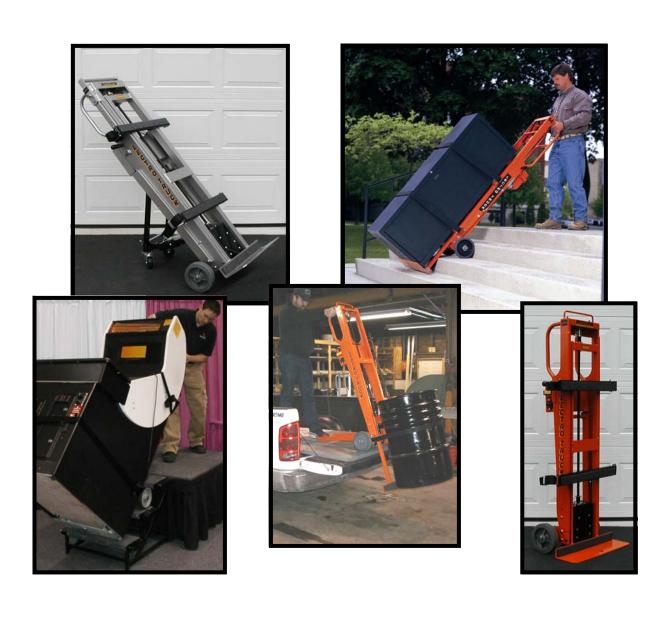


# OWNER'S MANUAL



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## **Model and Serial Number**

Page 1

The serial number of your Lectro-Truck is on a nameplate attached to the flat cross brace on the inner frame. This is located about half way down the back of the unit.

Date	Model Number	Serial Number

Upon receipt of your Lectro-Truck please place the date, model and serial number in the boxes provided. If you ever call our office to order parts or have any service questions we will ask you for this information to make sure the correct information for your particular unit is given.

The purpose of safety symbols throughout this manual is to a ttract your attention to possible dangers. The symbols, and the explanations with them, deserve your careful attention and understanding. Safety warnings do not by themselves eliminate any danger; the instructions or warnings they give are not substitutes for proper accident prevention measures.

#### **SYMBOL**

#### **WHAT IT MEANS**



**SAFETY WARNING:** Failure to obey a safety warning may result in injury to yourself or others.



**NOTE:** Advises you of information vital to the operation or maintenance of your equipment.

#### Introduction

Congratulations on your recent purchase of the Lectro-Truck. The "Original" Lectro-Truck was the first of its type in personal stair-climbing material handling equipment. You will soon experience the efficiency and ease of operation that has evolved from over 30 years of proven knowledge. Depending on which unit you purchased, it is capable of moving loads from 600 pounds (270 Kg) to 1,500 pounds (680 Kg) with increased safety and reduced operator effort. The Lectro-Truck has been engineered and constructed to provide years of reliable, labor saving operations with minimum maintenance.

Learning to operate y our Lectro-Truck is a simple process and pri marily a matter of familiarizing yourself with the operations as outlined in these instructions. Your confidence will be built through practice going up and down stairs; or loading and unloading your truck or trailer. **BE PATIENT. Read this manual thoroughly and understand it completely before attempting to operate your Lectro-Truck.** Take your time until you are familiar with the proper procedures.



**DO NOT** practice with an empty Lectro-Truck. You <u>must</u> practice your moves with a minimum light load of 150 pounds (68 Kg) to learn the techniques of the Lectro-Truck's operation. Practicin g and having a full un derstanding of how the Lectro-Truck works is very important prior to attempting to move heavier loads.



A video (VHS) training tape can be obtained by contacting our office. This tape is an excellent aid in learning how to operate, maintain, and service your Lectro-Truck.

The Lectro-Truck operates using the basic principles of leverage and balance. By mastering the techniques outlined in this manual, a single operator is capable of handling and moving heavy loads that previously required two or more persons.

Your Lectro-Truck is a battery powered, motor-driven machine, with a specially designed inner and outer frame. The key to Lectro-Truck's operation is finding the leverage and balance point and using the proper sequence when moving your load. If the "Load-Down/Wheels Up" switch is energized, your load will move downward toward the wheels. Conversely, if the "Load-Up/Wheels Down" switch is energized, the load is moved upward toward the operator. By alternating the load down and load up sequence, the operator will soon find the ease with which Lectro-Truck can overcome vertical barriers such as stairs and curbs.

# LECTRO-TRUCK DOES THE HEAVY WORK WHILE THE OPERATOR CONTROLS THE MOVE.

## **Warranty Information**

All Lectro-Truck models are backed by a one-year warranty, including all parts and workmanship. The motor has a two-year warranty, to be free from defect <u>under normal usage</u>. Additional warranty details apply. All warranties go into effect on the date your Lectro-Truck is purchased.

# The warranty card must be completed and returned to Innovative Moving Systems, Inc. in order for the warranty to be valid.

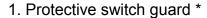


Your Lectro-Truck has a 12-volt power system. Never hook up directly to any AC power for charging or any other reason without a 12-volt battery charger or transformer between the Lectro-Truck and the AC power source. Doing so will invalidate all warranties.

This warranty may or may not apply to used or demonstration models.



Aluminum Models: (left to right) LTA6512, LTA5512, LTA4512



- 2. All weather safety switches \*
- 3. Enclosed, grommetted wiring system \*
- 4. Protective anti-crush foot pads \*
- 5. Smooth operating thrust bearings \*
- 6. 3/4" Heavy duty, smooth roll drive nut
- 7. Load securing, adjustable strap bars \*
- 8. Sealed 12 volt battery \*
- 9. Heavy duty inner frame \*
- 10. Heavy duty outer frame \*
- 11. Circuit breaker w/ on-off switch \*
- 12. User-friendly handles \*
- 13. Heavy duty battery box protector
- 14. Automatic Electromagnetic brake \*



Steel Models: (left to right) 1268E, 1260E

- 15. Heavy duty 1½ HP planetary gear reduction motor.
- 16. Wide tread, non-marring, 8" roller bearing wheels\*
- 17. Standard toe plate depth of 6" and widths of 24" or 30" \*
- 18. Heavy duty leverage/ hook bar
- 19. Extension handles for extra leverage
- 20. User-friendly tripod
- 21. Portable battery pack
- Protective felt padding \*
- 23. Side handles for easy gripping
- 24. Aircraft hardened ¾" high efficiency drive screw
- 25. On-Board Battery Charger\*
- \* Available on all models

Each Lectro-Truck comes with the following as standard equipment:

Lectro-Truck Models: 1260E & 1268E

Owners-Operating Manual Sealed non-spill battery
2 Load securing strap bars Hook bar/Leverage bar
Automatic Electromagnetic brake On-Board Battery Charger

LTA5512

Owners-Operating Manual Sealed non-spill battery
2 Load securing strap bars Porta ble battery carrying pack
Automatic Electromagnetic brake On-Board Battery Charger

LTA6512

Owners-Operating Manual Porta ble battery carrying pack 2 Load securing strap bars Hook bar/Leverage bar Automatic Electromagnetic brake Sealed non-spill battery 10" Extension handle On-Board Battery Charger

LTA4512

Owners-Operating Manual Sealed non-spill battery

1 Load securing strap bar Porta ble battery carrying pack

Automatic Electromagnetic brake 10" Extension handle

On-Board Battery Charger

## **Optional Accessories**

#### All-Terrain Wheel Attachment (Page 21)

Large 15" high x 6" wide pneumatic, all-terrain wheels enable the Lectro-Truck to easily move the heaviest loads over lawns, sandy, soft, or rocky terrain. The ATW attachment quickly and easily snaps on and off the back of the Lectro-Truck, converting it into a four-wheel, all-terrain dolly.

#### Tri-Pod (Pages 20-21)

The Tri-Pod Attachment quickly snaps on and off the back of the Lectro-Truck converting it to a four-wheel dolly. The Tri-Pod is built into the Model LTA6512e Lectro-Truck. The Tri-Pod is able to be attached to the 1268e and 1260e Lectro-Truck models. The Tri-Pod should only be used on flat, smooth surfaces.

#### Hook Bar/Leverage Bar

The hook bar is stored in the outer frame of the Lectro-Truck on our steel models and outside the outer frame on our aluminum models. It pro vides safe, secure lifting or lowering from vehicles and added leverage when breaking back heavy loads.

#### **On-Board Battery Charger**

This fully automatic battery charger is built into the battery box/ pack on each of the Lectro-Truck's five models. All you have to do is plug it into the wall (110V outlet) to charge your Lectro-Truck.

#### **Hook Box (Page 24)**

The Steel Hook Box has a collapsible hook and mounts in the bed of your truck to assist in securing loads. Safely lift loads on and off trucks by simply locking the Lectro-Truck's leverage-hook bar into the hook box.

#### **Concave Attachment**

Our concave shaped strap bar attachment provides a snug fit to safely secure and protect cylindrical shaped loads such as barrels, water heaters, tanks, etc.

#### **Balance Box Kit (Page 23)**

The Balance Box Kit provides the Lectro-Truck operator with a way to raise low, heavy loads to a height on the unit that is the center of balance. This allows for easier handling. Our Balance Box is made to support loads weighing up to 1500 lbs.

#### **Caster Attachment (Page 22)**

This flat platform, with rotating caster wheels, attaches to the Lectro-Truck's toe plate allowing easier maneuvering of loads that are in a vertical position while in tight or narrow locations. The caster attachment is available in Standard and Heavy-Duty models.

#### **Load Adjuster Kit**

This attachment allows the operator to adjust low, heavy weights (for a better balance point) for easier handling; automatically, with no lifting involved.

#### **Toe Plate Adapter (Page 25)**

Toe plate adapters can be ordered to best support the load being moved. They are available in two standard sizes, 12"x 24", and 12"x 30", but can also be made to order.

#### **Lectro Truck Lubricant**

An advanced, Teflon-based lubricant recommended for use on the Lectro-Truck's drive screw and other moving parts.

#### Rubber Mounted Strap Bar (Page 11)

Attaches and detaches with just a twist!

#### Replacement Straps

Nylon replacement straps available in 12' or 19' lengths.

#### **Lectro-Truck Battery**

12-volt replacement battery for all Lectro-Truck models.

#### Lectro-Stack (Page 22)

The vertical lifting attachment for the Lectro-Truck. It has a capacity of 750 pounds, and will lift up to almost 5 feet.

#### **Complete Portable Power Pack**

The complete portable power pack includes a 12 -volt battery and an aluminum carrying case. Replacement battery and Aluminum Power Pack battery cases are also a vailable separately. The Power Pack is available for the LTA6512, LTA5512, and LTA4512 only.

#### Wheel Brakes (Page 25)

The wheel brakes allow the user to climb and descend steps, even if the steps are pitched, uneven, or cracked.

#### Popular accessory part numbers

ATW-15 - All-Terrain Wheels
LT12 - Battery
LA1
CE80 - Tripod
CC90SP - Concave Attachment
CC50-A - Hook Box
CH6 - Pattony Charger

CC91 - Castor Attachment
CC91 - Castor Attachment
CC91 - Castor Attachment
CC91 - Castor Attachment

CH6 - Battery Charger

BB21 - Balance Box Kit

CH6 - Lube - Lectio- Huck Lubi

CC91 - Caster Attachment

LA21 - Load Adjuster Kit

CD27-R - Battery Pack (LTA6512 & LTA5512)

Preparation Page 6

Upon receipt of your equipment, carefully remove the protective plastic and cardboard wrap from your stair climber. As well, remove any accessories or other items you may have received from all the boxes to insure that you have your complete order. If you have not received all the items you ordered, check your packing slip to see if the item(s) you have not received are on backorder. If your packing slip does not indicate that these items are on backorder, contact our office. If they are on backorder, it means these items were not available at the time of shipping and will be shipped to you at a later date. You should also check if the standard items that come with each unit have been shipped with the unit(s). A list of the standard items that come with each model can be found on pages 3 and 4 in this manual.

