

# Archimedes

user instructions



*Simple solutions for everyday independence*

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The Archimedes by Mangar Health, is a light weight battery powered actuator driven bathlift, designed to be easily operated. The Archimedes will give many years of trouble free bathing, requiring only routine cleaning and battery recharging.



- Ensure that you have read and fully understand these instructions before attempting to operate the Archimedes.
- The Archimedes should only be used as a bathing aid, NEVER use it out of a bathtub.
- Ensure that the two metal guide bars pass through all four plastic guide rings on the back of the seat. Always ensure that the seat can slide freely up and down the metal guide bars.
- Ensure that the suction cups adhere firmly to the bath before use.
- The Archimedes is designed to go as low as possible in the bathtub. In bathtubs with exceptionally narrow or curved sides/bases, it may be unsuitable. Always check that the seat section is free to lower to its full extent and rise again freely. Be certain that it is positioned correctly before use.
- Do not allow the Archimedes to lie on its back in the bath water.
- Ensure that the transfer flaps will be clear of any obstructions, such as bath handles and soap dishes, as the seat section is raised.
- Only recharge the battery with the Mangar International battery charger supplied with the Archimedes.
- NEVER recharge the battery in the bathroom, outdoors or in a damp environment.
- Do not use in the presence of flammable anaesthetic mixtures with air, oxygen or nitrous oxide.
- Do not operate the actuator when it is disconnected from the base.
- Do not use the Archimedes as a support to steady yourself when cleaning the bathtub or when reaching into the bathtub to retrieve items.
- If the Archimedes causes electrical interference with another piece of electrical equipment, move the equipment further apart until the interference stops
- Disconnect the hand control from the actuator before transporting so as to avoid accidental operation of the lifting mechanism.
- The suction cups on the base section and on the hand control contain latex. No other part of the product or associated packaging contains latex.

## Standard Contents

- 1 x Archimedes Bathlift (inc. two transfer flaps) **(A)** fig.1).
- 1 x Sealed Hand Control **(B)**.
- 1 x Battery charger **(C)**.
- 1 x User Instructions.

## Getting Started

**Unpacking** - Remove the contents from the packaging and check them to make sure that no damage has been caused during transit. If it has, contact your supplier immediately.

**Battery** - This must be put on charge before using your Archimedes for the first time as follows:

①

- Connect the hand control to the battery charger and plug the charger into a power supply **OUTSIDE THE BATHROOM** and allow the battery to charge overnight (see "Battery Charging").

