

To be retained by homeowner/ end user



We at Kelda Showers are the inventors of Air-Powered technology. Our patented technology delivers showers which provide an elegant experience whilst using low amounts of water. Kelda showers are not only eco-friendly, but they are engineered to last, too. They have been exposed and tested in the most demanding real-life environments to ensure they can withstand the pressures of high usage.

Kelda Showers is thrilled to introduce the world's first BubbleSpa® shower. At the forefront of luxury showering, Kelda is injecting magic into the showering experience to transform the everyday bathroom into a place of personal sanctuary and tranquillity. Kelda's unique BubbleRain spray form creates very large droplets filled with air that fall softly on the body for a luxurious shower feel that revitalises the skin and rinses away stress.

Kelda BubbleSpa® designed in the UK. Enjoy a magical shower experience every time.

You can find more information on our website:  
<https://www.keldashowers.com>

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# Important Safety Information

This product requires a hot and a cold water supply in addition to an electrical connection (see Electrical Installation section on pages 23-24 for details). This product is not an electric shower.

Products manufactured by Kelda Technology are safe and without risk provided they are installed, used and maintained in accordance with our instructions and recommendations.

DO NOT operate the unit if the Overhead Shower becomes damaged.

DO NOT restrict the flow out of shower by placing an obstruction in front of the HydrO<sub>2</sub> nozzles.

DO NOT allow children to play with the shower.

DO NOT allow children or people with reduced physical, mental or sensory capacities to use the shower without supervision.

## General

1. Read all the instructions before installation and retain this installation guide for later use. Check the Kelda website for the most up to date edition of the manual.
2. DO NOT take risks with plumbing or electrical equipment.
3. Isolate electrical and water supplies before proceeding with the installation.
4. The Overhead Shower must be cleaned regularly with descalant to remove scale and debris (see Maintenance section on pages 28-34).
5. This product is not suitable for mounting into steam rooms or steam cubicles.
6. The shower should not be installed in an outdoor environment, including sheltered areas.
7. The Overhead Shower is IPX4 rated but must be protected from plumbing leaks. DO NOT spray water at the top of the Overhead Shower as this risks damaging the electronics.

## Plumbing

1. The plumbing installation must comply with water regulations, building regulations or any particular regulations as specified by the local water company or water undertakers and should be in accordance with BS EN 806 (Specifications for installations inside buildings conveying water for human consumption. Operation and maintenance).
2. **IMPORTANT! The hot and cold water supply pipes must be flushed to clear debris before connecting to water inlets on the shower.**
3. DO NOT use excessive force when making connections to the mixer.
4. All plumbing connections must be completed before making the electrical connections.
5. Water Pressure: A 1.5 bar (0.15 MPa) mixed supply is required as a minimum at the valve output. The maximum water pressure is 5 bar (0.5MPa). If using a low pressure (gravity fed) system a suitable pump will be required. Your BubbleSpa® shower is designed to perform best between

8-12L/min and will not produce bubbles with a flow rate below 6L/min. Using the BubbleSpa® shower without a Kelda-supplied flow regulator will void the warranty and negatively affect the performance of the product.

6. Make sure the hand shower is installed in such a manner that backsiphonage is not possible. However, should that not be the case, install additional check valves in accordance with your local water regulations.

## Electrical

1. The installation must comply with BS 7671 'Requirements for electrical installations' (IEE wiring regulations), building regulations or any particular regulations as specified by the local electrical supply company.
2. In accordance with 'The Plugs and Sockets etc. (Safety) Regulations 1994', this appliance is intended to be permanently connected to the fixed wiring of the electrical mains system.
3. A 32A 30mA Residual Current Breaker Operator (RCBO) MUST be installed in all UK electric and pumped shower circuits. This may be part of the consumer unit or a separate unit.
4. Each shower must be connected to a 3A switched fused spur which is easily accessible. Switch off at fused spur for maintenance or if not in use for extended periods. This is a safety procedure recommended with all electrical appliances.
5. Make sure all electrical connections are tight to prevent overheating.
6. As with all electrical appliances, it is recommended to have the shower and installation checked at least every two years by a competent electrician to ensure there is no deterioration due to age and usage.
7. Only the power supply and cables provided by Kelda can be used. Damaged power supplies and cables should be scrapped, other power supplies or cables cannot be used. Contact Kelda for a replacement.

## Flashing Lights

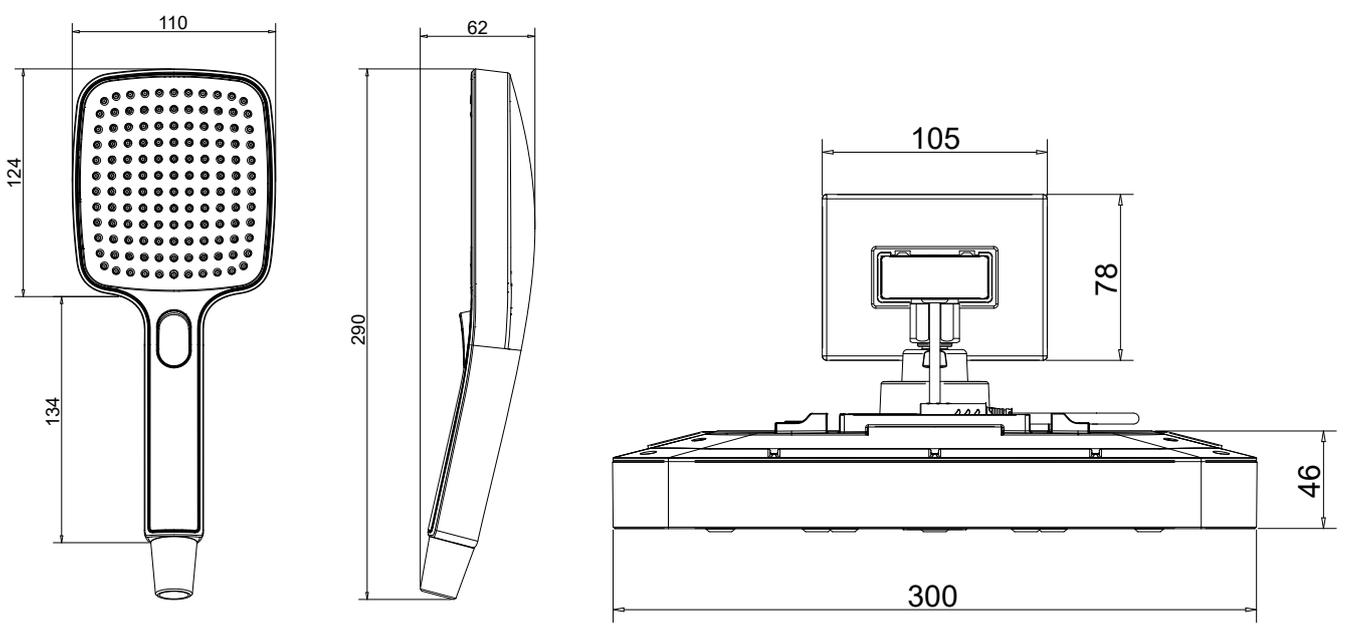
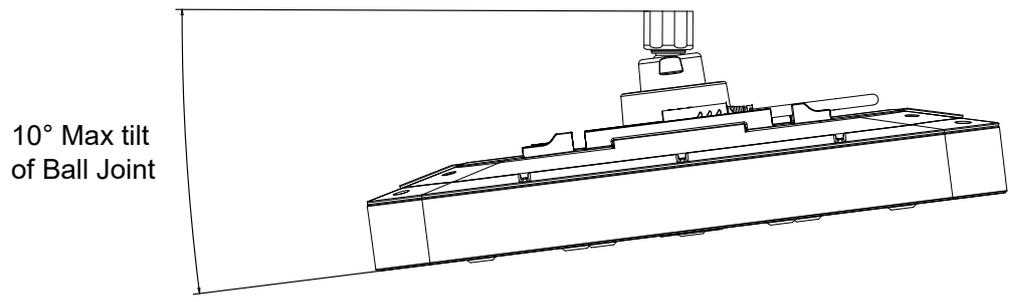
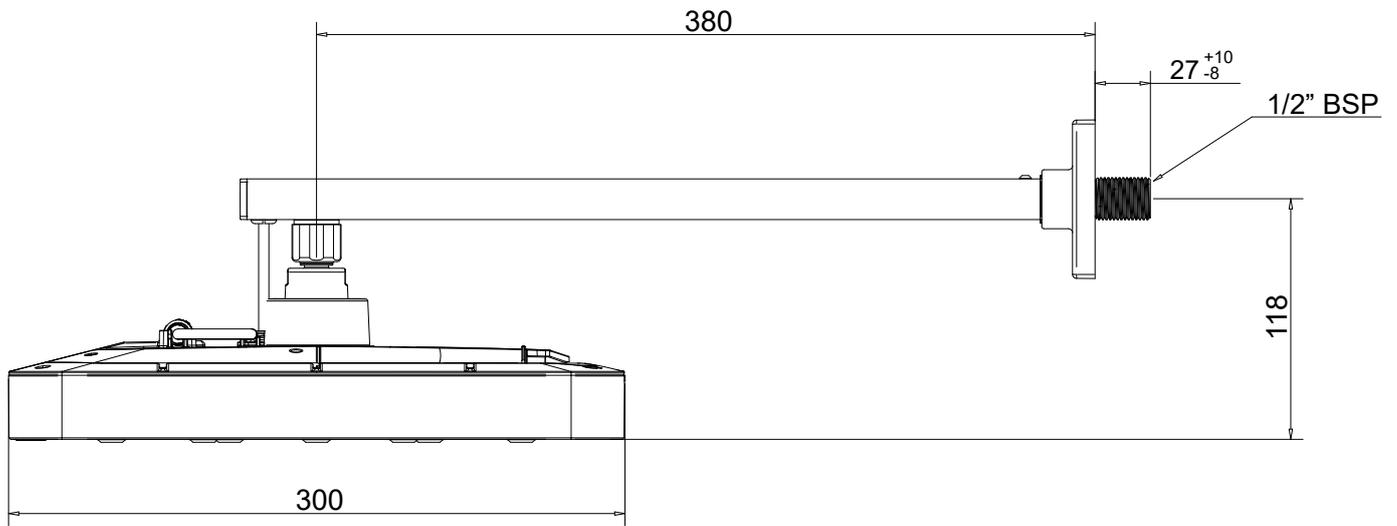
To enhance the visual impact of the bubbles, this shower uses flashing light effects with a minimum frequency of 72Hz. This is in accordance with safety guidance from the IEEE (IEEE 1789-2015) and is safely above the 3-30Hz range (commonly identified as values to be avoided for people with photosensitive conditions).

The visual effect of the lighting modes will vary depending on ambient lighting and the environment in which it is installed (see page 27 for more details on Bubble Modes).

Anyone diagnosed with a condition which could be triggered by flashing lights should seek further medical advice.

# System Diagram

## BubbleSpa® Wall Arm

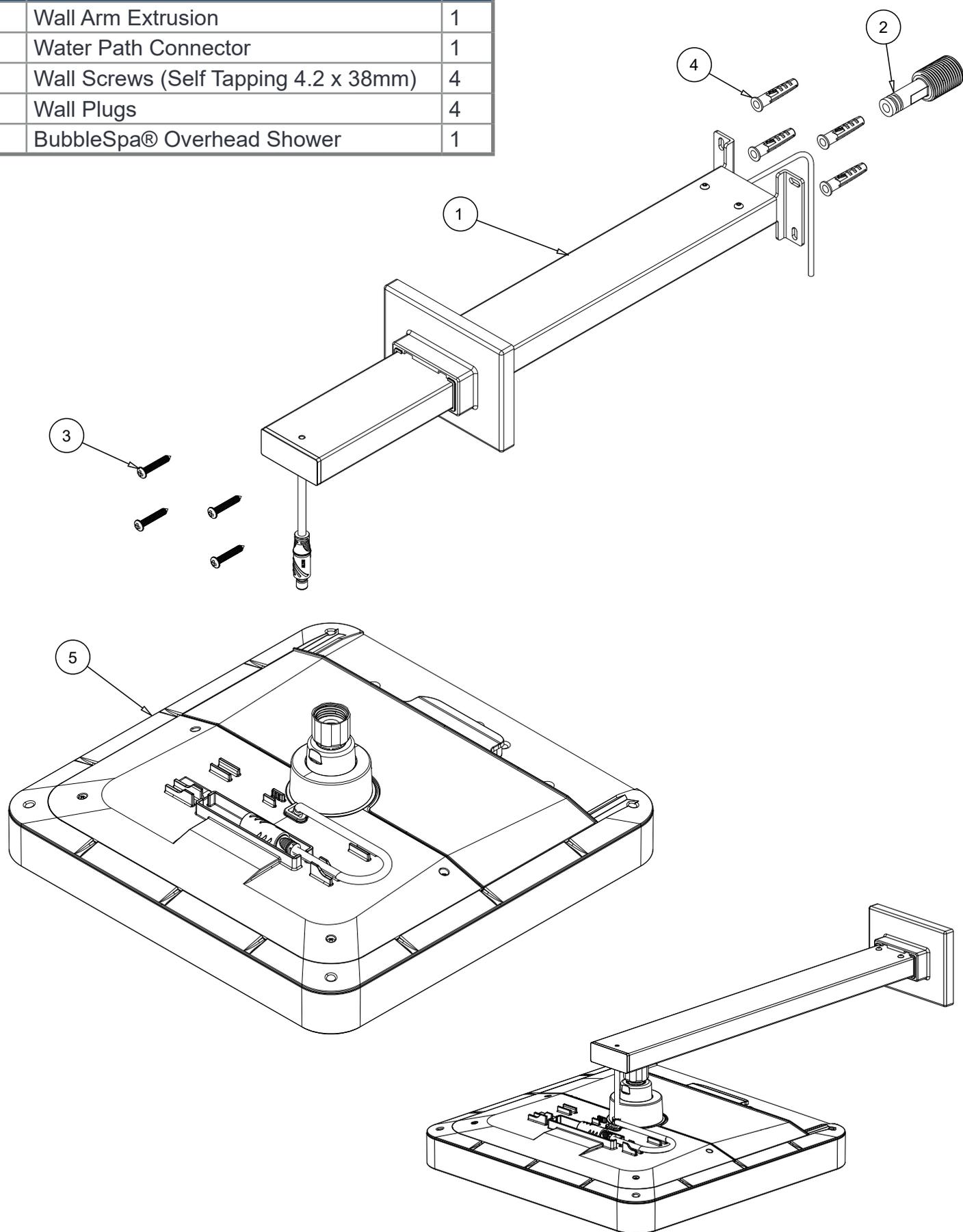


Tilting of the BubbleSpa® Overhead Shower can be in any direction. All dimensions are in mm unless otherwise stated.

# System Diagram

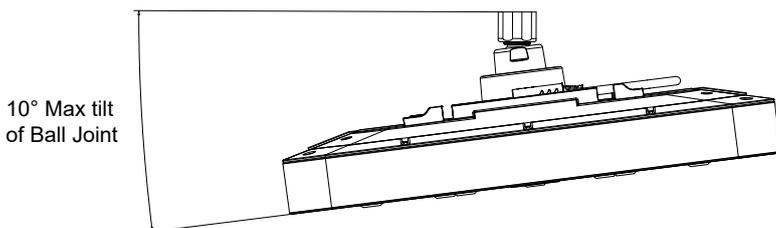
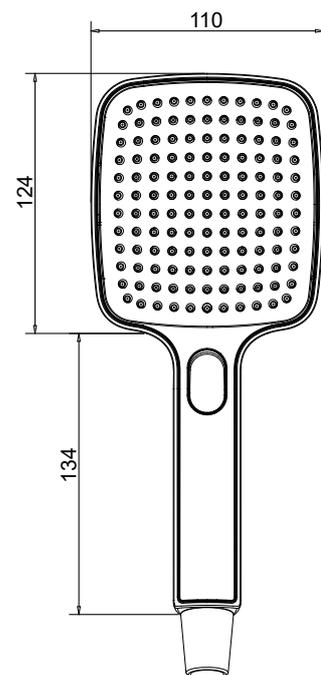
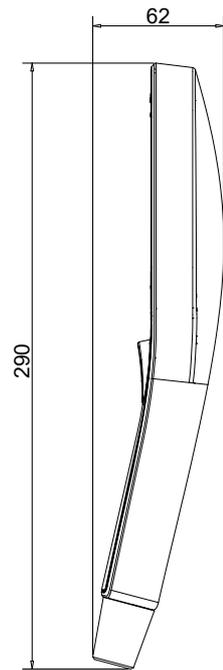
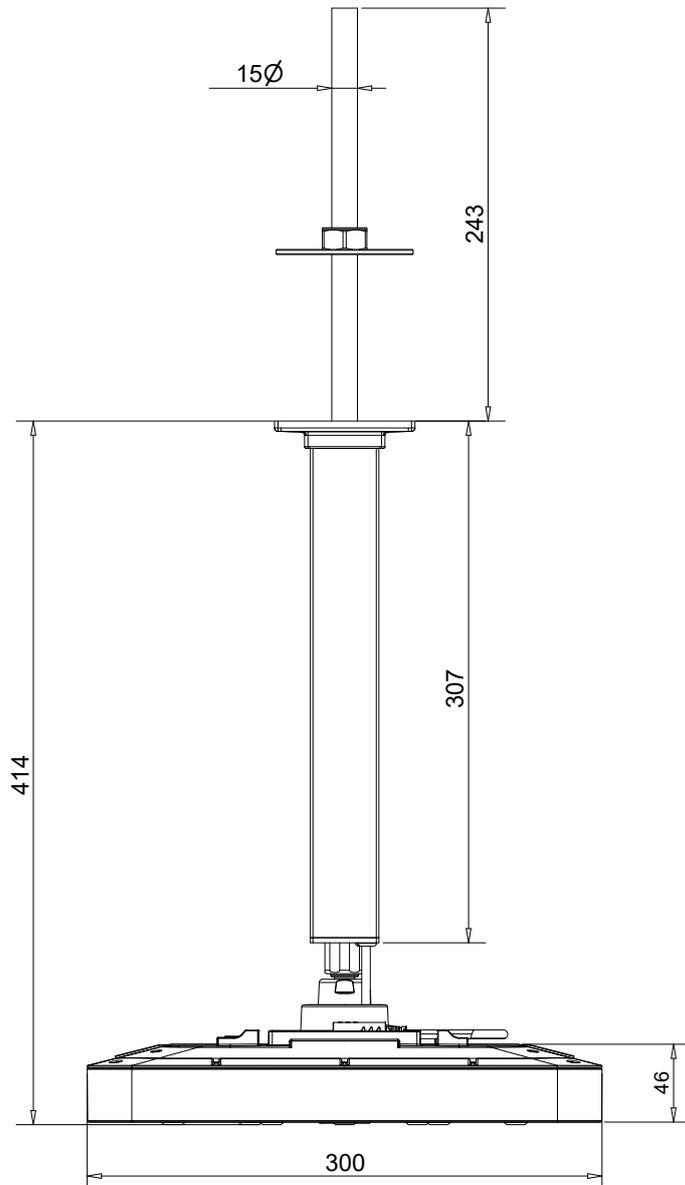
## BubbleSpa® Wall Arm

No.	Part	Qty
1	Wall Arm Extrusion	1
2	Water Path Connector	1
3	Wall Screws (Self Tapping 4.2 x 38mm)	4
4	Wall Plugs	4
5	BubbleSpa® Overhead Shower	1



