



Autolift electric

Operating and Product Care Instructions

Introduction

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This product and its accessories have been manufactured by :

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'Autolift' is a registered trademark of Nibotechnics.

Foreword

Thank you for purchasing Nibotechnics equipment.

Your Autolift electric is one of a series of quality products designed especially for hospitals, nursing homes and other health care environments.

Please contact your local Nibotechnics representative or dealer if you have any questions about the operation or maintenance of your equipment (the telephone number appears on the last page of this manual).

All references to 'the resident' in these instructions refer to the person being lifted, and references to 'the caregiver' refer to the person who operates the Autolift electric.

References to left and right of the lift in these instructions are as viewed when you are standing at the rear of the Autolift electric, facing forward, (as viewed from the caregiver's pushing position).

Lifting operations in these instructions are described as if lifting a resident from a chair. The same operations can be performed effectively when lifting a resident from a wheelchair or sitting position on a bed, although a second caregiver should support the resident if the resident lacks sitting balance.

Operational Life

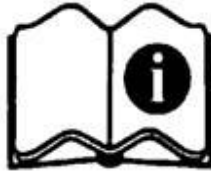
The operational life of the Autolift electric and its accessories e.g. chair etc. is dependent on the actual use conditions. Therefore, before use, always make sure that the lift is safe to use and has not been damaged (see Preventive Maintenance Schedule at the end of this document for details). If any damage should be observed, do not use the Autolift electric.

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1. Safety instructions



READ BEFORE USE

Before using your Autolift electric, familiarize yourself with the various parts and controls as illustrated in this document. Read this whole manual thoroughly before operating your Autolift electric in order to prevent injury or damage to the product.

Definitions used in these instructions:

WARNING

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

CAUTION

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

1.1 Intended use

Autolift electric is a strong bathing aid which utilizes very simple principles to solve the bathing problems experienced by the elderly and disabled. It can be used for independent as well as for assisted bathing.

To describe which residents may be lifted using an Nibotechnics hoist.

The Autolift electric has been designed to lift a person, who:

- is mobile, but may use a cane for support;
- is independent, can clean & dress himself;
- can tire quickly

The Autolift electric can also be used to lift a person, who:

- uses a walking frame or similar;
- can support herself to some degree;
- is dependent on caregiver, who is present in demanding situations;
- is not physically demanding for caregiver.

WARNING

A clinical assessment should be carried out by a qualified nurse or therapist before lifting residents for suitability of transfer in the Autolift electric e.g. residents who have curvature of the spine or who are subject to muscle spasms or other residents may not be suitable.

WARNING

Do not overload the Autolift electric beyond the approved maximum lifting capacity of the lift. For information on the approved maximum lifting capacity, check the serial number sticker on the lifting column.

To raise or lower the chair, use the handset are switch on the lift, (see Fig. 1). If use of the switch is stopped, the chair will remain at that height.

The support arm and chair will rotate around the lifting column and lock into two determined positions. The support arm is released by operating (in either direction) the spring loaded rotation lock release lever (see Fig. 1). Once free from the locking position, the support arm will rotate until the next locking position has been reached, it will then automatically lock into position.

Your Autolift electric may be equipped with the standard fixed seat, fixed commode seat or removable commode / toilet seat. The last two models may have a removable leg rest attachment fitted, if required (see Fig. 1).

The instructions for transfer, locking, raising and lowering are the same for whichever seat is fitted to the Autolift electric.

The removable commode / toilet seat, when detached from the Autolift electric, may be used together with the Nibotechnics mobile sub-chassis. This sub-chassis excepts the chair unit for easy resident transportation to the Autolift electric, without the need to use a separate wheelchair or resident transfer across from wheelchair to Autolift electric chair.

WARNING

Medical electrical devices require special precautions for Electromagnetic Compatibility (EMC). See "Electromagnetic Compatibility" section for more details.

WARNING

Maximize the distance between electro-medical devices. High powered devices can affect the lift. See "Electromagnetic Compatibility" section for more details.

