ABACUS
SPECIALIST BATHROOM SOLUTIONS

ARIES 2000
INSTALLATION MANUAL

Gainsborough Healthcare Group
Life enhancing bathing

BioCote®

MADE IN THE UK

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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. There is a two button handset to control the raising and lowering of the powered bath

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 electrical 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.

The bath is a two person install. Attempting a one person install is not recommended, and may result in damage to the bath.

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

WARNING! The bath is only to be installed on concrete ground level flooring. If upper level installation is required it must not be without reference technical support.

WARNING! Check floor loading capacity against bath weight. Total weight (maximum) is 800kg (including water and maximum user weight).
If the flooring is not capable of withstanding the 800kg load the bath must not be installed!

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

The unit must be connected to an RCD. Such a circuit is to be provided by a qualified electrician and should be tested on a routine basis.
To test the RCD push the test button; the RCD should interrupt power. Push the RESET button; power should be restored. If the RCD 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 RCD 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.

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)
7. Level Flooring

IMPORTANT – The bath should be sited at least 100mm away from any wall to ensure there are no finger trap areas.
It must not be sited closer without reference to the sales office or technical support.

FLOORING

Prepare the floor area and ensure it is flat, level and structurally sound. There must be **NO SERVICES OR UNDER FLOOR HEATING BURIED** within the 'foot plate' area detailed in figure 1.0. All floor finishes should be in place prior to installation (i.e. altro/tiling).

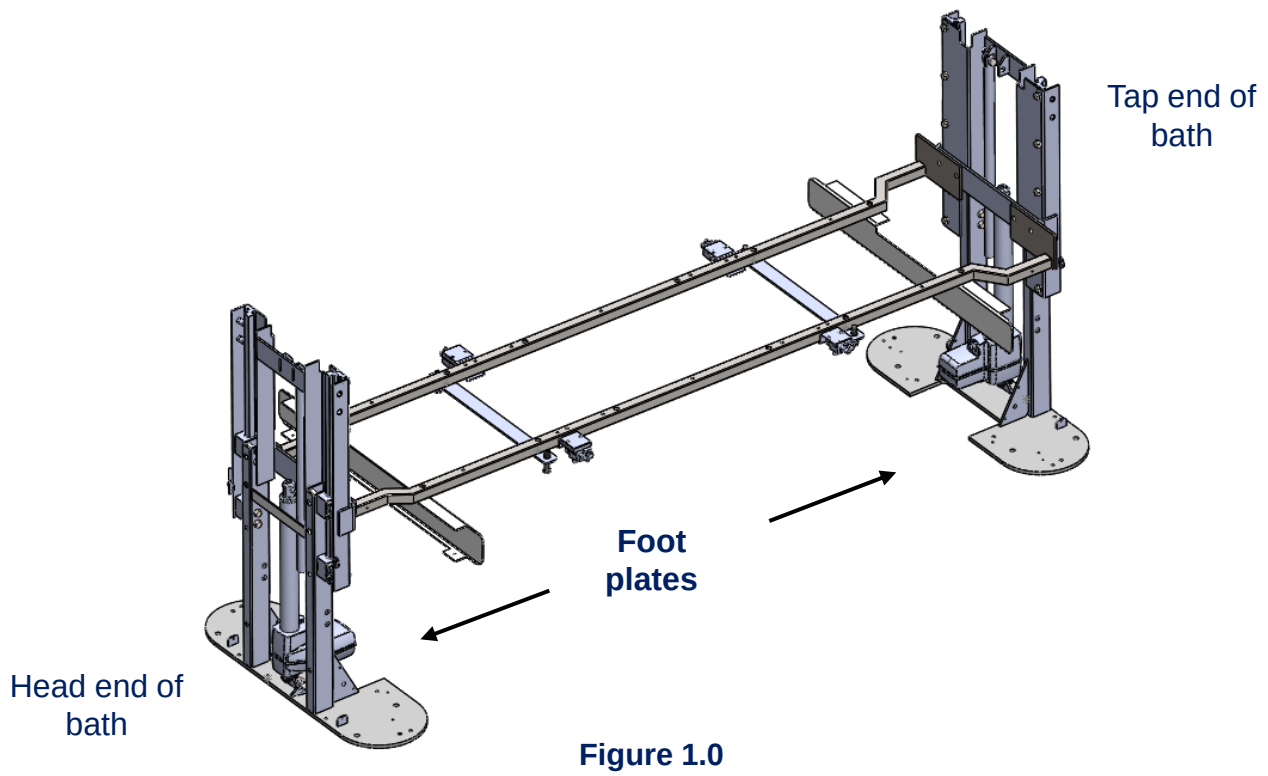


Figure 1.0

Side Wall Pre-install Plumbing

When fitted against a side wall, all pipework connections to the bath should be made through the foot side panel (tap end).
(figure 2.0).

This will provide the neatest solution for side wall installation.

Waste outlet and water feed connections will exit the panel as shown in figure 3.0 when installed correctly.

Tap end of bath – Plumbing connections

Left hand bath tap end shown shown

Note: for right handed bath plumbing connectors will be mirrored to opposite side of the bath foot.

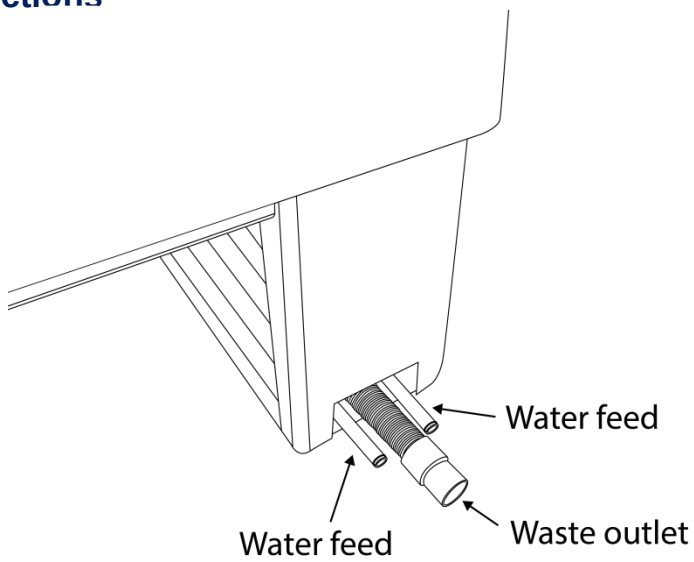


Figure 2.0

Waste feed: Ensure that of the 3 water Pipes which come through the wall/floor, The waste pipe is the closest to the 'bath plumbing connections' (figure 3.0).

Hot & Cold water feeds:
Notice the position of the hot and cold pipes entering the bath in figure 3.0.
This orientation will be mirrored for a right hand bath, with cold water pipe being closest to the bath foot plate.

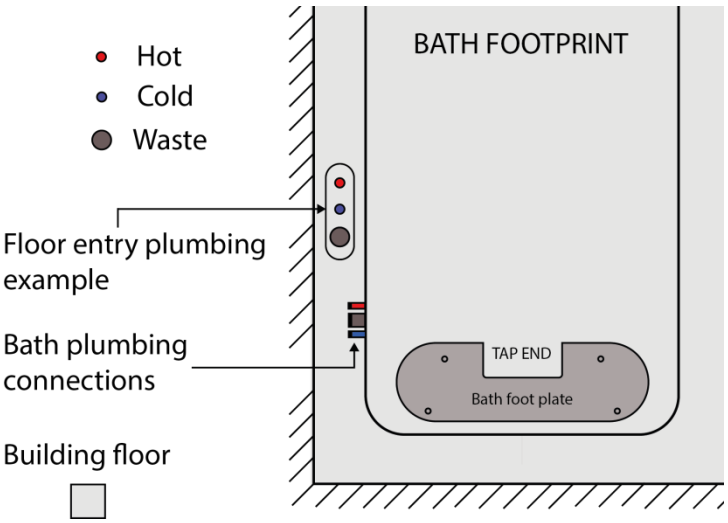


Figure 3.0

Side Wall Pre-install Plumbing

Plumbing feeds - Wall fed *(Dimensions shown in mm)*

As plumbing connections will be from the side of the bath as shown, side wall plumbing is preferred as it is the most straightforward and hidden solution. End wall plumbing is also possible, however pipework will be required to follow the perimeter of the bath (see fig 4.0)

Note: when a peninsula layout in chosen, all visible pipework must also be boxed and identified as a trip hazard.

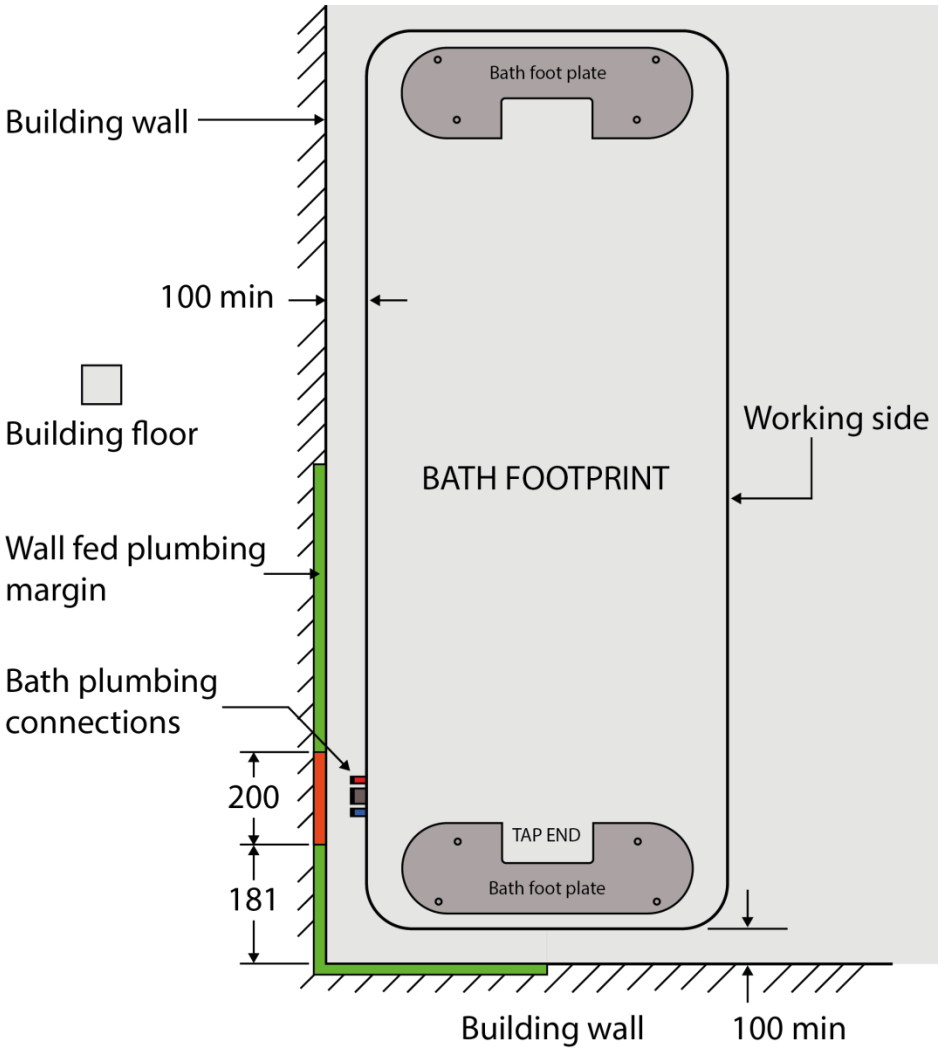
Figure 4.0

Left hand bath wall fed plumbing locations shown.

