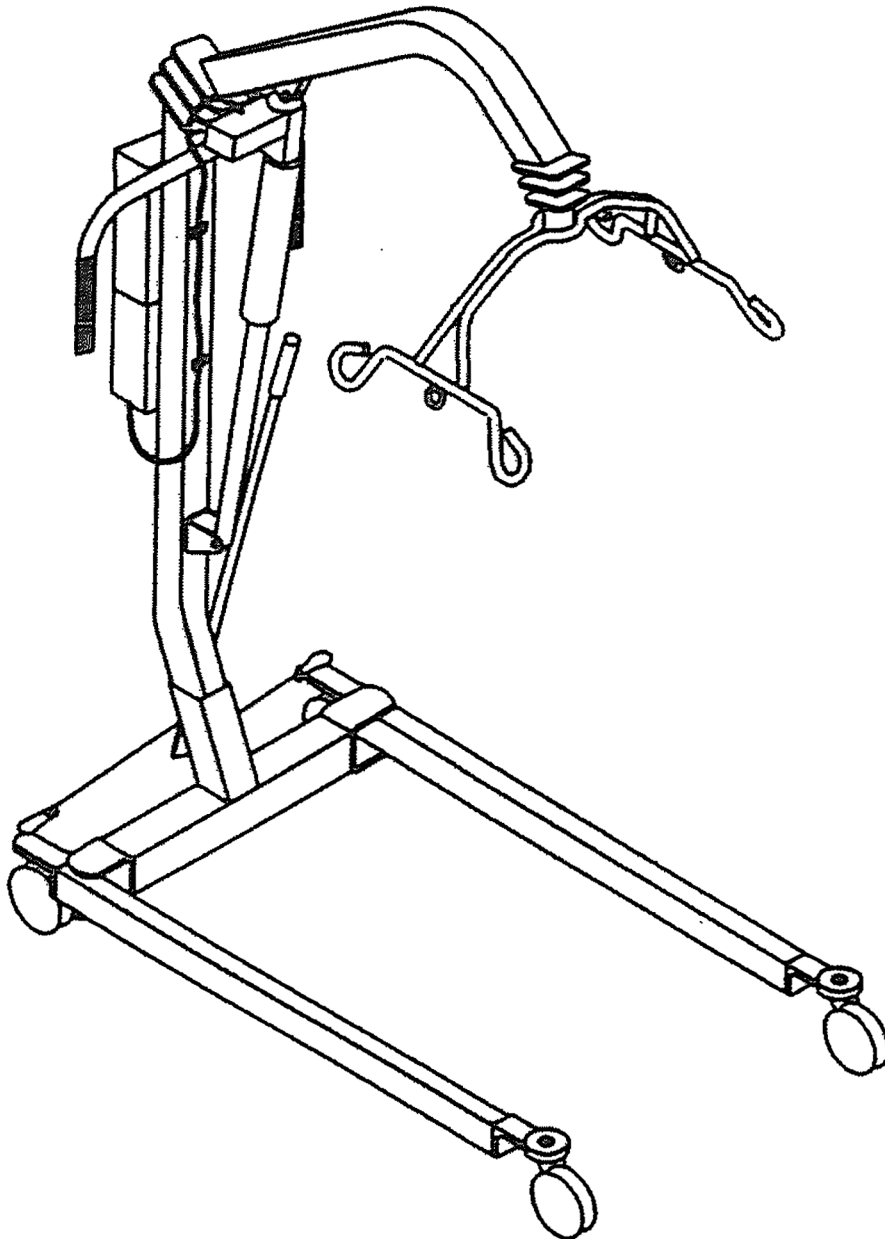




# User Manual

## Joerns<sup>®</sup> Lifting and Repositioning HPL402 Hoyer<sup>®</sup> Power Patient Lift

To avoid injury, read user's manual before using.



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This manual contains important safety and maintenance instructions. Please read it carefully before using your patient lifter and refer to it as often as needed for safe and efficient use.

If you have any questions regarding the safe use and/or assembly, maintenance or specifications of your patient lifter, you should call Joerns Healthcare toll-free at 800.826.0270.

For service and repair, remember your authorized Hoyer dealer is able to provide the assistance you need. Save this manual for future reference. For non-homecare lifters, your maintenance department should keep this manual.

**⚠Caution:** For patient use, refer to the separate manual, "How to Use a Patient Lifter." If you did not receive a copy or need additional copies, contact Joerns Healthcare at 800.826.0270.

