



CooLift®

Owner's Manual

For CTA43, CTA48 and CTA53 models

IMPORTANT: Read entire manual before operating

Serial #: _____

Date of Purchase: _____

Warranty

Magliner products have a one (1) year warranty (unless otherwise specified) from the date of purchase against defects in workmanship or material. Any part or component, except items covered by warranties of other manufacturers, returned to the factory or service center freight prepaid by the owner, found upon examination by Magline, Inc. to be defective or the result of improper workmanship by the factory will be repaired or replaced without charge and returned to the owner freight prepaid by Magline, Inc.

Alterations of Magliner products void any warranty or liability on the part of Magline, Inc. Magline, Inc. does not guarantee product capacity if alterations are made.

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Thank you for purchasing the Magliner CooLift! If you have any questions regarding your new Magliner product please call our customer service department at 1-800-MAGLINE (624-5463) or (989) 512-1000. Please read this manual thoroughly to become familiar with the safe operation and maintenance of your new Magliner CooLift.

General Safety Instructions

- Carefully read this entire manual before using your Magliner CooLift.
- Keep hands and feet away from all moving parts.
- Always stand clear of lifting platform area when operating.
- Do not attempt to use the Magliner CooLift on a truck ramp.
- Engage the holding brake whenever in a stopped position.
- Keep the Magliner CooLift in an upright position at all times.
- Do not utilize Magliner CooLift as a lifting device for anything other than a CooLift pallet.
- Do not use the Magliner CooLift to transport people.
- A routine check of the CooLift should be performed daily that includes, but not limited to: checking for any leaks in the hydraulic or brake system; making sure the containment strap functions correctly; making sure the lift deck raises and lowers smoothly without excessive slowing or shuddering; checking the brake system to ensure proper slowing, stopping, and holding functions.
- Always use the containment strap when moving loads with the Magliner CooLift.
- When transporting a load, always use the handles provided at the user end of the CooLift in order to provide quick access to the braking system should immediate stopping be required.
- Operator should be positioned uphill from CooLift when descending on natural grades, sloping or uneven surfaces.
- Use hand brake to control speed.
- Avoid making sharp turns.
- Always use a Magliner battery charger to charge your battery.
- Do not exceed the pallet capacity limit.
- Brake and hydraulic fluids are a slip hazard on any flooring surface; if a leak occurs it should be cleaned up immediately and completely.

Please follow the reminder labels found on your CooLift unit.

CooLift® Capacity:

1,200 lbs. with 43" CooLift® pallet
1,350 lbs. with 48" CooLift® pallet
1,500 lbs. with 53" CooLift® pallet



1-800-MAGLINE (624-5463)

www.magliner.com

U.S. Patent No. 8,282,111 & 8,894,076



WARNING

**Always stand clear
of lifting platform
area when operating**



WARNING

**Keep hands and feet
clear of lifting platform**

NO FORK

WARNING:

Raise deck before fastening containment strap

Safety Instructions

- Read and understand operating instructions before using
- Always inspect CooLift and pallets for damage before using. Do not use if there are signs of damage, improper maintenance or load shift
- Do not exceed capacity limit
- **NO RIDING** — Riding on the CooLift could cause serious injury
- **DO NOT USE ON TRUCK RAMPS**
- Use caution on natural grades; operator should be positioned uphill from cart when descending, use brake to control speed, no sharp turns
- Always apply holding brake and lower lift before unloading pallet or leaving CooLift unattended

General Specifications	CTA43	CTA48	CTA53
Corresponding pallet size	43 inch	48 inch	53 inch
Capacity	1,200 lbs	1,350 lbs	1,500 lbs
Weight without battery	193 lbs	193 lbs	185 lbs
Weight with battery	221 lbs	221 lbs	213 lbs
Overall height	62 inches	62 inches	62 inches
Overall width	19 inches	19 inches	19 inches
Overall depth	60 inches	60 inches	60 inches
Operating temperature*	-20 to 120°F	-20 to 120°F	-20 to 120°F

*NOTE: When the outside temperature is below 30°F the CooLift should not be left inside the truck overnight and should never be left inside a freezer or a cooler for extended periods of time. Extended exposure to subfreezing temperatures will adversely affect CooLift performance and increase cycle time.

Battery Specifications

Weight	28 lbs (battery box with battery cells)
Voltage	24v (two 12v battery cells)
Battery cells	Sealed lead acid - maintenance free

