INSTRUCTIONS FOR USE · 使用说明书

Miranti



04.CE.02_22ZH • 09/2019

with people in mind

WARNING

To avoid injury, always read this Instructions for Use and accompanied documents before using the product.



Mandatory to read the Instructions for Use

警告

为避免受到伤害，在使用产品前，必须阅读本《使用说明书》以及产品随附的文档。



必须阅读使用说明书

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Foreword

Thank you for purchasing Arjo equipment.

Your *Miranti* lift bath trolley is a part of a series of quality products designed especially for hospitals, nursing homes and other health care use.

We are dedicated to serving your needs and providing the best products available along with training that will bring your staff maximum benefit from every Arjo product.

Please contact us if you have any questions about the operation or maintenance of your Arjo equipment.

Please read this *Instructions for Use* thoroughly!

Please read this *Instructions for Use (IFU)* in its entirety before using your *Miranti* lift bath trolley. Information in this *IFU* is crucial to the proper operation and maintenance of the equipment, will help protect your product, and make sure that the equipment performs to your satisfaction. Some of the information in this *IFU* is important for your safety and must be read and understood to help prevent possible injury.

Unauthorized modifications on any Arjo equipment may affect its safety. Arjo will not be held responsible for any accidents, incidents or lack of performance that occur as a result of any unauthorized modification to its products.

Report Unexpected Operations or Events

Contact your local Arjo representative if any unexpected operations or events occur. The contact information appear on the last page of this *IFU*.

Serious incident

If a serious incident occurs in relation to this medical device, affecting the user, or the patient then the user or patient should report the serious incident to the medical device manufacturer or the distributor. In the European Union, the user should also report the serious incident to the Competent Authority in the member state where they are located.

Service and Support

A service routine must be performed on your *Miranti* lift bath trolley every year by qualified personnel to make sure the safety and operating procedures of your product. See section *Care and Preventative Maintenance on page 29.*

If you require further information, please contact Arjo for comprehensive support and service programs to maximize the long-term safety, reliability and value of the product.

Contact your local Arjo representative for replacement parts. The telephone number appears on the last page of this *Instructions for Use (IFU).*

Definitions in this *IFU*

WARNING

Means:
Safety warning. Failure to understand and obey this warning may result in injury to you or to others.

CAUTION

Means:
Failure to follow these instructions may cause damage to all or parts of the system.

NOTE

Means:
This is important information for the correct use of this system or equipment.



Means:
The name and address of the manufacturer.

Intended Use

This equipment must be used in line with its intended use and in accordance with these safety instructions. Anyone using this equipment must also have read and understood the instructions in this *Instructions for Use (IFU)*.

If there is anything you are not sure about, contact your Arjo representative.

This equipment is intended for lifting and transferring adult residents to and from a bathroom in a care facility and to be used in an assisted bathing process.

Miranti must be used by appropriately trained caregivers with adequate knowledge of the care environment, its common practices and procedures, and in accordance with the guidelines in the *Instructions for Use (IFU)*.

Any other use is prohibited. The equipment may only be used for the purpose specified here.

Resident Assessment

We recommend that facilities establish regular assessment routines. Caregivers should assess each residents according to the following criteria prior to use:

The resident's weight should not exceed 160 kg/ 353 lbs.

The resident must be able to understand and respond to instructions to remain in a safe laying position on the stretcher or remain in such a position as a result of a limited physical capacity for movement.

If a resident does not meet these criteria an alternative lift shall be used.

The useful life of this equipment, unless otherwise stated, is ten (10) years, subject to preventative maintenance being carried out in accordance with the instructions for care and maintenance found in this *IFU*.

Lifetime of the Equipment

The equipment must only be used for the purposes stated above.

The lifetime of this equipment is ten (10) years and the service life of the safety belt is two (2) years. Depending on the storage of the battery, the use frequency and the charging intervals, the service life of the battery is 2-5 years.

The lifetime and service life are as stated providing that the preventative maintenance are being carried out in accordance with the instructions for care and maintenance in this *IFU.*

Depending on level of wear some equipment parts such as castors and hand control may need to be replaced during the equipment's lifetime according to information in the *IFU*.

Safety Instructions

WARNING

To avoid explosion or fire, never use the equipment in oxygen rich environment, in presence of heat source or flammable anaesthetic gases.

WARNING

To prevent cross-contamination, always follow the disinfection instructions in this *IFU*.

WARNING

To avoid entrapment, make sure to keep the patients hair, arms and feet close to the body and use designated grab supports during any movement.

WARNING

To avoid the device from tipping and the patient from falling, do not use the equipment on floor with recessed drains, holes or slopes exceeding a ratio of 1:50 (1.15°).

WARNING

To avoid injury, make sure that the patient is not left unattended at any time.

WARNING

To avoid falling during transfer, always make sure that the brakes are applied on all equipment being used.

WARNING

To avoid falling, make sure that the user weight is lower than the safe working load (SWL) for all products or accessories being used.

WARNING

To avoid falling, make sure that the patient is positioned correctly and that the safety belt is being used, properly fastened and tightened.

Preparations

Actions Before First Use
(10 steps)

1 Visually check the package for damage. If the product looks damaged due to freight, make a complaint to the transport agency.

2 The packaging should be recycled according to local regulations.

3 Check that all parts of the product are supplied. Compare with the section *Part Designations on page 8*. If any part is missing or damaged - do NOT use the product.

4 Read the *IFU*.

5 Disinfect the product according to section *Cleaning and Disinfection Instructions on page 24*.

6 Unpack the battery charger and install it according to the *Battery Charger IFU*.

7 Charge the battery.

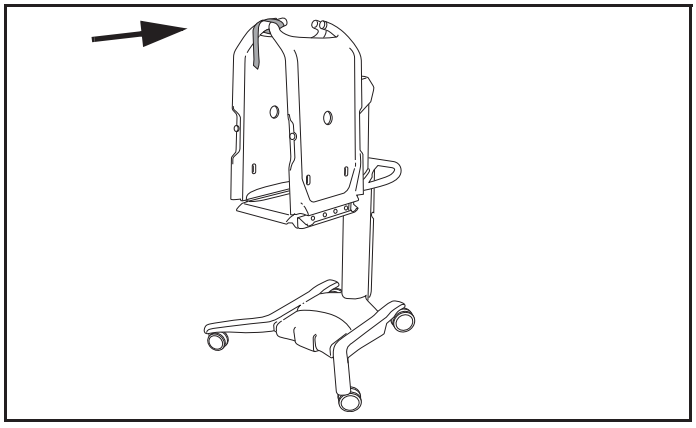
8 Perform a functionality test. See section *Care and Preventative Maintenance on page 29.*

9 Choose a designated area, where the *IFU* should be kept and is easily accessible at all times.

10 Make sure to have a rescue plan ready in case of a patient emergency.

NOTE
If you have any questions, please contact your local Arjo representative for support and service. The contact numbers appear on the last page of this IFU.

The parts of the stretcher are secured by the enclosed sling when the parts are folded upwards. See illustration below. The stretcher parts are heavy!



Actions Before Every Use
(4 steps)

1 Check that all parts are in place. Compare to the *Parts Designation* page.

2 If any part is missing or damaged - do NOT use the product.

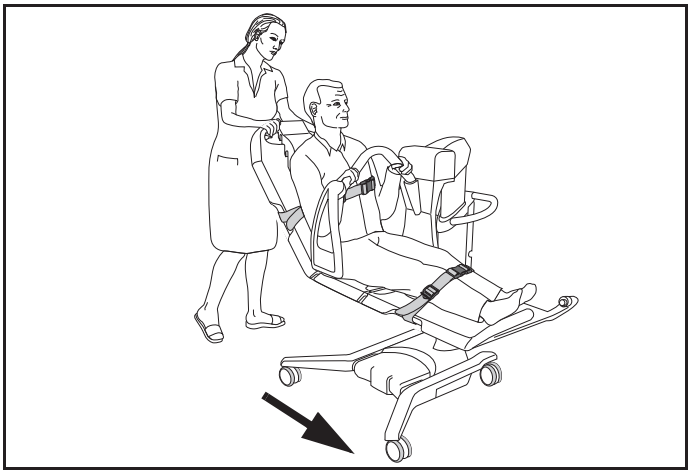
3 **WARNING**

To prevent cross-contamination, always follow the disinfection instructions in this *Instructions for Use.*

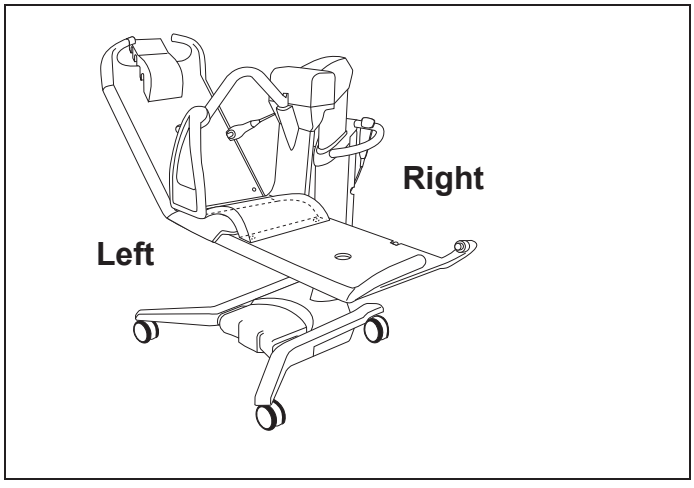
4 Make sure that the battery is fully charged.

Miranti Lift Bath Trolley Directions

The driving direction during the transfer is according to the illustration below.



The directions right or left in this *IFU* are given as below.



Part Designations

1 Stretcher and frame 

2 Headrest

3 Thigh-support cushion

4 Transfer handle

5 Positioning handle

6 Battery

7 Hand control

8 Side guard

9 Patient security grip

10 Pillar

11 Emergency High/Low

12 Hook rope

13 Central brake (placed under the chassis)

14 Control panel

15 Chassis

16 Castor

17 Power drive (optional)

18 Power drive handle (optional)

19 Scale (optional)

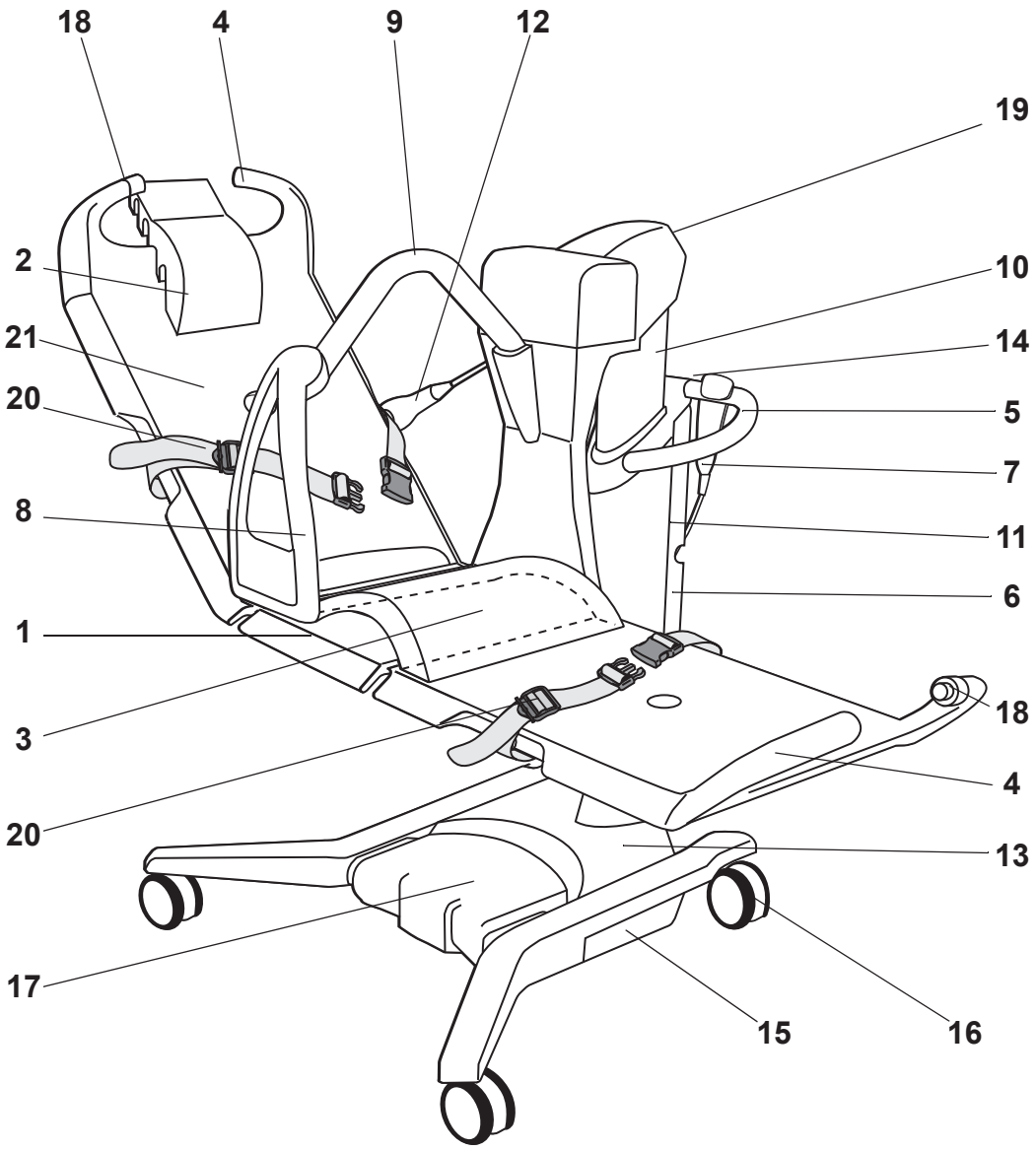
20 Safety belt/belts

21 Powered backrest



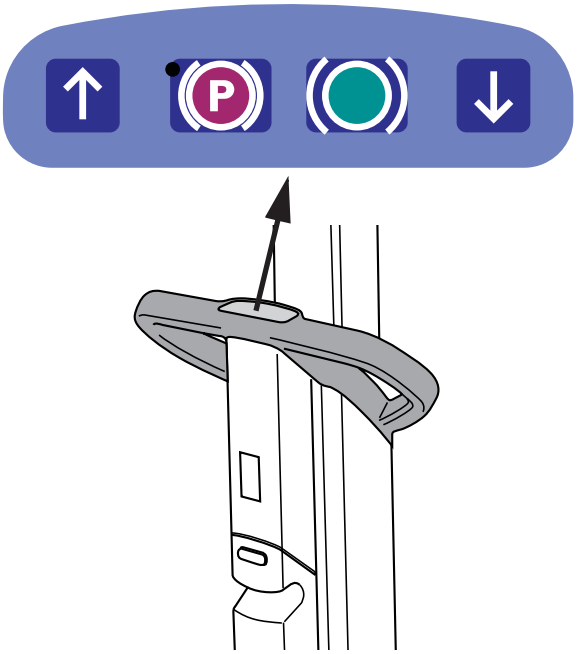
Applied part: Type B
Stretcher and frame including all attached parts to it.

Protection against electric shock in accordance with IEC 60601-1.


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Product Description/Function

Fig. 1



Lifting

The lifting/lowering movement is performed by an actuator driven by an electric motor.

Central Brake

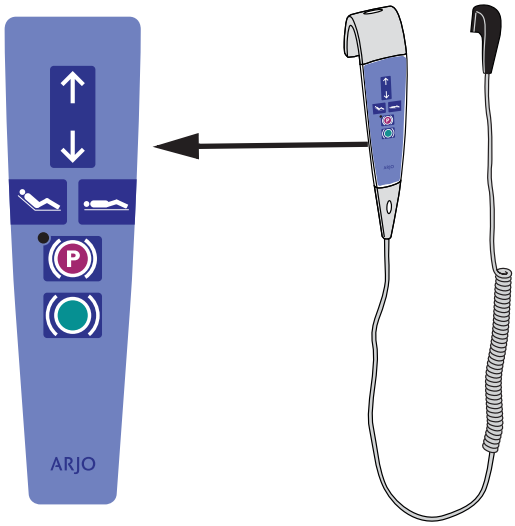
The central brake consists of two cylinders with brake pads, placed under the chassis. It is operated from the control panel or the hand control. When the brake is activated the brake pads are pressed down onto the floor.

Control Panel

The panel has four control buttons, marked as follows: **(See Fig. 1)**

- Arrow pointing upwards, for raising the *Miranti* lift bath trolley.
- Arrow pointing downwards, for lowering the *Miranti* lift bath trolley.
- Dark red brake symbol, for activating the central brake, indicated by flashing light.
- Green brake symbol, for releasing the central brake.

Fig. 2

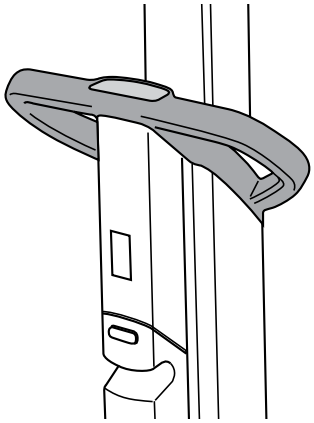


Hand Control

The hand control has an integrated hook which makes it easy to attach to various parts of the *Miranti* lift bath trolley. **(See Fig. 2)**

- Unhook the hand control and hold it in your hand.
- Press the “up arrow” button on the hand control in order to raise the *Miranti* lift bath trolley.
- Press the “down arrow” button on the hand control in order to lower the *Miranti* lift bath trolley.
- Press the dark red button to activate the brakes. Indicated by a flashing light.
- Press the green button to release the central brake.
- Press the button with the sitting figure to raise the backrest.
- Press the button with the lying figure to lower the backrest.

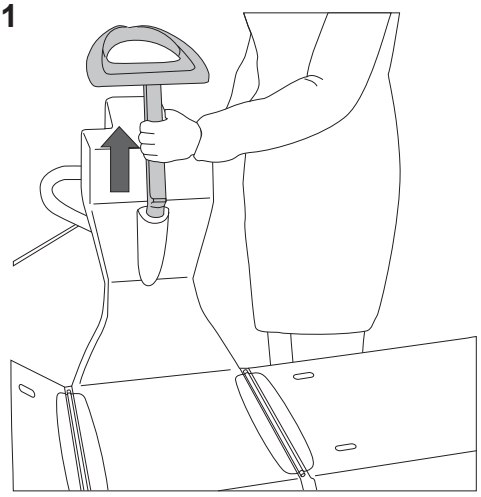
Fig. 3



Positioning Handle

Use the positioning handles for adjusting the *Miranti* lift bath trolley to a bath or bed. **(See Fig. 3)**

Fig. 1



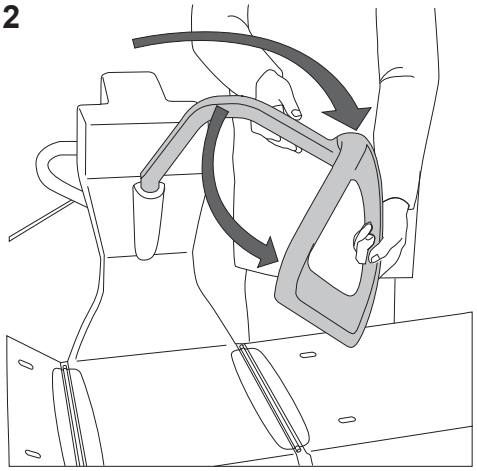
Side Guard and Patient Security Grip

(3 steps)

The side guard, which prevents the patient falling to the side and the patient security grip, which the patient can hold, are integrated in a hinged bar.

1 Lift the bar upwards. **(See Fig. 1)**

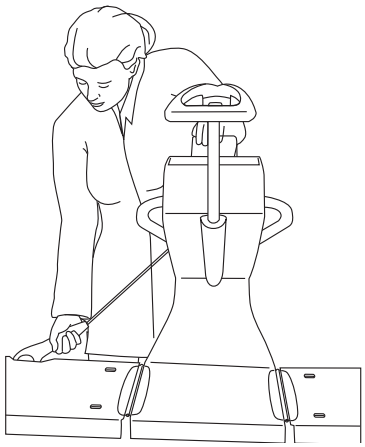
Fig. 2



2 Hold the side guard with one hand and the patient security grip with the other. **(See Fig. 2)**

3 First lower the patient security grip away from the patients head, then you can position the side guard.

Fig. 3



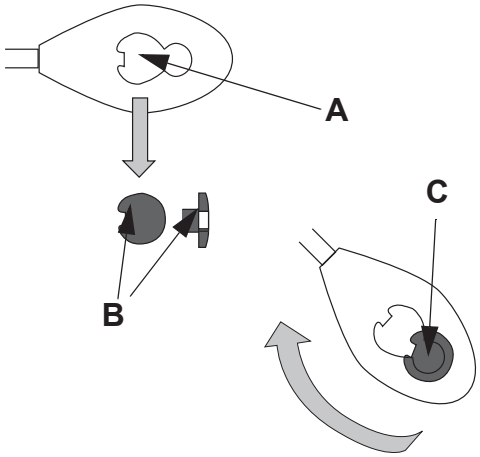
Powered Backrest/Hook Rope

(5 steps)

Both ends of the stretcher can be used as a backrest and can be raised and lowered by an electric motor via the hand control. The hook rope, which guides the backrest has to be fixed to the selected side of the stretcher (backrest) either before or after the patient has entered the stretcher.

1 Attach the hook rope to the button head on the stretcher. **(See Fig. 3)**

Fig. 4



2 Check that the tap in the hole **(A)** fits the notch in the button **(B)**. **(See Fig. 4)**

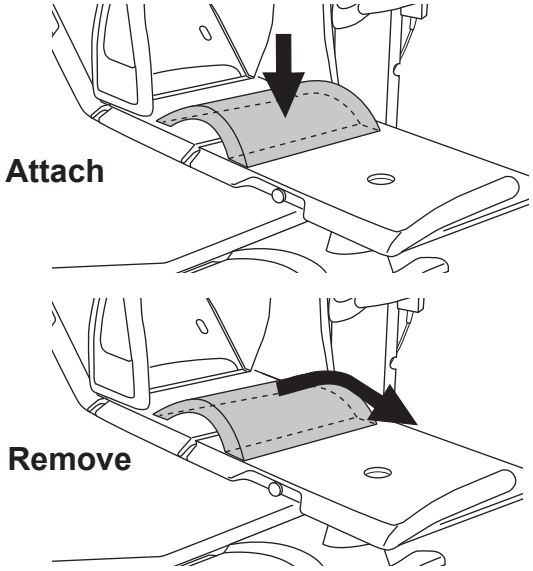
3 Move the button head to the narrow part of the key hole.

4 Turn the hook upwards and make sure the hook rope is fixed **(C)**. **(See Fig. 4)**

5 Double check the hook fixation.

NOTE
Make sure the patient is positioned correctly on the stretcher.

Fig. 5



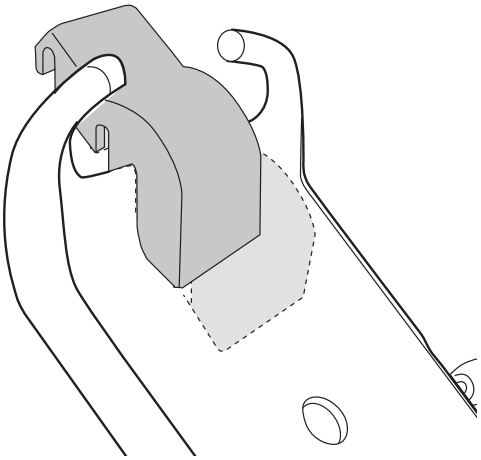
Thigh Support Cushion

The support cushion must be placed under the thighs of the patient for comfort during transfer and bath. **(See Fig. 5)**

The elastic part of the cushion should be against the patient's posterior. Push the cushion with the guide pins in the holes.

To remove the cushion, fold it back toward the leg rest.

