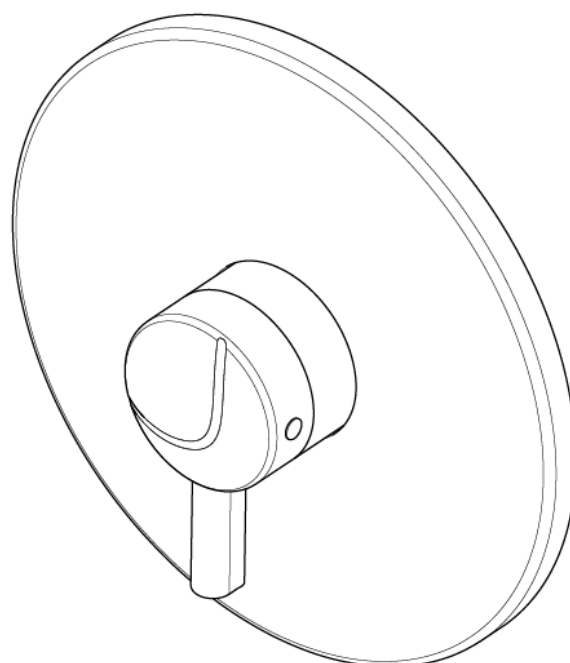


BRISTAN

Installation Instructions and User Guide

Opac Mini Thermostatic
Recessed Shower Valve



Models covered: MINI2 TS1203 CL C
& MINI2 TS1203 CH C

Please keep this booklet for future
Reference.



Installer, when you have read these
instructions please ensure you leave them
with the user.

Contents

Thank you for choosing Bristan, the UK's leading showers and taps expert. We have designed this product with your enjoyment in mind. To ensure that it works to its full potential, it needs to be fitted correctly. These fitting instructions have been created to give you all of the information you need and, if you need any further help, please do not hesitate to give us a call on 0844 701 6273.

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Important Safety Information

- Please read these instructions thoroughly and retain for future use.
- All products manufactured and supplied by Bristan are safe provided they are installed, used correctly and receive regular maintenance in accordance with these instructions.
- **If you are in any doubt about your ability to install this product safely you must employ the services of an experienced qualified plumber.**
- Remove all packaging and check the components for damage before starting installation.
-  **Warning:** Before starting any installation please consider the following: Prior to drilling into walls, check that there are no hidden electrical wires, cables or water supply pipes. This can be checked with the aid of an electronic detector.
If power tools are used do not forget to:
 - Wear eye protection
 - Unplug equipment after use
- The fitting of isolating valves is required as close as is practical to the supply inlet feeds of the thermostatic mixing valve.
-  **Warning:** Before installing the new shower valve it is essential that you thoroughly flush through the pipework in order to remove any remaining swarf, solder, etc. Failure to carry out this procedure could cause problems or damage to the workings of the shower valve.
- This product **must not** be modified in any way as this will invalidate the guarantee.

General Information

This product has been tested to comply with the BS EN 1287:1999 (LP) and BS EN 1111:1999 (HP) thermostatic mixing valve standards.

BS6700 recommends the temperature of stored water should never exceed 65°C. A stored water temperature of 60°C is considered sufficient to meet all normal requirements and will minimise the build up of lime scale in hard water areas.

If the fitting is installed at low pressure (tank fed), then the minimum distance from the highest installed position of the showerhead to the underside of the cold tank should be at least 1 metre to ensure adequate performance.

Note: Nominally equal (balanced) inlet supply pressures are recommended for optimum performance with mixer showers.

This shower valve should be installed in compliance with the Water Supply (Water Fittings) Regulations 1999 and the Scottish Byelaws 2004.

If in doubt, contact a registered plumber or your Local Water Authority or the Secretary of The Institute of Plumbing, address as follows;-

The Institute of Plumbing,
64 Station Lane,
Hornchurch,
Essex, RM12 6NB
Tel: 01708 472791

Recommended Usage			
Domestic	✓	Heavy Commercial	✓
Light Commercial	✓	Health Care	✓

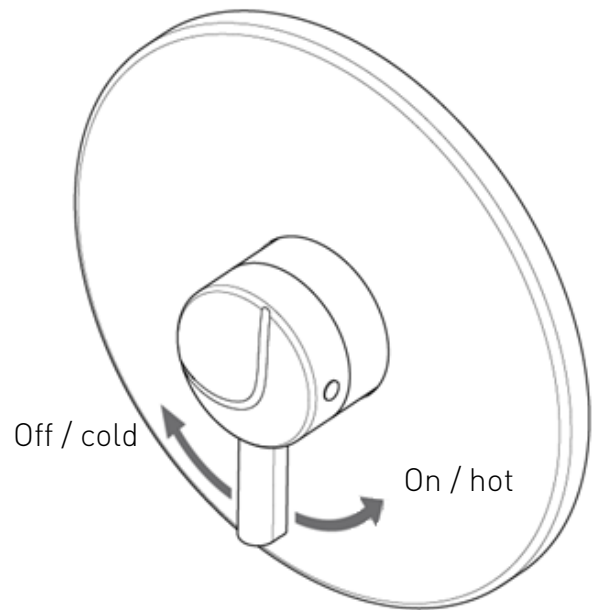
Product Features

On/Off and Temperature Control

Turn the control anti-clockwise to turn the shower on and increase the temperature.

Turn the control clockwise to decrease the temperature and to turn the shower off.

MINI2 TS1203 CL C shown



Specifications

Inlet Connections: 15mm compression, with adjustable centres.

Operating Pressure Range: Min: 0.1 bar – Max: 5.0 bar – Maximum recommended imbalance between hot and cold supply should not exceed a ratio of 5:1.

Maximum Static Pressure: 10.0 bar

Maximum Outlet Temperature: Factory pre-set to 41°C (can be re-set to suit site conditions).

Supply Requirements:

Minimum cold water supply temperature: 5°C.

Maximum cold water supply temperature: 25°C.

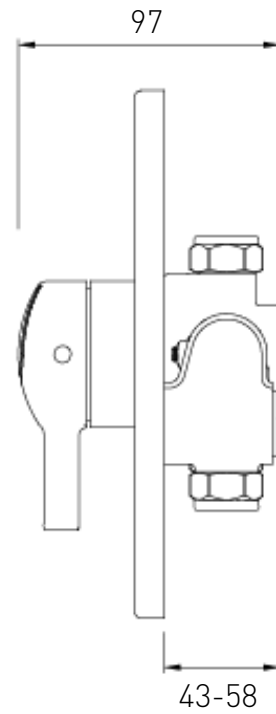
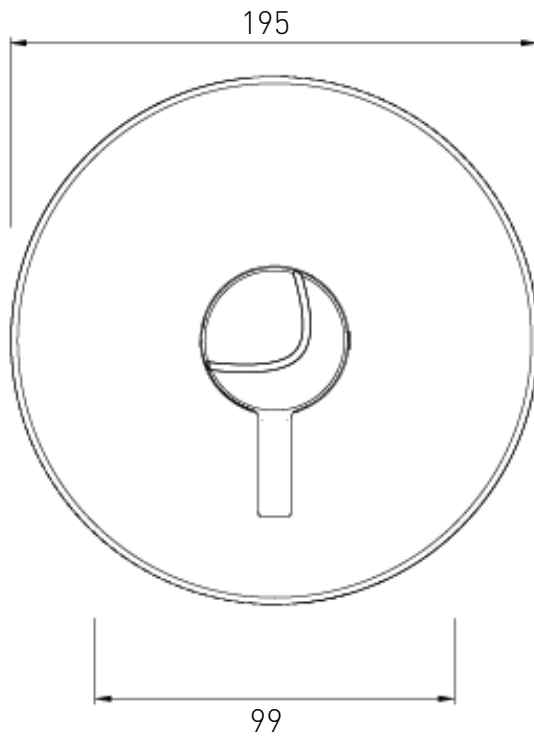
Maximum hot water supply temperature: 80°C.

