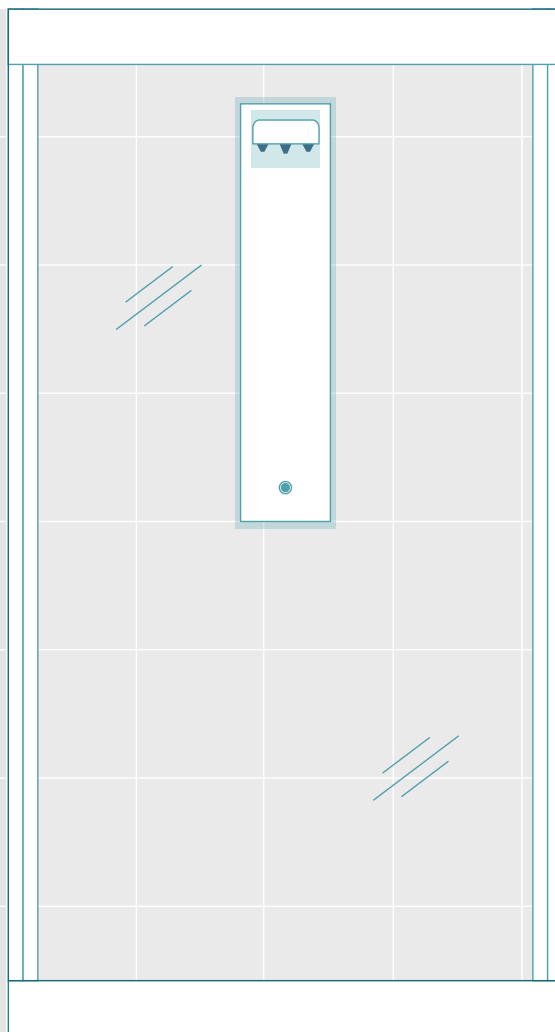




INSTALLATION GUIDE

KC34B245



SYSTEM DESCRIPTION

Surface mounted panel shower

Hot and cold bottom feed water entry to integrated TMV3 mixer valve

Shower activation via a digital push button with automatic time off function

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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IMPORTANT SAFETY INFORMATION

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. Isolate the electrical and water supplies before removing the module covers.
2. Read all of these instructions and retain them for later use.
3. **DO NOT** take risks with plumbing or electrical equipment.
4. Isolate electrical and water supplies before proceeding with the installation.
5. The shower head and back plate vent 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 head, back plate vent, digital control module or blower module using silicone sealer after fixing to the wall.
6. Special care must be taken **NOT TO BLOCK OR SEAL THE BACK PLATE VENT**.
7. If it is intended to operate the shower in areas of hard water (above 200 ppm temporary hardness), a scale inhibitor may have to be fitted.
8. The shower head must be cleaned regularly with descalent to remove scale and debris, otherwise restrictions to the flow from the nozzles of the shower head will result in poor shower spray experience.
9. This product is not suitable for mounting into steam rooms or steam cubicles.

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. The supply pipe must be flushed to clear debris before connecting to the blower module water inlet.
3. **DO NOT** solder pipes or fittings within 300mm of the supplied hoses, as heat can transfer along the pipework and damage components.

4. **DO NOT** fit any form of outlet flow control, as the shower head acts as a vent for blower module.
5. **DO NOT** use excessive force when making connections to the flexible hose or shower head.
6. All plumbing connections must be completed before making the electrical connections.