Fluid Specifications

Brake fluid	DOT 3 or DOT 4
Hydraulic fluid	MIL-PRF-5606

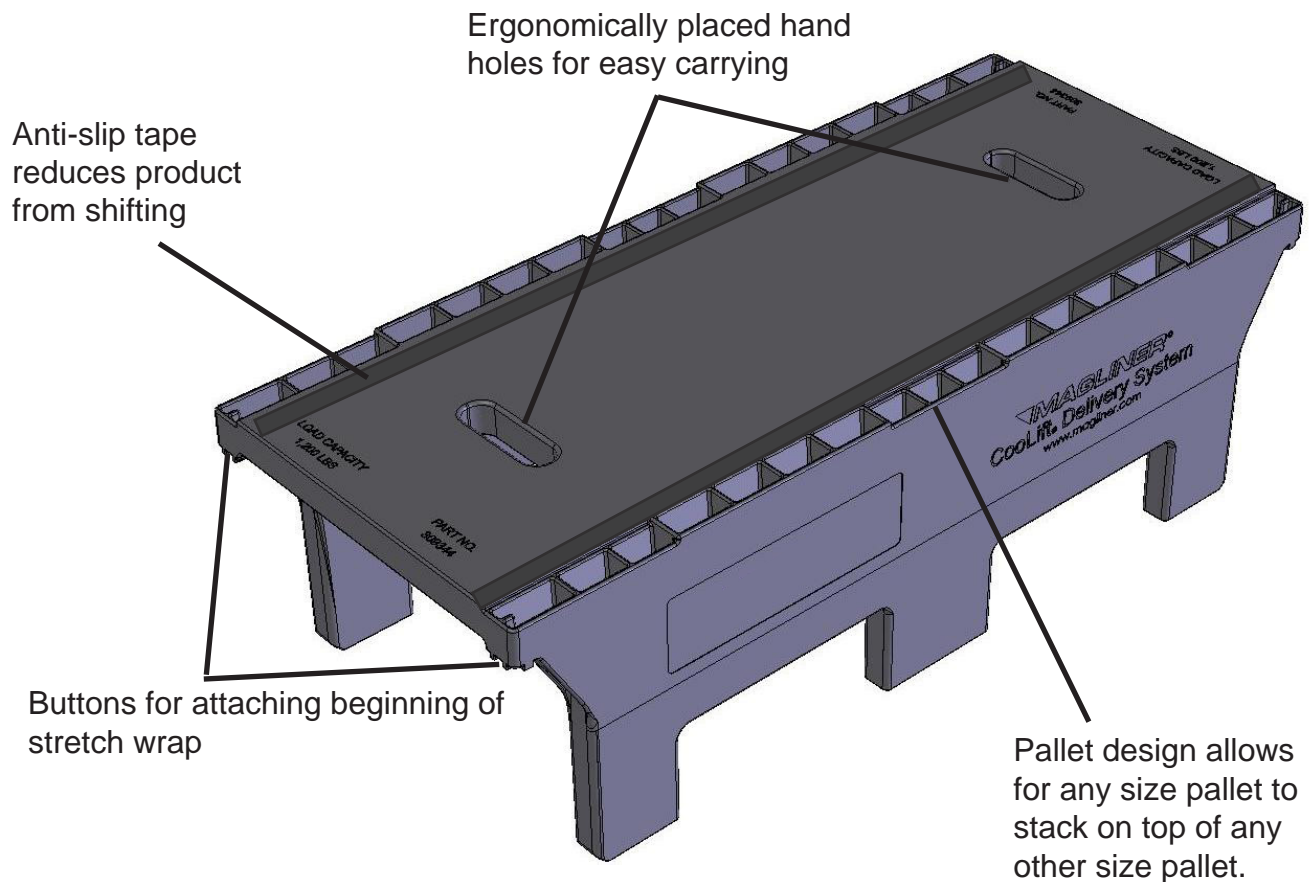


Pallets

General Pallet Information:

- Always load within capacity limit.
- Always load within pallet footprint; do not allow load to hang over pallet.
- **CAUTION: When using any multiple load handling system (such as a triple-double) to move the Coolift pallets, do not spread the forks while underneath pallet as it may result in pallet failure.**
- Store in upright position in cool, dry location.
- Do not drop.
- Do not stand upon.
- Wash with mild soap and water.
- Do not use if damaged.
- Make sure to interlock empty pallets when stacking.
- Only stack pallets when empty.
- Do not make modifications.
- Secure load before transporting.
- Use for intended purpose only.

Sizes	Capacity	Part Number
43" pallet	1,200	309344
48" pallet	1,350	309345
53" pallet	1,500	309346



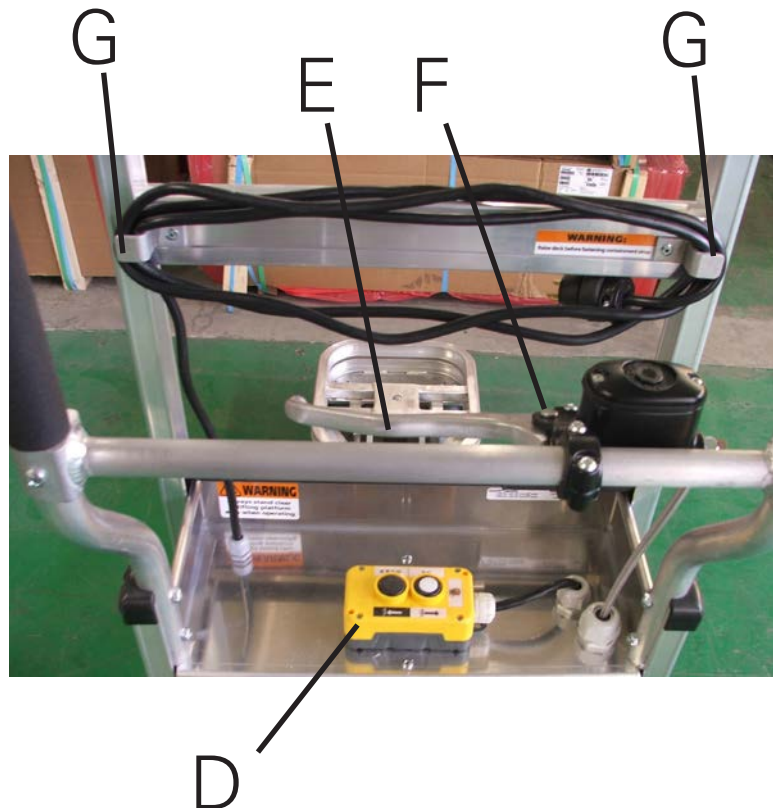
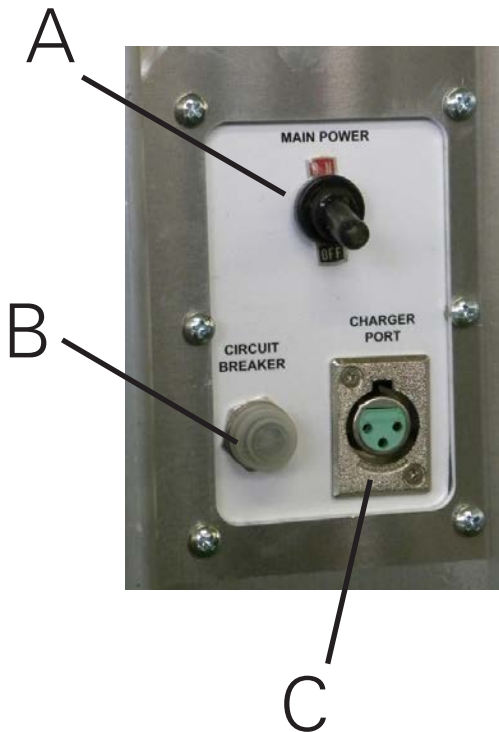
User Controls