(a maximum hot water supply temperature of 60 – 65°C is recommended for ablutionary purposes).

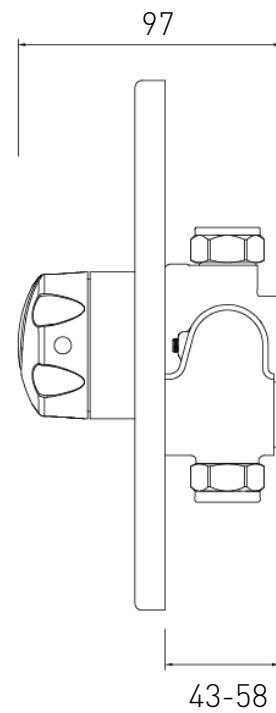
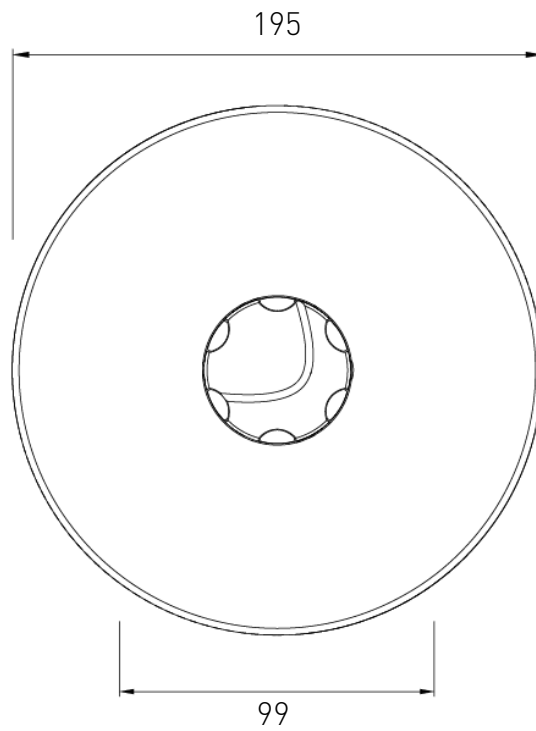
Note: The inlet hot water temperature must be at least 10°C above the required blend temperature (e.g. shower temperature 43°C: minimum hot supply 53°C).

Dimensions (mm's)

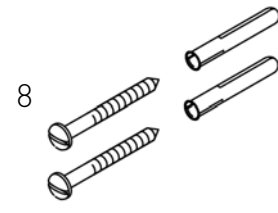
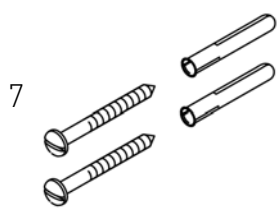
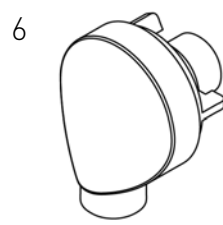
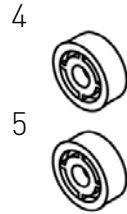
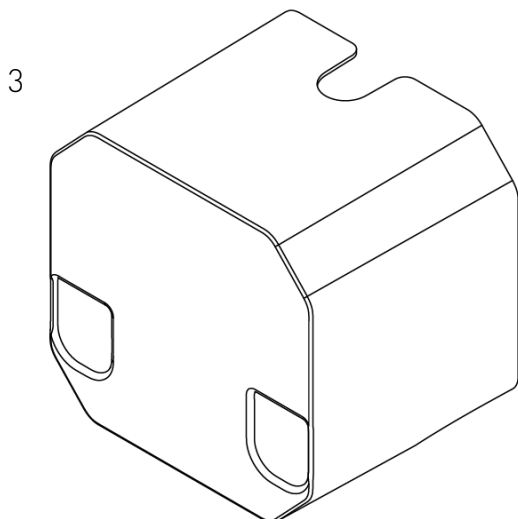
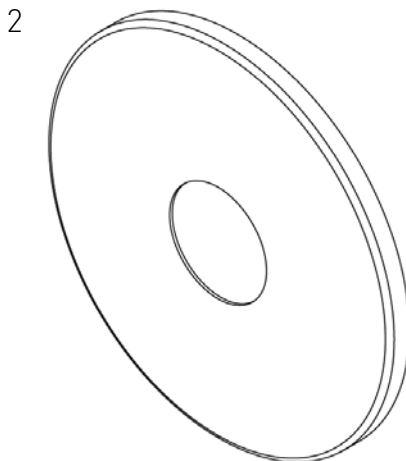
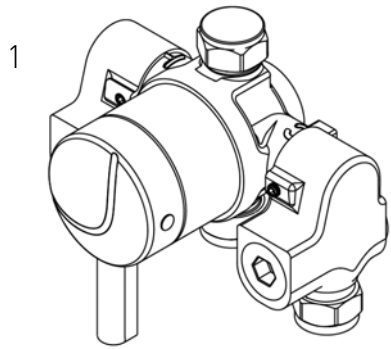
MINI2 TS1203 CL C