Note: for right handed bath plumbing will be mirrored to opposite side.

It is preferable that plumbing enters the room anywhere in the green area shown.

Pipework must not enter the room in the location shown in **orange**, as doing so will hinder installation.



Hot & Cold - Feeds should be fed in 22mm. Feeds should terminate with **full bore isolating valves** 25mm from the wall. These should be set between **20- 40mm centres off the floor** where possible to ensure a neat connection.
Isolation valves must be located so that they are easily accessible.

Waste - 40mm Waste outlet @ 3ltr/sec. It is recommended that the waste should be set at between **30-100mm centre from the floor**.

Side Wall Pre-install Plumbing

Plumbing feeds - Floor fed *(Dimensions shown in mm)*

Where wall entry is not possible, floor fed connections may also be made.

Figure 5.0

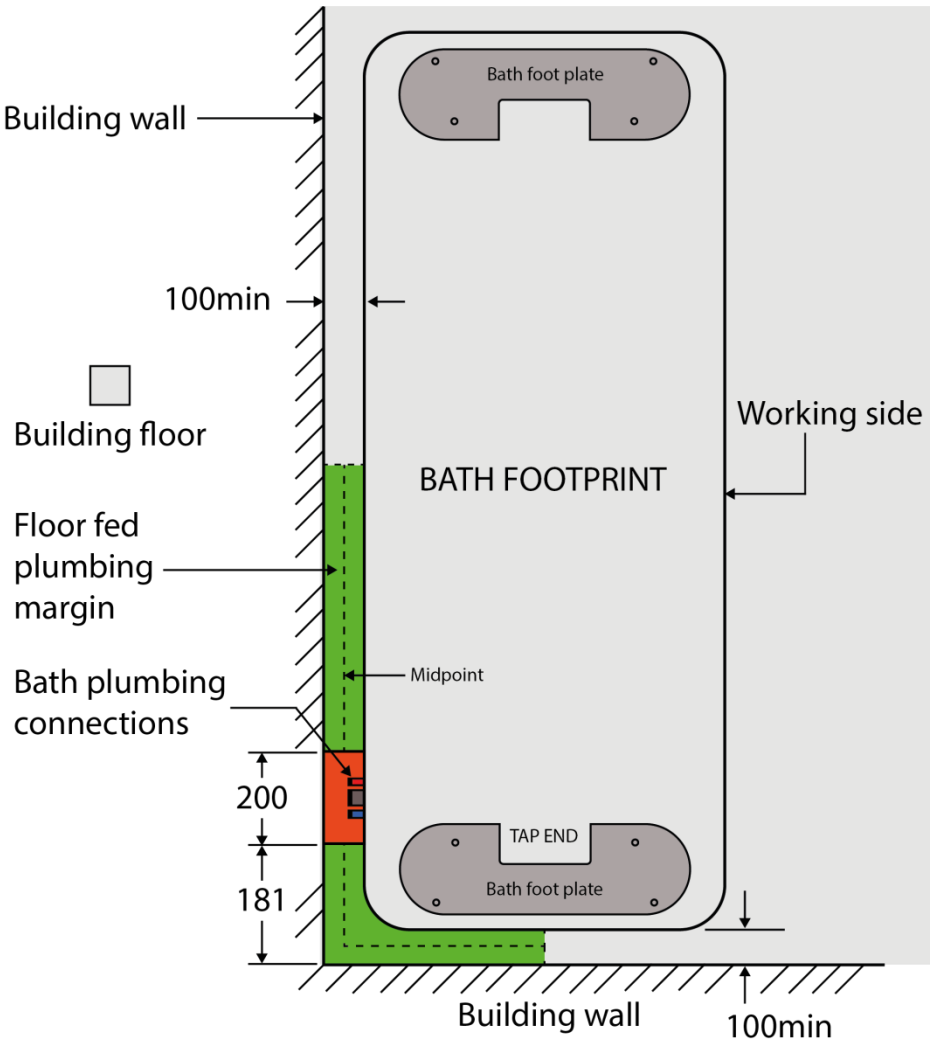
Left hand bath floor fed plumbing locations shown.

Note: for right handed bath plumbing will be mirrored to opposite side.

It is preferred that plumbing feeds will terminate anywhere along the midpoint of the green area outlined.

When the bath is fitted at more that 100mm from the wall, floor feed centres should be 50mm from the wall.

Pipework must not enter the room in the location shown in **orange**, as doing so will hinder installation.



Hot & Cold - Feeds should be fed in 22mm. Feeds should terminate with **full bore isolating valves.** Elbow isolation valves may be used to improve plumbing routing where possible.

Isolation valves must be located so that they are easily accessible.

Waste - 40mm Waste outlet @ 3ltr/sec. Waste pipe highest point **should not exceed 120mm from the floor.**

End Wall Pre-install Plumbing

The bath may also be supplied with pipework fitted to exit the foot end panel (tap end).

This configuration of plumbing is preferred when the bath is fitted with a foot end panel against a wall (peninsula).

Waste outlet and water feeds will exit the foot end panel as shown in either figure 6.0 and 7.0, depending on the handing of the bath.

Note: plumbing will exit the foot end panel slightly differently depending on bath handing, with either the waste outlet at the far end (right hand, figure 6.0) or in the centre (left hand, figure 7.0).

Tap end of bath – Plumbing connections

Note: Consider which handing the bath is, this will influence where the plumbing will enter.

Right hand bath

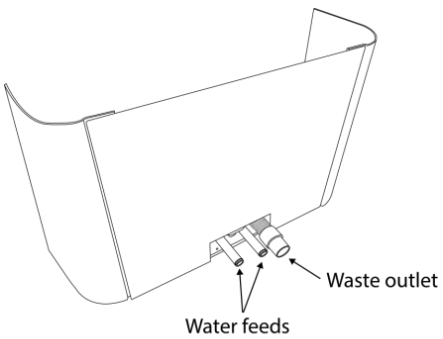


Figure 6.0

Left hand bath

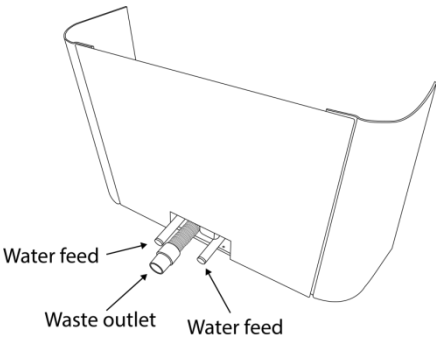


Figure 7.0

Waste feed: Ensure that of the 3 water pipes which come through the wall/floor, the waste pipe is the closest to the 'bath plumbing connections' (figure 8.0).

Hot & Cold water feeds:
The hot and cold water feeds entering the bath will always maintain the same order, regardless of bath handing. Cold water to the left of the bath, hot water to the right of the bath (figure 8.0).

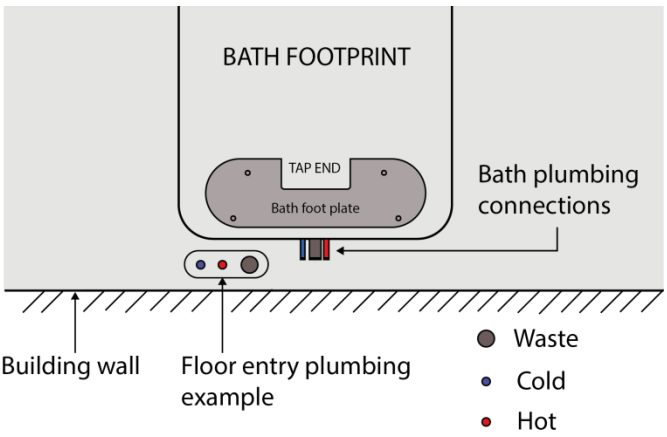


Figure 8.0

End Wall Pre-install Plumbing

Plumbing feeds - Wall fed *(Dimensions shown in mm)*

As plumbing connections will be from the end of the bath as shown, end wall plumbing is preferred as it is the most straightforward and hidden solution. Side wall plumbing is also possible, however pipework will be required to follow the perimeter of the bath (see fig 9.0).

Note: when a peninsula layout in chosen, all visible pipework must also be boxed and identified as a trip hazard.

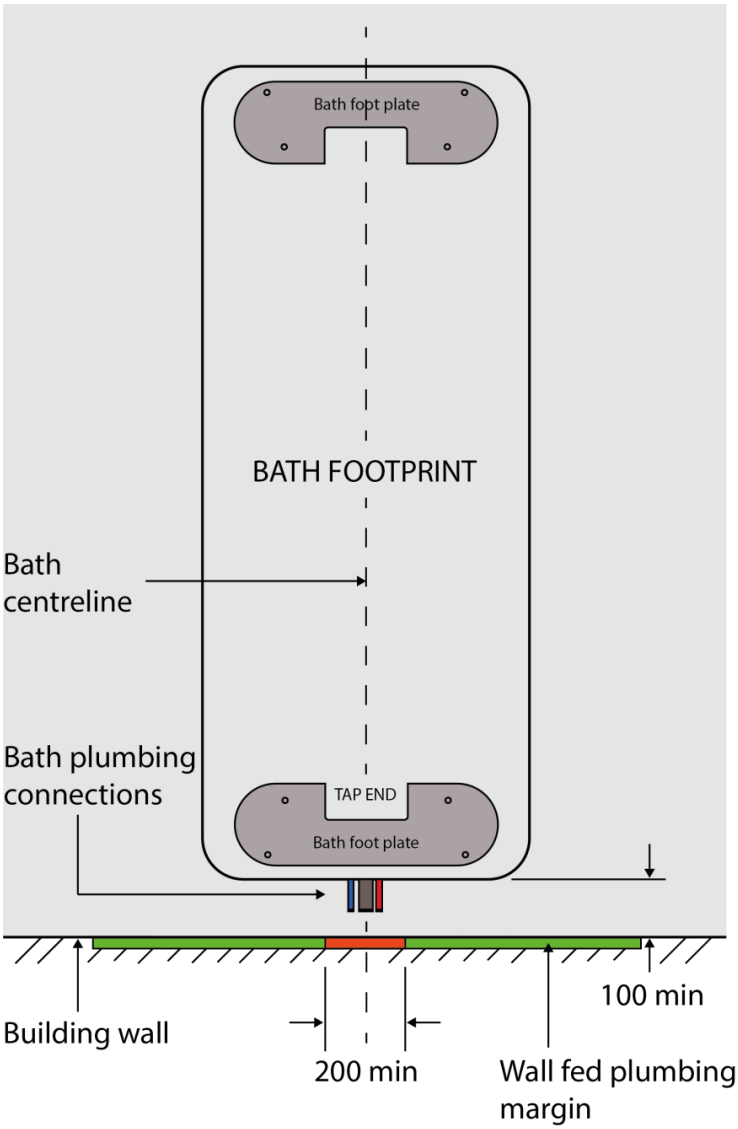
Figure 9.0

End wall peninsula plumbing shown.

Note: plumbing connections terminate in the same location for both left and right handed baths.

It is preferable that plumbing enters the room anywhere in the green area shown.

Pipework must not enter the room in the location shown in **orange**, as doing so will hinder installation (unless the bath is positioned 150mm or more from the wall.



Hot & Cold - Feeds should be fed in 22mm. Feeds should terminate with **full bore isolating valves** 25mm from the wall. These should be set between **20- 40mm centres off the floor** where possible to ensure a neat connection.
Isolation valves must be located so that they are easily accessible.

