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# **GEMINI INFORMATION PACK**

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Our products have been designed to the highest standard with safety and strength in mind.

## **GENERAL INFORMATION**

### YOU MUST FOLLOW ALL INSTRUCTIONS IN THIS MANUAL. FAILURE TO DO SO WILL RESULT IN YOU ASSUMING LIABILITY FOR THE PRODUCT. FAILURE TO COMPLY WITH ALL INSTRUCTIONS MAY RESULT IN SERIOUS INJURY.

### INTENDED USE

To provide assistance when bathing by means of an adjustable height bath. The bath is powered by a 24V (Low voltage) supply with battery backup in case of power failure to allow the bather to exit the bath. The bath allows the user to be bathed through the provision of a moving bath, within the confines of the bath footprint. In addition there is a bathing/changing platform upon which the bather reclines. This can also be adjusted in height within the bath area. There is a four button handset to control the raising and lowering of the powered bath and the platform.

With the user in the bath (Usually via a ceiling or mobile hoist) the bath can be raised to a comfortable bathing height for the helper / carer. Exit is a reversal of the above procedure.

### **RESPONSIBILITY OF THE INSTALLER**

THE INSTALLER MUST INSPECT THE PRODUCT PRIOR TO INSTALLATION TO ENSURE THE UNIT IS FREE OF DEFECT OR DAMAGE. IN THE EVENT OF A PROBLEM, THE UNIT MUST NOT BE INSTALLED. IF THE PACKAGING OR PRODUCT HAS BEEN DAMAGED CONTACT YOUR SUPPLIER IMMEDIATELY

THIS PRODUCT IS DESIGNED TO BE SOLD ON A SUPPLY AND INSTALL BASIS BY A TRAINED CERTIFIED INSTALLER AND ELECTRICIAL WORK CARRIED OUT BY A QUALIFIED ELECTRICIAN.

ONLY ACCESSORIES AUTHORISED BY THE MANUFACTURER SHOULD BE USED WITH THIS PRODUCT.

## **INSTALLER INSTRUCTIONS**

This product is heavy. Two persons minimum to move the unit.

Always check around the bath for any obstructions before raising or lowering the bath. Never drop or insert any objects into any openings.

**WARNING!** Risk of electric shock; connect only to a separate circuit protected by an RCCB Risk of electric shock; do not permit electric appliances (such as a hair dryer, lamp, telephone, radio or television) within 2m of this bath.

The unit must be connected to an RCCB. Such a circuit is to be provided by a qualified electrician and should be tested on a routine basis.

To test the RCCB push the test button; the RCCB should interrupt power. Push the RESET button; power should be restored. If the RCCB fails to operate in this manner there is the possibility of an electrical shock. **Do not use this unit**. Isolate the unit and have the problem corrected by a qualified service representative before any further use.

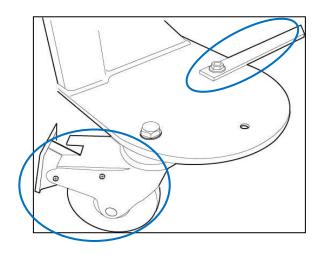
Whirlpool and spa motors where fitted must be connected to an RCCB protected outlet as must any electrical accessories.

Although compliant with IEC/EN60601-1-2 for EMC, the bath may still cause interference with sensitive medical equipment. Should any electro-magnetic interference be experienced whilst using this product, remove the user immediately and seek medical advice.

Where a safety lap belt is supplied this must be used for the safety of the bather.

**WARNING!** If this unit is to be utilised by many different bathers, we would strongly recommend that it is cleaned regularly with a medical disinfectant as well as following a strict cleaning routine.

**WARNING!** This Bath moves. Ensure there are no objects or persons that can become trapped or injured while the bath raises or lowers.



Transport Wheels and Straps – THESE MUST BE REMOVED BEFORE INSTALLATION



### www.abacushealthcare.com 0808 256 4249 Pre Installation Requirements

## Access

When deciding on the positioning of the bath there are a number of points that should be taken into consideration:

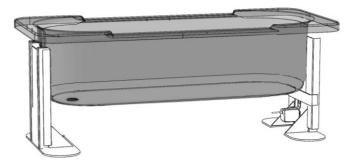
- 1. Hoist/wheelchair access.
- 2. Service/cleaning access.
- 3. Positions of any existing under floor pipe work or cabling.
- 4. Conflict between doorways.
- 5. Distance from walls/other objects.
- 6. Under-floor obstructions (Water/Heating pipes, waste pipes, , under-floor heating etc)

**IMPORTANT** – The bath must be sited **at least 25mm away** from any wall to ensure there are no finger trap areas. It is usual to give around 100mm clearance to allow for easier servicing if possible.

