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# BRISTAN

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## Installation Instructions and User Guide

Single Sequential D08 TMV3  
Thermostatic Mixer Taps

### Models Covered:

H64WMT2, H64DMT2

**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 taps and showers expert. We have designed this product with your enjoyment in mind.

**Please read these instructions thoroughly and retain for future use.** 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 0330 026 6273.

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# Important Safety Information

All products manufactured and supplied by Bristan are safe to use provided that they are installed, operated and receive regular maintenance in accordance with these instructions.

This product has been tested to the TMV3 scheme for use in Healthcare and Commercial situations and performs to the requirements of NHS Specification D08. It also satisfies the requirements of the Water Supply (Water Fittings) Regulations 1999 and current by-laws. For full Installation Requirements & Notes (IRN) please visit [wras.co.uk/directory](http://wras.co.uk/directory).

To ensure the product is installed in compliance to the TMV3 and D08 standards, please refer to the TMV Manual provided separately with this product. **Failure to do so may mean that the tap is no longer compliant.**

Isolation valves must be fitted to the inlet water supplies to ensure ease of future maintenance. Before installing this product the water supply must be thoroughly flushed in order to remove any swarf, solder etc. Full access must be made available for future maintenance/servicing purposes.

Before 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

This product must not be modified in any way as this will invalidate the guarantee.

**If you are in any doubt about your ability to install this product safely you must employ the services of an experienced qualified plumber.** If in doubt, contact a registered plumber, 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

# Specification

## Inlet connections:

15mm Compression with 150-200mm adjustable centres.

## Operating pressure range:

Min. 0.2 Bar - Max. 5.0 Bar

Maximum recommended imbalance between hot and cold supply should not exceed a ratio of 5:1.

If the fitting is installed at low pressure (tank fed), then the minimum distance from the outlet to the underside of the cold tank should be at least 2 metres to ensure adequate performance.

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

**Maximum Static Pressure:** 10 Bar

## TMV3 Designation:

HP-WE & LP-WE

## Maximum Outlet Temperature:

Factory pre-set to 41°C

The temperature can be reset to suit site conditions. If the temperature is re-set to suit different site conditions the mixer will work adequately however the TMV3 scheme may not apply.

## 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. BS 8558 recommends hot water should be stored and distributed at a temperature of no less than 60°C which will help minimise the build-up of lime scale in hard water areas.

**Note:** The inlet hot water temperature must be at least 10°C above the required blend temperature (eg. mixer temperature 41°C: minimum hot supply 51°C).

## Flow Regulators

This product is supplied fitted with a yellow 5 l/p/m (Hot) and a Olive 2 l/p/m (Cold) flow regulator which should remain fitted for both high and low pressure systems.

If the flow regulators are replaced they must be fitted as below;

Yellow 5 l/p/m - Hot outlet

Olive 2 l/p/m - Cold outlet

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

# Product Benefits

## On/Off and Temperature Control

Turn the lever anti-clockwise to turn on the flow of water.

The water temperature will increase the further the lever is turned.

To decrease the temperature of water turn the lever back clockwise.

## Thermal Disinfection Flushing

In order to control the build up of bacteria and to assist against legionella, this TMV has a built in cleansing feature that allows the mixed water passages to be flushed with hot water without the need to disassemble the mixer valve or reset the mixed water temperature.

## Easy Clean Filters

This TMV has easy clean filters which once removed isolate the water supply to the mixer body.

