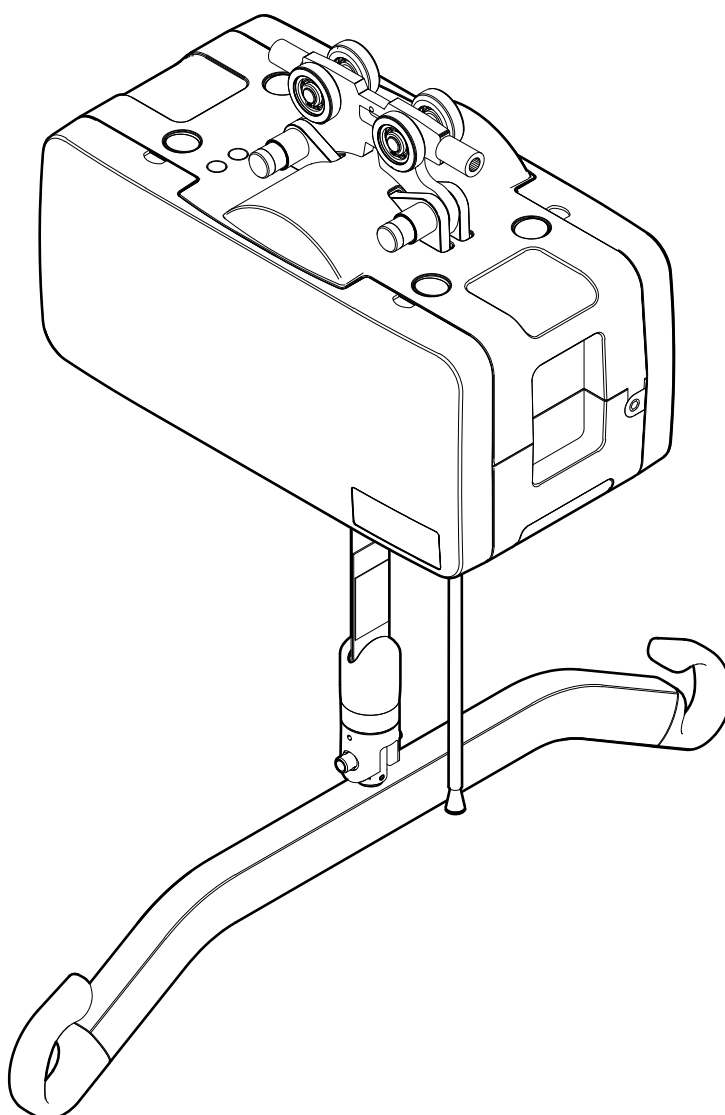


Molift Air

Manual

molift[®] by Etac

BM16101 Rev A 2013-06-05



CE

English Manual


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Important

This User Manual contains important safety instructions and information regarding the use of the lifter and accessories.

In this manual the user is the person being lifted. The assistant is the person operating the sling.



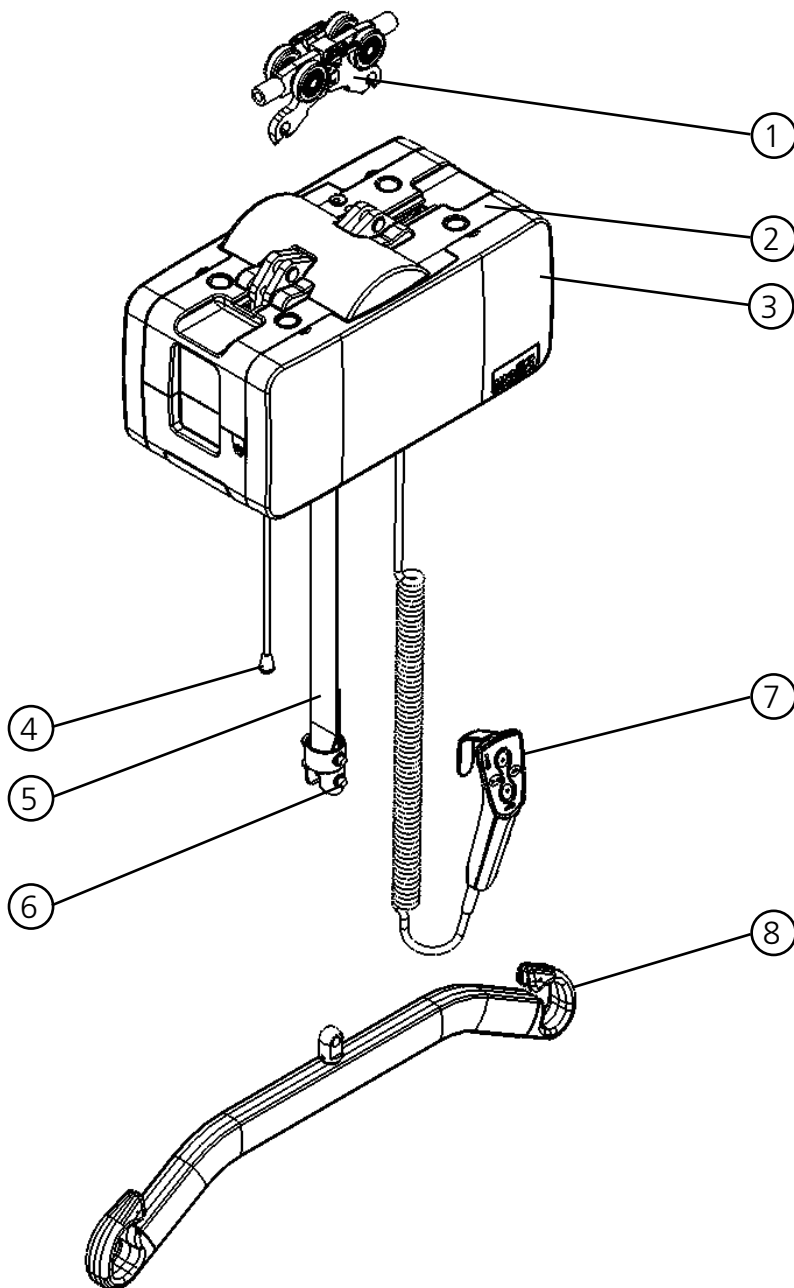
Warning!
This symbol indicates important information related to safety. Follow these instructions carefully.



