

# **USER MANUAL**

# Commode/shower chair Dolphin II Dolphin II PLUS



### Prod. No. 90561, 90564

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# 1. INTRODUCTION

Before using our product, we recommend you read this manual, which will certainly make its daily use safer and will keep the device in impeccable condition for a long time. All the remarks connected with the quality of the device and the content of this manual, should be sent to the following address:

Meden-Inmed, Sp. z o.o. ul. Wenedów 2 75-847 KOSZALIN fax: +48 94 347-10-41 e-mail: <u>meden@meden.com.pl</u>

### **General Information**

- 1. The product may be operated by qualified personnel as well as by a caregiver who has read this manual.
- 2. Using, operating and servicing the product in inconsistent way with this instruction is not allowed and may cause damages that financial burden the user and for which the Manufacturer is not responsible.
- 3. Device Manufacturer prohibits making any modifications to the product in use.
- 4. If the operation and parameters are incompatible with the description contained in the instruction, the product must not be used. This fact must be reported immediately to the Manufacturer or distributor.
- 5. Any serious Dolphin II Commode/shower chair incident shall immediately be reported to the manufacturer and to the competent authority of the Member State where the user or patient is resident.
- 6. The warranty covers all material and production defects.
- 7. Each product repair must be carried out by a factory or authorized service center and registered in the repair list attached to the warranty card. Failure to comply with this requirement will void the product warranty.
- 8. The technical description of the device with a list of spare parts and the method of their replacement is available from the manufacturer on request.

The warranty is null and void if the device is improperly used and the instructions and rules in the manual are not adhered to.

The manufacturer shall not be liable for any damage caused by improper (not with accordance to the rules and regulations provided in the instruction manual) use of Dolphin II Commode/shower chair.

### 1.1. Symbols

#### **CAUTION!**

In this manner are indicated activities, which if performed inconsistently with the instruction manual may cause deterioration of conditions or safety hazard to the user and/or personnel operating the device ref.

Indicates the need for the user to consult the instructions for use

Applied part type B

Manufacturer

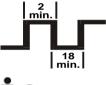
For indoor use

Appliance class II (electrical safety)



Direct current

Alternating current



Actuator operation type

L Safe working load (SWL) of the device



Hand control - Raising / lowering the patient



Hand control - Tilt adjustment



Medical device

Unique Device Identification



Catalogue number



 $|\mathbf{PN}_1\mathbf{N}_2|$ 

### Protection level against penetration







The Dolphin II Commode/shower chair is manufactured in accordance with the Medical Devices Regulation 2017/745 (class I, rule 13) and has a CE marking, according to the manufacturer declaration.

All electrical and electronic equipment waste must be disposed-of properly at recycling facilities according to the European Union's WEEE directive or equivalent regulations. It is necessary that all devices which contain substances harmful to the environment or humans are recycled properly in relevant facilities and must not be disposed of with general or household waste. Such regulations ensure that the quantity of electronic waste is reduced, and a required number of electronic devices is recycled properly. Proper recycling of electronic waste is important as it may contain substances harmful to the environment and humans.

Recyclable materials

### 2.1. Intended use

#### CAUTION!

The device intended use is to move people over short distances within a room or within a patient's activity, for instance to the toilet in order to facilitate and assist during daily routine activities. People can be moved only through horizontal flat surfaces, and one floor of the building. In case of a transport on a flat inclined surface, another person assistance must be provided. The chair may only be used by people whose weight does not exceed the stated maximum capacity. The use of the device is allowed after a thorough analysis of the patient's condition by the attending physician.

#### CAUTION!

This product is not intended to be used by the patient alone. Lifting and transferring a patient shall always be performer with the assistance of at least one caregiver.

#### **CAUTION!**

When using the device, an active patient's cooperation is required. This applies mainly to lifting and tilting the chair.

The mobile Dolphin II Commode/shower chair is to be used exclusively for assistance during moving or performing daily routine activities of persons with physical impairment disabilities. The chair allows the operator to adjust both, height and tilt of the seat enabling the patient to remain in the fixed position for a long time. The device is intended for use in private homes, hospitals, sanatoriums, nursing homes or any other care facilities. Patients can be moved only through horizontal flat surfaces, and one floor of the building. If you need to transport on flat inclined/tilted surfaces, an additional person is recommended to assist with patient care.

### 2.1.1. Indications

The Dolphin II device has no direct clinical action. Dolphin II finds a wide range of applications in assisting staff (assistant) in caring for patients with conditions such as:

- cerebral apoplexy;
- pressures ulcers;
- mobility disability;
- Parkinson disease;
- cephalically-cerebral injury;
- chronic immobilization;
- musculoskeletal disorders;
- disability;
- paralysis.

### 2.1.2. Contraindications

Contraindications to the use of the product:

- data not available.



