

esense

A photograph showing a healthcare professional in a white uniform with 'esense' on the sleeve, assisting an elderly female patient. The patient is seated on a white machine labeled 'rise' and is holding the handles. The machine is positioned on a bed. The background is a simple room with a wooden headboard.

esense Rise user guide

esense is a brand of
Indes Healthcare

INDES
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Product versions Rise series

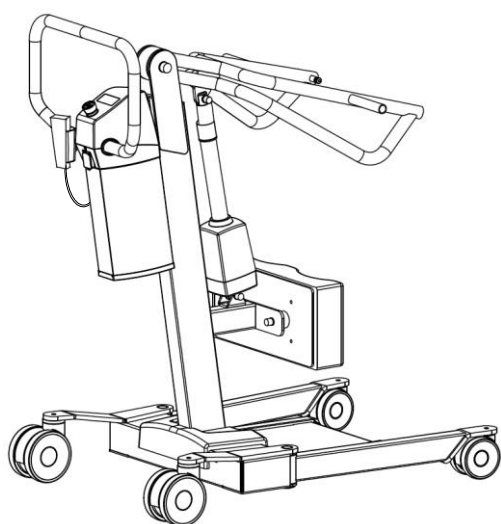
As of February 2021 all manual versions are also fitted with a sensor in the push bar; therefore all information in this manual regarding functionality for which the force sensor is required (such as Ergo feedback) does *not* apply to manual lifts delivered *before* February 2021.

1 Introduction

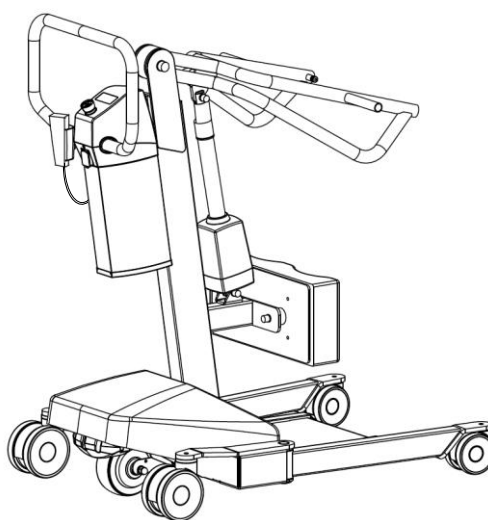
Thank you for choosing an esense patient lift!

The Rise is an *active* patient lift. With this type of lift the patient has an active role in the transfer. The Rise is suited for patients up to 180kg.

Esense Rise patient lifts are equipped with the patented esense power assist drive system, making it possible to move the lift with minimal force in any direction. The Rise lift is also available as manual version without drive system (esense Rise *manual*).



Rise *manual*



Rise

Esense is a brand of Indes Healthcare B.V., a renowned development and production company based in the Netherlands. With over 30 years of experience in development and production of products for the Cure and Care market, Indes creates products people rely on. By gaining full insight in user needs we aim to develop products that improve the quality of everyday life.

Esense stands for working healthy. That is why patient lifts are standard equipped with Ergo feedback, warning the user when too much force is used while moving the lift. The function is created to support and encourage safe use of the lift by making the user aware of peak forces in everyday work situations. See chapter 6.5 'Ergo feedback' for more information.

Visit our website www.esense-moves.com for information about our complete product line.

2 About this guide

2.1 Definitions

The following terms are used throughout this guide:

Transfer

The complete operation of lifting, moving and lowering the patient.

Patient

The person being transferred with the patient lift

Sling

The textile strap supporting the patient during a transfer with the patient lift.

(Electrical) system

Electronics and software necessary for functioning of the electrical lift motors, the power assist drive functionality and the indication LEDs (lights).

2.2 Specific sections

Caution!

Text in red boxes describes important instructions and potentially dangerous situations and shall be read carefully. Please contact Indes for clarification in case the text raises any questions.

Notice!

Text in blue boxes describes points of attention and other issues that are important to be aware of before and during use of the patient lift. These texts shall also be read carefully.

esense

Text in green boxes and/or marked with the esense logo applies only to lifts provided with drive functionality.



3 Important safety instructions

Read this user guide completely before use of the patient lift. This is vital to both your own safety and the safety of the patient.

Caution!

Ensure that you never lift patients weighing over 180kg.

Caution!

Ensure that you never lift more than one patient at a time.

Caution!

Ensure that you never leave a patient in the lift unsupervised.

Caution!

The patient lift is not suited to be exposed to large quantities of water. Therefore it is not suited for use under a shower. Prevent any parts of the lift and lifting frame to come in contact with shower and bath water.

Caution!

The patient lift is not suited for use on slopes. Do not perform a transfer on a slope.

Caution!

When using the patient lift, ensure that no lateral forces are being exerted on the patient, the lifting frame or the mast: this may lead to decreased stability of the lift.

Caution!

Do not expose the lift to temperatures below -5°C and over 50°C.

Caution!

Esense lifts are guaranteed to be safe to use in combination with Slingcare slings, identified by the label. When using slings of other brands, make sure the clips are compatible with the geometry of the lugs on the lifting frame; if in doubt about compatibility, check with the sling manufacturer.
See chapter 10.3 'Lugs on lifting frame' for specifications.

Caution!

The power assist functionality is activated by sensitive sensors in the push bar. Ensure at all times that the push bar can move freely and that no external forces are exerted on the push bar, other than the push and pull force required for manoeuvring the lift.

Caution!

The power assist functionality on patient lifts contains moving parts required for driving and steering of the drive wheel. These components are protected by the blue cover at the back of the lift. Prevent hands or fingers from getting stuck underneath the cover when the system is active. Make sure to switch off the system before carrying out any maintenance.

Caution!

Do not hang clothes, coats, slings etc. on the push bar. Do not place or clamp any objects between the push bar and the mast or any other surfaces.

