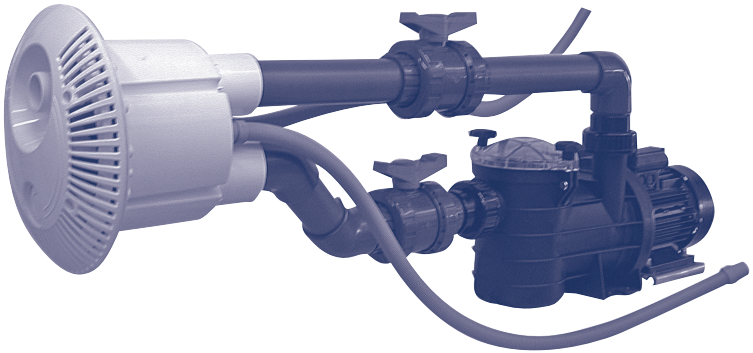
Certikin Counter Current Unit

Faceplate & Housing Assembly – information for use



IMPORTANT:

READ CAREFULLY BEFORE USE. KEEP FOR FUTURE REFERENCE.

Notice to Installer:
This document contains important information about the installation, operation and safe use of this product – this information must be read before the installation and start-up of this product. **Once the product has been installed this document must be given to the owner/operator of this equipment.**

Certikin
FLUIDRA

Important notice

A complete Certikin Counter Current Unit consists of four elements:

1. Counter current faceplate assembly, fastening flange and housing (SFBC, SFBPF or SFBL depending on pool style) – **the item referred to in this document**
2. Electro-pneumatic control box CBCC-M (1 phase) or CBCC-T (3 phase) – **supplied separately.**
3. An appropriate counter current pump and fittings kit as follows – **supplied separately.**

   P3HPK-M: Aquaspeed pump AQUA301 (1 phase) + imperial fittings.

   P3HPK-M/M: Aquaspeed pump AQUA301 (1 phase) + metric fittings.

   P3HPK-T: Aquaspeed pump AQUA303 (3 phase) + imperial fittings.

   P3HPK-T/M: Aquaspeed pump AQUA303 (3 phase) + metric fittings.

Whilst this document has necessity to reference the control box and the pump, for full safety, technical, installation and conformance information relating to those items please refer to the individual information for use provided with those items.

This document does however include information on making the air control and plumbing connections as these instructions are common to all combinations of faceplate/pump/control.

Table of contents

Content:	Page No:
Safety Notices	3
About the product	3 – 5
List of supplied components	5
Installation	6 - 14
Operation	14
Maintenance	15
Spare parts	15 -16
Troubleshooting	17

Safety notices

TO AVOID POSSIBLE HARM, READ AND FOLLOW THESE INSTRUCTIONS



This notice signifies a hazard with a HIGH level of risk which, if not avoided, WILL result in death or serious injury.



This notice signifies a hazard with a MEDIUM level of risk which, if not avoided, COULD result in death or serious injury.



This notice signifies an ELECTRICAL hazard with a HIGH level of risk which, if not avoided, WILL result in death or serious injury.



This notice signifies an ELECTRICAL hazard with a MEDIUM level of risk which, if not avoided, COULD result in death or serious injury.



This notice signifies a hazard with a LOW level of risk which, if not avoided, COULD result in minor or moderate injury.



This notice signifies a potential risk of damage to the product or property.

About the product

⚠ **WARNING** This Certikin Counter Current unit has been specifically designed for use as an aid for 'on-the-spot' swimming in a private domestic swimming pool environment. The unit should not be used for any other water or fluid movement purposes and should not be used in a commercial or public environment, nor should it be used to power or move any other device or object in or out of the swimming pool.

With all parts combined, and when installed and used correctly, the completed counter current unit will provide a high-quality counter stream of water which can be adjusted to suit varying swimming paces.

The directional inlet allows a 15-degree inclination in any direction and also features an adjustable air/water mixer for a relaxing bubble massage effect.