MINI2 TS1203 CH C

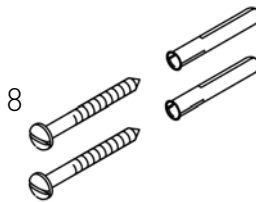
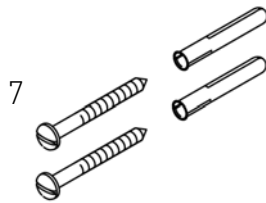
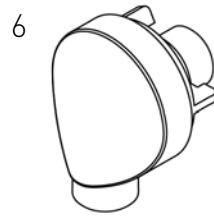
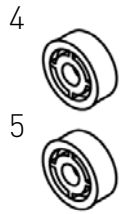
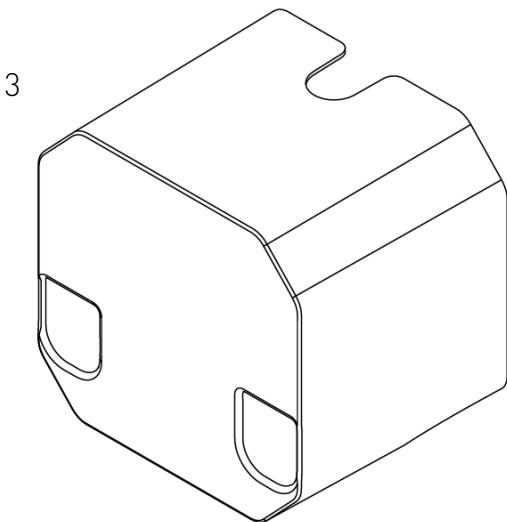
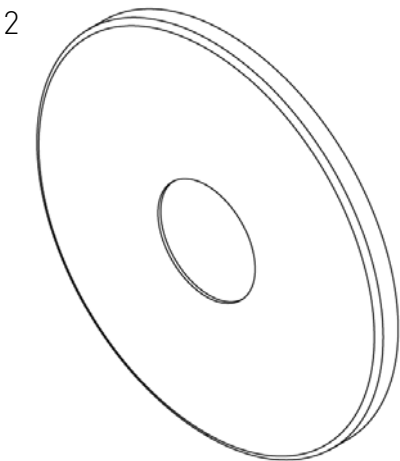
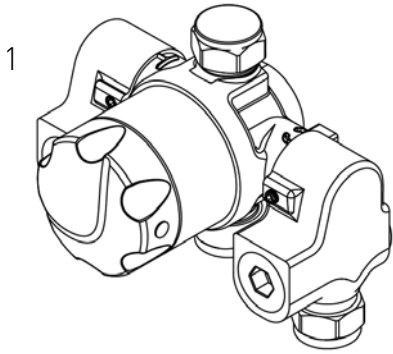


Pack Contents



- 1 Shower Valve x1
- 2 Concealing plate x1
- 3 Plastering shroud x1
- 4 7 lpm Green flow regulator x1
- 5 5 lpm Yellow flow regulator x1
- 6 Wall Outlet x1
- 7 Shower valve fixings x2/2
- 8 Hexagonal key x1

Pack Contents



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- 5 5 lpm Yellow flow regulator x1
- 6 Wall Outlet x1
- 7 Shower valve fixings x2/2
- 8 Hexagonal key x1

Installation Requirements

This shower valve must be installed in compliance with current water regulations. If you have any doubts about the water regulation requirements contact your local water services provider or use the services of a professional plumber.

This shower valve is suitable for use with the following water supply systems.

- **Gravity Fed Hot and Cold**
(pressure Balanced)
- **Gravity Fed Hot and Mains Cold**
(differential pressure – see Specification section on page 6.
- **Instantaneous Water Heater**
(combination boiler)
- **Unvented System**
- **Pumped System**

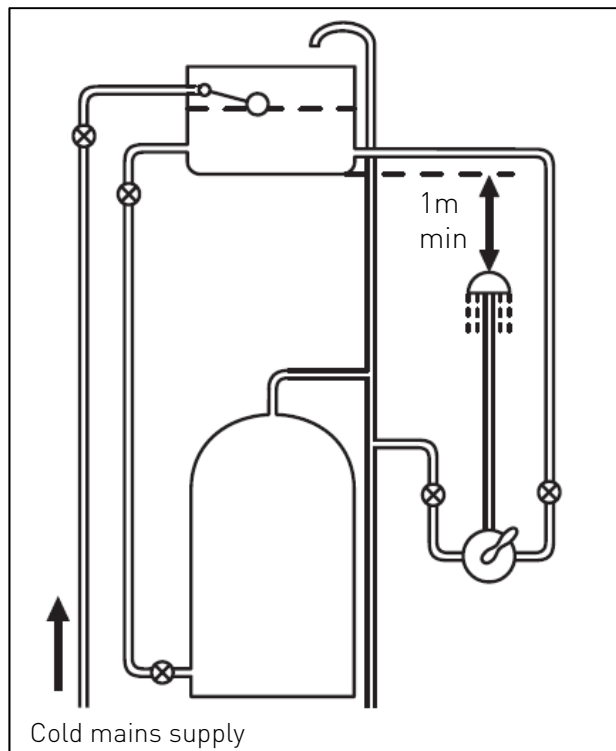
⚠ Important: If you install this shower valve with a gravity fed system, there must be a minimum head (vertical distance) from the underside of the cold water storage tank to the showerhead position of at least 1 metre.

Note: Pumped system (with Essex flange) If you install this shower valve to a pumped gravity fed system where the minimum head (vertical distance) from the underside of the cold water storage tank to the top of the hot water cylinder is less than 1 metre we recommend an Essex flange is used as shown on page 11.

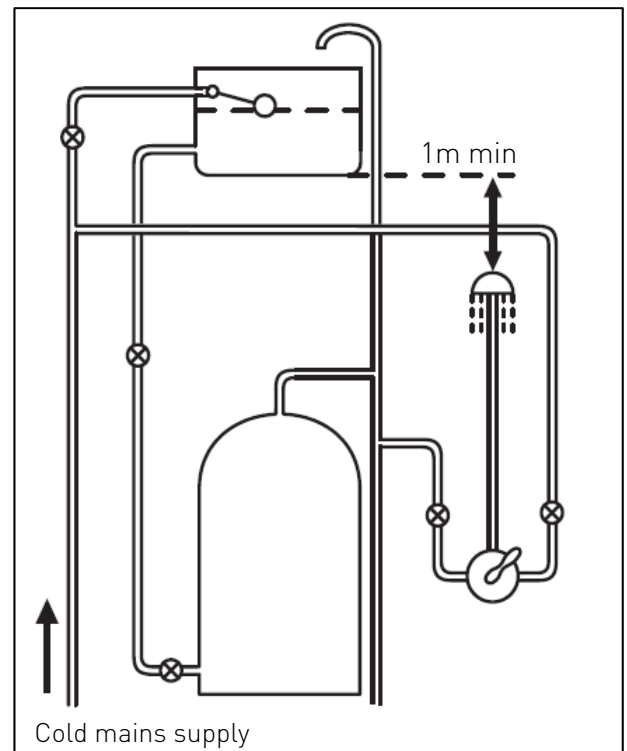
Flushing Pipework

⚠ Important: Before connecting the shower valve (see Installation on pages 17-18), supply pipework **must** be flushed to clear debris before connecting the shower valve. Debris will reduce the performance and life of the shower.