Read User Manual before use!
It is important to fully understand the content of the user manual before attempting to use the equipment.

Visit www.molift.com for download of documentation to ensure you have the latest version.

Molift Air 205/300



Hoist components:

Identification of those parts into which the hoist can be disassembled

1. Trolley
2. Hoist
3. Sidecovers
4. Emergency stop/
Emergency lowering
5. Lifting belt
6. Quick release pin
7. Handcontrol
8. Suspension

About Molift Air

Molift AIR is a strong and smooth ceiling lift that enables patients and residences to be transferred in a comfortable and safe way. Suitable for sitting and lateral transfers as well as standing and gait training situations together with the comprehensive accessory program from Molift.

Molift AIR is a very light motor which in combination with the quick release coupling system gives an easy handling when mounting and servicing

General

Declaration of conformity

CE The Molift Air and related accessories described in this operator manual are CE marked in accordance with EU Council Directive 93/42/EEC concerning medical devices, class 1, and has been tested and approved by a third party according to standards IEC 60601-1, IEC 60601-1-2 and NS-EN ISO 10535:2006.

Conditions for Use

Lift and transfer of a person will always pose a certain risk and only trained personell are allowed to use the equipment and accessories covered by this user manual. The rail system must be installed by certified personell in accordance with applicable installation instructions.

Only certified personell are allowed to open hoist or accesories to perform service or repair. Risk of injury from rotating parts and electric shock.

The lifter is not to intended to be operated by the person being lifted. If a hoist is to be used by a disabled person living on their own, then some form of communication device shall be installed in the area of use of the hoist so that in the event of an emergency the disabled person is able to summon assistance. This may, for example, be the fitting of an alarm system or the supply of a conveniently placed telephone, etc.

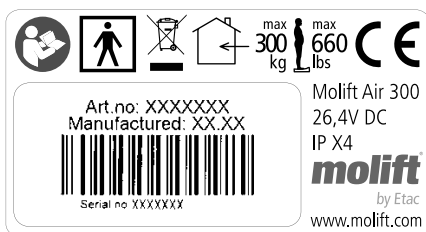
Warranty

2-year warranty against defects in workmanship and materials of our products.
For Terms and conditions, see www.molift.com

Product identification

Product label

The main Product label has a barcode containg product ID, serial number and production date.



Warning labels and Symbols

Symbols used on the product, explained in more detail:

- Type BF applied part
- CE** CE marked

- Refer to user manual
- Indoor Use only
- Max user weight
- Do not dispose in general waste
- Emergency stop/
Emergency lowering
- Service Light
- Battery Light
- Hex tool symbol for Manual
Emergency lowering

Technical Data

Safe Working Load (SWL)

Molift AIR 205: 205 kg (450 lbs)

Molift AIR 300: 300kg (660 lbs)

Weight of unit

8,26 kg (18,21 lbs)

Battery:

Art: 2510023

26.4 V NiMH 2.2 Ah

Battery charger:

100-240 V AC, 40-60 Hz

0,9 A output

Lifting speed

60mm/second (2,36 inches/second)

with 75kg (165,35 lbs) load

Protection class

Handcontrol IP24

Lift motor IP24

Maximum A-weighted sound power level

$L_{WA} = X,X$ dB

Operating forces button

Buttons on handset: 3.4 N

Material:

Aluminium, Plastic

Expected Lifetime:

The hoist has an expected lifetime of 30 000 cycles or 10 years.

Dimensions:

L x W x H (Length, Width, Height without trolley)