## Assembly

### For Installation of the HPL-P Power Conversion Kit on Hoyer Lifters

Recommended Tools: 3/4" and 1/2" wrench, 3/16" hex wrench

**⚠Warning:** All shoulder bolts must engage through the bracket on both sides. If bolt is not fully engaged, misalignment and premature failure may result. Worn parts could fail, resulting in injury to patient/caregiver (Figure 1, page 3).

**⚠Warning:** The large thrust washer must be inserted on the cradle hanger post (Figure 2). If washer is not present, the cradle hanger post and cradle center may wear prematurely. Worn cradle parts could fail, resulting in injury to resident/caregiver. Hanger post should protrude cradle center by 1/16th inch (Figure 1).

1. Carefully unpack lifter in the following order:
  - a. Remove the outside top of the box.
  - b. Remove the three inside top fillers from the box. **NOTE:** Be careful with the center filler, it contains the electronics.
  - c. Remove base and adjustment handle from the box.
  - d. Remove bottom filler from the box.
  - e. Remove cradle and mast assembly from the box.
2. Apply a thin layer for grease to all bolts.
3. Place base of lifter on a hard even surface with the wheels contacting the surface. Insert the mast in sleeve of base making sure that it is fully engaged. Tighten the mast lock bolt (Figure 2). Keep mast locked at all times except while storing.
4. Place adjustment handle into socket as shown (Figure 2). Pull adjustment handle back to unlock. Handle can be moved to the right to widen the base or to the left to narrow the base.
5. Remove boom from filler and attach to top of mast with hardware as shown (Figure 2).
6. Remove actuator from filler and attach top of actuator to mast and bottom to boom with hardware (Figure 2).
7. Attach cradle to the end of boom with cap and hardware (Figure 2). Pull vinyl boot over connection, make sure middle rib is over hardware.
8. Attach the power unit control box to bracket on back of mast using 1/8" hex wrench. Attach battery pack to control box and bracket. Route actuator cable along mast and secure with clips provided. (Make sure to leave approximately 8-inches of cable prior to the top clip, to allow for maximum lifter articulation.) Plug cords in proper outlets, pressing firmly into place (Figure 5.1)
9. Raise boom to highest position, pull vinyl boot over bolted connection.

