USER MANUAL

Care bathtub

bathaid

CE

Manufacturer:

MEDEN - INMED, Spółka z o.o.

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TABLE OF CONTENTS

Dear Customer,

Congratulations on making the right choice. We wish you much satisfaction from using our product. Please read this manual carefully, as it contains important information and cautions from the manufacturer on correct installation, use and maintenance of the product.

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
tel: +48 94 347-10-40
e-mail: *meden@meden.com.pl*

GENERAL INFORMATION:

1. The product should be only operated by qualified personnel, who have been familiarized with the content of the instruction manual.
2. The manufacturer shall not be liable for any damage caused by the situation where, the device is not used, operated or maintained with accordance to the instruction manual.
3. The device manufacturer prohibits any modifications to the device being used.
4. When the device is not working properly or its parameters are not compatible with the instruction manual, do not use the product. If such an abnormality is found, please contact the manufacturer or a local supplier immediately.
5. Every repair of the product must be made by a factory or authorized service and registered in the list of repairs attached to the warranty card. Failure to comply with this requirement will void the warranty on the product.
6. Any serious Bathaid bathtub incident shall immediately be reported to the manufacturer and to the competent authority of the Member State where the user or patient is resident.
7. Technical description of the bathtub with a list of spare elements and methods of their replacement is available at the manufacturer's request.

The warranty conditions shall become invalid if the device is used for the purpose other than the purpose for which it was designed or if it is not operated in accordance with the instructions provided in this user manual.

The Manufacturer shall not be responsible for the results of improper (not in accordance with the rules and regulations provided in this user manual) use of the Bathaid bathtub.

2. PRODUCT SPECIFICATIONS

2.1 Intended use

The Bathaid bathtub is design bathtub, specially designed and intended for bathing and washing patients in hospitals and nursing homes, as well as in long-term care facilities. The built-in Bathaid bathtub height adjustment mechanism helps personnel to perform hygienic activities related to the daily care of the patient.
Bathaid care baths should be conducted under personnel supervision in water at temperature of 25 - 40°C and last between 10 and 30 minutes. Methods of preparing and conducting care baths should be defined by the internal operating instructions of the facility performing such activities. If the patient cannot enter the bathtub on their own, a mobile bathtub lift, for example, should be used.

2.1.1 Indications for care baths

The Bathaid bathtub helps personnel to bathe a patient with reduced mobility due to injury, illness or disability. The bathtub can be used to alleviate or compensate for injuries or disabilities of dependent and elderly persons with limited mobility.

2.1.2 Contraindications for care baths

Contraindications for care baths in a Bathaid bathtub:

- children up to 12 months of age,
- children with a height below 100 cm,
- patients of more than 185 kg.

2.1.3 Patient target group

The target group for use of the Bathaid bathtub are patients who have limited mobility due to injury, illness or disability.

2.1.4 Users

The Bathaid bathtub can be used only by qualified personnel who have read the information contained in the user manual for this device.

2.2 CE marking

CE

Bathaid ECONOMY, PREMIUM, PREMIUM Plus care bathtub is manufactured in accordance with the requirements of Regulation (EU) 2017/745 of the European Parliament and of the Council on medical devices (class I, rule 13) and bears the CE marking, according to the manufacturer's declaration.

2.3 Symbols

	Shower handset
	Hot water connection (red print)
	Cold water connection (blue print)
MAX 6 bar	Maximum nominal pressure of the water supply

	Valve closing direction
	Disinfectant tank
	Bath with aromas - AROMA option
	Follow the instructions for use
	Applied part type B
	Manufacturer, YYYY – year of manufacture
	Maximum safe load of the bathtub – 400 kg
	Medical device
	Serial number
	Lifting the basin - fixed panel on the bathtub crown
	Lowering the basin – fixed panel on the bathtub crown
	Basin lifting/lowering system – 2 minutes operation (ON), min. 18 minutes pause (OFF)
IPX5	Protection against water spray from all sides of the housing
	Open water outlet
	Closed water outlet
	Open disinfection valve
	Closed disinfection valve
	Warning sign. This indicates actions which may result in a deterioration of the conditions or a safety risk for the user and/or the personnel using the product, if disregarded. Similar symbol is applied on the device where it is mandatory to read the Instruction Manual and follow its guidance when using the device.
	In accordance with the provisions of the Act on Waste from Electrical and Electronic Equipment, it is forbidden to dispose of waste equipment marked with the crossed-out bin symbol with other waste. Waste electrical and electronic equipment should be taken to the appropriate collection point. These statutory obligations were introduced in order to reduce the amount of waste generated from waste electrical and electronic equipment and to ensure an adequate level of collection, recovery and recycling of waste equipment. The proper implementation of these obligations is particularly important when there are hazardous components in the used equipment, which have a particularly negative impact on the environment and human health. Dispose of waste non-electrical equipment in accordance with applicable regulations.
	Unique Device Identification

2.4 Technical specifications

Bathaid bathtub is made to order, and the parameters of execution are shown in the table below:

Parameters/Bathtub type	ECONOMY	PREMIUM / PREMIUM Plus
Capacity [l]		
- minimum level for bathing	-	170
- to overflow	270	
Height [mm]	720-1120 (400 mm lifting/lowering range)	
Width [mm]	800	
Length [mm]	1990	
Weight [kg]	210	230 / 252
Overflow	+	
Colour	white	
Housing		
Number of covers	4	
Colour	white	
Operating parameters		
Power supply conditions	230 V ~ 50/60 Hz	PREMIUM: 230 V ~ 50/60 Hz PREMIUM Plus: 230 V ~ 50 Hz
Maximum power consumption [A]	2	2.5 / 5
Housing class	IPX5	
Protection class	I	
Applied part (bathtub basin filled with water)	type B 	
Basin lifting/lowering system	 discontinuous, with short-term load (10%) max. 2 minutes operation (ON), min. 18 minutes pause (OFF)	
Maximum patient weight [kg]	185	
Maximum safe working load (SWL) [kg]	400	
Ambient temperature [°C]	10 – 40	
Ambient humidity [%]	30 – 95 (without condensation)	
Ambient pressure [hPa]	800 – 1060	
Maximum permissible water temperature at the start of the bath [°C]	40	
Maximum hot water pressure in the supply system [bar/MPa]	6 / 0.6	
Maximum cold water pressure in the supply system [bar/MPa]	6 / 0.6	
Minimum cold water pressure in the supply system [bar/MPa]	4 / 0.4	
Maximum time of		
– filling to overflow (depends on the water pressure in connections, recommended flow: ~70l/min)	~16 min	~9 min 30 s
– emptying	~4 min	

Basin lifting/lowering time – high-speed actuators*		
– lifting	~30 s (option)	~30 s
– lowering		
Basin lifting/lowering time – low-speed actuators*		
– lifting	~50 s	-
– lowering		

*approximate time for an empty and maximally loaded (400 kg) bathtub

3. DESIGN AND OPERATION

CAUTION!

Do not modify the device without the written authorization of the Manufacturer.

The manufacturer reserves the right to make changes to the design of the bathtub that do not compromise the basic requirements of functionality and safety. The illustrations in this manual are for guidance only and variations are based on order specifications.

3.1 View of the control and adjustment elements of the bathtub

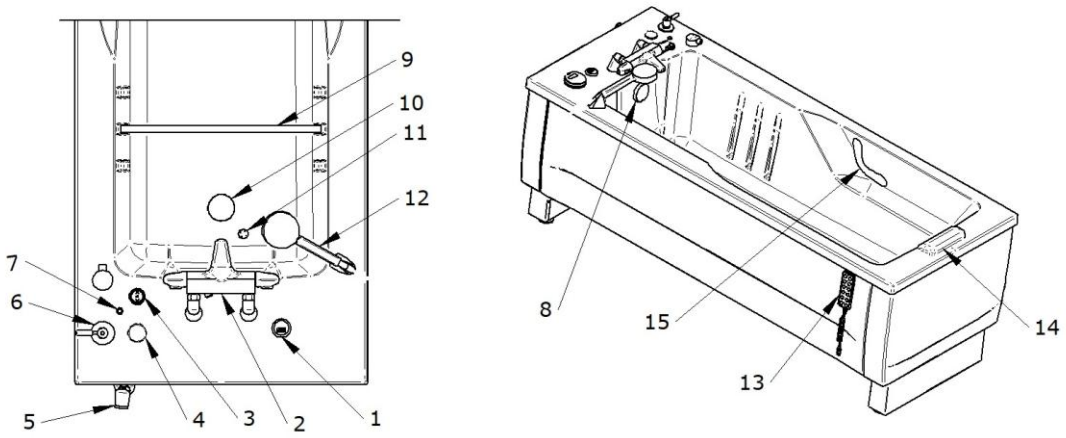


Fig.1. View of the Bathaid ECONOMY bathtub with control and adjustment elements

1	*Electronic water temperature display in the basin (option)*	***9***	*Leg support (accessory)*
2	*Bathtub spout with thermostat*	***10***	*Water drain plug*
3	*Fixed panel for adjusting the bathtub height*	***11***	*Basin water temperature indicator (option)*
4	*Disinfectant inlet (option)*	***12***	*Shower handset*
5	*Handset with valve for disinfection (option)*	***13***	*Remote control for adjusting the bathtub height*
6	*Disinfection valve (option)*	***14***	*Headrest (accessory)*
7	*Disinfectant level LED indicator (option)*	***15***	*Handle*
8	*Overflow with drain closing knob*		

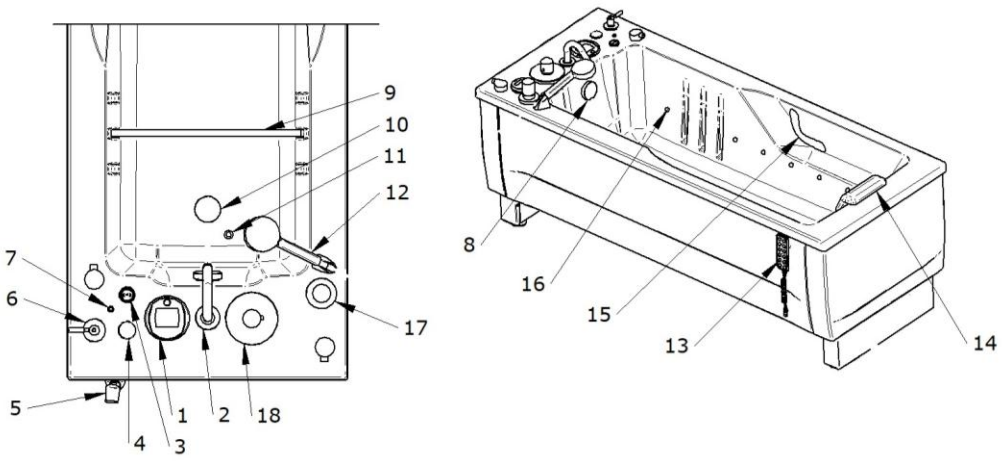


Fig.2. View of the Bathaid PREMIUM bathtub with control and adjustment elements

1	*Bathtub control panel*	***10***	*Water drain plug*
2	*Spout*	***11***	*Basin water temperature indicator*
3	*Fixed panel for adjusting the bathtub height*	***12***	*Shower handset*
4	*Disinfectant inlet (option)*	***13***	*Remote control for adjusting the bathtub height*
5	*Handset with a valve for disinfection (option)*	***14***	*Headrest (accessory)*
6	*Disinfection valve (option)*	***15***	*Handle*
7	*Disinfectant level LED indicator (option)*	***16***	*CHROMO - led points (option)*
8	*Overflow with drain closing knob*	***17***	*Shower handset valve*
9	*Leg support (accessory)*	***18***	*Thermostatic mixer*

