RL5000AE
RL3500

2023 Operator's & Maintenance Manual for RackLift™

www.RackLift.com 1-877-788-7774



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The **RACKLIFT™ RL to RL5000AE** provides a safer method to move heavy loads such as
Server Cabinets, Battery UPS, and Computer Room Cooling Units under 5,000lbs (Units are used in tandem). The Lift is constructed of high tensile aircraft aluminum with precision machined components; modular plug and play electronics; serviceable for long term operation. One person can move a fully loaded server cabinet un-assisted from one location to another on a flat level surface. The load can be quickly raised off a pallet and placed in another location with precision.

The RACKLIFT™ RL3500 to RL5000AE is not intended for ramps or rocky surfaces. The load is distributed across eight dual castor wheels to minimize point loading raised floors and improve mobility. **Special order wheels and safety straps are available for ramps or uneven surfaces.** Optional tow bar and tug available. Always verify unit condition before use.

IMPORTANT NOTICE

This updated manual incorporates enhanced safety, inspection, training, and reporting requirements effective immediately for all users of RL5000AE and RL3500 units. Failure to follow these instructions may result in serious injury, property damage, or voiding of warranty. Retain this manual with the equipment.

SAFETY INSTRUCTIONS

Pinch Hazard

- Moving Tray can crush or cut
- Keep Hands and Feet Clear
- Keep Hands and Feet Away from Loaded Carriage, and Other Potential Pinch Points.
- Do not stand, place hands or feet underneath lifted equipment.







Fall Hazards

- Do not use as a personal lifting platform or step.
- Do not stand on or climb any part of the RackLift™ unit.

Collision Hazards

- Do not raise or lower platform until area is clear of objects and/or people.
- Do not operate while under the influence of drugs or alcohol.
- When raising RackLift™ watch for ceiling height, sprinklers, smoke detectors, lights, or any other overhead objects.

Damaged Machine Hazard

Do not use a damaged or malfunctioning RackLift™ unit. Immediately remove from service and call for support.

Improper Use Hazard

- Use only on level floor. No incline or decline.
- Do not raise load until properly centered and secured.
- Do not leave unit unattended with a load.
- Do not exceed maximum load weight of 32000N.

Pre-Operation Inspection & Qualification Requirements

Only personnel who have received appropriate training on this manual and are authorized by their employer may operate, inspect, or perform maintenance on the equipment. Untrained personnel are prohibited from use.

Before each use (and after any shipping, handling, relocation, or suspected impact):

• Visually inspect the entire unit for damage, loose fasteners, cracks, or deformation.

• Confirm batteries are secure within the compartment and that no metal brace, bar, or conductive part contacts battery posts or terminals. Do not operate if any shifting or contact is observed.

• Verify ground cables, connectors, and wiring show no signs of burning, melting, or disconnection.

• Check that all safety boots, straps, and locking features function correctly.

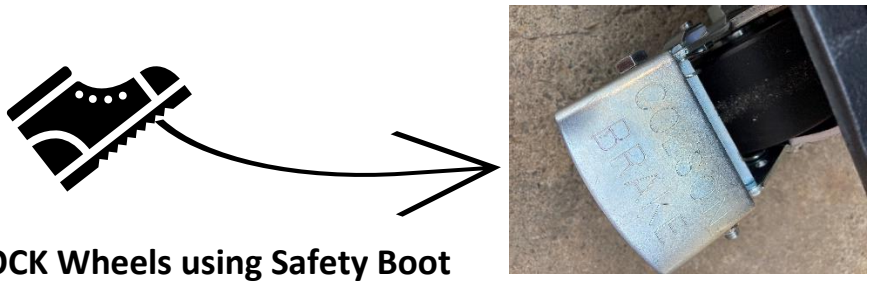
• Confirm the unit has been charged per Section 5 and power switch is in the correct position.

• Complete a pre-operation checklist and have it reviewed by a supervisor when required by site policy. If any anomaly is found, do not use the unit. Tag it out of service and report immediately per Section 7.

OPERATION

- **Attaching the load**
  - The operator guides the unit in the lowered position into alignment with the Lifting plate shoe. Align so the anti-slip bar slips behind the rack frame. Lock wheels using the safety boot. Repeat on the tandem unit. Press the top of the control switch to raise. Safe transport height is approximately 4 inches off the floor; a universal adaptor, is supplied standard. Optional Shoes that fit various rack types are available in Lifting Adapters.

- While holding the unit in position, align the lifting plate to initiate contact between the adapter and the lift. The “Anti-Slip Bar” should be adjusted to slip up behind the rack frame (lower Rack cutout) thus securing the lift to the rack during lift and move operation. Continue jogging the switch floor.