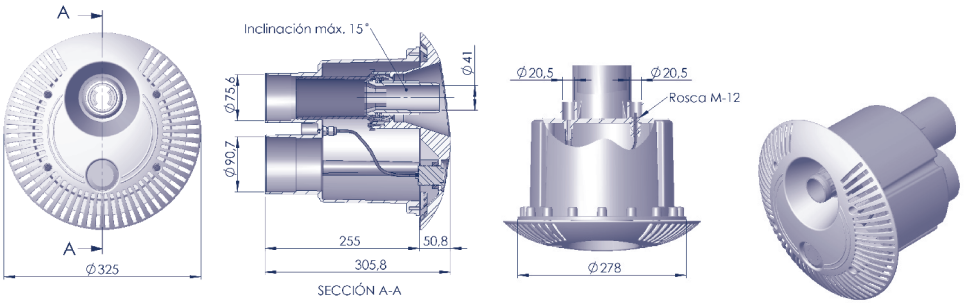
The specified control box will allow activation of the pump via the controls on the faceplate of the counter current so that full operation can be performed from within the pool.

⚠ **WARNING** The installation of this control box should be carried out in accordance with local safety and electrical regulations. Please refer to the information provided with that product.

Dimensional information

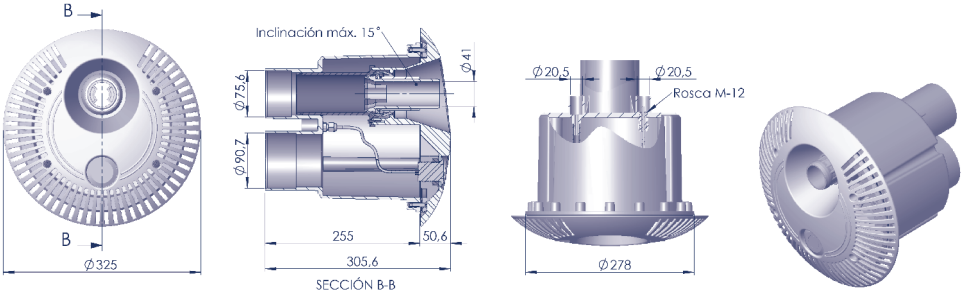
Unit SFBC (for concrete tiled pools)

Net weight 2.00kg



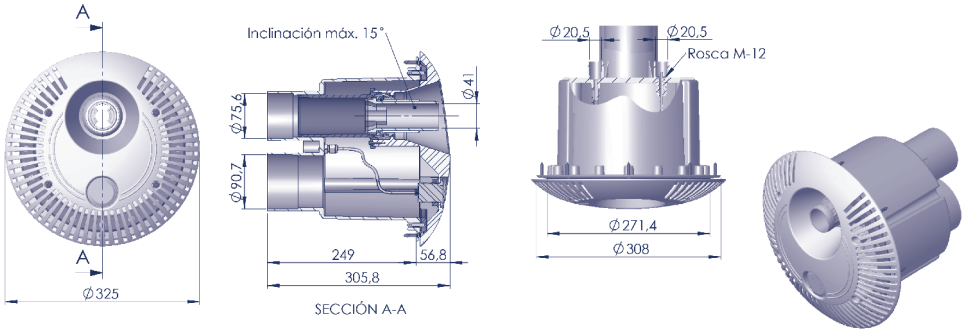
Unit SFBPF (for concrete block and liner, and prefabricated pools)

Net weight 2.40kg



Unit SFBL (for panel liner pools)

Net weight 2.40kg



Specifications (when combined as a complete counter current unit, with the above specified pumps and control, as per page 2)

- Flow Qmax – 32.5m^3/h
- Pump capacity – 3HP (2.2Kw)
- Electrical requirements – 220v (1 phase) or 380v (3 phase)
- Water suction connection – Ø 90mm (converted to 2" through supplied plumbing kit)
- Water return connection – Ø 75mm (converted to 2" through supplied plumbing kit)
- Air intake connection – Ø 20mm
- Air control tube – Ø 2mm x 3.5m
- Adjustable jet – Ø 41mm
- Max. angle of jet adjustment – 15°

List of supplied components

	SFBC	SFBPF	SFBL
Counter Current Faceplate	1	1	1
Counter Current Housing	1	1	1
Fastening Flange	0	1	1
Air supply tube (pre-installed into housing)	1	1	1
Adhesive gasket	0	2	2
Air control tube (Ø 2mm ID x 3.5m)	1	1	1
Fixing screw M6 x35	4	4	4
Fixing screw M6 x 24	0	16	16
Fixing screw 4.8 x 25	0	0	8
Information for use document	1	1	1

Installation

General observations for ALL installations:

The housing assembly should be installed during initial pool construction.

