



## Installation Manual

### Deluxe Shower Panel

Flex Head - White Glass	TMV2 Thermostatic .....	93007000
Flex Head - White Glass	TMV2 Thermostatic - Eco Handset ..	93008000
Fixed Head - White Glass	TMV2 Thermostatic .....	93009000
Fixed Head - White Glass	TMV2 Thermostatic - Eco Handset ..	93010000

#### Important

Installer — This product manual is the property of the customer and must be retained with the product for maintenance and operational purposes



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## FLOW VOLUME REGULATION

Flow volume l/m is controlled via a flow regulator (see system diagram)

The last digit of the product code will designate the flow regulator pre-fitted E.g.

93007005:	Flex Head - White Glass - TMV2 Thermostatic - 5 l/m
93007006:	Flex Head - White Glass - TMV2 Thermostatic - 6 l/m
93008005:	Flex Head - White Glass - TMV2 Thermostatic - Eco Handset - 5 l/m
93008006:	Flex Head - White Glass - TMV2 Thermostatic - Eco Handset - 6 l/m

## SYSTEM DESCRIPTION

Flex Head – White Glass – TMV2 Thermostatic 93007000

- Surface mounted stainless steel and toughened glass panel shower with a chrome plated flexible shower head and Kelda’s patented water saving technology within. Includes TMV2 thermostatic temperature control,

Flex Head – White Glass – TMV2 Thermostatic - Eco Handset 93008000

- Surface mounted stainless steel panel shower with Surface mounted stainless steel and toughened glass panel shower with a chrome plated flexible shower head and Kelda’s patented water saving technology within. Includes TMV2 thermostatic temperature control and secondary ECO handset, ideal for rinsing.

Fixed Head – White Glass – TMV2 Thermostatic 93009000

- Surface mounted stainless steel and toughened glass panel shower with a chrome plated fixed shower head and Kelda’s patented water saving technology within. Includes TMV2 thermostatic temperature control.

Fixed Head – White Glass – TMV2 Thermostatic - Eco Handset 93010000

- Surface mounted stainless steel and toughened glass panel shower with a chrome plated fixed shower head and Kelda’s patented water saving technology within. Includes TMV2 thermostatic temperature control and secondary ECO handset, ideal for rinsing.

# Important safety Information

This product requires hot and cold water supply plus an electrical connection (see Electrical section on page 10 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 good working order in accordance with our instructions and recommendations.

DO NOT operate the unit if the shower head becomes damaged.

DO NOT restrict flow out of shower by placing an obstruction in front of the shower head nozzles.

## GENERAL

1. Read all of these instructions and retain them for later use.
2. DO NOT take risks with plumbing or electrical equipment.
3. Isolate electrical and water supplies before proceeding with the installation.
4. The shower head must be cleaned regularly with descalant to remove scale and debris. The Air hoses must be cleaned periodically to maintain performance and hygiene. PLEASE SEE MAINTENANCE SECTION.
5. This product is not suitable for mounting into steam rooms or steam cubicles.
6. The shower panel should not be installed in an outdoor environment, including sheltered areas.

## PLUMBING

1. The plumbing installation must comply with water regulations, building regulations or any particular regulations as specified by 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 from before connecting to water inlets on shower.**
3. DO NOT solder pipes or fittings within the panel shower, this could result in damage to the product. Use push fit or compression fittings.
4. DO NOT use excessive force when making connections to the mixer.