### 2.2. Technical characteristics

Table 1 – Technical parameters Dolphin II Commode/shower chair

| Туре   |                         | Dolphir   | n II                 | Dolphin II PLUS                |  |  |  |
|--|-------------------------|---|----------------------|--------------------------------|--|--|--|
| Part number  |                         | 90561   | I                    | 90564                          |  |  |  |
| Length of frame                                      |                         |   | 890 mm               |                                |  |  |  |
| Width of frame                                       |                         | 658 mi  | m                    | 778 mm                         |  |  |  |
| Height of the push bar (mir                          | .)                      | 1040 m  | ım                   | 1028 mm                        |  |  |  |
| Height of the push bar (ma                           | x.)                     | 1317 m  | ım                   | 1260 mm                        |  |  |  |
| Raising height (min.)                                |                         |   | 495                  | mm                             |  |  |  |
| Raising height (max.)                                |                         |   | 1010                 | mm                             |  |  |  |
| Tilt adjustment                                      |                         |   | -5° / -              | +27°                           |  |  |  |
| Height of device legs (from                          | floor)                  |   | 130                  | mm                             |  |  |  |
| Turning diameter                                     |                         | 1100 m  | ım                   | 1200 mm                        |  |  |  |
| Lifting speed (raising) (0<br>/ MAX load)            | LINAK *                 |   | 42 / 4               | 49 s                           |  |  |  |
| Lifting speed (lowering)<br>(0 / MAX load)           | LINAK *                 |   | 47 / 4               | 41 s                           |  |  |  |
| Diameter of castors with br                          | ake                     |   | 125                  | mm                             |  |  |  |
| Type of work   | 2<br>min.<br>18<br>min. | Discontinuous, short-term load (10%),<br>max 2 min. work (ON),<br>min. 18 minutes pause (OFF) |                      |                                |  |  |  |
| Control box  | Input Voltage           |   | 40V ~                |                                |  |  |  |
|  | Frequency               |   | 50/60 Hz             |                                |  |  |  |
| specification  | Output Voltage          | 24 V  |                      |                                |  |  |  |
| F  | Consumed current        |   | 50 mA                |                                |  |  |  |
| Battery capacitance                                  |                         | 2,85 Ah   |                      |                                |  |  |  |
| Charging time  |                         |   | approx. 5h           |                                |  |  |  |
| Protection class against ele                         | ectric shock            |   | н, 🗆                 |                                |  |  |  |
| Applied part   |                         | type B, Ҟ   |                      |                                |  |  |  |
| Protection level of the cont                         | ol panel                |   | IPX6                 |                                |  |  |  |
| Protection level of the actua                        | ators                   |   | IP>                  | K6                             |  |  |  |
| Protection level of the batte                        | ry with control box     | IPX6 (  | with battery install | ed and housing closed)         |  |  |  |
| Protection level of the hand                         | l control               |   | IP>                  | K6                             |  |  |  |
|  |                         | ≤180 k  | g                    | ≤250kg                         |  |  |  |
| Safe working load                                    |                         | SWL (symbol indicates the maximum safe load of the c<br>when lifting/lowering the seat)       |                      |                                |  |  |  |
| Operation force (Finger)                             |                         |   | < 5N                 |                                |  |  |  |
| Device mass  |                         | 60 kg 70kg  |                      |                                |  |  |  |
| Maximum noise level                                  |                         |   | 52 (                 | ů                              |  |  |  |
|  | work                    | +10°C to +40°C.1  |                      | without condense, 700-1060 hPa |  |  |  |
| Environmental conditions (temperature, air humidity, | storage                 | +5°C to +45°C, does not exceed 75% without condense, 700-1060 hPa                             |                      |                                |  |  |  |
| air pressure)  | transport               |   |                      | without condense, 700-1060 hPa |  |  |  |

\*depending on order

# 2.3. Dolphin II Commode/shower chair

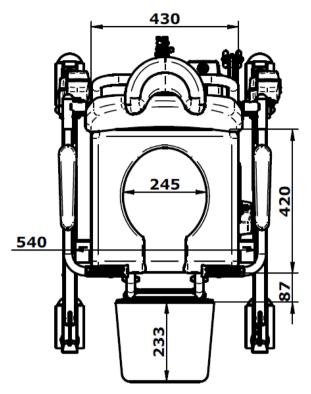
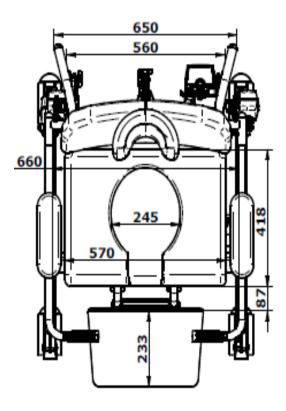


Figure 1 – The main dimensions of the Dolphin II Commode/shower chair (mm)



Dolphin II PLUS

Figure 2 – The main dimensions of the Dolphin II PLUS Commode/shower chair (mm)

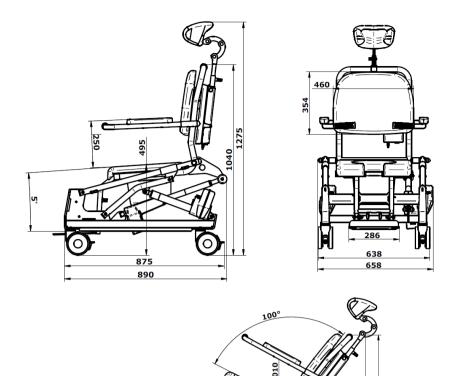


Figure 3 – Lifting range and height of Dolphin II Commode/shower chair (mm)

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1317

Ø 125

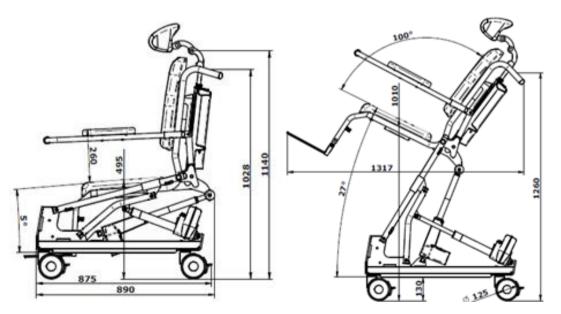
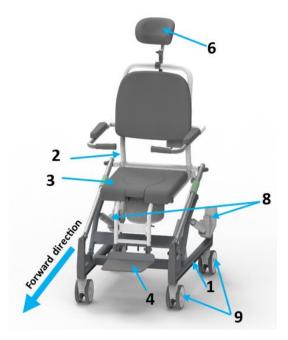


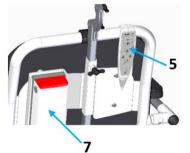
Figure 4 – Lifting range and height of Dolphin II PLUS Commode/shower chair (mm)

# **3. CONSTRUCTION AND OPERATION OF DOLPHIN II**

### **3.1. Construction components**

The design of the Dolphin II Commode/shower chair is made of welded powder-coated stainless steel sections and consists of the following components:





#### 1. Bottom frame

Supporting base of a chair, with two actuators for height adjustment. Equipped with four castors with a brake.