Waste - 40mm Waste outlet @ 3ltr/sec. It is recommended that the waste should be set at between **30-100mm centre from the floor**.

End Wall Pre-install Plumbing

Plumbing feeds - Floor fed

(Dimensions shown in mm)

Where wall entry is not possible, floor fed connections may also be made.

Note: when a peninsula layout in chosen, all visible pipework must also be boxed and identified as a trip hazard.

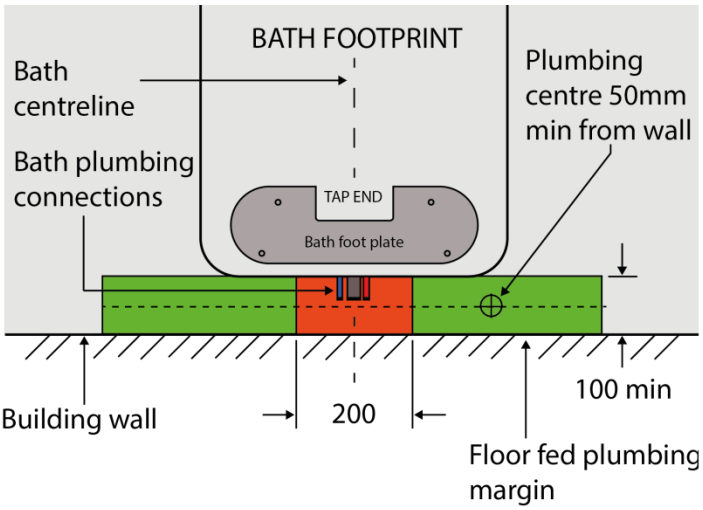


Figure 10.0

Floor fed peninsula plumbing locations shown.

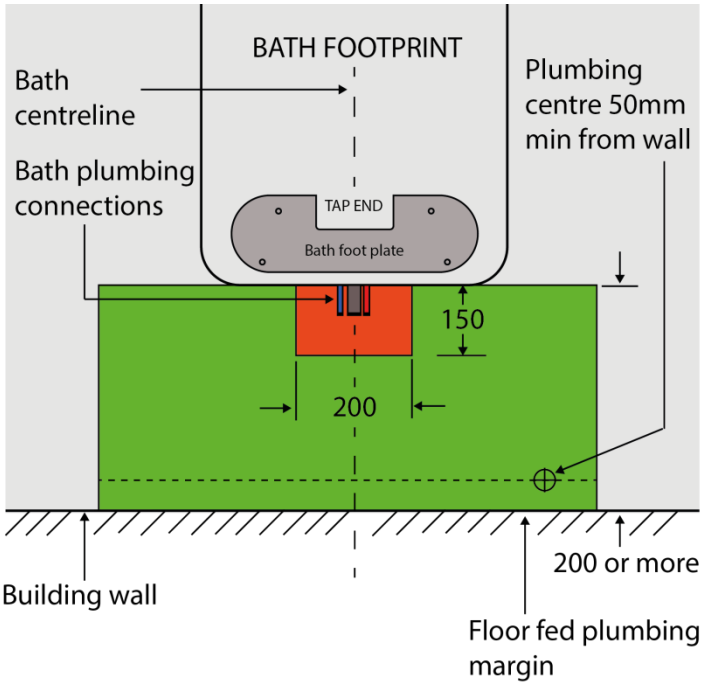
Note: plumbing connections terminate in the same location for both left and right handed baths.

It is preferred that plumbing feeds will terminate in the green area as close to the bath centreline as possible, **without entering the orange margin**.

Pipework must not enter the room in the location shown in **orange**, as doing so will hinder installation.

When the bath is fitted 200mm or more from the wall plumbing may terminate along the bath centreline, providing it **does not enter the orange margin.**

Plumbing pipes should terminate the floor with centres a minimum of 50mm form the wall.



Hot & Cold - Feeds should be fed in 22mm. Feeds should terminate with **full bore isolating valves.** Elbow isolation valves may be used to improve plumbing routing where possible.

Isolation valves must be located so that they are easily accessible.

Waste - 40mm Waste outlet @ 3ltr/sec. Waste pipe highest point **should not exceed 120mm from the floor.**

Water Pressure Requirement

As the bath requires a Thermostatic Mixing Valve, which has been manufactured to NHS model engineering specification D08, and approved under the TMV scheme, 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 43°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;

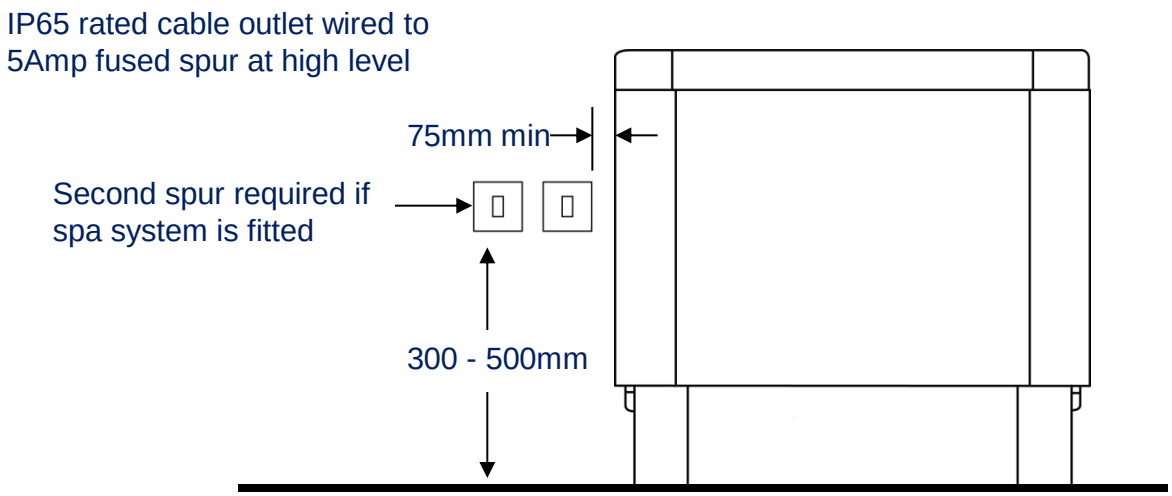
Hot water 1.4 bar and Cold water 2.4 bar = Approx. 12.5min. to fill bath with 250 litres
Hot water 2.2 bar and Cold water 2.2 bar = Approx. 7min. to fill bath with 250 litres

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.

Electrics

The bath should be connected via a 5 Amp IP65 rated non-switched fused spur unit, with 2 metres of 1.5mm 3 core flex. Located at the tap end of the bath, positioning and specification to be in accordance with IET regulations. The spur box should be mounted between 300-500mm off the floor.

Where electrical options are fitted (i.e. spa, lights, etc) a 13 Amp IP65 rated non-switched fused spur is also required. The second spur is required to ensure the bath will continue to operate should there be a fault in the accessory fitted.



Electrical Connection & Earth Bonding

A 30mA RCD is required in accordance with current IET regulations. This should be located 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 IET regulations. Trailing flex should be protected by use of protective conduit.

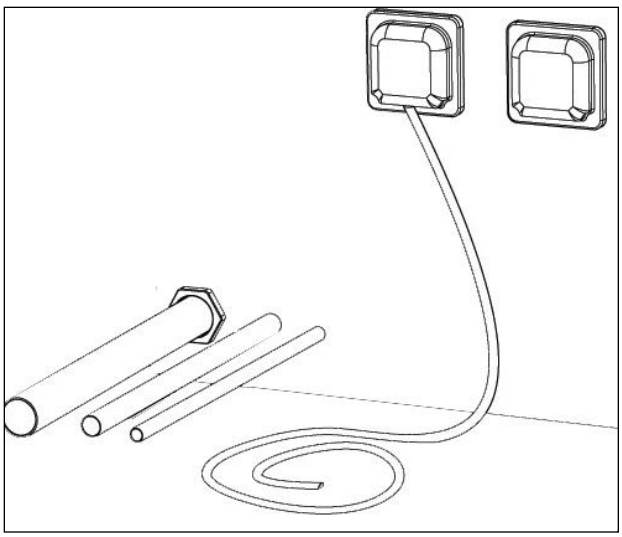


Image for Plumbing and Electrical Supplies
(Reference purposes only) -Side & end wall feeds

ARIES 2000 ON SITE ASSEMBLY AND INSTALLATION INSTRUCTIONS

The bath may come fully built (excluding panels) or in kit form, with all panels boxed separately.

Depending on the individual bath location, the bath may require some additional break down to safely get it on site. If the complete bath requires some breakdown, please read through the 'Kit form assembly ' instructions (Page 14) carefully, and revere where necessary.

When the bath is purchased fully assembled, where access allows, it is advised to take the bath into the property complete.

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.
Ensure the bath location has suitable clearance for correct installation (When the bath is in the room it may be difficult to move once fully assembled. Please refer to the detailed layout plan provided on page 14.

D) All panels and contents should come labelled to help simplify assembly and installation. Check that all contents is labelled prior to install.

Items

Items supplied with the kit should be as follows:

- Installation Manual (this booklet)
- User Manual
- Bath unit complete (Bath Shell, belly pan, frame, control pack)
- Bath Surround Panels – top, foot end side panels, bottom end panels and bellows.
- Flexible water feed pipes x2
- User Handset
- Bath Shower Mixer Tap (TMV) – *optional*
- Dispatch kit (Floor fixing kit, panel bolts/washers, plumbing kit, cable ties etc).

KIT FORM ASSEMBLY INSTRUCTIONS

Note: It is recommended that a minimum of two people assemble the bath.

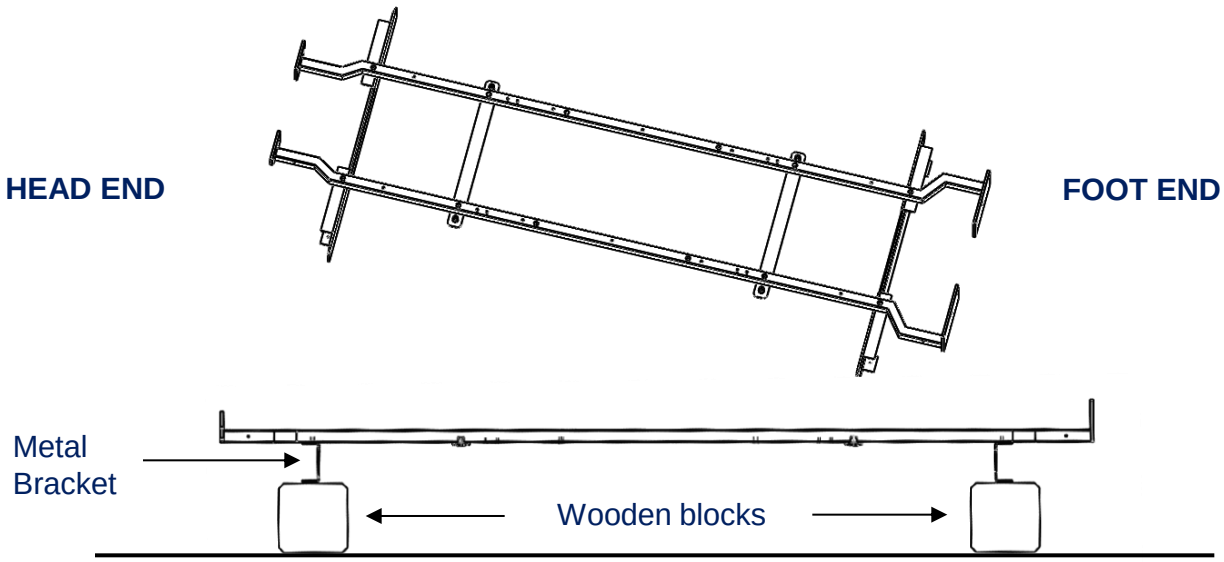
With all contents carefully inspected and moved onto site, it is now time to begin assembling the bath kit.

