

# C-800/C-1000 Ceiling Lift

# **OWNER'S MANUAL**

Use and Care/Troubleshooting/Warranty Information



#### **Foreword**

Handicare provides products designed for safe patient movement and positive outcomes for long-term care, hospital settings and homecare environments. The company's research and clinically based product line-up includes therapeutic surfaces for pressure management and positioning, medical beds and a complete portfolio of innovative ceiling lifts and slings.

Built from a heritage of brands including Span, Savaria and Silvalea, Handicare is a division of Savaria Corporation (TSX:SIS), a global leader in accessibility.

#### **About This Manual**

This manual is only intended for use by trained professionals who have completed Handicare training and are qualified to install Handicare ceiling lift products properly and safely. Read all labels and directions before beginning installation.

#### Structural Review Disclaimer

The methods for attaching to building structures described in this manual are for informational purposes only and do not constitute a site-specific structural review and calculation package performed by a licensed engineer. These methods for attaching to building structures assume an adequate building structure that will sustain point weight loads, stresses, and testing capacities. Struts, hardware, fasteners, and rods differ in specification and tolerances for each manufacturer. Hardware/struts have various span and load capacities that must be determined and adhered to, based on original manufacturer's specifications. Structural review and site-specific plans created by a licensed engineer will always supersede the attachment methodology in this manual. Installers are strongly advised to have building structure capacity professionally reviewed and be fully aware of all relevant manufacturer's material and product specifications. Handicare USA Inc., its parent, or affiliate companies are not liable for improper building structure review or improper hardware/strut usage.

## **Important**

Be sure to read this entire manual before using the C-800/C-1000 lift.

The information in this manual is important for the safety of the person being transferred and the operator, and for the proper use and maintenance of the device. Transfer always presents a potential risk, and this manual provides important safety information that must be read and understood to help prevent injuries.

Unauthorized modifications to the device may affect its safety. Handicare will NOT be held responsible for any accidents, incidents or performance deficiencies that occur due to any unauthorized modification to the device. To avoid potential injury due to the use of inadequate parts, always use only Handicare replacement parts.

Regularly scheduled maintenance must be performed on your device by an Authorized Handicare Dealer to ensure safety and proper operation of the device. Refer to the Maintenance section in this manual.



If a serious incident occurs in relation to the device should be reported to the manufacturer or distributor of the device.

#### Legal Manufacturer:

Handicare, USA, Inc. 10888 Metro Court St. Louis, MO 63043 USA Tel: 314-692-9135 Fax: 314-692-7858

Toll Free: 1-866-891-6502 www.handicare.com Handicare Canada 81 Romina Drive Concord, ON L4K 4Z9 Canada Tél: +1 416 260-2145 Télécopieur: +1 416-260-0256 Sans frais: +1 877 304-5438

www.handicare.com

# **Standard Notations**

The following notations may be used throughout this manual to emphasize important safety information, mechanical concerns, and other important information. Please review and follow all messages.

<u></u>	Danger messages indicate an imminently hazardous situation, which, if not avoided, results in death or serious injury. All danger messages feature a standard ISO safety alert symbol followed by the signal word DANGER in capitalized black lettering on a red background.
<b>⚠</b> WARNING	Warning messages indicate a potentially hazardous situation, which, if not avoided, could result in death or serious injury. All warning messages feature a standard ISO safety alert symbol followed by the signal word WARNING in capitalized black lettering on a dark yellow background.
A CAUTION	Caution messages indicate a potentially hazardous situation, which, if not avoided, could result in minor injuries. All caution messages feature a standard ISO safety alert symbol followed by the signal word CAUTION in capitalized black lettering on a yellow background.
NOTE	Note messages provide information, such as reminders, general information about a previous statement, or additional guidelines that do not fit into the flow of the preceding text. All note messages include the signal word NOTE in capitalized white lettering on a blue background.

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### 1. Introduction

CAUTION: DO NOT ATTEMPT TO USE THIS EQUIPMENT WITHOUT FIRST UNDERSTANDING THE CONTENTS OF THIS MANUAL.

Before using this equipment, and to ensure the safe operation of your C-800/C-1000 lift, carefully read this entire manual, especially the section on "Cautions". The C-800/C-1000 is designed to be used in conjunction with Handicare lift track, accessories, and slings. Please refer to any user guides supplied with these components and refer to them while reviewing this manual.

Should any questions arise from reviewing this manual contact your local authorized Handicare dealer. Failure to comply with warnings in this manual may result in injury to either the operator, or the individual being lifted/transferred. Damage to the lift and/or related components may also occur. Be sure that the contents of this manual are completely understood prior to using this piece of equipment. Store this manual with the documents included with the lift system and sling (s). Contents of this manual are subject to change without prior written notice.

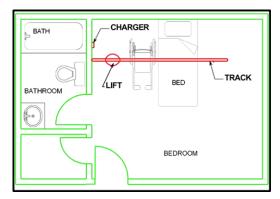
#### 2. Overview

The C-800/C-1000 is a lifting aid used by health care professionals and those providing care in the home to lift, position and transfer clients or a disabled family member. The C-800/C-1000 lift is part of what is termed ceiling lift technology which takes advantage of lifting from above and not from below or the side. Additionally, the ceiling lift does not take up valuable floor space as most traditional methods do. Finally, the ceiling lift makes it possible to move mobility impaired individuals with minimal strain or risk to the caregiver, while providing complete safety, dignity and comfort for the client or family member.

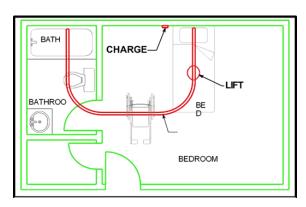
The C-800/C-1000 lift is one of three major components that make up this technology. The other two components are the track and sling. The C-800/C-1000 lift runs on the lift track which is securely mounted to the ceiling structure of the institution, or home with the use of ceiling brackets. The track itself is made of specially designed aluminum and comes in many different shapes, lengths, and configurations, and is custom tailored and installed to meet your specific requirements. The third component, the sling, is a specially designed fabric accessory that attaches to the lift by means of a carry bar and straps, and holds an individual while the lift, positioning or transfer takes place. Both the track and sling are generally supplied with the lift at the initial time of purchase. Please refer to any user guides supplied with the C-800/C-1000 lift and reference them while reviewing this manual.

