

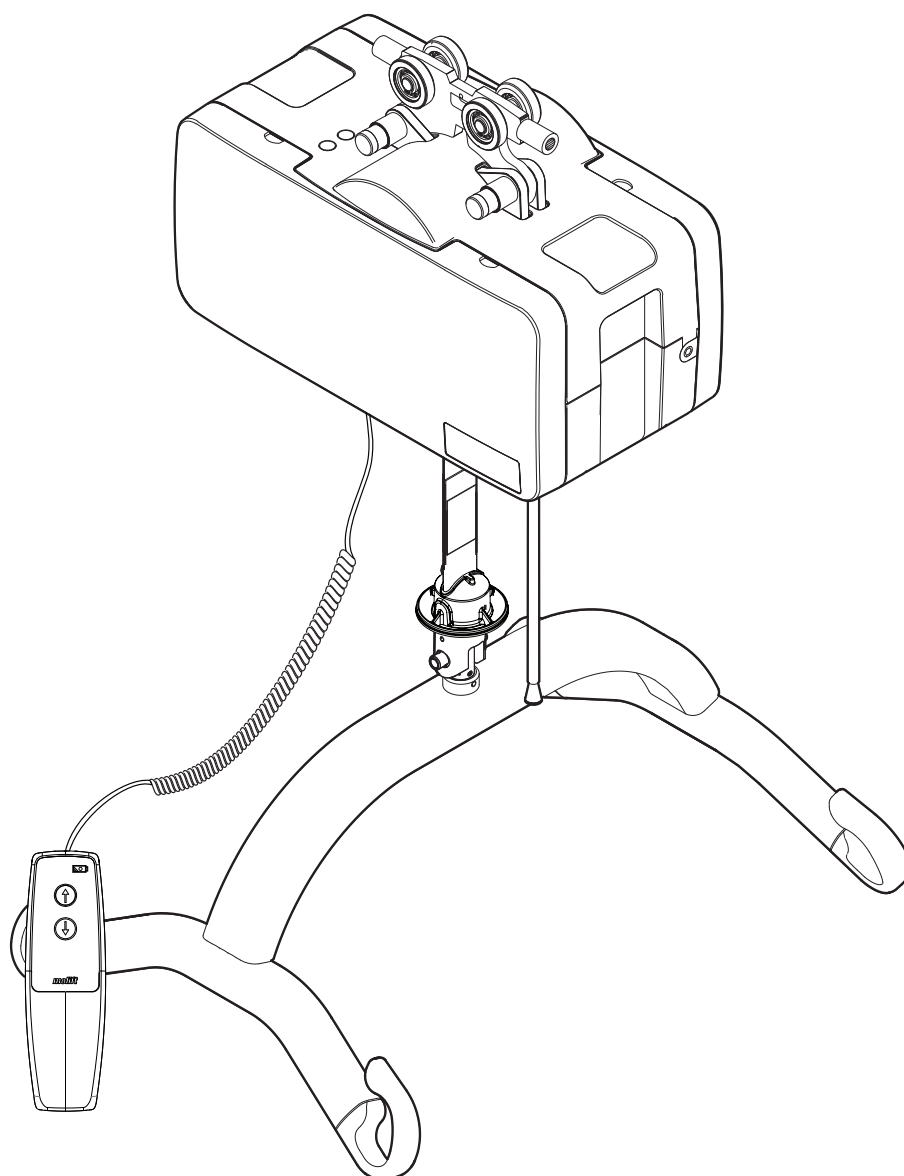


# User manual

Molift Air 200 / 350

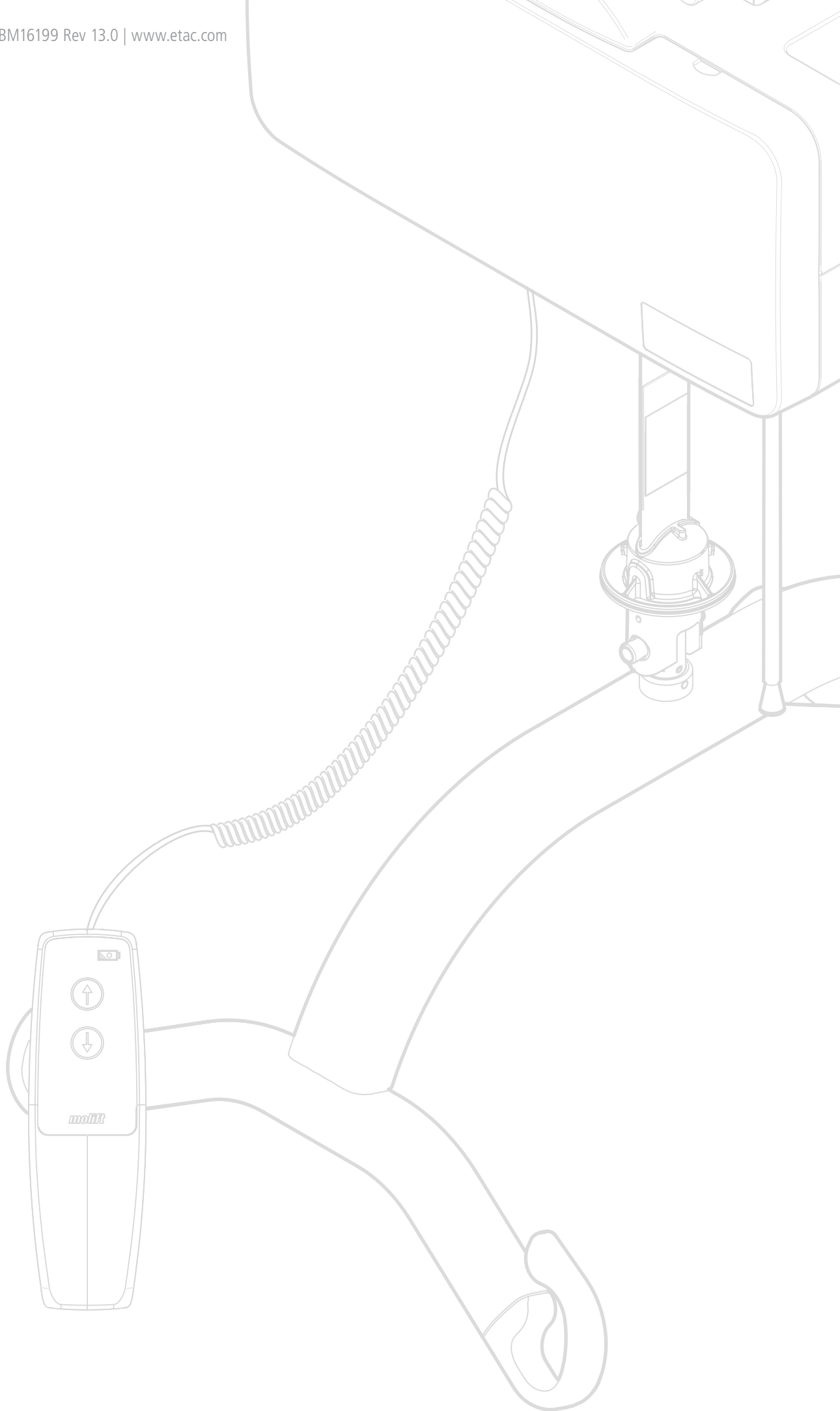
**molift**<sup>®</sup>  
by Etac

BM16199 - 2024-09-12 - Rev. 13.0



[www.etac.com](http://www.etac.com)







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## Important

This User Manual contains important safety instructions and information regarding the use of the sling and