Gravity Fed Hot and Cold

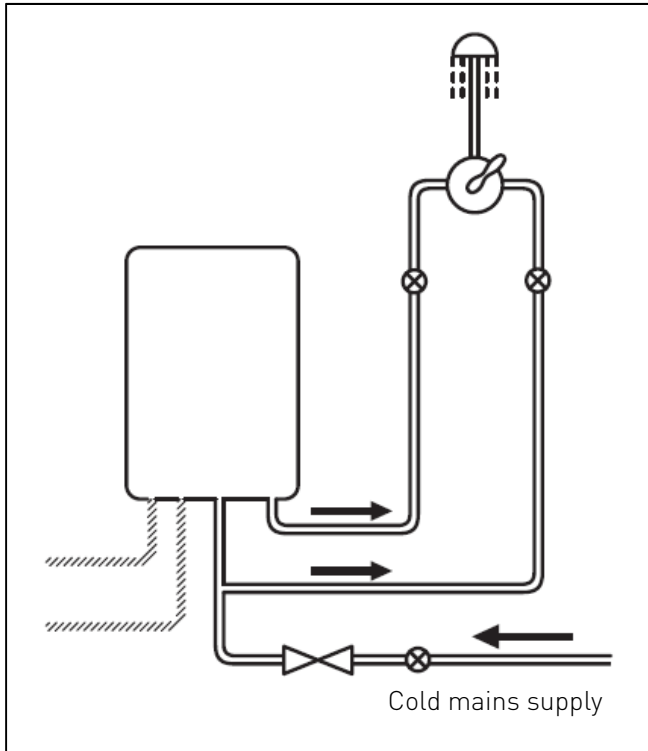


Gravity Fed Hot and Mains Cold

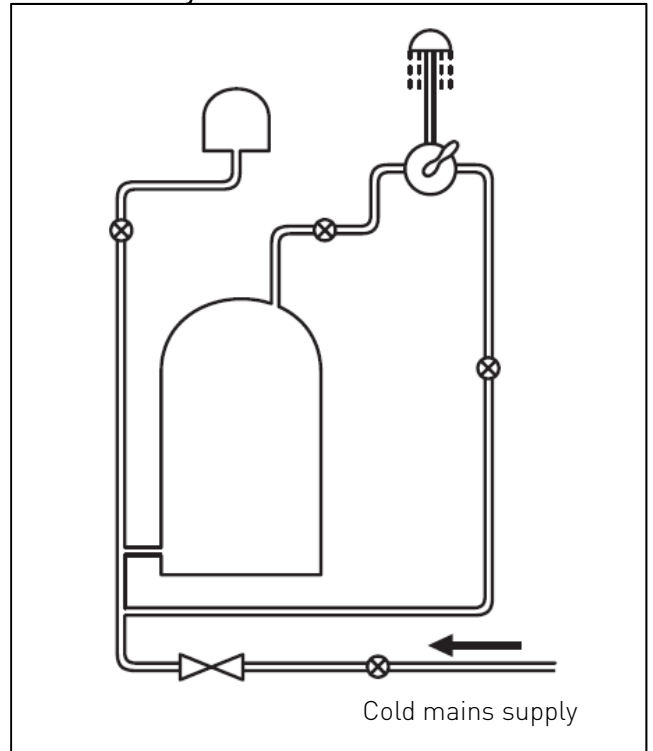


Installation Requirements

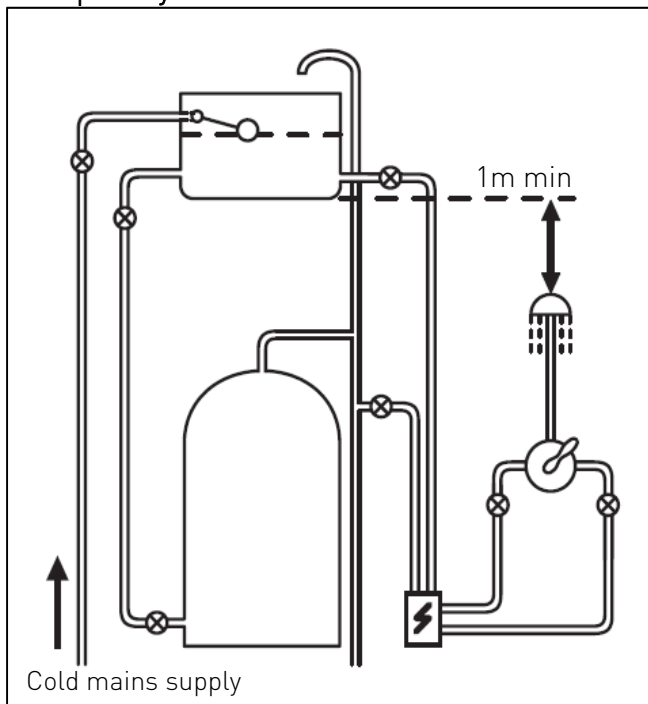
Instantaneous Water Heater



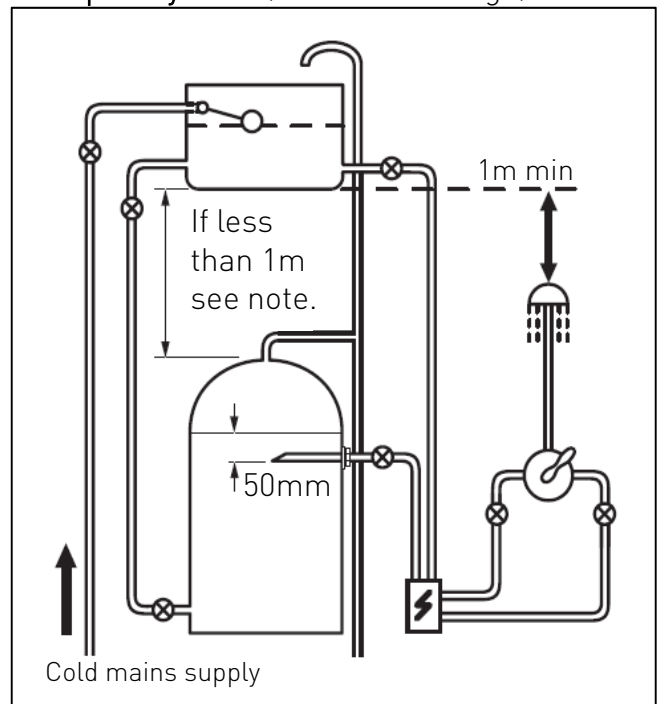
Unvented System



Pumped System



Pumped System (with Essex flange)



Key:  Isolating Valve  Reducing Valve  Shower Valve  Pump  Essex Flange

Installation Requirements

These fittings need to be installed in accordance with the following Installation Requirements and Notes (IRN) to ensure they meet the requirements of the Water Supply (Water Fittings) Regulations 1999 and the Scottish Byelaws 2004.

IRN R001: See text of entry for Installation Requirements or Notes.

IRN R040 - Schedule 2-15 (1): The fitting shall be installed so that its outlet discharges above the spill-over level of any fixed appliance as indicated below:-

For backflow protection in domestic or installations up to, and including, Fluid Category 3.

If the fitting cannot be installed as indicated in the table opposite it shall be installed as either **a** or **b** below:

a: with an approved double check valve assembly or some other no less effective backflow prevention device immediately upstream of the inlet.

b: so that it draws water by gravity only from a cistern, or cylinder having a permanently open vent pipe, and the distributing pipe supplies no other fitting (other than draining tap) at a lower level.

For backflow protection in premises or installations up to, and including Fluid Category 5.

The vertical distance of the outlet above the spill-over level shall be not less than 20mm or twice the diameter of the inlet pipe to the fitting, which ever is the greater. If the fitting cannot be installed as indicated it shall be installed with a backflow prevention arrangement suitable for the Fluid Category.