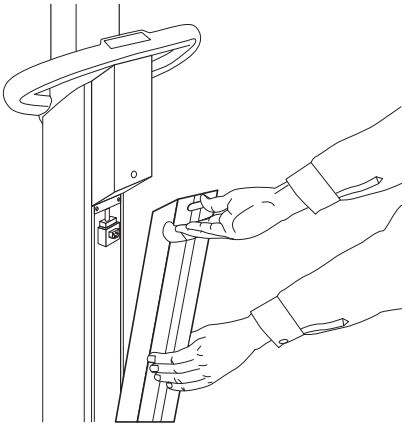
Fig. 6



Headrest

The headrest can easily be moved to the selected backrest side and adjusted to the patient's height. **(See Fig. 6)**

Fig. 7

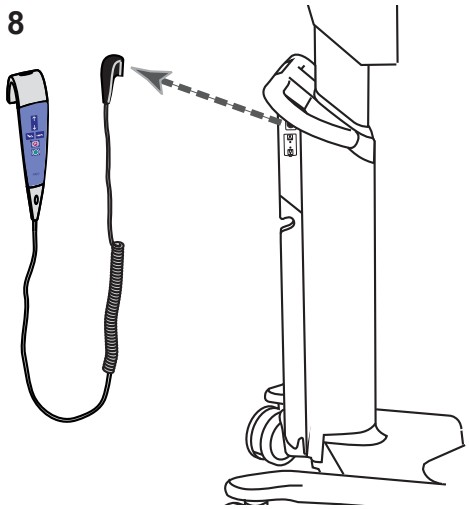


Emergency Stop

If, for any reason, the *Miranti* lift bath trolley does not respond to the control buttons, you can quickly stop lift movement by pressing the button on the battery and disconnect it. **(See Fig. 7)**

Contact your local Arjo representative before re-using the *Miranti* lift bath trolley.

Fig. 8



Emergency High/Low

(2 steps)

If, for any reason, the *Miranti* lift bath trolley does not respond to the control buttons, raise or lower the *Miranti* lift bath trolley by using the Emergency High/Low.

1 Unplug the hand control. **(See Fig. 8)**

2

CAUTION

Do not use an object with sharp tip for pressing into the holes.

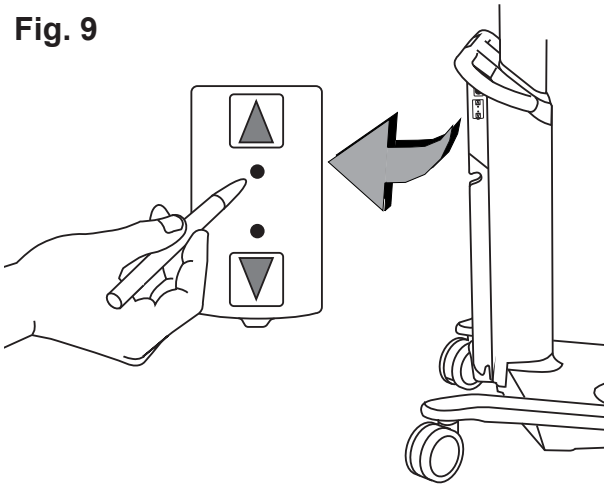
Press a blunt, thin object into the holes at the panel. (i.e. a pen) **(See Fig. 9)**

- Press it into the hole next to the ”up arrow” in order to raise the *Miranti* lift bath trolley.
- Press it into the hole next to the ”down arrow” in order to lower the *Miranti* lift bath trolley.

NOTE
A continuous beeping sound is heard during action “up” and “down”.

Contact your local Arjo representative before re-using the *Miranti* lift bath trolley.

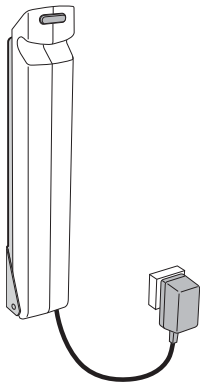
Fig. 9



Battery Charger

Attach the battery charger to a suitable wall and connect it to a wall socket. **(See Fig. 10)**

Fig. 10



WARNING

To avoid fire and electric shock, make sure that the charger is installed and used in a dry and dust free environment.

See the *Battery Charger IFU*.

Scale (option)

The scale is integrated and located on the lift pillar. **(See Fig. 11)**

To use the scale, if available, refer to the *Scale IFU*.

Fig. 11

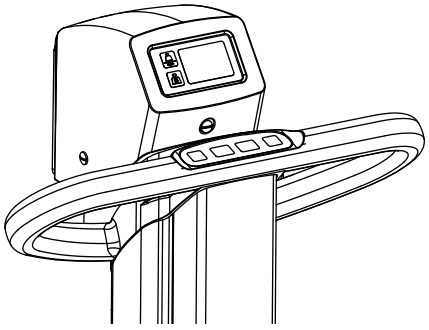
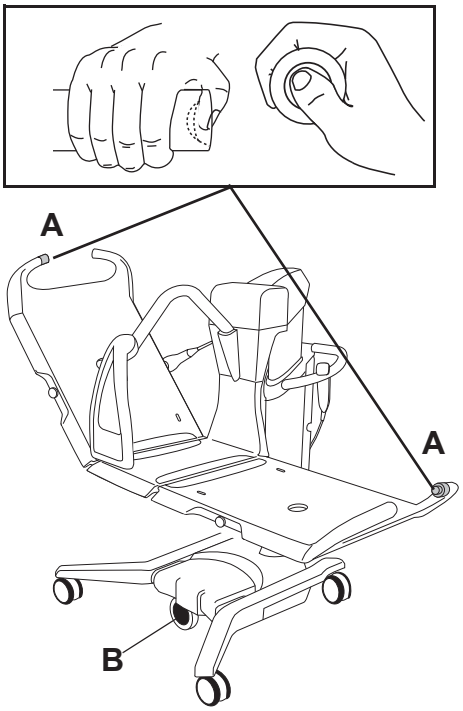


Fig. 12



Power Drive (optional)

An electric motor and a fifth wheel **(B)** are the powered drive. The wheel is manoeuvred via a button on the right side of the transfer handle from either end **(A)**. **(See Fig. 12)**

The *Miranti* lift bath trolley can only move forwards.

The wheel is spring-mounted so it can handle different floor levels e.g. thresholds and draining gutters, (difference in floor level ~ 10 mm).

How to drive

(4 steps)

1 Activate the drive by pressing the button on the transfer handle **(A)**. **(See Fig. 12)**

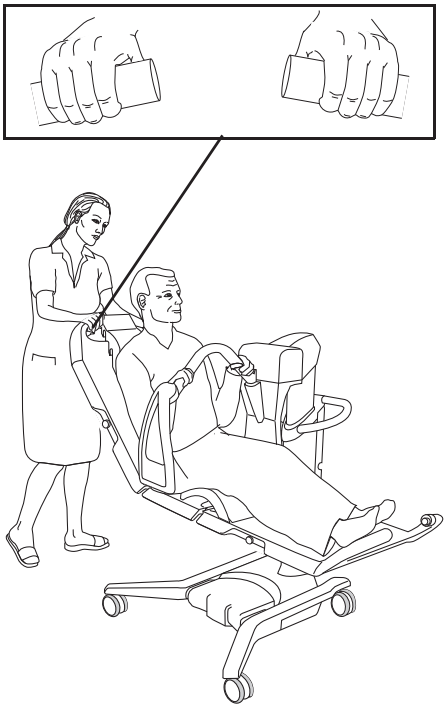
2 The fifth wheel is lowered and the drive starts after a few seconds.

3 The drive continues for as long as the button is pressed.

4 When you have released the button, the fifth wheel remains lowered for 4 s with the drive inactivated. During these 4 s it is very easy to turn transversely or backwards because the wheel works as a steering wheel. Push the button again to drive on.

NOTE
The power drive can not be used when the brakes are activated.

Fig. 13



Driving with precision

For better control of turning and manoeuvring in narrow passages - release and push the button at short intervals.

Manual Drive

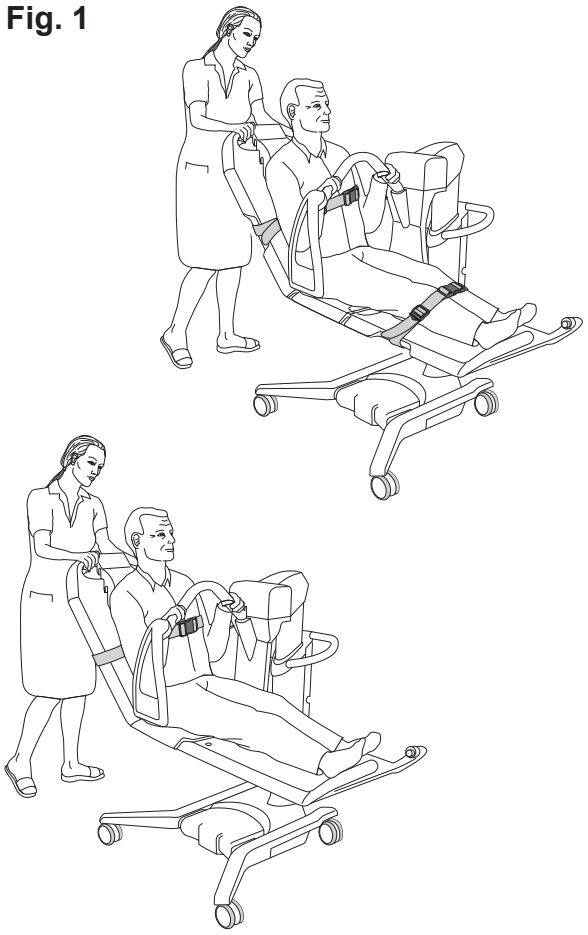
(2 steps)

1 Grip the transfer handles. **(See Fig. 13)**

2 Move the *Miranti* lift bath trolley forwards.

NOTE
Never activate the brakes during driving

Fig. 1



Safety Belts

WARNING

To prevent the patient from falling, make sure the safety belts are undamaged. If damaged, do NOT use the safety belts, replace with new ones before use.

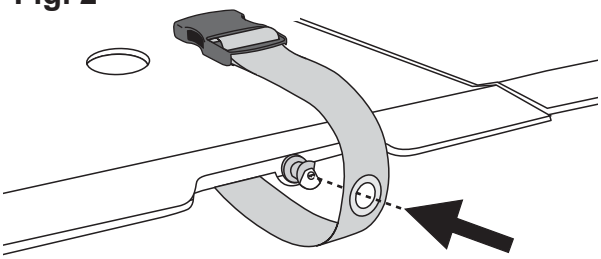
WARNING

To avoid falling, make sure that the patient is positioned correctly and that the safety belt is being used, properly fastened and tightened.

The *Miranti* lift bath trolley has two safety belts, one to be used over the chest and one over the legs. They are identical and are used in the same way.

The upper safety belt or both can be used. Do not use the lower safety belt only. **(See Fig. 1)**

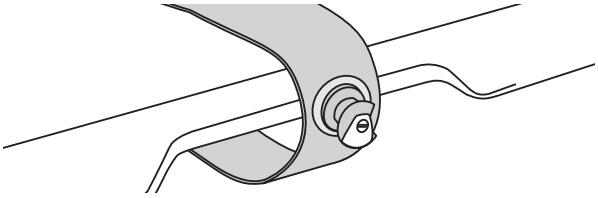
Fig. 2



Attach and Buckle (5 steps)

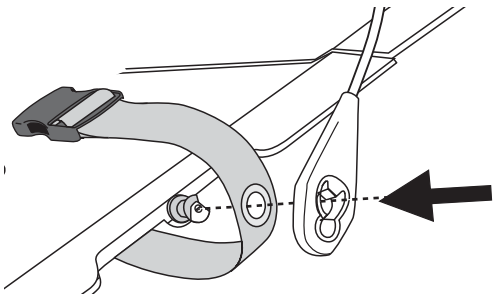
1 Attach the safety belt by pushing the eyelet closest to the buckle over the knob. **(See Fig. 2)**

Fig. 3



2 Make sure that the belt fits the knob in the inner position. **(See Fig. 3)**

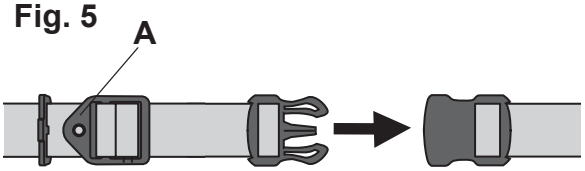
Fig. 4



3 **Upper safety belt only:** Attach the hook rope over the safety belt and the knob according to section *Powered Backrest/Hook Rope on page 11*. **(See Fig. 4)**

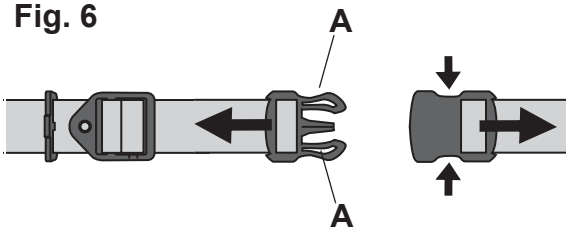
Continue with the steps on the next page.

Fig. 5



4 Buckle the safety belt by inserting the buckles into each other. Make sure the fastening clip has the arrow shaped side upwards **(A)**. **(See Fig. 5)**

Fig. 6

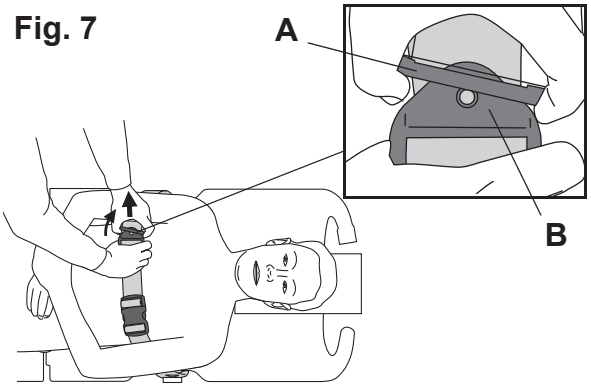


5 Unbuckle the safety belt by pressing the spring knobs **(A)**, and at the same time pulling the buckles apart from each other. **(See Fig. 6)**

Adjust (6 steps)

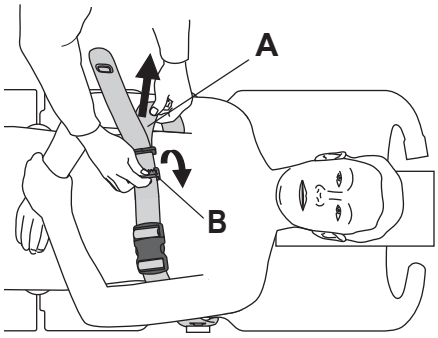
Upper safety belt is shown

Fig. 7



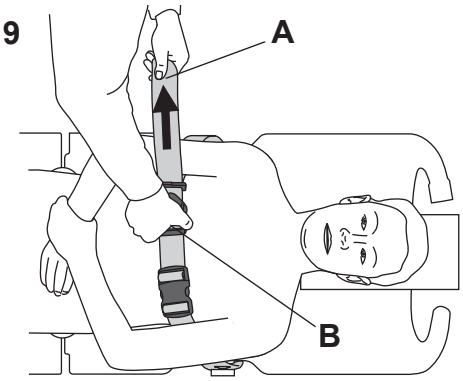
1 Pull the fastening clips **(A)** and **(B)** apart by twisting the smaller fastening clip **(A)** slightly upwards. **(See Fig. 7)**

Fig. 8



2 Loosen the safety belt by pulling the inner strap **(A)** and at the same time lifting the larger fastening clip **(B)**. **(See Fig. 8)**

Fig. 9

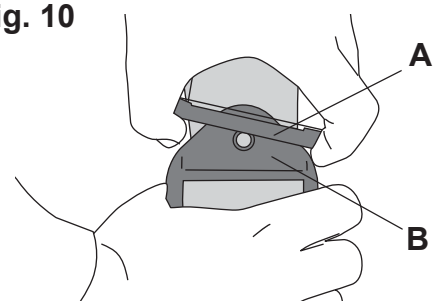


3 Tighten the safety belt by pulling the outer strap **(A)** and at the same time holding the larger fastening clip **(B)**. **(See Fig. 9)**

4 Make sure the safety belt is firmly attached to the patient's body.

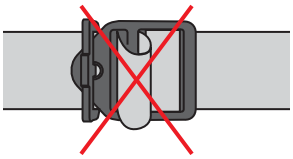
Continue with the steps on the next page.

Fig. 10



5 Lock the fastening clips by inserting the smaller fastening clip **(A)** into the larger fastening clip **(B)**. **(See Fig. 10)**

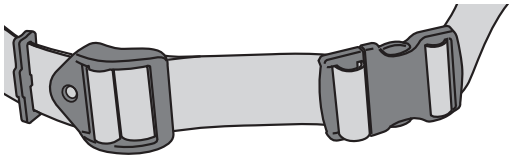
Fig. 11



6 Make sure the safety belt does not make a loop in the fastening clips after locking. **(See Fig. 11)**

When not in use (1 step)

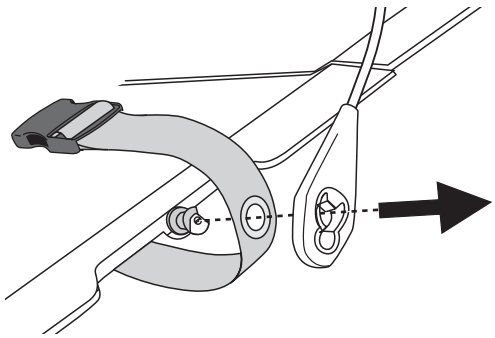
Fig. 12



1 Make sure that the safety belts are buckled over the stretcher when the *Miranti* lift bath trolley is not in use. **(See Fig. 12)**.

Remove (1 step)

Fig. 13



1 Pull the hook rope (**upper safety belt only)** and the safety belt away from the knob. **(See Fig. 13)**.

Transfer the Patient

Fig. 1

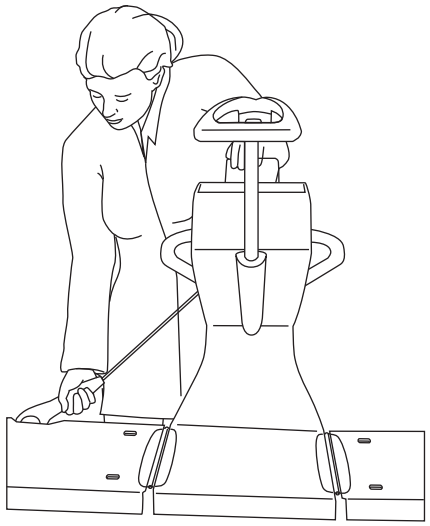


Fig. 2

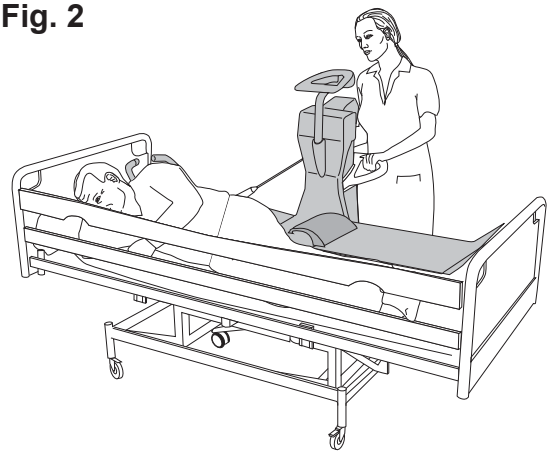


Fig. 3



WARNING

To avoid injury, make sure that the patient is not left unattended at any time.

From Bed

(17 steps)

1 Apply the wheel brakes on the bed, if applicable.

2 Fold down the bed rail.

3 Undress the patient in bed and dress him/her in a bathrobe, preferably one with buttons up the back.

4 Choose one end of the *Miranti* lift bath trolley to function as the backrest and fasten the hook rope in that end. If possible, approach the patient from the right side of the *Miranti* lift bath trolley for transfer to the bath.

5 Attach the safety belt/belts if required. The safety belt/belts must be attached **before** the hook rope. **(See Fig. 1)**

6 Put the thigh support cushion in place.

7 Turn the patient so he/she lays on the side facing away from the *Miranti* lift bath trolley.

8 Move the stretcher in over the bed as close as possible to the patient. **(See Fig. 2)**

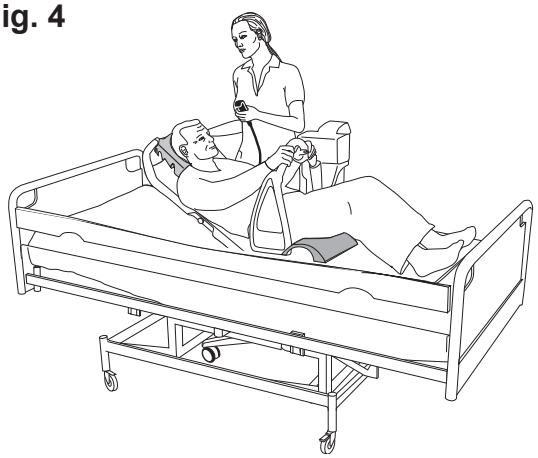
9 Lower the *Miranti* lift bath trolley so that its seat gets pressed firmly onto the bed. Make sure no body parts get pinched between the seat and the bed. The hook rope has to be slack. **(See Fig. 2)**

10 Activate the *Miranti* lift bath trolley central brake.

11 Turn the patient on his/her back and make sure he/she is lying in the correct position on the stretcher. **(See Fig. 3)**

Continue with the steps on the next page.

Fig. 4

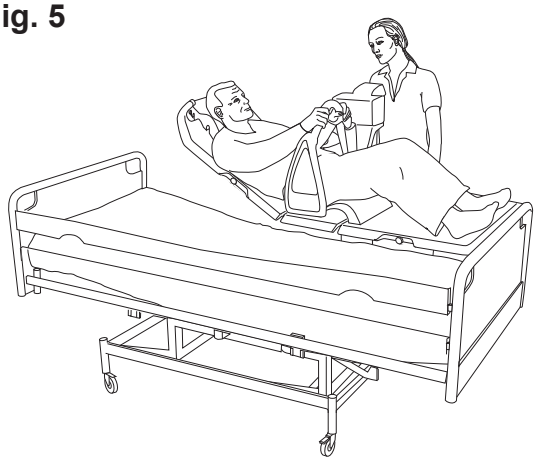


12 Lower the patient security grip and side guard. Put the headrest in place and raise the backrest to a comfortable height for the patient. Let the patient put his/her hands on the patient security grip. ***(*See Fig. 4)**

13 Raise the *Miranti* lift bath trolley's stretcher enough to move it away from the bed.

14 Release the *Miranti* lift bath trolley central brake.

Fig. 5



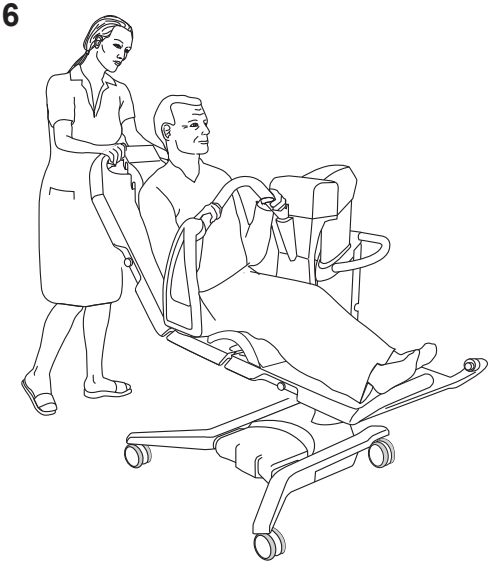
15

WARNING

To avoid entrapment, make sure to keep the patient's hair, arms and feet close to the body and use designated grab supports during any movement.

Pull the *Miranti* lift bath trolley away from the bed. Make sure the *Miranti* lift bath trolley is completely clear from the bed and any other devices. **(See Fig. 5)**

Fig. 6



16

WARNING

To avoid the device in use from tipping, do not raise or lower other equipment close to it and be aware of stationary object when lowering.

Lower the stretcher to a comfortable height for the caregiver. Hold the transfer handles during the transfer. **(See Fig. 6)**

17 After transferring the patient, always ensure he/she is in a correct sitting position.

To Bed

(16 steps)

WARNING

To avoid falling during transfer, always make sure that the brakes are applied on all equipment being used.

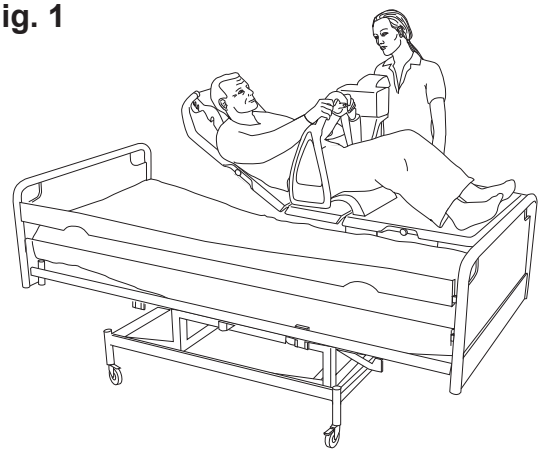
1 Apply the wheel brakes on the bed, if applicable.

