

Deluxe Shower Panel

Installation Manual and User Guide

Flex Head - White Glass TMV2 Thermostatic	93007100
Flex Head - White Glass TMV2 Thermostatic - Eco Handset	93008100
Fixed Head - White Glass TMV2 Thermostatic	93009100
Fixed Head - White Glass TMV2 Thermostatic - Eco Handset	93010100

Important:

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



Table of Contents

3	- Important Safety Information
4	- Description
5	- System Diagram
6	- Contents
7	- Typical Siting of the Deluxe Panel
8	- Valve Temperature Setting/Resetting
10	- Panel Installation
13	- Electrical Installation
14	- Operation
15	- Factory Settings
17	- Troubleshooting
18	- Maintenance/Cleaning
21	- Customer Care
21	- Spare Parts

FLOW VOLUME REGULATION

Flow volume (l/min) is controlled via a flow regulator (see page 18).

The last digit of the product code will designate the flow regulator pre-fitted, for example:

93007104:

Flex Head – White Glass – TMV2 Thermostatic – 4 l/m

93007105:

Flex Head – White Glass – TMV2 Thermostatic – 5 l/m

93007106:

Flex Head – White Glass – TMV2 Thermostatic – 6 l/m

SYSTEM DESCRIPTION

Flex Head – White Glass – TMV2 Thermostatic – 93007100

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 – 93008100

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 – 93009100

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 – 93010100

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 13 for details). This product is not an electric shower.

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

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

IMPORTANT! 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 panel unit must be mounted onto the finished wall surface (on top of the tiles). DO NOT tile up to or seal around ANY PART of the shower panel after installation.
5. 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 (page 18).
6. This product is not suitable for mounting into steam rooms or steam cubicles.
7. 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 a 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.**

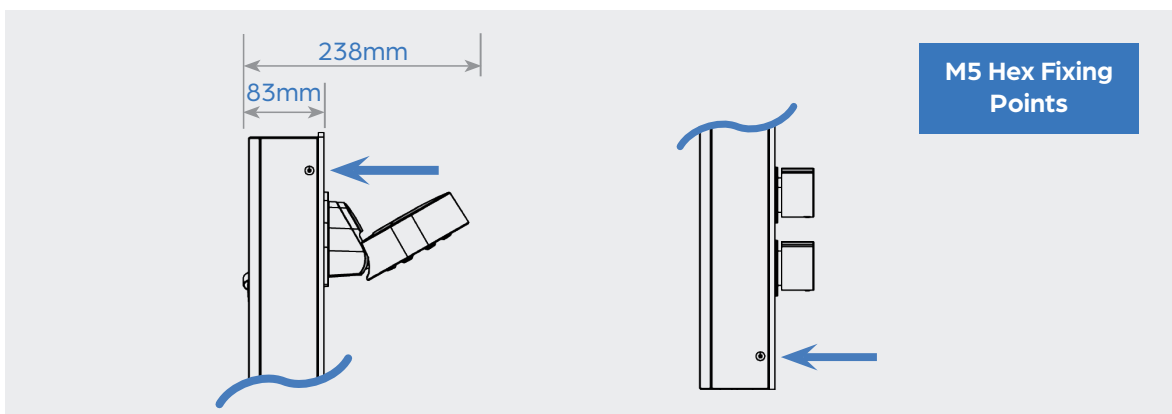
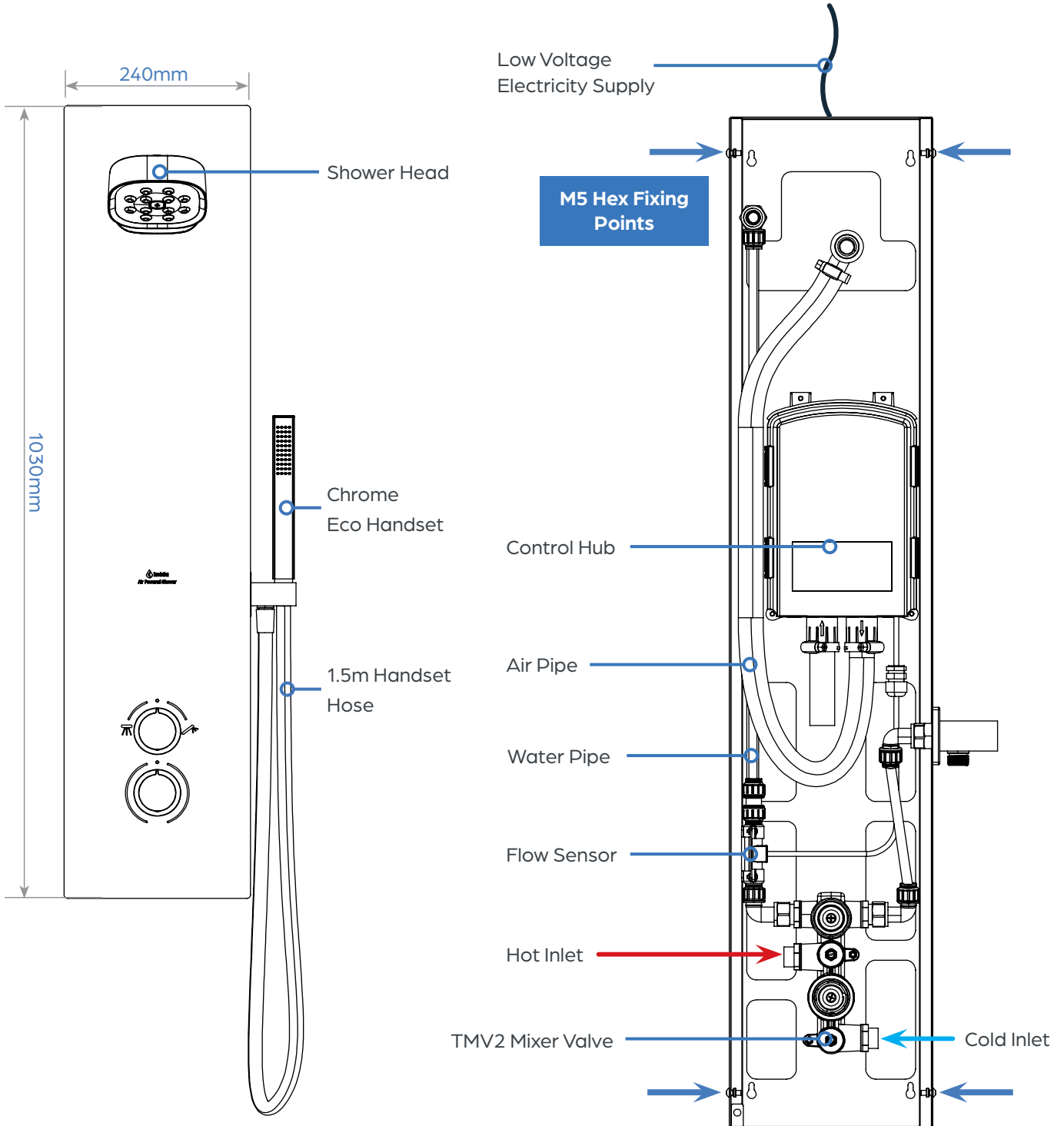
3. DO NOT solder pipes or fittings within the panel shower, this could result in damage to the product. Use push fit or compression fittings.
4. DO NOT use excessive force when making connections to the mixer.
5. All plumbing connections must be completed before making the electrical connections.
6. 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' (IET 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 Circuit Breaker with over current protection (RCBO) MUST be installed in all UK electric and pumped shower circuits. This may be part of the consumer unit or a separate unit (see page 13).
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. 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.