## TMV3 Approved

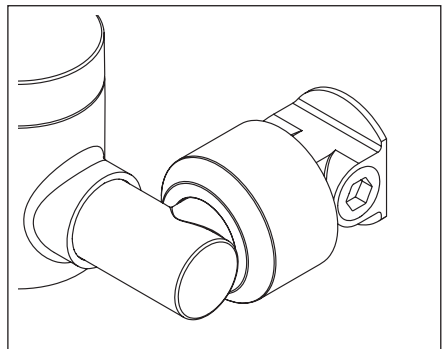
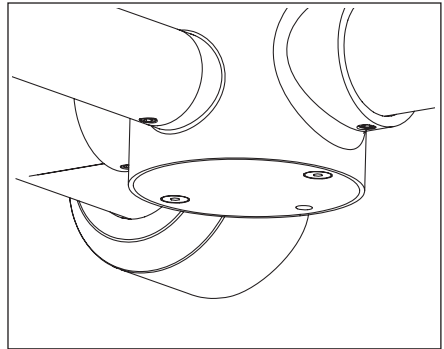
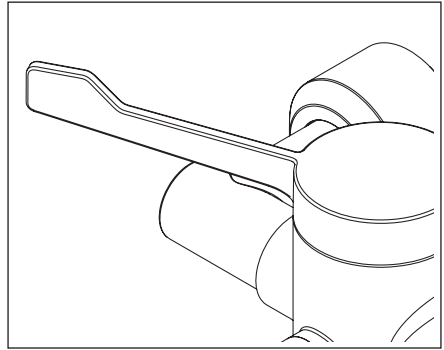
This TMV has been tested to the TMV3 scheme for use in Healthcare and Commercial situations and performs to the requirements of NHS Specification D08.

## Removable Spout

The mixer tap has a removable spout to assist with your infection control regime.

## Cool Touch Body

The mixer body and hot inlet will only ever reach the mixer water outlet temperature to prevent scalding.



# Installation Requirements

This mixer tap 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 mixer tap 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

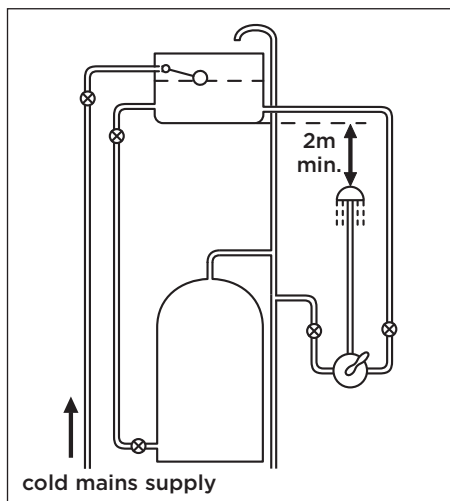
**!** Important: If you install this mixer tap with a gravity fed system, there must be a minimum head (vertical distance) from the underside of the cold water storage tank to the outlet of at least 2 metres .

Note: Pumped system (with Essex flange) If you install this mixer 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.

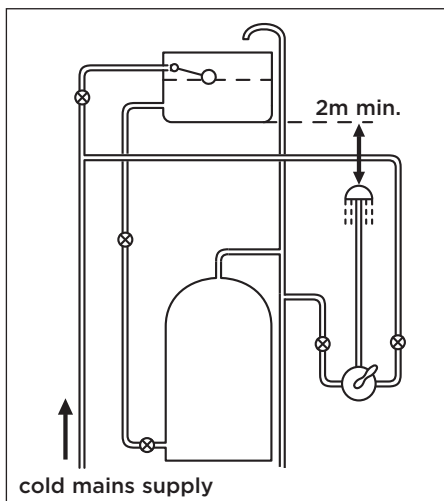
## Flushing Pipework

**!** Important: Before connecting the mixer tap the supply pipework must be flushed to clear debris before connecting the mixer tap. Debris will reduce the performance and life of the mixer.