Firstly, position the wooden blocks (found beneath the frame) in the room near where the bath will be installed. The blocks should be spaced apart, and slightly inward of where the foot end assemblies will be fitted.

Note: Bath should not be in the final installation position! Leave enough room to access all sides of the bath for correct assembly. The bath will be moved into position in later stages.

1. Base frame positioning

Identify which end of the base frame is which, and lay onto the wooden blocks accordingly. The frame should be positioned so that only the metal brackets on the base of the frame are in contact with the wooden block, as shown below.



2. Plug in foot end actuators

Position the foot end assemblies near the ends of the base/scissor frame (one at each end)

Locate the 2 foot end actuator leads (marked with yellow cable ties), and insert 1 of the plugs into the first foot end actuator. Press down the retaining clip firmly, securing the lead into place. Next, repeat this process at the opposite end of the bath.

3. Connecting the handset

Locate the handset extension cord/ port (this will later be fitted to the bath), and line up the plug with the port, ensuring the plug is correctly orientated.
Plug in until no further movement if felt.

4. Fitting the foot end assembly (head end)

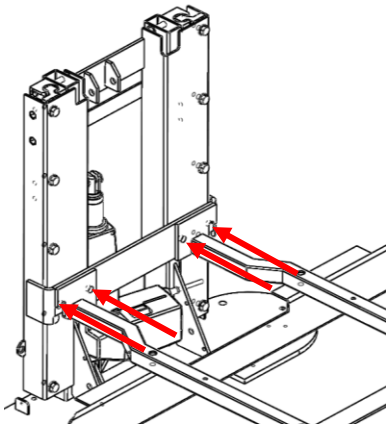
The fixing holes in the foot end assemblies will be too low to correctly match the holes in the base frame at this point. This will require some fine adjustment with the handset.

Starting at the head end, raise the foot end assemblies up slightly by pressing the up button on the handset.

Continue to do so until the holes in the base frame line up with the holes in the foot end assembly.

If the holes in the foot end assembly become too high, simply press the bath down button.

Fix the foot end into position with 4 x M10 Washers and 4 x M10 x 16 cap head bolts provided.

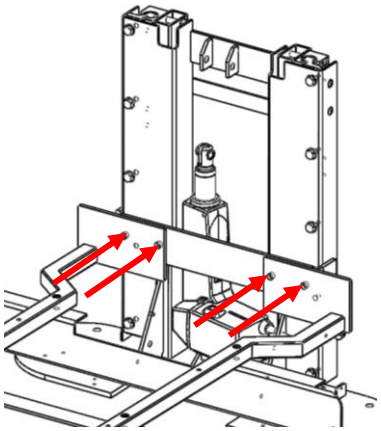


5. Fitting the foot end assembly (foot end)

Once the head end foot assembly has been correctly fitted, the bath will now require raising once again.

Repeat the same process covered in STEP 4 at the foot end.

Fix the foot end into position with 4 x M10 Washers and 4 x M10 x 16 cap head bolts provided.



6. Removing wooden frame support blocks

To remove the wooden block the bath should be taken to it's highest position.

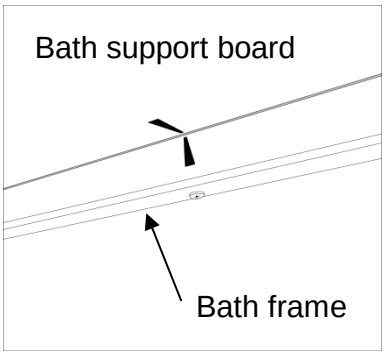
To do this, press and hold the 'bath up' until the bath reaches its maximum height. The bath will stop when the maximum height has been reached.

Note: It is critical the foot end assemblies have been securely fitted at this stage.

Remove the wooden blocks and set aside. These are no longer needed.

Note: With the blocks no longer beneath the bath frame, the bath is able to reach its minimum height. Ensure nothing is left beneath the bath frame whilst the bath is being installed.

7. Positioning the bath shell



In a team of at least 2 people, carefully lift the bath shell onto the bath frame, making sure the waste is at the foot end of the frame. Slowly lower, and set into place.
Ensure no cables are trapped between the bath shell and base frame.
On the underside of the base frames there is a locating mark which will now need to be correctly aligned with the matching mark on the frame.
Manoeuvre the bath until the marks match up as shown.

8. Securing the bath shell

Locate the 10 x '8 x 19 countersink screws' and 10 x 'M5 flat washers' provided. Place a washer over each screw, ready to secure the bath.

The bath base board has been pre screwed, and where possible it is important to try to pick up the existing holes when securing the bath.
To do this, place a screw through the frame, and slightly lift the bath shell. The hole should become visible. Insert the screw into the hole, but do not tighten. Repeat this process with remaining holes in the base board. Tighten all screws. The bath is now fully secured.

9. Fitting handset extension port

Firstly, fully raise the bath to its highest point using the 'bath up' button. This will provide maximum access to the underside of the bath.

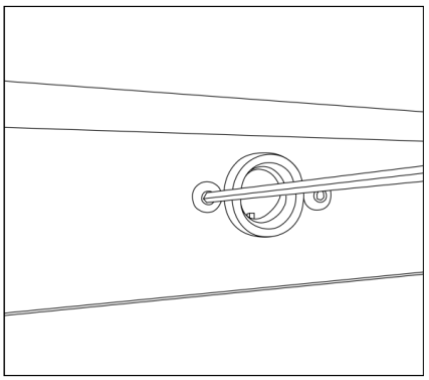
Now disconnect the handset from the extension port.

Find the following parts in the dispatch kit:

- 2 x M6 shake proof tooth washed,
- 2 x M5 nut.
- 2 x M5 x 20 button head bolt.

Locate the hole in the bath shell where the extension port will be mounted. This is on the bath flange, user side near the corner.

Position the extension port into the hole from the rear of the flange. When correctly seated, holes will be visible through the bath flange for the port fixings.



Insert one of the M5 x 20 bolts through the bath flange and through the extension port. Fit a M6 shake proof washer at the rear followed by a M5 nut. Hand tighten the nut.
Repeat this with the second hole on the opposite side of the extension port.
With the port now hand tightened, check that it is correctly seated. Now tighten the fixings.

Cable tie the extension port cable into position, ensuring there is no risk of entrapment or damage.

10. Connecting the Spa motor (Optional extra – Baths fitted with air spa only)

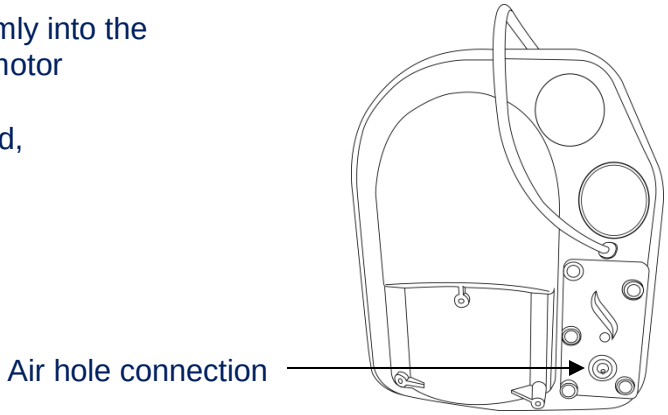
Pneumatic spa

Where a pneumatic spa has been fitted, the air switch pipe will need to be connected to the front of the air spa blower.

The air pipe is a clear PVC pipe and can be found hanging down at the tap end of the pipe.

Unravel the coiled air pipe and insert firmly into the air hose connection located on the spa motor

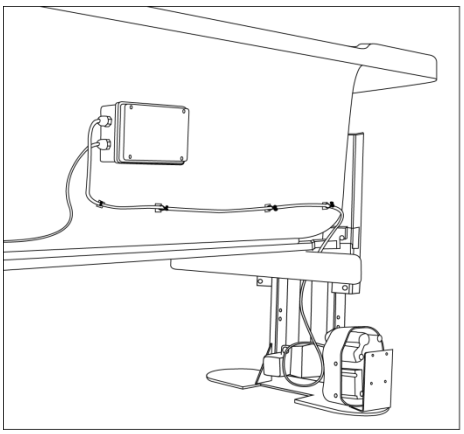
Cable tie the hose to the frame if required, ensuring there is no risk of entrapment.



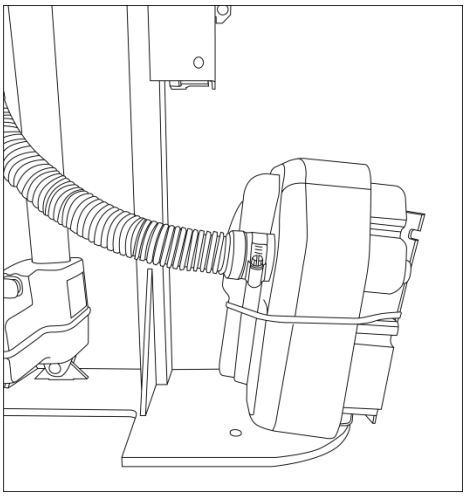
Electronic spa

If the bath comes fitted with an electronic spa pump system, the power cable and air hose will require wiring up and connecting.

Warning: Before wiring the motor to the control box, make sure the control box is not connected to the Mains voltage supply.



Starting with the motor power cable, unravel the coiled power lead found at the foot end. The cable will need to be routed behind the frame section as shown. Following this, fit the cable to the bunny ear connectors found on the bath, rotating the tabs to secure into place.



Open the control box. The motor now needs wiring up.

Insert the cable through the cable gland, and make sure the seal is well seated. The cable will have two wires, a brown (live) and a blue (neutral).
Connect the neutral wire to the neutral block, (marked 'Neutral').
Connect the live wire to the live terminal (marked 'Motor').

Now that the box is correctly wired up, replace the cover.

The next step will be to connect the air feed hose to the spa motor.
Place a jubilee clip over the hose. Fit the rubber end of the hose onto the nozzle protruding from the spa blower. Slide the rubber back over the rubber section and secure into place.

11. Earth cable fitting

The earth cable now needs reconnecting. To do this find 1 x M6 Shake proof tooth washers and 1 x M6 x 12 button head bolt in the dispatch kit.

Find the earth cable. This will still be connected to the bath frame. Locate the fixing hole for the opposite end of the cable, this will have a green earth sticker next to it.

Insert the bolt through the earth cable eyelet, followed up by the M6 shake proof washer. Screw the bolt into the fixing hole. Whilst tightening, hold the earth cable eyelet, as this will prevent it rotating.

12. Fitting the waste flexi pipe

The flexi waste pipe will now need connecting to the S-trap.

Locate the waste locking ring and rubber seal in the dispatch kit. Next place the locking nut over the end of the waste pipe. Now, place the rubber seal onto the end of the waste pipe.

Gently plug the end of the waste pipe into the S-trap. Push gently, ensuring the flexi pipe end will insert no further.

Whilst holding the flexi waste pipe end in place, begin to tighten the locking nut.