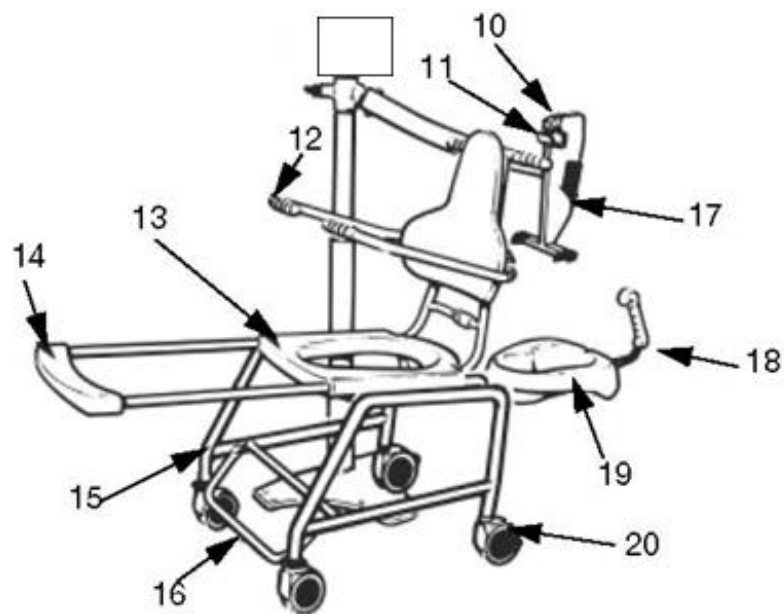
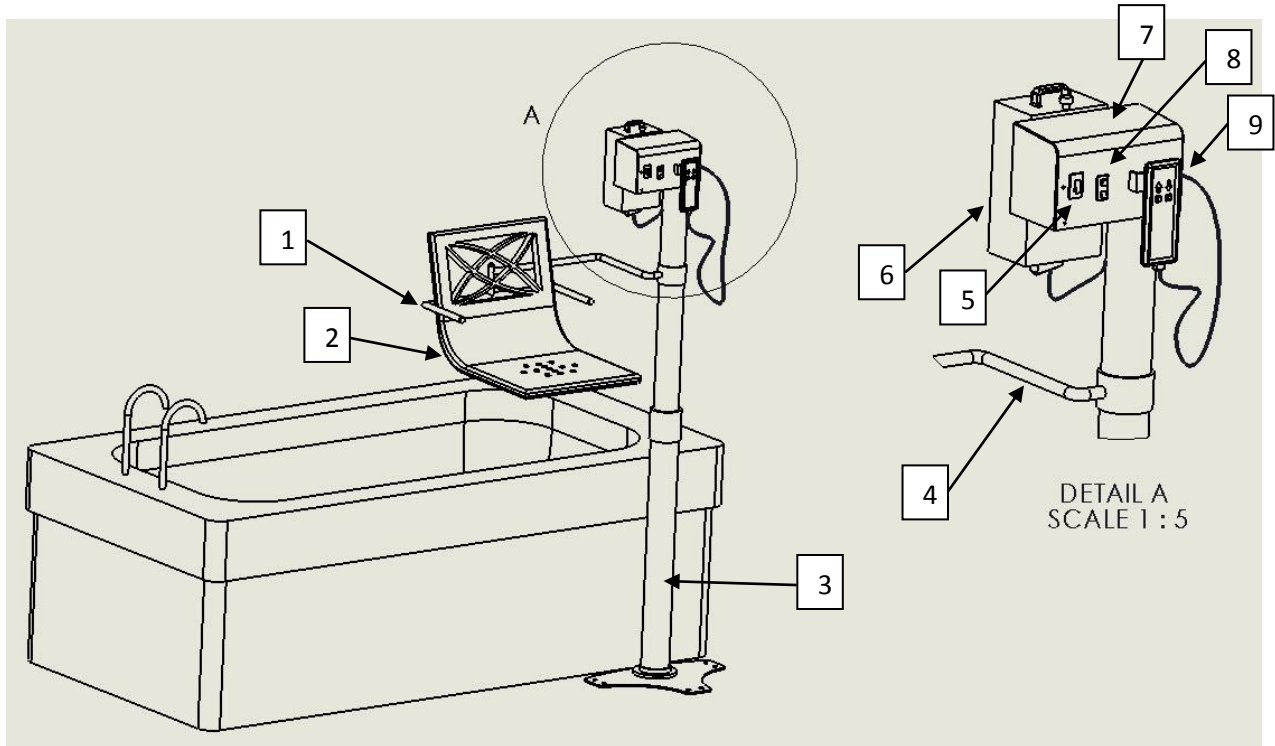
WARNING

Wireless communication equipment such as wireless home network devices, mobile phones, cordless telephones, and their base stations, walkie-talkies, etc., can affect the Autolift electric and should be kept away from it. Cable from potentially strong sources of electromagnetic fields should not be placed near the unit. See "Electromagnetic Compatibility" section for more details.

2. Product description / Function

2.1 Parts referred to in the manual

Fig 1.



1. Fixed armrests
2. Standard seat
3. Lifting column
4. Support arm
5. ON / OFF switch - Emergency switch
6. Battery
7. Lift housing
8. High / Low switch
9. Handset
10. Chair retaining catch
11. Chair frame support channel
12. Fold back protective arms
13. Removable toilet / Commode chair
14. Leg rest
15. Mobile sub-chassis
16. Footrest
17. F1 Lifting Support bracket
18. Commode Pan attachment
19. Commode pan
20. Braked castors

3. Using your Autolift electric

WARNING

Never leave the resident unattended.

Always work according to good bathing principles e.g. check water temperature, water depth, care of the resident, etc.

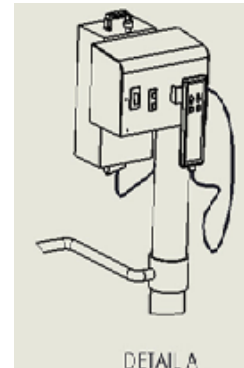
The operations in these instructions are described as if the resident is being aided by a caregiver. If the resident has the ability to operate the Autolift electric unaided, the same instructions apply but must be carried out by the resident alone.

WARNING

When transferring from or to a wheelchair, always engage the wheelchair brakes before the transfer.

