

INSTRUCTIONS FOR USE

# Voyager Portable 200



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# General Information

Thank you for buying the *Voyager Portable 200* lift from Joerns Healthcare.

Your *Voyager Portable 200* is part of a series of quality products designed specially for home care, nursing homes and other health care uses.

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 Joerns Healthcare product.

Contact us if you have any questions about the use or maintenance of your Joerns Healthcare product.

## Foreword

Please read this manual in its entirety. The information contained in it is crucial to the proper use and maintenance of the *Voyager Portable 200*. It will help protect your product as well as ensure that the equipment performs to your satisfaction.

Lifting and transferring a person always present a potential risk. Some of the information in this manual is important for your safety and must be read and understood to help prevent injuries.

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.

**WARNING: Joerns Healthcare strongly advises and warns that only parts designated by Joerns Healthcare should be used on products and other devices supplied by Joerns Healthcare. Injuries can be caused by the use of inadequate parts.**

**WARNING: Unauthorized changes on any Joerns Healthcare product may affect its safety. Joerns Healthcare will not be held responsible for any accidents, incidents or deficiencies of performance that occur as a result of any unauthorized changes to its products.**

Tested according to standards by: 

## Service and Support

Your *Voyager Portable 200* must be regularly serviced by a Joerns Healthcare trained technician to ensure that it remains safe and functional. See “Care and Maintenance” section.

Please contact your local Joerns Healthcare agent if you need more information, want to report an unexpected event or need any help in setting up, using or maintaining your *Voyager Portable 200*. The agent can offer support and service programs to maximize the long-term safety, reliability and value of the product. Contact your local agent for replacement parts.

Additional copies of this manual can be bought from your local Joerns Healthcare agent. When ordering, include the *Instructions for Use* part number (see *front page*) and the product part number.

## Manufacturer Information

**This product has been manufactured by:**

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Hans Michelsensgatan 10  
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# General Information

## Definitions Used in this Manual

### WARNING:

**Means:** Failure to follow these instructions may result in injury to yourself and others.

### CAUTION:

**Means:** Failure to follow these instructions may cause damage to the product.

### NOTE:

**Means:** This is important information regarding the correct use of the equipment.

## Intended Use

The Voyager Portable 200 is designed to assist caregivers in hospitals, long-term care, nursing homes and home care environment, including private homes & patients with reduced mobility for these reasons:

- 1) Transferring to/from adjacent location, such as chair, wheelchair, bed, bath, toilet, floor or stretcher;
- 2) Supporting the patient for rehabilitation training;
- 3) Assisting patient with tasks such as, toileting and bed positioning.

Patient transfers must be done under the supervision of appropriately trained caregivers in accordance with the instructions found in this manual. The product must only be used for the reasons stated above. It must be installed by Joerns Healthcare authorized personnel, following local codes.

## Operational Life

The product is designed and tested for a useful life of seven (7) years or 10,000 transfers—whichever comes first—when subject to preventive maintenance as specified in the “Care and Maintenance” section. Time equivalence between the number of transfers versus the number of years is made clear in the table in Fig. 1.

Transfers per Day	Years (10,000 transfers)
4	7
6	4.5
8	3.5

Fig. 1

**WARNING:** The manufacturer cannot ensure full safety for a portable lift or an accessory of which the life span has been exceeded. Wear may cause the breakage of a part and lead to a patient fall.

The red indicator light on the portable lift will blink when it is about halfway to its useful life, and again to indicate the end of the useful life period.

Aging of the cassette, frequency of use (transfers per day), the weight of the patient and maintenance frequency are factors that have an impact on the *Voyager Portable 200's* life span.

A transfer is defined as the displacement of a patient from one point to another. A transfer cycle includes a lifting and a descending action.

The expected operational life for fabric slings and stretchers is approximately 2 years from purchase date. The life expectancy only applies if the slings and stretchers have been cleaned, maintained and inspected in accordance with the “Preventive Maintenance Schedule.”

The expected life for other consumable products, such as batteries, fuses, lamps, slings, straps and cords is dependent upon the care and usage of the product concerned. Consumables must be maintained in accordance with published *Instructions for Use* and the “Preventive Maintenance Schedule”.

## Product Identification

The unit's identification number (specification, model, serial number) appears on a silver nameplate affixed below the casing (see Fig. 12 on page 26).

## Package Contents

Upon receipt of the equipment, verify it against the packing list to ensure it is complete. Inspect it for possible damage due to shipping. If this the case, contact your local Joerns Healthcare agent.

## How to Use this Manual

**WARNING:** Do not attempt to use this lift without fully understanding the information contained in this manual. A misuse of this unit may lead to a patient fall and to injuries.

Keep this manual with the lift and refer to it as required.

# General Information

## Symbols Used

General Symbols	Key to symbols
	Date of manufacture and address of the manufacturer.
	Conformity with European Community harmonised legislation.
	Approval of the Canadian Standards Association.
<b>REF</b>	Manufacturer's catalogue number.
<b>SN</b>	Manufacturer's serial number.
	Refer to the <i>Instructions for Use</i> .
	Waste Electrical and Electronic Equipment (WEEE) - do not dispose of this product in general household or commercial waste.
	Risk of pinching.
<b>SWL</b>	Maximum load the lift is rated for safe operation.
<b>IP<sub>N<sub>1</sub></sub>N<sub>2</sub></b>	Degree of protection provided by enclosure. N <sub>1</sub> : Ingress of particles, N <sub>2</sub> : Ingress of water.
	Direct current.
	Alternating current.
	Type BF applied part.

General Symbols	Key to symbols
	Medical Device according to EU Medical Device Regulation 2017/745.
	Unique Device Identifier

Charger Related Symbols	Key to symbols
	Class II electrical equipment: electrical equipment in which protection against electric shock does not rely on basic insulation only.

UK SYMBOL EXPLANATION	
This section is only applicable to United Kingdom (UK) market when UK marking is applied to the Joerns Healthcare medical device labelling.	
	UK marking indicating conformity with UK Medical Devices Regulations 2002 (SI 2002 No 618, as amended).  Figures indicate UK Approved Body supervision.
<p><b>UK Responsible Person:</b>  <b>Arjo (UK) Ltd, ArjoHuntleigh House, Houghton Regis. LU5 5XF</b>                      Is the appointed UK Responsible Person as defined in UK Medical Devices Regulations 2002 (SI 2002 No 618, as amended).</p> <p><b>UK Importer/Distributor:</b>  <b>Joerns Healthcare Ltd, Drakes Broughton Business Park, Worcester Road, Drakes Broughton, Pershore, Worcestershire. WR10 2AG</b></p> <p>For Northern Ireland (NI) CE marking will still apply until further amendment to applicable regulations.</p>	

# Safety Instructions

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If there is anything you are not sure about, or if you notice any changes in the performance of your lift, contact your local Joerns Healthcare agent.

## General Instructions.

**CAUTION:** The *Voyager Portable 200* is for transferring patients only. Do not use it for any other reason. It could get damaged and the safety of the patient may be compromised.

**WARNING:** Always place the sling around the patient according to the instructions found therein. Failure to do so may result in injuries to you or to others.

**CAUTION:** Do not drop the lift. It may cause internal damage. If the portable lift is suspected to be damaged, contact your local Joerns Healthcare agent.

## Safe Working Load

The *Voyager Portable 200* has been designed with a lifting capacity of 200 kg (440 lb).

**WARNING:** The *Voyager Portable 200* is intended to be used for patients whose weight is within a specified safe working load. Do not attempt to lift more than the lowest weight limit indicated on the following:

- the rail system;
- the “maximum load” label on the lift;
- the accessories;
- the sling.

Surcharge of any of these elements may lead to a patient fall and to injuries.

# Safety Instructions

## Important Safety Directions

Always ensure that:

- The portable lift was installed by an approved Joerns Healthcare contractor or installer.
- The product is used by trained caregivers.
- The rail installation will accept a load equal or higher to that of the portable lift.