The C-800/C-1000 is a fixed ceiling lift, that is, it always remains on the lift track. It can lift an individual up from one location such as bed, move the individual along the track to another location and finally lower the individual into a chair or bath. It is moved along the track in one of two ways. The first is by manually moving the lift along the track with the aid of a caregiver. The second is by having the lift power itself along the track. The functions of raising or lowering, or moving to the left or right, are accomplished by pressing buttons of a pneumatically (air) operated hand control. The hand control is attached to the lift by way of a rubber airline tubing. Due to the design of the lift system, it takes very little effort to press a button to perform the desired motion.

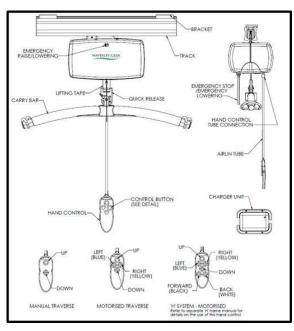
# 3. Lift System Components



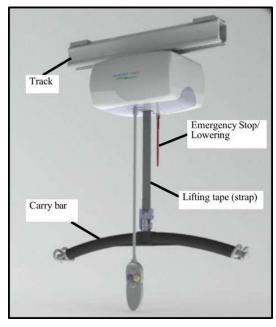
Sample Floor Plan



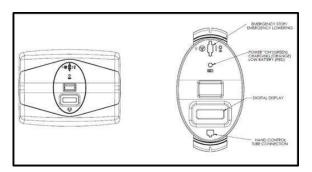
Alternate Sample Floor Plan



C-800/C-1000 Basic Component List



Ceiling Lift w/ Standard Emergency Stop/Lowering



Underside View of Lift



Underside of Lift

The following components are included with your new C-800/C-1000 lift system:

- C-800/C-1000 lift (Manual or Motorized traverse)
- Pneumatic Hand Control
- Lift Charger (mounted on the wall or ceiling at the end of the track)
- Owner's Manual
- Warranty Card

SLINGS: If a sling has been supplied with the lift refer to the instructions included with the sling.

ACCESSORIES: If additional accessories such as a turntable, or gate system have been supplied with the lift refer to the instructions included with those items.

IMPORTANT: Before initial use, the lift unit must be charged for 4 hours. The hand control airline tube must also be connected to the lift. If it is not connected, see "Connecting airline to the lift."

# 4. Specifications

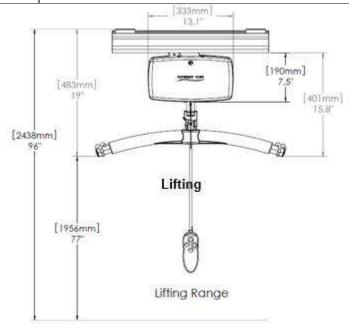
Lift Motor:	24 VDC		
Traverse Motor:	24 VDC (Optional at time of Purchase)		
"H" Frame Traverse Motor:	24 VDC (Optional at time of Purchase)		
Charger Input:	120 VAC @ 1.0 Amps, 50-60 Hz		
Charger Output:	24 VDC @ 1.5 Amps, 50-60 Hz		
Batteries:	24 VDC (2 x 12 VDC) 5.0 AH, Sealed Lead Acid		
Lift Case:	Flame Retardant ABS		
Hand Control:	Pneumatic		
Lifting Range:	Up to 96" (2438mm)		
Lift Weight:	24.5 lbs.		
Maximum Load:	C-800 = Standard maximum load of 800 lbs.		
	C-1000 = Standard maximum load of 1000 lbs.		
Duty Cycle:	1 minute ON, 9 minutes OFF		
Rated Performance:	17-20 lifts at 800 lbs. for C-800 and 1000 lbs. for C-1000, 10% duty cycle, each lift being 24 inches at the middle of the lifting range (from 54" strap out to 30" strap out) per full battery.		
	The lift has a break in period; breaking in of the lift will need to be done before these numbers will be achieved. The breaking in period will vary from lift to lift and is dependent on the frequency of use and the types of load being applied, the higher the load and a greater frequency of use will break in the lift faster.		
Service Life:	22,500 cycles or 10 years, whichever comes earlier. As a precautionary measure, the lifting strap should be replaced every 5000 cycles or 3 years, whichever comes earlier. Higher usage lifts may necessitate more frequent replacement of the lifting strap.		
Type of Applied part:	B type		
Shipping/Storage Conditions			
Temperature:	-40 to +70 °C		
Relative Humidity:	10 to 100% RH		
Atmospheric Pressure:	500 to 1060 hPa		

# 5. Symbols

This symbol is used to point out instructions and information related to workplace safety where injury may occur if the information is disregarde ignored. Follow these instructions, be careful and attentive at all times.			
•	Body Weight		
	Emergency Stop		
	Class II Equipment - electrical equipment in which protection against electric shock does not rely on basic insulation only.		

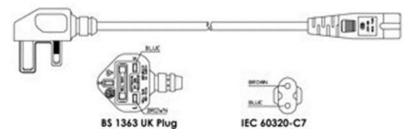
# 6. Product Models

SKU	Description	
329100	C-1000 Manual Traverse	
329101	C-1000 Manual Traverse (Omni)	
329103	C-1000 lbs. Manual Traverse (Rev.A)	
329126	C-1000 Power Traverse	
329151	C-1000 Power Traverse (Omni)	
329180	C-800 lbs. Manual Traverse	
329190	C-800 lbs. Power Traverse	

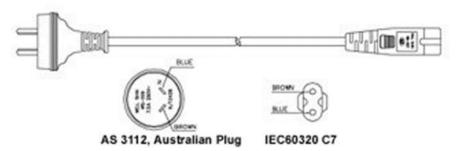


# 7. Plugs

Please use the following type of plug for C-800/C-1000 lifts installed in the UK:



Please use the following type of plug for C-800/C-1000 lifts installed in Australia:



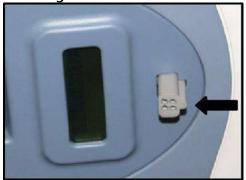
The C-800/C-1000 lift shall be connected to a center-tapped single phase supply circuit when users in the United States connect the equipment to a 240 V supply system.