Use the handset and / or operate the rotation lock release lever to position the seat outside the bath and at a suitable height for the resident to transfer safely onto the seat (see Fig. 2). **Please be aware that your battery must be charged properly. When the battery is getting low the lift will only move upwards. This to avoid the seat not moving up again when lowered in the bath.**

A RED led light on the control box will indicate when the battery is empty.



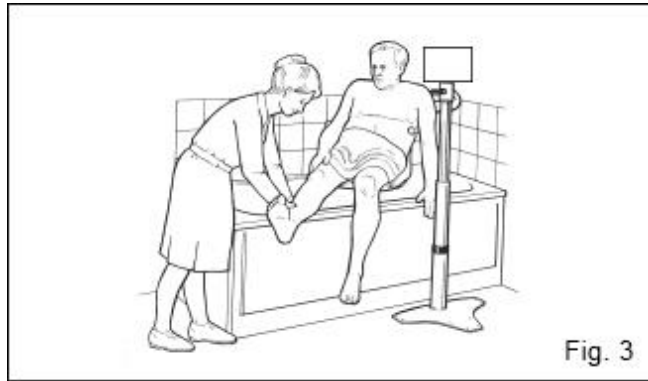
WARNING

Always ensure the rotation lock has operated to fully lock the support arm in position before resident transfer.

Once the resident has been transferred and is seated comfortably, move the wheelchair (if used) away slightly for free movement.

Use the handset to raise the seat and resident sufficiently high enough to clear the side of the bath.

Operate the rotation lock release lever and rotate the chair towards the bath. Then lift or help the resident's legs over the side of the bath (see Fig. 3).



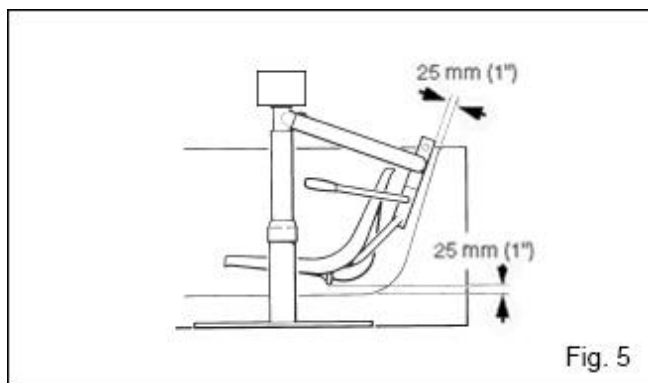
If a commode / toilet seat is fitted, a leg rest may be used to support the resident's legs (see Fig. 4).



Once the chair has been rotated to align with the centre of the bath, the rotation lock will operate. Use the handset to lower the chair and resident into the water.

CAUTION

The chair should be lowered until it is about 2.5cm (1") from the bottom of the bath to avoid scratching or marking the tub (see Fig. 5).



Using your Autolift electric

The resident should remain on the chair for bathing.

After bathing, raise the chair as desired and if facilities permit, carefully shower off the resident.

Ensure the chair and resident are lifted high enough to clear the side of the bath, then release the rotation lock and move the resident over the side of the bath, lifting or helping the resident's legs over the side, as before.

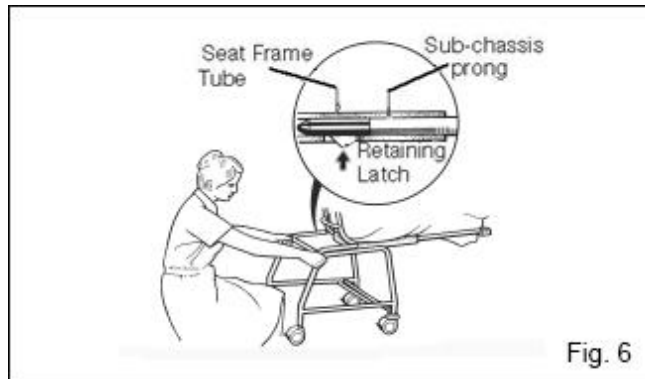
Dry the resident off (this can be done at a comfortable working height for the caregiver and best done with the rotation lock in operation).

With the support arm locked in position, use the handset to lower the resident to the transfer height as before. Re-dress the resident if desired, then transfer back to wheelchair etc.

Never attempt resident transfer unless the wheelchair brakes are applied or the Autolift electric rotation lock is engaged.

4. Using the removable commode / toilet chair and frame with the mobile sub-chassis

To connect the sub-chassis to the chair and frame, simply slide the locating prongs of the sub-chassis into the seat frame tubes at the rear of the seat (see Fig. 6). Push the prongs in until the retaining latch operates (see inset to Fig. 6).



The retaining latch fitted to the left hand prong of the sub-chassis automatically springs through a slot in the chair frame tube when aligned. This ensures the chair cannot accidentally be detached from the sub-chassis. Press in the catch and remove the chair.

4.1 Taking the resident from the bedside

If the caregiver has to transfer the resident from the bedside to the commode / toilet chair and sub-chassis, firstly, fold back the chair arms (see Fig. 7) and fold back the sub chassis foot rest. Position the sub-chassis by the bedside and apply all the sub-chassis brakes.



