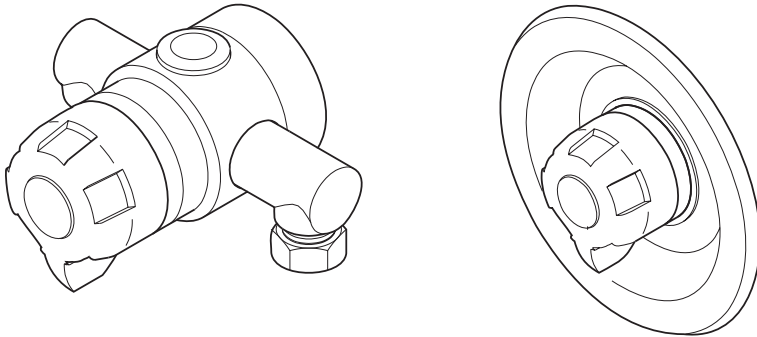




# Meynell



## **V6**

### **THERMOSTATIC MIXER SHOWER PRODUCT MANUAL**

#### **INSTALLER**

**Please leave manual with user for future reference to unit operation and maintenance.**

# INTRODUCTION

## Description

The Thermostatic Mixer Shower is available as exposed, recessed or antique models which provide accurate temperature control and flow rates to the shower. The shower control is via a central sequential control.

## Safety: Warnings

This Thermostatic Mixer Shower is precision engineered and should give continued safe and controlled performance, provided:

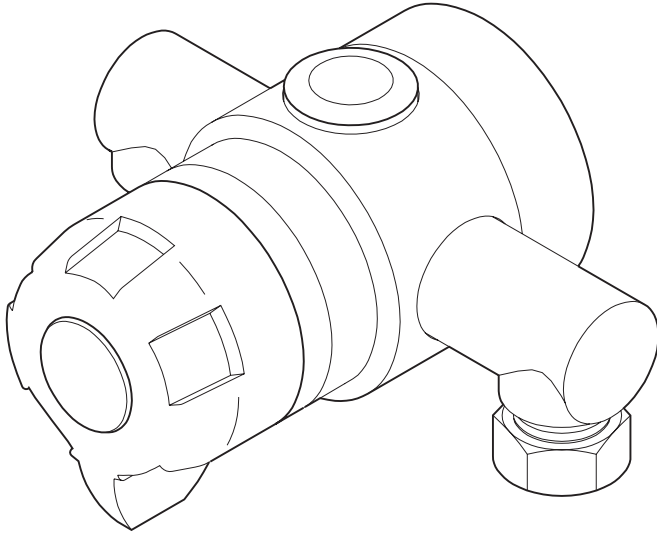
1. It is installed, commissioned, operated and maintained in accordance with manufacturers recommendations.
2. Periodic attention is given, when necessary, to maintain the product in good functional order.

The function of a thermostatic mixing valve is to deliver water consistently at a safe temperature. In keeping with every other mechanism, it cannot be considered as functionally infallible and as such, cannot totally replace a supervisor's vigilance where that is necessary. Provided it is installed, commissioned, operated and maintained within manufacturers recommendations, the risk of failure, if not eliminated, is reduced to the minimum achievable.

# CONTENTS

Check the contents of the box are included before installation.

## Exposed Thermostatic Mixer Shower



1 x Thermostatic Mixer Shower



2 x Inlet Regulator



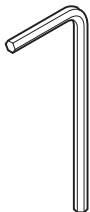
1 x Outlet Adaptor



4 x Fixing Screw



1 x Olive



1 x Hexagon Key

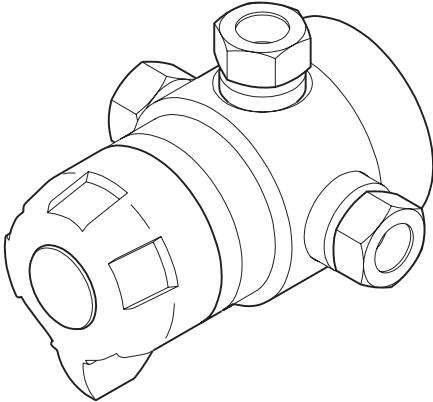


1 x Compression Nut

# CONTENTS

Check the contents of the box are included before installation.