### Gravity Fed Hot and Cold

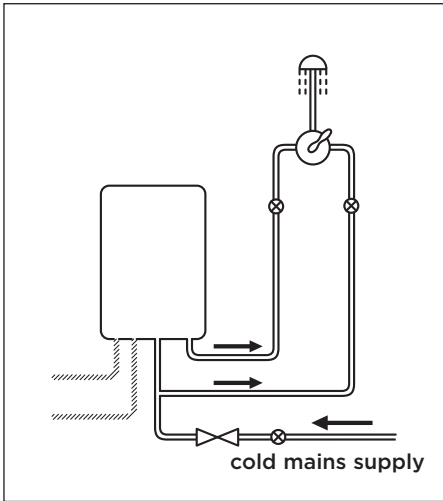


### Gravity Fed Hot and Mains Cold

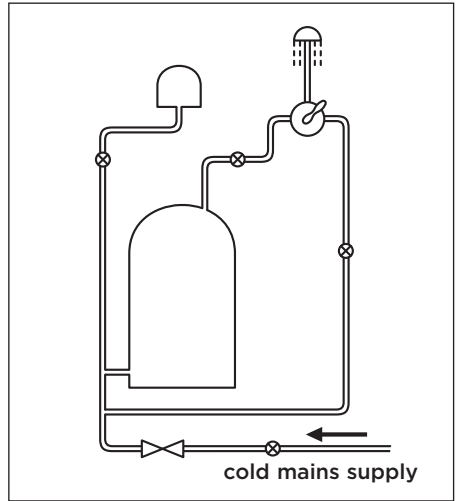


# Installation Requirements

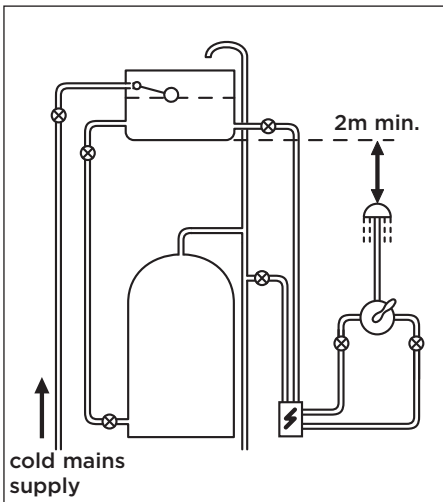
## Instantaneous Water Heater



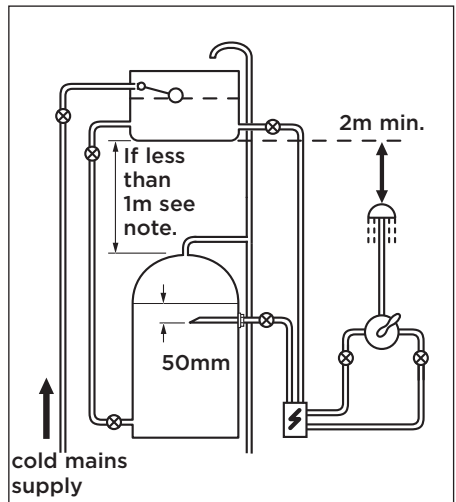
## Unvented System



## Pumped System



## Pumped System (with Essex flange)



Key:  Isolating Valve  Reducing Valve  Mixer Tap  Pump  Essex Flange

# Installation Requirements

This fitting needs 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 fittings (other than a 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, whichever 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 ½"	20mm
2. Exceeding ½" but not exceeding ¾"	25mm
3. Exceeding ¾"	70mm



# Prior to Installation

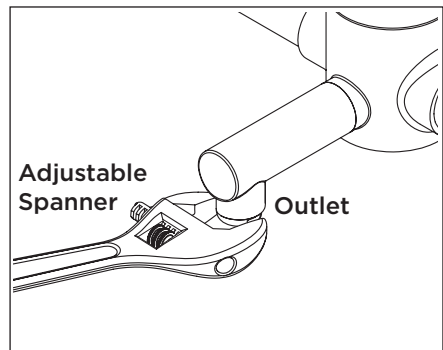
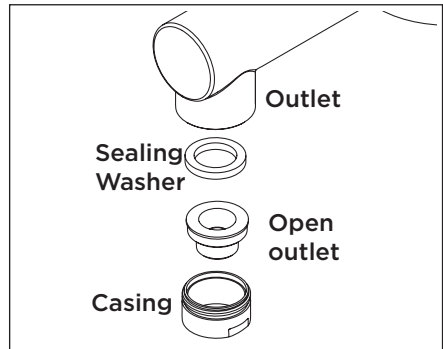
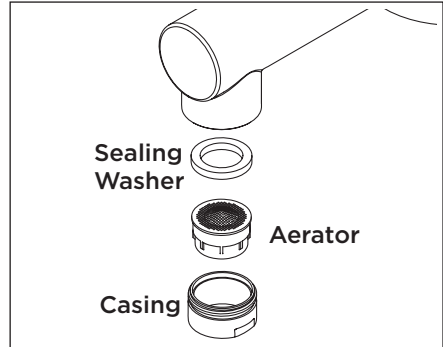
## Flow Straightener

This mixer tap is supplied with a choice of aerator or open outlet flow straighteners.

