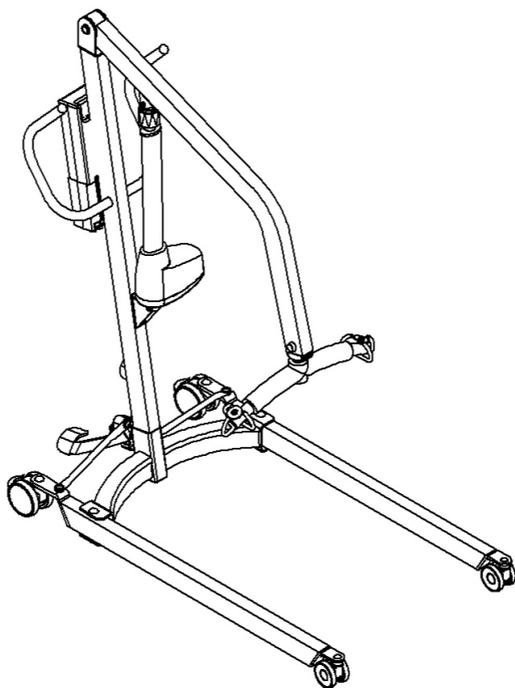


User Instruction Manual

Hoyer® HPL500

To avoid injury, read user manual prior to use.



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1. Introduction: About Your Lift

Each HPL500 lift is fully assembled, load tested and certified before being packed/shipped.

The packing consists of a strong, purpose built carton that is used for both export and domestic markets to ensure the safe arrival of the lift. Documents are supplied and packed with each lift and should be kept safely for future reference.

- TEST CERTIFICATE
- USER MANUAL

The TEST CERTIFICATE is an important document and should be kept for reference purposes.

To properly maintain your lift please refer to the maintenance schedule included in this document. If you are at all unsure what your country's servicing requirements are, please check with your dealer and/or a local government agency.

Statement of Intended Use

The intended use of this lifting device is for the safe lifting and transfer of an individual from one resting surface to another (such as a bed to a wheelchair). Joerns Healthcare recommends that the transfer of a patient is fully risk assessed and conducted safely over a short distance only.

The Hoyer HPL500 is suitable for patients in the SITTING, SITTING/RECUMBENT and RECUMBENT positions.

The Hoyer HPL500 is an electrically operated patient lift, designed to support and promote safe patient handling and transfer for both the patient and carer.

The Hoyer HPL500 lift incorporates a 6-point cradle, loop style spreader bar, as standard and is designed to be used in conjunction with the Hoyer range of slings. The examples of slings suitable for use with this device are listed as follows:

- Hoyer Quickfit
- Hoyer Access
- Hoyer Full Back
- Hoyer Comfort
- Hoyer Quickfit Deluxe
- Hoyer Long Seat

Expected Service Life

The HPL500 lift is designed and tested for a minimum service life of seven (7) years, subject to the use and maintenance procedures stated in this manual. Use, other than in accordance with these instructions, may compromise service life.

2. Assembly and Commissioning Instructions

Place the carton in a clear working area and open carefully. The carton contains:

- Main wheeled chassis
- Mast and boom assembly
- Two battery packs
- Documents
- Battery charger
- Hand control

1. Remove all the parts from the carton and place on the floor, taking care to protect the finish from damage.

⚠ WARNING

Some of the parts are heavy and will need to be lifted with care. You may need assistance with the heavier assemblies.

2. Apply the rear castor brakes by pushing the brake levers (Fig. 1) downwards.
3. Fit the mast assembly to the chassis. The mast is located into the rectangular socket on the top center of the chassis. (Fig. 1 - manual leg model shown).

⚠ WARNING

Avoid trapping fingers. Keep fingers away from the end of the mast when inserting into the socket.

