Better Whirlpool Systems from Pegasus Whirlpool Baths Ltd
Pegasus self fit whirlpool kit fitting instructions for Neptune systems

USER INSTRUCTIONS
The Pegasus Whirlpool system has been designed to be able to fit any bath without putting any stress on the bath whatsoever. Jets can be placed to give the customer both aesthetic appeal and maximum hydromassage. To achieve this, jets will usually be located laterally within 1.5" of the desired position, even when up against obstructions such as bath legs - something which can not be achieved with conventional whirlpool systems without placing a lot of stress on the bath or modifying the manufacturer’s legs.

IMPORTANT NOTES
To ensure that you get the best out of your whirlpool system, please take the time to read these instructions fully before attempting to start to fit the kit.

When gluing pipe to venturi and manifold be sure that only the exterior surface of the plastics are glued and not the pipework. Take care not to allow glue to get into the interior surfaces or the pipework as this will seriously reduce the performance of the whirlpool system.

When fitting the pump fixing bar to the Base-board of bath be sure to check the length of the screws. The screws supplied are for 3/4” thick encapsulated baseboards.

BASIC OUTLINE OF FITTING PROCEDURE
1. Check the bath for damage and defects.
2. Fit legs & pump to bath using fixing bracket’s and screws.
3. Determine position of jets, suction, controls and Lights taking care to look for obstructions.
4. Determine the position of ‘Gel Pad’ control. Ideally the air feed needs to be mounted on a corner of the bath to allow the pipework to be fitted easily under the rim of the bath by the Hartford Loop.
5. Drill the holes - slowly and carefully.
6. Install all the fittings onto the bath.
7. Connect the pipework between the manifolds and venturi ensuring that all fittings are cleaned with MEK and glue is only applied to the external surfaces of the components - Not to the inside of the pipe or venturi. Ensure pipes are connected to the correct manifolds.

Please Note: When gluing the rigid suction pipe, joints can be glued on both surfaces to ensure adhesion.

Please Note: The supplied suction pipe has been supplied with one end swaged to facilitate gluing over the Plain suction elbow.

8. Watertest the finished product before final installation.

Please Note: If you have any doubts about any aspect of fitting this system to any bath, ring our installation support line 01633 244555/07785 774411 (out of hours) before you start - We are there to help you get it right - first time.

RECOMMENDED ADHESIVES
1. Weld on 725 WET ‘R’ DRY plastic pipe cement or Wurth Solvent Cement.
2. MEK Solvent cleaner
3. Dow Corning 785 White silicone

TOOLS REQUIRED
You will require hole-saws of 27mm (for the Jets), 41mm (for the light/s) and 44mm (for the suction) - (may be purchased separately). Also a power drill, silicone gun, tape measure and a Phillips head screwdriver. We supply in the kit a tube of silicone sealant and a tube of Solvent Weld.

Please Note: If you use our hole saw kit to drill the holes for the jets, you will need to use the 1” hole saw and carefully enlarge the holes with a file to accomodate the jet.

Hole sizes are 27mm for the Jets and usually 44mm for the Suction. The Diverter requires a 32mm hole. The Neptune control will require a narrow slot to be cut in the rim of the bath to allow the cable to pass through to the underside. Please check all fittings before drilling as our policy of improvement and adaptation can vary the size of products used.

DETAILED FITTING INSTRUCTIONS
1. Checking the bath for damage - before drilling!
   a) Carefully remove the manufacturer’s wrapping and any cautionary labels from the bath.
   b) Check corners not cracked or broken.
   c) Check that the lip of the bath has been cut cleanly and is not chipped.
   d) Rub the bath over with a dirty, wet duster looking carefully at places where the dust collects in lines. Determine if these lines are scratches which can be easily polished out, or worse, cracks caused by transit damage.
   e) Check that the waste hole is central in the recess.
   f) Check that the tap-holes are correct.
   g) Check that the bath is true and not warped.
   h) Check that all the legs and fixing brackets are present - including screws.
2. Fixing the legs & the pump to the bath.
   a) Read through the manufacturer’s installation instructions for the bath
   b) Place a dust sheet on a table turn the bath upside down on this sheet and fit the legs and feet to the bath carefully following the manufacturer’s instructions. Leave the bath upside down on the sheet.
   c) Assemble the threaded bar to the pump mounting Plate and Pump bar using the nuts provided
   d) Assemble the pump to baseplate using the four nuts and bolts provided.
   e) Assemble the outlet manifold and the suction inlet to the pump using the unions provided. Install the “O” rings in the Unions Before screwing them onto the pump. The pump tee will need to be glued into one of the pump unions - ensure that the Collar is on the union before gluing the Tee in place.
   f) Offer the pump up to the bath (stil- upside down) and find a position where the pump is central and within the confines of the bath. Be careful to take into account the length of the outlet manifold and any wooden panels which may be subsequently fitted to the bath.
   g) Secure the pump and bracket to the bath using the five screws provided. Important: The screws have been designed to secure the Pumpstand to baseboards with a thickness of 3/4” - check the length of the screws against the thickness of the baseboard before attempting to fix the pump stand to the baseboard. A good guide to the thickness of the baseboard is the...
length of the screws supplied to fix the legs to the bath! - if in doubt use shorter screws. Under no circumstances attempt to fit the Pumpstand to a bath manufactured from GRP - GRP Baths do not have baseboards.