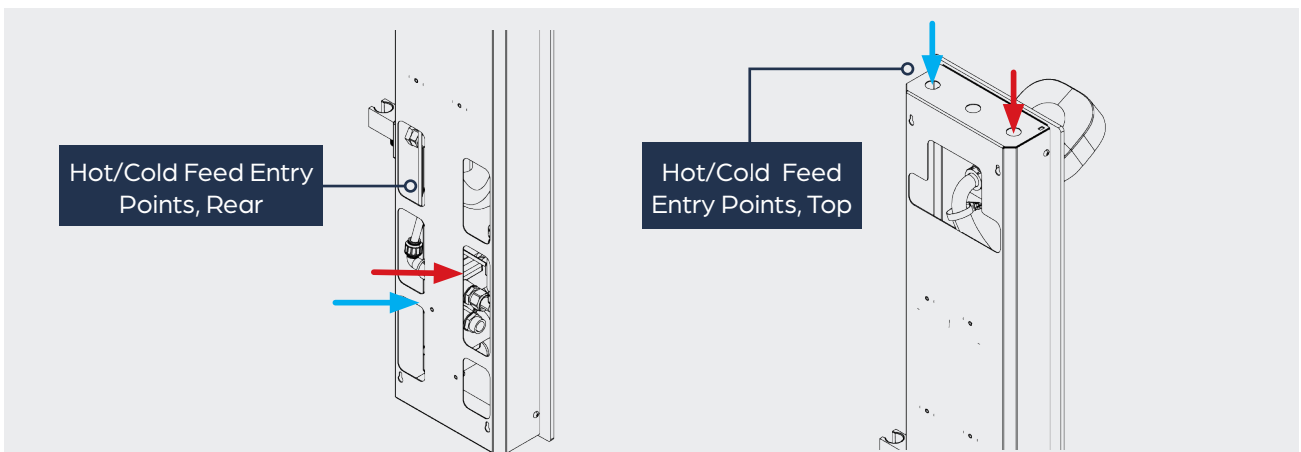
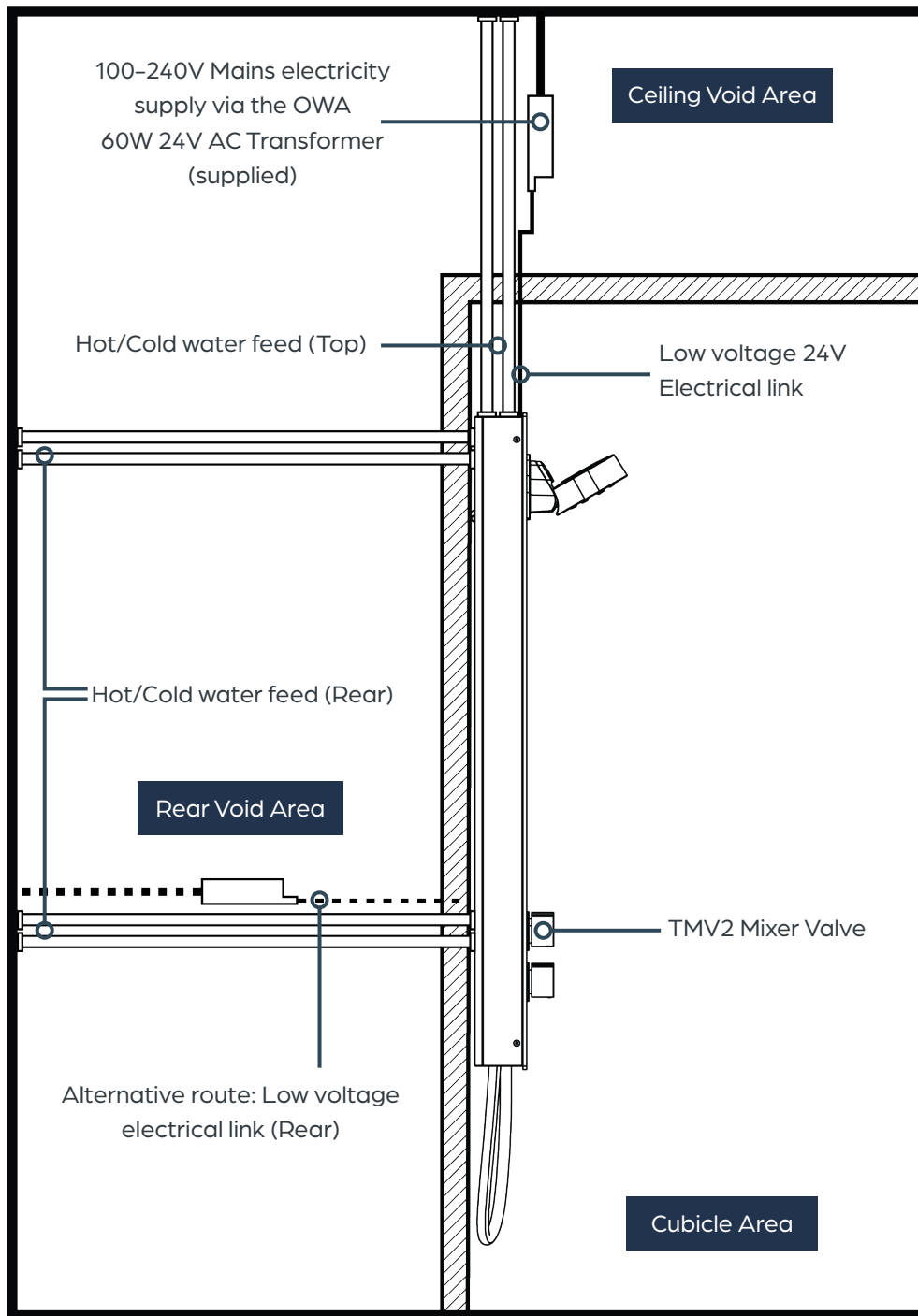
Description

Model Shown 93008100



System diagram

Deluxe Shower Panel

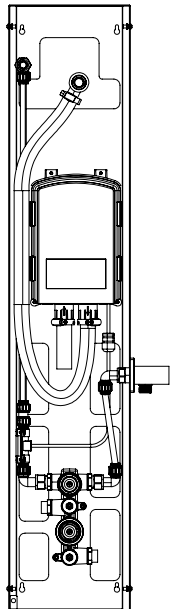


Contents

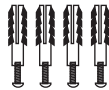
Deluxe Shower Panel

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 (93008100/93010100 only)
- x4 Screws
- x4 Wall plugs



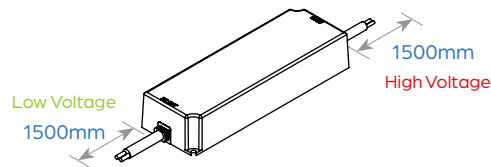
2 Glass Fascia Assembly

- Toughened glass fascia
- Stainless Steel mounting bracket
- x4 M5 x 8mm Hex Button screws
- x1 3mm Hex key



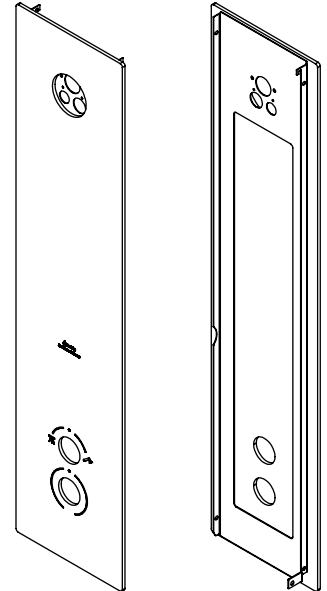
3 Power Supply

- x1 OWA 60W 24V Power Supply



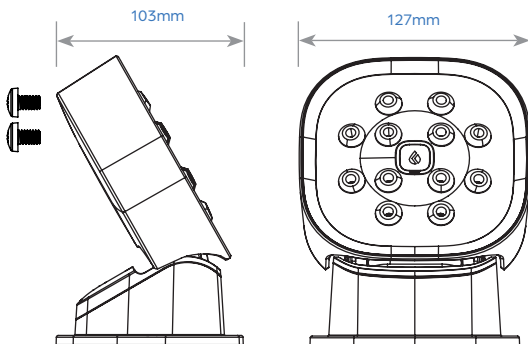
Front

Back



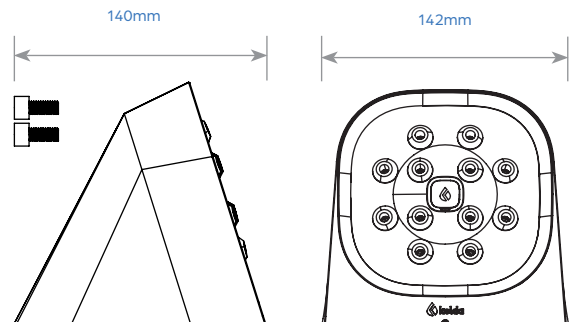
4 Shower Head

Flex Head: 93007100/ 93008100



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

Fixed Head: 93009100 / 93010100

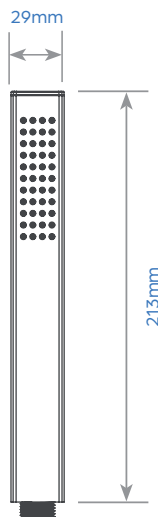
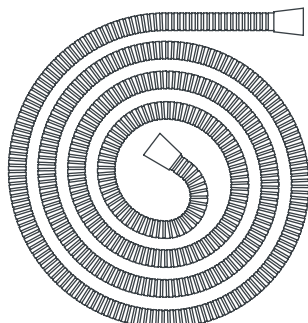