**Seat and base sections** - The Archimedes can be easily separated into three sections (fig.2).

- Seat section **(A)**
- Base section **(B)**
- Actuator **(C)**

**To separate the seat from the base section and actuator:**

②

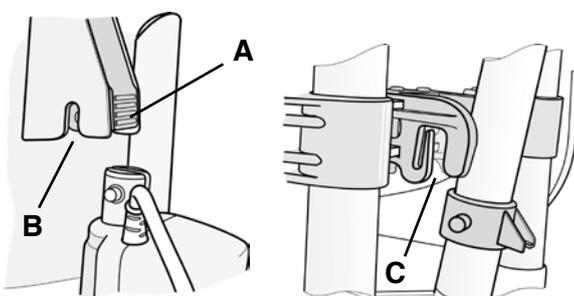
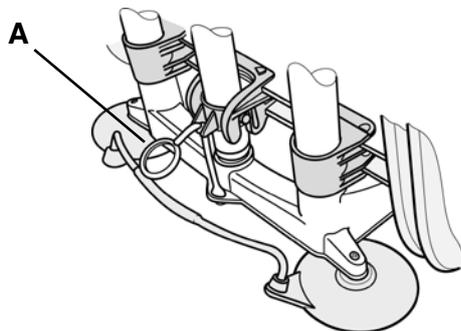
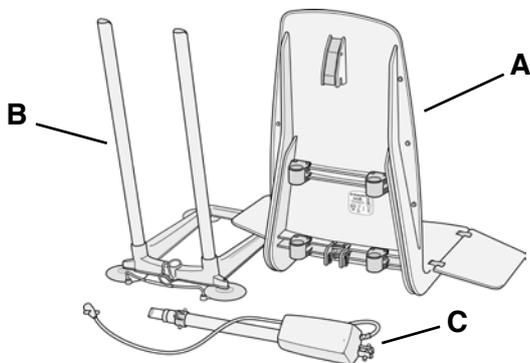
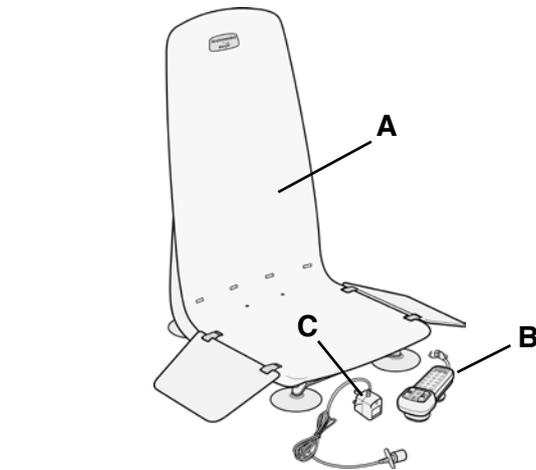
- Fully lower the seat and fold the transfer flaps onto the seat.
- Release the transit tie **(A)** fig.3) by pulling up the 'O' ring and lifting the ball clear of the slot in the locating collar on the actuator.
- Press the lower part of the latch at the back of the seat **(A)** fig. 4) and lift the seat sufficiently to allow the actuator to disengage itself from the slot **(B)** and the actuator locator bracket **(C)**. The actuator can now be removed from the base section.

③

- Lift the seat section clear of the base section.
- Reassemble in the reverse order. Do not re-attach the transit tie unless you are intending to carry the assembled Archimedes.

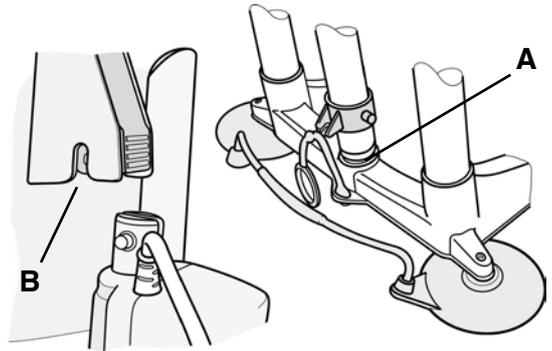
The transit tie should only be re-attached to the back of the seat section in order to keep both the seat and base sections together whilst carrying the Archimedes.

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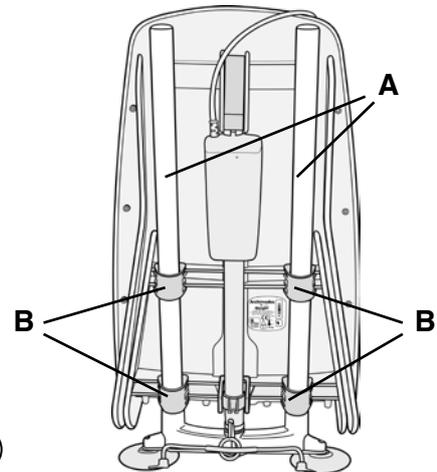