#### 2. Upper frame

A component part of the chair, used for setting the removable seat, the backrest, the control box and the headrest. It is equipped with folding armrests and an actuator for upper frame angle adjustment.

#### 3. Seat

Removable seat with a toilet bowl and insert.

#### 4. Footboard

With height adjustment and a foldable base.

#### 5. Hand control

Allows to adjust the height and the angle of seat with a backrest. It is equipped with battery status indicators and a service indicator.

### 6. Headrest

With height adjustment and alteration of adjustable arm location.

### 7. Control box

It allows you to operate the device. It contains an actuator and a battery in enclosed panel.

- 8. Main actuator (both sides) Electric actuator for raising the patient seat.
- 9. Front and rear castors (both sides) Castors with brake.

Figure 5 – Dolphin II Commode/shower chair construction components

### 3.2. Accessories and additional equipment

Dolphin II Commode/shower chair is equipped with the Toilet bowl.

Additionally, it is possible to equip the chair with the following accessories:

- patient stabilization belt;
- leg fastening belt.

### 3.3. Device set

| Dolphin II Commode/shower chair incl. toilet bowl | 1 pc.        |
|---|--------------|
| User Manual                                       | 1 pc.        |
| Charging cable                                    | 1 pc.        |
| Battery   | 1 pc.        |
| Accessories and additional equipment              | as per order |

### 3.4. Transport

The device is transported in a cardboard box on a pallet. It is not allowed to stack devices. The outside edges are additionally protected by foam profiles, "bubble" foil and "stretch" foil.

When moving the Dolphin II Commode/shower chair indoors, act in such a way as not to expose its outer edges to impacts and abrasions.

### 3.5. Storage

### CAUTION!



### It is allowed to use the device in wet rooms such as a bathroom.

### CAUTION!

Using the device in the bath or/and pool (when device is placed under water) is not allowed.

The working conditions of the device look as follows:

- ambient temperature: 10 ÷ 40°C;
- humidity: 30 ÷ 75%;
- air pressure: 700 ÷ 1060 hPa.

# 4. GENERAL WARNINGS AND SAFETY MEANS

### CAUTION!

Any modification of the device without the written authorization of the Manufacturer is prohibited.



### CAUTION!

The manufacturer reserves the right to make changes to the design that do not violate the basic requirements of functionality and security.

### CAUTION!

Do not use the product while charging the battery.

When using the chair, the following safety instructions must be observed:

- 1. Do not use the device for other that intended purpose.
- 2. Keep a safe distance from the units while the device is ON. Moving machine elements create a crushing hazard.
- 3. The device is only intended to be used by qualified personnel.
- 4. We ask, that you read this manual carefully and become familiar with the operation and function of the device before use. It will help you prevent the risk of damage caused by an improper use of a product.
- 5. Check the condition and function of the device before each use.
- 6. Only an authorized service technician may perform repairs or maintenance of the product.

- 7. Before each use, assess, whether the patient may use the device (losing conscious, etc.).
- 8. Make sure, that moisture does not penetrate inside the electronic system. The IPX6 protection is valid only if the battery is connected and the panel is closed.
- 9. The battery should be charged in a well-ventilated area.
- 10. Do not leave children unattended near the device, if it is necessary, though, remember to remove the battery first. Dolphin II is NOT a toy.
- 11. Never leave the patient unattended while using the device. There is a risk of an unconscious patient falling out.
- 12. If you notice that the device is making abnormal noise, do not use it. Remove the battery and contact a qualified service personnel.

# 5. HAND CONTROL SYMBOLS

1. Lifting (raising seat)

Lifting (lowering seat)
 Forward tilt (seat)
 Backward tilt (seat)

The Dolphin II Commode/shower chair have a hand control that gives you control over the device (Figure 6).

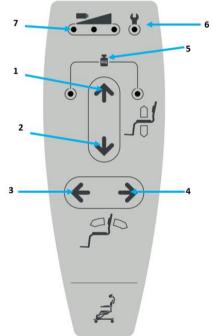


Figure 6 - Buttons on the hand control

# 6. PREPARATION FOR USE

5. Overload

6. Service diode

7. Battery charge level

### 6.1. Patient lifting and transport

CAUTION!



Do not tread directly on the footboard.





#### CAUTION!

The manufacturer shall not be liable for any damage caused by improper (not with accordance to the rules and regulations provided in the instruction manual) use of the device.

#### CAUTION!



When lowering the seat, remember to fold up the footboard.

### CAUTION!



Fold the footboard before sitting/standing up.

#### CAUTION!

Do not insert your fingers or toes into the gaps between the lower and upper frame sections, as they may get trapped when lifting or adjusting the position of the seat with backrest.

#### CAUTION!

Avoid strong sunlight on the Dolphin II Commode/shower chair.

#### **CAUTION!**



It is allowed to use the device in wet rooms such as bathroom. Environmental conditions should be within the limits:

- 1. Temperature: 10 ÷ 40°C.
- 2. Air humidity: 30 ÷ 75%.
- 3. Air pressure: 700 ÷ 1060 hPa.

#### CAUTION!



Do not use the Dolphin II Commode/shower chair in an environment where other devices that emit radio frequency energy are used. The Dolphin II Commode/shower chair control system during normal operation, like any electronic device, generates, uses, and can emit radio frequency energy. If the Dolphin II Commode/shower chair is not used in accordance with the instructions, it may cause interference to other equipment in the vicinity. The Dolphin II Commode/shower chair manufacturer does not guarantee that interference will not occur in a particular location. To check if it is causing interference to other devices, change its position or disconnect the battery from the device. You can try to correct the interference by changing the area in which the Dolphin II Commode/shower chair is to be used, increasing the distance from the equipment being disturbed, or consulting service.