Notice!

Take care to regularly check the patient lift for loose parts and wear of for example rubbers, wiring, straps or plastic covers. In case of any irregularities, stop using the lift immediately and contact your service department or supplier.

Indes shall not be held responsible for any damage and potential resulting consequential damage in case of intentional damage, overdue maintenance, improper use and deviation from the instructions set out in this user guide.

Notice!

Please be aware that, in compliance with the MDR directive (article 2 – 65), any serious incident that has occurred related to this medical device should be reported to the manufacturer and/or distributor and to the competent authority in the Member State in which the user is located.

A serious incident is an incident that directly or indirectly led, might have led or might lead to

- death of the patient, user or any other person;
- temporary or permanent health deterioration of the patient, user or any other person;
- or a public health risk.

4 Certification

All esense products are marked with a **CE** certification. The products are classified as class I of the regulation (EU) 2017/745 on medical devices.

All esense products are tested and meet the requirements of **NEN EN ISO 10535** 'Hoist for the transfer of disabled persons – Requirements and test methods' and **NEN EN ISO 60601-1** 'Medical electrical equipment'.

5 Product description

This chapter describes the intended use and provides an overview of the product models and main components of the patient lift. See chapter 6 'User interface' for detail information regarding its use.

5.1 Intended use

The Rise lift is an *active* patient lift, also typically known as *stand-up hoist* or *standing hoist*. This type of lift is designed aimed at use with patients with some remaining back stability. In order to ensure safe use of this type of patient lift, it is necessary that a patient has sufficient body stability, sufficient leg/standing function and sufficient comprehension of the situation. These patient lifts are intended to transfer patients in mobility class C.

The device enables one person to lift an incapacitated patient or a person with a disability from a sitting position into a standing position and then move them from one place to another by physically pushing it with minimal effort with the occupant held secured in the standing position. It is permitted to use the hoist for different clients.

Operation of patient lifts may only be done by trained medical personnel.

lifts are intended for use in indoor care facilities like, hospitals, elderly homes, nursing homes, clinics. The products are typically used in combination with hospital beds and care beds, (electric) wheelchairs and toilets. The product may be used in bathrooms, but is not intended for use in bath or shower. The product is not fully splash water proof. The product may only be used on horizontal, flat floors. Preferably smooth and hard surfaces, but low pile carpet is allowed.

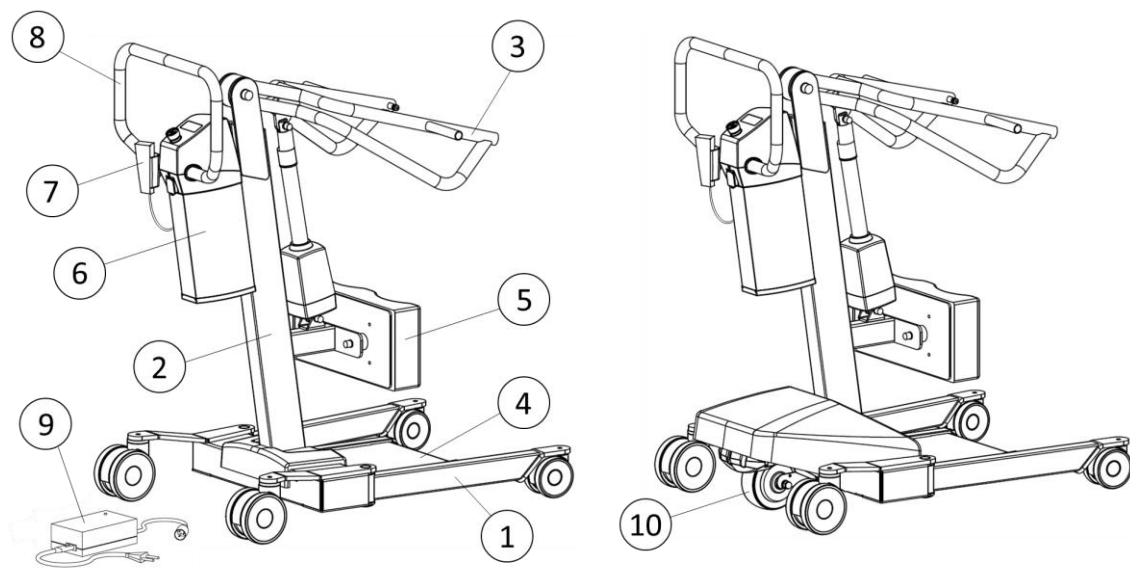
5.2 Product models

Rise patient lifts are standard equipped with the power assist drive system; an electric drive wheel for power assisted driving and manoeuvring.



The Rise is also available as manual version without drive system (Rise *manual*).

5.3 Main components



Rise *manual*

Rise

- | | |
|------------------|--------------------|
| 1. Base | 6. Controller box |
| 2. Mast | 7. Hand control |
| 3. Lifting frame | 8. Push bar |
| 4. Footplate | 9. Battery charger |
| 5. Shin rest | 10. esense drive |

5.4 Component overview

Base (1)

The base of the patient lift is equipped with 4 castor wheels: 2 braked rear castors and 2 unbraked front castors.

Furthermore it is standard equipped with electrical leg adjustment. Adjusting the legs improves accessibility to the patient. The leg adjustment is controlled using the hand control and the motor is located on the bridge (the base part connecting the legs).

See paragraph 6.9 'Leg adjustment' for more information.

Mast & lifting frame (2, 3)

The lifting frame is provided with an electrical height adjustment. The height adjustment is controlled using the hand control and the motor is located between two fixing points on the mast and the lifting frame. In case of a power outage the motor can be controlled manually. The sling is attached at the outer end of the lifting frame.

See paragraph 6.10 'Height adjustment' for more information.