## Fitting the Archimedes in the bathtub

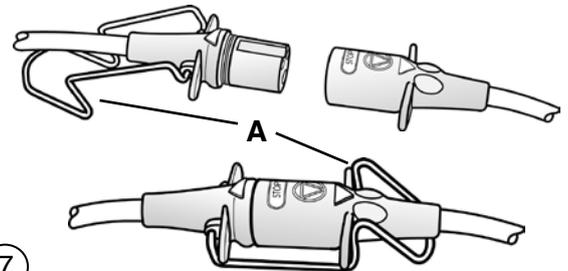
- Before placing the Archimedes in a tub, check that the surface where the suction cups will be sitting is clean and free from bath oil and cleaning residue. Remove anti-slip matting from this area. **WARNING:** The suction cups may not adhere properly on textured and non-slip areas of a tub.
- Remove the actuator and seat section from the base (see "Getting Started"). Moisten each of the suction cups and place the base section as close to the back slope of the tub as possible. Reposition the actuator in the socket at the back of the base unit (**A** fig.5).
- Fold the transfer flaps onto the seat and slide the seat section onto the base section. **WARNING:** Ensure that the two metal guide bars (**A** fig.6) pass through all four plastic guide rings (**B** fig.6) on the back of the seat. Always ensure that the seat can slide freely up and down the metal guide bars.
- Position the top end of the actuator into the slot in the latch (**B** fig.5) at the back of the seat section and make sure that it 'clicks' into place. **NOTE:** Ensure that the seat can slide freely up and down before using the Archimedes.
- Plug the hand control into the actuator cable and close the retaining clip (**A** fig 7).
- Fill the bathtub with water at a suitable temperature.



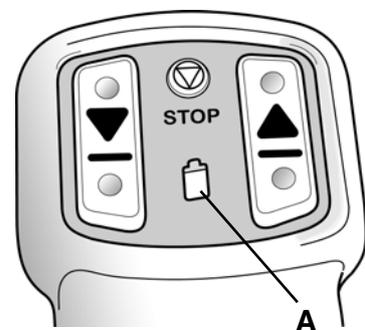
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## Hand Control

The hand control is a completely sealed unit containing a rechargeable battery and battery state indicator light; it contains no user serviceable parts. DO NOT attempt to open.

## Battery State Indicator

When either the 'Up' or 'Down' buttons are pressed, the indicator light (**A** fig.8) shows the state of the battery as follows:

**GREEN** - OK to use.

**FLASHING GREEN** - OK to use but the battery needs to be recharged after this bath.

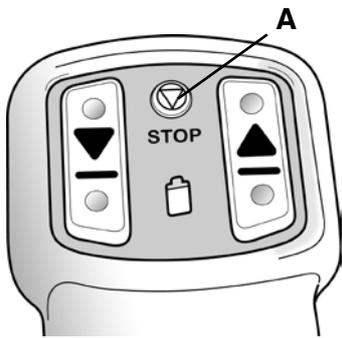
**RED** - The battery needs recharging before use. The seat will not lower. **NOTE:** The microprocessor in the hand control will not allow the seat to be lowered if it detects that there will not be enough battery power to raise it again.

The battery is not replaceable. When it reaches the end of its working life, indicated by failure to accept or retain charge (frequently showing red on the battery state indicator), the complete hand control will need to be replaced with a new one. It should be returned to your supplier for safe disposal. DO NOT dispose of the hand control with your normal household trash. Batteries should be disposed of in accordance with local regulations.

## Emergency Stop Button

As a safety feature of the Archimedes bathlift, in an emergency, the seat movement can be stopped at any time by pressing the 'STOP' button on the hand control (**A** fig.9).

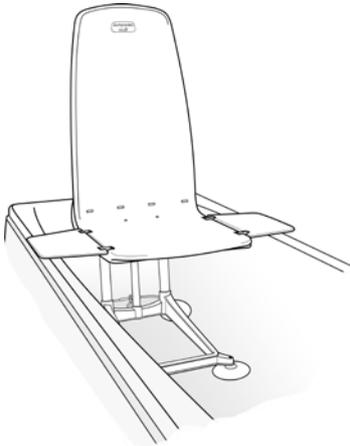
**NOTE:** Releasing the 'Up' or 'Down' buttons at any time will also stop the seat movement.



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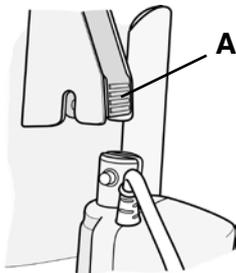
## Using the Archimedes

**WARNING:** Please note that the hand control incorporates an important safety feature which will ensure that the seat cannot be lowered unless there is sufficient battery power to raise it again. To action this feature effectively ALWAYS RAISE THE SEAT USING THE HAND CONTROL and USE IT to lower yourself into the tub.