- **LOCK Wheels using Safety Boot**

- Repeat the previous step on the tandem unit until both lifts are fully engaged to raise the load



- The Anti-Slip Bar can accommodate differing widths of racks. Simply remove hex screws and adjust as required prior to lifting racks of differing depth to the cable management opening bottom cabinet cutout.

- The upper pinch blocks with anti scuff pad should be snug up to the Rack front pillar supports. Always check to verify the front of the cabinet pinch block location will not damage the cabinet door or unusual protruding equipment. It is recommended the doors should be removed in heavy loaded racks.



- The auto retractable safety straps provide an additional layer of load control and should be engaged for uneven surfaces rack loads over 200lbs. Rubberized hooks can secure the connection to the second unit or Rack front or rear pillars. Check that Pillars are unbolted from the floor, raised secondary or pallet.



The Control Switch RL5000



- The RACKLIFT™ RL5000 has been designed for ease of operation.
- A single control switch raises or lowers the load.
- Press the top of the control switch to raise or engage the load
- Press the bottom of the control switch to lower and disengage the load

Control Cables



- Plug the control cable into the outlets on each lift. It does not matter which lift is plugged in first or which jack you use. The extra plugs can be used to "Daisy Chain"
- Support the control cable on top of the load to be raised or wrap it around the handles on each lift so it does not drag on the floor or snag on objects during the transport of the load.
- Allow slack in the cable for lifting the load.

Raising the load

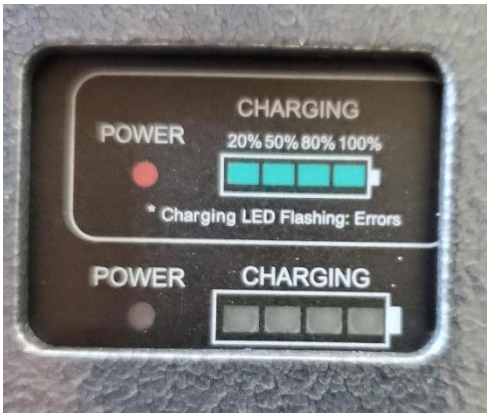
- On the RL5000 Press the top of the control switch on either of the two lifts or Hand crank clockwise (RL3500) to raise the load off of the pallet or to move a load already sitting on the floor.
- The safe operating mode is with the load 4” off the floor. After removing a load off a higher surface, lower the load to approximately 4” off the floor before transporting the load to another location.
- Move the load to the desired location required using the handles on the lifts to push and turn the load during transportation.

Lowering the load

- Carefully move the load into the desired position.
- Before lowering, position the control cable where it can easily be removed when the load is set in place.
- Press the bottom of one of the control switches (RL5000) or crank counter clockwise (RL3500) to lower the load to the floor.
- Pull the lifts away from the transported item.
- RL5000 - Unplug the control cable and store the cable in one of the storage compartments provided on the lift.

Charging the Lifts (RL5000)

- Each day after use, store the lifts near a power outlet.
- Turn the power switch off (This eliminates any drain of the battery).
- Always plug the lift in after use to ensure a full charge for using the lift in the future.
- The charger is built into the lift and will not over charge the batteries.
  Leave units plugged in when not in use.
- It is good practice to leave the charger plugged in until you are ready to use the lift.
  - The charger is auto sensing and



will automatically adjust between 120V and 240V, 50Hz and 60Hz currents. Cords matching other countries can be used. Do not plug in or

operate if any abnormal sound (buzzing, arcing, popping), smell, or heat is present. Immediately unplug and follow Section 7.

Battery Compartment Safety

WARNING: The battery compartment must maintain proper battery retention at all times. Batteries must not be allowed to shift so that any metal brace, bar, or conductive component contacts battery posts or terminals. Such contact can create a short circuit, arcing, fire, or explosion.

- Only qualified personnel authorized by the site and, if necessary, by RackLift support may open the battery compartment.
- Appropriate PPE (including eye protection and insulated gloves) is required if the compartment is opened.
- If batteries have shifted or any contact with metal parts is observed, do not operate. Secure the area, unplug the unit, and contact RackLift technical support immediately.
- Do not attempt field repairs of battery wiring or grounding unless specifically authorized and trained.

Anomaly Reporting & Immediate Stop-Use Protocol

Any operational anomaly, unusual sound (buzzing, popping, arcing), odor, heat, visible damage, or suspected internal issue requires immediate cessation of use.

- Unplug the unit from power.
- Tag the unit out of service.
- Report immediately to site supervision and to RackLift technical support (1-877-788-7774 or support contact on website).
- Do not resume use until the unit has been inspected and cleared by authorized personnel.

