

Moto-Cart Jr Service Manual



LIFT PRODUCTS INC
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Models: JRMC-11-LT

S/N _____

Customer _____

LIFT PRODUCTS, INC.

LIFT PRODUCTS, INC.

REGISTRATION INFORMATION

(To validate your warranty and receive updated service bulletins, please complete this form)

Date _____ Model No. _____

How did you first hear of Lift Products?

- Magazine Ad (Specify which magazine) _____
 Recommended by a dealer (Name of Dealer) _____
 Received information in the mail _____
 Internet _____
 Other (Please specify) _____

What factors caused you to choose Lift Products? _____

Describe how and where products are being used? _____

Name of person completing this form _____

Title _____

Company _____

Street Address _____

City, State, Zip _____

Phone _____ Fax No. _____

Purchased From:

Name of Dealer _____

Street Address _____

City, State, Zip _____

Phone No. _____ Fax No. _____

Please fax this form to 262-521-5725.

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Moto-Cart Jr. SERVICE INFORMATION

(please fill out and keep this manual on hand for service records)

Company Name		
Address		
City	State	Zip
Representative	Telephone	
Purchase Date	Serial Number	
Purchased From	Telephone	

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INTRODUCTION

Welcome to the Moto-Cart Jr-LT a member of Lift Products family of quality material handling products. We know you'll be depending on the cart, so have taken great care to make it completely reliable. This Owner's Manual is designed to help you get the most out of your Moto-Cart Jr-LT cart and includes very important safety and care information. Please read it thoroughly and keep it handy for reference. Thank you for choosing the Moto-Cart Jr-LT.

Information in this manual is based upon specifications in effect at the time of publication. Lift Products reserves the right to make changes at any time without notice. Lift Products, products are covered by Lift Products, patents, patents pending and other rights reserved.

Be sure to complete the Owners's information box. This will be your record of important information which will help you if your Moto-Cart Jr-LT ever requires service. When seeking repair parts while your Moto-Cart Jr-LT is under warranty, a copy of your bill of sale may be requested to verify warranty status.

FAILURE TO READ THIS OWNER'S MANUAL WILL VOID THE WARRANTY

If there is anything in this manual that you do not understand or that you are unsure of, DO NOT OPERATE your Moto-Cart Jr-LT. Call our Customer Service Dept. at 877-543-8776.

SAFETY FIRST

To prevent accidents which can cause injury to you, damage the Moto-Cart Jr-LT or damage your Moto-Cart Jr-LT or damage your cargo, observe the following rules:

1. Read and understand this Owner's/Operator's Manual before operating the Moto-Cart Jr-LT.
2. Read and understand all safety instructions provided with the cart or piece of equipment which is installed on the Moto-Cart Jr-LT.
3. Only trained personnel should be allowed to use the Moto-Cart Jr-LT. All persons using the Moto-Cart Jr-LT must read this owner's/operator's manual.
4. The Moto-Cart Jr-LT has a maximum load capacity of 1,000 pounds on a level surface. Do not exceed the rated 1,000 pound capacity.
5. Do not travel up or down inclines greater than 8°.
6. Do not travel sideways on inclines.
7. Do not stop the Moto-Cart Jr-LT on an incline. Always park, load and unload on a flat, level surface.
8. Do not go up or down curbs. Only operate the Moto-Cart Jr-LT on smooth hard surfaces.
9. Do not carry passengers on the Moto-Cart Jr-LT.
10. Always turn the key switch off before loading or unloading the cart.
11. Always load the cart evenly, distributing the load to prevent tipping.
12. Always take corners slowly and with caution to prevent the load from shifting.
13. Do not use the Moto-Cart Jr-LT to push or pull objects or other carts.
14. Always unplug the batteries before making any adjustments or repairs to the Moto-Cart Jr-LT.
15. Do not operate the Moto-Cart Jr-LT in wet environments.
16. Do not expose the Moto-Cart Jr-LT to high temperatures. The Moto-Cart Jr-LT is battery operated. Batteries may explode to high temperatures.
17. Do not operate the Moto-Cart Jr-LT with a flat tire, broken wheel or broken bent cart caster.
18. Use extreme caution when operating the Moto-Cart Jr-LT near doorways, in hallways and near stair wells. Reduce speeds in these areas.
19. Do not manually release the electromechanical brake on or near an incline. If you must release this brake, release the brake only when on a level surface and with the cart completely unloaded.
20. Do not travel with the lift in a raised position. Always lower the lift before moving the cart.
21. Always make sure load is stable before lifting. Unstable loads may shift causing injury.

