

# **Operator's Manual**

# ServerLIFT **SL-350X**<sup>®</sup> Manual Crank Lift

Serial#:

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As a certified ISO:9001 and ISO:14001 manufacturer, ServerLIFT has made a commitment to our customers, suppliers, and community, to continuously improve and to deliver products and services that meet or exceed the highest standards for quality and minimizing environmental impact.



## NOTICE

ONLY ORIGINAL SERVERLIFT REPLACEMENT PARTS SHALL BE USED FOR ANY REPAIR.



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**Introduction** 

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### A CAUTION:

Read and completely understand the contents of this Operator's Manual before operating the ServerLIFT device. Failure to read, understand, and follow instructions in this manual may result in property damage and/or personal injury. If you do not understand any part of this manual or if you have any questions please contact ServerLIFT Service & Support.

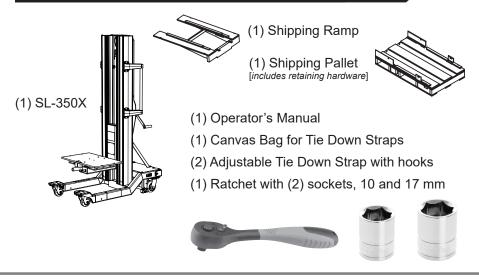
**IMPORTANT**: Keep these instructions with the ServerLIFT device.

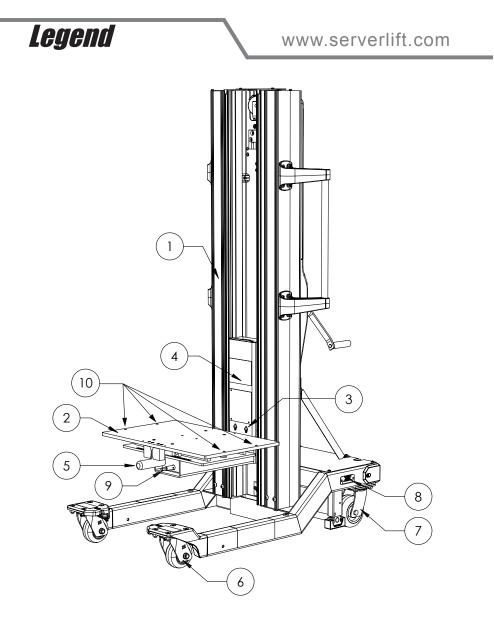
- Do not stand or ride on any part of the ServerLIFT device.
- Never lift or move the ServerLIFT device with a pallet truck, jack, or forklift. Use the pallet, ramp, and packaging originally received with the unit for transporting it.
- Keep hands, fingers and clothing clear of platform and mast when equipment is in motion.

#### Never operate the ServerLIFT device while charging

Never unwind the SL-350X ServerLIFT device past the bottom of travel

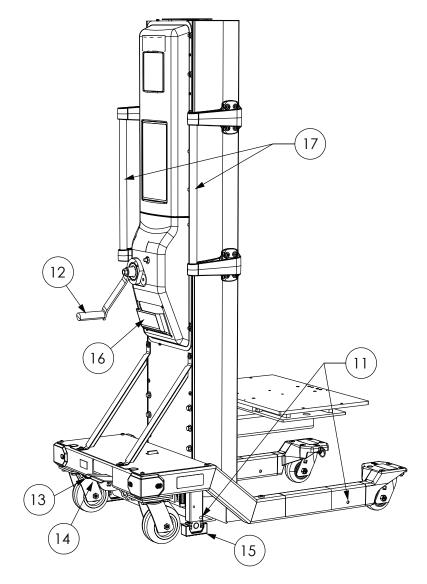
#### Included with the SL-350X device





- 1. Vertical Mast
- 2. Equipment Platform and Easy-Tilt Glide Shelf
- 3. Strap Hooks
- 4. Platform Mast
- 5. Easy-Glide Shelf Handle
- 6. Casters Swivel/Lock
- 7. Casters Free Swivel
- 8. Serial Number Plate
- 9. Platform SmartTILT Adjustment
- 10. Accessory Attachment Holes

Legend



- 11. Pallet Bolt Holes
- 12. Winch (Up/Down) Handle
- 13. Stabilizer Brake Release Pedal
- 14. Stabilizer Brake Pedal
- 15. Stabilizer Brake Pad
- 16. Operator's Manual Sleeve
- 17. Handle Bars

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#### Before you begin

- 1. Read and understand the contents of this manual carefully.
- 2. Locate the serial number plate. Record unit serial number on front page of Operator's Manual for future reference.
- 3. Perform *Pre-operation Inspection*.
- 4. Perform *Function Tests*.

#### **Pre-operation Inspection**

Check ServerLIFT device and included attachments (if applicable) for signs of damage. Fully document any damage, including Tip N' Tell activations, with photos, location, and description. Promptly contact ServerLIFT Service & Support if any damage is present.

### SAVE PALLET, RAMP, HARDWARE AND PACKING CARTON!

They are needed for moving the ServerLIFT unit to other locations.

#### **Function Tests**

Function Tests are designed to discover malfunctions before machine is used. Tests should be performed before normal operation. Before testing, select an area that is solid, level and free of obstructions.

Note: After testing, if malfunctions are discovered, the machine must be removed from service. Repairs to the machine may only be made by or under the directions of a service technician qualified by ServerLIFT.

### Stabilizer Brake Function Test

See Stabilizer Brake Operation (page 12) for additional details.

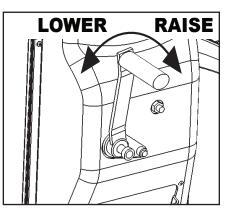
1. Press down red Stabilizer Brake Pedal until it locks in place. The Stabilizer Brake should remain in DOWN position.

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- Attempt to move the ServerLIFT machine. It should be locked in place and not be able to move. If it rolls at all, or Stabilizer Brake does not lock in DOWN position, contact ServerLIFT Service and Support.
- ♦ Note: If operating correctly, engaging the Brake will very slightly lift the back of the ServerLIFT machine up off the ground. Applying additional force may be required to engage the Brake at the point where it lifts the unit and locks in place. If too much force is needed, or the Brake does not lift the back wheels up, contact ServerLIFT Service and Support.
- 3. Press green pedal to release and allow pedals to return to UP positions. If operating correctly, proceed to next Function Test.