The height adjustment is done by using a hand control. To lift/lower the seat, press and hold the appropriate button on the hand control (Figure 6), until the desired height is reached. When the maximum or minimum height is reached, the actuator switches off automatically.

Before commencing any hygiene activities, the chair seat should be lowered to its minimum lower position and the casters should be blocked to prevent their rotation. Act, similarly, after the procedure is finished. It will help the patient to get on and off the chair.

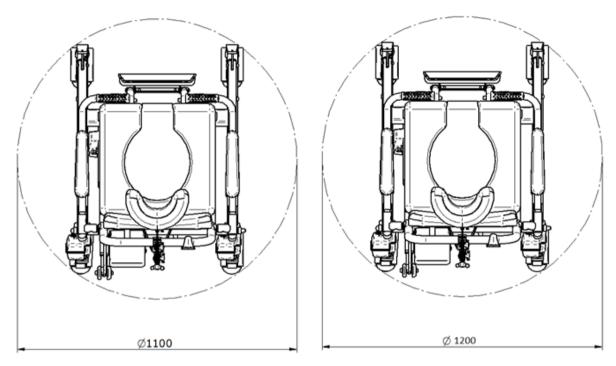
### 6.2. Place of use



### CAUTION!

The manufacturer shall not be liable for any damage caused by improper (not with accordance to the rules and regulations provided in the instruction manual) use of the device.

The place of use the Dolphin II Commode/shower chair should be chosen so that after setting the device on each side there should be a space for movement. The turning diameter for device is showing on the Figure 7.



Dolphin II

**Dolphin II PLUS** 

Figure 7 - The device's turning diameter (mm)

### 6.3. Using the stop lever



CAUTION!

Always use both brakes.

Stop lever (Figure 8) are important elements of the device. Mounted on the casters, prevent from device movement during patient transfer from/to device. To immobilize the Dolphin II Commode/shower chair, press the locking lever with your foot. To release the brakes, lift the lever.

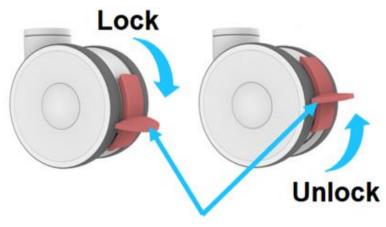


Figure 8 - Stop lever

### 6.4. Emergency stop

If it is necessary to stop the movement, the emergency stop switch, immediately press the emergency switch (fig.9), located on the top of the battery. When the button is pressed, the power supply is cut off and all functions of the shower chair are stopped. The shower chair then stops immediately. The function is intended for emergency situations.

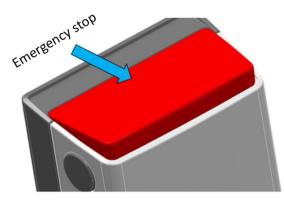


Figure 9 - Emergency stop

To release the emergency stop, remove the battery (fig.10):

- Use your thumb and index/middle finger to press the buttons on the sides of the battery.
- Remove the battery.

To reinstall the battery:

- Grab the battery at the sides and slide the battery base over the control pin.
- Push the battery into its place.



Figure 10 – Releasing emergency stop

### 6.5. Patient emergency lowering

The device has an electric emergency lowering system. If the main remote control and the built -in remote control are damage or the connection between them is damaged during the raising – lowering operation, press the button on the controller (down arrow) to lower the patient.

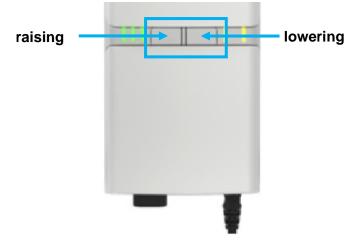


Figure 11 – Main actuator

### 6.6. Installation and removing the battery



### CAUTION!

The device should not be used for a minimum of one hour before changing the battery. It will extend lifetime of the battery.

To remove the battery (fig.12):

- 1. Use your thumb and index/middle finger to press the buttons on the sides of the battery.
- 2. Remove the battery.

Battery installation (fig.12):

- 1. Grab the battery at the sides and slide the battery base over the control pin.
- 2. Push the battery into its place.

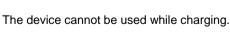


Figure 11 – Installing and removing the battery

### 6.7. Battery level status and charging



CAUTION!





**CAUTION!** 

During charging, the lifting function is blocked.

### CAUTION!

 $\triangle$ 

After fully charging, do not use the device for 1 hour, this will extend the life of the battery.

#### CAUTION!

The battery should be charged continuously for at least 24 hours in the following cases:

- before using the device for the first time,
  - before storage period (up to 3 months) without power supply connected,
  - as the first activity after the storage period.

#### CAUTION!



Storing the battery outside the controller enclosure must not create a risk of direct connection of the battery terminals.

### CAUTION!

An external charging module can be purchased for battery.

The battery charge level is indicate on the hand remote control and on the control box.



Battery indication

The battery discharging will be shown in three stages. The battery diodes are yellow or green until power down (2 minutes after use), (table 2).



#### Figure 13 – LED Point – The location on the control box

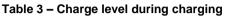
| Control box<br>Diode 1 – Diode 2 – Diode 3 | Hand control<br>Diode 1 – Diode 2 – Diode 3 | LED diode status (not listed = disable)                     | Charge level   |
|--|---|---|--|
|  |   | LED 1-3 diodes glow steadily                                | 75 - 100%  |
|  |   | LED 1+2 diodes glow steadily                                | 50 - 75%   |
|  |   | LED 1 diode glow<br>steadily                                | < 50%  |
|  |   | LED 1 diode flashes slowly in yellow with an audible signal | The battery level<br>is enough for one<br>raise and lower<br>cycle |

#### Table 2 – Charge level during use

The battery can be charged directly from a power outlet thanks to the control box's internal charger. To ensure the longest possible battery life, it is important to charge the battery regularly. It is recommended to charge the battery once a week. The battery charge indicator is located on the control box and allows you to check the battery capacity (table 3).