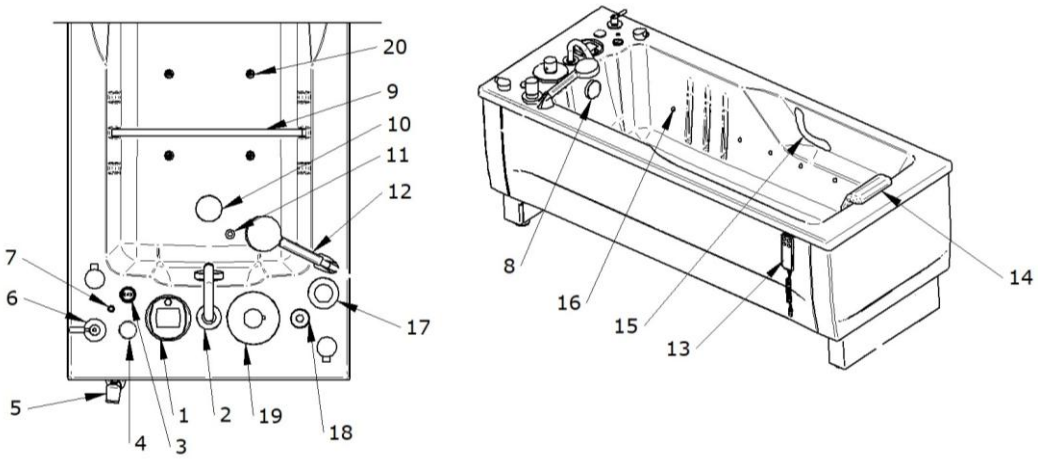


Fig.3. View of the Bathaid PREMIUM Plus bathtub with control and adjustment elements

1	*Bathtub control panel*	***11***	*Basin water temperature indicator*
2	*Spout*	***12***	*Shower handset*
3	*Fixed panel for adjusting the bathtub height*	***13***	*Remote control for adjusting the bathtub height*
4	*Disinfectant inlet (option)*	***14***	*Headrest (accessory)*
5	*Handset with a valve for disinfection (option)*	***15***	*Handle*
6	*Disinfection valve (option)*	***16***	*CHROMO - led points (option)*
7	*Disinfectant level LED indicator (option)*	***17***	*Shower handset valve*
8	*Overflow with drain closing knob*	***18***	*AROMA (option)*
9	*Leg support (accessory)*	***19***	*Thermostatic mixer*
10	*Water drain plug*	***20***	*AIR - nozzles for bath aeration*

The bathtub basin is made of high-quality acrylic and the outer covers are made of gelcoat. Use of such material provides long-term and trouble-free operation of the bathtub.
The leg rest (fig.1-3 item 9) can be adjusted in 3 positions.
The Bathaid ECONOMY bathtub is filled by opening the thermostatic mixer valve (fig.1 item 2). Use the knob on the thermostat mixer to set the desired water temperature, fill the bathtub to the desired level and operate the shower handset.
The Bathaid PREMIUM and PREMIUM Plus bathtub is automatically filled to an electronically controlled level using the control panel (fig.2-3 item 1) built into the crown of the basin. The water temperature is set by using the knob on the thermostatic mixer (fig.2 item 18 and fig.3 item 19).
The Bathaid PREMIUM Plus bathtub is equipped with bath aeration system (AIR) is performed by an electrically powered blower, sucking in air, which under pressure is forced through 10 nozzles (each with 7 air channels) located at the bottom of the basin (fig.3 item 20) and broken into particles of different sizes, released into the bath water.

3.2 Additional options

3.2.1 AUDIO – bath with music – only Bathaid PREMIUM and PREMIUM Plus

The Bathaid bathtub with the AUDIO option can be connected to the BT10 multimedia device from Power Dynamics via a dedicated function connection. This module makes it possible to run the bath with music. The sound comes from speakers located in the back of the bathtub.

3.2.2 CHROMO – bath with light effects – only Bathaid PREMIUM and PREMIUM Plus

To run a bath with light effects, illuminate the water in the basin with 12 LED light points of the appropriate colour located at (fig.2-3 item 16) the side of the bathtub.

3.2.3 AROMA – bath with fragrances – only Bathaid PREMIUM Plus

Aroma bathing is possible during bathing with aeration (AIR). This mode is activated by a button located on the bathtub (fig.3 item 18). Bathaid bathtub can be equipped with a container for 1 fragrance, dosed during the bath. Aroma bath is a 15-30 minute immersion in warm water to which fragrance oil has been added.

3.3 Device set

Bathaid care bathtub (specification according to the order)	1 pc.
Connection hose GW ½'' L=80 cm	2 pc.
User manual with Warranty card and Periodic technical test card	1 pc.
Leg support	accessory
Headrest	accessory
Additional options	according to the order

3.4 Transport and storage

Transport and store the bathtub in manufacturer's transport packaging at above 0˚C, in a dry and closed room.

Storage and transport temperature [°C]	positive (max. 60°C)
Humidity during storage and transport [%]	5 - 95 non-condensing

4. SAFETY MEASURES

4.1 Place of use

CAUTION!

For sanitary reasons, it is not recommended to permanently connect the bathtub's drainage system to the building's drainage system.

CAUTION!

It is recommended that additional and easily accessible valves are placed in the room to shut off the hot and cold water supply to the device should be placed in the room so that personnel can quickly access the shut-off valves in the event of a system failure or uncontrolled water leakage from the device.

The assembly and the first activation of the device is carried out by the service of the contractor, or an entity authorized by the contractor.

4.2 Notes for use

CAUTION!

A condition for carrying out baths in the Bathaid bathtub is to water change and disinfection of the bathtub after each patient.

CAUTION!

Do not exceed the temperature of the bath water in the bathtub above 40ºC as it may cause patient burns or other dangers resulting from too high-water temperature.

5. PREPARATION FOR USE

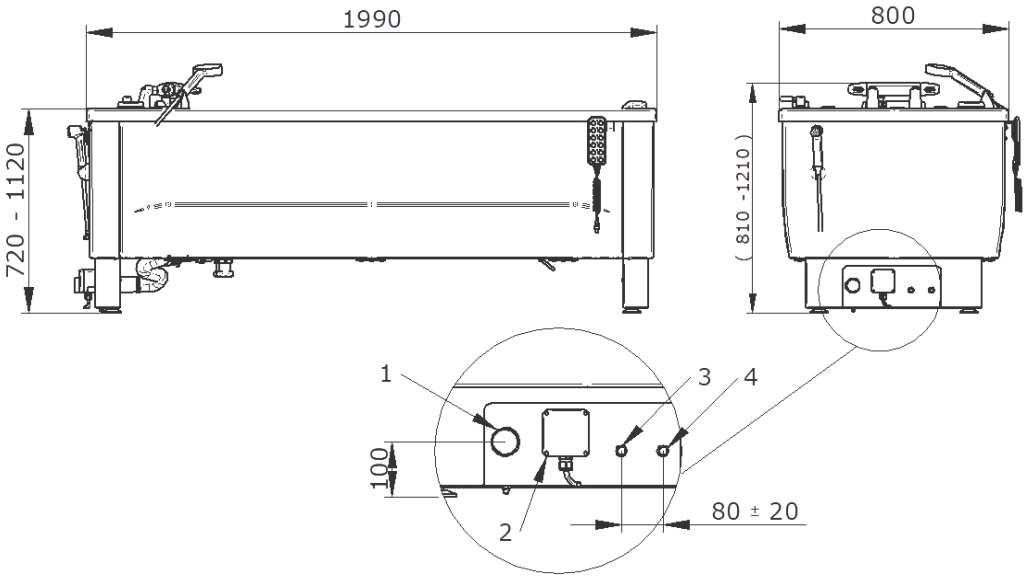


Fig.4. Bathaid bathtub (dimensions in mm)

1 - bathtub water outlet terminated with pipe fi 50 L=60 mm

2 - junction box for the mains terminal device

3 - cold water connection in the bathtub terminated with GZ 1/2'' L=30mm

4 - hot water connection in the bathtub terminated with GZ 1/2'' L=30mm

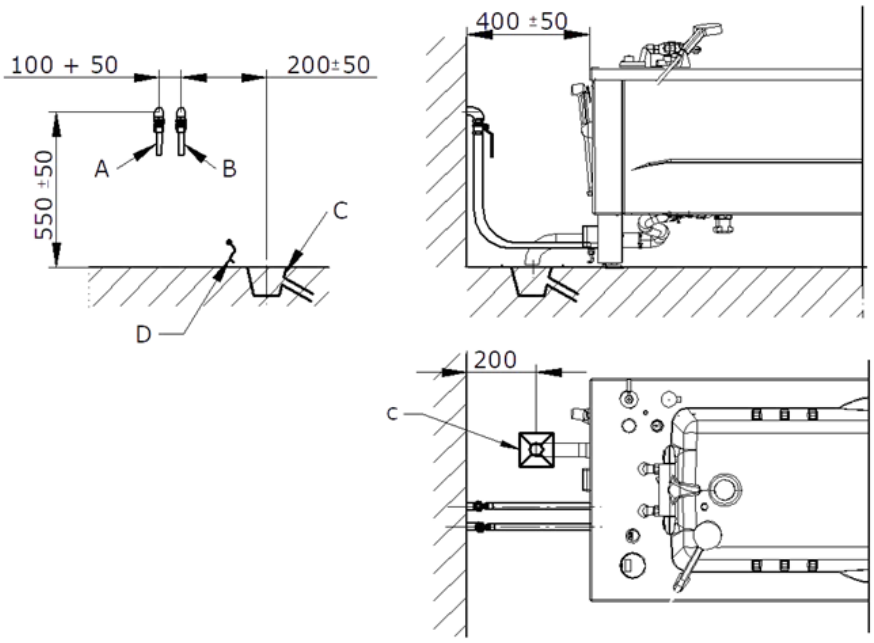


Fig.5. Bathaid bathtub side drain media outlet layout (dimensions in mm)

In the place where the bathtub is installed, it should be led out (fig.5):

A – hot water supply (max 60°C) with a pressure of max. 6 bar, connection led out of the wall to a height of 50cm ± 5cm, terminated with a 90º elbow directed downwards with an external 3/4" thread,

B – cold water supply with a pressure of max. 6 bar, connection led out of the wall to a height of 50 cm ± 5 cm, terminated with a 90 ° elbow directed downwards with an external 3/4" thread,

C – sewer grate with a siphon and a drain of min. DN 100 with a minimum capacity of 3.5 l/s on the entire drain section to the vent, the water discharge from the tub is terminated with a DN 50 pipe.