36 x 19 x 19,5 cm

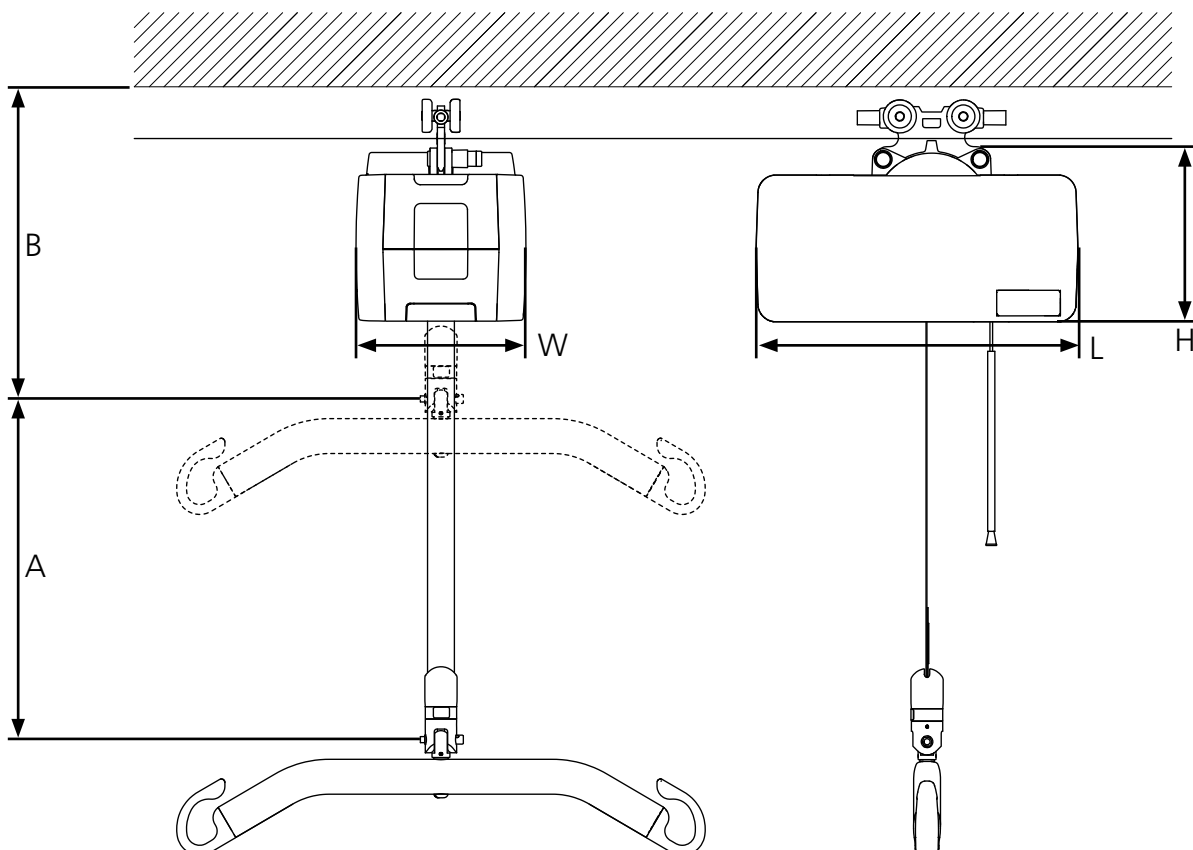
(14,2 x 7,5 x 7,7 inches)

A (Hoisting Range)

300 cm (118 Inches)

B (Minimum distance from ceiling to Suspension coupling point)


34,5 cm (13,6 Inches)



Installation

Assembly and installation

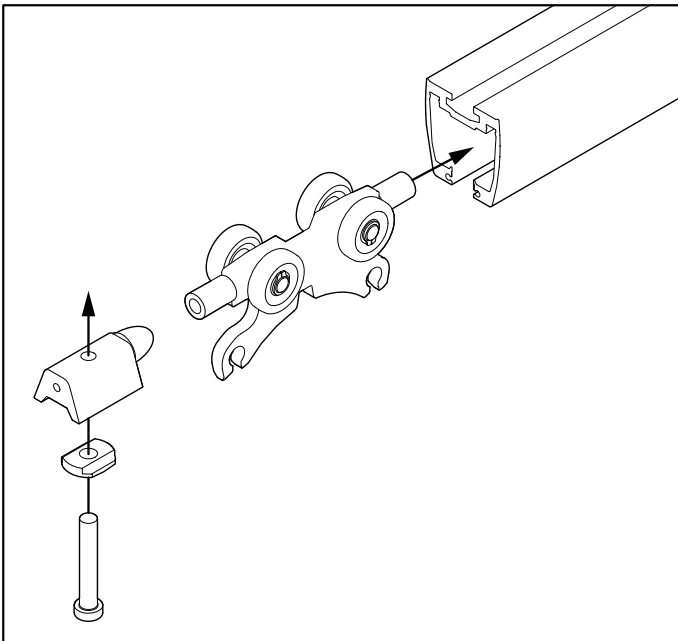
The hoist is marked with Safe Working Load (SWL), this should not exceed rail systems max load capacity.

 The rail system can only be installed by certified personell inn accordance with applicable installation instructions.


 Do not start using hoist before completing control according to checklist after installation.

Trolley installation

Mounting trolley in rail system

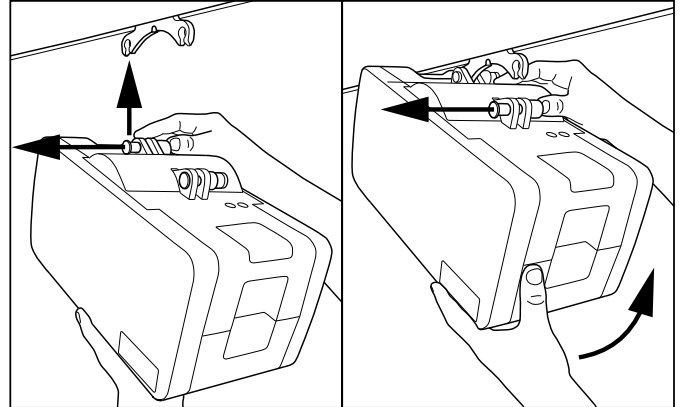


Remove End stop and insert Trolley into rail. Mount end stop, and make sure it is securely fastened