**WARNING: Before attempting a transfer, a clinical assessment of the patient's suitability for transfer should be carried out by a qualified health professional. The transfer, among other things, may induce substantial pressure on the patient's body. A transfer conducted when it should not can degrade the patient's health condition.**

- Special consideration is taken with a patient who is connected to electrodes, catheters or other medical devices.
- Violent impact during transfers is avoided.
- The sling is not damaged, torn or frayed.
- The lifting procedures found in this manual are followed.
- All controls and safety features are used only according to the rules specified in this manual. Never attempt to force a control or button on the lift.
- The charger is not stored in a shower, bath or other areas with high humidity.
- The sling straps are in good condition and properly fastened.
- The daily maintenance is carried out before using the lift.
- If storing the lift, the humidity in the storage area does not exceed 100%.
- The ambient temperature range when storing the *Voyager Portable 200* remains between –25°C and 70°C (-13°F to 158°F).

**WARNING: This product contains small parts that might present a choking hazard for children if swallowed or inhaled.**

**WARNING: Joerns Healthcare warns of possible strangulation risks related to the lifting strap or the hand control cable. Necessary precautions should be taken to prevent these.**

**CAUTION: Keep all components of the lift clean and dry to avoid a malfunction of the device.**

**CAUTION: Excessive exposure of the hand control to water (or other liquids) could cause a malfunction of the device.**

## Shock Prevention

- Do not touch or use a lift with bare conductors or a damaged power cord. If this is the case, contact your local Joerns Healthcare agent immediately.
- Do not expose the unit to water or moisture.
- Check nameplate for input voltage and frequency requirements. These ones differ by country. Do not attempt to use the lift in an area that has a different voltage and frequency requirement.
- Do not attempt to expose, service or repair the lift, battery or charger. If the unit is malfunctioning, contact your local Joerns Healthcare agent.
- Read batteries and charger instructions carefully before using or storing them.

## Fire and Explosion Prevention

**WARNING: Do not place or store the battery under direct sunlight or near a heat source.**

**WARNING: Do not expose the batteries or battery charger to flames. They might open, causing a chemical leak.**

**WARNING: Do not use the charger in the presence of flammable anaesthetic gases. These are inflammables. The charger might generate a spark, which could cause an implosion.**

- Do not short circuit the battery terminals.
- Do not incinerate the battery.

# Safety Instructions

## Human and Environmental Safety Practices

- 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.
- For recycling and disposal of the batteries, the rules according to the WEEE directive (Waste of Electronic and Electrical Equipment) as well as local laws and regulations must be followed. If not they may explode, leak and cause personal injury. When returning batteries, insulate their terminals with adhesive tape. Otherwise, the residual electricity in used batteries may cause fire or explosion. Fig. 2 below shows the symbols for disposal and recycling.

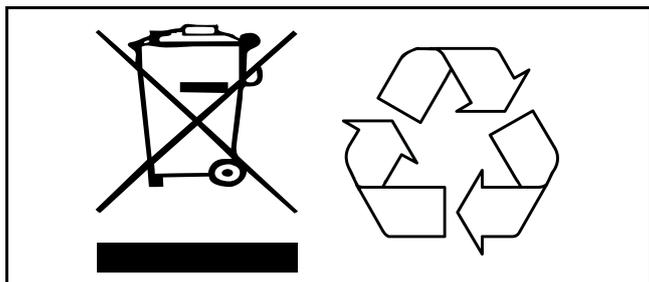


Fig. 2

## Battery and Battery Charger Safety Practices

**WARNING:** Following the instructions is important for the safe use of the battery and to keep the user (resident/caregiver) from harm.

The batteries for this device are rechargeable batteries.

Only use batteries designed for use with the device. If unsure, do not use the battery. Make sure the battery belongs to the device by comparing the battery label with the technical specifications in the *Instructions for Use*. If battery type cannot be confirmed, call your Joerns Healthcare agent.

- Do not expose the battery charger or connector to water.
- Do not expose the battery or chargers to flames.

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

Stop using the battery if any damage or deformation is noted. Inform technical service before further use.

Please see the “Technical Specifications” in this document for correct disposal and recycling of the battery.

- Be careful not to drop the batteries.
- Only use the charger that has been supplied with the lift.
- Do not charge the batteries in an unventilated area.
- The charger must not be covered or exposed to dust.
- The charger is designed for dry areas only and for normal air humidity conditions.
- Do not store batteries at a temperature higher than 70°C (158°F).

## Equipment Warning Labels

- Carefully read the labels on the battery and follow the instructions.
- Inspect all precautionary labels on the equipment. Order and replace all labels that cannot be easily read.

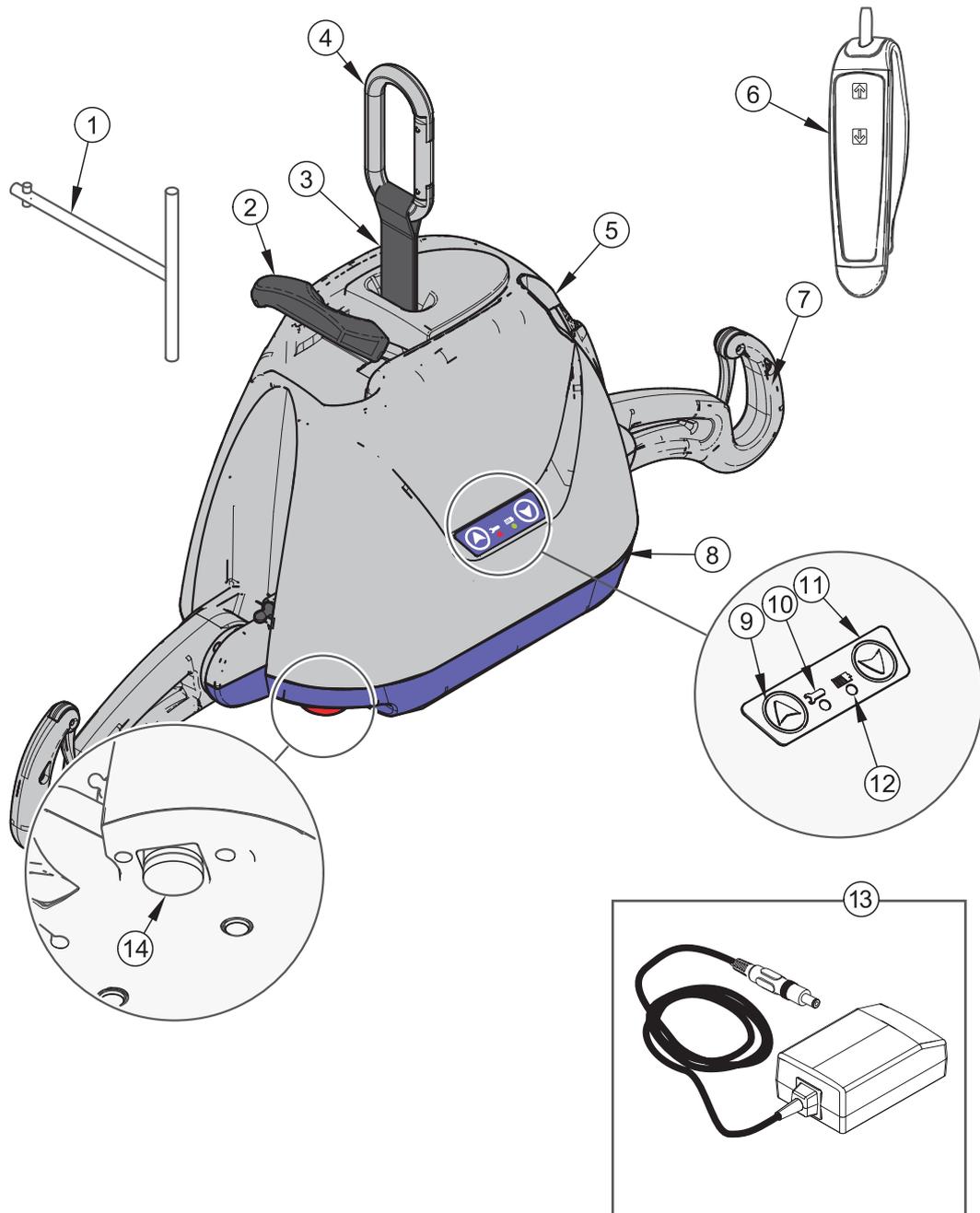
## Homecare Environment Considerations

**WARNING:** The *Voyager Portable 200* is not intended to be operated by children. Serious injuries could occur.

**NOTE:** Rigorous cleaning actions should be done when the *Voyager Portable 200* is exposed to an animal. Pet hair trapped inside the device (through the strap opening) can reduce the product performance.

