Product Care

To maintain a high quality finish of your product , you should avoid using any abrasive detergents. Some detergents will aggressively attack the surface over a period of time leading to irreversible damage. Instead, it is advisable to use a soft cloth with warm water . This will significantly prolong the life and looks of the product. If for some reason you need to use a detergent when cleaning , only use a low concentrated brand.

Warranty

Methven warrants this product against manufacturing defects and that it is suitable for use under the general operating conditions specified in this instruction sheet. However, regional regulations apply and may affect your warranty. Please refer to **www.methven.com** or call customer service for full details.

New Zealand
0800 804 222

Australia
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UK
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INST 296

ISSUE A

KAHA CONCEALED THERMOSTATIC SHOWER WITH DIVERTER (2 OUTLETS AND BATH FILL)

Installation Instructions

Your product should be fitted in compliance with the Water Authority Regulations. If you are unsure as to what the regulations require, you can contact your Local Water Authority for further details.

Before commencing installation please ensure that you have :-

1. Checked the contents of the box to ensure all parts are present and correct.
2. Read these instructions carefully to understand the installation requirement.
3. Obtained the correct tools to perform a trouble free installation.
4. Considered the surrounding environment where the installation is to take place and any potential hidden dangers.

Taking the above into consideration should result in a smoother, trouble free installation

METHVEN

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Box Contents

Item	Quantity
Thermostatic Shower Valve	1
Concealing Plate	1
Thermostatic Shower Valve Control Knob	1
Divertor Control Knob	1
Bath Fill Control Knob	1
Screws	4
Wall Plugs	4
Flow Regulator	2
Hexagonal Allen Key	1

Site Installation Conditions

Prior to installing your Thermostatic mixing valve it is important to fully understand the site installation conditions and the location where you intend to install your product. This Thermostatic mixing valve is designed to be used within the following systems :-

Gravity Fed Hot and Cold
Wherever possible for the best performance of the product, it is always best practice to have equal pressures supplied to both hot and cold inlets. . However this products will only work up to a maximum 5 to1 Pressure differential.