#### Winch Function Test

- 1. Engage Stabilizer Brake.
- 2. Rotate Winch Handle *CLOCKWISE* to move Platform *UP*. Test full range of motion up and down. Platform will stop moving in fully extended and fully retracted positions. If Platform does not travel full range of motion consistently, contact ServerLIFT Service & Support.

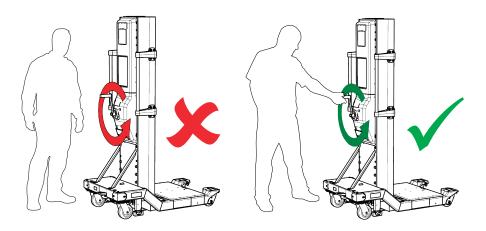


Note: When raising Platform, Winch should produce a loud, sharp clicking noise. Load will remain in position when Winch Handle is released. When lowering Platform (unwinding Winch) no noise should be produced.

While a load will remain in position when the handle is released, for extra safety it is recommended to turn Winch Handle clockwise until at least two clicks are heard.

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Platform Mast extends higher than Platform. When raising Platform, be aware of ceiling height, cable trays, sprinklers, lights, and other overhead obstructions.



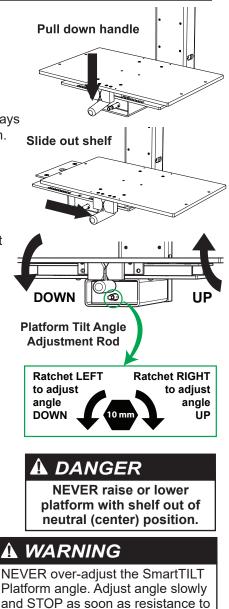
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- DO NOT turn Winch Handle past top or bottom of platform travel. Excessive unwinding will detach Handle and damage cable.
- ALWAYS hold Handle when lowering/ unwinding.
- Always be sure that Winch is holding load before releasing Winch Handle.
- NEVER allow Winch to unwind freely. Freewheeling will cause uneven cable wrapping around Winch Drum, damage cable, and may cause death or serious injury.
- Operate with hand power only. Do not operate ServerLIFT device with a motor of any kind. If Winch Handle cannot be cranked easily with one hand, it is probably over-loaded.

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#### SmartTILT Platform<sup>™</sup>/Easy-Glide Shelf<sup>™</sup> Function Test

- 1. Engage Stabilizer Brake.
- 2. Raise Platform to a comfortable working height.
- Push down on handle to unlock and allow movement of Easy-Glide Shelf. Shelf will shift sideways up to 6" (15 cm) in each direction. There are multiple incremental adjustment locations.
- Test full movement of Easy-Glide Shelf in both directions. If shelf does not travel entire range of motion consistently or does not lock at incremental adjustment locations, contact ServerLIFT Service and Support.
- 5. Return Shelf to neutral (center) position.
- Test operation and range of motion of the SmartTILT Platform by using the included ratchet and 10 mm socket to <u>slowly</u> adjust the Platform angle UP and DOWN. Stop as soon as adjustment resistance is felt. Optionally use a level to measure the angle which should be approximately 0.5 degrees DOWN and 1.5 degrees (or more) UP.
- 7. Return Shelf to neutral (center) position.
- Lower Platform down. Release Stabilizer Brake.



the angle adjustment can be felt.

### Instructions

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### Before operating the ServerLIFT unit

- 1. Read and understand the operating steps and functions well.
- 2. Remove any objects or obstructions around or under the ServerLIFT unit, or in travel area of Platform.
- 3. Make sure Stabilizer Brake engages and locks in place. Both Stabilizer Brake Pads must be installed and engage floor correctly (see **Stabilizer Brake Operation** on page 12).

### **Operating Steps**

- 1. Position the ServerLIFT unit
- 2. Engage Stabilizer Brake
  - 3. Raise Platform to desired loading height
  - 4. Load server or equipment onto Platform
- 5. Secure server to Platform D-rings using Adjustable Tie Down Straps\*
  - 6. Lower Platform to lowest position
- 7. Release Stabilizer Brake

NEVER raise or lower platform with shelf out of neutral (center) position.

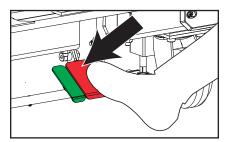
- 8. Move the ServerLIFT unit to destination
- 1 9. Engage Stabilizer Brake
  - 10. Raise platform to desired unloading height
  - 11. Load server from Platform and Easy-Glide Shelf into rack
  - 12. Lower Platform to lowest position
  - 13. Release Stabilizer Brake

\* especially critical when moving the ServerLIFT unit across uneven or not level ground



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### **Stabilizer Brake Operation**

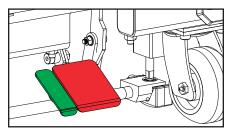


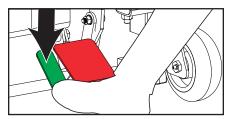
To engage Stabilizer Brake, depress red pedal until it locks in **DOWN** position. The back of the ServerLIFT unit should slightly lift up off the ground. The ServerLIFT unit should not move. If ServerLIFT unit moves, the Stabilizer Brake is not

functioning properly. Contact ServerLIFT Service and Support.

Note: Without equipment on the platform, average force is all that is needed to fully depress Stabilizer Brake. The force required will increase as equipment/weight is added to the platform.

Once Stabilizer Brake is locked in **DOWN** position, ServerLIFT unit is stabilized, parked and ready for use. Follow Operating Steps 3-6 or 10-12 (page 11).





Press on green release pedal until unlocked and slowly pull foot back allowing both pedals to fully retract.