Carefully help the resident to a comfortable seating position on the chair unit and fold the chair arms back to encircle the resident. Lower the foot rest and place the resident's feet on it.

If necessary and available, fit the commode pan attachment to the back of the chair unit.

Release the brakes and transport the resident to the bathroom.

If desired, the resident may be toileted by reversing the unit over the toilet before or after bathing.

CAUTION

Remember to remove the commode pan attachment if using over a toilet.

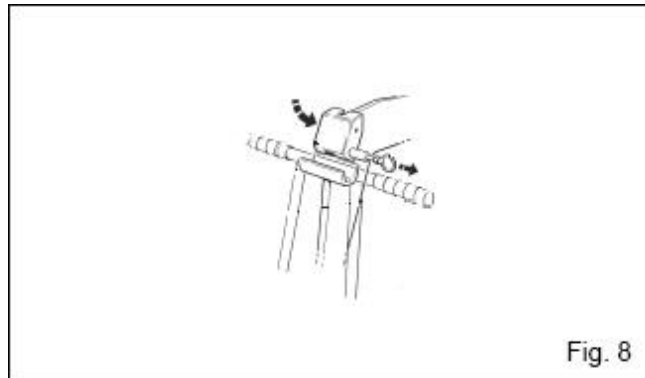
4.2 Transferring in the bathroom

Once in the bathroom, reverse the chair unit and adjust the Autolift electric arm height so that the centre of the top handle tube of the seat frame will fit into the support channel of the Autolift electric lifting support bracket (see Fig. 8). Use the handset to raise and connect the chair unit.

To operate the chair retaining catch when removing the chair, simply insert a finger through the ring pull and pull outwards to release the catch (see Fig. 8) then pivot the catch back to allow the chair to be lifted out.

WARNING

When lifting the chair off, hold it securely so that it doesn't drop and cause personal injury or damage.



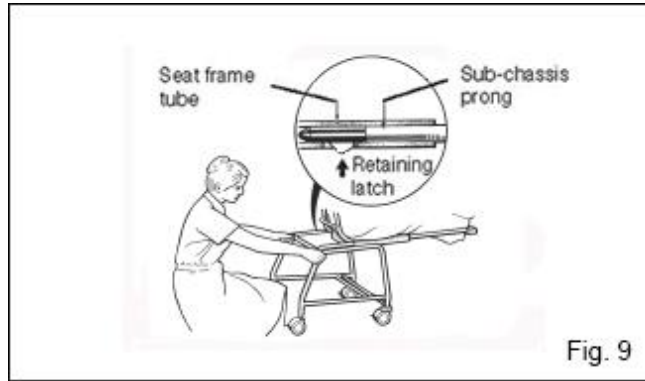
Ensure the spring loaded chair retaining catch works.

Lift the resident's legs and insert the leg rest (if available).

Remove the commode pan attachment (if fitted).

Continue to raise the resident high enough to remove the sub-chassis.

Press in the seat retaining latch on the sub chassis (see Fig. 9) and pull the sub-chassis backwards away from the chair.



Undress the resident if not already undressed and continue as described previously.

The chair arm rests can be folded back once the resident is immersed in the water, this may give better bathing access.

After bathing, raise the resident and continue as described previously until the resident, still supported on the chair, is showered, dried and clear of the bath.

Adjust the chair to a suitable height to refit the sub-chassis.

Ensure the leg rest (if fitted) is far enough out to allow sufficient prong insertion, and ensure the retaining latch works.

Once the sub-chassis is securely connected, continue to lower the unit, operate the chair retaining catch and hold fully open clear of the chair top tube (see Fig. 9) while continuing to lower the unit. At the moment the chair retaining catch is held open by the chair frame, remove your finger from the ring pull. Continue to lower until the chair frame is free.

It is important to open the chair retaining catch just before the sub-chassis wheels contact the floor to allow smooth release of the unit.

Take the resident's legs off the leg rest (if used), remove the leg rest and place the resident's feet on the foot rest.

Return the resident to the bedside.

Complete drying the buttock area before redressing as this may have become wet during transfer and bathing process.

5. Care of your Autolift electric

How often the following actions are taken depends on how often the equipment is used. Unless otherwise stated, it is a good idea to begin once a week and then rely on experience to decide how often it is necessary in the future.

CAUTION

It is recommended that Nibotechnics hoists, equipment, accessories are regularly cleaned. If the hoists and equipment need cleaning or are suspected of being contaminated, follow the cleaning and / or disinfection procedures recommended below, before re-using the equipment. This is especially important when using the same equipment for another resident, to minimize the risk of cross infection.

For cleaning your hoist, equipment and accessories wipe down with a damp cloth using warm water to which a mild detergent has been added

For disinfection of contaminated hoists, equipment and accessories, use the preferred method of wiping the product completely with “hard surface disinfectant wipes” that are supplied impregnated with a mild detergent.

A rubbing action will be necessary when using the wipes to promote effective disinfection of the surfaces.