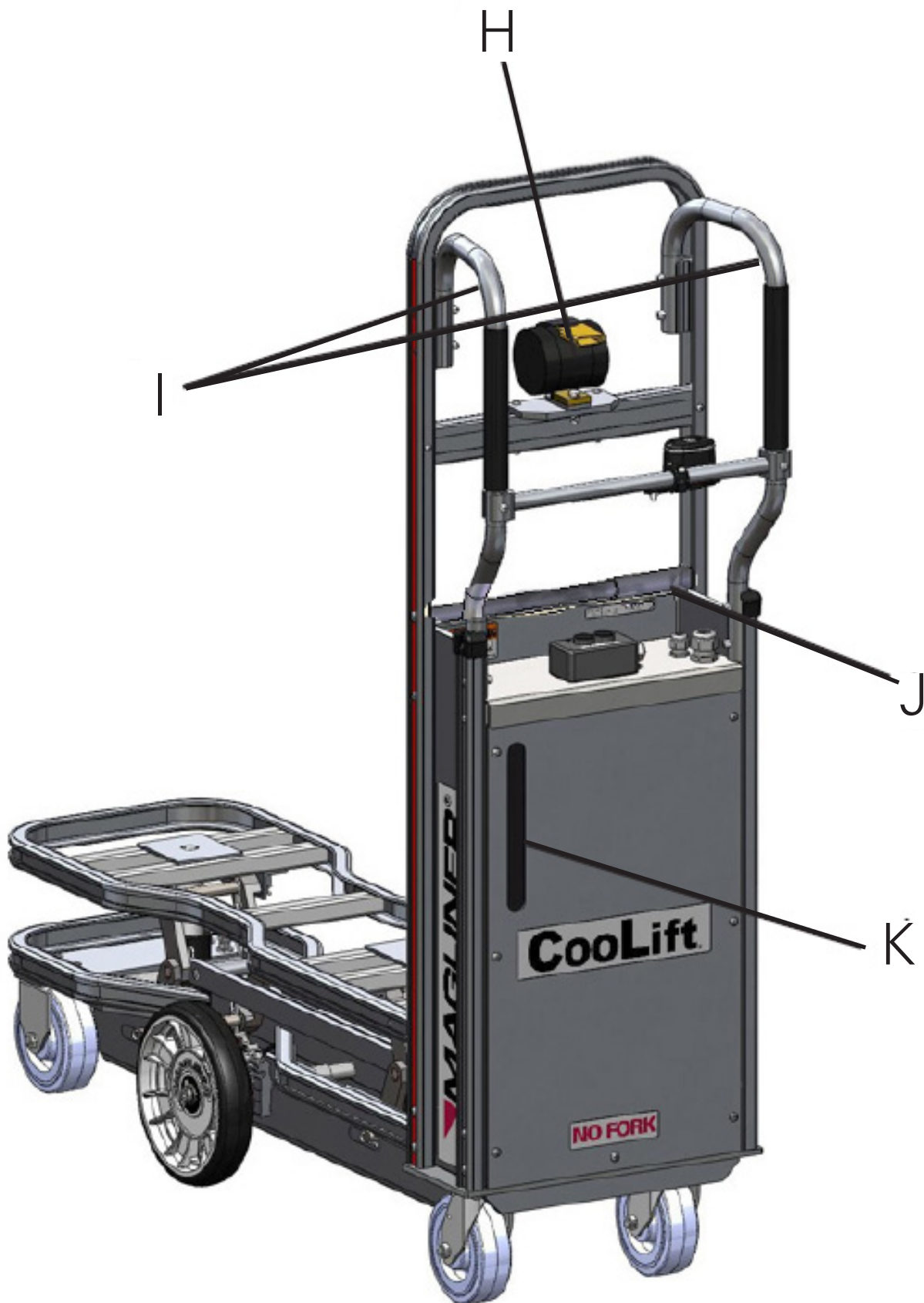
- A) Main Power Switch – provides power to hydraulic unit for raising and lowering the deck.
- B) Circuit Breaker – helps to protect the components should an electrical short or overload occur.
- C) Charging Port – for charging the Coolift battery with an approved Magliner AC charger.
- D) Deck Positioning Switch (up/down) – used to raise and lower the lift deck.
- E) Brake Lever – used for slowing and stopping the momentum of the Coolift.
- F) Holding Brake Latch – used to keep the Coolift from rolling inadvertently – **Always engage holding brake whenever Coolift is unattended.**
- G) Cord Storage Brackets – holds the AC built-in battery charger input cord when not in use.
- H) Containment Strap – should be used to secure loads during transport.
- I) Operator Handles – foam cushioned, ergonomic handles for lift control.
- J) Manual Pump Handle – handle and storage bracket when not in use.
- K) Manual Pump Handle Slot – for attaching manual pump handle in the event power is unavailable.

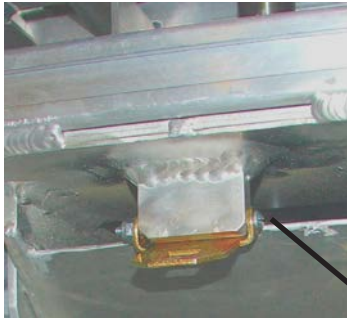
General Operation of the Magliner Coolift

Storage and Limited Use of Holding Brake

- 1) Engage the holding brake whenever leaving the Coolift unattended.
- 2) Pallets on the Magliner Coolift should always be in the down position when not moving.
- 3) Keep hands, feet and all items clear of the moving parts of the Coolift.
- 4) Never place hands or feet under a loaded elevated pallet.
- 5) The holding brake is intended to be used for limited periods of time only.
- 6) Store the Coolift on a hard level surface.