### 

- Always engage Stabilizer Brake before raising, lowering, or sliding Easy-Glide Shelf
- Engage Stabilizer Brake whenever ServerLIFT unit is not in motion
- · ServerLIFT unit will/should not move with Stabilizer Brake engaged

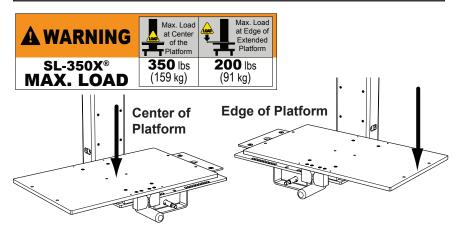
### Instructions

### **Applying Load To The Platform**

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NEVER place more than the maximum load (350 lbs / 159 kg) on edge of Platform Shelf. The maximum rated load at the edge is reduced when the Platform Shelf is extended (200 lb / 91 kg).

NEVER raise or lower platform with shelf out of neutral (center) position.



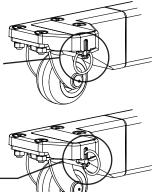
#### **Front Caster Swivel Lock Operation**

### UNLOCKED

To unlock Front Caster, pull out ring and turn 90 degrees in either direction. Allow ring to align in horizontally (perpendicular) to groove as shown.

### LOCKED

To lock Front Caster, pull ring out and turn 90 degrees in either direction. Allow ring to align in vertical groove as shown. Ensure caster is in line with base frame arm and – pointing backward. An audible click indicates the lock is engaged.





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### **Safety Directions**

### Fall Hazards

- · Do not stand on any part of lift.
- · Do not climb on mast.
- · Do not use as a personnel lifting platform or step.

### <u> Tip-over Hazards</u>

- Do not lift load unless stabilizer is fully engaged.
- Do not move machine while platform is raised, except for minor positioning.
- Only raise load if properly centered on platform.
- Do not operate while under the influence of drugs or alcohol.
- Do not stand under overhanging load.
- Do not exceed rated load capacity.
- · Do not stack loads.
- · Do not support ladder against ServerLIFT unit.
- Do not use on uneven or graded surface

### **Collision Hazards**

- Only lower load in areas clear of personnel and obstructions.
- Platform Mast extends higher than Platform. Be aware of ceiling height, cable trays, sprinklers, lights, and other overhead objects.

### **Damaged Machine Hazard**

 Do not operate a damaged or malfunctioning ServerLIFT machine.

### Improper Use Hazard

- Do not leave machine unattended with an elevated load.
- Do not raise or lower platform with shelf out of neutral (center) position OR with handle not retracted.

### Pinch Point Hazard

- Keep hands clear of moving parts and open sections during operation.
- Hands should only be on handle bars and/or on designated locations needed for operation.





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### PL-500X<sup>™</sup> Platform Extension

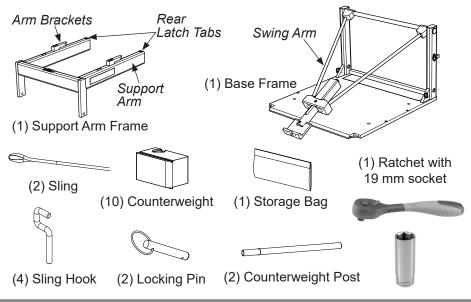
The ServerLIFT PL-500X Platform Extension brings the reach of any ServerLIFT unit down to the floor, so it can safely and precisely handle equipment at bottom rack positions. The Platform Leveler can adjust the angle of the equipment up or down for precise server alignment. It is capable of lifting up to 500 lb (227 kg) when the included Counterweight Kit is installed.

### 

- Do not stand or ride on any part of Platform Extension.
- Do not exceed the maximum load.
- Do not operate with a load that has a center of mass placed forward (away from the ServerLIFT unit) of indicated Platform Extension Load Center.

#### DO NOT USE THE PL-500X PLATFORM EXTENSION UNLESS THE REAR LATCH TABS ARE FULLY ENGAGED WITH THE PLATFORM AND THE SWING ARM HOOK IS ENGAGED OVER LIP OF PLATFORM MAST

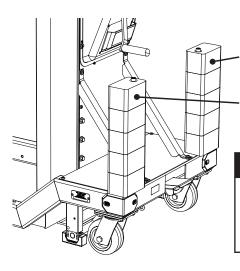
### Included with PL-500X Platform Extension

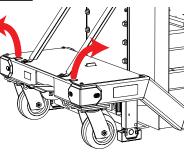


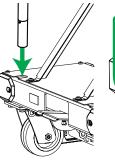
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### Installing the Counterweight Kit

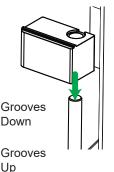
- 1. Remove plastic caps on rear of ServerLIFT unit as shown.
- Insert Counterweight Posts (open end down) into holes and over the screws and nuts inside ServerLIFT Base support tube.
- Place first Counterweight onto Counterweight Post as shown.
- Place additional Counterweights onto the Post aligning the tongue and grooves of the Counterweights. Repeat until five Counterweights are installed in place.
- 5. Repeat steps 3 and 4 for the Post on other side of the ServerLIFT unit.

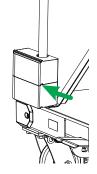










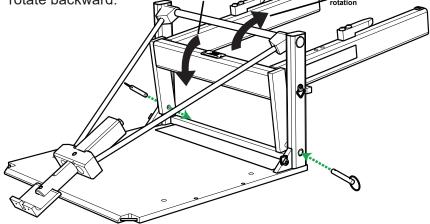


### A WARNING

Counterweight Kit MUST be installed for full weight capacity and functionality of the PL-500X Platform Extension.

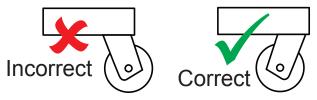
### Setting up the PL-500X Platform Extension

- 1. With the Swing Arm rotated toward the front, attach the Support Arm Frame to the Base Frame using the Locking Pins as shown.
- 2. Ensure that the Support Arm Frame can rotate forward. It should not be able to rotate backward.



### Attaching Platform Extension to the ServerLIFT Unit

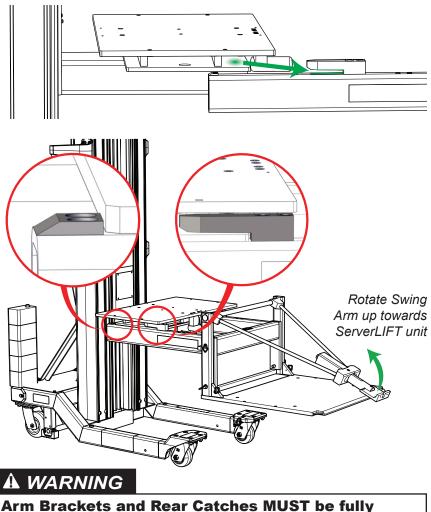
1. See "Front Caster Swivel Lock Operation" on page 13 and prepare the ServerLIFT unit by locking the Front Casters in the backward position as shown.