# Product Description

## Voyager Portable 200 Portable Lift and Charger Station



### Legend

- |                            |                                  |
|----------------------------|----------------------------------|
| 1) Emergency lowering tool | 8) DC charger inlet              |
| 2) Pass through hook       | 9) UP button                     |
| 3) Strap                   | 10) Maintenance indicator light  |
| 4) Carabiner               | 11) DOWN button                  |
| 5) Hand control holder     | 12) Charge indicator light       |
| 6) Hand control unit       | 13) Charger (with mains adaptor) |
| 7) Support                 | 14) Emergency shut-off button    |

Fig. 3

# Product Description

## Hand Control

The *Voyager Portable 200*'s hand control unit is used to operate the portable lift. Each function is described in . The UP and DOWN buttons raise or lower the lift.

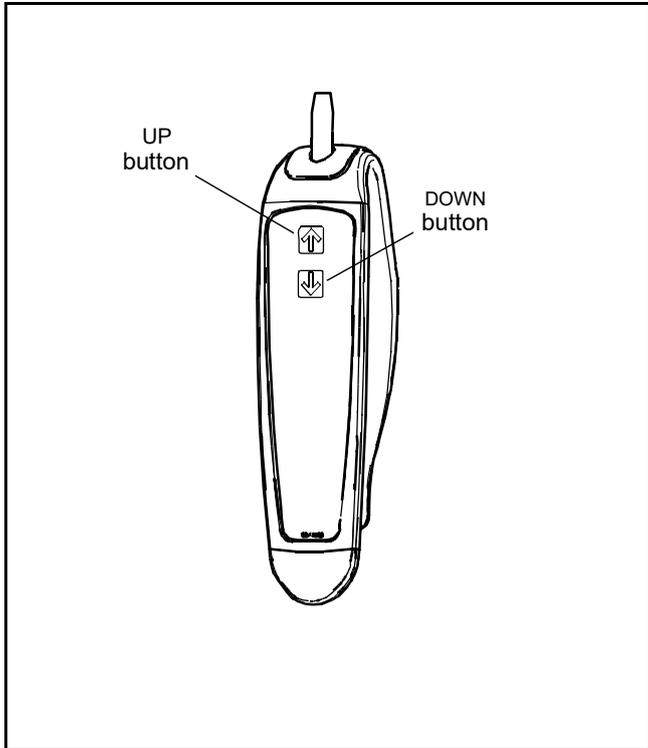


Fig. 4

## Indicators

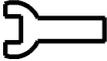
BATTERIES STATUS		
	Flashing	In process of charging batteries.
	Solid	Charging done; batteries charged.
MAINTENANCE		
	Flashing (no beep)	Maintenance required by your local agent.
	Solid (with beep)	Maintenance in overdue. Stop using the lift and contact your local agent for service.

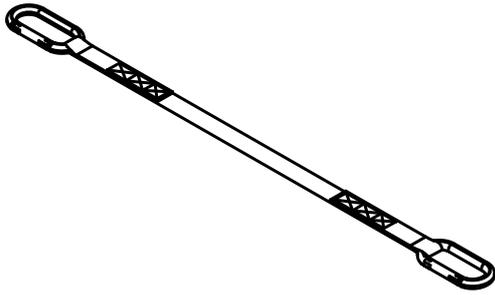
Fig. 5

## Charger

The *Voyager Portable 200* units are equipped with a wall-adapted charger (see Fig. 3) that can be customized to fit the AC voltage outlets where they are sold.

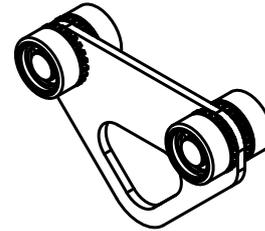
**Note: Avoid positioning the charger such that access to the plug is limited, making disconnection difficult.**

# Accessories



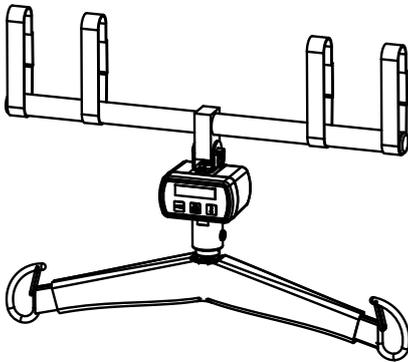
Strap Extension

To use the Strap Extension, refer to the Strap Extension IFU.



Trolley

Trolley for portable ceiling lifts. Used to move the lift along the rail system.

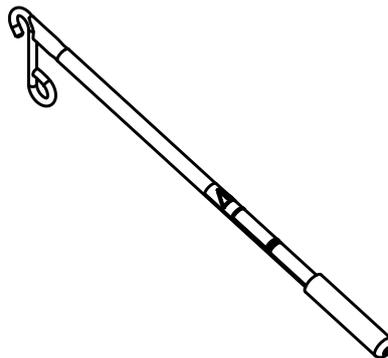


Scale

To use the scale with the scale adaptor, refer to the scale IFU and the scale adaptor IFU.



Carry Bag



Reacher 24" & 36"

To use the Reacher, refer to the Reacher IFU.

Fig. 6

Refer to your local Joerns Healthcare agent for ordering.

**WARNING: All trolleys are not compatible with all rail systems. Please contact your local Joerns Healthcare agent to get more information.**

# Slings

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## Compatible Slings

The Voyager Portable 200 is compatible with all Oxford passive slings from Joerns Healthcare. Refer to your local Joerns Healthcare agent for ordering.

# How to Use the Voyager Portable 200

**WARNING: All rails must be closed with end stoppers or connected to other closed rail components. Before use, make sure all end stoppers are in place and secured. A wrong installation of these items might lead to a patient fall and to injuries.**

**WARNING: The lift must never be operated by the patient. In the unlikely case of a failure, the patient might get stuck in the unit.**

## Use of Slings

The 2 sling supports can accommodate any of the Joerns Healthcare loop attachment slings.

All slings are color coded for size by having a different colored edge binding or attachment strap coloring:

- Brown - Extra Small - XS
- Red - Small - S
- Yellow - Medium - M
- Green - Large - L
- Blue - Extra Large - XL

Joerns Healthcare offers the option of a headrest for many slings if it is considered necessary for a particular patient. A range of special purpose slings are available as accessories. For these or for special size slings, contact your Joerns Healthcare agent.

## Before Approaching the Patient

Attendants should always tell the patient what they are about to do. Make sure to have on hand a sling that is of the correct model and of adequate size for transfer with the *Voyager Portable 200*.

Before performing the transfer, it is important to evaluate the patient's general condition. For example, an agitated patient will require a more specific type of sling.

## Positioning the Patient

The specific sling loops chosen determine the position of the patient. Different loop combinations can be used to allow the patient to be lifted and transferred in positions ranging from semi-reclined to seated. For detailed use instructions, please refer to the sling's user instructions.

## Transferring the Patient

To begin the transferring procedure:

- 1) Install the sling under the patient according to the sling's user instructions.
- 2) Unwind the strap by pressing the DOWN button on the hand control while holding a tension on the strap with the other hand.
- 3) Attach the carabiner to the trolley and then move the lift over the patient.
- 4) Lower the lift below the chin and unfold supports before attaching the sling straps. (This will prevent the lift from striking the patient's face due to the lift's movement).

**Note: There must be tension on the strap for the lift to function.**

**Note: For a patient in a supine position, lower the lift near the chest, unfold supports, then install the straps.**

**NOTE: The back of the sling has sewn handles to allow better positioning for the caregiver and enhancing patient safety.**

# How to Use the Voyager Portable 200

- 5) To attach the sling, unfold the support on each side of the lift. Insert the strap loop onto the support and pull gently on the strap.
- 6) The support safety latch will rotate allowing the strap to slide into the hooks. The strap will be trapped inside the support as the safety latch will automatically revert to the closed position. Do not attempt to transfer a patient if the safety latches are not blocking the support's opening for the strap.