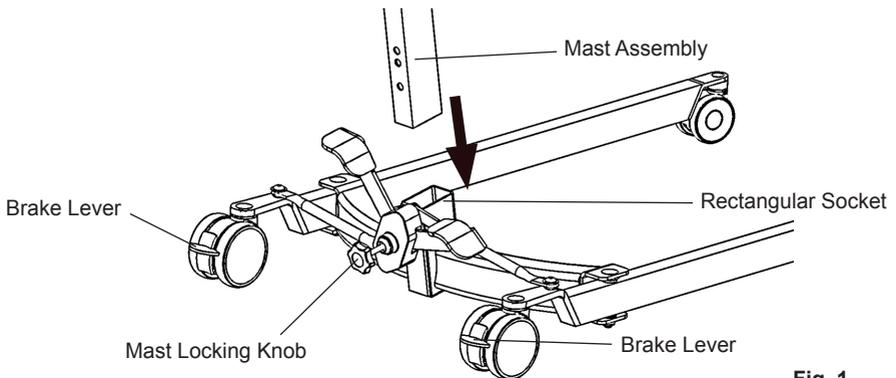


Fig. 1

4. When the mast is fully engaged within the socket, turn the mast locking knob (Fig. 1) clockwise, until fully tightened.

⚠ WARNING

Full engagement of the mast is indicated by the label on the side of the mast.

5. **Electric Leg Operation:** There is some minor assembly required in order to connect the leg actuator to the leg adjustment mechanism. Gently swing the actuator into place over the leg pivot bracket ensuring the corresponding holes are in alignment. Insert the clevis pin, ensuring the plastic wear washers remain in place. To finish, fit the spring clip through the hole in the clevis pin and confirm secure attachment (Fig. 2).

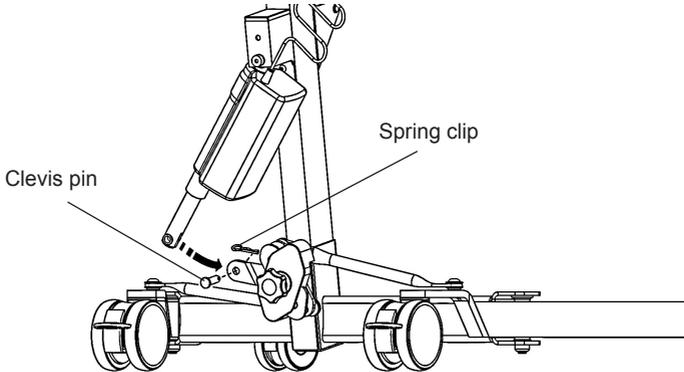


Fig. 2

Foot Pedal Leg Operation: If your lift is fitted with foot pedal operated legs, release the brakes and confirm they open and close satisfactorily by operating the push pedals (Fig. 3). Hold onto the push handle for stability.

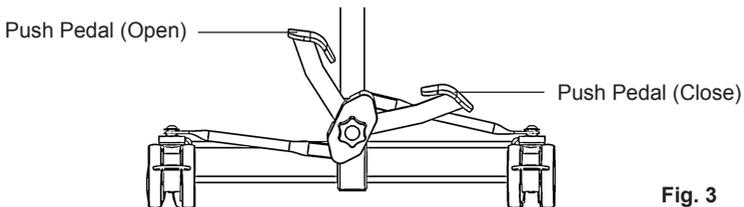


Fig. 3

- Clip the battery onto the control box and ensure the red emergency stop button, located on the controller is in the out (ON) position by turning clockwise (Fig. 4).

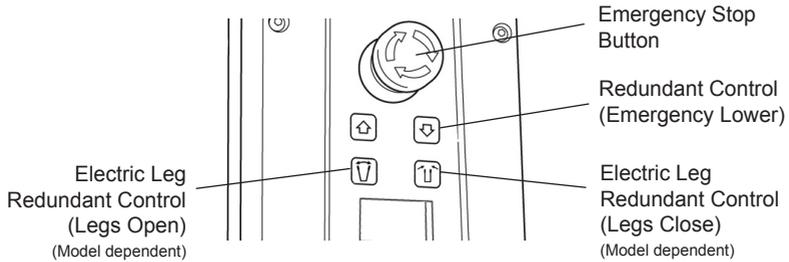


Fig. 4

- Push the UP and DOWN buttons on the hand control and confirm the boom will raise and lower accordingly (Fig. 5).

NOTE: If your lift incorporates electric leg operation, confirm the legs open and close by pushing the OPEN and CLOSE buttons on the hand control.

