

Novaltis

USER GUIDE

Patient lift



Patient lift NOVALTIS

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MAXIMUM PATIENT WEIGHT 175 Kg

PLEASE CAREFULLY READ THE INSTRUCTIONS BEFORE USING THIS DEVICE



THIS DEVICE SHOULD BE USED BY QUALIFIED AND FORMED PERSONAL

NEVER USE A DEFECTIVE DEVICE

YEARLY MAINTENANCE RECOMMENDED

Warnings

The renter must inform and show the user how to handle the patient lift stating the precautions and the risks related to inappropriate use. Pinching areas should be deeply explained. The renter should ensure the user perfectly understood the safety instructions.

When mounting and using the device, it is recommended to have the hands away from the pinching areas.

When the patient lift is exposed to heat source (sunrays through a window or radiator) for a long time, ensure there is no burn risk before using the patient lift.

The device should be used in a sufficiently clear place so that manoeuvres are not disturbed.

Since the straps are not fireproof, do not use the device near flames or to smoke.

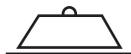
Do not use or store the patient lift in a humid area or near water splashing (rain, shower, etc.).

In very particular use situations, the patient lift operation can be disturbed by radio and electromagnetic waves (proximity of radiotelephone antenna, etc.). In case of dysfunction, do not use the patient lift.

The patient lift operation can interfere with sensitive electronic devices. In this case, do not use the patient lift.

Because of the component weight and dimensions, there are hazards when dismantling and reassembling, so it is highly recommended to be assisted and to mind the pinching areas.

Symbols and explanations



Maximum user weight



Caution: hazard!



Carefully read the user manual



Device compliant to directive 93/42/CEE



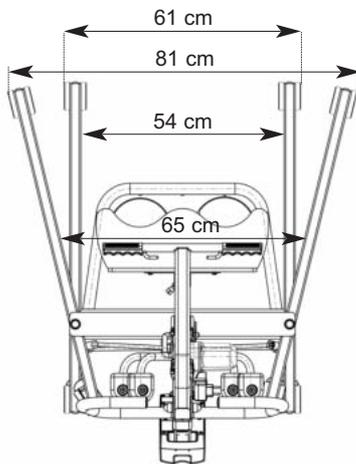
This device is submitted to directive 2002/96/EC relative to waste electric and electronic equipment (WEEE) and it was marketed after 13 August 2005.

USER AND MAINTENANCE MANUAL FOR NOVALTIS PATIENT LIFT

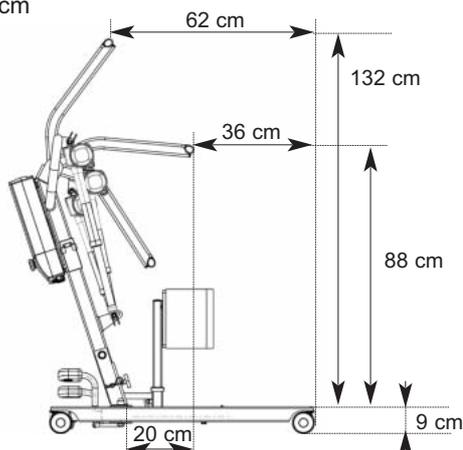
I - Caractéristiques techniques

1. NOVALTIS

- Dimensions (folded) L x W x H 93 x 63 x 40 cm
- Lifting range 45 cm
- Dimensions (unfolded) L x W x H 106 x 63 x 101 cm
- Lifting capacity: 175 kg
- Inner feet spacing: 54 cm min. to 81 cm max.
- Turning diameter: 104 cm
- Base height: 9 cm
- Lifting time: 20 s. (empty)
- Patient lift weight: 39 kg
- Lifetime: 10,000 cycles at 175 kg
- Knee-rest
- Front wheels dia. 7.5 x 6 cm without brake
- Rear wheels dia. 7.5 x 6 cm with a brake
- Structure: steel -Coating: grey epoxy RAL 7005/7004
- Electric cylinder (lifting): 24 VCD 8,000 N
- Mechanical cylinder rod disengagement (red ring)
- Battery power supply: 2 x 4.5Ah, 12V
(Included into the battery pack)
- External battery charger
- Battery charge indicator: LED
- Buttons: emergency stop and emergency lowering
- Cycle number as for patient lift autonomy:
(lifting/lowering) with an average weight of 100 kg,
with new charged batteries: 50 cycles.
- EC marking year: 2014
- Complies with NF EN ISO 10535 standard



Dimensions +/- 1 cm



⚠ Important: The patient lift should be used with straps (safety member) exclusively provided by Dupont Medical.