If you are reading this you have already found the owner-operators manual. Inside this manual, you will also find a warranty card. In the battery box/ pack, you will find two side handles. If you ordered an Aluminum model, you may also find retractable plungers in the battery box/ pack. If your battery is not in the battery box, it was packed separately.

Look everything over after unpacking. If you notice any damage to the items received, that was not visible prior to unpacking, you will need to notify the shipping company immediately and file a damage claim with them. They may want to inspect the items that are damaged prior to paying any claims. In the event they can't get right out to inspect the damage, we recommend taking pictures of the damage, especially if you need to use the equipment before they inspect it. If you have problems getting a claim paid, contact us and we will see if we can assist you.

At this time take a few moments to fill in and complete your warranty card. Once it is completed mail it to our office. It is very important that we have this warranty card on file for any future warranty claims.

## Set Up

Once you have determined whether everything that you ordered was shipped, taken care of any damage that may have occurred, completed and sent in your warranty card, you are ready to set up your Lectro-Truck and get it ready for use.

If you have ordered an LTA4512, LT A5512, or LTA6512, your unit will come with a portable battery pack. The battery should be connected inside the pack. The battery pack is either installed on the unit already or packed separately. When the battery pack is slid onto the unit attach the plug from the pack to the plug on the frame this will give you power to the Lectro-Truck.

Using Diagram #1 (page 7), install the side handles on the 1260E, 1268E, LTA6512 or the LTA5512. The LTA4512 does not require side handles. If you have ordered an LTA6512 or LTA4512, using Diagram #2 (page 8), install the retractable plungers found in your portable battery pack.

On the 1260E and 1268E models, the battery should be inside the battery box. It will be held in place by a battery hold down clip or bracket. This prevents the battery from falling out, or moving up and touching the battery box lid, shorting out the unit. If it is not already mounted in place, you will need to place the battery in the battery box and attach the battery hold down clip (which is bolted in the battery box,) to secure the battery.

#### **Power Switch/ Circuit Breaker**

The power switch is also the circuit breaker. On the 1268E and 1260E models it is located on the right side of the battery box (when standing behind the unit.) The power switch/circuit breaker is a black square with a red button and a small black lever. On the LTA6512, LTA5512, and LTA4512 the power switch/circuit breaker is found on the battery pack. When the black lever is pushed in there is power supplied to the unit. When the black lever is extended out there will be no power to the unit.

#### **Connecting the Battery**

When you connect the battery be sure the red button on the power switch/circuit breaker is pressed in (this disengages the power to the unit,) and proceed with attaching the battery cables to the battery.



Be sure to attach the positive or red cable first. Then attach the black or negative cable. Use a 7/16" wrench to tighten them down.

After you have attached the cables, press the small black lever in on the power switch/circuit breaker, to set the breaker and engage power to the unit. The power switch/circuit breaker is designed to protect the motor, drive nut, and wiring against damage from an overload of weight on the unit. Overloading can be caused by operating the Lectro-Truck with too heavy of weight; or if there are any shorts in the wiring system. If the unit should become overloaded the power switch/circuit breaker will trip. In the event that this should happen, let the wiring cool down, and then press the black lever in to reset the breaker. When the power switch/circuit breaker is tripped, you will have absolutely no power to the unit.

# NOTE

Never operate or engage the power switch/circuit breaker with the battery box lid open.

While standing behind the unit and with both hands firmly on the frame handles (not the side handles), use the thumb on your left hand and press straight down on the "wheels up/load down" switch to see if the wheels raise up. Next, using the thumb on your right hand, press straight down on the "wheels down/load up" switch to lower the wheels back to the ground. You will only need to raise and lower the wheels a couple of inches to determine if the "wheels up/load down" and "wheels down/load up" functions are working.

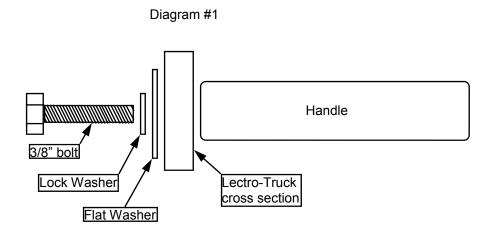
#### If nothing happens when you press either switch, be sure to check if:

- a. You have the power switch/circuit breaker engaged, (page 8).
- b. The battery cables are hooked up properly and are tight.
- c. You are pressing the operating switches straight down with sufficient effort to engage them.
- d. The battery is fully charged.



Pages 9-10 in this manual have the proper procedures on how to charge your battery. All Lectro-Truck models are checked and tested to ensure they are operating properly before leaving the factory. However, strange things happen during shipping - no matter what precautions we may take. If your Lectro-Truck still does not operate after trying all the above, contact our office at 1-800-619-0625, and ask for service.

#### Installation of Portable Side Handles (Steel Models, LTA5512, & LTA6512)



#### **Installation of Retractable Plungers (Aluminum Models)**

Diagram #2



The Retractable Plungers are not attached prior to shipping to protect against damage. These plungers must be installed prior to operating your unit.

The plunger latches can be found inside the battery pack of your unit.

LTA6512 - Y ou will have three plungers. The two with the nuts on them are for the extension handle, and the plunger without the nut is to be installed in the leverage/ hook bar.

LTA5512 - You **may** have one plunger latch, if your unit is equipped with the leverage/ hook bar.

LTA4512 - You will have two plungers, which are both for the extension handle.

#### Your Lectro-Truck should be properly lubricated prior to operation

Lay the Lectro-Truck down, with the toe plate facing up, over some paper on the floor. Using a Teflon-based lubricant, (not WD-40), lubricate the top 12 inches of the drive screw, wiping off any excess. Run the inner frame all the way out and back in a co-uple of times to distribute the lubricant over the drive screw and through the drive nut.



**Never use grease on the drive screw**. It will pick up dust, grit and small particles, distributing them in the drive nut where they collect and retard the operation of the bearings and your unit. While WD-40 is excellent for a number of uses, **do not use WD-40 on the drive screw**. WD-40 evaporates too quickly, leaving you no lubrication on the drive screw.

In the lubrication process, when your inner frame is extended all the way out, you will notice four rollers two at the top of the inner frame and two at the bottom of the outer frame. Spray the rollers with the same Teflon-based lubricant you used on the drive screw. Be sure to get the lubricant between the roller and the axle. The roller channels on the inner and the outer frame should also be sprayed with the Teflon-based lubricant. You will expose both of these channels by extending the inner frame out. After lubricating the channels run your inner frame in and stand your Lectro-Truck upright.



Although some lubricating is done at the plant, we recommend you do a complete lubrication of your Lectro-Truck upon receipt and prior to using it. Lubrication must be done on a regular basis to insure the proper operation of your Lectro-Truck. If you use the Lectro-Truck on a daily or regular basis, it should be lubricated once a month.

Installing your Retractable Plungers: When installing the Plunger in the Leverage/Hook Bar put a couple drops of thread locker (Red Loctite™ etc.) onto the threads of the Plunger (the one without the nut). Then thread the Plunger in until the threads are about 1/8" away from the Lectro Truck side and let stand for 15-20 min. for thread locker to set. You then should be able to pull the spring loaded head of the Plunger to release the pin from the "catch" hole in Lectro Truck side. When installing Retractable Plunger latches for the extension handle, pull the plunger head out so the pin is retracted inside of the thread shaft. Then thread the Plunger in until it touches the extension handle. At this point back out the plunger by turning counterclockwise about one turn to give the extension room to slide. Then tighten the ¾" Nut to hold Plunger in place.

Your Lectro-Truck comes with a sealed, gel-type, lead-acid battery. It does not have a 'memory'; and therefore it does not need to be completely discharged prior to charging. The battery's gel will become crystallized if left uncharged for a long period of time. Once the liquid is crystallized it will not return to its liquid form, which results in your battery having less power to operate your Lectro Truck. If you find that your battery isn't holding a charge very long, or isn't putting out enough power to operate your Lectro-Truck properly, you should have it load tested. If the load test shows anything under 12 volts, you need a new battery.

#### Charging of your battery can be accomplished in the following ways:

- a. The best way that we recommend to charge your Lectro-Truck is by using our On-Board, 3 amp charger (included). Pull the plug out of the Battery Box/ Pack and plug it into a 110 Volt outlet.
- b. You may also purchase a charging plug and adapt it to your own battery charger, provided that your charger can charge at 6 amps or less, and has an automatic shut-off.
- c. Using a 6 amp charger (or less), open the battery box lid and place the positive clip from your battery charger on the positive terminal of the battery. Place the negative clip of the battery charger on the negative terminal of the battery.



Caution: Charging plug is to be hooked up to DC power source only!



When charging any Lectro-Truck the black lever on the power switch/circuit breaker, (page 8), must be pushed in.



If you are going to charge your battery by attaching directly to the battery's positive and negative terminals of the battery with clips, be sure to secure battery lid open so it will not fall down on the clips. This may arc out the positive and negative terminals. Also remember to close the lid after charging before you operate the unit. Failure to close the lid prior to operation may cause the lid to be sheared off.

To attach the adapter plug onto your battery charger, remove the alligator clips that are on the charger. Unscrew the two screws holding the plug closed and wire your positive and negative wires from your charger right into this plug. Place the positive terminal wire from your charger on the spade going to the larger receptacle opening and the negative wire from your charger to the smaller receptacle opening and screw the plug back together. You will find the charging plug opening on your battery box on m odels 1260E & 1268E. To plug in the charging plug, push it onto the receptacle and twist it to the right to lock it in place. To remove the charging plug, twist the plug to the left and pull.

For the LTA6512, LTA5512, and the LTA4512 it is recommended that you remove the battery pack from the unit before charging. If our battery charger has been ordered, the battery charger will be located inside the battery pack. To charge the LTA6512, LTA5512, and the LTA4512 using your own charger, you will need to use a special adapter ordered from us. Place the term inals of your charger on the charging adapter plug. When you attach this plug to your charger the positive goes to the red and negative goes to black.

#### Proper charging of your battery is very important.

If your battery isn't working properly, your Lectro-Truck will not be working to it's fullest potential, either. The battery supplied with your Lectro-Truck is made up of cells that can be damaged if it isn't charged properly. If the proper charging procedures aren't followed the once liquid cells inside the battery can become crystallized and your battery will be damaged. Crystallization will occur if you: leave the battery uncharged for a length of time, over charge your battery, charge it too fast, or charge it with too many amps. It is very important to follow the proper charging procedures to get the maximum amount of power from your battery.

#### When Charging Your Battery ALWAYS:

- Use a 6-amp charger or less.
- Use a fully automatic charger that shuts off when the battery is fully charged.
- Have your battery charged at all times.

#### When Charging Your Battery **DO NOT** use the following procedures or you may damage your battery:

- **Do Not** use more than a 6-amp charger.
- **Do Not** use a battery charger with a timer on it.
- **Do Not** use a Standard Automotive charger.
- **Do Not** leave your battery uncharged for long periods of time.
- **Do Not** put a quick charge to your battery.

By following these procedures and using the proper battery charger, your Lectro-Truck's battery will provide the proper power you need, and will last a lot longer.

#### **Basic Maintenance**

Here are some general maintenance tips for your Lectro-Truck:

- **1. Keep your battery on the charger at all times.** This applies to units that are able to be connected to a fully-automatic, 6 Amp charger. The battery that is provided is a sealed, gel-type, lead acid battery. The battery has no "memory," so it can be charged at any time without damaging the cells inside.
- **2.** Lubricate your drive screw often. Normal usage calls for the drive screw to be lubricated with a Teflon-based spray lubricant about once per month. **Do NOT use grease or WD-40 on the drive screw.** The proper procedure for the lubrication of the drive screw, and the rollers that ride between the inner and outer frames, can be found on page 10.
- **3. Check your strap bar bumpers for wear.** The strap bar bumpers will wear down the more you move and adjust your strap bars. These bumpers should be checked, adjusted, and changed as needed. You can read on how to adjust the strap bar bumpers on page 14.
- **4. Check your footpads for excessive wear.** The footpads are the two rubber pieces at the bottom of the inner frame. These pads protect the steps that you are climbing from being damaged. The more you use of the Lectro-Truck on concrete or brick steps, the more that these pads will wear.