#### **FLOORING**

Prepare the floor area and ensure it is flat, level and structurally sound & there are **NO SERVICES BURIED** within the floor fixing area. For clarity there should be no services within the space detailed on "Location of Bath End Feet Assembly" diagram.

Where there are services or it is impossible to drill into the floor then the office must be advised so consideration can be given to a Chemical bonding installation. This may carry a surcharge.



### **PLUMBING** (Where there are existing feeds)

This can be either wall or floor fed. Feeds should be as follows:

22mm hot water inlet; 15mm cold water inlet; 40mm Waste outlet @ 3ltr/Sec. Plumb according to Plumbing Diagrams. Feeds should terminate with isolating valves.

### Side or End Walls Feeds.

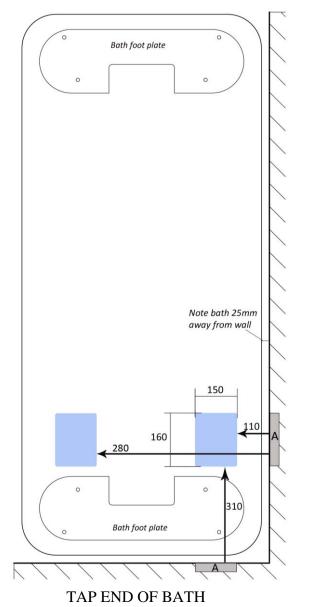
Feed & Waste – These must exit bathroom wall in either shaded area marked A. **Fig 1.** Pipwork should terminate in either shaded box area paying attention to layout intended for manifold and manifold holes height – 65mm. See **Fig 2**. Plumbing tails must be fitted with isolating valves.

### **Floor Feeds**

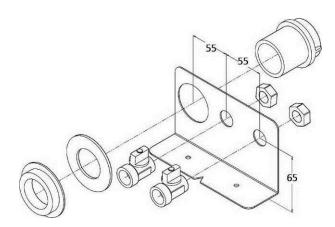
Plumbing to exit floor and terminate in either shaded area in **Fig 1.** Please note layout intended for manifold and manifold holes height – 65mm. See **Fig 2**. Tails c/w elbow should be left at 65mm height off floor for manifold connection. Plumbing tails must be fitted with isolating valves.

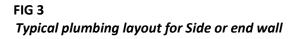
FIG 2

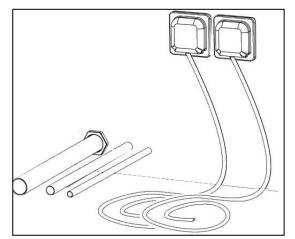
#### FIG 1



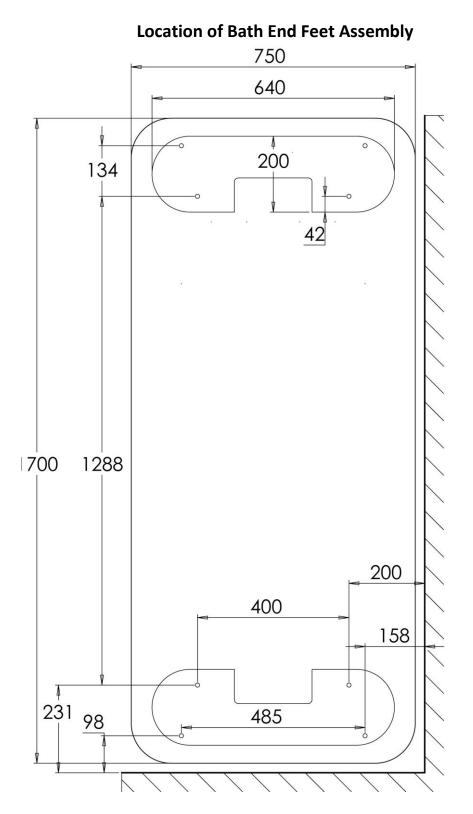
Minimum distance 25mm - Wall & bath sides.