D – power supply connection – see section 5.1 "Connection to the mains electricity" below.

Recommendations: the internal diameter of the utility supply system is min. DN 15 along the entire length. Ventilation should be provided in the room.

5.1 Connection to the mains electricity

CAUTION!

To avoid risk of electrical shock, the device must be connected only to a supply network with protective earth.

CAUTION!

Connection of the electrical system of the bathtub to the supply network should be performed by a licensed electrician. Confirmation of the proper electrical connection of the bathtub by a licensed electrician is one of the warranty conditions.

CAUTION!

The device must be connected to the electrical installation permanently.

CAUTION!

To disconnect the device reliably and completely from the mains supply, there is an external power switch installed in the switchboard from which the mains supply is fed to the device.

The power circuit must be allocated only to power this device (it must not power any other devices) and must include:

- power supply cable min. 3x1 mm^2,
  (The enclosure of mains terminal device is equipped with a gland ensuring tight clamping on a round cable with a diameter of a 5-10 mm. When using a cable of different size, appropriate technical measures must be taken to ensure that the mains terminal device is protected against water ingress to a minimum of IPX5).
- an overcurrent circuit breaker 6 A with a type C characteristic curve,
- residual current device (RCD) with a rated tripping current not exceeding 30 mA,
- all-pole disconnect switch with a minimum contact gap of 3 mm, located in a place that allows easy and quick access for personnel in case of emergency. If the switch is not visible by the operator or service personnel from the position of normal use, additional means must be provided to lock in the off position.

The length of the power supply cable from the wall to the bathtub should be a minimum of 1,5 m to allow for the bathtub to be moved approximately 1 m away from the wall.
The electrical installation to which the device is connected must conform to the applicable local legal regulations (e. g. EN 60364-7-710).

5.2 Connection to the water supply and drainage systems

CAUTION!

The bathtub was properly levelled during the manufacturing process. If the area where the bathtub is located has uneven flooring, the bathtub needs to be leveled so that each of its four legs has a firm grip on the ground.

CAUTION!

Bath water should be free of mechanical impurities (e.g., by using adequate filters) that could harm the valve system permanently. The warranty does not cover the bathtub's repair if such a cause of failure is discovered.

CAUTION!

After the installation of the device is completed, do not move it, as the water system may become unsealed and the electrical system supplying the device may be damaged.

CAUTION!

The temperature of the hot water must not exceed 60°C due to the properties of materials used for the manufacture of the bathtub. Exceeding the inlet hot water temperature of 60°C may lead to a malfunction of the device in a short time. Such defects will not be covered by the warranty.

The bathtub is manufactured in accordance with the user's given installation and location requirements.

5.3 Assembly/disassembly bathtub covers

Housing of the Bathaid bathtub consist of four covers: front, rear and two side covers.

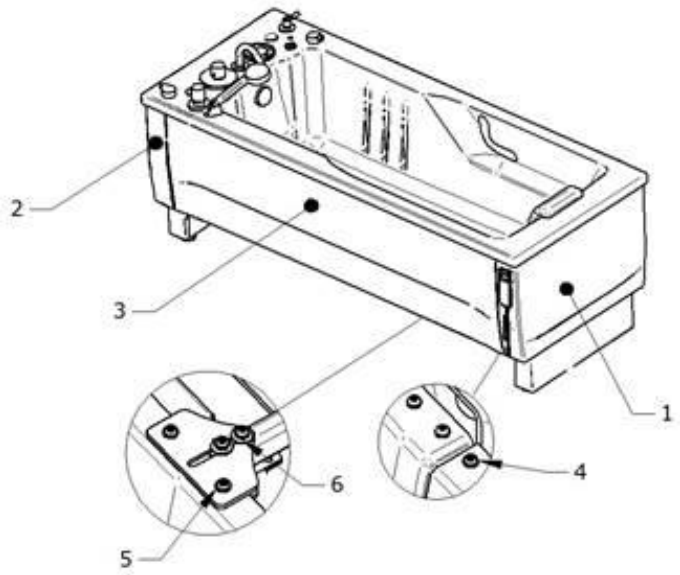


Fig.6. Bathaid bathtub view with cover elements

1.	Front cover	**3.**	Side cover
2.	Rear cover	**4-6.**	Allen socket screw

To disassembly the Bathaid bathtub covers, first remove the front cover:

1. Using an allen key (not supplied), unscrew the allen socket screw in item 4 in figure 6. There are 2 such screws on each side of the bathtub.
2. Carefully remove the front cover.
3. Repeat the above steps for the rear cover.

In order to remove the side covers of the Bathaid bathtub:

1. Using an allen key, unscrew the 6 screws in item 5 fig.6 in the three brackets.
2. Using an allen key, loosen the screws in item 6 fig.6.
3. Carefully remove the side cover.
4. Repeat the above steps for the second side cover.

6. BATHTUB OPERATION

6.1 Lifting and lowering the bathtub basin

CAUTION!

Before lifting or lowering the basin, always check the space underneath the bathtub for any obstacles that could damage the structural elements of the bathtub.

CAUTION!

Before starting to lift or lower the basin, always check the space in the area of movement of the actuators so that the body parts are not crushed/broken.

Bathaid bathtub is equipped with a remote control (fig.7) and a fixed panel (fig.8) used to adjust the height of the device.

Press one of the "UP" or "DOWN" arrow buttons on the fixed panel or remote control to move the position of the basin to the desired height.

The bathtub basin will lift if the "UP" button is pressed. The bathtub basin will lower if the "DOWN" button is pressed.

The height of the basin can be adjusted up to 400 mm with a remote control (fig.7) at two different speeds. The reduced lifting speed allows gentle and precise positioning of the bathtub for patient bathing, e.g. when using Meden-Inmed's Hydraid bathtub hoist, where the position of the chair seat relative to the bathtub must be accurately assessed to ensure the safety of the patient on the Hydraid hoist and not to damage any of the devices.

The actuator in charge of regulating the height of the bathtub will automatically shut off when the minimum or maximum height of the basin is achieved.

Fig.7. Remote control

The remote control for adjusting the height of the bathtub basin is located on a handle on the side of the bathtub (fig.1-3 item 13):

A – Up arrow - lifting the bathtub

B – Down arrow - lowering the bathtub

C – Up arrow - lifting the bathtub at reduced speed

D – Down arrow - lowering the bathtub at reduced speed

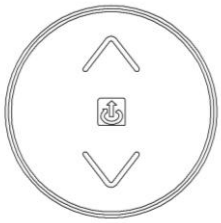


Fig.8. Fixed panel

The fixed panel for adjusting the height of the bathtub basin is located on the bathtub crown (fig.1-3 item 3):

Up arrow - lifting the bathtub at reduced speed

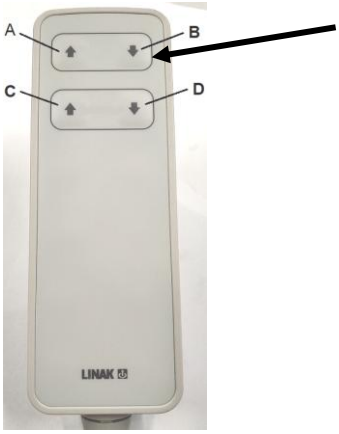
Down arrow - lowering the bathtub at reduced speed

6.2 Locking mechanism for lifting and lowering the bathtub basin

The bathtub basin height adjustment system is equipped with a remote control authorization system that is a system that blocks the movement of lifting and lowering the bathtub. A key (fig.9) which is attached to the remote control is used to activate the lock.

Fig.9. Key to authorize the lock

To activate the remote control lock, follow the steps below:



Rys.10. Remote control

On the remote control, press down arrow B as shown on fig.10.

Fig.11. Lock activation

Holding the B button down on the remote control continuously, press the key to the top on the back of the remote control for 1 s (see fig.11).

A short sound signal will be activated, and the movement of lowering the bathtub will be blocked.

Lock activated.

Any attempt to start lifting or lowering the bathtub basin will be blocked, and pressing the button will be signaled by a short double sound.

To deactivate the remote control lock, follow the same steps as for activating the lock.

6.3 Emergency lowering of the bathtub basin

The Bathaid bathtub is equipped with rechargeable battery (fig.12) that allows emergency lowering of the bathtub basin in the event of a power failure/interruption.

Press the lowering button on the remote control (fig.7) or fixed panel (fig.8) to lower the bathtub if there is a power interruption. Lifting and lowering of the bathtub basin with battery power is indicated by a continuous sound signal.

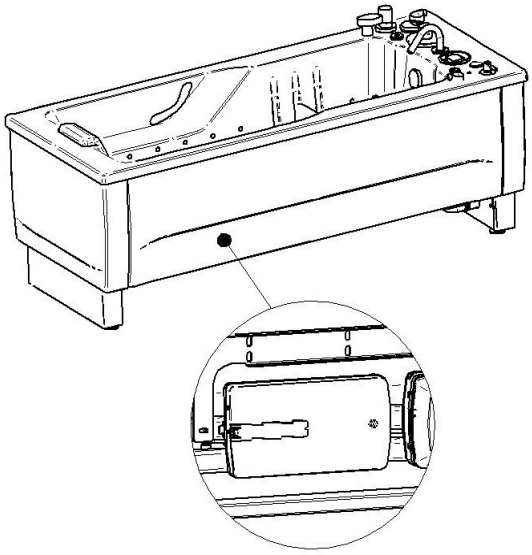


Fig.12. Placement of the battery for emergency lowering of the basin

The battery does not require special maintenance, it is sufficient to check for leaks and ensure that it is operating properly once a year. Disconnect the bathtub from the mains power supply and perform a lifting and lowering operation to ensure the battery is functioning properly. If the bathtub lifts and lowers, it means that the battery is charged and working properly.

