



User Manual

 **alerta**[®]
maxi175-e

ALT-PL175-E Powerlifter
Maxi 175 Electric Legspread



UK Version

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1. Features, warranty & technical service


This product is intended by the manufacturer to be used on humans for the purpose of lifting, lowering and moving users. If the buyer or user allows unauthorised personnel to operate the product or fails to observe the cleaning and maintenance recommendations contained in this manual, all warranty rights and liability claims will be forfeited.

Our products have a 2 year warranty against any manufacturing fault (12 months in the case of batteries and electrical equipment).

Alerta Medical sells all its products through a network of distributors. In the event of a problem, the end user should contact the DISTRIBUTOR from whom they have purchased the product. Alerta Medical provides distributors with the spare parts needed to undertake maintenance work on the products.

Alerta Medical operates a policy of continuous improvement of all its products. Hence, device specifications may change without prior notice.

2. Safety precautions

Any person using or assembling these items must first read and understand the assembly, operating and cleaning instructions provided. Read all safety information contained in this manual (highlighted with the symbol ) carefully. Failure to follow these instructions may result in damage to property and/or personal injury.

2.1 Recommendations

Familiarise yourself with the safety controls and devices before operating the hoist. Use a sling that is CE marked and check that its size and other characteristics are appropriate to the patient. Do not use a sling that is frayed or worn, and always follow the instructions provided with it.

Check that the combined weight of the patient and the sling does not exceed the maximum working load displayed on the hoist. Preferably, the patient should be as close to the floor as possible prior to transferring him or her.

A loaded hoist should always be used on flat, smooth surfaces that are free of obstacles. If moving a patient along a sloping surface, the gradient must not be greater than 5° and it is recommended to use the assistance of a helper. Never leave a hoist loaded with a patient on a sloping surface. Transfer the patient with the hoist legs in parallel position at a maximum speed of 3 km/h (0.8 m/s). Keep the hoist away from water, humidity, splashes and corrosive atmospheres (indoor swimming pools, the sea, etc.). Do not use the electric hoist in the shower or recharge the battery in the bathroom.

Do not force the safety controls and devices. Do not push the mast, the boom or the patient to move the hoist.


2.2 Braking and moving



While the hoist is stationary, **the brakes should always be on, except when lifting or lowering a patient.** If the wheels are free to rotate during these operations, the hoist will find the centre of gravity of the hoist patient unit. On the other hand, if the wheels are locked, the patient will be dragged to the centre of gravity of the hoist patient unit, which will result in discomfort.

2.3 Before moving a patient

Consider individual hazards, including:

- Risk of crushing/squeezing. 
- Potential falls.
- Disturbed patients.
- Patients with learning difficulties.
- Small children and pregnant women.
- Persons without the mental capacity to recognise unsafe behaviour.
- Unauthorised persons.

Anybody who is authorised to use the hoist must be able to do so in a safe and controlled way.



Due to the continuous, smooth lifting action of the moving parts, there is risk of entrapment. When operating these parts, the user and/or the carer must make sure that there are no body parts in the areas where they may become trapped.

2.4 Identifying risk patients

The following recommendations are aimed at care personnel to help reduce the specific risks that may affect certain patients. These hazards are listed in a number of reports drawn up by national government agencies with recommendations to reduce them.

It is recommended to establish a patient admission procedure that enables identifying risk profiles and applying measures suited to the health condition and behaviour of such patients. Risk profiles include:

- Elderly and/or disabled patients.
- Patients with dementia, mental illness, hydrocephaly or disorientation.
- Agitated and/or aggressive patients.

The measures tested and approved include establishing a protocol with the following points:

1. When and for what purpose the hoist may be used, as well as the type of sling, immobilisation equipment and any other specific measures.
2. When and for what purpose the patient should be immobilised or the use of other means to reduce the risk of falls is required (e.g. laying foam on the floor).
3. If special means are used to immobilise a patient, closely following the instructions and advice provided by the manufacturer.
4. How a patient should be monitored or immobilised, including during intervals.

2.5 Electrical safety precautions

All the hoist's electrical connections must comply with the International Electrotechnical Commission (IEC) standards. The power supply should be equipped with an earth leakage circuit breaker with a maximum operating current of 30 mA, as prescribed by standard IEC 364-5-53.

This product complies with the standards EN 60601-1 and EN 60601-1-2 on electrical apparatus and the electromagnetic interference of medical devices. Therefore, it does not interfere or is not interfered when combined with other medical devices that also comply with the electromagnetic standards.