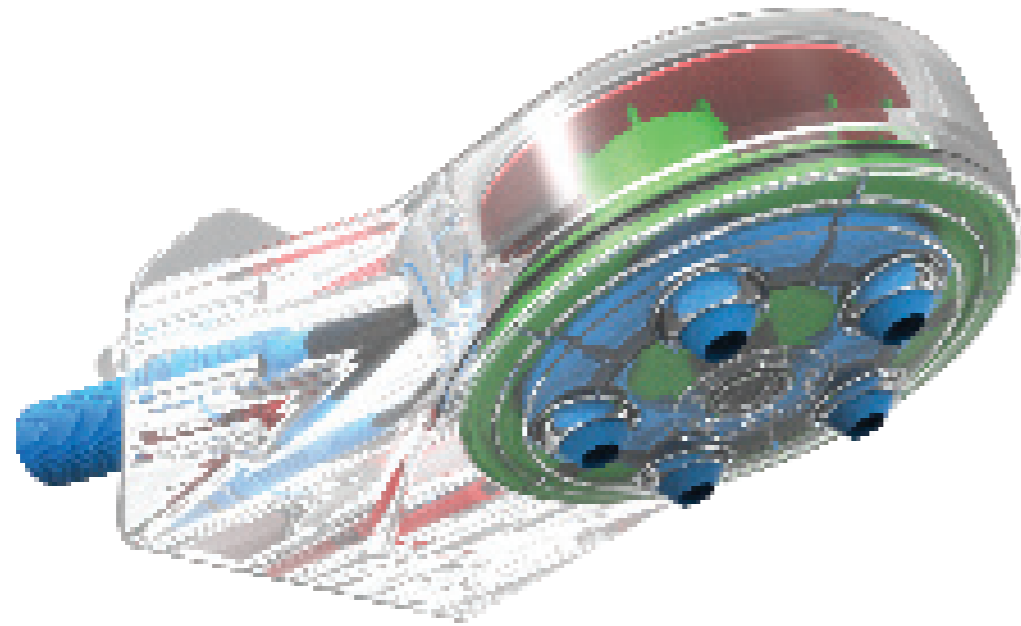
ELECTRICAL

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. This appliance **MUST** be earthed.
3. 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.
4. Make sure all electrical connections are tight to prevent overheating.
5. A 30mA residual current device (RCD) **MUST** be installed in all UK electric and pumped shower circuits. This may be part of the consumer unit or a separate unit.
6. Other electrical equipment i.e. extractor fans, pumps must not be connected to the circuits within the unit.
7. Switch off at isolating switch when not in use for extended periods. This is a safety procedure recommended with all electrical appliances.
8. 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.

Contact Customer Service (see back page), if any of the following occur:

- a) If it is intended to operate the shower at pressures above the maximum or below the minimum stated.
- b) If the unit shows a distinct change in performance.

DESCRIPTION



The Kelda Shower System is a ground breaking, patented technology that injects water into an air stream to deliver a unique "real rain" effect showering experience. This provides a shower force equivalent to twice that of a conventional shower, thereby offering water savings of over 50%* and associated water heating energy savings.

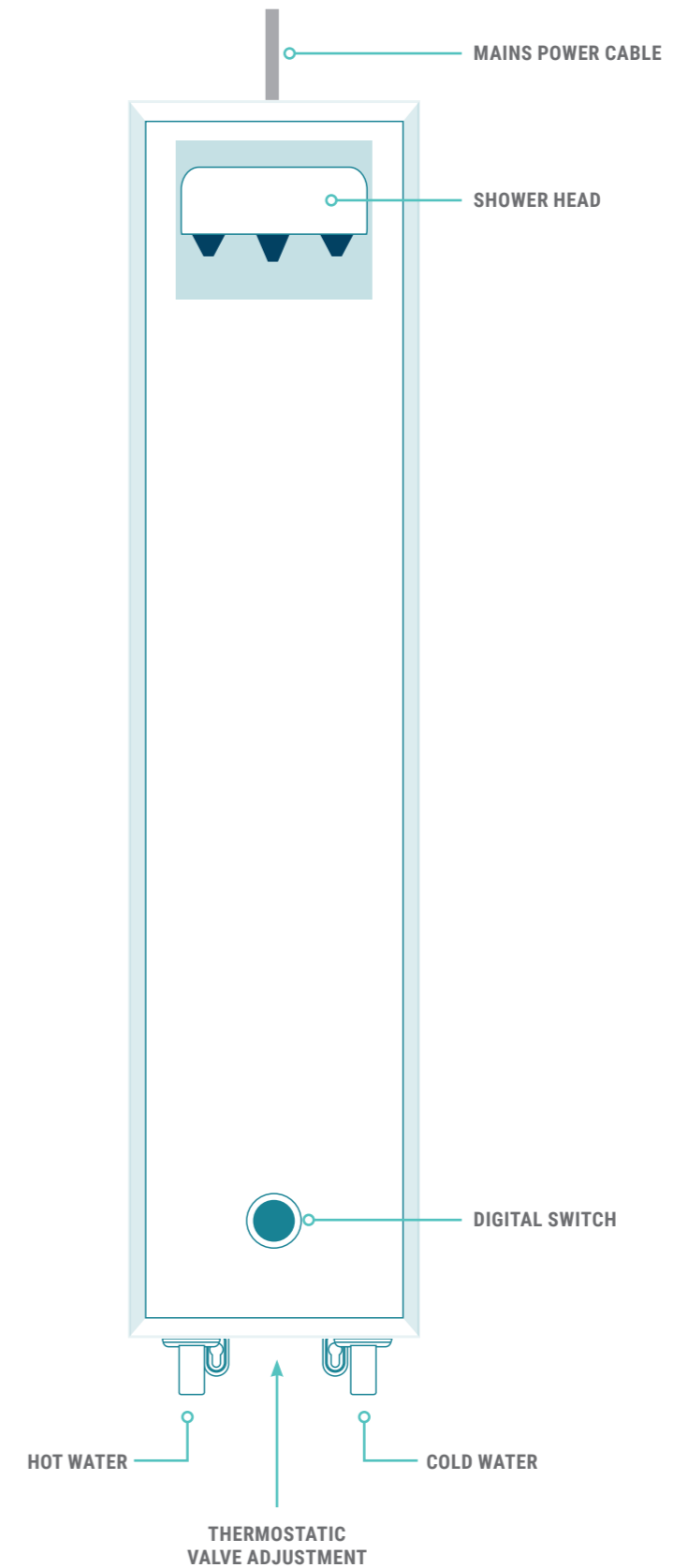
General arrangement—refer to the diagram below