- Driven operating force:
- with one finger: < 5N
 - with one hand: < 105 N
 - with one foot: < 300 N

2. . LIFTING ASSEMBLY

(Complies with EN 60601 -1-2 standard)

Autonomous box : (control box + battery pack)

Dimensions	L=368 W= 120 H=107.6 mm
Weight	4.8 Kg
Primary protection	Current limiter
Output voltage	Direct 24 V
Output current	8.5 A max. per output
Number of outputs	1
Battery voltage	2 12-V batteries
Battery capacity	4.5 Ah
Autonomy	Around 50 cycles
Charging time	8 h
Emergency stop push-button/Emergency lowering button	(1) (2) (photo #2)
Charged/discharged battery indicator	
Protection	IP 54

Actuator or cylinder:

Power supply	24 VDC
Max. center to center distance	605 mm
Max. stroke	165 mm
Max. thrust force	8,000 N
Lifting time:	15 s (empty)
Lifting time:	20 s (loaded)
No-load speed	29 mm /s
Speed under load	15 mm /s
Weight	2.7 Kg
Protection	IP X4
Mechanical decoupling/Safety nut	
Sound level	≤ 60 dB

External battery charger:

Power supply	230V AC 50-60 Hz
Output	Continuous 24V
Protection	IP20

(We reserve the right to change these specifications without notice).

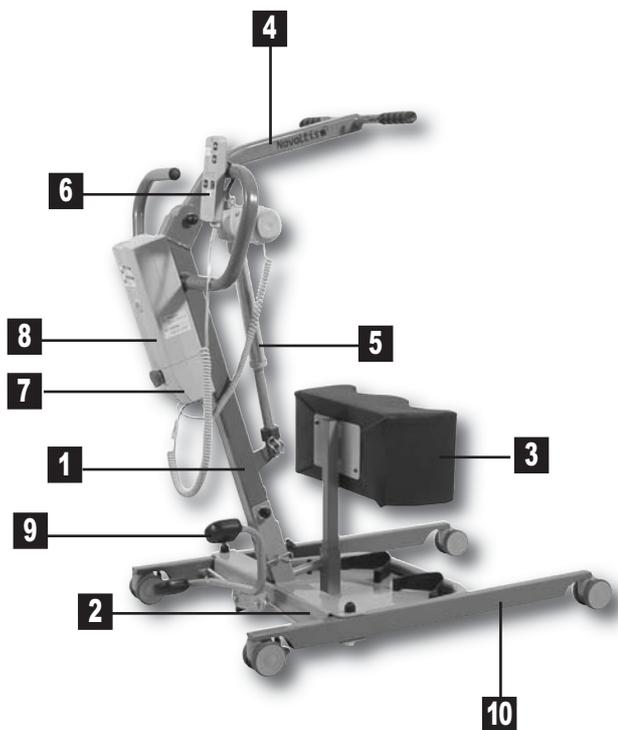
II - INTENDED USE:

- This transfer device is intended to transfer mobility-impaired patients; it can be used with a wheelchair, a shower seat or a toilet seat.
- NOVALTIS should be used indoors exclusively on a flat and adherent floor; it should be handled by a competent caregiver trained for using this kind of devices.

III - ASSEMBLY PRINCIPLE:

1) General terminology

- 1** MAST
- 2** BASE
- 3** SHINBONE-REST
- 4** LIFTING ARM
- 5** LIFTING CYLINDER
- 6** REMOTE CONTROL
- 7** CONTROL BOX
- 8** BATTERY PACK
- 9** SIDE RAIL SPACING PEDAL
- 10** SIDE RAILS



2) Unpacking

Check all the device elements have not been damaged during transport.

Check the accessories are present: the lifting assembly (box with battery pack, cylinder, remote control), battery charger, a user guide, and possibly a strap if it was ordered.

NB: Our device is mounted and tested in our manufacturing site, but its packaging requires it to be folded.