Front Underside View



CooLift with product strapped to deck

General Operation of the Magliner CooLift

A) Storage and Limited Use of Holding Brake

- 1) Engage the holding brake whenever leaving the CooLift unattended.
- 2) Pallets on the Magliner CooLift should always be in the down position when not moving.
- 3) Keep hands, feet and all items clear of the moving parts of the CooLift.
- 4) Never place hands or feet under a loaded elevated pallet.
- 5) The holding brake is intended to be used for limited periods of time only.
- 6) Store the CooLift on a hard level surface.

B) Loading a pallet on the Magliner CooLift

- 1) Make sure CooLift deck is in down position.
- 2) Push the CooLift under the pallet until fully inserted and the back of the pallet is touching the back of the cart or the bulk head if one is installed.
- 3) Press and hold the up switch until the lift deck is fully raised (this is noticeable by the sound change of the running hydraulic pump and the stop of upward motion of the pallet).
- 4) Engage the holding brake by depressing the brake lever back toward the horizontal handle with one hand and flipping the holding brake latch into one of the provided notches to hold it in place.

Note: Make sure the deck is in the up position prior to fastening the containment strap.

- 5) Fasten the containment strap to secure the load by: a) firmly grasping the end of the strap; b) pulling it out from the roll directly over the center of the load taking care not to twist the strap; c) extending strap far enough to snap into position; and d) hooking strap to the containment lock located at the lower front end of the cart (see Front Underside View).
- 6) The maximum stacking height for all models (CTA43, CTA48 and CTA53) models is 50". However, never stack a load that is higher than your line of vision.



Figure 1: CooLift secured under a loaded pallet with the holding brake engaged



Figure 2: CooLift strapped into truck for transport

C) Transporting a pallet with the Magliner CooLift

- 1) When transporting a pallet with the CooLift the operator should always use caution on natural grades. Be positioned uphill from cart when descending, use brake to control speed and make no sharp turns.
- 2) Care should be taken to address any sidewalk ramps or door thresholds to help maintain stability in the load.
- 3) Use caution at all sloping or uneven surface areas and make any final positioning changes.
- 4) Depress the down switch and hold it until the CooLift deck has lowered completely. Note: it is possible to have the pallet sitting on the floor and the deck still engaged to the bottom of the pallet if the deck has not been completely lowered.
- 5) Remove the CooLift from under the pallet.

D) Unloading a pallet from the Magliner CooLift

- 1) Position the cart in place on a level surface and engage the holding brake.
- 2) Lower the deck completely.
- 3) Unlock the containment strap from the lock by lifting the tab and sliding the latch out.
- 4) Walk the strap back into position on the roll.
- 5) Disengage the holding brake by pulling the brake lever back until the latch releases.

E) Transporting the Magliner CooLift inside the truck

Note: It is important to keep the CooLift upright at all times.

- 1) If you are transporting the CooLift on a truck that has loaded pallets, insert the CooLift completely under a fully loaded pallet and toggle the up switch until the lift deck makes contact with the bottom of the pallet but does not lift and engage the holding brake (Figure 1).
- 2) If there are no loaded pallets on the truck, the CooLift should be parked next to the wall and strapped in with the holding brake engaged (Figure 2).

Battery*

General Battery Warnings:

- Do not connect accessories to the battery; this will cause premature battery failure.
- Unauthorized modification could create a hazardous condition and result in serious injury.
- Batteries contain sulfuric acid, which can burn eyes, skin, clothes, etc. Use caution! Always wear gloves when working with batteries. If contact occurs, flush immediately with water and get medical attention. Protect surfaces from battery damage by placing batteries on rubber or plastic surfaces.
- To prevent electrical shock, do not touch non-insulated parts of the charger output connectors, battery connectors or battery terminals. Do not use connectors that are cracked, corroded, or do not make adequate electrical contact. Use of damaged or defective connectors could result in fire or electrical shock.
- Keep sparks, flame and smoking materials away from batteries.
- Batteries can supply a large amount of current. Do not wear jewelry or watches when working on the batteries as an accidental shorting could occur and cause severe burning.
- Only qualified technicians should service your Magliner CooLift power supply system.
- Disconnect the battery box by unplugging the main wiring harness before attempting to replace any electrical components.
- Only use authorized Magliner CooLift replacement parts.



Battery Life

The Magliner CooLift is powered by two 12-volt storage batteries. The pump motor draws current from the batteries based on the amount of effort required to meet load being lifted. Testing and research has been done to ensure a fully-charged battery will allow the user to go through a normal workday without recharging the system; however, extreme temperature ranges and extreme loads can have an effect on the amount of power available during one charging cycle.

NOTE: The battery must be charged within 6 months of storage to prevent self-discharge. If the battery is not charged within 6 months of storage, permanent loss of capacity may occur.

Battery Charging

A built-in Magliner AC charger (part #63004 when using a common 120v domestic or 230v international outlet) is capable of safely charging your CooLift battery. This charger uses standard household power.

NOTE: When using the AC charger, please move the red switch (located next to the power switch) to the voltage that is normal to your location.