h) Offer the pump up to the bath (still upside-down) and find a position where the pump is central and within the confines of the bath. Be careful to take into account the length of the outlet manifold’s and any wooden panels which may be subsequently fitted to the bath.

g) Secure the pump and bar to the bath using the five screws provided.

Important Note: The screws have been designed to secure the pump-stand to baseboards with a thickness of 3/4” - check the length of the screws against the thickness of the baseboard before attempting to fix the pump stand to the baseboard.

Important Note: Under no circumstances attempt to fit the Pumpstand to a bath manufactured from GRP - GRP Baths do not have baseboards.

Hint: A good guide to the thickness of the baseboard is the length of the screws supplied to fix the legs to the bath! - if in doubt use shorter screws.

3. Position the jets, suction and controls.
   a) The number of jets to be fitted and the shape of the bath will usually determine the jet positions.
   b) Jets are normally equally spaced along each side of the bath but can be fitted on any flat surface. 10 and 12 jet systems are usually fitted with back jets and feet jets. These jets can be positioned lower in the bath than the side jets. Back jets are usually positioned as low as possible.
   c) Ensure positions chosen allow sufficient room for the venturi (watch out for bath support legs) and that the venturi will not interfere with the sitting of the pump.
   d) The suction is best fitted in the middle or toward the foot end of the bath, so that it is not close to the body of the bather.
   e) The difference in height between the jets and suction fitting is important to ensure that the maximum amount of water drains from the system after use.
   f) The suction is the lowest fitting in the bath and should be placed as low as possible on a flat surface. (See Fig. 05).
   g) The centre line of the jets should be 55-60 mm. above the centre line of the suction. (See Fig. 05).
   h) Note that the water level will need to be some 35mm. above the centre line of the jets. Check that the water level will be below the overflow. (See Fig. 05).
   i) Mark all the positions with a felt-tip pen,

4. Position the height of the pump.
   a) The pump inlet must be a fraction above the plain suction elbow, what we are looking for is a slight, gentle angle from the pump to the elbow, this ensures that water flows downhill as the bath is emptied, into the elbow and out. If the pump is too high, it will not prime and if it is too low, it will not drain the water.

Please Note: If you have purchased a special pop-up waste from us the drain will go to the waste so the pump can be mounted lower.

b) If the pump is too high, it will not prime.
   Too low and it will not drain when the bath is emptied. Remember that the water hose is to be connected to the water manifold.

5. Position the controls.
   a) The ‘Gel Pad’ control & 3 way diverter (if Spa jets also specified) should be fitted to the top surface of the bath. The Gelpad can also be wall mounted if the tiles are smooth.
   b) Check that there are no obstructions under bath before drilling especially if a 3 way diverter control is being fitted.

Important Note: Always allow for access to the controls, especially the ‘Gel Pad’ control.

6. Drill the holes.
   a) Before drilling the holes, re-check all positions, ensure that the bath legs, panel, pump, fixing battens, etc. will not obstruct fittings or indented hose runs.
   b) Using the correct size hole cutter, drill the jet and suction holes from the front of the bath. Always drill away from your body, if this is not possible, a body shield must be used. Drill slowly and carefully, taking care not to let the drill slip and ensuring the correct size hole-saw is being used. Once all the holes are drilled, go round each one with a file and remove any burrs that may have been left by the drilling process. Wipe off any excess pen marks and dust using a Meths moistened piece of tissue.