- 2. Engage ServerLIFT Stabilizer Brake and turn power ON.
- With the PL-500X Platform Extension on the floor or on a pallet, position the ServerLIFT unit behind the PL-500X Platform Extension.

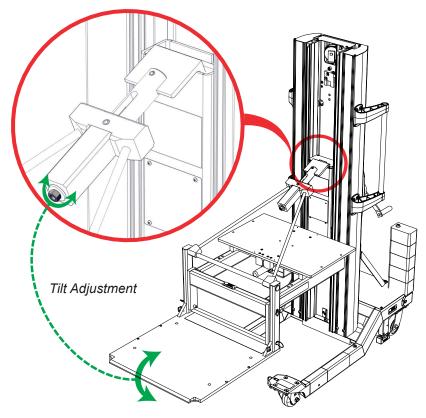
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- 1. Raise the ServerLIFT Platform so the bottom plate of the Platform is in-line with the top of the PL-500X Support Arms.
- 2. Roll the ServerLIFT unit forward so the PL-500X horizontal arm brackets completely engage on top of the ServerLIFT Platform Bottom Plate as shown.



engaged on Platform Frame Bottom Plate

 Rotate Swing Arm as shown and engage the Swing Arm Hook over the front edge of the ServerLIFT Platform Column. Adjust the length of the Swing Arm, and thereby the desired angle of the PL-500X Platform, by rotating the hex bolt at the end of the arm hook assembly using the ratchet provided.

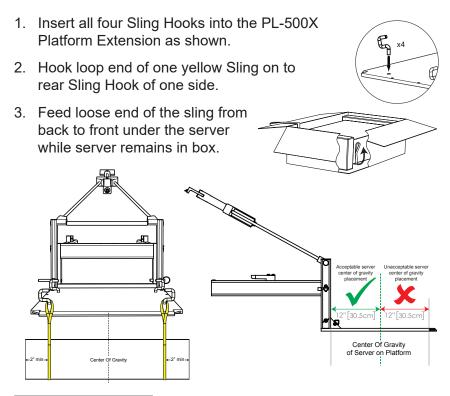


### Removing Equipment from Boxes and off of Pallets

### Note: Proper setup, installation, and use of this product is the sole responsibility of the installer.

 Ensure counterweights are installed at the rear of the ServerLIFT unit. See "Installing the Counterweight Kit" on page 16.

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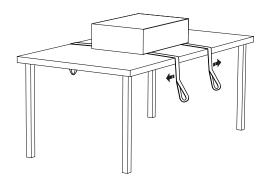


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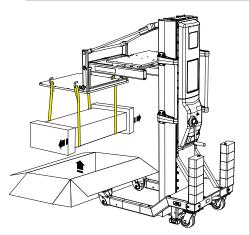
Center of gravity of the load must be centered in between Sling Hooks AND may not be placed more than 12 inches (30.5 cm) forward of the back of the Platform Plate as shown.

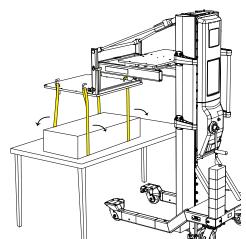
- 4. Hook loose loop end of the sling to the front sling hook on the same side.
- 5. Repeat with the second sling and sling hooks on the other side.

- 1. Lift equipment out of box and remove packaging.
- 2. Set packaging aside or discard.
- Lower equipment down onto a table or secure surface.
- 4. Remove yellow Slings from Sling Hooks.
- 5. Remove Slings from under equipment.
- 6. Remove Sling Hooks from Platform Extension.
- 7. Transfer server from table onto PL-500X Platform or remove Platform Extension from ServerLIFT unit to transfer server onto ServerLIFT Platform.
- 8. Follow "Operating Steps" on page 11.



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#### LE-500X<sup>™</sup> Lift Extension

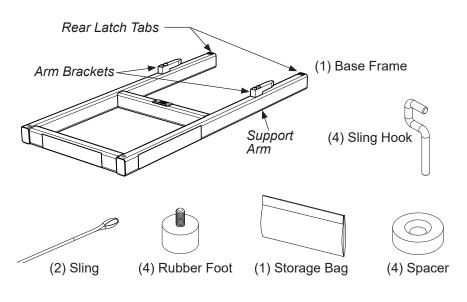
The ServerLIFT LE-Series Lift Extensions are attachments that assist in lifting heavy IT equipment out of boxes and off of skids. They feature a lightweight design that is capable of lifting up to 500 lb (227 kg.) The LE-500X may be used with the ServerLIFT SL-500X or SL-350X devices.

### A WARNING

- Do not stand or ride on any part of Lift Extension.
- Do not exceed the maximum load.
- Do not operate with a load that has a center of mass placed forward (away from the ServerLIFT unit) of indicated Lift Extension Load Center.

### DO NOT USE THE LE-500X LIFT EXTENSION UNLESS THE REAR LATCH TABS ARE FULLY ENGAGED WITH THE PLATFORM

### Included with LE-500X Lift Extension

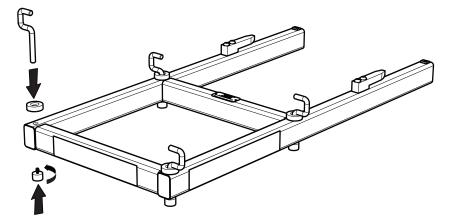


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### Setting Up the LE-500X Lift Extension

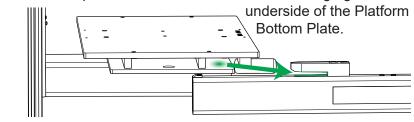
### Note: Proper setup, installation, and use of this product is the sole responsibility of the installer.

- 1. Assemble Sling Hook into Spacer and insert completely through frame hole from the top as shown.
- 2. Screw Rubber Foot into bottom of Sling Hook. Repeat steps 1 and 2 in remaining three hook locations as shown.