Foot plate & shin rest (4, 5)

The patient lift is equipped with a footplate and a shin rest to support the patients' feet and lower legs during a transfer.

Controller box (6)

The controller box is located at the back of the mast. It contains the electronics needed to control the various electrical adjustments. In the manual version it also contains the battery pack.

In models with drive the battery pack is located underneath the cover on top of the drive.



On the outside of the controller box a battery charger plug, USB port, connector for the hand control and an emergency switch are located. Also the push bar is connected to the controller box.

Hand control (7)

The hand control is connected to the controller box through a flexible spiral cord. It can be placed and kept in a bracket mounted to the push bar. With the hook on the back it can also be hung from other parts of the lift.

The hand control is equipped with several buttons and indication LEDs to control the various electrical adjustments.

See paragraph 6.1 'Hand control' for more information.



Push bar (8)

The patient lift is moved using the push bar. The bracket for the hand control is mounted to the push bar. The push bar is equipped with force sensors monitoring both the magnitude and the direction of force exerted on it.

In models with drive the information from the sensors is used to control the electrical drive support.



See paragraph 6.8 'Driving / manoeuvring' for more information.

Battery charger (9)

The battery of the patient lift is charged using the supplied battery charger. To do so, connect it to the charger plug on the controller box. Then make sure the lift is switched off and connect the charger to the mains socket.

See paragraph 6.6 'Charging the battery' for more information.

power assist functionality (10)

Lifts are equipped with an additional electrical drive wheel. The wheel can be positioned electrically and turned sideways to ease manoeuvring. It provides the lift with electrical drive support up to a max. speed of 6 km/h. The wheel is activated by exerting force on the push bar with both hands. A spring pushes the drive wheel against the floor surface, enabling the wheel to move several centimetres up and down while driving over thresholds and other obstacles.

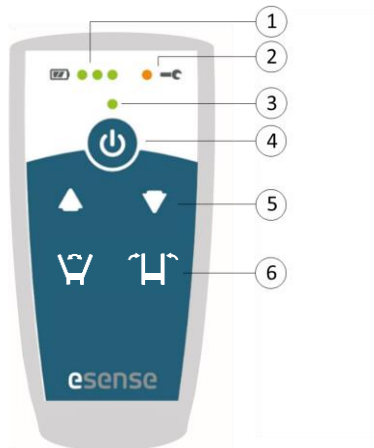
See paragraph 6.8 'Driving / manoeuvring' for more information.



6 User interface

6.1 Hand control

The patient lift is controlled using the hand control. It can be taken out of the bracket and held in hand, making it possible to control the lift from many different positions.



Indication LEDs

- 1 Battery level indication
- 2 Service indication
- 3 On-off indication

User controls

- 4 On-off switch
- 5 Height adjustment
- 6 Leg adjustment

Notice!

When the hand control is disconnected from the controller box the various motors switch off. The electrical adjustments and drive support (only drive models) are unavailable and all indication LEDs are inactive. The motors become active again after reconnecting the hand control.

6.2 Switching the patient lift on-off

Shortly press the on-off switch (4) to switch the lift on.

A beep signal will sound, the on-off indication LED (3) lights up orange and the system automatically runs a system test. When the system test is complete the on-off LED turns green and a second beep signal sounds. The battery level indicator (1) shows the current battery level.



To switch the lift off press the on-off switch for a few seconds. All indication LEDs will go out.

Notice!

Pay attention not to place your hands on the push bar immediately after turning on the lift. The sensors need a few seconds to calibrate. Do not touch or move the push bar during calibration. If this happens, calibration is postponed: the indication LEDs are blinking and a beep signal sounds. As soon as the push bar is released the system will resume calibration.



6.3 Auto-off

After 30 minutes of inactivity the lift automatically switches off completely.

6.4 Service indication

Periodic maintenance notification

When the service indication LED (2) blinks 3 times when the lift is switched on, it is time for periodic maintenance.



During start-up the current date is compared to the date for next periodic maintenance that is set in the system. The moment the current date passes the maintenance date, the hand control displays this notification every time the lift is switched on. When periodic maintenance is carried out a new maintenance date is set in the system and the notification stops.

The maintenance notification is shown for a maximum period of 1 year, regardless of whether maintenance has been carried out.

System fault notification

When the service indication LED is continuously blinking orange the system has encountered an error.



When this happens turn the lift off and then on again. If the service LED keeps blinking the electrical system encounters an error and immediate maintenance is required. Please contact your supplier in this case.

6.5 Ergo feedback

Physical overload prevention

The internationally accepted technical report ISO/TR 12296:2013* provides guidance for assessing the problems and risks associated with manual patient handling in the healthcare sector, and for identifying and applying ergonomic strategies and solutions to those problems and risks. An important guideline that is emphasised in this report is that the force required for moving a patient with both hands must never exceed 20 kg. Each time a force of more than 20 kg is applied is considered an unwanted risk. For pushing and pulling with one hand (wringing or rotating movements during manoeuvring) the guidelines give a limit of 15 kg.

Esense stands for working healthy and esense products contribute to achieving this goal. A patient lift equipped with drive functionality is a great and effective solution to bring the physical workload within these guidelines. But when the drive functionality is not used correctly use forces can still be too high. Therefore it is very important to use the lift the right way.

See paragraph 6.9 for user instructions for correctly moving patient lifts with drive functionality.

Feedback on used force

To help the user monitor the forces used while moving the lift, patient lifts are standard equipped with ergo feedback. When the user moves the lift the force sensor in the push bar measures how much force is applied. When this exceeds the threshold value for the Ergo feedback the user gets a warning: all LED's on the hand control blink 4 times.

Switching the feedback off-on

Upon delivery of the lift the Ergo feedback is standard switched on. The feedback can easily be switched off by a key combination on the hand control. To do so, keep pressing the right button of the leg adjustment (6) and shortly press the on-off button (4). The feedback is switched off and to confirm all LED's on the hand control blink once.

