



USER GUIDE

Patient lift





www.dupont-medical.com

SAMSOFT Mini patient lift	
CONTENTS	
I - SPECIFICATIONS 1. Samsoft Mini 2. Lifting assembly	3 3 3
II – INTENDED USE	3
III – ASSEMBLY PRINCIPLE 1. General terminology 2. Unpacking 3. Assembly 4. Folding	4 4 4 6
IV - USING SAMSOFT Mini 1. Commissioning: 2. Charging 3. Possible problems 4. Battery pack	6 6 6 6 6
 V – TRANSFERRING A PATIENT 1. Base spacing: 2. Transferring the patient from a bed to an armchair 3. Transferring the patient from an armchair to a bed 4. Transferring a patient lying on the floor: 5. Moving 	7 7 7 7 7 7
VI - DUPONT MEDICAL STRAP RANGE, AND STRAP MAINTENANCE 1. Controls 2.Cleaning	7 8 8
 VII – SAMSOFT Mini MAINTENANCE 1. Cleaning 2. Disinfecting 3. Daily maintenance 4. Routine maintenance 5. Preventive maintenance 	8 8 8 8 8 8 8
VIII – WARRANTY CONDITIONS AND RESPONSIBILITIES	9
IX – BEFORE CONTACTING DUPONT MEDICAL CUSTOMER SERVICE	9
EXCLUSIVELY USE THE STRAPS PROVIDED BY DUPONT MEDICAL	Y
MAXIMUM PATIENT WEIGHT 150 Kg	
PLEASE CAREFULLY READ THE INSTRUCTION BEFORE USING THIS DEVICE	S
THIS DEVICE SHOULD BE USED BY QUALIFIED AND FORMED PERSONAL.	C
NEVER USE A DEFECTIVE DEVICE.	
YEARLY MAINTENANCE IS COMPULSORY.	

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 EEC

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.



Seriel number



Check that the red ring of emergency descent is in high position.



Check the spring washer is safely engaged in the groove

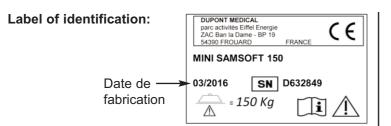


Check the safety pin ring is locked in the right position



Check the safety pin is well engaged at the base of the mast

Check the knob is safely screwed



The label of identification is stuck on the crossbar.

I - Specifications

1. SAMSOFT Mini

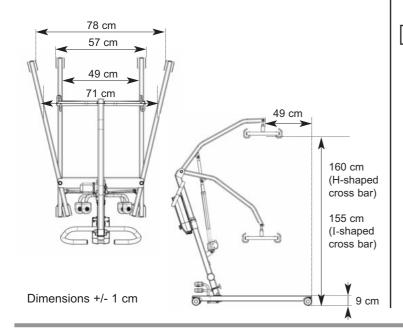
- Dimensions (folded)	L x W x H 110 x 56 x 46 cm		
- Dimensions (unfolded)	L x W x H 109 x 56 x 113 cm		
- Lifting capacity:	150 kg		
0 1 <i>3</i>			
- Inner feet spacing:	49 cm min. to 78 cm max.		
- Turning diameter:	115 cm		
 Base height: 	9 cm		
- Lifting time:	38 s. (empty)		
 Patient lift weight: 	35 kg		
- Lifetime:	10,000 cycles at 150 kg		
- Front wheels:	dia. 7.5 x 6 cm without brake		
- Rear wheels:	dia. 7.5 x 6 cm with brake		
- Structure:	steel		
- Coating: E	Epoxy RAL 7005 - 7004 - 3020		
- Electric cylinder (lifting)	24 V continuous 8000N		
- Mechanical cylinder rod disengagement (red ring)			
- Battery power supply:	2 x 4.5 Ah, 12 V		
(Included into the battery	pack)		
- External battery charge	r		
- Battery charge indicato			
, ,	n and amarganey lowering		

- 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: 80 cycles.