Note: Holding the waste pipe in place will prevent it rotating whilst the locking nut is being tightened. Tighten firmly hand tight, however do not overtighten.

Note: When connected correctly, the waste pipe should resemble the image show on page 19, in the section ‘Bath plumbing Orientation).

13. Fitting the Flexi water pipes (Hot and Cold)

The Hot and Cold water feeds now require connecting to the bath plumbing, and will need to follow the same route taken by the waste flexi pipe.

The hot flexi pipe can be identified by a red cable tie, the cold flexi pipe by blue.

Using the push fit connectors at the end of the water flexi pipes, fit the flexi pipes to the corresponding colour coded hard pipes on the bath.

Once the pipes have been correctly fitted, secure the flexi pipes to the cable tie mount positioned at the tap end of the bath, near the S-trap.

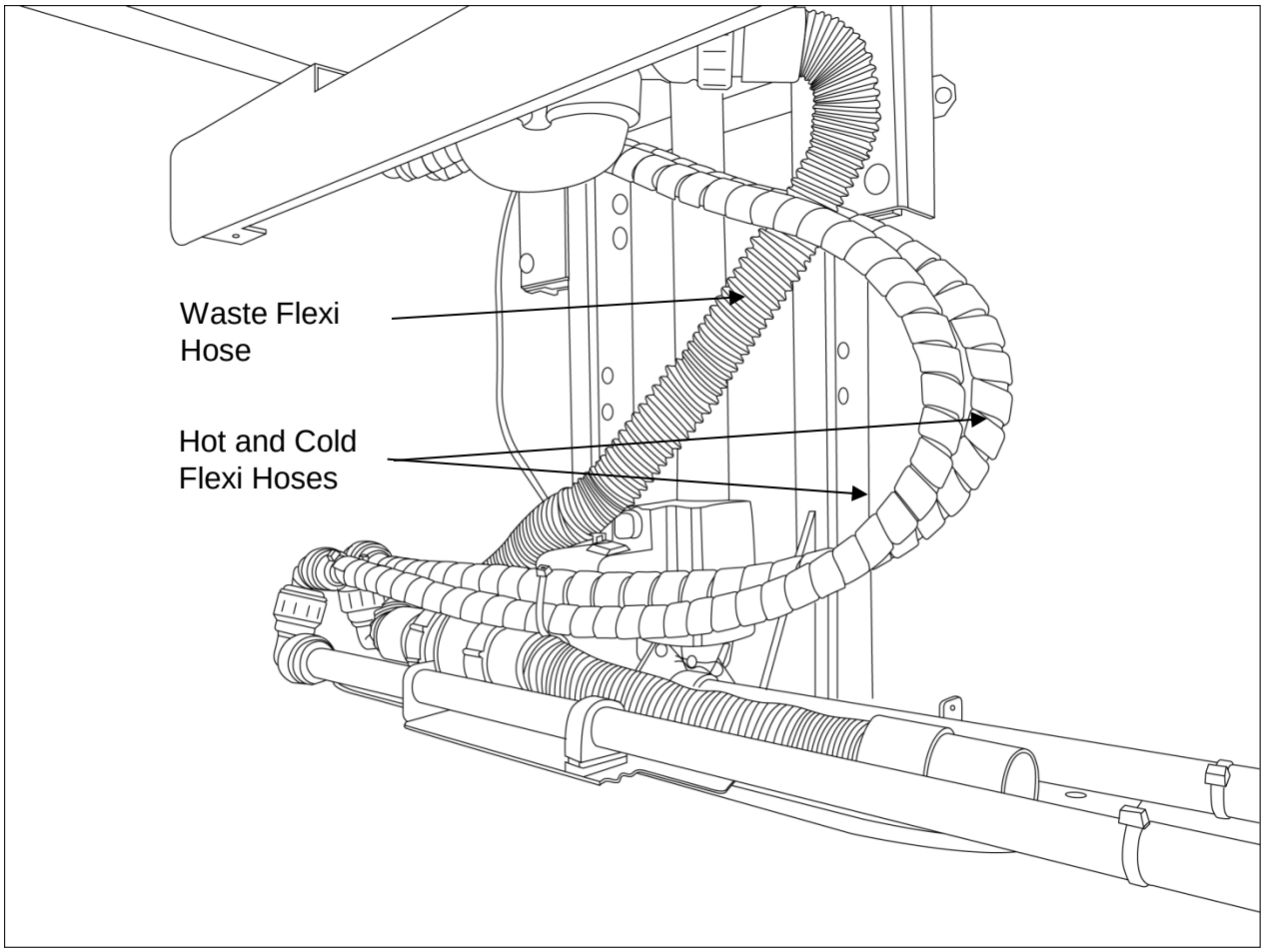
Bath Plumbing Orientation – Side Wall and Peninsula Plumbing

The water Feeds and waste outlet must be checked to ensure no damage can be caused to the pipes during use.

For the bath to raise and lower without hindrance, the Water Feeds and Waste Outlet must be correctly orientated (right handed bath shown).

Note: For left hand bath, Pipes will travel around opposite side of frame.

Please take note of the image shown, all flexi pipes should follow a continuous smooth curve. This will prevent any damage or kinking.



NOTE: **Ensure final plumbing from plumbing bracket to bath appears as shown in the image.**

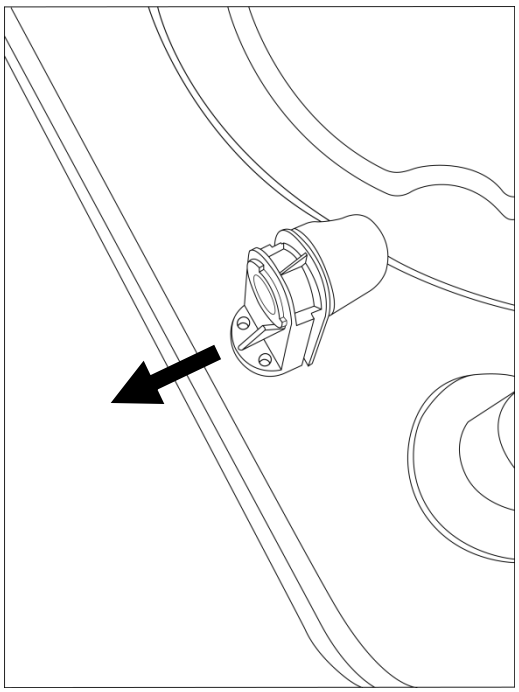
WARNING: **Plumbing the Water Feeds and Waste Outlet incorrectly may result in plumbing entrapment or kinking.**

Shower Mount Fitting (Bath with roaming shower only)

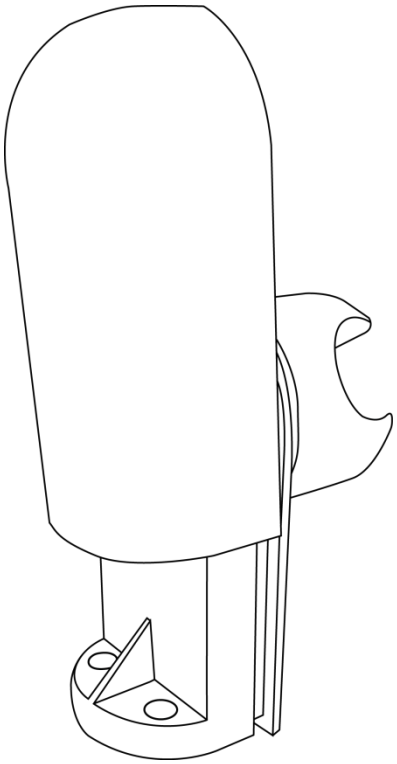
Before the bath is installed or panels fitted, the shower head mount must be fitted.

There are 2 x pre-drilled holes on top of the bath where the mount will locate.

Note: **The mount must be fitted so that the outer screw cover is facing away from the bath, as shown.**



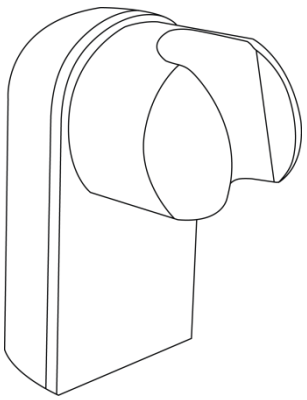
Using the fixings provided with the mount, firmly secure the mount to the bath.



Next, the mount screw cap must be fitted.

Position the screw cover over the mount from above, and when lined up correctly press down firmly.

When correctly installed the top of the cover will come flush with the top of the mount, as below



Bath Plumbing Bracket – Side wall plumbing

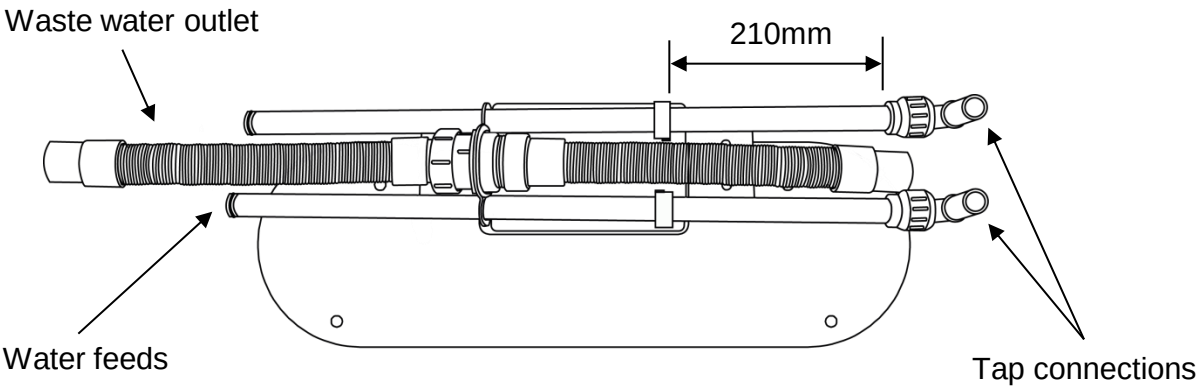
Bath plumbing connections will be made externally to the bath.

All bath plumbing is located on a bath plumbing bracket, which holds internal pipework in the correct position to prevent any interference with framework etc. Therefore it is essential that internal plumbing remains as shown below.
In some instances the plumbing bracket may be removed if necessary to help with bath installation.

To gain access to the bracket mounting bolts, slide out the water feed pipes.

If this is the case, it is critical that the bracket is checked once fitted into position to ensure there has been no movement in pipework.

It is essential that a measurement of 210mm is maintained between the stem elbows and the 22mm nylon pipe brackets as shown.



Pipework mounting bracket

When reassembling the bracket to the frame for bath installation, use the 2 x M5 round head allen bolts removed.

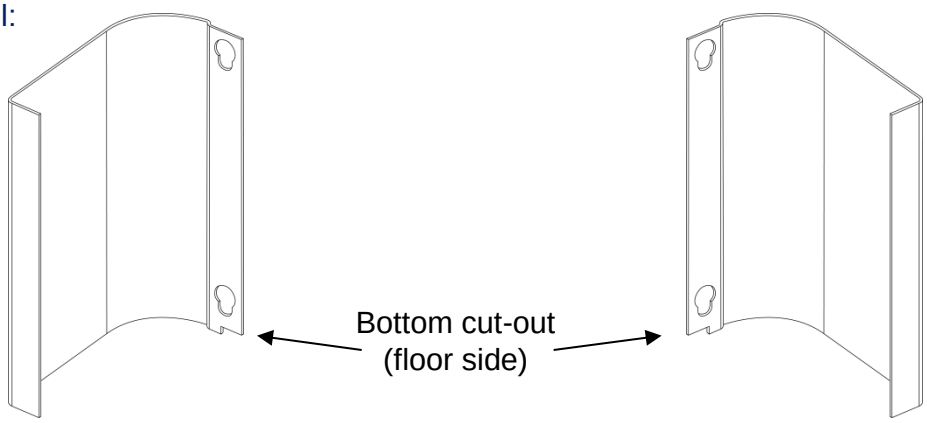
Side Wall Plumbing Feed Position

Plumbing inlet connections and waste outlet connections are located external to the bath.