# System Diagram

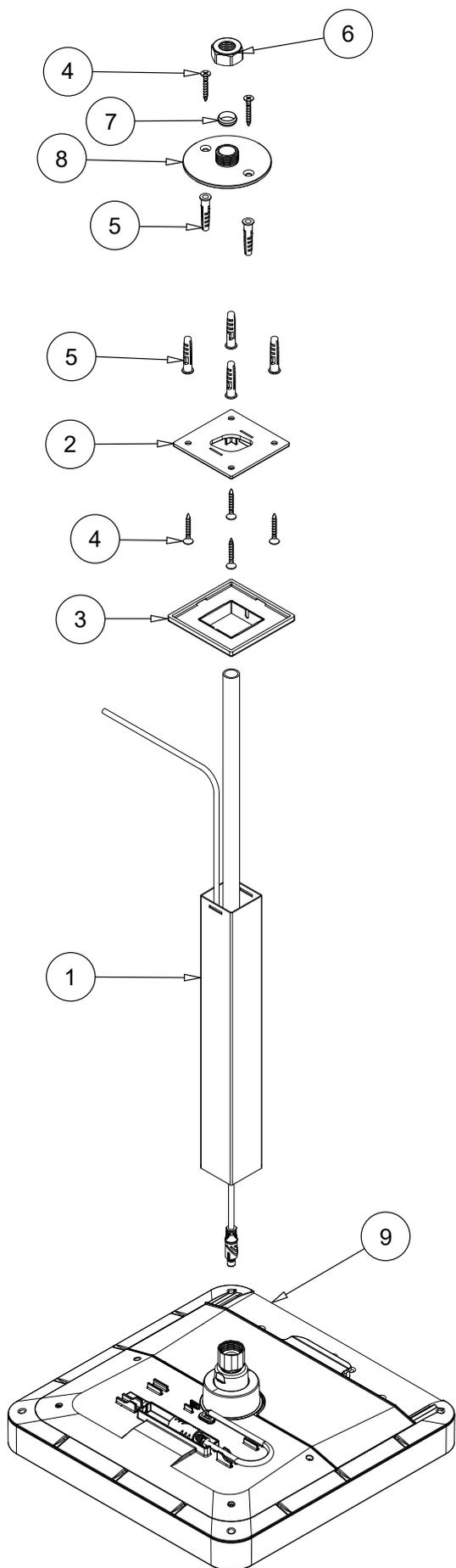
## BubbleSpa® Ceiling Arm & Valve



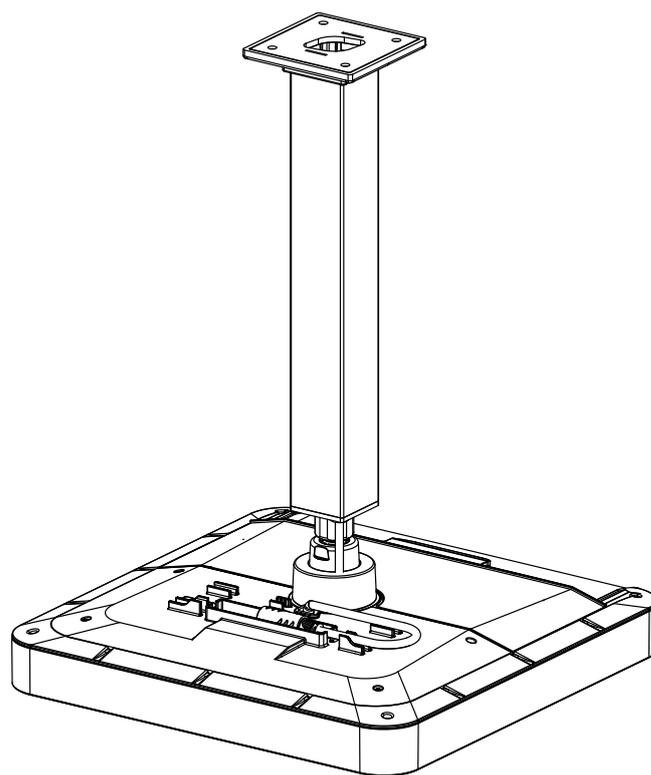
*\*Drawing shows the lengths of the parts as supplied. The Inner Pipe can be cut down to an appropriate length if necessary. The tilting of the BubbleSpa® Overhead Shower can be in any direction. All dimensions are in mm unless otherwise stated.*

# System Diagram

## BubbleSpa® Ceiling Arm & Valve

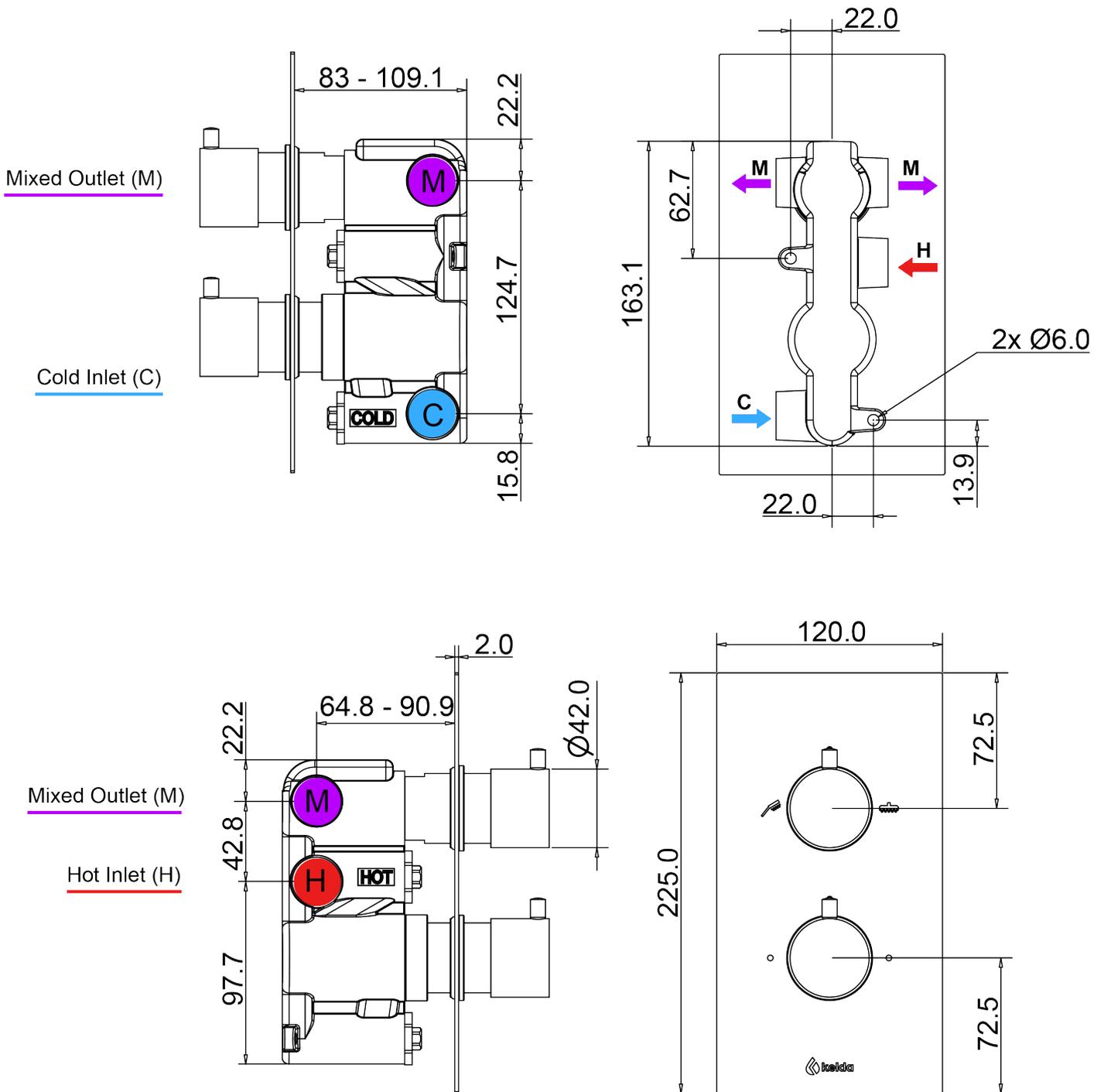


No.	Part	Qty
1	Ceiling Arm Extrusion	1
2	Ceiling Arm Bracket	1
3	Ceiling Arm Trim	1
4	Wall Screws (Self Tapping 4.2 x 38mm)	6
5	Wall Plugs	6
6	Compression Nut	1
7	Olive	1
8	Mounting Plate	1
9	BubbleSpa® Overhead Shower	1



# System Diagram

## Concealed Valve



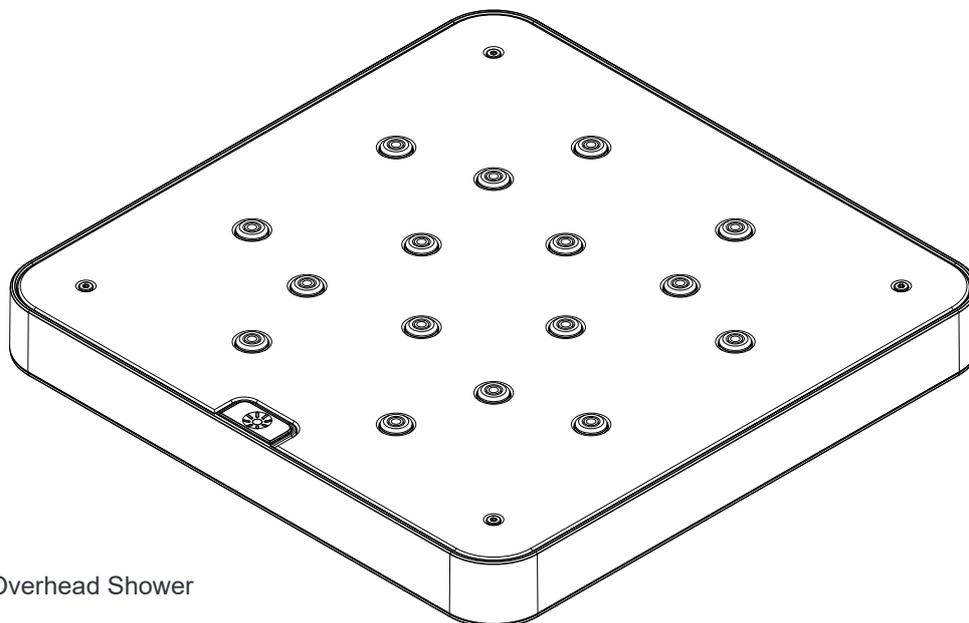
Inlets and outlets are all 1/2" female threads.  
 Minimum wall cavity depth: 83mm.

# Contents

## BubbleSpa® Wall Arm

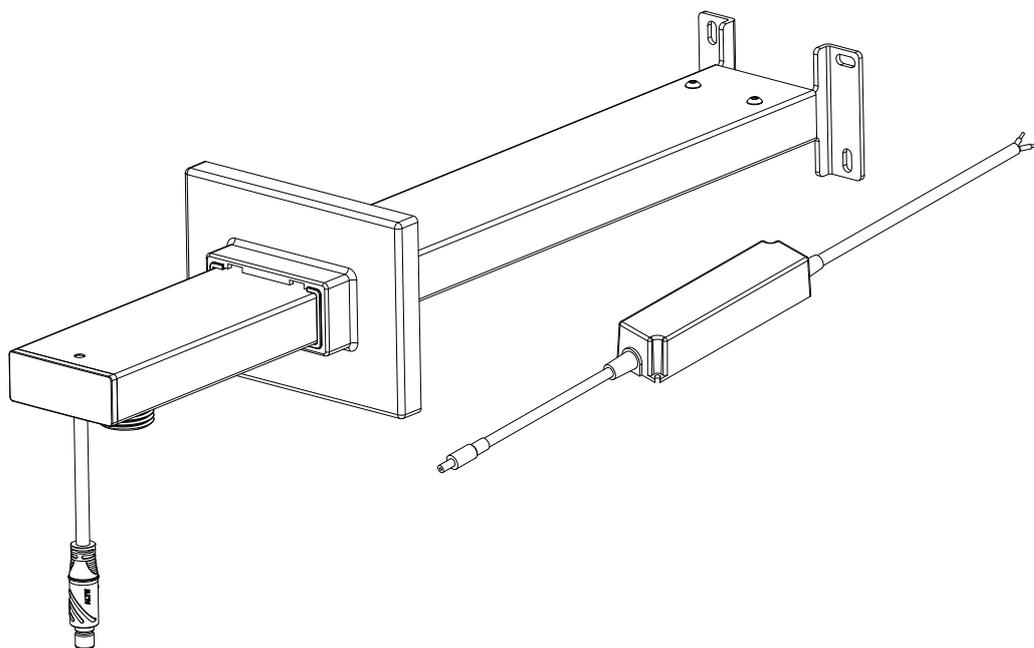
Your BubbleSpa® shower includes the following assemblies and parts:

### 1 Overhead Shower



- x1 Kelda BubbleSpa® Overhead Shower

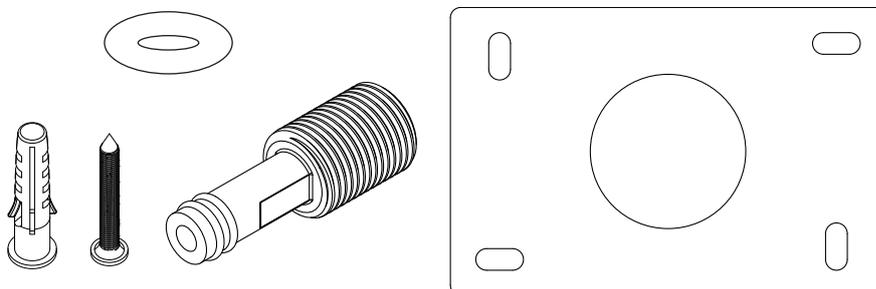
### 2 Wall Arm



- x1 Wall Arm Assembly
- x1 Transformer

### 3 Installation

- x1 Water Path Connector
- x1 Hole Guide (cut out from page 40)
- x4 Wall Screws
- x4 Wall Plugs
- x2 Spare O-ring

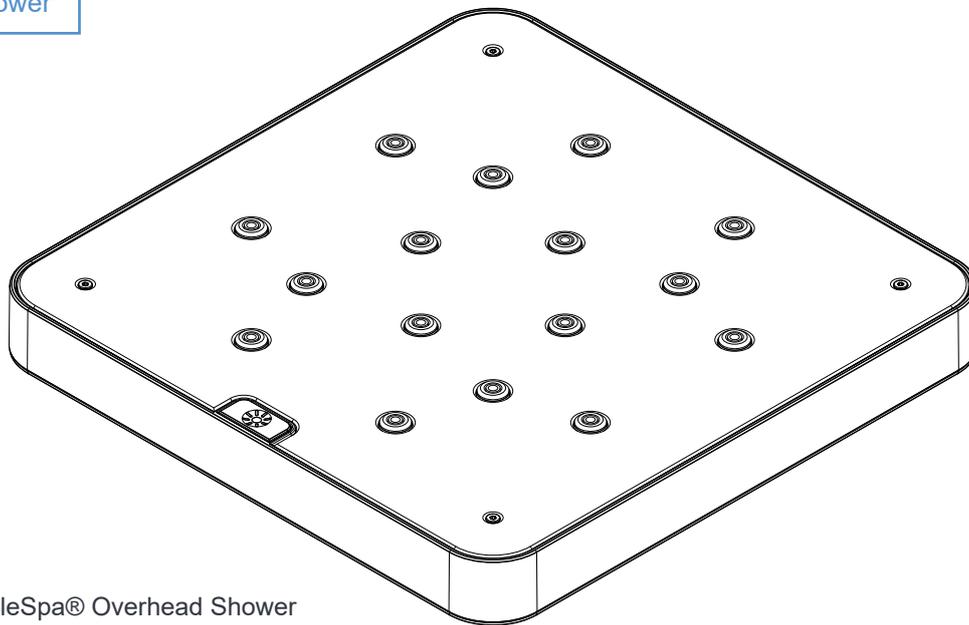


# Contents

## BubbleSpa® Ceiling Arm

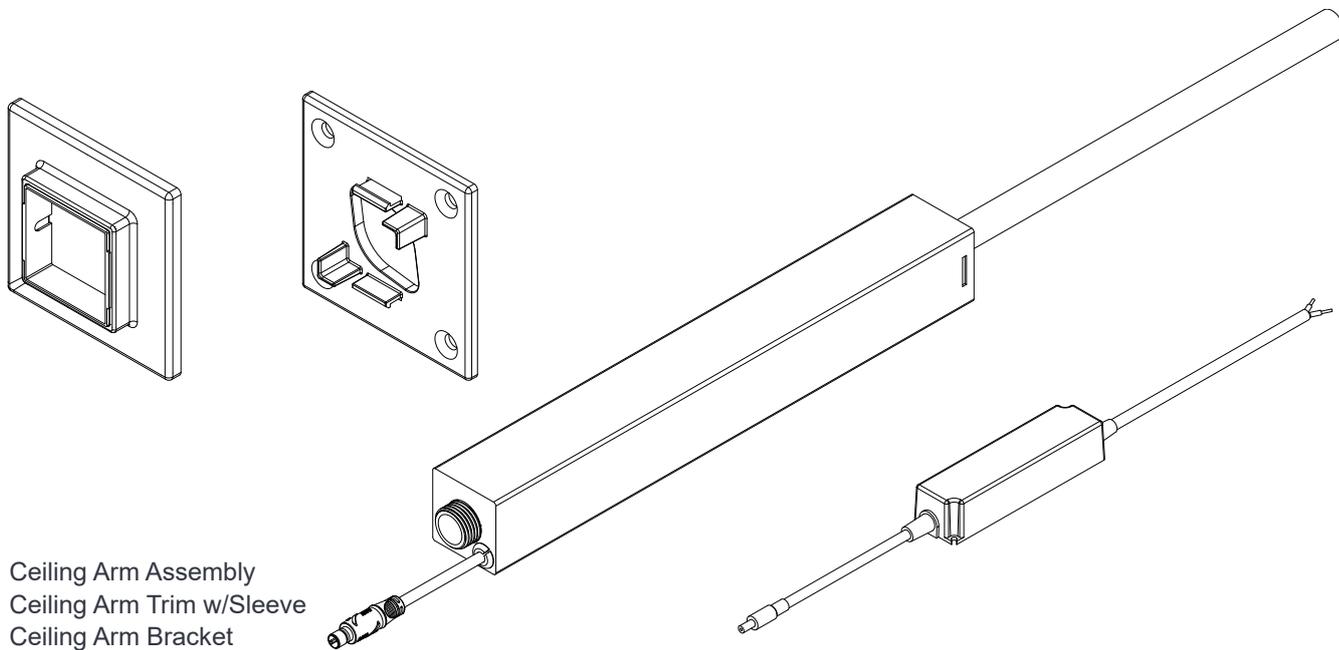
Your BubbleSpa® shower includes the following assemblies and parts:

### 1 Overhead Shower



- x1 Kelda BubbleSpa® Overhead Shower

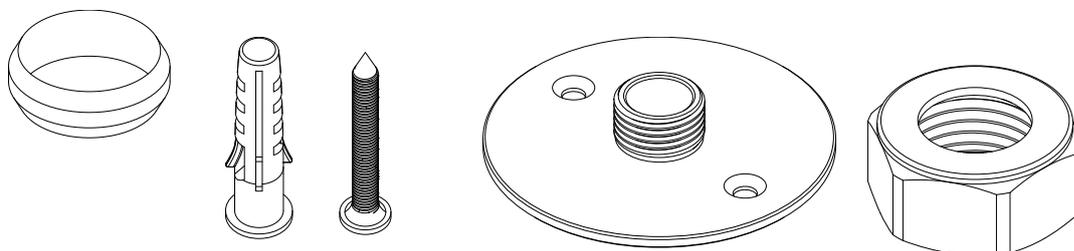
### 2 Ceiling Arm



- x1 Ceiling Arm Assembly
- x1 Ceiling Arm Trim w/Sleeve
- x1 Ceiling Arm Bracket
- x1 Transformer

### 3 Installation

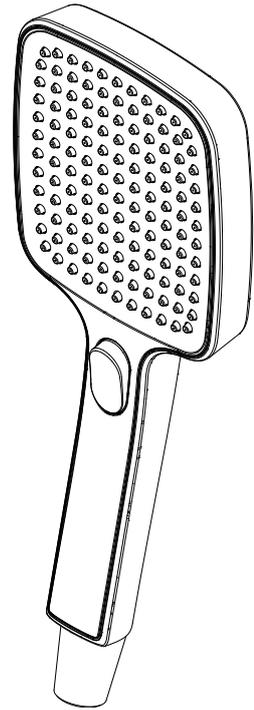
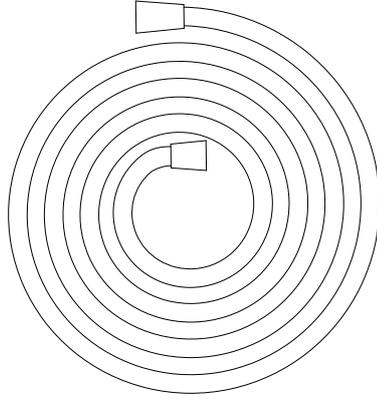
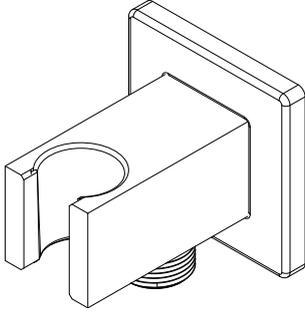
- x1 Compression Nut
- x1 Olive
- x1 Mounting Plate
- x6 Screws
- x6 Wall plugs