To place the strap bar attachment on the Lectro-Truck, stand in front of the machine with the strap bar in your hands. Holding the front of the strap bar diagonally, put the strap bar "ears" inside the Inner Frame, and turn the strap bar until it is parallel to the toe plate. The strap bar should turn on with just enough resistance to hold it in place on the Inner Frame. Your strap bar can be moved to any position on the frame by turning the strap bar at a 45-degree angle until it disengages. Remove it completely from the frame, reposition it, and turn it back onto the Inner Frame.

Placement of your strap bars on the unit depends on the load. On loads 3' or taller, two strap bars should always be used; one near the top of the load, and the other near the bottom of the load. The top strap secures the load to the unit and the bottom strap prevents the load from sliding off of the toe plate. On low standing loads you will only need to use one strap bar. To use the concave strap bar, position it so that it is used as the top strap bar. Another strap bar should be used lower on the load so that it does not slide off the toe plate.

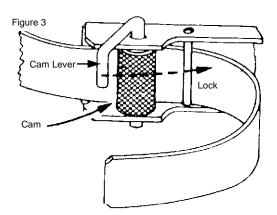
#### To Adjust the Tension of the Strap Bar:

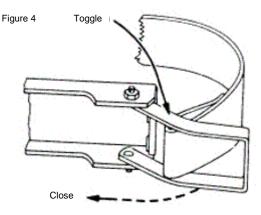
- a. Remove the strap bar from the Lectro-Truck.
- b. Lay the strap bar on a flat surface with the "ears" of the strap bar up.
- c. Using a 7/16" wrench, loosen the nut on the rubber bumper.
  - If the strap bar is too tight: Turn the bumper clockwise to decrease tension.
  - If the strap bar is too loose: Turn the bumper counterclockwise to increase tension.
- d. Tighten the nut on the rubber bumper.
- e. Test the tension of the strap bar on the Lectro-Truck.

NOTE

Keep the bottom strap bar (or concave attachment) about 2" above the motor box.

The strap is secured and tightened by the cam and toggle on the strap bar or concave attachment. When the cam lever is pointing at you it is open and you can thread the strap through until your load is secured. To lock the load, move the cam to the right, (Figure 3). Further tightening is achieved by closing the toggle, after the cam is locked (Figure 4).





#### **General Lectro-Truck Information**

If properly used, the Lectro-Truck will move loads safely and easily. There should never be a need to physically lift your Lectro-Truck. The Lectro-Truck is designed to do the work for you. We have thousands of Lectro-Truck operators that know how to properly use the Lectro-Truck, and swear by it for everyday use.

After reading the operating procedures, you find yourself working harder when using the Lectro-Truck - or it is no different than using a regular hand truck - something is being done incorrectly. The object of the Lectro-Truck is to make it easier on the user. If this is not the case, review this manual, review our training video, and if you still need help, call our office at 1-800-619-0625.

#### **ALWAYS REFER TO THESE GENERAL SAFETY RULES:**



- 1. When in doubt as to whether or not you are able to handle a load by yourself, *always* have someone else help.
- 2. Be sure that *no one* is in front of or below the Lectro-Truck during operation. The operator(s) should be safely behind or above the load **at all times**.
- 3. **Never** practice climbing the steps with the Lectro-Truck without a load. If you are practicing, start with a light load (300-500 lbs.), then progress to heavier loads.
- 4. Be sure the load is securely strapped to the Lectro-Truck before attempting to operate.

## Balancing a Load ("Breaking Back")

- 1. Place the toe plate of the Lectro-Truck securely under load, and properly strap the load into place.
- 2. Raise the wheels of the Lectro-Truck approximately 4-6" off the floor by pressing the "wheels up/ load down" button.
- 3. Place your foot on the axle tube, grab onto the top of the Lectro-Truck, and pull back toward you. Once the load is tipped back, you will find that by raising or lowering the wheels you will be able to find a point where the load balances itself on the Lectro-Truck. This point is called the "balance point."



**Never** raise the wheels of the Lectro-Truck over 6" to break back the load. Once the load has been broken back, and is resting at angle on the toe plate and wheels, you can run the wheels higher or lower to get your balance point. Raising the wheels too high for break back may cause bodily harm.



The Models 1268E, 1260E, LTA6512E and are equipped with a "Hook Bar." (Optional on the LTA5512E.) In the event that you still are not able to break back your load by raising the wheels only, fold the Hook Bar down, step up on it, and use your body weight to help break back the load.

## **Standing a Load Upright**

With a "standard" hand truck, standing a heavy load upright can be a tough move. Once you begin to push your load forward, the weight of the load takes over and literally pulls you until the load is upright. This type of procedure, with a standard hand truck, can lead to damage of your customer's flooring, or even product damage.

Standing a load upright is very simple with the Lectro-Truck:

- 1. Bring the Lectro-Truck, with the load strapped in place, back to it's balance point.
- 2. With the toe plate on the floor, step onto the axle tube (or hook bar) and lean the load forward.
- 3. Using your body weight as a counterbalance, gently ease the load forward until it is firmly on the floor.
- 4. Lower the wheels of the Lectro-Truck back to the ground and remove the straps from your load.

## **Moving Over Smooth, Flat Surfaces**

Break back load as described in "Balancing a Load." With the load resting at it's balance point, grasp the handles and pull back just enough to keep the toe plate off the floor. You should now be able to comfortably move the load. If you are moving the load for a long distance, consider using a tripod (Page 20.)

If there is too much weight for you to support at this point, you can adjust the load up or down by using the buttons at the top of the machine. Every move and every load will be slightly different. Practice with various loads until you are comfortable with moving loads over smooth, flat surfaces.

Stair Climbing Page 13



Prior to climbing any staircase, be sure the steps are able to support the weight of the Lectro-Truck and load before attempting to climb the stairs.

1. Pull the Lectro-Truck, with your load attached, to the base of the steps. (Figure 5)



2. Push your load slightly forward, keeping the toe plate on the ground. (You should lean your load just far enough for the wheels to clear the front of the first step.) Push the load down/ wheels up button, so that the wheels come to rest on the **second** step (figure 6.) Run the wheels up until they are against the back of the second step.



3. Exert enough pressure downward and back toward you on the top of the Lectro-Truck, so that the angle of the Lectro-Truck allows the inner frame to clear the front edge of the bottom step. Push the load up/ wheels down button, and you will bring the load up to the first step. (Figure 7)



NOTE

You want to try to place the load about ¼ of the way in from the front of the step. This helps you maintain proper balance.



Many other users have found that it eases the operation if you use your forearm across the top of the Lectro-Truck to add adequate force to push down and back as described in #3 above. Example: Use your right forearm on the Lectro-Truck when pushing the left button; and use your left forearm across the unit when pushing the right button.

4. Repeat steps 2 and 3 until you have reached the top of the steps that you are climbing.





Allow NO ONE under the load while climbing or descending steps.

## **Descending Stairs**

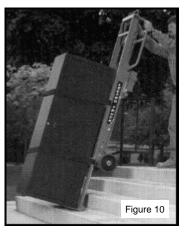
1. At the top of the steps, recline your load back, and extend your load down **two** steps. The load should come to rest about  $\frac{1}{4}$  of the way back from the front of the step. (Figure 9)



NOTE

Recline the Lectro-Truck back far enough to miss the front of the steps you are moving the load past.

2. With the load firmly placed on the second step down, lean your machine forward slightly (Figure 10), and push the wheels down/ load up button, so your wheels move to the **first** step down.



NOTE

You should only have to lean the Lectro-Truck far enough forward to make the wheels clear the front of the step when brining your wheels down.

3. Repeat steps 1 and 2 until you are down to the bottom of the steps.

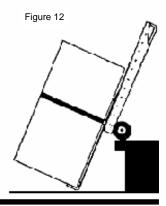


## **Portable Dock Leveler**

Your Lectro-Truck can be used as a portable dock leveler, as illustrated in Figure 12. Loads can be easily moved from a dock, up or down, to a truck or trailer, as the situation requires. The Lectro-Truck is equally as effective in moving a load from ground to dock and dock to ground.



If you are moving a load from ground to dock (or vice versa) use caution that the dock level, and the weight of the load being moved, does not exceed the ability of the Lectro-Truck user.

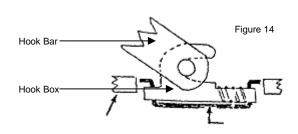


## **Loading Onto a Truck or Trailer**

If the Lectro-Truck model is able to reach the deck of the truck or trailer that you are loading to, the Lectro-Truck can be a very resourceful tool in helping you load heavy, bulky objects.

- 1. While the load is at it's balance point, pull the load to the rear of the truck or trailer, and stand the load upright.
- 2. Climb into the rear of the truck or onto the trailer, and push the wheels up/ load down button. This will bring the wheels up to the level of the deck. (Figure 13)
- 3. Fold the hook bar down from the back of the Lectro-Truck (all models excluding LTA4512.) Lock the hook bar into the hook box. (Figure 14)





## **Loading Onto a Truck or Trailer (continued)**

- 4. Push the wheels down/ load up button, and start the load on it's way up to the back of the truck. (Figure 15). Continue lifting the load until it is all the way up. (Figure 16)
- 5. Disengage the hook bar from the hook box, and pull your load back. You are now in the back of the truck, or on your trailer.







No one should stand under, or in the direct path of a load while it is being loaded or unloaded from a truck or trailer.

## **Unloading from a Truck or Trailer**

Unloading is the reverse of loading.

- 1. Raise the wheels of the Lectro-Truck about 4"-6" off truck bed and break the load back to a balance point.
- 2. Move the Lectro-Truck and the load to the back edge of the truck or tailgate.
- 3. With the load resting at it's balance point, release and drop the hook bar from the Lectro-Truck.
- 4. Slide the hook bar into the hook box, and secure the Lectro-Truck in place.
- 5. Gently lean the Lectro-Truck forward until it is fully supported by the hook bar.
- 6. Push the load down/ wheels up" button and the load will travel to the ground.
- 7. When the load is on the ground, slide the hook bar out of the hook box. Fold the hook bar back in place.
- 8. Tip the load slightly forward and lower the wheels to about 6" from the ground by pushing the "load up/ wheels down" button. Once the wheels are down to the appropriate height, you are ready to move your load.

#### Unloading the Lectro-Truck from a Tall Truck or Dock

If the framework of the Lectro-Truck will not allow you to reach the bed of your truck (or to the height of the dock), construct a simple platform that will cut the distance to travel almost in half. For instance, if your dock is 48" tall, construct a platform that is 12-24" tall, and move the load in two steps: 1 - Ground to platform; 2 - Platform to dock.

## Moving Over Rough, Irregular, and Soft Surfaces

To move loads over rough surfaces such as gravel, cracked black top, concrete - or any uneven surfaces such as lawns, sand, or snow we recommend using an All-Terrain Wheel Attachment (Page 21), instead of a tri-pod. The tripod's hard, swivel wheels can jam on small, hard items or sink into soft surfaces. Tri-pods should only be used on flat, smooth surfaces.

## **Overcoming Curbs and Other Obstacles**

#### **Curbs**

Curbs are easy to step over. Back up to any curb that you must climb, and raise the wheels to the top of the curb. Raise the wheels high enough and move them back over the curb to allow room for the load. Raise the load just as you would to climb the last stair in a flight of stairs. To descend a curb, reverse the procedure by extending the load out over the curb and pivoting the load upright on the toe plate. Lower the wheels down, and move on.