3) Assembly

A- Provided parts:

- 1 - NOVALTIS structure with lifting assembly: box (with battery pack) + charger batteries, cylinder and remote control (photo #1)
- 2 - NOVALTIS user guide
- 3 - Possibly one strap if it was ordered

B - Structure installation:

1- Remove the structure from the box (possibly by cutting the box angles), lay the structure on a flat floor, and then lock the brakes and wheels.

2 - In the lower part of the mast, after removing the pin (6) (photo # 4), remove mast safety shaft (7) (photo #5).

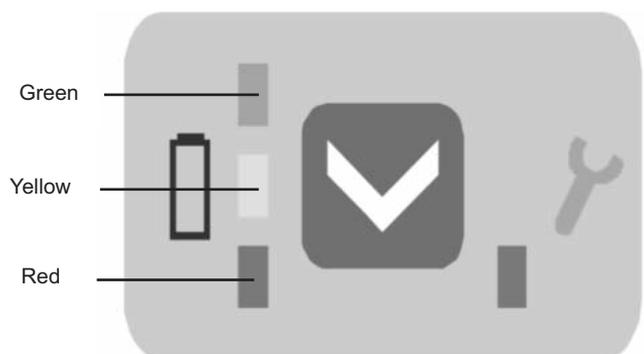
3 - Straighten up the mast, and then position the mast safety shaft (7) into the second hole (8) and reposition the pin (6) (photo #°6). Tighten backlash screw (9) (black wing screw) (photo #°6 bis).

4 - With the remote control, get the rod out of the cylinder in order to unfold the boom.

5 - Place the leg-rest in its support (shinbone-rest)

6 - Check the box is correctly charged:

- Green: the batteries are totally charged
- Green/yellow: 3/4 charged batteries
- Yellow: 1/2 charged batteries.
- Yellow/red: the batteries are almost discharged, recharge them.
- Red: the batteries are discharged, they should be immediately charged otherwise their service life could be reduced.



- If the red indicator is lit up (under the small key), the device requires special maintenance, please contact Dupont Médical Customer Service.

CAUTION: before using the device, make sure all the shafts, screws, and pins handled during the installation are perfectly engaged in their respective supports, and they are correctly locked.

USER AND MAINTENANCE MANUAL FOR NOVALTIS PATIENT LIFT

NOVALTIS IS OPERATIONAL ONLY IF THE STRAP CORRESPONDING TO THIS DEVICE IS USED, AND ONLY IF THE MAXIMUM 175-KG PERMISSIBLE LOAD IS RESPECTED.

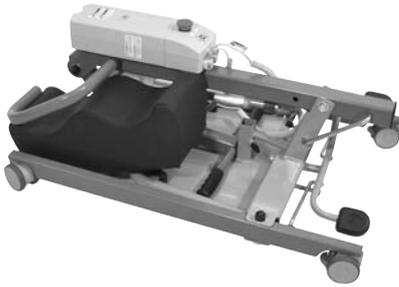


Photo #°1 - NOVALTIS when assembled and folded

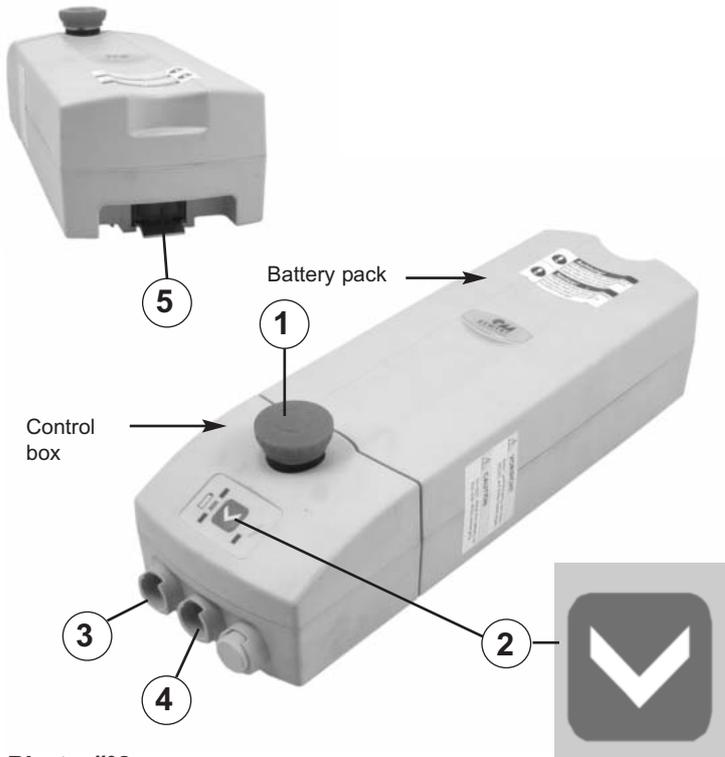


Photo #°2
Supply box
(including battery pack)