Some apparatus, particularly older devices, that do not comply with electromagnetic compatibility standards may, however, cause or be affected by interference when used with this hoist. If using such apparatus, you must make sure that any potential malfunction will not harm the patient or any other person.



Before moving the hoist, make sure the power supply cable is unplugged from the mains. Any work on electrical parts may only be undertaken by authorised, qualified personnel.

3. Assembly



No tools are necessary to assemble the hoist, although some parts are considerably heavy. It is therefore advisable to use the assistance of a helper when handling such parts. Pay attention to avoid being knocked or trapped.

3.1. Components (see page 07)

Carefully remove the packaging and place the two pre-assembled structures supplied in a clear area. (Picture 1)

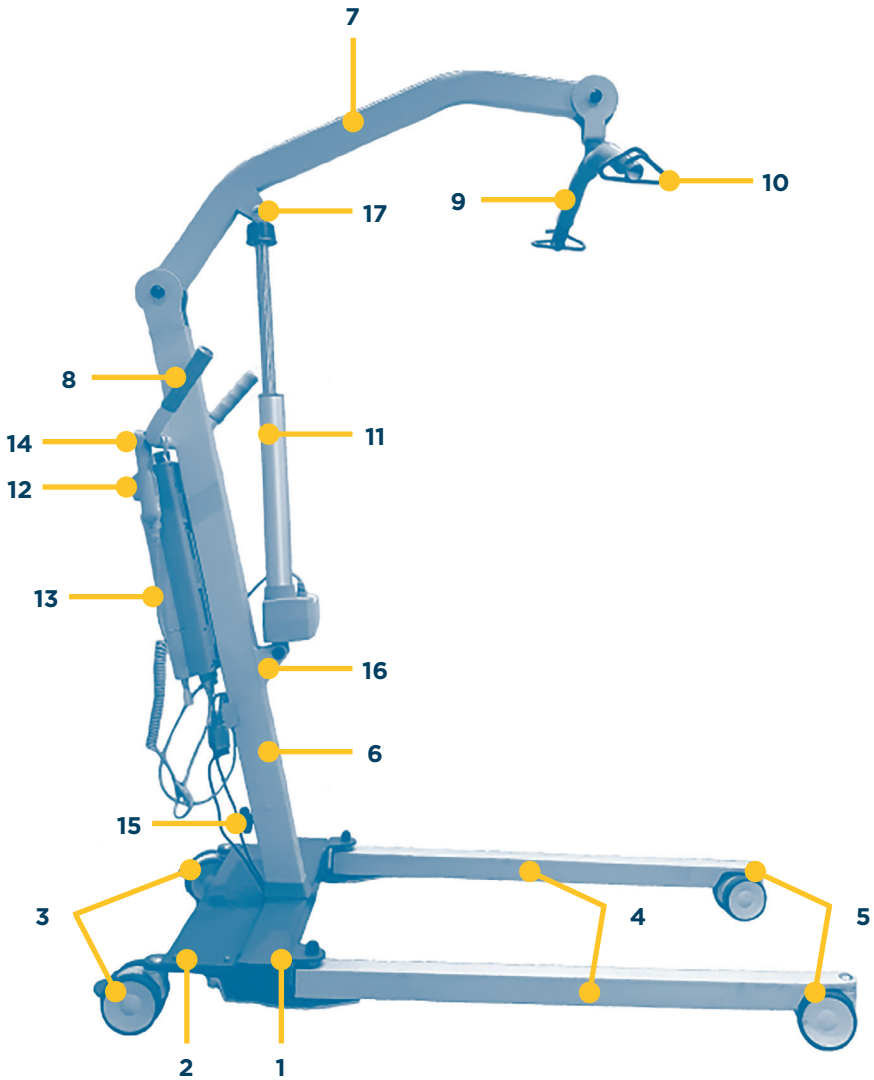
BASE STRUCTURE

1. Mast base
2. Cover protection motors opening legs
3. Rear wheels (with brakes)
4. Legs
5. Front wheels (without brake)

MAST-BOOM STRUCTURE

6. Mast
7. Arm
8. Handle
9. Two-hook spreader bar
10. Hooks for 4-point harness
11. Electric actuator
12. Battery charging base (control box)
13. Removable battery
14. Manual control knob
15. Handle (initially placed in the frame)
16. Mast bracket (actuator lower support)
17. Boom bracket (actuator top support)