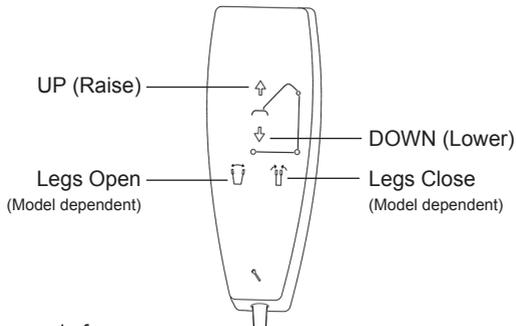


Fig. 5

- The lift is now ready for use.

3. Safety Precautions

Please read and follow the safety precautions listed below. The operation and use of Hoyer patient lifts is simple and straightforward. Following these few basic safety precautions will make lifting operations easy and trouble free.

READ AND UNDERSTAND THE USER INSTRUCTION MANUAL BEFORE USING THE HOYER HPL500 LIFT

WARNING: Important safety information for hazards that might cause serious injury.

CAUTION: Information for preventing damage to the product.

NOTE: Information to which you should pay special attention.

WARNING

- **DO NOT** lift a patient unless you are trained and competent to do so.
- **ALWAYS** carry out the **DAILY CHECK LIST** located towards the end of the manual before using the lift.
- **DO NOT** exceed the safe working load of the lift.
- **ALWAYS** plan your lifting operations before commencing.
- **ALWAYS** familiarize yourself with the operating control and safety features of a lift before lifting a patient.
- **DO NOT** use a sling unless it is recommended for use with the lift.
- **ALWAYS** check the sling is suitable for the particular patient and is of the correct size and capacity.
- **NEVER** use a sling, which is frayed or damaged.
- **ALWAYS** fit the sling according to the instructions provided (user instructions).
- **ALWAYS** check the safe working load of the lift is suitable for the weight of the patient.
- **ALWAYS** carry out lifting operations according to the instructions in the user manual.
- **NEVER** disconnect or bypass a control or safety feature because it seems easier to operate the lift.
- **ALWAYS** lock the wheels when lifting from the floor.
- **DO NOT** attempt to manoeuvre the lift by pushing on the mast, boom or patient.
- **ALWAYS** manoeuvre the lift with the handle provided. A foot push pad is also provided.
- **DO NOT** push a loaded lift at speeds, which exceed a slow walking pace (2.6 ft/sec).
- **DO NOT** push the lift over uneven or rough ground. Particularly if loaded.
- **DO NOT** attempt to push/pull a loaded lift over a floor obstruction.

⚠ WARNING

- **NEVER** force an operating/safety control. All controls are easy to use and do not require excessive force.
- **DO NOT** park a loaded lift on **ANY** sloping surface.
- **DO NOT** use electric lifts in a shower.
- **DO NOT** use or store a lift in a wet or corrosive environment such as shower, bath or pool locations.
- **DO NOT** charge batteries in a bathroom or shower room.
- **DO NOT** place or store batteries under direct sunlight or near a heat source.
- **YOUR** lift is for patient lifting. **DO NOT** use it, or allow it to be used, for any other purpose.
- **DO NOT** bump the lift down steps, loaded or unloaded.
- **DO NOT** attempt to negotiate a loaded lift on a slope, which exceeds 1:12 (approximately 5 degrees)
- **DO NOT** attempt to negotiate a slope without a second helper being present.
- **DO NOT** use a loaded lift on thick pile carpet.
- **NEVER** operate the lift with loose or missing parts or fasteners.
- **INSPECT** all precautionary labels on the lift. Order and replace all labels that cannot be easily read.