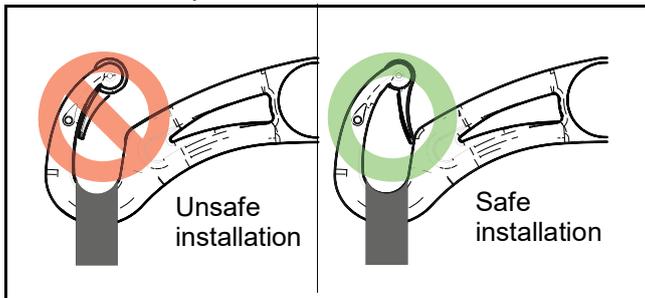


Fig. 7

## **WARNING: Before lifting the patient:**

- 1) Make sure that all straps are attached to the lift's supports.
- 2) Make sure the patient's arms are safely out of the way.
- 3) Make sure the sling is not caught on any obstructions (wheelchair brake or chair arm, etc.).

If any of the above occurs, lower the patient immediately and correct the problem. Any of these situations might lead to a patient falling.

- 7) To lift the patient, press the UP button on the hand control.
- 8) Lift the unit until the patient's buttocks clear the arm supports of the wheelchair, the top of the bath or the bed before moving the patient. Guide the patient's legs past any obstacles.

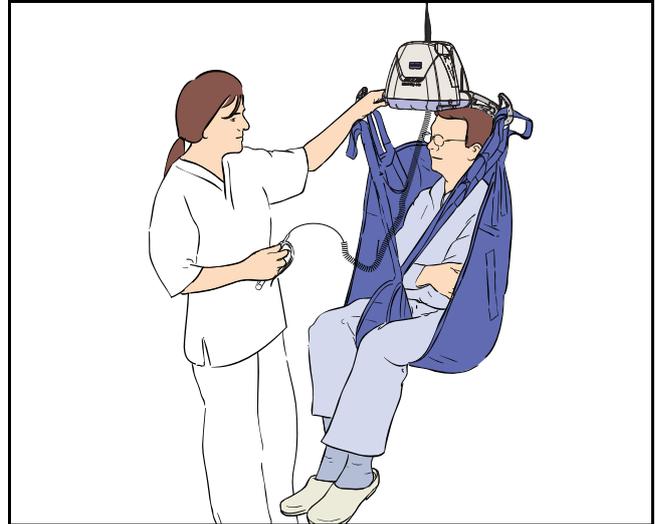


Fig. 8

- 9) When the patient is located above the desired point of transfer and ready to be lowered, press the DOWN button.
- 10) Once the patient is properly seated, loosen the straps and disengage the sling from the lift.

**WARNING: Hold the ceiling lift spreader bar with one hand at all times when near a patient to avoid risk of contact.**

- 11) Slide the lift away from the patient. Unhook the lift from the trolley and use the hand control to shorten the strap. You can now remove the sling from around the patient.
- 12) When the *Voyager Portable 200* is no longer required, plug the portable lift back to the charger.

**WARNING: Constant attention to the patient is required from caregiver during the whole transfer. In the unlikely event of a failure of the device, the caregiver must be ready to react.**

# How to Use the Voyager Portable 200

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## Emergency Shut-off

The operator can shut off the electrical power at any time by pressing the red mushroom-shaped emergency button under the lift. The button is reset by twisting it clockwise in the direction of the arrows. First time users should practice the shut-off manoeuvre before operating the lift with a patient.

## Emergency Lowering

The *Voyager Portable 200* has a special safety feature that allows the lift to be lowered even if the electrical system does not operate.

Located on the right side of the lift (near the folding sling support), the emergency lowering device is activated by the insertion of the special tool included with this manual.

To lower safely a patient, follow these steps, as illustrated in Fig. 9:

- 1) Press on the red, emergency shut-off button under the lift. Move the lift with the patient over the bed or the wheelchair. Remove the plastic cap covering the emergency lowering mechanism's entry.

- 2) Insert the special tool into the opening. Turn it clockwise to lower the patient. The tool rotation turns the motor directly, so that for each tool turn, the patient will lower slightly. Once the patient is lowered safely on a bed or into a wheelchair, remove the tool from the lift. Call a qualified technician to service your *Voyager Portable 200*.

**CAUTION: The emergency lowering feature is to be used only in case of emergency.**

# How to Use the Voyager Portable 200

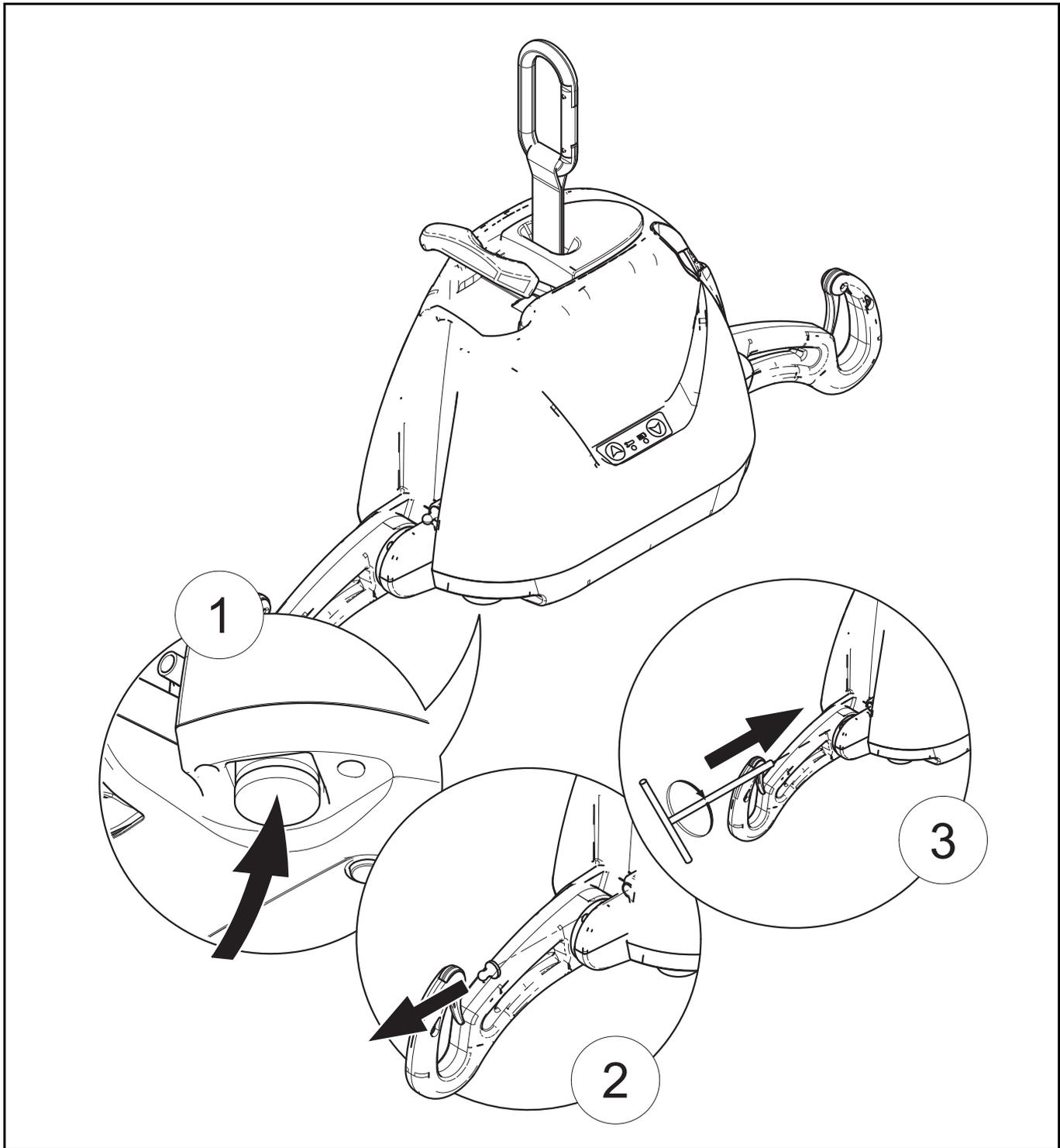


Fig. 9

## Emergency Brake

The emergency brake is an additional safety feature that automatically prevents the patient from falling in the unlikely event of a transmission or motor failure.

**WARNING:** After an incident has occurred and the brake was deployed, never attempt to unlock the brake or press the UP button. This may disengage the brake and make the patient fall. The emergency lowering device cannot be used.