# Contents

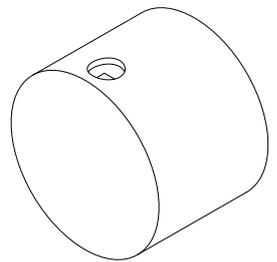
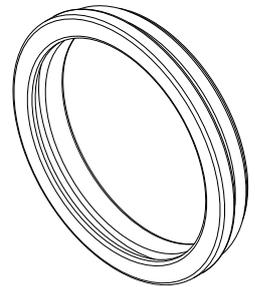
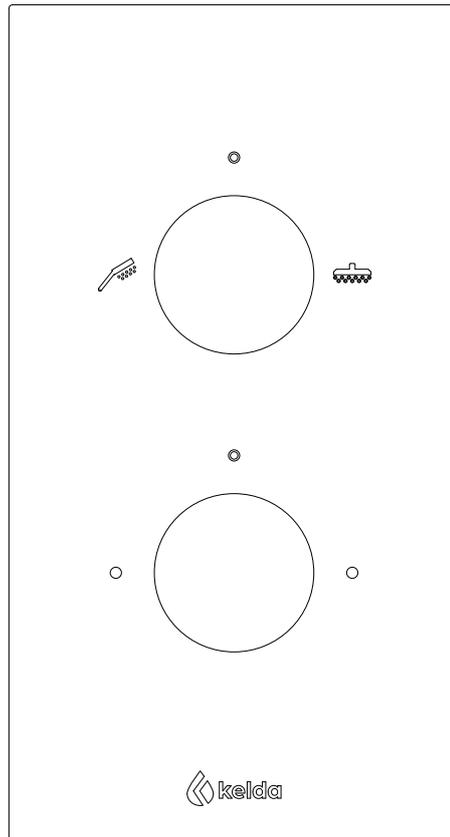
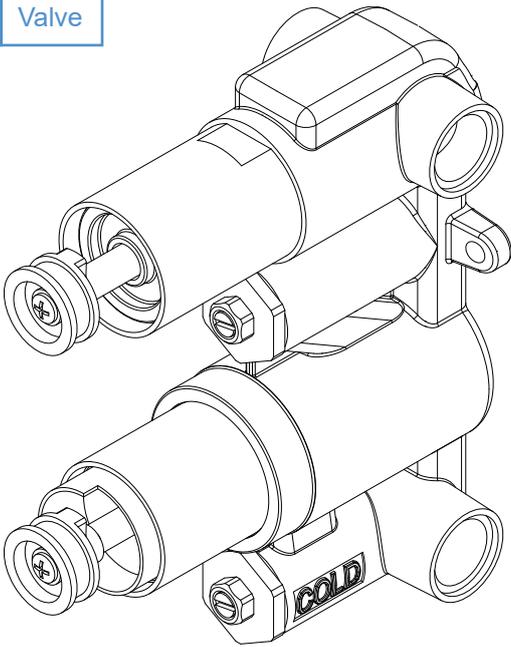
## Hand Shower & Valve

### 1 Hand Shower

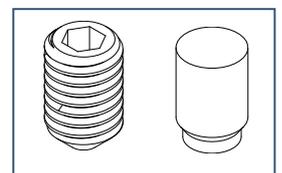


- x1 Kelda SilkSpray Hand Shower
- x1 1.5m Easy-Clean Shower Hose
- x1 Hand Shower Holder

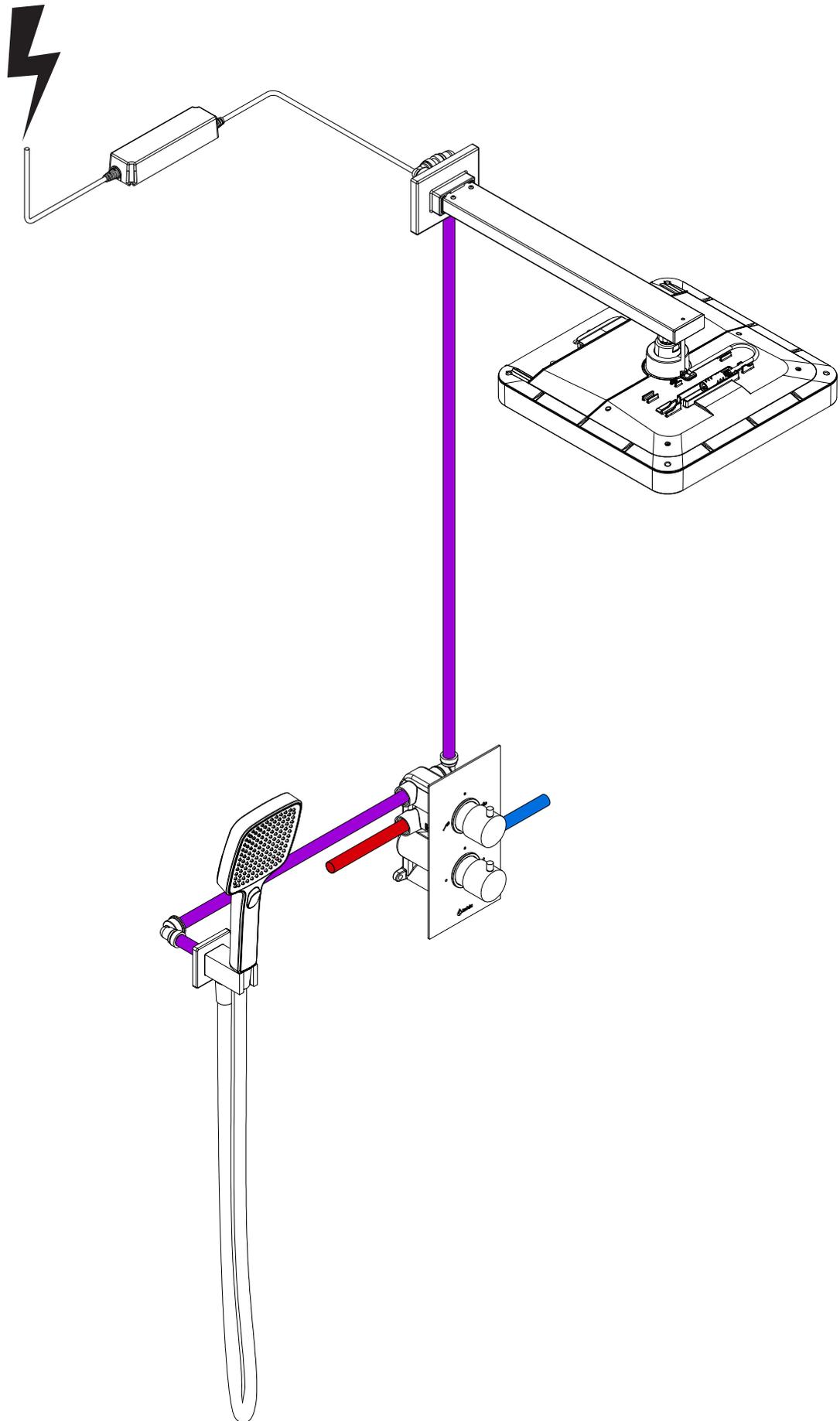
### 2 Valve



- x1 Guoren Valve
- x1 Kelda Plate
- x2 Trim Ring
- x2 Control Knob
- x2 Grub Screw
- x2 Knob Lever
- 3mm Hex Key



# Wall Arm Installation

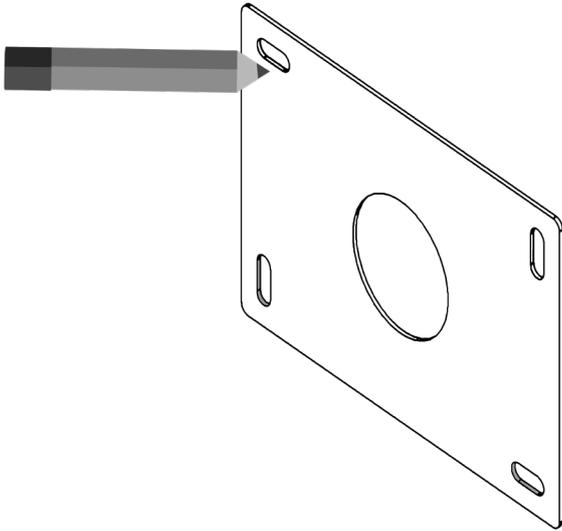


# Wall Arm Installation



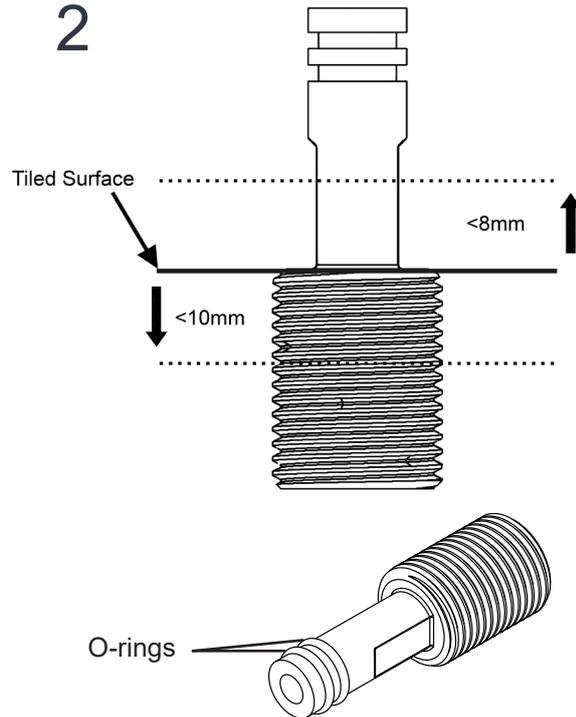
**Warning:** Read through to the end prior to commencing installation!

1



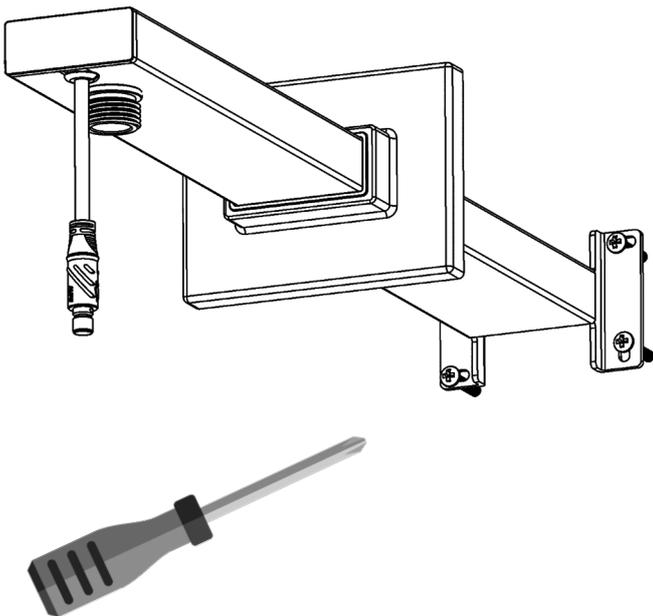
Using the guide provided on page 40, mark out and drill the holes for the Wall Arm Assembly around the pipe outlet. Ensure that the hole for the cable and outlet pipe is no bigger than 60mm diameter.

2



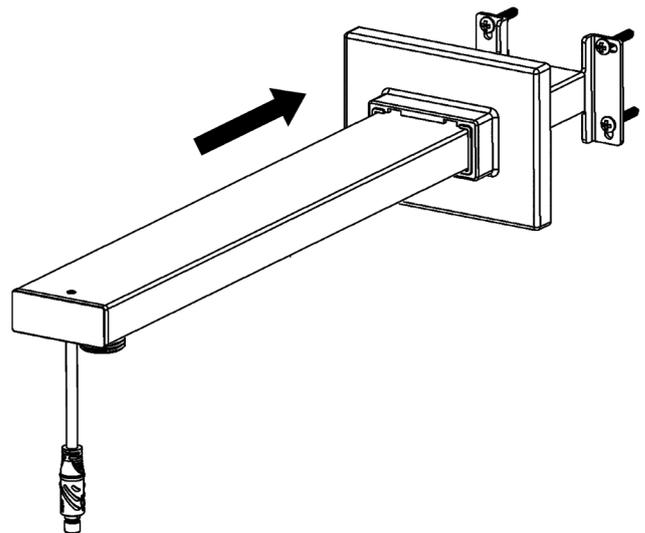
Screw the Water Path Connector to the outlet pipe. Ensure that the Water Path Connector is no more than 10mm proud of the wall tiles and is no more than 8mm inside the wall. Apply plumber's silicone grease onto the O-rings on the Water Path Connector.

3



Feed the power cable of the Wall Arm Assembly into the wall and route/fish the power cable through the wall towards the power supply. Then screw the Wall Arm Assembly to the wall using the Wall Screws and Wall Plugs provided. Ensure that the O-rings on the Water Path Connector are not displaced.

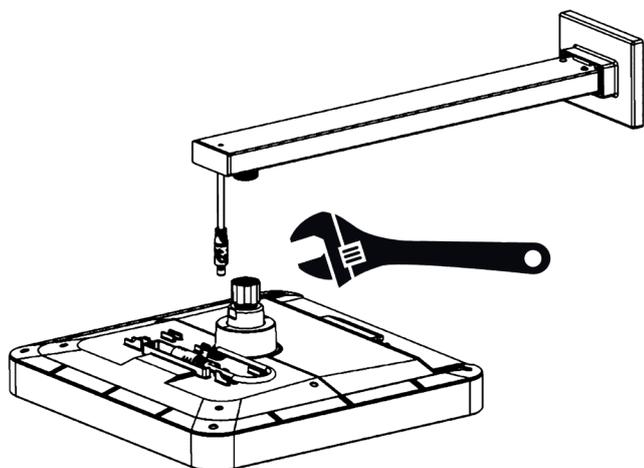
4



Slide the Wall Arm Trim and Trim Sleeve to the wall. Silicone may be added to the back of the Wall Arm Trim to fix it in position.

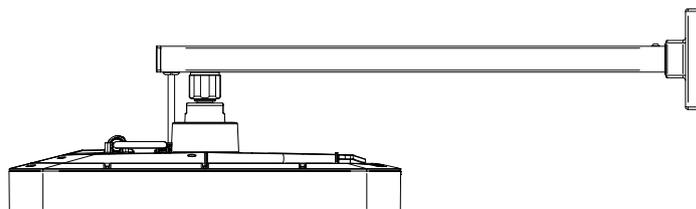
# Wall Arm Installation

5



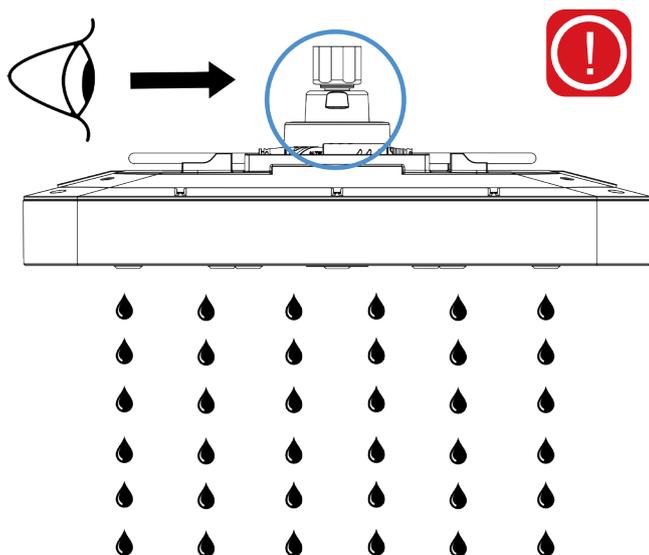
Screw the BubbleSpa® Overhead Shower onto the Wall Arm Assembly. Use a 23mm spanner on the Ball Joint and a 28mm spanner on the Ball Joint Clamp.

6



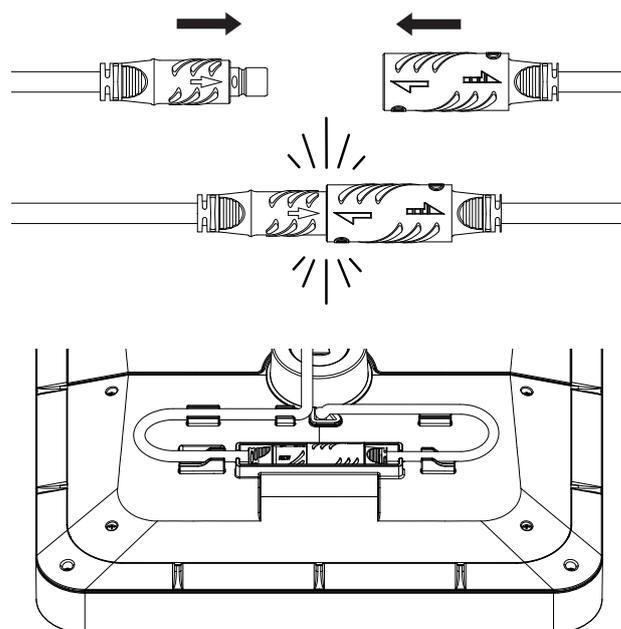
Ensure that the Overhead Shower is horizontal. If the Wall Arm tilts slightly, tilt the Overhead Shower from the Ball Joint to compensate. The Ball Joint allows for a maximum tilt of 10°.

7



Run the Overhead Shower without power to test the water supply. Whilst the shower is running, check the entire installation for any leaks, especially the Ball Joint and Ball Joint Clamp (circled) of the Overhead Shower. It is important that there is no water leaking as this can damage the fan and PCB. Make sure to also check the mixer operation, the temperature and the flow rate.

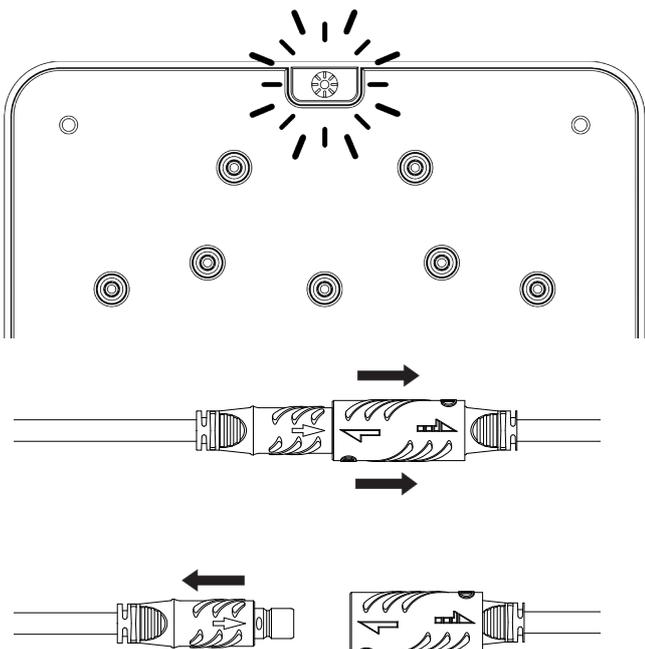
8



Switch off the water then attach the Power Cable by aligning the 2 arrows on the connectors and then pushing the connectors together until a click is heard. Then place the cables into the clips on the Overhead Shower. Connect the other end of the power cable to the Transformer. Then turn on the power supply to the Overhead Shower from the mains.

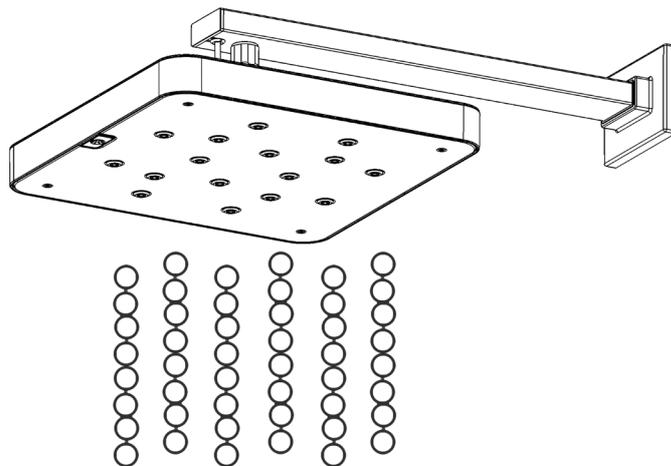
# Wall Arm Installation

9



Once the power is turned on, the Button Light on the Overhead Shower will light up. This is an indicator that power is being supplied to the Overhead Shower. If you need to disconnect the power cable, first isolate the mains. Then, pull back the outer layer of the larger connector, then remove the small connector.