accessories. In this manual the user is the person being lifted. The carer is the person operating the hoist.



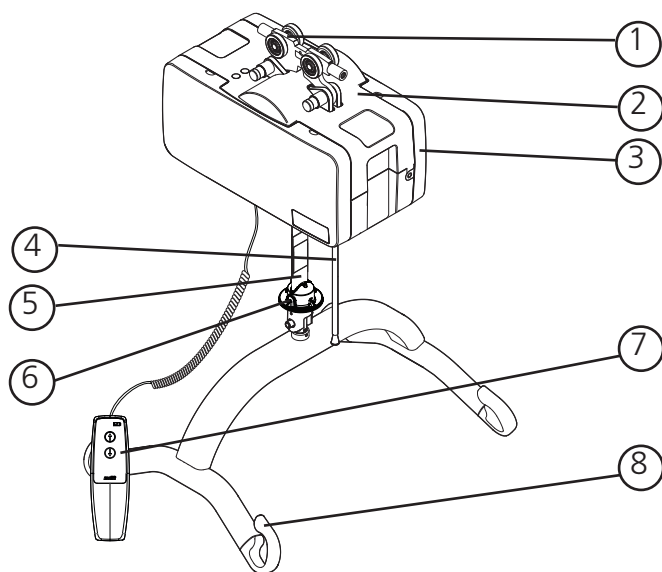
This symbol indicates important information related to safety. Follow these instructions carefully.



**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.etac.com](http://www.etac.com) for download of documentation to ensure you have the latest version.