## 8. Cautions

- The C-800/C-1000 must be installed prior to use. Contact your local authorized dealer to ensure that it's properly installed. The C-800/C-1000 must be installed only by person(s) authorized by Handicare Ltd.
- Under no circumstance should the C-800/C-1000 track, lift and sling (s) or entire system be put in control of a person who has not been properly trained in the use and care of this equipment. Failure to adhere to this warning may result in serious injury to the operator, and/or the individual being lifted/transferred.
- The C-800/C-1000 lift, and associated track and sling(s) are not toys. Do not use it for unsafe practices. Do not allow children to play with the lift or any of its' components.
- The manufacturer's warranty is void if person(s) unauthorized by Handicare perform work on the C-800/C-1000 lift system.
- There are no user serviceable parts inside the cover. Do not remove cover screws, or open the lift unit, as this will VOID THE WARRANTY.
- In facilities where more than one operator will be responsible for using the C-800/C-1000 lift and associated track and sling(s) it is imperative that all such members be trained in its' proper use. A training program should be established by the facility to acquaint new operators with this equipment.
- Never expose the C-800/C-1000 lift directly to water. Warranty does not cover any misuse or abuse of the lift system.
- To maintain optimum function, the C-800/C-1000 should be inspected and maintained on a regular basis.
- Any accessories used with the C-800/C-1000 including track and sling (s), should be checked to ensure that they are in good working order. Check for signs of wear or fraying prior to use. Report any unusual wear, or damage immediately to your local authorized Handicare dealer.
- The C-800/C-1000 lift, and associated lift, track and sling (s) are intended ONLY for lifting and transferring of a person. Handicare will not be responsible for any damage caused by the misuse, neglect, or purposeful destruction of the lift, and/or its' associated components.
- Do not in any circumstance exceed the maximum allowable load of this lift.
- The installation of the lift, track, accessories, and sling are certified to a maximum load. Do not exceed the maximum rated load of any of the components,
- There is a risk of explosion if the lift is used in the presence of flammable anesthetics.
- The C-800/C-1000 has features which improve its electromagnetic immunity but immunity from interference cannot be guaranteed. For best performance keep transmitting devices (cell phones and hand-held radios) away from the lift.
- Ensure that a clear space is maintained around the lift and track. Move all curtain material and other obstacles out of the way before performing a transfer.
- The charger must be always located outside the patient vicinity. The patient vicinity is the space with surfaces likely contacted by the patient or an attendant who can touch the patient. This space is 6 feet (1.83m) beyond the perimeter of the bed, examination table, etc., extending vertically 7-1/2 feet (2.29m) above the floor.

# 9. Operation

Attaching the Air Line to the Lift



Gray Rubber Lift Grommet



Connecting Airline to Lift Grommet



Connected Airline

Should the gray rubber airline that connects the lift to the hand control become disengaged from the underside of the lift it must be reconnected for the lift to work properly.

The rubber airline may become disconnected for the following reasons:

- 1. The lift is pulled along the track by the airline.
- 2. The tubing accidentally gets wrapped around an object while a lift or transfer is being performed.
- 3. It is accidentally pulled out by the caregiver, or the individual being lifted.

The airline is connected to a gray rubber grommet located on the underside of the lift. Small metal ribbed pins located at the end of the airline hold the airline to this rubber grommet in a specific manner. Therefore, it is important to make sure that the airline is connected properly. Both the grey airline and the rubber grommet have a grey rib on one of their sides. Line up the grey ribs together. When this is done then the metal ribbed pins attached to the end of the airline can be re-inserted into the corresponding holes in the rubber grommet on the underside of the lift. Be sure to insert the pins into the grey rubber grommet sufficiently so that it is secure.

Perform a brief test to ensure proper connectivity. Turn the lift ON and OFF. Raise and lower the carry bar. For motorized traverse lifts move the lift left and then right. If these functions work correctly then the airline is properly connected.

If the lift does not work properly, check to ensure that the grey ribs on the grey rubber grommet on the underside of the lift and the airline tubing are lined up properly. If they are not lined up properly, then remove the airline, line up the grey lines and then re-insert it into the rubber grommet. Perform the test as noted in the preceding paragraph. If there are still problems with the lift, then contact your local authorized dealer for service.

Always, before using the C-800/C-1000 lift system, the lift, track, and sling(s) must be visually checked for any unusual wear, or damage. Refer to the user manual with each piece of supplied equipment to determine what should be checked. Should anything look unusual contact your local Handicare dealer prior to use.

Failure to comply with this caution could result in serious injury to the operator, the individual being lifted and/or damage to the lift.

## Turning the Lift On and Automatic Off







Manual Traverse Hand Control

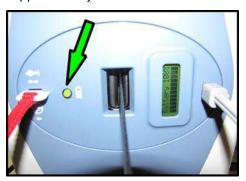
Power Traverse Hand Control

Motorized Traverse XY

NEW LIFTS OR LIFTS THAT HAVE HAD BATTERIES CHANGED SHOULD BE CHARGED A MINIMUM OF 30 MINUTES BEFORE USE.

To operate the lift, it must first be turned ON with the use of the hand control. This can be done by pressing any button on the hand control. The indicator light located on the underside of the lift will turn GREEN and the display screen will turn on. If the lift fails to turn ON at any time, ensure that the EMERGENCY STOP/ LOWERING CORD has not been pulled and that the plastic clip at the end of the RED cord has not come out.

To conserve battery power the lift will automatically shut off after approximately 5 seconds if no buttons are pressed after initial "waking" or after approximately 2 minutes on non-use after last button push.



Lift ON Indicator

Raising/Lowering the Carry Bar

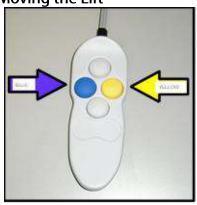




By pressing the DOWN arrow button, or the UP arrow button, the carry bar can be lowered/ raised to the correct height for attaching the sling or positioning an individual.

It is recommended that the caregiver (operator) hold the carry bar with one hand while this is being done so that it will not sway and/or encounter an individual or close object. These buttons work the same on each model of the lift.

Moving the Lift





The lift is normally parked at the charging station end of the track when not in use. It can be moved along the track to a position directly above the person to be lifted in one of two ways.

If you have a manually traversing lift lower the carry bar to a comfortable height such that it can be easily grabbed by your hand. Move the lift along the track by gently pushing the carry bar, or individual in the sling. Never pull the lift along the track.



If you have a motorized traversing lift, use the blue or yellow colored directional hand control buttons to move the lift. The blue and yellow buttons correspond to the directional arrows on the underside of the lift. The direction therefore that is taken is determined by the color of the button that is pressed. This works the same no matter what side of the lift a person is standing on.

Always use extreme care when moving the lift along the track. Watch out for and avoid any obstructions that may cause injury to the individual in the sling and/or damage to the lift.