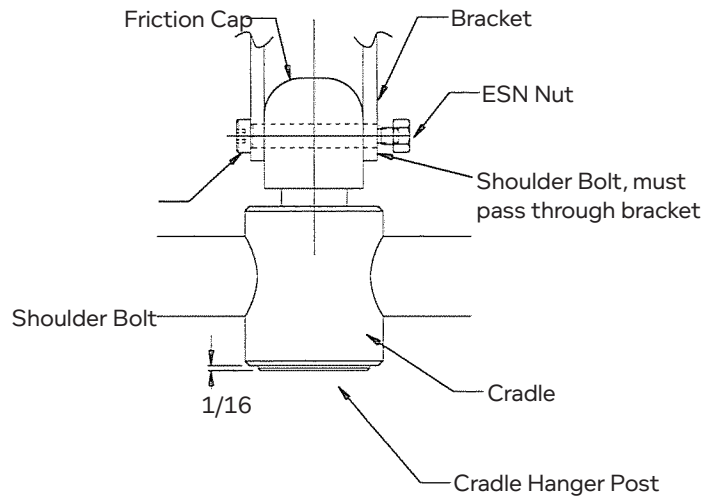
**Lifter Illustrations**

**⚠Warning:** Inside attachment points on cradle are used for Hoyer slings with chains.

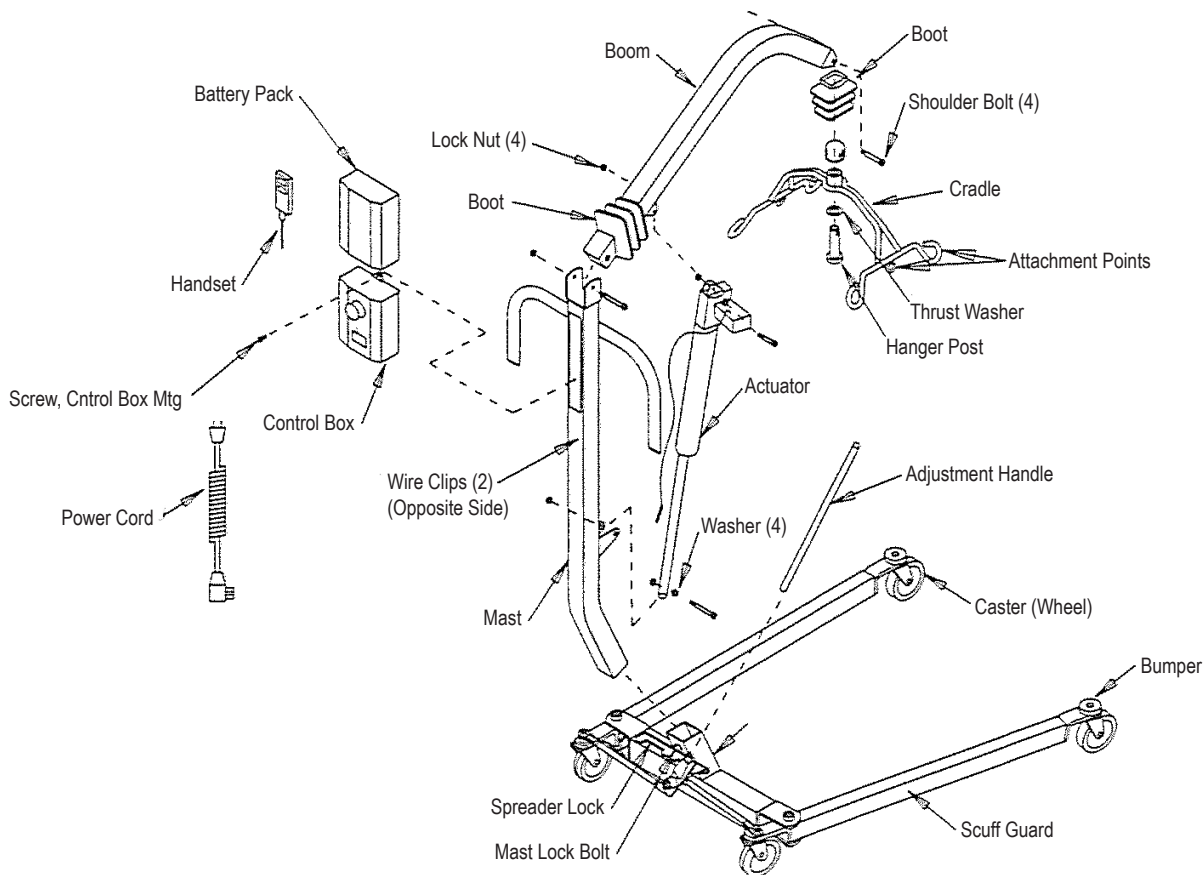
**⚠Warning:** The four outside attachment points are used for Partner-style slings.

**⚠Warning:** Cradle Center Post must protrude below the bottom of the Cradle Center Pivot Assembly (approximately 1/16").

**⚠Warning:** If Cradle center Post is flush or recessed, excessive wear may have occurred. Worn cradle parts could fail, resulting in serious injury or death to patient and/or caregiver. Remove from service and replace worn parts immediately.



**Figure 1**



**Figure 2**

## Specifications

Maximum capacity:..... 400 lbs.  
 Lifter weight ..... 93 lbs out of carton  
 Overall length ..... 44 3/4 inches (114 cm)  
 Base clearance ..... 4 7/8 inches (12 cm) with three inch diameter wheels  
 Width of base, closed ..... 24 inches (61 cm) without wheel swivel  
 Width of base, open ..... 39 1/2 inches (100 cm) without wheel swivel  
 Length of base ..... 43.6 inches (111 cm) without wheel swivel  
 Height of boom at lowest articulation..... 30 1/2 inches (77 cm) with three inch diameter wheels  
 Height of boom at highest articulation ..... 78 inches (198 cm) with three inch diameter wheels  
 Height of mast overall in base ..... 50 3/4 inches (129 cm) with three inch diameter wheels  
 Boom articulation radius ..... 31.4 inches (80 cm)  
 Chair (20 inch wide) access ..... 24 1/2 inches (CSP horizontal to center tube)  
 Beechwood powder coat finish

### The following features are found on the Power Unit:

- Battery: 2-12V Rechargeable Sealed
- Charger Output 24V DC
- Emergency Down
- Soft Stop
- LCD Display for Battery Capacity Indication
- Acoustic battery alarm at about 50% battery capacity (0% LCD Display)
- Charger Input 120V AC
- 1 Speed Operation
- Emergency Mechanical down
- Emergency Stop