Use the same key combination to switch the feedback on again. To confirm all LED's on the hand control blink 4 times.

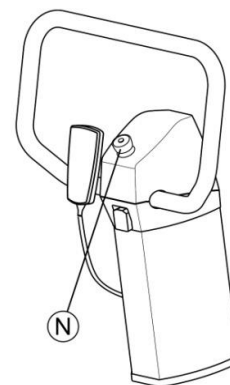
The feedback threshold setting

The threshold value is standard set at 15 kg for patient lifts equipped with drive functionality and at 20 kg for manual versions. If desired the threshold value can be set higher or lower in PowerTalk, the service software for esense products. Please contact your supplier for more information.

6.6 Emergency switch

If the lift behaves unpredictably it is possible to immediately switch off all motors by pressing the red emergency switch (N) on the controller box. When the button is pressed all LEDs on the hand control start blinking. This also happens if the lift is switched on while the emergency switch is already pressed.

To unlock the system first turn the button clockwise until it comes back up. Then shortly press the on-off switch (4). The LEDs go off and the lift is ready to use.

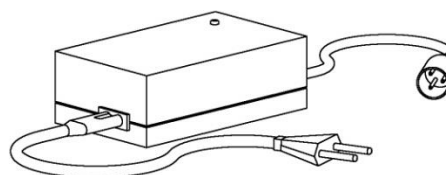


Caution!

Do not use the emergency switch as on-off switch.

6.7 Charging the battery

To be able to use the lift, the battery needs to be charged. The lift is supplied with a compatible battery charger.



Caution!

Make sure to only charge the patient lift with the charger supplied with the it. Using other chargers can potentially damage the lift.

6.7.1 Battery charger

To charge the battery open the cover at the back of the controller box. Plug the charger into the controller box and connect it to the mains socket. The charging process starts shortly thereafter.

Charging of a fully empty battery takes up to 4.5 hours. To unplug the charger, press the metal lip on the topside of the connector. Ensure to close the cover on the controller box after disconnecting the charger.

The indication LED on the battery charger informs about the status of the charging process. The following table lists the possible LED indications and their explanation.



Indication LED (battery charger)	Explanation
Off	Charger is not connected to the mains socket
Yellow	Charger connected to the mains socket, but not connected to the lift or in start-up
Orange	Battery is being charged
Green/yellow	Battery level between 80-100%
Green	Battery fully charged
Orange/green	Charging error *

* In case a charging error occurs disconnect the plug from the mains socket and plug it in again.

Notice!

Even when the lift is not used the battery will drain slowly. A fully discharged battery can get damaged. Therefore it is advised to fully charge the battery at least once every 3 months.

Notice!

The battery can be charged at any time. It does not harm to charge it when it is not yet fully discharged.

Notice!

The lift cannot be used during charging. All electrical adjustments and the drive support (in models with drive functionality) are inactive.

Notice!

It is advised to disconnect the charger from the mains socket after charging. Otherwise it will keep consuming a small amount of energy.

Notice!

From June 2024 the patient hoist is equipped with a lock on the connector of the charger. To unplug the charger, press the metal lip on the topside of the connector.

Caution!

The battery charger is designed for use in dry environments. It is not suited for use in bathrooms or other damp/wet environments.

Caution!

Do not cover the battery charger. The charging process can cause the charger to warm up and high temperatures can negatively influence its functioning.

Caution!

In the exceptional case the battery overheats during charging and steam escapes from the patient hoist, the hoist should be brought outside as soon as possible. Prevent breathing in the water vapor as much as possible. In this case there is no risk of fire.

6.7.2 Battery indication on hand control

The battery level indication LED on the hand control reflects the approximate percentage of battery capacity left. It is only lit if the hand control is switched on.

Indication LED (hand control)	Percentage of battery capacity left
Green 	Over 70% charged
Green 	45-70% charged
Green 	20-45% charged
Orange 	Less than 20% charged
Blinking orange 	Battery level sufficient for one more lifting movement *
Blinking orange and beep sounding 	Battery empty

* When the orange LED is blinking the battery has sufficient power for only one more downward lifting movement (moving the arm upward is no longer possible).

Notice!

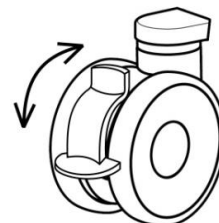
With the first use of a new patient hoist or battery, there is a chance that the LED indication does not show the actual battery level correctly. To solve this, it is important to charge the battery completely for at least 2 times.

Notice!

If the lift is switched on while it is charging the battery indicator on the hand control shortly shows an animation of an increasing number of green LEDs.

6.8 (Dis)engaging the mechanical brakes

Before you are able to move (drive/manoeuvre) the patient lift the mechanical brakes on the castor wheels need to be disengaged. They are operated by foot: bring the treadle up to disengage the brake and push it down to activate the brake.



6.9 Driving / manoeuvring

The lift is easily moved by pushing and pulling the push bar with your hands.

In lifts with drive functionality the information registered by the sensors in the push bar – the magnitude and direction of the force exerted by the user – is used to control the electrical drive wheel.



The drive support is automatically activated when force is put on the push bar (push/pull). The drive wheel turns to match the direction of the force on the push bar. The level of support relies on the magnitude of the force.

Driving wide turns

When the push bar is pushed sideways while the lift is *moving*, the drive wheel will gradually turn sideways. It is now possible to drive a wide turn.

Manoeuvring sideways

When the push bar is pushed sideways while the lift is *standing still*, the drive wheel will turn fully sideways (90°). The lift can now be manoeuvred sideways. When the push bar is released after performing a sideways manoeuvre the drive wheel will automatically return to its forward position within 2 seconds.