2 Fold down the bed rail.

3 If the *Miranti* lift bath trolley comes from a bath: place a towel on the bed to avoid making the bed wet.

4 Adjust the *Miranti* lift bath trolley height so the stretcher is at a safe distance from the bed. **(See Fig. 1)**

Fig. 1



5

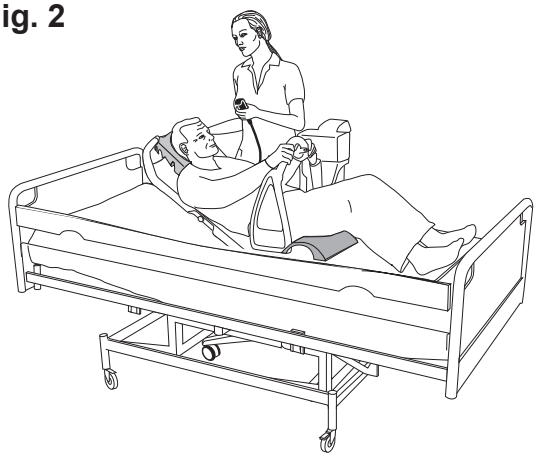
WARNING

To avoid entrapment, make sure to keep the patients hair, arms and feet close to the body and use designated grab supports during any movement.

Move the *Miranti* lift bath trolley in over the bed.

6 Activate the central brake.

Fig. 2



7

WARNING

To avoid entrapment or pinching of genitals, make sure there is enough clearance during movement over the bathtub edge, toilet, bedpan or other furniture.

Let the patient put his/her hands on the patient security grip. Lower the *Miranti* lift bath trolley so that its seat gets pressed firmly onto the bed. Make sure no body parts get pinched between the stretcher and the bed. **(See Fig. 2)**

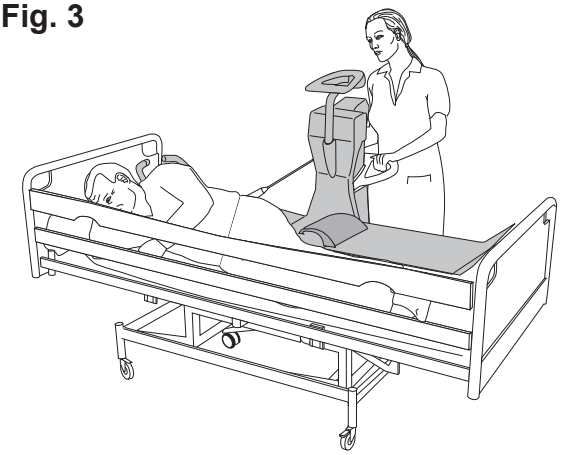
8 Lower the backrest until the stretcher is flat.

9 Raise the patient security grip and side guard.

10 Remove the safety belt from the patient.

Continue with the steps on the next page.

Fig. 3



11 Turn the patient so he/she lays on the side facing away from the *Miranti* lift bath trolley. **(See Fig. 3)**

12 Raise stretcher to separate it from the bed.

13 Release the central brake.

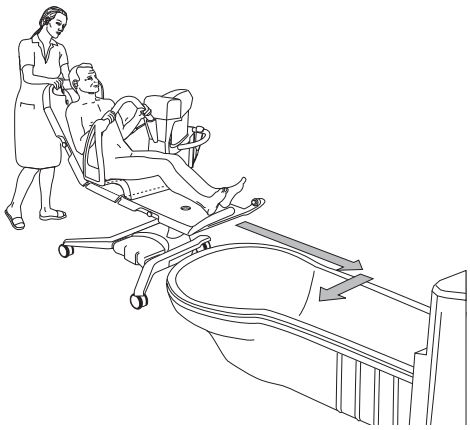
14 Pull the *Miranti* lift bath trolley away from the bed.

15 Turn the patient so he/she lays on the back.

16 Fold up the bed rail.

Bathe the patient

Fig. 1



Read the separate instructions for your bathing equipment.

Power Drive

(9 steps)

1 Raise the stretcher to clear the edge of the bath. **(See Fig 1)**

Fig. 2



2 Activate the power drive and move the patient along the side of the bathtub and finally push transversely to it. Watch out for bathtub legs. **(See Fig 2)**

Fig. 3



3 Raise the bathtub to a comfortable height, if bathtub is adjustable. **(See Fig 3)**

4 Lower the stretcher so that it is resting against the bottom of the bath.

5 Lower the backrest to a comfortable position for the patient.

6 Bathe the patient.

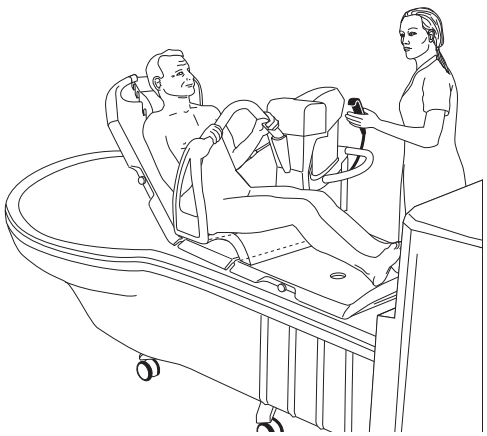
Fig. 4



7 After bathing, let the water run out of the bath. Raise the backrest.Let the patient put their hands on the patient security grip. Lower the bath to its lowest position. Shower the patient. **(See Fig 4)**

Continue with the steps on the next page.

Fig. 5



8 Dry the patient, as well as the underside of the stretcher, to prevent water from dripping onto the floor prior to moving the *Miranti* lift bath trolley away from the bath. Raise the stretcher.
(See Fig 5)

Fig. 6



9 Activate the power drive and move the *Miranti* lift bath trolley out from the bath. **(See Fig 6)**

Manual Drive

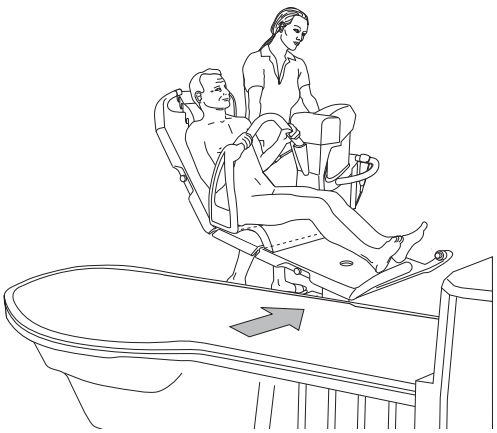
(2 steps)

Fig. 7



1 Raise the stretcher to clear the edge of the bath and move the patient in over the bath. **(See Fig 7)**

Fig. 8



2 Pull the *Miranti* lift bath trolley away from the bath.
(See Fig 8)

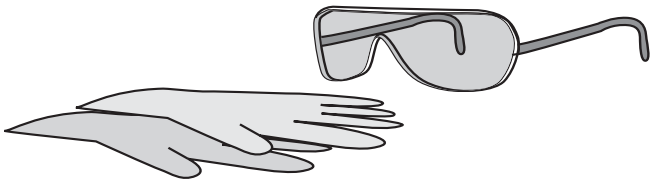
Cleaning and Disinfection Instructions

For the best results, only use Arjo branded disinfectant.

If you have any questions regarding disinfecting the equipment or wish to order disinfectant (see section *Parts and Accessories on page 42*), contact you local Arjo representative.

The following procedure should be carried out after every use and at the end of the day.

WARNING



To avoid eye and skin damage, always use protective glasses and gloves. If contact occurs rinse with plenty of water. If eyes or skin becomes irritated, contact a physician. Always read the IFU and the Material Safety Data Sheet (MSDS) of the disinfectant.

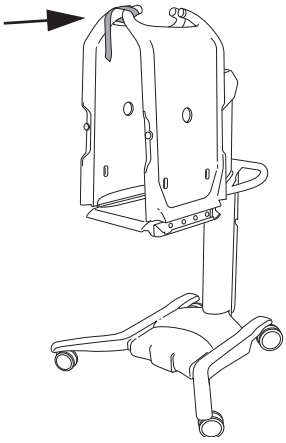
WARNING

To prevent cross-contamination, always follow the disinfection instructions in this *IFU.*

WARNING

To avoid eye or skin irritation, never disinfect in the presence of a patient.

WARNING



To avoid injury of the caregiver, make sure the stretcher is kept folded during disinfection procedure. Secure it by using enclosed strap or by hand.

CAUTION

To avoid damage on the equipment only use Arjo branded disinfectants.

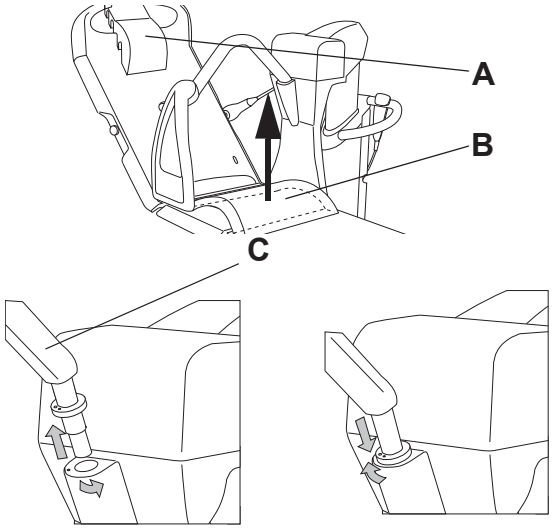
Accessories for Disinfecting the Miranti Lift Bath Trolley

- Protective gloves
- Protective glasses
- Spray bottle with disinfectant
- Spray bottle with water
- Cloth wet and dry
- Disposable towels
- Soft bristled brush
- Long handled soft bristled brush

Always Follow these 17 Steps for Cleaning and Disinfection

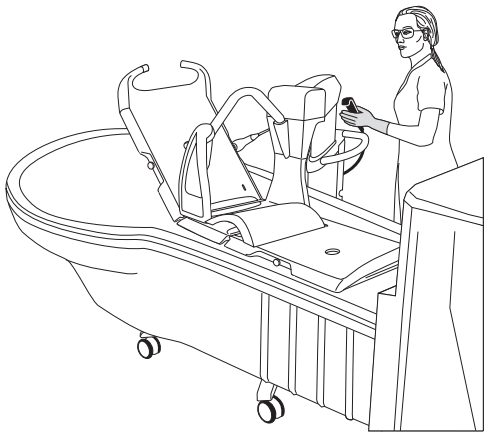
Removing visual residue (step 1-3 of 17)

Fig. 1



1 Remove the head rest **(A)**, the thigh support cushion **(B)**, the patient security grip **(C)** and the safety belt/belts, and place them at the bottom of the bathtub. **(See Fig. 1)**

Fig. 2



2 Position the *Miranti* lift bath trolley over the bathtub and lower it down. **(See Fig. 2)**

3 Clean:

- the upper part of the *Miranti* lift bath trolley (start from top and move downwards)
- all removed parts

from visible residue with a cloth soaked in water. Alternatively shower with water using a brush and/or wipe with a cloth.

Continue with the steps on the next page.

Fig. 3

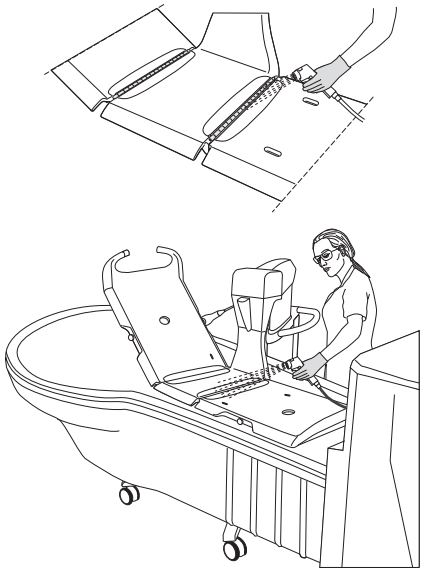


Fig. 4

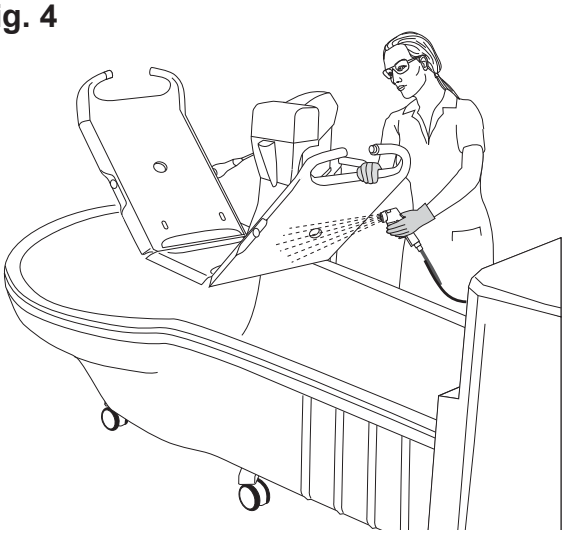
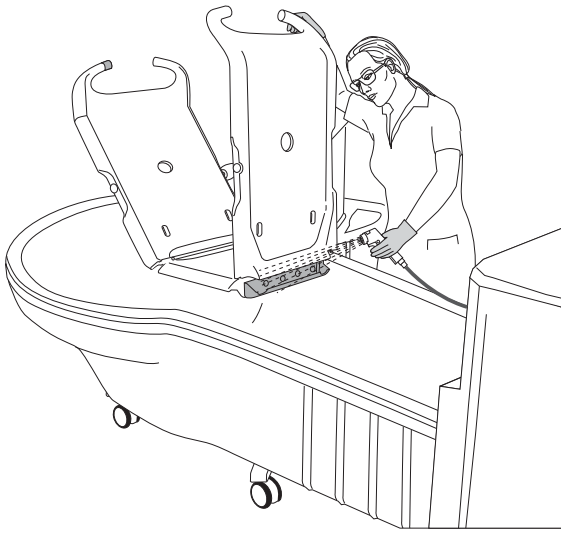


Fig. 5



Cleaning (step 4-11 of 17)

4 Put on protective gloves and glasses.

5 Most Arjo baths are equipped with a spray handle for disinfecting purposes. Read the bath instructions on how to use the disinfectant. Check the level of the disinfectant.

6 If you do not have the integrated disinfection equipment, you can use a spray bottle containing disinfectant mixed according to the printed instructions on the disinfectant bottle.

7 Spray disinfectant on **(See Fig. 3, 4 and 5)**:

- the upper part of the *Miranti* lift bath trolley
- all removed parts

Use a brush soaked in disinfectant and scrub thoroughly, especially on handles and hand control. On the *Miranti* lift bath trolley: pay extra attention to the hinges and the foundation of the patient security grip on the upper side of the stretcher and the channel on the underside of the stretcher.

8 Shower with water (approx. 25 °C (77 °F)) or spray with plenty of water and wipe off with a clean cloth to remove all disinfectant.

9 Soak a cloth in disinfectant and wipe all other areas of the *Miranti* lift bath trolley, such as chassis.

10 Wet a new cloth with water and remove all traces of disinfectant from all other areas of the *Miranti* lift bath trolley. The cloth should occasionally be rinsed in running water when removing disinfectant.

11 If all disinfectant cannot be removed, spray water on the affected part and wipe off with disposable towels. Repeat until all disinfectant has been removed.

Continue with the steps on the next page.

Disinfection (step 12-17 of 17)

12 Spray disinfectant on:

- the upper part of the *Miranti* lift bath trolley
- all removed parts

13 Soak a cloth in disinfectant and wipe all other areas of the *Miranti* lift bath trolley, such as chassis.

14 Allow a disinfection time according to the instructions on the disinfectant bottle label.

15 Spray or shower water (approx. 25 °C (77 °F)) and wipe with a clean cloth to remove all traces of the disinfectant on:

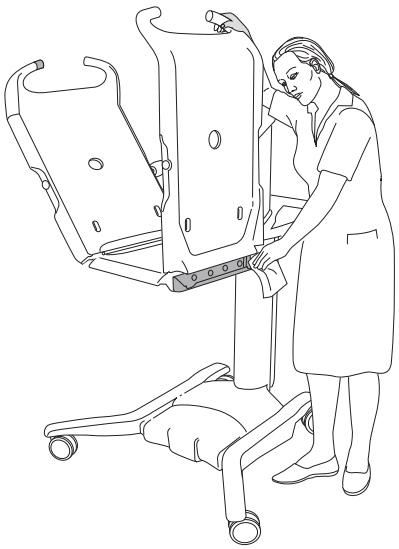
- the upper part of the *Miranti* lift bath trolley
- all removed parts
- all other areas of the *Miranti* lift bath trolley, such as chassis

The cloth should occasionally be rinsed in running water during removal of disinfectant. **(See Fig. 6)**

16 If all disinfectant cannot be removed, spray water on the affected part and wipe off with disposable towels. Repeat until all disinfectant has been removed.

17 Let all parts dry.

Fig. 6



Battery Instructions

WARNING

To avoid bodily injury, do NOT crush, puncture, open, dismantle or otherwise mechanically interfere with the battery.

- **Should the battery casing crack and cause contents to come in contact with skin or clothing, rinse immediately with plenty of water.**
- **If contents come in contact with the eyes, rinse immediately with plenty of water and seek medical attention.**
- **Inhalation of the contents can cause respiratory irritation. Provide fresh air and medical attention.**

- Be careful not to drop the battery.
- Contact the appropriate local authority for advice when disposing of batteries.
- Check label on the battery.

Low Charge Warning

A buzzer sound will go off when the battery reaches a low charge. The battery should then be recharged as soon as possible.

Storage of Battery

- The battery is delivered charged but we recommend you to recharge the battery when received due to a slow self discharge.
- The battery will slowly self discharge when not used.
- A battery in storage and transport and should be in a temperature range of -0 °C to +30 °C (32 °F to 86 °F), cooler temperatures will extend its service life.
- For maximum battery performance do not store the battery above 50 °C (122 °F).

Installation of Charger

See the *Battery Charger IFU*.

How to Charge the Battery

See the *Battery Charger IFU*.

Care and Preventative Maintenance

The *Miranti* lift bath trolley is subject to wear and tear, and the following actions must be performed when specified to make sure that the product remains within its original manufacturing specification

WARNING

To avoid malfunction resulting in injury, make sure to conduct regular inspections and follow the recommended maintenance schedule. In some cases due to heavy use of the product and exposure to aggressive environment more frequent inspections should be carried out. Local regulations and standards may be more stringent than this recommended maintenance schedule.

NOTE
Product cannot be maintained and serviced while in use with the patient

PREVENTIVE MAINTENANCE SCHEDULE Miranti lift bath trolley

CAREGIVER OBLIGATIONS Action/Check	Every DAY	Every WEEK	Every 2nd YEAR
Disinfect	X		
Check of mechanical attachments		X	
Visually check the safety belt		X	
Check hand control and cable		X	
Check and clean castors		X	
Check central brake function and brake pads		X	
Visually check battery charger and battery		X	
Visually check all exposed parts		X	
Check winch hook and hook rope		X	
Check attachment and locking of side guard and patient security grip		X	
Replace safety belt			X

WARNING

To avoid injury to both the patient and the caregiver, never modify the equipment or use incompatible parts.

Fig. 1



Fig. 2

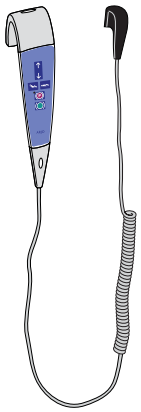


Fig. 3

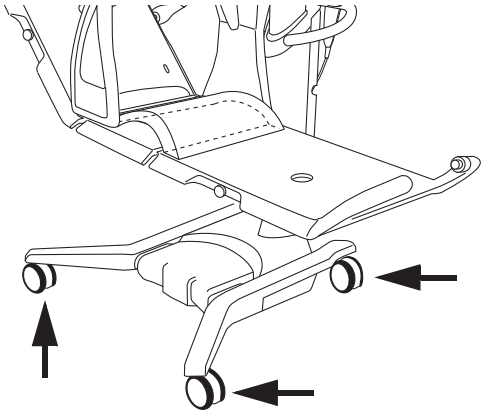
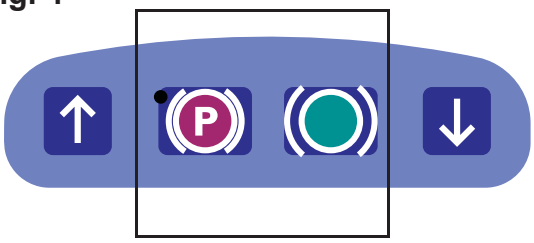


Fig. 4



Caregiver Obligations

Caregiver obligations shall be carried out by personnel with sufficient the *Miranti* lift bath trolley knowledge following the instructions in this *IFU*.

Every day

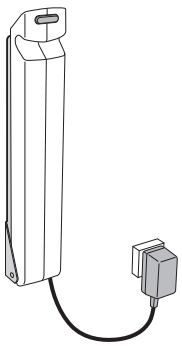
- **Disinfect.** The *Miranti* lift bath trolley has to be disinfected immediately after every use. Arjo disinfectants and shampoos should be used in **recommended concentrations**. See section *Cleaning and Disinfection Instructions on page 24*.

Every week

- **Visually check all exposed parts,** especially where personal contact is made by either the patient or caregiver. Make sure no cracks or sharp edges have developed that could cause the patient or user injury or that has become unhygienic. Replace damaged parts.
- **Check the mechanical attachments** by placing a foot on the chassis and pull the seat upwards with both hands. No gaps are allowed. **(See Fig 1)**
- **Check hand control and cable**: Visually check the condition of the hand control and its cable. If found cut or damaged, replace it. **(See Fig 2)**
- **Check that the castors are properly fixed and are rolling and swivelling freely.** Clean with water (the function can be affected by soap, hair, dust and chemicals from floor cleaning). **(See Fig 3)**
- **Check the central brake function and brake pads** by activating the central brake and try to move the hoist. It must be impossible to move without lifting the hoist from the floor. **(See Fig 4)**

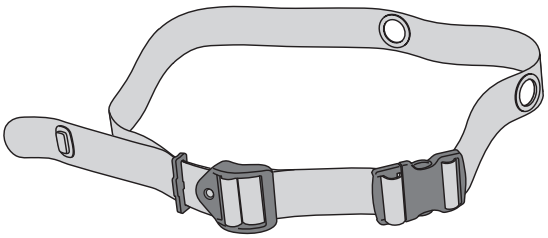
Continue with the steps on the next page.

Fig. 5



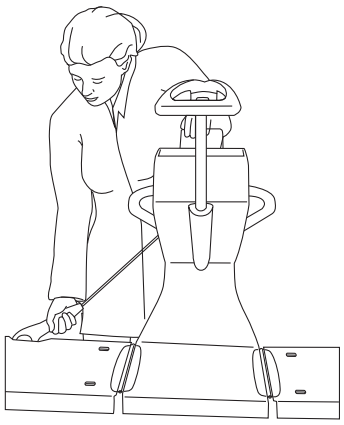
- **Visually check the condition of the battery charger, its cable and the battery.** Withdraw and replace immediately if damaged. **(See Fig 5)**

Fig. 6



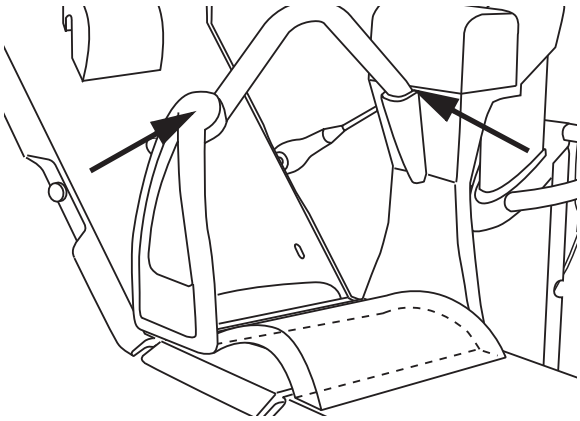
- **Visually check the safety belt.** Check the complete length for fraying, cuts, crack, tears, that no inner fabric is showing and that no other damage is visible. If the safety belt is found damaged, replace it. **(See Fig 6)**

Fig. 7



- **Check winch hook and hook rope for damage.** If any damages are found, replace. **(See Fig 7)**

Fig. 8



- **Check attachment and locking of side guard and patient security grip.** All attachments shall shape-in firmly into all positions**. (See Fig 8)**.

Yearly

The *Miranti* lift bath trolley has to be serviced according to the table *QUALIFIED PERSONNEL Action/Check on page 32*.

WARNING

To avoid injury and/or unsafe product, the maintenance activities must be carried out at the correct frequency by qualified personnel using correct tools, parts and knowledge of procedure. Qualified personnel must have documented training in maintenance of this device.

QUALIFIED PERSONNEL Action/Check	Every YEAR	Every 2:nd YEAR
Replace brake pads	X	
Perform a safe working load test (local requirements)	X	
Lubricate inner profile	X	
Check battery and battery charger	X	
Check scale calibration (if attached and not verified)	X	
Check all vital parts for corrosion/damage	X	
Perform full feature functionality test	X	
Check mechanical attachments	X	
Check that the latest upgrades have been implemented	X	
Check the safety stop function	X	
Check the emergency High/Low function	X	
Inspect castors	X	
Replace winch hook and hook rope		X
Replace guide pieces, lower bushing and outer profile seal		X
Replace the plastic cross on the actuator		X
Check the power drive wheel		X
Lubricate the cog wheels on the winch		X
Lubricate the spiral cables		X

NOTE
All checkpoints in table *CAREGIVER OBLIGATIONS Action/Check on page 29* are to be checked when performing the checkpoints in table *QUALIFIED PERSONNEL Action/Check on page 32*.