To charge the battery:

- 1. Connect the power cord plug to the control box.
- 2. Connect the power cord to a power outlet. The battery charge indicator will light up.
- 3. When the battery is fully charged, the charging indicator will turn off. The charging time should be about 4 hours.





Follow the steps below to charge the battery:

- 1. Attached the supplied power adapter to the controller (Figure 14).
- 2. Insert a plug with a wire for mains power (100-240 V  $\sim$  50/60) into the socket.

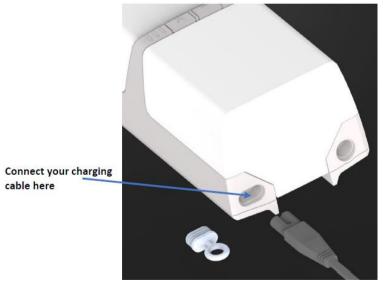


Figure 14 - Connecting the charging cable

### 6.8. Angle Adjustment Seat

The Dolphin II chair has a function of adjusting the angle of the seat with the backrest. Titling is quite useful, mainly during hygienic procedures. It significantly increases the patient's and the operator's comfort of use. In order to tilt the seat, press and hold the appropriate button on the hand control (Figure 15) until the desired tilt angle is reached. When the maximum or minimum height is reached, the actuator switches off automatically.

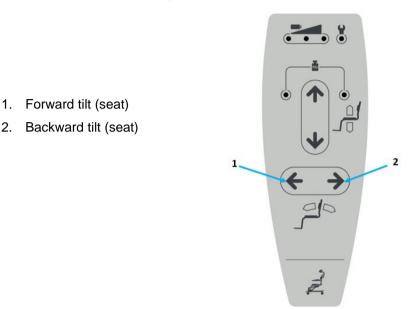


Figure 15 - Tilt control buttons

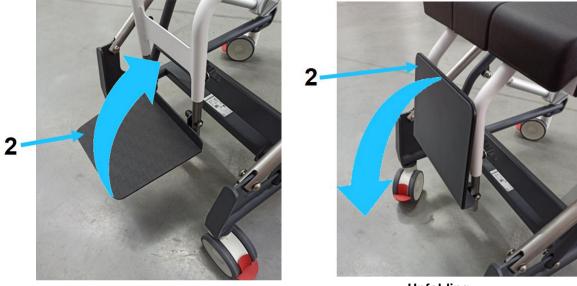
### 6.9. Footboard

2.

The Dolphin II chair has a folding footboard. To modify its height, use the height adjustment knobs (1), that can be found on the back (Figure 16), including two locking pins. To adjust, loosen the knobs, press the two locking pins at the same time, regulate the footboard to the desired height, and then tighten the knobs firmly. The "click" of the pin lock will be heard. To fold the footboard (2) lift its front edge up (Figure 17).



Figure 16 - Height adjustment knobs (1)



Folding

Unfolding

Figure 17 - Folding and unfolding the footboard (2)

### 6.10. Headrest Adjustment

### CAUTION!

When positioning, hold the headrest with one hand to prevent uncontrolled movement.

The device is equipped with an adjustable headrest (Figure 18). To adjust the headrest, loosen the knob (2), regulate to the desired position and retighten the knob.

To regulate the height, unscrew the knob (1) and adjust the desired height and then tighten the knob.



Figure 18 - Headrest adjustment

### 6.11. Removing the seat

The device has a removable seat plate, which makes it easier to clean its surface and the frame underneath (Figure 19). To place the seat plate, slide it at an angle onto

the seat frame and push until it latches into the place. To remove the seat plate, pull up the front of the plate and slide it towards the footboard.





Assembly



Assembly - latching Figure 19 - Placing and removing the seat plate

Disassembly

### 6.12. Trunk stabilization belt

The buckle-operated trunk stabilization belt can be used to prevent uncontrolled movement of the patient during everyday hygiene and toiletry activities.



Figure 20 - Belt attachment for torso stabilization



hold the patient

snap the buckle Figure 21 – Belt application

pull up

### 6.13. Leg stabilization belt

The buckled belt helps to keep the legs on the footrest, increasing patient safety and comfort during transport or during hygiene and toilet procedures for people with lower limb dysfunction.

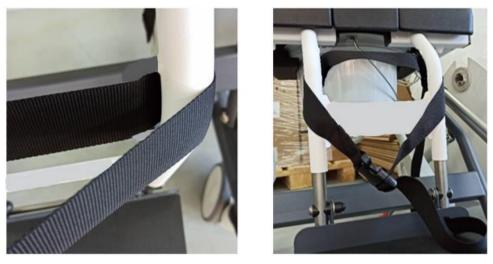


Figure 22 - Belt attachment for leg stabilization

# 7. CLEANING AND DISINFECTION

### 7.1. General Information



### CAUTION!

Each time the patient changes, the Dolphin II Commode/shower chair must be cleaned and disinfected before being used again.

### CAUTION!

#### Before cleaning, make sure that:

- 1. All plugs are properly connected.
- 2. The battery is mounted on the controller.
- 3. No electrical components indicate external damage. Failure to do so may result in the ingress of water or cleaning agents and cause interference with the device or damage to electrical components.
- 4. Electrical parts must not be washed with a water jet or pressure washers, etc. They can only be cleaned with a damp cloth.
- 5. If there is a suspicion that water or liquid agents flew into the electrical parts, stop the Dolphin II Commode/shower chair and immediately report the event to the service center.
- 6. If the above rules are not observed, serious damage to the device and further unforeseen consequences may occur.