Model Alerta Powerlifter



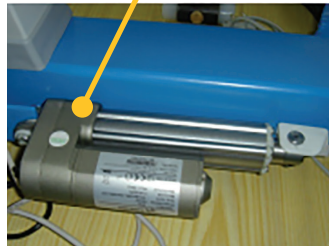
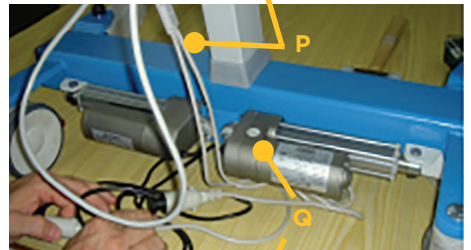
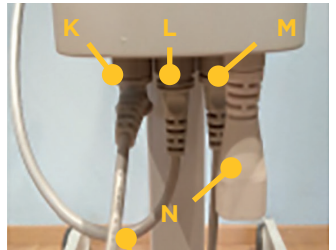
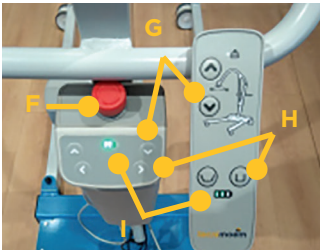
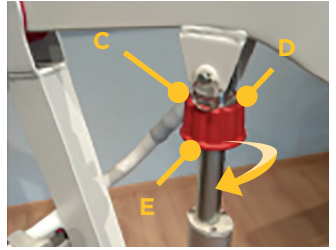
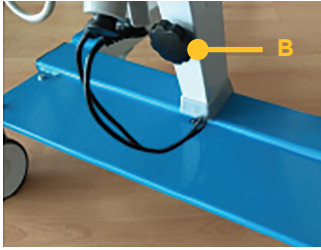
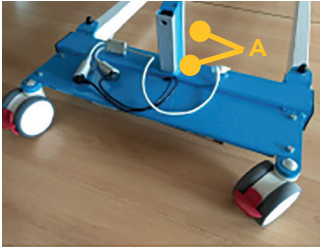
Picture 1

3.2 Joining the pre-assembled structures

Carefully remove the packaging.

Place the base structure on the floor with the brakes on the rear wheels (3) on. Remove the locking knob (15)(B), DON'T REMOVE THE GREY PLASTIC PIECES OF THE MAST BASE and insert the mast-boom structure in the mast base (1). Align the holes in the mast (6) and base and put the locking knob (15)(B) back in place, making sure it is tight and secure.

Check with the buttons (H) that the legs open and close normally and that the wheels rotate correctly. Check that the spreader bar rotates and swings freely and is firmly fastened to the arm.



4. Operating Instructions

(see images on page 08)

4.1 Spreading and narrowing the legs

To open/close the legs you have to use the lower buttons of the control box or the control (H), which activate the motors (Q). These two motors work simultaneously using a Y type cable(P). To transfer patients and / or pass between doors or through narrow corridors it is recommended that the legs are closed.

4.2 Lifting and lowering

Use the top buttons (G) on the box or control for lifting or lowering the hoist arm. During the descent or hoisting of the patient, it is recommended that the wheels are not braked. In this way, the patient-hoist assembly will look for the center of gravity avoiding discomfort to the patient.

When the arm reaches its lower or upper limit it stops automatically.

⚠ It is advisable to avoid repeatedly pressing the buttons (G-H), since the successive start-ups of the motor consume more battery, reducing its useful life.

The computer goes into standby mode if no button is pressed. To reactivate it, press any button.



4.3 Emergency stop and safety lowering

The electrical equipment has a **red emergency stop button (F)**. With the button released the battery is ready to work. With the button pressed the battery does not act. **To release, the button must be rotated clockwise and released.**

In case of battery failure, the actuator has a **manual emergency descent system**. To do this, the red wheel (E) of the actuator must be pressed down, while turning clockwise to slowly descend the patient.

4.4 Recharging the battery

During hoisting or descent, the load state pilots (I) of both the load base and the command are illuminated. Two green pilots indicate capacity between 66-100%, 1 green pilot indicates capacity between 33-66% and 1 orange pilot indicates capacity less than 33%).

The system emits an acoustic warning when the battery is about to run out, allowing several complete cycles to be performed. If you only have a removable battery and a charging base you must bring the hoist to a power outlet and connect the cable to the charging base (N) and then connect to the network (220V-240V).



While the battery is being recharged the hoist motor is not working, the emergency stop should not be pressed and the pilot (I) of the control box and the control light up. The stripes of the battery flash. When it is fully charged the 3 rays will remain fixed and then turn off.

Do not disconnect the charger plug by pulling the cable as it could be damaged.