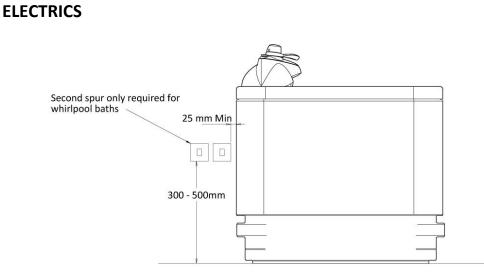


Dimensions are from the building walls where shown. Including the minimum distance between walls and bath sides of 25mm (BS EC Directive)



Floor must be sound, solid and even surface.

Attention should be paid to the footplate area which will be drilled to a depth of 100mm and must be of sound construction with no buried services in foot plate area.



ELECTRICAL CONNECTIONS

- 1. 5 Amp IP65 rated Non Switch Fused Spur, with 2m of 1.5mm 3 core round flex trailing. Cable should be housed in flexible conduit and located at the tap end of the bath, positioning and specification to be in accordance with IEE regulations. The Spur box should be mounted between 300-500mm off the floor.
- 2. Where a Whirlpool is fitted then 13 Amp IP65 rated Non Switch Fused Spur fused spur is required as point 2.

## **Electrical Connection & Earth Bonding**

A 30mA RCCD or RCBO is required in compliance in accordance with 17<sup>th</sup> Edition IEE regulations. This should be located just outside the bathroom or on the consumer unit covering that area of the building. Earth Bonding and Cross Bonding are to be fitted and tested for continuity in accordance with IEE regulations.

Image for Plumbing and Electrical Supplies (2nd Spur fuse for Whirlpool) (Reference purposes only) -Side & end wall feeds.

## **1700 Pre Installation Requirements** Water Pressure Requirement

If s the bath requires a Thermostatic Mixing Valve, please read the following which outlines how a TMV may affect the use of your bath.

The working parameters of the TMV require a water pressure of 1-5 bar with a maximum pressure loss ratio of no greater than 10:1 between hot and cold feeds.

The maximum bath water temperature according to DO8 is no higher than 46°C and the maximum for the shower is 39°C.

It is important to note that a pressure difference between hot and cold pipes will have a great effect on the time it takes to fill a bath, i.e;

Hot water 1.4 bar and Cold water 2.4 bar = Approx. 9min. to fill bath with 180 litres Hot water 2.2 bar and Cold water 2.2 bar = Approx. 5min. to fill bath with 180 litres

If in doubt a pressure test should be carried out prior to installation of the bath, and if required a booster pump or pressure reducing valve fitted, as required.

## POWER BATH FLOOR FIXING KIT (Supplied with Bath)

#### **Contents Pack**

M10 x 70mm	Sleeve Bolts	4
M8 x 70mm	Coach Screws	4
10 x 50mm Nylon Fixing Plugs 4		
White Hole Cover Plugs 4		

Note – It is a requirement that **at least** 2 firm fixings are made for each base plate. The table below shows which type of fixing should be used based on the flooring.

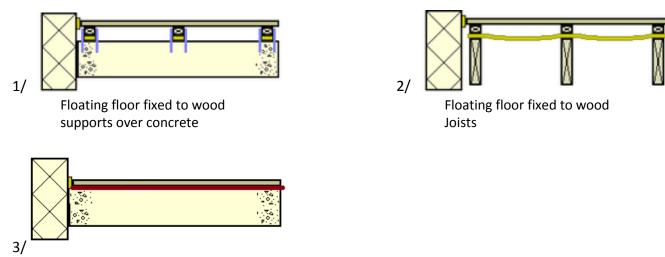
Base Plate Fixings	Floor Material
M8 Coach Screws	Joist & Noggin
M8 Coach Screws with nylon Plug	Brick & Block
*Sleeve Bolts	Compound
M8 Coach Screws with nylon Plug**	Floating
M8 Coach Screws with nylon Plug	Block & Beam
*M10 Sleeve Bolts	Concrete

\*Sleeve bolts will not grip unless the hole is cleaned out first \*\* Plugs to be fixed into lower section of floor and not floating section Should you experience difficulties please call our Technical Support Line 0870 066 0809

## **Floating Floors**

The definition covers a multitude of floor finishes. Typical examples below.

It is imperative that before any work is carried out that an understanding of the floor composition is carried out.