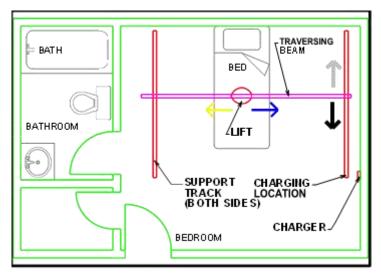
### Moving the "H" System Traversing Beam

If the installed track is an "H" system, then this section should be reviewed as it describes how to move the traversing beam. If the installed track is not an "H" system, then this section can be skipped.

The "H" system involves the installation of two parallel support tracks and one traversing beam that is mounted perpendicular to the two support tracks.

The benefit of this type of system is that it provides greater movement and positioning ability for an individual since the floor space coverage area is much larger than for a single piece of track.

Besides the previously described UP/DOWN movement of the carry bar, and LEFT/RIGHT movement of the lift, the "H" system adds the ability to move the traversing beam anywhere along the length of the two parallel support tracks.



This can be accomplished in one of two ways. If the installed "H" traversing beam is manually traversing then the beam is moved along the sup- port tracks by manually moving the beam, lift, and individual in one motion. This movement is the same as that used for a manual traversing lift, as previously described.

If the installed "H" system traversing beam is motorized traversing, then the beam is moved along the support tracks by pressing either the black or white hand control button. This will move the beam in the direction of travel as noted by the black  $[\ \ \ \ ]$  and white arrows  $[\ \ \ \ \ ]$  located on the underside of the lift.

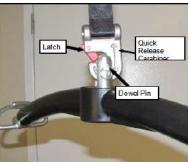




Always use extreme care when moving the traversing beam. Watch out for and avoid any obstructions that may cause injury to the individual in the sling, or damage to the lift/track.

Attaching the Carry Bar to the Lift







Your lift has come with a Quick Release Carabiner on the strap. Open the latch of Quick Release Carabiner by hand. Insert the Dowel Pin of carry bar into the hook of the Quick Release Carabiner and release the latch. Make sure the latch is closed safely after the Dowel Pin sitting into the hook of Quick Release Carabiner. The Carry Bar is attached to the Lift's Quick Release Carabiner.

### Return to Charge (If Equipped)





If your motorized, traversing lift has a return-to-charge feature (RTC), pressing & holding the blue and yellow colored directional hand control buttons simultaneously for 3-5 seconds (to produce beeping noise) will automatically retract the lift's carry bar and drive the lift along its track until it docks at the charger.

C-800/C-1000's are equipped with new weight sensitive adaptive return-to- charge feature, which offers added protection during RTC movement. The salient features of new "Load Sensitive RTC" are as follows:

- 1. If user/operator may have accidentally enabled RTC while a patient is in the lift, the RTC function will stop automatically by sensing excess load on the lift during RTC. The overload threshold is between 40-70 lbs.
- 2. During RTC, if lift carry bar accidentally gets tangled with obstacles, furniture, drapery etc., the lift will automatically detect the change in the load and if any variation of more than 15-30 Lbs. is detected the lift will stop automatically.

#### NOTE

The RTC feature can always be interrupted manually by either pressing any buttons on the hand control or by holding the carry bar firmly.

#### NOTE

The RTC feature has several characteristics that may be altered to the user's preference:

RTC Max. Time may be set anywhere from 60 sec to 240 sec in 60 sec increments and represents the maximum time allowed for the lift to travel to and dock at the charger before aborting the operation.

RTC Drop Time may be set anywhere from 3 sec to 24 sec in 3 sec increments and represents the time the lift devotes to lowering the carry bar upon docking at the charger.

RTC Speed may be set to 2, 4, 6 or 8 and represents the relative speed the lift travels at to reach the charger.

Contact your Service Technician to change these settings.

Always ensure the carry bar is attached to the lift before activating RTC function. The added weight of the carry bar is required to ensure correct working of limit switches. Failure to have carry bar attached can result in limit switch error.

Always use extreme care when moving the traversing beam. Watch out for and avoid any obstructions that may cause injury to the individual in the sling, or damage to the lift/track.

## Transferring an Individual

The following steps are intended to generally illustrate the procedure involved in the lifting and transferring of an individual from one location to another using the lift, track, and sling. Track configurations will vary by installation.

The manual for the sling that was purchased with the lift should be reviewed in detail prior to attempting these steps, as the sling illustrated here may not be the same as the one that was purchased.

Contact your local authorized Handicare dealer if you have any questions or concerns.

1. Move the lift away from the charging station or current location and close to the individual that is to be transferred. Use the procedures for up and down and moving along the track.

Always use extreme care when moving the lift along the track. Watch out for and avoid any obstructions that may cause injury to the individual in the sling, or damage to the lift/track.

2. Prepare the individual being transferred with the appropriate sling. Refer to the instructions supplied with the sling that was purchased on how to properly outfit an individual with a sling.

Always make sure that the sling is correctly fitted and adjusted on each side of the individual so that maximum comfort and safety are achieved prior to lifting.

3. Once the individual has been outfitted with the sling, move the lift so that it is positioned directly over the individual. Lower the carry bar to a height so that the straps of the sling can be easily attached to the carry bar.

Always check to ensure that the lift is correctly positioned directly above the per- son to be lifted. Over time, the lift strap may fray if this is not followed.

Check to ensure that the carry bar has no cuts, dents or sharp edges that may come in contact with the straps of the sling and cause damage to them. Report any concerns to your local authorized dealer.

4. Attach the straps of the sling to the hooks of the carry bar. The straps on each side of the sling are generally attached to the corresponding side of the carry bar. Be sure to double check to ensure that the straps are properly attached to the carry bar, and that the individual being lifted is properly positioned in the sling prior to lifting.

Prior to lifting an individual make sure that the straps of the sling are securely placed on the hooks of the carry bar and that the straps will not come off.



Sling loop correctly positioned at the base of the carry bar hook.



During the preparation for the patient transfer, the tension is reduced.



Sling loop flipped over and incorrectly resting on the hook.



Load applied. The sling loop begins to slide off the hook.



Sling loop separated from the carry bar hook.

There is a risk for the strap to disengage from the hook if a sling loop is allowed to rotate and rest on the top of the hook(s). Please check to ensure that the loops are on the hook not resting in the hook. Failure to adhere to these instructions could result in serious injury or death. For your safety and the safety of the patient, please always ensure that the sling loops are correctly positioned on the carry bar hooks. It is suggested to do the check of the sling loops once there is.