10



Run the shower with power to test the air and water supply. We recommend running this test at 38°C. Please note the bubbles do not form as consistently below 20°C. Once you are satisfied with the bubbles, remove the protective film from the faceplate and enjoy your BubbleSpa® shower.

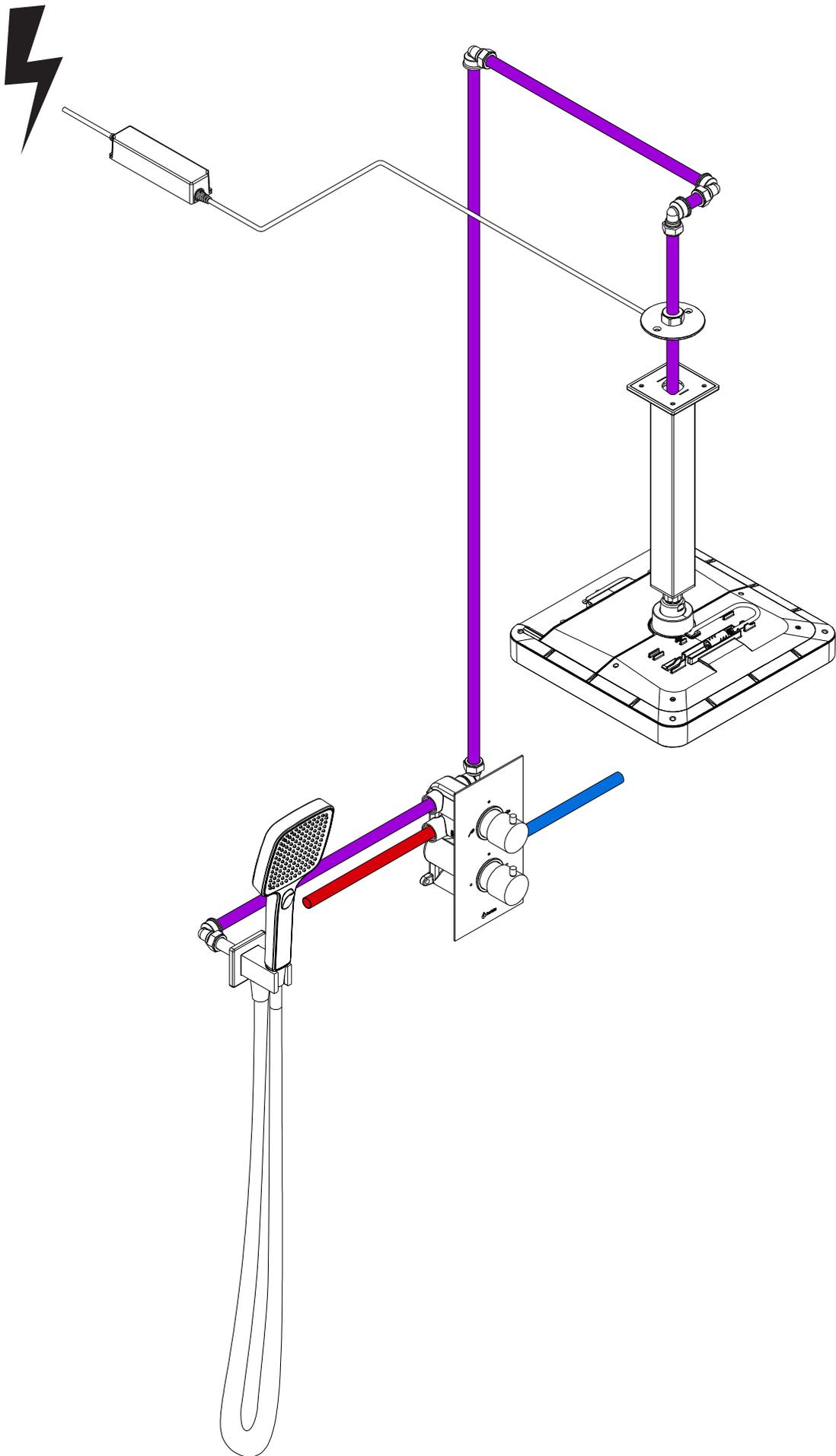


## Warning!

- Always check for hidden pipes and cables before drilling.
- Run water through hot and cold pipes to clear debris from pipework before connecting Kelda BubbleSpa® Shower

Please note that break up length of bubbles may vary across sites due to plumbing installation, water pressure, water hardness and quality

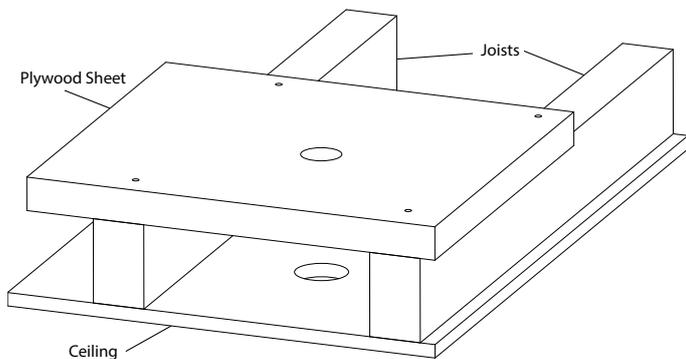
# Ceiling Arm Installation



# Ceiling Arm Installation

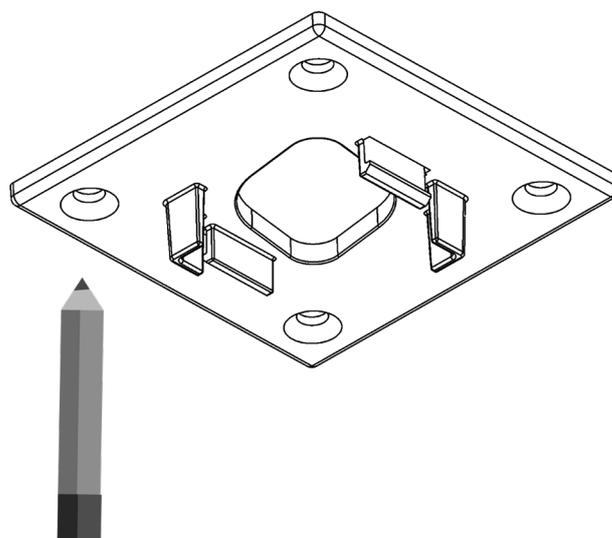


**Warning:** Read through to the end prior to commencing installation!



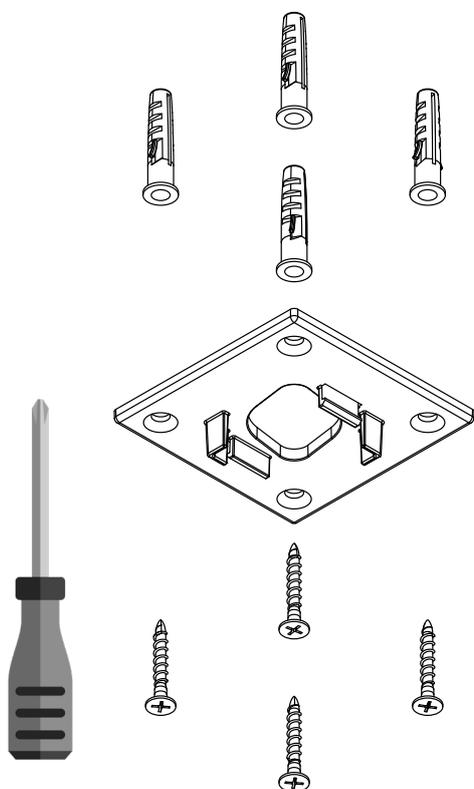
It is recommended to use a sheet of plywood supported by joists (as shown above) to fix the pipe mount permanently. Before installing, make sure the inner pipe of the Ceiling Arm Assembly is long enough to reach above the plywood sheet –cut the inner pipe if it is too long. Once the position of the shower has been determined, drill a hole that is bigger than 17mm but no larger than 60mm diameter in the ceiling.

1



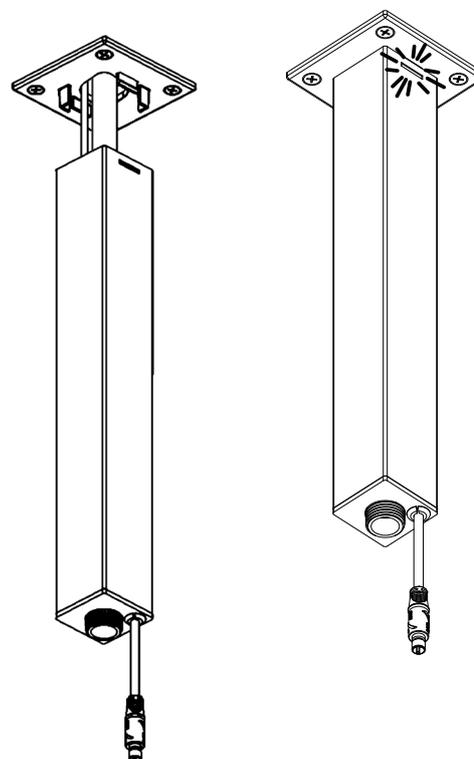
Using the Ceiling Arm Bracket as a guide, mark and drill the holes for the Wall Plugs on the ceiling of the shower cubicle.

2



Insert the Wall Plugs provided into the ceiling and screw the Ceiling Arm Assembly using the screws provided.

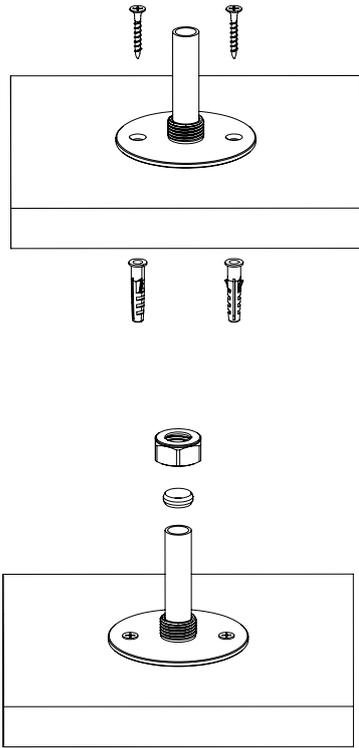
3



Feed the power cable of the Ceiling Arm Assembly into the void. Attach the Ceiling Arm Assembly to the Ceiling Arm Bracket. The Ceiling Arm Assembly will snap onto the bracket. The inner tube will go through the hole with sufficient length to attach the water supply. The inner tube may be cut to length if it is too long.

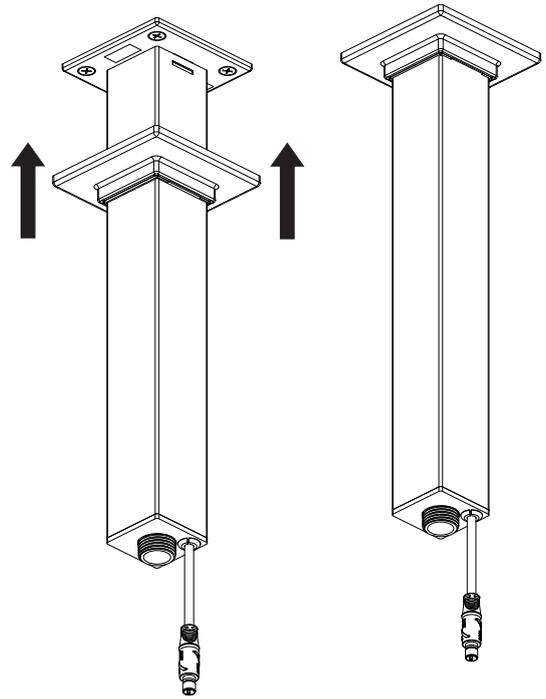
# Ceiling Arm Installation

5



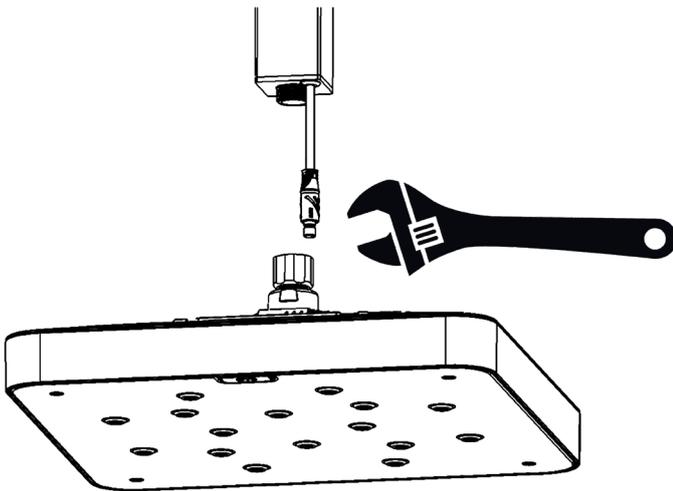
In the ceiling void, place the Mounting Plate over the inner tube. Attach the Mounting Plate to the plywood with Wall Plugs and Wall Screws provided. Then place the Olive and Compression Nut over the inner tube and tighten the nut.

6



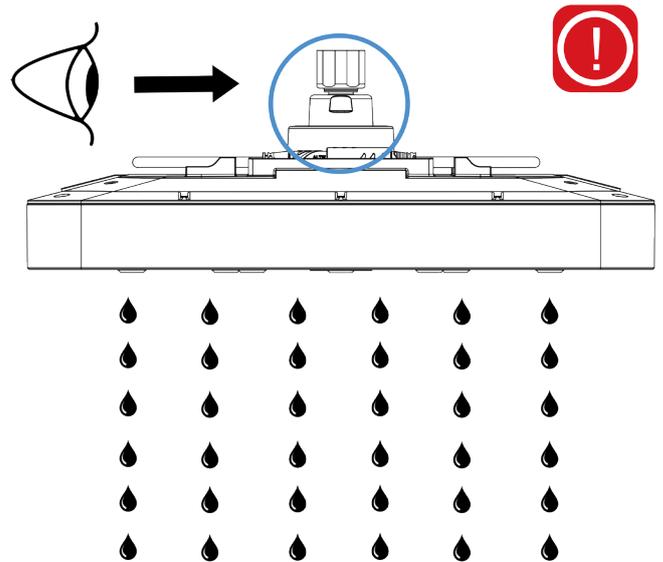
Peel back the double-sided tape on the Ceiling Arm Bracket and slide on the Ceiling Arm Trim. The Ceiling Arm Trim should stick to the tape. Silicone may be added on the back of the Ceiling Arm Trim to help it stick.

7



Screw the BubbleSpa® Overhead Shower onto the Ceiling Arm Assembly. Use a 23mm spanner on the Ball Joint and a 28mm spanner on the Ball Joint Clamp.

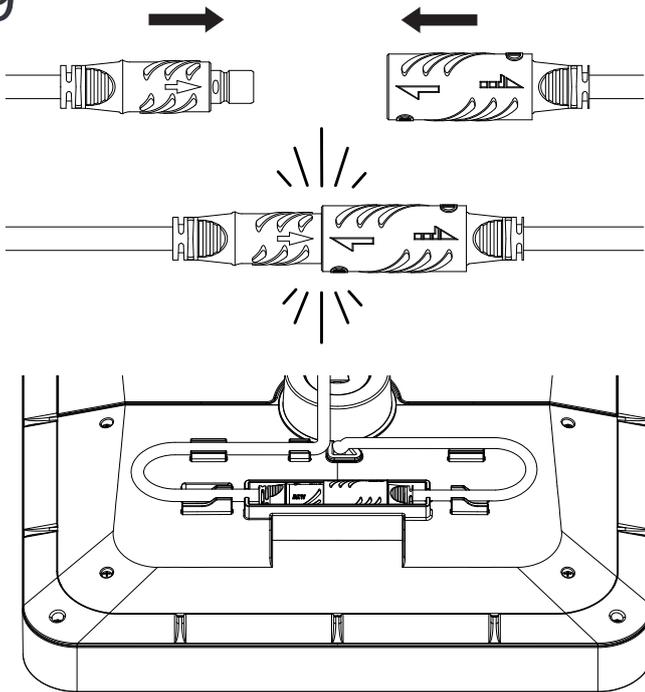
8



Run the Overhead Shower without power to test the water supply. Whilst the shower is running, check the entire installation for any leaks, especially the Ball Joint and Ball Joint Clamp (circled) of the Overhead Shower. It is important that there is no water leaking as this can damage the fan and PCB. Make sure to also check the mixer operation, the temperature and the flow rate.

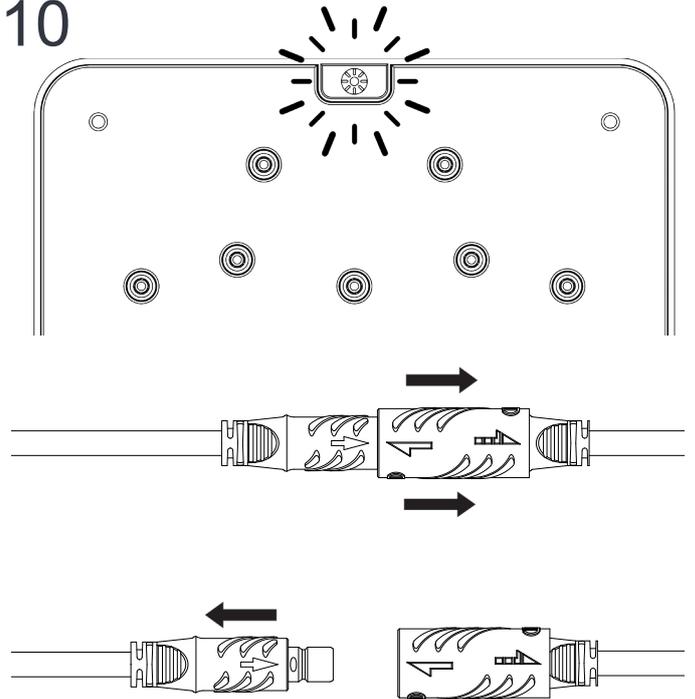
# Ceiling Arm Installation

9



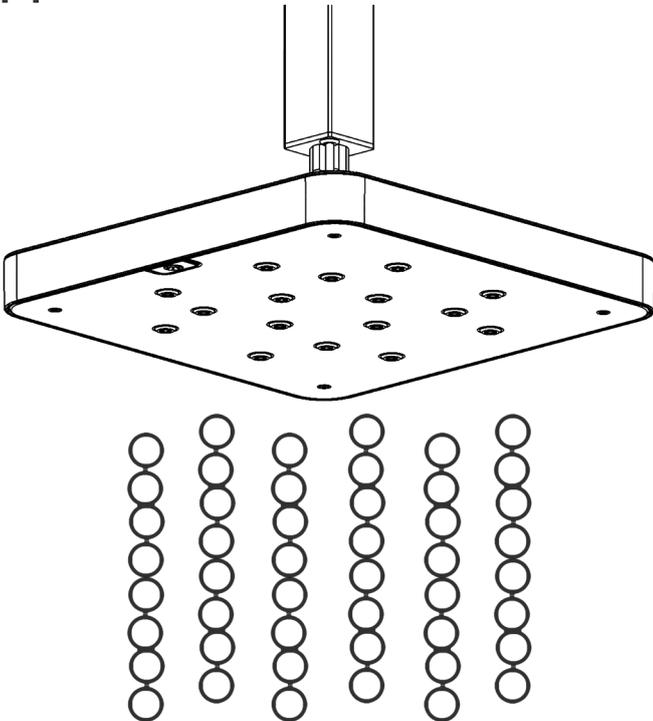
Switch off the water then attach the Power Cable by aligning the 2 arrows on the connectors and then pushing the connectors together until a click is heard. Then place the cables into the clips on the Overhead Shower. Connect the other end of the power cable to the Transformer. Then turn on the power supply to the Overhead Shower from the mains.

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Once the power is turned on, the Button Light on the Overhead Shower will light up. This is an indicator that power is being supplied to the Overhead Shower. If you need to disconnect the power cable, first isolate the mains. Then pull back the outer layer of the larger connector then remove the small connector.