6.4 Operating the panel menu – only Bathaid PREMIUM and PREMIUM Plus

6.4.1 User interface elements

To interact with the user, a graphic display with a touch panel and a separate button 

is used. The remaining buttons are presented as touch-responsive fields.

The state of the button is indicated by its color:

 - button not pressed

 - button pressed

 - button inactive

6.4.2 Welcome screen

The welcome screen appears when the device is turned on.

The LED light on the START/STOP button flashes blue.

Pressing the 

button will display the home screen.

Note: After 30 minutes of inactivity, the bathtub panel enters the standby mode.

6.4.3 Standby mode

In standby mode, the desktop screen is off. The blue LED of the START/STOP button briefly flashes every five seconds to show that power supply is present. In standby mode, the AUDIO unit power output is disabled.

Pressing the button 

will exit the standby mode and display the home screen.

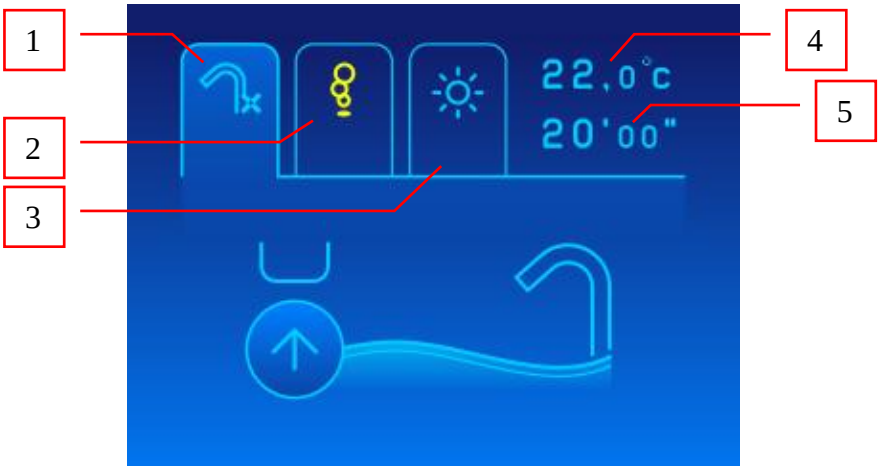
6.4.4 Home screen

The user may control the bathtub's operation and get all the information they need regarding the device's status on the home screen. The home screen is divided into 3 views (tabs) which can be switched using the tab buttons that are displayed.

The LED of the START/STOP button lights up continuously in blue.

The welcome screen will appear after 30 minutes of inactivity (during which no buttons are touched, or no filling is taking place).

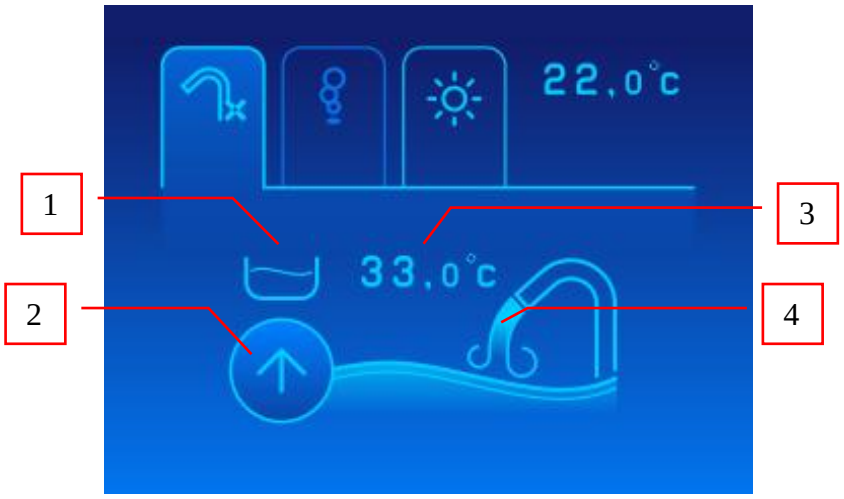
a) Home screen – common items



Number	Description of Home screen items
1	**Tab 1** – Filling screen. The tab button's appearance means:  - the filling screen is currently displayed  - possibility of switching to the filling screen  - possibility of changing the screen to the filling screen; automated filling is already taking place.

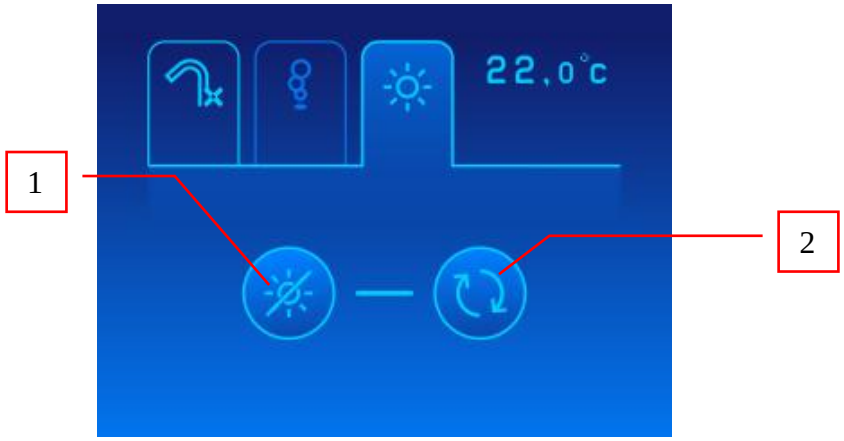
Number	Description of Home screen items
2	**Tab 2** – Bath with aeration screen (only Bathaid Premium Plus). The tab button's appearance means:  - aeration bath screen is currently displayed  - possibility of switching to bath with aeration screen  - possibility of switching to bath with aeration screen - currently in progress bath with aeration  - screen not available – function not supported
3	**Tab 3** – LED lighting screen (CHROMO option). The tab button's appearance means:  - LED lighting screen is currently displayed  - possibility of switching to LED lighting screen  - possibility of switching to the LED lighting screen – the lighting is taking place  - screen not available – function not supported
4	An indicator showing the water temperature in the basin
5	An indicator of the remaining time of the bath with aeration, which is displayed only while this type of bath is in progress (only Bathaid Premium Plus)
	Pressing the START/STOP button (longer than 2 seconds) will enter standby mode

b) Filling screen



Number	Description of the Filling screen components
1	Indicator showing the basin's water level: - empty basin (water level below the indicator) - automatic filling level reached (water level above the indicator)
2	Start/stop the filling of the bathtub. The position of the integrated water level indicator determines when the automatic filling stops and when the desired water level is attained. Once the required level is reached, replenishing the bathtub can be done; to do this, you must continuously press the button.
3	Indicator that only appears when the basin is being filled up, showing the temperature of the water as it is being poured
4	Symbol indicating that the basin is now being filled with water

c) LED lighting screen – CHROMO option



Number	Description of LED light screen elements
1	Activating/deactivating the basin lights
2	Selecting the colour of the basin lighting

d) Bath with aeration screen – AIR – only Bathaid Premium Plus

Number	Description of the bath with aeration screen elements
1	Button used to start, pause or end the bath with aeration. After starting a bath with aeration, short presses of the button allow you to pause and then resume the bath (pause mode - the blower is turned off, the timer is stopped). To end the bath with aeration and reset the timer, press and hold the button for more than 2s.
2	Setting the duration of the bath with aeration in the range of 1...30 min.
3	Changing the intensity level of the bath with aeration - pressing and holding one of the buttons increases or decreases the intensity, respectively.

6.5 AUDIO module operation – only Bathaid PREMIUM and PREMIUM Plus

CAUTION!

The Bathaid bathtub comes with a user from the manufacturer Power Dynamics according to which the BT10 module should be operated.

CAUTION!

It is not recommended to use the AUDIO module at maximum volume for longer than the bath time.

The Power Dynamics BT10 module and the speakers built into the back of the bathtub allows to listen to music from an external source such as a mobile phone. To play music, search for the "POWER DYNAMICS BT10" sound source on the external device and establish a connection. If a password is required, enter the code "1234".

7. SEQUENCE OF OPERATIONS

CAUTION!

When filling the Bathaid ECONOMY bathtub, personnel should be aware of the water level in the basin. Turn off the water supply immediately if the water level rises to the overflow level.

CAUTION!

Before the patient is seated in the bathtub, check the temperature of the water in the basin organoleptic and with an additional thermometer to ensure that it does not exceed 40˚C, to avoid scalding the patient

7.1 Filling the basin with water

7.1.1 Bathaid ECONOMY

Operating sequence:

1. Close the drain plug by turning the drain closing knob (fig.13) to the right.

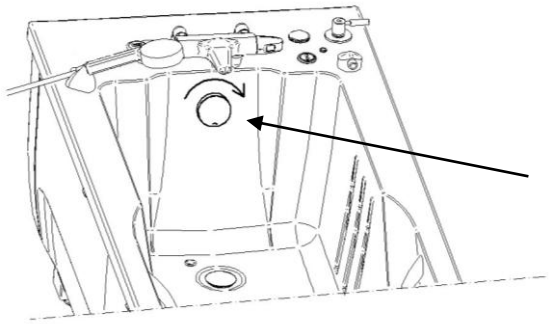


Fig.13. Overflow with drain closing knob

2. Set the desired temperature (fig.14) on a thermostatic mixer.
   1 – water temperature control knob
   2 – opening knob for the filling valve of the basin and the shower handset

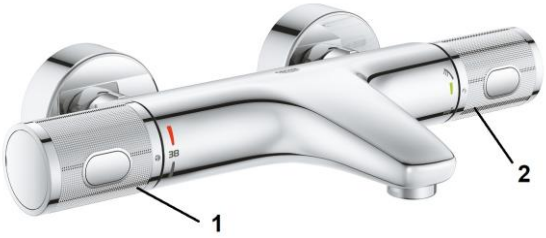


Fig.14. Thermostatic mixer with spout

3. The thermostatic mixer has a bath filling knob lock (fig.15) in the form of a button (A).
   Pressing button (A) will turn the knob to a temperature higher than 38°C.

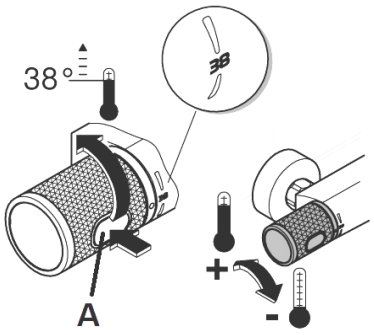


Fig.15. Thermostatic mixer lock

4. After releasing the locking mechanism, turn the bath filling knob downwards (fig.16).

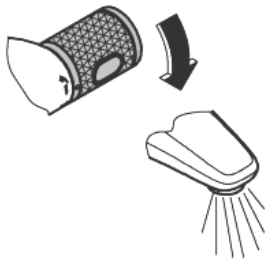


Fig.16. Filling knob with a lock on

5. The filling of the bathtub will begin, and the display will show (fig.1 item 1) the water temperature in the basin. The water level in the bathtub basin should be always monitored. When the desired water level is reached, close the filling knob (fig.14 item 2).