- EC marking year:

- Complies with NF EN ISO 10535 standard

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

Autonomous box: (control box + battery pack)

Dimensions Weight Protection Output voltage Output current Output number Battery voltage Battery capacity Autonomy Charging time	L=368 W= 120 H=107.6 mm 4.8 Kg Current limiter 24 V continuous 8.5 A maxi 1 2 x 12-V batteries 4.5 Ah around 50 cycles 8 h
Emergency stop push-butto (1) (2) (photo #2)	on/Emergency lowering button
Charged/discharged batter	y indicator
Protection	IP 54

Actuator or cylinder:

Power supply	24 VCC
Max. center to center distance	895 mm
Max. stroke	300 mm
Max. thrust force	8,000 N
Lifting time when empty:	38 s
Lifting time when a patient is in:	54 s
No-load speed	26 mm/s
On-load speed	19 mm/s
Weight	3.5 Kg
Protection	IP X4
Mechanical decoupling/Safety nut	
Sound level:	≤60 dB

External battery charger:

2015

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

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

II - Intended use:

- This transfer device is intended to transfer mobilityimpaired patients; it can be used with a wheelchair, a shower seat, a bed, or a toilet seat.

Not suitable for children under 12 year-old, for patients with mental disorders, and for patients whose morphology is incompatible with this kind of transfer device.

- SAMSOFT Mini 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
- 3 CROSS-BAR

BASE

- 4 BOOM
- 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 - SAMSOFT Mini structure with lifting assembly: box (including battery pack) (photo # 2), cylinder and remote control, battery charger.

- 2 SAMSOFT Mini user guide
- 3 Possibly one strap if it was ordered
- <u>**B**</u> 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 (7) (photo # 4), remove mast safety shaft (11) (photo #5).

3 - Straighten up the mast, and then position the mast safety shaft (11) into the second hole (12) and et reposition the pin (7) (photo $\#^{\circ}4$).

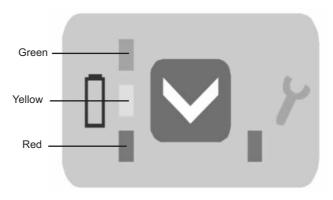
Tighten backlash screw (8) (black wing screw) (photo #°4). Put the supply box on its support.

4 - Remove the pin which fixes the head of the jack to the mast (photo 8) then make revolve the mast and the crossbar of the back of the device forwards (photo 7). Bring the head of the jack on the articulation of the arrow then put back the pin by watching that its ring of safety is closed well.

Attention on the weight and on the dimensions of the set and at the risk of possible pinching out.

- 5 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.

SAMSOFT Mini IS OPERATIONAL ONLY IF THE STRAP CORRESPONDING TO THIS DEVICE IS USED, AND ONLY IF THE MAXIMUM 150-KG PERMISSIBLE LOAD IS RESPECTED.

4

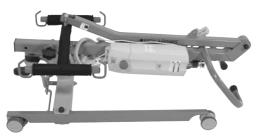


Photo #°1 - SAMSOFT Mini when assembled and folded

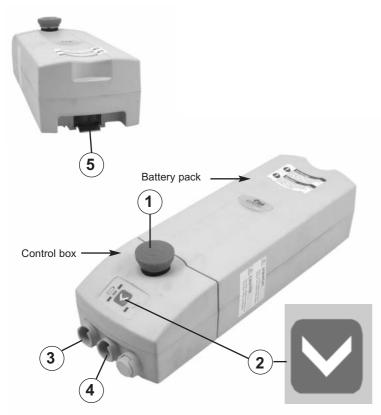


Photo #°2 Supply box (including battery pack)

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

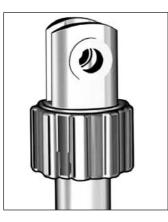


Photo #°3

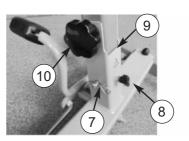








Photo #°4 Safety pin

Photo #°5 Mast safety shaft

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

Photo #°7 Unfolding the boom



Photo #°8 Pin of the jack

4) Folding

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

The folding allows to store vertically the device and to transport him in complete safety. To fold up the device, make the operations described in the paragraph 4 but in the inverse order :

- Press on the remote control to lower the arrow up to the low point.