4. Smart Monitor & Handset

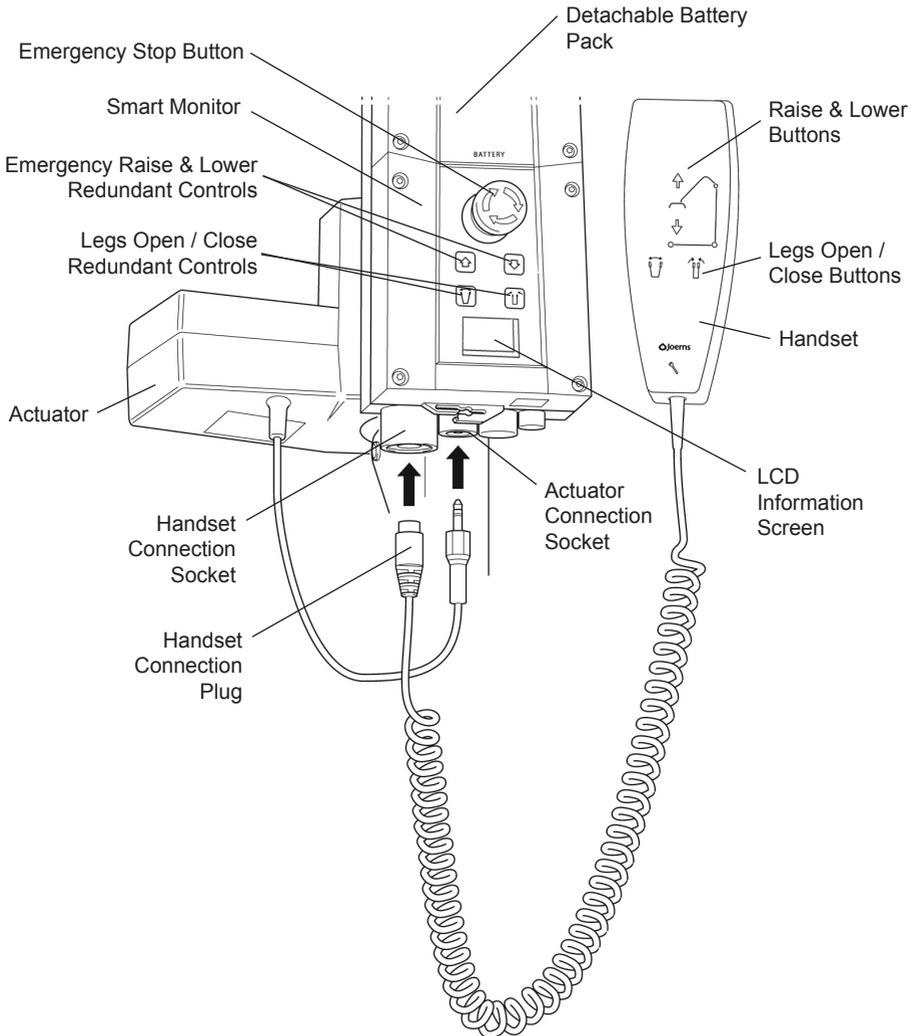


Fig. 6

Intended Use:

The Hoyer Smart Monitor is a control system for Hoyer Mobile Lifts. The Smart Monitor stores useful servicing information about the lift that can be recalled when required. This servicing information includes:

- Number of patient lift cycles
- Total work done by actuator
- Number of lift overloads (attempted lifts above the safe working load)
- Number of days since last service interval

The Hoyer Smart Monitor contains a microprocessor inside making it possible to read out service data via the on-board LCD screen.

Features:

- Data collection in the control box with data display via LCD screen
- Work counter
- Intelligent cycle counter
- Service indicator
- Service interval indicator
- Overload information
- 4 step battery indicator

Benefits:

- Improved safety for both patient and carer
- Accurate service data available at the touch of a button
- Optimised product life time
- Ease of maintenance for engineers and service technicians

LCD Display Screen:

The Hoyer Smart Monitor has the option to read out information via the LCD display screen. It is possible to read out total lifting cycles, total work done, overloads and number of days since last service, which can be used to quickly and easily evaluate the condition of the lift actuator (Fig. 7).

This information is accessed by a ½ second press on the 'RAISE' button on the User handset or redundant 'RAISE' button on the Smart Monitor.

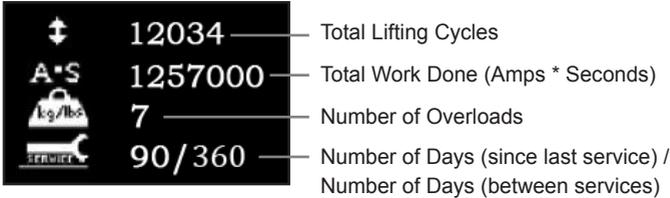


Fig. 7

Service & Usage Information:



Fig. 8

When it is time for a service, the service symbol will appear on the display (Fig. 8). In addition, when the user handset is activated, the Smart Monitor will give an audible signal giving notice to users that a PM check is recommended (see recommended maintenance schedule later in this manual).