Prior to lifting an individual ensure the hand control cord is free of the carry bar hooks.

5. The individual may now be raised with the use of the UP button on the hand control. While lifting is in progress the height required for the transfer to be completed safely should be closely observed. Ensure that the individual being lifted will not be injured by any obstructions during the initial lifting.

Always use caution when lowering/raising an individual who is in the sling of the lift. Watch out for and avoid any obstructions that may cause injury to the individual, or dam- age to the lift.

- 6. Once at the correct height the individual can be moved along the track to the desired location. Refer to the sections already described in this manual on how to move the lift along the track
- 7. Once at the desired location the individual in the sling can be lowered/raised to the correct height to complete the transfer. On completion of lowering/raising ensure that the individual is properly positioned and safely supported prior to removing the straps of the lift from the carry bar.

Prior to removing the straps of the sling from the carry bar be sure to check that the individual being lifted is securely supported in the final desired position.

- 8. Lower the carry bar sufficiently to allow the straps of the sling to be easily removed from the carry bar. Take care not to let the carry bar encounter the individual in the sling. The straps from the sling can now be removed from the carry bar. The carry bar of the lift should then be raised sufficiently, and the lift moved away from the immediate area so that it will not interfere with the removal of the sling from the individual.
- 9. The sling can now be gently removed from the individual. It should then be stored in a safe place for future use.
- 10. The lift can now be moved to a safe location until further use or relocated to its' original location. The lift should be turned off when not in use. It is recommended that the lift be left on charge when not in operation.

#### **Optional Hand Control Hook**

Your lift has come with an optional Hand Control Hook. This Hand Control Hook can be installed onto the Hand Control using the self-tapping screws provided with the plastic hook. On the back of the Hand Control there will be 2 small pilot holes where the self-tapping screws should be screwed into.



Hand Control with Hook



Suggested use

## 10. C-800/C-1000 Tandem Bariatric System

In cases where a client's weight, size or medical condition requires precise control when transferring or repositioning, The C-800/C-1000 Tandem Bariatric Lift provides a safe and reliable solution.

The transfer or re-positioning of Bariatric clients can be difficult. A single track can push the legs of a Bariatric client toward the torso, decreasing the hip angle, and compressing the upper body. This can cause discomfort and, in some cases compromise breathing.

Mounted on dual ceiling tracks running parallel to each other, each track fitted with its own independently operated motor, the C-800/C-1000 Tandem Bariatric system allows a caregiver to separately lift torso and legs. This allows the caregiver to keep the angle between the torso and femur open - sometimes difficult to achieve using a single-motor lift system. Precise body positioning, whether seated or recumbent, is possible with the C-800/C-1000 Tandem Bariatric System providing maximum flexibility and comfort.



The C-800/C-1000 Tandem Bariatric system requires more staff co-ordination because of its dual motor system. Each lift has its own hand control and its operated independently often requiring two staff members acting as a team.

#### C-800/C-1000 Tandem Bariatric System Carry Bar Accessory

Tandem Bariatric System Carry Bar allows users to take full advantage of dual motor positioning giving greater control of a client's weight between the two (torso and leg) lifting motors. The part number for the Tandem Bariatric Carry Bar is 360765.



## Charging the Lift

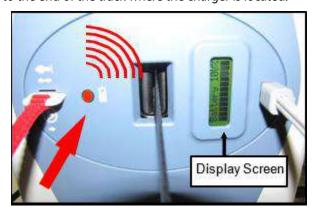
The charger contacts with two metal charging strips that run along the inside of the track. Whenever the lift is over a section of track with charging strips it will automatically start to charge the lift if its battery is low.

The batteries should be charged on a regular basis. It is recommended that the lift be left on charge when not in operation, and at the end of each day. This will maximize the life cycle of the batteries.

The lift may remain connected to the charger indefinitely since the charger has a built-in regulator, eliminating the danger of overcharging.

As a rule, it is recommended that the carry bar be raised to a height so that it will not interfere with anything or anyone while the unit is not in use.

The light will turn ORANGE on the lift control panel and a slow beeping audible alarm will sound if the batteries are low and require charging. The display screen will also indicate low battery. Complete the transfer that is in progress and then move lift to the end of the track where the charger is located.



Underside of lift showing **RED** discharged battery indicator light and audible alarm beeping every 10 seconds.

Following the ORANGE indicator, the light will turn RED on the lift control panel and a fast-beeping audible alarm will sound indicating the batteries are fully discharged and require charging. The display screen will also indicate low battery. When the battery is discharged the UP function will be disabled. The DOWN and EMERGENCY DOWN function along with XY TRAVERSING will continue to operate.

When the lift is on the charger the light on the lift will always be ORANGE. After one hour, the lift may be used, however, overnight charging is recommended. The light will change to GREEN when the lift is removed from the charger. This indicates that the lift is charged between 25%-100%.

Use only the Soneil charger that was supplied with the lift or with Mascot 9940 charger. Use of any other charger will void all warranties and may cause damage to the lift.

In addition to the indicator lights on the lift, the charger has an indicator light as well. When ORANGE, it indicates that the lift is on the charger and charging.

When the lift is fully charged light on the charger will change to GREEN.

#### NOTE

In some circumstances it may be necessary to mount the charger out of view.



Charger with ORANGE light indicating that the lift is connected and charging.

When the lift is fully charged this light will turn GREEN.

#### **Allowable Charger Specifications**

Soneil 2403SRM20, Input: 100-240Vac, 50/60Hz, 1.5A MAX, Output: +24Vdc, 1.0A

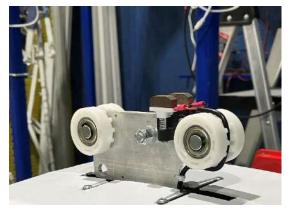
### **Constant Charger**

There are two constant charge systems depending on the track selected for the ceiling lift. The standard constant charge system has (2) copper colored "brushes". The Guldmann (Rev G.) constant charger system has (2) metal roller bearings. Both styles contact charging strips that run along the inside of the track. When the lift is over a section of track with charging strips it will automatically start to charge, and the light be **ORANGE**.

#### NOTE

Constant charge units don't turn off since they are constantly connected to the charger.

The Constant Charger can be attached to all operating C-800/C-1000 lifts. The batteries can remain connected to the charger indefinitely, since the charger has a built-in regulator, the danger of overcharging is eliminated.



The Standard Constant Charger attachment on the lift.



The Rev.G Constant Charger attachment on the lift.