Both flow straighteners are supplied loose in the box, allowing the installation to be made in line with different site conditions and user preference.

## To Fit the Flow Straightener


Insert the chosen flow straightener into the casing, ensuring the sealing washer is placed on top of the flow straightener. Using a suitable spanner tighten the casing into the spout outlet.



# Installation - Wall Mounted

## 1. Prepare Water Supply Pipes

Terminate suitable pipework inside the wall cavity / stud partition, ensuring the centres of the hot and cold water supply pipes are 150-200mm apart.

 Important: Before 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 electrical detector.

If power tools are used do not forget to:

- Wear eye protection
- Unplug equipment after use

## 2. Fit Mixer Tap

Position the mixer tap into the holes in the wall surface. Tighten the backnuts fully using a suitable spanner.

## 3. Connect Pipework

Push the nuts and olives onto the pipework. Push the pipework into the connections ensuring the olives are against the connections and tighten the compression nuts to create a water tight seal.

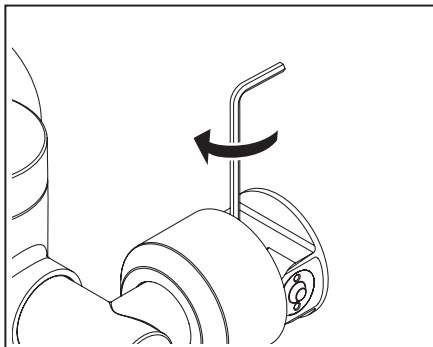
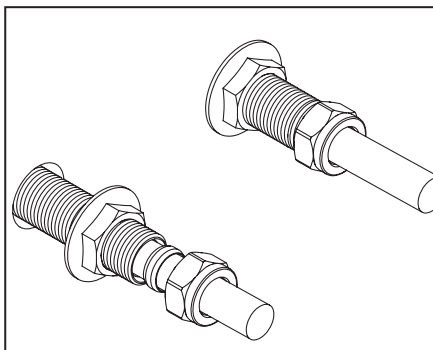
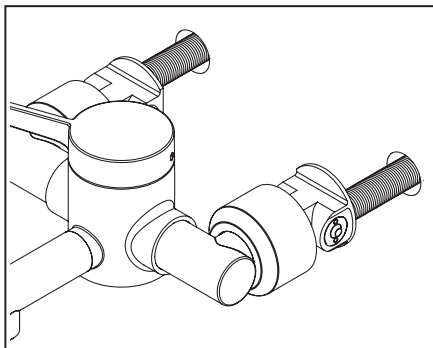
## 4. Tighten Mixer Connections

Using a suitable hexagonal key tighten the top and bottom grub screws on to the connections.

Note: The top and bottom grub screws must be tightened equally.

**You can now refer to the TMV Manual to Commission the valve.**

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



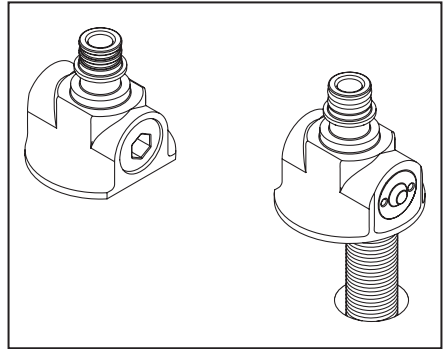
# Installation - Deck Mounted

## 1. Prepare Water Supply Pipes

Terminate suitable pipework under the sink / work surface ensuring the centres of the hot and cold water supply pipes are 150-200mm apart.

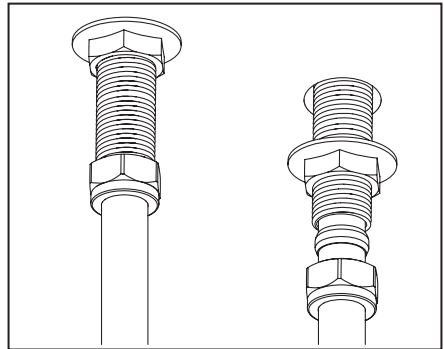
## 2. Fit Mixer Tap

Position the mixer tap into the holes in the sink / work surface. Tighten the backnuts fully (a suitable spanner may be required to fully tighten the backnuts).