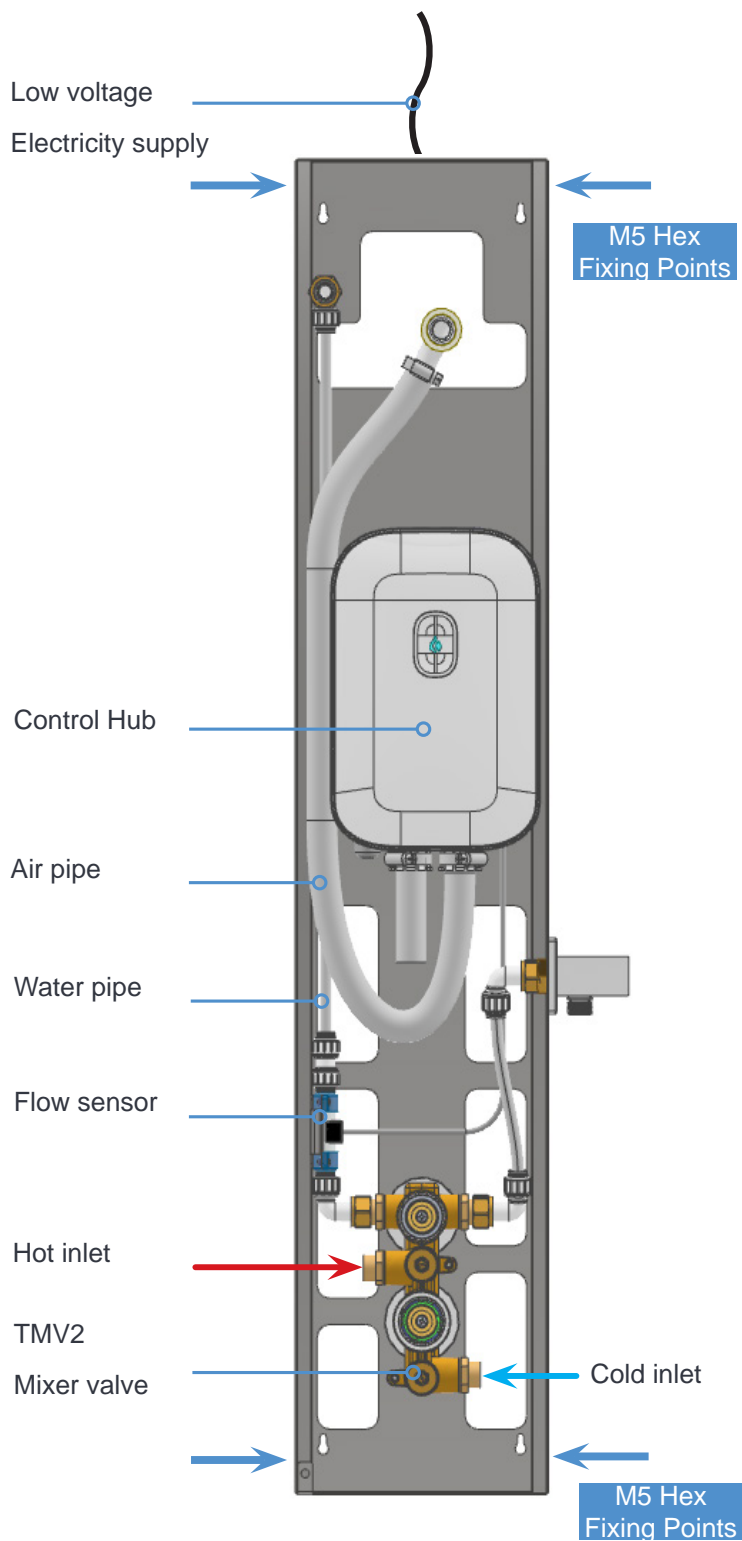
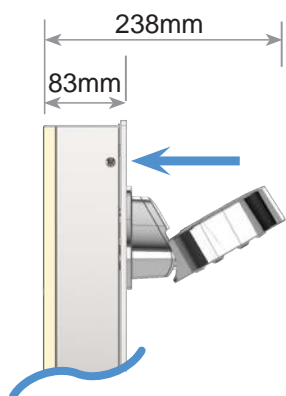
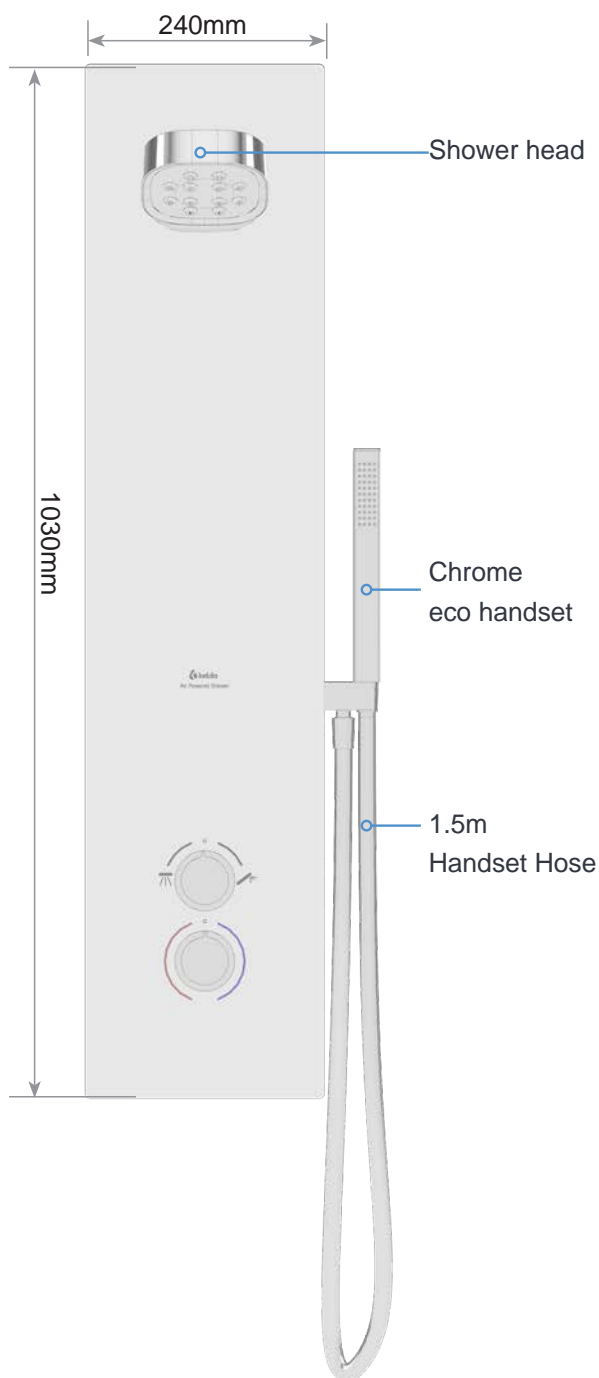
5. All plumbing connections must be completed before making the electrical connections.
6. Water pressure. Kelda products are designed to operate up to a maximum of 5 bar, if you wish to operate outside of this please discuss with a Kelda Engineer.