## Molift Air 200/350



### Hoist components:

1. Trolley
2. Hoist
3. Side covers
4. Emergency stop/ Emergency lowering
5. Lifting belt
6. Quick release pin
7. Hand control
8. Sling bar

## About Molift Air

Molift Air is a strong and smooth ceiling lift that enables users 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



### CE declaration

The product, and its related accessories, described in this instruction for use (IFU), is in compliance with the regulation (EU) 2017/745 of 5. April 2017 – as a medical device, risk class I.

The product has been tested and approved by a third party according to standards IEC 60601-1, IEC 60601-1-2 and EN/ISO 10535:2021.

Any serious incident that occurs in relation to the device should be reported to the manufacturer and the competent authority of the Member State in which the user and/or patient is established.

### Conditions for Use

Lift and transfer of a user will always pose a certain risk and only trained personnel are allowed to use the equipment and accessories covered by this user manual. The rail system must be installed by certified personnel in accordance with applicable installation instructions. The hoist is not intended to be operated by the user being lifted.

### Modifications and use of components made by other manufacturers.

We recommend only using Molift components and spare parts. Declaration of conformity is not valid and Etac is not responsible for warranty if any modifications are made to the product. Etac shall not be liable for faults or accidents that can occur when using components made by other manufacturers. It can be unsafe to use accessories, detachable parts and materials that is not listed in this user manual.



Only certified personnel are allowed to open hoist or accessories to perform service or repAir. Risk of injury from rotating parts and electric shock.



### Warranty notice

Two-year warranty against defects in workmanship and materials of our products. One-year warranty for batteries. Please refer to [www.etac.com](http://www.etac.com) for terms and conditions.

## Definitions

The person described as “the user” in this Instruction for Use is the person who is sitting in the product. “The carer” is the person who manoeuvres the product.

## Intended purpose

To be used for lifting and transferring users, who require support to be lifted or transferred within a rail system; e.g. to/from a bed, the floor, a wheelchAir, a shower commode chAir, a toilet or similar. Also for gait training in combination with ambulating vest.

## Intended target group

Used for users who require support to be lifted and transferred; e.g. persons with limited ability to move and who require body support during transfers. Not an exhaustive list.

## Intended environment

For indoor use within a rail system in acute care, long term care, home care.

## Indications

The device can be used for children, adults and elderly people with a need for support to be lifted and transferred, or when gait training, within a railsystem.

The target group for the device is based on individual health and mobility function, and not a specific diagnose or age.

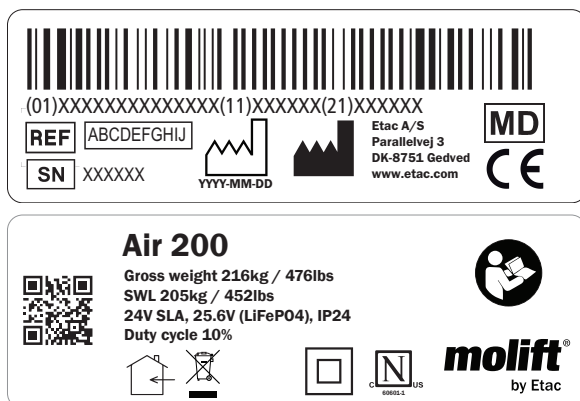
## Contra indications

There are no known contra indications regarding the hoist, but make sure the sling fits the user.

## Product identification

### Product label

The Product labels barcode contain article number, serial number and production date:



## Warning labels and Symbols

Symbols used on the product, explained in more detail:



Class II double insulated



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



Certification Body mark



Humidity limitation



Atmospheric pressure limitation



Temperature limitation



Manufacturer



Date of manufacture



Catalogue number



Serial number



Medical Device

## Technical data

### Safe Working Load (SWL)

Molift Air 200: SWL = 205 kg (450 lbs)  
 Optional SWL range (setting) 160-205 kg  
 Molift Air 350: SWL = 350 kg (771 lbs)  
 Optional SWL range (setting) 160-350 kg

### Weight of unit:

Chassis incl. battery, Excl. sling bar:  
 8,56 kg (18,87 lbs)  
 4-point Medium Sling bar: 2,2 kg/4.8 lbs

### Battery:

Art: 2920204 25.6 V LiFePO4 2.4 Ah  
 Art: 2920007 12 V SLA 2.9 Ah

### Battery charger:

Charger for handcontrol, Mascot - type 3743

Art. no.: 2540100  
 100-240 V AC, 50-60 Hz max 0.5A  
 Output 0.9A

IRC Power Supply, Mascot - type 3721

Art. no.: 2610119  
 Input: 100-240 VAC, 50-60 Hz max 1.0A

Output: 24VDC 1.75A/42W

IRC Charger, Mascot - type 3844

Art. no.: 2640200

In: 20-30VDC 1.3A

Output 0.5A

### Lifting speed

60mm/second (2,36 inches/second)  
 with 75kg (165,35 lbs) load

### Propulsion motor speed

0,2m/second (7,87 inches/second)