CAUTION

Do not over wet areas of the product which could cause problems with internal corrosion. If a hot air dryer is used to dry the hoist, the temperature must not exceed 80°C (165°F). Do not use petroleum based solvents or similar, since this may damage plastic parts.

WARNING

Cleaning and disinfection products must be used in accordance with the manufacturer's instructions and suitable eye, hand and clothing protection must be worn at all times when handling disinfectants.

5.1 Cleaning and disinfecting the toilet / commode / shower chair

For exterior areas of the seat and frame the “hard surface disinfectant wipes” mentioned above will be very effective, but for internal and crevice areas of the equipment Nibotechnics recommend that the seat and frame are immersed in a disinfectant / cleaning solution and cleaned in the following manner:

Always read the instructions on the disinfectant / cleaner container before using.

Mix a suitable quantity of solution in the bath tub (always check dilution rate on disinfectant / cleaner container).

Remove the plastic commode seat from the seat frame by pulling the rear edge up sharply to disengage the locating lugs (see Fig. 10). Slide the seat forwards a short distance until clear of the frame tubes and lift away.

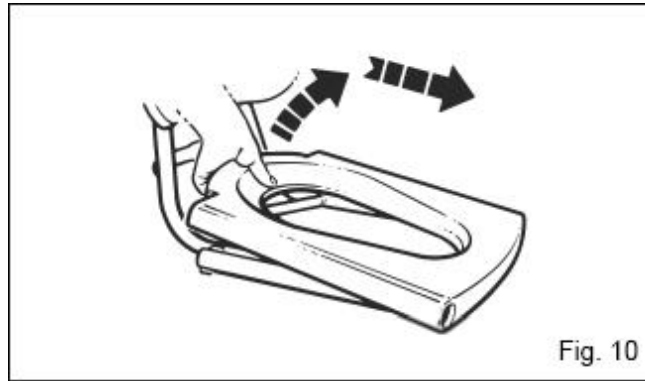


Fig. 10

Put the seat into the disinfectant solution to “soak” and then lower the seat frame into the bath (see fig. 11).

If a leg rest has been used, put this into the solution as well.

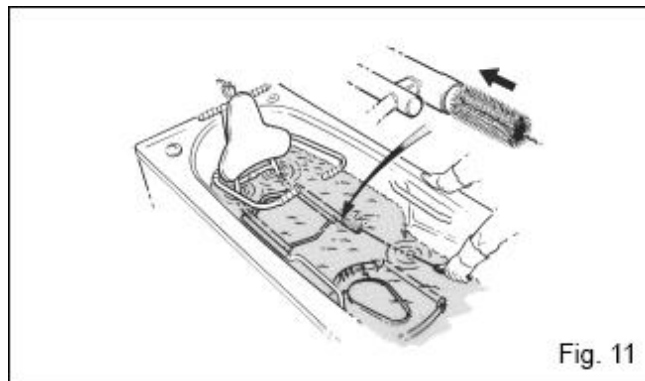


Fig. 11

Using an appropriate long handled, stiff bristled, ‘bottle type’ brush, clean the inside of the seat support tubes thoroughly, as shown in Fig. 11.

Clean the remainder of the seat frame, paying particular attention to recesses in the framework. Raise the chair frame clear of the disinfectant solution and clean underneath.

A scrubbing action is necessary as well as the disinfectant / cleaner action to clean any surface.

Clean the commode seat (and leg rest -if applicable), then drain the bath.

Rinse all parts with clean water and dry with a disposable cloth.

Thoroughly clean the brush in a fresh solution of the disinfectant/cleaner. Rinse well with clean water. Dry the brush and store ready for the next cleaning operation.

To refit the commode seat, locate the seat holes over the seat frame tubes, and align the location lugs over the rear cross bar of the seat frame, as shown in Fig. 12. Apply sharp downward blows onto the rear of the seat, (as shown in Fig.13), in two places directly above the location lugs, until the seat ‘snaps’ back into place.

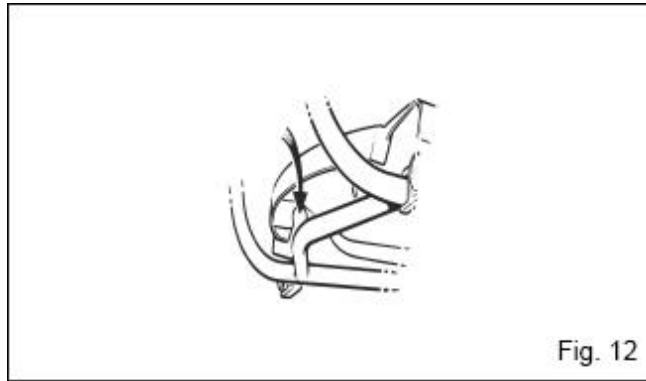


Fig. 12

WARNING

Always ensure the seat is secure before allowing a resident to use it.



Fig. 13

5.2 General hoist condition

If in any doubt about the correct functioning of the Autolift electric, withdraw it from use and contact Nibotechnics or your dealer.

5.3 Servicing advice

Spare parts, if required are available from Nibotechnics or their approved dealers.

Special tools are required for certain component replacement.