7.1.2 Bathaid PREMIUM and PREMIUM Plus

Operating sequence:

1. Close the drain plug by turning the drain closing knob (fig.17) to the right.

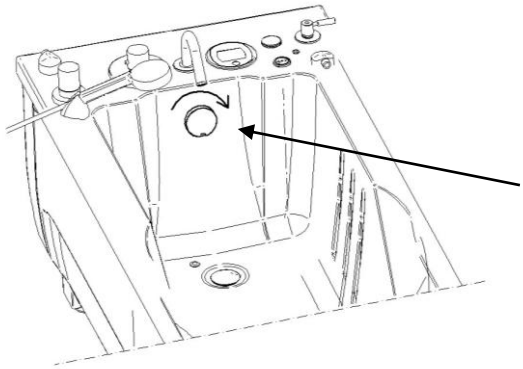


Fig.17. Overflow with drain closing knob

2. Set the desired temperature (fig.18) on the thermostatic mixer.
   The thermostatic mixer has a knob position lock with a button (1.).
   Pressing the lock button (1.) will turn the knob (2.) to a temperature higher than 40°C.

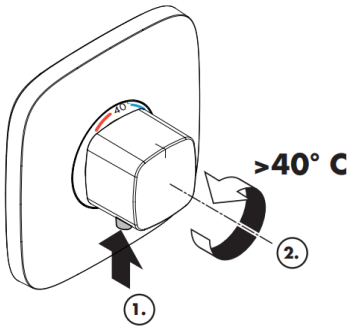


Fig.18. Thermostatic mixer

Press the fill button  on the bathtub control panel to begin the filling process. The panel screen will show the temperature of the water filling the bathtub as well as the temperature of the water in the basin. The bathtub will automatically fill to the preset water level. When the bath level is attained, a  symbol will show up on the home screen. The process of filling the bathtub is completed. Cutting off the water supply to the basin is controlled by a built-in solenoid valve.

7.2 Care bath

CAUTION!

Due to the possibility of patient burns or other hazards brought on by overly hot water, the temperature of the water in the bathtub should not exceed 40°C.

CAUTION!

When adding water, personnel should pay close attention to the patient's safety to prevent burning.

CAUTION!

When the patient is getting in and out of the bathtub, personnel should pay close attention to their safety. If the patient has difficulty getting in and out of the bathtub, personnel should assist the patient during these activities or use auxiliary equipment, such as bathtub lift.

CAUTION!

Methods of preparing and conducting baths should be defined by the internal operating instructions of the facility performing such activities. The following description contains only the necessary minimum information on this subject.

CAUTION!

Shaving and haircutting patients is forbidden while bathing, as this may cause blockages in the device's water system.

Fill the basin with water to perform the care bath either manually, using a thermostatic mixer with a spout (see 7.1.1 for Bathaid ECONOMY bathtub) or automatically, using a system operated by the control panel (see 7.1.2 for Bathaid PREMIUM and PREMIUM Plus bathtub).

Operating sequence:

1) Patient assisted by personnel takes a seat in the bathtub basin.
2) Personnel performs patient care and washing activities.
3) Always make sure the water is not too hot to undertake washing operations with your hand before turning on the shower handset and aiming the water stream towards the patient. When using the shower handset, check the water level in the basin to avoid spilling water from the bathtub. It is recommended to use the shower handset to rinse the patient once the bath is empty of water.
4) Bathaid ECONOMY bathtub:

   Turn the filling knob up to start the shower handset's water stream (fig.19). Press the lock and turn the knob upwards again to enhance the water stream force.

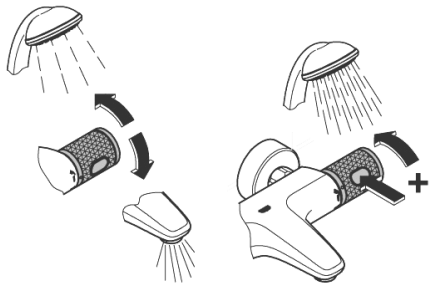


Fig.19. Bathaid ECONOMY thermostatic mixer

5) Bathaid PREMIUM and PREMIUM Plus bathtub: To open and adjust the water flow from the shower handset, open the valve A indicated in fig.20 (fig.2-3 item 17).

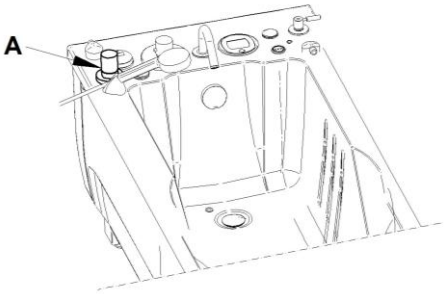


Fig.20. View of the Bathaid PREMIUM basin (A – shower handset valve)

6) Turn the overflow closing knob to the left to empty the basin after the bath (fig.13, fig.17). Dry the patient with a towel once the water has been drained.

7) After finishing the bath patient assisted by personnel leaves the bathtub. It is advisable for the patient to rest after a bath.

8) After completing the bath personnel should perform the following bathtub sanitation procedures:

   – bathtub cleaning and disinfection (see section 8.2 below),

   – turn on the air channel drying program (applies only to Bathaid PREMIUM Plus) to remove residual water from the channels by following the steps below:

     • press the button  to dry the channels,

     • after 1 minute, press the button  for about 2 s to complete the channel drying process.

   – wipe the bathtub dry with a soft cloth.

7.3 Bath with light effects – CHROMO – only Bathaid PREMIUM and PREMIUM Plus

Press the  button on the LED lighting screen to start a bath with the lighting effect (see section 6.4.4 c). Press the  symbol again to select the desired colour of the backlights.

No. of LED points	Light effects
12	– selected permanent color: red, green, blue, yellow, blue, orange, purple, white, – cyclic switching of the above-mentioned colours, – smooth slow transitions between basic colors, – "dance" of lights – flashing, – smooth fast transitions between the colors of the rainbow.

7.4 Bath with aeration – AIR – only Bathaid PREMIUM Plus

For an aerated bath, fill the bathtub basin with water using the automatic bathtub filling system operated by the control panel (see section 7.1.2 for the Bathaid PREMIUM Plus bathtub).

Operating sequence:

1) Patient assisted by personnel takes a seat in the bathtub basin. The moment the patient is placed in the basin in a semi-reclined position should be taken as the start of the bath.

2) Set the desired bath time (see section 6.4.4.d) using the buttons  .

3) To start the bath, press the button  .

4) During the session, it is possible to adjust the intensity of the bath with aeration using buttons  .

5) When the bath is finished, to empty the bathtub basin of water, turn the knob for closing the overflow to the left (fig.18).

6) The patient, assisted by the personnel, leaves the bathtub. It is advisable for the patient to rest after bathing.
7) After completing the bath personnel should perform the following bathtub sanitation procedures:
   - bathtub cleaning and disinfection (see section 8.2 below),
   - turn on the air channel drying program to remove residual water from the channels by following the steps below:
     - press the button  to dry the channels,
     - after 1 minute, press the button  for about 2 s to complete the channel drying process.
   - wipe the bathtub dry with a soft cloth.

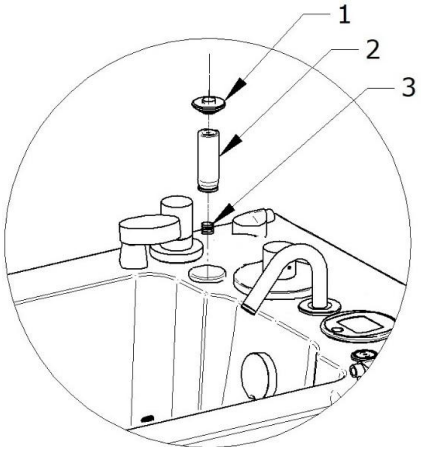
7.5 Bath with aromas – AROMA – only Bathaid PREMIUM Plus

CAUTION!

Be sure to apply the aroma while the aerated bath blower is running.

Bathaid PREMIUM Plus bathtub is equipped with an aroma bath system, which allows you to conduct a bath with aroma additives. A single push of the button (fig.3 item 18) releases one dose of aerosol aroma from the tank. The bath design in the AROMA option includes 4 pieces of interchangeable 50 ml aroma reservoirs of different fragrances (available for purchase from Meden-Inmed).

Replacing the aroma tank:



1 – aroma activation button (fig.3 item 18)

2 – aroma tank

3 – spring

Fig.21. Replacing the aroma tank

To replace the aroma tank, unscrew the button (fig.21 item 1), remove the empty tank (fig.21 item 2), insert the new container and turn the button. Make sure that the spring (fig.21 item 3) is seated centrally in the container hole.

7.6 Transporting the patient to the bathtub using the Hydraid bathtub hoist

CAUTION!

Read Hydraid's user manual before using the device. The following description contains only the necessary minimum information on this subject.

CAUTION!

Make sure the patient's hair, hands, and feet are against the body or on the appropriate support handles to prevent wedging or crushing.

CAUTION!

When transferring the patient in the chair, make sure there is adequate space left over the side of the bathtub to prevent wedging or crushing.

The Hydraid bathtub hoist is a recommended device that can be used with the Bathaid bathtub.

Hydraid hoist operating sequence:

1. Lower the chair to place the patient on the seat.

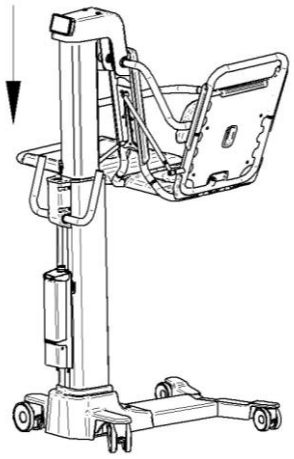


Fig.22. Lowering the Hydraid hoist chair

2. Place the patient on the seat (refer to the Hydraid instruction manual). The chair should be lifted before moving the patient to the bathtub in order to keep a safe space between the person sitting in it and the bathtub's top edge.