Floating Floor on cushion material

Dependent upon the sub-structure a decision can be made as to whether it is feasible to install a powered bath with chair. If the bath is a platform bath this is not an issue as there is little or no lateral load. The issue arises when it is necessary to support the cantilever effect of the chair+patient. Read below to address the floating floor that affects your installation:

### 1/

It is feasible to tackle this type of floor in two ways.

- a) Remove a section of the surface floor and 'build up' from the concrete sub-floor. This can be done by creating a 'tray' and fill this using a concrete mix. Alternatively timber joists can be anchor bolted to the concrete sub-floor to provide the needed support. The finish should come level with the surface floor.
- b) If the void is small it is acceptable to drive through with Rawl/Coach bolts. This may require a small section of the surface floor being removed and material such as sheet wood inserted to fill the area.

### 2/

This type of void requires the surface floor removing and Noggins introduced to brace between the Joists. Particular attention should be made on the area where the foot plate of the bath is to be sited.

### 3/

Dependent upon the void size it is usually acceptable to remove the material (often 100mm/4" polystyrene) and back filling with concrete.

### Under No Circumstances should fixing be made to the surface floor alone.



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## **GEMINI ON SITE ASSEMBLY INSTRUCTIONS**

### Follow these instructions if the unit comes in part form. Otherwise jump to page 12

## Preparation

a) Carefully remove all packaging and inspect all components thoroughly. Note: Do not use sharp knives or instruments to remove packaging around the finished surface areas of the bath.

b) Ensure all component parts are present before proceeding to remove any existing facilities. It is important to ensure the complete kit is there. If there are ANY components missing contact the office and quote the number on the side of the bath

c) Prepare the floor area and ensure it is flat, level and structurally sound & there are **NO SERVICES BURIED** within the floor fixing area.

## Base Plate Fixing – CRITICAL

### See the Floor Fixing kit for the correct floor fixings to be used

Using the foot fixing template on the pre-install instructions, mark out the floor fixing holes for the End Base unit plate.

Starting with the bath tap end base plate, drill 2 holes as appropriate for the fixings (Using the 400mm or 485mm centres) in the floor ensuring they are into a **solid construction**.

Clean out the holes & using the correct floor installation fixings tighten to within 2 mm of the base plate to allow the base plate a small amount of movement (this will assist in assembling the rest of the bath). Repeat with the foot end base plate paying particular attention to the 1205mm spacing. Use the other holes to ensure extra fixing is made but these are only additional and not critical.

It is important that both end plates are completely vertical and spaced correctly as per FIG 4 below.

### Scissor Frame

Introduce the scissor frame ensuring that it is the correct way round. (The 2 actuators on the scissor frame should be at the opposite end of the bath to the waste) Support the scissor frame and align it so that the holes in the scissor frame line up with the holes in the end plates. Fasten and tighten the two sets of 4 x 16mm M10 Allen bolts to the end frames. Tighten firmly using a spanner or socket wrench. This will hold the scissor frame in place.

### **Platform Rods**

Locate the 4 x platform rods (Ø30mm x approximately 470mm). Remove the bolts from the end of the rods. Apply Loctite to the threaded portion. Offer the bolts through the holes in the cross members and screw the platform rods onto the bolts. The platform hinges on the shorter rods so these should be at the far side of the bath when the bath is installed. Tighten firmly by hand.

### **Bath Shell**

This requires two people. Firstly connect the handset as per **FIG3**. Remove the 10 x 15mm M6 screws located in the underside of the bath.

The bath needs careful guiding to locate the rods into the seal housings without damaging the seals. Ensure that there is silicone grease in the seal area and the seals are clean and free from any dirt.

Identify the waste end of the bath to ensure the bath is the correct the way round.

Gently and evenly guide the bath shell down over the platform rods whilst ensuring the bath is kept as level as possible. Once fully lowered into place the bath should sit firmly. Now use the handset to raise the bath as high as it will go.

Using the 10 x 15mm M6 screws locate the pre-drilled holes in the underneath of the bath and refit the screws to hold the bath shell in position. The floor fixing bolts should now be fully tightened.

### 6/ Electrical connections

Connect the actuators using the colour reference Zip ties on the actuator and wires. Ensure the retaining clips are in place and also ensure that the cable is not allowed to dangle as this cause the wires to become hooked up on hoist legs or mops.



