

36V Battery Box Inspection and Troubleshooting

If the battery range on your 36V Motorized Hand Truck or Motorized Dewar Cart is diminished or if it is not working at all, there is most likely a problem with the batteries and/or recharging function. It is typically one of three issues:

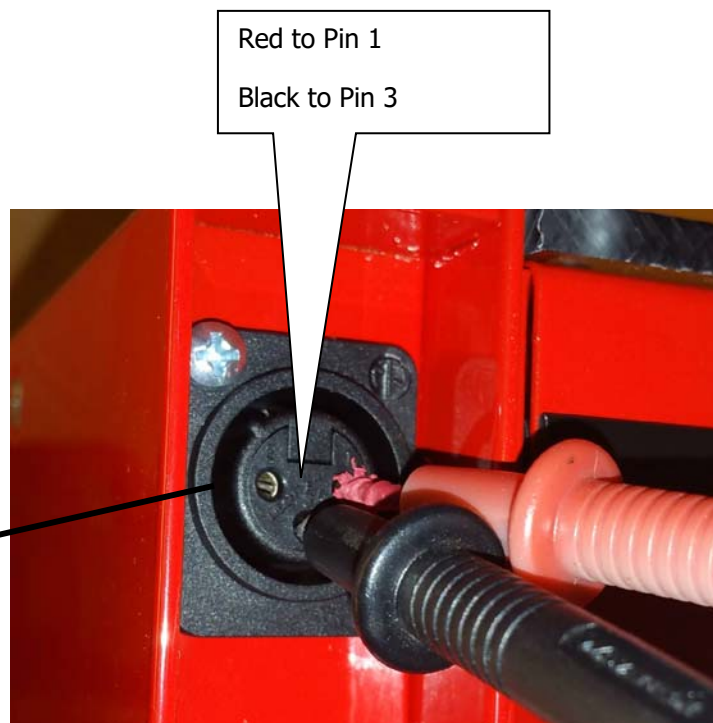
1. The batteries are old and need to be replaced – see battery replacement manual. The typical life is 12-14 months for a set of batteries
2. The charger itself is damaged or there is no power to the outlet that the charger is plugged into.
3. The in line fuse on the re-charge circuit may be blown, and therefore will not allow the charger to recharge the batteries. Since the battery pack can be recharged on or off the machine, there are two in-line fuse circuits – one of the machine, and one on the battery pack itself. See below:

STEP 1 – Determine System Voltage at Throttle Charge Port:

Put a volt meter at the charge port on the throttle as shown below. Connect the red lead to Pin 1 and the black lead to Pin 3. With the meter on volts DC, you should read at least 33 to 38 volts.

If the reading is below 30 volts, check battery pack in Step 2.

If the reading is zero, skip to Step 3 to check the in-line fuse circuit on the machine. **DO NOT PLUG CHARGER INTO BATTERY PACK CHARGE PORT UNTIL YOU CAN DETERMINE IF THE IN LINE FUSE ON THE MACHINE HAS BEEN BLOWN OR NOT.**

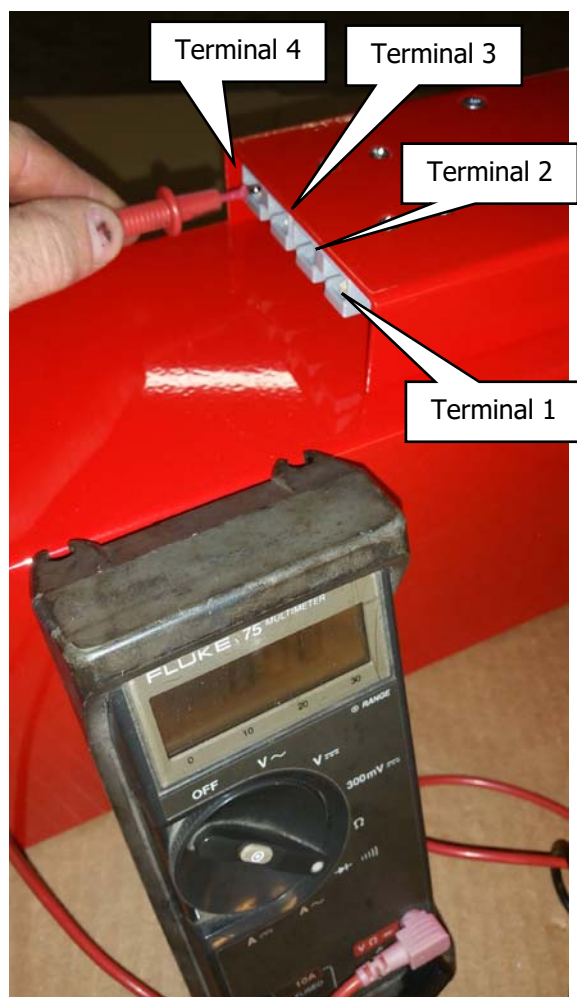


STEP 2 – Determine System Voltage at Battery Pack Charge Port:

Motorized Dewar Cart – Remove Right Side Panel (standing behind the machine facing forward)

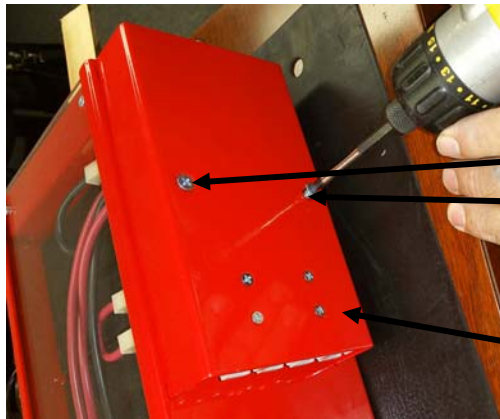
Motorized Hand Truck – Open Battery Pack Access Door

Take the battery box out of the machine, and connect the meter to the battery box charger port the same way as you did on the throttle. Again, you should be reading 33 to 38 volts. If you are reading 33 to 38 volts, try recharging the battery pack off the machine for a few hours and retest. If the voltage is rising, skip to step 3. If you are not reading any voltage (or the voltage is not rising after charging the battery pack, then the control fuse may be blown. To check if it is blown:



1. Set your volt meter to Ohms (preferably it has an audible indication which rings to indicate zero Ohms which means the fuse is OK)
2. Connect black lead to Pin 1 of battery pack charge port, and red lead to terminal 4 of the grey connectors. If you get a ring, the fuse is OK and you can proceed to Step 3. If you do not get a ring, the fuse is blown and needs to be replaced per below.

The battery box control fuse is housed in a small yellow housing and can be inspected by removing the battery box connection bracket as shown:



Remove these two screws

Battery Box
Connection Bracket



Check the 6-Amp
fuse that is
connected to
charge port.



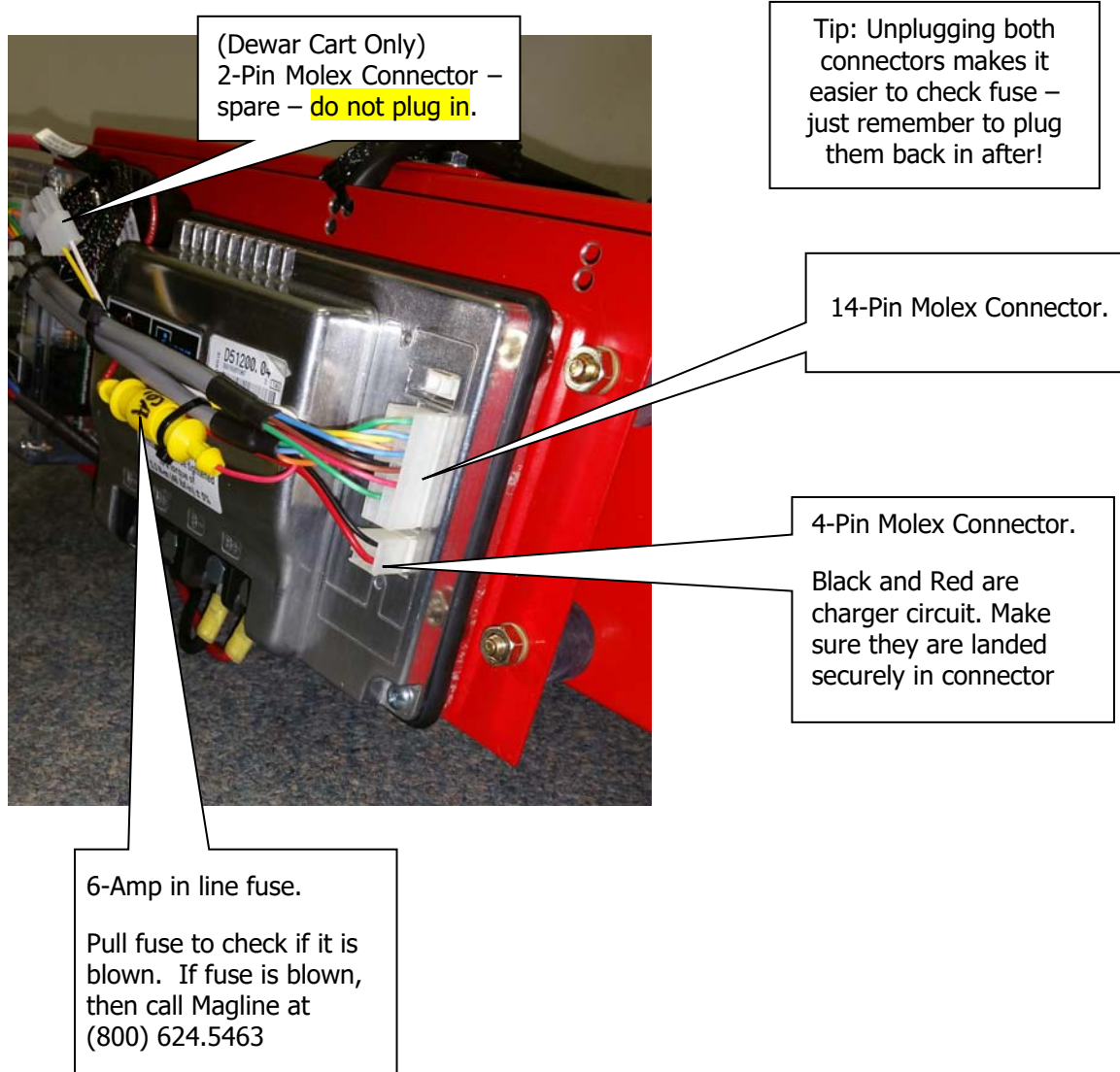
If the 6-Amp fuse is blown, replace
it and re assemble. If not blown,
proceed to STEP 3