Size of tap or combination fitting.	Vertical distance of outlet above spill-over level.
1. Not exceeding 1/2 in	20mm
2. Exceeding 1/2 in but not exceeding 3/4 in	25mm
3. Exceeding 3/4 in	70mm

Installation Requirements

Conditions of use for Type 2 (Thermostatic mixer) valves

	High Pressure	Low Pressure
Maximum Static Pressure (Bar)	10	10
Flow Pressure, Hot & Cold (Bar)	0.5 to 5	0.1 to 1.0
Hot Supply Temperature (°C)	55 to 65	55 to 65
Cold Supply Temperature (°C)	Equal to or less than 25	Equal to or less than 25

Note: Valves operating outside these conditions cannot be guaranteed by the Scheme to operate as Type 2 valves.

If a water supply is fed by gravity then the supply pressure should be verified to ensure the conditions of use are appropriate for the valve.

Recommended Outlet temperatures


We recommend the following set maximum mixed water outlet temperatures for use in all premises:

41°C for showers;

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.

 **Warning:** It is not a safe bathing temperature for adults or children.

The British Burns Association recommends 37 to 37.5°C as a comfortable bathing temperature for children. In premises covered by the Care Standards Act 2000, the maximum mixed water outlet temperature is 43°C.

The thermostatic mixing valve (TMV) will be installed in such a position that maintenance of the TMV and its valves and the commissioning and testing of the TMV can be undertaken.

The fitting of isolation valves is required as close as is practical to the water supply inlets of the thermostatic mixing valve.

The fitting of strainers is required as close as is practical to the water supply inlets of the thermostatic mixing valve.

Installation Requirements

Conditions of use for Type 3 (Thermostatic mixer) valves

In order to give compliance with N.H.S. specification D08 the table below lists the conditions for normal use. These valves will perform adequately outside these parameters, however they cannot be guaranteed by the scheme to operate as Type 3 valves. If they are required to work with other supply conditions an engineer must carry out a risk assessment and satisfy themselves that the valves are suitable for use.

Normal Conditions of Use for Type 3 valves

	High Pressure	Low Pressure
Maximum Static Pressure (Bar)	10	10
Flow Pressure, Hot & Cold (Bar)	1.0 to 5.0	0.2 to 1.0
Hot Supply Temperature (°C)	52 to 65	52 to 65
Cold Supply Temperature (°C)	5-20	5-20
Minimum Temperature Differential °C	10°C	10°C

This valve has been approved for use in the following designations.

Code	Operating Pressure	Application
HP – SE	High Pressure	Shower
LP – S	Low Pressure	Shower

Key:

HP - High Pressure LP - Low Pressure

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

41°C for showers;

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: For wash basins, washing under running water is assumed.

Flow Regulators

Selecting Flow Regulators

Supply System		Flow Regulator		
Cold Supply	Hot Supply	Cold	Hot	Comments
0.1 to 1.0bar	0.1 to 1.0bar	No	No	Maximum pressure loss ratio 5:1
1 to 5 bar or pumped	1 to 5 bar or pumped	Green (7 litre)	Yellow (5 litre)	◆ Use arrangement for pumped system
Mains 1.0 – 10 bar	Gravity 0.1 to 0.5 bar	Green (7 litre)	No	
	Gravity Above 0.5 bar	Green (7 litre)	Yellow (5 litre)	
	Unvented Mains / Mains Pressurised			
	Instantaneous Water Gas Heater	Green (7 litre)	* Yellow (5 litre)	
	**Instantaneous Water Electric Heater	Yellow (5 litre)	No	
	Any vented (open outlet) Heater Gas / Electric, e.g. Electric Shower	Do not use with a mixer valve – This would be extremely dangerous		

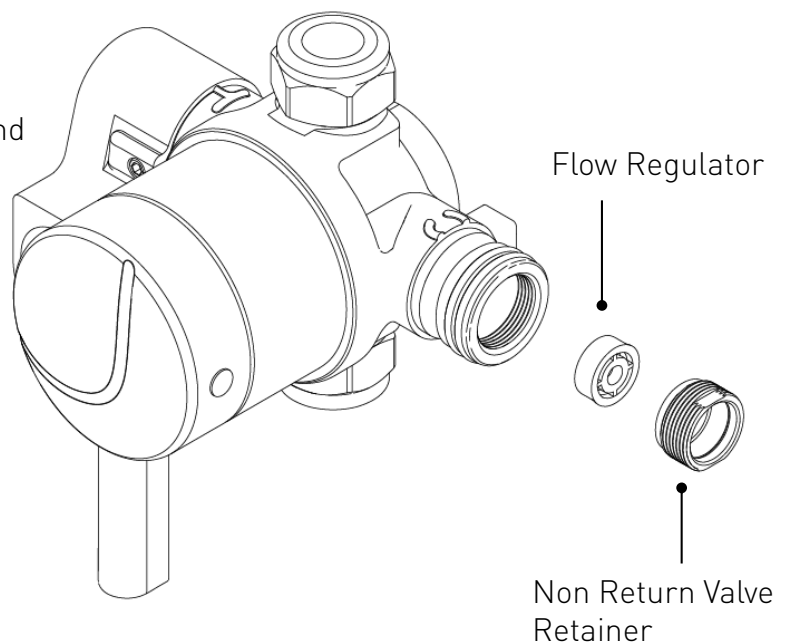
See key over page

Flow Regulators

Key:

- ◆ Regulators can be fitted if water economy is required.
- * Yellow (5 litre) regulator may not be necessary on some gas water heaters.
- ** ⚠ **Important:** It is a requirement of Instantaneous Electric Heaters that a stable flow of water passes through the heater. This requirement can be satisfied by using a 'flow stabiliser' fitted prior to the heater and should be adjusted to give a temperature of between 45 – 50°C from the heater.

Study the table on the previous page and decide which flow regulators are required for your particular situation. Remove both inlet elbows from the valve body and fit the flow regulators into the non-return valve retainer.



Installation

Before Installation

Flush through the pipework to ensure removal of debris. Turn off the mains water supply and close any isolating valves.

1. Inlet positions

The shower valve has two inlet positions – top or bottom.

The valve is supplied with the elbows fitted for the inlet water supply to be fed from the bottom. If the water supply inlets are required to be fed from the top the elbows must be switched over. Loosen the hexagonal screws and swap the elbows over and tighten the hexagonal screws.

Sufficient 15mm diameter supply pipes should protrude through the finished wall surface to fit fully into the shower valve elbows.