**WARNING:** Never use a portable lift with the emergency brake deployed. Use other equipment to lower the patient. Forcing the lift to make it move might lead to patient fall.

The emergency brake is intended for a single activation and therefore can only be used once. Call your Joerns Healthcare agent for replacement of the unit.

# How to Use the Voyager Portable 200

## Battery Information

For safe handling and to extend the battery lifetime, please follow and remember these instructions.

**WARNING: Not following these instructions can result in a short battery life.**

Only use batteries designed and labelled for use with the device. When not sure, do not use the battery. Make sure the battery belongs to the device by comparing the battery label with the technical specifications in this manual. If battery type cannot be confirmed, call your Joerns Healthcare agent.

Battery life depends on many factors. These are: frequency of use, frequency of charging, temperature of operation, storage and storage time.

Using lead-acid batteries below a 20% charge can damage the battery resulting in shorter battery life.

Make sure to have a replacement battery ready when needed. Have the facility department keep one in stock.

The batteries included in the *Voyager Portable 200* provide 10 to 30 transfers per battery charge.

**NOTE: To prolong battery life, plug the charger to the lift's DC charger inlet whenever the portable lift is not in use. If the low battery indicator beeps, make sure to recharge the batteries as soon as possible. Charge the batteries until the charging indicator light is a solid yellow before using the lift again. This will extend their life.**

**NOTE: Joerns Healthcare uses sealed lead-acid batteries. These ones are not affected by any memory effect. Therefore, they should not be completely drained before recharging.**

## Charging the Batteries

**WARNING: Do not operate the charger with a damaged cord or if the lift has been dropped or damaged. Do not bend the power cord by force, or place a heavy object on it. These could damage the cord and may cause fire or electrical shock.**

The steps for recharging the batteries are as follows:

- 1) Plug the charger into a wall socket compatible with universal voltage input from 100 Vac to 240 Vac.
- 2) Plug the charger's DC connector to *Voyager Portable 200* DC inlet.
- 3) The charge indicator blinks yellow while the battery is charging. When batteries are fully charged, the charge indicator will turn solid. The unit is ready to use (see Fig. 5 on page page 12) .
- 4) If the battery is low, it will take approximately 2 hours for a full charge.

**NOTE: The lift cannot use energy from the charger to operate. If you try to activate any function of the lift when plugged to charger, no command will be activated.**

When you need the lift again, unplug the charger.

The charger can remain plugged to the lift indefinitely, which is convenient for overnight charging. The lift can be charged for an extended period of time without damaging either the charger or the batteries.

If the batteries have been completely drained it could take up to 6-8 hours to completely recharge them. In order to reduce the charging time, refrain from completely draining the batteries and leave the portable lift connected to the charger between uses.

**NOTE: If the charge indicator does not go on or blink when the charger is plugged to the lift's DC charger inlet, see the "Troubleshooting" section.**

**CAUTION: Do not attempt to use a battery that was not supplied by Joerns Healthcare. These batteries are specially designed for Joerns Healthcare charging systems. Attempting to use an unapproved battery may seriously damage the lift and/or the charger.**

# Care and Maintenance

## Preventive Maintenance Schedule

The equipment is subjected to wear and tear, and the following maintenance instructions must be acted upon when specified to ensure that it remains within its original manufacturing specifications. Care and maintenance must be carried out in accordance with the preventive maintenance schedule below.

Customer obligations must be carried out by qualified personnel in accordance with the instructions in this manual.

**WARNING: The maintenance described in the following checklist is the minimum that the manufacturer recommends. In some cases more frequent inspections should be carried out. Continuing to use this equipment without conducting regular inspections or when a fault is found will seriously compromise the safety of the user and of the patient. Local regulations and standards may be higher than those of the manufacturer. A load test is recommended. Service and preventative maintenance can be arranged with the manufacturer. Preventive maintenance specified in this manual can prevent accidents and reduce repair costs.**

**WARNING: Safety related maintenance and authorized service must be carried out by qualified personnel, fully trained in servicing procedures by Joerns Healthcare, and equipped with correct tools and proper documentation, including Parts List and Service Manual. Failure to meet these requirements could result in injuries and/or unsafe equipment.**

**WARNING: Never perform maintenance or service while lift is in use with a patient.**

## User Inspections

Action/check	Initially	Before every use	Every 2 months	Every 4 months	Every year	Every 2 years
<b>Lift device</b>						
Inspect for missing hardware or broken enclosure.	X	X			X	
Inspect strap for wear.		X	X			
Inspect if pass-through hook has any damage (seems loose or you notice cracks).		X				
Recharging batteries.		X				
Inspect the folding sling supports on the strap of the lift for damage or cracks.					X	
Inspect wheels in rail for damage, rust or cracks. Replace if damaged.					X	
Clean the rail.				X		
Overall inspection by authorized personnel.					X	
<b>Sling and hardware</b>						
Check all sling attachments for sign of wear.		X				
Inspect sling material for wear or deterioration.		X				
Inspect sling straps for wear.		X				
Inspect for any defects or loose threads in the "stitched areas".		X				
Clean sling as indicated on the tag.	when necessary					
Verify emergency stop button.				X		
Verify emergency lowering device.				X		

# Care and Maintenance

## Inspections by an Authorized Service Technician

Action/check	Initially	Before every use	Every 2 months	Every 4 months	Every year	Every 2 years
Replace strap.						X
Inspect the welding aspect on the frame to detect cracks.					X	
Inspect transmission.					X	
Inspect connecting joints for proper attachment.					X	
Verify that the emergency brake on the drum is turning freely.					X	
Verify emergency devices for good functioning.					X	
Load test with SWL (maximum working capacity).					X	

**WARNING: Always reinstall the rail end stoppers (if removed) after servicing. These stoppers are part of safety feature. Not having them in place can cause the trolley to fall off the rail and a patient fall.**

**WARNING: Make sure the trolley is compatible with the stoppers and rail system.**

# Care and Maintenance

## Daily Checklist

The following procedures must be followed before each use:

- Charge the batteries. Connect the lift to the charger whenever the lift is not in use.
- Inspect the lift for any damage. If the lift casing does not look properly aligned, or there are any cracks or other damage on the lift, or there are parts missing, DO NOT USE IT. Contact your Joerns Healthcare agent to have the lift serviced.
- Inspect the strap for any visible signs of wear, frays, loose threads or other damage (see ). If there is any evidence of damage, DO NOT USE IT. Contact your local Joerns Healthcare agent to have the lift serviced.
- Inspect the sling for tears, frayed straps or loose stitching. If the sling has any of the above damage, DO NOT USE IT. Contact your local Joerns Healthcare agent to have the sling replaced or repaired.
- Inspect the folding supports for any signs of cracking or damage. Inspect the carabiner at the top of the strap to ensure that it is properly attached.

## Cleaning

### Removing visible residues:

- 1) Use a cloth soaked with water.
- 2) Remove visible residues located on the *Voyager Portable 200*. Start from top and move downwards.

### Cleaning:

- 1) Use a damp cloth with warm water mixed with a mild detergent.
- 2) Scrub the equipment from top to bottom, removing all visible residues.
- 3) Rinse with clean water any remaining residual detergent. Then wipe clean with a dry cloth.