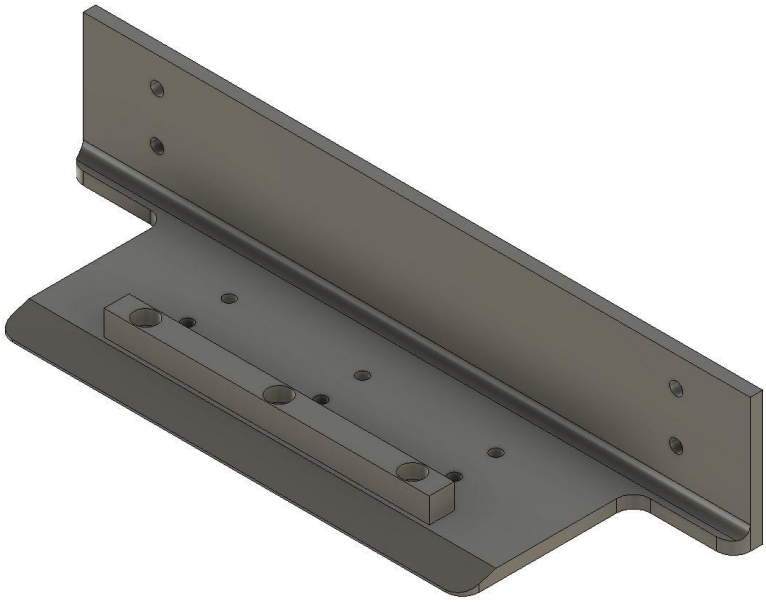
- Lubricating the lifting cylinder is not required and is maintenance free

Lifting Adaptors

- When using your RACKLIFT™ RL5000AERL3500 with objects built on a frame the Universal adaptor furnished will be suitable for most instances.
- (Contact Support for more information 1-800-615-6593 Extension 5)
- **If you are using an adaptor to lift your load, it must be designed and provided by RACKLIFT™ or it will void the warranty.**
- Ensure that the required adaptor is firmly and correctly connected to the load to be lifted.
- Follow the raising and lowering instructions.
- For Racks without wheels or legs This custom shoe below is machine tapered stainless steel to aid in sliding under Racks on Cement Floors.

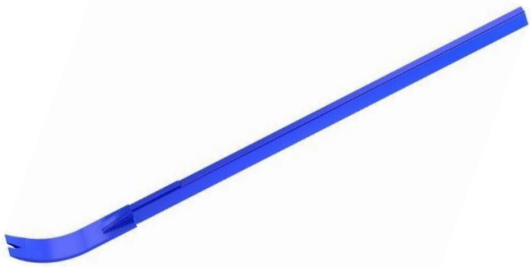
It is available in 14” wide by 6” (6061 aluminum) or 9” (Stainless Steel) reach depths Certain racks require 11.5” to clear the Rack Wheels, Please specify Rack Models at

time of order.



Adaptors to lift racks from the side are also available with Outriggers.

- Methods for insertion of the shoe adaptor include pushing rack from the upper front to insert lift in gap or the use of a pry bar with a wide lift edge while pushing lift into place. Attach the lower safety straps and crank the lift into a tight connection with the Rack.



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USER GUIDE

EWC36-1.8 and EWC24-2.8 Charger



WARNING:

Failure to follow these instructions can damage the unit and/or other equipment and cause physical injury. Use this battery charger only on lead-add type rechargeable batteries or VRLA type.

Never charge other type of batteries such as LI-ION battery or NIMH/NICd battery packs (other types may explode and burst).

Never charge a frozen battery. Never overcharge a battery. Do not operate the battery charger if it has received an impact, been dropped, has cracks or openings in the enclosure, or is otherwise damaged In any other way. Do not disassemble charger If It doesn't work; call RackLift support or take It to a qualified service professional If service or repair is required.