### Protection class

Hand control IP24

Lift motor IP24

### Sound pressure

52 dBA

Sound power ( $L_{WA}$ )

63 dB

### Operating forces button

Buttons on handset: 3.4 N

### Material:

Aluminum, plastic, steel

### Expected Lifetime:

The hoist has an expected lifetime of 30 000 cycles SWL or 15 years. The rails have an expected lifetime of 30 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 Air 200 Hoisting Range:

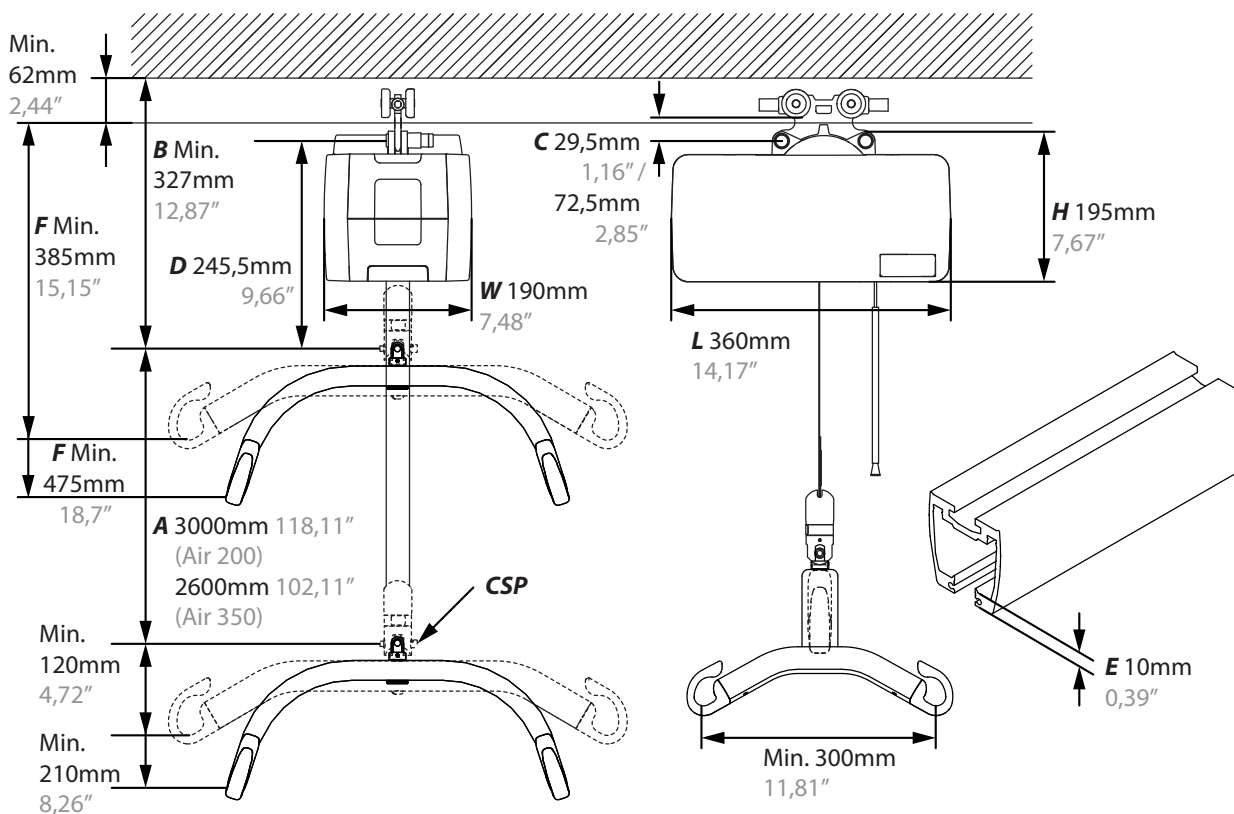
300 cm (118 Inches)

Air 350 Hoisting Range:

260 cm (102 Inches)

B (Minimum distance from ceiling to sling bar coupling point) 32,7 cm (12.7/8 Inches)

For extended information about technical data, how to preform service and repAir, see technical manual.



## Installation

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

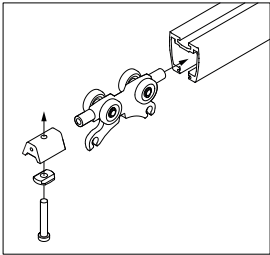


The rail system can only be installed by certified personnel in accordance with applicable installation instructions.