## 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 30 mA 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.

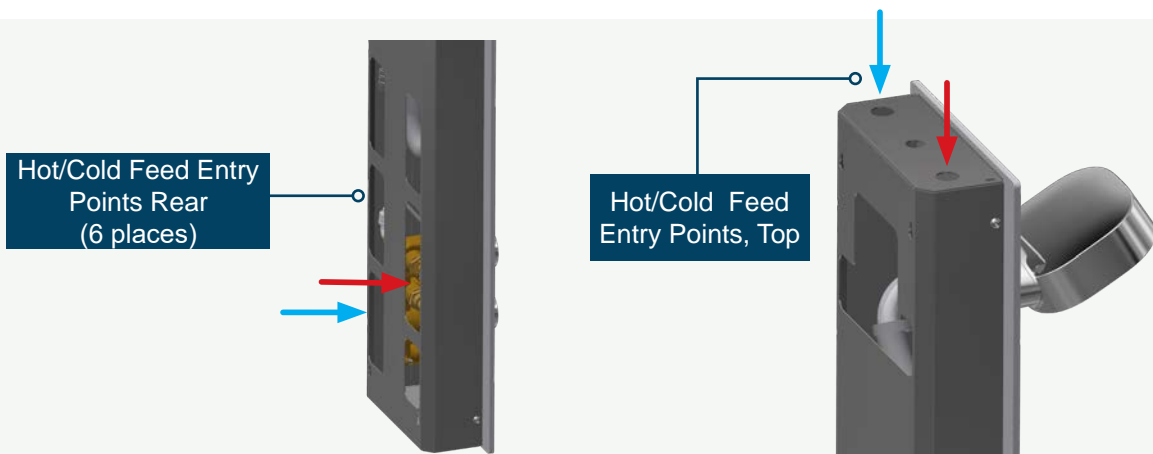
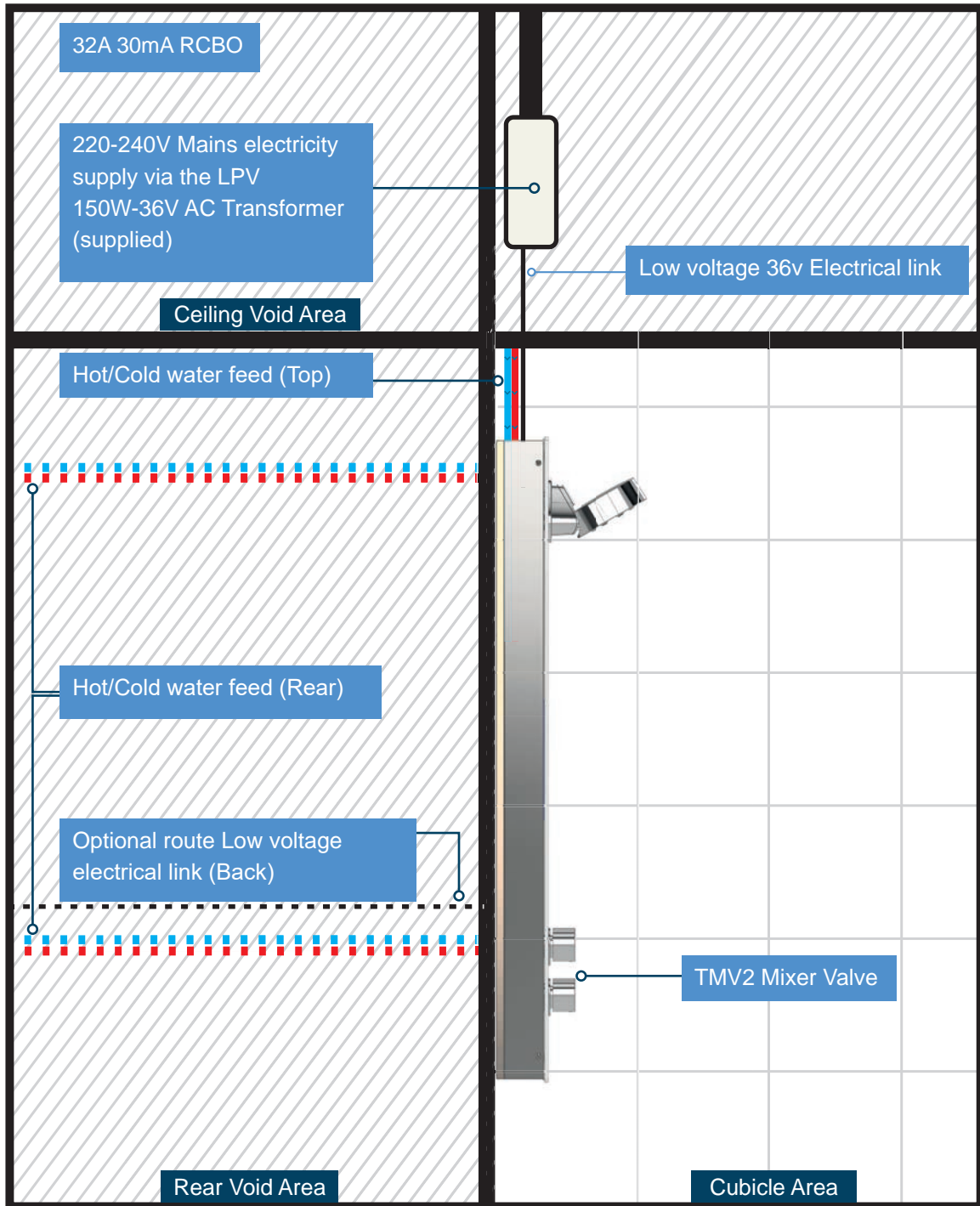
# Description

Model shown 93008000



# System diagram

## Deluxe Shower Panel



# Specification

## Deluxe Shower Panel

You should have the following assemblies within your Deluxe Shower Panel order:

### 1 Panel Assembly



- Panel chassis box
- Kelda Control Hub
- TMV2 Mixer valve
- Flow sensor assembly
- Brass outlet & handset holder (9300800/93010000 only)
- x4 Screws
- x4 Wall plugs



### 2 Glass Fascia Assembly

- Toughened glass fascia
- Stainless Steel mounting bracket
- x4 M5 Hex screws
- x1 M5 Hex key



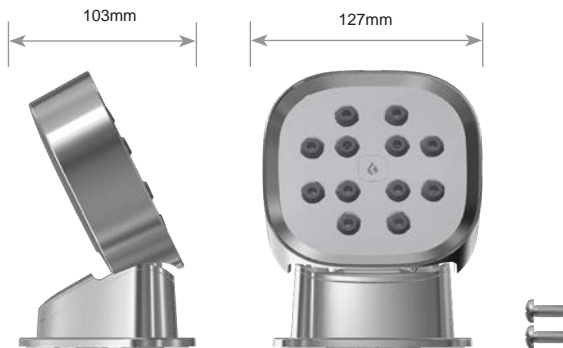
### 3 Power Supply

- x1 LPV 150-36V Power supply



### 4 Shower Head

Flex Head: 93007000/ 93008000



- Kelda 12-Nozzle Flex Head
- x2 M3x 8mm Pozi-Head screws

Fixed Head: 93009000 / 9301000



- Kelda 12-Nozzle Fixed Head
- x2 M5 x 20mm Hex Head screws

### 5 Shower Accessories

Eco Handset: 93008000/ 93010000 only

- x1 bright chrome handset
- 1.5 m Anti-twist Stainless Steel shower hose



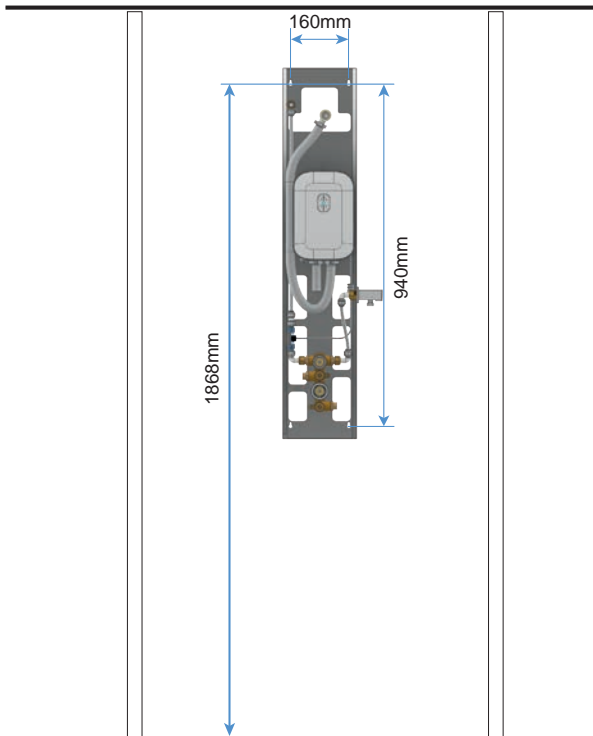
### 6 Knobs & Trim Rings

- x2 Control Knob
- x2 M3 Grub Screw
- x2 Chrome Cap
- x2 Chrome Trim Ring
- 3mm Hex Key (to fit knobs)