- Kelda 12-Nozzle Fixed Head
- x2 M5 x 20mm Hex Head screws

5 Shower Accessories

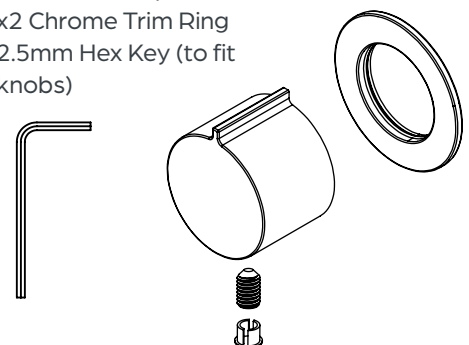
Eco Handset: 93008100/ 93010100 only

- x1 Chrome eHandset wand
- 1.5 m Anti-twist Stainless Steel shower hose



6 Knobs & Trim Rings

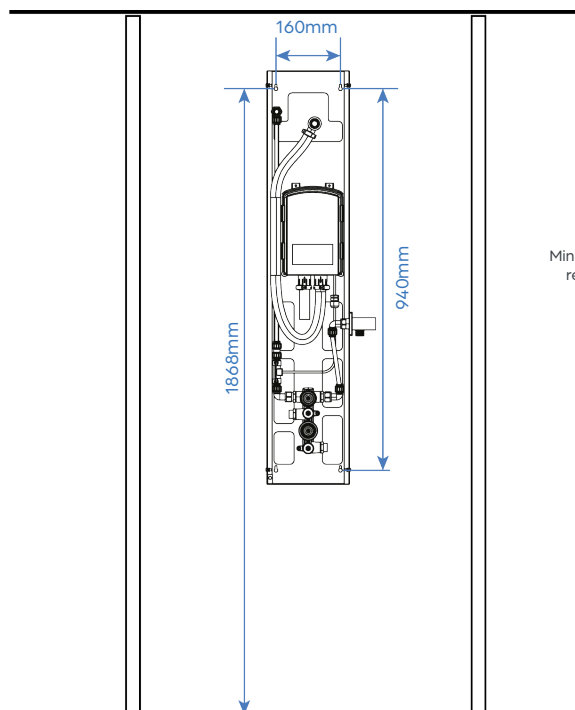
- x2 Control Knob
- x2 M5 Grub Screw
- x2 Chrome Cap
- x2 Chrome Trim Ring
- 2.5mm Hex Key (to fit knobs)



*Additional accessories are available and are not shown here. Visit keldashowers.com for more details

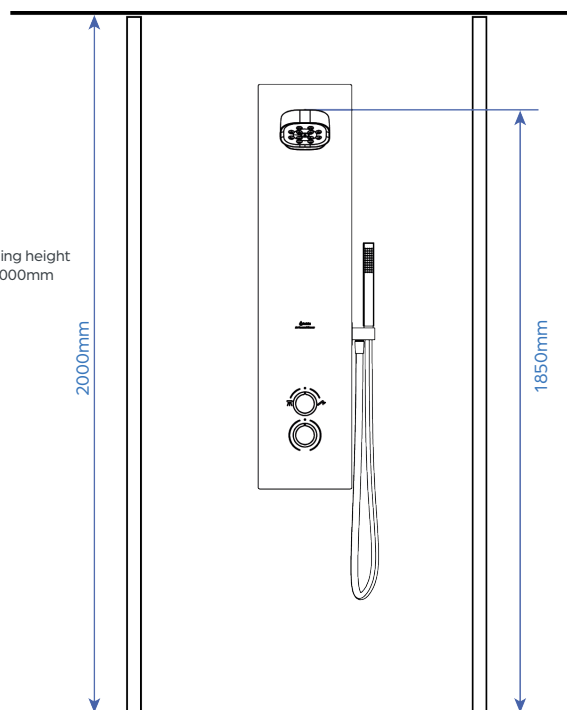
Typical Siting of the Deluxe Panel

Fixing Points



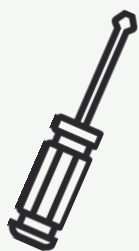
Installation should be completed to suit the user's requirements.

Positioning

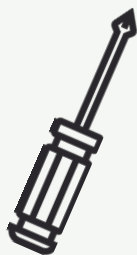


Installation should be completed to suit the user's requirements.

Tools needed for installation



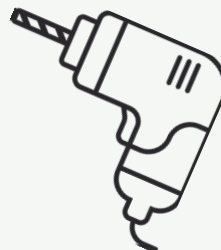
3mm flathead screwdriver



Pozi screwdrivers to fit PZ1 and PZ2



Pencil to mark drill holes



Drill with 6mm drill bit for wall plugs



Spirit level

Warning!



- When the Control Hub is installed, the 3A fused spur switch must be within reach
- Do not use extensions or multiple sockets
- The power supply cable must never be bent or dangerously compressed

Valve Temperature Setting/Resetting

The BuildCert TMV scheme recommends the following set maximum mixed water outlet temperatures for use in all premises:

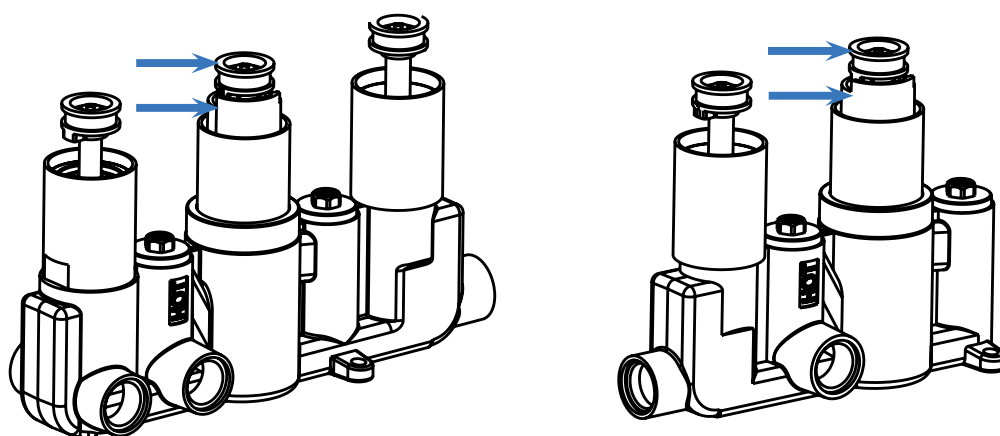
- 44°C for bath fill (but see notes below)
- 41°C for showers
- 41°C for washbasins
- 38°C for bidets

The mixed water temperatures must never exceed 46°C. The maximum mixed water temperature can be 2°C above the recommended maximum set outlet temperatures. Note! 46°C is the maximum mixed water temperature from the bath tap.

The maximum temperature takes account of the allowable temperature tolerances inherent in thermostatic mixing valves and temperature losses in metal baths. It is not a safe bathing temperature for adults or children. Please note that 37°C – 37.5°C is a comfortable temperature for children to bath in according to the British Burns Association.