Instructions for moving a lift with esense drive

The best way to control a lift (drive and manoeuvre) with drive functionality is to gently push against the push bar. This way the drive support is given time to bring the lift in motion and it is ensured that it can be moved with minimal force.

When the lift is not used the right way forces can still be too high. Follow the instructions below to use the lift correctly and to avoid high (peak) forces:

1. Do not use (too) much force: steer and guide the lift but enable the drive to do most of the work.
2. Move the lift fluently: drive calmly and avoid unnecessary starting/accelerating and stopping/braking.
3. Start/stop calmly: give the drive support time to become active/inactive.
4. Avoid wringing and rotating movements during manoeuvring: for example, when turning or driving up against e.g. the toilet, stand next to the lift and gently push against the side (when turning) or front (when driving up) of the push bar with one hand.

Notice!

If excessive force is put on the push bar (e.g. when it is pushed into motion from rest) the sensors may need to recalibrate. The electrical drive wheel switches off and the service indication LED starts blinking.
If this happens then switch the lift off and on again and wait until the on-off LED turns green.

Caution!

Prevent excessive force on the push bar. In exceptional situations the sensors might react unpredictably to high (peak) forces.

Caution!

Be careful not to drive the drive wheel against your toes while driving backwards. Slowly drive the lift backwards and walk with it in its backwards motion.

6.10 Leg adjustment

The patient lift is standard equipped with electrical leg adjustment. This improves accessibility to the patient and makes it possible to drive the lift closer.

The electrical leg adjustment is activated and controlled using the corresponding buttons on the hand control.

After pressing the left button the legs move outwards; after pressing the right button the legs close again (the legs move towards each other). The legs keep moving as long as the control buttons are pressed or until their final position is reached (max. or min. base width).

**Notice!**

If movement of the legs is hindered the motor will automatically stop the motion.

Caution!

Be careful not to entrap body parts or objects while operating the leg adjustment.

6.11 Height adjustment

The patient lift is standard equipped with an electrical height adjustment functionality to lift and lower patients during the transfer.

The height of the lifting frame relative to the mast is adjusted using the corresponding buttons on the hand control.

After pressing the left button the lifting frame will move upward; after pressing the right button the lifting frame will move downward. The lifting frame keeps moving as long as the control buttons are pressed or until its final position is reached (max. or min. height).

**Notice!**

If movement of the lifting frame is hindered in downwards direction the motor will automatically stop its motion.

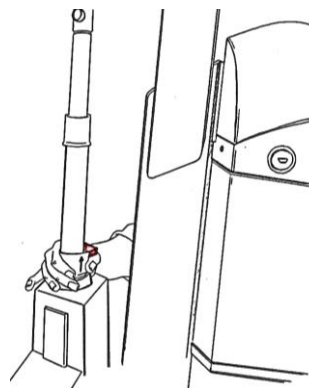
Caution!

Be careful not to entrap body parts or objects while operating the height adjustment.

6.12 Emergency lowering

The motor between the mast and the lifting frame is equipped with an emergency lowering function. This enables you to manually lower the patient in case a failure occurs during a transfer.

To do so, pull the grey and red knob at the bottom of the actuator upwards and the lifting frame will come down slowly.



6.13 Use of slings

The patient lift shall be used in combination with a sling that supports the patient during the transfer. The sling is attached to the lifting frame using clips.

Notice!

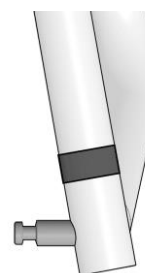
Lifts are guaranteed to be safe to use in combination with Slingcare slings, identified by the label. When using slings of other brands, make sure the clips are compatible with the geometry of the lugs on the lifting frame; if in doubt about compatibility, check with the sling manufacturer. See chapter 10.3 'Lugs on lifting frame' for specifications.

Notice!

Carefully read the user guide of the sling before use.

Notice!

To ensure the safe usage of popular slings by other manufacturers, the geometry of the lugs on the lifting frame was changed in December 2023. The lifting frame with the new lugs can be recognized by the sticker. The first four numbers of the serial number on the production label of the lift indicate the manufacturing date, e.g. 2312SN tells you the lift was manufactured in December 2023. The production label can be found on the backside of the mast.



6.14 Use of Calf fixation strap

The patient lift can be used in combination with a calf fixation strap that positions the patient's legs during a transfer

7 Performing patient transfers

Notice!

Always check the patients' medical file to learn if the patient has any limitations regarding patient lift transfers.

Caution!

The Rise is an *active* patient lift. This type of lift is designed for patients with a limited stand up function but good body stability, sufficient leg/standing function and sufficient comprehension of the situation. In order to ensure correct use of this patient lift it is necessary that a patient is able to sit on the edge of a bed autonomously.

- Before performing a transfer select the right size and type of sling and place it within reach.

Notice!

Check chapter 6.13 for more information on the use of slings.

Notice!

Carefully read the user guide of the sling before use.

- Drive the lift within easy reach.
- Explain the steps you are about to take.
- Properly apply the sling while the patient is steady seated on the edge of a bed or chair. Place the middle of the sling on the patients' back just below the shoulder blades. Grab the ends of the sling underneath the armpits and bring them forward. Check if both ends are the same length.
- If the sling is provided with an additional support belt then fasten it around the patients' waist and tighten it.
- When the sling is in place move the lift towards the patient.
- If necessary adjust the width of the base (see paragraph 6.9 'Leg adjustment').

Caution!

Pay attention to (protruding) obstacles, such as arm- or footrests.

- Position the lift in front of the patient. Help him to put his feet on the footplate or instruct him to do this himself. Make sure both feet are fully supported by the footplate.
- If the lift is provided with a calf fixation then fasten the belt around the patients' legs.
- Make sure that the patients' lower legs make complete contact with the shin rests. Drive the lift closer if necessary.
- Attach the clips of the sling to the attachment points on the lifting frame. Check if this is done correctly and if the sling is properly attached.
- Instruct the patient to hold both hands together in front of his stomach (preferred) or grab and hold the handles of the lifting frame with both hands.
- Invite the patient to help while standing up. If the patients' stand up function is sufficient the lower legs may come free from the shin rests.