## 3. Connect Pipework

Push the nuts and olives onto the pipework. Push the pipework into the connections ensuring the olives are against the connections and tighten the compression nuts to create a water tight seal.

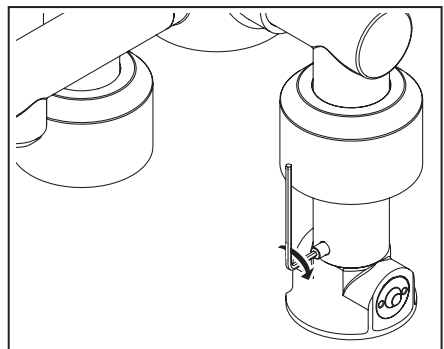


## 4. Tighten Mixer Connections

Using a suitable hexagonal key tighten the front and back grub screws on to the connections.

Note: The front and back grub screws must be tightened equally.

**You can now refer to the TMV Manual to Commission the valve.**



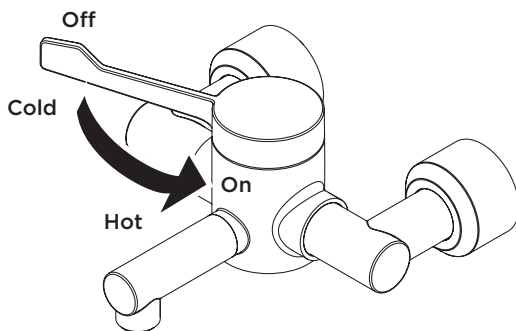
# Operation

## On / Off and Temperature Control

Turn the lever anti - clockwise to turn on the flow of water.

The water temperature will increase the further the lever is turned.

To decrease the temperature of water turn the lever back clockwise.



# General Cleaning

Bristan products are made from premium materials, with hand polishing and electroplated finishes.

Your waste should be regularly cleaned with warm water, a mild pH-neutral liquid soap, and polished with a soft cloth. Any residues from soap, toothpaste, shampoos and shower gels can cause blemishes if not rinsed off straight after use.

Household bleaches and cleaners contain harsh chemicals and may damage the surface finish. Avoid using abrasive cloths, scouring pads, scrub sponges, steel wool or anything similar.

Some surfaces such as nickel and pewter may be affected by the dye found in some cloths, so it is also important to avoid hanging cloths on surfaces.

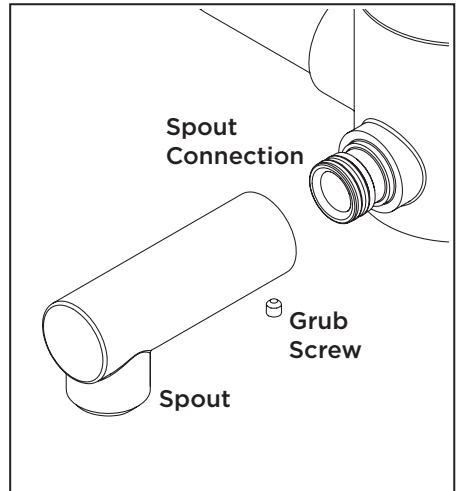
# Maintenance

## Cleaning/Replacing the Spout

To assist with your infection control regime, this mixer is fitted with a removable spout which should be periodically removed and cleaned in line with your site risk assessments.

Replacement spouts are available if required in order to minimise down-time for the mixer during this process.

We recommend that the valve should be thermally disinfected using the integral flushing process following any cleaning or replacement of spouts. This will further assist in the infection control process.