The showerhead and back plate vent are fixed to the shower panel which in turn fixed to the back wall in the shower cubicle. An electrical supply is required to be connected via a 30mA RCD device . The power cable located at the centre top, of the shower unit.

Hot and cold water supplies are connected to the inlet pipes at the bottom of the shower unit and pass through a TMV3 mixer valve before water is plumbed to the shower head.

Warm air is supplied to the showerhead from inside the shower panel unit where water is injected into the airstream.

SYSTEM DIAGRAM



* Refer to University of Southampton report at www.keldatechnology.com

SPECIFICATION

The Kelda system is designed to operate between 1 and 3 bar with an electrical supply of 100-240V 50/60 Hz

This product is rated for continuous running at a maximum air ambient temperature of 40°C.

Maximum water temperature of the system is 42°C

The water flow out of the showerhead has been factory set at 4.5 litres per minute +/- 15% .

The shower duration has been factory set at 60 seconds but can be programmed to offer a shower duration of either 30, 45, 60 and 90 seconds.

The TMV3 Valve.

The Temperature setting range: 38°C- 46°C

Temperature , hot supply: 52°C - 65°C (Max 85°C)

Temperature, cold supply: 5 - 2°C

Minimum hot to mix differential temperature: 10°C

Temperature stability: +/- 2°C

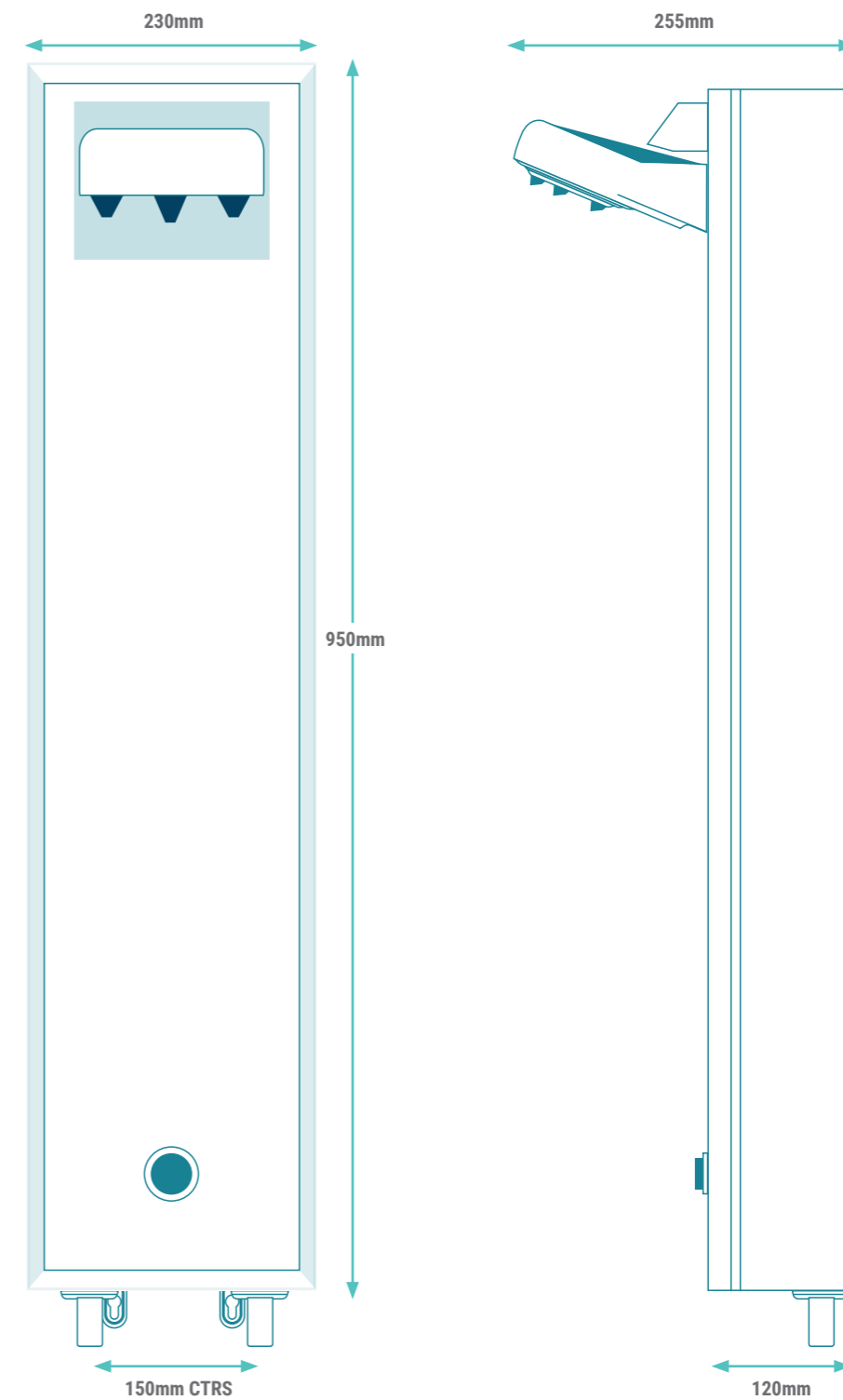
Working pressure, static: 16 bar max

Working pressure (Dynamic) 1.0 bar - 5.0 bar

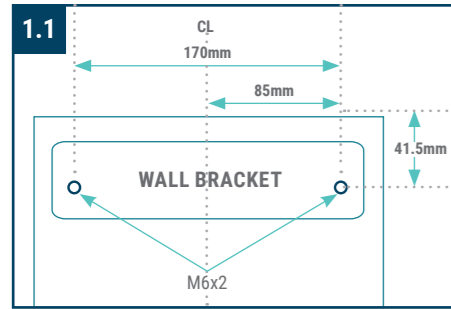
Maximum pressure loss ratio: 10:1

Minimum flow rate 4 litres per minute.

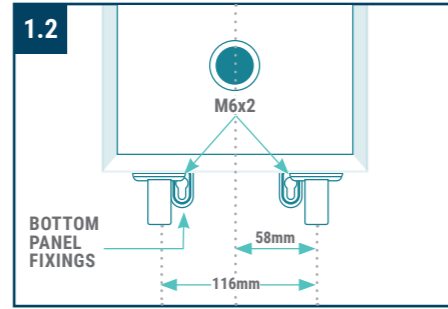
DIMENSIONS



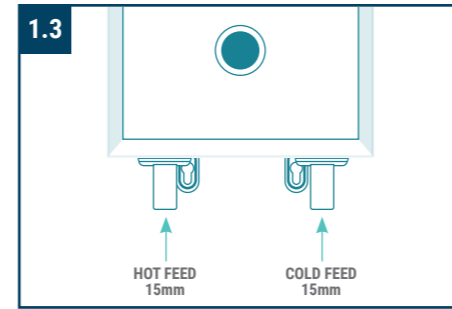
INSTALLATION



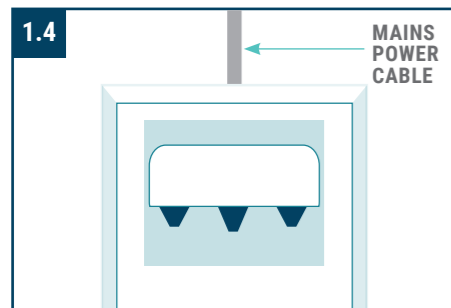
Using the shower fixing bracket. Mark and drill holes for shower fixing bracket on the back of the shower cubicle and secure bracket using the screws supplied.