Notice!

It is not necessary to activate the mechanical brakes while performing a transfer.

- Begin the lifting movement using the hand control (see paragraph 6.10 'Height adjustment').

Caution!

Pay attention that the sling stays in place and does not shift during the transfer.

Caution!

In case a patient becomes unwell or indicates to be experiencing any discomfort, immediately stop the transfer and bring the patient back in his original position.

Notice!

As soon as you release the height adjustment button on the hand control the lifting motion will immediately stop.

Notice!

Pressing the emergency switch deactivates all functions of the patient lift.

- Drive the lift backwards, away from the wheelchair or bed.
- Check the patients clothing and correct if necessary.
- Adjust the width of the base (see paragraph 6.9 'Leg adjustment') to its minimal width to easily drive through doorways.
- Drive the patient lift to the intended location (e.g. the toilet, a wheelchair or the bed).

Caution!

Pay attention that nothing gets stuck between the legs of the lift and the footplate while operating the leg adjustment.

Caution!

Prevent the patient from bumping into the mast, motor or push bar during driving.

Caution!

The patient lift is meant for short-distance transfers only. It is not designed as means of transportation. Limit the distance covered during a transfer to a minimum.

Notice!

It is possible to walk next to the patient while moving (driving and manoeuvring) the lift. To do so hold the push bar with one hand and the patient or the sling/lifting frame with the other. It is also possible to walk behind the lift.

- Position the lift close to the wheelchair, bed or toilet.
- If necessary adjust the width of the base again.
- Lower the patient onto the edge of the bed, the wheelchair seating or the toilet seat.

Caution!

Do not activate the mechanical brakes during the lowering action. This ensures that the lift is able to gently move along while seating the patient.

- Detach the clips from the lifting frame.
- If necessary release the support belt and remove the sling.
- Lift the patients' feet from the footplate or instruct him to do this himself.
- Check if the patient is seated safely and drive the patient lift away.

Caution!

Ensure that you never leave a patient in the lift unsupervised.

8 Service and maintenance

8.1 Product lifespan

If used and maintained correctly the average lifespan of the patient lift shall be 8 years minimum. Some parts, like e.g. slings, shin rest, battery and drive, are highly sensitive to wear and might have to be replaced during the total lifespan.

8.2 Cleaning

For cleaning it is best to use regular, non-aggressive and non-abrasive cleaning products. Like one of the approved cleaning detergents:

- Ordinary, non-aggressive and non-abrasive cleaning detergent (pH 5.5-8)
- Disinfectant wipes – 70% Alcohol
- Disinfectant wipes – 1.5% Hydroperoxide

Wipe the lift with a well-wrung damp cloth using clean water to remove all disinfectant residue.

Notice!

Never use aggressive solvents for cleaning. Detergents should not contain Petroleum.

8.3 Use

For frequently used patient lifts it is advised to pay attention to the points listed below.

Check before every use

- Check the slings' clips for any signs of wear.
- Check the sling – in particular the straps – for any signs of wear or damage.

Check weekly

- Check if all the lift functions still work properly.
- Test the height and leg adjustment (over their full operating range), test the emergency switch and functioning of the drive support (in models with drive functionality). Please contact your supplier in case of any errors/irregularities.

Check on a regular basis

- Check if all bolts and axles are still properly secured.
- Check the frame for damage and corrosion.
- Check if all wheels are clean and if they rotate smoothly.

Caution!

In case you detect any irregularities on points listed above, please immediately stop using the patient lift and contact your technical support department and/or your supplier.

Caution!

Ensure that sensitive parts of the patient lift are never exposed to water/moisture to prevent problems with electrical components and corrosion.

8.4 Periodic servicing and maintenance

In accordance with NEN-EN ISO 10535 the patient lift needs to be inspected at least once a year by someone qualified by the manufacturer. All functional parts and components need to be checked and it is required to go through (at least) one complete lift cycle with the maximum lifting weight (see chapter 10 'Technical specifications'). All findings need to be reported and documented.

In accordance with NEN-EN ISO 10535 the slings need to be inspected by an authorised person at least twice a year. For slings used or cleaned above average, more frequent inspection is advised.

Notice!

It is required to keep a maintenance log in which all relevant observations regarding defects, damage and wear are reported. Any defects, damage or wear need to be reported to the manufacturer or supplier immediately. The concerned lift needs to be taken out of order until further inspection and until after reparation.

9 Quick debugging guide

9.1 The patient lift is not working

1. Check if the lift is switched on by pressing the on-off switch. The on-off LED has to light up green. If it does not then switch the system off and on again.
2. Check if the connector on the hand control is correctly connected to the controller box. If it is not then plug it in with the cable of the hand control pointing down. Lock the connector by turning the ribbed ring clockwise.
3. Check the status of the emergency switch. If it is pressed then release the button by turning it clockwise until it comes back up. Then shortly press the on-off switch.
4. Check the battery level. If the battery is low then connect the charger to the lift and the mains socket. Switch the system on by pressing the on-off switch. The battery level indication shows an animation of an increasing number of LEDs. Wait until the battery is sufficiently charged.
5. Check if the service indication LED is blinking. If it is then switch the lift off and on again. The service LED now has to be off. Please contact your supplier if the LED keeps blinking.

Please contact your supplier if the problem persists after performing the actions above.

9.2 The lift does not drive smoothly

Notice!

Be aware that driving over (deep-pile) carpet takes more effort than driving over hard floors.

1. Check if the mechanical brakes of the castor wheels are locked. If they are then release the brakes.
2. Check if an object blocks one or more wheels: if so, remove the object.