In all instances the housing assembly should be positioned so that the final placement of the ***centre*** of the faceplate nozzle is 300mm ***below*** the ***minimum*** operating pool water lever

The rear pipework connections should be aligned vertically so that the nozzle ends up in the 12 o'clock position – ***the 75mm connections goes at the top***.

The inlet end of the air intake hose should be positioned ***above*** the ***maximum*** operating pool water level (Fig 1)

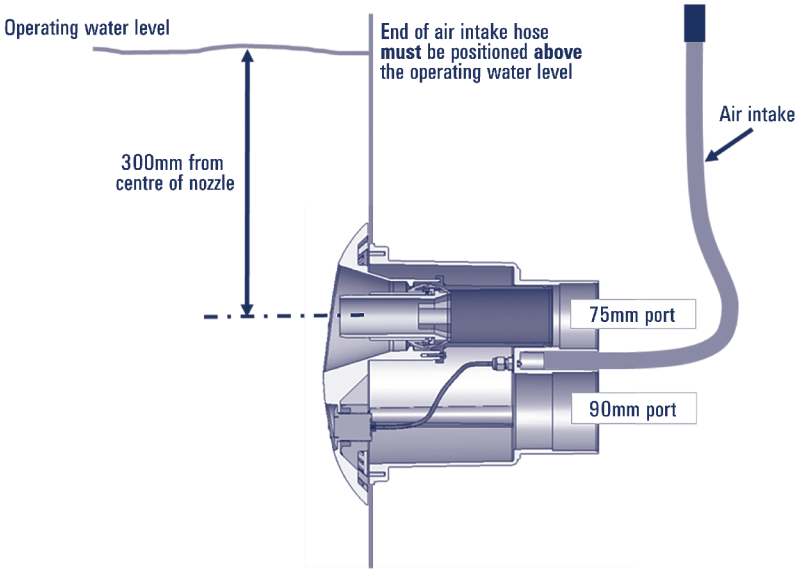


Fig 1: Final vertical position of faceplate assembly, housing orientation and air intake hose position – ALL MODELS.

Housing assembly installation (model specific)

Model SFBC:

For concrete tiled pools (Fig 2)

Cast the housing into the pool wall ensuring that the pipe connections are vertically aligned, that the 75mm connection port is at the top and that the final position of the centre of the nozzle will be 300mm below the operating water level.

Be careful to protect the internal cavity and surround anchor face from stray concrete/render.

The housing should be positioned so that the surround anchor face finishes flush with the ***final*** pool wall finish.

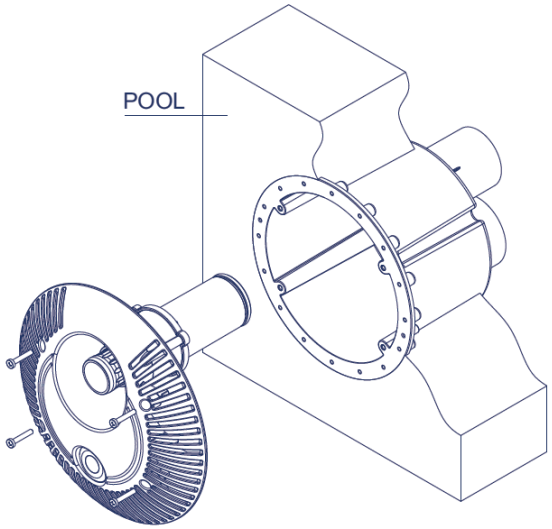


Fig 2: Installation into concrete tiled pool – model SFBC.

Model SFBPF:

For concrete liner and prefabricated pools

For concrete liner pools (Fig 3)

Cast the housing into the pool wall ensuring that the pipe connections are vertically aligned, that the 75mm connection port is at the top and that the final position of the centre of the nozzle will be 300mm below the operating water level.

Clean the surface of the housing and stick the gasket to the housing ***before*** the liner is put in place.

Ensure the liner is correctly positioned and that the pool water level is just below the height of the housing.