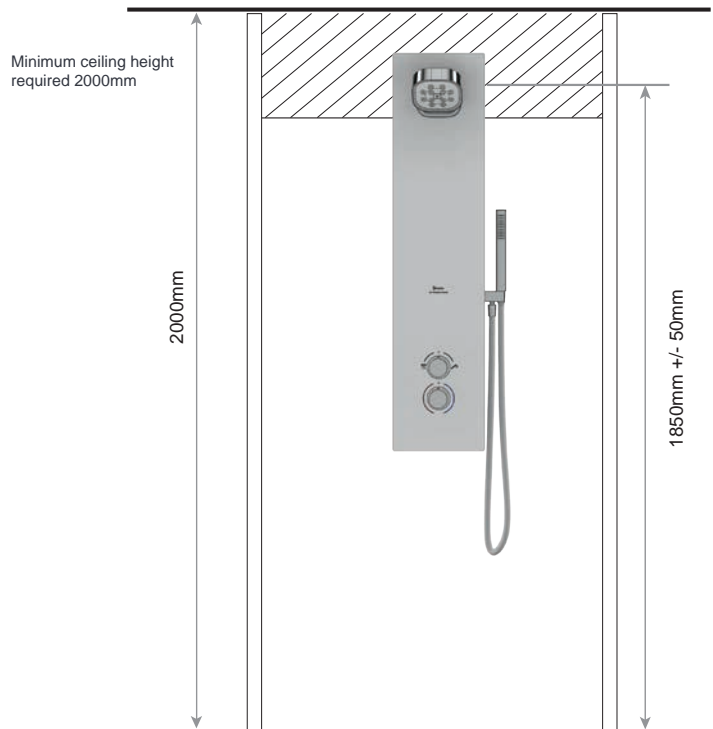
# Siting the shower

## Fixing Points



Installation should be completed to suit the user's requirements.

## Deluxe Shower Panel



Installation should be completed to suit the user's requirements.

- Pencil
- Drill
- Pozidriv Screwdriver



## Tools needed for the job

### Warning!



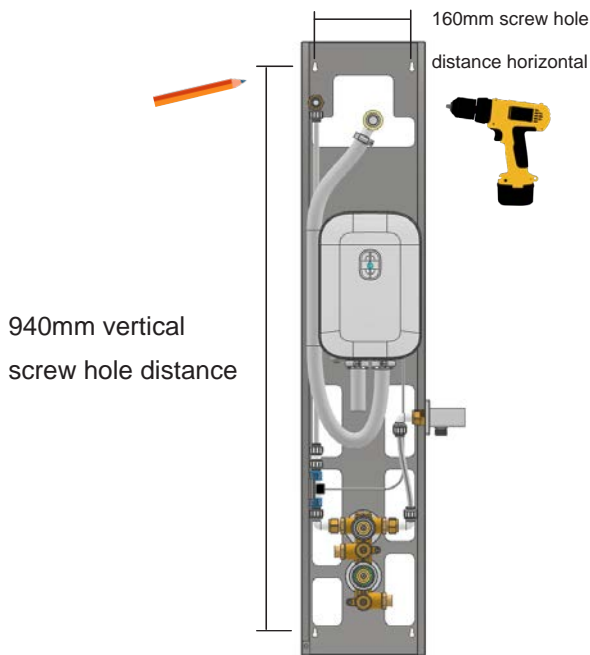
- When the Control Hub is installed, the RCBO switch must be within easy reach.
- Do not use extensions or multiple sockets
- The power supply cable must never be bent or dangerously compressed

# Installation



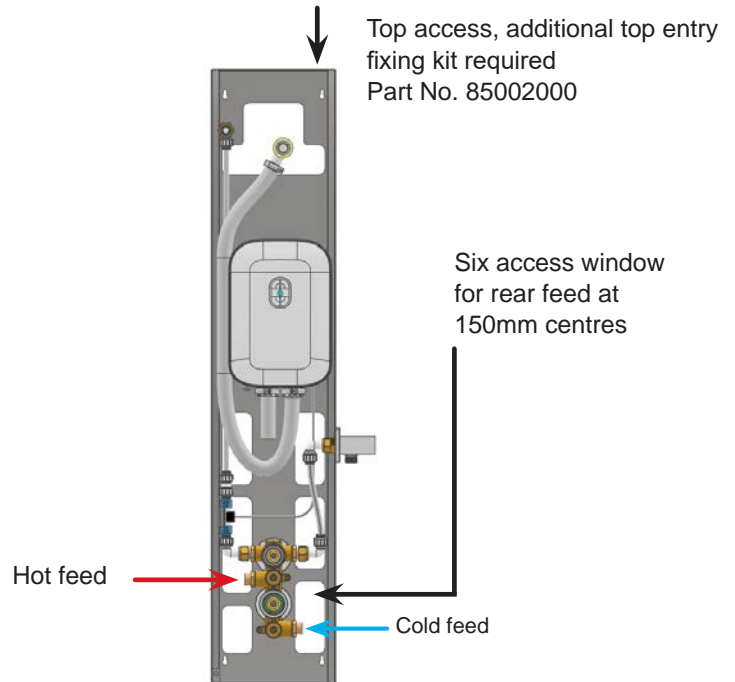
**Warning:** Read through to the end prior to commencing installation!

1



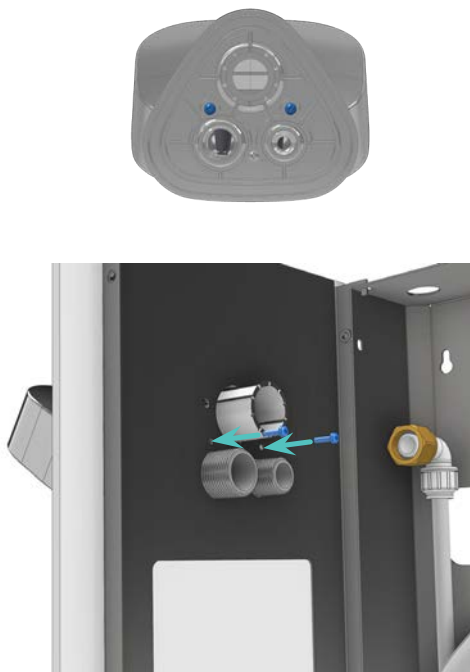
Mark and drill holes for the shower panel assembly bracket on the wall of the shower cubicle and secure bracket using the wall plugs and screws supplied.

2



Flush hot and cold-water supplies to clear any debris before connecting to respective inlets with compression fittings provided.

3



Use the two M3 Pozi head screws (Flex Head) or M5 Hex Head screws (Fixed Head) from the Head assembly and use them to mount to the Glass Fascia assembly.