OPERATING THE Moto-Cart Jr-LT

We would like you to be satisfied using your Moto-Cart Jr-LT. When you use the Moto-Cart Jr-LT for the first time, you must know how to properly operate and care for it to avoid unsafe situations. Please read this manual thoroughly and become familiar with all of the safety information provided.

Be aware of your surroundings, drive slowly and cautiously. Avoid collisions and/or changing directions quickly which could cause damage to the Moto-Cart Jr-LT, or shift the load, damaging the goods or injuring you or any surrounding people.

Anticipate and avoid unsafe situations. Be courteous of others and let your presence be known.

Perform first time operation in an open area on a flat surface-free of obstacles. Have someone familiar with the operation of the Moto-Cart Jr-LT available to assist you.

CONTROLS

Read and understand all instructions and control functions before attempting to operate the Moto-Cart Jr-LT.

ON-OFF KEY SWITCH

The on-off key switch is located on the right side of the hand control panel mounted on the Moto-Cart Jr-LT handle bar.

Drive Position:

To turn the power on, fully insert the key into the key switch, and then turn the key clockwise. When the power is on, the battery discharge indicator, located on the top of the hand control panel will illuminate.

EMERGENCY STOP SWITCH

The emergency stop switch is located on the face of the hand control panel. Pushing on the red switch will stop the operation of the cart. To reset the operation of the cart, turn the key switch off and then back on.

FORWARD & REVERSE

Forward and Reverse is controlled by the finger control lever located on either side of the hand control panel. A slight push on the top side control lever accelerates the cart away from you. A slight push on the lower side control lever accelerates the cart towards you. To STOP, release the control lever. Let the cart come to a complete stop before changing directions.

BRAKING SYSTEMS

The Moto-Cart Jr-LT has two types of braking systems. It has dynamic regenerative braking while moving and electromechanical braking for parking.

Dynamic Regenerative Braking

Dynamic regenerative braking automatically brings the Moto-Cart Jr-LT to a smooth stop when you release the control lever. However, it does not lock the wheels in place.

Electromechanical Braking

After the dynamic braking has brought the Moto-Cart Jr-LT to a stop, or near stop, the electro-mechanical brake will lock the wheels in place. The electromechanical brake is a parking brake and can be applied quickly by pressing down the emergency stop switch located on the top center right of the control panel. The drive wheels must be contacting the floor surface for the brake to hold.

PANIC STOPPING

To stop the Moto-Cart Jr-LT in an emergency, release the control levers and press in on the Emergency Stop Switch located on the face of the hand control panel. To reset the operation of the cart, turn the key switch off and then back on.



Controls

MOTION ALARM

The Motion Alarm switch is located on the top side of the Moto-Cart Jr-LT's control handle and is marked with a horn symbol. Push on the button to sound the motion alarm when the control levers are operated.

BATTERY DISCHARGE INDICATOR (BDI)



The BDI indicates four ranges of battery condition.

1. Bar #1 indicates the batteries are fully (or nearly) charged.
2. Middle bars 2-9 indicate the batteries are being drawn down. Fully charge the batteries at the earliest convenience.
3. Bar #10, on left side indicates the batteries need charging. Fully charge as soon as possible.
4. Flashing Red bars #9 & #10-Charge the batteries at once! Move the Moto-Cart Jr-LT to the closest 115 Volt 60 HZ AC outlet to charge.

The BDI may fluctuate between the different ranges depending on the driving conditions at the time. Quick acceleration or moving between floor surfaces (e.g., concrete to carpet) may cause the BDI to drop momentarily to the next level.

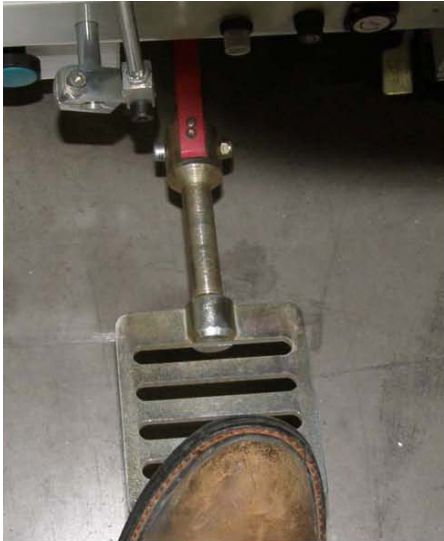
DRIVING THE CART

The Moto-Cart Jr.LT is equipped with electronically proportional speed control. Driving speed is proportionally to the force of your fingers on the control lever. The harder you push, the faster it will go.