Clean the rear surface of the fastening flange and stick the second gasket on to it. Align the fastening flange holes with the holes in the housing by feeling and tracing their position through the liner. When the fastening flange is correctly positioned, use the 16qty M6 x 24 screws to clamp the liner in place. Ensure the liner is not pleated or folded in any areas around or beneath the fixing points.

⚠ **NOTICE** Do not use power tools to tighten up the screws – hand tighten only.

With the liner securely and evenly in position, cut the liner out from the centre of the fastening flange.

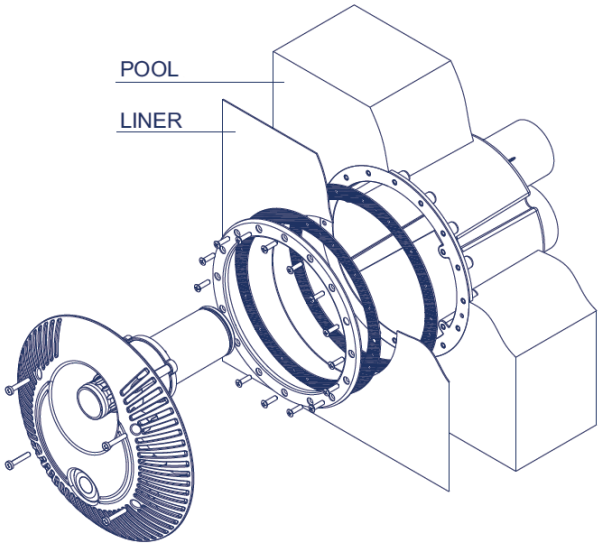


Fig 3: Installation into concrete liner pool – model SFBPF.

For prefabricated pools (Fig 4)

Locate the fastening flange onto the pool wall, positioning to ensure that, when installed, the final position of the centre of the nozzle will be 300mm below the operating water level.

Mark a line around the ***internal*** diameter of the fastening flange and mark the screw holes accordingly.

Following the line made, cut the hole in the pool wall and drill out each of the screw holes using a 7mm drill bit.

Clean all surfaces of the fastening flange, housing and pool wall (front and rear) ensuring that any rough or uneven surfaces of the pool wall which could compromise a good seal are removed.

Stick the gaskets onto the rear of the fasting flange and the front face of the housing.

Using the 16qty M6 x 24 screws, clamp the housing to the pool wall with the fastening flange ensuring that the ports on the rear of the housing are vertically aligned and the 75mm port is at the top.

⚠ **NOTICE** Do not use power tools to tighten up the screws – hand tighten only.

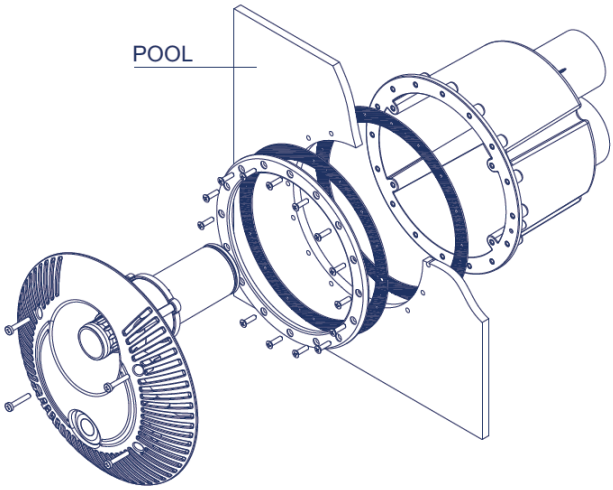


Fig 4: Installation into prefabricated pool – model SFBPF.

Model SFBL:

For panel liner pools (Fig 5)

Locate the fastening flange onto the pool wall, positioning to ensure that, when installed, the final position of the centre of the nozzle will be 300mm below the operating water level.

Mark around the ***external*** diameter of the fastening flange.

Following the line, cut a hole into the pool panel. Locate the housing into the hole and mark the position of the 8 fixing screws,

Fix the housing to the panel using the 8qty 4.8 x 25 screws, ensuring that the ports on the rear of the housing are vertically aligned and the 75mm port is at the top.

Clean the surface of the housing and stick the gasket to the housing ***before*** the liner is put in place.

Ensure the liner is correctly positioned and that the pool water level is just below the height of the housing.