**NOTE: Pay special attention to areas pointed below. These are most likely to enclose germs. Use a smaller brush and/or cotton swab to reach them.**

## Voyager Portable 200's Special Areas to Clean

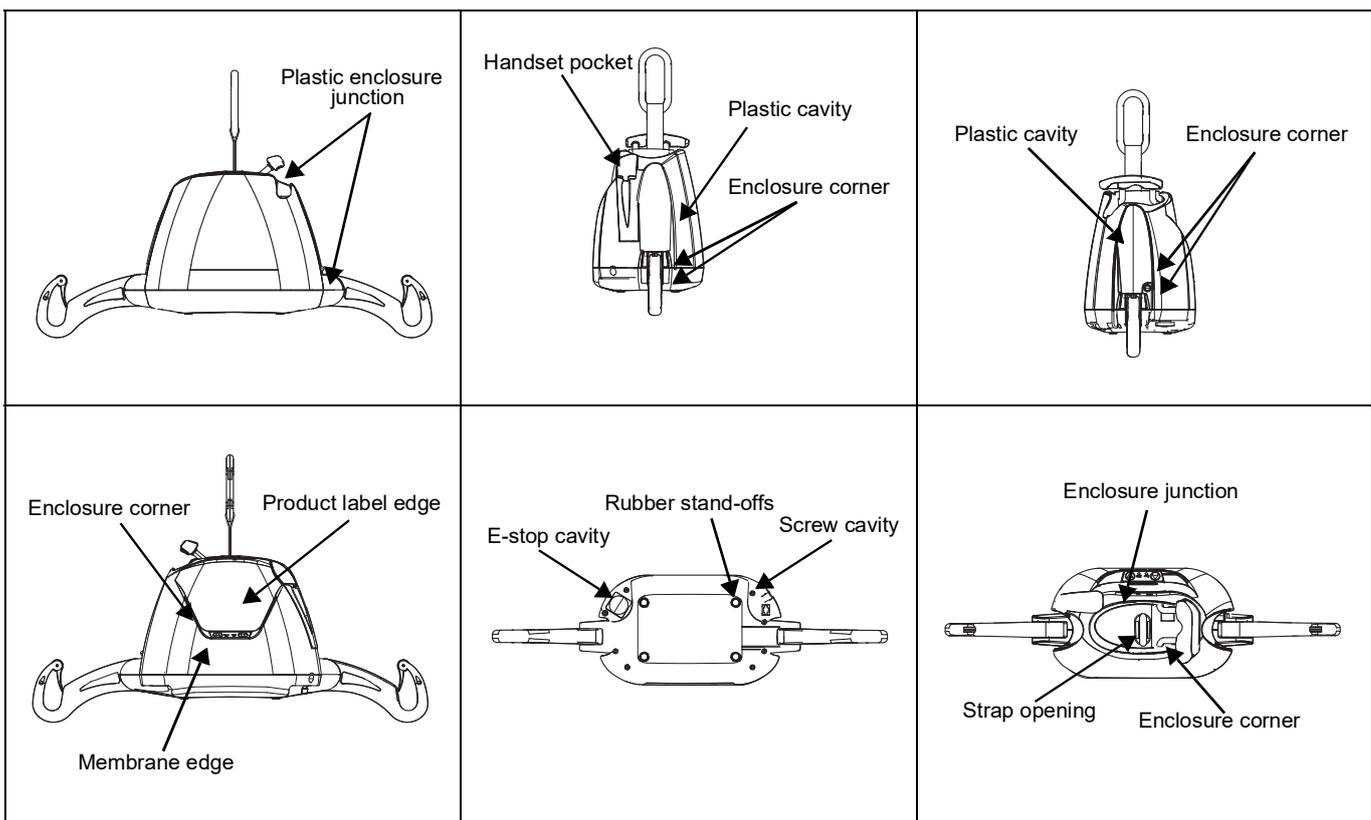


Fig. 10

# Care and Maintenance

Disinfectant wipes, supplied already impregnated with a 70% v/v solution of isopropyl alcohol, can also be used.

Rub the lift vigorously when using the wipes, to promote an effective disinfection of its entire surface. Do not use phenol, chlorine or any other type of solvent that may damage the finish.

**NOTE: The lift and the sling should be cleaned between use of different patients and/or when suspected to be contaminated.**

**CAUTION: Do not splash, drench or immerse the unit in water. The lift is an electrical device and water could damage your unit.**

To ensure a better rolling surface for the trolley wheels, clean the inside of the rail every 4 months. To do so, insert a damp cloth in the opening and slide it from one end of the rail to the other.

## Strap Inspection

If the strap is damaged or shows signs of wear or discoloration, the acceptable load on the strap before rupture can drop rapidly and present a danger for the patient or caregiver. Joerns Healthcare recommends a thorough inspection of the straps every 2 months as follows:

- 1) Completely unwind the strap.
- 2) Look for any signs of wear or discoloration (see below).

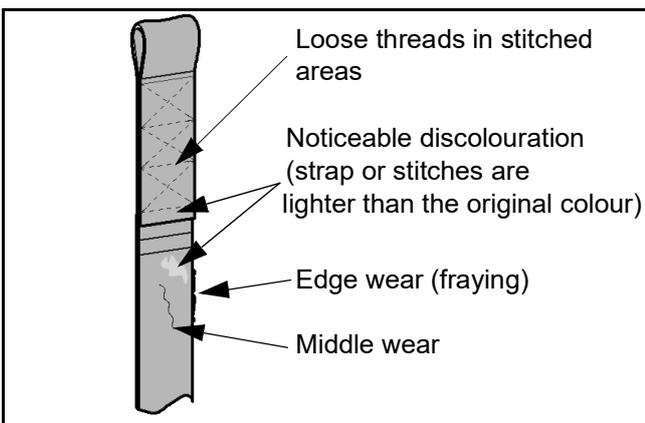


Fig. 11

**WARNING: If there is any sign of wear as indicated above or any other visual defects, the strap must be inspected by qualified personnel and changed if required.**

The manufacturer recommends changing the strap at least every 2 years or every 2850 cycles—which ever comes first.

By continuing to use the lift without changing a damaged strap, the safety of the caregiver or patient is greatly compromised.

## Handling and Storage

Avoid violent impacts while transporting the lift.

The lift should not remain stored for long periods of time without recharging the batteries.

**NOTE: Even if the lift is not used, Joerns Healthcare recommends charging the batteries at least every 2 weeks. This will prevent premature aging of batteries.**

If you store or ship the *Voyager Portable 200*, ensure that the power is turned off (emergency button pushed in) beforehand.

## Battery Replacement

Replace the batteries when there is a noticeable reduction in the number of transfers that can be done between charges. If you hear the *Voyager Portable 200* beeping, see the instructions in the “Troubleshooting” section to determine if there is a problem with the batteries.

For battery replacement, contact your local Joerns Healthcare agent.

**CAUTION: Do not attempt to use batteries that were not supplied by Joerns Healthcare. These batteries are specially designed for Joerns Healthcare charging systems. Attempting to use unapproved batteries may seriously damage the lift and/or the charger.**

## Verification of the Charger’s Power Source

If the light does not illuminate when there are batteries correctly installed in the *Voyager Portable 200*, try the following:

- 1) Make sure that the charger is correctly plugged into the AC outlet.

# Care and Maintenance

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- 2) Make sure that the charger connector is properly connected to the unit.
- 3) Check the power of the AC outlet on the wall.
- 4) If the charger indicator (yellow) does not light up, contact your local Joerns Healthcare agent for assistance.

## Sling Inspection and Care

See the documentation that comes with the sling.

## Annual Inspection

The *Voyager Portable 200* must be inspected annually by a qualified technician.

**WARNING: The *Voyager Portable 200* and accessories must be serviced every 12 months as a minimum requirement. Moving parts can be affected by wear. Not servicing the product may lead to patient fall, causing injuries. Do not attempt to do the inspection.**

## Maintenance Requirements

The *Voyager Portable 200* is equipped with an electronic monitor that causes a red light to flash when a maintenance inspection is necessary. Arranging for scheduled inspections ensures the durability of the unit and the security of both patient and user.

Once that red light begins to flash, please contact your local Joerns Healthcare agent in order to perform the necessary maintenance inspection.