- 1 - Emergency stop push-button.
- 2 - Emergency lowering button
- 3 - Cylinder connection plug
- 4 - Remote control connection plug
- 5 - Battery pack unlocking knob

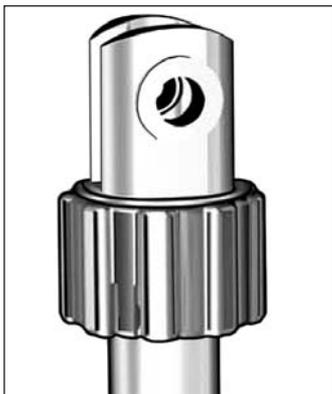


Photo #°3

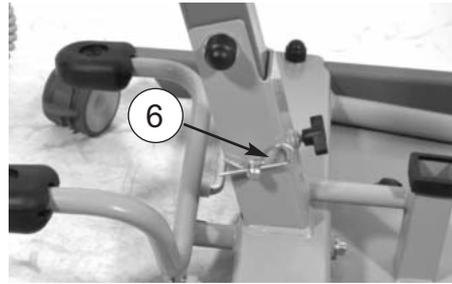


Photo n°4
Safety shaft pin

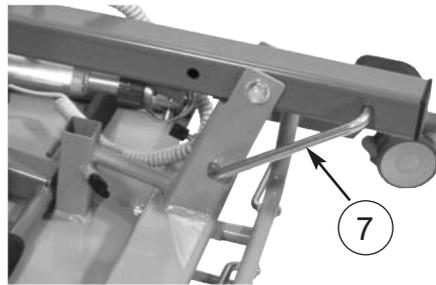


Photo #°5
Mast safety shaft

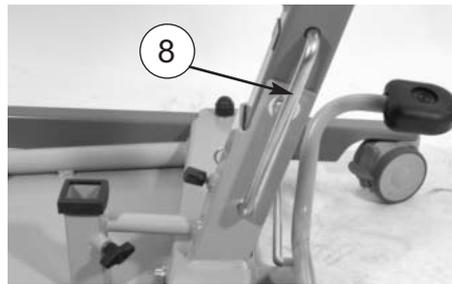


Photo #°6
Position of the safety shaft when the mast is upright

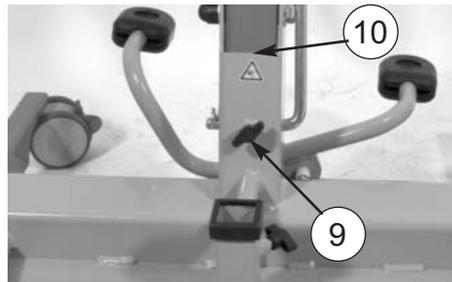


Photo #°6 bis
Backlash screw

4- Folding:

The device should be folded to be transported.
(Photo #°1).

- Press the remote control buttons to fold the lifting arm.
- Remove the leg-rest.
- Remove the pin (6) and the mast safety shaft (7).
- Lower the assembly mast/boom onto the side rails.

⚠ CAUTION: pinching risk (10 photo #6)

- Reposition the mast safety shaft in its 1st position, and put its pin back.
- The device can be vertically transported or stored (photo #7).



IV - USING NOVALTIS:

⚠ WARNING
- NOVALTIS should be used indoors exclusively on a flat and adherent floor; it should be handled by a competent caregiver trained for using this kind of devices.

1- Commissioning

- When all the cables are connected:
- Use the patient lift with the remote control.
- Check the battery charge (see colour code in Chapt. III. 3 - 5).
- The patient lift is ready to be used.

2 - Charging

⚠ THE POWER UNIT SHOULD BE CHARGED EVERY NIGHT.

IT SHOULD BE CHARGED IN A WELL-VENTILATED ROOM. CHECK THE POWER SUPPLY CORD CONDITION BEFORE PLUGGING IT.