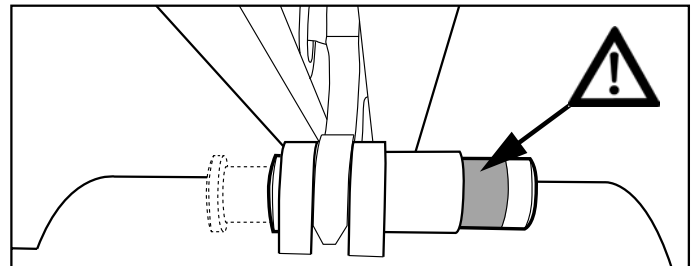
 Make sure end stops are mounted in all ends of the railsystem before using the hoist!

Lifter installation

Mounting of Lifter on trolley. No tools required. The lifter has two connection points.



Connect one point first. Push button all the way in, and place lifter in connection point on trolley. Release button and make sure it is clearly showing green before connecting the next point.



Make sure both connection point buttons completely return and clearly show green after installation.

Checklist after installation

Use this checklist to verify that the hoist is properly installed and can operate correctly and safely before use.

- End stops on rail are installed after mounting of trolley
- Make sure that the hoist is properly fastened to the rail and that the lift does not have any loose parts.
- Perform one lift with normal load (60-80 kg)
- Make sure battery is fully charged.

How to use Molift Air

General Safety Precautions

Only use accessories and slings that are adjusted to fit the user, type of disability, size, weight and type of transfer.

Working pause ratio

Molift Air should not be run constantly for more than 2 minutes (with maximum load), and rest for minimum 18 minutes. (Intermittence according to standard ISO-EN 10535)

Safe Working Load



If maximum load (SWL) differs between hoist suspension and body support unit, then the lowest maximum load shall always be used

Before use / Daily check

Inspection to be performed daily or before use:

- Inspect lifter and rail system has no visible damage, defects or deformations
- Make sure suspension connection and all detachable parts are properly connected and secured
- Test emergency stop button and emergency lowering
- Make sure battery indicator or service light is not illuminated

- Make sure lifting strap does not have visible damage or frays.
- Test run lifters operation functions and make sure lifter does not make any abnormal sounds

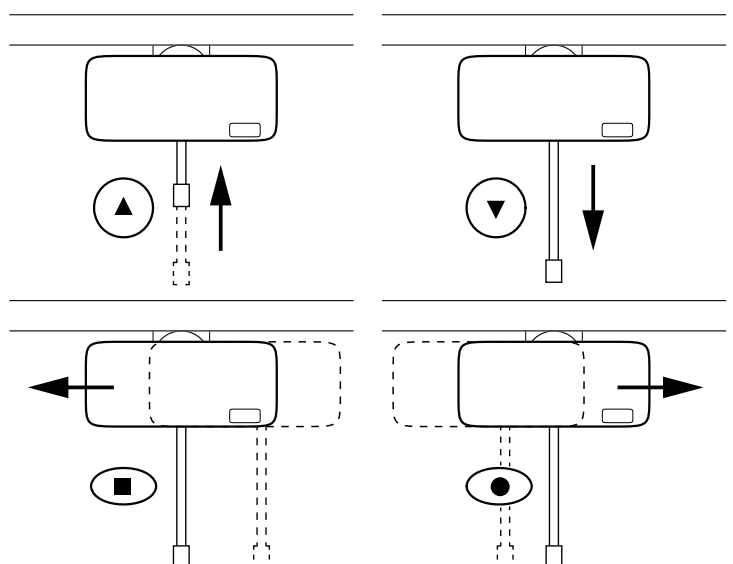
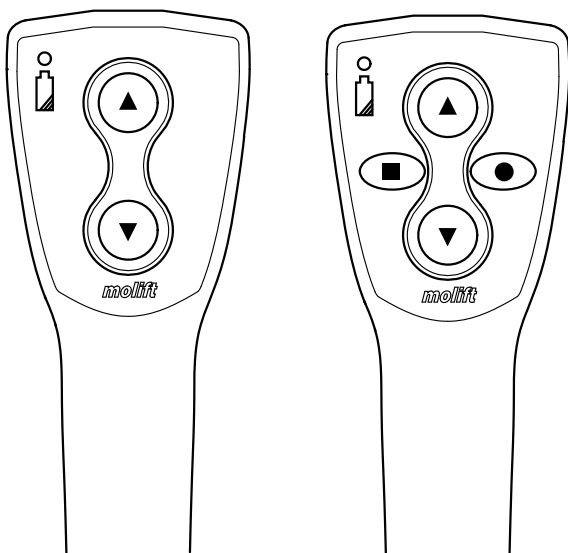
If there are any faults or defects, the lift needs to be taken out of operation and marked "out of order"

Handcontrol

The handcontrol has 2 buttons for lifting and lowering, or 4 buttons if the hoist is equipped with propulsion. The handcontrol has an indicator light that will illuminate when battery level is low and the lifter requires charging