1. Turn the key switch clockwise to the Drive Position.
2. To go forward (away from you), gently push on the top side control lever. The cart will start to move and accelerate away from you to the desired speed proportional to the pressure on the control lever.
3. To stop, release the control lever. The cart will gently slow down with the aid of dynamic regenerative braking.
4. To go in reverse (toward you), gently push the lower side control lever. The cart will accelerate toward you to the desired speed proportional to your finger pressure on the control lever.
5. To stop, release the control lever. The cart will gently slow down with the aid of dynamic regenerative braking.

LIFT TABLE OPERATION

The lift table is controlled by the foot pump located below the handle and the release lever to the right and below the Moto-Cart Jr-LT's control handle.



Lower the pump lever and push down with your foot on the lever to raise the platform. Repeat as necessary to get the desired height.

To lower the platform, grasp the release lever and gently push down on the lever until the desired height is reached.



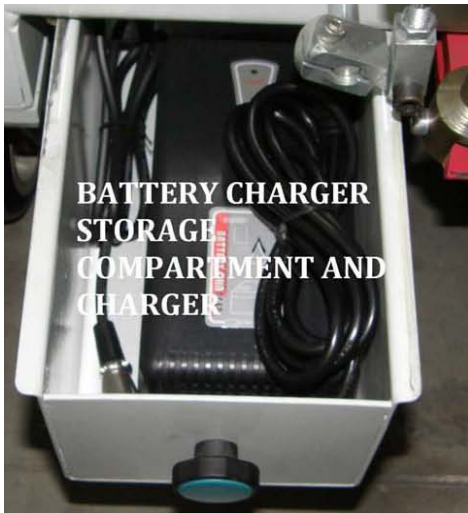
CAUTION: Keep hands and feet away from the table and all moving parts while the table is in motion to prevent injury. **DO NOT** place anything under the table while it is in a lifted position.

CHARGING

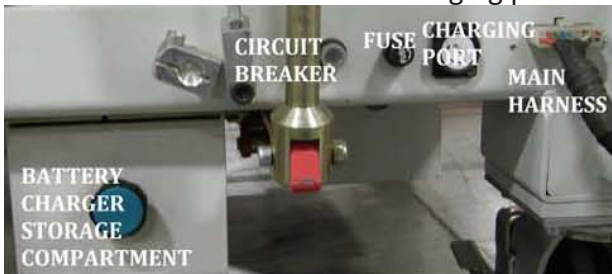
The Moto-Cart Jr-LT is equipped with two absorbed glass mat or gel-cell batteries which require charging on a regular basis.

To Charge the Moto-Cart Jr-LT:

1. Position the cart close to a 115 Volt 60 Hz AX power outlet.
2. Turn the power key switch off and remove the key.
3. Remove the charger from storage compartment in the back of the cart.



4. Locate the cart's main charging port on the deck below hand controls.



5. Plug the charging cord end of the charging port and the power cord from the charger port and the power cord from the charger into a 115 Volt AC power supply outlet. Make sure the plug is fully engaged into the supply outlet. If needed, connect only an industrial grade grounded extension cord to the charging cord and then into the 115 Volt AC power supply outlet.
6. Allow the unit to charge overnight, six to eight hours, for a full charge.
7. Unplug the cord (and extension cord) from the power supply outlet before unplugging the charger from the cart. The unit will not operate while in the charging mode.

BATTERIES

FOR BEST RESULTS: USE ABSORBED GLASS MAT OR GEL-CELL BATTERIES WITH YOUR Moto-Cart Jr-LT.

1. The batteries supplied with the Moto-Cart Jr-LT are maintenance free, sealed, absorbed glass mat or gel-cell batteries. DO NOT remove the battery caps. DO NOT attempt to add water. This will ruin your batteries and void your warranty. Liquid-electrolyte batteries are not recommended for use with your Moto-Cart Jr-LT.
2. If a crusty or powdery white substance appears on or around the battery terminals, clean them using a solution of baking soda and water with a toothbrush. DO NOT allow this solution to enter the battery vents. *If you do not clean the batteries when this substance appears, or if it is left for prolonged periods, it will reduce the quality of battery connection and affect performance.*

3. When replacing the batteries, clean the terminals and battery posts using a wire brush. When re-attaching the terminals, be sure all connections are tight. The black wire must be attached to the negative (-) terminal. The red wire must be attached to the circuit breaker and to the positive (+) post of the opposite battery. Failure to connect with proper polarity will damage the control module.

BATTERY LIFE

Battery life depends upon use and proper care. Of you use the Moto-Cart Jr-LT frequently, your batteries will need replacement sooner than if you only use your Moto-Cart Jr-LT occasionally.