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. See BM3401 for installation details. Etac offers trolley for mounting Molift's lifts in rail systems from other manufacturers. Contact your local Etac representative for more information on trolleys compatible with other manufacturers' rail systems.

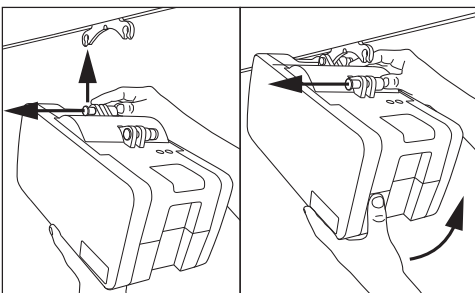


Make sure end stops are mounted in all ends of the Rail system before using the hoist!

## Hoist installation

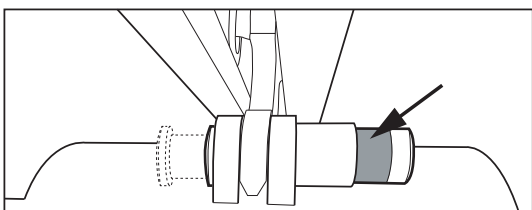


Be careful during elevated work situations. We recommend two or more installers, to prevent losing balance and injury during installation!



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

Connect one point first. Push button all the way in, and place hoist 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. Emergency lowering cord and tube can be adjusted to the correct length (height) by cutting tube and cord.

## 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 as described in BM3401
- ☐ 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 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/ Duty Cycle.

Molift Air 200 / 350 should not be run constantly for more than 2 minutes (with maximum load), and rest for minimum 18 minutes. Duty Cycle 10%. (Intermittence according to standard ISO-EN 10535)



Do not position hoist in a way that makes it difficult to disconnect mains cable. To isolate the system, pull out the main cable from the electrical wall socket.



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



Molift hoists shall only be used to lift users. Never use the hoist to lift or move objects of any kind.

## Before use / Daily check

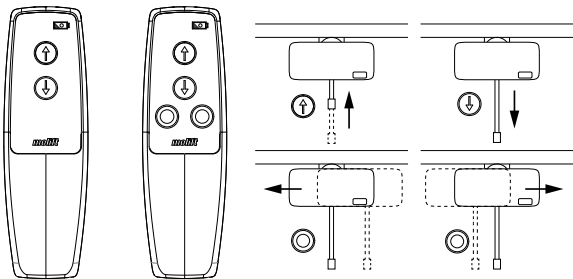
Inspection to be performed by carer daily or before use:

- ☐ Inspect hoist and rail system has no visible damage, defects or deformations
- ☐ Make sure sling bar 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 hoist's operation functions and make sure hoist 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". No parts on the Molift Air should be serviced or maintained while in use with a user.

## Hand control

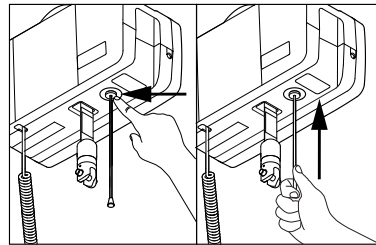
The Hand control has 2 buttons for lifting and lowering, or 4 buttons if the hoist is equipped with propulsion. The Hand control has an indicator light that will illuminate when battery level is low and the hoist requires charging



Do not pull Hand control to move the hoist along the rail



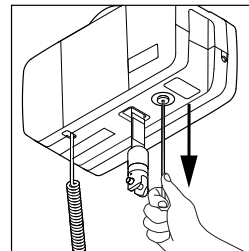
The lift will not work if hand control is connected to a charger. Disconnect hand control from charger before operating the lift.



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. Hold until user is lowered and can be released from sling bar.



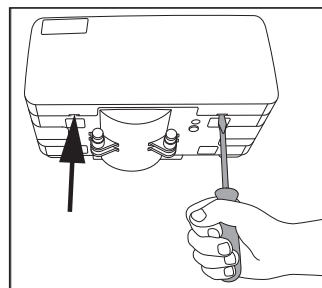
Only for emergency use when hand control does not work!

## Manual Emergency lowering



Manual emergency lowering is only to be performed by service personnel!

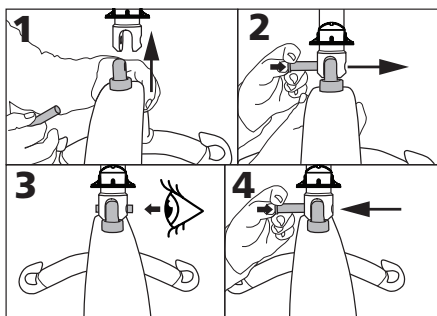
Allen key or bit for power drill can be found inside the lifter. Remove cover to locate.