- To charge the battery, remove the charger from its support and plug it to a mains outlet.
- When charging, the green indicator is blinking.
- When the green indicator is fixed, the battery charge is finished (see colour code in Chapt. III. 3 - B-5).

- The patient lift is ready to be used again.



Photo #°8

3 - Possible problems

- If the remote control cannot lower the patient, press the emergency lowering button (2) (photo #°2).
- If the indicator is steady red when lowering or lifting the patient, charge the device.
- Check the connections if the remote control or the cylinder does not work.

⚠ IN CASE OF PROBLEM WHEN LIFTING OR LOWERING A PATIENT, PRESS THE EMERGENCY STOP BUTTON (1) (photo # 2), AND THEN RELOAD IT BY PULLING IT.

IN CASE OF POWER SUPPLY PROBLEM, IT IS POSSIBLE TO MANUALLY LOWER OR LIFT THE BOOM BY PRESSING AND TURNING THE RED RING LOCATED AT THE END OF THE CYLINDER ROD (photo #3). DO NOT FORGET TO REPOSITION IT.

CAUTION: The cylinder should only be used discontinuously, that is to say: 2 minutes operating, and then 18 minutes resting. Do not exceed 2 minutes operating in continuous.

Any duty cycle exceeding the above cycle can damage the lifting assembly (cylinder/control box). This damage is excluded from the warranty.

4 - Battery pack :

The 2 batteries included in the box of the battery pack do not require any special maintenance. Though, they should be regularly charged to maintain their service life (at least every 3 months).

With a second battery pack (available on request), the device can work 24/24 hours.

V - STANDING UP A PATIENT

Before standing up the patient, make sure:

- The patient's weight is compatible with the maximum permissible load of the patient lift (175 kg maximum).
- The batteries are charged and the patient lift is fully operational.
- The floor is flat and stable.
- The patient lift brakes are functional.
- Check the strap is compatible with NOVALTIS (DUPONT MEDICAL strap).
- Check the strap fasteners and the patient support elements are in perfect condition.
- In the maintenance book included in this manual, check regular maintenance is performed once a year at least.
- If the patient is agitated, an accompanying person should secure the patient's movement.

 **CAUTION: Do not engage the wheel brakes. Do not keep on lifting or lowering the patient if the 4 wheels are not on the floor. The lifting task should be very progressive checking the patient is well positioned into the strap and there is no tipping risk due to excessive overhanging.**

1) Base spacing:

- Press the pedal to open or close the NOVALTIS base.

2) Transferring the patient:

- Lean the patient forward holding him/her.
- Slip the strap behind the patient's back up to the coccyx. The lower part of the strap should be touching the chair seat.
- Position the padded strap sides under both patient's armpits.
- Position the device in front of the patient.
- Place the patient's feet on the footrest.
- Place the patient's shinbones on the shinbone support.
- Position the strap fasteners inside the hooks located on each side of NOVALTIS arm.
- Engage the device brakes.
- Lift the patient once all the above points were checked.

When transferring the patient, this latter can hold both arm handles.

Particular points:

- When installing the strap, check there is no fold.
- Do not engage the device brakes when lifting so that the device can correctly position with regard to the patient.

 **CAUTION! WHEN LIFTING OR LOWERING A PATIENT, NEVER ENGAGE THE WHEEL BRAKES SO THAT THE DEVICE CAN BE CORRECTLY POSITIONED, IN LINE WITH THE PATIENT. IN CASE OF POWER SUPPLY PROBLEM, IT IS POSSIBLE TO MANUALLY LOWER OR LIFT THE BOOM BY PRESSING AND TURNING THE RED RING LOCATED AT THE END OF THE CYLINDER ROD.**

VI - DUPONT MEDICAL STRAP RANGE, AND STRAP MAINTENANCE

2 lumbar straps are available for NOVALTIS.

<u>DUPONT reference</u>	<u>Designation</u>
Novaltis medium lumbar strap	SR3701000
Novaltis large lumbar strap	SR3702000
Lumbar strap with back support Novaltis Medium	SR3703000
Lumbar strap with back support Novaltis Large	SR3704000

1) Controls:

(before any use, and to be performed by a competent staff)

Before any use, check the condition of the straps. no undone sewing, the upholstery and the straps should not be fringed, no tear and no wear sign (transparent upholstery weft).