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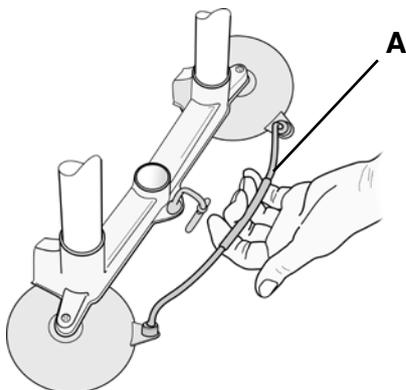
- Press the 'Up' button on the hand control to raise the seat.
- Release the 'Up' button when the seat is level with the edge of the bathtub. **NOTE:** Make sure that the transfer flap is level with and supported on the edge of the bathtub (fig.10) before transferring.
- Sit on the flap and transfer across onto the seat.
- Press the 'Down' button to lower yourself. Releasing the button at any point will stop the seat.
- To raise the seat, press the 'Up' button. Release the button when the transfer flap is level with and supported on the edge of the bathtub.



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## Removing the Archimedes from the bathtub

- Fully lower the seat.
- Fold the transfer flaps onto the seat.
- Press the latch at the back of the seat (**A** fig.11) and lift the seat clear of the base and place it on the bathroom floor.
- Lift out the actuator from the base section.
- Lift the suction cup release handle at the back of the base section (**A** fig.12) and tilt the base forwards by pushing on the guide bars.
- Continue tilting the base forwards. This will automatically release the suction on the front suction cups and the base section can then be lifted from the bathtub. **NOTE:** DO NOT use the suction cup release handle (**A**) to tilt or lift the base section. NEVER attempt to release suction on the rear suction cups by pulling on the guide bars.



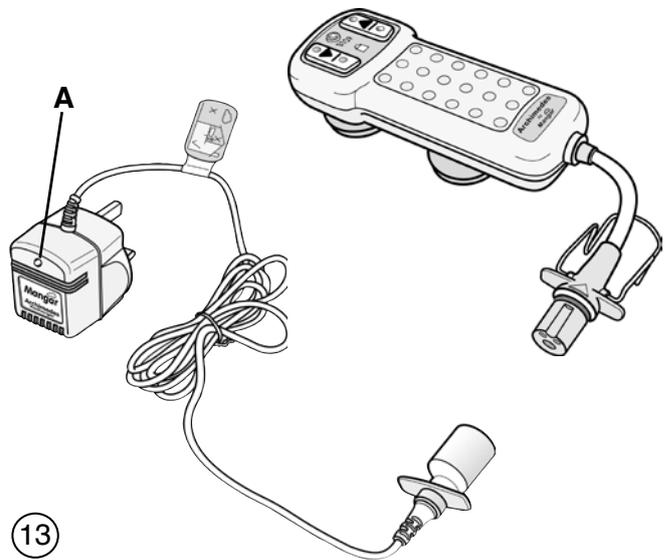
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## Battery Charging

- Disconnect the hand control from the actuator.
- Connect the hand control to the battery charger (fig.13).
- Plug the battery charger into a power supply outside of the bathroom and switch on. The green light on the charger (**A**) will light up to indicate that the charger is properly connected and charging.

**NOTE:** The green light may dim and eventually go out as the battery reaches full charge.

When the battery needs recharging, the hand control should be left on charge over night. The hand control can be left on charge continuously without damaging the battery or charger. **We recommend that the hand control is left continuously on charge when the Archimedes is not in use, as a matter of routine.**



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## Cleaning

Regularly clean your Archimedes with the same non-abrasive cleaners that you normally use on your bathtub. It is best to separate the seat and base sections prior to cleaning. The Archimedes can be disinfected using a proprietary sterilizing solution or any antibacterial cleaner.