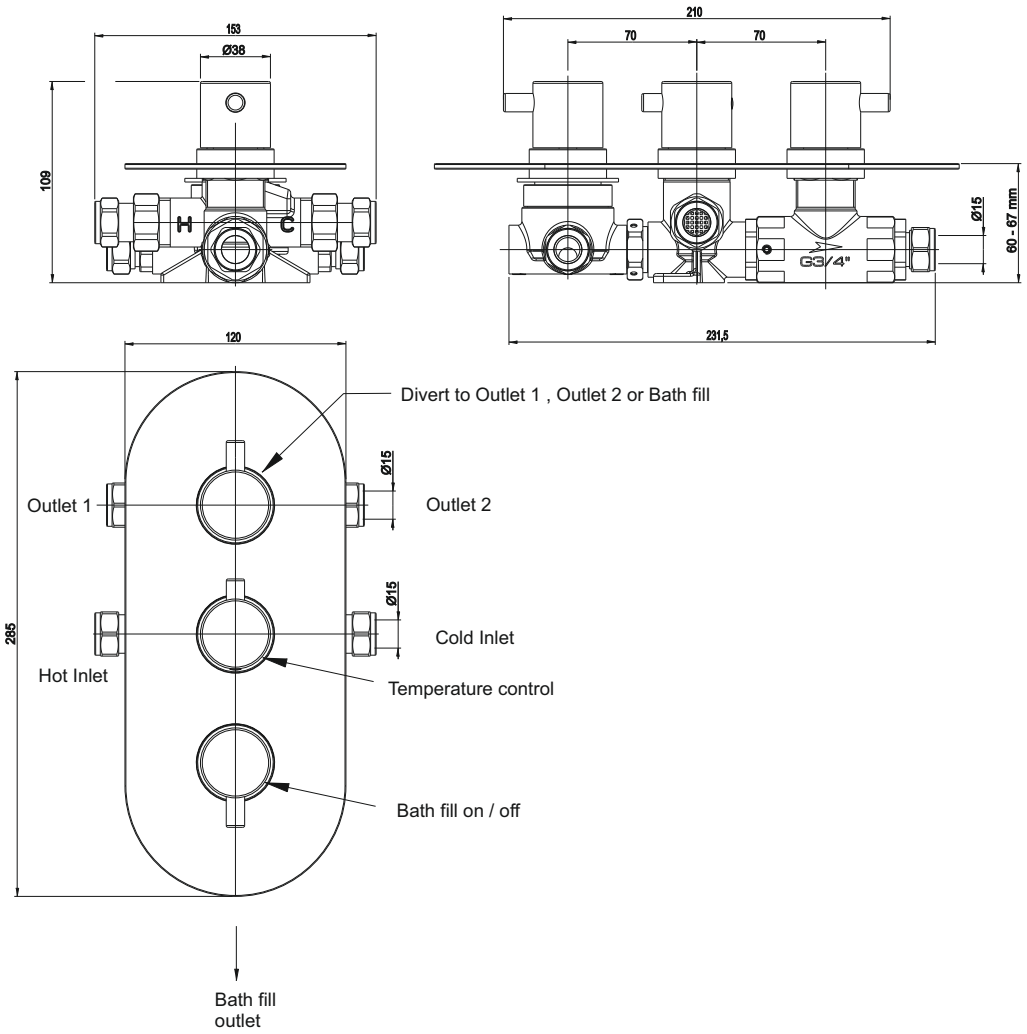
Unvented Systems

Pumped Systems

Instantaneous Water Heaters (Gas or Electric)
Please note that especially with Electric instantaneous water heaters that a stable flow of water passes through the heater and the delivered **Hot** water temperature to the Thermostatic mixing valve is sufficient to enable the thermostatic mixing valve to work correctly.

Your product should be fitted in compliance with the Water Authority Regulations. If you are unsure as to what the regulations require, You can contact your Local Water Authority or the Institute of Plumbers for further details.

Line Drawing



Maintenance

It is strongly recommended that you perform regular maintenance of your Thermostatic mixing valve to ensure continued good performance. Failure to regularly maintain the Thermostatic mixing valve may lead to poor flow , fluctuations in temperature and in some cases complete failure.

To maintain the Thermostatic Mixing valve :-

1. Isolate both Hot and Cold water supplies.
2. Taking note of the Knob positions, Remove both the Diverter knob and Thermostatic mixing valve knob.
3. Remove the Concealing plate.
4. Remove the Plastic temperature stop ring (12) ensuring to note the position on the spindle. This will be required to be refitted in this position when re-assembling the valve assembly.
5. Remove Shroud (26).
6. Unscrew the Thermostatic mixing valve cartridge anti-clockwise and remove from the valve assembly.
7. Taking care not to alter or damage the cartridge , Soak the cartridge in a suitable descalent and rinse with warm water.
8. Re-grease any visible seals and refit the Thermostatic mixing valve cartridge to the valve assembly.
9. Refit Shroud (26).
10. Refit Plastic temperature stop ring (12) onto the Thermostatic Mixing valve cartridge spindle in the position noted in step 4.
11. To ensure the joints are watertight and the valve is re-commissioned correctly , please refer to the section **'Installing the product'** , item 5 and follow the sequence through.

Filter Seal Cleaning

Over a period of time the Filter washers (6) located in both the Hot and Cold inlet housings of the thermostatic mixing valve may become blocked with dirt and debris from your system which could result in the poor performance of your thermostatic mixing valve. Therefore these filters will periodically require cleaning. To clean the filters :-

1. Isolate both Hot and Cold Mains supplies.
2. Taking note of the knob positions, Remove bath fill on/off , diverter and thermostatic mixing valve knobs.
3. Remove the Concealing plate.
4. Undo Nuts(s) (19) on both Hot and Cold inlets and remove Filter washers (6).
5. Rinse Filter washers (6) clean and refit into Hot and Cold inlets.
6. Refit Nuts(s) (19) and tighten.
7. Please refer to '**Installing the Product'** and carry out all steps from items 5.to reassemble the shower valve and obtain the correct temperature setting.

Operating Requirements

Minimum operating pressure 1 bar *
Maximum operating pressure 5 bar
Maximum Static Pressure 10 bar

*Note : For Gravity systems a minimum distance of 10 metres is required between the bottom of the storage tank and the showerhead. Failure to ensure this criteria being met may cause the Thermostatic mixing valve to work incorrectly.

Cold water supply Temperature - Minimum 5°C to Maximum 25°C

Hot water supply Temperature - Maximum 80°C (Recommended Hot water supply temperature 60 - 65°C)

Note: - The minimum temperature differential between the hot and cold water supply should be 50°C. I.e. when the cold inlet water supply temperature is 10°C the hot inlet water supply temperature should be 60°C.

Important Note : To ensure the Thermostatic mixing valve works correctly . The inlet hot water temperature must be a minimum 10°C above the outlet mixed water temperature of the Thermostatic mixing valve This product is factory set to an outlet temperature of 38ºC at equal inlet water pressures , but by using the temperature over ride button the temperature will increase to a maximum of 46ºC.