## Recessed Thermostatic Mixer Shower

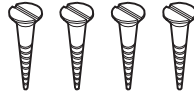


1 x Thermostatic Mixer Shower



2 x Inlet

Regulator

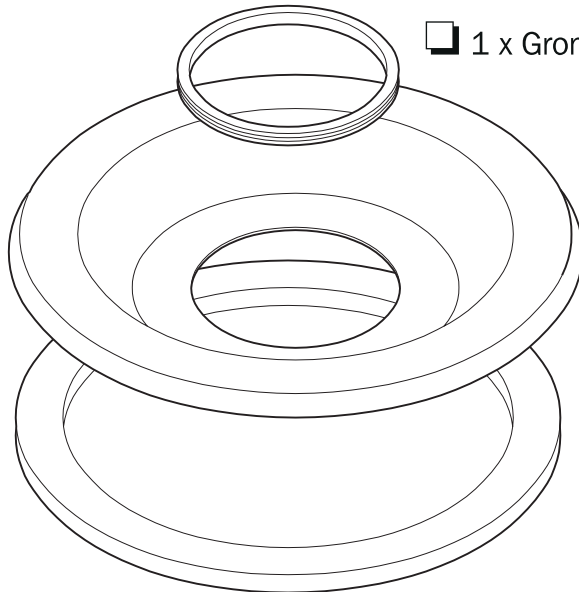


4 x Fixing Screw



1 x Hexagon Key

1 x Grommet

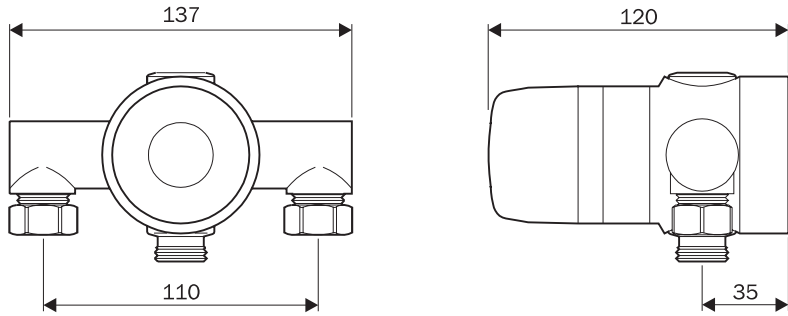


1 x Concealing Plate

1 x Foam Washer

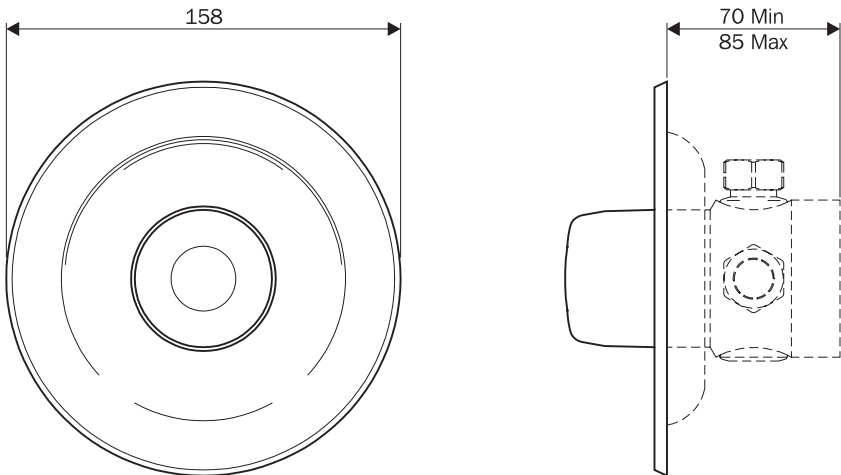
# DIMENSIONS

## Exposed Thermostatic Mixer Shower



Dimensions in millimetres

## Recessed Thermostatic Mixer Shower



Dimensions in Millimetres

# SPECIFICATION

## Notes

1. The installation, commissioning and maintenance must be carried out in accordance with instructions supplied by the manufacturer, and be installed by qualified or competent persons.
2. **Installations must comply with the requirements of UK Water Regulations/Byelaws (Scotland), Building Regulations or any particular regulations and practices, specified by the local water supplier.**

