIRE ASSEMBLY - BK 10 AWG W/YL RECEP TERMS	1
17	PI-08-0044 ¹	WIRE ASSEMBLY - BK 10 AWG W/ .250 X RING	1

¹ Not Shown

BATTERY REPLACEMENT

Replacement Battery Specs: 12v, 15, amp/hr lead acid sealed, AGM type. MK Battery model no 3515 or equivalent. Two (2) Batteries required.

1. Turn unit upside down to access the battery box.
2. Remove the four (4) 1/4" screws holding the lid in place.
3. Carefully remove the batteries, and disconnect the spade terminals. RECYCLE YOUR OLD BATTERIES.
4. Reconnect the battery and circuit breaker wires to the new batteries as shown. It is helpful to make the connections with the batteries outside the box first. The batteries are wired in SERIES, not PARALLEL.
5. Place Battery A into the box first, then Battery B making sure the wires are nested inbetween. The fit is designed to be tight.
6. Replace the box lid and secure with four (4) 1/4" screws.