3. Check if the lift is switched on by pressing the on-off switch. The on-off LED has to light up green. If it does not then switch the system off and on again.
4. Check the status of the emergency switch. If it is pressed then release the button by turning it clockwise until it comes back up. Then shortly press the on-off switch.
5. Check the battery level. At least one LED on the hand control has to be lit continuously green, otherwise it is advised to charge the lift.
6. Check if the charger is disconnected. If not then disconnect the charger from the lift.
7. Check if the service indication LED is blinking. If it is then switch the lift off and on again. The service LED now has to be off. Please contact your supplier if the LED keeps blinking.



Notice!

If the electrical drive wheel remains turned sideways during a transfer instead of returning to its forward position, it is possible to manually turn the wheel in forwards direction. First switch the lift off, then turn the wheel and switch the lift on again. The transfer can now be completed.



Please contact your supplier if the problem persists after performing the actions above.

9.3 The lift functionality is not working

Notice!

Be aware that the lifting motion is deactivated if the weight capacity of the lift is (far) exceeded. Check if the weight of the patient does not exceed the maximum.

Notice!

If necessary, use the emergency lowering function to manually lower the patient (see paragraph 6.11 'Emergency lowering').

1. Check if there are any objects blocking the lifting frame (e.g. a chair or table). If so, remove the object(s).
2. Check if the lift is switched on by pressing the on-off switch. The on-off LED has to light up green. If it does not then switch the system off and on again.
3. Check if the service indication LED is blinking. If it is then switch the lift off and on again. The service LED now has to be off. Please contact your supplier if the LED keeps blinking.
4. Check the status of the emergency switch. If it is pressed then release the button by turning it clockwise until it comes back up. Then shortly press the on-off switch.
5. Check the battery level. At least one LED on the hand control has to be lit continuously green, otherwise it is advised to charge the lift.
6. Check if the charger is disconnected. If not then disconnect the charger from the lift.

Please contact your supplier if the problem persists after performing the actions above.

9.4 The leg adjustment is not working

Notice!

Be aware that the leg adjustment functionality may be deactivated when the lift is used on deep-pile carpet.

Notice!

If necessary, use the emergency lowering function to manually lower the patient (see paragraph 6.11 'Emergency lowering').

1. Check if there are any objects blocking the legs (e.g. a chair or table). If so, remove the object(s).
2. Check if the lift is switched on by pressing the on-off switch. The on-off LED has to light up green. If it does not then switch the system off and on again.
3. Check if the service indication LED is blinking. If it is then switch the lift off and on again. The service LED now has to be off. Please contact your supplier if the LED keeps blinking.
4. Check the status of the emergency switch. If it is pressed then release the button by turning it clockwise until it comes up again.
5. Check the battery level. At least one LED on the hand control has to be lit continuously green, otherwise it is advised to charge the lift.
6. Check if the charger is disconnected. If not then disconnect the charger from the lift.

Please contact your supplier if the problem persists after performing the actions above.

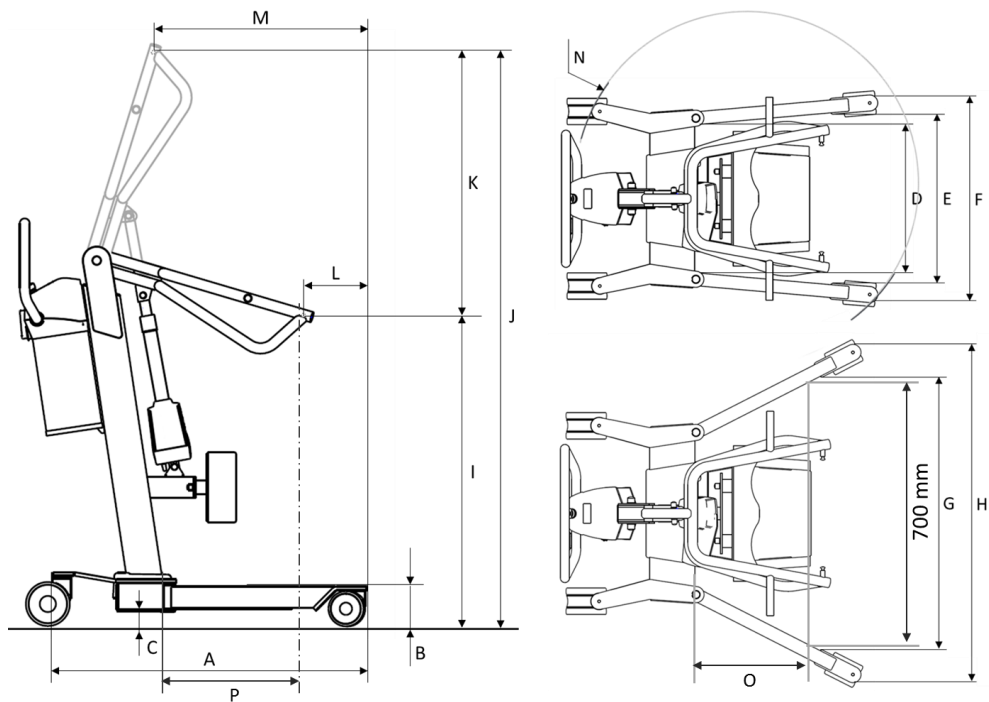
9.5 The LEDs on the hand control are blinking when the lift is moved

Patient lifts are standard equipped with Ergo feedback, warning the user when too much force is applied while moving the lift. When the force sensor in the push bar measures that the force used to move the lift (push or pull) is higher than 15 kg, the LEDs on the hand control blink 4 times.

The direct feedback provides users with insight into situations in which (too high) peak forces occur and helps to (learn to) work within the ergonomic guidelines. This contributes to the prevention of physical overload. Therefore it is advised to leave the feedback on. However, the function can also be easily switched off; see chapter 6.5 'Ergo feedback' for more information.