Push down and press cover outwards with a flat screwdriver or coin in the two slots to open cover.

Locate sticker over the hole for manual emergency lowering. Punch hole or remove sticker and insert tool. Rotate counterclockwise to lower lifting belt. Using a power drill is recommended.

## Mounting sling bar

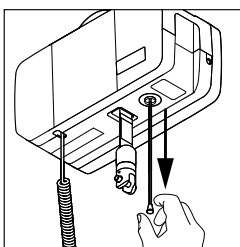


1. Align sling bar in connection point.
2. Push button on locking pin and insert all the way through.
3. Make sure locking pin is properly fastened
4. Push and hold down the button on the locking pin, and pull to remove locking pin.

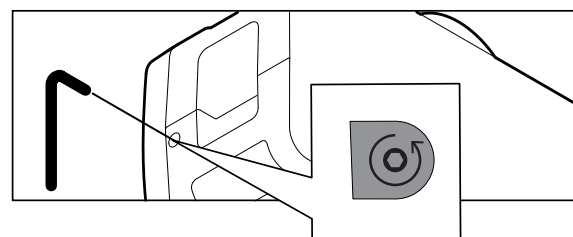
## Emergency stop / emergency lowering

### Emergency Stop

Activation and reset of emergency stop:



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





Service is NOT required if:

- 1) the Air manual emergency down is used for a known reason, and
- 2) the belt is undamaged, and
- 3) the unit is operating normally after the manual emergency lowering procedure.

The new brake override will contribute to this by making emergency manual lowering less stressful to lift components.

If the unit have had a malfunction with unknown reason, and manual emergency lowering system has been used, Service is required.

## Electronics

### Transport and Storage

For long time storage it is recommended that the emergency stop button is activated (pulled out). The hoist can be stored and transported under temperatures between -25 - 70 °C.

### Operating

The hoist is designed for use at standard room temperatures (+5 to +40°C).

Air Pressure: 70 - 106 kPa

Relative Humidity: 15 - 90 %

Following storage or transport at other temperatures leave the hoist 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 30 cm (12 inches) from the hoist's electronics.

## Batteries

Molift Air 200/350 is available with 2 x 12V SLA battery or a 25.6V LiFePO4 battery.

The SLA battery has a life expectancy of approx. 500 charge cycles.

The LiFePO4 battery has a life expectancy of approx. 2000 charge cycles.





Recharge battery upon receipt, and then every six months, to avoid battery failure.



Batteries must be disposed of as special waste according to local rules and regulations. Do not dispose in general waste. Replacement of lithium batteries or fuel cells by inadequately trained personnel could result in a hazard







## Battery and service indicator on hoist

|  |                                    |
|--|------------------------------------|
|  | Wrench symbol / Service indicator  |
|  | Battery symbol / Battery indicator |

The electrical system has a power-save function which will turn off the electrical system five minutes after last operation. All indicators will turn off. The system is activated when pushing one of the operating buttons on the hand control.

### Battery indicator on hoist

When the multi level battery indicator is yellow the hoist will have sufficient power available for at least one full lifting cycle with max load. When battery is flashing yellow it is only possible to lower the sling bar.

| <i>Battery indicator</i>  | <i>Battery level</i> |             |
|---|----------------------|-------------|
|    | Green                | 80% or more |
|   | Green                | 80 - 60%    |
|  | Green                | 60 - 40%    |
|  | Green                | 40 - 20%    |
|  | Yellow               | 20% - 0%    |
|  | Yellow flashing      | 0%          |

### Service indicator / Periodic inspection

The hoist's electronics record the weight lifted and number of lifts. After a certain period of operation a signal is given to indicate that service is required.

| <i>Service indicator</i> | <i>Mode</i>                  |
|--------------------------|------------------------------|
| No light                 | No service needed            |
| Yellow                   | Periodic inspection required |
| Green flashing           | Order service                |
| Red                      | Perform service              |

Service scope

When the hoist has performed a number of lifts, (5,000 lifts with the maximum allowed weight (SWL)), the service indicator will light up red.

A service must then be performed by authorized personnel, including the inspection and replacement of worn parts.

Contact Etac or your local dealer or visit etac.com to find an approved service partner.

Charging

Molift Air can be charged through the hand control with a battery charger, or through the rail with In Rail Charging.