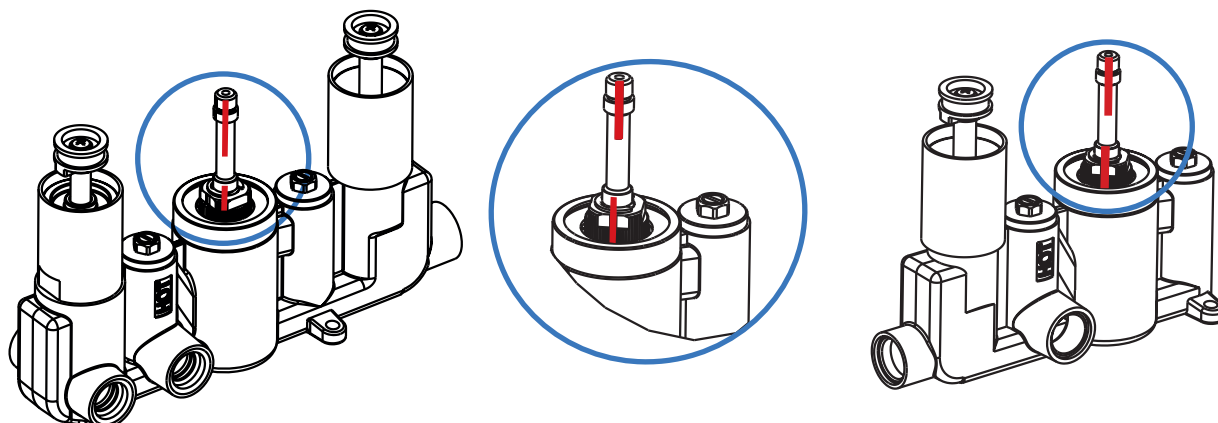
Supply water temperature may differ from setting to setting. If the difference is significant then we recommend you calibrate the valve to suit the requirements of your installation as follows:

1



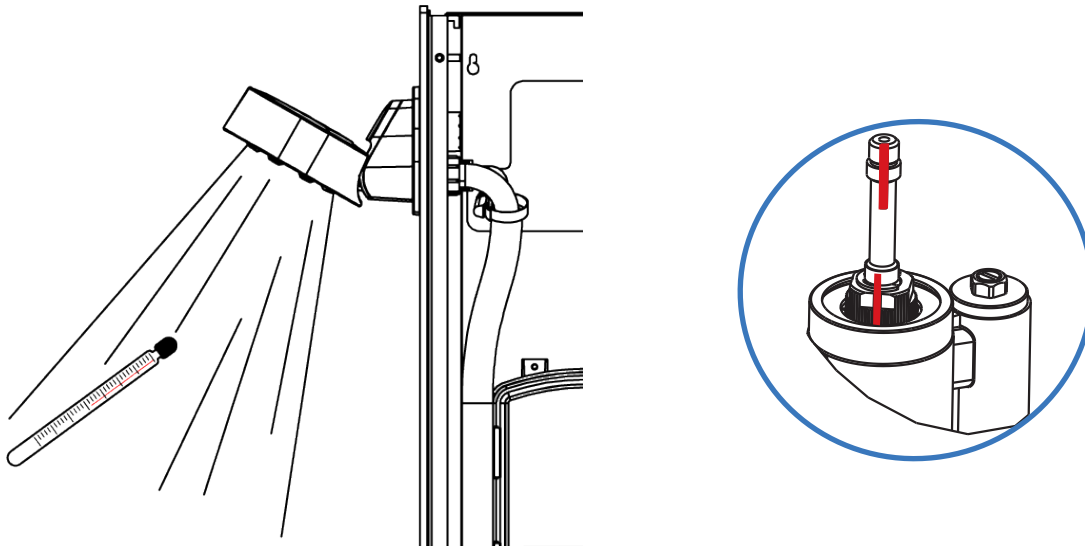
Remove the screw, handle adaptor and temperature control ring from thermostatic cartridge (on a dual valve this is the bottom cartridge and on a triple valve this is the middle cartridge).

2



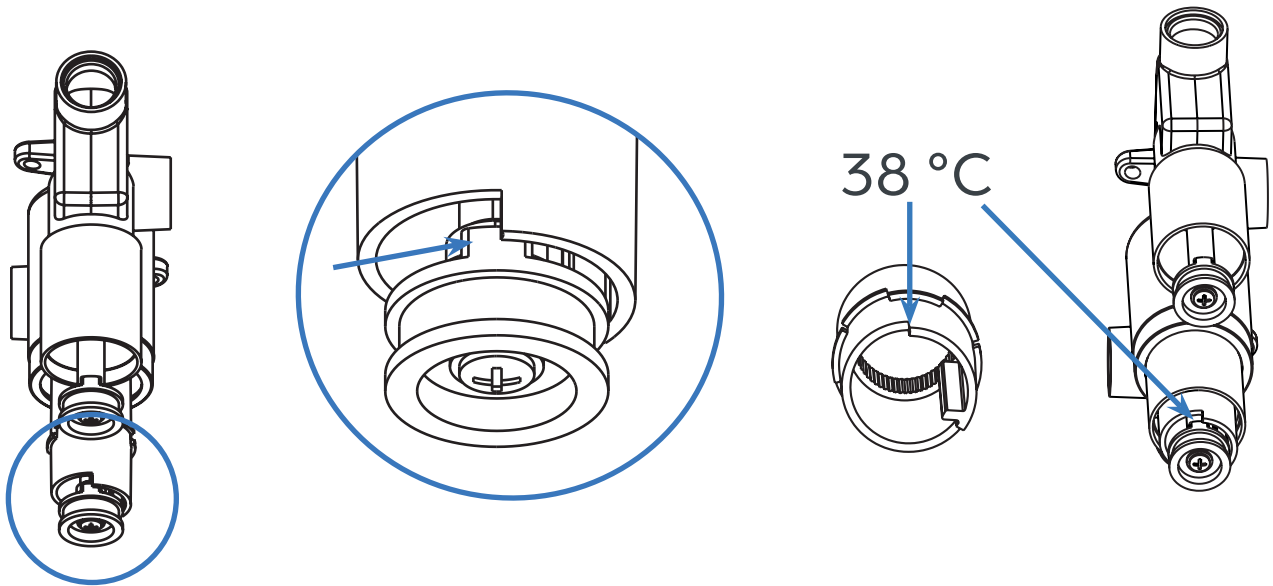
There are two painted lines on the thermostatic cartridge. Keep them in one line, and then turn the spindle anti-clockwise when the water tests colder/clockwise when the water tests hotter. Measure the water temperature on the outlet by thermometer and adjust to the required temperature.

3



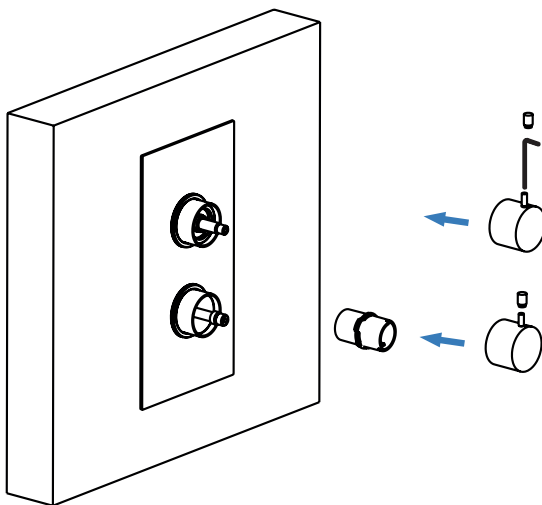
Test temperature of water using thermometer once water supply has been attached to shower head (see page 10/11). Re-visit step 2 to find desired temperature.

4



Re-fit the handle adaptor and make sure the protrusion at the bottom points to the 12 o'clock position. Secure the screw.

5



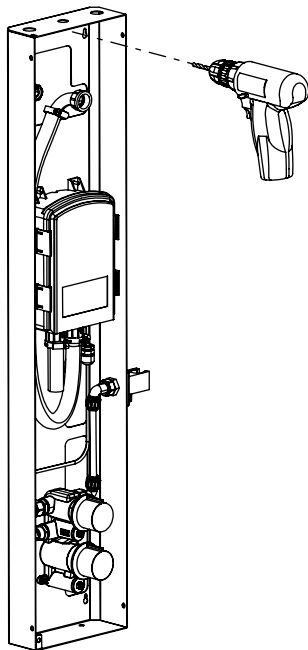
Re-fit the temperature control ring back to point to 12 o'clock position as well as handles.