11



Run the Overhead Shower with power to test the air and water supply. We recommend running this test at 38°C. Please note the bubbles do not form as consistently below 20°C. Once you are satisfied with the bubbles, remove the protective film from the faceplate and enjoy your BubbleSpa® shower.

## Warning!



- Always check for hidden pipes and cables before drilling.
- Run water through hot and cold pipes to clear debris from pipework before connecting the Kelda BubbleSpa® Shower

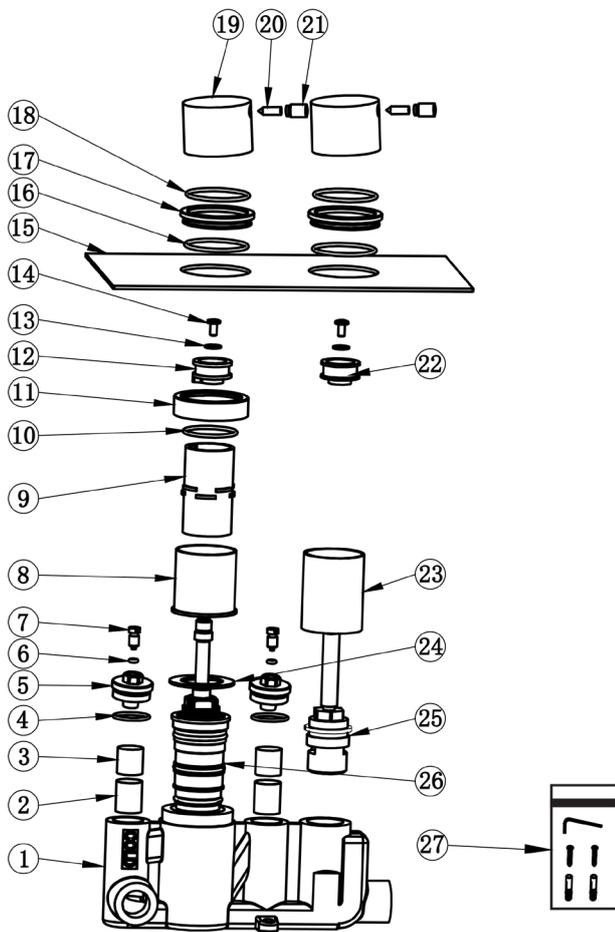
*Please note that break up length of bubbles may vary across sites due to plumbing installation, water pressure, water hardness and quality*

# Valve Installation



**Warning:** Read through to the end prior to commencing installation!

## Exploded Drawing



No.	Part	Qty
1	Valve Body	1
2	Filter	2
3	Check Valve	2
4	O-ring Ø19x2	2
5	Check Valve Gland	2
6	O-ring Ø3.35x1.78	2
7	Screw-on Check Valve Gland	2
8	Thermostatic Collar	1
9	Thermostatic Control Ring	1
10	O-ring Ø28x2	1
11	Thermostatic Gland	1
12	Thermostatic Adapter	1
13	Ø12 Flat Gasket	2
14	M4x10 Crossfit Screw	2
15	Kelda Plate	1
16	O-ring Ø36x1.9	2
17	Trim Ring	2
18	O-ring Ø37x1.5	2
19	Control Knob	2
20	Grub Screw	2
21	Knob Lever	2
22	Flow Adapter	1
23	Flow Collar	1
24	Nylon Gasket	1
25	Flow Cartridge	1
26	Thermostatic Cartridge	1
27	Screw Pack	1

## Operating Specifications

Hot Water Supply Temperature

Max: 85°C

Min: 10°C higher than the maximum showering temperature required (measured at point of entry to mixer).

Eg. Max required showering temperature is 50°C, then hot water supply must be 60°C - 85°C.

Operating Pressures:

Maximum: 5 bar

Minimum: 1.5 bar

Outlet Temperature:

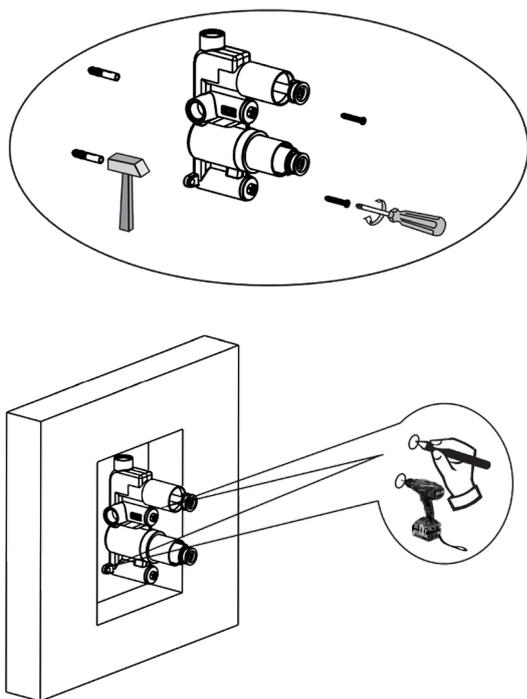
The maximum outlet temperature must not be higher than 46°C

## Before Installation

Ensure that the hot and cold water outlets are reasonably balanced in terms of pressure and flow. It is recommended to fit isolation valves on both the hot and cold water supplies. The isolation valves should be full bore and must be completely open when the mixer valve is operating. Ensure all pipes are flushed and clear of any dirt, metal, wood shavings, debris or foreign material. Y strainers should be installed to prevent debris getting into the water system. These Y strainers should be positioned in between the mixer valve and the isolation valve. The valves must be set into the wall with a minimum of 83mm. When fitted into a partition wall or a soft substrate, please use specialist fixings to hold the valves in place. Care should be taken when installing to ensure the surfaces of the valves are not damaged.

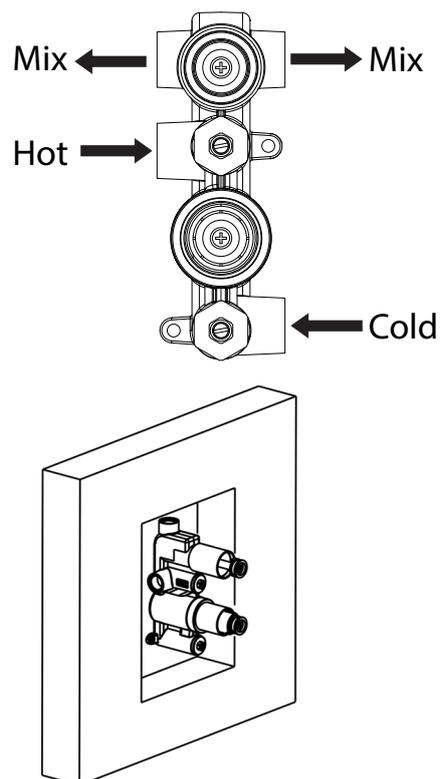
# Valve & Hand Shower Installation

1



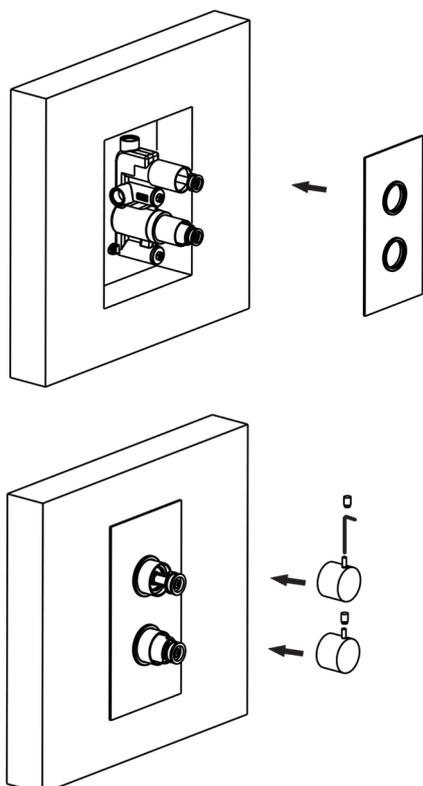
Determine the position of the valve and hold the valve inside the wall cavity. Mark out the fixing points for the screws. Remove the valve and drill in holes for the Wall Plugs. Secure the valve within the wall cavity using the Wall Plugs and Wall Screws.

2



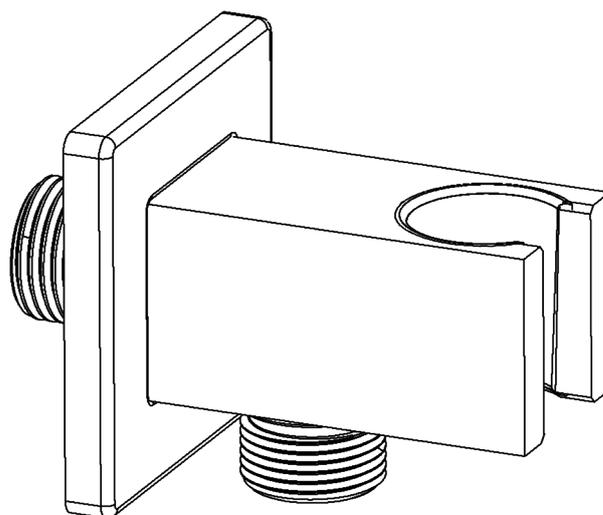
Connect the water inlets and outlets to the valve. Refer to page 8 and the image above for the inlet and outlet positions.

3



Fit the Kelda Plate using a bead of clear silicone sealant on the back. Place the Control Knobs onto the valve and secure them with the Grub Screws. Screw the Knob Levers onto the Grub Screws.

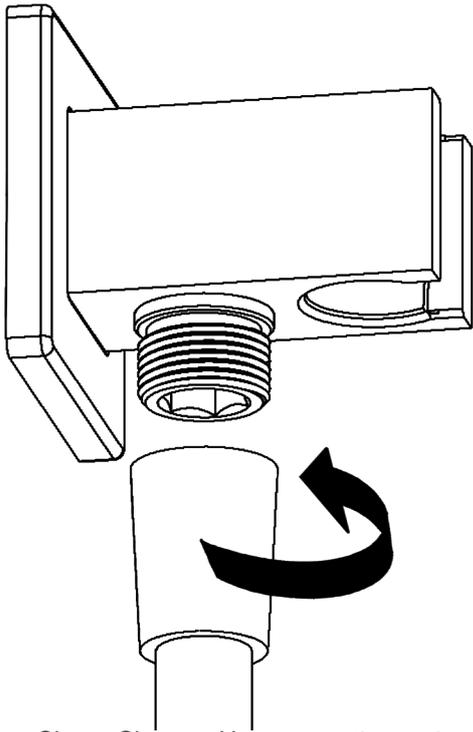
4



Once the female thread has been placed on the pipe, place a washer in the female thread and screw the Hand Shower Holder into the wall. Ensure that the trim is on the Hand Shower Holder before screwing onto the wall.

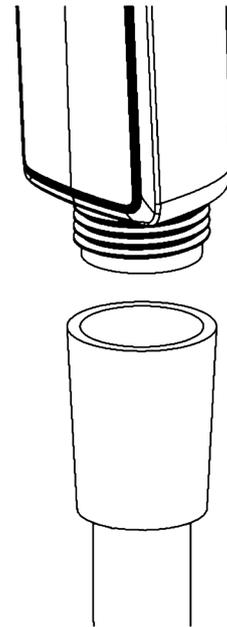
# Valve & Hand Shower Installation

5



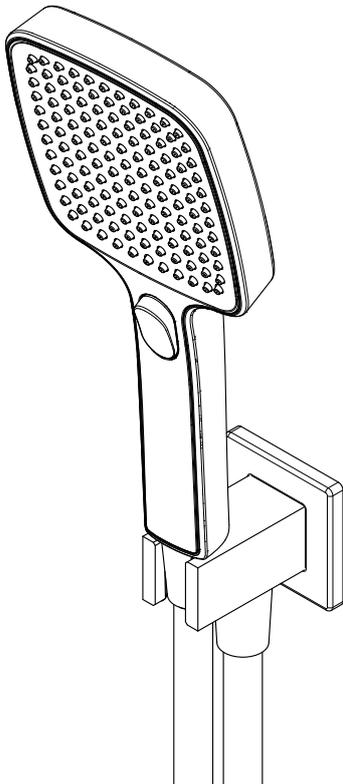
Screw the Easy-Clean Shower Hose onto the underside thread of the Hand Shower Holder. Ensure that there is a washer inside the Hose before attaching.

6



Screw the other side of the Hose onto the thread at the bottom of the Hand Shower. Ensure that the flow regulator is inside the Hand Shower and that there is a washer inside the Hose before screwing it in.

7



The installation of the Hand Shower is complete. Place the Hand Shower onto the mount.

## Warning!

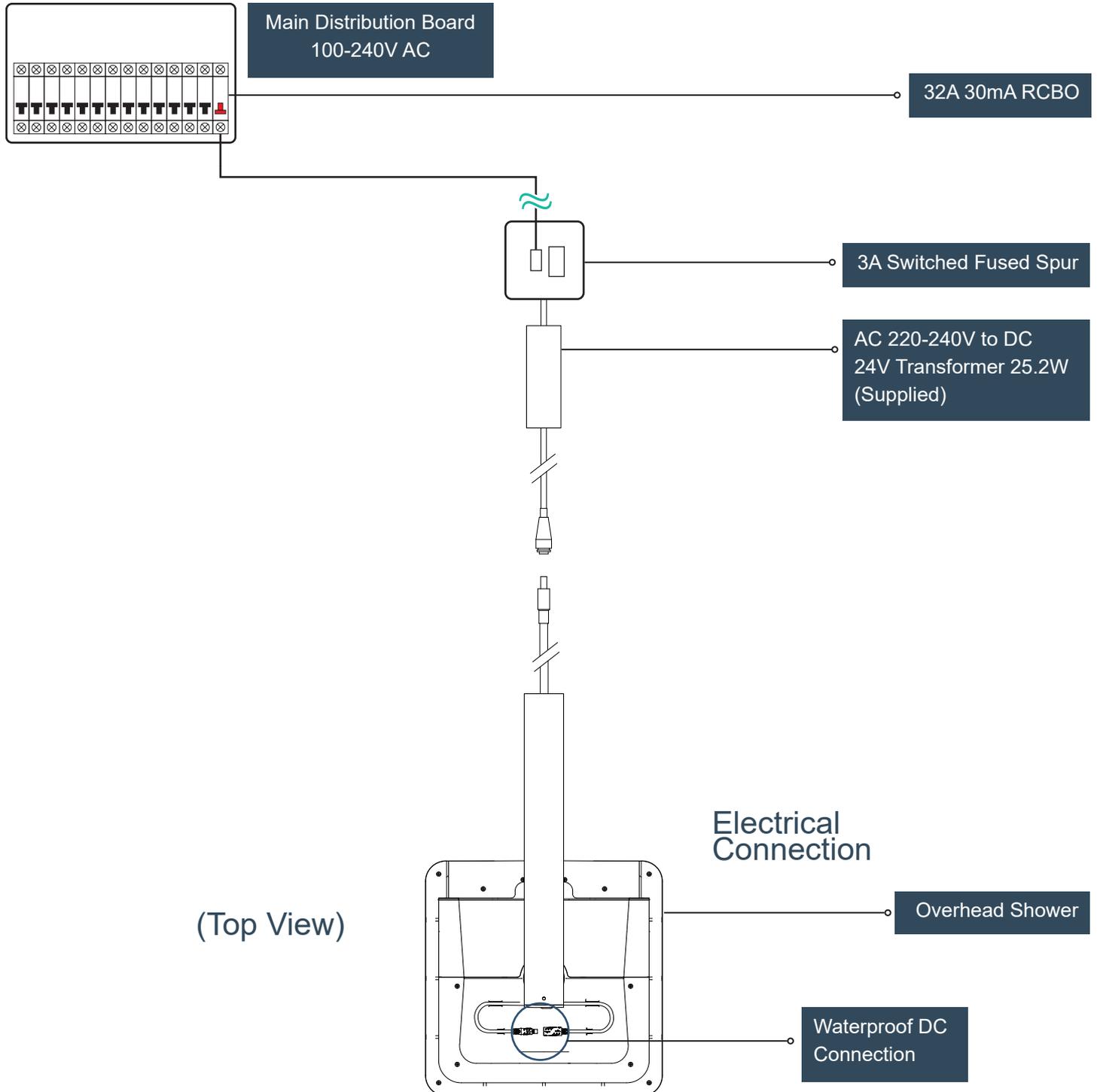


- Always check for hidden pipes and cables before drilling.
- Run water through hot and cold pipes to clear debris from pipework before connecting Kelda BubbleSpa® Shower.

# Electrical Installation

This shower requires a 100-240 VAC, 47 ~ 63Hz single phase supply. A single 3 Amp switched fused spur should be used for each shower. Up to 12 Kelda showers can run from a single 32A 30mA RCBO.

Before connecting the Transformer, make sure that the mains terminal is able to sustain 240V and 3A. All electrical installation is to be carried out by an approved electrician in accordance with Part "P" U.K. Building Regulations and to the latest IEEE standards, or the appropriate regulations in the country of installation.



(Top View)

The BubbleSpa® Overhead Shower does not require its own [electrical port] on the RCB. Since the BubbleSpa® can be run from a port being used eg. a kitchen port or lighting. See next page for full details.

# Electrical Installation

## Meanwell Customised 24V LPF Series Unit Transformer



IP67 - Fully Encapsulated  
Class 2 Power Unit

Output	
DC Voltage	24V
Constant Current Region	13.2 ~ 24V
Rated Current	1.05A
Rated Power	25.2W

Input	
Voltage Range	90 ~ 305VAC
Frequency Range	47 ~ 63Hz
AC Current	0.4A / 115VAC 0.25A / 230VAC 0.2A / 277VAC

### Protection

Over Current	95-108% Constant current limiting, recovers automatically after fault condition is removed
Short Circuit	Hiccup mode, recovers automatically after fault condition is removed
Over Voltage	28-35V Shut down and latch off o/p voltage, re-power on to recover
Over Temperature	Shut down o/p voltage, recovers automatically after temperature goes down

### Environment

Working Temp.	Tcase = -35~+70°C
Max. Case Temp.	Tcase = +70°C
Working Humidity	20 ~ 95% RH non-condensing
Storage Temp. Humidity	-40~+80°C, 10 ~ 95% RH
Temp. Coefficient	+/-0.03%/°C (0 ~ 50°C)
Vibration	10 ~ 500Hz, 5G 12min./1 cycle, period for 72min. each along X, Y, Z axes

### Safety & EMC

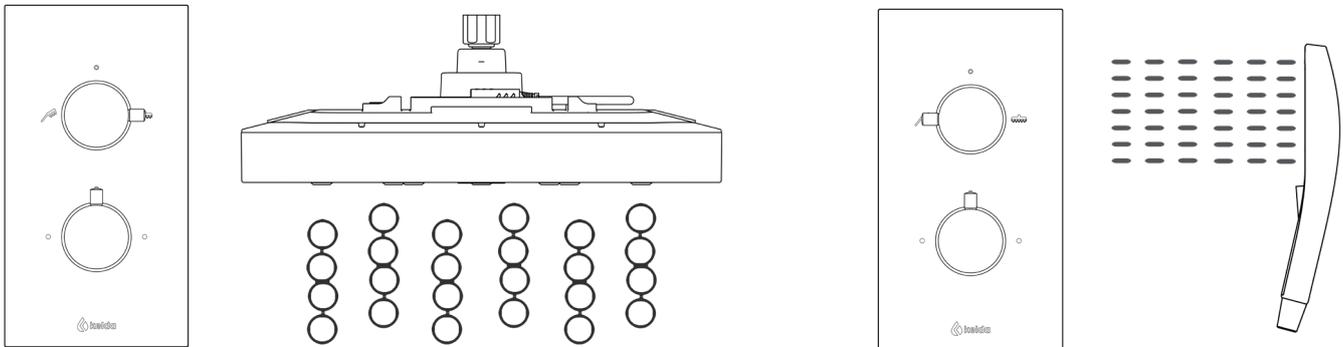
Safety Standards	UL8750, CSA C22.2 No.250.0-08; ENEC BS EN/EN61347-2-13 independent, BS EN/EN62384, J61347-2-13, EAC TPTC 004, GB19510.14, IP67 approved; Design refer to UL60950-1
Withstand Voltage	I/P-O/P:3.75KVAC
Isolation Resistance	I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH
EMC Emission	Compliance to BS EN/EN55015, BS EN/EN61000-3-2 Class C (@load≥50%) ; BS EN/EN61000-3-3, GB17743 and GB17625.1, EAC TP TC 020
EMC Immunity	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11; BS EN/EN61547, light industry level (surge immunity Line-Line 2KV), EAC TP TC 020



# User Guide (Concealed Valve)

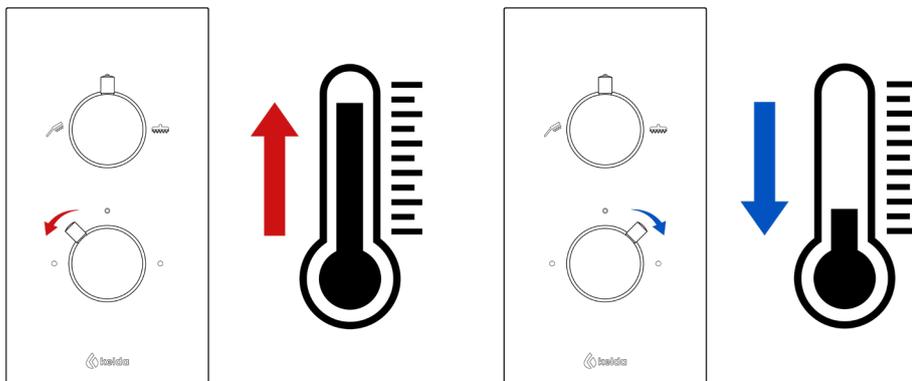
## Selecting an Outlet

The outlet is selected by rotating the upper control knob of the mixer valve. The graphics on the faceplate denote each outlet with the BubbleSpa® Overhead Shower being on the right and the SilkSpray Hand Shower being on the left.