- Remove the jack of the arrow then hang on it on the mast.

- Make revolve the arrow towards the back of patient-lift.
- Fix the cross-bar to the mast.
- Remove the pin (7) and the mast safety shaft (11).

- Lower the assembly mast/boom/cross-bar onto the side rails.

CAUTION: pinching risk (9 photo #4)

- Reposition the mast safety shaft in its 1st position, and put its pin back.

- The device can be vertically transported or stored (photo #9).

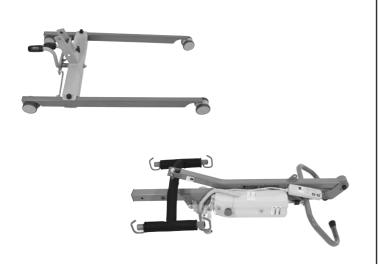


Photo #°9 Samsoft Mini stored upright

To facilitate the transport of Samsoft Mini, it is possible to defuse him in two parts by unscrewing completely the button (10) photo 4 and by removing the axis of safety (11) photo 5.

Warning Unscrew partially backlash screw (8) photo 4 before separating the mast of the rolling base. After reassembly, verify that all the elements of fixation and the pin of safety are firmly in place. Squeeze strongly the button (10).

Weight of the rolling basis: 14 kg - weight of the mast, the arrow and the cross-bar: 21 kg and 17 kg without the pack batteries.



IV - Using SAMSOFT Mini :

SAMSOFT Mini 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 connections are made:
- Use the patient lift with the remote control.
- Check the battery charge (see colour code in Chapt. III. 3 B-5).
- The patient lift is ready to be used.

2 - Charging :

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

-- To charge the battery, remove the battery charger from its support and plug it to the main power. When charging, the green indicator is blinking.

When the indicator is steady green, charging is finished (see colour code in Chap. IV - B-5).
The patient lift is ready to be used again.





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 LOWE-RING 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 - TRANSFERRING A PATIENT :

Before positioning and transferring the patient, check that:

- The patient's weight is compatible with the maximum permissible load of the patient lift (150 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 SAMSOFT Mini (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.

Once these checks performed, you can transfer the patient:



CAUTION: You should move the patient lift base apart to the maximum before lifting or moving the patient.

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 spacing pedal to open or close the SAMSOFT Mini base.

2. Transferring the patient from a bed to an armchair

- Position the patient on his/her side.
- Place the strap under the patient.

- Check the back part of the strap is correctly positioned (from shoulders to coccyx).

- Lay the patient on the back.
- Pass each leg support under each thigh.
- Position the patient lift at the patient's level.

- Hook each strap buckle inside the crossbar hooks.

- The patient can now be transferred from the bed to an armchair.

3. Transferring the patient from an armchair to a bed

- Lean the patient forward holding him/her.
- Slip the strap behind the patient's back up to the coccyx.
- Pass each leg support under each thigh.
- Position the patient lift at the patient's level.

- Hook each strap buckle inside the crossbar hooks.

- The patient can now be transferred from an armchair to a bed.

Particular points

- When positioning the strap, check there is no fold at the leg level in order not to hurt the patient.

- 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.

4. Transferring a patient lying on the floor:

The patient's weight should not exceed 150 Kg and the patient lift should be positioned so that the patient's head and trunk be located inside the side rails. Lift the patient very progressively ensuring he/she is well positioned on the straps.

5. Moving

Although this operation is strongly not recommended, it is possible to use the patient lift to move the hung patient on a very short distance (ex.: from the bed to the shower). Use the handles to move and guide the patient lift. Another person should secure the patient.

