CONGRATULATIONS

You have just purchased the best electric Multi-Tug on the market today. The Multi-Tug incorporate the very latest in technological advances. To assure you of the best and safest performance as well as longest life, please read the enclosed information.

For Information and Sales, call Assembled Products™ Corporation at 1-800-548-3373
For Service and Parts, call Assembled Products™ Corporation at 1-800-548-3373

Have the Serial Number available when calling.

IMPORTANT DOCUMENT-DO NOT DISCARD

Date Manufactured: _____________________
Date Shipped ___________________________
Serial Number: _______________________
Limited Warranty

• **Warranty:** One-year from date of shipment.

• **Battery:** Six full months from date of shipment. Replacement batteries carry a six-month warranty. Must provide serial number of cart. Charging the battery for 24 hours is required to determine that actual replacement is needed.

• **Parts-Limited Warranty:** All parts, except circuit breakers needing resetting, and broken keys in switches, are warranted by the manufacturer to be free from defects in material and workmanship for a period of six-months from date of shipment. This warranty does not include wear and tear caused by above normal usage, abuse, negligence, freight damage, or damage caused by improper use or care, or by outside sources such as fire, floods, etc. If component has failed due to defect in material or workmanship, it will be replaced or repaired at the manufacturer’s discretion at no charge to the owner.

• **Labor:** The manufacturer will cover labor charges for work performed in the field for one year from the date of shipment as a result of defect in materials and workmanship. Charges incurred for resetting the circuit breaker and broken keys in switches are exempt. Double service calls due to improper first call service or lack of repair parts are exempt.

The above warranties exclude shipping, handling, or travel expenses incurred for the repair of said unit or parts as well as items worn out through normal use whose malfunction is not attributable to defect.

All warranty claims should be called in to (800) 548-3373 or (479) 636-5776. Ask for service. Please provide serial number for warranty verification when requesting service.

For Information and Sales: Call 1-479-636-5776 or 1-800-548-3373

For Service: Call 1-800-548-3373 *(Please have the serial number available)*

Important Safety Instructions

*Please read before operation.*

**Warnings**

• Never attempt to charge the battery in this cart without using an electrical outlet that is protected by a GFCI, (Ground Fault Circuit Interrupter).

• Replace charging cord if plug is damaged or if the cord is worn or frayed.

• Never use the charging cord without proper grounding. Do not use if plug does not have three terminals.

• Always disconnect power before servicing.

• See “Daily Maintenance Checklist,” and follow instructions.

**Freight Damage**

**CHECK**

• The shipping carton for any visible damage. Report the damage to the freight carrier immediately. File a claim with the carrier if actual damage to your cart has occurred.

• Contents of the carton. The contents should agree with the information listed on the packing list. Report any discrepancy to the carrier and the factory immediately.
**Recommended Operating Procedures**

- **New units may need charging!** Charge batteries for **24 hours** prior to first use.
- **DO NOT STAND ON UNIT.**
- **DO NOT** allow children to operate or play on unit. Keep cart secured with key.
- After batteries are charged, disconnect power supply cord and return power cord to the cord reel before operating unit.
- Insert key into key switch on control box and turn counter clockwise and press control button to “ON”, Green light will appear (POWER ON).
- Check speed dial knob on left hand side of control box. *(Optional)*
- Place both hands on handlebars.
- Move top YELLOW lever forward to go forward.
- Move bottom YELLOW lever back to go backwards.
- Depress control “ON” button down for horn.
- **To stop:** Release YELLOW lever.
- **To turn off:** Turn key clockwise.
- Always charge unit when not in use.
- Remove key.

**Attention**

It is the responsibility of the owner of this unit to maintain the unit in a safe and reliable operating condition at all times.