Battery Charging Warnings:

- ✓ Use only Magliner chargers designated for use with CooLift.
- ✓ Do not expose charger to rain or snow.
- ✓ To prevent risk of fire, use the charger only in a dry, well ventilated room without flammable fluids or explosive gases.
- ✓ Do not allow clothing, blankets or other material to cover battery charger during charging process. Ensure there is proper ventilation in area used for battery charger and batteries.
- ✓ Use of an attachment not recommended or delivered by the battery charger manufacturer may result in a risk of fire, electric shock or injury to persons.
- ✓ Avoid using an extension cord as it can present risk of fire and electrical shock. Never use a household extension cord if the charger plug does not reach outlet. If an extension cord must be used, use a three conductor No. 14 AWG (or heavier) cord with proper ground, in good electrical condition and kept as short as possible.
- ✓ Make sure the cord is located such that it will not be a trip hazard or otherwise subject to damage or stress.
- ✓ Do not operate a charger with a damaged cord or plug – replace immediately.
- ✓ Do not operate a charger if it has received a sharp blow, been dropped, or otherwise subjected to damage or stress.
- ✓ Do not disassemble the charging unit.
- ✓ To reduce risk of electrical shock, unplug the charging unit from the AC power supply source before attempting any maintenance or cleaning.
- ✓ Always unplug the charging unit before operating the Magliner CooLift.
- ✓ Always use battery chargers supplied by Magline, Inc. Other battery charging units could cause damage to your batteries or personal injury.
- ✓ Batteries generate gases that can be explosive. To prevent arcing or burning near batteries, do not disconnect the charger output connector from the charging port when the battery charger is in operation. If an interruption of the charging cycle is desired, move the battery charger switch to OFF, disconnect it from the power supply source and then disconnect the charging connector from the charging port.
- ✓ To avoid damage to battery charger connectors and cords, disconnect by grasping the plug body and pulling it straight out of the outlet or receptacle. DO NOT pull on the cord. DO NOT twist, rock, or pull the connector sideways.
- ✓ The metal tip on the end of the plug may be hot when it is first unplugged.



*Battery has a warranty of six (6) months

Using the AC Charging Unit

- 1) Connect the AC charger plug to an AC outlet (120v domestic or 230v international).
- 2) Plug the output cord from the charging unit into the charging port located on the top of the battery box.
- 3) Turn the power switch on the charging unit to the “On” position.
- 4) When disconnecting the charging unit from the CooLift or a supplementary battery box:
 - a) Turn the charging unit power switch to “Off” position;
 - b) Unplug the charging unit from the power source (AC outlet);
 - c) Disconnect the charging unit from the charging port.

A completely drained battery needs 2 hours to fully charge. The LED will illuminate to indicate one of the following conditions:

Solid Yellow – Battery is charging

Solid Green – Battery has fully charged and is ready for use

Flashing Green – The output is not connected; check all connectors and fuses



NOTE: Your AC charger model may have two LED lights. If your charger has two LEDs, a solid red light on the charging unit is an indication the power is on and should remain on the entire time it is plugged into the power source and the battery.

NOTE: There are two operational fuses on the charging unit located at each end. A spare fuse is located adjacent to the main power connection.

Note: Battery may be charged as often as desired. Magline recommends charging at least once after each delivery route is complete.

Battery Meter Operating Instructions

- Battery meter will show the charged state of the battery whenever the main power switch is turned ON
- During normal operation, the charged state of the battery is indicated by the number of bars displayed on the meter
 - Full charge is 10 steady bars
 - A partial charge is two to nine steady bars
 - A low battery is two alternately flashing bars
- While the battery charger is plugged in and charging the battery, the display will repeatedly scroll across the bars up to the level of charge in the battery
 - Full charge is indicated by scrolling across 10 bars
 - A partially charged battery is indicated by scrolling across two to nine bars
- When the main power switch is OFF, the battery meter will not display

Manual Operation of the Magliner CooLift

The CooLift can be raised and lowered manually if the need arises due to a critically low or non-existent power situation using the manual hand pump handle provided with the unit. To operate the pump in the manual mode, insert the handle into the pump handle receiver located at the top of the slotted cutout on the rear access panel of the cart and begin a pumping motion to raise the lift deck. To lower the deck, slide the handle over the manual release valve screw located directly below the receiver at the bottom of the slotted cutout and turn it in a counter clockwise direction to release the pressure and thereby lower the deck. When the lift deck is at the lowest position, the manual release valve should be tightened to ready the manual pump for the next lift operation. (Note: the lift deck will not go up if the manual release valve is in the open position while in manual mode and it will not stay up when operating in a powered situation.)

Troubleshooting

The unit does not turn on.

- ✓ Is the main switch turned on?
- ✓ Has the battery been charged?
- ✓ Has the circuit breaker been tripped?
- ✓ Is the battery box fully plugged in?
- ✓ Check electrical connections for tightness, including battery terminals within the battery box.

The pump is running but the deck is not lifting.

- ✓ Is the fluid level correct in the reservoir?
- ✓ Do you see any leaks in the hydraulic system?
- ✓ Is the manual pump release valve open?
- ✓ Is the breather cap for the pump reservoir plugged?

The deck lifts to the top position but then gradually lowers.

- ✓ Is the manual release valve fully closed?
- ✓ Do you see any leaks in the hydraulic system?

The deck lifts OK but lowers slowly.

- ✓ Does it go down quicker when opening the manual release valve?
- ✓ Do you see any fluid leaking out of the gas springs?

The deck lifts slower than usual.

- ✓ Is the manual release valve closed all the way?
- ✓ Is the fluid level correct in the reservoir?
- ✓ Do you see any leaks in the hydraulic system?

The brakes are not working or braking unevenly side to side.

- ✓ Do you see any leaks in the brake system?
- ✓ Is the brake fluid level correct in the reservoir?
- ✓ If you pump the brake lever several times, does it start working?
- ✓ Are both of the calipers mounted tightly to the rail?

The CooLift is not charging up.

- ✓ Is the charger working correctly?
- ✓ Is the battery box connected correctly?
- ✓ Will the batteries charge up when using the charging port located on the side of the battery box?
- ✓ Have all electrical connections been checked?
- ✓ Is the internal charger switch in the ON position?
- ✓ Is the power plug plugged in the charger socket?
- ✓ Is the charger output cord plugged into the battery pack charger port?

Troubleshooting

The deck is in the up position and will not go down.

- ✓ Is there any foreign matter in the linkage system?
- ✓ Check for loose wire connections from the switch plate.

The pump runs and will not shut off.