Troubleshooting

PROBLEM	ACTION
It is only possible to lower the lift.	The lifting device of this equipment is equipped with a a safety nut. If the safety nut will be activated it will only be possible to lower the equipment into a safe position. In case of this scenario stop using the equipment and contact qualified personnel for repair of the equipment.

NOTE
If the product does not work as intended, immediately contact your local Arjo representative for support.

Technical Specifications

The Miranti lift bath trolley model CEB8X0X	
Safe Working Load (SWL) (maximum patient weight)	160 kg (353 lbs)
Maximum weight of lift (lift and scale)	103 kg (227 lbs)
Medical equipment	type 
Usage temperature (water)	+20 °C - +45 °C (+68 °F - +113 °F)
Temperature	+10 °C to +40 °C (+50 °F to +104 °F) Operating -20 °C to +70 °C (-4 °F to +158 °F) Transport -20 °C to +70 °C (-4 °F to +158 °F) Storage
Humidity	30-75% at +20 °C (+68 °F) Operating 10-80% at +20 °C (+68 °F) Transport 10-80% at +20 °C (+68 °F) Storage
Atmospheric pressure	800 hPa to 1060 hPa Operating 500 hPa to 1100 hPa Transport 500 hPa to 1100 hPa Storage
Sound level	< 58 dBA
Mode of operation	ED maximum 10%; Maximum 2 minutes ON; Minimum 18 minutes OFF
Operating forces of controls	2.7 N
Pollution degree	2

Electricity	
Battery No. NDA 0100	Sealed lead-acid battery 24 V, 4 Ah
Battery charger	NDA 1200-EU, NDA 2200-GB, NDA 4200-US, NDA 6200-AU and NDA 8200-INT
Protection class	IP X4
Fuse	F1 F10AL 250 V
Fuse	F2 T2.5AL 250 V

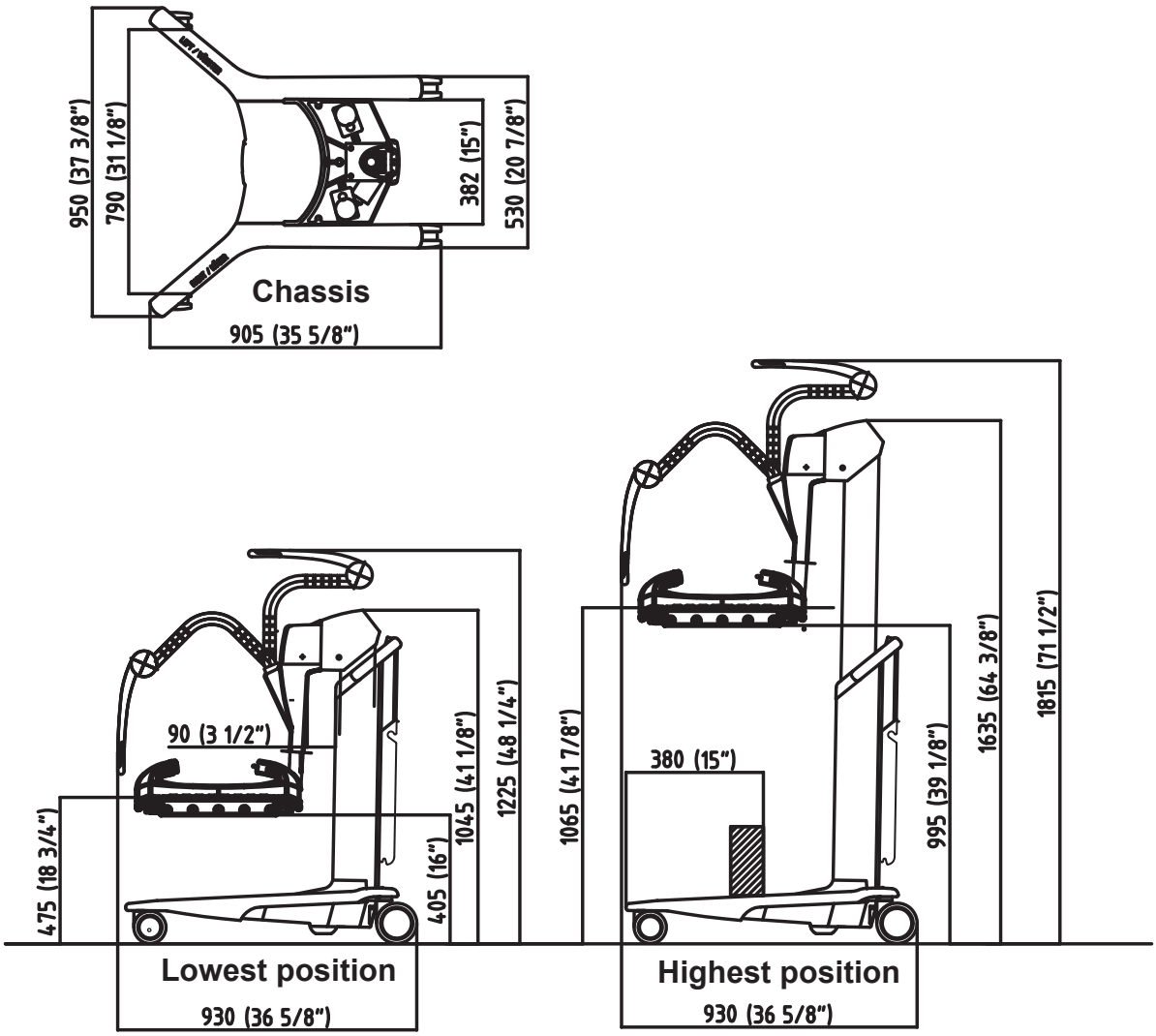
Allowed combinations	
The Miranti lift bath trolley panels integrate with the following Arjo products	Generic hospital/care facility bed with a clearance of 150 mm (5 7/8”) System 2000 baths
No other combinations are allowed.	

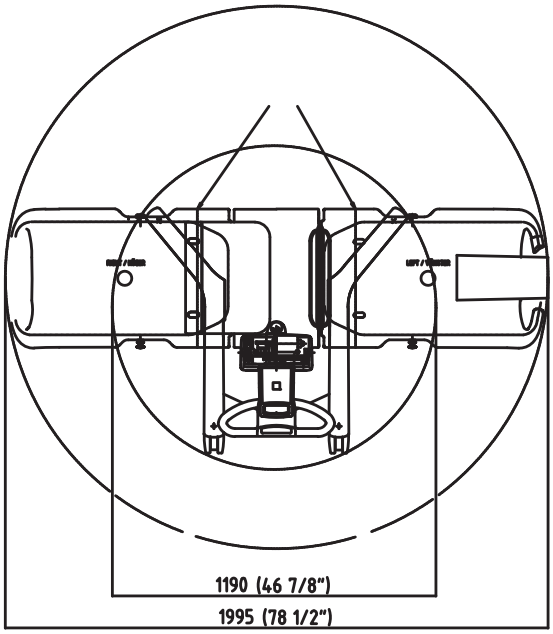
Recycling	
Package	Wood and corrugated cardboard recyclable

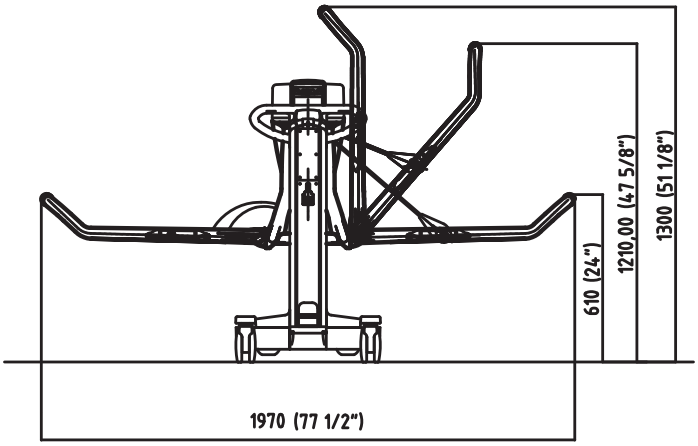
End of Life Disposal

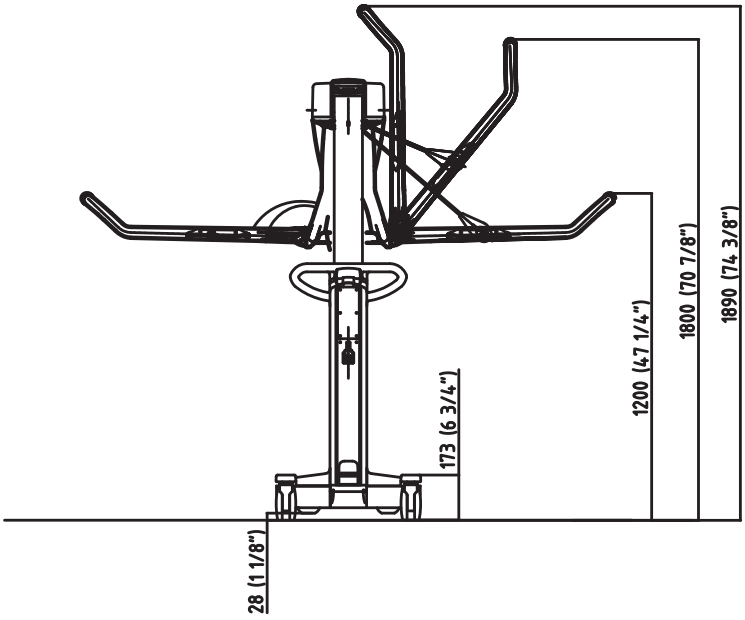
- All batteries in the product must be recycled separately. Batteries are to be disposed in accordance with national or local regulations.
- Slings including stiffeners/stabilizers, padding material, any other textiles or polymers or plastic materials etc. should be sorted as combustible waste.
- Lift systems having electrical and electronic components or an electrical cord should be disassembled and recycled per Waste of Electrical and Electronic Equipment (WEEE) or in accordance with local or national regulation.
- Components that are primarily be made up of different kinds of metal (containing more than 90% metal by weight) for example sling bars, rails, upright supports, etc., should be recycled as metals.

Dimensions


950 (37 3/8")
790 (31 1/8")
382 (15")
530 (20 7/8")
Chassis
905 (35 5/8")
90 (3 1/2")
475 (18 3/4")
405 (16")
1045 (41 1/8")
1225 (48 1/4")
Lowest position
930 (36 5/8")
1065 (41 7/8")
380 (15")
995 (39 1/8")
1635 (64 3/8")
1815 (71 1/2")
Highest position
930 (36 5/8")


1190 (46 7/8")
1995 (78 1/2")


610 (24")
1210,00 (47 5/8")
1300 (51 1/8")
1970 (77 1/2")

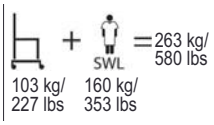
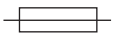

28 (1 1/8")
173 (6 3/4")
1200 (47 1/4")
1800 (70 7/8")
1890 (74 3/8")

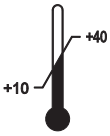
Labels

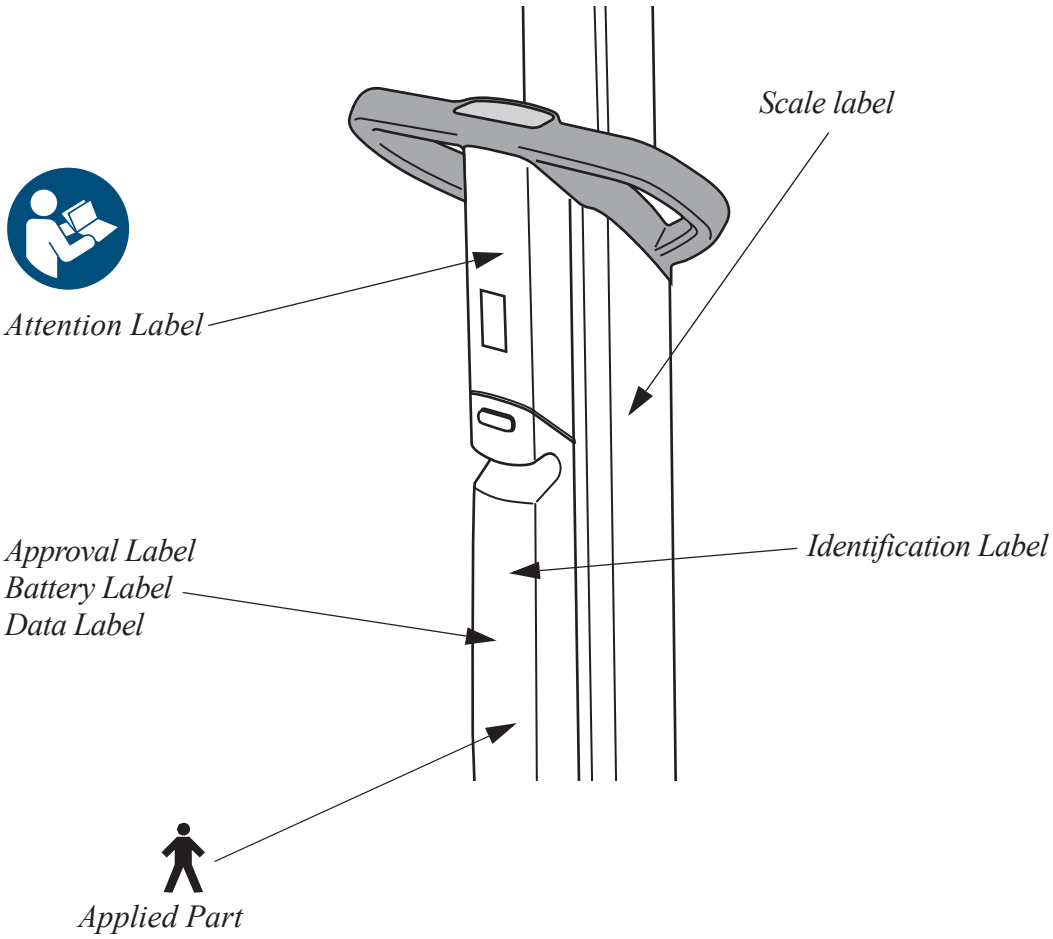
Label explanation

Attention Label	Important user information for correct use.
Battery Label	States safety and environmental information for the battery.
Data Label	States technical performance and requirements, e.g. Input Power, Input Voltage and maximum Patient Weight etc.
Identification Label	States the product identification, serial number and year and month of manufacturing.

Symbol explanation

	Type B, Applied part: protection against electrical shock in accordance with IEC 60601-1
SWL	Safe Working Load 160 kg (353 lbs).
	Total mass of equipment including its safe working load.
	Lifting stroke 590 mm (23 1/4")
24V DC	Supply voltage
MAX: 150 VA	Maximum power
	Fuse F1: F10AL 250 V Fuse F2: T2.5AL 250 V
IP X4	Degree of Protection (i.e. the product is protected against splashing water)
ED Max 10%	Mode of operation for Hi/Lo function: ED maximum 10%; Maximum 2 minutes ON; Minimum 18 minutes OFF
NDA0100-XX	Product number of the battery
	Read the *IFU* before use.
	A battery is the power source of this equipment.
	Recyclable

	Separate electrical and electronic components for recycling in accordance with the European Directive 2012/19/EU (WEEE)
	Classified by Underwriters Laboratories Inc. with respect to electrical shock, fire, mechanical, hazards and other specified hazards only in accordance with the Approvals and List of Standards.
	CE marking indicating conformity with European Community harmonised legislation Figures indicate Notified Body supervision.
	Indicates the product is a Medical Device according to EU Medical Device Regulation 2017/745
	Environmental danger - contains lead. Not for disposal.
	Name and address of the manufacturer
	Manufacturing date
Max	Maximum capacity of the weighing instrument
Min	Minimum capacity of the weighing instrument
e	Verification scale interval
	Metrology mark, indicating compliance with Directive 2014/31/EU (NAWI) yy = year (For Class III scales only)
	Model number
	Serial number
	Indicates min / max temp for use of weigh scales


Scale label
Attention Label
Approval Label
Battery Label
Data Label
Identification Label
Applied Part

List of Standards and Certificates

STANDARD/CERTIFICATE	DESCRIPTION
EN/IEC 60601-1:2005 AMD1:2012	Medical Electrical Equipment - Part 1: General Requirements for Basic Safety and Essential Performance
ANSI/AAMI ES60601-1 (2005) AMD 1 (2012)	Medical Electrical Equipment - Part 1: General Requirements for Basic Safety and Essential Performance
CAN/CSA-C22.2 No. 60601-1:14	Medical Electrical Equipment - Part 1: General Requirements for Basic Safety and Essential Performance
ISO 10535:2006	Hoists for the transfer of disabled persons -- Requirements and test methods

Electromagnetic Compatibility

Product has been tested for compliance with current regulatory standards regarding its capacity to block EMI (electromagnetic interference) from external sources.

Some procedures can help reduce electromagnetic interferences:

- Use only Arjo cables and spare parts to avoid increased emissions or decreased immunity which can compromise the correct functioning of the equipment.
- Ensure that other devices in patient-monitoring and/or life-support areas comply to accepted emissions standards.

WARNING

Wireless communications equipment such as wireless computer network devices, mobile phones, cordless telephones and their base stations, walkie-talkies, etc. can affect this equipment and should be kept at least 1.5 m away from the equipment.

Intended Environment: Professional Healthcare Facility Environment

Exceptions: HF Surgical Equipment and the RF Shielded room of an ME SYSTEM for magnetic resonance imaging

WARNING

Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

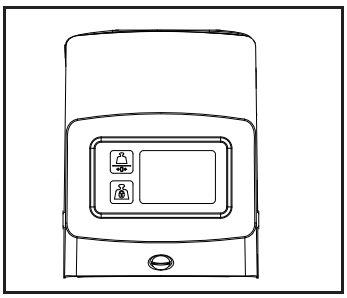
Guidance and manufacturer's declaration – electromagnetic emission		
Emission test	**Compliance**	**Guidance**
RF emissions CISPR 11	Group 1	This equipment uses RF energy only for its internal functions. Therefore its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	This equipment is suitable for use in all establishments, including domestic establishments and those directly connected to the public low voltage power supply network that supplies buildings used for domestic purposes.

Guidance and manufacturer's declaration – electromagnetic immunity			
Immunity test	**IEC 60601-1-2 test level**	**Compliance level**	**Electromagnetic environment – guidance**
Electrostatic discharge (ESD) EN 61000-4-2	±2kV, ±4kV, ±8kV, ±15kV air ±8kV contact	±2kV, ±4kV, ±8kV, ±15kV air ±8kV contact	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Conducted disturbances inducted by RF fields EN 61000-4-6	3V in 0,15 MHz to 80 MHz 6V in ISM and amateur radio bands between 0,15 MHz and 80 MHz 80% AM at 1 kHz	3V in 0,15 MHz to 80 MHz 6V in ISM and amateur radio bands between 0,15 MHz and 80 MHz 80% AM at 1 kHz	Portable and mobile RF communications equipment should be used no closer to any part of the product, including cables, than 1.0 m, if the transmitter's output power rating exceeds 1W[a] Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, should be less than the compliance level in each frequency range[b]. Interference may occur in the vicinity of equipment marked with this symbol: ((•))
Radiated RF electromagnetic field EN 61000-4-3	Professional Healthcare environment 3 V/m 80 MHz to 2,7 GHz 80% AM at 1 kHz	Professional Healthcare environment 3 V/m 80 MHz to 2,7 GHz 80% AM at 1 kHz	
Proximity fields from RF wireless communications equipment EN 61000-4-3	385 MHz - 27 V/m 450 MHz - 28 V/m 710, 745, 780 MHz - 9V/m 810, 870, 930 MHz - 28 V/m 1720, 1845, 1970, 2450 MHz - 28 V/m 5240,5500, 5785 MHz - 9V/m	385 MHz - 27 V/m 450 MHz - 28 V/m 710, 745, 780 MHz - 9V/m 810, 870, 930 MHz - 28 V/m 1720, 1845, 1970, 2450 MHz - 28 V/m 5240,5500, 5785 MHz - 9V/m	
Electrical fast transient/burst EN 61000-4-4	±1kV SIP/SOP ports 100 kHz repetition frequency	±1kV SIP/SOP ports 100 kHz repetition frequency	
Power frequency Magnetic field EN 61000-4-8	30 A/m 50 Hz or 60 Hz	30 A/m 50 Hz	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

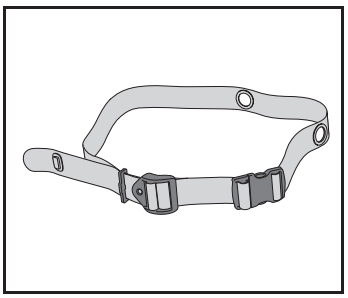
[a] Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the product is used exceeds the applicable RF compliance level above, the product should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary.

[b] Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 1 V/m.

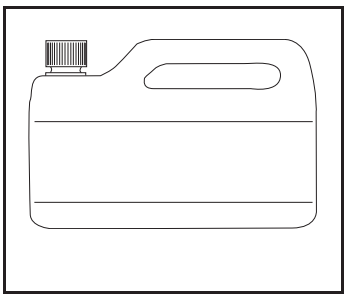
Parts and Accessories



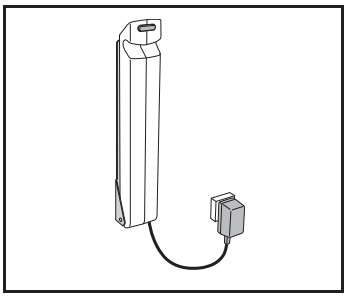
Electronic scale
CDA2100-01



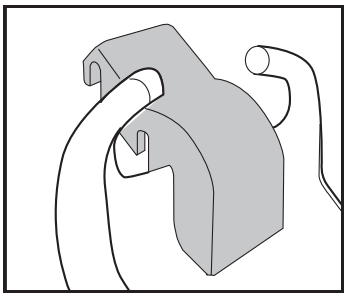
Safety belt
8664559



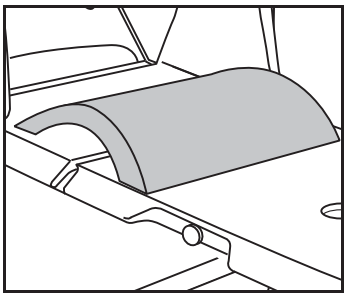
For disinfectant contact the Arjo local representative



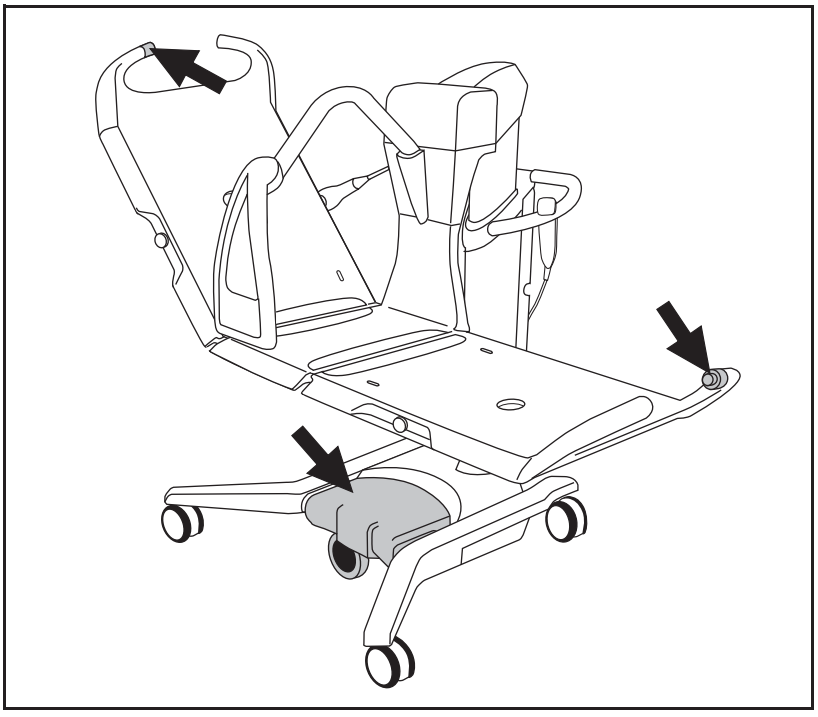
Battery and battery charger



Head rest



Thigh support cushion



Power drive

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前言

感谢您购买 Arjo 设备

Miranti 升降淋浴推车是专门为医院、护理院和其他医疗护理用途设计的系列优质产品中的一款。

我们致力于满足您的需求，通过提供最好的产品与培训服务，让您的员工最大限度地从每个 Arjo 产品中获益。

如果您在 Arjo 设备的使用或维护过程中遇到任何问题，请随时联系我们。

请通读本*使用说明书*!