10 Technical specifications

10.1 Patient lift



#	Lift dimensions	Rise
A	Length of the base (frame)	90 cm
B	Height of the base	11,5 cm
C	Min. clearance to floor	3,7 cm
D	Min. internal width	46 cm
E	Max. internal width frame – closed legs	52,7 cm
F	Max. external width frame – closed legs	64,8 cm
G	Max. internal width frame – open legs	84,6 cm
H	Max. external width frame – open legs	104,6 cm
I	Min. height sling attachment point	88,5 cm
J	Max. height sling attachment point	163,5 cm
K	Vertical range	75 cm
L	Distance front to sling attachment in lowest position	17,5 cm
M	Distance front to sling attachment in highest position	62 cm
N	Turning circle	107 cm
O	Distance front mast to 700mm internal width reference point (open legs)	44,1 cm

P	Max. distance front mast to sling attachment point	41,3 cm
-	Weight capacity	180 kg
-	Weight patient lift (incl. battery)	64 kg
-	Weight esense drive system	14 kg
-	Duration of one complete lifting motion (with 100kg weight) *	42 sec
-	Protection grade – patient lift	IPx2
-	Protection grade – esense drive system	IPx3
-	Protection grade – hand control	IPx2
-	Duty cycle	10% max
-	Sound power level	48.6 dBA

* One complete lifting motion is defined as a movement from the lowest possible point up to the highest possible point and back.

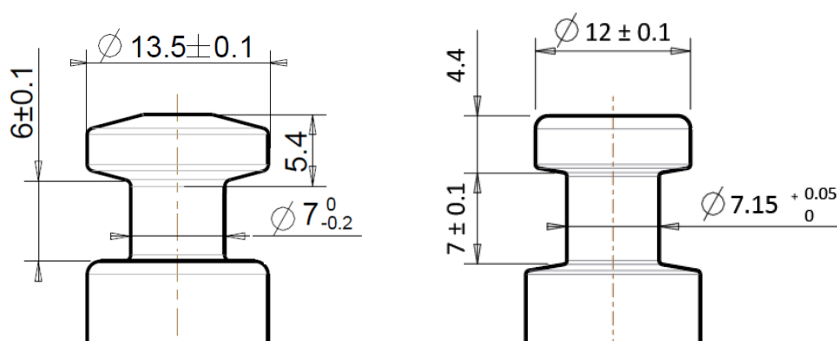
10.2 Battery

#	Battery	Manual	esense drive
-	Guaranteed battery lifetime in charging cycles	500 x	500 x
-	Battery type	NiMh	NiMh
-	Battery voltage	24 V DC	24 V DC
-	Battery capacity	3,8 Ah	9 Ah
-	Average number of complete transfers on a charged battery (battery capacity at 80%, with 100kg weight) *	47	75

* Calculation available on request.

10.3 Lugs on lifting frame

Specifications of the attachment points (for slings fitted with clips)



Until serial number 2308SN

As of serial number 2312SN

Marked with a sticker on the lifting frame

11 Product label

Each patient lift has an identification label, located below the controller box.

Notice!

Displayed label is an example and may differ from the actual label on the patient lift.



esense

Rise/Drive

 Max. 180kg

UDI

(01)08720299452169
(21)2104SN01039

REF

E1206-3700

SN

2104SN01039



Indes Healthcare B.V.
Josink Esweg 1
7545 PN Enschede
Nederland
www.esense-moves.com

MDCE



IPX2

24V DC 9Ah Duty cycle: 10% max

Brand name

Product version

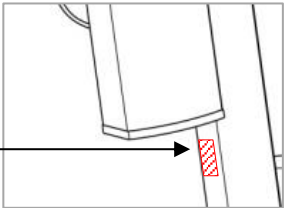
Maximum lifting weight

UDI (Unique Device Identification)

Article number

Serial number

Manufacturer



Symbol	Meaning
	Medical device
	European Conformity
	Product is covered by WEEE directive 2012/19/EU.
IPX2	International Protection Rating
	Read manual before use
	Maximum lifting weight
	Manufacturer

12 Warranty

The manufacturer guarantees a 2 year warranty on the patient lift.
For batteries a warranty of 500 charge cycles or 2 years is applicable.

The manufacturer reserves the right to make changes to the product, deviating from what is described in this guide. This requires no further justification.

Warranty does not apply to damage or defects that might result from improper or unqualified use and repairs carried out by third parties. Evaluation is done by the manufacturer or a representative appointed by the manufacturer.

Warranty does not include components particularly sensitive to wear, like shin rests and straps on slings.

esense is a brand of

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Revision list

Revision	Definition	Date
1.00	First version of user guide in English	24-04-2019
2.00	Update dimensions 10.1, EN product label, update 8.2 (cleaning detergents), added ergo feedback for lifts with esense drive (1, 6.5, 6.9)	02-03-2020
3.00	Most important updates: remark product changes February 2021, various (textual) changes regarding Ergo feedback/sensor manual lift versions/use and compatibility of slings. Added: Ergo feedback in 9.5, lifting frame lug specification (10.3)	28-01-2021
4.00	Most important updates: MDR (chapter 4), conditions use active hoist (chapter 7), product label (chapter 12), default threshold value ergo feedback (7.5). Added: remark serious incident (chapter 3), intended use (5.1)	25-05-2021
5.00	Changed Address	08-11-2021
6.00	Changes in lugs	05-12-2023
7.00	Address changes	29-01-2024
8.00	Added remark on charging cable lock and added warning about overheating of battery (6.7)	10-06-2024
16.00	Major updates: Revision increased. Expansion of intended use (5.1); Added sound power level (10.1); update product label (11)	01-09-2024
17.00	Charging instructions for new patient hoist / battery added (6.7.2)	21-07-2025