In order to take the plumbing from the plumbing bracket to the outside of the bath, one of the bath foot end panels will require altering.
The panel will require holes drilling into the specified area, or a rectangle cutting out.

The panel cut-out is dependent on how the bath is handed. Plumbing will exit the right foot end panel at the tap end of the bath if the bath is left handed, and the left foot end of the bath if the bath is right handed.

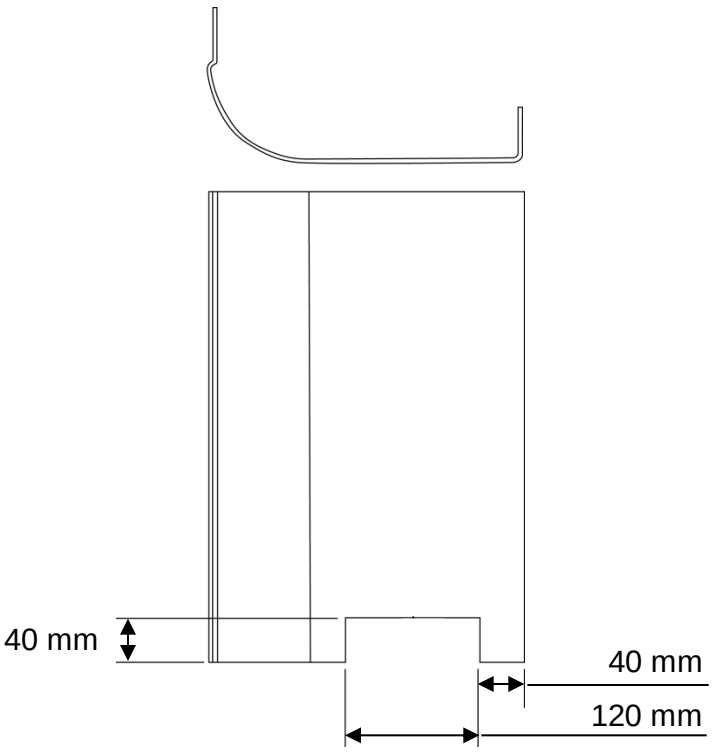
Identifying a panel:

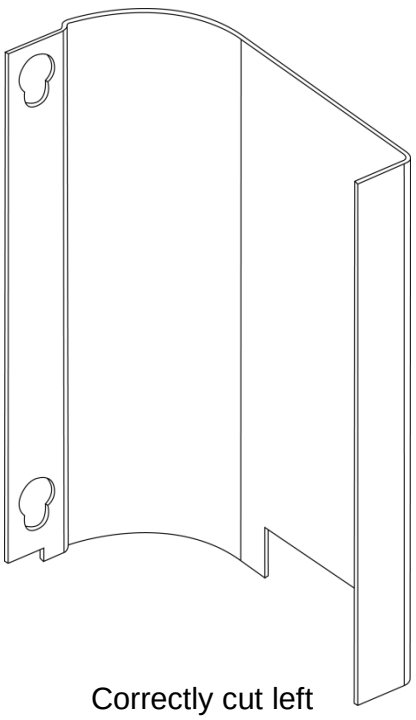


Right foot end panel

Left foot end panel

Once the foot end panel to cut has been selected, use the information below to correctly mark out and cut the panel.





Correctly cut left foot end panel

Bath Plumbing Bracket – End wall plumbing

Bath plumbing connections will be made externally to the bath.

All bath plumbing is located on a bath plumbing bracket, which holds internal pipework in the correct position to prevent any interference with framework etc. Therefore it is essential that internal plumbing remains as shown below.
In some instances the plumbing bracket may be removed if necessary to help with bath installation.

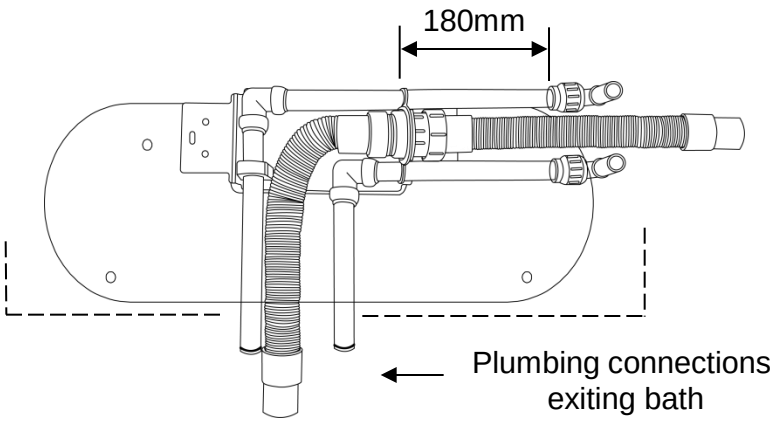
One mounting bolt will be visible, however to gain access to the second mounting bolt remove the waste flexi (S-trap side).

If the bracket is removed, it is critical that the bracket is checked once re-fitted into position to ensure there has been no movement in pipework.

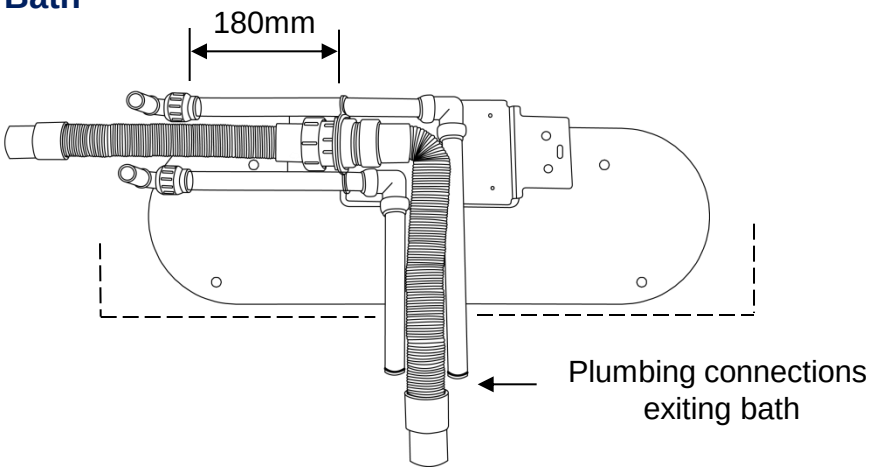
It is essential that a measurement of 180mm is maintained between the stem elbows and the 90 degree pipe manifold.

Note: failure to reinstall the bracket correctly may result in damage to the bath plumbing.

Left Handed Bath



Right Handed Bath



When reassembling the bracket to the frame for bath installation, use the 2 x M5 round head allen bolts removed.

End Wall Plumbing Feed Position (Peninsula)

Plumbing inlet connections and waste outlet connections are located external to the bath.

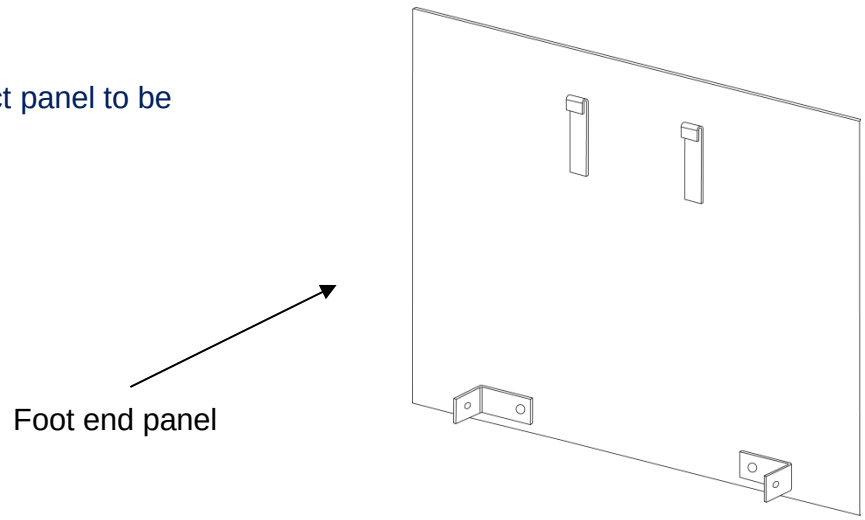
In order to take the plumbing from the plumbing bracket to the outside of the bath, one of the bath foot end panels will require altering.

The panel will require holes drilling into the specified area, or a rectangle cutting out.

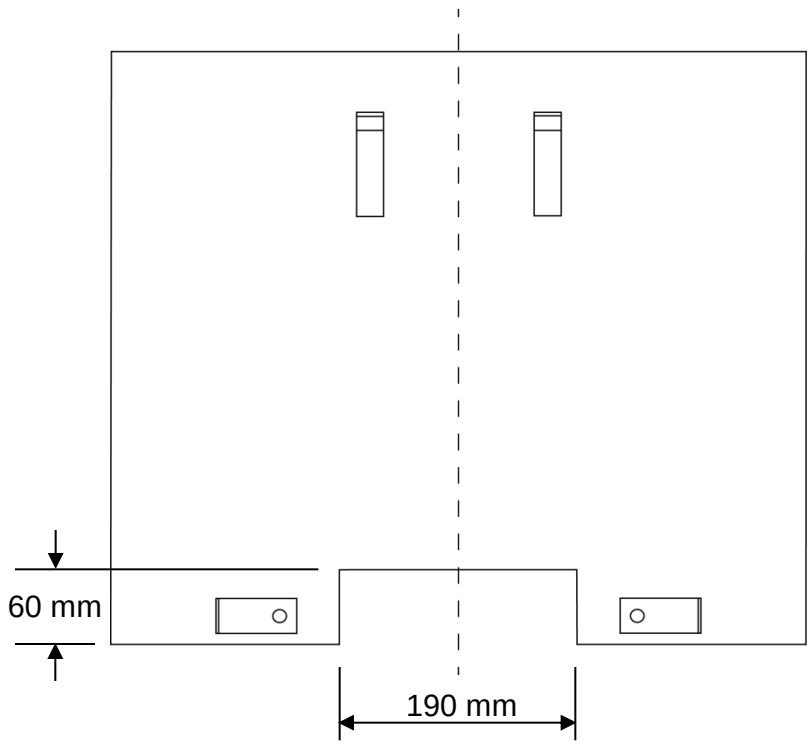
Please note: the bath will come with 2 x identical foot end panels, **only one panel will require a cut-out** (to be fitted at the tap end).

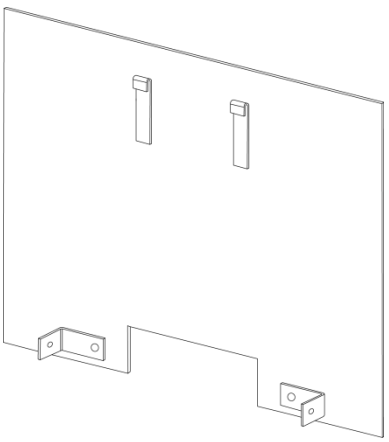
Panel cut-out

Firstly identify the correct panel to be marked and cut.