Cleaning is important condition for successful, long term and trouble-free operation of the device. Routine cleaning of the Dolphin II Commode/shower chair is sufficient when it is used by the same patient. Disinfection of the Dolphin II Commode/shower chair is necessary if there is visible infection of the material or potentially infected material (blood, stool, pus) or when high-infection control risks situations.

### 7.2. Cleaning patient contact surfaces

The please follow the steps below:

- remove all the items that do not belong to the device;



- the surfaces should be cleaned with mild, non-abrasive detergents;
- disinfecting the casters is only necessary, if a surface has been contaminated with infectious or potentially infectious material.

Do not use:

- pastes, waxes, sprays;
- strong detergents, solvents and cleaning agents containing solvents, alcohol and leather cleaning agents.

The use of such agents can cause stiffness and cracking of the material, as well as changing the surface layer properties, not covered by the warranty.

# 8. MAINTENANCE

### CAUTION!



If the device is not used for a longer period, it is recommended that all electrical and mechanical parts be checked once a month by performing a test Dolphin II Commode/shower chair without the patient. In addition, the charger cables after each mechanical load or after changing the location of the Dolphin II Commode/shower chair should be manually checked for possible damage.

### 8.1. Maintenance of support structure mechanism

- 1. Metal parts of the structure can be cleaned with a soft, damp cloth. Cleaned surfaces should be wiped dry each time. Do not use cleaning products containing alcohol.
- 2. All the mobile nodes should be lubricated once every six months or when loud noises occur during their work.

Such nodes include:

- casters and actuators;
- connection of top frame and bottom frame;
- armrest rotation points.

As a lubricant, we recommend using commercially available penetrating and lubricating preparations (e.g. Wurth HHS 2000). Any leaks of excess of such preparations should be immediately removed with a dry cloth.

 Periodically – once every six months – a threaded connection should be inspected and, if necessary, any looseness should be removed. Any unavoidable looseness should be reported to the manufacturer's service, stopping the use of the device until the cause is removed.

All irremovable backlash on connections should be reported to the manufacturer service department followed by ceasing operation of device until removal of the cause.

The manufacturer is not responsible if authorized service centers or medical companies do not use original spare parts or original equipment.

### 8.2. Periodic inspection

The inspection raising/lowering function is required every 12 months (ISO 17966 recommendation) or every 8000 cycles, whichever comes first (see section 6.7) and each time after a failure/repair. The inspection should be carried out by the Service.

The minimum scope of inspection should include:

- visual check in particular: the structure of the load-supporting device, the main actuator and its mounting, the brakes and the control devices;
- checking the correct functioning of the device control functions;
- maintenance of the support structure mechanism (see section 8.1);
- test of the working load for one lifting cycle with maximum load.

All repair actions, defects, damages, remarks and observations important for safety of the device should be recorded in the repair register with the date of inspection.

### 8.3. Expected service life

### CAUTION!



The expected service life, in normal use and under normal circumstances, apart from batteries, is 3 years when serviced according to the instructions.

After 3 years from the date of manufacture of the device (and its equipment), the manufacturer shall not be liable for defects of the device and its equipment and the resulting consequences. The manufacturer is also not responsible for any consequences that the user or the patient may suffer as a result of, for example, incorrect installation of the device, or as a result of a misdiagnosis, improper use of the device and its equipment, incorrect interpretation or failure to follow the operating instructions and repairs carried out by unauthorized persons.

# 9. TROUBLESHOOTING

| Symptoms of malfunction   | Description of the procedure   |
|---|--|
| The unit does not respond to the hand control function activated  | <ol> <li>Check if the emergency stop is activated.</li> <li>Check the status of the battery.</li> <li>Check if the hand control cable is connected.</li> <li>Check if the battery is properly connected.</li> <li>Check if the charging cable is connected.</li> <li>Check if the charging cable is connected.</li> <li>Check the connection of the other wires.</li> <li>Check if the service led flashes.</li> <li>Check if the device reacts to the activation of the raise/<br/>lower function on the controller.</li> <li>Contact the service.</li> </ol> |
| The device does not react to the controller function activated    | <ol> <li>Check if the emergency stop is activated.</li> <li>Check the status of the battery.</li> <li>Check if the battery is properly connected.</li> <li>Check if the charging cable is connected.</li> <li>Check the connection of the other wires.</li> <li>Check if the service led flashes.</li> <li>Contact the service.</li> </ol>   |
| The battery is not charging                                       | <ol> <li>Check if the emergency stop is activated.</li> <li>Check the status of the battery.</li> <li>Check if the battery is properly connected.</li> <li>Check if the charging cable is connected.</li> <li>Check if the service led flashes.</li> <li>Contact the service.</li> </ol>   |
| Interruption of the device during patient lifting                 | <ol> <li>Check if the overload indicator flashes.</li> <li>Check the status of the battery.</li> <li>Check if the service led flashes.</li> <li>Check if the device reacts to the activation of the raise/<br/>lower function on the controller.</li> <li>Lower the device manually.</li> <li>Contact the service.</li> </ol>  |
| The device produces abnormal noises (cracking, cross-over, etc.). | 1. Contact the service.  |
| The device cannot be moved  | <ol> <li>Check that the brakes on the rear wheels are applied.</li> <li>Contact the service.</li> </ol>  |

If the fault symptoms persist, stop using the Dolphin II Commode/shower chair immediately and contact the Dealer for further instructions.