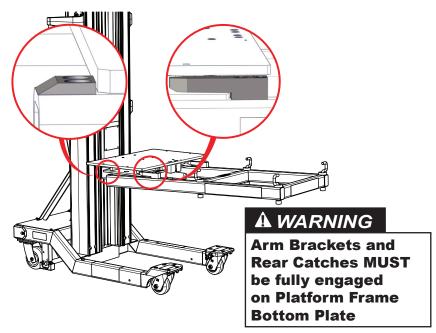
### Attaching Lift Extension to the ServerLIFT unit

- 1. Engage ServerLIFT Stabilizer Brake.
- 2. Raise Platform to a height of at least 1.5 ft (0.5 m) above Caster Wheel mounts.
- 3. Insert Lift Extension onto ServerLIFT Platform as shown. Lift Extension Catches should insert on top of Platform Bottom Plate with top of Lift Extension Frame Arms resting against





1. Ensure Rear Latch Tabs are fully engaged on the Platform as shown.

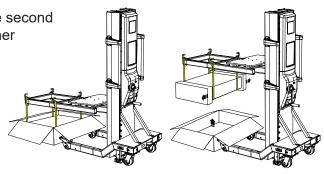


### Using the LE-Series Lift Extensions

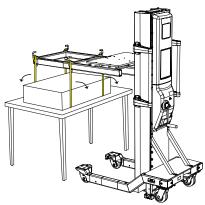
- 1. Hook loop end of one yellow Sling on to rear Sling Hooks of one side of the LE-500X Lift Extension.
- Feed the loose end of the Sling from back to front under the server while server remains in box.
  Hook loose loop end of the Sling to the front Sling Hook on the same side of the LE-500X Lift Extension.

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- Repeat with the second Sling on the other side of the LE-500X Lift Extension.
- Lift equipment out of box and remove packaging.

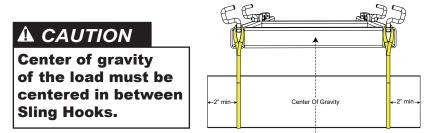


- 3. Lower equipment down onto a table or secure surface.
- 4. Remove yellow Slings from Sling Hooks. Remove slings from under equipment.





- 5.Remove Lift Extension from ServerLIFT unit, and safely set aside Lift Extension.
- 6. Slide equipment from table onto ServerLIFT Platform and Easy-Glide Shelf and follow "Operating Steps" on page 11.



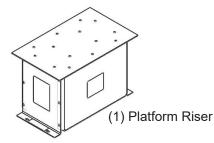
#### **RL-500™ Platform Riser**

The ServerLIFT RL-500 Platform Riser attachment enables users to install servers at the top of any rack in areas where equipment positioning is a challenge. These situations include:

- Low ceilings clearance or obstructions
- Cold and hot aisle containment rooms
- Ten foot (3 meter) tall racks
- Drop in rails

The ServerLIFT RL-500 Platform Riser features a lightweight yet rugged design, and is compatible with all current and past models of ServerLIFTs.

### Included with the RL-500 Platform Riser





(4) Thumbscrew

### 

- Do not stand or ride on any part of Platform Riser.
- Do not exceed the maximum load of 500 lbs (227 kg).
- Do not use together with LE-500X or LE-1000X Lift Extensions or PL-500X Platform Extension.
- No corner load.

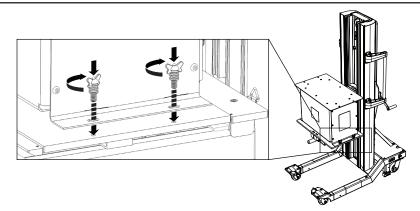
### SECURE PLATFORM RISER TO SERVERLIFT SHELF IN <u>ALL</u> FOUR LOCATIONS (WITH PROVIDED HARDWARE <u>ONLY</u>) PRIOR TO USE

### Attaching Platform Riser to the ServerLIFT Platform

- 1. Engage ServerLIFT Stabilizer Brake.
- 2. Place Platform Riser onto ServerLIFT Easy-Glide Shelf. Line up slotted holes in bottom flanges of Platform Riser with threaded holes on ServerLIFT Easy-Glide Shelf.
- 3. Secure Platform Riser to Shelf with Thumbscrews in all four locations as shown.

### 

**Platform Riser MUST be secured in all four locations** 



Note: Platform Riser should be removed and set aside when not in use. Four holes on Platform Riser top plate are provided for convenient storage of Thumbscrews and Washers when not in use.

### RS-500X<sup>™</sup> Rail Lift

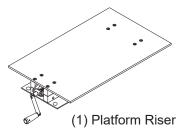
The ServerLIFT RS-500X Rail Lift attachment enables users to position and support servers at an angle for installation or removal from slotted or drop-in rails.

The ServerLIFT RS-500X Rail Lift features a low profile yet rugged design, and is compatible with all current and past models of

ServerLIFTs. Its convenient, multi-hinged crank handle can be used to adjust the angle of the equipment surface from flat level up to  $5^{\circ}$  of angled position.

The ServerLIFT RS-500X Rail Lift can be secured to the ServerLIFT Platform Shelf in one of two positions, allowing the Operator the choice of using it from the left or right side of the SL-350X ServerLIFT device. The RS-500X Rail Lift can also be used in conjunction with the RL-500 Platform Riser.

### Included with the RS-500X Rail Lift





(4) Thumbscrew

### 

- Do not stand or ride on any part of Rail Lift.
- Do not exceed the maximum load of 350 lbs (159 kg).
- Do not use together with LE-500X Lift Extension or the PL-500X Platform Extension
- No corner load.