Fitting Flow Regulators

System Configuration		Fit Flow Regulator	
Cold Supply Pressure (bar)	**Hot Supply Pressure (bar)**	**Cold Inlet Port**	**Hot Inlet Port**
1 to 5 bar (or Pumped)	1 to 5 bar (or Pumped)	Yes	Yes
Mains 1.5 to 10 bar	Unvented Mains / Mains Pressurised	Yes	Yes
Mains 1.5 to 10 bar	Instantaneous Gas Water Heater	Yes	Yes
Mains 1.5 to 10 bar	Instantaneous Electric Water Heater	Yes	No

Important points to note before commencing Installation of your concealed shower mixer. You should have :-

a. Checked the contents of the box and all parts are present and correct.
b Checked to ensure the minimum site operating conditions can be met.
c. The correct tools to perform a trouble free installation.
d. Considered the surrounding environment where the installation is to take place and any potential hidden dangers.
e. Isolated both the hot and cold water supplies.

Note : If not already present , you may wish to consider installing isolation valves for ease of future maintenance. Isolation valves can be fitted anywhere prior to connecting the thermostatic mixer assembly to the water supply pipes. However , they should always be installed in a safe and convenient place for ease of future access.

Installation

Before securing the Thermostatic valve assembly into the wall cavity. You will need to :-

1. Ensure that both Hot and Cold Supply pipes have been flushed to ensure there is no residual debris within the supply pipes that may effect the performance of your product. Extreme care should be taken when carrying out this procedure.
2. Ensure that the Filter washers (6) have been fitted in both inlet ports of the thermostatic mixing valve. Filter seals are used to protect the delicate thermostatic valve mechanism. Failure to use the Filter washers (6) provided could damage your thermostatic valve mechanism and will invalidate your warranty.
3. Decide whether you need to fit the Flow regulators (14) provided into the inlet assembly as shown in the exploded assembly diagram. In cases where you do need to fit the Flow regulators (14) , please ensure they are fitted the correct way round as per the diagram. DO NOT INSTALL THESE IF NOT REQUIRED

Installing the Product

When installing the assembly into the wall cavity , for ease of installation and maintenance you should aim to keep the access hole as large as possible whilst ensuring there will still be enough room to be able to create a suitable contact between the wall and concealing plate using a suitable silicon sealant to create a water tight joint between the wall and concealing plate.

This product has been designed to fit in a cavity with a minimum depth of 60mm. For deeper cavities you may need to create a suitable mounting bracket in the cavity to securely mount the valve assembly. We recommend a mounting depth of between 60/67mm from the front face of the tiles. Failure to take this into account will mean that the concealing plate will not be able to be fixed onto the valve assembly. **Refer to Page 7 'Line drawing'.**

1. **Ensure that both the Hot and Cold mains water supplies are isolated.**
2. Fix the shower valve assembly into the wall cavity ensuring the diverter assembly is at the top and the bath fill on / off control is at the bottom. If done correctly the 'Hot' inlet port to the thermostatic mixing valve will be in the centre of the valve assembly to the left hand side.
3. Connect the respective Hot and Cold water supplies to the Hot and Cold inlet ports of the thermostatic mixing valve making sure that all seals, filters olives are fitted and joints sufficiently tightened.
4. Connect the left hand diverter outlet to one of your outlets and the right hand diverter outlet to the other outlet connection and the bath fill outlet to the bath fill.

Important : Before fitting the concealing plate it is essential that all joints are checked for leaks. Failure to do so could result in flooding or water damage within the cavity over a long period of time that may not be immediately evident. Therefore :-

5. Secure the Diverter knob (2) to the Diverter assembly (31) and Bath fill on/off knob (2) to the stopcock assembly.
6. Secure the temperature control knob to the thermostatic mixing valve (32). To secure the temperature knob in the correct position . Please refer to 'Maximum temperature setting and adjustment'.
7. Ensuring all joints have been secured and tightened , Turn on both Hot and Cold water supplies.
8. Turn the diverter knob towards the side connected to bath fill outlet.
9. Taking care , turn on the thermostatic mixing valve. If no water appears from the outlet of the bath fill , rotate the bath fill on/off knob. Water should now be flowing through the bath fill outlet, check all joints for signs of leaks . Turn off the bath fill on/off knob. Turn the diverter knob towards one of the other connected outlets. Water will now flow through this outlet. Repeat this process for the remaining outlet. Any leaking joints should be immediately rectified. It may be a good idea to leave the shower running for several minutes to ensure the joints are water tight and no leaks appear.
10. When you are confident that all joints are watertight. Turn off the thermostatic mixing valve.
11. Noting each of the three control knob positions , remove the bath fill , thermostatic mixing valve and diverter control knobs (The positions will be required after fitting the concealing plate to refit the control knobs in the correct operating positions).
12. Ensuring correct orientation, Fit the concealing plate (28) to the valve assembly. When fitting the concealing plate , a suitable sealant should be used to create a waterproof joint between the concealing plate and wall.
13. Refit and secure the Diverter control knob to the position it was removed in point 11.above.
14. To refit the thermostatic mixing valve temperature knob , Please refer to **'Maximum temperature setting and adjustment'**.
15. Refit and secure the bath fill control knob to the position it was removed in point 11.above.