Clean the rear surface of the fastening flange and stick the second gasket on to it. Align the fastening flange holes with the holes in the housing by feeling and tracing their position through the liner. When the fastening flange is correctly positioned, use the 16qty M6 x 24 screws to clamp the liner in place. Ensure the liner is not pleated or folded in any areas around or beneath the fixing points.

⚠ **NOTICE** Do not use power tools to tighten up the screws – hand tighten only.

With the liner securely and evenly in position, cut the liner out from the centre of the fastening flange.

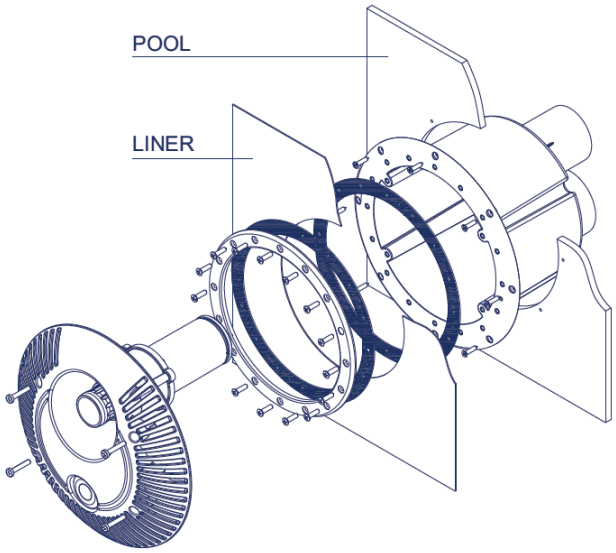


Fig 5: Installation into panel liner pool – model SFBL.

Faceplate installation (all models)

Fully unscrew the gland seal within the housing and pass 300mm of air control tube through it, from the rear into the front of the housing. Re-tighten the gland.

Firmly affix the shorter (300mm) end of the air control tube onto the rear of the faceplate push button as shown in Fig 6, Check that air flows through the tube when the button is operated.

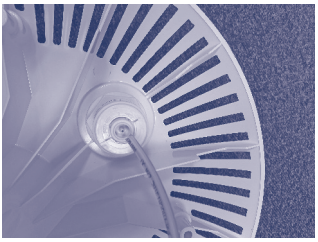


Fig 6: Air control tube attachment.

NOTE: The plumbing kit accompanying this unit includes 6m of dual purpose hose – this is to be cut in half. 3m is to be used as the 'protection hose' and 3m as the air intake hose. Each can be further trimmed to length according to final positioning.

Thread the remaining air control tube (rear of housing) through the length of protection hose and then insert and seal/glue the protection hose into the rear of the housing socket so that the air control tube is encased.

Fix the air supply tube (ready assembled onto the housing) onto the air intake spigot, on the face plate as per Fig 7



Fig 7: Connection of air supply tube from housing to faceplate.

Insert and seal/glue the length of air intake hose into the rear port of the housing. Secure the hosetail into the end of the hose with the jubilee clip and then fit the non-return valve onto the hosetail.

⚠ **NOTICE** The final position of the end of the air intake hose MUST be ABOVE the maximum operating pool water level and the opening of the tube must be protected from foreign bodies in order to allow air flow at all times.

Place the faceplate assembly into the housing, taking care not to crush the air control tube or air supply tube and secure the faceplate in place with the 4qty M6 x 35 screws.

⚠ **NOTICE** Do not use power tools to tighten up the screws – hand tighten only.

The pump – positioning and plumbing connections (Aquaspeed AQUA301 or AQUA303)

⚠ IMPORTANT NOTICE For full details, including specific safety notices, about the installation of the pump, please refer to the information for use document provided with the pump.

⚠ WARNING The pump must be installed and serviced by qualified persons only. Improper installation and servicing can create electrical hazards which could result in property damage, serious injury or death. Please refer to the information provided with that product.

⚠ WARNING A qualified electrician must carry out all electrical wiring for the pump in accordance with local electrical regulations. Please refer to the information provided with that product.