## Troubleshooting, Power Unit

Symptom	Possible Cause	Action
Power indicator does not light up	<ul style="list-style-type: none"> <li>• Not connected to mains</li> <li>• The fuse has blown</li> <li>• Control box defective</li> </ul>	<ul style="list-style-type: none"> <li>• Connect to mains</li> <li>• Replace fuse, if the system is prepared for external fuse replacement or send the system for repair</li> <li>• Send control box for repair</li> </ul>
Power indicator lights up but actuator does not run. Relays in control box are heard clicking.	<ul style="list-style-type: none"> <li>• Actuator plug not pushed into control box properly</li> <li>• Actuator defective</li> <li>• Control box defective</li> </ul>	<ul style="list-style-type: none"> <li>• Push actuator plug into control box properly.</li> <li>• Replace actuator</li> <li>• Replace the control box</li> </ul>
Power indicator lights up but actuator does not run. No relay noise heard from the control box.	<ul style="list-style-type: none"> <li>• Control box defective</li> <li>• Handset defective</li> </ul>	<ul style="list-style-type: none"> <li>• Send control box for repair</li> <li>• Send handset for repair</li> </ul>
Control box completely dead on battery and no relay clicking heard.	<ul style="list-style-type: none"> <li>• Battery completely flat</li> <li>• Battery defective</li> </ul>	<ul style="list-style-type: none"> <li>• Charge battery</li> <li>• Replace battery</li> </ul>
Actuator does not run on battery, but relay clicking heard.	<ul style="list-style-type: none"> <li>• Actuator plug not pushed into control box</li> <li>• Actuator defective</li> <li>• Control box defective</li> </ul>	<ul style="list-style-type: none"> <li>• Push actuator plug properly into control box</li> <li>• Replace actuator</li> <li>• Replace control box</li> </ul>
Control box okay apart from one direction on one channel	<ul style="list-style-type: none"> <li>• Handset defective</li> <li>• Control box defective</li> </ul>	<ul style="list-style-type: none"> <li>• Send handset for repair</li> <li>• Send control box for repair</li> </ul>

## Operation

### Hand Control

The hand control activates the lifter and has two (2) buttons; one "up" and one "down".

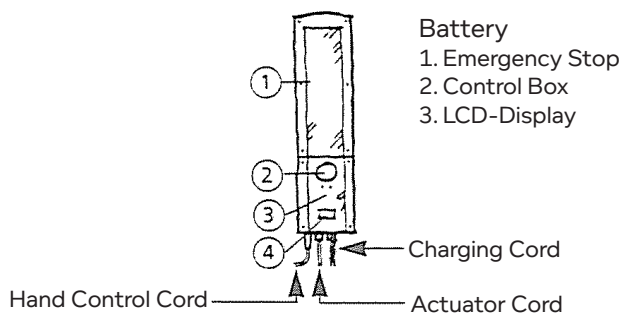
Simply press the button for the direction you want the lifter to move.

### Battery Charging

Plug the charger into the wall socket (110V) prior to connecting the plug to the control box. A control box with battery will hold a (unused) charge for approximately six (6) months. To achieve the longest life, keep the battery fully charged. After approximately six (6) hours of charging, the batteries will be fully charged and the LCD display should read 100%

**Note:** It is not possible to overcharge batteries.

**Note:** When battery alarm sounds, batteries should be recharged.



## Instructions

The duty cycle printed on the label of the control box must always be noted. If the cycle has been exceeded, the control box could overheat and become damaged. Unless otherwise specified on the label, the duty cycle is maximum 10% or six (6) min/hour of continuous operation.

Emergency stop button should be pushed in when not in use for an extended period of time, the LCD Display will trickle down the battery.

**Note:** Power lifter will not be operable during the time the charger is connected.

**Warning:** Do not charge the battery while someone is in the lifter and especially if the unit is being used in wet or bathing areas.

**Caution:** By unauthorized opening of the system, there is a risk that it may malfunction at a later date.

**Warning:** Lifters can tip over. Keep base widened for stability. Never lock brakes or block wheels when lifting someone. Brakes are provided for parking. To lock casters, step on cam lever on side of casters. To unlock brakes, step on highest cam lever.

## Hoyer 4-point Sling Information

**Warning:** Torn, cut, frayed or broken slings could fail resulting in serious injury or death to patient. Use slings in good condition only. Destroy and discard old, unusable slings.