- ✓ Turn off main power switch.
- ✓ Check the continuity of the starter solenoid.
- ✓ Check the continuity of the operator on/off switch.

Hydraulic or brake fluid has dripped into the drip pan underneath the CooLift deck.

- ✓ Wipe up any fluid that may have leaked into the drip pan using shop towels.

Replacement Part Description	Part Number
AC charger for 24v battery (for use with common 110v domestic or 230v international outlet)	63004
Axle - 14.3" long for center CooLift wheels	309020
Axle assembly (includes axle and lock nut) for CooLift casters	84501
Back access panel	309077P
Banjo bolt - 10mm x 20mm	80124
Banjo bolt with bleed screw	80135
Battery box (batteries not included)	309101
Battery box assembly (includes batteries)	309100
Battery box cover	309102
Battery cell 12v - 18Ah	61018
Battery charge meter	62033
Brake disc	309050
Brake fluid - 12 oz. container	309026
Brake line clip	61019
Brake pads (pair)	309594
Brake pawl for master cylinder	309183
Brake pawl kit	309219
Brake U-bracket for master cylinder	309182
Bulk head for CTA43	309113
Bulk head for CTA48	309332
Cable tie	61052
Caliper assembly	309595
Caliper assembly upgrade kit (required for CooLift units with serial number 4608 and lower when replacement of brake pads or caliper are required the first time after March 2015 upgrade)	309596
Caliper brake line assembly	309145
Carriage bolt - 3/8"-16 x 1" long	80127
Caster wheel - 6" x 2" gray flat tread	130014
Center wheel - 10" x 2" with deep groove ball bearings	309059
Charger mount bracket	309207
Circuit breaker - 35A	62015
Clamp block for axle/brake caliper mount	309022
Containment strap	309152
Containment strap mounting spacer - all models	309150
Containment strap tongue	309133
Copper washer	80712
Cord for internal battery charger	64018
Cord grip - PG-9	309177
Cord grip - PG-16	309122
Cord grip - PG-21	309124
Cord grip hex lock nut - PG-9	309178
Cord grip hex lock nut - PG-16	309123
Cord grip hex lock nut - PG-21	309125
Corner post assembly	309108

Replacement Part Description	Part Number
Deep groove ball bearing for center Coolift wheels	309060
Flat head machine screw 82 degree 5/16"-18 x 3/4" long	80261
Flat washer #10 Type-A	80763
Foam handle sleeve - 9"	302285
Front caster yoke	309098
Grommet - 5/8" ID x 1-1/8" OD x 3/8" wide	309024
Handle mount bracket	302721
Hex head cap screw - 5/16"-18 x 1-1/4" long	80012
Hex head cap screw - 3/8"-16 x 1" long	80025
Hex head cap screw - 3/8"-16 x 1-1/4" long	80026
Hex head cap screw - 3/8"-16 x 1-1/2" long	79988
Hex lock nut - 1/4"-20	80675
Hex lock nut - 5/16"-18	80676
Hex lock nut - 3/8"-16	80603
Hex lock nut flange - 3/8"-16	80624
Hex lock nut w/ nylon insert - #10-24 UNC	80683
Hex lock nut w/ nylon insert - #10-32 UNF	80684
Hex socket head cap screw - 5/16"-18 x 1" long	80038
Hex socket head cap screw - M6 x 20mm	80003
Horizontal brace (handle)	309048
Hydraulic cylinder assembly (includes hydraulic cylinder with fitting, 80396 screw and 80754 washer)	59006
Hydraulic fluid - 32oz. container	55407
Hydraulic fluid additive - 32 oz. container	55418
Hydraulic hose	55408
Hydraulic pump assembly	63013
Hydraulic pump reservoir	59501
Internal charger mount kit	309209
Junction block	309051
Lock washer split ring for #10 screw	80747
Manual pump handle	63014
Master cylinder	309218
Master cylinder brake line	309083
On/off toggle switch - 30A	62016
Operator up/down switch	63019
Pallet stop for CTA43 and CTA48 models	309206
Pan head screw - #8-32 x 1/2" long with external lock washer	80218
Pan head cross recess screw - #10-24 x 2-1/2" long	80004
Pan head machine screw - #10-32 x 3/4" long	80121
Pan head machine screw - #10-32 UNF x 1" long	80123
Pan head machine screw - 1/4"-20 x 3/4" long with locking patch	80257
Pan head machine screw - 1/4"-20 x 1" long	80102
Pan head machine screw - 1/4"-20 x 1-1/2" long	80105
Pan head machine screw - 1/4"-20 x 1-3/4" long	80106

Replacement Part Description	Part Number
Pan head machine screw - 1/4"-20 x 2-1/2" long	80108
Pan head machine screw - 1/4"-20 x 2-3/4" long	80111
Pan head machine screw - 1/4"-20 x 3" long	80110
Pan head machine screw - 5/16"-18 x 1-1/4" long	80150
Plug male - 115v 5-15p	61053
Pump mount plate	309062
Pump starter - 24v DC (solenoid)	63015
Round head machine screw - #10-32 UNF x 7/8" long	80122
Round head machine screw - 5/16"-18 x 1-1/2" long	80115
Saddle plate for CTA43 and CTA48	309341
Saddle plate for CTA53	309151
Spacer 3/4" square foam, self adhesive backing	309217
Steel end cap for vertical loop handle	309049
Straight cotter pin	81142
Switch plate full assembly (includes switch plate with all wiring harnesses installed) - use only for Coolift units with serial numbers 3999 and lower and does not have a battery meter	309181
Switch plate service kit (includes switch plate with only charge port harness installed) - use only for Coolift units with serial numbers 3999 and lower and does not have a battery meter	309181S
Switch plate full assembly for units with battery meter (includes switch plate with all wiring harnesses installed) - use only for Coolift units with serial numbers 4000 and higher or if your Coolift has a battery meter	309357
Swivel caster 6" x 2" gray thermoplastic rubber flat tread	130066
Vertical handle mount assembly	309087P
Vertical loop handle - LH	309039
Vertical loop handle - RH	309053
Washer for #6 screw - neoprene bonded	80730
Washer for Coolift wheel	80718
Wiring harness for battery box connector plug	62025
Wiring harness for battery charge meter	62032
Wiring harness for battery interconnect	62024
Wiring harness to connect battery box to on/off toggle switch	62023
Wiring harness to connect cabinet charge port to on/off toggle switch	62030
Wiring harness to connect circuit breaker to on/off toggle switch	62020
Wiring harness to connect circuit breaker to pump	62022
Wiring harness to connect pump to on/off toggle switch	62021