Placing the pump in a pit:

If the pump is to be placed in a sunken pit (most commonly behind the positioning of the counter current unit in the pool wall), the pit **MUST** exhibit the following features in order to provide a proper working environment for the pump and safe environment for the pool user (see Fig 8):

1. The pit must be of the following dimensions as a **minimum**:
   a. Length 1000mm
   b. Width 600mm
   c. Depth 600mm
2. The pit floor must have at least one drainage point which carries a minimum 40mm internal diameter pipe.
3. Air flow, to allow pump motor cooling, must be provided via two 125mm internal diameter open pipes.
4. There should be a clearance from the back of the motor fan cover to the rear of the pit wall of 200mm minimum
5. The pit should have a sealed/weatherproof lid which can only be unfastened and removed with the aid of a tool, in order to restrict unauthorised access.

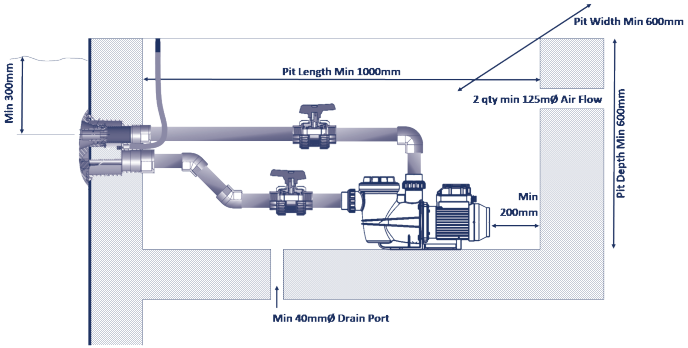


Fig 8: Pump pit requirements

Placing the pump outside a pit:

If the supply pump is to be positioned outside of a pit, please refer to instructions document CERT19 supplied with the pump, in conjunction with the plumbing instructions listed below.

Plumbing

The Aquaspeed pump used with the counter current unit will be supplied with a plumbing fittings kit which will include the required plumbing fittings (either metric or imperial depending on the model purchased) to connect the pump to the rear of the counter current housing. Pipe is excluded from this kit and needs to be sourced separately.

List of supplied components:

SPSFB/M (metric plumbing fittings kit)		**SPSFB (imperial plumbing fittings kit)**	
Item	Qty	Item	Qty
CGP063BV – 63mm Ball Valve	2	GP200BV – 2" Ball Valve	2
CGP06345 – 63mm 45° Elbow	2	GP20045 – 2" 45° Elbow	2
CGP06390 – 63mm 90° Elbow	1	GP20090 – 2" 90° Elbow	1
SPFLI28 – Protection Hose (dual purpose)	6m	GP212200RB - 2 ½" to 2" Reducer	1
SPX090PP5 – 90mm Pipe Section (500mm)	1	GP300SA – 90mm to 3" Socket Adaptor	1
SPX090063RB – 90mm to 63mm Red.	1	GP300200RB - 3" to 2" Reducer	1
SPFLAD29 – hosetail	1	SPFLI28 – Protection Hose (dual purpose)	6m
SPFLAD30 – jubilee clip	1	SPX090PP5 - 90mm Pipe Section (500mm)	1
SPFLAB30 – non return valve	1	SPFLAD29 – hosetail	1
		SPFLAD30 – jubilee clip	1
		SPFLAB30 – non return valve	1

⚠ **IMPORTANT NOTICE** If the pump is to be installed more than 1 metre from the counter current jet, the plumbing kit SPSFB/M and SPSFB ***should not*** be used. Suction and return pipework should be created and sized at 90mm and 75mm respectively and then reduced at the pump for connection – required items to be sourced separately. In all cases the pump should not be more than 6m from the counter current unit, based on straight pipe runs. This distance will reduce for every bend required (bends should be avoided where possible, and in unavoidable cases swept bends should be used).

Carefully sandpaper all pipe and fittings surfaces which are to be glued and then clean the sanded surfaces with pipe cleaner.