4

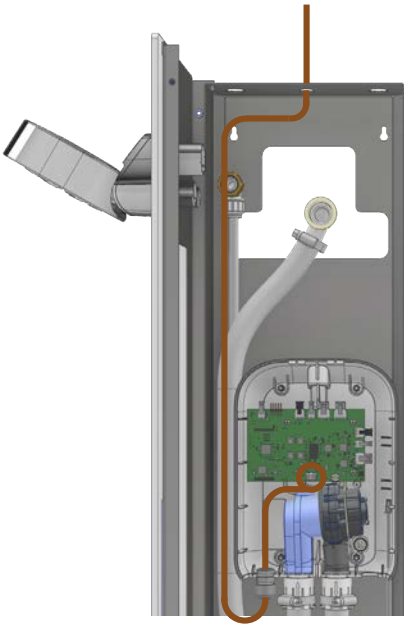


Hang the glass fascia assembly onto the panel using hook at the top and secure it with the Hex key (supplied). Connect the shower head to the 1/2" BSP water pipe, ensuring the flow restrictor remains correctly orientated. Connect the 3/4" BSP air pipe. Test the temperatures by running water only; making sure to check for any leaks.



# Installation

5



Run the low voltage power cable through the middle hole in top of the panel chassis, or through the rear.  
Replace Hub lid, ensuring to connect LED cable as you do so.  
Turn on RCB and fused spur, check LED comes on and pulses.

6



Ensure water and air hoses locate down left-hand side of hub as you mount the front panel. Adjust the glass panel and diverter valve brackets until in position, before screwing on the front glass panel using the four M5 Hex-Head screws. (Supplied Allen Key can be used).

7



Attach the trim rings and mixer knobs to the valve once glass panel is secured. Ensure the trim rings are fully engaged and flat on the glass.

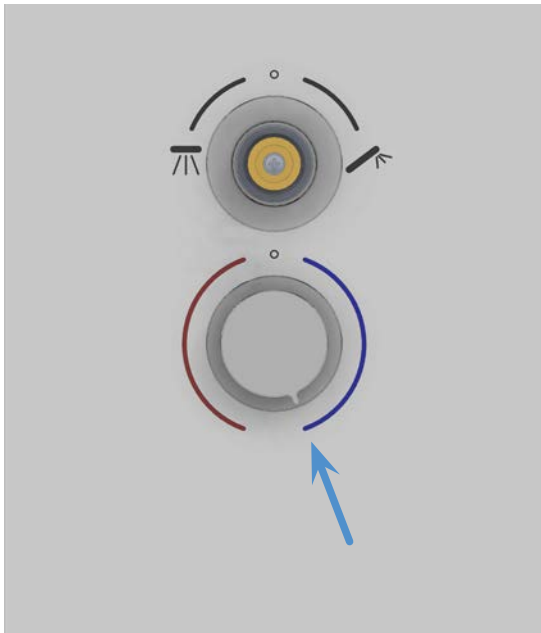
8



Use the 3mm Hex key to tighten the grub screw to retain the two mixer valve knobs. Cover with Chrome cap to finish.

# Installation

9



Attach the valve control knob pointing directly up.  
Before fitting the temperature knob, turn the brass ring clockwise until it stops (full cold).  
Align the pointer of the knob to the end of the blue graphic (5 o'clock position)

10



Attach the hose to the side outlet and handset. Power on to use.  
Run the shower with a bucket under the main shower head for a final test of the air and water supply.

## Warning!

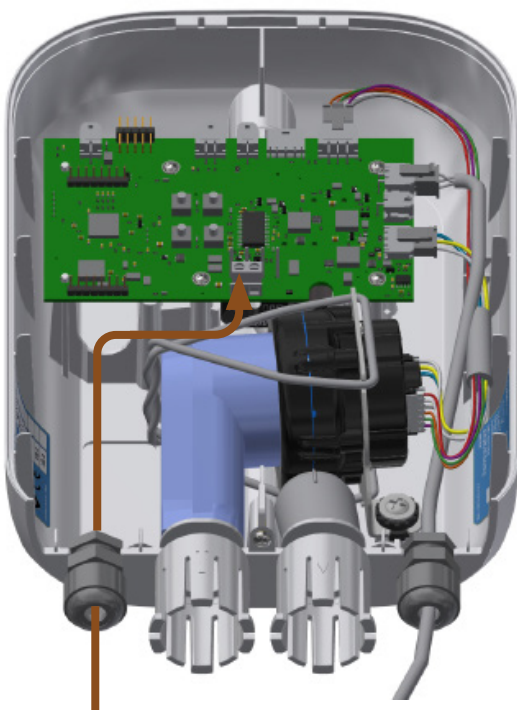
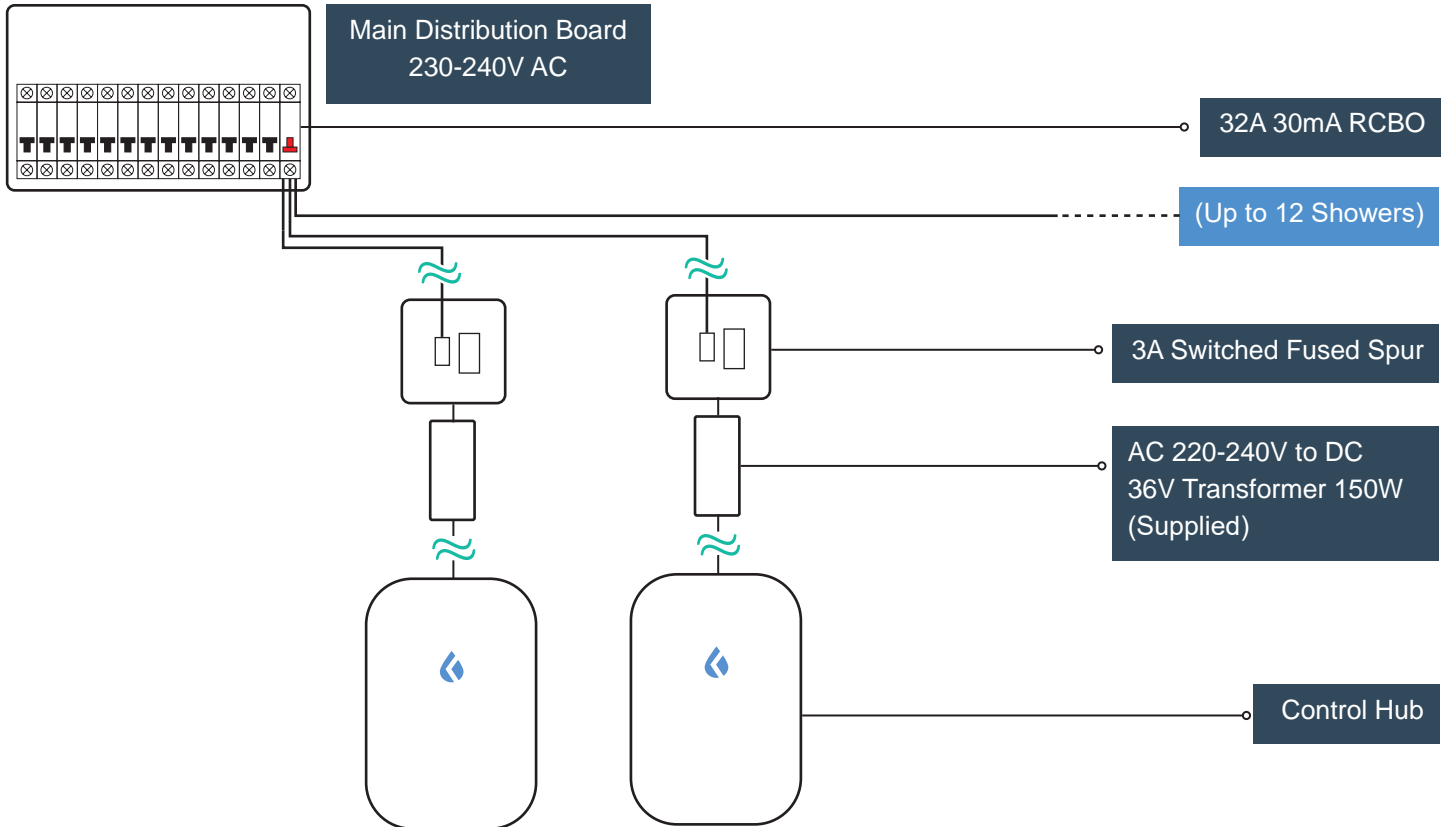