Important Safety Note: Always point the drill away from the body when drilling holes - NEVER drill towards your body without a body shield.

c) Back file the holes with a small round hand-file to clear any burrs and unevenness left by drilling the hole.

d) Clean off the excess pen marks and dust using a tissue dampened with meths. Pay particular attention to clean immaculately around the holes as dust may hinder the effectiveness of siliconing the wall fittings to the bath!

7. Install the whirlpool fittings onto the bath.
   a) The fixing tool and an 8mm allen key are now required to install the fittings to the side of the bath.
   b) Apply a band of silicone sealant around the wall fitting shoulder of the venturi and the wall fitting. (See Fig. 13).
   c) Using the allen key, fit the Venturi to the bath with the pipes at 45 degrees approximately above horizontal pointing towards the pump.

Important Note: Do not overtighten as damage to the Venturi could result.

d) Repeat the above operation for the remaining wall fittings and clean off any excess silicone sealant. The other lengths of the suction may also be swaged in order that they can be glued together to form a longer length. If you need to fit an elbow, simply cut the swaged part off.

Please Note: The wall fitting with two holes in the face is the suction wall fitting.

8. Install suction elbow and hose.
   a) Place a bead of clear sealant around the shoulder of the suction wall fitting and the flange of the suction elbow and assemble the suction fitting. Important Note: do not overtighten.
   b) Measure and cut to length the suction pipe and glue to the suction and pump elbows using the adhesive - The suction pipe is swaged at one end to glue over suction elbow.
c) Clean off any excess sealant.

9. Connect the pipework to the manifolds.
a) Starting at the jet closest to the pump, measure the length of water and air hose required to connect the Venturi to the water and air manifolds. Glue the hose to the Venturi, gluing around the spigot only, using the adhesive.

Important Note: Only glue the exterior of the venturi - not inside the pipe!

b) Hose should be taut, but not stretched and with a fall either to Venturi or pump without sagging.

c) Ensure water pipe is connected to pump manifold and air pipe to air manifold. The air manifold is connected to our Hartford loop and a non return valve and then by a piece of convoluted pipe and hose cuffs going down to the blower which can be mounted under the bath. The Harford look needs to be installed under the rim of the bath.

10. Fix the drain line.
a) Cut the 10mm nylon tube to length & secure between the pump & the whirlpool pop up waste valve (if purchased).

11. Fit the suction cover.
a) Secure the suction cover to the wall fitting using the screws provided.

12. Neptune Control Wiring
a) Follow the wiring diagram located on top of the control box lid. Ensure that the cable is not stripped too far back so that bare wires may touch. Ensure that cable glands are tightened onto cables sufficiently.

When connecting the control ribbon to the cable from the box, ensure that the two coloured parts are on the same side.

Important Note: Do not allow pump to run without water in the bath as damage may occur. The blower may be run without water in the bath. The Neptune system incorporates a level sensor which is siliconed at about 35mm above the highest jet in the bath. The pump and blower will not function until the water level reaches the sensor. It takes approximately 5 seconds from the time the water reaches the sensor until the pump/blower will operate. The chromotherapy lighting is not dependent on the water level sensor and may be operated without water in the bath.

FITTING THE SPA JETS (HYDRO SYSTEMS ONLY)

1. Determine the positions of the nozzles in the bath.

a) Position the nozzles in your desired pattern... you can use straight lines, figure of eight, elliptical, two circles, the list is endless. We use two or three straight lines depending on the width of the bath (two in a straight bath and three in a corner or offset bath). Be careful to space the nozzles evenly and not in tight groups as this may weaken the structure of the bath.

b) Some people might like to leave a clear area for the seat, take care to position the jets fully on the baseboard (not half and half). The base board must be in contact with the bath at jet positions.

c) Ensure the jets will not be obscuring the leg fittings.

2. The holes for the spa jets are to be drilled out at 16mm. To seal the jet to the bath use a small amount of silicone sealant up to level of the overflow. Leave the bath until dry.

d) Activate the water pump and re check all joints.

3. The manifolds for the spa are glued into 1” tee (See picture) Glue the manifolds together (both the male and female parts must have glue applied) - Don’t forget the stop ends!

4. Connect manifold to the three way diverter by using the 1 inch rigid pipe provided. The pipe must be glued via a 90 degree elbow down to 1” tee.

5. Once the manifolds have been connected, the airpool nozzles should be connected to the manifolds using the 8mm flexible tube which will need to be glued using ABS/PVC adhesive. When gluing pipe onto the manifolds, only the manifolds need to be glued - do not glue inside the pipe or it will restrict/block the flow of air.