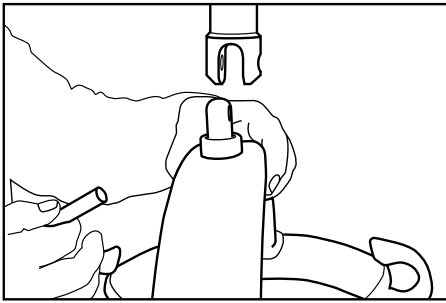


Do not pull handcontrol to move the hoist along the rail

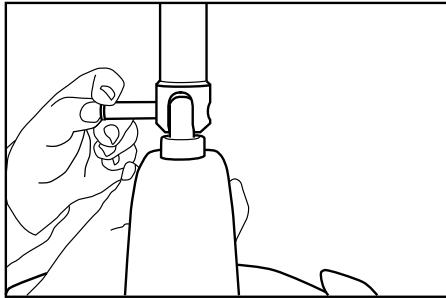


Mounting Suspension

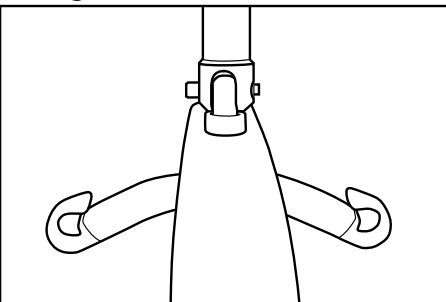
Description of quick release pin and mounting of suspension:



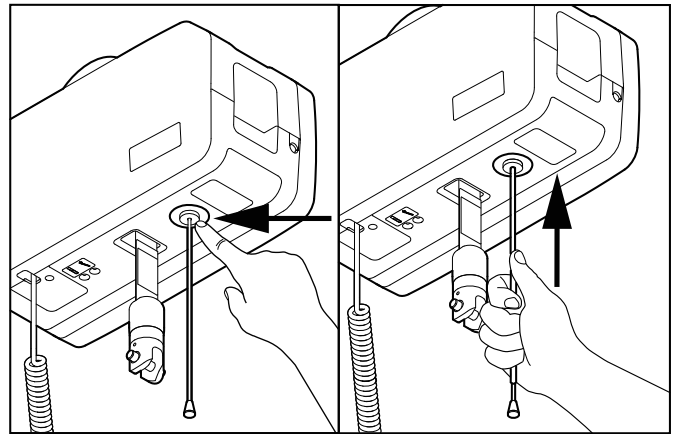
Align suspension in connection point.



Push button on locking pin and insert all the way through.

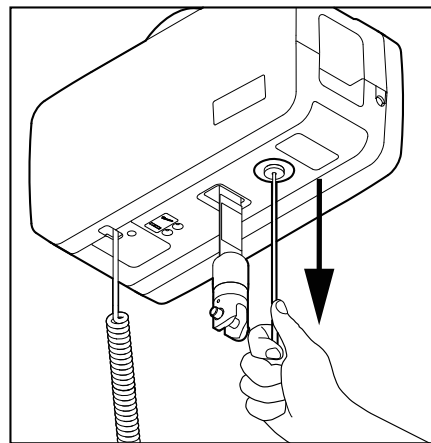


Make sure locking pin is properly fastened.



Push with finger or use tube on cord to push button back in to reset emergency stop.

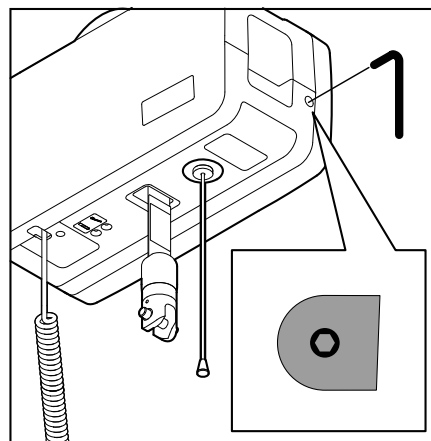
Electrical Emergency Lowering



Pull and hold to start lowering.

Manual Emergency lowering

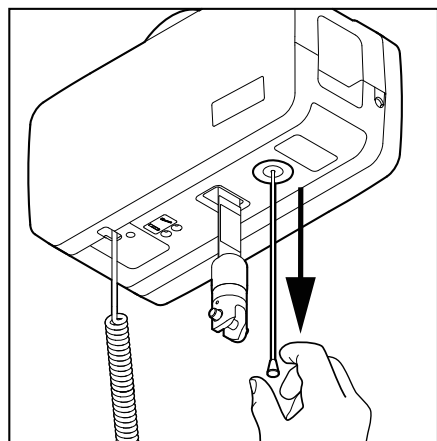
Open sidecover. Allen key or bit for power drill can be found inside the lifter. Locate sticker over the hole for manual emergency lowering. Punch hole or remove sticker and insert tool. Rotate clockwise to lower lifting belt. Using a power drill is recommended.



Emergency Stop / Emergency lowering

Emergency Stop

Activation and reset of emergency stop:



Pull to activate emergency stop. The button will come out, and hoist will stop.

Electronics

Transport and Operating Conditions

Transport and Storage

For long time storage it is recommended that the emergency stop button is activated (pulled out). The lifter can be stored and transported under the following conditions:

Air Pressure: 70 - 106 kPa
Relative Humidity: 15 - 93 %
Temperature: -25 - 70 °C

Operating

The lifter is designed for use at standard room temperatures (+5 to +40°C). Following storage or transport at other temperatures leave the lifter in a room with a suitable temperature until it reaches a safe operating temperature.