2) Cleaning :

(each time it is necessary, and to be performed by a competent staff)

- The PVC straps can be washed at 40°C at the maximum. For other straps, see the strap instructions.
- The straps should be disinfected with detergent solutions (see below Chap. VII-2).

VII - NOVALTIS MAINTENANCE :

1) Cleaning

(every month or when necessary, and to be performed by a competent staff)

 **Disconnect the charger and remove the battery pack before any maintenance operation.**

- Clean the device with a soft cloth dampened with soapy solution, then rinse, and carefully dry.
- Do not use aggressive detergent; do not soak.

2) Disinfecting

(when necessary, and to be performed by a competent staff)

- Disinfecting is performed with detergents and disinfecting solutions sprayed on the external chair areas. It is a foaming solution that does not require rinsing, but only drying.

Our internal services use ANIOS solutions.

3) Daily maintenance :

- Charge the battery pack every night.

4) Routine maintenance :

(every month or when necessary, and to be performed by a competent staff)

The routine maintenance consists in checking the system functionality:

- With the bed positioned on a flat floor, check its 4 wheels are touching the floor.
- When the brakes are engaged, the device should not be moved (flat and adhered floor).
- Operate the patient lift with nobody in, check the arm and the side rails move steadily with no noise.
- Control the handles located on the mast and check there is no play between the arm and the mast, and between the mast and the side rails.
- Check the plastic protective housings and casings are not broken or cracked, and all parts are present.
- Check the condition of the connecting cables: power supply cord, remote control and cylinder; if a cable shows a slight burn, wear, or impact sign, or if the wires are visible, immediately stop using the patient lift, and have the cables replaced by the engineering department.

5) Preventive maintenance

(every year or when necessary, and to be performed by a competent staff)

- It is necessary to control the device every year.
- The battery pack should be changed about every 18 months depending on how it is used.

The yearly maintenance should be performed by skilled technical staff experienced with electromechanical device maintenance.

The maintenance tasks do not require particular tools; adequate tools should be used according to the best industry practices.

Mechanical fastening, plays, and adjustments should be realised according to the best industry practices.

5.1) Mechanical control:

- Check the welding. Visual control.
- Check the alignments. Visual control.
- Control and lubrication after dismantling the mast and side rail pivots.
- Control and lubrication of the cylinder fastenings.
- Check the tightening of all the parts.
- Dismantling, cleaning, and lubrication of the front and rear casters.

- Dismantling, cleaning, and lubrication of the mast hinge.

Check the fastening, caster play, and brake performance. The mechanical parts that have cracks, wear signs or geometrical defects should be replaced with original components delivered by Dupont Medical.

5.2) Electrical inspection:

- Check the remote control. Reminder: the warranty does not apply to the remote control.
- Check the charger.
- Check the remote control box and the cylinder.
- Check the lifting/lowering speed.
- Check the emergency stop and lowering.
- Condition of the electric cables (change the cables in case of doubt).

Replace the electric cables and/or the components to which they are connected if there are signs of wear, sheath cut, outlet damage or plastic and sheath darkening around the coupling area. Replace the electric cables and/or the components to which they are connected if there are signs of wear, sheath cut, outlet damage or plastic and sheath darkening around the coupling area.

Note: Never disassemble the protective housings of the cylinder, battery pack, remote control, and control box.

5.3) Charging test :

- Charge the battery pack.
- Check the battery power and autonomy.
- Test the device when fully loaded and control the power cut threshold.
- Adjustments and tests.
- The battery pack should be changed about every 18 months depending on how it is used.

The worn or malfunctioning parts should be replaced with original parts manufactured by DUPONT MEDICAL.

5.4) Straps :

The straps should be checked at least once a year, or more regularly in case of intensive use, checking that: Sewing is not undone, the upholstery and strap webbing is not visible, and there is no torn part. Never use a defective strap.

The worn or malfunctioning parts should be replaced with original parts manufactured by DUPONT MEDICAL.

Have some tries with a load before commissioning the patient lift again.

5.5) Service book :

Every maintenance operation or intervention should be recorded in the service book attached to these instructions.

5.6) Shipping, storage, and disposal:

- The device should be returned or transported in its original packaging.
- Before storing the bed, clean it totally and check it works properly. Store the bed in a dry place away from dust and humidity.
- When commissioning, after storing, charge the batteries, and check their performance before using them again.
- Storage temperature: between 0 and + 50°C Humidity between 10 and 80%
- Service temperature: between +10 and + 40°C Humidity between 30 and 80%
- The disposal of defective parts, packaging and batteries should be performed by approved waste treatment centres.