If you use the hoist daily it is recommended to recharge the battery at night. The charger does not allow the battery to be overloaded. If you are not going to use the hoist for a long time it is advisable to recharge the battery at least every three months so that it is in its optimal state of use.

If you have an **additional charging base** (on request) you can recharge the battery by removing it from the charging base installed on the hoist and placing it in an additional charging base (O) installed next to a power outlet.

4.5 Changing the battery

To **remove the battery**, hold it by the top handle (J) and release the metal guide from the control box holder. To place it back in the charging dock, rest the battery in the charging dock and insert the guide again until you hear a “click”.

4.6 Overload

The control box stops working if the actuator is overloaded (due to excess load or excess continuous operating time). It will work again after a few minutes when the overload has been removed. Duty cycle approx.: 2 minutes in continuous use and 18 minutes in rest.

4.6 Improper use

Improper use of this hoist may cause injury to users and/or deteriorate equipment, in addition to invalidating the product warranty. Examples:

- Use by a person who has not read this manual or who has not been trained by an authorized team member.
- Use of the hoist, functions, accessories or movement of the hoist by persons not qualified to use it safely.
- Use of electrical functions by several people at the same time.
- Use of the hoist with a load higher than that identified on the hoist.
- Irregular connection to the mains when charging the battery.
- Connection of devices to the hoist not authorized by the manufacturer.
- Displacement of the hoist by pulling the power cable.

- Wash with too much water, with jet pressure or in a washing tunnel.
- Use outside or to transport a patient in a vehicle.
- Displacement on unconditioned soft ground.
- Displacement with patient in terrain with inclination greater than 5°.
- Extreme use of the motor without respecting the maximum load indicated on its label.
- Use of accessories or equipment other than those recommended by the manufacturer.
- Any other use of the hoist not in accordance with the intended purposes.
- Not respecting the work cycle of the equipment: 2 minutes in continuous use and 18 minutes in rest.

5. Maintenance

5.1 Safety rules for cleaning and disinfecting



The hoist has been designed for easy cleaning and optimal disinfection. Failure to observe any of the following recommendations may result in damage jeopardising the proper operation of the hoist and the warranty of the material.

- Make sure the hoist is immobilised and disconnected from the electricity mains.
- Press the red stop button to shut off the electrical functions.
- Never clean the hoist with copious water, with a high pressure jet or in a wash tunnel.
- Do not use water at a temperatura above 60°C.

- Avoid any excess water on the connector sockets.
- Dry the hoist thoroughly before using again.

- Do not under any circumstances open or puncture an electric motor.

5.2 Recommended products and materials for cleaning and disinfecting

- Clean cloths, disposable or recyclable. Cleaning gloves.
- A diluted solution of detergent or disinfectant, or a spray on disinfectant.

5.3 Recommended method for cleaning and disinfecting

- Use a cloth to clean from top to bottom and from the cleaner to the dirtier parts
- Dampen the cloth as often as necessary and wring out excess water.
- Allow the product to dry for the period of time recommended by the manufacturer to ensure maximum efficiency.
- If necessary, rinse following the instructions provided by the disinfectant supplier.
- Change the cloth when cleaning from the less dirty to the medium dirty or very dirty parts.
- Change the cloth to start Cleaning another hoist.
- Dry the hoist after cleaning.

5.4 Safety rules for maintenance

Before performing any maintenance or repair operation:

- Make sure the hoist is immobilised (if no movement is envisaged) and disconnected from the electricity mains.
- Press the red stop button to shut off the electrical functions.

5.5 Preventative maintenance

It is advisable to carry out a yearly maintenance check of the hoist and its accessories to ensure they are kept in Good working order. Special attention should be paid to the following aspects:

- Operating controls and mechanisms.
- The hinges where the hoist and accessories move.
- The condition of the electric cables and the water tightness of the electrical devices.
- The condition of the sling (wear and fraying, tears, distortion, etc.).

It is recommended to grease the hoist's hinges regularly.

Adapt the frequency and intervals of maintenance checks to the condition of the hoist, the specific circumstances of its use and in line with local laws.

5.6 List of spare parts

Replacements for the electrical Equipment (including the battery) and parts are available on request.