## 11. LCD Display Functionality

#### **Default Display Modes**

The lift unit can be set to either of the following as the 'Default' display mode:

- Battery Level (the factory setting for the Default Display Mode); or,
- Number of Lifts.

To change from one operating mode to another please call your local service technician.

#### **Battery Level Mode**

Factory setting.

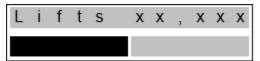
- Displays the word, "Battery", with the percentage charged (in 5% increments) in the top row of the display. For example, "Battery 65%".
- Displays a bar graph of the battery level in the second row of the display by displaying the appropriate number of fully blackened rectangles as in the following diagram:



As the lift is initially switched on, the level of battery charge displayed may be incorrect. However, as soon as the lift is operated, the charge level will update to the correct level.

#### Number of Lifts Mode

Display the word, "Lifts", with the number of lifts completed in the top row of the display, for example, Lifts 500; and a bar graph to indicate the battery level.



#### Low Battery Mode

In any 'Default display mode', if the battery levels fall below 25% the lift will go into Low Battery Mode. The lift will then:

- 1. Change the indicator light on the lift to ORANGE.
- 2. Make an audible beeping sound every ten (10) seconds.
- 3. Display will show the battery % in the first line and the charge level bars in the second line.

If the battery is fully depleted the lift will then:

- 1. Change the indicator light on the lift to RED.
- 2. Make an audible beeping sound every ten (10) seconds.
- 3. Display will show "Low Batt!"

#### Charging Display Mode

If the unit is in the charger the lift will go into Charging Display Mode regardless of what the user has selected as 'Default Display Mode'. Charging Display Mode will over-ride Low Battery Mode.

In Charging Display Mode, the lift will:

Display "Charger" with the percentage charged (in 5% increments) in the top row of the display. For example, "Charger 65%".

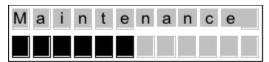
#### **Preventative Maintenance**

Preventative Maintenance (PM) should be completed every six (6) months. The lift will alert you if it hasn't had preventative maintenance at:

• 1,000 lifts (this would equate to 4-5 lifts a day for 180 days); or, 5 total hours of operation.

When the lift alerts you that PM is recommended, the lift will:

- Beep every 5 seconds
- The display will alternate between "Maintenance" & "Lifts ###" in the first line if user selected "Number of Lifts Mode".
- The display will alternate between "Maintenance" & "Battery %" in the first line if user selected "Battery Level Mode".
- If battery is below 25%:
  - o The indicator light goes to ORANGE and the unit beeps every 5 seconds.
  - o The display alternates between "Maintenance" & the Display Mode the user selected
- If battery is depleted:
  - The display will FLASH "Low Battery" on the first line.
  - o The indicator light will go to RED and the beeping will stop.
- If unit is fully charged:
  - The unit will go back into Maintenance mode and beep every 5 seconds. (The beeping can be stopped by turning the unit off).



Resetting the Preventative Maintenance Counter

- 1. The lift must be in power off state.
- 2. Press both Up/Down buttons on hand control. The display will indicate "Tech-Prog" and unit will beep.
- 3. Release both buttons and press the UP button until "Done" appears in the LED display with a beep. PM Lifts counter will be "zero" (0).
- 4. Use lift as normal.

## 12. Emergency Stopping

The lift unit also has an Emergency Shut-off feature that allows the operator to shut the power to the lift unit completely off. By pulling down once on the RED emergency lowering cord, located on the underside of the lift unit, the lift will immediately stop, and all its functions will be disabled. The unit will beep once and all power to the lift will be turned off. The ON Indicator light and display will turn off, and the Emergency Shut-off button located inside the lift case will pop out. Should this feature be used, contact your local authorized dealer immediately. The lift unit must be inspected prior to restoring to use. To restore power back to the lift unit, the white plastic tab that popped out when the cord was pulled, can be easily pressed back into the lift case by use of your finger.

Once the **RED** Emergency Stop/ Lowering Cord is released the lift unit will need to be reset to operate again. This can be achieved by pressing the plastic tab located at the end of the **RED** CORD, back into the lift unit. Then, simply press any button on the hand control to resume power.



Pull down on the RED CORD once to stop the lift. The unit will beep once and all power to the lift will be turned off.



Return power to the lift unit by pressing in the plastic tab.

## 13. Emergency Lowering

If the DOWN button on the hand control does not function, or in power failure situations, the person may be lowered by pulling down and holding the RED emergency lowering cord located on the underside of the lift unit. Continue to pull down until the person is safely lowered to the desired position. The unit will beep as you continue to pull down on the cord and will continue beeping until the cord is released after the desired lowering has been achieved.

**IMPORTANT:** The Emergency Lowering button does not provide a raising function. The failure of any of the lowering devices should be reported to Handicare or your authorized dealer immediately.



Pull down and hold until the person is safely lowered to the desired position.

In an event of emergency when normal lowering system of the lift malfunctions and the "Emergency lowering" function is used, the lift must be reset by a qualified lift technician before re-use. Contact your local authorized Handicare dealer for service.

When using the "Emergency lowering" function the lower limit switch will not engage once the strap spools out the maximum 7ft length. Continued activation will result in reverse spooling and eventually cause extensive damage to the unit.

## 14. Emergency Manual Raising and Lowering

The manual emergency raising and lowering system should be used only if the lowering procedures described in the previous section of the manual do not work, or, if the emergency raising function is required. Should you have any concerns or questions contact your local authorized Handicare dealer.

A proper safety ladder or stool may be required to remove the cover of the device. Use extreme caution if this is required. Should you have any concerns or questions contact your local authorized Handicare dealer.

DO NOT use the lift after the manual lowering mechanism has been used. The lift must be reset. by a qualified lift technician after use, contact your local authorized Handicare dealer.

1. Locate the Allen key in the plastic bag containing the owner's manual, clevis pin & ring, and hand control.



Locate Allen Key supplied with the lift.

2. Locate a small circular clip on one side of the lift and remove the clip.



Remove clip from side of the lift.

3. Insert the Allen key into the hole after removing the clip and turn the key with your fingers.



Insert Allen key and turn clockwise to lower or counterclockwise to lift.

4. Turn the Allen key clockwise to lower the lift strap and counterclockwise to raise.

## 15. Cleaning and Disinfection

The exterior of the lift should only be cleaned and disinfected using isopropyl alcohol. Damp a cloth with isopropyl alcohol and wipe down entire exterior of lift and hook. No other chemicals and/or liquids should be used to clean, disinfect, and sterilize this lift.