#### **Thresholds**

Thresholds are handled in a similar fashion as curbs. If you are pushing the load forward, extend the load over the threshold, pivot it upright and lower the wheels over the threshold. Extend the wheels up and over the threshold first if you are pulling the load backward toward the door.



The Lectro-Truck should always be pulled - never pushed - over broken concrete, blacktop, or cracks in the sidewalk.



The All-Terrain Wheel attachment (Page 21) should be used for moving loads over broken concrete, blacktop, or cracks in the sidewalk.

## **Miscellaneous Other Situations**

#### **Deep Steps**

The normal depth (run) of steps is about 9" to 10". However some steps are deeper and/or the riser is shorter than normal. This causes the unit to lay down on the steps when you are trying to climb or descend them. This not only prevents the operator from being able to break back the load far enough to get the inner frame off the step when climbing, but also may cause the unit and load to want to roll down the steps.

A suggestion would be to take one or two 2 x 4's (28" long) and place them against the back of each step, this will shorten the depth and bring your unit and load up at a safer angle. Thus, it will allow the user to break back the load easier and make stair climbing easier. If the step is exceptionally deep, you may need two  $2 \times 4$ 's.

More advanced users may not need the  $2 \times 4$ 's in this situation. If you are more accustomed to how the Lectro-Truck operates, place your wheels in the middle of the step, as opposed to all the way to the rear of the step. This will create the correct angle which you need to balance the Lectro-Truck on the steps.



Unless the load is extremely light, we do not recommend that the Lectro-Truck be used to climb excessively steep steps.

#### **Turning at the Bottom of Steps**

When going down a set of steps, and you are forced you to make a 90 degree turn at the bottom, this can be made easier by preplanning the descent. As you are going down the steps, descend the steps closest to the side in the direction that you have to turn. This will enable you to have room at the bottom to stand behind the unit while spinning it the 90 degrees to go through the doorway.

At the bottom of the steps, with your load on the floor, and your wheels still on the steps, place a knotted rag under the center of the toe plate. Next, set the load up vertically, run the wheels down, stopping the wheels just above the bottom step. Do not run the wheels to the floor. With wheels up off the floor, they will help you to pivot the unit around to make it through the doorway.

## **Miscellaneous Other Situations (continued)**

#### Pitched Steps

Steps that slant forward, or "pitched steps," may require the use of the Lectro-Truck Wheel Brake attachment (Page 25.) These "boots" slip over the wheels, and pivot down so that you have a flat placement of your wheels. The wheel brakes also work well when steps are excessively worn or chipped.

#### **Short Landings**

If you are short of landing space at top a set of steps, you will need to create some added landing space. Place a solid block on the step below the landing that is the same height as the step and wider then the wheels on the Lectro-Truck. Next, place a thick sheet of plywood on top of the block and over the landing. Nail or attach the plywood to the block. This will increase the area of your landing. When you are coming up the steps, you will need to run the wheels up onto this makeshift landing. Finally, break back your load, and bring it all the way up to the landing.



When in doubt as to whether or not you are able to handle a load by yourself, *always* have someone else help.

#### **Going Over Bulk Heads**

Some basements may have an external entrance with an upraised concrete border around the top of the steps. This concrete edging usually is 4 to 6 inches thick and is raised about 6"-12" off the ground. To go over this with a Lectro-Truck you will need to create a landing for the Lectro-Truck. This landing should be the height of the concrete that is around the bulk head door. When going down into a bulk head, bring your load up onto the landing, swivel the load, and descend the steps into the basement. As well, when ascending from a basement that has a bulk head entrance, this landing provides a level surface to bring your wheels to.



When constructing any platform that the Lectro-Truck will be on top of, be sure that it is constructed sturdily enough so it is able to support the weight of the unit and the load.

#### Moving Under Low Doorways with a Tall Load

Lowering your load to go under a low doorway can be accomplished by one of the following:

- 1. Place the load back on the tripod. (Page 20-21) If you are still too tall to go through, but only by a couple inches, press the load down/ wheels up button to lower the load.
- 2. Placing load back on the All Terrain Wheel attachment. (Page 21) Lowering the load to a balanced, horizontal position will allow the operator to take even the tallest loads under low doorways.

#### Handling a Load While Moving Up or Down an Incline

If you are faced with the situation of moving a load up or down an incline, the footpads (located on the bottom of the inner frame) can be used as a braking device. In this situation, using the All-Terrain Wheel Attachment is best. (Page 21) At the top of the incline, lay your load back onto the All-Terrain Wheels. Push the "Load Down" button until the footpads are just off the floor. As you move down the incline slowly, if the load starts moving faster than you would like, simply lift on the rear of the Lectro-Truck, and allow the footpads to slow the load.

## **General Troubleshooting**

#### Lectro-Truck will not operate in either direction.

#### If there is NO noise coming from the Lectro-Truck when the button is pushed...

- 1. Check to see that the Circuit Breakers are in "on" position. The "on" position is when the small arm of the Circuit Breaker is enclosed by the Circuit Breaker.
- 2. Check to make sure that your Battery is properly connected and charged.
- 3. Check for loose connections:
  - a. Battery connections
  - b. Motor connections
  - c. Switch connections
- 4. Check Electromagnetic Brake for proper air gap (.008 8 thousandths).
- 5. The Motor needs to be replaced.

#### If there is a SINGLE "click" that comes from the Motor Box...

- 1. Load test the battery.
- 2. Replace the battery.

#### If there are a SERIES of "clicks" that come from the Motor Box...or...

#### Lectro-Truck will operate in one direction, but not the other...

- 1. The Control Switch that operates the direction of travel you are attempting is malfunctioning.
- 2. Check all four Solenoids in the Motor Box for continuity. Place the ends of your continuity tester on the top two posts of each Solenoid. If there is continuity on a Solenoid or Solenoids, replace them.

#### Lectro-Truck does not get many lifts out of a Battery Charge...

- 1. The Battery needs to be replaced.
- 2. The Lectro-Truck needs to be lubricated
  - a. Lubricate the Drive Screw / Drive Nut
  - b. Lubricate the Rollers between the Inner and Outer Frames
- 3. The Inner or Outer Frames are bent. Check square with a straightedge.
- 4. The Drive Screw is out of Alignment. (Call our Service Department for instructions.)
- 5. The Drive Nut is missing bearings. Replace the Drive Nut.
  - a. Check to see that the recirculation tube on the rear of the drive nut is intact.
  - b. Check for a 'safety spring' interwoven into the Drive Screw threads just below the Drive Nut. If you see this safety spring your drive nut is in need of replacement.
- 6. Check the Thrust Bearings in the Bearing Housing for proper lubrication.
- 7. The Motor needs to be replaced, as it is drawing too much amperage.



Caution: **Do Not** attempt to climb any stairs with the Tri-pod or All Terrain Wheel attachments on the unit. Also, the Tri-pod is designed for use on flat, smooth surfaces **ONLY**.

#### Installing the Tripod on the 1260E and 1268E

- Unwrap the two spools that are in the bag wrapped around one of the tripod wheels. Install them in the holes on the Lectro Truck, approximately half way up the unit.
- Attach the tripod to the spools on the Lectro Truck using the silver latches with the hooks facing upward. The easiest way to attach the tripod is to hold both latches open while putting the hooks around the spools.
- Release the latches once the hooks are on the spools. This will lock the top of the tripod to the unit.
- To attach the tripod to the hook bar, open the two latches mounted at the base of the tripod, fold down the hook bar and hook it into the two hooks. Then close the latches around the bar to lock it in place.
- Your tripod is now mounted to the Lectro Truck and ready to use.



<u>Caution:</u> It is very important that when you put the tripod onto the Lectro-Truck that you make sure the opening of the hooks on the tripod are facing up. If the tripod is put on the Lectro Truck facing the wrong direction the load will collapse.

The tripod attachment is not available for the models LTA5512 and LTA4512. The All-Terrain Wheel Attachment is able to be used as a tripod feature for these models.

#### LTA6512 TRIPOD:

The tripod on the LTA6512 is built into the unit. To set the load back onto the tripod, run the wheels up 6 inches and break load back onto the 8" wheels. With the load resting back in a balanced position, press the tripod latch with your foot. The tripod will fold out, and lock into place.



In order for the tripod to fold out and lock properly, the unit must be tipped back.

Press the wheels up/load down switch and run the load closer to the ground before setting the load back on the tripod wheels. Use the instructions below to set the load back up. Once the load is upright, and sitting in a safe position press the tripod latch with your hand and fold it back into the unit. The tripod has a positive locking system and will automatically lock open or closed. In order for the tripod to fold all the way in for climbing steps, the wheels need to be turned and inserted between the motor box and the outer frame.

#### How to use the Tripod when there is a load on the Lectro Truck:

- Run your wheels up 6 inches and break your load back so it is resting at a slight balanced angle.
- Press the foot release lever on the tripod to snap it out into the open position.
- Continue to run your wheels up slowly and your tripod wheels will move closer to the floor or ground.
- When your wheels are within a few inches from the ground set the load back onto the tripod.

It is very important to use the proper method to set the load onto the tripod. It will keep you from damaging your tripod and tripod wheels.

#### **Setting the Unit Upright from the Tripod**

Lectro Truck assists you in setting the load upright, so you will not be doing any unnecessary lifting.

- Run the toe plate all the way down until it is resting on the floor or ground.
- Stand behind the unit and place your left hand on the guard above the switches and place your right hand on the wheels down/load up switch.
- Position yourself so you can apply upward pressure on the guard above the switches with your left hand.
- Press the wheels down/load up switch with your right hand.

The Lectro Truck will start to set the load upright. The Lectro Truck will continue to set the load upright as long as you continue keeping upward pressure on the guard above the switches and pressing the wheels down/load up switch. The amount of upward pressure needed on the guard is just enough to keep the toe plate on the floor or ground.

Tripods, because of their hard swivel wheels, work best over smooth, hard surfaces. If you are going over grass, gravel, sand, broken pavement, uneven concrete or any other soft surface, you should use the All Terrain Wheel Attachment.

#### **All-Terrain Wheel Attachment**

The All Terrain Wheel Attachment, works much like the tripod, except it has large pneumatic wheels to make it easier for the operator to go over terrain such as sand, gravel, grass, broken pavement, uneven concrete, or any other rough surfaces. The All Terrain Wheel Attachment also allows you to lay the load back horizontally to go through doorways with a tall load.

#### **Mounting of the All Terrain Wheel Attachment**

- Locate the spools attached to the sides of the All Terrain Wheels.
- Remove the spools from the All Terrain Wheel sides and attach them to the sides of the Lectro
  Truck in the holes located approximately 18 inches up from the floor. (The holes to mount the All
  Terrain Wheels to the LTA6512 are located on the Hook Bar.)
- Hook the long arms of the All Terrain Wheels around the wheel axle.
- Hold the latches open with your thumbs and slide the All Terrain Wheel sides onto the spools and release the latches so that they lock around the spools.



When attaching the All Terrain Wheel Attachment, it helps to hold both latches open at the same time.

#### Lowering a load onto the All Terrain Wheels

- Run your 8 inch wheels up about 6 inches and break your load back so it is at a slight balanced angle.
- Continue to run your wheels up slowly so that your All Terrain Wheels will move closer to the floor or ground.
- When your wheels are within a few inches from the floor or ground set the load back onto the All Terrain Wheels.



Practice using the All Terrain Wheels with a 300 lb. to 500 lb. load, following the three steps above.



**CAUTION:** Be sure the hook bar on the LTA6512 is locked in place when using All Terrain Wheels.

**Original Caster Attachment -** The original caster attachment allows the operator to swivel loads in tight spots and to make turns on small landings in the vertical position.

To mount the Caster Attachment, place the flat head rivet found on the top side of the Caster Attachment in the hole in the Toe Plate. Slide the rivet head into the slot on the Toe Plate to secure it. Place the hook on the short piece of strapping in the slot on the front of the Caster Attachment and the hook on the long piece of strapping to the top of the inner frame. Then fasten the two straps together and pull until tight. This will hold the caster attachment to the bottom of the load.