Cart Serial No: _____ Inspection Date: _____
 Customer: _____ Inspector's Name: _____
 Estimated Usage: _____

Area	Description	Method of Inspection	Normal Condition	Findings Pass or Fail	Timing	Notes
General Inspection	Cart is straight and properly aligned	Visual inspection	<ul style="list-style-type: none"> • Frame is not twisted or bent • User enclosure is perpendicular to the frame • Deck is angled slightly toward enclosure when retracted • Handles are not bent or damaged 		Daily	
General Inspection	No damage or excessive wear	Visual inspection	<ul style="list-style-type: none"> • Straight sections • Smooth curves • Flat surfaces 		Daily	
General Inspection	Cart rolls smoothly	Push cart and let roll	Cart should travel in nearly a straight line for several feet		Daily	
General Inspection	Brakes are responsive when applied	Roll cart at walking speed and apply brakes	<ul style="list-style-type: none"> • Brakes should feel responsive and not "soft" • Brake lever should not contact handle 		Daily	
General Inspection	Holding brake remains active over time	Lock brakes for 10 minutes then push on cart with brake still locked	Brake should remain engaged		Daily	
Hydraulics	Electrical operation	Operate hydraulic pump up and down several times electrically	<ul style="list-style-type: none"> • No excessive noise or extraneous sounds from pump or pump motor • No rattles from tubing • No squeaks or groans from cylinders • Manual bypass valve should not leak 		Daily	

Area	Description	Method of Inspection	Normal Condition	Findings Pass or Fail	Timing	Notes
General Inspection	Warning and branding labels are in good condition	Visual inspection	<ul style="list-style-type: none"> Labels are in place and not coming loose Labels are in good condition Red stripes are in place and in good condition 		Weekly	
Frame	Frame is in good condition <ul style="list-style-type: none"> No damage No excessive wear 	Visual inspection	<ul style="list-style-type: none"> Straight sections Smooth curves Flat surfaces Minor scratches and dings are expected 		Weekly	
Frame	Containment strap plate	Visual inspection	<ul style="list-style-type: none"> Plate should be flat and free of damage or excessive wear Plating should not be cracked or damaged Mounting screw should be tight 		Weekly	
Deck	Deck is in good condition <ul style="list-style-type: none"> No damage No excessive wear 	Visual inspection	<ul style="list-style-type: none"> Straight sections Smooth curves Flat surfaces Minor scratches and dings 		Weekly	
Deck	Yoke screws are not loose in deck	Manual inspection	Screws are tight		Weekly	
Brake System	No system leaks <ul style="list-style-type: none"> Fittings on master cylinder, connecting block & calipers Master cylinder body Caliper body Hoses 	Wipe around fittings and master cylinder with dry rag	No leaks (rag remains dry)		Weekly	
Brake System	Brake lever in good condition and operating properly	Visual inspection Operate brake	<ul style="list-style-type: none"> No visible damage Smooth operation 		Weekly	
Brake System	Holding brake pawl in good condition and operating properly	Visual inspection Set brake	<ul style="list-style-type: none"> No visible damage Brake locks in place 		Weekly	
Brake System	Mounting screws tight <ul style="list-style-type: none"> Master cylinder mount to handle Master cylinder cap Connecting block to base of enclosure Caliper mounting 	Manual inspection	<ul style="list-style-type: none"> Parts are tight to mounting surfaces 		Weekly	

Area	Description	Method of Inspection	Normal Condition	Findings Pass or Fail	Timing	Notes
Hydraulics	Cylinders not leaking (note especially front cylinder)	Visual inspection	Thin film of oil on piston rod		Weekly	
Hydraulics	Cylinder condition <ul style="list-style-type: none"> • No rod scoring • Return springs fully functional 	Visual inspection	Cylinder rod is smooth and retracts fully into cylinder body		Weekly	
Suspension	Wheels and tires are in good condition	Visual inspection	Wheels and tires are free of damage		Weekly	
Suspension	Components are straight and undamaged <ul style="list-style-type: none"> • Front wheel mounting yoke • Main axle • Rear swivel caster frames 	Manual inspection	<ul style="list-style-type: none"> • Components are not damaged and operate freely • Main axle plating is not cracked or damaged 		Weekly	
Operator Interface	External mounting screws are tight <ul style="list-style-type: none"> • Base plate mounting to frame • Enclosure mounting or base plate • Handle mounting screws • Switch plate mounting screws 	Manual inspection	Components are tight to mounting surfaces		Weekly	
Operator Interface	Handle, enclosure and door are free of damage and in good condition	Visual inspection	<ul style="list-style-type: none"> • Straight sections • Smooth curves • Flat surfaces • Minor scratches and dings are expected 		Weekly	
Operator Interface	Handle grips	Visual inspection	Grips are not worn or damaged		Weekly	
Operator Interface	Containment strap		<ul style="list-style-type: none"> • Belt should be free of tears and abrasions • Plating on buckle should not be cracked or damaged • Mounting screws should be tight • Mounting tab should not be bent or damaged • Belt should retract into housing such that only the buckle protrudes • Housing should not be cracked or damaged • Strap tongue should rotate freely 		Weekly	