# Maintenance

## Cartridge Maintenance

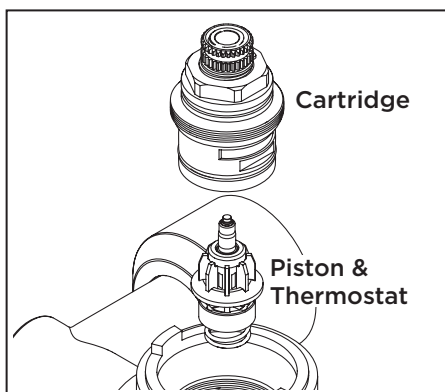
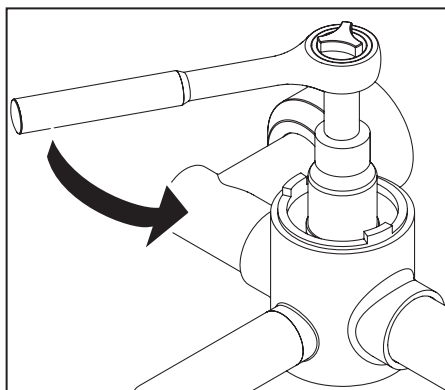
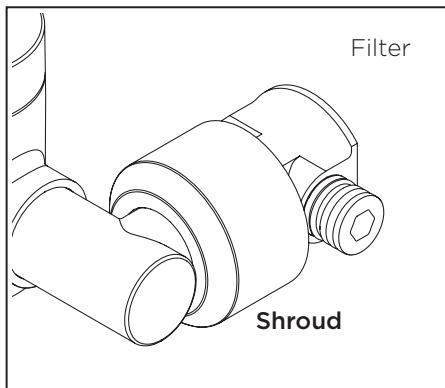
We advise that the TMV is regularly serviced in hard water areas to maintain the flow of water.

Isolate both hot and cold water supplies to the mixer tap

Pull both shrouds away from the wall surface to expose the filters. Isolate both water supplies to the mixer by unscrewing the filters fully, using a 10mm hexagonal key until there is resistance. Stop using the key at this point and use fingers to “wobble” the filter out.

**NOTE:** Turning the hexagonal key too far may result in seizing of the filters.

1. Remove the control handle lever, remove the cap and undo the screw and remove the lever.
2. Unscrew the cartridge nut anti-clockwise using a 30mm socket and remove the cartridge from the TMV body.
3. Place the cartridge in a suitable solution until the cartridge is fully de-scaled. Rinse thoroughly with clean water to remove any debris.
4. Grease the seals with a WRAS approved silicon grease and carefully refit the cartridge.
5. Replace the lever handle, tighten the grub screw and push-fit the cap into position.



# Maintenance

## Non Return Valve Maintenance

### 1. Isolate Water Supplies

Pull both shrouds away from the wall surface to expose the filters. Isolate both water supplies to the mixer by unscrewing the filters fully, using a 10mm hexagonal key until they do not turn any further.

### 2. Remove Mixer Valve

Unscrew both grub screws on both connections and remove the mixer tap from the connections.

### 3. Remove Internal Tube

Using long nose pliers pull the internal tube from the inlets.

### 4. Replace Internal Tube

Replace the internal tube using a new spare part supplied from Bristan.

Note: Internal tube with yellow flow regulator must be fitted to the hot inlet.

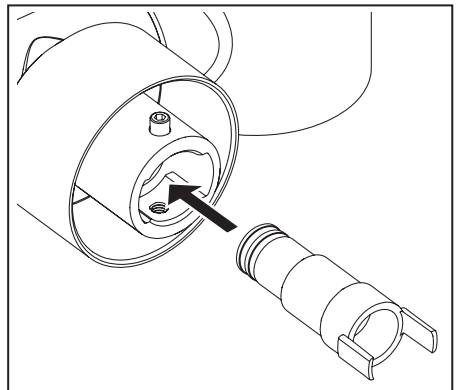
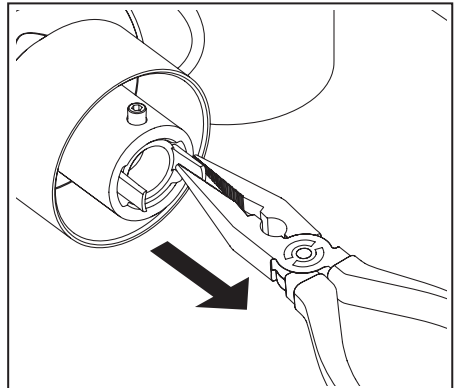
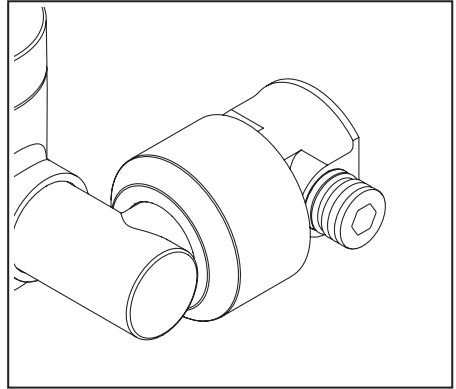
The internal tube with the Olive flow regulator must be fitted to the cold inlet.