The service symbol will be displayed each time the raise or lower keys are depressed on the user handset.

To reset the service interval to one year, depress the raise and lower buttons simultaneously for five seconds.



Fig. 9

If the lift stops because of an overload (an attempt to lift more than the safe working load) the overload symbol will appear on the LCD display (Fig. 9) and the lift will cease to operate until the additional load (above the SWL) has been removed.

⚠ WARNING

If the LCD display screen on your Smart Monitor has recorded an overload, Joerns Healthcare recommend that ALL routine daily checks are carried out on the lift prior to further use (for a list of daily checks, please refer to your lift user manual). Joerns Healthcare also recommend that you contact your authorized Hoyer service provider for additional guidance.

On-Board Redundant Controls:

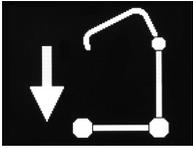


Fig. 10

On-board redundant controls enable the lift to be raised or lowered in the event of an emergency (Fig. 10).

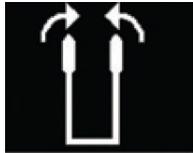


Fig. 11

If your lift incorporates powered leg positioning, there are redundant controls to both open and close the legs. (Fig 11).

Battery Information:



Fig. 12

The display showing full battery means that the battery is fully charged and the lift is ready for use (Fig. 12).



Fig. 13

The display indicates the battery is at 25-50% and charging is recommended (Fig. 13).



Fig. 14

The display indicates the battery is below 25% and requires charging. At this state, the control box will provide an audible alert when a button is pressed (Fig. 14).

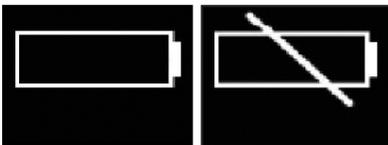


Fig. 15

The empty battery symbol showing on the display indicates the battery needs charging. At this stage, some of the functionality of the lift is lost and it is only possible to drive the lifting arm down. The symbol will switch between the two pictures for 10 seconds (Fig. 15.). Permanent damage to the battery is likely to occur with continued battery depletion to this state.

⚠ WARNING

To avoid possible permanent damage to the battery, the battery should be placed on charge as soon as the display indicates the half empty battery symbol (Fig. 14).

5. Operating Instructions

1. **Leg adjustment:** The legs on the Hoyer HPL500 can be opened to enable access around armchairs, wheelchairs and other furniture. For transferring and negotiating narrow doorways and passages, the lift legs should be in the closed position.

Electric Leg Operation: Simply press the appropriate button on the hand control in order to open or close the legs. You may also use the redundant control soft keys located on the front of the control box above the LCD display screen.

Foot Pedal Leg Operation: Simply operate the push-pads, located at the lower/rear of the mast. To open the legs, simply depress the LEFT push-pad. To close the legs, depress the RIGHT push-pad.

In either case, the adjustment can be carried out with the patient in the lift.

2. **Castors and braking:** The lift has two braked castors which can be applied for parking. When lifting, the castors should be left free and unbraked. The lift will then be able to move to its center of gravity. If the brakes are applied, it is the patient that will swing to the center of gravity and this may prove disconcerting and uncomfortable.

3. **Direction of travel (Forward motion):** The Hoyer HPL500 is designed to be pushed forwards using the integrated push-handle.

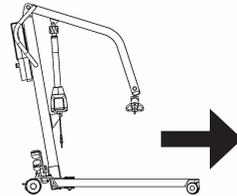


Fig. 16

4. **Straight line steering (where fitted):** One of the rear castors is fitted with a straight line steering device. To engage the device simply swing the 'U' shaped bar over the rear castor. The device will automatically engage as you move off.
5. **Raising and lowering the boom:** The movement of the boom is achieved by a powerful electric actuator which is controlled by a simple hand control unit. The hand control has two buttons with directional arrows RAISE and LOWER. The actuator stops automatically at the limit of travel in both directions. The hand control plugs into a socket at the base of the control box. There is a magnetic backing to the hand control which allows it to be "parked" on the mast or boom when not in use.
6. **Emergency stop:** The red emergency stop button is located on the control box and is activated by pressing in. This will cut all power to the lift and can only be reset by twisting the button clockwise and releasing.
7. **Redundant controls:** The Hoyer HPL500 is fitted with raise and lower buttons on the control box. These are located underneath the emergency stop button and can be used to lower/raise the patient should the hand control fail.