Medical electrical equipment requires special precautions regarding electromagnetic compatibility (EMC). Portable or mobile radio communication equipment may affect the medical electrical equipment, and should be kept minimum 25 cm (10 inches) from the lifters electronics.

Batteries

Molift Air has a 26.4 V NiMH battery pack. The battery has a life expectancy of approx. 500 charge cycles.



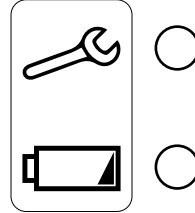
Used batteries must be disposed of as special waste according to local rules and regulations. Do not dispose in general waste



Batteries must be fully charged and depleted completely a couple of times before it achieves full capacity. Also follow this procedure if the lifter has not been in use for a long period (3-4 weeks)

Battery and Service indicator

The lifter has two indicator lights.



Wrench symbol / Service light
Battery symbol / Battery light

Battery Light

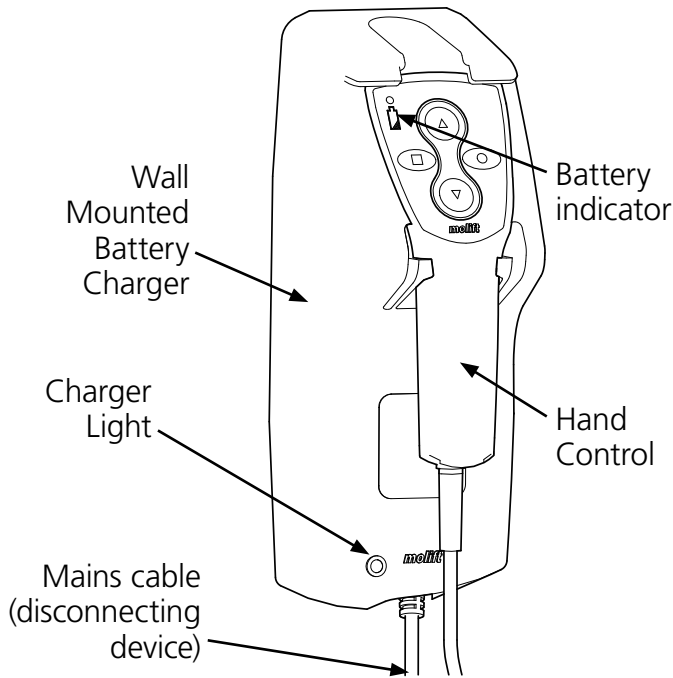
The battery indicator light will illuminate and make a sound when battery level is low and the lifter requires charging. When this occur the lifter will have sufficient power available for one full lift cycle with max load. When battery is critically low it is only possible to lower the lifting belt.

Service Light

<i>Service light</i>	<i>Mode</i>
No light	Power saving (Stand by)
Green	Ready for use
Yellow	Order service
Red	Perform service
Red + sound	Perform service immediately
Flashing yellow	Overheating

The electrical system has a power save function which will turn off the electrical system after ten minutes without activity. All lights will turn off. The system is activated when pushing one of the operating buttons.

Charging



Battery Charger

The lifter is charged through the handcontrol. The battery charger shall be mounted to a vertical wall surface close to a power outlet, minimum 120 cm above the floor. The charger has to be used outside the patient environment. The Charger must be placed or installed in a way that makes it easy to disconnect mains cable plug. Take care not to damage the cable. The charger can be connected to the power outlet at all times, and the hand control should be placed in the charger console when the lifter is not in use.

Charger Light

Description of charger light:

Charger light	Mode
Yellow	Ready for use, no battery connected
Yellow	Initialization
Red	Fast Charge
Green/Yellow	Top-off charge
Green	Trickle charge
Red/Green	Error

Transfer

Plan the lifting operation in advance to ensure that it is as safe and smooth as possible. Remember to work ergonomically. Assess the risks and take notes. You as a carer are responsible for the safety of the user.

Molift Air can be used with both 2-point and 4-point suspension for different types of transfers; sitting, recumbent or ambulating.

Using Slings

It is important that the sling has been tested with the individual user and for the intended lifting situation.



Read User Manual for the sling prior to use.



Do not to use damaged or badly worn slings.

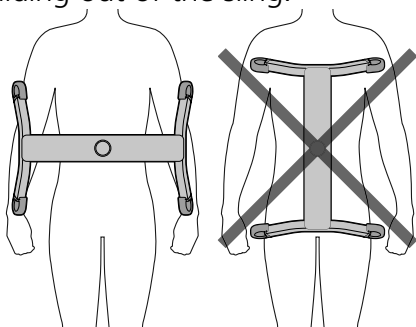
Slings made by other manufacturers

We recommend only using Etac Molift slings. Etac shall not be liable for faults or accidents that can occur when using slings made by other manufacturers.

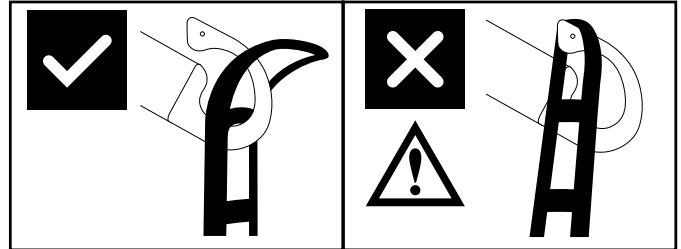
Lifting and lowering

When moving the user, stand to the side of the person you are lifting. Make sure that arms and legs do not obstruct the seat, bed, etc. Keep eye contact with the user to help them feel safe.