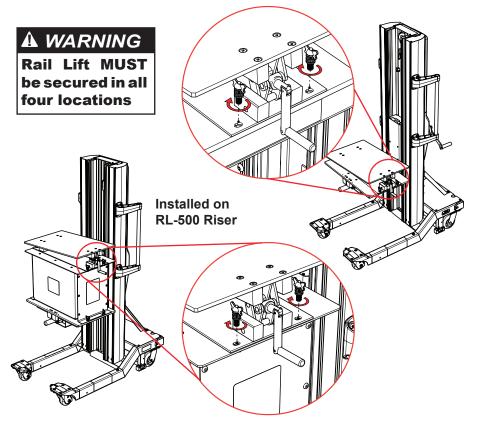
### SECURE RAIL LIFT TO SERVERLIFT SHELF IN <u>ALL</u> FOUR LOCATIONS PRIOR TO USE (USING PROVIDED HARDWARE <u>ONLY</u>)

### Attaching to ServerLIFT Platform or RL-500X Riser

- 1. Engage ServerLIFT Stabilizer Brake.
- If installing onto the Platform Riser, ensure that the RL-500 Platform Riser is attached and secured to the ServerLIFT Easy-Glide Shelf per the directions "Attaching Platform Riser to the ServerLIFT Platform" on page 27.

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- 3. Place the RS-500X Rail Lift onto ServerLIFT Easy-Glide Shelf or RL-500 Platform Riser. Line up the four holes in the base plate of Rail Lift with threaded holes on ServerLIFT Easy-Glide Shelf or RL-500 Platform Riser.
- 4. Secure the RS-500X Rail Lift to Shelf with Thumbscrews in all four locations as shown below.

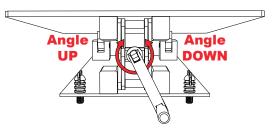


#### Installed on Platform Shelf

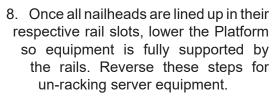
### Using the Rail Lift

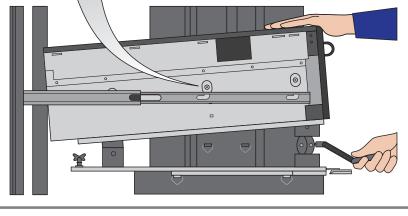
1. Ensure that the RS-500X Rail Lift is attached to the Easy-Glide Shelf or the RL-500 Platform Riser as needed per the above directions.

- 2. Follow Operating Steps on page 11.
- 3. For installs, raise platform to a height where the equipment nailheads are just above the installation rails.
- 4. Shift Easy-Glide Shelf towards the rack and rails. Extend the rails out to line up with nailheads.
- 5. Angle Equipment using Rail Lift by rotating the handle so the nailhead closest to the rack is positioned just above the slot.



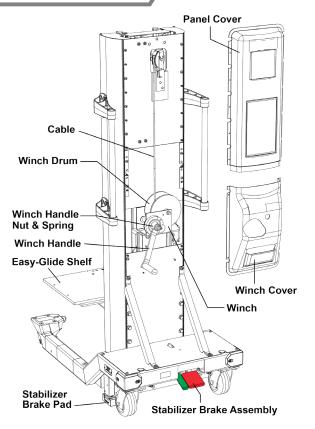
- 6. Lower Platform so the first nailhead lowers into its slot.
- 7. Guide the other nailhead(s) into their corresponding rail slot(s) using the RS-500X Rail Lift by rotating the handle to reduce the equipment angle.







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#### Schedule of Maintenance

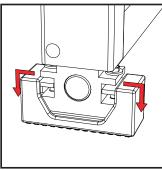
Activity	Required Frequency
Replace Stabilizer Brake Pads	As needed
Grease gears, drum shaft, crank shaft bearings, & handle threads	As needed or every 12 months
Inspect Winch and Cable	Every 12 months
Inspect Pulleys	Every 12 months

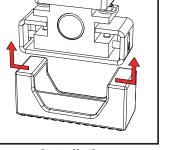
Note: Units covered under optional Extended Warranty and Service contracts have all above maintenance checks performed as part of ServerLIFT's warranty service visit.

### Maintenance

### **Stabilizer Brake Boot Replacement**

- 1. Pull top corners of old boot out and down to remove from Stabilizer Brake Pad.
- 2. Press new boot on until it snaps in to place.





Removal

Installation

### Winch and Cable Inspection

Remove Panel Cover and Winch Cover.

### Winch Inspection

- 1. Fully cycle Platform up and down while inspecting Winch components.
- 2. When inspecting Winch, look for:
  - Damaged or severely worn parts
  - Smooth engagement of gears
  - Clutch disk damage or wear
  - Loose fasteners or components
  - Debris or foreign objects interfering with operation
  - Missing Handle Nut and/or Spring

Discontinue use of ServerLIFT if any Winch damage is discovered upon inspection, and contact ServerLIFT Service & Support immediately. Do not attempt to repair or change Winch. Maintenance

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### **Cable Inspection**

- 1. Fully lower platform and inspect front upper Cable section.
- 2. Fully cycle Platform up and down while inspecting section of Cable winding onto Winch.
- 3. When inspecting Cable, look for:
  - Wear or Corrosion
  - Broken wires or cut strands
  - Uneven spooling of Cable on Winch Drum
  - Distortion, kinking, uneven strands, crushed parts, uneven cable diameter, or strands coming off

Discontinue use of ServerLIFT device if any Cable damage is discovered upon inspection, and contact ServerLIFT Service & Support immediately. Do not attempt to repair or change Cable.

### **Pulley Inspection**

When inspecting pulleys, listen for squeaking, look for cracks, extreme wear, loose connections, and bent/damaged pulley guards.

### Note: Bent or damaged pulley guards WILL interfere with cable operation. DO NOT attempt to operate with damaged pulleys.

- 1. Remove Panel Cover. Inspect Back Upper Pulley.
- 2. From front of the machine, inspect Front Upper Pulley.
- 3. Inspect Lower Pulley from undercarriage of the ServerLIFT unit.

#### Note: Lower Pulley is only visible from undercarriage when Platform is completely lowered.

If inspection reveals any pulley irregularities or damage, discontinue use of ServerLIFT device and contact ServerLIFT Service & Support immediately.