Glue the parts together using appropriate adhesive following the general layout schematic in Fig 9 and ensuring that the ball valves are oriented correctly:

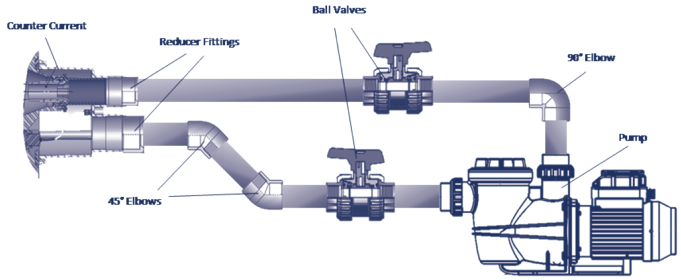


Fig 9: General plumbing layout

Electro-pneumatic connection (Control box CBCC-M or CBCC-T)

⚠ **IMPORTANT NOTICE** For full details, including specific safety notices, about the installation of the control box, please refer to the information for use document provided with that item.

⚠ **WARNING** The control box must be installed and serviced by qualified persons only. Improper installation and servicing can create electrical hazards which could result in property damage, serious injury or death. Please refer to the information provided with that product.

⚠ **WARNING** A qualified electrician must carry out all electrical wiring for the control box in accordance with local electrical regulations. Please refer to the information provided with that product.

⚠ **WARNING** Ensure that the control box cannot come into contact with water and that if it is installed in a pit with the pump then it is ALWAYS positioned above the maximum operating water level of the pool. Please refer to the information provided with that product.

⚠ **NOTICE** The control box should not be positioned more than 8m away from the counter current unit.

The air control tube (which is within the protection hose – see page 11) is to be connected to the control box. The air control tube and protection hose can be shortened as required but the tube/hose should not be allowed to fold or kink as this will restrict/stop the flow of air.

Firmly push the air control tube onto the air spigot on the base of the control box as per Fig 10.

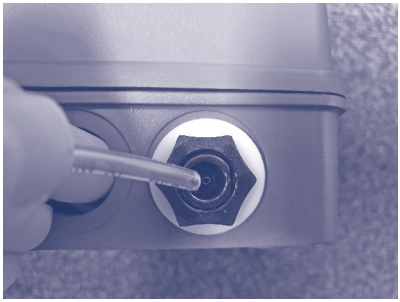


Fig 10: Air control tube connection to electro-pneumatic control box.

Operation

⚠ **NOTICE** Never start the counter current if the pump is not full of water and/or the pool water level is less than 300mm above the counter current nozzle.

The push button on the counter current face starts and stops the pump – an initial press to start, a second press to stop.

The air and water flow rates are regulated by rotating the two elements of the nozzle, the inner nozzle regulating the water flow and the outer sleeve regulating the air flow – in both instances, a clockwise turn increases flow and an anti-clockwise turn reduces flow.

Adjust the jet to full power. Swivel the nozzle so that a strong current is created immediately below the water surface.

When swimming has finished, move out of the current and use the push button to turn the unit off.

Maintenance

⚠ **WARNING** Whilst the counter current unit requires minimal maintenance, any maintenance that is required should be carried out by qualified or specialist persons – please refer to your immediate supplier/pool professional for advice on this.

⚠ **WARNING** Prior to performing any form of work or maintenance on any element of the unit, always ensure electrical power supplies are disconnected.

General

Regular checks should be made to ensure the air supply hose does not become blocked and, if the pump is installed within a pit, that the drainage point remains clear, that air circulation is maintained and that the pit lid locking device remains operable.

Winterisation

In case of exceptionally cold weather or hard frosts it is necessary that the counter current faceplate be disassembled.

Lower the pool water level to at least below the counter current faceplate.

Unscrew and remove the four screws which attached the faceplate to the housing.

Disconnect the air control tube from the push button

Disconnect the air supply tube from the face plate

Put 2 plugs inside the pipe ports (not supplied)

Completely drain the pump as per the instruction supplied with the pump.

To re-establish the counter current after winterisation, reverse the above process.