8. **Emergency lower:** In the case of a complete electrical failure the electrical actuator is fitted with a mechanical lowering device (RED BOSS). The device must be twisted clockwise by hand to operate. A slow descent will commence. Repeat this process until the patient has been safely lowered.

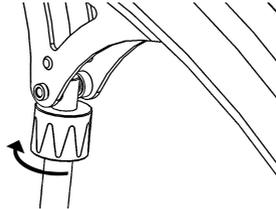


Fig. 17

⚠ WARNING

The emergency lowering device should only be used in the event of electrical failure. It must not be used to lower the patient on a regular basis.

⚠ WARNING

If this feature is used, the lift **MUST** be subsequently checked out by a competent technician.

⚠ WARNING

Continued use of the lift after using the emergency descent feature may compromise the duty of care and safety of the patient.

9. **Batteries:** The batteries are protected from deep discharge by a LOW VOLTAGE ALARM. This will sound when the batteries need recharging and the hand control is being operated. It will not sound independently of the hand control being operated. **DO NOT IGNORE THIS WARNING ALARM.** Complete the lifting operation and place the battery on charge (see charging instructions).
10. **Slings:** The selected sling is attached to the spreader bar hooks. Each sling is supplied with instructions which should be followed carefully.

The Hoyer HPL500 is suitable for patients in the SITTING, SITTING/RECUMBENT and RECUMBENT positions. The core slings suitable for these lifts are listed as follows:

- Hoyer Full Back
- Hoyer Access
- Hoyer Quickfit
- Hoyer Long Seat
- Hoyer Quickfit Deluxe

When selecting a sling from the Hoyer range, be sure to assess the suitability of the type of sling for the patient to be lifted by conducting a thorough risk assessment prior to lifting.

NOTE: For detailed fitting instructions, please refer to the user guide supplied with each sling.

⚠ WARNING

Joerns Healthcare recommends that slings be checked regularly and particularly before each use for signs of fraying or damage. DO NOT use slings that are worn or damaged.

⚠ WARNING

HOYER RECOMMENDS THE USE OF GENUINE HOYER PARTS. Hoyer sling and lift products are designed to be compatible with one another. For country specific guidance on sling use and compatibility, please refer to the sling label or contact your local market distributor or Joerns Healthcare.

⚠ WARNING

Refer to maximum weight capacity of lift. Sling capacity is limited by the maximum capacity of the lift.

6. Charging Instructions

When the power pack needs charging it is removed from the lift and fitted to an off board charging unit.

1. Remove the power pack from the lift. The pack is retained by a simple latch at the top of the power pack. Lift the latch and the power pack will be released.
2. Fit the power pack to the charging unit. The location and latching of the power pack to the charger is the same system as used on the lift.
3. Plug the charger mains plug into a suitable mains outlet and switch the mains supply ON.
4. Charging is automatic and will fully charge the batteries over a period of four (4) hours.

Note: Even if the charger is left plugged in for extended periods it will not allow the batteries to overcharge.

- a) Green Light - Indicates main power is on.
- b) Yellow Light - Indicates battery is charging.
- c) Battery will be fully charged when yellow light goes off.

Note: It is recommended that the battery be charged immediately upon receipt.

5. To return the lift to service, unplug the charger and remove the power pack from the charger. Fit the power pack to the lift and make sure the latch holding the pack in place is fully engaged. "Click" in place. The charging of Hoyer electric lifts is simple and straightforward, but it is important to follow the charging instructions closely. Please pay particular attention to the following points, they will help you avoid problems with discharged batteries.