### Features

#### **Compact Design**

- Slim 24" (61cm) base easily navigates narrow aisles
- 4 oversized swivel casters for tight maneuvering and protection of raised floor tiles
- Swivel locks in front engage when straight tracking is required
- Fits through standard doorways
- Ideal for cold aisle containment rooms
- Overall heavy duty steel and aluminum construction
- Reusable packaging included for location transfers

### Heavy Duty Platform

- Does not deflect or sag even under full (350 lbs / 159 kg) load
- Precise equipment alignment
- Included tie-down straps secure equipment during moves

### Side-Loading Usability

- Load equipment while parallel to the rack
- Eliminates any obstruction of operator's view
- Easy alignment facing the rack

#### Easy-Glide Shelf

- 6" (15.25cm) left or right lateral movement for supported loading
- Fits into standard 19" (48.25cm) racks
- Micro-leveling SmartTILT™ shelf adjustment for precise alignment
- Seamless install from the platform into the rails

### **Telescoping Mast**

- Lifts 350 lbs (159 kg) to the top of a rack (8' / 2.45m)
- Quickly raises equipment to the top of travel in under 1 minute
- Enables safe use in contained and open environments without any modifications or adjustments

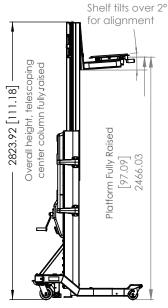
### Locking Stabilizing Brake System

- Restricts unit from moving during installation
- Increases side-to-side stability

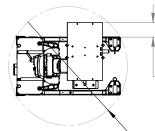
**Specifications** 

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### **Dimensions and Capacity, SL-350X**



Working Dimensions	US	Metric
Platform Height, Extended	8.0'	2.44m
Platform Height, Lowered	5.3"	13.5cm
Shelf Movement per side	6.0"	15.2cm
Movable Platform Width	14.6"	36.8cm
Platform Length	24"	61.0cm
Total Platform Width	21"	53.0cm
Rear Caster Wheel Diameter	5"	12.7cm
Front Caster Wheel Diameter	4"	10.2cm
Caster Wheel Width	2"	5.08cm



6.00 152.40 Sliding shelf extends either side of Unit

49.13 Ø 1247.88 **Pivot Diameter** 

<b>Product Dimensions</b>	US	Metric
Unit Height (Lowered)	5' 8"	1.73m
Unit Height (Raised)	9' 2.8"	2.81m
Length	3' 8"	1.12m
Width	2' 0.5"	0.62m

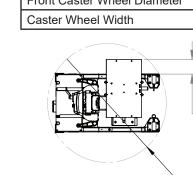
<b>Capacity and Weight</b>	US	Metric
Capacity at Platform Center	350 lbs	159 kg
Capacity at Platform Edge	200lb	91kg
Total Unit Weight	333lb	151kg
Rated Cable Failure Load	4000lb	1814kg

Specifications subject to change without notice

Platform height, start of second lift stage (telescoping)

[53.82] |366.94

[24.54] 623.24 Overall Width





### **Stabilizer Brake Does Not Work**

Possible Cause	Solution
Stabilizer Brake Boot(s) missing	Replace Stabilizer Brake Boot(s)
Operating on uneven floor.	Make sure unit is on even floor. Do not operate unit on uneven floor
Stabilizer Brake latch not engaging/locking.	Check undercarriage of unit to see if Stabilizer Brake latch is engaging. If it does not contact ServerLIFT Service & Support.

### **Front Caster Wheels Do Not Lock**

Possible Cause	Solution
Locking pin not engaging with caster groove.	Make sure there are no obstructions between pin and groove. Adjust caster wheel until engagement occurs. Detailed directions for this adjustment available from ServerLIFT Service & Support.
Caster groove or locking pin worn or damaged.	Replace worn or damaged hardware.

### **Easy-Glide Shelf Does Not Side Shift**

Possible Cause	Solution
Handle is not unlocked from its position.	Press handle down. Attempt to shift Shelf sideways.
Path of shelf is obstructed.	Locate and remove obstruction(s).
Locking mechanism is damaged.	Check under Platform for damaged part(s). Contact ServerLIFT Support for replacement part.

### Shelf Handle Won't Lock in Place

Possible Cause	Solution
	Check under Platform for damaged part(s). Contact ServerLIFT Support for replacement part.



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### ServerLIFT Unit Does Not Move/Roll

Possible Cause	Solution
Brake is engaged.	Disengage Stabilizer Brake.
Obstruction with caster wheel.	Remove obstruction.
Caster wheel(s) damaged.	Replace damaged hardware.

### ServerLIFT Does Not Swivel/Turn

Possible Cause	Solution
Front Swivel Lock(s) engaged.	Disengage Swivel Lock(s).
Obstruction with caster wheel.	Remove obstruction.
One or more caster wheels damaged.	Replace damaged hardware.

### Platform Travel "Choppy" or "Jumpy"

Possible Cause	Solution
	Remove Winch Cover and completely unwind Cable. Re-wind Cable onto Winch Drum while holding tension on Cable and ensuring neat and even spooling.

### Platform Lowers But Does Not Raise

Possible Cause	Solution
Handle was unwound excessively.	Wind Winch by rotating Handle CLOCKWISE until at least two clicks are heard.
Handle retaining Nut and/ or Spring loose or missing.	Tighten/replace Nut and/or Spring.

### **Platform Raises But Does Not Lower**

Possible Cause	Solution
Platform is obstructed.	Remove obstruction from below Platform.



### Load Not Held When Handle Released

Possible Cause	Solution
Handle was unwound excessively.	Wind Winch by rotating Handle CLOCKWISE until at least two clicks are heard.
Handle retaining Nut and/ or Spring loose or missing.	Tighten/replace Nut and/or Spring.
Clutch is worn or damaged.	Replace winch. Contact ServerLIFT Service & Support for assistance.

### Winch "Freewheels" When Unwinding

Possible Cause	Solution
Handle was unwound excessively, causing Cable to loosen an re-spool unevenly.	Remove Winch Cover and completely unwind Cable. Re-wind Cable onto Winch Drum while holding tension on Cable and ensuring neat and even spooling.
Handle retaining Nut and/ or Spring loose or missing.	Tighten/replace Nut and/or Spring.
Clutch is worn or damaged.	Replace winch. Contact ServerLIFT Service & Support for assistance.
Burrs / damage on Winch Handle threads.	Clean threads or replace Winch Handle.