**CAUTION:** Be sure that the strap is hooked to the Inner Frame, not the Outer Frame.

**New Style Caster Attachment -** The new style caster attachment is slightly different than the original in that it only involves one set of caster wheels (below, left). The user installs the caster attachment to the front of the load. When the load is placed in an upright position, the load is supported by two caster wheels and the 8"x 2" wheels of the Lectro-Truck (below, right).





#### Lectro-Stack

The Lectro-Stack stacker attachment allows the user to be able to vertically lift objects that weigh up to 750 pounds - up to almost 5 feet. The Lectro-Stack can be used as a stand-alone piece, as it has it's own battery and powered winch; or it can be used as an accessory to the Lectro-Truck.

#### Attaching the Lectro-Stack to the Lectro-Truck

- 1. Position the Lectro-Stack so the wheels are centered on the toe plate of the Lectro-Truck.
- 2. Locate the proper "eyelets" to use on the rear of the Lectro-Stack to feed your straps through. (See chart below.)

<u>Model</u>	<b>Eyelets to Use</b>
LTA6512	A & D
LTA5512	A & D
LTA4512	C & D
1268E	B & D
1260E	B & D

3. Position your strap bars according to the height of the eyelets, feed your strap through both eyelets, and tighten into place.



The strapping that you have on your Lectro-Truck will work to attach the Lectro-Stack. However, the straps that work the best are ratchet straps that can be ordered for your Lectro-Truck.

4. Position your load to be moved onto the forks of the Lectro-Stack. You are now able to position your load as high as you need to make moving low, heavy objects easy to move. The operation of the Lectro-Truck is the same as described on Page 14.



Balance Box Page 23

The Balance Box is used whenever you have a low heavy load where it's center of gravity is so low you have extreme difficulty breaking the load back on the steps; or the load is so low and heavy that it overcomes the operator and wants to roll back down the steps. This happens because the load is so low and heavy that the operator can't break it back far enough to get the inner frame off the steps.

The balance box will aid in raising the center of gravity up to a better balance point for the operator. This enables the operator to break back the load on the steps and be able to handle the weight. The balance box makes it a lot easier for one person to handle low center of gravity loads such as small, heavy safes, boilers, 55 gallon drums, motors, compressors, etc.

To use the balance box you will need to determine on which side you need to place it to get the proper balance. Each side has a different height: 21", 16" and 14". The lower the height of the item, the higher the side of the balance box to be used.

- 1. Place your two strap bars on the Lectro-Truck.
- 2. The Slide Plate (the flat, steel plate) has holes punched in it at the top and the bottom. Using carriage bolts, bolt the bottom of the plate through the toe plate, and bolt the top of the slide plate through the 'blank' strap bar (without strapping or cam included with the kit).
- 3. Mount the load you are moving to the Lectro-Truck using your bottom strap bar.
- 4. Run your Lectro-Truck to it's balance point.
- 5. Pull the load back so that the Lectro-Truck is on it's wheels only (the toe plate is off the ground.)
- 6. Little by little, push the wheels up/ load down button. As you run the load down, the machine will lay back at more of an angle. Continue this step until you have your load laying on the floor.
- 7. When the Lectro-Truck is on the floor, push the load up/ wheels down button. This will bring the load fully onto the Lectro-Truck.
- 8. Remove the straps from your load, and slide the load toward the top of the Lectro-Truck, on the slide plate.
- 9. Set the Balance Box between the bottom of the load and the top of the toe plate.
- 10. Slide the load down so that it is tight to the Balance Box, and strap it in place using the top strap bar.
- 11. Push the load down/ wheels up button until the load moves past the wheels, and the Lectro-Truck wants to stand itself back upright.
- 12. While lifting at the top of the Lectro-Truck, push the load up/ wheels down button. As the load moves up, the Lectro-Truck will stand up.
- 13. Bring the Lectro-Truck back to a balance point, and you are ready to move your load.



Caution: **NEVER** stand your Lectro-Truck completely upright while the Balance Box is being used. Doing so may cause the unit to tip over forward, and cause damage to the product, as well as the Lectro-Truck; and possibly injure the user.

Once load is back at a balance point, then it has a better center of gravity and much easier for the operator to go up or down stairs. Also, this method prevents the wheels from rolling down the steps as you may normally find with a low, heavy load.

To get the your load back down to the toe plate for removal, reverse the procedure above. Run the wheels all the way up again, laying the Lectro-Truck down flat as you go. Once the Lectro-Truck is laid on it's back, run the load all the way back up. Remove the strap from the load, remove the balance box, and slide the load back down to the toe plate. Strap the load back in place with the bottom strap bar. Push your load down switch, so that the inner frame extends out (you will feel the balance point), and now, by exerting a little upward pressure on hand guard with your hand, you are able to set the load back upright.

Hook Box Page 24

The Hook Box is an accessory designed to be mounted into the bed of a truck (or the floor of a trailer), so the user can operate the Lectro-Truck as a powered lift-gate. The Hook Box works the best in standard trucks, as some trucks with lift kits or off-road packages are too high for the Lectro-Truck to reach. See the following chart to find out if a Hook Box can work for you.

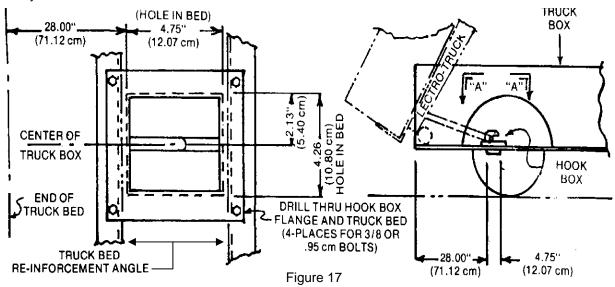
Model	Lectro-Truck	Maximum Truck
Number	Lift Height	Bed Height
LTA6512	41"	39"
LTA5512	41"	39"
1268E	39"	37"
1260E	39"	37"

NOTE

The LTA4512 does not have a leverage/ hook bar, and thus, cannot be used with the Hook Box. However, the LTA4512 does work well with loading product onto low trailers.

#### Installation of the Hook Box

- 1. Position your hook box in the approximate center of your truck from side to side.
- 2. Position your hook box front to rear by dropping your hook bar with hook box connected and aligning your hand truck so that the front edge of your wheels are flush with the back edge of your truck bedas shown in Figure 17. For reference, the edge of the hole is 28" (71.12 cm) from the back edge of your truck or trailer.



3. Cut a hole in the bed of your truck or trailer. The hole must be large enough to accommodate the recessed part of hook box  $(4\frac{1}{4}$ " x  $4\frac{3}{4}$ " or 10.80 cm x 12.07 cm). Drill four 3/8" (.95 cm) holes where desired in lip of the Hook Box, through the truck bed and secure with four 3/8" bolts. **Do not weld. The box must be bolted in place.** 



If you position your hook too far back from the edge of your truck bed, the Inner Frame will drag against the tailgate when loading or unloading. When properly installed, Hook Box and Lectro Truck should look as shown in Figure 17 (right) above.



CAUTION: **DO NOT** use the pick-up's tailgate for any load exceeding 500 pounds (227 kg). If the tailgate is to be used, the dimensions shown above would be measured from end of tailgate in it's lowered position.

Toe Plate Adapters come in two standard sizes (12" x 24" and 12" x 30".) However, they can be fabricated to any size to best fit your needs.

To mount your Toe Plate Adapter, center it on the Toe Plate and then drill two holes through the Toe Plate using the Toe Plate Adapter as a guide. (Drill holes at 3/8")

## **Wheel Brake Attachment**

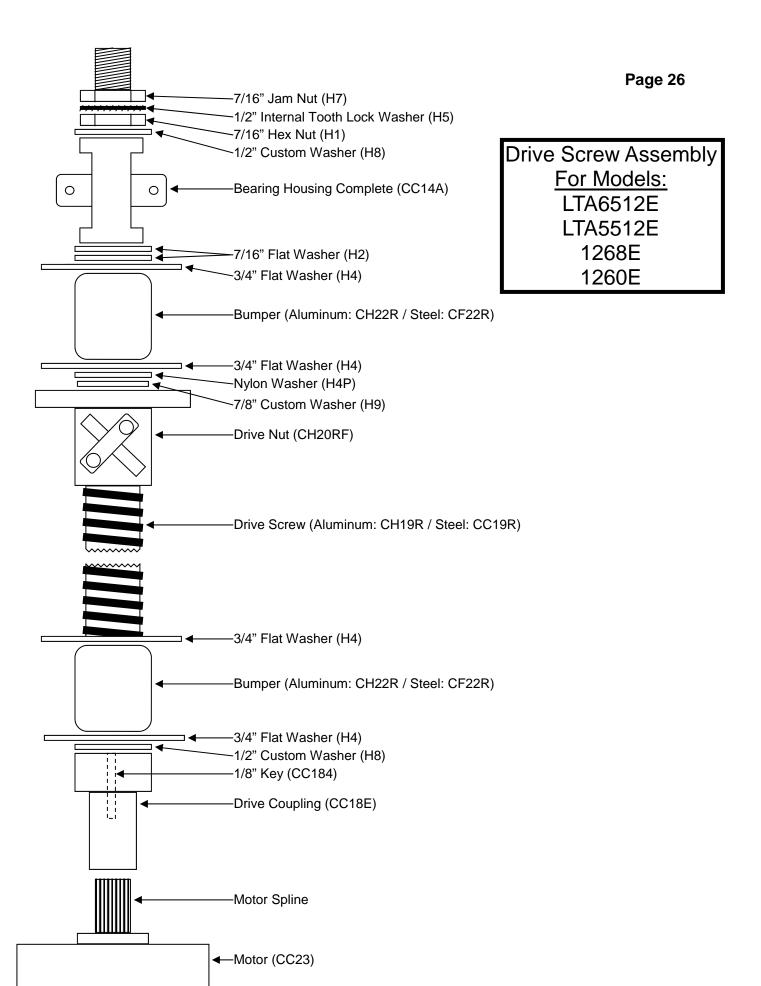
The wheel brake attachment enables the Lectro-Truck user to be able to climb and descend steps that may be pitched or chipped. The wheel brakes provide the ability to stop the wheel from rolling using a friction brake. When the brake is engaged you don't have to worry about the wheel rolling forward while you are operating the Lectro-Truck. The wheel brake mounts around the wheel like a fender.



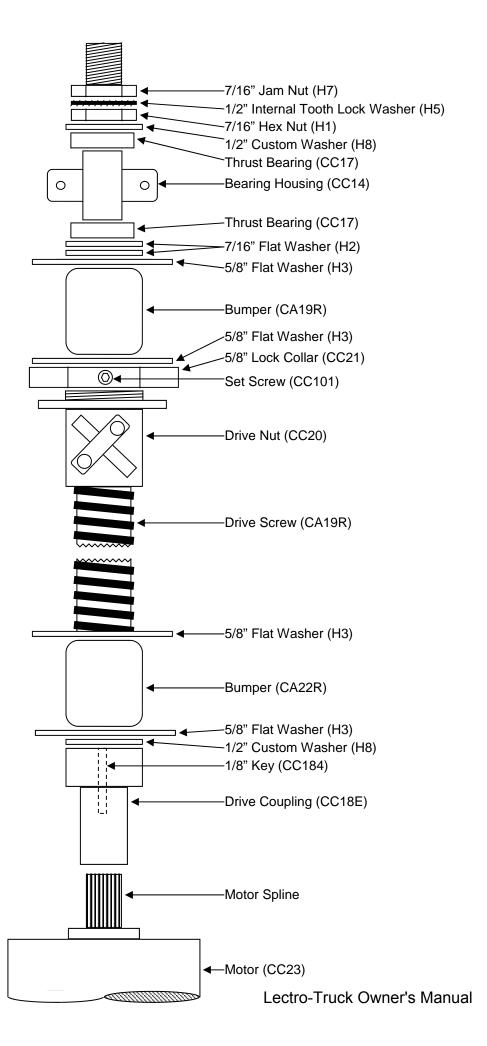


The above left photo shows how the wheel brakes look mounted on the Lectro-Truck. The photo above right shows the left brake engaged, while the right brake is disengaged.