UK HOISTS ONLY: Important new legislation came into force on 5th December 1998, which has an impact on the schedule of service for your resident hoist(s), variable height baths and other raising and lowering equipment. The Lifting Operations and Lifting Equipment Regulations (LOLER) 1998 and The Provision and Use of Work Equipment Regulations (PUWER 98) must be satisfied by the duty holder. A scheme of six monthly thorough examinations has been devised to comply with the law and details can be obtained from Nibotechnics.

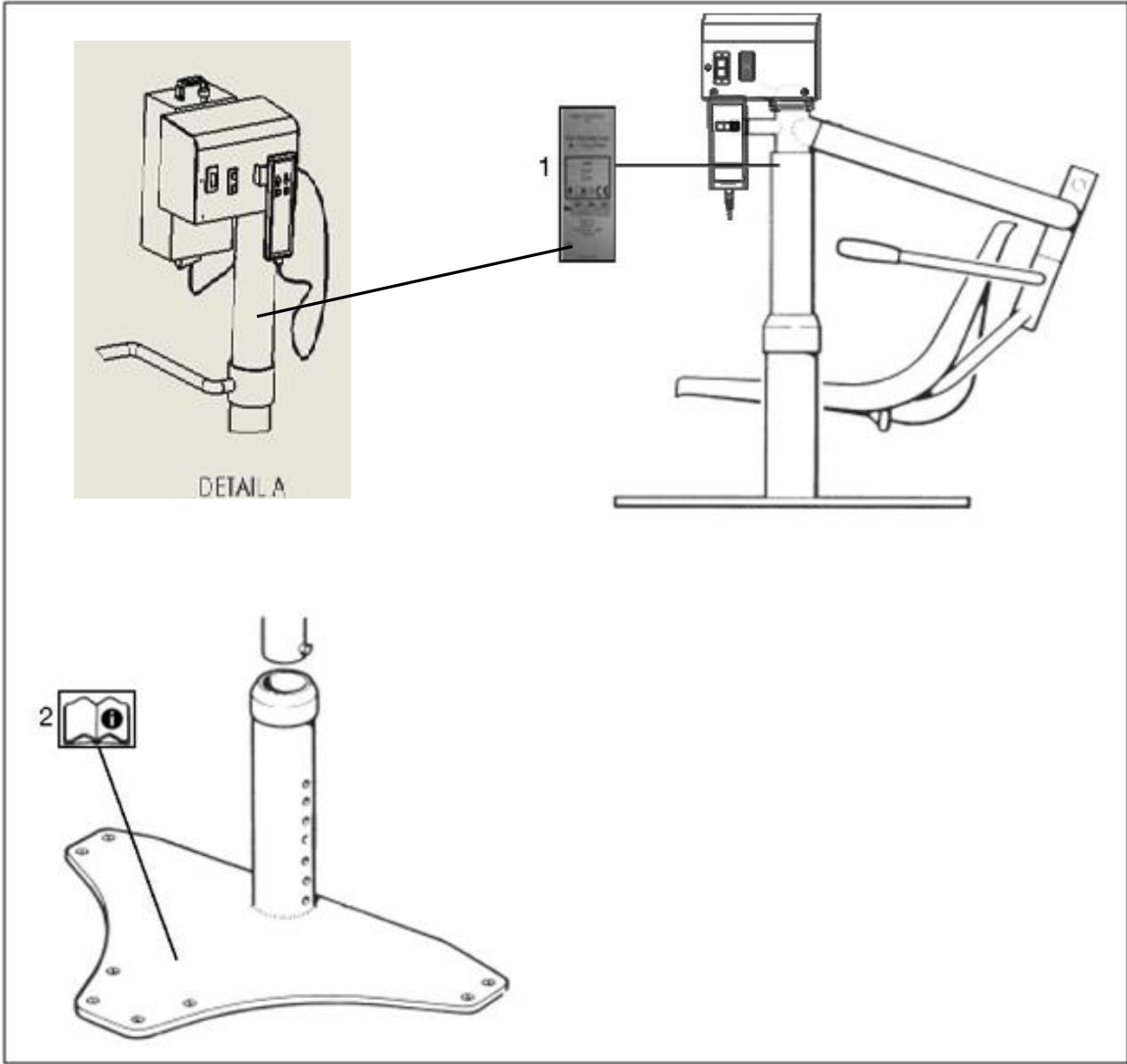
UK HOISTS ONLY: A thorough examination of the Autolift electric, load testing of the base fixings at the specified load (x1.5 SWL) and checking for soundness and/or deterioration of the flooring material in the vicinity of the Autolift electric must be carried out regularly every six months to conform to the mandatory LOLER (Lifting Operations and Lifting Equipment Regulations 1998) examination and also at the annual service.

NON UK HOISTS: A thorough examination of the Autolift electric, load testing of the base fixings at the specified load (x1.5 SWL) and checking for soundness and/or deterioration of the flooring material in the vicinity of the Autolift electric must be carried out regularly every six months and also at the annual service.

The simplest, safest and most effective way to maintain your Nibotechnics Autolift electric in good working order, is to have it methodically and professionally serviced by a Nibotechnics approved engineer using Nibotechnics approved spare parts.