Installation

1

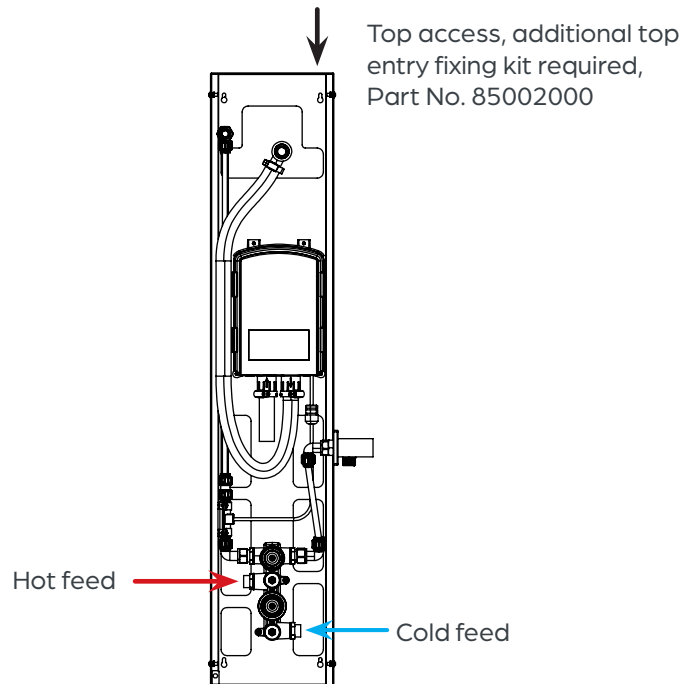


Warning: Read through to the end prior to commencing installation!



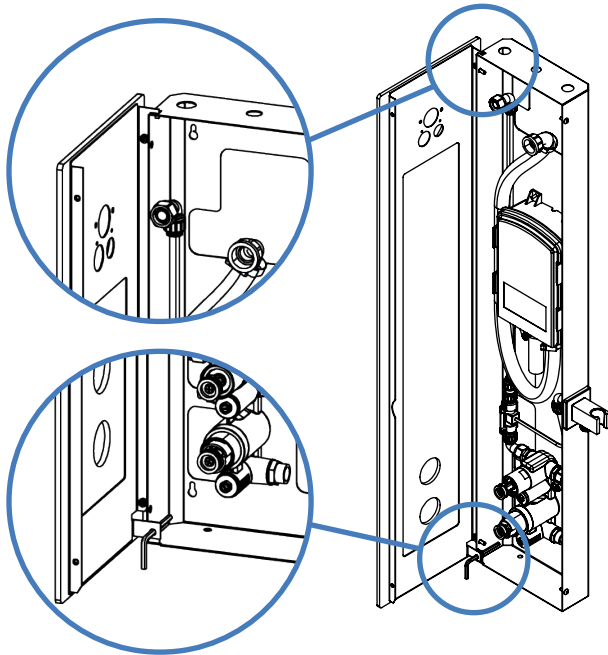
Mark and drill holes for the shower panel assembly bracket on the wall of the shower cubicle and secure bracket using the wall plugs and screws supplied.

2



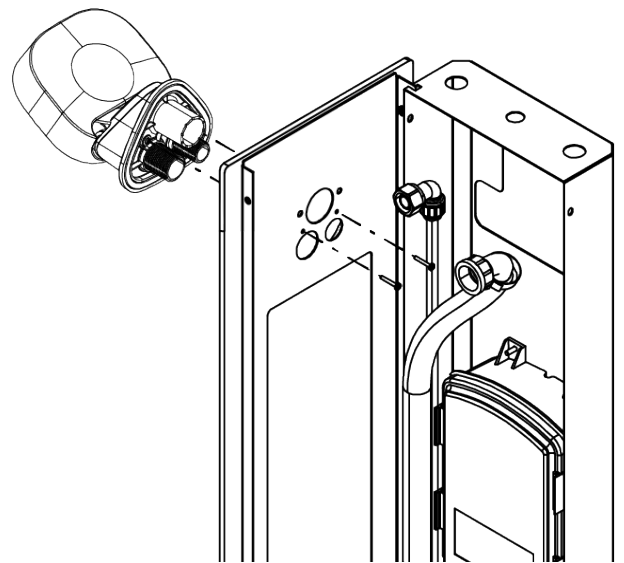
Flush hot and cold-water supplies to clear any debris before connecting to respective inlets with compression fittings provided.

3



Hang the glass fascia assembly onto the panel using hook at the top and secure it with the Hex key (supplied).

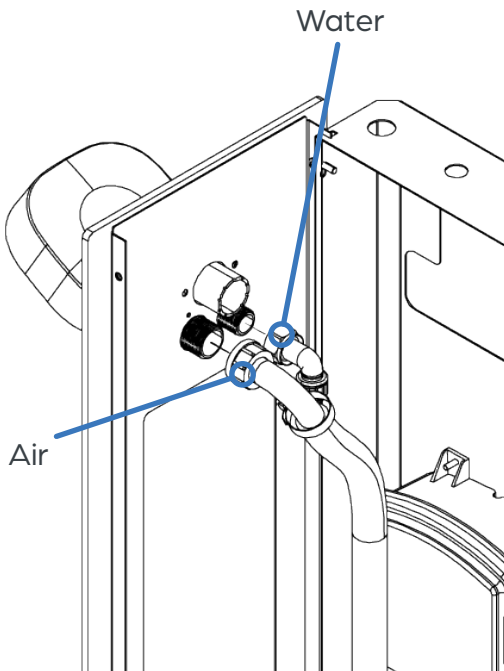
4



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 the appropriate shower head to the Glass Fascia.

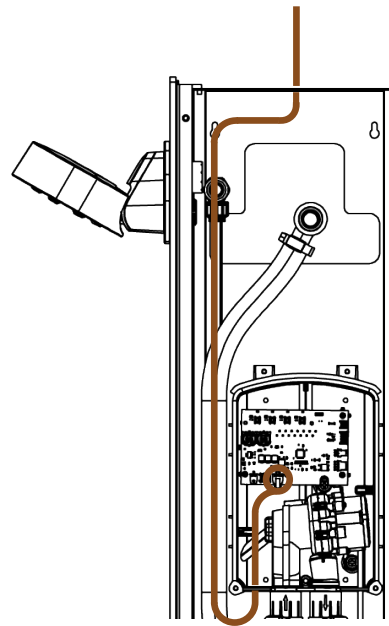
Installation

5



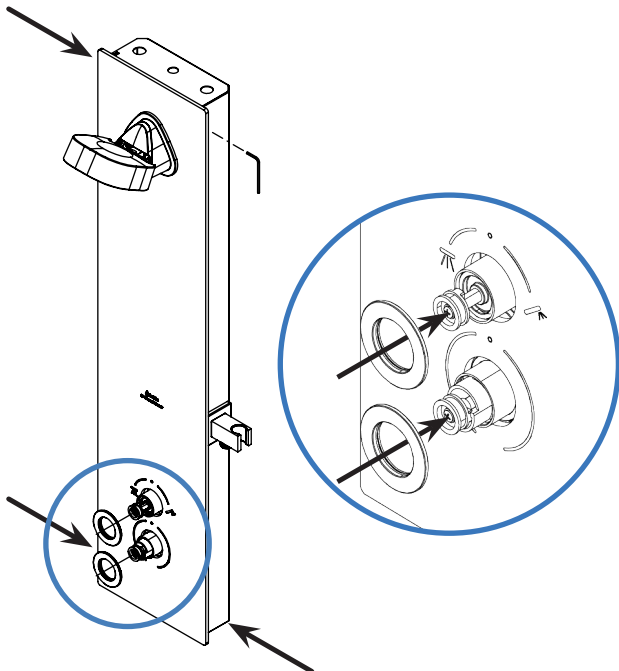
Attach Air Hose and water pipe to the Flex Head as shown in the picture above. Connect the shower head to the 1/2" BSP water pipe, ensuring the flow restrictor remains correctly orientated (see page 18). Connect the 3/4" BSP air pipe. Test the temperatures by running water only; making sure to check for any leaks.