Please Note: that we recommend connecting each jet individually for best performance.

7. Position the blower unit so that after bath has been installed the blower will be inaccessible to persons using the bath.

8. Measure and cut to length the convoluted pipe and screw on the cuffs. (Maximum length 1.5m).

Please Note: Seal the convoluted pipe and the cuffs with a bead of silicone before assembling. Joints made onto the Hartford loop should be siliconed and screwed - do not glue as the Hareford loop is not suitable for glue.

9. The system should be fully tested with water before final installation. The system then needs to be tested working with the pump and the blower working.

10. The electrical connections should only be entrusted to a qualified electrician, and made to existing local standards. In the UK this is governed by the latest edition of the I.E.E. Wiring Regulations. A suitably qualified person with Part “P” qualification may also be able to make the connection and provide a completion certificate.

11. Testing the system
a) Ensure all debris is cleared from bath.

b) Fill with water to a level of three inches above the jets.

c) Allow to stand for twenty minutes and then check to ensure that all the jets are watertight.

d) Activate the water pump and re check all joints.

e) Leave pump running for 20 minutes

f) Turn pump off and continue to fill bath up to level of the overflow. Leave the bath stand for 30 minutes again.

Important Note: Do not allow silicone sealant to come into contact with Chrome/Gold plating.
Always drill square to the bath surface. Pilot hole first if new to drilling.
Left: Picture showing Air blower safety loop connected to Turbo diverter which will direct the air between the spa and the whirlpool jets, or both!

The picture also shows our unique 4th generation pipework which is only available on systems fitted by us.

Right: Picture showing safety loop configuration for Turbo charged whirlpool system. Note that the two elbows on the safety loop are siliconed and screwed into place. Silicone is also used on the convoluted pipe where it fits into the cuffs.

Control box: Note the wiring diagram on top of the box. Note that the ribbon cable for the control has a coloured side as does the cable connector - join these two together so that the coloured parts are on the same side.

NB there is one pin exposed on the back of the connector - this is normal.

When siliconing the Water level sensor to the bath (top right), inject silicone onto the flat surface and then place on the bath at a height of two/three inches above the highest jet and move in a small circle until all the excess silicone has been squeezed out. Tape in place for at least an hour.

Up to four chromotherapy lights can be fitted.
Above: The finished pipework should look like this - note the constant downward slope and the use of the cable ties.

Left: Note the direction of the air and water manifolds.

Below right: It is usually easier to push the wall fitting through the bath and screw the venturi on from the back.

Bottom right: Finally, gently tighten the fitting with an allen key.

Bottom left: Silicone both surfaces of the venturi before fixing to bath.

Note: Different pumps can be used with different systems depending on the specification given to us.
Helpful Pictures

Above: Note the method of blanking

**Micro-jet holesaw sizes:**

Suction: 1 3/4”
Controls: 1 3/4”
Jets: 1”

Above: Note the bottom two spigots of the air manifold should always feed the backjets to ensure the air manifold drains after use!

Above: Always glue the manifold not the pipe - Take care not to block any spigots with glue - especially when gluing the stopend

Above: The design of the Pegasus system allows the jets to be placed unobstructed on the back of the bath
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LEFT: The height of the pump can be easily adjusted for height once fitted to the bath.

RIGHT: Drill the holes with both hands on the drill and well supported. Drill slowly and rotate the drill slightly while drilling so as not to burr the edges of the hole.

LEFT: This bath doesn't have alot of space at either end to fit a pump within the confines and the panel. to achieve what the customer wanted which was to fit a panel we supplied an AP 45 pump and a whirlpool draining waste. The pump had to be mounted low to achieve getting within the confines. When the bath empties all the water in the pipework drains to the pump, and then drains from the pump to the waste.

RIGHT: Check your measurements thoroughly and then double check again!

LEFT: When marking the bath for drilling - write the size of the hole required next to the drill mark so that it is drilled to the correct size!
FITTING THE SPA JETS (HYDRO SYSTEMS ONLY)

LEFT & ABOVE: Close up view of the fitted spa jets from underneath the bath.

BELOW: Blower loop configuration for Neptune with spa.

ABOVE: Blower loop configuration for Neptune without spa.

RIGHT: Add on turbo diverter configuration for Neptune with spa.

Please Note: that a bath waste is not normally supplied with the kit. If a waste is ordered, we will supply a drain waste with a drain to the pump & waste that will enable the pump to be mounted lower down as is the case with all Pegasus fitted whirlpool baths.