Once the foot end panel to cut has been selected, use the information below to correctly mark out and cut the panel. Clean up and tidy any sharp edges with sandpaper.



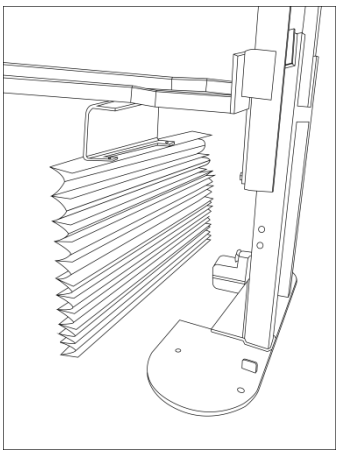


Correctly cut foot end panel

Bath Panel Fitting and Installation

With the bath now reassembled and ready to be fitted, the bath panels can now be fitted ready for installation.

Be sure that the bath has been raised to the highest position. **Not doing so will hinder installation and may lead to potential damage**.



Step 1

Fit the bellow to the underside of the base frame using the 2 x M5 Button head bolts provided.

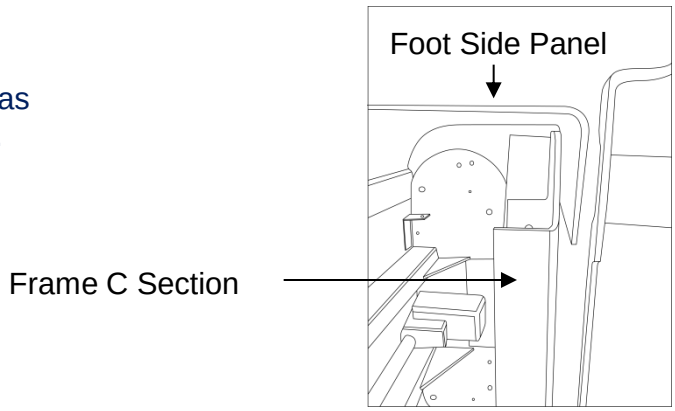
Note: plastic inserts in baffle should face end of bath.

Repeat for opposite end of bath.

Step 2

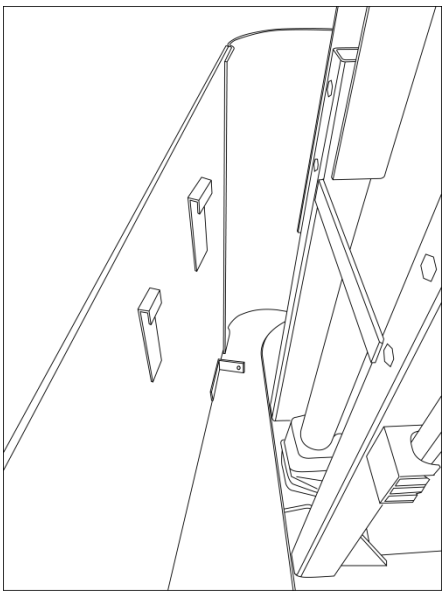
Side wall plumbing: Take the foot side panel which was previously cut, and position wall side of foot the where plumbing will exit. The panel should follow the contour of the foot plate. Position so that the bellow fits correctly in the bellow slot in the panel.
End wall plumbing: Position either side foot side panel at the tap end of the bath. The panel should follow the contour of the foot plate. Position so that the bellow fits correctly in the bellow slot in the panel.

With the foot side panel not in place, ensure it has correctly been fitted behind the frame C section.



Step 3

Take a bottom end panel (with cut-out if peninsula) and put in to position next to the foot side panel.
Rest the bottom edge of the panel on the floor for now.



Be sure that the lower fastmount fits through the larger hole in the foot side panel, and lower the panel.

Snap the top fastmount fixing into place by pressing firmly.

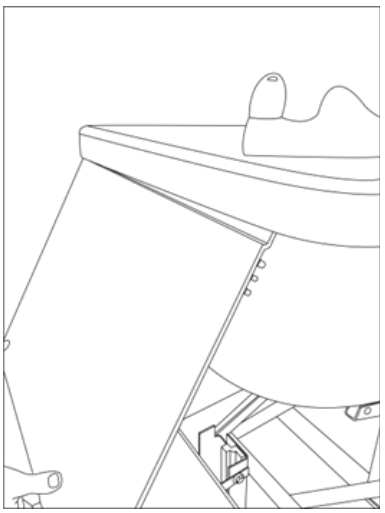
Notice the top hooks on the end panel.
Lift the panel slightly and press forwards hooking the panel onto the frame.

Step 4

Repeat steps 2 and 3 for the opposite end of the bath, but still wall side.

Step 5

Introduce the tap end upper end panel to the bath at an angle of approx. 45 degrees, and slip the panel edge under the bath lip.

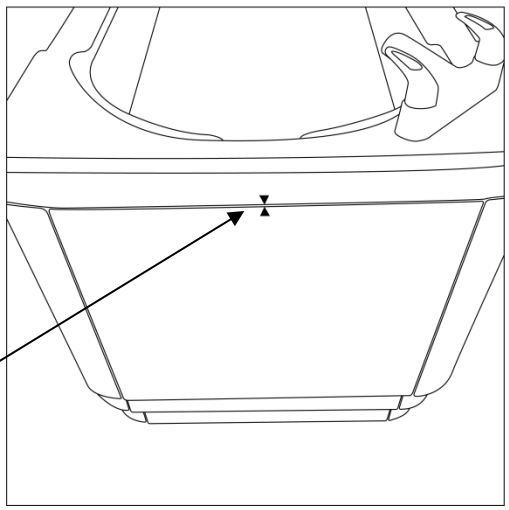


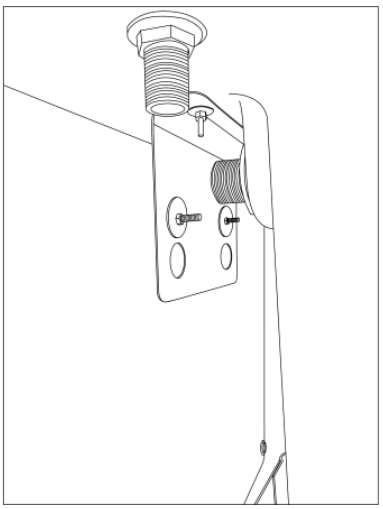
With the panel edge still under the bath lip, press the panel forwards checking that the panel bolts line up with the panel fixing bracket attached to the bath.

Once the panel is in place, retain the panel using the 1 x M6 washer and 1 x M6 hex nut per bolt. (Do not tighten).

The bath and top end panels come with central locating points, match up these points to correctly align the panel.
Note: these panels are not handed!

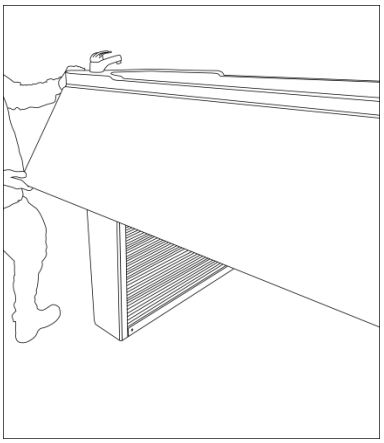
Once satisfied with panel positioning, tighten both nuts to secure the panel.





Step 6

Repeat step 5 for head end upper end panel.



Step 7

Offer the wall side upper side panel up to the bath at an angle of approximately 45 degrees.

Insert the panel edge under the bath lip. In one motion, apply slight upwards pressure as the panel is being pushed flat. This will ensure the panel edge seats properly under the bath lip.

Firmly press together the 2 x fastmount fixing found at the bottom corners of the panel (1 at each end).

Step 8

Repeat step 7 for the user side upper side panel.

Step 9

With upper panels fitted, check all panels are aligned correctly.

Step 10

Remove the user side upper panel.
This will improve access for securing the bath and fitting user side foot end panels.

Step 11 - Bath Fixing – CRITICAL

See the Floor Fixing on page 24 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.

Slide the bath into final position with all floor marks lined up with the foot plate holes as best as possible.

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 through the foot plate, ensuring they are into a **solid construction**.
Clean out the holes using a vacuum cleaner, using the correct floor installation fixings tighten appropriately.
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 and spaced correctly.

Step 12- Water feed and waste connections

Using the flexible pipes provided connect the hot and cold feeds coming from the wall to the intake pipework protruding form the tap foot end. This may require additional connections and plumbing depending on where the plumbing is fitted on site.
Connect the waste flexible pipe coming from the bath to the waste outlet exiting the room.

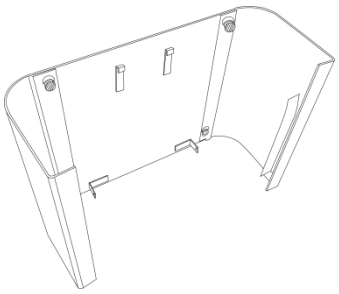
Step 13 – Electrical connection

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 on page 12.
The handset should be plugged into the bath port located on the side of the bath.
Ensure the lead retaining clip is refitted once the handset has been connected.

Step 14

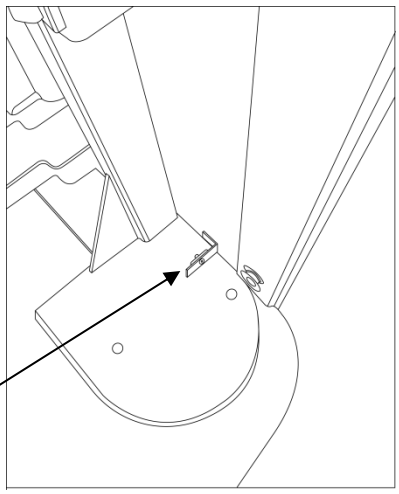
Correctly fit both user side ‘foot end side panels’.

Note: The image is for reference only, and shows a complete assembled foot end panel set.



Step 15

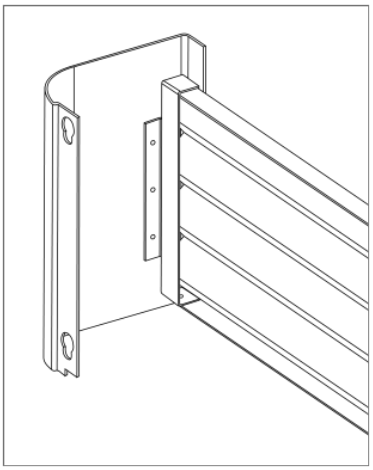
With the 2 user side foot end panels now in place, secure to the foot frames using 2 x M5 round head allen bolts. (1 per panel).



Step 16

With all foot end panels securely in place, once again check the positions of the foot end bellows, and make sure they are correctly seated in the bellow channels.

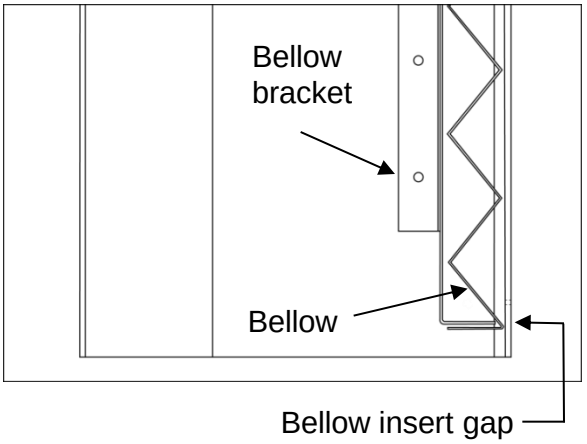
Note: As the bellows have been compressed for an extended period of time, they may require pulling down slightly before the next step.