The slingbar must always be positioned across the user, to prevent the user from unintentionally sliding out of the sling.



The suspensions hook design prevents sling to be inadvertently detached when mounted correct. Check that the sling is correctly fitted around the user and that the strap loops are correctly fitted to the slingbar hooks.



Ensure that all four loops of the sling are securely fastened to avoid the user slipping or falling. Stretch the sling straps without lifting the user.



Never lift a the user higher than necessary to carry out a lift.



Never leave a user unattended in a lifting situation.



There is a risk of injury to user or operator from a swinging lifting strap, suspension or hand control.

Angle sensor

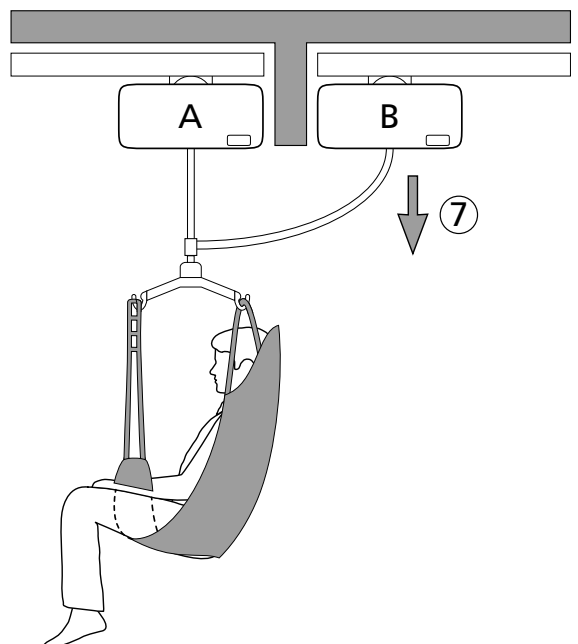
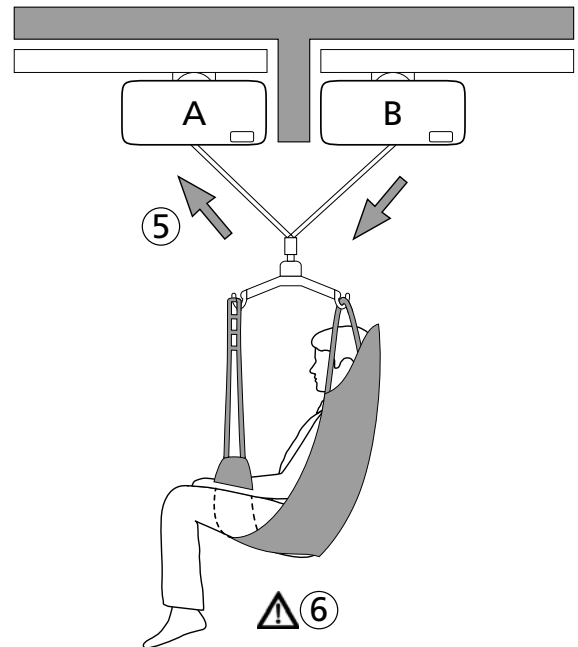
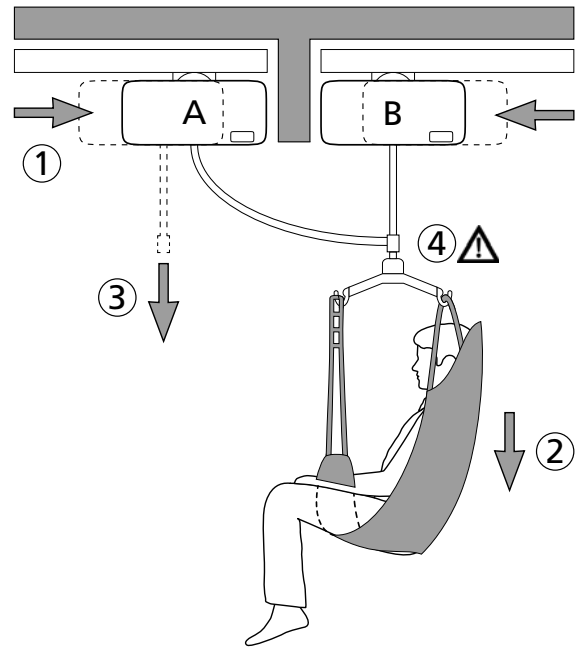
The hoist has a directional safety feature that prevents lifting if angle on lifting strap is too steep. If the hoist doesn't respond to handcontrol "up" button, it might be because lifting strap angle is too steep and sensor is activated.

Room to room transfer

With a room to room transfer coupling for suspensions (accessory) it is possible to use two hoists to transfer a person from room to room through a doorway between two rail systems that are not connected.

1. Move both ceiling hoists as close as possible to doorway.
2. Lower hoist B as much as possible without the user touching the floor.
3. Lower lifting strap on hoist A as far as needed to connect it to suspension on hoist B
4. Make sure both lifting straps are properly connected for a safe transfer
5. Drive hoist A upwards, and lower lifting strap on hoist B, continue until user is transferred from room to room.
6. Pay attention and make sure user does not touch the floor
7. The transfer is complete when there is no load on lifter B. Lift user to a comfortable height, disconnect band from lifter B and continue transfer with lifter A.