请在使用 *Miranti* 升降淋浴推车之前完整阅读*本使用说明书 (IFU)*。本 *IFU* 中包含的信息对正确操作与维护设备至关重要，可帮助您保护产品并确保您获得令人满意的使用效果。本 *IFU* 中包含重要的安全信息，必须仔细阅读并完全理解以避免可能发生的人身伤害。

未经授权擅自改动任何 Arjo 设备有可能影响其安全性。 Arjo 对任何因未经授权改动产品而导致的意外、事故或性能丧失均不承担任何责任。

报告意外的操作或事件

如果遇到任何意外操作或事件，请联系您当地的 Arjo 工作人员。本 *IFU* 末页提供了联系电话号码。

严重事件

如果发生与该医疗器械相关并影响用户或患者的严重事件，则用户或患者应将该严重事件报告给医疗器械制造商或分销商。在欧盟，用户还应向其所在成员国的主管当局报告该严重事件。

服务和支持

每年将由授权人员对您的 *Miranti* 升降淋浴推车执行一次例行维护服务，以确保产品安全且能够正常操作。请参阅*第 29 页的保养和预防性维护*部分。

如果您需要进一步的信息，请联系 Arjo 以获得全方位的支持和服务，确保产品的长期安全性、可靠性和价值。

请联系您当地的 Arjo 工作人员以获得更换的部件。本 *使用说明书 (IFU)* 的最后一页上提供有电话号码。

本 *IFU* 中的定义

警告

表示：
安全性警告。如不理解并且不遵守该警告可能会对您或他人造成人身伤害。

小心

表示：
如不遵守这些说明可能导致整个系统或部件的损坏。

注意

表示：
这些是正确使用本系统或设备的重要信息。



表示：
制造商的名称和地址。

既定用途

在使用设备时，必须遵守其产品用途和这些安全说明。使用本设备的任何人员都必须阅读并理解本*使用说明书 (IFU)* 中的说明。

如果有不确定的地方，请联系您的 Arjo 工作人员。

本设备适用于将成年患者在护理机构的病床和浴室之间进行升降和转运，也可在辅助洗浴过程中使用。

Miranti 仅供经过适当培训的护理人员使用，而且护理人员应对护理环境、常用做法和步骤有充分了解，并遵守本*使用说明书 (IFU)* 中的指导说明。

禁止用于其他目的。本设备只能用于此处规定的用途。

患者评估

我们建议使用机构建立日常评估程序。护理人员应在使用本设备前根据以下标准评估每名患者：

患者的体重不应超出 160 kg/353 lbs。

当患者由于行动能力受限时，患者必须能够理解和响应护理人员关于保持安全平躺姿势的的指示，或者保持这种姿势。

如果患者不能满足这些条件，应使用其它移位机。

除非有特别说明，本设备的预期使用寿命为十 (10) 年，但前提是按照本 *IFU* 中的保养和维护说明进行预防性维护。

设备的使用寿命

本设备必须只用于上述用途。

本设备的使用寿命是 10 年，安全带的使用寿命是 2 年。电池的使用寿命是 2-5 年，但具体取决于电池储能、使用频率和充电间隔。

使用寿命如上所述，前提是按本 *IFU* 中的保养和维护说明进行预防性维护。

在设备的使用寿命内，根据磨损程度不同，可能需要按照 *IFU* 中提供的信息更换某些设备部件，如脚轮和手持式控制器等。

安全说明

警告

为避免爆炸或火灾，切勿在具有热源或易燃麻醉气体的富氧环境中使用该设备。

警告

为了防止交叉感染，必须始终遵守本 *IFU* 中的消毒说明。

警告

为避免卡夹，应确保患者的头发、手臂和双脚贴近躯干，而且在任何移动过程中均使用指定把手。

警告

为避免设备倾倒和患者跌落，切勿在存在凹入式排水沟、孔洞或坡度超过 1:50 (1.15°) 的地面上使用本设备。

警告

为避免人身伤害，应始终有专人看护患者。

警告

为了避免患者在转移过程中摔倒，应确保在使用的所有设备上启用制动器。

警告

为避免摔倒，患者体重不得超出所用产品及附件的安全工作负荷 (SWL)。

警告

为避免摔倒，应确保患者在椅子上正确定位，使用并正确固定和拉紧安全带。

使用准备

初次使用前准备措施
（10 个步骤）

1 目视检查外包装是否损坏。如果由于运输原因导致产品看起来有损坏，请向运输公司投诉。

2 包装材料应依照当地相关规定进行回收。

3 检查产品部件是否齐全。与*第 8 页的部件名称*部分比较。如果任何部件缺失或损坏 - 不得使用本产品。

4 阅读 *IFU*。

5 根据*第 24 页的清洁和消毒指示*部分对产品进行消毒。

6 拆开电池充电器并按照*电池充电器 IFU* 进行安装。

7 电池需充电。

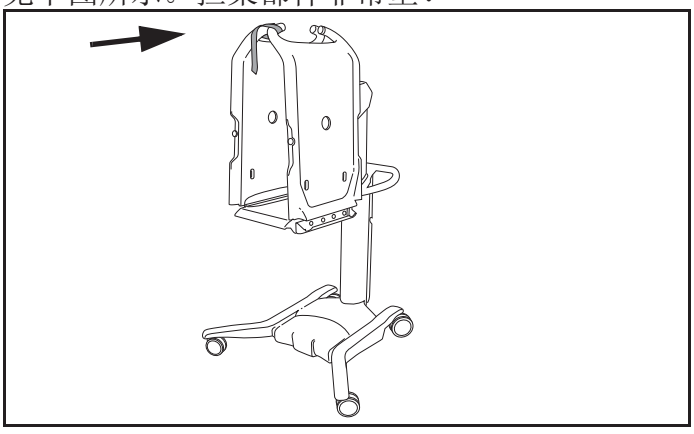
8 执行功能检查。请参阅*第 29 页的保养和预防性维护*部分。

9 在指定位置妥善存放使用 *IFU*，以便于使用者随时取阅。

10 确保制定好抢救计划以防患者出现紧急情况。

注意
如果有任何问题，请联系您当地的 Arjo 工作人员寻求支持和服务。本 IFU 末页提供有联系电话号码。

向上折叠担架时，用随附的吊兜固定担架部件。见下图所示。担架部件非常重！



每次使用前准备措施
（4 个步骤）

1 检查部件是否齐全就位。对照*部件名称*页进行检查。

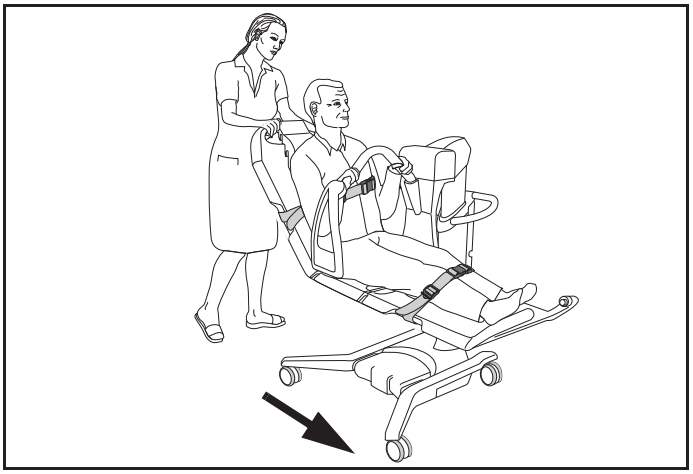
2 如果任何部件缺失或损坏 - 不得使用本产品。

3 **警告**

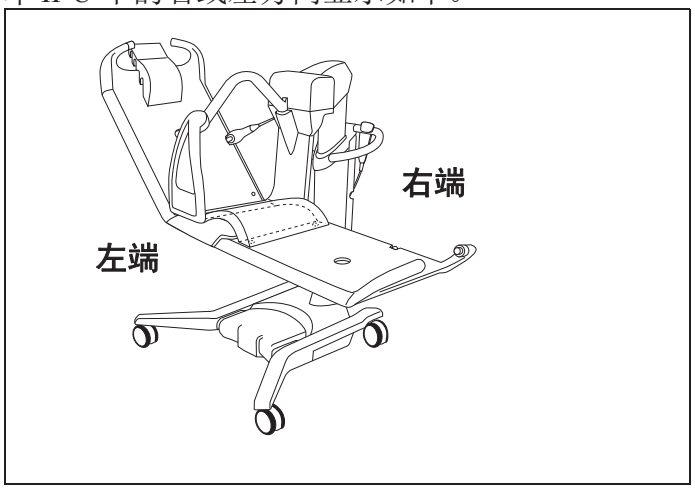
为了预防交叉感染，必须始终遵守本使用说明书中的*消毒说明*。

4 确保电池已充满电。

Miranti 升降淋浴推车方向说明
转移患者期间的推进方向如下图所示。



本 *IFU* 中的右或左方向显示如下。



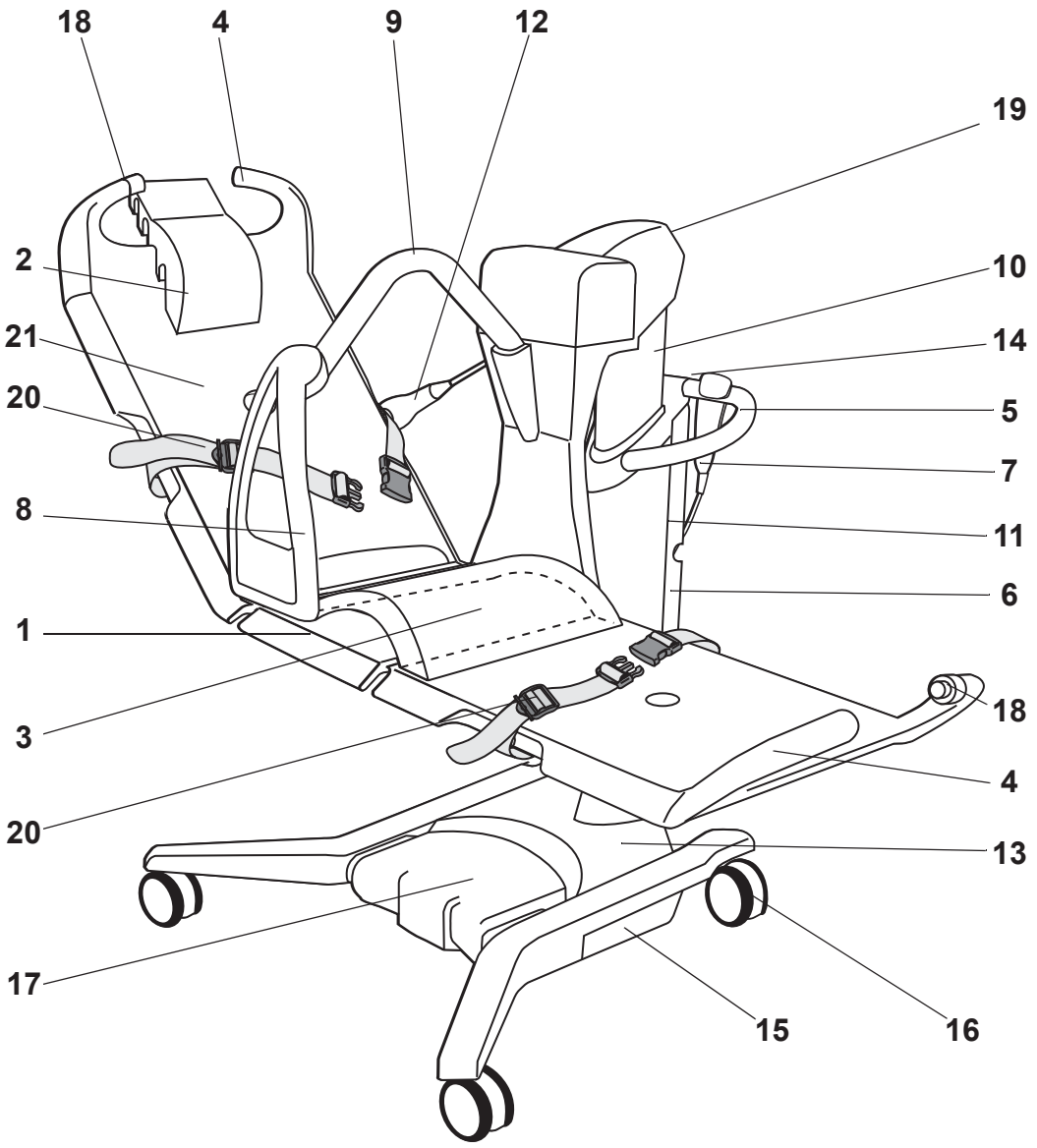
部件名称

1 担架和吊架 
2 头枕
3 大腿支撑板
4 推行手柄
5 定位手柄
6 电池
7 手持控制器
8 侧护栏
9 患者安全手柄
10 支柱
11 紧急升高/降低
12 钩绳
13 中央制动器 （放在底盘下方）
14 控制面板
15 底盘
16 脚轮
17 电力驱动 （可选附件）
18 电力驱动手柄 （可选附件）
19 称重计 （可选附件）
20 安全带
21 电动靠背



接触部件：B 型号
担架和吊架 （包括所有连接的零部件）。

依据 IEC 60601-1 提供电击防护。


18
4
9
12
19
2
10
21
14
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7
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15
16

产品描述/功能

图 1

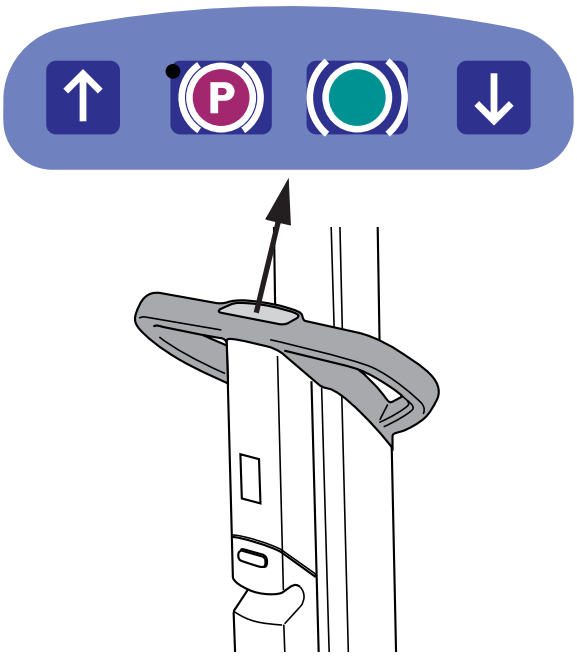


图 2

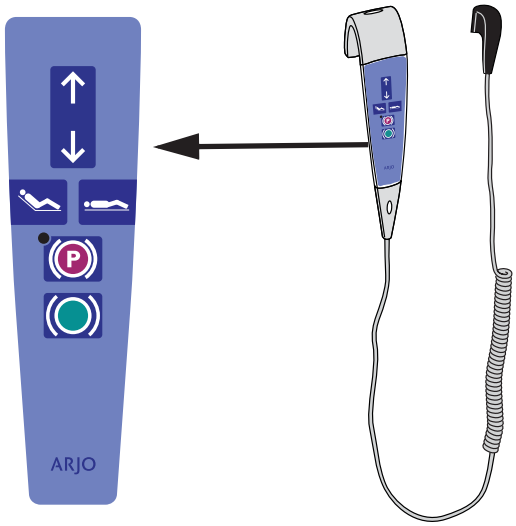
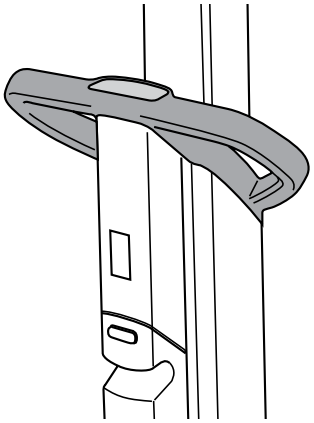


图 3



提升

由电动马达驱动传动器完成升降动作。

中央制动器

中央制动器位于底盘下方，由两个带制动片的气缸组成。它通过控制面板或手持控制器操作。当制动器启动时，制动片向下压到地板上。

控制面板

面板上有四个控制按钮，标记如下：**（请参阅图 1）**

- 向上箭头用于升高 *Miranti* 升降淋浴推车。
- 向下箭头用于降低 *Miranti* 升降淋浴推车。
- 暗红色制动符号，用于启动中央制动器，用闪光灯作指示。
- 绿色制动符号，用于释放中央制动器。

手持式控制器

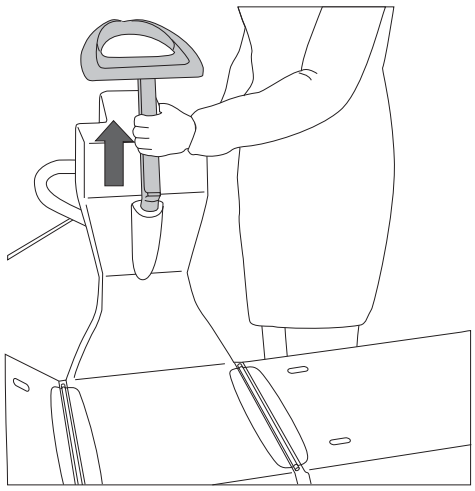
手持式控制器有一个集成式挂钩，可以轻松绑定 *Miranti* 升降淋浴推车的各个部件。**（请参阅图 2）**

- 取下手持式控制器，并将其握在手中。
- 按下手持式控制器上的 “ 向上箭头 ” 按钮，以升高 *Miranti* 升降淋浴推车。
- 按下手持式控制器上的 “ 向下箭头 ” 按钮，以降低 *Miranti* 升降淋浴推车。
- 按下暗红色按钮，启动制动器。用闪光灯作指示。
- 按下绿色按钮，释放中央制动器。
- 按下带有坐姿图形的按钮以抬起靠背。
- 按下带有躺姿图形的按钮以降低靠背

定位手柄

使用定位手柄将 *Miranti* 升降淋浴车调整到浴缸或床的高度。**（如图 3 所示）**

图 1



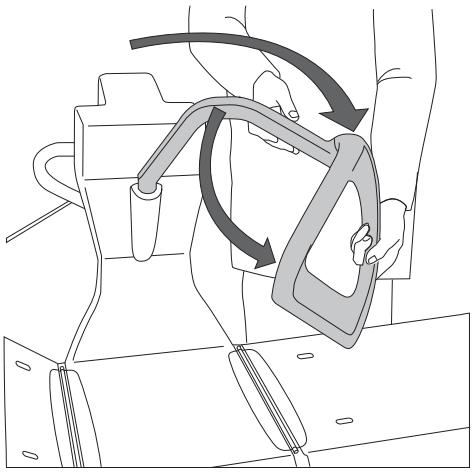
侧护栏和患者安全手柄

（3 个步骤）

侧护栏可防止患者跌落到一侧，而患者安全手柄集成在铰接杆中，由患者握住。

1 向上提起杆。**（请参阅图 1）**

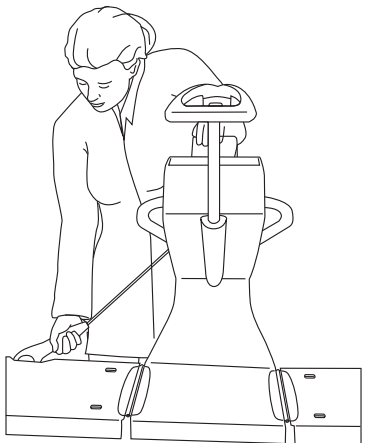
图 2



2 一只手抓住侧护栏，另一只手抓住患者安全手柄 **（请参阅图 2）**

3 先将安全手柄从患者头部拿开并放低，然后定位好侧护栏。

图 3



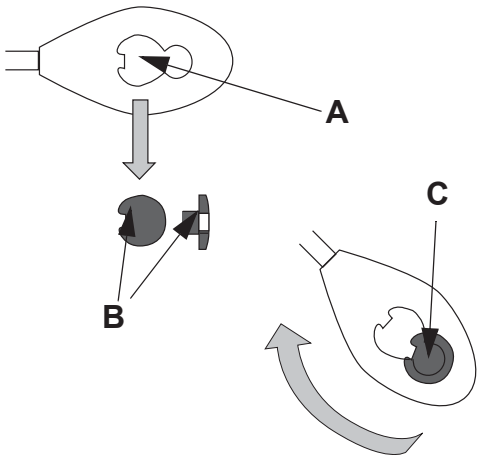
电动靠背/钩绳

（5 个步骤）

担架两端均可用作靠背，并且均可通过手持式控制器控制电动马达来升高和降低。在患者躺入担架之前或之后，必须将引导靠背的钩绳固定在担架 （靠背）的选定侧。

1 将钩绳绑定到担架上的按钮头。**（如图 3 所示）**

图 4



2 检查孔 **(A)** 中的攻丝是否与按钮 **(B)** 中的槽口相匹配。**（如图 4 所示）**

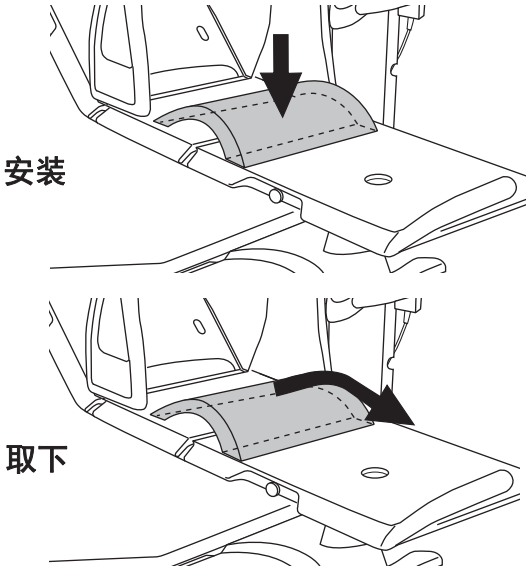
3 将按钮头移至键孔的狭窄部分。

4 向上转动挂钩，确保钩绳 **(C)** 已被固定。**（如图 4 所示）**

5 仔细检查挂钩固定情况。

注意 确保将患者正确放置在担架上。

图 5



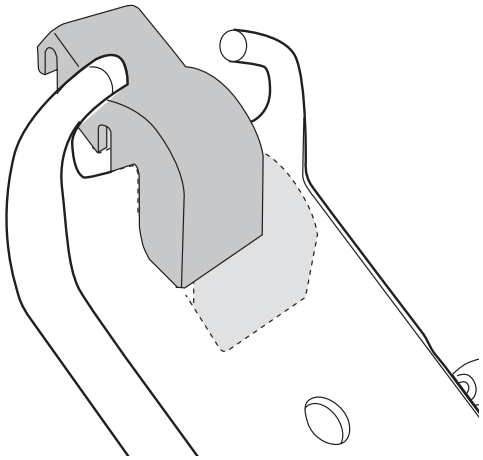
大腿支撑板

支撑板必须放置在患者的大腿下方，以便在转移或沐浴期间保持舒适。**（如图 5 所示）**

支撑板的弹性部分应该抵住患者的臀部。用孔中的导销推动支撑板。

要移开支撑板，可将其折回搁腿架。

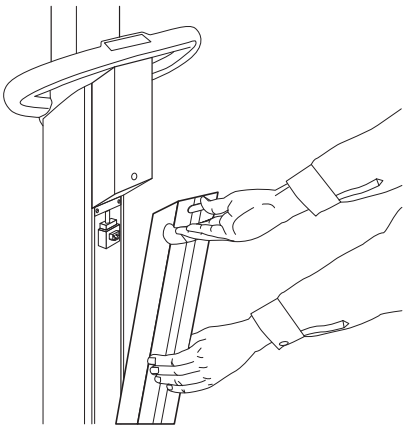
图 6



头枕

头枕可以很容易地移动到选定的靠背一侧，并可根据患者的身高进行调整。**（请参阅图 6）**

图 7

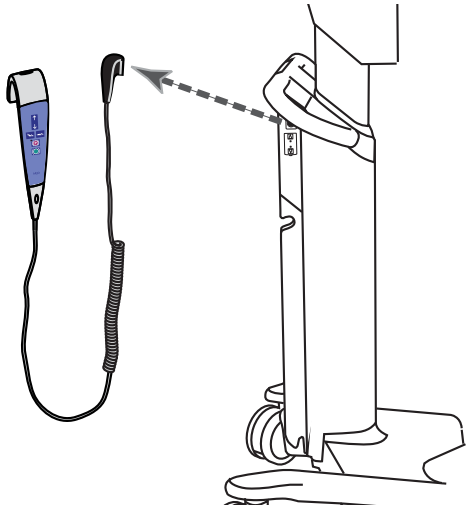


紧急停止

如果出于任何缘故 *Miranti* 升降淋浴推车不对控制按钮响应，那么您可按下电池上的按钮快速停止起升运动，然后断开连接。**（请参阅图 7）**

在重新使用 *Miranti* 升降淋浴推车之前，请与您当地的 Arjo 代表联系。

图 8



紧急升高/降低
（2 个步骤）

如果出于任何缘故 *Miranti* 升降淋浴推车不对控制按钮响应，请使用紧急升高/降低功能升高或降低 *Miranti* 升降淋浴推车。

1 拔出手持式控制器。**（请参阅图 8）**

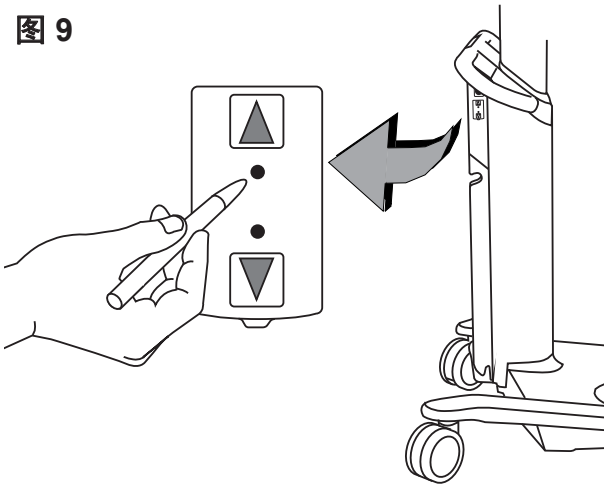
2 **小心**

按入孔内时，请勿使用带有尖锐头部的物体。

将钝而薄的物体按入面板的孔内。（如：钢笔）**（见图 9）**

- 将其按入位于 “ 向上箭头 ” 旁的孔内，从而将 *Miranti* 升降淋浴推车升高。
- 将其按入位于 “ 向下箭头 ” 旁的孔内，从而降低 *Miranti* 升降淋浴推车。