# **10. RECYCLING INFORMATION**

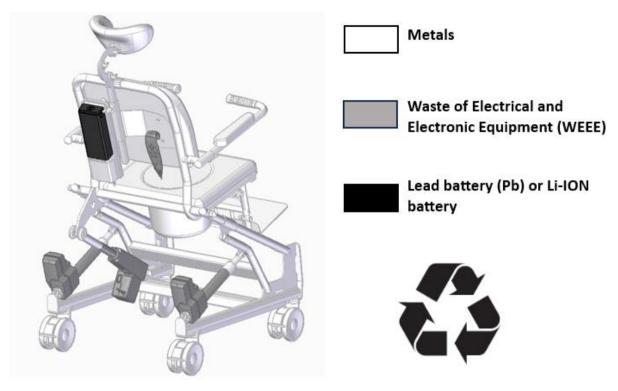


Figure 23 - Dolphin II Commode/shower chair recycling

# 11. ELECTROMAGNETIC COMPATIBILITY - GUIDANCE AND MANUFACTURER'S DECLARATION



#### CAUTION!

Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

#### CAUTION!

Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

CAUTION!



Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the equipment\*, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

#### CAUTION!

Device may be susceptible to electromagnetic disturbances, but Basic Safety and Essential Performance are maintained.

**Essential Performance** – the documentation of the risk management process shows lack of essential functioning characteristic for this product \*.

#### \*Dolphin II Commode/shower chair

Guidance and manufacturer's declaration – electromagnetic emissions The equipment' is intended for use in the electromagnetic environment specified below. The customer or the user of the equipment' should assure that it is used in such an environment.

| Emissions test  | Compliance | Electromagnetic environment – guidance  |
|---|------------|---|
| RF emissions<br>CISPR 11                                    | Group 1    | The equipment 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<br>CISPR 11                                    | Class B    |   |
| Harmonic emissions<br>IEC 61000-3-2                         | Class A    | The equipment <sup>*</sup> is suitable for use in all establishments, including domestic<br>establishments and those directly connected to the public low-voltage power<br>supply network that supplies buildings used for domestic purposes. |
| Voltage fluctuations/<br>flicker emissions<br>IEC 61000-3-3 | Complies   |   |

| Guidance and manufacturer's declaration – electromagnetic immunity  |
|---|
| The equipment' is intended for use in the electromagnetic environment specified below. The customer or the user of the equipment' should assure that it is used in such an environment. |

| IMMUNITY test   | IEC 60601 test level  | Compliance level   | Electromagnetic environment – guidance  |
|---|---|--|---|
| Electrostatic<br>discharge (ESD)<br>IEC 61000-4-2   | ± 8 kV (contact)<br>± 2/4/8/15 kV (air)   | ± 8 kV (contact)<br>± 2/4/8/15 kV (air)  | Floors should be wood, concrete or ceramic tile. If<br>floors are covered with synthetic material,<br>the relative humidity should be at least 30 %.  |
| Electrical fast transient/burst<br>IEC 61000-4-4  | ±2 kV for power supply<br>lines<br>100 kHz  | ±2 kV for power supply lines<br>100 kHz  | Mains power quality should be that of a typical commercial or hospital environment.   |
| Surge<br>IEC 61000-4-5  | ± 1 kV line(s) to line(s)<br>± 2 kV line(s) to earth  | ± 1 kV line(s) to line(s)<br>± 2 kV line(s) to earth   | Mains power quality should be that of a typical<br>commercial or hospital environment.  |
| Voltage dips, short<br>interruptions and voltage<br>variations on power supply<br>input lines<br>IEC 61000-4-11 | $\begin{array}{c} 0 \ \% \ U_{T}; \ 0,5 \ cycle \ at \ 0^{\circ}, \ 45^{\circ}, \\ 90^{\circ}, \ 135^{\circ}, \ 180^{\circ}, \ 225^{\circ}, \ 270^{\circ} \\ and \ 315^{\circ} \\ 0 \ \% \ U_{T}; \ 1 \ cycle \ and \\ 70 \ \% \ U_{T}; \ 25/30 \ cycles \\ (50/60Hz) \\ 1 \ phase: \ at \ 0^{\circ} \\ 0 \ \% \ U_{T}; \ 250/300 \ cycles \\ (50/60Hz) \\ \end{array}$ | 0 % U <sub>T</sub> ; 0,5 cycle at 0°, 45°,<br>90°, 135°, 180°, 225°, 270°<br>and 315°<br>0 % U <sub>T</sub> ; 1 cycle and<br>70 % U <sub>T</sub> ; 25/30 cycles<br>(50/60Hz)<br>1 phase: at 0°<br>0 % U <sub>T</sub> ; 250/300 cycles<br>(50/60Hz) | Mains power quality should be that of a typical<br>commercial or hospital environment. If the user of<br>the equipment' requires continued operation<br>during power mains interruptions, it is<br>recommended that the equipment' be powered<br>from an uninterruptible power supply or a battery. |
| Power frequency<br>(50/60 Hz)<br>magnetic field IEC 61000-4-8   | 30 A/m  | 30 A/m   | Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.   |

Guidance and manufacturer's declaration - electromagnetic immunity

The equipment' is intended for use in the electromagnetic environment specified below. The customer or the user of the equipment' should assure that it is used in such an environment.

| IMMUNITY test   | IEC 60601 TEST<br>LEVEL  | Compliance<br>level  | Electromagnetic environment – guidance   |  |  |
|---|--|--|--|--|--|
| Conducted RF<br>IEC 61000-4-6   | 3 V<br>0,15 MHz – 80 MHz<br>6 V in ISM and amateur radio<br>bands between 0,15 MHz and<br>80 MHz<br>80 % AM at 1 kHz | 3 V<br>0,15 MHz – 80 MHz<br>6 V in ISM and amateur radio<br>bands between 0,15 MHz and<br>80 MHz<br>80 % AM at 1 kHz | Portable RF communications equipment (including<br>peripherals such as antenna cables and external<br>antennas) should be used no closer than 30 cm (12<br>inches) to any part of the equipment, including<br>cables specified by the manufacturer. Otherwise, |  |  |
| Radiated RF<br>IEC 61000-4-3  | 10 V/m<br>80MHz do 2,7GHz  | 10 V/m<br>80MHz do 2,7GHz  | degradation of the performance of this equipment could result.   |  |  |
| Proximity fields from RF<br>wireless communications<br>equipment<br>IEC 61000-4-3 | EN 60601-1-2:2015, Table 9<br>(see below)  | Complies   | These guidelines may not apply in all situations.<br>Electromagnetic propagation is affected by<br>absorption and reflection from structures, objects<br>and people.   |  |  |
|   | home healthcare<br>environment   | home healthcare<br>environment   |  |  |  |