Push the internal tube into the inlet ensuring it is pushed in firmly.

### 5. Replace Mixer Tap

Push the mixer tap back onto the connections and tighten the grub screws.

Note: The grub screws must be tightened equally.



# Maintenance

## Adjusting the Temperature

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

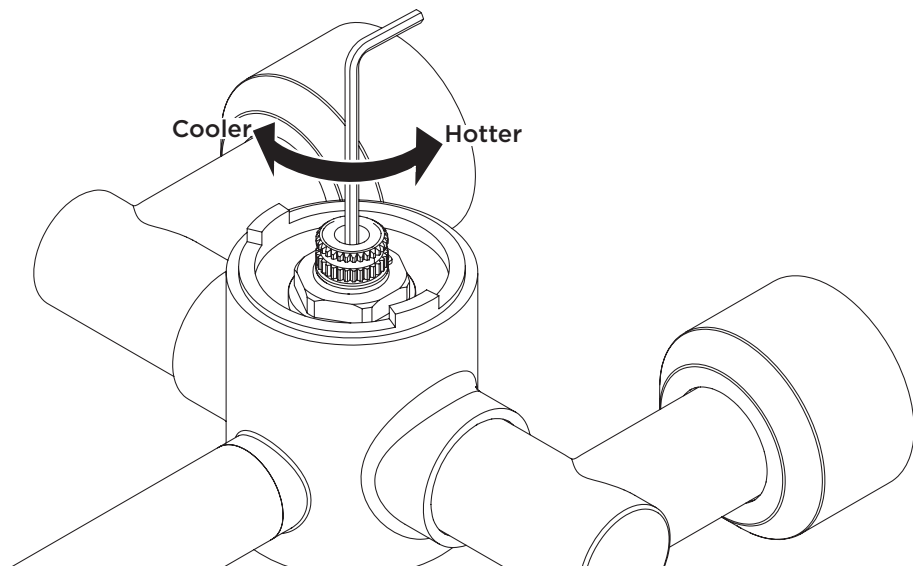
If your operating conditions are different from those above, the outlet water temperature may differ from the factory setting.

If required the mixer tap can be re-calibrated to suit your own temperature requirements.

Turn the temperature control anti-clockwise (hotter) fully until it stops and check the temperature of the water with a thermometer.

If the temperature is not correct, re-calibrate the mixer tap:

1. Turn the flow of water on.
2. Remove the temperature control lever. Remove the cap, undo the grub screw and carefully remove the lever handle.
3. Insert a 2.5mm hexagonal key into the temperature control screw, located at the centre of the cartridge spindle.
- Turn clockwise to decrease the temperature and anti-clockwise to increase the temperature.
- Check the temperature and adjust until you achieve the required temperature.
4. Replace the handle ensuring it is in the same position as when removed.
5. To finish, tighten the grub screw and push-fit the cover cap into position.





# Maintenance

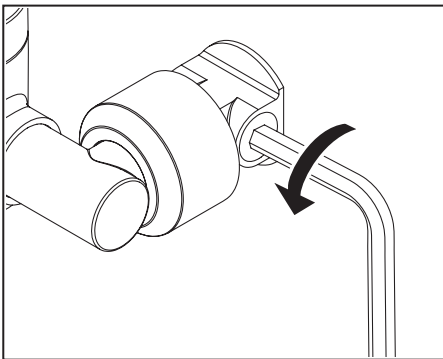
## Thermal Disinfection Flushing

In order to kill off any build up of bacteria and to assist against legionella, this TMV has a built in cleansing feature that allows the mixed water passages to be flushed with hot water without the need to disassemble the mixer valve or reset the mixed water temperature.