2. Attach shower valve to wall

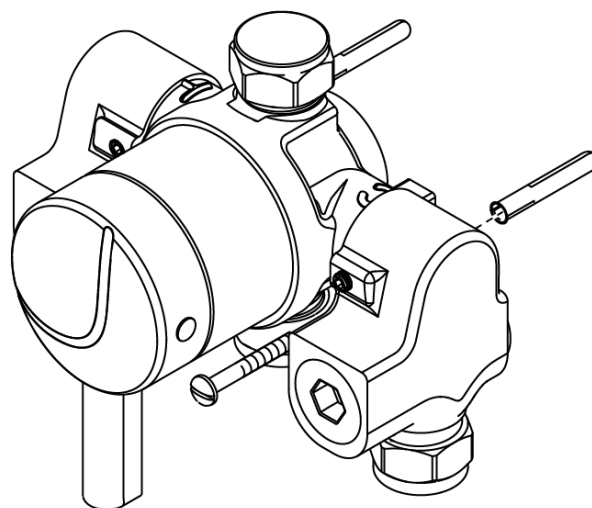
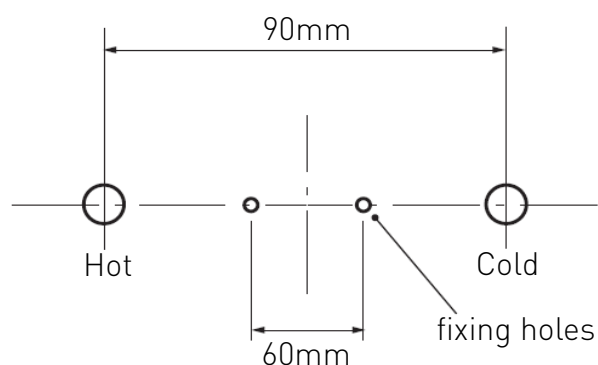
Position the shower valve in the wall cavity and secure using the fixings supplied.

Note: It may be necessary to secure the shower valve to a baton if it is being installed in a stud partition.

Warning: Please check for any hidden pipes and cables before drilling holes in the wall.

Once the valve is installed plumb in the 15mm hot and cold water supplies and Outlet, ensuring the olives are fitted.

Important: Water supplies to the mixer must be with hot on the left and cold on the right when viewed from the front.



Installation cont.

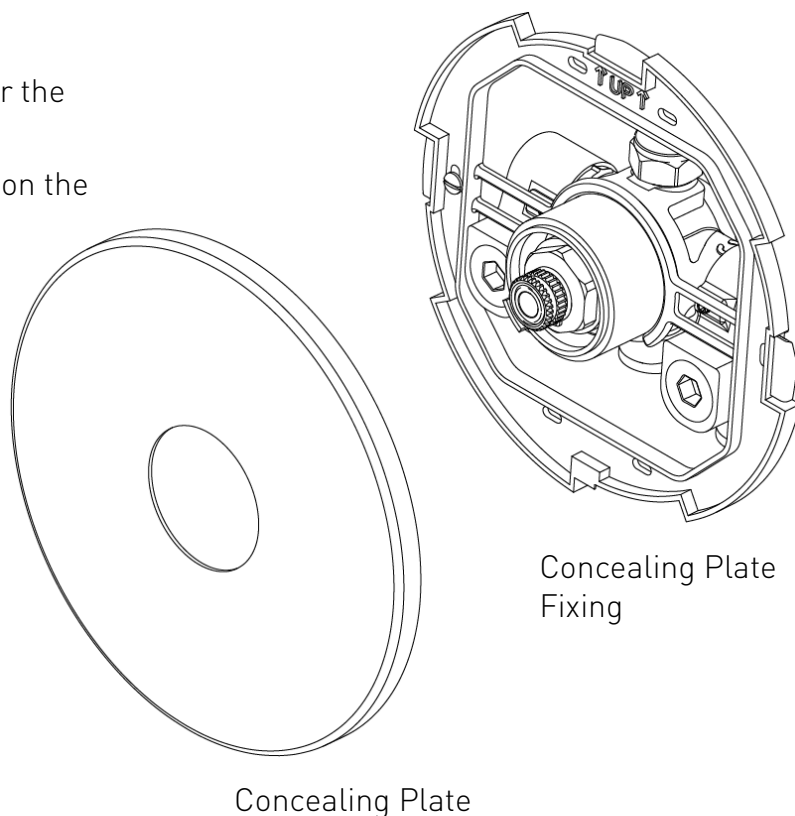
3. Fit concealing plate

Finish off the wall surface and complete any tiling up to the shower valve leaving a sufficient gap around the valve to access the elbows for future servicing and maintenance.

Slide the concealing plate fixing over the shower valve and secure to the wall surface, ensuring the word 'TOP' is on the top.

Note: The lever / control knob will need to be removed to fit the concealing plate.

Slide the concealing plate over the shower valve body. The concealing plate locks onto the concealing plate fixing. Twist the concealing plate onto the fixing until a 'click' is heard. Secure the concealing plate into position by tightening the grub screw on the edge of the plate.

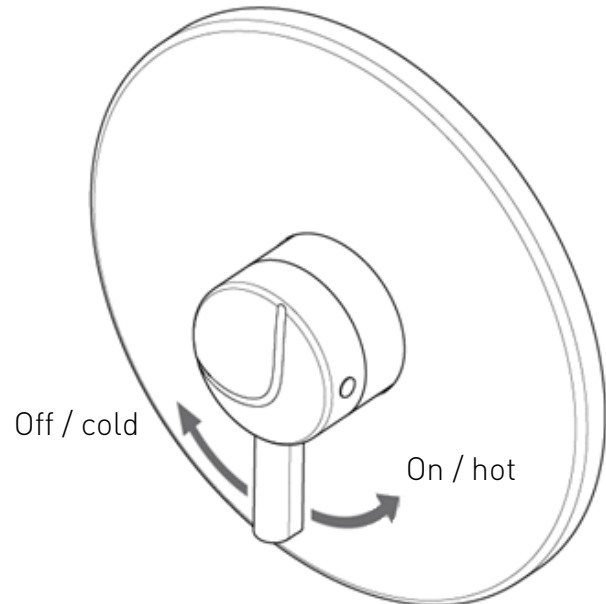


Operation

On/Off and Temperature Control

Turn the lever anti-clockwise to turn on and increase temperature.

Turn the lever clockwise to decrease temperature and turn off.



Commissioning

Commissioning notes for Thermostatic Mixing Valves

The first step in commissioning a thermostatic mixing valve is to check the following:

1. The designation of the thermostatic mixing valve matches the intended application.
2. The supply pressures are within the valves operating range.
3. The supply temperatures are within the valves operating range.
4. Isolating valves (and strainers preferred) are provided.

If all these conditions are met, proceed to set the temperature as stipulated in the maintenance section.

The mixed water temperature at the terminal fitting must never exceed 46°C.

It is a requirement that all approved valves shall be verified against the original set temperature results once a year. When commissioning / testing is due the following performance checks shall be carried out:

- Measure the mixed water temperature at the outlet.
- Carry out the cold water supply isolation test by isolating the cold water supply to the TMV wait for five seconds, if water is still flowing check that the temperature is below 46°C.

If there is no significant change to the set outlet temperature ($\pm 2^{\circ}\text{C}$ or less change from the original settings) and the fail-safe shut off is functioning, then the valve is working correctly and no further service work is required.

Notes: If there is a residual flow during the commissioning or the annual verification (cold water supply isolation test), then this is acceptable providing the temperature of the water seeping from the valve is no more than 2°C above the designated maximum mixed water outlet temperature setting of the valve.

Temperature readings should be taken at the normal flow rate after allowing for the system to stabilise.

The sensing part of the thermometer probe must be fully submerged in the water that is to be tested.

Any TMV that has been adjusted or serviced must be re-commissioned and re-tested in accordance with the instructions in the maintenance section.