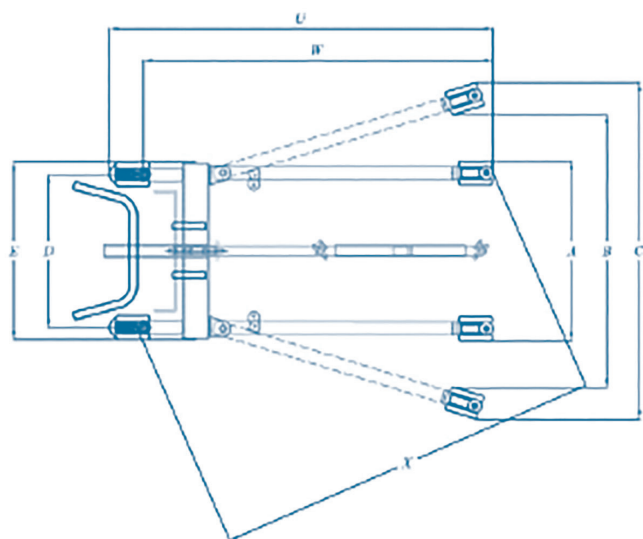
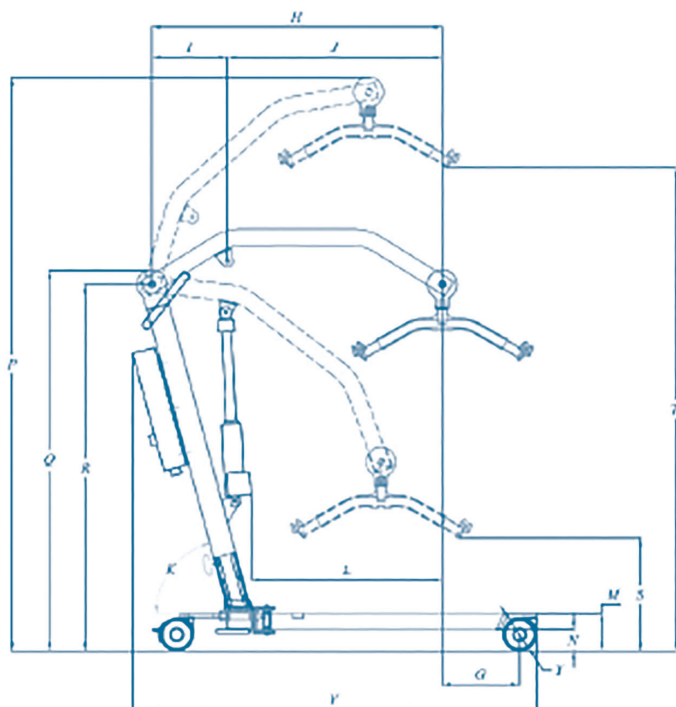
5.7 Transport and storage

All necessary precautions must be taken to ensure the safe transport of the hoist and its accessories, avoiding knocks and dust. During transport, the hoist must be in the low position, with its functions disconnected and the brakes on the wheels on. Additionally, it must be secured with straps and protected against water and humidity (75%), at a temperature between -20°C and +50°C.

5.8 Troubleshooting

PROBLEM	CAUSE	REMEDY
The actuator is not working	The red emergency stop is activated	Turn the red button clockwise to deactivate
	The battery is connected to the electricity mains for recharging	Unplug the black power supply cable from the mains
	The battery is low	Recharge the battery
	The battery is not properly connected	Remove the battery and put it back in place
	The hand control or actuator cables are not properly connected	Insert the cables correctly to the bottom
	Hand control and/or actuator failure	Replace the hand control and/or the actuator
The battery will not charge	Mains failure	Check mains supply
	Malfunctioning battery and/or charging base	Replace the battery and/or the charging base
The actuator stops	Hoist overloaded	Reduce the load and wait a few minutes
	The battery is low	Recharge the battery
Noisy hinges	Lubrication is required	Apply lubricant to the hinges
The patient cannot be lowered	Actuator and/or hand control failure while the boom was raised	Lower slowly the patient turning the collar on the actuator (see 4.3. above)
The mast has too much clearance with the mast base	The grey plastic pieces of the mast base are been removed	Put the grey plastic pieces on the mast base again
The wheels do not rotate or brake properly	Dirt	Clean the wheels

6. Technical specifications



Powerlifter Maxi 175 Electric Legspread

Approx. size (cm)	A	B	C	D	E	F	G	H	I	J	K	L
	64	100	116	55.5	63	52	34	94	24	70	75°	63
	M	N	P	Q	R	S	T	U	V	W	X	Y
	11,5	6.5	186	133	128	45	157.5	132	140	120	140	Ø100

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CS Lifesciences Europe Ltd

The Black Church
St. Mary's Place
Dublin 7
D07 P4AX
Ireland

eurep@cslifesciences.com

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Making **cutting-edge** medical equipment **affordable**

Head Office

Alerta Medical
4 Symington Place
Riverside Business Park
Irvine
KA11 5DE
United Kingdom

www.alertamedical.com