**Daily Maintenance Check List**

For optimum unit availability and performance, the following items should be checked daily:

- **ELECTRIC CORD:** Replace cord if cord is worn or frayed, 3-pronged plug is broken or reel will not retract. Be sure power outlet provides protection through an operating “Ground Fault Circuit Interrupter” (GFCI).
- **THROTTLE:** Test for smooth “start, acceleration, deceleration and stop.” Repair if necessary. Charge or replace battery if needed.
- **CASTERS:** Replace if broken.
- **GENERAL:** Repair or replace any component that would

**Battery Charging**

- Install a Ground Fault Circuit Interrupter (GFCI) in the electrical circuit wherever the unit is to be charged. This is to protect against any possible shock hazard.
- **AC voltage required is 115/230 @ 60/50Hz VAC.** Charge batteries every night, all night, and at every opportunity. When the batteries are fully charged, the charger will maintain a “float voltage” which will not damage the batteries.
- Fully discharged batteries will take 12 hours to fully charge, so it is best not to let the batteries become completely discharged.
- Do not store the unit with discharged batteries for more than 30 days, as this can cause premature battery failure. Fully charge the batteries at least every 30 days, if in a low usage location.
- No maintenance of batteries is required. The batteries are maintenance free and water cannot be added.

**Battery Replacement**

Be Responsible: Recycle old batteries or dispose of according to local or national codes.

- To Replace Batteries: *(Read precautions on battery - avoid any sparks)*
- Turn off key switch and remove key. Disconnect charger cord from wall outlet, if plugged in.
- Remove tie-down strap from batteries.
- Disconnect the negative and positive wire bundles from the battery posts and remove the batteries. **CAUTION: Do not cross battery posts with metal object!**
- Connect the red leads to the positive post (+) first. Connect the black leads to the negative post (-). Reposition protective cover over positive post. **WARNING: Reversing battery connections may damage motor controller!**
- Secure batteries with strap.

**IMPORTANT!**

Your unit has been equipped with AGM batteries during the manufacturing process as original equipment. The manufacturer recommends that you replace the original batteries only with the same type and rating to prevent damage to your unit’s internal components, charging system, or personal injury to you. Manufacturer is not responsible for any adverse effects caused by replacement with any other type of batteries.
Multi-Tug Universal Cart Hitch

Selecting
- The Cart Hitch must be mounted on the end of the cart with caster wheels. Centered as far forward on the cart frame as possible.
- Measure the distance from the floor to the mounting location on the frame. (Mounting Height).
- From figure #1, select the Cart Hitch that covers the Mounting Height from the above step.
- The upper bar on Cart Hitch #5 & #7 is used as the “Hitch Bar”.
  The lower bar on Cart Hitch #6 & #8 is used as the “Hitch Bar” (preferred).

Example: Mounting Height, 8”
- From figure #1, Cart Hitch #6 & #7 would cover the Mounting Height of 8”.
- Select #6, the lower Hitch Bar of #6 is preferred.

Installing
All the Cart Hitches assemble the same way, #6 will be used in the following example.
- Figure #2 shows #6 assembled.
- Slide two bolts with washer through the slot of one of the Hangers. Note that the bolt heads are on the same side as the Hanger mounting holes. (see figure #3)
- Align the bolts with the holes in one of the Guide Plates and slide in place. Note that the guide lip is toward the Hanger. (see figure #3)
- Slide one of the Hitch Bars onto each of the bolts. (see figure #3)
- Align the bolts with the holes in second of the Guide Plates and slide in place. Note that the guide lip is on the same side and away from the first Guide Plate. (see figure #4)
- Slide bolts through the slot of the second of the Hangers. Note that the Hanger mounting holes are toward the bolt ends. (see figure #4)
  - Slide one washer on each bolt. (see figure #4)
  - Thread one nut onto each bolt. DO NOT FULLY TIGHTEN. (see figure #4)
  - Align the mounting surfaces of the Hangers and adjust the Hitch Bar to the Mounting Height minus (-) 4-3/16”. (see figure #5)
  - Place the Cart Hitch centered and as far forward as possible on the cart frame. (see figure #6)
  - Mark the location of the Hanger mounting holes. (see figure #6)
  - Drill 11/32” mounting holes. (see figure #6)
  - Align the Cart Hitch mounting holes, the slots in the Mounting Plate, and the drilled holes in the cart frame. (see figure #7)
- If mounting to thin metal or metal/plastic frame use a second Mounting Plate as a back plate. (see figure #8)
- Secure Cart Hitch to frame using 5/16” bolts and washers.
- Check and adjust Hitch Bar height to 4” above the floor and fully tighten all nuts and bolts. (see figure #9)