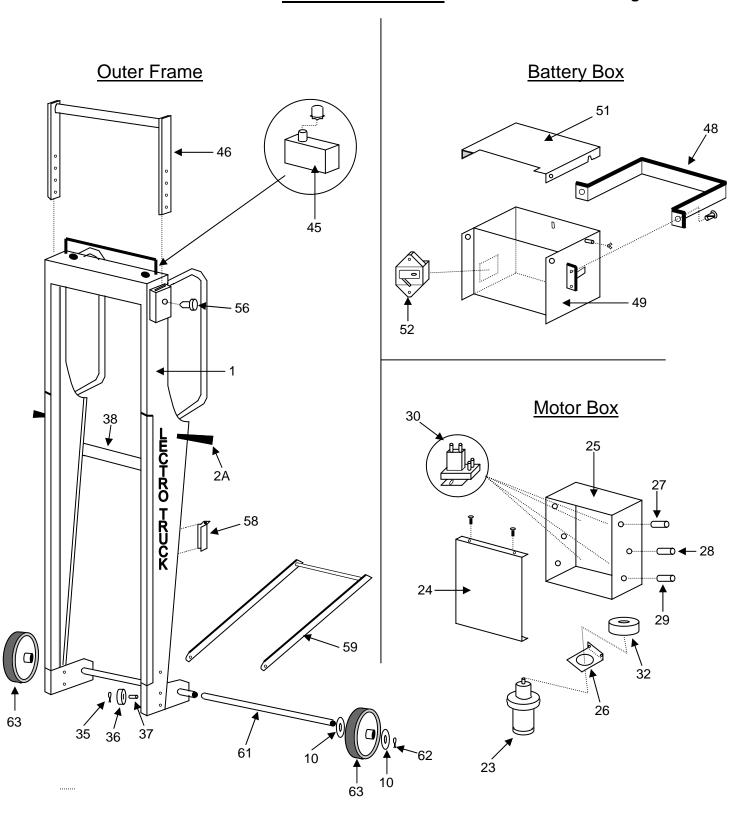
These wheel brakes are able to be retrofitted to units that are already in service. Call the manufacturer (1-800-619-0625) for details.

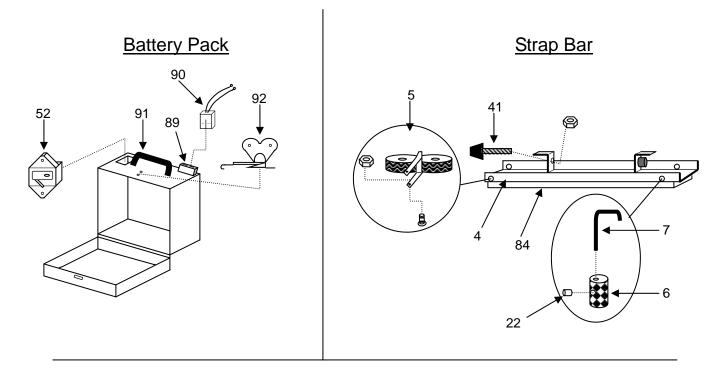


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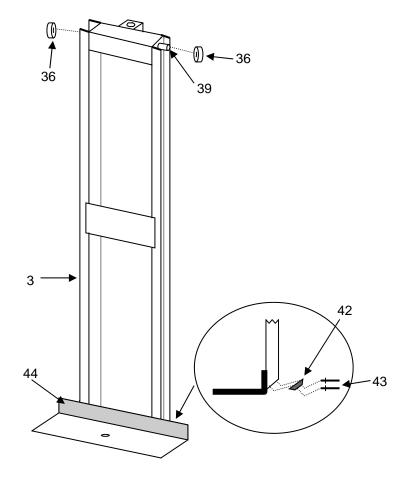


Drive Screw Assembly
For Model:
LTA4512E





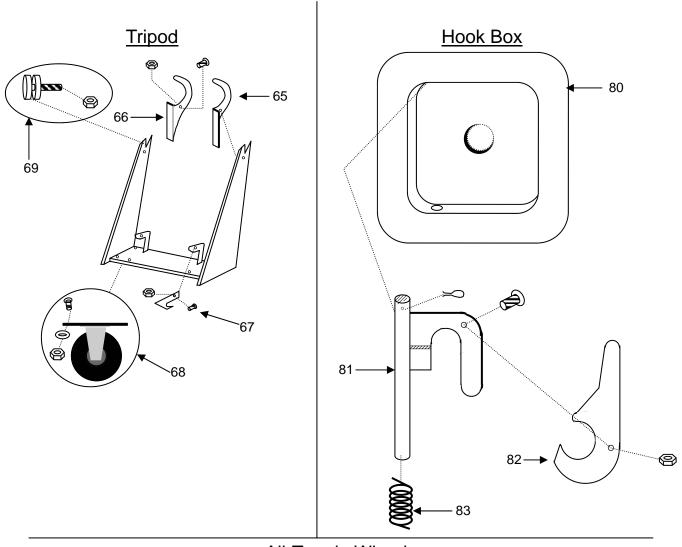
## Inner Frame



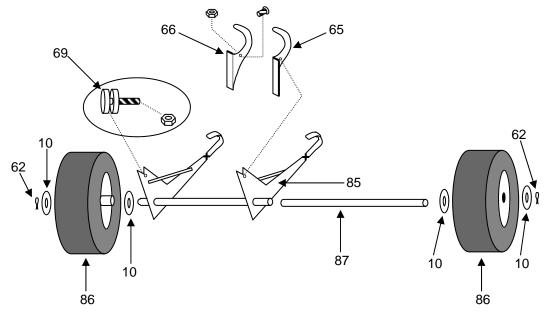
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# Parts Breakdown (continued)

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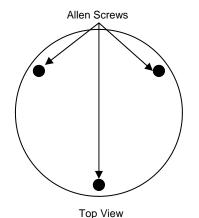
## All-Terrain Wheels

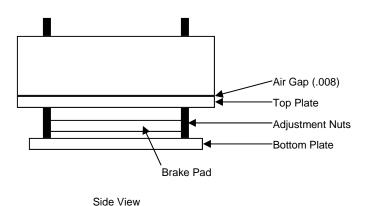


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## **General Service**

#### Adjustment of the Electromagnetic Brake





#### **Tools Needed:**

- 3 mm Allen Wrench
- 8 mm Open End Wrench
- Feeler Gauge (.008)
- 1. Use the feeler gauge to check the air gap of the brake. The gap should be at .008 (eight thousandths). If it is not, continue on:
- 2. Loosen the 3 3 mm Allen Screws on the top of the
- 3. Turn the adjustment nuts to increase or decrease the air gap.

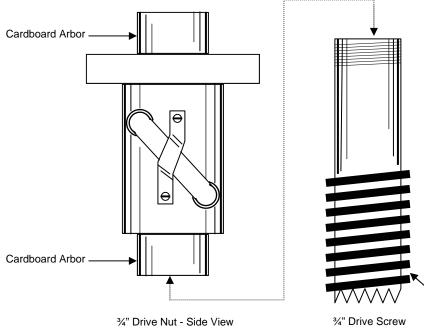
Clockwise: Increases Air Gap

Counterclockwise: Decreases Air Gap

- 4. Tighten the 3 3 mm Allen Screws on the top of the brake.
- 5. Check the air gap again for .008 (eight thousandths).
- 6. Repeat steps 2-5 until air gap is correct.

Note: Check for proper air gap by all three adjustment nuts to ensure the brake is gapped properly.

#### **Transfer of Drive Nut to Drive Screw**



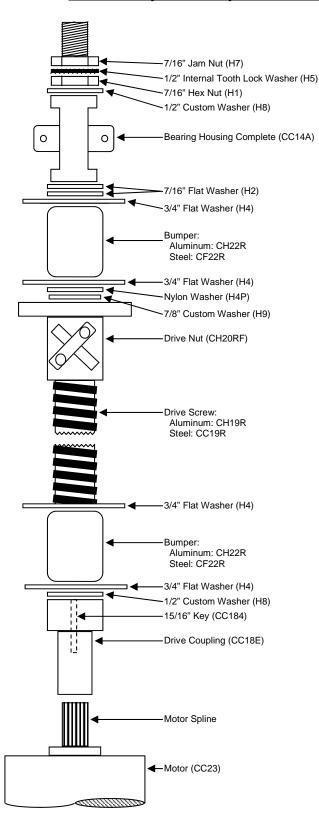
- 1. Hold arbor in place inside drive nut. Do not allow arbor to slide out
- 2. Butt the end of the hollow arbor against the threaded end (top) of the drive screw.
- 3. Allow the drive nut to slide down to top of the threads (ball grooves).
- Rotate the drive nut counter to actual rotation until you feel bearings of drive nut fall into the ball grooves.
- Rotate the drive nut with the rotation of the threads until the drive nut is threaded onto the drive screw.
- Remove cardboard arbor.

Note: If any of the bearings become dislodged from the inside of the drive nut, contact the manufacturer immediately.

**Ball Grooves** 

## **General Service (continued)**

#### **Disassembly/ Assembly of Drive Screw**

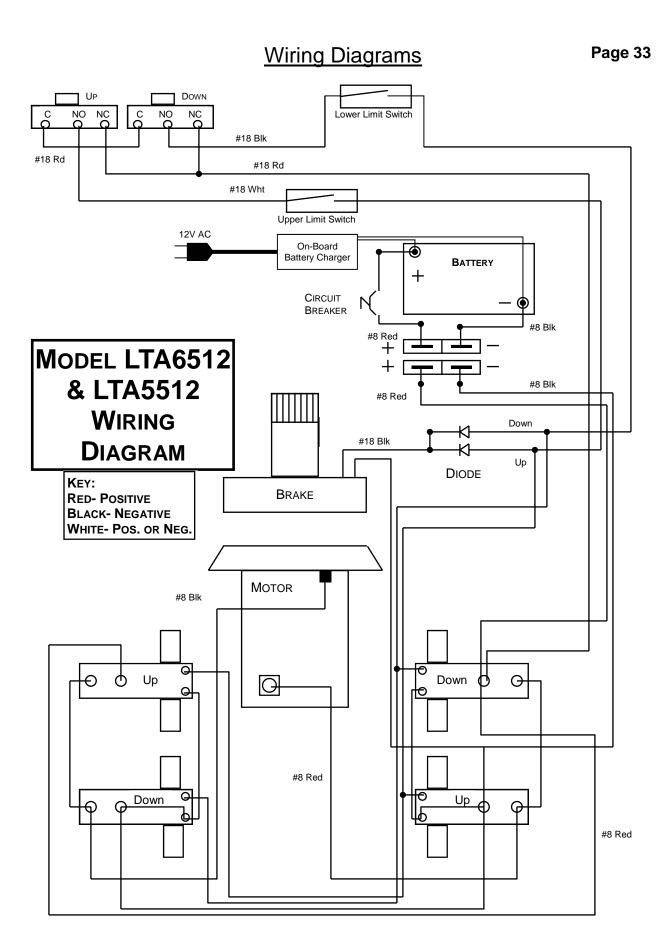


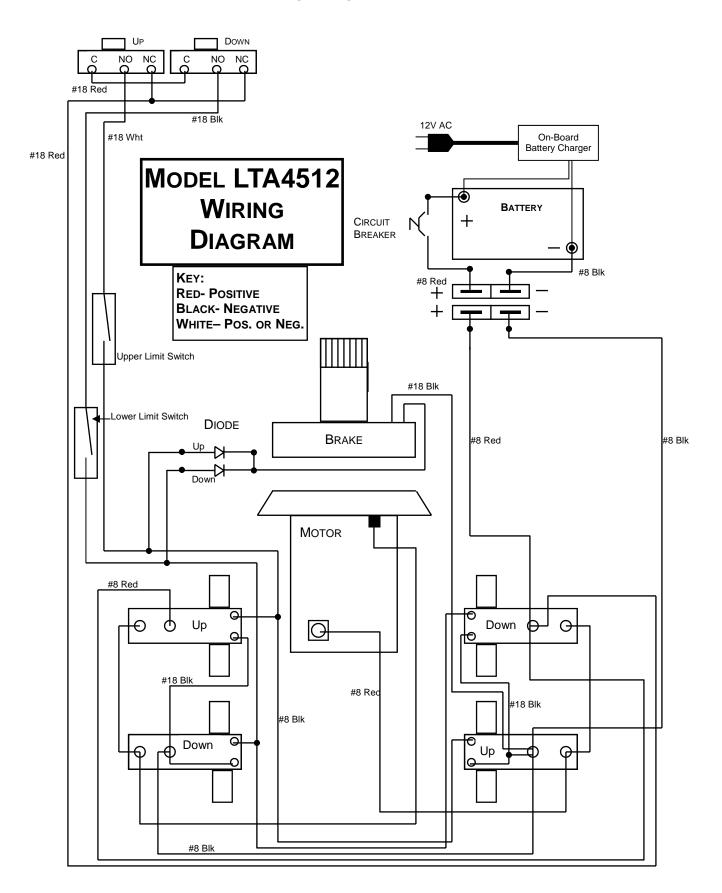
#### Disassembly:

- 1. Lay Lectro-Truck flat, battery box/pack side up.
- 2. Raise hook bar (if applicable) to 'up' position and secure.
- Remove Motor Box cover.
- Remove the bolts from the Drive Nut block and spin the Drive Nut assembly down the Drive Screw to approximately 20" from Motor Box.
- 5. Remove bolts from the Bearing Housing.
- 6. Slide the Inner Frame down towards the Motor Box.
- 7. Remove plastic cap from the top of the Outer Frame.
- 8. Slide the Drive Screw up, so that the Coupling comes free of the motor.
- 9. Remove: 7/16" Jam Nut; 1/2" Internal Tooth Lock Washer; 7/16" Hex Nut; 1/2" Custom Washer; and Bearing Housing assembly.
- 10. Remove top Bumper and Washers.
- 11. Pull the Drive Screw out and remove the Coupling, Key, Bumper, and Washers from the bottom.

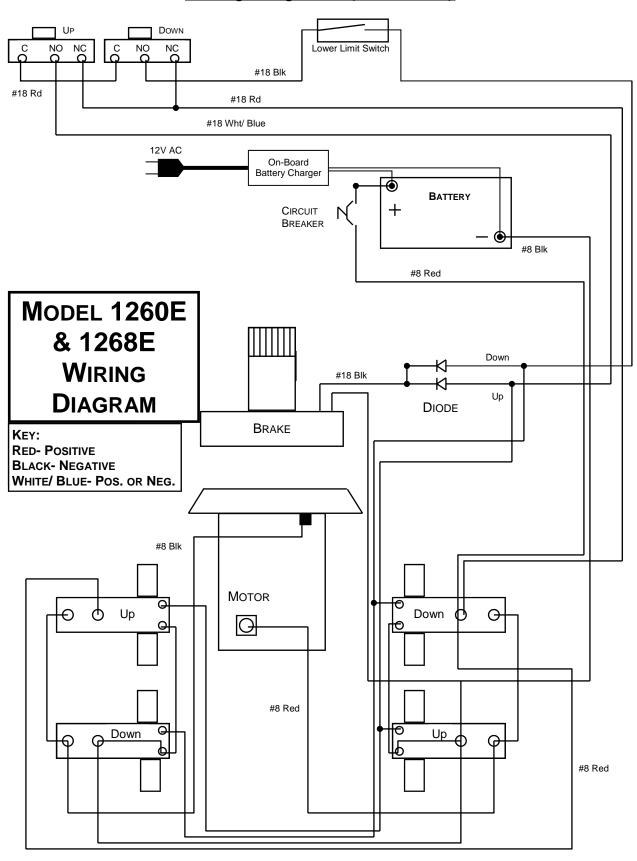
#### Assembly:

- 1. Slide Inner Frame until it is extended half way out.
- 2. Spin the Drive Nut Assembly to the middle of the Drive Screw.
- 3. Insert the top of the Drive Screw through the hole in the top of the Inner Frame.
- 4. Insert bolts through the top of the Inner Frame and through the Drive Nut block. Thread nuts onto the bolts loosely.
- Put applicable Washers and Bumpers on each end of the Drive Screw. (Bottom: 1 - 3/4" Flat Washer and Bumper. Top: 1 - 7/8" Custom Washer, 1 - Nylon Washer, 1 - 3/4" Flat Washer, and Bumper.)
- On the bottom of the Drive Screw, below the Bumper, slide a 3/4" Flat Washer and a 1/2" Custom Washer onto the Drive Screw. Slide Key into Keyway and attach the Drive Coupling.
- 7. At the top of the Drive Screw, reassemble as follows:
  - a. 3/4" Flat Washer
  - b. 2 7/16" Flat Washers
  - c. Bearing Housing Complete
  - d. 1/2" Custom Washer
  - e. 7/16" Hex Nut
  - f. 1/2" Internal Tooth Lock Washer
  - g. 7/16" Jam Nut
- 8. Connect the Drive coupling to the Motor Spline.
- 9. Insert the bolts into the Bearing Housing assembly and tighten.
- 10. Tighten the bolts through the Drive Nut block.
- 11. Replace Motor Box Cover.
- 12. Lower the Hook Bar and lock into place.
- 13. Apply Loctite® to 7/16" Jam Nut (if possible).





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Manual #	Part #	<u>Description</u>
1 1 1 1	CE1 CC1 CH1 CD1 CA1 CH1SHRD CA1SHRD	Outer Frame 1268 & 1268E Outer Frame 1260 & 1260E Outer Frame LTA6512E Outer Frame LTA5512E Outer Frame LTA4512E Outer Frame LTA6512E Shroud LTA4512E Shroud
36 36	CC4 CH4	Rollers (Steel Models) 1.250 Rollers (LTA6512E & LTA5512E) 1.500
36	CA4	Rollers (LTA4512) 1.375
37	CC5	Roller Axle (Steel Models)
37	CH5	Roller Axle (LTA6512E & LTA5512E)
37	CA5	Roller Axle (LTA4512E)
35 61	CC78 CC2	Hitch Pin (#11) Wheel Axle (Steel Models)
61	CH2	Wheel Axle (Cited Models) Wheel Axle (LTA6512E & LTA5512E)
61	CA2	Wheel Axle (LTA4512E)
63	CE26	Heavy Duty Wheel (8"x 2")
10	H4	Flat Washer (3/4")
62 56	H6 CC55	Cotter Pin (5/32"x 1") Retractable Plunger Latch (Aluminum Models)
46	CH25	Extension Handle (LTA6512E)
46	CA25	Extension Handle (LTA4512E)
38	CD15B	Outer Frame Spacer Bar (LTA5512E)
2A	SH796	Side Handle (w/ Hardware) - Single
2	CE87	Side Handle Grip
	CC1-4 CH1-4	Axle Pipe (Steel) Axle Pipe (LTA6512E & LTA5512E)
	CA1-4	Axle Pipe (LTA4512E)
		Inner Frame
3	CE28	1268 & 1268E Inner Frame 1260 & 1268E Inner Frame
3 3	CC28 CH28	LTA6512E Inner Frame
3	CD28	LTA5512E Inner Frame
3	CA28	LTA4512E Inner Frame
42	CG28B	Protective Footpad
43	CG28BR	Rivet for Footpad
20	CH282	Drive Bracket Complete (Aluminum Units)
39 44	CH5-1 CH74	Main Roller Axle (Aluminum Units) Toe Plate Felt (30")
44	CD74	Toe Plate Felt (30 ) Toe Plate Felt (24")
• •	TPA24	Toe Plate Adapter (24"x 12")
	TPA30	Toe Plate Adapter (30"x 12")

Manual #	Part #	<u>Description</u>
0	114	Drive Screw Assembly
8	H1	Hex Nut (7/16")
9 10	H2	Flat Washer (7/16")
10	H3 H4	Flat Washer (5/8" - Old Drive Screw) Flat Washer (3/4" - New Drive Screw)
11	H40	Plastic Flat Washer (3/4"x 1 1/2")
12	H4P	Plastic Flat Washer (3/4"x 1 1/2")
13	H5	Internal Tooth Lock Washer (1/2")
10	H7	Jam Nut (7/16")
	H8	Custom Washer (1/2")
	H9	Custom Washer (7/8")
14	CC17	Thrust Bearing
15	CC14	Bearing Housing (LTA4512E/ Old Style)
	CC14A	Bearing Housing Complete
	CC14BS	Brass Sleeve (1/2"x 1 1/2")
	CC19RSS	Steel Sleeve
16	CF22R	Bumper (3/4" - Steel Models)
16	CH22R	Bumper (3/4" - LTA6512E & LTA5512E)
16	CA22R	Bumper (LTA4512E & Old Steel Models)
17	CF21R	Lock Collar (3/4")
17	CC21	Lock Collar (5/8")
18	CH20RF	Drive Nut (3/4" Bolt-On Flange)
18	CF20R	Drive Nut (3/4" Welded Flange - Steel)
18	CH20R	Drive Nut (3/4" Welded Flange - Aluminum)
18	CC20	Drive Nut (5/8")
18	CA20RF	Drive Nut (5/8" Bolt-On Flange)
	CH20F	Drive Nut Flange
	R35-5	Drive Nut Tube
	R35-6 B-1240	Drive Nut Strap Drive Nut Bearings
19	CC19R	Drive Screw - 3/4" (1260, 1260E, 1268, 1268E)
19	CH19R	Drive Screw - 3/4" (1200, 1200E, 1200E, 1200E)  Drive Screw - 3/4" (LTA6512E & LTA5512E)
19	CA19R	Drive Screw - 5/8" (LTA4512E)
20	CC18	Drive Coupling (Manual Brake)
20	CC18E	Drive Coupling (Electromagnetic Brake)
20	CH54A	Drive Coupling (Splined Coupling - Electromagnetic Brake)
88	CH54B	Snap Ring (Splined Coupling - Electromagnetic Brake)
21	CC183	Key Stock (Manual Brake)
21	CC184	Key Stock (Electromagnetic Brake)
		Brake Assembly
32A	CH54	Elecromagnetic Brake (All models except LTA4512E)
	CH54R	Electromagnetic Brake Pad
32A	CA54	Elecromagnetic Brake (LTA4512E)
	CE54	Manual Brake Assembly
32	CE44	Manual Brake Band & Lining
33	CE45	Manual Brake Hand Wheel