6



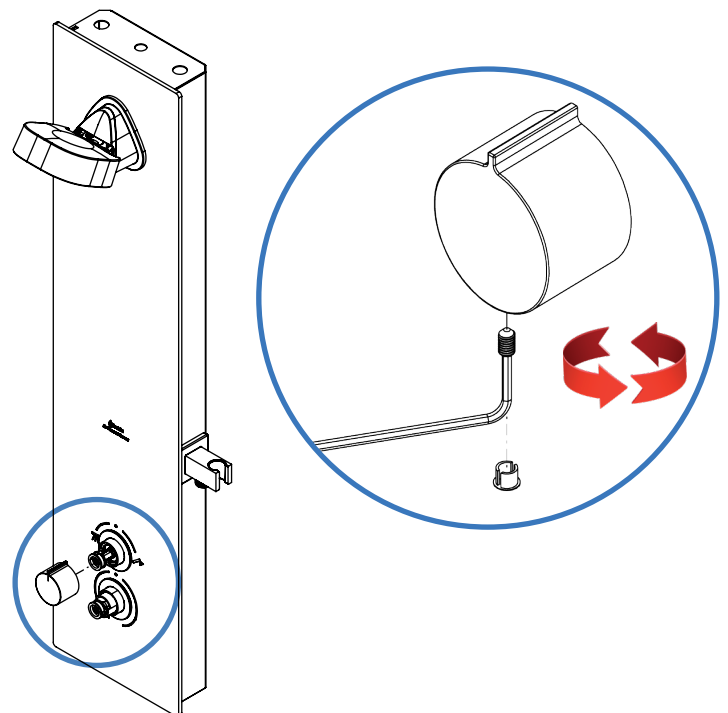
Run the low voltage power cable through the middle hole in top of the panel chassis, or through the rear, and into the control hub (see page 13). Turn on RCBO and fused spur, check LED comes on. Hold down the FAN button for 5 seconds to check the fan runs correctly. Holding the TMR button will run both the fan and water supply. Replace Hub lid.

7



Adjust the glass panel and diverter valve brackets until in position, before inserting the control knob trims into the glass fascia panel as shown. Secure the Glass Fascia Assembly using the supplied 3mm Hex key and four M5 x 8mm Hex Button screws. Ensure the knob trims stay securely attached to the glass face at all times.

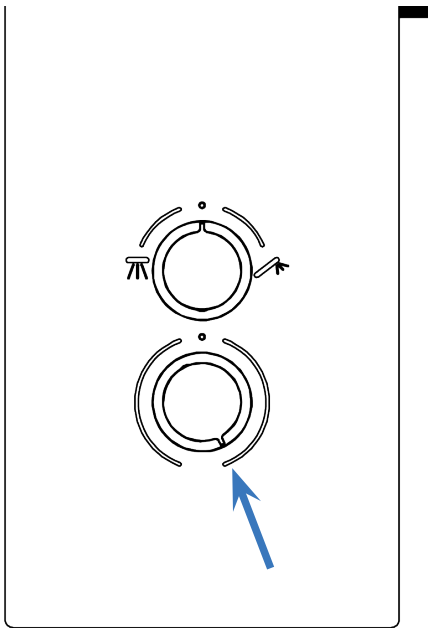
8



Attach the outlet control knob to the valve once glass panel is secured, pointing directly upward (12 o'clock). Ensure the trim rings are fully engaged and flat on the glass. Use the 2.5mm Hex key to tighten the grub screw to secure the control knob. Cover with chrome cap to finish.

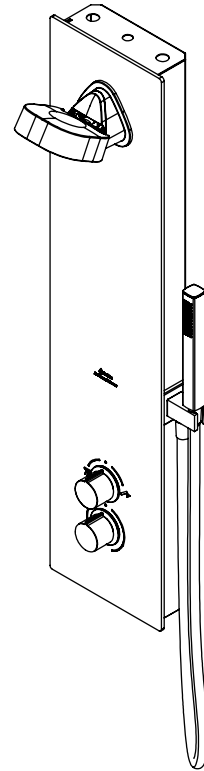
Installation

9



Before fitting the temperature knob, turn the brass ring clockwise until it stops (full cold). Repeat fixing method of temperature knob attachment using same method as the control knob. 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 place the eHandset in the handset holder on the side of the panel. 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!



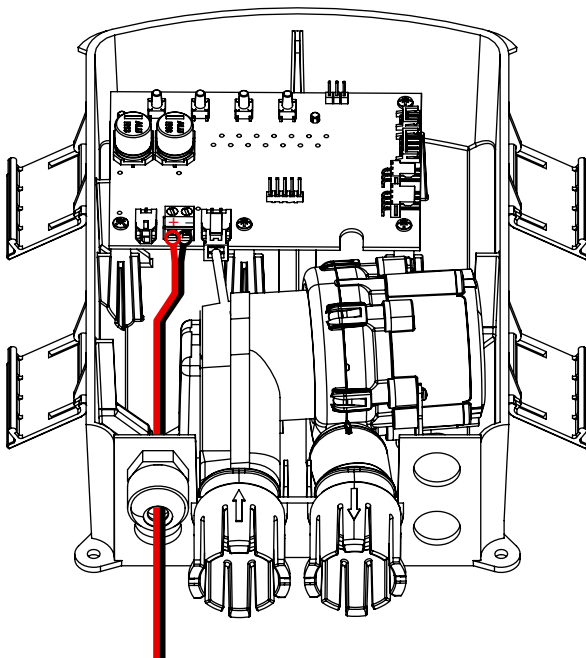
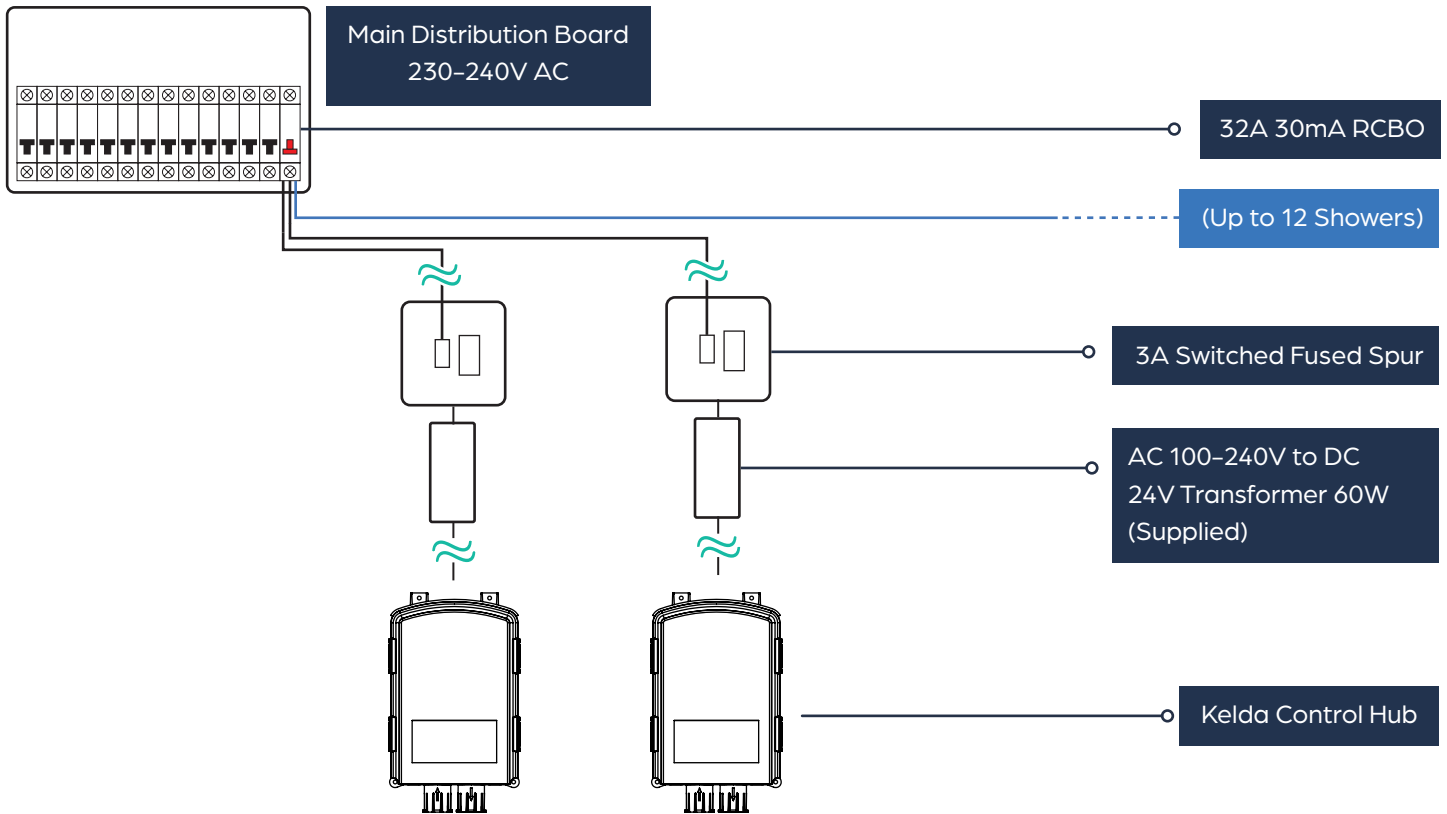
- Always check for hidden pipes and cables before drilling
- Run water through hot and cold pipes to clear debris from pipework before connecting Kelda Deluxe Shower Panel

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.