- Always check for hidden pipes and cables before drilling
- Run water through hot and cold pipes to clear debris from pipework before connecting Kelda panel shower

# Electrical Installation

This shower requires a 230-240 VAC, 47 ~ 63Hz single phase supply. A single 3 Amp switched fused spur should be used for each Panel. Up to 12 Kelda showers can run from a single 32A 30mA RCBO.

Before connecting to power supply, make sure that the mains terminal is able to sustain 240V and 3A. All electrical installation 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.



## Electrical connection

1. Thread the power supply cable through the 16mm cable gland in the bottom left of the Control Hub.
2. Connect the cable to the 36V power terminal shown. (Polarity of connections is not important)
3. Using a 3mm flat screwdriver, tighten the connections down and tighten gland nut onto cable

# Factory settings

## Air volume

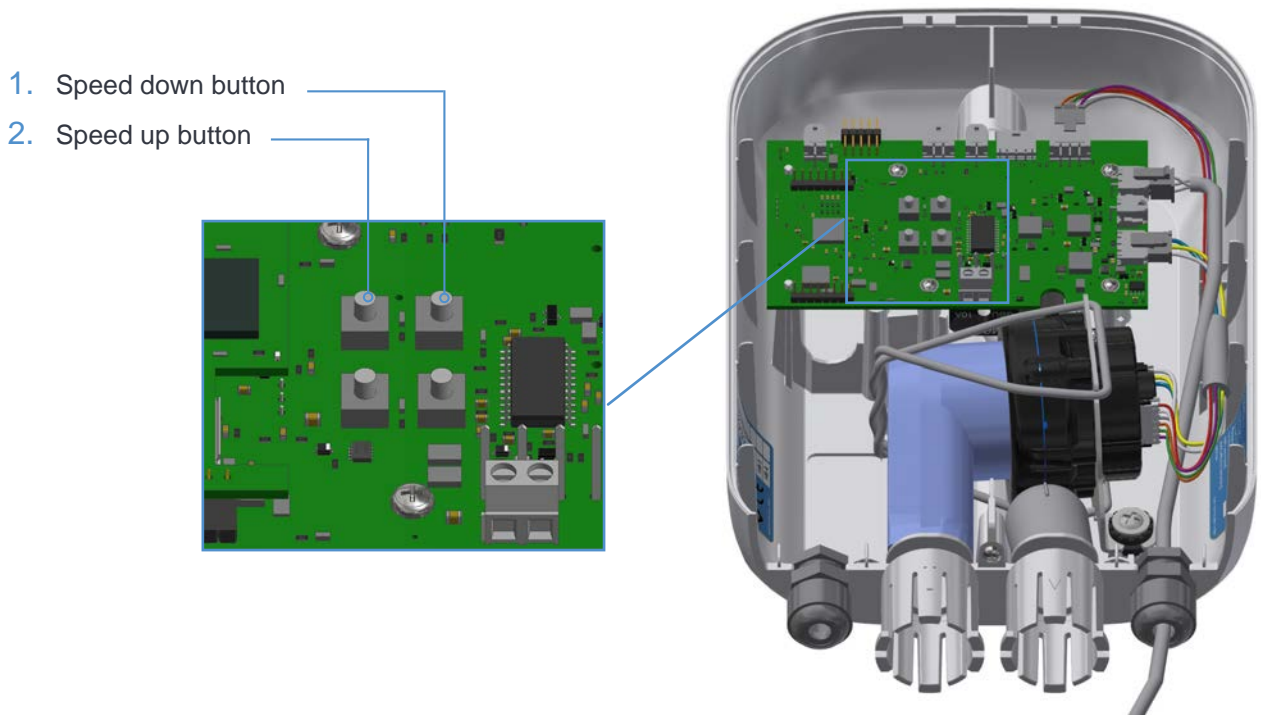
Your Kelda panel shower will have a different fan speed setting depending on what shower head and water flow rate your product has. This will be set at the factory.

The hub will automatically adjust fan speed to match minor changes in flow rate which may result from changes in water pressure.

However the fan speed can be manually changed if for example the flow regulator is changed to a different value or for other site specific reasons.

## Changing the fan speed (10 settings)

- The panel fan settings are pre-set by the factory.
- To change the fan speed settings, press speed DWN once, the number of LED flashes next to the button indicate what fan speed setting the Control Hub is currently set at. (There are 10 speed settings: 1-10)



## Air overrun function

The system has an air overrun function which allows the air to continue to operate for approximately 1 second after the water flow stops. This function purges the water from the shower head, reducing the build up of lime-scale.

## Fan Test Function

Press and hold both up and down fan speed buttons simultaneously to run the fan independently of full shower operation.

## Fan overheat protection

In the unlikely event of the fan overheating from being jammed with debris or being continuously run in a hot environment, then a protection mode will be triggered with reduced fan speed and fast LED flash on Hub. The fan will return to normal operation once debris is cleared or the temperature returns to operational level.