| Test<br>frequency<br>(MHz) | Band <sup>a)</sup><br>(MHz) | Service <sup>a)</sup>                                     | Modulation <sup>b)</sup>                            | Maximum<br>power<br>(W) | Distance<br>(m) | Immunity<br>test level<br>(V/m) |  |
|----------------------------|-----------------------------|---|---|-------------------------|-----------------|---------------------------------|--|
| 385                        | 380 –390                    | TETRA 400   | Pulse modulation <sup>b)</sup><br>18 Hz             | 1,8                     | 0,3             | 27                              |  |
| 450                        | 430 – 470                   | GMRS 460,<br>FRS 460                                      | FM <sup>c)</sup><br>± 5 kHz deviation<br>1 kHz sine | 2                       | 0,3             | 28                              |  |
| 710                        |                             |   | Pulse modulation b)                                 |                         |                 |                                 |  |
| 745                        | 704 – 787                   | LTE Band 13, 17   | 217 Hz  | 0,2                     | 0,3             | 9                               |  |
| 780                        |                             |   | 217 112   |                         |                 |                                 |  |
| 810                        |                             | GSM 800/900, TETRA 800,                                   | Pulse modulation b)                                 |                         |                 |                                 |  |
| 870                        | 800 - 960                   | iDEN 820, CDMA 850, LTE                                   | 18 Hz   | 2                       | 0,3             | 28                              |  |
| 930                        |                             | Band 5  | 10112   |                         |                 |                                 |  |
| 1720                       |                             | GSM 1800; CDMA 1900;                                      | Pulse modulation b)                                 |                         |                 |                                 |  |
| 1845                       | 1700 – 1990                 | GSM 1900; DECT; LTE                                       | 217 Hz  | 2                       | 0,3             | 28                              |  |
| 1970                       |                             | Band 1, 3, 4, 25; UMTS                                    | 217 112   |                         |                 |                                 |  |
| 2450                       | 2400 – 2570                 | Bluetooth, WLAN 802.11<br>b/g/n, RFID 2450, LTE<br>Band 7 | Pulse modulation <sup>b)</sup><br>217 Hz            | 2                       | 0,3             | 28                              |  |
| 5240                       |                             |   |   | 0,2                     |                 |                                 |  |
| 5500                       | 5100 - 5800                 | WLAN 802.11 a/n   | Pulse modulation <sup>b)</sup><br>217 Hz            |                         | 0,3             | 9                               |  |
| 5785                       |                             |   | 217 112   |                         |                 |                                 |  |

a) For some services, only the uplink frequencies are included.

<sup>a)</sup> For some services, only the uplink frequencies are included.
 <sup>b)</sup> The carrier shall be modulated using a 50 % duty cycle square wave signal.
 <sup>c)</sup> As an alternative to FM modulation, 50 % pulse modulation at 18 Hz may be used because while it does not present actual modulation, it would be worst case.

# 12. WARRANTY CARD

- 1. The seller (authorized representative, distributor) offers a 24-month warranty, starting from the date of purchase of the equipment, as indicated in a proof of purchase. Upholstered parts are covered by a 12-month warranty.
- 2. The seller (authorized representative, distributor) is responsible for any faults whether in quality or quantity occurring immediately after unpacking the product from its original shipment packaging only if they have been reported in a written form within 2 working days following the delivery.
- 3. The warranty will be fulfilled only by the authorized service team of the seller (authorized representative, distributor) or other technical service authorized by the manufacturer.
- 4. A repair time exceeding 3 days shall result in the extension of the warranty period by a time equivalent to the total time during which the device was out of order.
- 5. In case a faulty subassembly has already been repaired three times, the manufacturer shall be obliged to replace a faulty subassembly with a new one.
- 6. The user must ensure all the maintenance service described in the manual in order to benefit from the warranty coverage.
- 7. In case the installation and operation instructions have not been observed, the manufacturer shall bear no responsibility for the safety of the user or patient during the use of the unit.
- 8. The warranty does not cover faults of parts and materials resulting from natural wear and tear, which means faults other than material or workmanship, as well as faults resulting from poor or no maintenance (e.g. valves, bearings, guides, fans etc.).
- 9. The seller (authorized representative, distributor) shall bear no responsibility for any loss, whether consequential or incidental, including loss of profits or costs incurred that result from a failure to follow the instructions set out in the installation and user manual.
- 10. The seller (authorized representative, distributor) shall bear no responsibility resulting from this warranty for any loss, whether consequential or incidental, including loss of profits or costs incurred by failure of the equipment.
- 11.Faults that occur within the warranty period and are not reported to the authorized service are not covered by the warranty.
- 12.Costs resulting from an unfounded claim shall be borne by the user.
- 13. The warranty shall not cover equipment:
  - damaged as a result of fire and lightning or force majeure,
  - with a name plate and/or serial number or factory seals removed or damaged,
  - damaged due to its use in a manner other than defined in the operation manual,
  - where repairs or modifications have been done by unauthorized personnel,
  - damaged mechanically due to improper handling or transportation.
- 14.In case the equipment covered by the warranty has been re-sold, no new warranty document will be issued.
- 15. The warrantor shall not issue a duplicate of the Warranty Card.
- 16. This warranty does not exclude, limit, or suspend your consumer statutory rights.

| Coi | Commode/shower chair |  | D | olphin | 11 | Dolp | ohin II I | PLUS | Date, signature<br>and stamp<br>Guarantee: |  |
|-----|----------------------|--|---|--------|----|------|-----------|------|--|--|
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