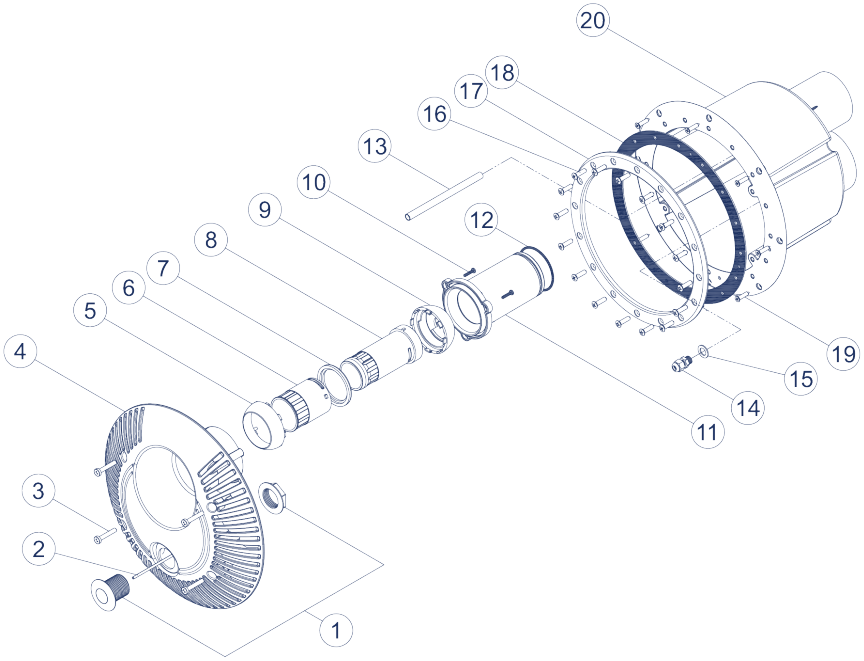
⚠ **NOTICE** If in doubt, please consult a pool professional.

Pump Maintenance

Please refer to the information for use document provided with the pump.

Spare parts

⚠ **WARNING** If replacing any parts or components, only parts and components authorised by the counter current manufacturer should be used to ensure a level if safety (see diagram and listing of authorised spare/replacement parts/components on page 16 for details). The supplier of the counter current unit assumes no liability for damage or injuries caused by the use of un-authorised replacement parts, components or accessories.



Item No:	Certikin Code	Product Description
1	SPCC14	Air Button c/w Back-nut
2	SPCC15	Air Duct 7m
3	SPCC20	Screw M6 x 35mm
4	SPCC12	Air Tube Connector 24mm
5	SPCC01	Face Plate Assembly
6	SPCC06	Jet Inlet Plate
7	SPCC04	Air Regulator
9	SPCC03	Water Regulator
10	SPCC05	Jet Black Plate
12	SPCC02	Jet Connector
13	SPCC22	O Ring 65 x 3
14	SPCC13	Flexible Pipe 330mm
15	SPCC16	Clamp Plate Plug
16	SPCC17	Plug Gasket
17	SPCC23	Screw M6 x 24mm (required for panel & liner)
18	SPCC25	Clamp Plate (required for panel and liner)
19	SPCC24	Clamp Plate Gasket (required for panel & liner)
20	SPCC19	Screw A2 x 4.8 x 25 (required for panel pools)
21	SPCC08	Niche for Concrete Pools
21	SPCC09	Niche for Liner Pools
21	SPCC11	Niche for Panel Pools

Troubleshooting

⚠ **WARNING** If any concerns over the safety of any part of this unit exist in any way, always isolate the power supply and stop use immediately.

⚠ **WARNING** Always isolate the unit from the mains power supply before attempting any form of investigation or maintenance.

⚠ **WARNING** All problem solving should only be carried out by qualified or specialist persons.

⚠ **WARNING** To be actioned by qualified persons only.

⚠ **WARNING** Always disconnect the unit from the power supply.

Symptom	Possible cause	Possible solutions
Pump cannot be switched on from pool.	Air control tube is kinked	Trace the flow of the air tube where possible and straighten where necessary.
	Fuse or current supply issue	Refer to information for use document with the pump. Electrical connections should only be investigated by a qualified electrician.
	Motor protective cut out	Refer to information for use document with the pump. Electrical connections should only be investigated by a qualified electrician.
	Air control tube is too long	Shorten the air control tube – maximum overall length should not exceed 8m.
	Water in air control tube	Lower the pool water level to at least just below the counter current faceplate. Remove the faceplate of the unit. Detach the air control tube from the rear of the faceplate push button. Detach the air control tube from the control box and gently blow down the tube to remove any water. Re attach the air control tube firmly at both ends and replace the faceplate before testing.

To be completed by unit supplier/installer:

Name:	
Address:	
Contact No:	
Email:	

Notes:

Notes:

We reserve the right to change all or part of the articles
or contents of this document without prior notice.

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