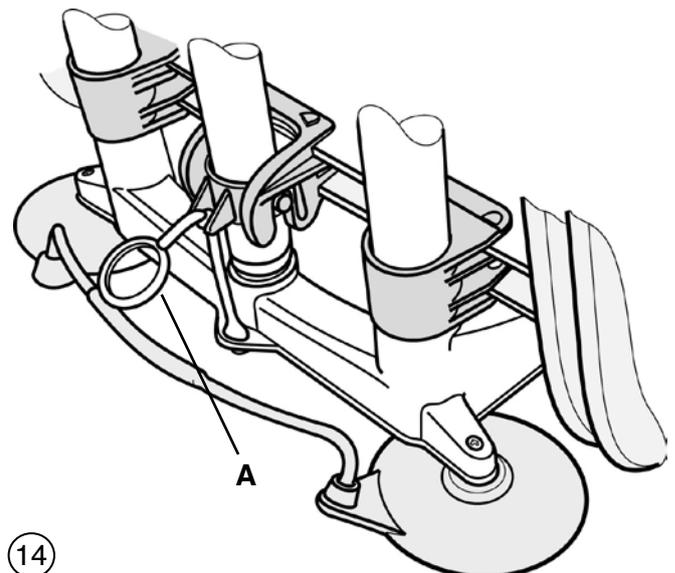
Regular cleaning will help to prolong the life and efficiency of your Archimedes bathlift. **NOTE:** It is especially important to thoroughly clean your Archimedes after each bath if 'Dettol' or similar products have been added to the bath water.

## Storage

The Archimedes should be stored with the seat section fully lowered and the hand control disconnected. During long term storage, it is recommended that at approximately three month intervals, the battery is put on charge overnight.

When stored for long periods, ensure that the Archimedes is thoroughly dry and stored in a dry environment.

The transit tie (**A** fig.14) should be attached to the seat section to allow the Archimedes to be easily picked up and moved.

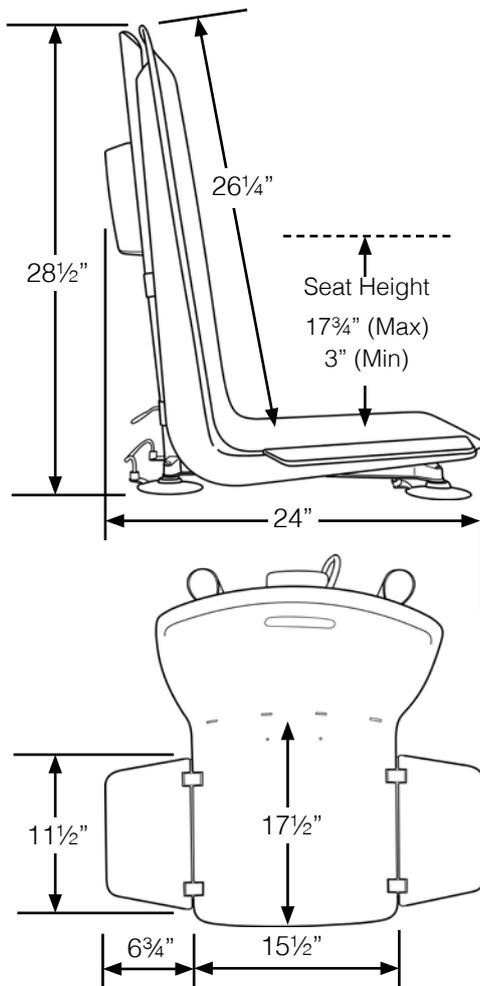
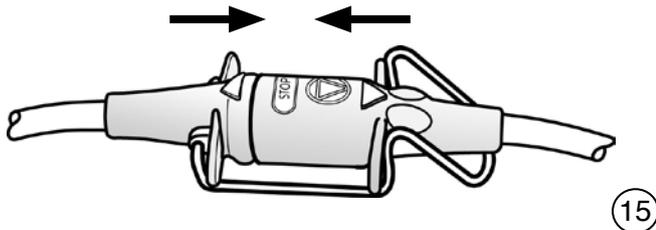


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## Maintenance

Other than routine cleaning, the Archimedes has been designed to be maintenance free, however, we recommend that your Archimedes is inspected annually by either your supplier or other suitably qualified person. Please contact your supplier for further advice.