# Troubleshooting

**WARNING: Do not attempt to open the *Voyager Portable 200* portable lift cassette. Only a qualified technician is authorized to open it. Alterations made to the portable lift by someone other than a qualified technician may cause serious injury.**

Problem	To check
The red “service” light is on and flashing.	<ul style="list-style-type: none"> <li>Contact your local Joerns Healthcare agent for maintenance.</li> </ul>
The unit starts and stops repetitively.	<ul style="list-style-type: none"> <li>If the load is greater than the unit’s safe working load, it will not function due to an overload protection on the motor.</li> <li>Batteries are low and need to be changed. Contact your local Joerns Healthcare agent.</li> </ul>
The lift emits a “beep” during use. The unit may stop lifting the patient but can still lower the patient.	<ul style="list-style-type: none"> <li>Batteries are low and need to be recharged.</li> </ul>
Charger indicator on the lift (yellow) does not light up when the charger is connected to the lift.	<ul style="list-style-type: none"> <li>Check that the charger is plugged into a standard electrical outlet, and that the outlet has power.</li> </ul>
The lift does not work when you press the buttons on the hand control.	<ul style="list-style-type: none"> <li>If the emergency stop is activated, gently release the emergency button.</li> <li>Check if the buttons on the lift are working. If they are working, the problem may come from the hand control. If they are not working, check the charge on the lift.</li> <li>Check to see if the hand control is plugged in properly into the lift. The hand control may be slightly pulled out from its socket and yet appear as though it is plugged in. Check the connection.</li> <li>If, after testing all of the above, the lift will not operate, contact your Joerns Healthcare agent.</li> </ul>

# Labels on the Lift

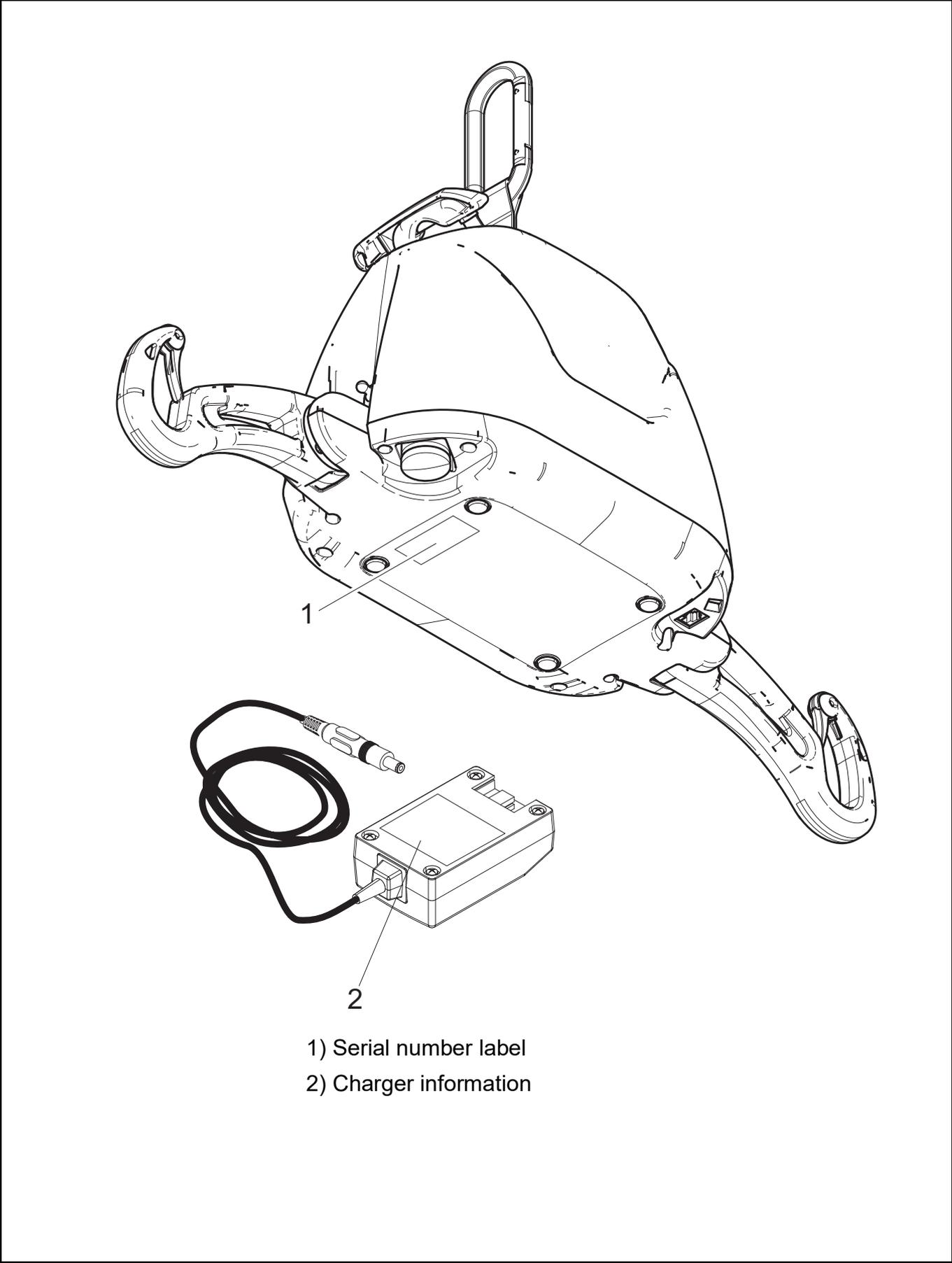


Fig. 12

# Technical Specifications

<b>PRODUCT INFORMATION</b>	
Weight, complete	6.5 kg (14.3 lb)
Lifting capacity (SWL)	200 kg (440 lb)
Strap length	2200 mm (88 in)
Lifting speed	4.3 cm/s (1.7 in/s)
Operating Force of Control	< 5 N (Installed unit)
<b>ELECTRICAL</b>	
Duty cycle	Max 10%, 6 min/hr, (max. 1 min. continuous)
Rating	24 VDC, 10 A max.
Noise level for either raising or lowering, with or without load	54 dBAmax.
Medical equipment	Type BF protection against electrical shock in accordance with IEC 60601-1
Voyager Portable 200 is compliant to the IEC 60601-1 series including applicable collateral standards and national deviations. Voyager Portable 200 is compliant to the ISO 10535 standard.	
<b>WARNING: Portable RF communications equipment (including peripherals such as antenna cables &amp; external antennas) should be used no closer than 30 cm to any part of the Voyager Portable 200, including cables specified by the manufacturer. Otherwise, performance degradation of this equipment could result. See "Electromagnetic Compatibility" for more details.</b>	
<b>BATTERIES AND CHARGER UNIT</b>	
Batteries	Qty: 2 x rechargeable 12 VDC, 2.3 Ah
Battery capacity	Provides up to 30 transfers with a load of 80 kg (176 lb)
Degree of protection - Hand Control	IPX7
Degree of protection - Voyager Portable 200	IP21
Lift - protection class - shock prevention	Internally powered equipment
Battery Charger input	100-240 VAC, 50-60 Hz, 50 VA
Battery Charger output	24 VDC, 24 VA, 28.1 Vdc, 1 A
Battery Charger safety protection	Class 2, double insulated
<b>OPERATION CONDITIONS</b>	
Ambient temperature range	+5 °C to +40 °C (+41 °F to +104 °F)
Relative humidity range	15 % to 93 %, non-condensing
Atmospheric pressure range	700 hPa to 1060 hPa (max. 2000 m)
<b>STORAGE CONDITIONS</b>	
Ambient temperature range	-25 °C to +70 °C (-13 °F to +158 °F)
Relative humidity range	Up to 93 %, non-condensing
Atmospheric pressure range	500 hPa to 1060 hPa
<b>WARNING: This equipment is not suitable in the presence of flammable anesthetic mixtures with air or oxygen, or with nitrous oxide. Using the Voyager Portable 200 in this environment might lead to an explosion. The lift might create some spark internally and ignite the gaz.</b>	
<b>SAFE DISPOSAL AT END OF LIFE</b>	
Package	Corrugated cardboard, recyclable. Expanded polystyrene (EPS), recyclable.
Electrical and Electronic Components	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.
Slings	Slings including stiffeners/ stabilizers, padding material, any other textiles or polymers or plastic materials etc. should be sorted as combustible waste.

# Technical Specifications

Batteries	Seal lead-acid, rechargeable, recyclable. All batteries in the product must be recycled separately. Batteries are to be disposed in accordance with national or local regulations.
The lift	Separate and recycled. Components that are primarily be made up of different kinds of metal (containing more than 90% metal by weight) for example trolleys, sling bars, rails, upright supports, etc., should be recycled as metals.