PERSONAL PRECAUTIONS

WARNING:

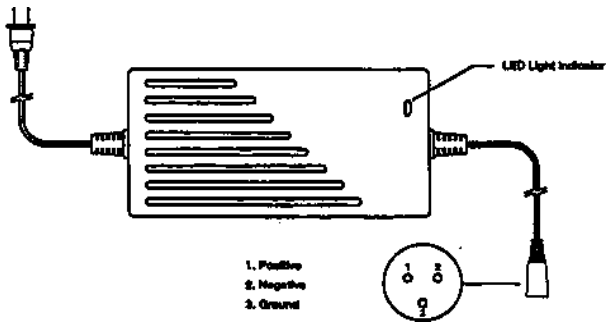
Working In the vicinity of a lead-add battery is dangerous. Batteries generate explosive gases during normal battery operation. For this reason, It Is of utmost importance that you follow the instructions each time you use the charger. NEVER smoke or allow a spark or flame in the vicinity of a battery or engine. Remove personal metal items such as rings, bracelets, necklaces and watches when working with a lead-add battery. Wear complete eye and body protection, Including safety goggles and protective clothing. Avoid touching your eyes while working near the battery. If battery add contacts your skin or clothing, immediately wash the area with soap and water. If acid enters your eye, immediately flood the eye with cold running water for at least 10 minutes and get medical attention right away.

Rating AC Input Rating output Protection Mode Temperature range Operate Humidity

120-240VAC 90W 5Q/60HZ 27.6VDC 2.8A (24V) 41.4VDC 1.8A(36V)

Overcharge, Reversed Polarity 0°C-+40°C (Battery pack)

5%-90%



LED indications: Red ■ main charge mode

Green = finished/open mode

RED flashing = reversed polarity or DC plug short-circuit



RETURN POLICY AND LIMITED WARRANTY

BIAC Broadband USA, Inc. (BIAC™) agrees to repair or replace any RackLift™ as a direct result of a defect in original workmanship or materials furnished by BIAC™ which causes a malfunction or breakdown of a RackLift™ during the warranty period, provided that:

1. The RackLift™ is new at the time of purchase or lease by the warranty owner (the warranty is not transferable without the prior written consent of BIAC™);
2. The RackLift™ has been used in accordance with the safety instructions in the operating manual;
3. The repair is made by BIAC™ or by an authorized RackLift™ Dealer; 4. The owner pays any applicable removal and installation costs; and
5. The repair is not an excluded repair.

RackLift's returned for credit are subject to a restocking charge of 10% per week of the original purchase price from receipt of shipment. RackLift™ trade in for upgrade, exchange or recycling are subject to inspection and valuation.
The original RackLift™ must be returned for repair or replacement at the discretion of BIAC™ and the owner agrees that BIAC™'s liability in respect of an authorized repair is limited to the cost of repairing or replacing the RackLift™ with a new or manufacturer's rebuilt part or parts.

ALL parts of the RackLift™ are covered for the times set out below.
1. When assembled for use on a data center one year from date of purchase or receipt of RackLift™;
The following are exclusions from the BIAC™ warranty and are not covered:
1. Labor for removal and re assembly of the RackLift™;
2. Repairs or replacement resulting from accidental damage, any alteration of the RackLift™ or when the unit has not been properly maintained;
3. Repairs or replacement resulting from damage from an external cause;4. Unauthorized repairs;
5. Repairs or replacement resulting from alterations or modifications after the RackLift™ is assembled;
6. To any RackLift™ where there is evidence of tampering;
7. Where repair or replacement is required as a result of environmental causes, acts of riot or similar causes or acts of God;

8. All consequential and/or resultant loss damage, injury, death, and expenses resulting there from of any kind whatsoever suffered by any person or thing except as specifically provided for herein; and

9. For repair or replacement resulting from normal vibration, deterioration, distortion, or deformation. In the event of a claim by the Purchaser or authorized transferee of this Warranty, the Purchaser must make the RackLift™ available to BIAC™ for inspection before any repairs are made. Failure to do so will void this Warranty.

This warranty contains all the terms and conditions detailing the rights and obligations of the owner and there are no warranties or representations, express or implied, except those contained herein. It shall be a condition precedent to any obligation of BIAC™ hereunder that the owner return or make available to BIAC™ , or one of BIAC™ 's authorized dealers, the RackLift™.

Warranty coverage remains conditioned on use in accordance with this manual's safety, inspection, training, and reporting instructions. Unauthorized repairs, evidence of tampering, or failure to follow this manual may void coverage. See original warranty terms for full exclusions and duration (typically one year from purchase/receipt when assembled for data-center use). Owner must make unit available for inspection before repairs. Governed by laws of the State of Texas (U.S. sales) or Province of Ontario (Canada/international).

To The Purchaser: This certificate, together with a copy of your authorized RackLift™ dealer invoice, which must include the date of sale or installation, is your proof of purchase. If you request a warranty replacement or repair, these documents must be presented to an authorized RackLift™ dealer. Warranty terms and limitations are set out in the entirety of this BIAC Broadband USA, Inc. RackLift™

WARRANTY. Dealers cannot change or override the terms of the BIAC™ warranty.



Optional On-Site Service and Support is available.
Please Contact Your Dealer or Distributor for a Quotation.