There are no user-serviceable parts in the Archimedes. Repairs or servicing must only be carried out by your supplier or other authorized person.



## Fault Finding

### If the seat fails to rise:

- Check that the hand control plug is FULLY pushed into the actuator cable socket (fig.15).

### If the seat fails to lower:

- Check to see if the battery state indicator light is showing RED. If it is, put the hand control on charge overnight.
- Check that the hand control plug is FULLY pushed into the actuator cable socket (fig.15).

## Specifications

### Archimedes

Max. user weight:	364lbs
Total weight:	22lbs
Seat section only:	11½lbs
Base section only:	6lbs
Actuator:	4½lbs
Seat height (Min/Max):	3" to 17¾" (approx)
Actuator power input:	12V: 7,5A
Environmental protection:	IP66

### Hand Control (Battery)

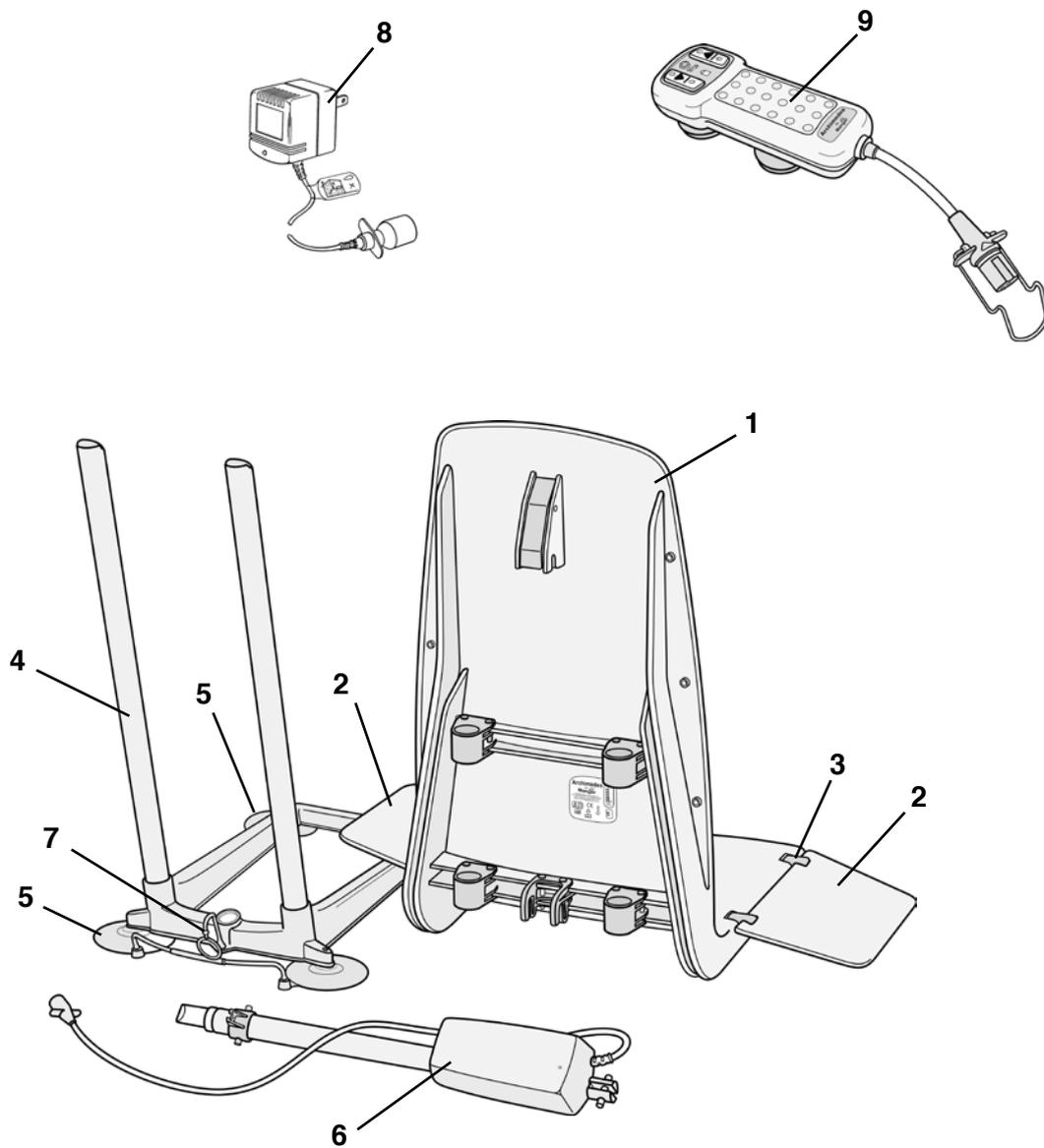
Battery type:	NiCad
Output:	14V: 10A
Internal protection:	Self resetting fuse
Environmental protection:	IP67