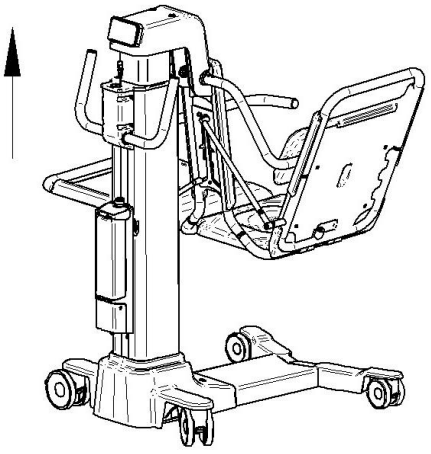


Fig.23. Preparing the Hydraid hoist chair

3. Position the patient seat parallel to the Bathaid bathtub. The basin of the bathtub should be lowered as much as possible before transporting the patient. Move the chair towards the bathtub until the entire seat is directly over the tub basin.

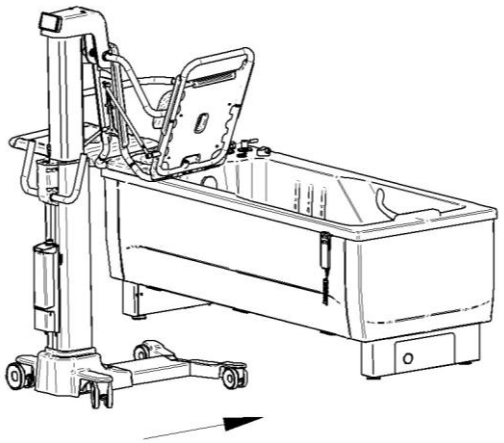


Fig.24. Moving the Hydraid hoist to Bathaid bathtub

4. Ensure there is enough space for the patient's body parts between the bottom of the bathtub basin and the Hydraid hoist seat. If there is too much space, you can reduce it by lifting the bathtub upwards.

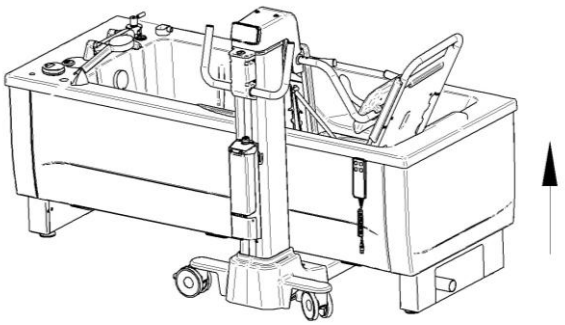


Fig.25. Bathaid bathtub height adjustment to Hydraid hoist

8. MAINTENANCE

8.1 Schedule of activities

CAUTION!

When leaving the bathtub unattended overnight or for an extended period, the valves supplying hot and cold water to the device should be closed to avoid accidental leakage of the pressurised water system.

Activity	Repetition period
Bathtub cleaning and disinfecting	- each time after bathing the patient and before the first bath the next day, - once a week perform the disinfection procedure according to section 8.2.2 below.
Refilling the disinfectant	as indicated by the disinfectant level LED indicator
Functionality check of the residual current device (RCD)	periodically, in the manner and with the frequency specified in the technical documentation of the disconnect switch
Descaling	periodically, at least once every 3 months
Checking the correct operation of the battery for emergency lowering of the bathtub	periodically, at least once a year
Overview of the disinfection system	periodically, at least once a year
Electrical safety test	once a year and each time after failure/repair

8.2 Bathtub cleaning and disinfecting

CAUTION!

Please read these operating instructions before cleaning and disinfecting the bathtub.

CAUTION!

The bathtub needs to be completely drained before cleaning and disinfecting. Cleaning and disinfecting the bathtub while the patient is still present is unacceptable.

CAUTION!

Personnel performing the bathtub cleaning and disinfection activities should wear protective gloves, goggles, and an apron to protect their body (clothes) from eye and skin irritation.

CAUTION!

Bathtub cleaning and disinfection must be done entirely by personnel, and the operator is not allowed to leave the station during this time (interruption of the process).

CAUTION!

Follow the disinfectant's concentration and exposure time exactly as recommended by its the manufacturer.

CAUTION!

In the event of contact with the disinfectant, thoroughly rinse the contact areas with clean water. If irritation occurs, follow the manufacturer's instructions on the safety data sheet for the disinfectant.

CAUTION!

For disinfection, use a dedicated agent for acrylic tubs. Using aggressive agents that may damage the surface of the bathtub will void the warranty.

CAUTION!

Check the disinfectant liquid's expiration date (in accordance with the manufacturer's guidelines) after you've poured it into the tub's disinfection tank. Leaving the fluid in the tank for too long may cause the agent to expire.

CAUTION!

It is forbidden to pour water over the external covers of the bathtub. When cleaning and disinfecting the bathtub, use the shower handset and disinfection handset only to rinse the inner surfaces of the basin.

Each time after the bath, the bathtub basin should be emptied of the water used for the treatment. Clean and disinfect the inside of the bathtub, the handles, the valves, the overflow, the water discharge plug (if included, also the headrest and the leg rest) by wiping with a soft sponge or cloth soaked in a disinfectant solution (e.g. Septer, Incidin OxyFoam S, San Clear Med, available from Meden-Inmed) or another disinfectant that does not damage the acrylic coating or the fittings and is approved for use in the facility. When disinfecting, follow the instructions for use provided by the manufacturer of the disinfectant. After disinfection, rinse the basin with water from the shower and then wipe it dry with a soft cloth.

Avoid cleaning the fittings using rough sponges or scouring solutions that contain abrasives, since doing so could tarnish or scratch the surface of the fitting, damage the bathtub, and void the warranty. The following also must not be used:

- cleaning agents containing solvents or mineral acids,
- agents for removing calcium-magnesium deposits,
- edible vinegar,
- fluids containing acetic acid,
- products intended solely for use in sanitary ware.

The aforementioned substances cause tarnishing or darkening of the protective coating and, in the event of prolonged contact without thorough rinsing, to etch the coating locally or completely.

8.2.1 Bathtub cleaning and disinfection procedure with integrated disinfection system (option)

Cleanisept, a concentrate for disinfecting surfaces including acrylic bathtubs, is an example of a product that may be used to disinfect a Bathaid bathtub. Cleanisept should be used in accordance with its recommendations for use and exposure time, which is 15 minutes.

Bathaid disinfection system is set by default to achieve 3% disinfectant concentration. It also has a disinfectant LED indicator (fig.26-27 item 1), which will light up yellow to indicate the reserve condition, i.e., a low level of disinfectant liquid The disinfection tank has 2.8 l capacity. When refilling the liquid, be cautious and carefully pour it into the tank. The factory's reserve level has been designed to allow for 3 further disinfection procedures, each including a 30-second pour of disinfectant.

Each time, after finishing a bath and before the first bath the next day, carry out the process of cleaning and disinfecting the bathtub:

1) Clean the inside of the bathtub, handles, valves, overflow and drain plug thoroughly with a soft cloth and detergent.
2) Thoroughly clean the bathtub's accessories (leg rests, headrests) with a soft cloth and detergent before setting them on the bottom of the bathtub.
3) Make sure that there is disinfectant fluid in the tank (the reserve fluid LED does not light up, fig.26-27 item 2).
4) Close the water discharge plug (fig.1-3 item 10) by turning the overflow knob to the right (fig.1-3, item 8).
5) Direct the handset for disinfection (fig.26-27 item 4) to the inside of the bathtub, turn the valve (fig.26-27 item 2) to the "ON" position to open it.
6) Press on the disinfection handset lever as hard as you can (fig.28 item 1) to start spraying from the handset.
7) Spray the tub's interior surface, the overflow, the water drain plug, and any accessories that are resting on the tub's bottom with the disinfectant.
8) After spraying, close the valve (fig.26-27 item 2) and set it to the "OFF" position, and put the handset down for disinfection (fig.28).
9) Wait until the disinfectant's recommended exposure time has passed.
10) After the exposure period, open the water discharge plug (fig.1-3 item 10) by turning the overflow knob to the left (fig.1-3, item 8).
11) Using the shower handset (fig.1-3 item 12), thoroughly rinse the interior surface of the bathtub the water discharge, the overflow, and any accessories resting on the bottom completely with lukewarm water using a shower handset (fig. 1-3 item 12). Rinse surfaces starting with the highest parts and ending at the bottom of the basin.
12) Turn on air channel drying (applies only to Bathaid Premium Plus) to remove residual water. Press the button  to dry the channels, and after 1 minute, press the button  for about 2 s to finish the process.
13) Wipe the inside of the bathtub dry with a soft cloth.

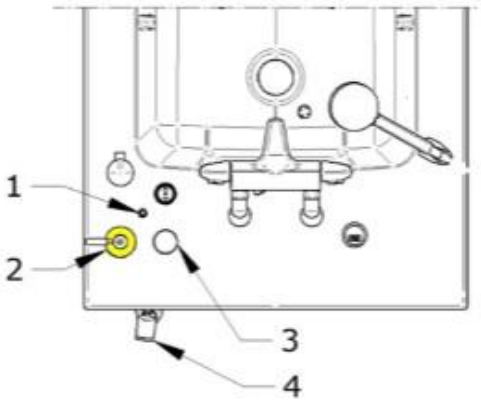


Fig.26. View of the Bathaid ECONOMY bathtub

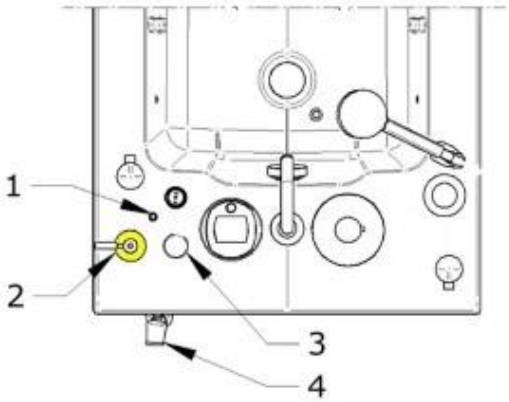


Fig.27. View of the Bathaid PREMIUM bathtub

Fig.26-27:

1 – disinfectant level LED indicator
2 – disinfection valve
3 – disinfectant inlet
4 – handset with a valve for disinfection

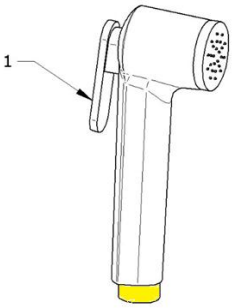


Fig.28. Disinfection handset
1 – disinfection handset valve lever

8.2.2 Disinfection of air channels - AIR - only Bathaid PREMIUM Plus

CAUTION!

Follow the disinfectant's concentration and exposure time exactly as recommended by its the manufacturer.