**Note:** Do not use any other manufacturer's sling with the HPL402 Lifter.

**Note:** Do not use Hoyer slings with any other manufacturer's lift.

### Patient Size Guide

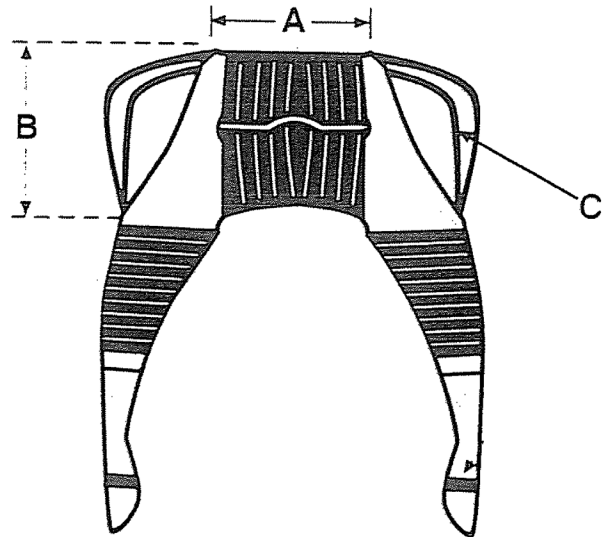
	A	B	Weight
	inch (cm)	inch (cm)	lbs (kg)
Large	28 (70)	19 (47)	198-400 (90-191)
Medium	24 (61)	19 (47)	99-210 (45-95)
Small	18 (46)	15 (38)	55-110 (25-50)

\*Patient's weight to sling size information is an approximation only.

Patient can be raised 4" higher by hooking up the inside strap to the cradle.



**Example of label found on back of Partner Slings**



## Lifter Maintenance Checklist

Only qualified persons should service and repair Hoyer lifters. Regular maintenance of lifters and accessories is necessary to assure proper and safe operation. Read and observe the following recommended instructions.

Item	Initially	Before each use	Bi-Monthly
<b>Base and Wheels</b>			
Base is even and level (all four wheels are on the floor)	✓	✓	
Wheel bolts are tight	✓	✓	
Wheels swivel and roll easily	✓	✓	
<b>Base Adjustment</b>			
Base locks securely, all parts are present	✓	✓	
Base opens and closes smoothly	✓	✓	
Check spreader lock and all hardware for wear		✓	
<b>Mast</b>			
Mast fully engaged and locked into mast sleeve	✓	✓	
Inspect for bends or deflections		✓	
Inspect all bolts and nuts for wear and tightness		✓	
<b>Boom</b>			
Inspect all bolts and nuts for wear and tightness		✓	
Inspect to ensure the boom is centered between the base legs	✓	✓	
<b>Cradle</b>			
Check hanger post for wear or damage. Replace post if wear exceeds 1/16".		✓	
Check sling attachments for wear or deflection		✓	
<b>Slings and Hardware</b>			
Check metal parts for wear or damage		✓	
Check all nuts, bolts and screws for wear and tightness			✓
Check slings and web straps for wear or damage		✓	
<b>Lubrication</b>			
Oil all pivot joints, including:			
Top of mast where boom attaches			✓
Top and bottom of actuator mounting			✓
Pump handle hinge			✓
Use a light grease to lubricate base adjustment lock plate and all rotating hardware.			✓
Wheel and swivel bearings			✓
<b>Cleaning*</b>			
Use mild soap to clean; dry thoroughly.		✓	
Apply auto or appliance wax			✓
Keep painted surfaces clean from oil		✓	

\* Do not wash under water pressure.



## Joerns Healthcare Warranty Program for Hoyer HPL402 Power Patient Lift

Your Hoyer Classics Lifts are warranted for one (1) year after purchase by the original consumer/owner.

Components are warranted as follows:

1. Lifter structure; base, mast, boom, and suspension cradle.
2. Hydraulic pump/jack (for manual lifters).
3. Electronic control box, hand pendant, actuator and battery (for power lifters).

All other non-durable components, such as rubber parts, plastic parts and painted surfaces, are warranted for one (1) year from original consumer/owner purchase. These non-durable components are subject to normal wear and replacement.

Damage caused by use in unsuitable environmental conditions or failure to maintain the product in accordance with user and service instructions is not covered. Any alteration, modification, or repair unless performed by or authorized in writing by Joerns Healthcare will void this warranty.

This warranty applies in the USA only. Check with your supplier to find out if international warranties apply.

### Parts

Hoyer Classics Lifts contain various parts that wear from normal use. These parts, such as rubber parts, plastic parts and painted surfaces are not covered under the one-year warranty but are covered for 90 days after date of purchase.

Joerns Healthcare's obligation under this warranty is limited to supplying replacement parts, servicing, or replacing, at its option, any product which is found by Joerns Healthcare to be defective.

Warranty replacement parts are covered by the terms of this warranty until the product's original warranty period expires.

When requested by Joerns Healthcare, parts must be returned for inspection at the customer's expense. Credit will be issued only after inspection.

### Service

Most service requests can be handled by the facility Maintenance Department with assistance from the Joerns Healthcare Product Service Department.

Should a technician be required, one will be provided by Joerns Healthcare, at our discretion. Only the Joerns Healthcare Product Service Department can dispatch authorized technicians.

This warranty is extended to the original purchaser of the equipment.

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