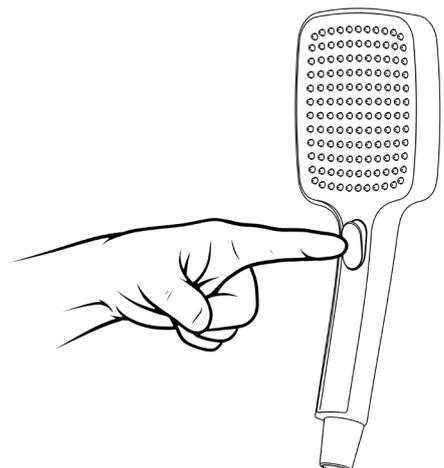
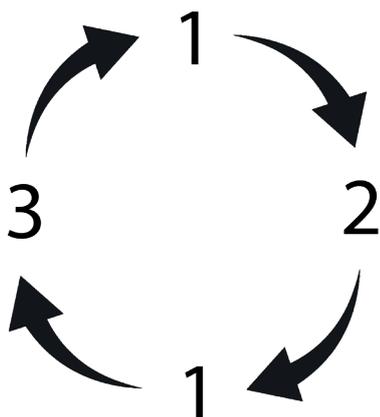
## Adjusting the Temperature

The temperature is adjusted by rotating the lower control knob of the concealed valve. Turn anti-clockwise to increase the temperature and turn clockwise to decrease the temperature. The default temperature should be calibrated to the water system of the residence upon commissioning (see page 33 to recalibrate). The outlet temperature should not exceed 46°C. Please note that 37°C - 37.5°C is a comfortable temperature for children to bath in according to the British Burns Association.



## Selecting a Hand Shower Mode

The Kelda SilkSpray Hand Shower cycles through three modes: All [1], Inner [2], Outer [3]. Use the chrome Button on the front of the handle to cycle between modes.



# User Guide (BubbleSpa® Overhead Shower)

## Bubble Effect Light Settings

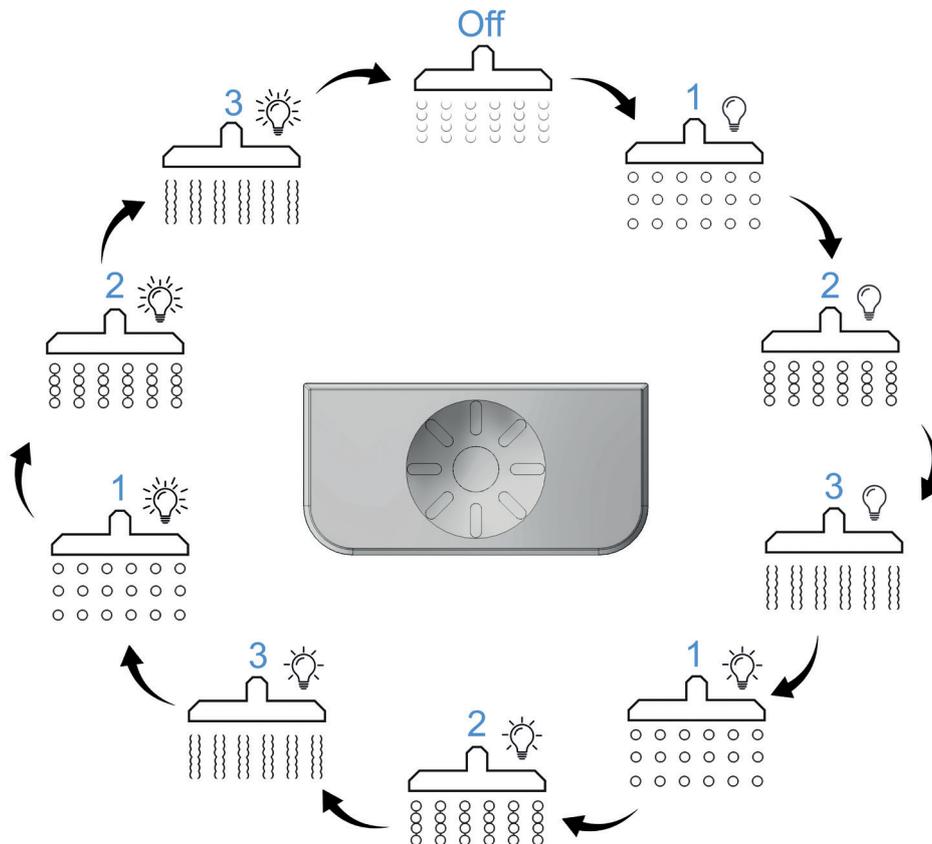
The LED EdgeLight within the Overhead Shower, which illuminates the bubbles, comes with a selection of light modes to give you a satisfying bubble experience no matter what your mood is or the time of day. The EdgeLight can be used both when the shower is on (Wet Mode) or when the shower is off (Dry Mode).

### Wet Mode

Wet Mode is automatically activated when water flows through the Overhead Shower above 6L/min. The default Bubble Mode is “1 Low” (see table below). The Overhead Shower will return to this setting in the event of the power being disconnected.

To change the Bubble Mode simply press the illuminated Button in the faceplate.

	Brightness	Bubble Mode		
	Off	Bubbles not visible to the naked eye		
💡	Low	1	2	3
💡	Medium	1	2	3
💡	High	1	2	3



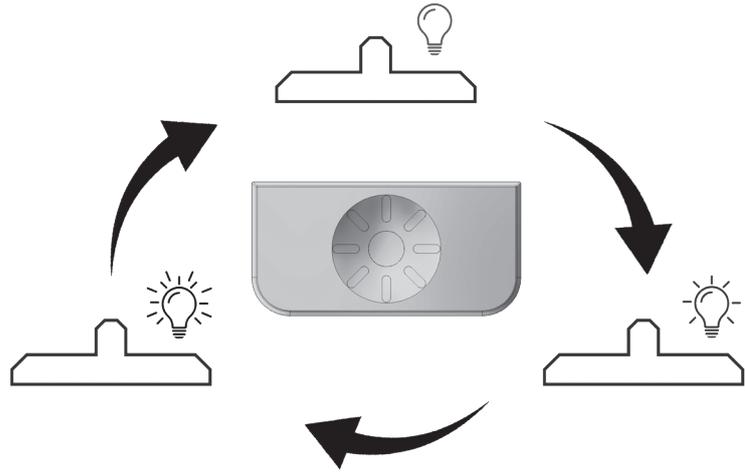
*\*Visual representation of how bubbles LOOK at different settings. Pressing the Button does not change the frequency of bubbles or flow rate of the BubbleSpa® shower.*

- The image above shows the cycle of Bubble Modes.
- Pressing and holding the Button (for 1-2seconds) will turn the light off regardless of which Bubble Mode is currently selected.
- When the water is turned off the Bubble Mode is stored ready for your next shower.
- ‘Off’ is also saved as a setting – if you find the water on but the main LED array isn’t illuminated, it is likely that the Bubble Mode was set to ‘off’ by the last user. Simply press the Button to cycle to the next Bubble Mode.

# User Guide (BubbleSpa® Overhead Shower)

## Dry Mode

Brightness
Off
Low
Medium
High



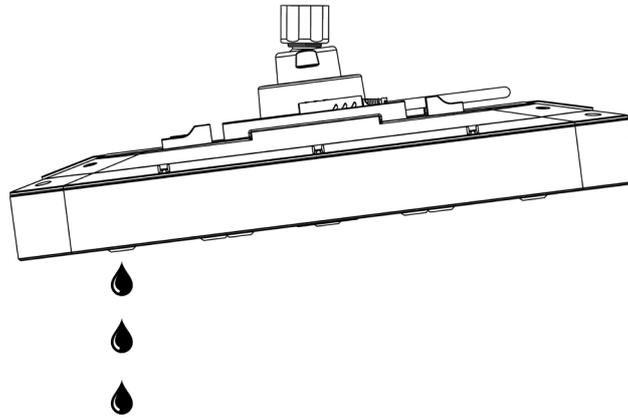
- To activate Dry Mode press the Button when the shower is off. To deactivate, press and hold for 2 seconds.
- Press the Button to change the brightness of the light during dry mode
- The image above shows the Dry Mode cycle when the Button is pressed
- Wet Mode can be automatically activated from Dry Mode by turning the water on
- A longer press (1-2seconds) will turn the light off regardless of what mode is currently selected

## Diagnostic Function

With the light and water off, press and hold the Button for at least 5 seconds to engage the diagnostic tool. During this function the Kelda EdgeLight and the fan will turn on. To switch off the fan and EdgeLight, simply let go of the Button. Use this tool to check the function of the fan and EdgeLight.

## After Use

After using the shower, users are advised to tilt the Overhead Shower. This drains the water inside of the water chamber.



## Flashing Lights!



This product uses flashing lights at frequencies of 72Hz, 200Hz and 10,000Hz. The effect of the lighting modes will vary depending on ambient lighting and the environment in which it is installed. Anyone diagnosed with a condition which could be triggered by flashing lights should seek further medical advice.

Bubble Mode	Frequency
1	72Hz
2	200Hz
3	10,000Hz

# Maintenance

Kelda showers are designed for easy maintenance and should give a safe and consistent performance, provided that:

1. Kelda showers are installed, commissioned, operated and maintained in accordance with this installation guide.
2. Periodic attention is given as necessary to maintain the product in good functional order.

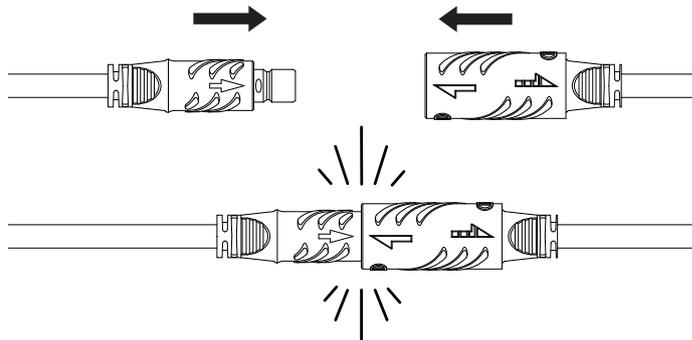
Maintenance must be carried out in accordance with these instructions, and must be conducted by designated, qualified and competent personnel. Kelda showers are built with the highest quality components which are designed for a long life, but due care must be taken during maintenance to avoid damage.

## External Surfaces

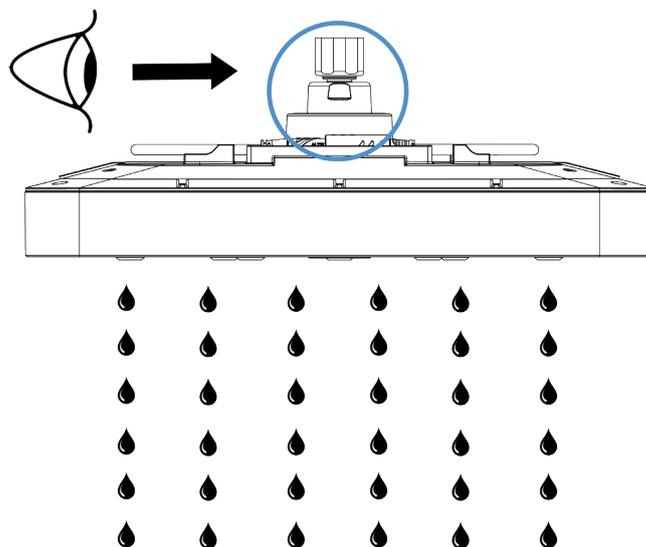
External surfaces of the Overhead Shower and Arm Assemblies may be wiped clean with a soft cloth and if necessary, a mild cleaning or descaling solution can be used. Always remove cleaning agent residue as this can discolour the surface. Care must be taken not to allow bleach, chlorine or other strong cleaning agents on or inside the product.

## Dismounting the Overhead Shower

Some maintenance steps will require you to dismount the Overhead Shower. Before dismounting the Overhead Shower it is important to first switch off the mains power.



When remounting the Overhead Shower it is important to tighten both the Ball Joint and the Ball Joint Clamp. Run water through the shower and check that there are no leaks in this area or the system. **Only turn on the mains power when the Power Cable is connected.**



# Maintenance

## Things to Avoid

To keep the BubbleSpa® shower functioning well, please avoid the following:

- Blocking the nozzles while the BubbleSpa® is running.
- Hanging items on the BubbleSpa® Overhead Shower or Arm Assemblies.
- Using the BubbleSpa® shower without a PCB Cover or Dust Cover with Dust Filters.
- Using the BubbleSpa® Shower without a filter.

Be careful not to allow water into the fan when:

- Fitting/removing the BubbleSpa® Overhead Shower
- Spraying any additional water source up at the BubbleSpa® shower
- Descaling the BubbleSpa® Overhead Shower (page 31).



**Warning!**  
**DO NOT SUBMERGE the BubbleSpa® Overhead Shower!**  
**DO NOT SPRAY TOP SURFACE with water! Doing so will**  
**invalidate your warranty.**



## Fan Protection Mode

If while water is running: the fan and EdgeLight switches off, the Button light starts flashing and the Button becomes unresponsive, then you have entered Fan Failure Mode. This mode is automatically activated if the fan is running slower than it should be. This is most likely caused by water ingress, debris/an obstruction in the fan or clogged Dust Filters.

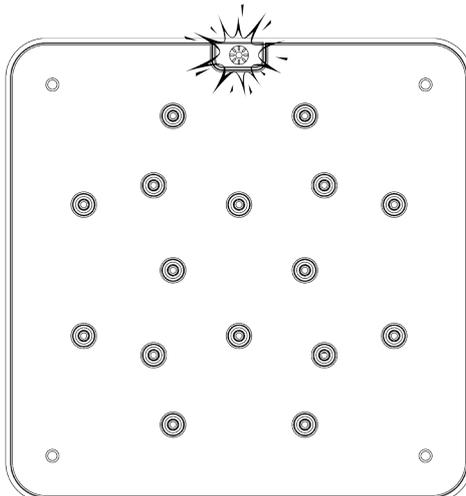
If the Overhead Shower enters Fan Failure Mode, stop using the shower, switch off the water, switch off the power via the mains and disconnect the power cable. Dismount the Overhead Shower, open the Dust Cap and inspect the fan. You may have to:

- Remove the debris and clear all obstructions on or in the fan.
- Ensure the Dust Filters are present and secured in the Duct Cap.
- Drain the water from the fan and leave the fan to dry.

If you find water ingress within the fan, please find the cause and solve it so it does not reoccur. Once complete, remount the Overhead Shower, reconnect the power cable and turn on the mains power. Turn on the water to test the function of the fan. If the fan re-enters Fan Failure Mode then:

- The maintenance process was incomplete and needs to be repeated and conducted more thoroughly.
- The fan has sustained permanent damage.

If the fan has sustained permanent damage, contact Kelda Customer Service.

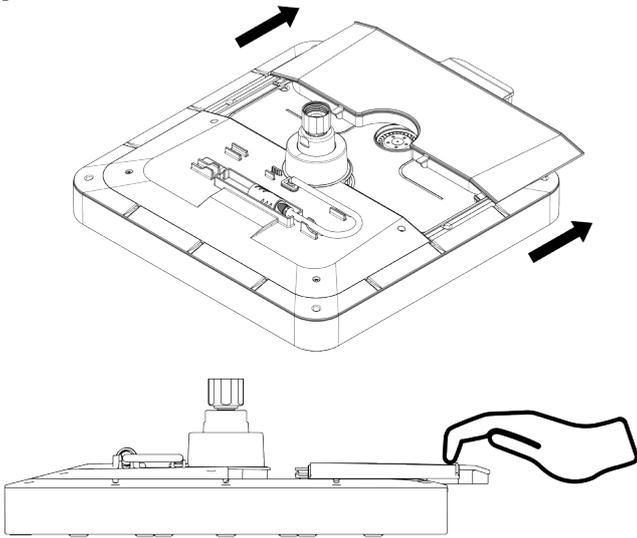


# Maintenance

## Cleaning Dust Filters

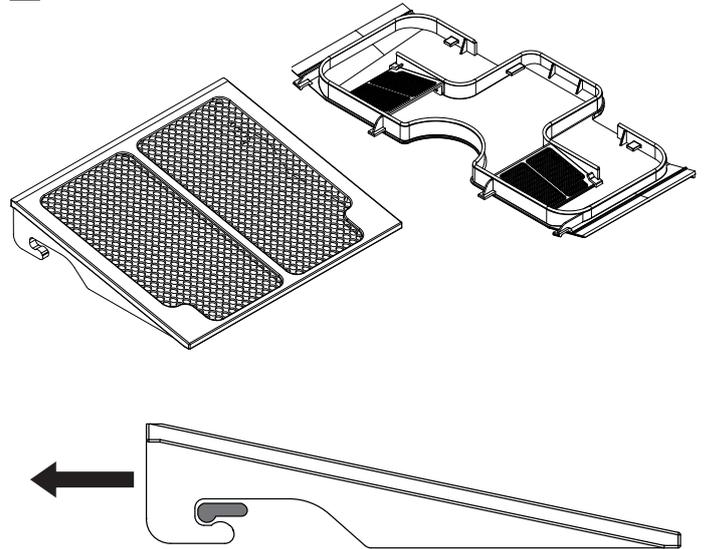
The Dust Cap can be removed from the BubbleSpa® Overhead Shower in order to clean the Dust Filters. The Dust Filters can be removed and cleaned. Ensure that the Dust Filters are dry upon replacement.

1



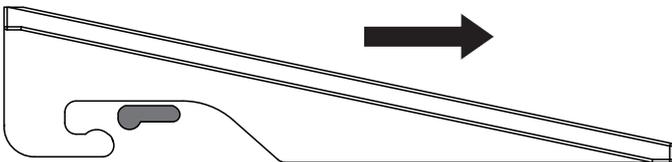
Switch off the water and power and disconnect the power cable on the Overhead Shower. Then dismantle the Overhead Shower using a spanner and place the Overhead Shower onto a soft cloth. Be careful not to get any water onto the fan. Then slide the Dust Cap off the Overhead Shower as shown with both hands.

2



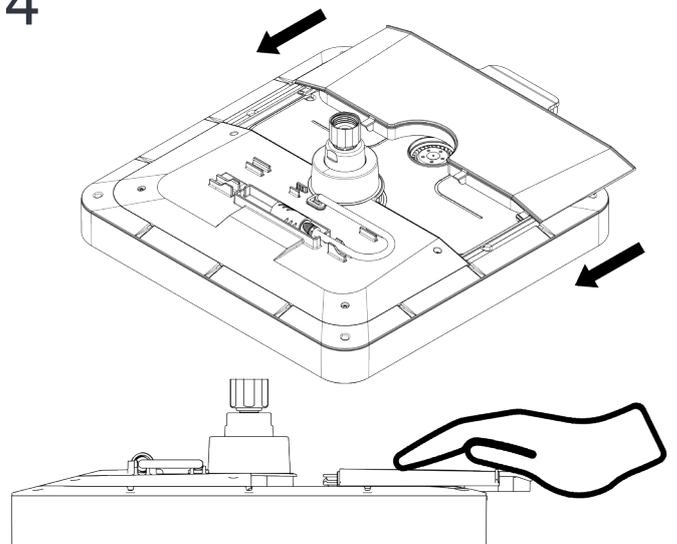
Remove the Dust Filters from the Dust Cap as shown and clean the Dust Filters. Wipe down the underside of the Dust Cap and the surface of the Overhead Shower with a damp cloth. Take care not to get any moisture on to the fan.