Step 17

Ensure the last flap of the bellow is tucked through the small gap between the panel and the bellow bracket.

This will be further secured in the next stages.

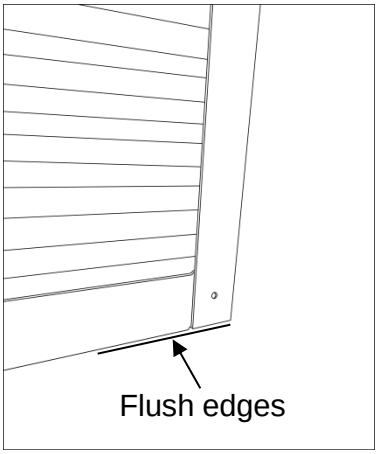


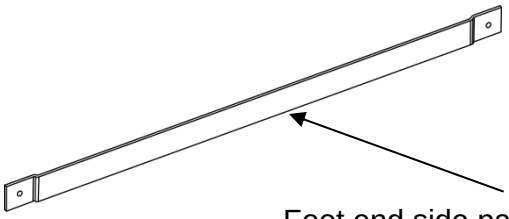
Step 18

Next, the foot end side panel braces must be fitted.

Starting at the tap end, insert the brace between the 2 foot end side panels.

When fitted correctly the holes in the cross brace will line up with the holes in the foot end side panels, and both bottom edges will be flush.





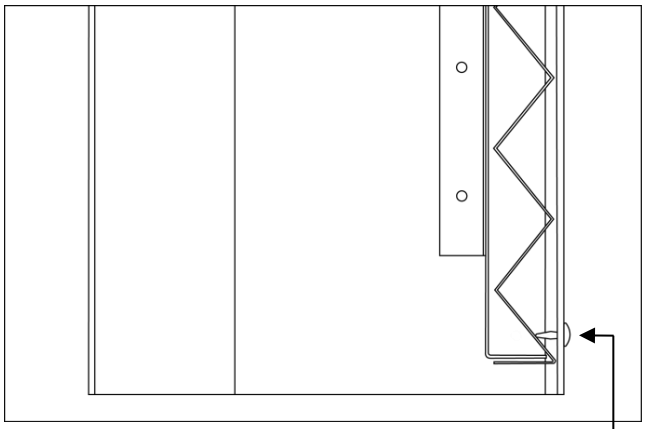
Foot end side panel cross brace

Step 19

The cross brace and bottom of the bellow now need fixing into place.

Insert the plastic bellow push rivets through the 2 holes in the front of the cross brace.

This will lock the bellow into place preventing any lifting.



Step 20

Repeat steps 18 and 19 for the head end of the bath.

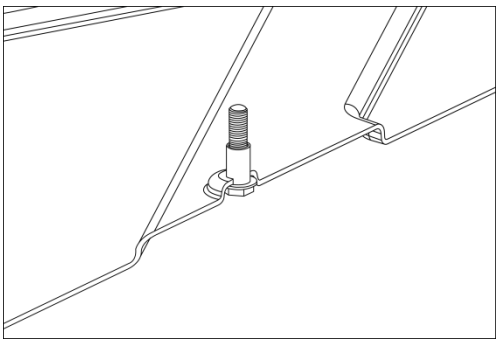
Step 21

The Safety edge panel will now require fitting.
Raise the bath to the highest position, allowing maximum clearance beneath the base frame.

In the dispatch kit, locate 4 x ‘M10x 40 Hex bolts’, 4 x ‘M10 washers’, and 4 x safety edge spacers.
Note: There are 2 different length spacers required. Longer spacers (with central ring detail) require fitting head end, Shorter spacers require fitting foot end.

Short Spacer  Long Spacer 

Prepare the bolts by placing a washer over the thread, followed by a spacer. Do this on all 4 bolts.



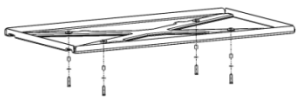
Position the safety edge under the base frame, and insert one of the bolts through one of the holes as shown.

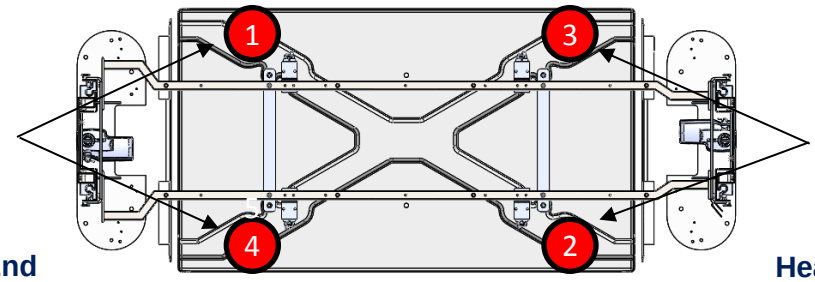
Line up the bolt with the corresponding M10 rivnut in the underside of the base frame, And begin to screw in.

Once finger tight, continue to hold the panel up, and fit a bolt diagonally to the one first fitted. This will them allow the panel to be released. Screw in until finger tight.

See ‘Sample Bolting Pattern’ for suggested bolt fitting pattern.
The panel can now be released. Fit the remaining 2 bolts

Sample Bolting Pattern





Shorter Spacer

Longer Spacer

Foot End

Head End

USER SIDE

Tighten all 4 bolts using a suitable 17mm socket. The spacers will give the correct spacing between the panel and switch surfaces.
Once the panel has been fitted, check that it is sliding freely in the spacers and is activating each switch individually.

Step 22

After checking that all panels are correctly fitted and are well aligned, it is time to begin testing the bath. See page 32.

FLOOR FIXING

Bath Foot plates – fixing holes. See template on page 17 for hole positions.

Holes marked in Red with '**IMPERATIVE'** must have a firm fixing made to the floor.

Holes marked in Blue with ' **SECONDARY**' are also recommended to be used to further secure the bath to the floor, however they are not critical. If used, further fixings will be require.

RIGHT HAND BATH – SHOWN

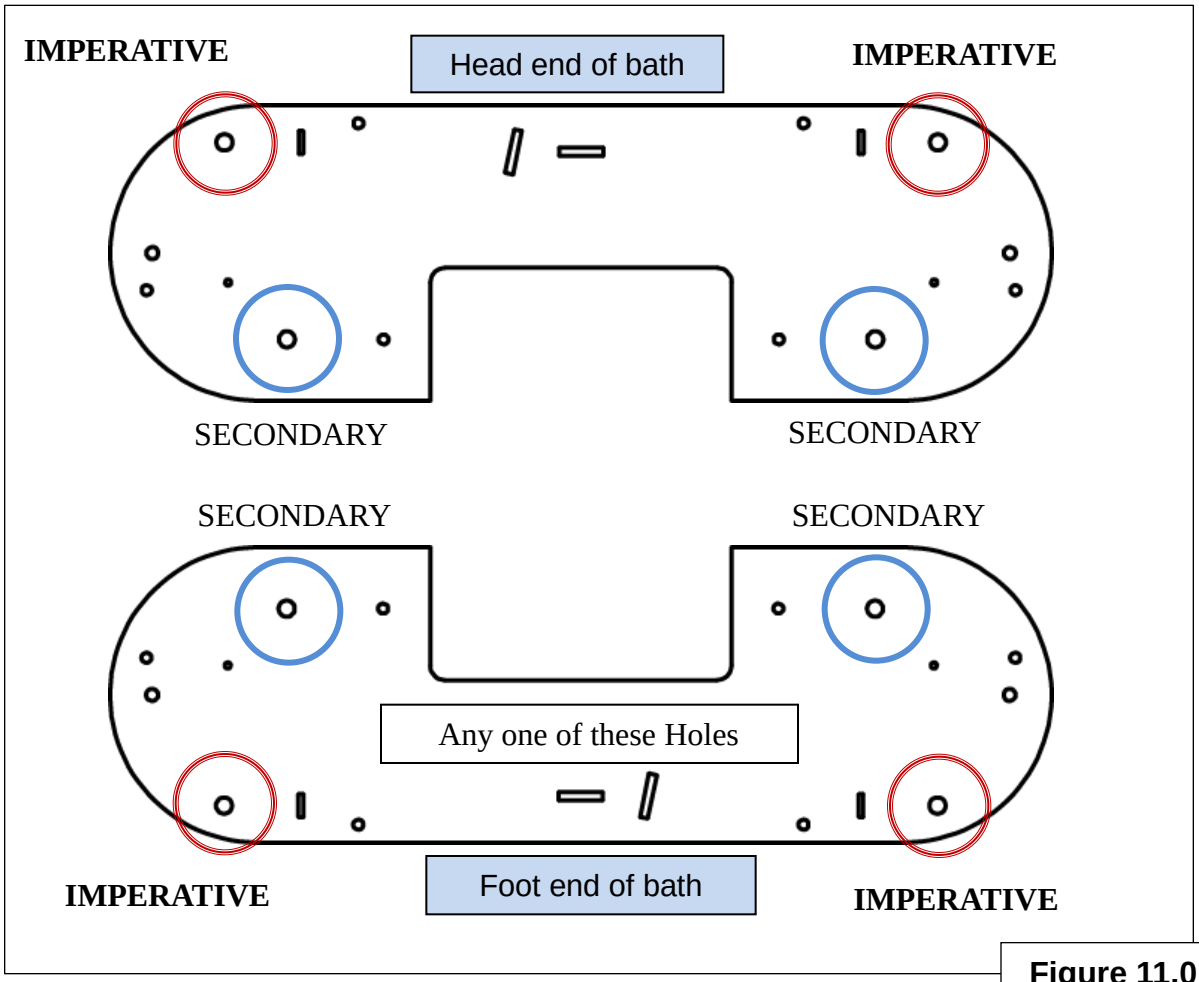


Figure 11.0

Description	Qty	Floor Type
M8 x 60 Hex Head Coach Screw	4	Concrete/Composite
M8 x 40 Hex Head Coach Screw	4	Wood/Floorboard
M10 x 50 Nylon Plug Type E	4	
M8 Form C Washer - BZP	4	

*Sleeves will not grip unless the hole is cleaned out first.
Ensure washer is placed between Fischer screw head and foot plate to protect the painted surface.

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.

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.

SAFETY EDGE TEST

Once the safety edge panel has been fitted, it is important to check that the panel is correctly activating all 4 switches independently.
To do this, ensure the bath is fully powered up, and the bath is in the highest position.
Begin to lower the bath using the handset by pressing and holding the bath down button.
Next, starting at one corner, whilst the bath is still in motion press up on the panel to activate the switch.

Note: When pressing up on the panel make sure force is applied near the very corner of the panel. This will ensure only the switch in that corner is activated.

When working correctly the bath will stop. Repeat this process on all four corners.
Once satisfied that all switches are working correctly, move on to the next stage.

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.

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.

TROUBLE SHOOTING

Some basic checks are detailed below.
If in doubt contact service support on 01527 400024.

Bath Does not move

- Check Power.
- ➢ Check Spur Fused to ensure there is power is to the unit.
- ➢ Ensure the RCD is working and has power to it. To test the RCD push the test button; the RCD should interrupt power and the switch should trip. Push the RESET button; power should be restored. If the RCD 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).

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. Adjust panels as necessary to correctly align.

CLEANING INFORMATION

The Aries 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.

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.