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# Gemini 1700 Installation Instructions

### Items

Items supplied with the kit should be as follows: Information pack (This pack) User Manual Bath unit complete (Bath Shell, Outer panels, Frame, Control pack, Platform support rods, Platform) Bath Surround Panels – Inner Flexible water feed pipes x2 User Handset Bath Shower Mixer Tap (TMV) – *Optional* Platform retaining hook Backrest and cover Base unit Fixing kit (Comprising Bolts /screws – see Floor fixing kit)

### **Installation**

### Preparation of Site

a) Carefully remove all packaging and inspect the bath thoroughly. Note: Do not use sharp knives or instruments to remove packaging around the finished surface areas of the bath.

b) Ensure all component parts are present before proceeding to remove any existing facilities. It is important to ensure the complete kit is there. If there are ANY components missing contact the office and quote the number on the side of the bath.

c) Prepare the floor area and ensure it is flat, level and structurally sound & there are **NO SERVICES BURIED** within the floor fixing area.

## **Bath Fitting**

Ensure that the Site is ready as per the Pre Installation Requirements detailed in this pack. Remove transport wheels and straps if in place.

### Base Plate Fixing – THIS SECTION IS CRITICAL

### See the Floor Fixing kit for the correct floor fixings to be used

Using the foot fixing template on the pre-install detail on page 4, mark out the floor fixing holes for the End Base unit Feet. This template information is repeated (**FIG 1**)

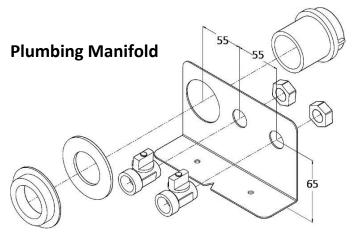
Starting with the bath tap end base plate, drill 2 holes as appropriate for the fixings (Using the 400mm or 484mm centres) in the floor ensuring they are into a **solid construction**.

Clean out the holes & using the correct floor installation kit tighten up fully making sure the frame is vertical in both planes. Repeat with the foot end base plate. Use the other holes to ensure extra fixing is made but these are only additional and not critical.

It is important that both end plates are completely vertical (FIG2)

### Tap & Waste Connection

Connect the taps using the flexible water pipes provided making sure they do not snag when the bath is lifted. Trimming of the inner lower & outer upper panels may be required to fit the panels around the pipe. The waste is pre-assembled. Connect the flexible pipe to the waste outlet. Fit the manifold to the floor and connect as detailed.



### **Electrical Connection**

The control unit is located in the centre of the underside of the bath. A prewired lead is supplied and this should be run to the mains supply as per the pre-install connections. The handset should be plugged in the control box as per **FIG 3**.

Ensure the lead retaining clip is refitted once the handset has been connected.

### **Panel Fixing**

The bath shell comes complete with the outer upper panels fitted. These should fit outside the inner lower panels and should not touch them. Note: If the upper and lower panels touch, marking will occur. Adjustment is possible on the bayonet clip if required.

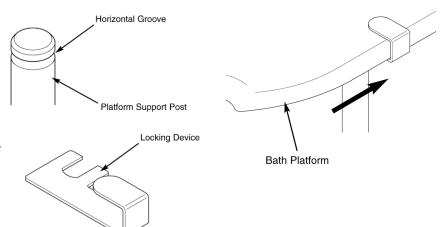
#### **Inner Skirt Fitting**

Offer the end skirts into place and fix using a 6mm Allen key through the access holes found in the lower part of the panels.

Offer up the rear side skirt and make any adjustments required using the fixing screws and bayonets. (Fig 4) Pushing the bayonet into place. Lock the skirts in place using the nuts on the inside of each end skirt. Offer up the front skirt, make any adjustments required using the bayonets. (Fig 5)

#### Platform retaining hook

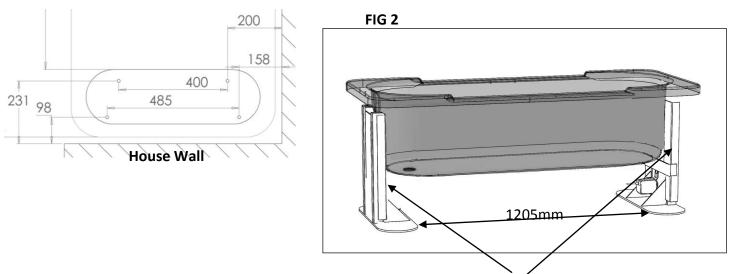
The hook prevents the platform from floating if the bath is full of water and is raised with no one on the platform. Slide the hook as shown in the diagram on to the platform and move along until the slot engages with the groove on the rod. This should be done with the platform lowered and in place so that the post is not visible.