# Troubleshooting

Symptom	Likely cause	Action/Remedy
System does not operate fully (reduced or no water flow):	Hot or cold water supply isolation valve closed	Check and open valve
	Debris has caused blockage in mixer	Isolate mixer and service strainers and cartridge see mixer instructions to service
	Pressure difference between hot and cold supplies is too high	Adjust screws on mixer to balance. Or fit pressure reducer on high pressure supply.
	Shower mixer/valve not functioning.	Check valve, replace if necessary.
Water flows from shower head but no air:	Does the fan run?	if so check seal of air hose connections and that hose is kink free.
	Is the LED on the front of the Control Hub illuminated?	If no check electricity supply
		Conduct hard reset by switching off electrical supply and waiting 10 seconds before turning on.
	Debris in fan	Clear any debris from fan and follow Fan Test Function p.12.
		If fan runs then check flow sensor is not jammed or faulty.
Temperature fluctuating:	Thermostatic control/Boiler issue.	Check thermostatic mixer valve/boiler for an issue, call a specialist if necessary.
Poor/no water flow:	Blocked water filter/strainer.	Disconnect water inlet hose, remove and clean filter, replace filter.
Water flow too strong:	Flow restrictor not installed.	Check if the flow restrictor is properly installed (adjacent to the water inlet).

## Thermostatic Shower Valve - Further Instructions

For detailed instructions of how to balance the hot and cold inlets as well as cleaning the filters, please refer to accompanying booklet: "Thermostatic Concealed Shower Valve General Installation Instruction"

# Maintenance

Kelda Technology products are designed for easy maintenance and should give continued superior and safe performance, provided:

1. Kelda Technology products 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.

Guidelines for frequency are given below. 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.

## Daily/Weekly hygiene

External surfaces of the shower head may be wiped clean with a soft cloth and if necessary, a mild detergent or soap solution can be used.

If you have one of our stainless-steel panel products then these must only be cleaned with a cleaning agent suitable for stainless steel and galvanised surfaces. Always remove cleaning agent residue as this can discolour the surface. Care must be taken not to get bleach, chlorine or other strong cleaning agents onto the stainless-steel, if this occurs then panel must be thoroughly cleaned down with a stainless steel cleaning agent.

## Quarterly hygiene\*

Shower heads to be dismantled to clean, de-scale and sanitise main shower head components.

Please see instructions for dismantling and reassembling head for cleaning.

Unlike a conventional showerhead a Kelda showerhead is highly unlikely to block due to limescale and so service timings can set purely for hygiene.

\*This service point can be adjusted to suit site specific maintenance regime and shower usage levels.

## Bi-annual visual & hygiene

Check internal component condition of the shower head and hoses. Inspect for debris, scale deposition, deformation, damage, etc. Maintain or renew if necessary. Instructions for cleaning and disinfecting air hoses are given in this booklet. Shut off water supply, remove and clear strainer of debris. These may be located in thermostatic mixer if an one is fitted. If a mixer is fitted into panel then please follow maintenance guide which is specific to that model of mixer.

## Flow Regulator cleaning

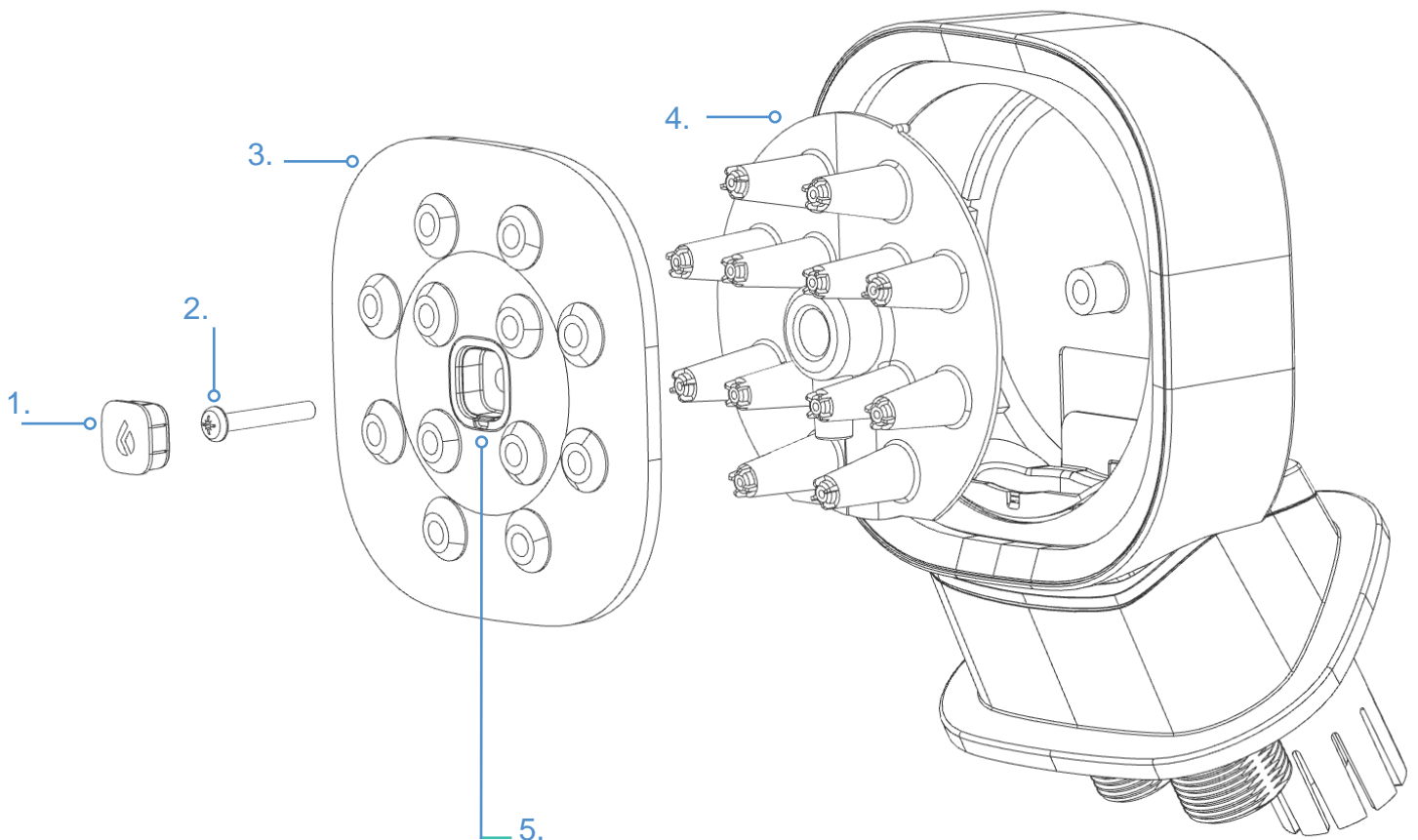
When removing the flow restrictor for cleaning and maintenance purposes, ensure it is reinserted in the correct orientation.