## Lift Dimensions

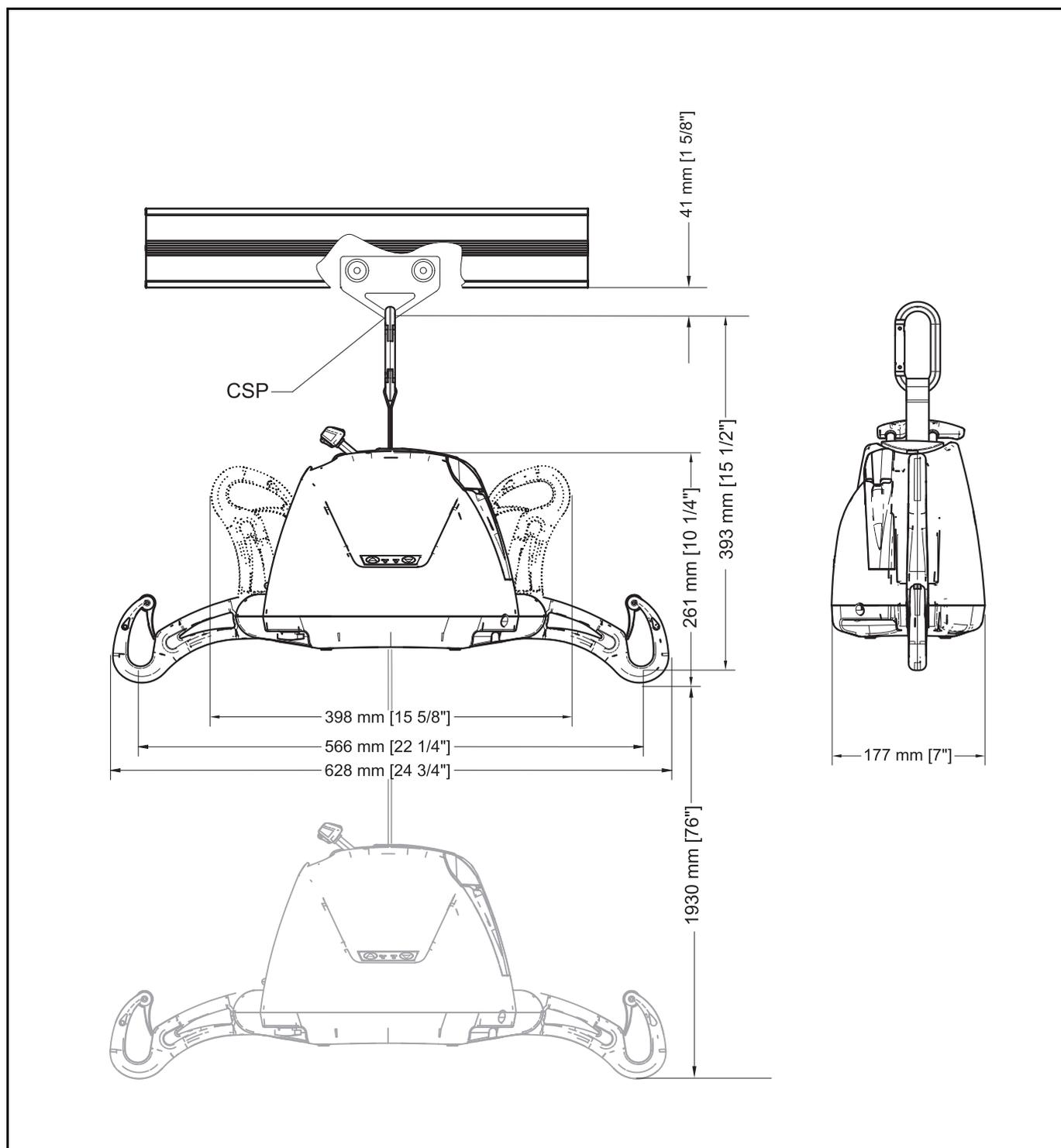


Fig. 13

# Electromagnetic Compatibility

## Electromagnetic Compliance

The Voyager Portable 200 has been tested for compliance with current regulatory standards regarding its capacity to block EMI (electromagnetic interference) from external sources.

Nonetheless, some procedures can help reduce electromagnetic interferences:

- Ensure that other devices in patient-monitoring and/or life-support areas comply to accepted emissions standards.
- Maximize the distance between electro-medical devices. High-powered devices may produce EMI that can affect the ceiling lift.

For more information on how to manage the unit's RF electromagnetic environment, please consult the *AMI TIR 18-1997 - Guidance on Electromagnetic Compatibility of Medical Devices for Clinical/Biomedical Engineers*.

**WARNING: Use of accessories, cables and spare parts other than those specified or provided by Joerns Healthcare could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.**

**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.**

**WARNING: The equipment may cause radio interference or may disrupt the operation of nearby equipment. It may be necessary to take action, such as reorienting, relocating the equipment or shielding the location.**

## Electromagnetic Emissions

### Guidance and Manufacturer's Declaration - Electromagnetic Emissions - For all Equipment and Systems

The Voyager Portable 200 is intended for use in the electromagnetic environment indicated below. The customer or the user of the Voyager Portable 200 should assure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The Voyager Portable 200 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.
RF emissions CISPR 11	Class B	
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/flicker emissions IEC 61000-3-3	Complies	

# Electromagnetic Compatibility

## Electromagnetic Immunity

Guidance and Manufacturer's Declaration - Electromagnetic Immunity - For all Equipment and Systems			
The Voyager Portable 200 is intended for use in electromagnetic environment specified below. The customer or the user of the Voyager Portable 200 should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD)  IEC 61000-4-2	±8 kV contact ±15 kV air	±8 kV contact ±15 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst  IEC 61000-4-4	±2 kV, AC Mains ±1 kV, I/O Ports  100 kHz repetition frequency	±2 kV, AC Mains ±1 kV, I/O Ports  100 kHz repetition frequency	Mains power quality should be that of a typical commercial or hospital environment.
Surge  IEC 61000-4-5	±2 kV, AC Mains, Line to Ground  ±1 kV, AC Mains, Line to Line	±2 kV, AC Mains, Line to Ground  ±1 kV, AC Mains, Line to Line	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines  IEC 61000-4-11	0 % $U_T$ ; 0,5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°  0 % $U_T$ ; 1 cycle and 70 % $U_T$ ; 25/30 cycle Single phase: at 0°  0 % $U_T$ ; 250/300 cycle	0 % $U_T$ ; 0,5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°  0 % $U_T$ ; 1 cycle and 70 % $U_T$ ; 25/30 cycle Single phase: at 0°  0 % $U_T$ ; 250/300 cycle	Mains power quality should be that of a typical commercial or hospital environment.
Power frequency (50/60 Hz) magnetic field  IEC 61000-4-8	30 A/m  50/60 Hz	30 A/m  50/60 Hz	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE: $U_T$ is the AC mains voltage prior to application of the test level.			

# Electromagnetic Compatibility

(continued)

Guidance and Manufacturer's Declaration - Electromagnetic Immunity - For all Equipment and Systems			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC 61000-4-6	3 V outside ISM bands between 0.15-80 MHz  6 V inside ISM and amateur radio bands between 0.15- 80 MHz	3 V outside ISM bands between 0.15-80 MHz  6 V inside ISM and amateur radio bands between 0.15- 80 MHz	N/A
Radiated RF IEC 61000-4-3	10 V/m 80 MHz to 2.7 GHz	10 V/m 80 MHz to 2.7 GHz	N/A
Proximity fields from RF wireless communications equipment IEC 61000-4-3	380 - 390 MHz 27 V/m; PM 50 %; 18 MHz  430 - 470 MHz 28 V/m; (FM $\pm 5$ kHz, 1 kHz sine) PM; 18 Hz  800 - 960 MHz 28 V/m; PM 50 %; 18 Hz  1700 - 1990 MHz 28 V/m; PM 50 %; 217 Hz  2400 - 2570 MHz 28 V/m; PM 50 %; 217 Hz  5100 - 5800 MHz 9 V/m; PM 50 %; 217 Hz  704 - 787 MHz 9 V/m; PM 50 %; 217 Hz	380 - 390 MHz 27 V/m; PM 50 %; 18 MHz  430 - 470 MHz 28 V/m; (FM $\pm 5$ kHz, 1 kHz sine) PM; 18 Hz  800 - 960 MHz 28 V/m; PM 50 %; 18 Hz  1700 - 1990 MHz 28 V/m; PM 50 %; 217 Hz  2400 - 2570 MHz 28 V/m; PM 50 %; 217 Hz  5100 - 5800 MHz 9 V/m; PM 50 %; 217 Hz  704 - 787 MHz 9 V/m; PM 50 %; 217 Hz	N/A



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