## Temperature Control

Minimum temperature differential between hot supply and outlet temperature: **10°C**

Optimum temperature control range of mixer: **35 - 45°C**

Maximum hot water supply temperature: **85°C** (for safety, a recommended hot water storage temperature maintained below 85°C and for ablutionary installations at between 60 to 65°C).

The performance specification outlined below is achieved with mixer outlet blend temperature set between 35 - 45°C and supplies of 15°C cold and 65°C hot with nominally **equal** pressures.

- Outlet blend temperature is maintained within 2°C with a 10°C change in hot or cold supply.
- Thermostatic shut down to seepage within 2 seconds if cold supply fails. This is achieved only if the hot supply temperature is 10°C above the set outlet blend temperature.

# Pressures

For optimum performance, maintained supply pressures should be nominally **equal**.

Maximum Pressure Loss Ratio: **5:1**

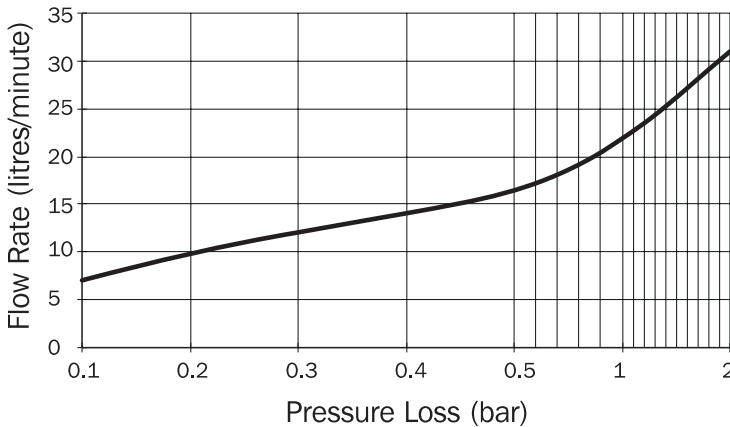
Minimum Maintained Pressure (gravity system): **0.1 bar**.  
(0.1 bar = 1 metre from base of cold tank to outlet of shower fitting)

Minimum Maintained Pressure (gas water heater): **1.0 bar**.

Maximum Static Pressure: **10 bar**.

# Flow Rates

Thermostatic Mixer Shower



**Note!** No Shower Kit attached

# Plumbing Connections




Inlet connectors are 15 mm female compression.

Outlet connector is 1/2" BSP male or 15 mm female compression.

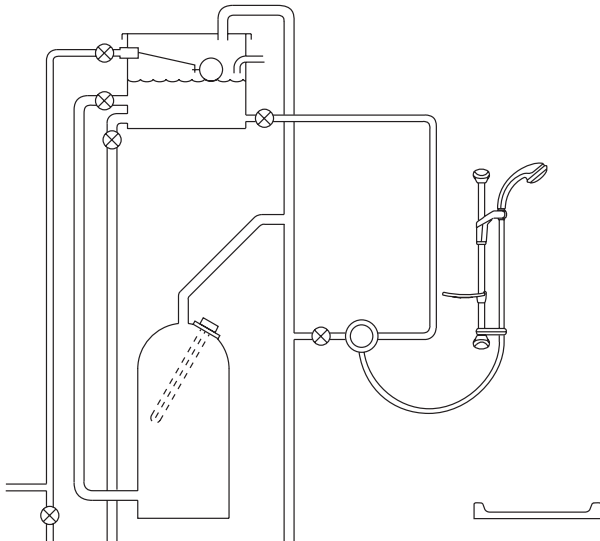
Hot (H) and Cold (C) inlets are clearly marked on body and must be connected this way.