3



Dry the Dust Filters and place them back into the Dust Cap. Make sure the Dust Filters are secured tightly in the Dust Cap.

4



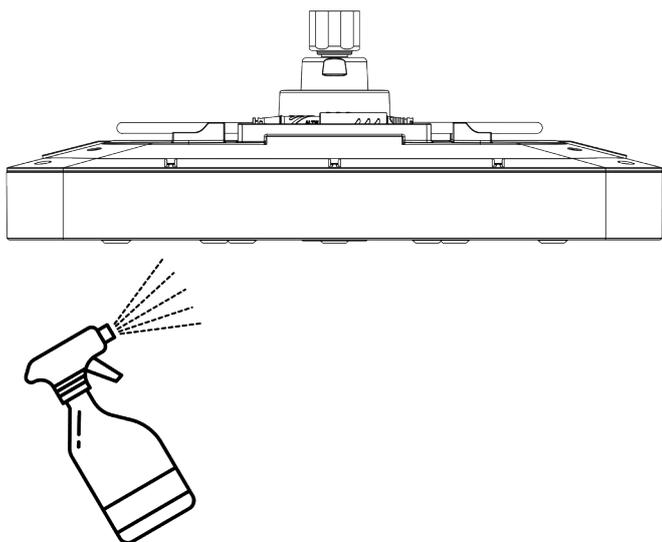
Slide the Dust Cap onto the Overhead Shower. Make sure the Dust Cap is secured tightly and then mount the Overhead Shower onto the arm using a spanner. Reconnect the power cable then switch on the power and water supply.

# Maintenance

## Descaling the BubbleSpa® Overhead Shower

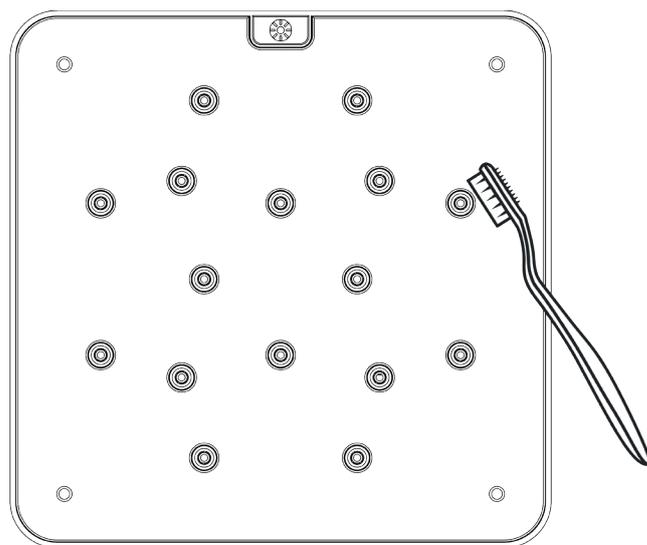
The design of the HydroO<sub>2</sub> nozzles makes them easy to clean and descale should limescale build up and start affecting the performance. The frequency in which one should descale the BubbleSpa Overhead Shower depends on the water quality and frequency of use.

1



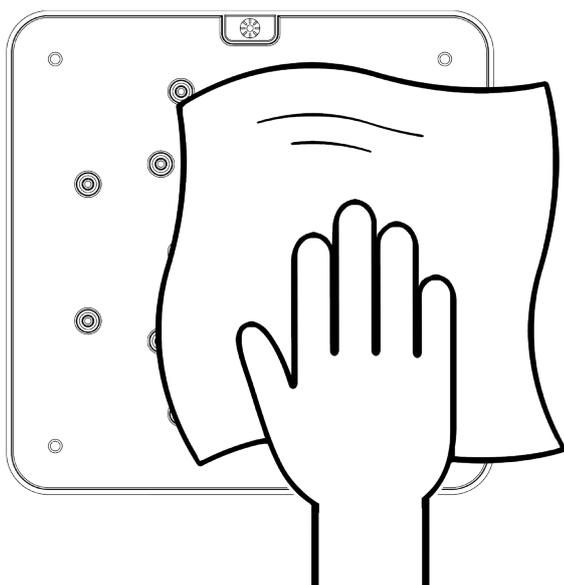
Spray cleaning solution onto the faceplate.

2



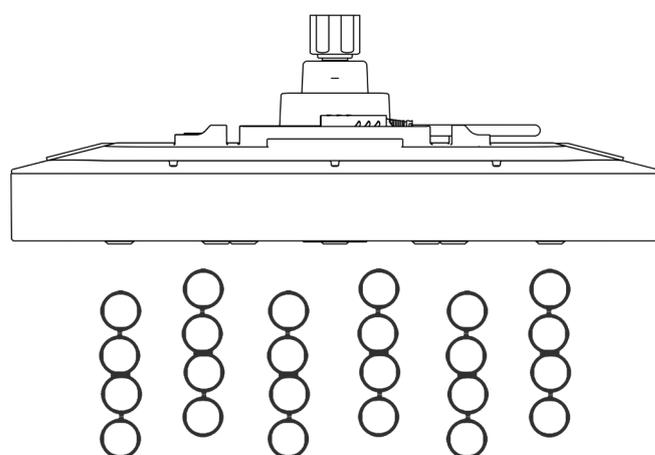
Clean the nozzles using a soft brush.

3



Wipe the faceplate using a damp cloth to remove the loosened debris.

4



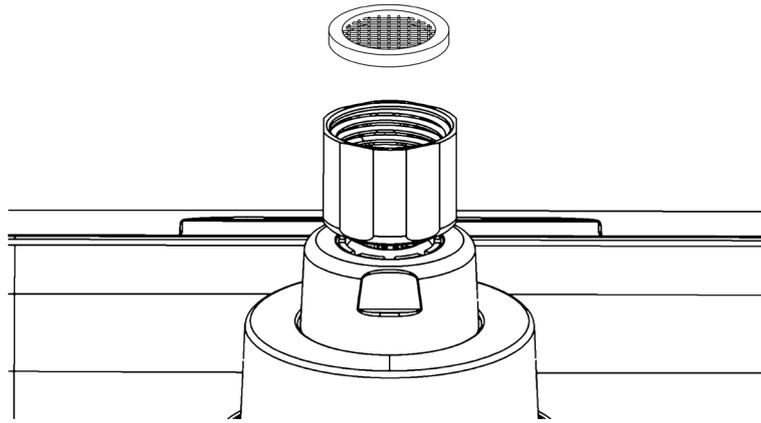
Run the shower for 1-2 minutes to flush out any cleaning solution and debris.

# Maintenance

## Cleaning the Filter

Filters are installed in the BubbleSpa® Overhead Shower to prevent any debris from entering the Overhead Shower. Debris in the water system may clog the filters which may result in a lower water flow rate. These filters are located inside the Ball Joint. To clean or replace these filters: Switch off the mains power to the Overhead Shower and disconnect Power Cable. Unscrew the Overhead Shower from the Wall/Ceiling Arm Assembly. Remove and clean the filter and then place it back into the Overhead Shower (or replace the filter). Screw the Overhead Shower back onto the Wall/ Ceiling Arm Assembly, connect the Power Cable and then switch the mains power on.

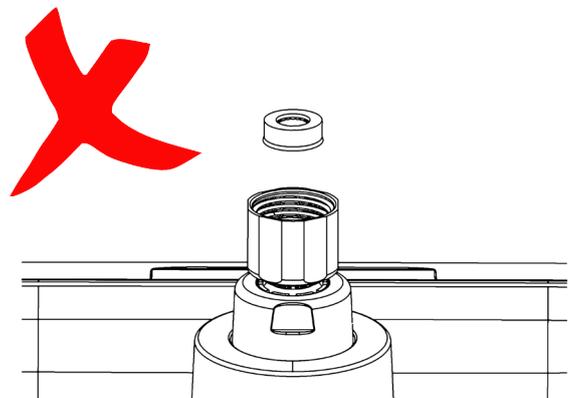
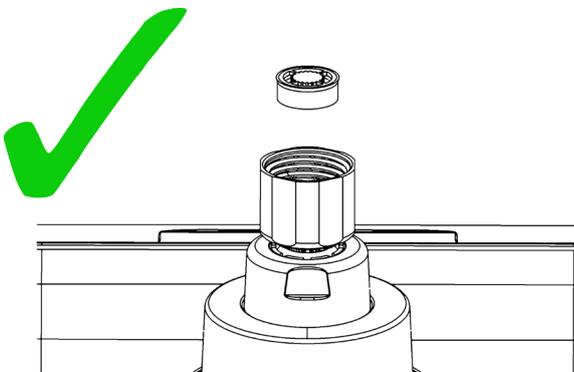
If you have found debris in the shower head filter, it is likely that filters of your mixer valve also need to be cleaned. Please check the filters on your mixer valve and clean them (see page 34). We recommend flushing through the water system before the freshly cleared filter/filters are refitted. Using the BubbleSpa® shower without a filter in the Overhead Shower will void the warranty and negatively affect the performance of the product.



## Changing the Flow Regulator (Flow Restrictor)

To change the flow regulator: Switch off the mains power to the Overhead Shower and disconnect the Power Cable. Unscrew the Overhead Shower from the Wall/Ceiling Arm Assembly. The flow regulator is located underneath the filter so remove the filter and the flow regulator. Then replace the flow regulator and place the filter on top. Screw the Overhead Shower back onto the Wall/Ceiling Arm Assembly, reconnect the power cable and turn the mains power back on.

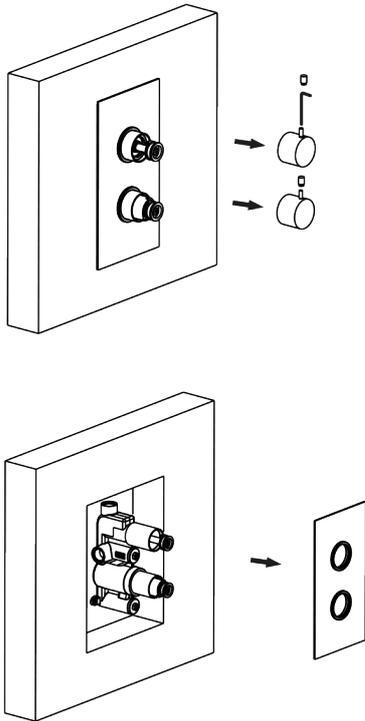
The BubbleSpa® Overhead Shower operates at a range of 8– 12L/min. Using the BubbleSpa® Overhead Shower without a Kelda-supplied flow regulator will void the warranty and negatively affect the performance of the product.



# Maintenance

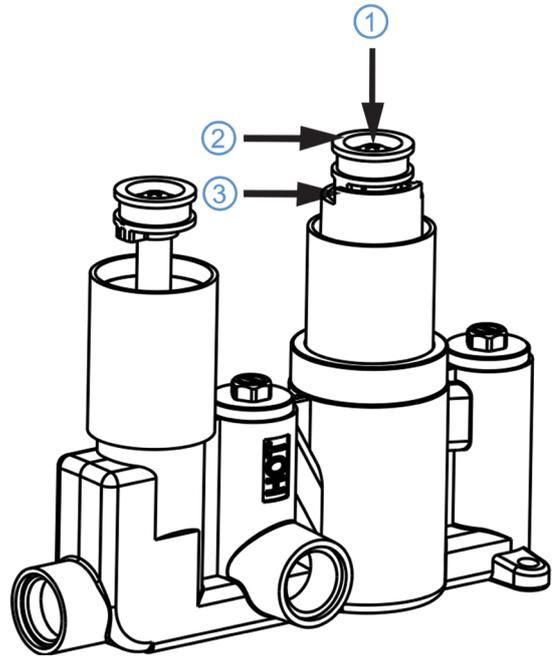
## Resetting the Valve Temperature

1



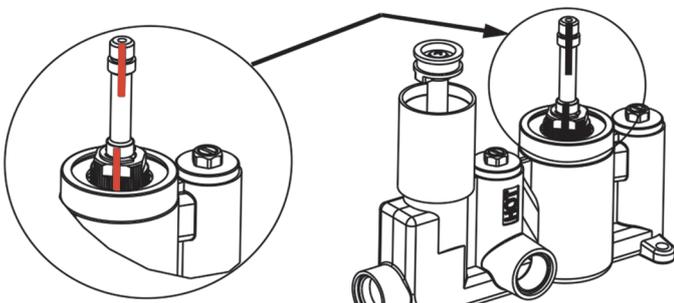
Unscrew the Knob Levers from the Grub Screws then unscrew the Grub Screws from the Control Knobs using the Hex Key. Remove the Control Knobs and remove the Kelda Faceplate.

2



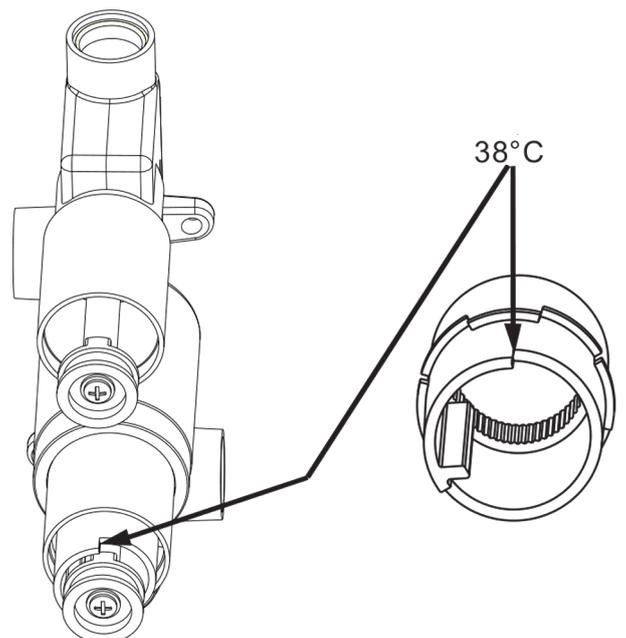
Remove the screw & washer [1], the Knob Adapter [2] and Temperature Control Ring [3] from Thermostatic Cartridge.

3



Keep the two marked lines in line whilst turning the spindle. Turn the spindle anti-clockwise to reduce the water temperature (or turn the spindle clockwise to increase the temperature). Measure the temperature of the water and adjust as required. Be careful not to get any water into the wall cavity.

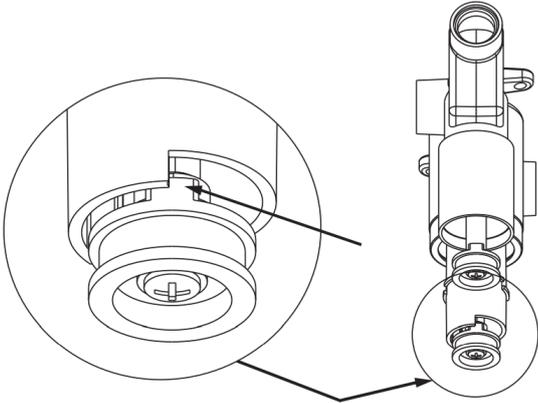
4



Re-fit the Temperature Control Ring with the [arrow] protrusion pointing to the 12 o'clock position.

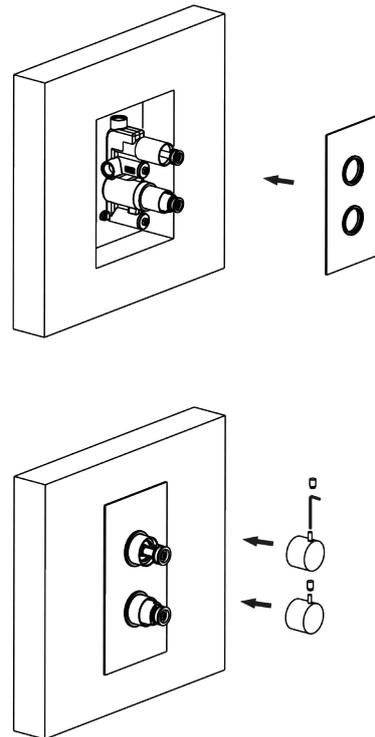
# Maintenance

5



Re-fit the Knob Adapter, screw and washer by reversing step 2. Make sure the protrusion [circled above] points to the 12 o'clock position.

6



Replace the Kelda Faceplate and secure it with silicone. Refit the Control Knobs onto the valve and secure them with the Grub Screws using the Hex Key. Finally screw the Knob Levers onto the Grub Screws.

## Cleaning the Mixer Valve

The filters inside the valve may become clogged which will result in reduced flow and reduced performance of the valve. To clean the valve:

1. Shut off the water supply with isolating valves on both hot and cold inlets.
2. Unscrew the Knob Levers and the Grub Screws. Then remove the Control Knobs and Kelda Faceplate.
3. Remove the Screw, the Knob Adaptor and the Temperature Control Ring from the Thermostatic Cartridge.
4. Now remove the cartridge with a wrench or similar tool.
5. Rinse the Filters to remove dirt thoroughly, soak them in a suitable descaling agent.
6. The housing of the Thermostatic Cartridge must also be cleaned thoroughly with a clean cloth. The O-rings of the cartridge should be greased.
7. Reassemble the Thermostatic Cartridge ensuring the Temperature Control Ring and Knob Adapter point to 12 o'clock position as per steps 4 & 5 of the 'Resetting the Valve Temperature' section.
8. Ensure that the system is secured tightly. The water supply can now be turned on from the isolating valves.
9. Check the water temperature is okay, and if not then calibrate as explained in page 33 and check again.

Whilst following these essential maintenance steps, please take due care to maintain the aesthetic quality of the valve - the chrome surfaces should be handled with care and cleaned using a soft cloth. Do not use any chemical cleaning products or abrasive items. If above instructions are not adhered to, this will invalidate your warranty.

# Maintenance

## TMV2 Operation Specifications

This valve can function as a Type 2 valve if subject to the following conditions:

Maximum Static Pressure: 10 Bar

Dynamic Pressure: 0.5 Bar – 5 Bar

Hot Supply Temperature: 55°C - 65°C

Cold Supply Temperature: ≤25°C

If the valve is made to perform outside of these conditions, then it cannot be guaranteed to function as a Type 2 valve. The designation of use for this mixer valve is High Pressure Shower (HP-S). If using a gravity-fed system for the water supply then the pressure should be verified before installation to ensure the pressure of the supply meets these conditions. The check valve gland inside the mixer valve will prevent any backflow.

When conducting maintenance, make sure to inspect all parts. Replace any parts if necessary. The frequency of maintenance will depend on the water quality and usage of the product however checks on the mixer valve should be conducted at least annually to ensure safe performance. Please note that residual flow is normal as long as the water is no more than 2°C hotter than the maximum temperature of the mixed water. The residual flow should also be no more than 120ml per minute. The temperature should be measured at a normal flow rate with the temperature sensor being fully submerged.

# Troubleshooting

Before troubleshooting, ensure that the correct installation, usage and maintenance procedures have been followed. Improper installation and improper use of the product can cause a lot of issues. The guide below is designed to help identify and solve minor issues which may occur. If the issue is still not resolved, please contact Kelda Customer Service:

info@keldashowers.com  
+44 (0)2381 290640

**DO NOT** disassemble the BubbleSpa® Overhead Shower beyond the instructions contained in this manual. Disassembling the BubbleSpa® Overhead Shower will invalidate the warranty.