STEP 3: Check In Line Fuse Circuit on the Machine

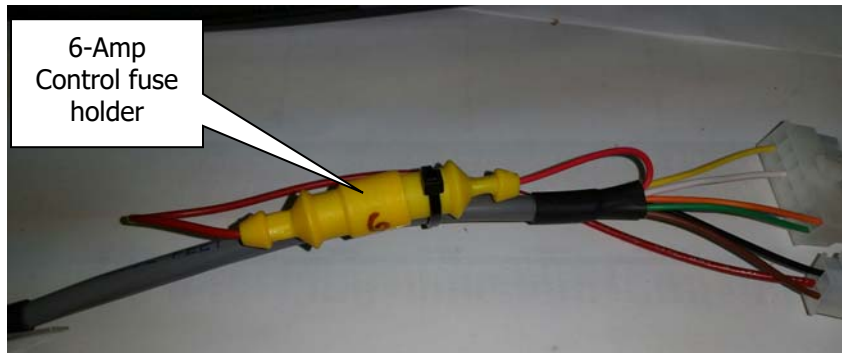
Motorized Dewar Cart – Remove Left Side Panel (standing behind the machine facing forward)

Motorized Hand Truck – Remove Left Side Panel (standing behind machine facing forward)

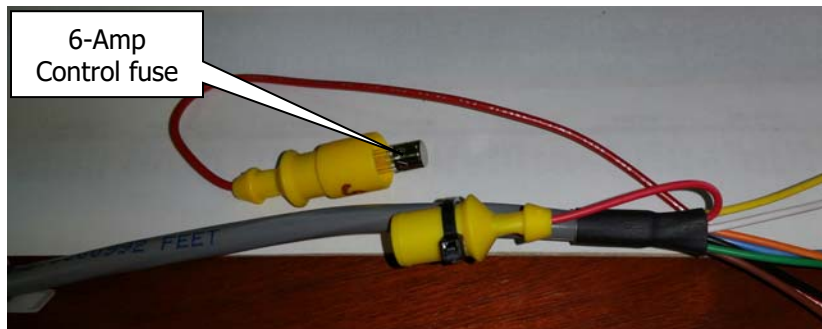
Look for yellow in line fuse



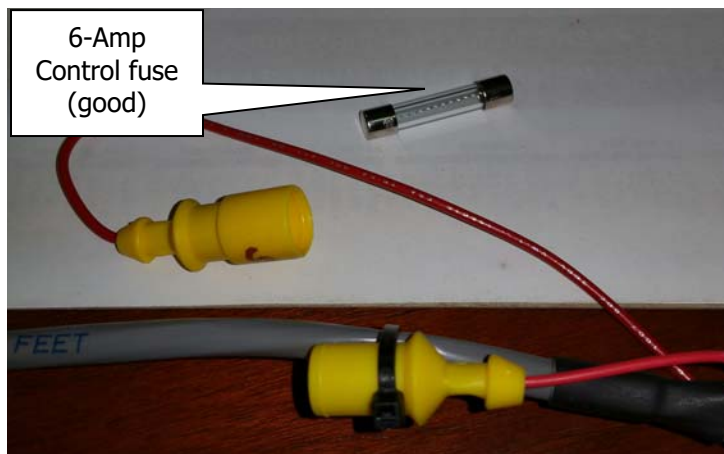
Control Fuse Check - Detailed Instructions



We suggest you unplug the 14-pin and 4-pin connectors from the controller to make it easier to access the fuse holder.



Gently pull the fuse holder apart as shown. Note that end with the black wire tie is designed to stay in place tied to the cable.



Gently pull the fuse itself out of the holder and examine it. The fuse shown here is a new, working fuse. The small zig zag wire is complete all the way across the fuse. If the wire is broken, or there are signs of overheating, the fuse is most likely blown.

Important Note:

If the fuse is blown, there is a problem with your charger, and you should call Magline before attempting to replace the fuse. Installing a new fuse before fixing the problem will just blow another fuse or do additional damage to your electronics.

Fuse Specification:

1 1/4" L by 1/4" Diameter, 6-amp