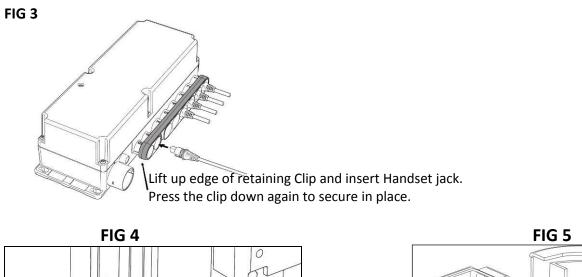
### WARNING

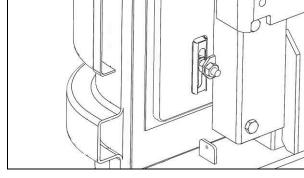
In the event of mains failure during use of the bath, back-up batteries will enable the bather to exit the bath. Immediately after installation, it is vital that the bath be connected to a mains supply for at least 24 hours before initial use, to ensure the batteries are fully charged. Failure to observe this requirement could result in the user not being able to exit the bath in the event of a mains failure.

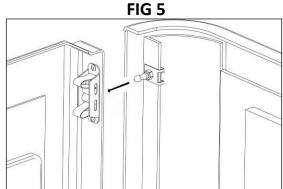
**FIG 1** (Bath must be a minimum of 25mm away from any wall or fixture. If more than 25mm add the difference to the 98mm and the 231mm dimension below)



Ensure both end frames are perfectly vertical – please use a spirit level.







Abacus Gemini 069/Info.P 0314v1a

### **TROUBLE SHOOTING**

Some basic checks are detailed below. If in doubt contact service support on 0870 066 0809.

### Bath Does not move

- Check Power.
  - > Check Spur Fused to ensure there is power is to the unit.
  - Ensure the RCCB is working and has power to it. To test the RCCB push the test button; the RCCB should interrupt power and the switch should trip. Push the RESET button; power should be restored. If the RCCB fails to operate in this manner there is a problem with the electric supply and the service department should be contacted.

If mains power is interrupted the bath will only work on battery backup. The bath will continue to operate but as the batteries become low the bath will emit an audible beep when the handset is used.

Once the warning Beep starts, lower the bath and do not use until the fault is rectified. Once power is restored allow the batteries to recharge before operation. (Usually 3 hours) If the bath fails to operate, reset the system:

Depress both 'Bath' buttons on the handset at the same time – 10 long beeps will sound and the system will reset. It is worthwhile checking that the handset cord and jack are still firmly located into the control box

### Bath judders.

• Usually occurs if the bath has not been fixed to the floor correctly or the bath is not level.

### Bath noisy

- Check to ensure there is nothing touching the bath while it moves
- Ensure the pipe-work and cables are free of the panels and not rubbing against the framework
- Check panels are free to move and are not touching each other.

#### **Bath Leaking**

• Look for source of leak – typically caught flexi-hose on feed or waste. This can usually be remedied by your own maintenance contact.

### Bath is uneven (one end higher than the other)

• This may occur after a power failure. Use the DOWN button on the handset. Lower the bath to its lowest position. This will automatically reset the bath so that both sides rise together.

#### **Bath Beeping**

• Mains power has failed to the unit – See section titled 'Bath does not move'

#### Bath Panels touching /noisy

• If the upper and lower panels touch, marking will occur. Adjustment is possible on the bayonet clip if required.



## Testing the Bath

#### WARNING!

The system batteries must be charged for 24 hours prior to using the bath. You may test the bath to ensure it is working correctly.

Ensure that hands and objects are kept away from the underside and topside when operating the bath. Ensure the floor area around the bath is kept free from excess water to avoid persons slipping. Do not allow unauthorised persons to operate this bathing system.

This Bath moves. Ensure there are no objects or persons that can become trapped or injured while the bath raises or lowers.

### **BATH OPERATION**

To operate the unit:

The handset control buttons are completely safe to use with wet hands, The up/down buttons operate independently on a 'depress-to-run' basis, in that movement will stop if the button is released.