### **Can't Adjust SmartTILT Platform Angle**

Possible Cause	Solution
Platform reached it's maximum tilt angle in one direction.	Adjust platform angle in the other direction.
SmartTILT mechanism over-torqued in one direction.	Adjust platform angle in the other direction. If unable to adjust, contact ServerLIFT Service & Support.
Platform is in the lowest position.	Platform cannot be adjusted DOWN when it is in it's lowest position. Raise the Platform UP and re-attempt to adjust the Platform tilt angle.
Tilt mechanism is damaged.	Check under Platform for damaged part(s). Contact ServerLIFT Support for replacement parts.

Warranty

#### SERVERLIFT DATA CENTER LIFT LIMITED WARRANTY

#### LIMITED WARRANTY COVERAGE

The limited warranty covers defects in materials and workmanship of the SeverLIFT SL-350X<sup>®</sup> (collectively "Equipment"). The warranty is not transferable and must be registered at <u>https://serverlift.com/register</u>. The warranty applies only to the original end-user owner of the Equipment unless prior written notice is received by and approval given by ServerLIFT.

For the Warranty Periods listed below, ServerLIFT Corporation (henceforth "ServerLIFT") warrants that the Equipment:

- 1. Will be free from defects in materials and workmanship.
- 2. Will perform substantially in accordance with ServerLIFT's published specifications.

ServerLIFT will ship any parts that are in-warranty at no charge in accordance with the Limited Warranty Return & Repair Policy listed below. ServerLIFT will provide repair or replacement instructions as needed.

#### LIMITED WARRANTY PERIODS

The Warranty Period is one year from the day of delivery, except for structural components which are warrantied for 10 years from the day of delivery.

#### LIMITED WARRANTY EXCLUSIONS

The warranty is void if:

- The applicable Warranty Period has expired;
- The Equipment has missing or altered serial numbers; or
- The Equipment has been repaired or modified by an agent not authorized by ServerLIFT.

The warranty specifically excludes damage to Equipment, including but not limited to:

- Damage incurred during shipment (other than shipping with a ServerLIFT contracted carrier);
- Damage caused by impact with other objects, drops or falls, including external case cracks, dented or punctured case, broken latches, torn covers, broken doors, or physical breakaway of internal components;
- · Damage caused by intrusion of foreign matter into the Equipment;
- Damage to Equipment caused by environmental corrosion;
- Damage caused by improper maintenance;
- Damage caused by use of appurtenances not supplied by ServerLIFT or failures which result from alterations, modifications or foreign objects;
- Damage caused by the use of the Equipment for purposes other than for which it was designed;
- Damage caused by other abuse, misuse, neglect, accident, negligence, mishandling or misapplication; and
- Damage attributable to acts of G-d.

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### Warranty

#### LIMITED WARRANTY RETURN & REPAIR POLICY

For warranty assistance call ServerLIFT Corporation at 1-602-254-1557 between 9:00 a.m. and 5:00 p.m. Mountain Standard Time, Monday through Friday (excluding observed holidays), email support@serverlift.com or visit http://serverlift.com/support/.

As part of the terms of this warranty, you may be required, as needed, to assist ServerLIFT's remote support staff with gathering information needed to make a warranty claim and/or repair. This includes, but is not limited to troubleshooting, testing, and providing pictures and/or video of the issue(s). Failure or refusal to provide ServerLIFT with the requested information may result in the invalidation of the claim as covered by this warranty.

Equipment that fails to comply with this warranty shall, at ServerLIFT's sole discretion, be repaired or exchanged for an equivalent replacement. You are responsible for returning the non-conforming Equipment, properly packaged, to ServerLIFT during the Warranty Period. ServerLIFT will pay return shipping costs of Equipment serviced under the Limited Warranty.

To obtain warranty service or to return Equipment, written notification must be made to ServerLIFT in advance via email (support@serverlift.com) or fax (1-602-412-4479) that must include the following information:

- Equipment serial number;
- Date of original Equipment receipt;
- Original ServerLIFT invoice and/or invoice number (proof of purchase);
- Contact information of the end-user and location of Equipment; and
- Description of the problem and/or desired service action.

In the event of a return or repair that is determined to occur at ServerLIFT's facilities, you will be issued a Warranty Repair Authorization (WRA) or case number and shipping instructions. Otherwise, ServerLIFT will arrange onsite service based on a mutually convenient schedule.

Equipment returned with a void warranty and/or without prior notification to and approval from ServerLIFT may be repaired and/or shipped back to the end-user at their expense.

If it is determined that the problem is not covered under warranty, you will be contacted with service alternatives available on a time and materials basis. You will also be responsible for all applicable shipping costs.

#### WARRANTY LIMITATIONS

IN NO EVENT SHALL SERVERLIFT BE LIABLE, WHETHER IN CONTRACT, NEGLIGENCE, TORT, OR ON ANY OTHER BASIS, FOR COVER OR FOR INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE SALE, SERVICES, MAINTENANCE, USE, PERFORMANCE, FAILURE, OR INTERRUPTION IN THE OPERATION OF EQUIPMENT, SERVICES, HARDWARE OR SOFTWARE, EVEN IF SERVERLIFT IS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY. SOME STATES DO NOT ALLOW LIMITATIONS ON IMPLIED WARRANTIES SO THIS LIMITATION MAY NOT APPLY TO YOU.

This warranty and performance hereunder shall be governed by and construed in accordance with the laws of the State of Arizona without reference to its choice of law principles.

#### WARRANTY EXTENSIONS AND SERVICE CONTRACTS

Extended warranty periods and service contracts are available to suit your specific needs. To learn more about these optional service programs contact ServerLIFT Service & Support via email (support@serverlift.com) anytime or by phone (1-602-254-1557) 9:00 a.m. to 5:00 p.m. Mountain Standard time, Monday through Friday (excluding observed holidays).

**CE Declaration** 

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# **C E Declaration of Conformity**

Manufacturer: ServerLIFT Corporation 17453 N 25th Ave Phoenix, AZ 85023 USA 602-254-1557 www.serverlift.com

Model numbers: SL-350X®, SL-350XI®

Type of equipment: Server and IT equipment lifting machine

We declare that the product identified above meets the requirements of the following EU directives and standards for the purpose of CE compliance:

Directives/Standards:

<u>Product Safety Directives</u> Machinery Directive 2006/42/EC

Name: Mr. Raymond Zuckerman Title: CEO

Date: <u>12/01/2011</u>



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