Do not push nor pull the straps to move the patient lift. Do not move a patient if agitated.

VI - DUPONT MEDICAL strap range, and strap maintenance

Slings of transfer for bar of prehension in 4 points of attachment. Maxi load 250kg. See specific documentation in belts DUPONT MEDICAL.

Not to exceed the maximum load of raises patient.

DUPONT reference Designation

Bath net	Size M
Bath net	Size L
Comfort polyester	Size M
Comfort polyester	Size L

Bath netted hammock	Size M

Toilet netted hammock Size M

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 polyester 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 - SAMSOFT Mini maintenance :

Disconnect the power supply cord and remove the battery pack before any maintenance operation.

1) Cleaning :

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

- Clean the patient lift 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 patient lift 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 t here 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 crossbar suspension axle should be imperatively checked yearly on each maintenance task.

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.

- 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.

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

5.3 Charging test:

- Charge the battery pack.
- Check the battery pack power and autonomy.
- Test the device when fully loaded (150 kg) and control the power cut threshold (230 kg +/- 10 kg).
- Tests.

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 weft 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 patient lift should be returned or transported in its original packaging.
- Before storing the patient lift, clean it totally and check its performance. Store the patient lift in a dry place away from dust and humidity. The batteries should be totally charged every 3 months.
- When commissioning, after storing, charge the battery pack, and check its performance before using it 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 battery pack 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 :

SAMSOFT Mini 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. The remote control is guaranteed for 3 months, and the battery pack is guaranteed for 6 months.

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: Tel.: 03.83.49.54.51 Fax: 03.83.49.43.91 Email: sav@dupont-medical.com

A list of spare parts is provided in these instructions (see Chapter X).

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:

See Table on the following page

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.	- Correctly plug the plug.	- The red control box indicator lights up.	- The battery pack is discharged.	- Immediately charge the battery pack.
	- The remote control cable is cut.	- Replace the remote control.	- The red emergency lowering ring turns on the cylinder rod.	- The cylinder rod is disengaged.	- Push the ring upwards.
	- The battery pack is not supplied.	- Release the red push-button.			
	- The battery pack is discharged.	- Charge the battery pack.			
	- The cylinder connection plug is not correctly plugged.	- Correctly plug the plug.			
	- The cylinder power cord is cut.	- Replace the cylin- der.			
- A cylinder produces abnormal noise.	- The duty cycle 2 min./18 min. was not respected.	- Send the cylinder for an inspection to Dupont Medical Customer Service.			
	- The pinion or the nut supporting the lif- ting tube is damaged.	- Send the cylinder for an inspection to Dupont Medical Customer Service.			
- The cylinder works, but very slowly.	- The battery pack is discharged.	- Charge the battery pack.			
	- The battery pack does not charge.	- Change the battery pack.			
- The batteries do not charge.	- The power supply cord is not correctly connected.	- Check the mains outlet connection.			
	- There is no voltage on the mains outlet.	- Check the wall soc- ket is a mains socket.			
- The red indicator under the small key is on.	- The device requires special maintenance.	- Contact Dupont Médical Client Service.			
- The yellow control box indicator lights up.	- The battery pack is half charged.	- Plan to charge the battery pack.			
- No control box indi- cator lights up.	- The battery pack is out of order.	- Change the battery pack.			
40					

SERVICE

Serial number:

BOOK

Facility:

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.

SAMSOFT Mini

Date	Intervention nature Check, inspection, quotation, repairing, etc.	Intervention description	Technician's name and position



Samsoft Mini

DUPONT MEDICAL

Chaussée du Ban la Dame - Parc d'activités Eiffel Energie ZAC du Ban la Dame - BP 19 - 54390 FROUARD (France) Tél. +33 (0)3 83 495 495 - Fax +33 (0)3 83 495 496 www.dupont-medical.com



CE