图 9



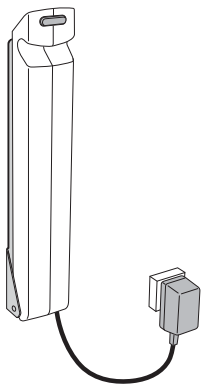
注意
在进行 “ 上升 ” 和 “ 下降 ” 操作时，会听到连续的蜂鸣音。

在重新使用 *Miranti* 升降淋浴推车之前，请与您当地的 Arjo 代表联系。

充电器

将电池充电器固定至适合的墙面，然后将其与墙式插座连接。**（请参阅图 10）**

图 10



警告

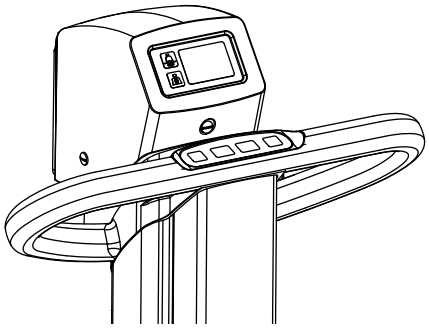
为避免火灾和电击，确保在干燥无尘的环境中安装和使用充电器。

请参阅 *电池充电器 IFU*。

称重器 （可选附件）

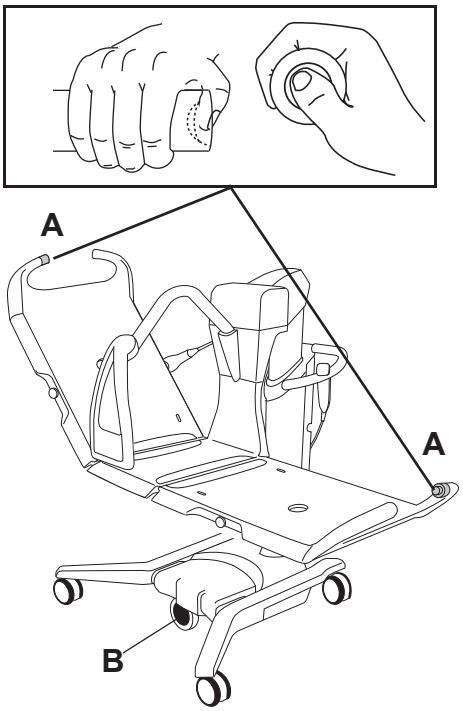
称重器集成在升降支柱上。**（请参阅图 11）**

图 11



要使用配备的称重器，请参阅 *称重器 IFU*。

图 12



电力驱动 （可选附件）

电动马达和第五脚轮 **(B)** 是动力驱动器。该脚轮通过任一端转移手柄的右侧按钮 **(A)** 进行操纵。**（请参阅图 12）**

Miranti 升降淋浴推车只能向前移动。

脚轮上装有弹簧，因此可应对不同的地板高度，例如门槛和排水槽，（地板的高度差约为 10 mm）。

如何驱动

（4 个步骤）

1 按压转移手柄上的按钮 **(A)** 开始移动推车。**（请参阅图 12）**

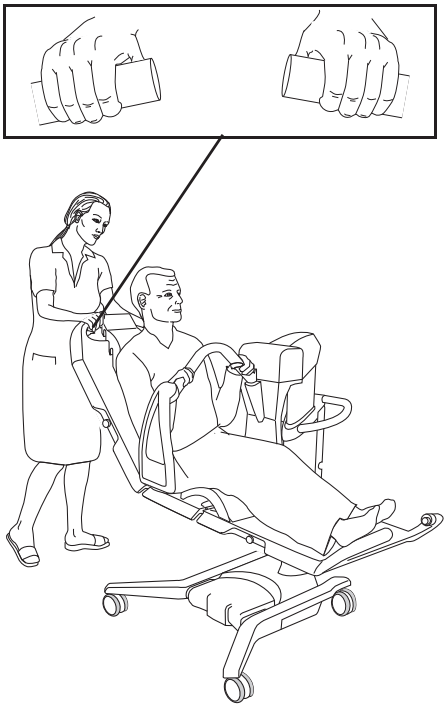
2 将第五脚轮降低，几秒钟后即可开始移动推车。

3 只要按住按钮，推车就会一直移动。

4 松开按钮后，在停止移动的情况下，第五脚轮会保持在降低位置 4 秒钟。在这 4 秒过程中，脚轮就像方向盘一样，可以非常轻松地横向或向后转动。再次按住按钮，推车则会继续移动。

注意 **启动制动器时，无法使用电力驱动。**

图 13



精确移动

为了能更好地控制狭窄通道中的转向和操纵 —— 可短时间快速松开和按压按钮。

手动传动

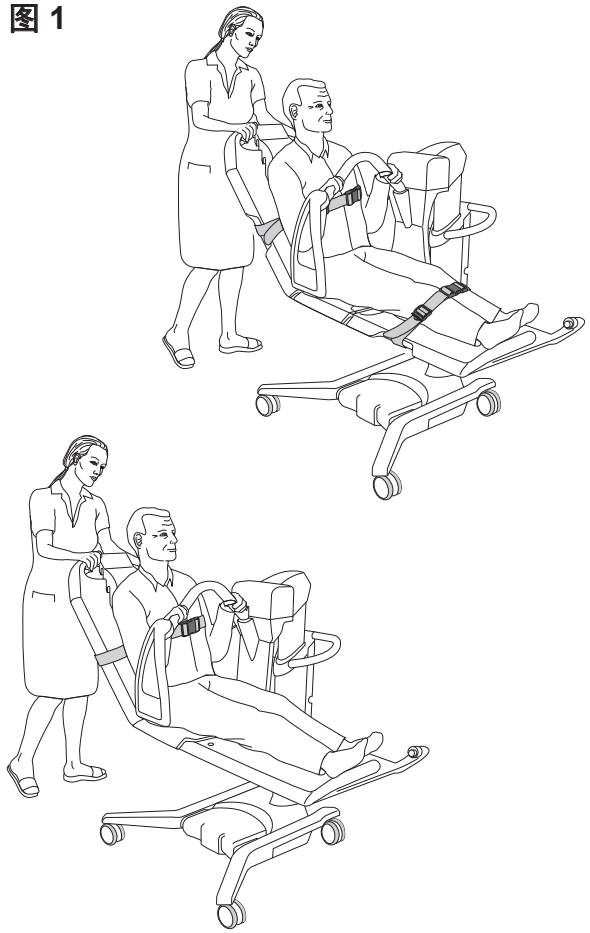
（2 个步骤）

1 抓住移动手柄。**（请参阅图 13）**

2 向前移动 *Miranti* 升降淋浴推车。

注意 **推车在移动时切勿启动制动器**

图 1



安全带

警告

为避免患者摔倒，确保安全带完好无损。如果发生损坏，请勿使用安全带，应在使用之前换新。

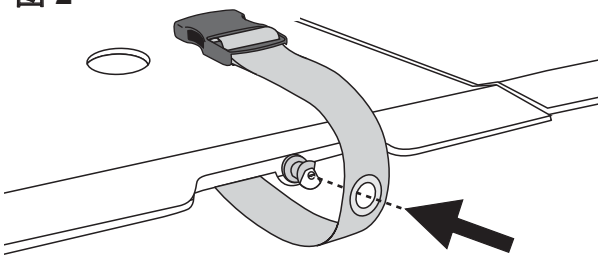
警告

为避免摔倒，应确保患者在椅子上正确定位，使用并正确固定和拉紧安全带。

Miranti 升降淋浴推车配有两个安全带，一条是胸部安全带，另一条是腿部安全带。两条安全带是一样的，使用方法也相同。

可以使用上方的安全带，或者两条都可使用。切勿仅使用下方的安全带。**（请参阅图 1）**

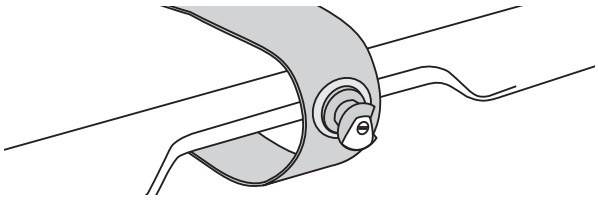
图 2



绑缚和系扣 （5 个步骤）

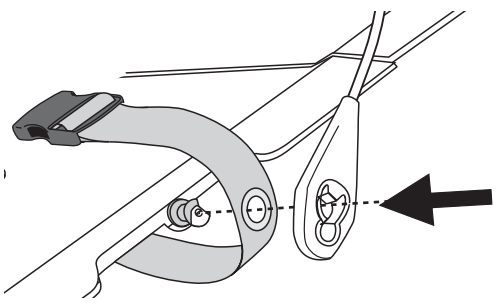
1 将最靠近带扣的孔眼推到旋钮上方，系住安全带。**（如图 2 所示）**

图 3



2 确保安全带插入旋钮到位。**（如图 3 所示）**

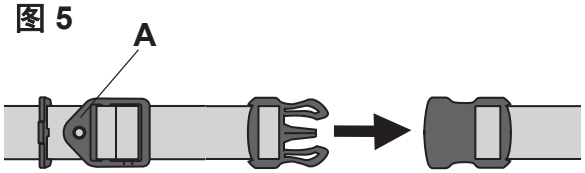
图 4



3 **仅适合上方的安全带:** 根据*第 11 页的电动靠背/钩绳*节的说明，将钩绳系在安全带和旋钮上。**（如图 4 所示）**

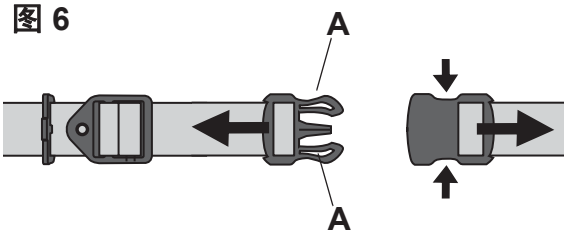
继续执行下一页的步骤。

图 5



4 将带扣相互插入，扣上安全带。确保紧固卡扣的箭头形状面朝上 **(A)**。**（如图 5 所示）**

图 6

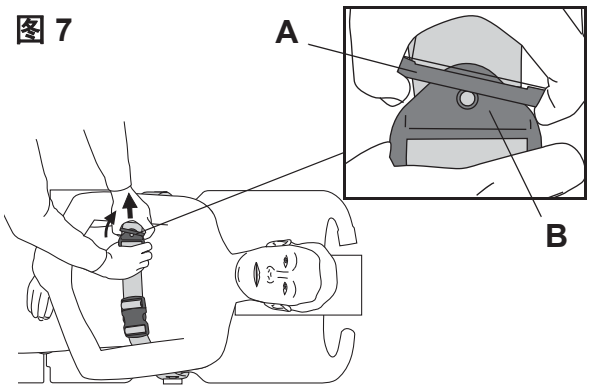


5 按下弹簧旋钮 **(A)**，松开安全带，同时将带扣相互拉开。**（请参阅图 6）**

调整 （6 个步骤）

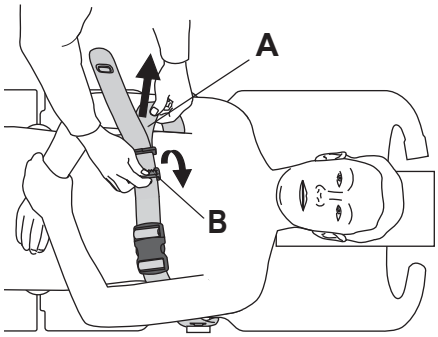
露出上方安全带

图 7



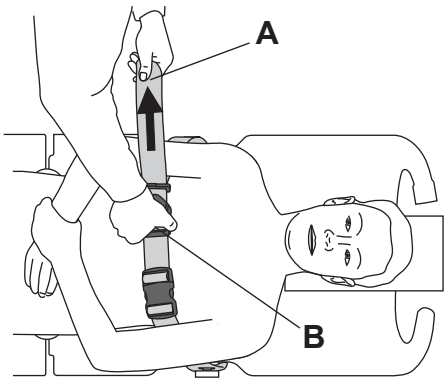
1 将较小的紧固卡扣 **(A)** 略微向上扭转，使紧固卡扣 **(A)** 与 **(B)** 分离。**（请参阅图 7）**

图 8



2 拉拽内部吊带 **(A)**，同时抬起较大的紧固卡扣 **(B)**，将安全带松开。**（请参阅图 8）**

图 9

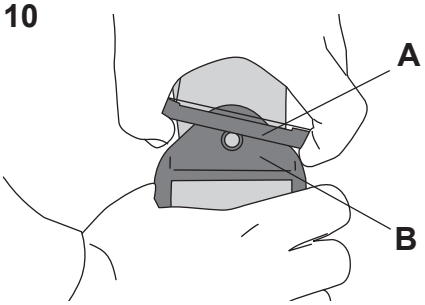


3 拉拽外部吊带 **(A)** 并同时握住较大的紧固卡扣 **(B)**，将安全带系紧。**（请参阅图 9）**

4 确保安全带与患者的身体牢固连接。

继续执行下一页的步骤。

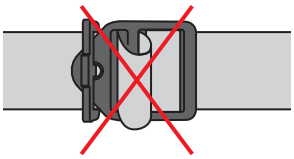
图 10



5 将较小的紧固卡扣 **(A)** 插入较大的紧固卡扣 **(B)**，将紧固卡扣锁定。**（请参阅图 10）**

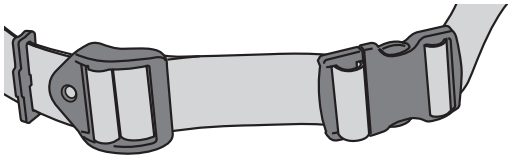
6 锁定后，确保安全带不会在紧固卡扣中形成环。**（请参阅图 11）**

图 11



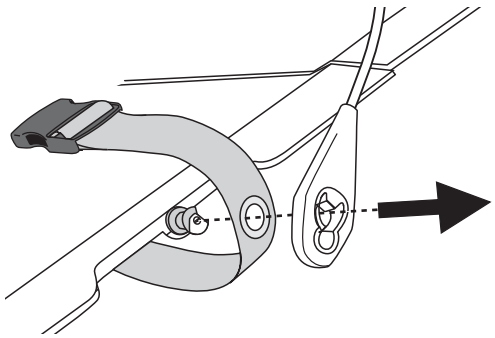
不使用时 （1 个步骤）

图 12



1 *Miranti* 升降淋浴推车不使用时，确保将安全带扣在担架上。**（如图 12 所示）**。

图 13



解除 （1 个步骤）

1 将钩绳**（仅限上方的安全带）**和安全带从旋钮上拉开。**（如图 13 所示）**。

转运患者

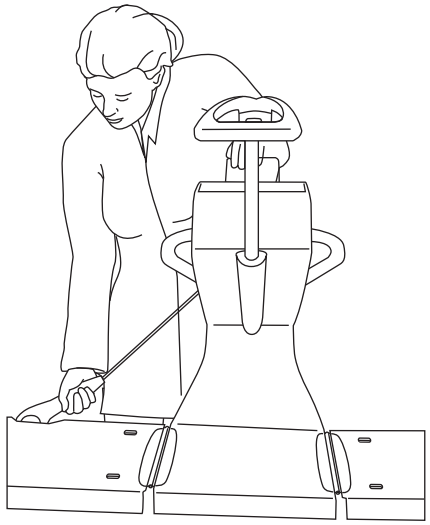
警告

为避免人身伤害，应始终有专人看护患者。

从床上

（17 个步骤）

图 1



1 如适用，对病床施加车轮制动。

2 向下折叠病床护栏。

3 给床上的患者脱衣，穿上浴衣，最好是背部有纽扣的浴衣。

4 选择 *Miranti* 升降淋浴推车的一端作为靠背，并将钩绳固定在这一端。如果可能，从 *Miranti* 升降淋浴推车的右侧靠近患者，以便将其转移到浴缸。

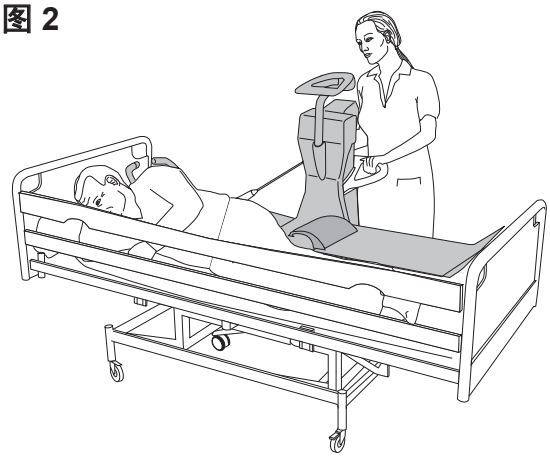
5 如果有必要，请将安全带系好。必须将安全带系在钩绳**之前**。**（请参阅图 1）**