Maximum Temperature Setting and Adjustment

Whilst the Temperature of your Thermostatic mixing valve has been factory tested and calibrated, you will need to perform a slight initial adjustment to suit your system operating setup. To do so :-

1. Loosely fit the Thermostatic mixing valve control knob (3) to the Thermostatic mixing valve. Note, whilst fitting the Knob, there is a Temperature stop pin (17) inside the knob which is required to line up with the Temperature stop ring (12).
2. Taking extreme care, Slowly turn on the Thermostatic mixing valve and gently rotate the control knob to the maximum temperature position. Let the shower run for several minutes to ensure the correct blend of Hot and Cold water and the maximum outlet hot water temperature has been achieved.

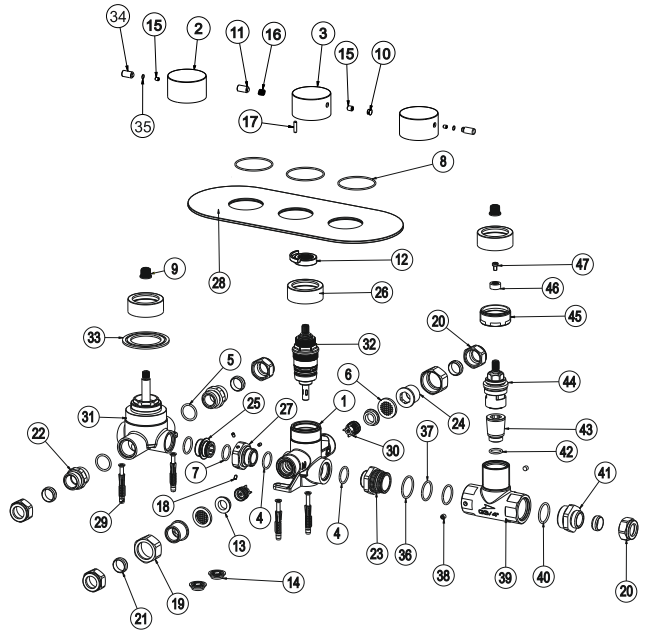
It is Important to note at this stage, very hot water MAY flow through either outlet depending on where the diverter is set too and can cause serious burns if care is not taken !!!.

3. Take note of the outlet temperature of the shower using a suitable testing equipment.
4. If the maximum temperature requires adjusting . Remove the Temperature control knob (3) and adjust the Thermostatic mixing valve spindle.

To increase the outlet temperature , Slowly turn the spindle of the anti-clockwise
To decrease the outlet temperature , Slowly turn the spindle of the clockwise

5. When the desired temperature is achieved. Refit and secure the Thermostatic mixing valve control knob (3) lining up the pin in the Knob with the Temperature stop ring(12).
6. Turn off the Shower valve.

Parts Reference Drawing



Part	Code	Description	Part	Code	Description
1	00105055	Valve Body	25	00514592	Connector
2	00141771	Diverter Handle body	26	00515537	Shroud
3	00142539	Temperature Handle Body	27	00515826	Adaptor
4	00400014	O' Ring	28	00550726	Plate
5	00400015	O' Ring	29	00601113	Pair of Fixing Screws and Plugs
6	00400246	Filter Washer	30	00603719	Check Valve
7	00400380	O' Ring	31	00604189	Diverter Assembly
8	00400648	O' Ring	32	00650492	Thermostatic Cartridge
9	00411240	Spline Adaptor	33	00940006	Seating Ring
10	00410544	Handle Cap	34	00514320	Peg for Diverter Handle
11	00517299	Temperature Over ride Button / Peg	35	00400270	O' Ring
12	00410903	Temperature Stop Ring	36	00400262	O' Ring
13	00411171	Plastic Spacer	37	00400008	O' Ring
14	00411398	Flow Regulator 10 l/min LP	38	00500219	Grub Screw
15	00500219	Grub Screw	39	00141699	Stopcock Body
16	00500749	Spring	40	00400030	O' Ring
17	00500630	Temperature Stop Pin	41	00512115	Connector
18	00500700	Grub Screw	42	00400100	O' Ring
19	00510133	Nut	43	00512619	Stopcock valve seat
20	00511135	Nut	44	00650307	Stopcock Valve
21	00511137	Olive	45	00515922	Adaptor
22	00511258	Connector	46	00501037	Spacer
23	00512620	Connector	47	00500746	Stopcock Spline Extended Screw
24	00512119	Connector			