Indicator on charger and power supply indicator

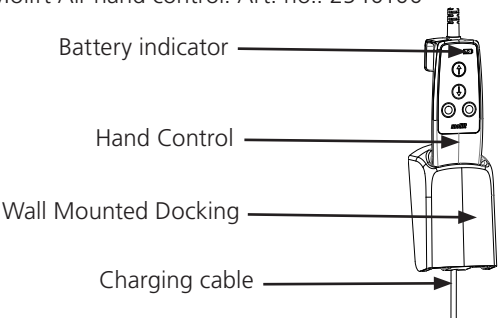
| Charger indicator | Mode                   |
|-------------------|------------------------|
| Green flash       | Not connected to hoist |
| Yellow            | Charging               |
| Yellow flash      | Top of charge          |
| Green             | Fully charged          |

| Power supply indicator | Mode                      |
|------------------------|---------------------------|
| Blue                   | Connected to power outlet |

Hand control charging

The battery charger is plugged into a power outlet. Wall-mounted docking for hand control is available. Make shure not to damage the cable. The charger can be connected to the power outlet at all times. Use only Molift chargers. The Hand control has an indicator light that will illuminate when battery level is low and the hoist requires charging.

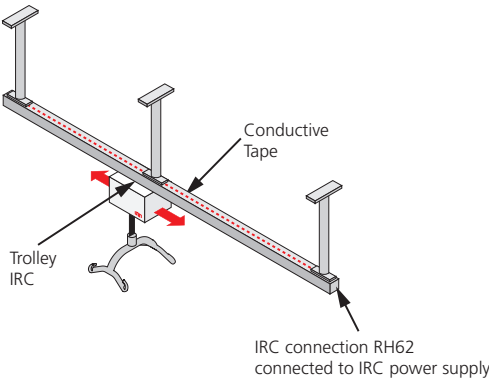
Charger for Molift Air hand control: Art. no.: 2540100



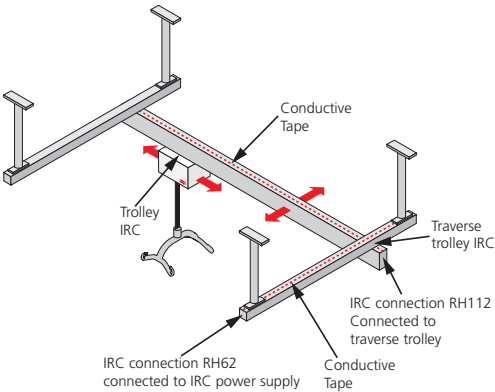
IRC - In Rail Charging

The hoist is charged through a built in charger in lift motor for continuous charging through the entire rail system length.

Molift Air IRC has a built in charger, connected to the battery. It must be installed with IRC Trolley in a rail system with a conductive tape. The IRC trolley is connected to the battery charger inside the Molift Air IRC. The IRC trolley is always in contact with the the conductive tape inside the rail. The IRC power supply is connected to the conductive tape through IRC connection at the end of the rail, and supplies power to the battery charger inside Molift Air IRC.



IRC fits both Single rail and Traverse systems.



IRC Power Supply

Art. no.: 2510119

Charger 3844 DC/DC (Part of Molift Air IRC)

Art. no.: 2640101

## 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. The carer is responsible for the safety of the user.

Molift Air can be used with both 2-point and 4-point sling bar 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.



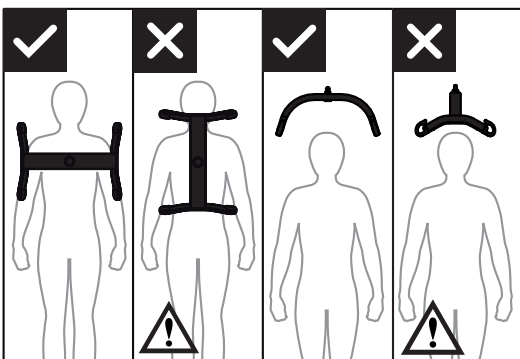
Do not to use damaged or badly worn slings.

## Slings made by other manufacturers

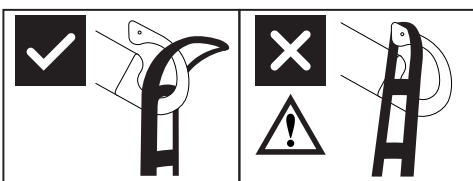
We recommend using Etac or Molift slings. The hoist can be combined with slings from other manufacturers with similar suspension loops. Visit [www.etac.com](http://www.etac.com) for compatibility statements between lifts and slings from other manufacturers. Please note that the natural or legal person using CE-marked compatible devices from different suppliers is responsible for the activity. Etac cannot therefore be held responsible for any incident.