WARNING

- **The battery, charger, hand control and control box are NOT to be opened by unauthorized personnel. (Contact your distributor for warranty and repairs).**
- **DO NOT touch battery/charger terminals.**
- **KEEP the batteries fully charged. Place the battery on charge whenever it is not in use. If it is more convenient to do so, place on charge every night. The charger will not allow the batteries to overcharge.**
- **NEVER run the batteries completely flat. As soon as the audible warning sounds, complete the lifting operation in hand and place on charge.**
- **To avoid possible permanent damage to the battery, the battery should be placed on charge as soon as the display indicates the half empty battery symbol.**
- **NEVER store the battery for long periods without regular charging throughout the storage period.**
- **NEVER leave the battery pack connected with the charger unit unplugged.**
- **DO NOT leave the charger plugged in with no battery connected.**
- **NEVER disconnect the charger plug by pulling on the cable.**
- **BE CAREFUL not to trip over the charge lead.**
- **DO NOT charge batteries in a bathroom or shower room.**

7. Maintenance Schedule & Daily Checklist

All Hoyer products are designed for minimum maintenance, however some safety checks and procedures are required. A schedule of DAILY tasks are detailed below. Daily checks and a yearly service, inspection and test will ensure a lift is kept in optimum safe working condition. A list of spare parts is available upon request.

DAILY CHECK LIST: Joerns Healthcare strongly recommends the following checks be carried out on a daily basis and before using lift.

- MAKE sure the lift moves freely on its castors.
- MAKE sure the spreader bar is free to rotate and swing. Check the spreader bar is firmly attached to the boom.
- ENSURE the mast is fully engaged into the mast slot and the mast is securely in place.
- EXAMINE the sling hooks on the spreader bar for excessive wear. If in doubt - do not use.
- MAKE sure the legs open and close correctly.
- OPERATE the hand control to confirm the boom raises and lowers satisfactorily.
- CONFIRM the lift is not giving a low battery indicator when the hand control is operated. If a low battery is indicated, DO NOT use and place on charge immediately.
- Check the operation of the emergency stop button.
- EXAMINE slings for fraying or other damage. DO NOT use any sling if damaged or if the sling shows signs of wear.

MAINTENANCE

Joerns Healthcare recommends regular inspection and maintenance. Please refer to the chart on the next page.

***THESE CHECKS SHOULD INCLUDE:**

✓ = Recommended

	Initially	Before Use	Annual Service
1. SPREADER BAR: Check the spreader bar for freedom of rotation and swing. Check for wear on the central pivot. Check for firm attachment to the boom.	✓	✓	✓
2. BOOM: Check the attachment of the boom to the mast. Make sure there is only minimal side movement of the boom and the boom is free to rotate on the boom bearing.	✓	✓	✓
3. MAST: Check the operation of the mast-locking device. Make sure the mast fully engages into the socket.	✓	✓	✓
4. ACTUATOR: The actuator (two, if lift has optional electric legs) should require no maintenance other than checking for correct operation and listening for unusual noise.	✓		✓
5. CONTROL BOX/SMART MONITOR: Check the function of the emergency stop button. Inspect the hand control socket for correct fitting. Check functioning of the hand control. Check the redundant controls and confirm they operate as intended.	✓	✓	✓
6. BATTERIES: The batteries are housed in the power pack and should not require maintenance other than the regular charging as detailed in the charging instructions. Check that the connections remain clean.			✓
7. LEG ADJUSTMENT: Check the legs operate in both full extensions (inward/outward).	✓		✓
8. CASTORS: Check all castors for firm attachment to the legs. Check for free rotation of the castor and the wheels.	✓	✓	✓
9. CLEANING: Clean with ordinary soap and water and/or any hard surface disinfectant. Harsh chemical cleaners or abrasives should be avoided as these may damage the surface finish of the lift. Avoid wetting any of the electrical parts.		✓	✓
10. BASE AND WHEELS: Ensure base is even and level (all four wheels are on the floor).	✓	✓	✓
11. SLINGS: Check for wear and fraying.	✓	✓	✓
12. LUBRICATION: Lubricate pivot joints with a silicone based oil, including mast and boom connections, pedal assembly, spreader bar joint (only if required).			✓
13. HAND SET: Ensure plugged fully into controller.	✓	✓	
14. QUICK RELEASE PIN: Ensure the pin is securely fitted before lifting.	✓	✓	
15. HARDWARE: Check all nuts, bolts, screws and fasteners for excessive wear and for tightness. Replace as required.		✓	✓