Take great care to ensure that no liquids get inside the lift. This lift is not drip proof or watertight. Failure to protect the lift from liquids may result in damage to the lift and/ or may cause personal injury.

The lift strap may be disinfected using Virox Accel TB RTU (Ready-to-use) available from:

Virox Technologies Inc.

1-800-387-7578

www.virox.com

Details of Parts expected to encounter patients during Normal use.

The following parts and accessories of C-800/C-1000 that are intended to contact the patient in normal use.

Sling (s)

In rare instances contact of these parts are also possible (not deemed as applied parts)

- Carry Bar
- Hand Control

# 16. Troubleshooting

Should problems arise with the use of the lift review the following chart. Find the fault and complete the recommended solution. If the fault is not found and/or the solution does not correct the problem, contact your local Handicare authorized dealer for service immediately.

Fault	Recommended Solution		
The airline tubing that connects the hand control to the lift has become disengaged.	See "Attaching the airline tube to the lift". If this does not correct the problem, then contact your local authorized dealer immediately so that the lift can be checked to ensure proper continued operation.		
The hand control buttons do not operate according to their designations. For example, the UP button initiates a traverse movement.	The airline tubing has not been connected correctly. See "Attaching the airline and hand control to the lift". If this does not correct the problem, then contact your local authorized dealer immediately so that the lift can be		
The carry bar of the lift does not operate up or down even when the air- line has been properly connected.	The indicator light on the control panel located on the underside of the lift should be GREEN. Press the ON button or UP/DOWN arrow buttons or any colored button on the hand control. This should activate the lift and the indicator light turn GREEN.		
	If the lift still does not function, then the batteries may be low and require charging. See "Charging the lift". Charge the lift for at least one hour and then try to raise/lower the carry bar.		
	If the emergency lowering has been used, then the UP and DOWN functions will not operate. DO NOT use the lift. Contact your local authorized dealer immediately so that the lift can be checked to ensure proper continued operation.		
The GREEN light on the underside of the lift is ON and the lift does not operate in the DOWN direction.	There is a built-in slack tape detector in the lift. This may be sensitive. Apply weight to the carry bar while pressing the DOWN button. If this corrects the problem temporarily but not permanently then contact your local authorized dealer so that the lift can be checked to ensure proper continued operation.		
The RED indicator light on the under-side lift turns RED and/or a loud alarm sound is heard when an individual is raised.	The batteries are low and require charging. See "Charging the lift". Charge the lift for at least one hour and then try to raise/lower the carry bar.		
One side of the lift tape (strap) is starting to fray after continued use.	If this does not correct the problem, then contact your local authorized dealer immediately so that the lift can be checked to ensure proper continued operation.		
The lift does not pass through a track component such as a turntable or gate.	Check to be sure that the lift is always directly above the individual being lifted, especially with motorized traversing lifts. See "Basics in transferring an individual" for correct lift positioning. If fraying continues, then contact your local		
No Power.	authorized dealer immediately so that the lift can be checked to ensure proper continued operation.		
Lift not Moving Down after RTC is mistakenly activated without carry bar.	Refer to the "Owner's Manual" for the specific piece of equipment in question. If the recommended solution does not correct the problem, then contact your local authorized dealer im- mediately so that the lift can be checked to ensure proper continued operation.		

## 17. General Inspection and Maintenance

## Each Use - To be Completed by User

Prior to each use the C-800/C-1000 lift and associated track, accessories, and sling (s), must be visually inspected. Refer to the accessory and sling user guides for specific details regarding their inspection.

Should any of these items fail the inspection do not use the lift. Contact your local authorized dealer for service.

Visually check for the following:

- The lift lifting tape shows NO signs of fraying or breaking along its entire length.
- ☐ The stitching on the lift lifting tape where it connects to the carry bar shows NO signs of fraying, or breaking.
- The sling (s) that will be used shows NO signs of unusual wear and tear. The straps of the sling that connect to the carry bar of the lift show NO signs of fraying or breaking. Refer to specific sling instructions.
- □ The carabiner hook shall be visually inspected before and after each lift for damages.
- ☐ The airline tube that connects the hand control to the lift is not kinked, twisted, knotted, cut or damaged.
- □ All the functions on the hand control work correctly. For example, UP/DOWN/LEFT/RIGHT, etc.
- There are not cuts, dents or sharp edges on the carry bar that may damage the straps of the sling.
- The lift has no unusual sounds when the carry bar is moved UP/DOWN, or the lift is moved LEFT/RIGHT.
- ☐ Ensure that there are end stops installed at each end of the track.

#### Monthly - To be Completed by User

Should any of these items fail the inspection do not use the lift.

Contact your local authorized dealer for service.

□ Complete the visual inspection as noted in the "Each Use" section.

With no one in the sling nor attached to the lift check the following:

□ The lift moves freely along the entire length of the track.

#### Semi-Annual or Yearly - To be Completed by a Lift Technician



This section to be only completed by a qualified service technician as authorized by Handicare

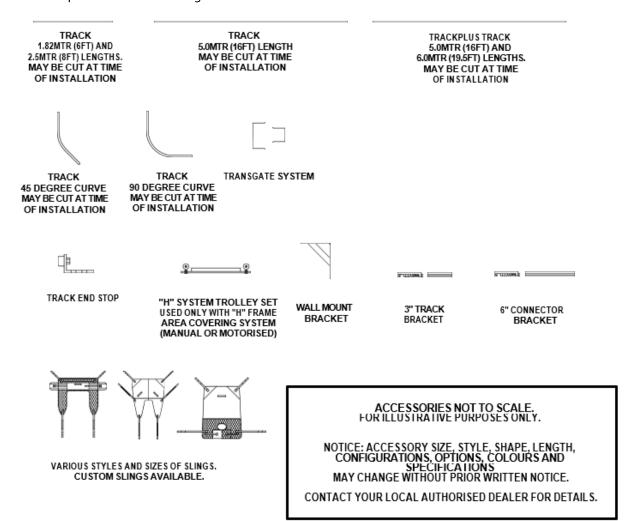
Generally, the recommended Preventive Maintenance interval time is annual. Consult your local authorized dealer for advice on whether Preventive Maintenance should be completed every 6 months or on a yearly basis. Generally, in very frequent use (more than 1500 lifts per year), or in situations where heavier than normal clients regularly are lifted, the lift should be checked every 6 months.