**Multi-Tug Exploded View**

<table>
<thead>
<tr>
<th>Item</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>601-0113</td>
<td>Battery Cable</td>
</tr>
<tr>
<td>2</td>
<td>601-0112</td>
<td>Circuit Breaker Cable</td>
</tr>
<tr>
<td>3</td>
<td>601-0156</td>
<td>55 Amp Hour Battery</td>
</tr>
<tr>
<td>4</td>
<td>601-0157</td>
<td>15 Amp Hour Circuit Breaker</td>
</tr>
<tr>
<td>5</td>
<td>601-0105</td>
<td>Charger Cable</td>
</tr>
<tr>
<td>6</td>
<td>601-0161</td>
<td>24 VDC Battery Charger</td>
</tr>
<tr>
<td>7</td>
<td>601-0151</td>
<td>24 VDC PWM Controller</td>
</tr>
<tr>
<td>8</td>
<td>601-0158</td>
<td>Cord Reel</td>
</tr>
<tr>
<td>9</td>
<td>601-0117</td>
<td>Support Pan</td>
</tr>
<tr>
<td>10</td>
<td>601-0079</td>
<td>Apron/Basket Cover</td>
</tr>
<tr>
<td>11</td>
<td>601-0078</td>
<td>Main Cover</td>
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<tr>
<td>12</td>
<td>601-0253</td>
<td>Motor Wire Harness</td>
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<tr>
<td>13</td>
<td>601-0166</td>
<td>Fork Assembly</td>
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<tr>
<td>14</td>
<td>601-0252</td>
<td>Motor Wire Guide</td>
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<td>15</td>
<td>601-0167</td>
<td>24VDC Hub Motor</td>
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<td>16</td>
<td>601-0076</td>
<td>Main Frame</td>
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<tr>
<td>17</td>
<td>601-0106</td>
<td>Lift/Lock Handle Assembly</td>
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<tr>
<td>18</td>
<td>601-0092</td>
<td>Lift Rod</td>
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<tr>
<td>19</td>
<td>601-0200</td>
<td>Caster Wheel Assembly</td>
</tr>
<tr>
<td>20</td>
<td>601-0083</td>
<td>Locking Cam</td>
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<tr>
<td>21</td>
<td>601-0123</td>
<td>Cam Lock Arm</td>
</tr>
<tr>
<td>22</td>
<td>601-0087</td>
<td>Locking Arm</td>
</tr>
<tr>
<td>23</td>
<td>601-0119</td>
<td>Hitch Latch</td>
</tr>
<tr>
<td>24</td>
<td>601-0080</td>
<td>Hitch Housing</td>
</tr>
<tr>
<td>25</td>
<td>601-0084</td>
<td>Lock Spacer</td>
</tr>
</tbody>
</table>
Below is a list of self-help actions. Go to the number of flashes of the Status Indicator and follow the instructions.

### Diagnostic Flash Sequence

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The battery needs charging or there is a bad connection to the battery. Check the connections to the battery and charge battery.</td>
</tr>
<tr>
<td>2</td>
<td>There is a bad connection to the motor. Check all connections between the motor and the controller.</td>
</tr>
<tr>
<td>3</td>
<td>The motor has a short to the battery connection. Contact your service agent.</td>
</tr>
<tr>
<td>4</td>
<td>Not used.</td>
</tr>
<tr>
<td>5</td>
<td>Not used.</td>
</tr>
<tr>
<td>6</td>
<td>The controller is being inhibited from driving. This may be because the battery charger is charging the battery.</td>
</tr>
<tr>
<td>7</td>
<td>A throttle fault is indicated. Make sure that the throttle is in the rest position before switching on. Check all connections between the throttle and the controller.</td>
</tr>
<tr>
<td>8</td>
<td>A controller fault is indicated. Check all connections to the controller are secure.</td>
</tr>
<tr>
<td>9</td>
<td>The parking brake has a bad connection. Check the parking brake and motor connections.</td>
</tr>
<tr>
<td>10</td>
<td>An excessive voltage has been applied to the controller. This is usually caused by a poor battery connection. Check the battery connections.</td>
</tr>
</tbody>
</table>
Multi-Tug Wiring Schematic

Multi-Tug Wiring Diagram