The directional safety feature that prevents lifting if angle on lifting strap is too steep might be activated during a room to room transfer. If the hoist doesn't respond to handcontrol "up" button, lower the other lifting strap until angle sensor deactivates.



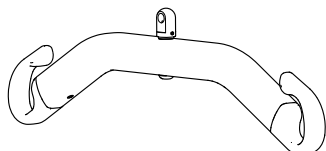
Accessories

Recommended optional equipment and accessories for Molift Air.

Suspensions

Molift Air can be used with 2 or 4 point suspension.

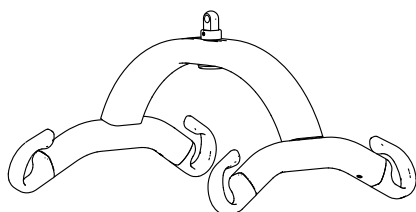
Aluminium suspension



2-point Small, aluminium, small, 340 mm,
Art. no.: 1830003

2-point Medium, aluminium, medium, 440 mm,
Art. no.: 1830002

2-point Large, aluminium, large, 540 mm,
Art. no.: 1830001



4-point Small, aluminium, 340 mm,
Art. no.: 1830012

4-point Medium, aluminium, 440 mm,
Art. no.: 1830011

4-point Large, aluminium, 540 mm,
Art. no.: 1830010

4-point X-Large, aluminium, 640 mm,
Art. no.: 1530006

Slings

Etac Molift supplies a wide selection of slings for different types of transfers.

The Etac Molift RgoSling sling series is developed to be combined with a 4-point suspension but the sling also works with a 2-point suspension.

See the combination list in the slings user manual for the correct sling and suspension combination.

The Etac Molift RgoSling sling series is available in sizes XXS – XXL, in polyester and polyester mesh.

Scale

Molift Scale Set (without Suspension)

Art. no.: 1840000

Can be combined with all Molift Air compatible suspensions. Scale is approved Class III. The scale can also calculate BMI (Body Mass Index) with a single touch. Read the manual that comes with the weight scale prior to use.

Maintenance

Cleaning and disinfection

Clean surfaces with a damp cloth using an appropriate pH-neutral detergent. Do not use solvents or strong liquids, this may damage surfaces on the lifter. For disinfection when needed; use isopropyl alcohol. Avoid abrasive cleaning products. Check emergency stop and emergency lowering after cleaning. The lift should not be exposed to running water.



Make sure not to damage or remove labels when cleaning.

Reconditioning

Follow cleaning and installation procedure, complete periodic inspection and use checklist after installation to recondition the lifter.

Recycling

Refer to "Recycling instructions" for how to properly dispose of product. This can be found on www.molift.net.

Spare Parts

A list of spare parts are available on request.

Periodic Inspection

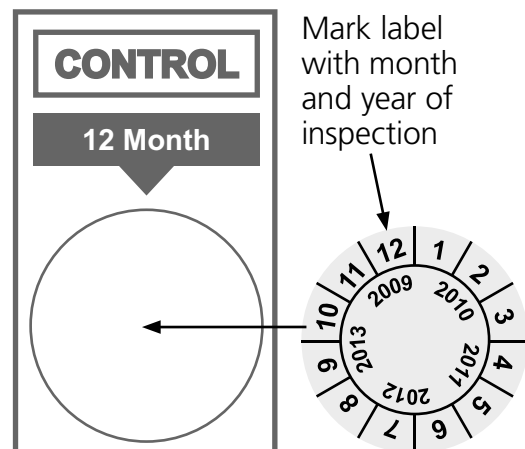
Periodic Inspection Scope

Periodic inspection is a visual examination (particularly of the hoist's load bearing structure and lifting mechanism with attachments, brakes, controls, safety devices and person-support devices)

Periodic Inspection shall be performed at least once a year or more frequently if required by local requirements. The inspection must be performed by service personnel authorized by Etac. Contact Etac for training and authorization or recommendation of an approved service partner.

When performing a periodic inspection, the inspector shall fill out the inspection report for Molift Air. The reports should be retained by the person(s) responsible for servicing the hoist. If the inspection reveals defects and damages, the owner shall be notified and a copy of the report should be sent to Etac.

When periodic inspection is completed the inspector shall mark the hoist with a sticker on the control label showing the date when periodic inspection is performed. The control label can be found on the inside of the sidecover, and this will then indicate when next service should be performed.



In the event of danger to safety, the hoist shall immediately be taken out of service and marked clearly with "out of order" and shall not be used until the hoist is repaired

Troubleshooting

Symptom	Possible Cause/Action
The lifter does not respond to handcontrol action	Emergency Stop is activated. Deactivate by pushing button back in.
	The lifters electronics is overheated. Service light is flashing yellow. Wait for it to cool down and light stops flashing.
	Handcontrol is not plugged in properly. Open cover and plug in Handcontrol. Handcontrol or plug or cord can be broken an should be replaced.
The lifter does not respond to handcontrol up button	Lifting strap angle sensor is activated. Adjust lifting strap or move hoist to reduce lifting strap angle.

Find your distributor
visit www.molift.com

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molift@etac.com www.molift.com

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by Etac