Area	Description	Method of Inspection	Normal Condition	Findings Pass or Fail	Timing	Notes
Electrical	Buttons and housing	Visual inspection	No cracks or damage		Weekly	
Welds	No cracked welds	Visual inspection	Welds intact, no cracks		Monthly	
Brake System	Fluid level	Visual inspection	Fluid level up to notch in master cylinder reservoir		Monthly	
Brake System	Hose without damage, abrasion, wear	Visual inspection	No visible damage or wear		Monthly	
Brake System	Brake discs have minimal rub and warp	Spin wheel	Wheel should continue to rotate several times before stopping		Monthly	
Hydraulics	Fittings not leaking <ul style="list-style-type: none"> Hose fittings inside enclosure Tube fittings under enclosure and in frame Cylinder fittings 	Wipe around fittings with dry rag	No leaks (rag remains dry)		Monthly	
Hydraulics	No cracks or damage to hose or tubing	Visual inspection	No deep scratches or dents		Monthly	
Hydraulics	Manual operation	Operate hydraulic pump up and down several times manually using pump handle and bypass valve	<ul style="list-style-type: none"> Deck should lift completely within 35 strokes of pump handle Manual bypass valve should allow deck to descend and not leak once re-closed 		Monthly	
Hydraulics	Cylinder bearing cap is tight	Manual / Visual inspection	<ul style="list-style-type: none"> Manually attempt to turn the bearing cap Inspect to determine if bearing cap is flush with top of cylinder - should not see any threads above cylinder body 		Monthly	
Hydraulics	Cylinder mount screws to frame and deck are tight	Manual inspection	Cylinder body is tight to frame; deck mounting screw is tight		Monthly	
Hydraulics	Fluid level	Visual inspection	Fluid should be about 1/2 inch below top of reservoir when deck is down		Monthly	
Suspension	Wheels and casters spin freely	Manual inspection	Wheel should continue to rotate several times before stopping		Monthly	

Area	Description	Method of Inspection	Normal Condition	Findings Pass or Fail	Timing	Notes
Suspension	Mounting hardware is tight <ul style="list-style-type: none"> • Front wheel yoke • Rear caster frame • Main axle mounts to frame and axle clamp • Cotter pins for main wheels 	Manual inspection	All hardware is tight		Monthly	
Linkage System	Hardware is properly installed and undamaged <ul style="list-style-type: none"> • Spring pins • Washers • Springs 	Visual inspection	All hardware is in place and in good condition		Monthly	
Linkage System	Link pins	Visual inspection	<ul style="list-style-type: none"> • Pins are straight with no signs of wear • Pin plating is not cracked or damaged 		Monthly	
Linkage System	Links <ul style="list-style-type: none"> • Minimal play between pins and bushings • Bushings are not working out of links 	Manual / Visual inspection	<ul style="list-style-type: none"> • Links are straight with no signs of damage or wear • Minimal play between pins and links • Bushings are flush with side of the links 		Monthly	
Linkage System	Link pins are not loose in deck, frame or sync links	Manual inspection	Minimal play between pins and deck, frame and sync links		Monthly	
Operator Interface	Internal mounting hardware is tight <ul style="list-style-type: none"> • Vertical slide cover screws • Vertical slide mounting screws • Guide block cotter pins in rod • Pump mounting plate • Pump mounting screws • Pump band clamp • Battery box mounting screws 	Manual inspection	Components are tight to mounting surfaces		Monthly	
Operator Interface	Brushes <ul style="list-style-type: none"> • In front of enclosure • In door 	Visual inspection	<ul style="list-style-type: none"> • Brushes are not worn or damaged • Brushes are properly positioned in holders 		Monthly	
Electrical	Switch panel	Manual inspection	<ul style="list-style-type: none"> • No loose components • Cover for charger port is intact 		Monthly	
Welds	Frame - general	Visual inspection	No cracks or damage		Monthly	
Welds	No cracked welds	Visual inspection	No cracks or damage		Monthly	

Area	Description	Method of Inspection	Normal Condition	Findings Pass or Fail	Timing	Notes
Welds	Front caster plate	Visual inspection	No cracks or damage		Monthly	
Welds	Base plate	Visual inspection	No cracks or damage		Monthly	
Welds	Enclosure	Visual inspection	No cracks or damage		Monthly	
Welds	Handle cross bar	Visual inspection	No cracks or damage		Monthly	
Welds	Battery Box	Visual inspection	No cracks or damage		Monthly	
Welds	Vertical slide rod	Visual inspection	<ul style="list-style-type: none"> Rod is straight with no signs of wear Rod plating is not cracked or damaged 		Quarterly	
Operator Interface	Guide blocks	<ul style="list-style-type: none"> Visual inspection Cycle deck up and down several times 	Blocks are not damaged or worn and move freely in the vertical slide		Quarterly	
Operator Interface	Gas spring mounting <ul style="list-style-type: none"> Mounting studs Rod and body connectors Preload screws are tight 	Manual / Visual inspection	Components are tight and connectors engaged fully with studs		Quarterly	
Electrical	Wiring <ul style="list-style-type: none"> Wire connections Wire crimps and solder joints 	Manual inspection	No loose connections, crimps or solder joints		Quarterly	
Electrical	Battery box	Manual / Visual inspection	<ul style="list-style-type: none"> Battery box case and cover are free of damage, dents and cracked welds No loose components Cover for charger port is intact Connecting screws to the battery terminals are tight Battery box cover screws are tight 		Quarterly	
Electrical	Operation	Cycle deck up and down several times	<ul style="list-style-type: none"> Deck should move through entire range of motion without tripping circuit breaker Buttons should not stick in down position 		Quarterly	

Area	Description	Method of Inspection	Normal Condition	Findings Pass or Fail	Timing	Notes
Operator Interface	Gas spring condition and operation	<ul style="list-style-type: none">• Visual inspection• Disconnect cylinders from studs per instructions in manual and try to compress the spring	<ul style="list-style-type: none">• Rods should be straight and free of oil• Spring should not compress easily and return to fully extended position if compressed		Annually	



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