# INSTALLATION REQUIREMENTS

## Key to symbols

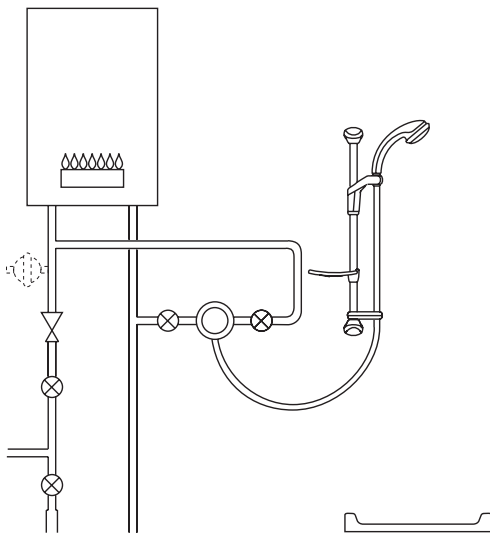
- ⊗ Isolating valve
- Mixing Valve
- ⌒ Overflow Indicator
- ⋈ Pressure Reducing Valve
-  Twin Impeller Pump
-  Single Impeller Pump
- ⊠ Tempering Valve
-  Mini Expansion Vessel

**Gravity Fed system** - The shower **MUST** be fed from a cold water cistern and hot water cylinder providing nominally equal pressure.

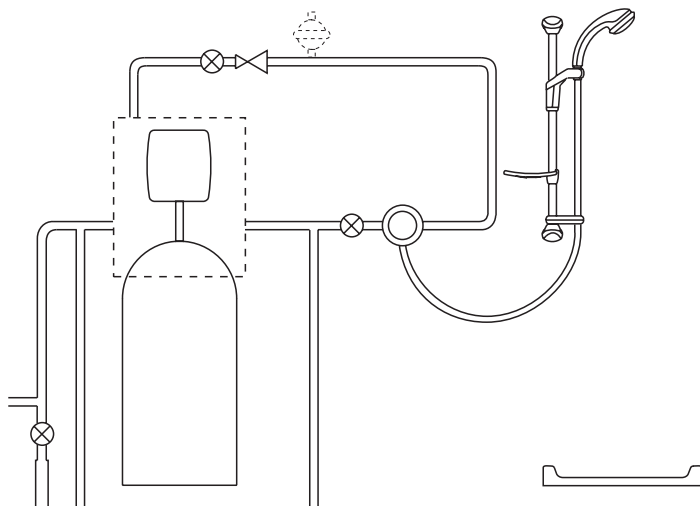




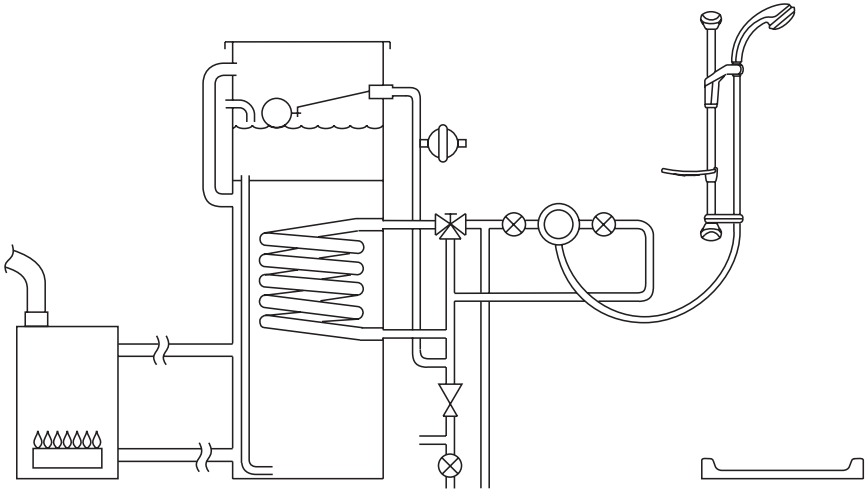
**Gas heated system** - The shower **MUST** be installed with a gas water heater or combination boiler of a **fully modulating** design. A fully modulating boiler is one where the draw off rate is indirectly controlling the gas flow to the boiler, producing a relatively constant hot water temperature.