## BubbleSpa® Overhead Shower

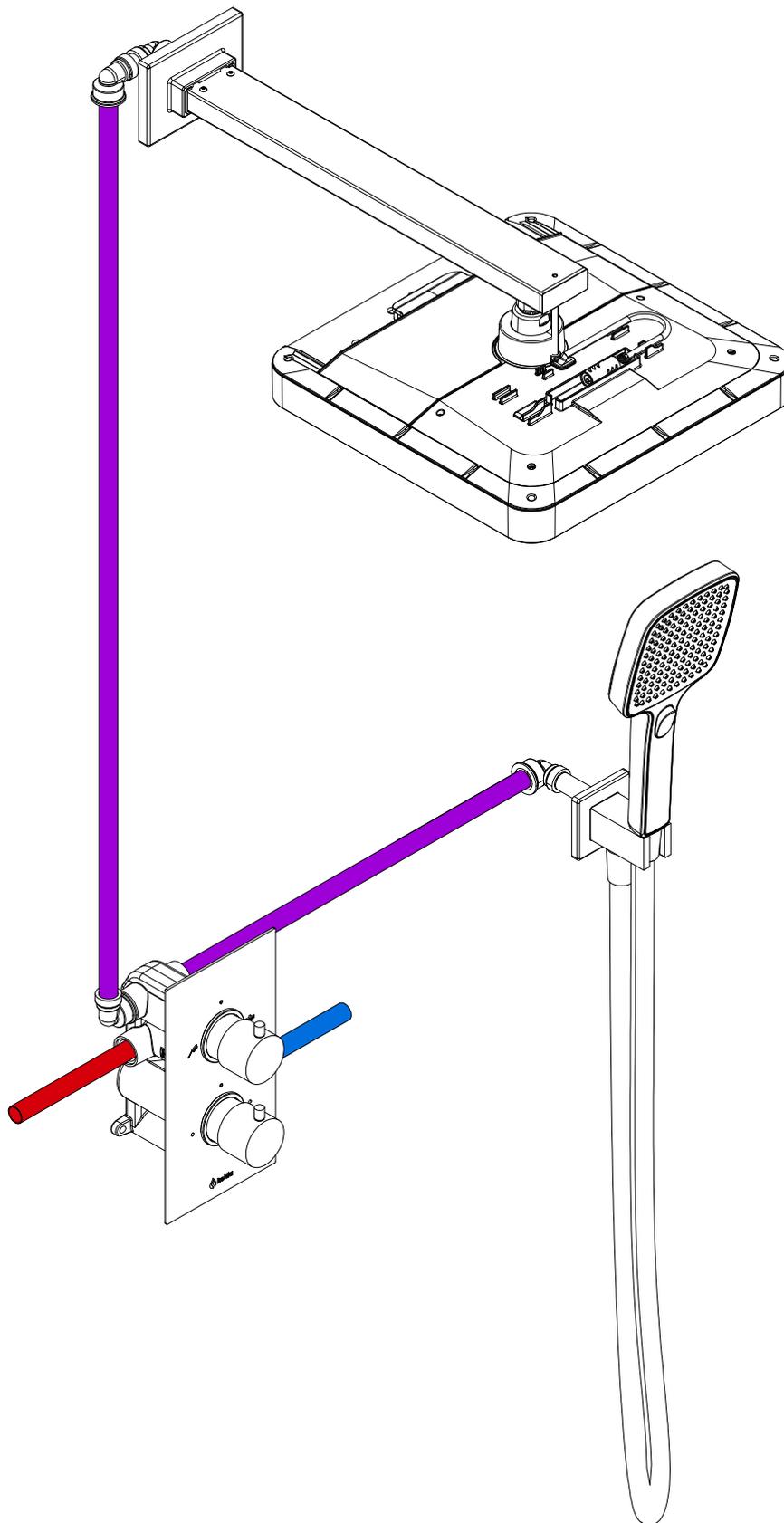
Symptom	Likely Cause	Action/Remedy
Poor/no water flow:	Hot or cold water supply isolation valve closed	Check and open valve
	Blocked filter	Clean/replace the filter in the Overhead Shower (see page 32)
	Mixer valve not functioning	Check mixer valve (see next page)
Water flows from Overhead Shower but no air:	No power to the fan	Check power light indicator. If off, contact a qualified electrician Overhead Shower has entered Fan Protection Mode (see page 29) If on, conduct hard reset by switching off electrical supply and waiting 10 seconds before switching back on
	Fan Damaged	Use Diagnostic Function to see if the fan is working. If not, contact Kelda
	Debris in fan	Clean the Dust Filters
One/a few nozzles are not making bubbles:	No laminar flow through nozzle	Gently brush a finger against the nozzle whilst the shower is running. Should this not work, use a soft brush to clean the outer ring of the nozzle.
	Faulty nozzle is blocked	Descale the Overhead Shower to remove debris (see page 31). Check the filter is installed correctly (both in the Overhead Shower and in the valve) Clean/replace the filter in the Overhead Shower (see page 32) and mixer valve (see page 34)
	Insufficient water supply	Increase the water flow to the shower
Multiple/all nozzles aren't making bubbles:	Insufficient water supply	The fan wont turn on below 6L/min, therefore no bubbles will be produced. Clean/replace the filter in the Overhead Shower (see page 32) and in the mixer valve (page 34). Increase the water flow to the shower
	Limescale/ Debris build up in the nozzles	Descale the BubbleSpa® Overhead Shower (see page 31). It is recommended not to leave the BubbleSpa® Overhead Shower unused for more than 2 weeks.
Water flow too strong:	Flow restrictor not installed	Check if the flow restrictor is properly installed (see page 32)
Water leaking from Overhead Shower when the valve is turned off/closed:	This can be normal for a short period of time after the shower has been used	N/A
	Pressure has exceeded that stated for the product	Please refer to technical data and adjust as necessary
	Flow valve leaking	Remove and check the condition of the Flow Cartridge

# Troubleshooting

## Mixer Valve

Symptom	Likely Cause	Action/Remedy
Outlet temperature too cold:	No hot water reaching the valve	Check the water supply for any blockages
	Blocked filter	Remove filters and clean (see page 34)
	If the fault has been present since the valve was installed, it is possible that the inlets were installed incorrectly	Check inlets are installed correctly (see page 8)
	The water supply will be colder in winter months due to outside temperature	It may be necessary to adjust the hot supply. i.e. increase the hot water temperature setting on boiler
Outlet temperature too hot:	No cold water reaching the valve	Check the water supply for any blockages
	Blocked filter	Remove filters and clean (see page 34)
	If the fault has been present since the valve was installed, it is possible that the inlets were installed incorrectly	Check inlets are installed correctly (see page 8)
	The water supply will be hotter in summer months due to outside temperature	It may be necessary to adjust the hot supply. i.e. decrease the hot water temperature setting on boiler
Only hot or cold water from valve outlet:	Possible that the inlets have been installed the incorrect way around	Check inlets are installed correctly (see page 8)
	If only cold water is coming out of the mixer, it is possible there is a cartridge fault	Remove the Thermostatic Cartridge and service
	Blocked filter	Remove filters and clean (see page 34)
Cannot adjust temperature:	It is possible that the Thermostatic cartridge is sticking due to limescale build-up	Remove the Thermostatic Cartridge and service.
	Temperature set incorrectly	Reset the temperature and increase it (see page 33)
Poor flow rate:	Insufficient water pressure	The required minimum water pressure is 1.5 bar (0.15Mpa)
	Filters partially blocked	Remove filter and clean (see page 33)
	Flow valve not fully opening	Remove and check the condition of the Flow Cartridge
Water leaking from shower valve /controls:	Leaking from flow valve	Remove and check the condition of the Flow Cartridge
	Leaking from Thermostatic Cartridge	Remove and check the condition of the Thermostatic Cartridge
	Check that the pressures do not exceed that stated for the product	Check that the pressures do not exceed that stated. If pressures are too high, adjust as necessary. Refer to technical data

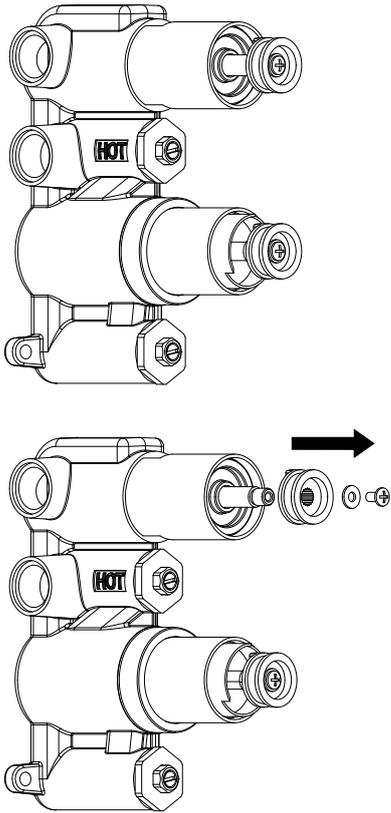
# Changing Valve Direction



If you wish to install the hand shower on the right-hand side (image above), the diverter inside the mixer valve needs to be flipped so the artwork on the Kelda Plate matches the outlet. With the setup above water will come out of the BubbleSpa if the valve is turned to the Hand Shower. Flipping the Flow Cartridge inside of the mixer valve fixes this issue and ensures the artwork matches the valve i.e. water will come out of the Hand Shower if the valve is turned to the Hand Shower. This process should be carried out before the valve is installed.

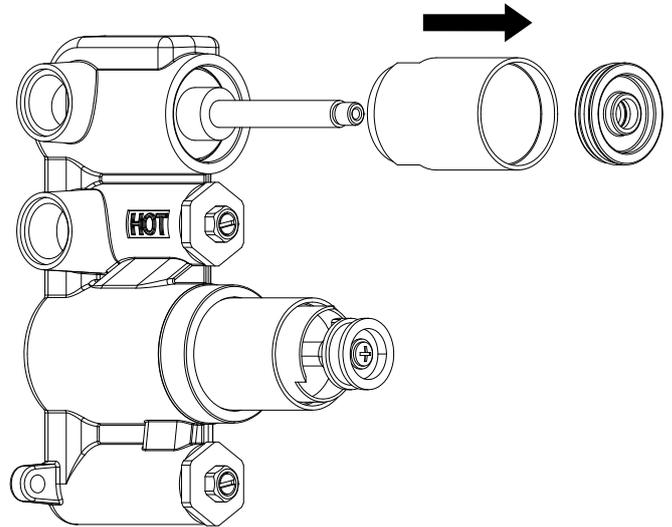
# Changing Valve Direction

1



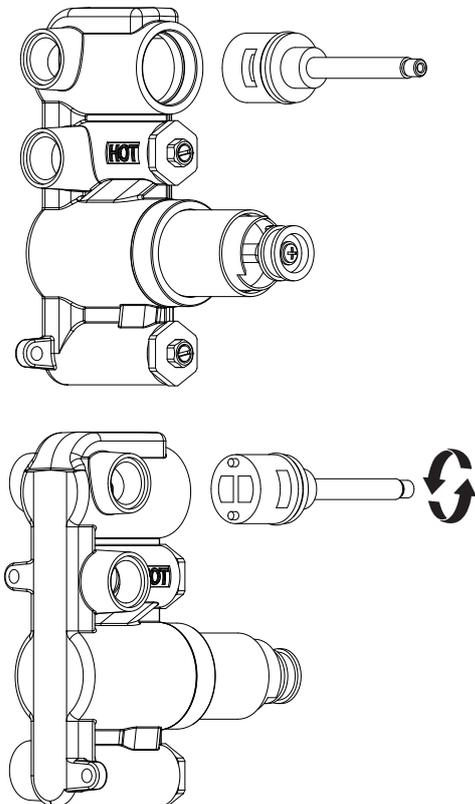
Unscrew the top screw and remove the washer and Flow Adaptor.

2



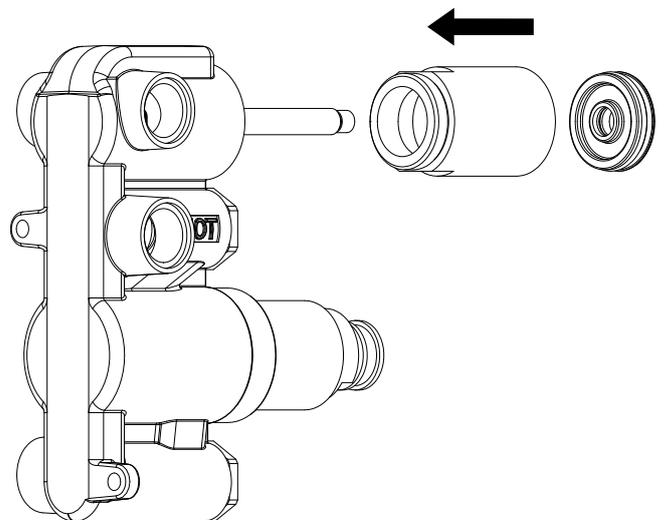
Using an adjustable spanner, unscrew the Flow Collar and remove the seal. There are flats on the back for the adjustable spanner to grip on to.

3



Remove the Flow Cartridge, turn it 180° and place it back inside the valve. Use the 2 locator pins on the back of the Flow Cartridge to make sure it is secured.

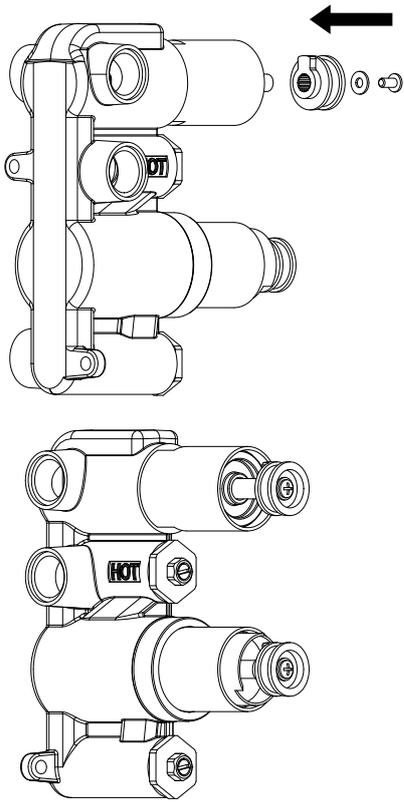
4



Screw the Flow Collar with the seal back into the valve using an adjustable spanner. Ensure the seal is pushed down the Flow Collar as far as it can go.

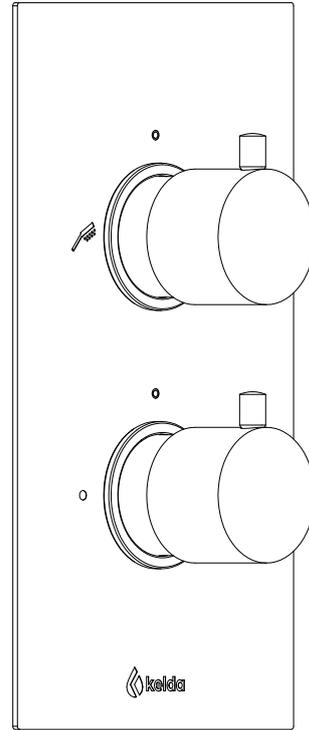
# Changing Valve Direction

5

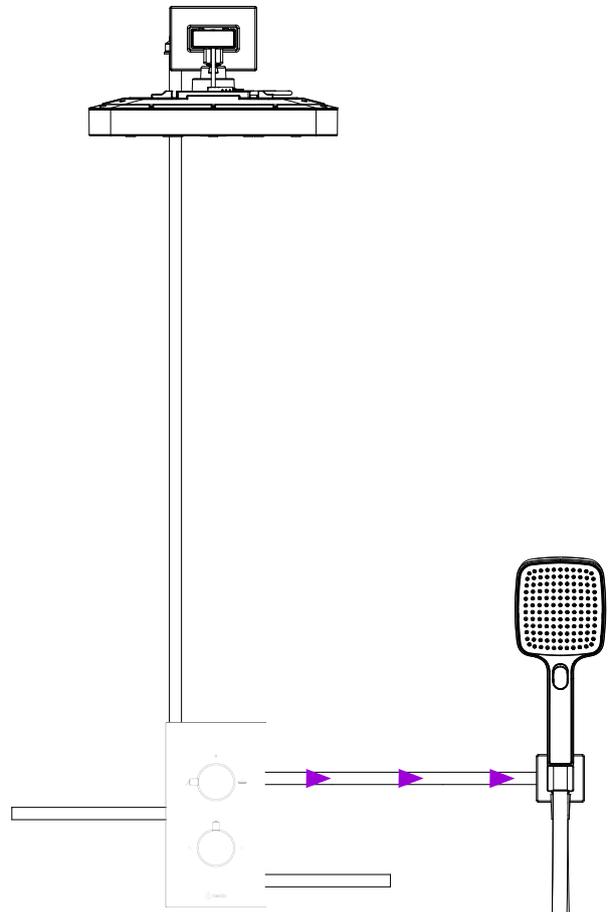
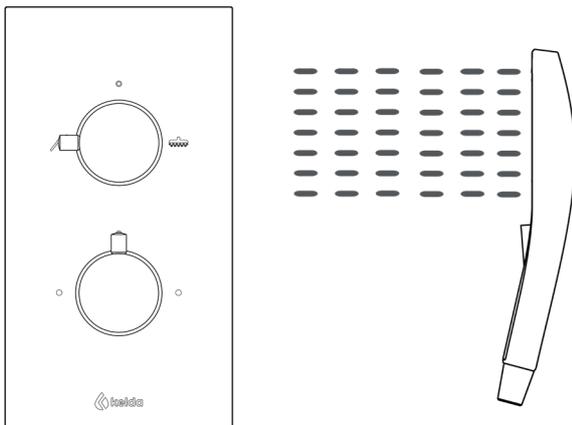


Place the Flow Adaptor and washer back onto the Flow Cartridge and secure them with the screw.

6



Install the valve as per the instructions.



With the Flow Cartridge reversed, the water will flow out in the opposite direction to the knob. This allows the artwork to match the water outlet with the Hand Shower.

# Customer care

## Guarantee

Kelda Showers Ltd. guarantees this product against any defect in materials or workmanship for the period of two years from the date of purchase. To be covered by this guarantee, installation and maintenance should be carried out as described in this manual.

## Not covered by this guarantee

Damage or defects arising from incorrect installation, improper use or failure to maintain in accordance with the instructions in this product manual, including the build-up of limescale. Defects or damage if the product is taken apart, repaired or modified by a person not authorised by Kelda Showers Ltd. or by their approved agents.

## After-sales service

Our fully trained staff are ready to provide assistance, should you experience any difficulty operating your Kelda Showers Ltd. equipment.

## Spare parts

All spares are guaranteed for 12 months from the date of purchase. Spares that have been supplied directly from us can be returned within one month from the date of

purchase, providing that they are in good order and the packaging is unopened. Note: returned spares will be subject to a 15% restocking charge and authorisation must be obtained from Kelda Technology before return.

For the full list of spare parts, please refer to:  
[www.keldashowers.com/](http://www.keldashowers.com/)

## Customer care policy

If within a short space of time of installation the product does not function correctly, first check with the operation and maintenance advice provided in this installation guide to see if the difficulty can be overcome. If this fails, contact your installer to make sure that the product has been installed and commissioned in full accord with our detailed installation instructions. If this does not resolve the difficulty, please contact Kelda Technology who will give you every assistance.

## Declaration of conformity

Kelda Showers Ltd. declares the the BubbleSpa® shower range complies with the essential requirements and other relevant provisions of safety standards: EN IEC 60335-2-105:2021\* (EN60335-1:2012 (+A15:2021\*)). EMC standards: EN 55014-1:2017 (+A11:2020\*). EN55014-2:2015 (Category IV), IEC61000-3-2:2014, IEC61000-3-3:2013. IPX4 : EN 60529:1992 +A2:2013\*. RoHS: EN50581:2012

## Patents:

Patents granted and pending:  
1692638P/US





# Notes



## UK HEAD OFFICE

Unit 11, Brickfield Trading Estate, Chandler's Ford, Eastleigh,  
SO53 4DR, UK

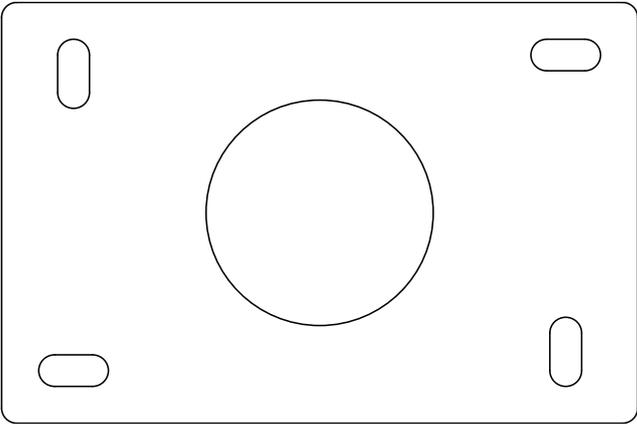
Tel: +44 (0)2381 290640

Web: [www.keldashowers.com](http://www.keldashowers.com)



### DISPOSAL

Do not dispose of with household waste. Please recycle where facilities exist.  
Check with your local authority for recycling advice.



*Cut out for installing the Wall Arm*