The installation of thermostatic mixing valves must comply with the requirements of the Water Supply (Water Fittings) Regulations 1999.

Maintenance

General Cleaning

Your fitting has a high quality finish and should be treated with care to preserve the visible surfaces. All surfaces will wear if not cleaned correctly. The only safe way to clean your mixer is to wipe with a soft damp cloth. Stains can be removed using washing up liquid. All bath cleaning powders and liquids will damage the surface of your fitting, even the non-scratch cleaners.

Note: Never use abrasive detergents or disinfectants or those containing alcohol, hydrochloric acid or phosphoric acid.



Bristan recommend E-cloth for cleaning all of our bathroom & kitchen products. Using just water, E-cloth gives a smear free, deep clean by breaking up and hold dirt, which normal cloths leave behind. Order through your Bristan stockist (order code: ECLOTH).

Cartridge Maintenance

We advise that the shower valve is regularly serviced in hard water areas to maintain the flow of water.

Isolate both hot and cold water supplies to the shower valve by either:

- Turning the water supply off at the mains stopcock or
- Turning off the isolation valves to the shower valve

1. Remove the handle: remove the plastic cap, loosen the grub screw using the hexagonal key and carefully pull the handle off.

2. Unscrew the cartridge anti-clockwise (using a suitable spanner) and remove from the valve body.

3. Carefully remove the cartridge assembly and spring. Remove all visible 'O' rings and washers from the body.

4. Place the cartridge in a bowl and carefully add hot water (just off the boil) and vinegar to de-scale the cartridge. Leave in the solution until the water has cooled and rinse with clean water.

5. Replace all seals and grease with a silicon grease supplied by Bristan (part number: SP-495-0002) and carefully refit.

6. Reset the maximum temperature and refit the handle and cover.

Maintenance cont.

Adjusting the Temperature

The shower valve has been factory set with equal (balanced) hot and cold water supply pressures with the hot water supply at 65°C.

If your operating conditions are different from those above, the outlet water temperature may differ from the factory setting.

If required the shower valve can be re-calibrated to suit your own temperature requirements.

Set the temperature control lever to maximum and check the temperature of the water with a thermometer. If the temperature is not correct, re-calibrate the shower valve.

1. Turn the lever anti-clockwise to the maximum flow / temperature position.
2. Remove the handle: remove the plastic cap, loosen the grub screw

using the hexagonal key and carefully pull the handle off.

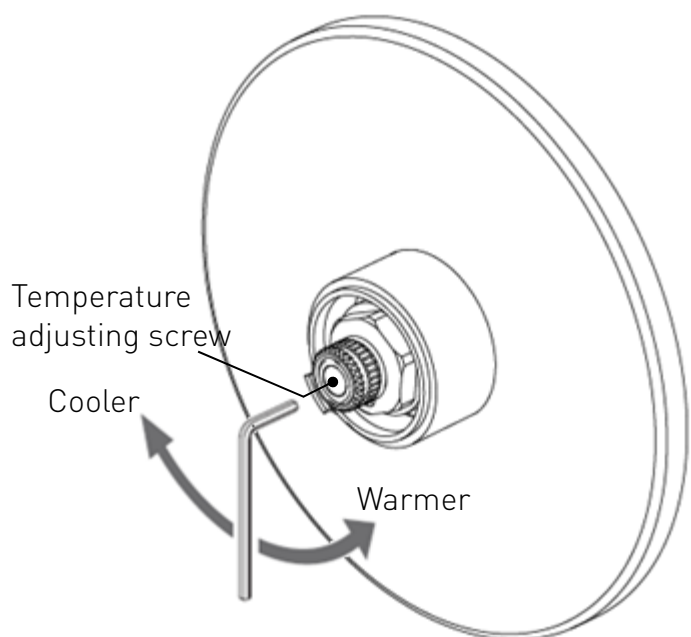
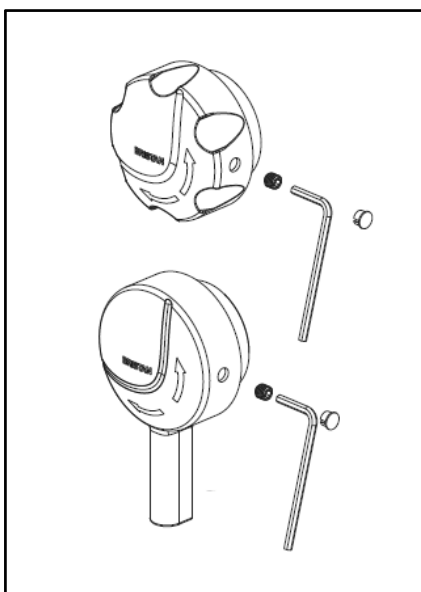
3. Using the hexagonal key, turn the temperature adjusting screw to alter the temperature.

- Turn clockwise for a cooler temperature
- Turn anti-clockwise for a warmer temperature

Note: This will be the maximum temperature setting, it is recommended that the temperature is set no higher than 43°C.

4. Once the correct temperature is achieved, re-attach the handle and close the valve. Ensure the stop on the lever is in the correct position (vertically down), allowing the valve to turn on anti-clockwise.

5. Tighten the grub screw to lock the handle in place and push fit the plastic cap.



Troubleshooting

Symptom	Cause	Remedy
No flow or low flow rate and / or varying temperatures.	Check filters for any blockage.	Clean as necessary, refer to Maintenance section (pages 21-22).
	Partially closed stop or service valve in water supply pipework to the shower valve.	Open stop or service valve.
	Instantaneous water heater cycles on and off as the flow rate or pressure is too low.	Increase water flow rate or pressure through system. Contact the boiler Manufacturer.
	Head of water is below the minimum distance required.	Raise the cistern or fit a shower booster pump.
	Inlet filter is partially blocked.	Clean or replace, flush through pipework before refitting.
	Hot or cold water is being drawn off elsewhere causing pressure changes or instantaneous boiler temperature changes.	Do not use other water outlets when using the shower.
	Make sure the maintained inlet pressures are nominally balanced and sufficient.	Refer to Installation Requirements section (pages 10-14).
	Airlock or potential blockage of the pipework.	Flush through pipework to ensure removal of debris and any airlocks.
Water leaking from showerhead.	No hot or cold water reaching the shower valve.	Check hot and cold feeds (the valve will shut down if either the hot or cold supply fails).
	This is normal for a short time after turning off.	Adjust the angle of showerhead in holder as necessary to vary draining time.
	Shower control valve failing to close fully, possibly due to water borne debris.	Remove shower control valve assembly and check. Refer to Maintenance section (pages 21-22). Before dismantling shower valve.
	Flow control valve seals damaged.	Check condition of flow control valve and replace as necessary.