# Maintenance

## Instructions for dismantling and reassembling head for cleaning

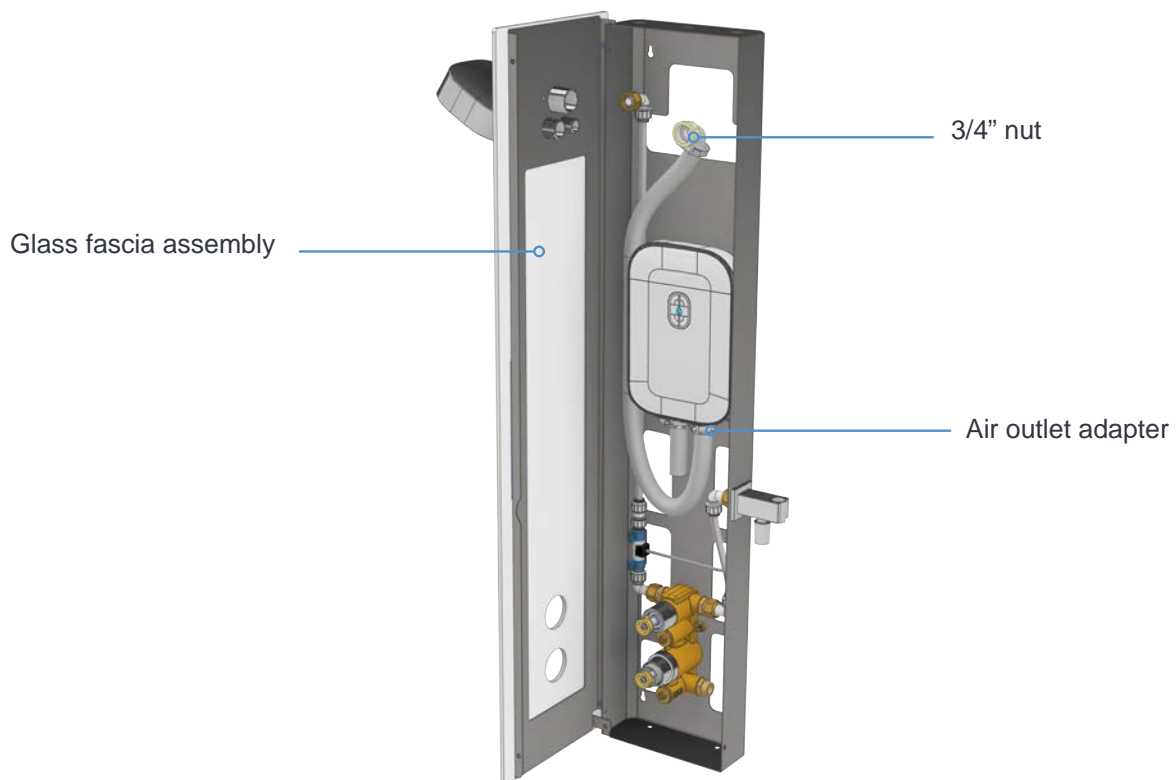
1. Remove the fascia plate screw cap by applying a small flat head screwdriver in the notch and gently twisting by 45 degrees left, then right. (attempting to pry the cap out may cause damage to the faceplate) (1).
2. Remove centre screw using a Pozidriv PZ2 screwdriver ensuring the fascia plate (2) and atomisation engine (3) are held until screw removed.
3. Slowly lower fascia plate and atomisation engine.
4. Carefully detach the rubber hose from the water chamber (4) ensuring not to remove the hose from the other end.
5. Carry out clean, de-scale and sanitisation of shower head components using industry standard cleaning products.
6. To reassemble, follow steps in reverse. Take care to orientate fascia plate (use notch for reference) to correctly locate nozzles (5).



# Maintenance

## Cleaning and disinfection of air hoses

- Isolate power supply to panel shower.
- Remove the Glass Fascia assembly and hang as pictured below (See P8)
- Remove air supply hose by gently releasing jubilee clip and easing hose off the air outlet adapter.
- Remove 90° elbow connector by unscrewing  $\frac{3}{4}$ " Air nut and gently pulling apart.
- Put aside all hose clips in a safe place.
- Whilst wearing the correct safety equipment, dip hoses into a disinfectant solution so all the hoses are submerged.
- Remove from solution and clean out hoses using a pipe cleaning brush.
- Dip hoses into disinfectant solution and flush through, continue this until hoses are clean.
- Once hoses are clean, flush hoses through with fresh water.
- Shake out any excess water and wipe dry.
- Replace air supply hose by gently inserting into air outlet adapter.
- Replace 90 degrees elbow connector by gently inserting into hose, screwing  $\frac{3}{4}$ " Air nut onto shower head hose pipes.
- Reinstall power supply to Control Hub and reinstall shroud cover onto panel.
- Run shower for 2-3 minutes to dry any moisture in the hoses.
- Check for air leaks from hose connections and adjust accordingly.



### Warning!

During regular cleaning of the shower area, do not direct a water hose at the shower head while it is functioning. Many household and industrial cleaning products contain mild abrasives and chemical concentrates and should not be used on this product.



# Customer care

## Guarantee

Kelda Technology 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, service work must only be undertaken by Kelda Technology or by its approved agents.

## 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 lime-scale. Defects or damage if the product is taken apart, repaired or modified by a person not authorised by Kelda Technology 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 Technology equipment.

## Spare parts

All functional parts of Kelda Technology products are available.

All spares are guaranteed for 12 months from date of purchase.

Spares that have been supplied directly from us can be returned within one month from 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

## Patents:

	MX352860B	GB2492113B
Patents granted and pending:	US9855569B2	GB2553110A
AU2012216911B2	ZA201306157	WO2018037210A1
CN103379964B	GB2492114B	US2019176173A1
EP2675568A1	CN103608121B	GB2454228B
GB2488144B	EP2723503A1	US9173809B2
JP6026435B2	US9751095B2	

charge and authorisation must be obtained from Kelda Technology before return.

## 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. Failing this, 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 limited declares that the Deluxe Panel Shower complies with the essential requirements and other relevant provisions of the Low Voltage Directive (2014/35/EU) and the EMC Directive (2014/30/EU).



#### UK HEAD OFFICE

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#### DISPOSAL

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