Other factors which can reduce battery life, include: irregular or inefficient charging, leaving the batteries in a discharge state for a prolonged period of time, extreme temperatures and cargo weight.

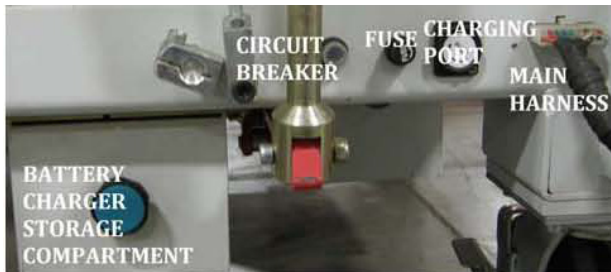
If the distance you travel on a charge becomes noticeably shorter, and ramps once easily climbed become difficult to go up, you may need to replace the batteries. Heating or swelling of the batteries (sometimes accompanied by an acrid odor) is another sign that the batteries may require replacement. If you notice any of these conditions, have your batteries load tested.

BATTERY LOAD TESTING

A “load test” is a sure test of battery condition, and can be performed by your local Authorized Service Center.

CIRCUIT BREAKER

A manually reset circuit breaker is located on one battery attached to the positive (+) terminal. The circuit breaker protects the wiring and batteries against damage in the event of short circuit.



If a breaker opens, try to determine the cause or reason why it opened. Reset the breaker by pushing in on the tab. If it opens again in a short time-there is a short circuit which must be found and corrected. **DO NOT TAPE THE TAB DOWN.**

DO NOT DEFEAT THE BREAKER! DO NOT REMOVE OR BYPASS THE CIRCUIT BREAKER! If any additional wiring is added to the Moto-Cart Jr-LT, it must not bypass the breaker

MAINTENANCE

MAINTENANCE SCHEDULE

Your Moto-Cart Jr-LT will give you years of safe and dependable service in return for regular maintenance and early attention to any developing problems. We recommend the following maintenance program.

If you use your Moto-Cart Jr-LT often, you will find it to your advantage to perform this maintenance more frequently.

CAUTION: Turn the cart off before performing any maintenance.

CAUTION: Raise lift to highest position and move safety bars in position before placing hands under lift mechanism.



Every Day or As Needed:

1. Maintain the batteries' charge.
2. Clean debris from the wheels and drive unit assembly.
3. Check tire pressure. Pressure should be between 40-50 psi.

Once Each Month:

1. Check for loose connectors and any signs of unusual wear.
2. Grease caster wheel & swivel assemblies. Follow the instructions given with your cart.

Once Every Three Months:

1. Check the exposed wires for wear, fraying or cracking.
2. Check the connectors for wear or cracking.
3. Examine the tires or wheel assemblies for wear or damage.

Once Each Year

Check the motor brushes for wear.

NOTE: This maintenance is best performed by your local Authorized Service Center.

MAINTENANCE PROCEDURES

Cleaning your Moto-Cart Jr-LT:

Turn the power OFF before cleaning your cart. DO NOT hose off your Moto-Cart Jr-LT. Excessive water may damage electronic components. Wipe the hand controls with a damp cloth and dry immediately.

Do not use harsh or abrasive cleaners on the Moto-Cart Jr-LT or its tires. These types of cleaners will damage the finish of your Moto-Cart Jr-LT, and may cause premature tire wear. Clean your tires with a rag or a soft bristle brush dipped in warm water.

Lubrication

Grease the wheel bearings by using the grease zerks on the wheels only. Spray silicone lubricants (or WD-10) may be used on any other moving parts. Apply this lubricant whenever there is "stickiness" in the moving parts.

Pushing Manually:

The cart's drive system can be disabled to allow you to push the cart manually. To disable the drive system:

1. On a level surface only, lift up on the brake release lever to disable the Electro-Mechanical Parking Brake.
2. Turn the Key Switch to the OFF position to disable the Dynamic Braking.
3. Push cart at walking speed only, as the Dynamic Braking will automatically turn on if the cart's speed is above 3 mph. DO NOT TOW CART!

WARNING: DO NOT RELEASE THE BRAKE ON OR NEAR A RAMPED SURFACE. THE UNIT WILL NOT STOP ON ITS OWN WHEN THE BRAKING SYSTEM IS DISABLED. SEVERE INJURY OR DEATH MAY RESULT IF THE CART IS LEFT TO ROLL UNATTENDED.