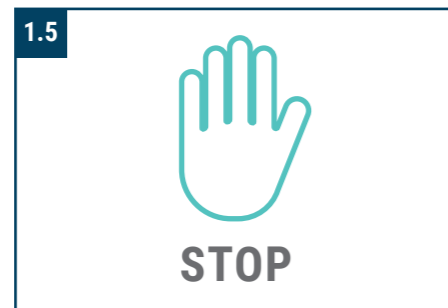
Hang the shower on the wall bracket ensuring that the electric cable is not trapped between the shower and the wall. Mark and drill the holes for the bottom panel fixings and secure using screws.



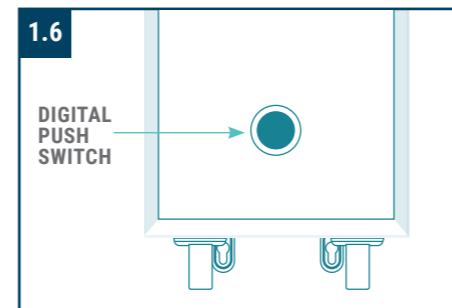
Connect the hot & cold water inlets to the water supply being careful to ensure to connect the hot inlet to the hot water supply and the cold inlet to the cold water supply.



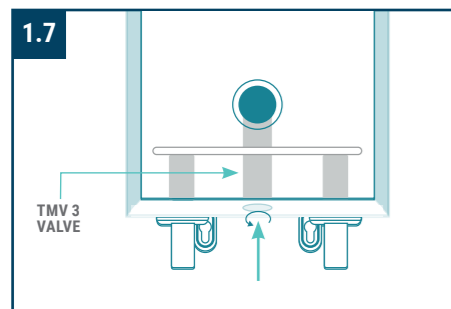
Run the electrical power cable to the Mains supply and connect to the electricity supply ensuring supply is protected by a 5A fuse and a 30mA RCD and in compliance with all IEEE standards and local building standards and regulations.



Check installation and ensure the electrical connection is protected by a 30mA RCD and a 5A Fuse and that installation and connection is compliant with Part P of the UK Building Regulations to the latest IEEE standards or the appropriate regulations in the country of installation.



Turn on water connections, and electricity supply, press digital button until water is dispensed through the shower head.



Adjust water temperature by accessing the TMV3 valve control located between the hot and cold inlet pipes using the green adjuster supplied.

ELECTRICAL INSTALLATION

This shower requires a 100 -240V 50/60 Hz single phase supply. It is class 1 equipment and requires an earth connection. A 30mA RCD is required for each shower panel.

All electrical installation to be carried out by an approved electrician in accordance with Part 'P' UK Building Regulations and to the latest IEEE standards, or the appropriate regulations in the country of installation.

ELECTRICAL CONNECTION

Before plugging the appliance into the mains socket, make sure that:

- The socket is earthed and in compliance with the applicable law
- The socket is able to sustain the shower's maximum power load indicated on the technical data plate fixed to the control module inside the shower.
- The socket is compatible with the plug fitted to the shower. If this is not the case, replace the socket or the plug

Your shower is supplied with a BS1363 Approved plug, fitted with a 5 amp fuse. It must be fitted into an electrical socket protected with a 30mA RCD for immediate use. Before installation, please read the following instructions.



WARNING

The shower must be earthed. The following operations should only be carried out by a qualified electrician.

REPLACING THE FUSE

When replacing a faulty fuse, a 5 amp ASTA approved fuse to BS1362 should always be used, and the fuse cover re-fitted. If the fuse cover is lost, the plug must not be used until a replacement is obtained.

REPLACEMENT FUSE COVERS

If a replacement fuse cover is fitted, it must be of the correct colour as indicated by the coloured marking, or the colour that is embossed in words on the base of the plug.

REMOVING THE PLUG

Should you wish to re-route the mains cable through partitions or similar, please ensure that either:

- Ensure the plug is replaced by a fused 5 amp rewirable plug bearing the BSI mark of approval or;
- Wire the mains cable directly into a cable outlet, protected by a 30mA RCD and a 5A switched fuse (in compliance with BS5733) which is accessible without moving the shower.