Manual #	Part #	<u>Description</u>
	CC23 CA23 CC23A CH23A CA23A	Motor Box Assembly Drive Motor (1 1/2 Hp) Drive Motor (3/4 Hp) Drive Motor Kit - Steel Models (1 1/2 Hp) Drive Motor Kit - LTA6512E & LTA5512E (1 1/2 Hp) Drive Motor Kit - LTA4512E (3/4 Hp)
24	CC8A	Motor Box Cover (Steel Models - Manual Brake)
24 24	CC8B CH8A	Motor Box Cover (Steel Models - Electromagnetic Brake) Motor Box Cover (LTA6512E & LTA5512E)
24	CA8A	Motor Box Cover (LTA4512E)
25	CC7A	Motor Box (Steel Models - Manual Brake)
25	CC7B	Motor Box (Steel Models - Electromagnetic Brake)
25	CH7A	Motor Box (LTA6512E & LTA5512E)
25	CA7A	Motor Box (LTA4512E)
26	CC80	Motor Adapter Plate (All models except LTA4512E)
27	CC9	Top Motor Spacer (Steel Models)
27	CH9	Top Motor Spacer (LTA6512E & LTA5512E)
27	CA9	Top Motor Spacer (LTA4512E)
28	CC11	Middle Motor Spacer (Steel Models)
28 28	CH11 CA11	Middle Motor Spacer (LTA6512E & LTA5512E) Middle Motor Spacer (LTA4512E)
29	CC10	Lower Motor Spacer (Steel Models)
29	CH10	Lower Motor Spacer (LTA6512E & LTA5512E)
29	CA10	Lower Motor Spacer (LTA4512E)
30	CC24	Solenoids (Clip In)
30	CC24A	Solenoids (Bolt In)
	CC24K	Solenoid Kit
	CC12	Grommet (1")
53	CC29	Male Charge Receptacle w/ Flange (Motor Box)
	31091	Motor Box Cover Screws
	IN5406	Diode Set
		Battery Pack
	CH27P	Battery Pack Complete (LTA6512E)
	CH27PLB	Battery Pack Complete Less Battery (LTA6512E)
	CD27R	Battery Pack Complete (LTA5512E)
	CD27RLB	Battery Pack Complete Less Battery (LTA5512E)
	CA27R	Battery Pack Complete (LTA4512E)
	CA27RLB	Battery Pack Complete Less Battery (LTA4512E)
89	CD29	Snap-In Power Plug
00	CD29H	Snap-In Power Plug Handle Snap-In Power Plug w/ Lead Wires
90 92	CD29W CD27	Cover Locking Latch
0 <u>L</u>	CD27K	Straight Keeper
	CD27RK	Right Angle Keeper
91	CD27HL	Battery Pack Handle
	CD27RF	Battery Pack Conversion Kit (Includes Battery)
	CD27RFC	Battery Pack Conversion Kit Cover & Hardware

Manual #	Part #	Description
34 48 48 49 49 50	LT12 LA1812 CE27R CH27R CC30F CE27 CH27 CE271 CH271 CE277R CH277R	Battery Box Battery (All models except LTA4512E) Battery (LTA4512E) Battery Box Complete (Steel Models) Battery Box Complete (LTA6512E) Female Charge Plug w/ Flange (Battery Box) Protective Wrap Around (Steel Models) Protective Wrap Around (LTA6512E) Battery Box (Steel Models) Battery Box (LTA6512E) Battery Hold Down Clips (Steel Models) Battery Hold Down Clips (LTA6512E)
51 51	CE278R CH278R CE279R	Battery Box Cover (Steel Models) Battery Box Cover (LTA6512E) Grommets (5/16")
52 52 52	CE27CB150 CA27CB120 CE27CB CE27AR CE27RS	Circuit Breaker - 150A (Steel Models & LTA6512E) Circuit Breaker - 120A (LTA5512E & LTA4512E) Circuit Breakers - 50A Aluminum Rivets (Battery Box Cover) Speed Nuts (Battery Box Cover)
54 54 55	CE27MS CH27MS CE27PL	Master Switch w/ Key (Steel Models & LTA5512E) Master Switch w/ Key (LTA6512E) Plastic Master Switch Key
34 34	CH6 CH6OB CC29P CC30 CH6A	Battery Charger Battery Charger (6 Amp) Battery Charger (On-Board 3 Amp) Charge Plug - Male (Charger) Charge Plug - Female (Charger) Power Converter (110V to 220V)
	D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14 D15 LS2000-20 LS2000-21 LS2000-22	Decals Lectro-Truck Side Decal IMS Side Decal Stair Climbing Front Decal Load Up/ Load Down (Steel Models) Load Up/ Load Down (Aluminum Models) 1200# Capacity 600# Capacity Lubricant Decal 12V Connection Only Decal Battery Box Cover Decal Tripod Decal (LTA6512E) Charge Plug/ Control Circuit Decal (CE Models) 680 Kg Capacity (CE Models) Danger Decal (CE Models) Do Not Use When Raining Decal (CE Models) Not for Human Transportation Decal Pinch Point Decal 750# Capacity

Manual #	Part #	Description
45 45	CC25 CC25A CC25AC CC25LS CC25LSBU CC25LSBL LSBU LSBU	Switches Control Switch (Old Style) Control Switch (New Style) Control Switch Cap Limit Switch Limit Switch & Upper Bracket Limit Switch & Lower Bracket Limit Switch Bracket (Upper) Limit Switch Bracket (Lower)
	CE102 CC102 CH102 CD102 CA102 CC104 CH104 BTWRS BTWBS BTWBL FG1 FG2 FG3 FGAH	Wires/ Harness  Main Wire Harness (1268E)  Main Wire Harness (1260E)  Main Wire Harness (LTA6512E)  Main Wire Harness (LTA5512E)  Main Wire Harness (LTA4512E)  Motor Box Wire Harness (Steel Models)  Motor Box Wire Harness (Aluminum Models)  Battery Terminal Wire (Short Red)  Battery Terminal Wire (Short Black)  Battery Terminal Wire (Long Red)  Battery Terminal Wire (Long Black)  Flex Guard Conduit - Bottom (All models except LTA4512E)  Flex Guard Conduit - Top (Steel Models) 3/8"x 12"  Flex Guard Conduit - Top (LTA6512E & LTA5512E) 3/8"x 13"  Flex Guard Adhesive Holders
84 6 7 22 5 5 41	CC32 CH32 CA32 CC32A CC32LS CC33 CC34 CC101 CC35 CC35A CCRH CC32S CA35 CA35 CA36	Strap Bars Strap Bar Complete (Steel Models) Strap Bar Complete (LTA6512E & LTA5512E) Ratchet Strap Bar Complete (LTA4512E) Strap Bar Felt Strap Bar Only (w/ Felt) Cam Cam Lever Set Screw Strap & Toggle (12') Strap & Toggle (19') Strap Bar Bumper Strap Bar Spring & Set Screw Ratchet Strap/ Hook Ratchet Mechanism

Manual #	Part #	Description
	CC90 CH90 CC90D CH90D CC90SP CH90SP CC90BF CC90SF	Concave Strap Bar Concave - 12" Diameter (Steel Models) Concave - 12" Diameter (Aluminum Models) Concave - 2-12" Diameter (Steel Models) Concave - 2-12" Diameter (Aluminum Models) Commercial Concave - 36" Diameter (Steel Models) Commercial Concave - 36" Diameter (Aluminum Models) Concave Felt (36" Diameter) Concave Felt (12" Diameter) **Cam, Lever, Straps, etc. are found in the Strap Bar Section**
85 85 87 87 87 86 66 65 69	ATW15S ATW15F ATW15L ATW15S1 ATW15F1 ATW15L1 ATW15S2 ATW15F2 ATW15L2 ATW15 ATWLL ATWRL ATWRL ATWSS ATWAS CP1	All-Terrain Wheels (ATW)  All-Terrain Wheel Attachment (Steel Models & LTA4512E)  All-Terrain Wheel Attachment (Aluminum Models w/ Hook Bar)  All-Terrain Wheel Attachment (Aluminum Models w/o Hook Bar)  ATW Frame (Steel Models & LTA4512E)  ATW Frame (Aluminum Models w/ Hook Bar)  ATW Frame (Aluminum Models w/o Hook Bar)  ATW Axle (Steel Models & LTA4512E)  ATW Axle (Aluminum Models w/ Hook Bar)  ATW Axle (Aluminum Models w/ Hook Bar)  ATW Wheel  ATW Latch (Left)  ATW Latch (Right)  ATW Spool (Steel)  ATW Spool (Aluminum)  Cotter Pin (5/32")
69 67 66 65 68 68	CE80HD CE80HDFO CE81 CE83HD CE84HDL CE84HDR CE85HD CE85  CH80F CH80FF CH80TS CH80LM CH80LL CH80FW CH80FP	Heavy Duty Tripod (Steel Models) Heavy Duty Tripod Complete Heavy Duty Tripod - Frame Only Spool for Tripod Latch Lower Tripod Latch Upper Tripod Latch (Left) Upper Tripod Latch (Right) Tripod Caster Wheels (Heavy Duty) Tripod Caster Wheels (Standard)  Built-In Tripod (LTA6512E) Tripod Complete Tripod Frame Only Tripod Slide Tripod Latching Mechanism Tripod Latch Only Tripod Stem Casters Tripod Foot Pedal

Manual #	Part #	Description
75 75 76 76 77 77 78 78	CC91 CC91N CC91HD CC91A CC91AN CC91AHD CC91B CC91BHD CC91C CC91C CC91CHD CC91D CC91D CC91D CC91D CC91DN CC91E	Caster Attachment Caster Attachment (Standard) Caster Attachment (New Style) Caster Attachment (Heavy Duty) Caster Base (Standard) Caster Base (New Style) Caster Base (Heavy Duty) Caster Slide (Standard) Caster Slide (Standard) Caster Slide (Heavy Duty) Caster Wheel (Standard) Caster Wheel (Standard) Caster Wheel (Heavy Duty) Caster Strap Assembly (Steel) Caster Strap Assembly (Aluminum) Caster Strap Assembly (New Style) Set Screw (3/8")
59 59 58 56	CC12A CH12A CE55 CE55A CC55	Hook Bar (not available on LTA4512E) Hook Bar (Steel Models) Hook Bar (LTA6512E & LTA5512E) Hook Bar Latch (Steel Models) Hook Bar Latch Bumper (Steel Models) Retractable Plunger Latch (Aluminum Models)
80 81 82 83	CC50A CC50 CC51 CC52 CC53 CC50BP	Hook Box Hook Box Complete Hook Box Only Main Hook (w/ Hardware) Safety Hook Main Hook Spring Hook Box Backing Plate **CC51 & CC52 must be purchased as a set**
	BB21 BB21B BB21P	Balance Box Kit Balance Box & Slide Plate Balance Box Slide Plate
	LA21CC LA21CH LA21-1 LA21-2 LA21-3 LA21-4 LA21-5 LA21-6 LA21-7 LA21-8	Load Adjuster Kit Load Adjuster Kit (Steel Models) Load Adjuster Kit (Aluminum Models) Slide Plate (All Models) Guide Plate (All Models) Plastic Slide Strip Top Hook Plate (Steel Models) Top Hook Plate (Aluminum Models) Concave Attachment for Load Adjuster Kit (All Models) Cable Assembly (Steel Models) Cable Assembly (Aluminum Models) **LA21CC & LA21CH includes balance box**

Manual #	Part #	Description
	L\$2000-1 L\$2000-3 L\$2000-4 L\$2000-5 L\$2000-6 L\$2000-7 L\$2000-8 L\$2000-9 L\$2000-10 L\$2000-15 L\$2000-23 L\$2000-23 L\$2000-31 L\$2000-35 L\$2000-35 L\$2000-36 L\$2000-37 L\$2000-38	Lectro-Stack Winch Wheel (6"x 2") Caster Wheel Steel Sheave (2.5") Steel Sheave (1.35") Steel Dowel Pin (.5"x 1.25") Clevis Pin (.5"x 1.25") Clevis Pin (.5"x 1.5") Clevis Pin (.5"x 2.5") Battery Case Cushioned Metal Cable Mount Fork Sheave Holder Switch Holder Battery Hold Down Sheave Bracket Spacer Fork Platform Switch Cable
	Manual SB1 OSP SSP LT Lube S/T Tape Brochure1 Brochure2	All-Terrain Wheel Upgrade for LS2000  Miscellaneous Items Owner's Manual Shrink Bags Orange Spray Paint Silver Spray Paint Lubricant Sales or Training Tape Brochure Brochure Insert
	Maint Kit	Maintenance Kit (Footpads, Bumpers, L/T Lube)