TROUBLE SHOOTING CHECKLIST

Your cart's drive system has been designed and built to be dependable and trouble free, but we know that there can be unexpected problems with any technical product. The following checklist will give you a "First Aid" approach to dealing with most problems.

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Unit Dead, BDI Dark-	Key switch turned to off position.	Turn key switch to Drive (right) position.
	Circuit breaker open.	Check and re-set the circuit breaker.
	Batteries dead.	Charge batteries. Load test batteries.
	Power connection interrupted.	Check power cable going to battery. Check other connections.
Unit Dead, BDI Illuminated-	Brake switched to off position.	Check brake lever-Place in Down (on) position.
	Emergency stop switch engaged.	Turn the Key Switch off and on.
	Obstruction in pathway of wheels.	Check for obstruction.
	Unit in "Sleep" mode.	Turn unit off for 3 seconds to reset mode.
	Unit in "Charge" mode.	Unplug unit.
	Throttle engaged during start up.	Release throttle and wait 3 seconds or turn unit off and then back on.
Unit Runs Slow	Heavy load on cart.	Normal condition. Reduce load to increase speed.
	Surface uneven or changed (concrete or tile to carpet)	Normal condition.
	Weak or low batteries.	Fully charge batteries.
	Worn batteries.	Fully charge batteries. Load test batteries.
	Motor worn out	Contact Authorized Service Center.
Battery Weak or Won't Take a Charge	Battery charge low.	Fully charge and load test batteries. Replace if bad.
	Charger power interrupted. Look at charger indicator lights for indication that power is going to the charger.	Check wall outlet for continuous power. Make sure light switch is not turning off charger. Make sure power cord is inserted into charger.
	Charger burned out.	Replace charger.
Intermittent Running	Loose connection in wiring.	Check all exposed wire connection.
	Worn motor brushes.	Have Authorized Service Center check brushes. Replace if worn.
Hard To Turn	Load unbalanced or offset.	Redistribute load evenly on deck.
	Casters require lubrication.	Lubricate casters.
	Worn caster bearings.	Replace caster.
Lift Won't Raise	Release lever in down position.	Pull up on release lever.
	Low hydraulic fluid.	Check hydraulic fluid level.
Lift Won't Lower	Release lever not pushed down.	Push down on release lever.

MOTO-CART JR POWER DRIVEN CART WARRANTY

Lift Products, Inc. warrants this product against defects in manufacturing, materials, or workmanship for a period of twelve (12) months from the date of consumer purchase, covering parts only. Defective parts will be repaired or replaced with new or reconditioned parts at the company's option. A dated sales receipt is required for warranty parts. Exclusion and exceptions as listed below. This entire warranty is limited to the original consumer only and is not transferable.

Lift Products Drive System:

- The Moto-Cart System (consisting of the motor and trans axle only) carries a twelve (12) month pro-rated warranty from the date of consumer purchase.

Batteries and Charging System:

- Lift Products supplied batteries carry a six (6) month warranty from the date of original shipment.
- Battery charger is not covered by this warranty if factory supplied and installed batteries are not used.

Item and Services Not Covered by This Warranty

- Labor, service calls, transportation to or from the service center or dealer, or other charges imposed by the dealer or service center to make the repairs on the product.
- Defects caused by unauthorized work performed on the product.
- Part failure resulting from failure to maintain the product as specified in the owner's manual.
- Product or part failure caused by unauthorized modification of the product. Unauthorized modification of this product voids this entire warranty.
- Any part, accessory, or modification-authorized or not, placed on the product which is not manufactured, supplied, or installed by Lift Products Inc.
- Tires, tubes, wheels, caster, drive chains, drive belts, motor brushes, bulbs, fused, and other normal wear items are not covered by this warranty.
- **Shipping damage is not covered by this warranty.** Please contact freight carrier for information on how to file a freight claim.
- Any warranty or claim made by the dealer or agent contrary to, or in addition to, this warranty.

To Exercise this limited warranty, the consumer must proceed as follows:

- Return the product to the dealer for warranty work. Lift Products will repair or replace the defective part(s) at the company's option) if the defect is a result of manufacturing, materials, or workmanship during warranty period.
- If the dealer is unable to perform the warranty repair or is unable to provide warranty service, the dealer may return the product, freight prepaid, to the factory. The dealer will be billed normal factory labor charges.

Warranty Limitations and Exclusions

To the maximum extent permitted by applicable law, this limited warranty excludes any claim for incidental or consequential damages and is in lieu of any implied or other warranties. Lift Products, Inc. reserves the right to make changes to this warranty at any time without notice.

Consumer Name _____

Purchased From _____

Model Number _____

Date of Purchase _____

Serial Number _____