6 将大腿支撑板放置到位。

7 转动患者，使他/她躺在离 *Miranti* 升降淋浴推车稍远的一侧。

8 将担架移至床的上方，尽可能靠近患者。**（如图 2 所示）**

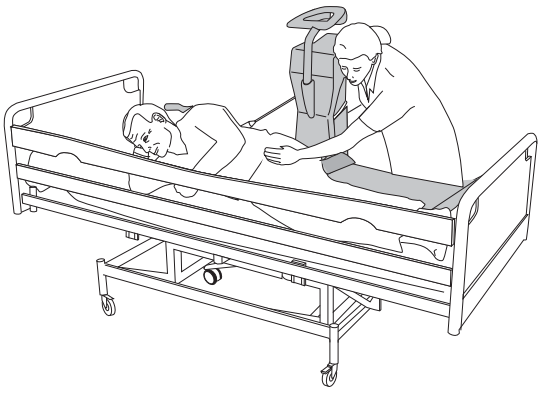
图 2



9 降低 *Miranti* 升降淋浴推车，使其座椅牢固压在床上。确保身体的任何部位没有被夹在座椅和床之间。必须将钩绳松弛开来。**（如图 2 所示）**

10 启动 *Miranti* 升降淋浴推车中央制动器。

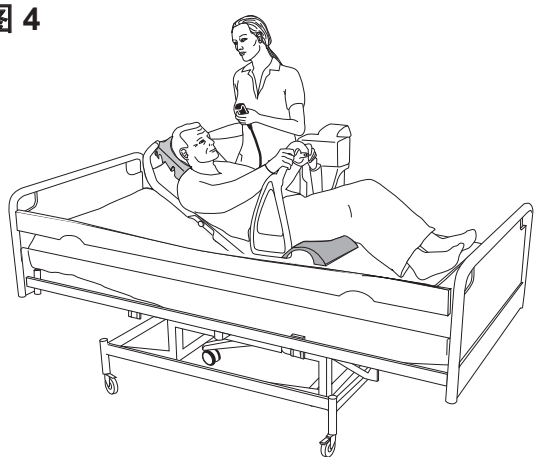
图 3



11 转动患者背部，确保他/她躺在担架上的正确位置。**（如图 3 所示）**

继续执行下一页的步骤。

图 4

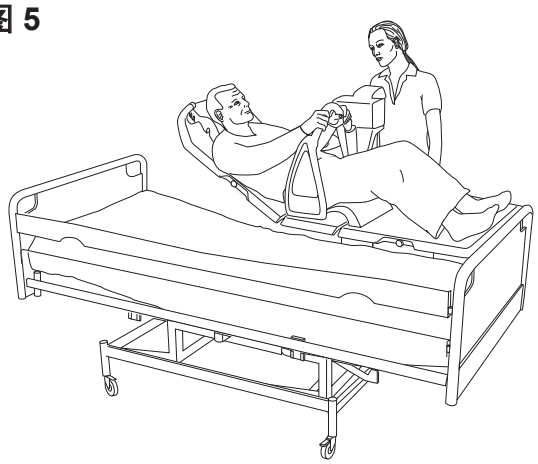


12 降低患者安全手柄和侧护栏。将头枕放在适当位置，将靠背抬高到患者感觉舒适的高度。让患者把手放在患者安全手柄上。**（如图 4 所示）**

13 将 *Miranti* 升降淋浴推车担架抬高至可将它从床上移开的高度。

14 释放 *Miranti* 升降淋浴推车中央制动器。

图 5



15 **警告**

为避免卡夹，应确保患者的头发、手臂和双脚贴近躯干，而且在任何移动过程中均使用指定把手。

将 *Miranti* 升降淋浴推车从床上拉走。确保 *Miranti* 升降淋浴推车完全离开床和其他任何设施。**（如图 5 所示）**

图 6



16 **警告**

为了避免使用中的设备倾倒，切勿在靠近它的位置升降其它设备，而且在降低设备时应注意静止物体。

将担架降低至护理人员感到舒适的位置。转移时握住转移手柄。**（请参阅图 6）**

17 转移患者之后，始终确保他/她保持正确的坐姿。

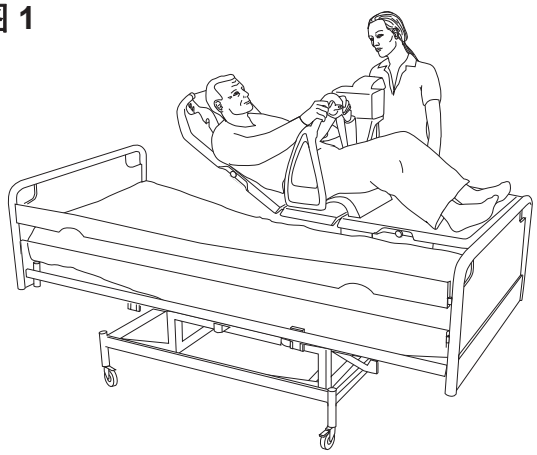
到床上

（16 个步骤）

警告

为了避免患者在转移过程中摔倒，应确保在使用的所有设备上启用制动器。

图 1



1 如适用，对病床施加车轮制动。

2 向下折叠病床护栏。

3 如果 *Miranti* 升降淋浴推车从浴缸处移出：在床上放一条毛巾，以免将床弄湿。

4 调整 *Miranti* 升降淋浴推车的高度，使担架与床保持一个安全距离。**（请参阅图 1）**

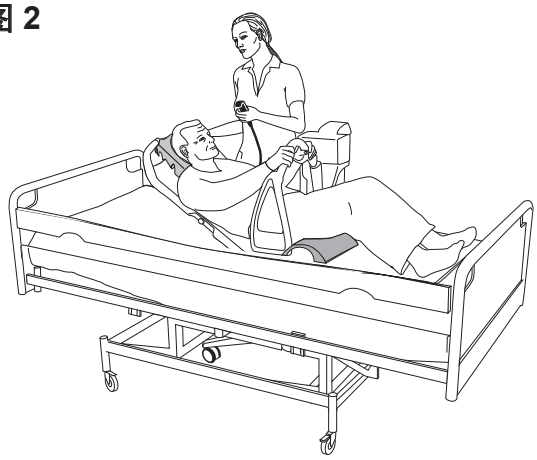
5 **警告**

为避免卡夹，应确保患者的头发、手臂和双脚贴近躯干，而且在任何移动过程中均使用指定把手。

将 *Miranti* 升降淋浴推车移至床的上方。

6 启动中央制动器。

图 2



7 **警告**

为了避免夹卡或挤压生殖器，确保在浴缸边缘、马桶、便盆或其它家具上方移动时有足够的空隙。

让患者把手放在患者安全手柄上。降低 *Miranti* 升降淋浴推车，使其座椅牢固压在床上。确保身体的任何部位没有被夹在担架和床之间。**（如图 2 所示）**

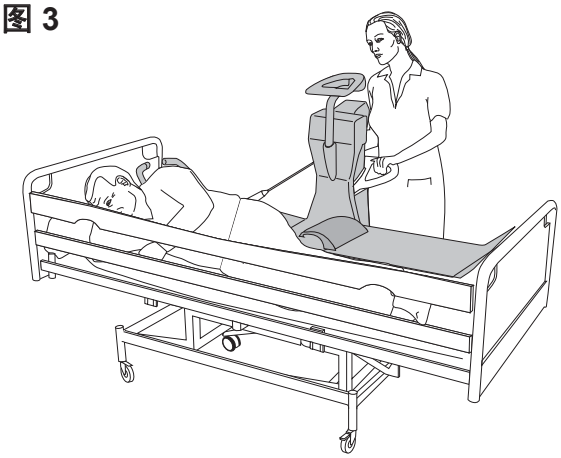
8 降低靠背直至担架放平。

9 抬高患者安全手柄和侧护栏。

10 将安全带从患者身上取下。

继续执行下一页的步骤。

图 3



11 转动患者，使他/她躺在离 *Miranti* 升降淋浴推车稍远的一侧。**（如图 3 所示）**

12 抬高担架，将它与床分开。

13 释放中央制动器。

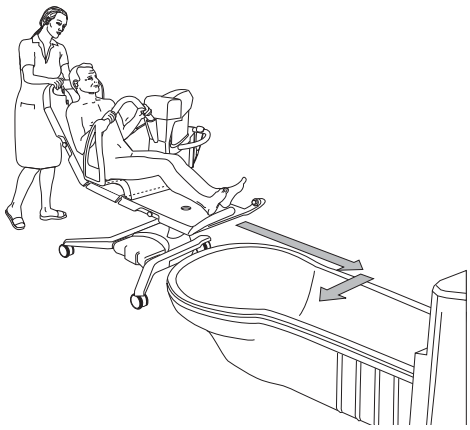
14 将 *Miranti* 升降淋浴推车从床上拉走。

15 转动患者，使他/她仰卧。

16 折叠病床护栏。

患者洗浴

图 1



请阅读沐浴设备的单独使用说明。

电力传动

（9 个步骤）

1 抬起担架以避开浴缸边缘。**（见图 1）**

图 2



2 启动电动传动装置，沿着浴缸侧面移动患者，最后横向推动患者至浴缸内。注意浴缸的腿。**（请参阅图 2）**

图 3



3 将浴缸提升至舒适高度 （如果浴缸可调节）。**（请参阅图 3）**

4 降低担架，使其靠在浴缸底部。

5 降低靠背至患者感觉舒适的位置。

6 患者洗浴

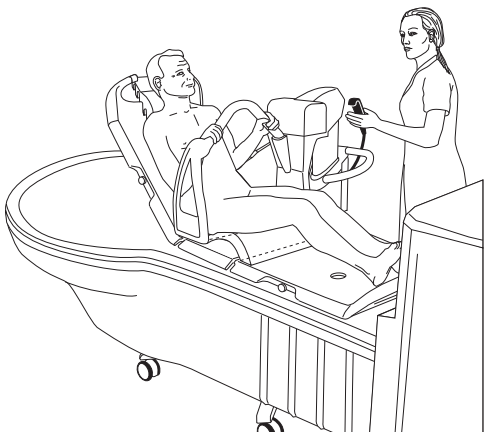
图 4



7 洗浴结束后，排尽浴缸里的水。抬高靠背。让患者将手放在安全柄上。将浴缸降低至最低位置。为患者淋浴。**（如图 4 所示）**

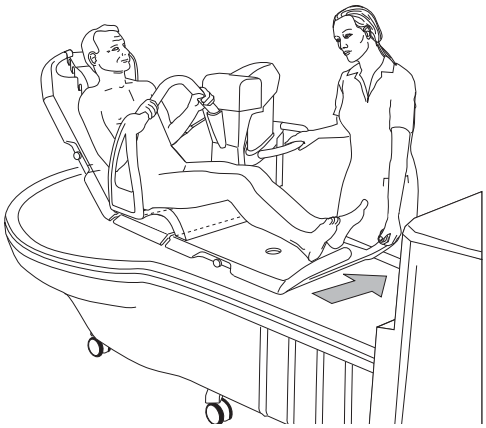
继续执行下一页的步骤。

图 5



8 在将 *Miranti* 升降淋浴推车从浴缸处移走之前，先将患者身体和担架下方擦干，以免水滴到地面上。升高担架。
（如图 5 所示）

图 6



9 启动电动传动装置，将 *Miranti* 升降淋浴推车从浴缸处移出。**（如图 6 所示）**

手动传动

（2 个步骤）

图 7



1 升高担架以避开浴缸边缘，然后将患者移至浴缸上方。
（如图 7 所示）

图 8



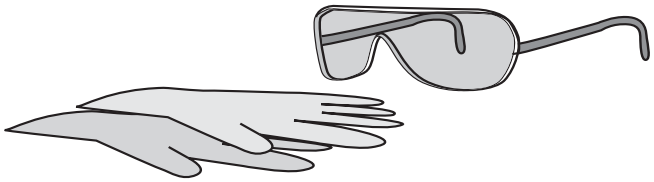
2 将 *Miranti* 升降淋浴推车从浴缸处拉走。**（如图 8 所示）**

清洁和消毒指示

为获得最佳的效果，只能使用 Arjo 品牌消毒剂。
如果您对设备消毒有任何问题，或希望订购消毒液（请参阅*第 42 页的部件和附件*部分），请联系您当地的 Arjo 工作人员。

在每位患者使用后以及在工作日结束时，均应执行以下规程。

警告



为避免眼睛和皮肤受伤，请始终佩戴护目镜和手套。如果发生了接触，请使用大量水冲洗。如果眼睛或皮肤有刺痛感，请立即就医。应始终查阅消毒剂的安全材料说明书和材料安全数据表 (MSDS)。

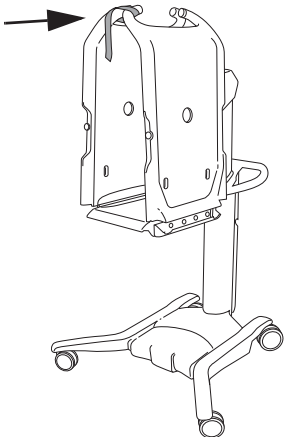
警告

为了预防交叉感染，必须遵守本 *IFU* 中的消毒说明。

警告

为避免眼睛或皮肤过敏，切勿在病人在场时消毒。

警告



为避免护理人员受伤，要确保担架在消毒过程中保持折叠状态。用附随绑带或用手将其固定。

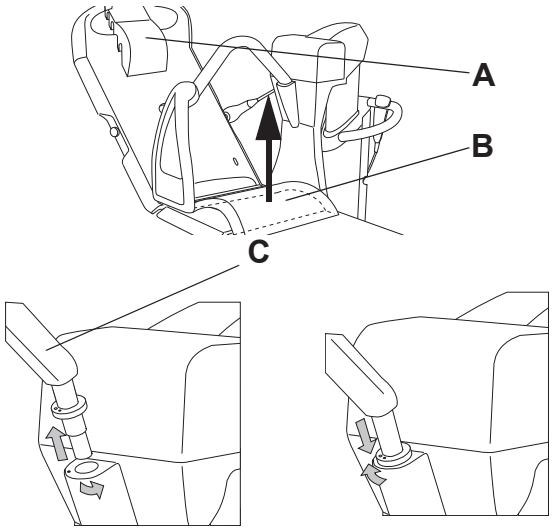
小心

为避免损坏设备，只能使用 Arjo 品牌消毒剂。

Miranti 升降淋浴推床消毒用附件

- 防护手套
- 护目镜
- 装有消毒剂的喷雾瓶
- 装有水的喷雾瓶
- 干布和湿布
- 一次性纸巾
- 软毛刷
- 长柄软毛刷

图 1

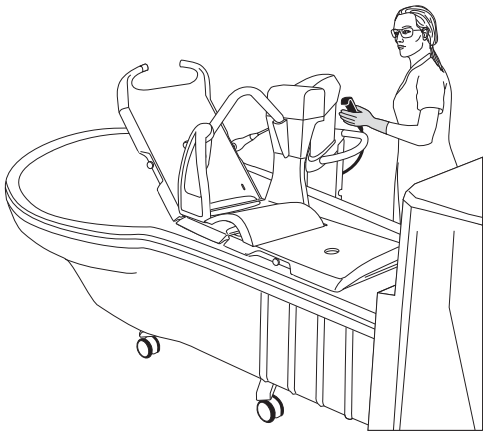


进行清洁和消毒时，必须始终遵守下述 17 个步骤

清除肉眼可见的残留物 （17 个步骤中第 1-3 步）

1 取下头枕 **(A)**、大腿支撑板 **(B)**，患者安全手柄 **(C)** 和安全带，将它们放在浴缸的底部。**（请参阅图 1）**

图 2



2 将 *Miranti* 升降淋浴推车放置到浴缸上方，然后将其降低。**（如图 2 所示）**

3 清洁：

- 用浸湿水的布清除 *Miranti* 升降淋浴推车上部 （从顶部开始向下移动）
- 所有拆除部件

上的肉眼可见残留物。用刷子边淋水边刷洗和/或用布擦拭。

继续执行下一页的步骤。

图 3

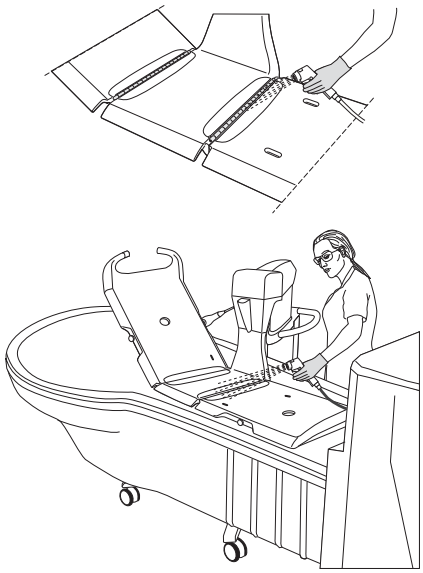


图 4

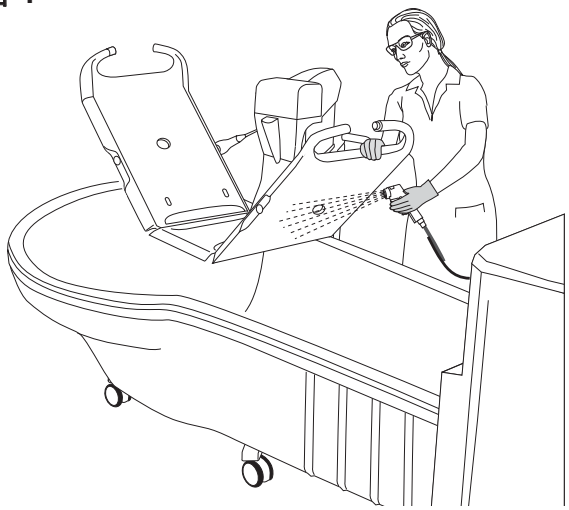
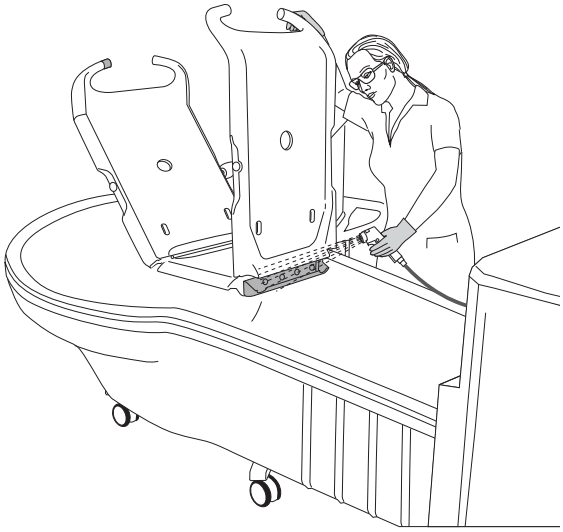


图 5



清洁 （17 个步骤的第 4-11 步）

4 戴上防护手套和护目镜。

5 大多数 Arjo 浴缸配有消毒用的喷雾手柄。请阅读浴缸说明书中有关如何使用消毒剂的信息。检查消毒剂液位。

6 如果没有这种集成的消毒设备，可以使用普通喷雾瓶，所用的消毒剂应根据消毒剂瓶上印刷的说明进行配制。

7 将消毒剂喷洒在 **（如图 3、 4 和 5 所示）：**

- *Miranti* 升降淋浴推车上部
- 所有拆除部件

使用浸入消毒剂的刷子彻底擦洗，特别是手柄和手持式控制器。在 *Miranti* 升降淋浴推车上：要特别注意担架上侧的铰链和患者安全手柄的底座以及担架下侧的通道。

8 用水淋浴 （约 25 °C (77 °F)），或者用大量水喷涂，然后使用干净布擦拭，将所有消毒剂清除。

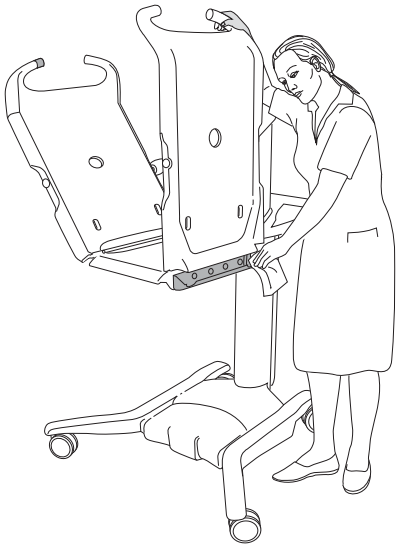
9 将擦布浸入消毒剂中并擦拭 *Miranti* 升降淋浴推车底盘等所有其他区域。

10 用水浸湿一块新擦布，并用它擦掉 *Miranti* 升降淋浴推车其他区域上的所有消毒剂痕迹。清除消毒剂时，必须不时地用自来水冲洗布子。

11 如果无法将消毒剂清除干净，可向受影响的部位喷水，然后用一次性抹布擦掉。反复操作直到清除掉所有的消毒剂。

继续执行下一页的步骤。

图 6



消毒 （17 个步骤中的第 12-17 步）

12 在以下部位喷涂消毒剂：

- *Miranti* 升降淋浴推车上部
- 所有拆除部件

13 将擦布浸入消毒剂中并擦拭 *Miranti* 升降淋浴推车底盘等所有其他区域。

14 根据消毒剂瓶上标牌的说明留出消毒时间。

15 用水喷涂或淋浴 （约 25 °C (77 °F)），然后使用干净布擦拭，将下列部位上的所有消毒剂痕迹清除：

- *Miranti* 升降淋浴推车上部
- 所有拆除部件
- *Miranti* 升降淋浴推车底盘等所有其他区域

在去除消毒剂过程中，不时地用自来水冲洗布子。**（请参阅图 6）**

16 如果无法将消毒剂清除干净，可向受影响的部位喷水，然后用一次性抹布擦掉。反复操作直到清除掉所有的消毒剂。

17 让所有部件干燥。

电池说明

警告

为避免人身伤害，不得挤压、刺破、拆开、分解或以其它机械方式破坏电池。

- **如果电池外壳裂开，并导致内容物接触皮肤或衣物，应立即用清水冲洗。**
- **如果内容物进入眼睛，立即用大量清水冲洗并迅速就医。**
- **吸入内容物可能导致刺激呼吸道。应呼吸新鲜空气并就医。**

- 小心不要使电池跌落。
- 在丢弃电池时，请联系当地有关管理机构，听取建议。
- 请查看电池上的标牌。

低电量警告

电池电量不足时会发出嗡嗡声。此时应尽快为电池充电。

电池的存放

- 尽管电池在出厂时已充满电，但由于存在缓慢的自放电现象，建议您在到货之后再次对其进行充电。
- 在不使用的时候，电池会缓慢地自行放电。
- 应在 -0 °C 至 +30 °C （32 °F 至 86 °F）温度范围内储存或运输电池，低温会延长其使用寿命。
- 为了极大地提高电池性能，切勿在高于 50 °C (122 °F) 的温度下储存电池。

安装充电器

请参阅 *电池充电器 IFU*。

如何为电池充电

请参阅 *电池充电器 IFU*。

保养和预防性维护

Miranti 升降淋浴推车容易出现磨损和破损，为确保产品保持其原始制造规格，必须执行下述保养和维护措施。

警告

为避免因故障而导致伤害，确保进行定期检查并遵循推荐的维护计划。在某些情况下，由于产品频繁使用和暴露在恶劣环境下，需要更经常地进行检查。本地法规和标准可能比推荐的维护计划更严格。

注意
患者使用产品期间，不能对产品进行维护和维修。

Miranti 升降淋浴推车预防性维护计划

护理人员职责 （措施/检查）	每天	每周	每两年
消毒	X		
检查机械连接		X	
目视检查安全带		X	
检查手持控制器及电缆		X	
检查并清洁脚轮		X	
检查中央制动器制动功能和制动片		X	
目视检查电池和充电器		X	
目视检查所有外露部件		X	
检查绞盘挂钩和钩绳		X	
检查侧护栏和患者安全手柄的连接和锁定		X	
更换安全带			X

警告

为避免伤害患者和护理人员，切勿改装设备或使用不兼容的部件。

图 1



图 2

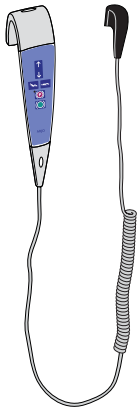


图 3

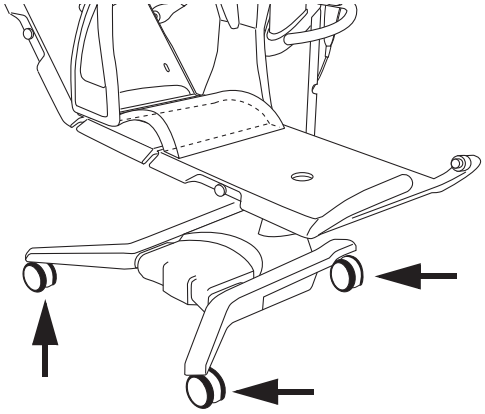
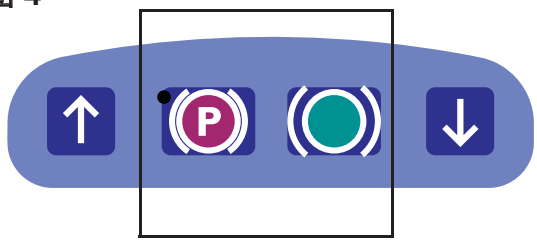


图 4



护理人员职责

护理人员职责必须由充分了解 *Miranti* 升降淋浴推车的人员遵照本 *IFU* 相关说明来完成。

每日

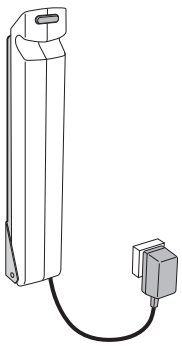
- **消毒。**每次使用后，必须立即对 *Miranti* 升降淋浴推车进行消毒。必须按照**建议的浓度**使用 Arjo 消毒剂和洗发水。请参阅*第 24 页的清洁和消毒指示*部分。

每星期

- **目视检查所有外露部件，**尤其是患者或护理人员可接触到的部位。确保未形成任何裂缝或尖锐边缘，这些可能导致患者或使用者受伤，或影响设备的卫生状况。更换损坏的部件。
- **检查机械附件，**将脚放在底盘上，用双手向上拉座椅。不能有空隙。**（见图 1）**
- **检查手持式控制器及电缆：**目视检查手持控制器及其电缆状况。如有断裂或损坏，请将其更换。**（请参阅图 2）**
- **检查脚轮是否正确固定，能够灵活滚动和转向。**用水清洗（肥皂、毛发、灰尘和清洁地面的化学品，可能影响其功能）。**（请参阅图 3）**
- **检查中央制动器的制动功能和制动片，**启动中央制动器并试着移动患者移位机。如果不将患者移位机从地板上抬起就不可能移动它。**（如图 4 所示）**

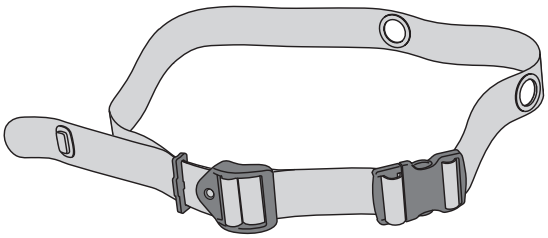
继续执行下一页的步骤。

图 5



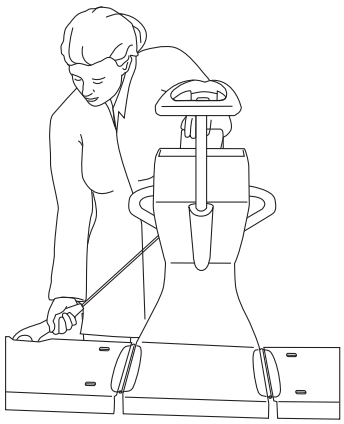
- **目视检查充电器、电缆和电池的状况。**如有损坏，立即断开并更换。**（如图 5 所示）**

图 6



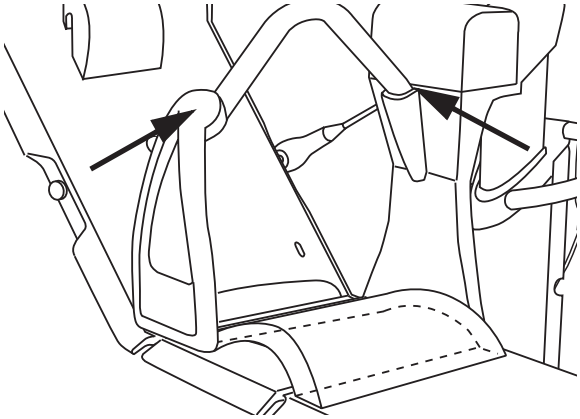
- **目视检查安全带。**检查整条带内是否存在磨损、裂口、断裂、撕裂、内部丝线外露或其它明显损坏。如果发现有损坏，请将其更换。**（如图 6 所示）**

图 7



- **检查绞盘挂钩和钩绳有无损坏。**如有损坏，请将其更换。**（如图 7 所示）**

图 8



- **检查侧护栏和患者安全手柄的连接和锁定。**所有连接应牢固固定到位。**（如图 8 所示）。**

每年

必须按照表*第 32 页的授权人员职责（措施/检查）*的说明对 *Miranti* 升降淋浴推车进行保养。

警告

为避免伤害和/或使用不安全的产品，必须由对相应程序具备足够知识的授权人员使用适当工具和部件按适当的频率进行维护。授权人员必须具有本设备的培训和维护证书。

授权人员职责 （措施/检查）	每年	每两年
更换制动片	X	
进行安全承重测试 （根据当地要求）	X	
润滑内部型材	X	
检查电池和充电器	X	
检查称重器校准是否完成 （如果已连接但未检验）	X	
检查所有重要部件是否存在锈蚀/损坏	X	
执行全面功能检查	X	
检查机械连接	X	
检查是否实施了最新升级	X	
检查安全停止功能	X	
检查紧急升高/降低功能	X	
检查脚轮	X	
更换绞盘挂钩和钩绳		X
更换导向件、下衬套和外轮廓密封件		X
更换执行器上的塑料十字		X
检查电力传动脚轮		X
润滑绞盘上的齿轮		X
润滑螺旋电缆		X

注意
在执行表*第 32 页的授权人员职责 （措施/检查）*中的检查事项时，应检查表*第 29 页的护理人员职责（措施/检查）*中的所有检查事项。

故障排除

问题	措施
移位机只能执行降低操作。	本设备的升降装置配有一个安全螺母。如果启用了这个安全螺母，则只能将本设备降低到安全位置。在这种情况下请停止使用本设备并联系授权人员进行维修。