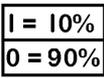
### Battery Charger

AC Input:	120V: 1,22VA: 60Hz
DC Output:	17.4V: 70mA
Internal protection:	Self resetting thermal cut-out
Environmental protection:	IP50
Double insulated Class II Equipment	
This product is suitable for transporting in aircraft.	

## Parts List

1	Archimedes Seat	LA0010	6	Archimedes Actuator	LA0015
2	Archimedes Flap	LA0011	7	Archimedes Transit Tie	LA0017
3	Archimedes Flap Hinge	LA0012	8	Archimedes Charger - NA	LA3714
4	Archimedes Base	LA0013	9	Archimedes Hand Control	LAA4765
5	Archimedes Suction Cup Set	LA0014			



Symbols used on labels and instructions			
	Attention		Emergency 'STOP' button
	Consult instructions		Press to raise seat
	Alternating Current		Press to lower seat
	Direct Current		Date of manufacture
	Class II Double Insulated Equipment		Recycle do not dispose of in household trash
	Do not connect to mains power in a bathroom or outdoors		Ni-Cd
	Dangerous Voltage		Duty cycle I = Operating time 0 = Non operating time
	Type BF equipment (Protection against electric shock)		Hot Surface
	Battery State Indicator	IP 66	Sealed against the effects of showers
	Max/Min Operating Environmental Temperature	IP 67	Sealed against the effects of immersion in water to a depth of 1 metre
	Maximum user weight limit	IP 50	No protection against water ingress

Symbols used on packaging			
	Keep packaging dry		Net & Gross weights
	Handle with care		Recycle packaging
	Max/Min storage temperature	<b>93% RH</b> <b>15% RH</b>	Max/Min humidity when transporting in pressurized aircraft hold
	Do not use blade to open	<b>700 mBar</b> <b>1060 mBar</b>	Max/Min pressure when transporting in pressurized aircraft hold
	Stack no more than three high	<b>+70° C</b> <b>-25° C</b>	Max/Min temperature when transporting in pressurized aircraft hold

## Warranty

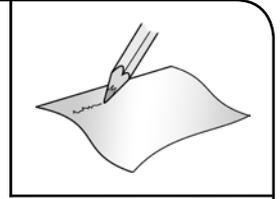
The warranty is given against defects in material and workmanship and comprises piece, parts and labor. The warranty is not valid in the case of fair wear and tear, wilful damage, common neglect, misuse or unauthorized alteration or repair by unqualified persons.

The following statements do not affect the consumer's statutory rights. This product is sold on the understanding that in the event of any defect of manufacture or material appearing within the warranty period, the defect will be rectified free of charge providing that:

- (a) Reasonable evidence is provided (e.g. purchase invoice, delivery note) that the claim is being made within the warranty period.
- (b) The defect is not attributable to accidental damage (either in transit or otherwise), misuse or unauthorized repair.

Archimedes serial number:	.....
Date of purchase:	.....
Invoice/Delivery note number:	.....

Mangar International, trading as Mangar Health, reserves the right to alter product specifications and/or any of the information contained within this document without notice.



*Simple solutions for everyday independence*

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