ELECTRICAL INSTALLATION

DISPOSING OF THE PLUG

Ensure that before disposing of the plug itself, you make the pins unusable so that it cannot be accidentally inserted into a socket.

Instructions for connecting cable to an alternative plug:

Important: the wires in the mains lead are coloured in accordance with the following code:

Green & yellow	Earth
Blue	Neutral
Brown	Live

As the colours of the wires in the lead may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- Connect green & yellow wire to the terminal marked E or (earth symbol) coloured green or green & yellow.
- Connect brown wire to terminal marked L or coloured red
- Connect blue wire to terminal marked N or coloured black
- If a 5 amp plug (BS 3163) is used, it must be fitted with a 5 amp fuse, either in the plug or adapter or at the distribution board.

If you are in any doubt regarding the electrical supply to your shower, consult a qualified electrician before use.

DISPOSING OF THE DIGITAL CONTROL MODULE

When disposing of the digital control module, remove the plug by cutting the mains cable as close as possible to the plug body and dispose of as described earlier.



WARNING

- The digital control module and blower module should not be installed in an outdoor environment, including sheltered areas, as it may be very dangerous to leave them exposed to damp, rain and thunderstorms
- When the control box module is installed, the mains socket must be within easy reach
- Do not use extensions or multiple sockets
- The power supply cable must never be bent or dangerously compressed
- The power supply cable must only be replaced by an authorised serviceman

SAFETY INFORMATION

THIS APPLIANCE IS NOT INTENDED FOR USE BY PERSONS (INCLUDING CHILDREN) WITH REDUCED PHYSICAL, SENSORY, OR MENTAL CAPABILITIES OR LACK OF EXPERIENCE AND KNOWLEDGE UNLESS THEY HAVE BEEN GIVEN INITIAL SUPERVISION OR INSTRUCTION CONCERNING THE USE OF THE APPLIANCE BY A PERSON RESPONSIBLE FOR THEIR SAFETY. CHILDREN SHOULD BE SUPERVISED TO ENSURE THAT THEY DO NOT PLAY WITH THE APPLIANCE.

FACTORY SETTINGS

WATER FLOW RATE

Your Kelda shower has been factory set for water flow at 4.5 litres per minute and is the equivalent of a standard 9 litres per minute standard shower. This is set via a flow regulator fitted within the shower head.

AIR VOLUME

The rate at which the air is delivered to the shower is factory set for optimum water/air ratio.

AIR OVERRUN FUNCTION

The system has an air overrun function which allows the air to continue to operate for approximately 1-2 seconds after the water flow stops. This function purges the water from the shower head, reducing the build up of limescale.

OPERATION

1. Turn on the water isolation valve.
2. Turn on the electricity supply.
3. The Kelda Technology system operates by pressing the start button on the shower panel. It stops after a predetermined time period.
4. Press the stainless steel button on the front of the shower panel. Water should start to flow from the shower head, followed very quickly by the air flow. Once the water ceases to flow, the air overrun function will continue to allow air to continue for a few seconds to purge the showerhead of water.

Congratulations, you're now ready to experience the greenest shower in the world and start saving water and energy costs.

FAULT DIAGNOSIS

Symptom	Check	Action
System does not operate	Check electricity supply (is the standby power LED illuminated?)	No Turn on electricity
		Yes Check water valve
	Check water isolation valve	Turn on valve
		Replace if necessary
Water flows from shower head but no shower spray	Check electricity supply (is the standby power LED illuminated?)	No Turn on electricity
		Yes Conduct "hard reset" by switching electricity off, wait 10 seconds, switch electricity on.

MAINTENANCE

Kelda Technology products are precision-engineered and should give continued superior and safe performance, provided:

1. They 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

PREVENTATIVE/PRECAUTIONARY MAINTENANCE (PLANNED MAINTENANCE PROGRAMMES)

The frequency and extent of attention required will vary according to prevailing site and operational conditions.

SIX-MONTHLY VISUAL

Check internal component condition of the shower head. Inspect for debris, scale deposition, deformation, damage, etc. Maintain or renew as necessary.

MAINTENANCE PROCEDURES

Maintenance must be carried out in accordance with these instructions and must be conducted by designated, qualified and competent personnel. External surfaces of the shower may be wiped clean with a soft cloth, and if necessary a mild washing-up type detergent, or soap solution can be used

Components are precision made, so care must be taken during maintenance to avoid damage



WARNING

During regular cleaning of the shower area, do not direct a water hose at the shower head while the shower is functioning.