Fill the Bathaid bathtub basin with water up to the level of the bath, then add the appropriate amount of disinfectant and leave it for the time specified in the preparation instructions. When disinfection is complete, drain the water with the preparation and rinse the basin with warm water from the shower handset (fig.1-3 item 12). Next, turn on the air channel blowing to flush out the nozzles and channels from residual water. For this, press the button  and after 1 minute, press the button  for about 2 seconds to complete the process of drying the channels. After finishing the disinfection process of the bathtub water system, wipe the basin dry with a soft cloth.

8.2.3 Maintenance of the disinfection system (option)

CAUTION!

If the disinfection system does not require replenishment for a long period of time, you should perform procedures to check its operation.

In order to rapidly identify a potential failure of the disinfection system, it is advised to complete a level control booklet and refill the disinfectant.
Three procedures are detailed to check the disinfection system:

a. Procedure for checking the disinfectant delivery system

The procedure should be carried out if the disinfection system does not require refilling for a longer period (no or insufficient fluid is dosed into the disinfection system). The following check method must be carried out if 10 disinfection procedures lasting approx. 30 seconds each are completed, and the LED does not indicate a reserve state (it does not light up yellow):

1) Refill the disinfection tank with a suitable disinfectant to the maximum level (to the edge of the filler cap, fig.26-27 item 3).
2) Do not close the disinfection fluid inlet plug.
3) Direct the disinfection handset (fig.28) inside the bathtub.
4) Turn the disinfection valve (fig.26-27 item 2) to the "ON" position and press the handle of the disinfecting handset as far as possible (fig.28 item 1).
5) Check to see whether the disinfectant level in the tank drops.
6) After a few seconds, the fluid level in the tank should drop below the neck of the tank.
7) If the fluid level has not decreased after one minute from the start of the disinfection process, stop using the disinfection system and call the manufacturer's authorized service.
8) Release the lever on the handset valve and stop the disinfection delivery check procedure if it is noticed that the fluid level falls within a minute of using the disinfection system. Proceed to check the disinfectant dosing system.

b. Procedure for checking the disinfectant dosing system

1) Prepare a graduated container of approximately 15 l (container A) and a measuring cup of 0.5 l (container B).
2) Refill the disinfection tank with a suitable disinfectant to the maximum level (to the edge of the filler cap, fig.29).

Fig.30. Refilling the disinfectant tank

1 – disinfectant inlet
2 – disinfectant concentrate

3) Do not close the disinfection fluid inlet plug.
4) Direct the handset for disinfection (fig.30 item 1) to container A with a capacity of 15 l (fig.30 item 2).

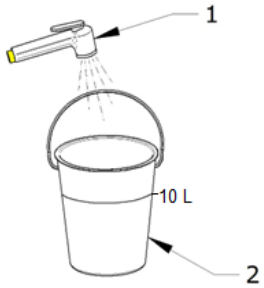


Fig.30. Spray from the disinfection system into container A

1 - handset for disinfection
2 – container A with a capacity of 15 l

5) Turn the disinfection valve (fig.26-27 item 2) to the "ON" position and press the handle of the disinfecting handset as far as possible (fig.30 item 1).
6) Fill container A to the level of 10 l and close the disinfection valve.
7) Fill container B to the level of 0.5 l with disinfectant concentrate (fig.31).

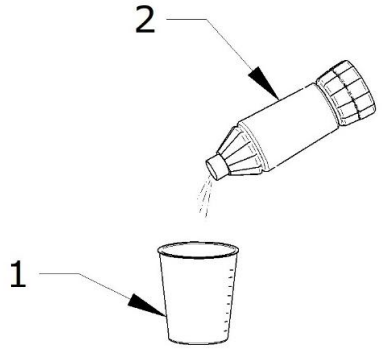


Fig.31. Filling container B with 0.5L of disinfectant concentrate

1 – container B with a capacity of 0.5 l
2 – disinfectant concentrate

8) Pour liquid from container B slowly into the disinfection tank until it reaches the level needed before the procedure (fig.32).

Fig.32. Replenishing the system tank with disinfectant concentrate

9) Read from the B container how much liquid has been added to it (0.5 l minus the volume left).
10) If the amount of fluid added is between 0.3 and 0.35 l, the dosing system is working properly, and the procedure is considered complete.
11) If the added liquid volume is greater than 0.36 l, the dosing system is not working properly. Stop using the disinfection system and contact the manufacturer's authorised service.
12) This is also an issue with the dosing system if the liquid added does not exceed 0.28 l. Stop using the disinfection system and contact the manufacturer's authorised service.

c. Disinfectant fluid LED test procedure

The procedure should be carried out if the disinfection system does not require refilling for a longer period (the LED indicator does not light up yellow). The following check method must be carried out if 10 disinfection procedures lasting approx. 30 seconds each are completed, and the LED does not indicate a reserve state (it does not illuminate yellow):

1) Prepare a disinfectant container with a 3-liter capacity.
2) Refill the disinfection container to the maximum level (to the edge of the filler cap).
3) Lift the bathtub basin upwards with a fixed panel or a remote control (see p. 6.1).
4) Place the container under the bathtub as indicated (fig.33 item 1).

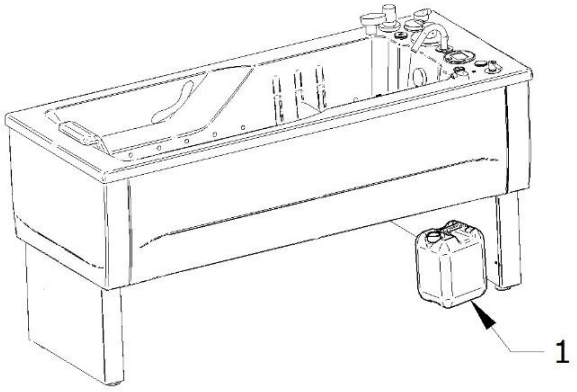


Fig.33. Placement of the disinfectant container

1 – container with a capacity of 3 l

5) The hose indicated in fig.34 item 2, place in a 3-l container (fig.33).
6) Open the ball valve indicated in fig.34 item 1.

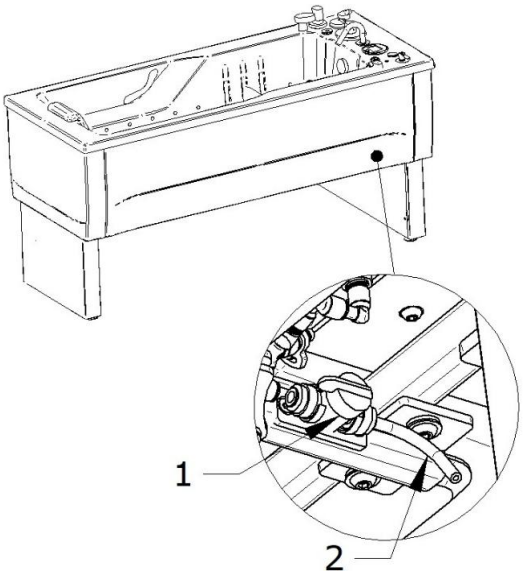


Fig.34. Disinfection system components

1 – hose
2 – ball valve for the disinfection tank

7) The disinfectant should begin to drain from the tank to the container.
8) Observe the filling container for any uncontrollable fluid spills or hose leaks. Watch the LED light at the same time; when the reserve level is achieved, it should turn yellow. This can be done with the help of a second member of personnel.
9) The usage of the disinfection system should be stopped if the LED has not turned yellow and all of the liquid has drained into the container. Call the manufacturer's authorized service.
10) If the LED turns on, the reserve signalling is functioning well. If the liquid is not draining or drains slowly, the disinfectant fluid delivery system may not be functioning properly. Perform the procedure to check the disinfectant delivery system.

A manufacturer's service representative should inspect the disinfection system once a year.

8.3 Descaling

CAUTION!

Depending on the hardness of the water used for the bath and the intensity of use of the bathtub, descaling should be carried out at least once every 3 months. Too much mineral deposits accumulated on the nozzle holes can lead to a reduction in the effectiveness of aerated baths.

Descaling the water system of the bathtub is intended to prevent the formation of scale formed as a result of the precipitation of impurities and chemical compounds from the water used for bathing, which hinder the operation of the blower and reduce the intensity of the baths carried out, which in prospect reduces the time of failure-free operation of the device. For descaling you can use the preparation "KAMIX" (available from Meden-Inmed), following the recommendations of its manufacturer's instructions for use.

Fill the Bathaid basin with water up to the level of the bath, then pour in the appropriate amount of descaling preparation and leave it for the time specified in the preparation instructions. When descaling is complete, drain the water with the preparation, wash the basin thoroughly and rinse it with warm water from the shower handset (fig.1-3 item 12). For Bathaid PREMIUM Plus, additionally activate the air channel blowing program to rinse the nozzles and channels of residual water.

To do this, press the button  and after 1 minute, press the button  for about 2 seconds to complete the process of drying the channels. After completing the descaling process of the bathtub water system, wipe the basin dry with a soft cloth.

8.4 Periodic electrical safety testing

CAUTION!

During tests do not disconnect the permanently connected protective earth connection (according to EN62353, repeated disconnection and reconnection of the protective earth connection may result in deterioration of its mechanical and electrical properties).

Periodic electrical safety tests should be carried out by authorized service personnel. Check regularly correct functioning of the residual current device (RCD) in the device's power supply circuit and perform periodic electrical safety test in accordance with the schedule of activities in section 8.1 above. Electrical safety tests shall be carried out in accordance with the requirements of the current version of EN 62353.

When conducting a visual inspection ensure that the connection to the mains supply is established by a permanent connection that can be disconnected only with a tool (must meet the requirements for "permanently installed" device according to EN 62353) and whether there are any signs of damage to the pedestal and braid (covers, fig.35), protecting the movable section of the power cord against mechanical damage.