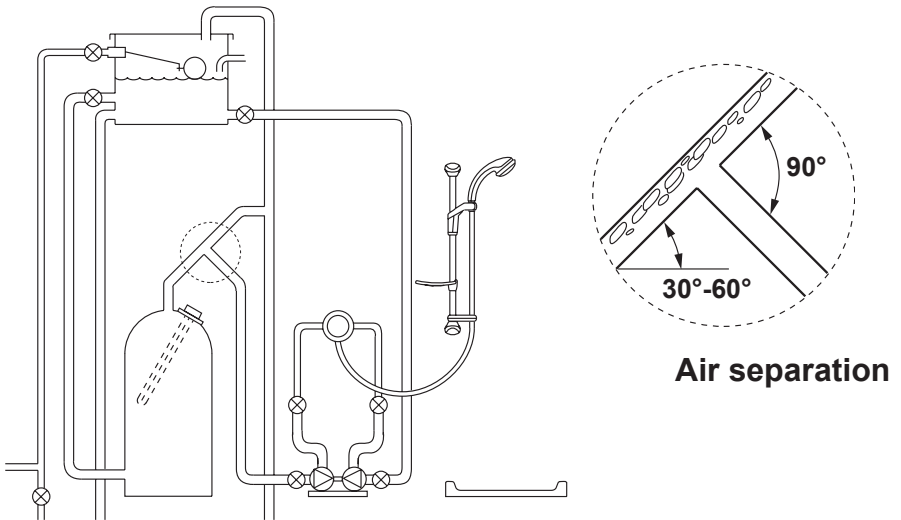
**Unvented mains pressure system** - The shower can be installed with a unvented, stored hot water cylinder. Only “a competent person” as defined by the Building Regulations may fit this type of system.



**Mains pressurised instantaneous hot water system** - The shower installed with systems of this type is supplied hot water via a tempering valve, this provides relatively constant hot water and the shower will compensate for temperature changes should they occur.



**Pumped system** - The shower can be installed with an inlet pump (twin impeller). The pump must be installed on the floor next to the hot water cylinder. Ensure hot cylinder vent pipe is arranged as shown to enable air separation.



# INSTALLATION

## General

1. The installation, commissioning and maintenance must be carried out according to instructions supplied, and must be conducted by qualified or competent person.
2. Before starting installation, ensure that all site requirements correspond to information given in the **SPECIFICATION** section.
3. **Do not** install product in a position where it could become frozen.
4. Install in a position for easy access for maintenance.
5. Accessible isolating valves **must** be provided for maintenance.
6. The supply pipework **must** be thoroughly flushed to remove any debris before connection.
7. **Installations must comply with the requirements of UK Water Regulations/Byelaws (Scotland), Building Regulations or any particular regulations and practices, specified by the local water supplier.**
8. No form of outlet flow control should be fitted, only use shower fittings recommended by manufacturer/supplier.

# Regulators

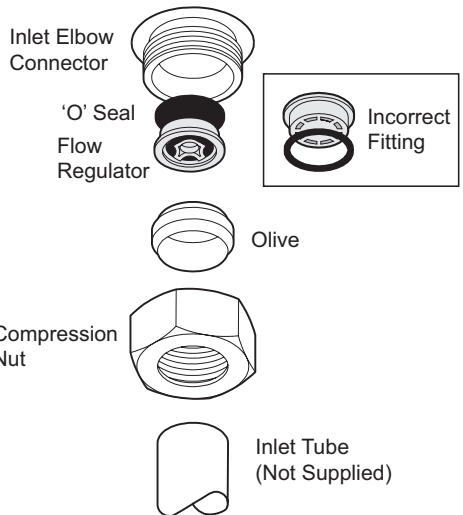
Two grey flow regulators are supplied with the product. They fit into the cold and/or hot inlet connectors for high pressure systems. The selection table indicates when and where these can be fitted.