For information on service and maintenance contracts, please contact Nibotechnics or your dealer.

6. Labels



- 1. Sticker Serial number
- 2. Read Operating & Product care Instructions

6.1 Charging instructions

The batteries are located in the power pack and are charged through a socket which also serves as the power supply socket for the lift. The battery pack on the Autolift electric can be removed from the lift and charged independently or it can be charged while still attached to the lift. An additional battery pack can be supplied, if required, so that one pack can be on charge at all times.

1. Remove the power supply plug from the POWER/CHARGING POINT socket. The plug is removed with a straight pull. **Do NOT** twist the plug in the socket. The battery pack can now be removed from the lift for charging elsewhere or left in place for charging with the lift. To remove the battery pack simply pull the black knob on the battery pack up move the battery backwards holding handle on top of the pack and disengage the pack from the locating pins on the mast. Reverse the process for reconnection.
2. Connect the battery charger plug to the POWER/CHARGING POINT socket. The plug is indexed and can be fitted only one way. Connection is achieved.
3. Plug the charger mains plug into a suitable mains outlet and switch the mains supply ON.
4. Charging is fully automatic. The status of the charging is indicated by a LED indicator (see table below).
Note: Even if the charger is left plugged in for extended periods it will not allow the batteries to “overcharge”.
5. To return the lift to service, switch OFF the mains supply, unlock the charger plug. Mount the battery back on the AUTOLIFT electric. The lift is now ready for use.

Charger Status	LED Indicators
Bulk charger mode	Yellow - static ON
Battery charged	Green - static ON
Trickle charging	Green – static ON

The charging of Autolift electric is simple and straightforward, but it is important to follow the charging instructions closely. Please pay particular attention to the following points, it will help you avoid problems with discharged batteries.

- **KEEP** the batteries fully charged. Place the lift on charge whenever it is not in use. The charger will not allow the batteries to “overcharge”.
- **NEVER** run the batteries completely flat. If the audible warning sounds, complete the lifting operation in hand and place the lift on charge.
- **NEVER** store the lift for long periods without regular charging throughout the storage period.
- **ALWAYS** make sure the mains power to the charger is switched off before connecting or disconnecting the charger to or from the lift.
- **NEVER** leave the charger plugged in to the lift with the mains power off.
- **NEVER** disconnect the charger plug by pulling on the cable.

7. Technical specifications

Weight

- Weight lifting column electric version 17 kg
- Safe working load 127 kg

Electrical specification

- Battery 24 Volt 5 A
- Charger 24 Volt 1 A

Electric shock protection

- Class II. Double insulated
- Mode of operation 15% intermittent duty.

8. Electromagnetic Compatibility

8.1 Electromagnetic Compliance

The Autolift electric 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:

- Use only Nibotechnics cables and spare parts to avoid increased emissions or decreased immunity which can compromise the correct functioning of the equipment.
- Ensure that other devices in patient-monitoring and/or life-support areas comply to accepted emissions standards.
- Maximize the distance between electro-medical devices. High-powered devices may produce EMI that can affect the lift. Refer to separation distance table further on in this document.

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*.


8.2 Electromagnetic Emissions

Guidance and Manufacturer's Declaration - Electromagnetic Emissions - For all Equipment and Systems		
The Autolift electric is intended for use in the electromagnetic environment indicated below. The customer or the user of the Autolift electric should assure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The Autolift electric uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The Autolift electric 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.
Harmonic emissions IEC 61000-3-2	Not applicable	
Voltage fluctuations/flicker emissions IEC 61000-3-3	Not applicable	

8.3 Electromagnetic Immunity

Guidance and Manufacturer's Declaration - Electromagnetic Immunity - For all Equipment and Systems			
The Autolift electric is intended for use in electromagnetic environment specified below. The customer or the user of the Autolift electric 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	±6 kV contact ±8 kV air	±6 kV contact ±8 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 61000-4-5	±2 kV for power supply lines ±1 kV for input/output lines	Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV differential mode ±2 kV for input/output	Not applicable	
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% <i>UT</i> (>95% dip in <i>UT</i>) for 0.5 cycle 40% <i>UT</i> (60% dip in <i>UT</i>) for 5 cycles 70% <i>UT</i> (30% dip in <i>UT</i>) for 25 cycles <5% <i>UT</i> (>95% dip in <i>UT</i>) for 5 sec.	Not applicable	
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE: <i>UT</i> is het AC mains voltage prior to application of the test level.			

(continued)

Guidance and Manufacturer's Declaration - Electromagnetic Immunity - For Equipment and Systems that are Not Life-Supporting			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 Mhz	Not applicable	<p>Portable and mobile RF communications equipment should be used no closer to any part of the AUTOLIFT electric, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p>Recommended separation distance</p> $d = \left(\frac{3.5}{V1}\right) \sqrt{P} \quad 150 \text{ KHz to } 80 \text{ MHz}$ $d = \left(\frac{3.5}{10}\right) \sqrt{P} \quad 80 \text{ MHz to } 800 \text{ MHz}$ $d = \left(\frac{7}{10}\right) \sqrt{P} \quad 800 \text{ MHz to } 2.5 \text{ GHz}$
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	10 V/m 80 MHz to 2.5 GHz	<p>Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters. Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, ^(a) should be less than the compliance level in each frequency range. ^(b) Interference may occur in the vicinity of equipment marked with the following symbol:</p> 
NOTE 1: At 80 MHz and 800 MHz, the higher frequency range applies.			
NOTE2: Theses guidelines may not apply in all situations. Electromagnetic propagation if affected by absorption and reflection from structures, objects and people.			
(a) Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the AUTOLIFT electric is used exceeds the applicable RF compliance level above, the AUTOLIFT electric should be observed to verify normal operation/ If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the AUTOLIFT electric.			
(b) Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.			