Only the power supply and cables provided by Kelda Showers can be used. Damaged power supplies and cables should be scrapped, other power supplies or cables cannot be used. Contact Kelda Showers for a replacement.



Electrical Connection

1. Thread the power supply cable through the 16mm cable gland in the front left of the Control Hub
2. Connect the cable to the 24V power terminal shown. (Red must be connected to positive pole and black must be connected to negative pole)
3. Using a 3mm flat screwdriver, tighten the connections down and tighten gland nut onto cable



Operation

Selecting an Outlet

The outlet is selected by rotating the upper control handle. Turn anti-clockwise to direct flow to the Flex Head and clockwise for the eHandset (SKUs 93008100 and 930010100 only). Return the control handle to the 12 o'clock position to turn off the shower.

The Flex Head can be tilted from 15–45° to provide personalised coverage of the water spray. To use the eHandset wand, lift to remove it from the handset holder.



Adjusting the Temperature

The temperature is adjusted by rotating the lower control handle. Turn anti-clockwise to increase the temperature of the thermostatic valve and clockwise to decrease the temperature.

The default temperature should be calibrated to the water system of the residence upon commissioning. Details of how to conduct this can be found on page 8.



Factory settings

Air Volume

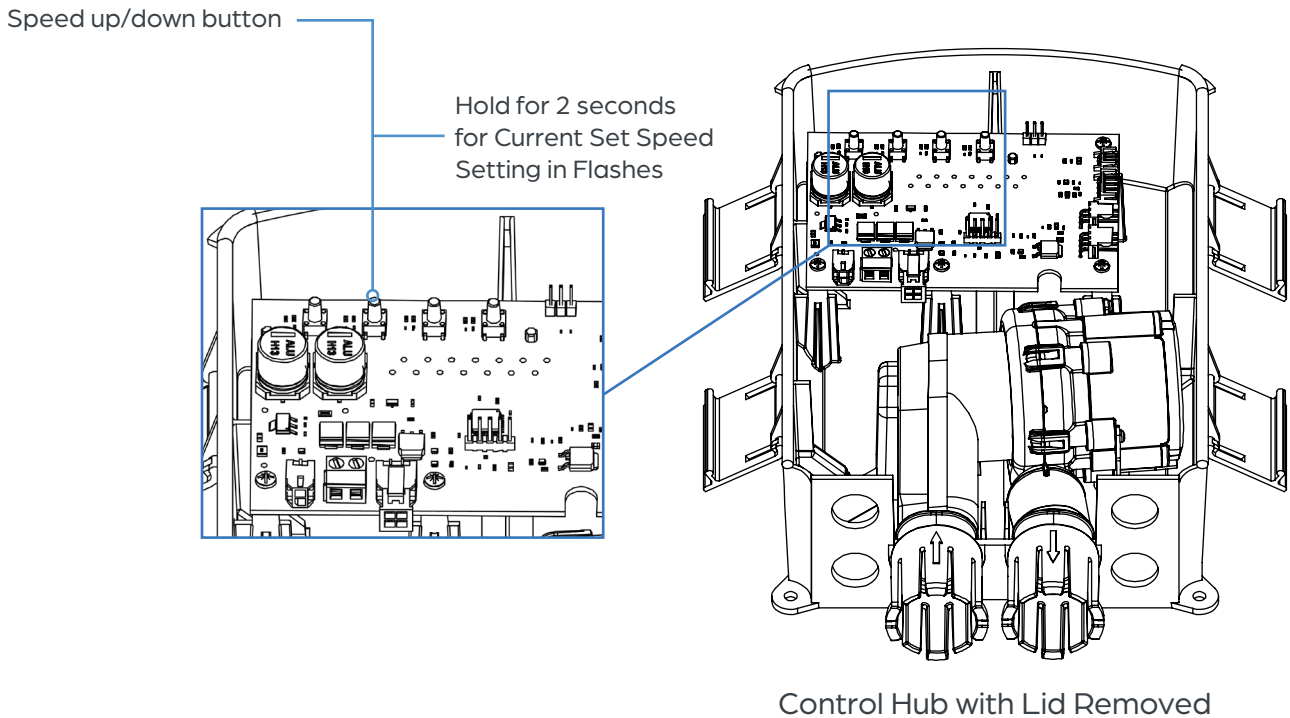
Your Kelda panel shower will have a different fan speed setting depending on what shower head and water flow rate your product has. This will be set at the factory.

The control 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 (6 settings)

1. The panel fan settings are pre-set by the factory.
2. To change the fan speed settings, press 'FAN' button once. (There are 6 speed settings: 1-6)
3. To display current fan speed set, press and hold 'FAN' button for 2 seconds. The number of LED flashes corresponds to the speed setting selected.



Fan Mode Settings

	Fan Mode	LPM
Dynamic	1	4-6
Dynamic	2	4-6
Dynamic	3	4-6
Static	4	4
Static	5	5
Static	6	6

Dynamic = Flow Sensor Present (93007100, 93008100, 93009100, 93010100)

Static = Time Flow variants (Solenoid Operated) (93011100, 93003100, 93004100)

1. Factory setting is Fan Mode 3 for all TMV Variants
2. Fan Modes 1 and 2 can be used to fine tune performance if necessary
3. If changed, the new Fan Mode remains as default, even after the power has been cycled.

Factory Settings

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

Hold down th FAN button for 5 seconds to check the fan runs correctly. Holding the TMR button will run both the fan and the water supply. The water supply should be isolated for this function to prevent unwanted water spray.

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. The fan will return to normal operation once debris is cleared or temperature has reduced to sufficient 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.
		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).
Fan volume too high	Air hose not correctly fitted	Check to make sure the jubilee clips around the air hose outlets have been sufficiently tightened.

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 document: "Kelda Deluxe Shower Panel Valve Installation Manual Thermostatic Valve" which can be downloaded from the Deluxe Panel product page at:

www.keldashowers.com

Maintenance

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

1. Kelda Showers 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.

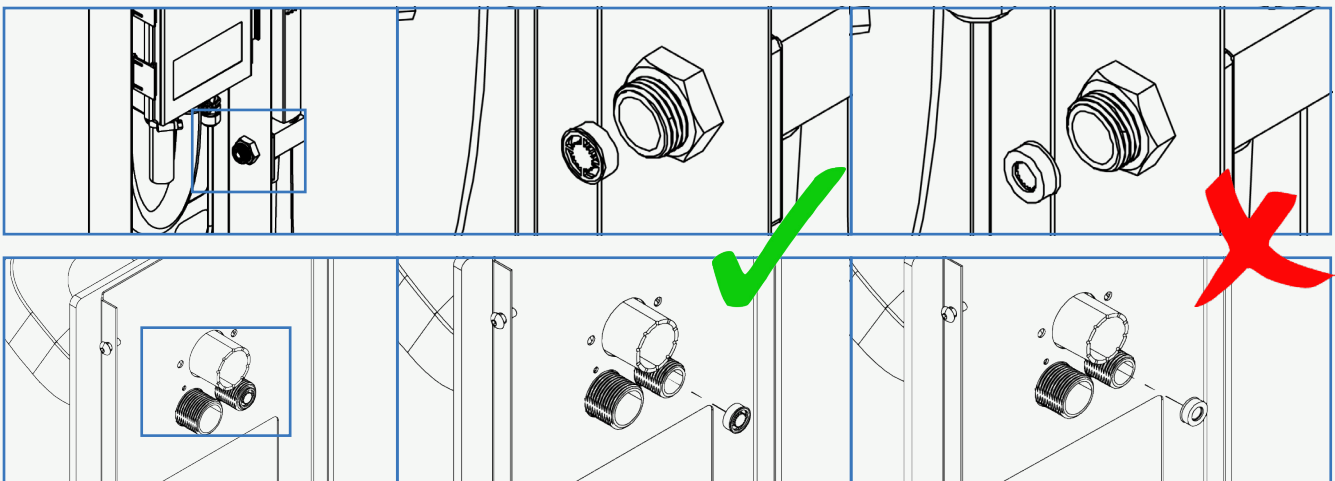
*This service point can be adjusted to suit site-specific maintenance regime and shower usage levels.