Make sure the bath is in the fully lowered position using the Handset Bath DOWN button. Check the pop up waste is in the fully closed position. Ensure the platform is in the fully lowered position by pressing the Platform DOWN Button.

Fill the bath approximately half full with water. Check the water temperature is within safe bathing limits 40°-43°.

Raise the bath using the Bath UP button on the handset. Raise the Platform by using the Platform UP Button.

Empty the water whilst the bath is in the up position as this will help with the draining of the bath. Fully lower the bath using the Bath DOWN button on the handset. Clean the bath as per the cleaning instructions. Ensure the Platform can easily be lifted by the front edge for cleaning underneath.

Where a safety lap belt is supplied this must be used for the safety of the bather.

**WARNING!** If this unit is to be utilised by many different bathers, we would strongly recommend that it is cleaned regularly with a medical disinfectant as well as following a strict cleaning routine.

### WARNING

In the event of mains failure during use of the bath, back-up batteries will enable the bather to exit the bath. Do not carry on using until mains power is restored.

## **CLEANING INFORMATION**

The Gemini bath does not require any major maintenance, but you should follow these simple instructions. The bath should be wiped down, preferably whilst the bath is draining, with a soft, damp cloth.

To retain the surface quality of the bath, clean weekly using bathroom cleaning mousse or washing-up liquid. Warm water and a soft cloth is recommended. Stubborn stains may require a non-scratch liquid cleaner.

Do not use oven cleaners, scouring powders or bleach on any of the surfaces. These may spoil the appearance of your bath.

Chalk mark deposits from the water or mild scratches may be removed from the bath surface with a mild cutting fluid such as 'T' Cut or Brasso. This should be applied to the affected area with a soft cloth and rubbed vigorously until a satisfactory finish is affected. The shine to the area may then be brought back using a wax-based polish.

Lift the platform and ensure that it is properly cleaned on its underside.

### WARRANTY

This product is warranted as being free from defects during the period of warranty. This does not cover minor blemishes, etc. which may be part of normal manufacturing processes.

The warranty covers manufacturing defects in the products, starting from the date of supply. The warranty is limited to the value of the purchase price paid.

The warranty is only valid if the product has been used correctly. Where there are any mechanical or electrical parts, any damage, misuse or tampering with them will render the warranty invalid. Any sealed electrical boxes must remain unopened or this will invalidate any warranty.

The baths are not covered for any problems that may arise from the installation or site planning unless carried out by engineers from Abacus Healthcare.

Any consequence arising from unskilled or incorrect handling of the product is not covered by this guarantee. The following items, when supplied by Abacus Healthcare are guaranteed for a period of twelve months from the date of supply for the parts only (labour costs are not covered).

• Taps and mixers

- Shower hoses, shower heads and shower brackets.
- Flexible pipes including waste outlet, hot and cold supply.

Hot and cold taps and mixer taps are proprietary fittings and as such carry a standard manufacturer's warranty. Note: Thermostatic mixing valves must be adjusted for the appropriate discharge temperature by the installer.

### These require regular maintenance for which Abacus engineers are available.

### Electrical

All electrical components are CE marked to comply with current European Standards.

Electrical items must not be replaced with alternative components without the authorisation of Abacus Healthcare Failure to obtain such authorisation will exempt the Company from any liability to action for further failure.

THERE IS NO OTHER WARRANTY EXPRESSED OR IMPLIED INCLUDING, BUT NOT LIMITED TO, THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

THE FOREGOING WARRANTY IS LIMITED TO THE TIME PERIOD SPECIFIED FROM THE TIME OF RECEIPT. IN NO EVENT SHALL THE SUPPLIER BE LIABLE FOR ANY SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES INCLUDING BUT NOT LIMITED TO; LOSS OF USE.

WHILE THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS YOU MAY ALSO HAVE OTHER RIGHTS WHICH THIS WARRANTY DOES NOT EXCLUDE YOU FROM.

CARE IN BATHING LTD. OPERATES A POLICY OF CONTINUOUS PRODUCT DEVELOPMENT AND RESERVES THE RIGHT TO CHANGE SPECIFICATIONS AND DESIGNS WITHOUT PRIOR NOTICE SO LONG AS THEY DO NOT MATERIALLY ALTER THE FUNCTION OF THE BATH.