8. Technical Specifications

Safe Working Load	500 lbs
Maximum Overall Length	54.4 inches
Minimum Overall Length	50.1 inches
Maximum Overall Height.....	83.7 inches
Minimum Overall Height.....	56.4 inches
Spreader Bar Maximum Height	76.0 inches
Spreader Bar Minimum Height.....	20.5 inches
Height of Spreader Bar at Maximum Reach	48.5 inches
Reach at Maximum Height*	17.7 inches
Reach at Minimum Height*	16.9 inches
Maximum Reach*	28.4 inches
Turning Radius	52.1 inches
Legs Open - External Width	49.5 inches
Legs Open - Internal Width	44.9 inches
Legs Closed - External Width	27.4 inches
Legs Closed - Internal Width	22.4 inches
Overall Height of Legs.....	4.0 inches
Ground Clearance	0.6 inches
Front Twin Castors.....	75 mm
Rear Braked Castors.....	100 mm

Weights

Mast, Base & Boom Assembly (Electrical Base)	98.9 lbs
(includes 2 point spreader bar)	
Mast, Base & Boom Assembly (Manual Base)	100.8 lbs
Power Pack	6.1 lbs
Total (Electrical Base)	105 lbs
Total (Manual Base).....	106.9 lbs

* Measurement at 600mm per EN ISO 10535

All measurements are within +5/-5 degree of tolerance.

Electrical Specifications:

Batteries 2 x 12 Volt rechargeable sealed lead acid type
Battery Capacity 2.9 Ampere hours
Charger Rated Input 100-240V AC/24 VDC 50/60 Hz. Max 400MA
Charger Rated Output..... 29.5 VDC. Max 19W

Electric Shock Protection:

Charger Class II (Double insulated)
Lift..... Internal Power Source

Degree of Shock Protection:

Charger Type B
Lift..... Type B

Environmental Conditions:

Outside this environment functionality and safety may be compromised.

Operating:

Temperature 5°C to 40°C
Relative humidity 20% to 90% @ 30°C - not condensing
Atmospheric pressure 800 to 1060 hPa
Noise level..... 55 dB

Storage:

Temperature..... -10°C to +50°C
Relative humidity 20% to 90% @ 30°C - not condensing
Atmospheric pressure 800 to 1060 hPa

IP Ratings:

Control Box IPX4
Actuator IPX4
Off Board Charger IPX5
Battery IPX5
Handset IPX4

Duty Cycles:

Actuator 10% (2 min/18 min)
Battery 10% (2 min/18 min)

KEY SYMBOLS:

The following symbols are used on the charger, control unit and battery:



Type B equipment, as per EN 60601-1



Class 2 equipment



The disposal of the charging and control unit should not be mixed with general household waste.



The disposal of batteries should not be mixed with general household waste.



The disposal of electronics should not be mixed with general household waste.



For indoor use



ATTENTION, consult accompanying documents.

9. Warranty

The HPL500 lifts are guaranteed for a period of two years from the date of delivery against defects in materials and workmanship under normal use and service. This warranty includes all mechanical and electrical components.

Structural components on lifts are covered under warranty for a period of five (5) years from the date of delivery.

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.

Parts:

HoyerPro lifts contain various parts that wear from normal use. These parts, such as DC batteries and casters are not covered under the two-year warranty but are covered for 90 days after date of delivery.

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 handled by the facility Maintenance Department with assistance from the Joerns Healthcare Product Service Department.

Most parts requested can be shipped next day air at the customer's expense.

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.

Packing Check List:

- | | |
|---|--|
| <input type="checkbox"/> User Manual | <input type="checkbox"/> Charger with Stand & Lead |
| <input type="checkbox"/> Test Certificate | <input type="checkbox"/> Base Assembly |
| <input type="checkbox"/> Mast & Boom Assembly | <input type="checkbox"/> User Handset |
| <input type="checkbox"/> Packaging Inserts | <input type="checkbox"/> Battery Pack (2) |
| <input type="checkbox"/> _____ | |

Checked for you by: _____