WARNING

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 one year 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 limescale. 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.

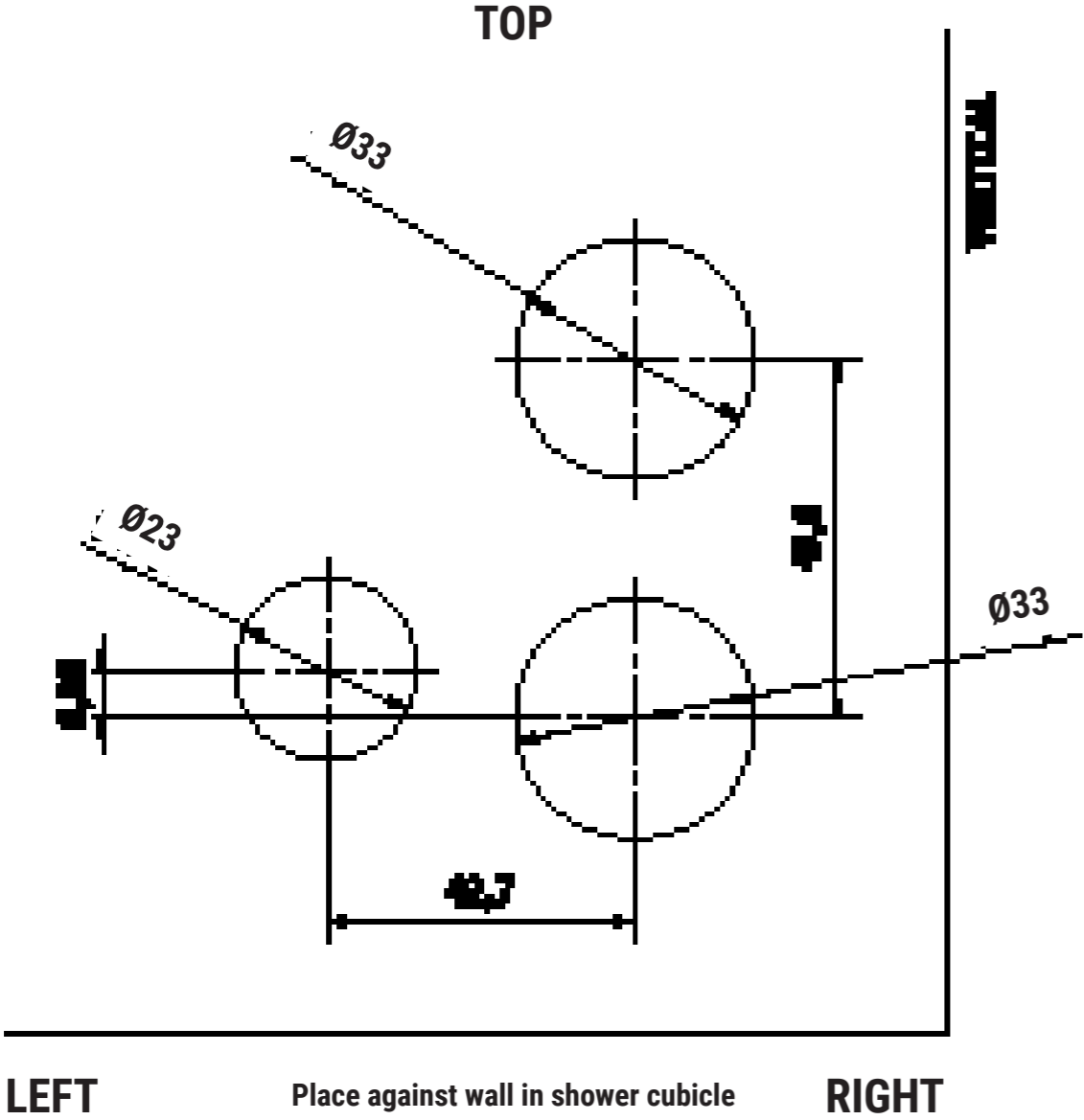
SPARE PARTS

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 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.

INSTALLATION TEMPLATE





UK HEAD OFFICE

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Tel: +44 (0)333 4330783 **Web:** www.keldatechnology.com



DISPOSAL

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