## Lifting and lowering

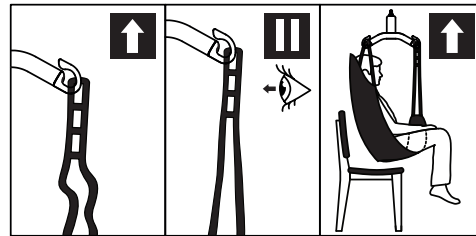
When moving the user, stand to the side of the user you are lifting. Make sure that arms and legs do not obstruct the seat, bed, etc. Keep eye contact with the user to help them feel safe.



The 4-point sling bar must always be positioned across the user, to prevent the user from unintentionally sliding out of the sling.



The sling bars hook design prevents sling to be inadvertently detached when mounted correct.



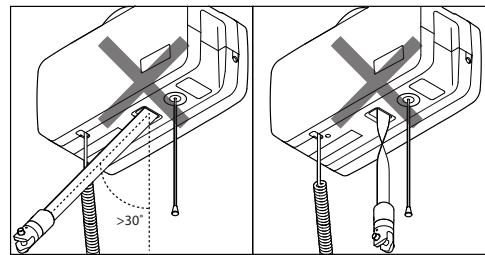
1. Check that the sling is correctly fitted around the user and that the strap loops are correctly fitted to the sling bar hooks.
2. Stretch the sling straps without lifting the user. Ensure that all four loops of the sling are securely fastened to avoid the user slipping or falling.
3. Lift user, and perform transfer.



Do not use the emergency stop to turn OFF the hoist, except in an emergency. The hoist will switch OFF (stand by) automatically after 5 minutes of inactivity.

## 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 Hand control "up" button, it might be because lifting strap angle is too steep, or lifting belt is twisted and sensor is activated.

## Accessories

Charger cords and plugs.

Plug adapter EU, art.no 2510365

Plug adapter UK, art.no 2510366

Plug adapter US, art.no 2510367

Plug adapter AUS, art.no 2510368

Cord EU, art.no 1140105

Cord UK, art.no 1140106

Cord US, art.no 1140104

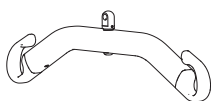
Cord AUS, art.no 1140107

Wall bracket for charger, art. no. 2610123

## Sling bars

Molift Air can be used with 2 or 4 point sling bar.

### Aluminum sling bar



2-point Small, aluminum, 350 mm,

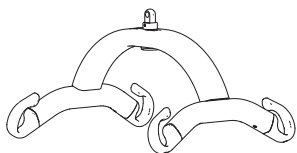
Art. no.: 2530115

2-point Medium, aluminum, 450 mm,

Art. no.: 2530120

2-point Large, aluminum, 550 mm,

Art. no.: 2530125



4-point Small, aluminum, 350 mm,

Art. no.: 2530210

4-point Medium, aluminum, 450 mm,

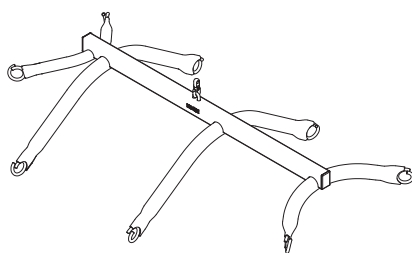
Art. no.: 2530211

4-point Large, aluminum, 550 mm,

Art. no.: 2530212

4-point X-Large, aluminum, 650 mm,

Art. no.: 2530213



8-point sling bar for fabric stretcher, steel

Art. no.: 2140003

## Scale

Molift Scale Set (without Sling bar)

Art. no.: 1840000

Can be combined with all Molift Air compatible sling bars. 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.

## Slings

Etac supplies a wide selection of slings for different types of transfers. The Molift RgoSling sling series is developed to be combined with a 4-point sling bar with loop connections. The slings also works with a 2-point sling bar. See the combination list in the slings user manual for the correct sling and sling bar combination. The Molift RgoSling sling series is available in sizes XXS – XXL, in polyester and polyester mesh. Complete list of slings and sling bars can be found on [www.etac.com](http://www.etac.com)

Molift Rgosling Mediumback Padded (XS-XXL)

Molift Rgosling Highback Padded (XS-XXL)

Molift Rgosling Mediumback Net (XXS-XXL)

Molift Rgosling Highback Net (XXS-XXL)

Molift Rgosling Toilet Lowback (XXS-XXL)

Molift Rgosling Toilet Highback (XXS-XXL)

Molift Rgosling Ampu Mediumback (XXS-XXL)

Molift Rgosling Ampu Highback (XXS-XXL)

Molift Rgosling Ambulating Vest

Molift Rgosling Comfort Highback (S-L)

Molift RgoSling Fabric Stretcher

Molift RgoSling Repositioning

Tillbehör:

Molift Rgosling Extension Loops

Art.nr.: 1721600

Molift Rgosling Ambulating Vest Groin strap (XXS-XL)