注意
如果本产品没有正常工作，请立即联系您当地的 Arjo 工作人员寻求支持。

技术规格

Miranti 升降淋浴推车型号 CEB8X0X	
安全承重 (SWL) （患者最大体重）	160 kg (353 lbs)
最大抬升重量 （移位机和称重器）	103 kg (227 lbs)
医疗设备	型号
使用温度 （水温）	+20 °C 至 +45 °C （+68 °F 至 +113 °F）
温度	操作：+10 °C 至 +40 °C （+50 °F 至 +104 °F） 运输：–20 °C 至 +70 °C （-4 °F 至 +158 °F） 存储：–20 °C 至 +70 °C （-4 °F 至 +158 °F）
湿度	操作：+20 °C (+68 °F) 下 30-75% 运输：10-80% （+20 °C (+68 °F) 下） 存储：10-80% （+20 °C (+68 °F) 下）
大气压力	800 hPa 至 1060 hPa 操作 500 hPa 至 1100 hPa 运输 500 hPa 至 1100 hPa 存储
噪音级别	< 58 dBA
操作模式	ED 最大值 10% ；打开最多 2 分钟； 关闭至少 18 分钟
控制装置操作力	2.7 N
污染程度	2

电气	
电池编号 NDA 0100	密封铅酸电池 24 V， 4 Ah
电池充电器	NDA 1200-EU、 NDA 2200-GB、 NDA 4200-US、 NDA 6200-AU 和 NDA 8200-INT
防护级别	IP X4
保险丝	F1 F10AL 250 V
保险丝	F2 T2.5AL 250 V

允许组合	
Miranti 升降淋浴推车面板与下列 Arjo 产品配套使用	通用医院/护理机构病床，间隙为150 mm（5 7/8”）系统 2000 浴缸
不允许进行其他组合。	

回收
本设备应依照相关国家/地区规定进行回收。

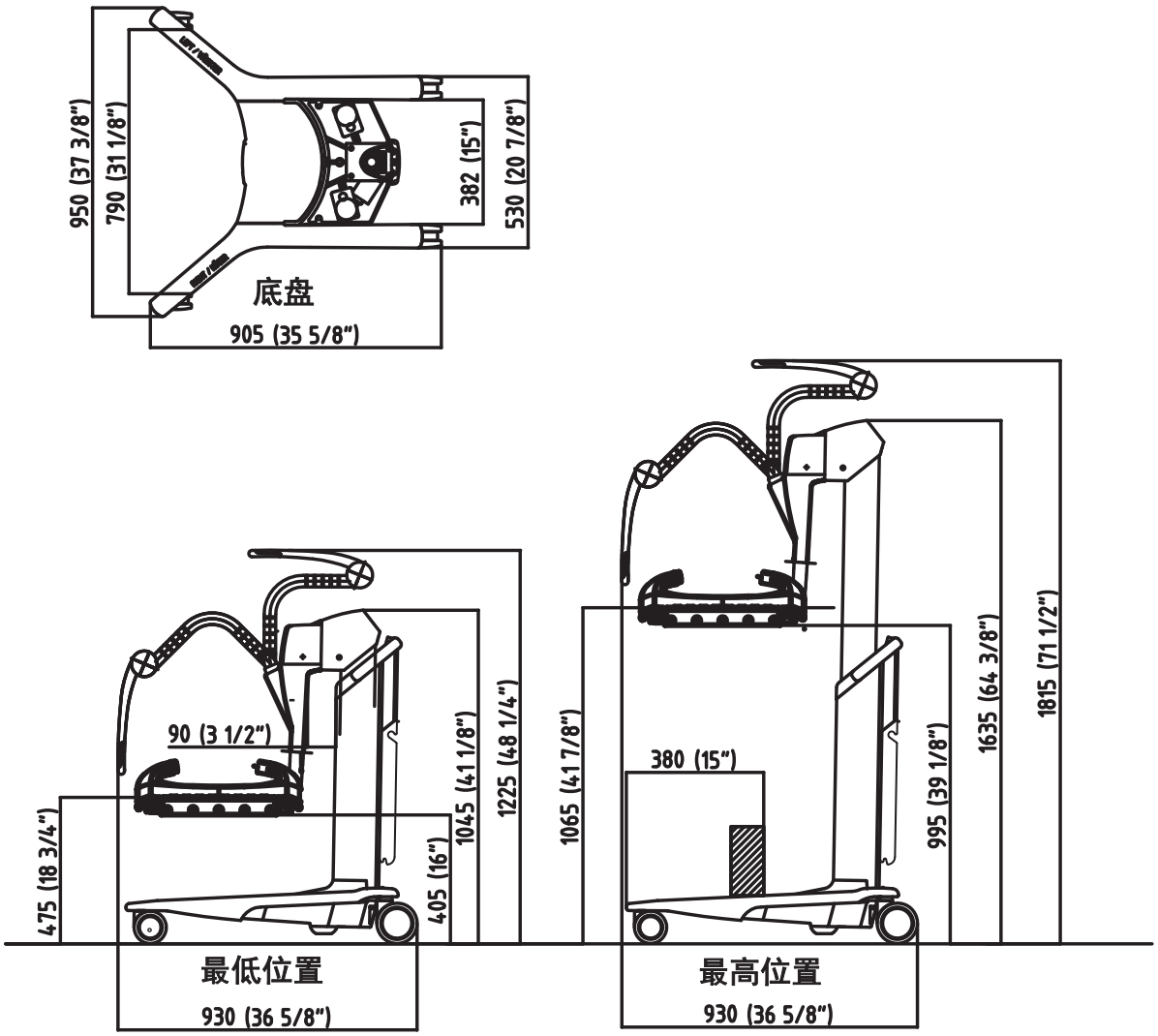
包装	木质和瓦楞纸板，可回收

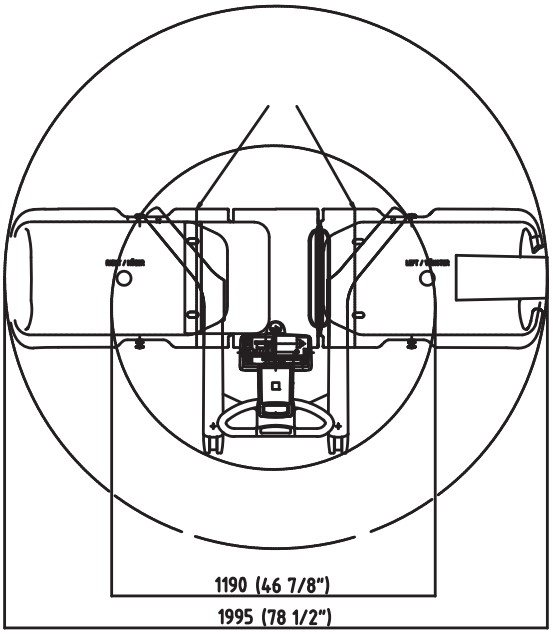
废弃处置

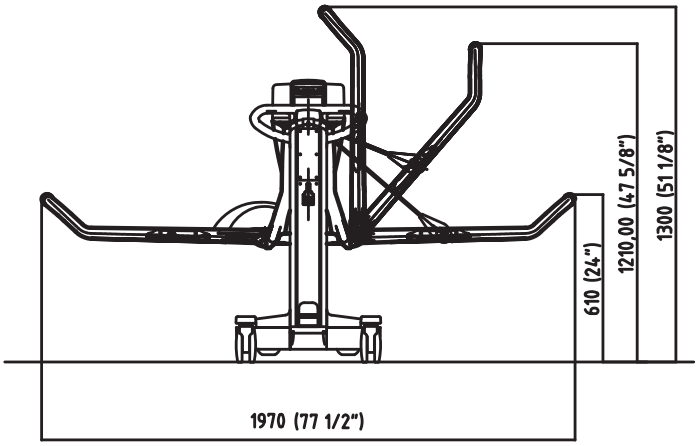
- 产品中的所有电池必须单独回收。应按照国家和地方法规处理电池。
- 吊兜含有加强筋/稳定器、填充材料、其他纺织品或聚合物或塑料等，应归类为可燃废弃物。
- 移位机系统含有电气和电子部件或电线，应按照废弃电气和电子设备（WEEE）或根据当地或国家法规进行拆卸和回收。

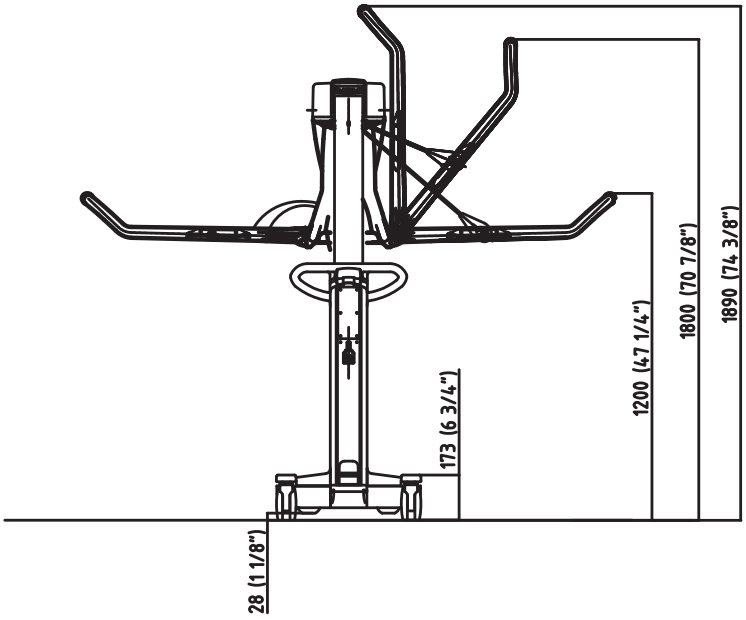
吊杆、护栏、直立托架等部件主要由各种金属材料 （按重量计含有 90%以上的金属）组成，应作为金属进行回收。

尺寸


950 (37 3/8")
790 (31 1/8")
382 (15")
530 (20 7/8")
底盘
905 (35 5/8")
90 (3 1/2")
475 (18 3/4")
405 (16")
1045 (41 1/8")
1225 (48 1/4")
最低位置
930 (36 5/8")
1065 (41 7/8")
380 (15")
995 (39 1/8")
1635 (64 3/8")
1815 (71 1/2")
最高位置
930 (36 5/8")


1190 (46 7/8")
1995 (78 1/2")


610 (24")
1210,00 (47 5/8")
1300 (51 1/8")
1970 (77 1/2")

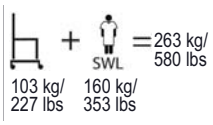
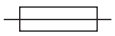

28 (1 1/8")
173 (6 3/4")
1200 (47 1/4")
1800 (70 7/8")
1890 (74 3/8")

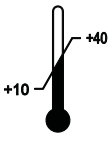
标签

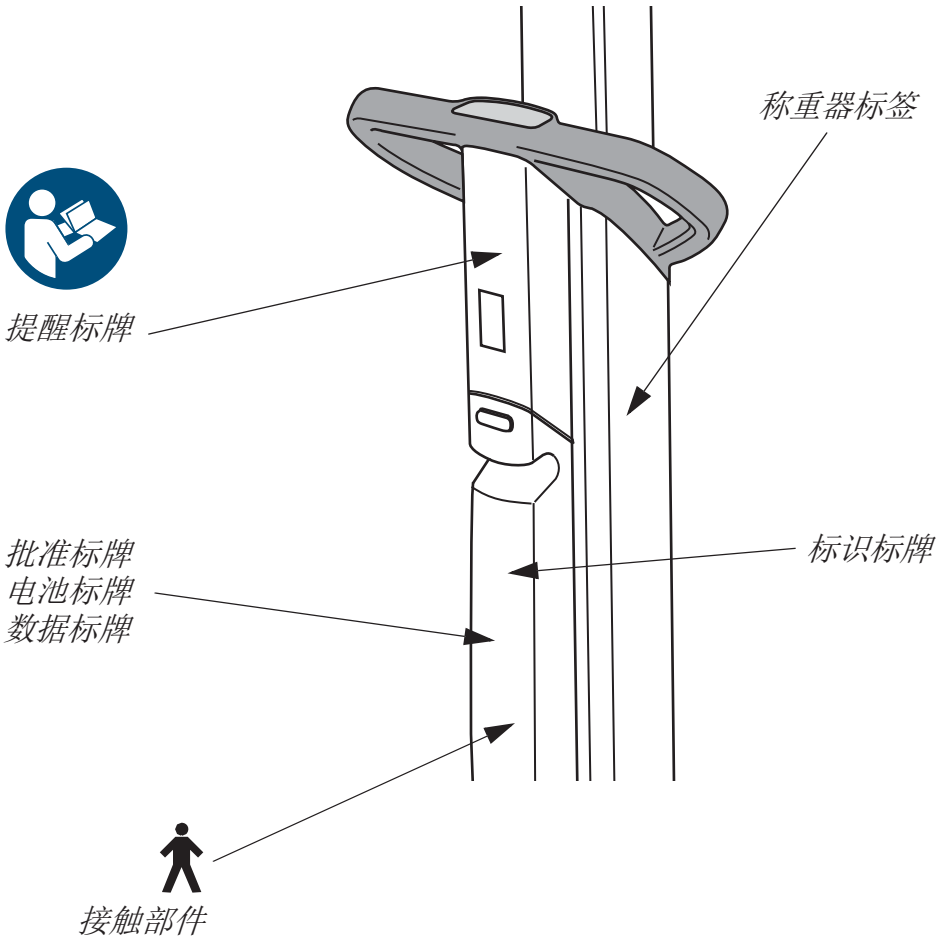
标牌说明

提醒标牌	关于正确使用本产品的重要信息。
电池标牌	描述关于电池的安全与环保信息。
数据标牌	描述技术性能与要求，如：输入功率、输入电压与患者最大体重等。
标识标牌	描述产品标识、序列号和制造年份与月份。

符号说明

	B 型接触部件：电击防护符合 IEC 60601-1 规定要求
SWL	安全承重 160 kg (353 lbs)。
	包括设备安全承重在内的总质量。
	升降行程 590 mm (23 1/4")
24V DC	输入电压
最大：150 VA	最大功率
	保险丝 F1：F10AL 250 V 保险丝 F2：T2.5AL 250 V
IP X4	防护等级 （即：产品具备防溅防护等级）
ED 最大 10%	升/降功能操作模式： ED 最大值 10%； 打开最多 2 分钟； 关闭至少 18 分钟
NDA0100-XX	电池产品编号
	请在使用前阅读本 *IFU*。
	本设备采用电池作为电源。
	可回收
	遵循欧盟指令 2012/19/EU (WEEE) 的规定单独回收电气和电子组件

	由 Underwriters Laboratories Inc. 分类，满足认证和标准列表中有关电击、火灾、机械危险以及其它指定危险的规定要求。
	CE 标志表明符合欧洲共同体的统一立法数字表示公告机构的监督。
	表示该产品是符合欧盟医疗器械法规 2017/745 的医疗器械
	环境危险 —— 含铅。 不得丢弃；
	制造商的名称和地址
	制造日期
最大值	称重仪器的最大称重能力
最小值	称重仪器的最小称重能力
e	称重器检验间隔时间
	计量标记，表明符合指令 2014/31/EU (NAWI) yy = 年份（仅适用于 III 级称重器）
	型号
	序列号
	表示使用称重器的最低/最高温度


称重器标签
提醒标牌
批准标牌
电池标牌
数据标牌
标识标牌
接触部件

标准与证书列表

标准/证书	说明
EN/IEC 60601-1:2005 AMD1:2012	医疗电气设备 - 第 1 部分：关于基本安全和性能的常规要求
ANSI/AAMI ES60601-1 (2005) AMD 1 (2012)	医疗电气设备 - 第 1 部分：关于基本安全和性能的常规要求
CAN/CSA-C22.2 No. 60601-1:14	医疗电气设备 - 第 1 部分：关于基本安全和性能的常规要求
ISO 10535:2006	供残疾人转移用的患者移位机 -- 要求和测试方法

电磁兼容性

产品经检验，在拦截外部电磁干扰 (EMI) 的能力方面符合当前的监管标准。

采用以下程序有助于降低电磁干扰：

- 仅使用 Arjo 电缆和零配件，以避免辐射的增加或抗干扰能力降低，以及避免导致设备无法正常运作。
- 确保其他病人监控或生命保障设备符合可接受的辐射标准。

警告

无线通信设备 （如：无线计算机网络设备、手机、无绳电话及其基站、对讲机等）可能影响此设备，因此应与本设备保持至少 1.5 米距离。

适用环境：专业医疗机构环境

例外：高频外科设备、用于磁共振成像的 ME 系统射频屏蔽室

警告

应避免邻近或堆叠在其他设备在使用本设备，这可能造成工作不正常。如果必须这样使用，应观察本设备和其他设备，检查它们是否工作正常。

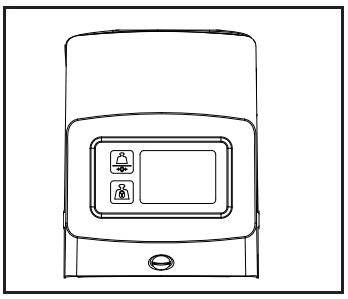
指导和制造商声明 - 电磁辐射		
辐射测试	**合规**	**指导**
射频辐射 CISPR 11	组别 1	此设备仅将射频能量用于其内部功能。因此，其射频辐射非常低，不太可能对附近的电子设备产生任何干扰。
射频辐射 CISPR 11	B 级	本设备适于在所有的设施中使用，包括家用设施和直接连接到家用住宅公共低压供电网。

指导和制造商声明 - 电磁抗扰性			
抗扰性测试	**IEC 60601-1-2 试验电平**	**符合电平**	**电磁环境 – 指导**
静电放电 (ESD) EN 61000-4-2	±2 kV, ±4 kV, ±8 kV, ±15 kV 空气放电 ±8 kV 接触放电	±2 kV, ±4 kV, ±8 kV, ±15 kV 空气放电 ±8 kV 接触放电	地板应为木质、水泥或瓷砖。如果地板上覆盖合成材料，相对湿度应至少为 30%。
由射频场感应产生的传导干扰 RF fields EN 61000-4-6	3 V — 0.15 MHz 至 80 MHz 6 V — ISM 及 0.15 MHz 至 80 MHz 业余无线频率 80% AM — 1 kHz	3 V — 0.15 MHz 至 80 MHz 6 V — ISM 及 0.15 MHz 至 80 MHz 业余无线频率 80% AM — 1 kHz	如果便携式和移动射频通信设备的发射器输出功率额定值超出 1 瓦特，禁止在距离产品任何部件 （包括电缆）不到 1 米的位置使用此类设备 [a]。固定射频发射器的场强 （通过现场电磁勘测来确定），在每个频率范围中应低于合规水平 [b]。 可能会在标有以下符号的设备附近产生干扰： 
辐射射频电磁场 EN 61000-4-3	专业医疗保健环境 3 V/m 80 MHz 至 2.7 GHz 80% AM — 1 kHz	专业医疗保健环境 3 V/m 80 MHz 至 2.7 GHz 80% AM — 1 kHz	
近场射频无线通信设备 EN 61000-4-3	385 MHz - 27 V/m 450 MHz - 28 V/m 710, 745, 780 MHz - 9 V/m 810, 870, 930 MHz - 28 V/m 1720, 1845, 1970, 2450 MHz - 28 V/m 5240,5500, 5785 MHz - 9 V/m	385 MHz - 27 V/m 450 MHz - 28 V/m 710, 745, 780 MHz - 9 V/m 810, 870, 930 MHz - 28 V/m 1720, 1845, 1970, 2450 MHz - 28 V/m 5240,5500, 5785 MHz - 9 V/m	
电快速瞬变 / 脉冲群 EN 61000-4-4	±1 kV SIP/SOP 端口 100 kHz 重复频率	±1 kV SIP/SOP 端口 100 kHz 重复频率	
电源频率磁场 EN 61000-4-8	30 A/m 50 Hz 或 60 Hz	30 A/m 50 Hz	电频磁场应该为普通商用或医用环境下普通场所内的一般水平。

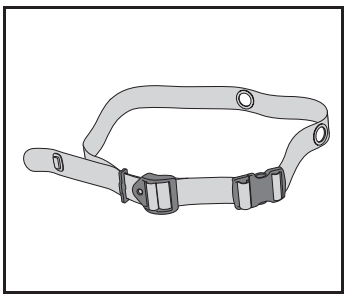
[a] 固定发射器的场强，如无线电基站 （移动/无绳）电话和陆地移动电台、业余无线电台、 AM 和 FM 无线电广播和电视广播，无法预测理论上的精度。为了评估固定射频发射器产生的电磁环境，应考虑进行现场电磁勘测。如果在产品使用位置测得的电场强度超过上述适用射频符合水平，应观察产品是否正常运行。如果观察到其性能出现异常，可能需要采取附加措施。

[b] 如频率范围为 150 kHz 至 80 MHz，磁场强度应小于 1 V/m。

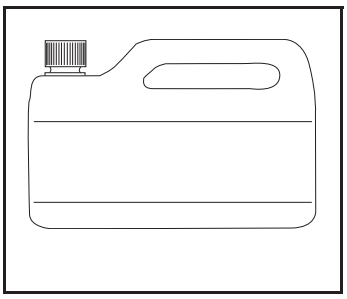
部件和附件



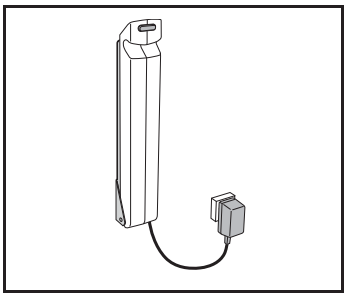
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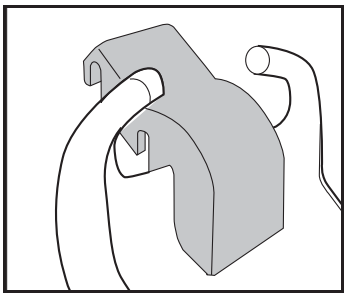
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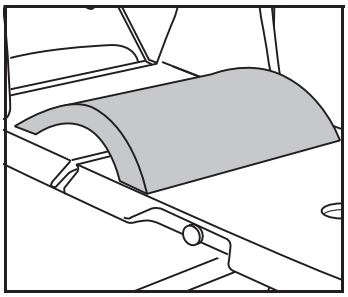
有关消毒剂方面的信息，请咨询 Arjo 当地的工作人员



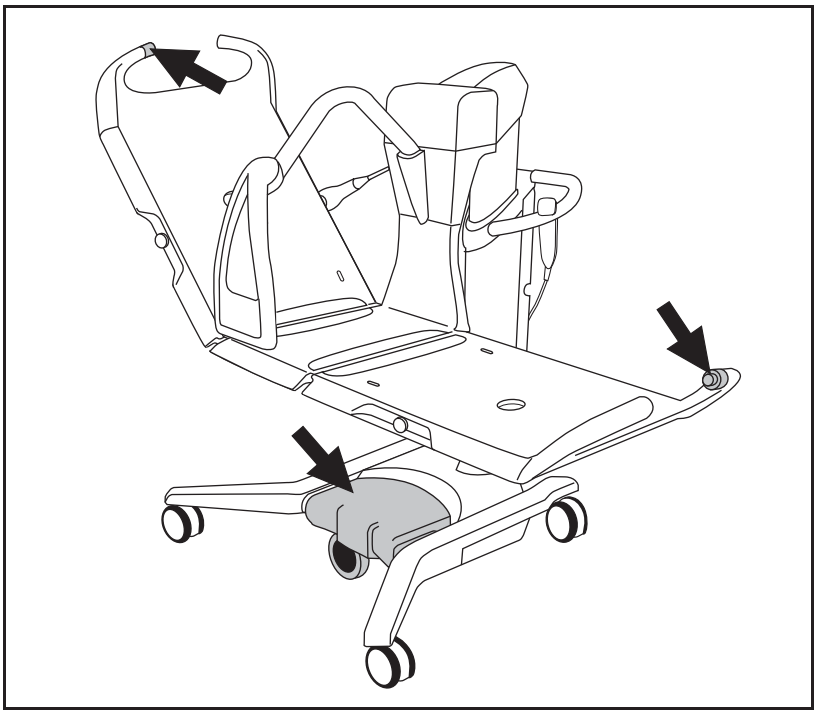
电池与电池充电器



头垫



大腿支撑板



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Address page - REV 24: 04/2019

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At Arjo, we are committed to improving the everyday lives of people affected by reduced mobility and age-related health challenges. With products and solutions that ensure ergonomic patient handling, personal hygiene, disinfection, diagnostics, and the effective prevention of pressure ulcers and venous thromboembolism, we help professionals across care environments to continually raise the standard of safe and dignified care. Everything we do, we do with people in mind.

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