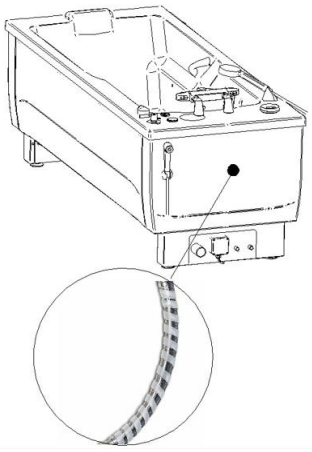
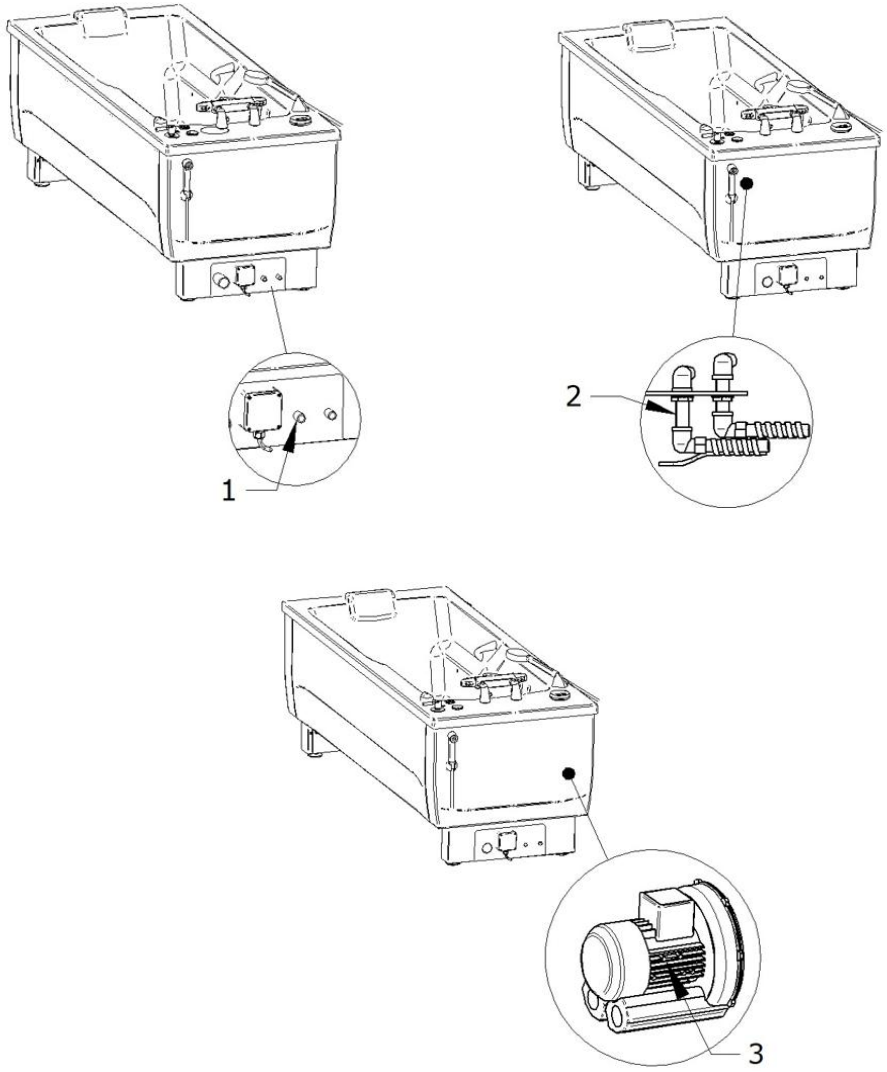


Fig.35. Place of the power cord inspection

The results of the electrical measurements shall not exceed the limits set out in the following table:

Measurement	Limit
Protective earth resistance: 1 - earth resistance of the cold water connection 2 - earth resistance of the flexible hose internal connection 3 - earth resistance of the blower housing (only for Bathaid PREMIUM Plus)  If necessary, remove the covering layer of varnish, oxides, dirt, etc.	300 mΩ
Touch leakage current from accessible conductive parts During the measurement, the bathtub must be filled with water, the actuators must work (activate lifting or lowering of the bathtub basin), and all functions available in the equipment version must be enabled.	100 µA
Leakage current of the applied part Carry out the measurement under the same conditions as for the measurement of contact leakage current - immerse the measuring electrode in the water filling the basin. The electrode should be made of stainless steel (in an aqueous medium, another material may form an electrochemical cell, distorting the measurement results).	100 µA

Document the tests each time with a report of their results.

9. CONDITIONS OF MAINTENANCE

CAUTION!

On request, the manufacturer will provide circuit diagrams, parts lists, and descriptions to help with the repair of any parts that have been authorised by the manufacturer to repair.

9.1 Responsibility of the manufacturer

The expected service life of the device is 7 years.

After 7 years from the date of manufacture of the device (and its equipment), the manufacturer shall not be liable for defects in the device and its equipment and the resulting consequences. The manufacturer also assumes no responsibility for the consequences to which the user or patient has been exposed, for example as a result of improper installation of the device, or as a result of a misdiagnosis, improper use of the device and its equipment, misinterpretation or non-compliance with the operating instructions, and carrying out repairs by non-authorized persons.

9.2 Troubleshooting

Symptom of malfunction	Possible cause - Solution
After emptying the basin, some water remains in the bathtub	Level the bathtub foundation
Water spills under the bathtub during draining	Drainage grid does not collect water - clean it or replace with a grid with a larger outlet
Unpleasant odour is emitted from the bathtub	Disinfect regularly
Water is leaking from the shower handset connection	Check (replace washer if necessary), tighten the connection
The water pressure during filling is too low	Possible contamination of the filters in the thermostatic mixer; clean the filters and adjust the thermostatic mixer according to the instructions provided
The temperature of the water poured into the bathtub differs from the temperature set on the thermostatic battery	Adjust the thermostatic mixer
After starting the filling, the water does not flow	No water in the system - check if the main shut-off valve is open. The solenoid valve is frozen (Bathaid PREMIUM bathtub) – contact the manufacturer's service
Uncontrolled filling of the bathtub with water (Bathaid PREMIUM bathtub)	Freezing of the solenoid valve - switch off the main switch, close the water supply shut-off valves, and contact the manufacturer's service
No information on the control panel display (Bathaid PREMIUM bathtub)	Check the condition of: - an overcurrent circuit breaker, - residual current device, - main power cut-out switch of the device. Check the bath power supply cable. Switch off the bath power and contact the service
The LCD display shows an error in the "E XX" format and the START/STOP button light flashes yellow (Bathaid PREMIUM bathtub)	Press the START/STOP button, which will reset the device and allow further operation if the cause of the error has disappeared. Possible error messages: - E 02 – filling time exceeded, - E 05 – there is an interruption in the panel-controller communication - E 06 – communication error with FLASH memory, - E 07 – configuration parameters error. If the reset of the device has not restored the correct operation of the device, contact the manufacturer's service
Continuous signal when activating the remote control for raising/lowering the bathtub basin	Discharged battery. Connect the bathtub to the power supply to recharge the emergency battery.

9.3 Service contact

Meden-Inmed Sp. z o.o.
ul. Wenedów 2
75-847 Koszalin
tel. +48 (94) 344 – 90 – 48
e-mail: service@meden.com.pl

If you purchase the device from an intermediary, we kindly ask you to provide information about the serial number and place of use of the device in any way. These data will be placed in our service database, which will enable us to efficiently execute the warranty and service conditions.

10. 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 the lack of essential performance characteristics for this product.

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 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 CISPR 11	Class B	The equipment* is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions 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 discharge (ESD) IEC 61000-4-2	± 8 kV (contact) ± 2/4/8/15 kV (air)	± 8 kV (contact) ± 2/4/8/15 kV (air)	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines 100 kHz	±2 kV for power supply lines 100 kHz	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	0 % U_T; 0,5 cycle at 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0 % U_T; 1 cycle and 70 % U_T; 25/30 cycles (50/60Hz) 1 phase: at 0° 0 % U_T; 250/300 cycles (50/60Hz)	0 % U_T; 0,5 cycle at 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0 % U_T; 1 cycle and 70 % U_T; 25/30 cycles (50/60Hz) 1 phase: at 0° 0 % U_T; 250/300 cycles (50/60Hz)	Mains power quality should be that of a typical commercial or hospital environment. If the user of the equipment* requires continued operation during power mains interruptions, it is recommended that the equipment* be powered from an uninterruptible power supply or a battery.

Power frequency (50/60 Hz) 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.
NOTE U_T is the a.c. mains voltage prior to application of the test level.			

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**
Conducted RF IEC 61000-4-6	3 V 0,15 MHz – 80 MHz 6 V in ISM and amateur radio bands between 0,15 MHz and 80 MHz 80 % AM at 1 kHz	3 V 0,15 MHz – 80 MHz 6 V in ISM and amateur radio bands between 0,15 MHz and 80 MHz 80 % AM at 1 kHz	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. These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.
Radiated RF IEC 61000-4-3	10 V/m 80MHz do 2,7GHz	10 V/m 80MHz do 2,7GHz	
Proximity fields from RF wireless communications equipment IEC 61000-4-3	EN 60601-1-2:2015, Table 9 *(see below)*	Complies	
	☒ *home healthcare environment*	☒ *home healthcare environment*	

Proximity fields from RF wireless communications equipment						
Test frequency (MHz)	**Band [a] (MHz)**	**Service [a]**	**Modulation [b]**	**Maximum power (W)**	**Distance (m)**	**Immunity test level (V/m)**
385	380 –390	TETRA 400	Pulse modulation [b] 18 Hz	1,8	0,3	27
450	430 – 470	GMRS 460, FRS 460	FM [c] ± 5 kHz deviation 1 kHz sine	2	0,3	28
710	704 – 787	LTE Band 13, 17	Pulse modulation [b] 217 Hz	0,2	0,3	9
745						
780						
810	800 – 960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation [b] 18 Hz	2	0,3	28
870						
930						
1720	1700 – 1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse modulation [b] 217 Hz	2	0,3	28
1845						
1970						
2450	2400 – 2570	Bluetooth, WLAN 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation [b] 217 Hz	2	0,3	28
5240	5100 – 5800	WLAN 802.11 a/n	Pulse modulation [b] 217 Hz	0,2	0,3	9
5500						
5785						
NOTE If necessary to achieve the IMMUNITY TEST LEVEL, the distance between the transmitting antenna and the ME EQUIPMENT or ME SYSTEM may be reduced to 1 m. The 1 m test distance is permitted by IEC 61000-4-3.						
[a] For some services, only the uplink frequencies are included. [b] The carrier shall be modulated using a 50 % duty cycle square wave signal. [c] As an alternative to FM modulation, 50 % pulse modulation at 18 Hz may be used because while it does not represent actual modulation, it would be worst case.						

11. WARRANTY

1. The seller (authorised representative, distributor) offers a 24-month warranty for the bathtub and 12-month guarantee on the aerated bath blower. The warranty period runs from the date of sale shown in the sales document.
2. The seller (authorised 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 authorised service team of the seller (authorised representative, distributor) or other technical service authorised 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 device.
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 (authorised 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 (authorised 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 authorised 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.

Care bathtub Bathaid serial number: _____

Date, signature and seal of the manufacturer or its representative: _____

The device has been installed by: _____

Date, signature and seal of the installer: _____

12. REPAIR REGISTRY

Repair registry	User's notes

13. ELECTRICAL SAFETY CHECK

Electrical safety check		Date and signature of a person performing the check
Report no.:		
Result of the check:		
Next check to be performed within 12 months		