Bi-Annual Visual & Hygiene

Check the 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 the thermostatic mixer if one is fitted. If a mixer is fitted into the panel, then please follow the maintenance guide which is specific to that model of mixer.

Flow Regulator Cleaning

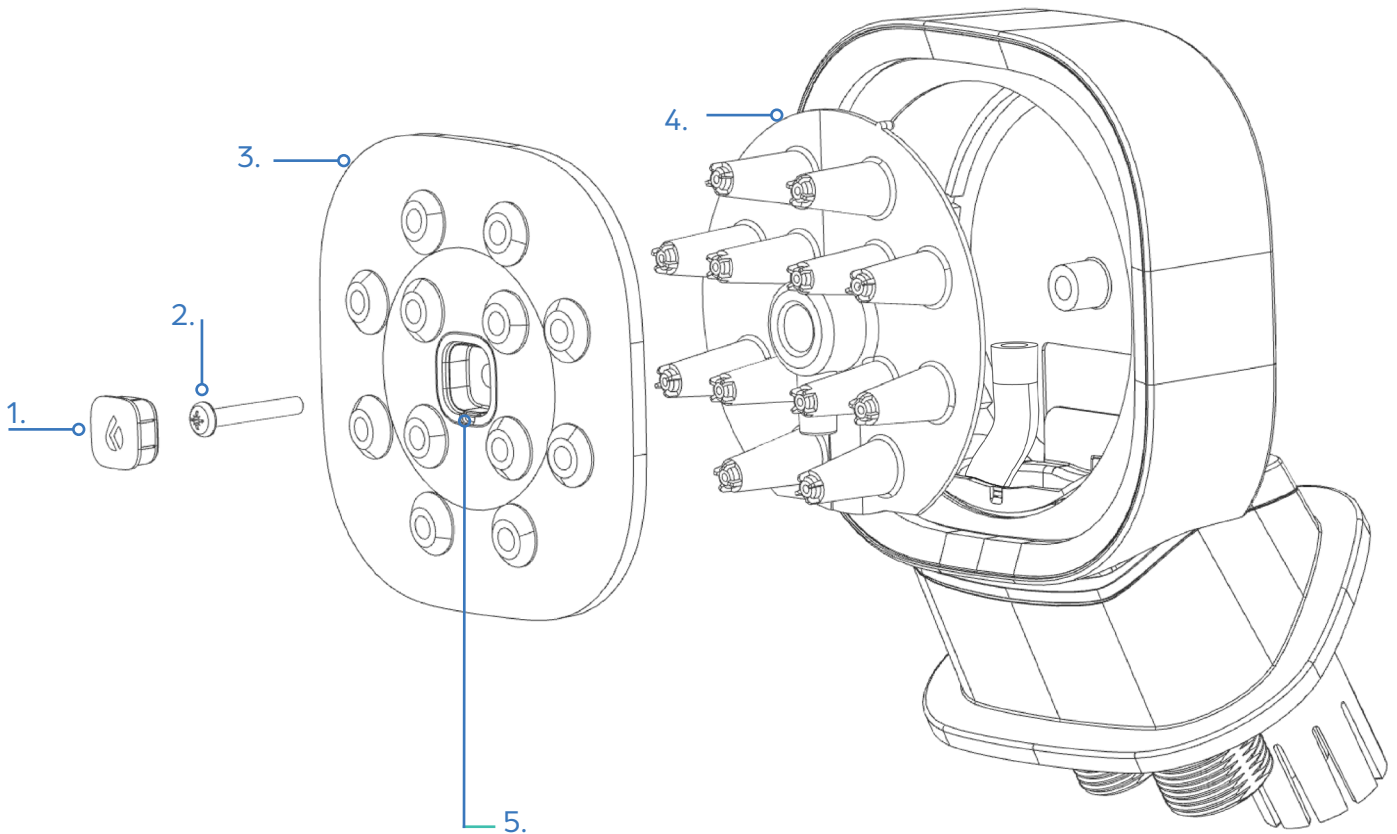
When removing the flow regulator for cleaning and maintenance purposes, ensure it is reinserted in the correct orientation.



Maintenance

Instructions for Dismantling and Reassembling Head for Cleaning

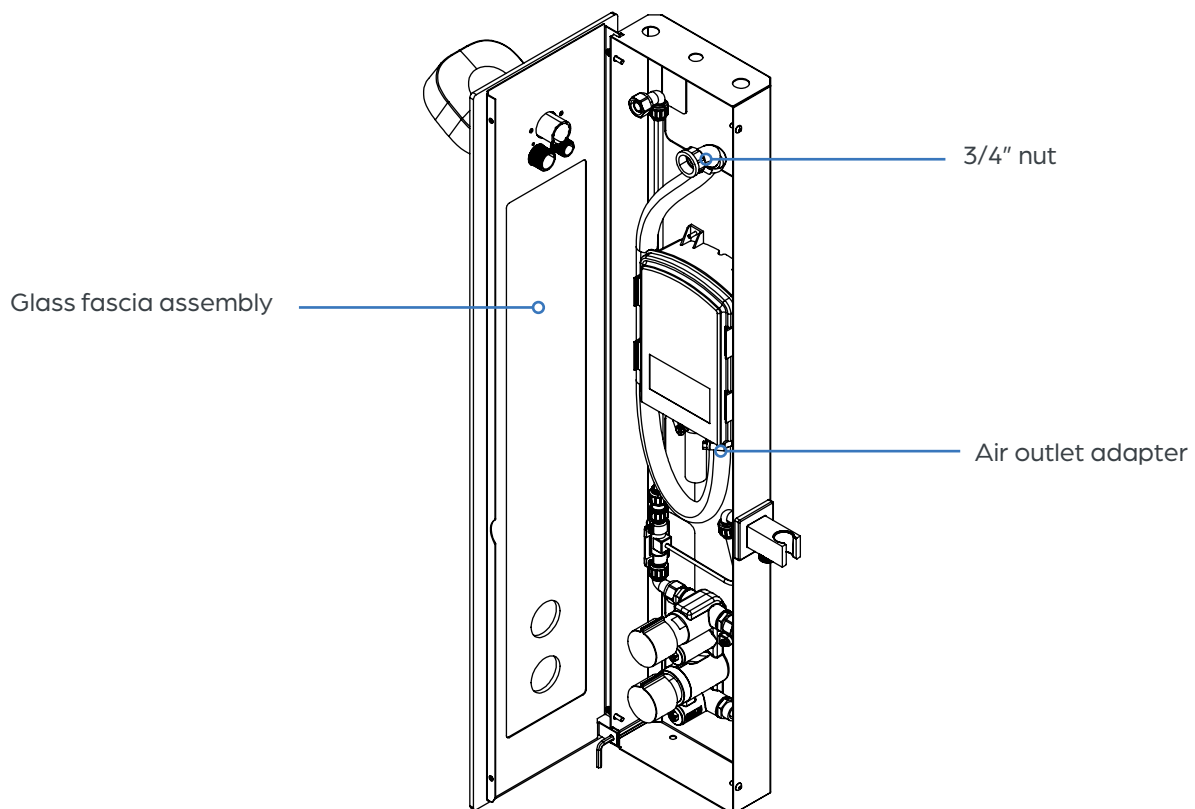
1. Remove the fascia plate screw cap by applying a small flat head screwdriver in the notch and gently twisting by 45 degrees left, then right (attempting to pry the cap out may cause damage to the faceplate) (1).
2. Remove centre screw using a Pozidriv PZ2 screwdriver ensuring the fascia plate (3) and atomisation engine (4) 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.
- Once fully 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.
- Reinstate power supply to Control Hub
- Run shower for 2-3 minutes to check for air leaks from hose connections and adjust accordingly.
- Reinstall shroud cover onto panel.



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 Showers 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 Showers 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 Showers 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 equipment.

Spare Parts

All functional parts of Kelda Showers 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 charge and authorisation must be obtained from Kelda Showers 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 Showers, 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).

Patents:

1692638PP/CN

2612790

Patents granted and pending:

1692638PP/US

1850858P/PCT

2454228

1692638P/HK

1850858P/HK

9173809

4135905

2675568

1714634P/HK

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1714634PP/CN

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1714634PP/US

Notes



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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.