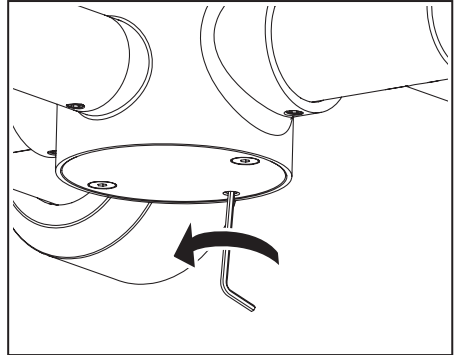
Due to different site conditions we recommend the periodicity of thermal disinfection flushing should be determined by current best practice.

To perform a hot water thermal disinfection flush of the TMV, the following should be carried out by a competent person.

1. Ensure the flow handle is in the 'Off' position with no water running from the TMV.
2. Using a 10mm hexagonal key remove the cold filter, turning anti-clockwise until it stops completely.



3. Using a 2.5mm hexagonal key open the hot water bypass flushing screw, turning anti-clockwise until it stops completely.



4. Turn the flow of water on by turning the flow handle to the 'On' position.
5. Hot water will flood the mixer tap and exit the outlet. This is flushing the mixer tap to remove any build up of bacteria. This flushing should be conducted inline with current best practice.
6. Turn the flow of water off by turning the flow handle to the 'Off' position.

7. Using a 2.5mm hexagonal key close the hot water bypass flushing screw, turning clockwise until it stops completely.
8. Using a 10mm hexagonal key refit the filter / open the cold water isolator screw, turning clockwise until it stops completely.

Run the valve and allow the mixed water to stabilise before use.

The thermal disinfection flushing is now complete and the TMV is now ready for normal use.

# Troubleshooting

Symptom	Cause	Remedy
<b>No flow or low flow rate and / or varying temperatures.</b>	Partially closed stop or service valve in water supply pipework to the mixer tap.	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 booster pump.
	Inlet filter is partially blocked.	Clean or replace, flush through pipework before refitting.
	Hot or cold water being drawn off elsewhere causing pressure changes or instantaneous boiler temperature changes.	Do not use other water outlets when using the mixer.
	Make sure the maintained inlet pressures are nominally balanced and sufficient.	Refer to the Specification section for the correct pressures.
	Airlock or partial blockage of the pipework.	Flush through pipework to ensure removal of debris and any airlocks.
	No hot or cold water reaching the mixer tap.	Check hot and cold feeds (the valve will shut down if either the hot or cold supply fails).
<b>Maximum water temperature too hot or cold.</b>	Maximum water temperature set incorrectly.	Refer to the Maintenance sections and your TMV Manual to reset maximum water temperature.

# Troubleshooting

Symptom	Cause	Remedy
<b>Outlet water temperature too hot / cold.</b>	Inlet filter is partially blocked.	Check insert filters for any blockages and clean as necessary.
	Installation conditions outside operating parameters.	Refer to the Specification and Installation Requirements sections for more details. Refer to the Maintenance and your TMV Manual to service the cartridge and adjust the outlet temperature.
<b>Water temperature too cold.</b>	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 rate through the system. Refer to the Maintenance section to clean the cartridge. Contact the boiler manufacturer.
	Instantaneous water heater not igniting because water pressure is too low.	Increase water pressure through system. Contact the boiler manufacturer.
<b>Only hot or cold water from mixer valve outlet.</b>	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.

**Issue: D2**

**Part Number: FI H64 2**

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# BRISTAN

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## **Bristan Group Ltd.**

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## **A Masco Company**

At Bristan, we want to make things as easy as possible for our customers. That's why we offer solid guarantees on all our products, effective from the date of purchase, to give you peace of mind. To start your free guarantee simply scan the QR code and register your product. Alternatively visit [www.bristan.com/register](http://www.bristan.com/register).

For any other queries, please call our Customer Service on **0330 026 6273** where our expert team of advisors will be able to offer you any help and advice. For full guarantee terms and conditions visit [www.bristan.com/service-centre/guarantees](http://www.bristan.com/service-centre/guarantees).