Troubleshooting

Symptom	Cause	Remedy
Maximum water temperature too hot or cold.	Maximum water temperature set incorrectly.	Reset maximum water temperature. Refer to 'Maximum Temperature Setting' in Commissioning section (page 20) and Adjusting the Temperature in Maintenance section (page 22).
Outlet water temperature too hot / cold.	Inlet filter partially blocked.	Check insert filters for any blockages and clean as necessary.
	Installation conditions outside operating parameters.	Refer to Installation Requirements section (pages 10-14). Service shower valve as recommended. Refer to maintenance section (page 21-22). Refer to Adjusting the Temperature section (page 22).
Water temperature too cold – maximum water temperature incorrectly set.	Hot water temperature is less than 10°C above the required blend temperature.	Adjust hot water temperature or wait for water to reheat if stored system is used.
	Instantaneous water heater not igniting because water flow rate is too low.	Increase water flow through the system. Check cartridge inlet filters and clean or replace. Refer to Maintenance section (pages 21-22). Contact the boiler manufacturer.
	Instantaneous water heater not igniting because the water pressure is too low.	Increase water pressure through system. Contact the boiler manufacturer.
Only hot or cold water from shower valve outlet.	Inlet water supplies are reversed (hot to cold supply).	Check the connections are the correct way round. Hot on the left and cold on the right when viewed from the front. Rework pipework as necessary.
	Inlet filter is partially blocked.	Clean or replace, flush through pipework before refitting.

Notes

Please use this space to add any notes you or your installer may have regarding the plumbing system / installation of this product.

Guarantee

At Bristan, we want to make things as easy as possible for our customers. That's why we design products that are easy to fit and use, and that are quality tested to make sure they won't let you down. It's also why we offer solid guarantees on all products, effective from the date of purchase, to give you peace of mind.

All Bristan mixer showers are covered by a **1 year guarantee**. This also includes **1 year labour cover** which means that, in the unlikely event that there is a problem in the first year after purchase, we'll send one of our expert engineers to fix it.

*Labour is provided by an approved Bristan Care engineer or appointed representative. The guarantee only applies to products with a manufacturing fault. There will be a call out charge for any incidents where no fault has been found with the product, or if the issue is due to poor installation or maintenance.

Guarantee Terms and Conditions

This guarantee is in addition to your statutory and other legal rights and is subject to the following conditions:

- The product was purchased within the United Kingdom or Republic of Ireland.
- The guarantee applies solely to the original purchaser with proof of purchase.
- The installation must allow ready access to all products for the purpose of inspection, maintenance or replacement.

- Repair under this guarantee does not extend the original expiry date. The guarantee on any replacement parts or product ends at the original expiry date.
- Any part found to be defective during the guarantee period will be replaced without charge, providing that the product has been installed in accordance with the instructions given in this guide and used as the manufacturer intended.
- The guarantee does not cover:
 - Damage or defects caused by
 - general wear and tear (including special non-chrome finishes; components such as filters, seals, 'O' rings and washers)
 - incorrect installation
 - repair using non-Bristan part
 - accidental or wilful misuse
 - corrosion and the use of inappropriate cleaning products.
 - system debris including the build up of limescale (which can be controlled through regular servicing and maintenance)
- Compensation for loss of use of the product or consequential loss of any kind.

In the interests of continuous product improvement, Bristan reserves the right to alter product specifications without notice.

Guarantee cont.

The Bristan Product Guarantee does not affect your statutory rights as a consumer.

•Need help?

If this product does not function correctly when first used, contact **Bristan Care Customer Service on 0844 701 6273**

where our expert team of advisors will be able to offer you help and advice.

•Problems during the guarantee period

In the unlikely event that you encounter any problems with the product during the guarantee period, contact **Bristan Care Customer Service on 0844 701 6273** with your proof of purchase and we will work to resolve the problem quickly.

Bristan Care Customer Support

Bristan customers also benefit from the support of Bristan Care, our comprehensive customer support package which offers:

Technical support hotline

(Tel: 0844 701 6273) with access to fully trained advisors who can offer installation advice, talk you through quick maintenance checks, or recommend the best course of action to fix any problems with a product

Expert advice

Find easy to follow 'how to' video guides and technical FAQs online at www.bristan.com. Our guides take you step-by-step through many product installations and you can find plenty of easy guides to quick product fixes and servicing.

Spare parts

We hold thousands of spares and we keep them for discontinued products for over seven years. Spares can easily be ordered online at www.bristan.com and are dispatched the same day.

Expert plumbing engineers

If we can't solve the problem over the 'phone or with a spare part, then we'll send out one of our Bristan Care engineers to take a look. Bristan Care engineers provide free support for products that are within guarantee, but are also available to service products that are out of guarantee for a small charge. For details, please call customer services on 0844 701 6273.

Part Number: FI MINI2 1203 CL / CH C

Issue: D1

BRISTAN

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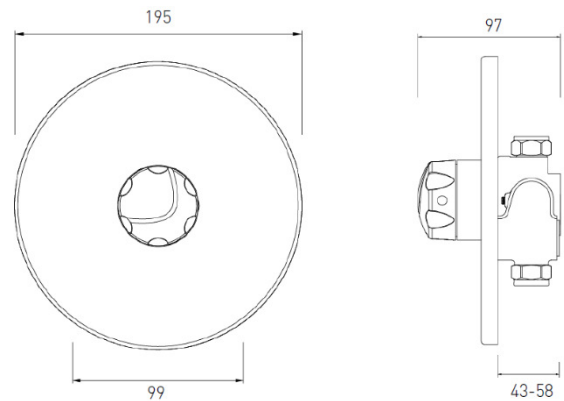
TECHNICAL DATASHEET

COMMERCIAL OPAC MINI THERMOSTATIC CONCEALED SHOWER VALVE WITH CHROME HANDLE

Product Specification



Product Code:	MINI2 TS1203 CH C
Finish:	Chrome
Product Type:	Commercial
Construction:	Body is of brass construction and is designed to conform to BS EN 1111:1999 (HP) & BS EN 1287:1999 (LP)
Valve Type:	Thermostatic Cartridge
Supply:	Suitable for all plumbing systems (Preferably balanced)
Inlet Connections:	15mm compression elbows
Outlet Connections:	½" BSP
Working Pressures:	Min 0.2bar, Max 8.0bar Maximum Static Pressure: 10.0 bar
Dimensions for Fitting:	99mm inlet centres



Suitable for wall cavity depths of between 43-58mm

Additional Information

- Single sequential control for both temperature & flow.
- Anti-vandal stainless steel concealing plate
- Automatic thermostatic shut-off in the event of hot or cold water failure.
- Check valves and serviceable filters as standard
- Supplied as 'valve only' and thus can be customised by choosing accessories from our Pick 'N' Mix showering options. Please see our Product and Price guide for details.
- Inlet centres of 99mm +/- 1mm.
- Chrome plated to BS EN 248.

Technical Advice: For further information please call 0844 7016273 or email customer-care@bristan.com

Guarantee: 1 year covering manufacturing faults.

Compliance / Approvals

WRAS: Certificate N^o: 1404020

TMV2: Certificate N^o: BC1272/1013 TMV2: Certificate N^o: BC1288/1013

Flow Rates (litres per minute)

System Pressure	0.2bar	0.5bar	1bar	2bar	3bar	4bar	5bar
With Flow Limiter Fitted from 1 bar	11.0	20.0	7.8	8.8	9.1	9.4	9.3

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