- ☐ Complete the visual inspection as noted in the "Monthly" section.
- □ Complete the preventative maintenance procedure as outlined in technical manuals for the C-800/C-1000 system.
- □ C-800/C-1000 lift checked and passed. Any required repairs completed.

## 18. Lift Accessories

The following is a list of available accessories for the C-800/C-1000 lift. Items such as the track, turntables and brackets are installed at the time of purchase. Add-on pieces are available to after the initial purchase; however, your local authorized dealer must be consulted as to suitability, purchase, and installation.

Slings are the most common after purchase accessory. A variety of styles, sizes, and colors are available. Custom slings can also be manufactured to meet special needs. Consult your local authorized dealer for details, pricing, and a complete list of current sling models.



ONLY SLINGS AUTHORIZED BY HANDICARE ARE TO BE USED WITH THIS LIFT. CONTACT YOUR LOCAL AUTHORIZED DEALER FOR DETAILS.

# 19. Service Record History – Initial Information

- Complete the following section on Purchase and Service Information as soon as this equipment is installed.
- Use the service record history to record to any completed service and repairs.
- Ensure that the service record is signed and dated each time it is used.
- Be sure to have this piece of equipment serviced on a regular basis as described in the General Inspection and Maintenance Section.

Turchase mornadon
Product Name:
Model:
Serial #:
Date of Purchase:
Date Installed:
Purchased From (local authorized Handicare dealer):
Address:
City:
Postal Code:
Telephone Number:
Comments:
Service Information
Contact the following company for service.
Company (local authorized Handicare dealer):
Address:
City:
Postal Code:
Telephone Number:
Comments:

Purchase Information

20. Service Record	d History				
Date: Time:					
Service Type: □ Periodic Inspection □ Monthly Ins		lonthly Inspection			
☐ 6 Month Inspection:	☐ Repair	☐ Yearly Ins	pection	□ Other:	
Completed By: Printe	ed Name:	Sig	gnature:		
Company:					
Remarks and Actions Taken:					
Date:		Time:			
Service Type:	☐ Periodic	Inspection	□ M	lonthly Inspection	
☐ 6 Month Inspection:	☐ Repair	☐ Yearly Ins	pection	□ Other:	
Completed By: Printe	ed Name:	Sig	gnature:		
Company:					
Remarks and Actions Taken:					
Date:		Time:			
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☐ 6 Month Inspection:	☐ Repair	☐ Yearly Ins	pection	□ Other:	
Completed By: Printe	ted By: Printed Name: Signature:				
Company:					
Remarks and Actions Taken:					
Date:		Time:			
Service Type:	☐ Periodic	Inspection	□М	lonthly Inspection	
$\Box$ 6 Month Inspection:	☐ Repair	☐ Yearly Ins	pection	☐ Other:	
Completed By: Printe	Completed By: Printed Name: Signature:				
Company:					
Remarks and Actions Taken:					

Date:	Date: Time:				
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☐ 6 Month Inspection:	☐ Repair	$\square$ Yearly Inspection	☐ Other:		
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Company:					
Remarks and Actions Taken:					
Date:		Time:			
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☐ 6 Month Inspection:	☐ Repair	$\square$ Yearly Inspection	☐ Other:		
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Remarks and Actions Taken:					
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☐ 6 Month Inspection:	☐ Repair	$\square$ Yearly Inspection	☐ Other:		
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Company:					
Remarks and Actions Taken:					
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	_		☐ Other:		
☐ 6 Month Inspection:	$\square$ Repair	$\square$ Yearly Inspection	□ Other.		
☐ 6 Month Inspection:  Completed By: Printed N		Signature:	□ Other.		
·		<u> </u>	□ Other.		

Date:	Date: Time:				
Service Type:	☐ Periodic Inspection ☐ Monthly Inspection		☐ Monthly Inspection		
☐ 6 Month Inspection:	☐ Repair	☐ Yearly Inspection	☐ Other:		
Completed By: Printe	ed Name:	Signature:			
Company:					
Remarks and Actions Taken:					
Date:		Time:			
Service Type:	☐ Period	ic Inspection [	☐ Monthly Inspection		
☐ 6 Month Inspection:	☐ Repair	☐ Yearly Inspection	□ Other:		
Completed By: Printe	ed Name:	Signature:			
Company:					
Remarks and Actions Taken:					
Date:		Time:			
Service Type:	☐ Periodic Inspection ☐ Monthly Inspection				
☐ 6 Month Inspection:	☐ Repair	☐ Yearly Inspection	□ Other:		
Completed By: Printe	Printed Name: Signature:				
Company:					
Remarks and Actions Taken:					
Date:		Time:			
Service Type:	☐ Period	ic Inspection [	☐ Monthly Inspection		
☐ 6 Month Inspection:	☐ Repair	☐ Yearly Inspection	☐ Other:		
Completed By: Printe	rinted Name: Signature:				
Company:					
Remarks and Actions Taken:					

## 21. Warranty

This Warranty does not affect or in any way limit your Statutory Rights.

- Handicare guarantees all equipment, which includes Ceiling Lifts, Floor Lifts, Slings, Service Parts, Track
  and accessories, supplied as new, against failure within the period of 1 year from date of Installation or
  18 months from date of manufacturing, whichever is shorter, by virtue of defects in material or
  workmanship.
- Handicare guarantees all refurbished equipment supplied against failure within a period of three months from date of installation or six months from date of purchase whichever is shorter.
- This guarantee does not apply to failure attributable to normal wear and tear, damage by natural forces, user neglect or misuse or to deliberate destruction, or to batteries more than 90 days after original purchase.
- This guarantee shall be void if the equipment is not serviced by Handicare or its authorized service agents in accordance with the manufacturer's recommendations or if any unauthorized person carries out works on the equipment.
- The liability of Handicare under the terms of this guarantee shall be limited to the replacement of defective parts and in no event shall Handicare incur liability for any consequential or unforeseeable losses.

If you have any questions about the manufacture or operation of this equipment, please contact Handicare, or your local authorized dealer.

Handicare, USA, Inc. 10888 Metro Court St. Louis, MO 63043 USA Tel: 314-692-9135

Fax: 314-692-7858 Toll Free: 1-866-891-6502 www.handicare.com Handicare Canada 81 Romina Drive Concord, ON L4K 4Z9 Canada Tél: 1+ 466-260-2145 Télécopieur: +1 416-260-0256 Sans frais: +1 877-304-5438

www.handicare.com