**Recommended Separation Distance Between -
Portable and Mobile RF Communications Equipment and the AUTOLIFT electric
For Equipment and Systems that are not Life-Supporting**

Recommended separation distances between portable and mobile RF communications equipment and the Autolift electric.

The Autolift electric is intended for use in electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Autolift electric can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communication equipment (transmitters) and the Autolift electric as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	Separation distances according to frequency of transmitter m		
	150 kHz to 80 MHz	80 MHz to 800 MHz	800 MHz to 2.5 GHz
	$d = \left(\frac{3.5}{V1}\right) \sqrt{P}$	$d = \left(\frac{3.5}{10}\right) \sqrt{P}$	$d = \left(\frac{7}{10}\right) \sqrt{P}$
0.01	Not applicable	0.12	0.24
0.1	Not applicable	0.37	0.74
1	Not applicable	1.17	2.34
10	Not applicable	3.69	7.38
100	Not applicable	11.67	23.34

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

9. Preventive Maintenance Schedule

The Autolift electric is subject to wear and tear, and the following actions must be performed when specified to ensure that the product remains within its original manufacturing specification.

WARNING

The points on this checklist are the minimum the manufacturer recommends. In some cases due to heavy use of the product and exposure to aggressive environment, more frequent inspections shall be carried out. Continuing to use this product without conducting regular inspections or when a fault is found will seriously compromise the user and resident's safety. Local regulations and standards may be higher than the manufacturer's. Preventive maintenance specified in this manual can prevent accidents.

The parts which are entitled 'Checks to be performed by Qualified Nibotechnics personnel' have to be carried out by qualified personnel, using correct tools and knowledge of procedures. Failure to meet these requirements could result in personal injuries and / or unsafe product.

Action/Check	Before each use	Every day	Every week	Every 12 months
Nibotechnics SUB-CHASSIS, SEAT AND FRAME				
Visually inspect the sub-chassis to make sure the castors and footrest are securely attached before use.	X			
Examine all exposed parts, especially where there is personal contact with the resident's body. Make sure no cracks or sharp edges have developed that could cause resident or user injury or have become unhygienic. Replace where necessary.	X			
Carry out decontamination of the sub-chassis, seat and frame in accordance with the operating instructions.			X	
Make sure all instruction labels are firmly attached and are readable. See operating instructions for location of labels.			X	
Make sure all external fittings are secure, and all screws and nuts are tight.			X	
Make sure all 4 off castors rotate freely, are securely fitted into the frame and the brakes lock.			X	
Make sure the safety catch, locking the seat frame to the sub-chassis, operates freely			X	
Optional safety chain. If installed in the ends of the arm rests, inspect the safety chains for damage/distortion and make sure they are securely installed.			X	
Make sure the handgrips are secure. Replace as necessary.			X	
Nibotechnics AUTOLIFT electric				
Chair retaining catch, where fitted - Examine the catch to make sure it operates smoothly and the spring pressure is maintained.	X			
Examine all exposed parts, especially where there is personal contact with the resident's body. Make sure no cracks or sharp edges have developed that could cause resident or user injury or have become unhygienic.		X		

Action/Check	Before each use	Every day	Every week	Every 12 months
Replace where necessary.				
Where necessary, after each resident use, carry out decontamination of the AUTOLIFT electric in accordance with the operation instructions.		X		
Chair pick-up hook, where fitted - Examine the pick -up hook on the jib for deformation. If found bent/distorted in any way, withdraw lifter from service immediately and replace jib. See Fig. 1			X	
Where fitted, make sure the rotation lock release lever disengages smoothly and engages under its own spring load.			X	
Make sure all external fittings are secure, and all screws and nuts are tight.			X	
Make sure all instruction labels are firmly attached and are readable. Replace as necessary. See operating instruction for location of labels.			X	
A general visual inspection of all external parts should be carried out periodically and all functions should be tested for correct operation, to ensure that no ad-verse damage has occurred during use.			X	
Check that handset and switch work properly.	X			
Make sure that the battery is charged frequently to secure a safe lifting.	X			
Inspection to be done by approved service technician. Inspect all the components within the winding mechanism for wear and damage, paying particular attention to the following and replace where necessary. Spring retainer for damage to end face. Spring for damage or broken coils. Adjustment plunger for operation and corrosion. Regrease the threaded shaft and plunger using Energrease FG00-EP or equivalent. Check all functions for correct and smooth operation. Make sure the base is mounted securely to the floor. For electric hoists check all electric components and wires.				X

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