- The involved system should not be disposed of with household waste, but should be sent to an appropriate waste collection point or to a distributor.
- A financial contribution is given for collecting, dismantling, and recycling the system in question.
- By respecting these instructions, you respect the environment and participate in protecting the natural resources and the human health.

VIII - WARRANTY CONDITIONS AND RESPONSIBILITIES

NOVALTIS is warranted for 5 years as far as the structure, the cylinder and the control box are concerned, and in case of normal use according to the instructions given in this guide. Negligence, handling errors and accidents are excluded from the warranty.

Any modification or addition of accessories without DUPONT MEDICAL's written consent will de facto exclude the product from the warranty and from DUPONT MEDICAL liability. In particular, using straps that are not marketed by DUPONT MEDICAL for this patient lift will not entail our liability.

The regular checks and inspections mentioned in the previous paragraph should be performed by a competent staff and recorded in the maintenance book. **Out of the warranty period, our liability will not be entailed if you do not respect these controls and inspections.**

Only spare parts and components provided by DUPONT MEDICAL can be used to repair the bed.

In case of unsolved technical problems, please contact the Customer Service:

Tél. : +33 (0)3.83.49.54.51
Fax : +33 (0)3.83.49.43.91
E-mail : sav@dupont-medical.com

IX - BEFORE CONTACTING DUPONT MEDICAL CUSTOMER SERVICE:

Calling the Customer Service can often be avoided!

If the patient lift does not perfectly works, please perform the following checks first:

USER AND MAINTENANCE MANUAL FOR NOVALTIS PATIENT LIFT

Problem	Possible cause	Solution	Problem	Possible cause	Solution
- Nothing happens when one of the remote control keys is pressed.	- The remote control cord is not correctly plugged in its slot. - The remote control cable is cut. - The battery pack is not supplied. - The battery pack is discharged. - The cylinder connection plug is not correctly plugged. - The cylinder power cord is cut.	- Correctly plug the plug. - Replace the remote control. - Release the red push-button. - Charge the battery pack. - Correctly plug the plug. - Replace the cylinder.	- The red control box indicator lights up. - The red emergency lowering ring turns on the cylinder rod.	- The battery pack is discharged. - The cylinder rod is disengaged.	- Immediately charge the battery pack. - Push the ring upwards.
- A cylinder produces abnormal noise.	- The duty cycle 2 min./18 min. was not respected. - The pinion or the nut supporting the lifting tube is damaged.	- Send the cylinder for an inspection to Dupont Medical Customer Service. - Send the cylinder for an inspection to Dupont Medical Customer Service.			
- The cylinder works, but very slowly.	- The battery pack is discharged. - The battery pack does not charge.	- Charge the battery pack. - Replace the battery pack (ref. SA6321000)			
- The batteries do not charge.	- The charger is not correctly connected to the mains. - There is no voltage on the mains outlet.	- Check the connection to the mains outlet. - Check the wall socket is a mains socket.			
- The red indicator under the small key is on.	- The device requires special maintenance.	- Contact Dupont Medical Client Service.			
- The yellow control box indicator lights up.	- The battery pack is half charged.	- Plan to charge the battery pack.			
- No control box indicator lights up.	- The battery pack is out of order.	- Change the battery pack (ref. SA 6321000)			

X - SPARE PART LIST:

A list of the spare parts is available on request by contacting Dupont Medical Customer Service.

USER AND MAINTENANCE MANUAL FOR NOVALTIS PATIENT LIFT

NOVALTIS
SERVICE
BOOK

Serial number :

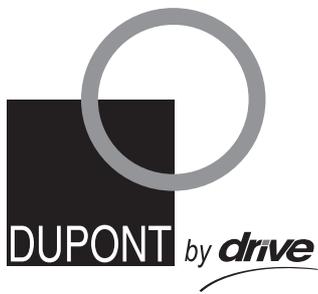
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Facility :

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This document should be photocopied and delivered to the technician every time the patient lift is maintained. In case of incident, the liability can only be determined if all the sheets of this book are completed.

Date	Nature of the intervention Check, inspection, quotation, repairing, etc.	Intervention description	Technician's name and position



Novaltis

CE

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DUPONT MEDICAL

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