System	Cold Supply	Hot Supply
Gravity Fed System	<b>X</b>	<b>X</b>
Gas Water Heated System	<b>✓</b>	Optional
Mains Pressurised Instantaneous System	<b>✓</b>	Optional
Unvented Mains Pressure System	<b>✓</b>	Optional
Pumped System	Optional	Optional

**Optional**- Fit only if the force or flow from shower fitting is too great

## Fitting Regulator

1. Remove compression nut and olive from inlet elbow or connector.
2. Ensure 'O' seal is fitted to flow regulator and push inside until flange locates up against internal shoulder of inlet elbow/connector.
3. Make compression fitting using compression nut and olive.



# Connecting to Shower Hose

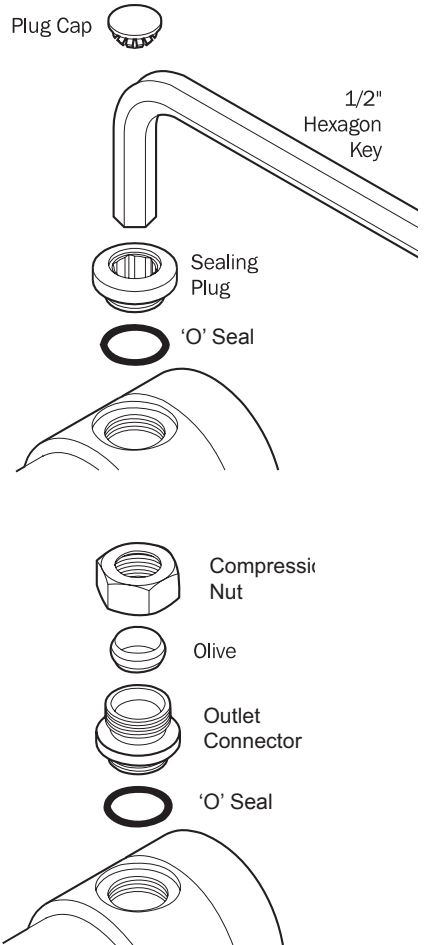
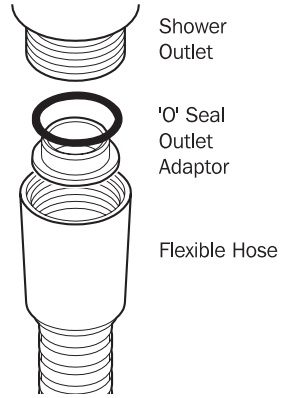
Supplied with the Exposed model is an outlet adaptor and 'O' seal which **must** be used to connect a flexible hose to the mixer shower outlet connector.

## Reversing Outlet

To reverse outlet connector follow instructions below.

**Caution!** Do not fit a flexible hose to a top outlet as this may restrict hose and degrade performance.

1. Using a suitable tool, flick the plug cap from the centre of sealing plug to reveal keyway.
2. Insert a 1/2" hexagon key (not supplied) into keyway and remove sealing plug.
3. To remove outlet connector, insert key and remove as **2**.
4. When refitting ensure 'O' seal is located in recess of sealing plug and outlet connector.



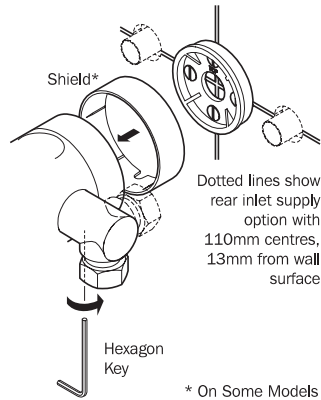
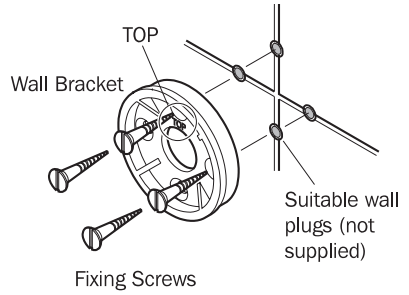
# Exposed/Antique Model

**Caution!** Ensure supply pipework is flushed through.

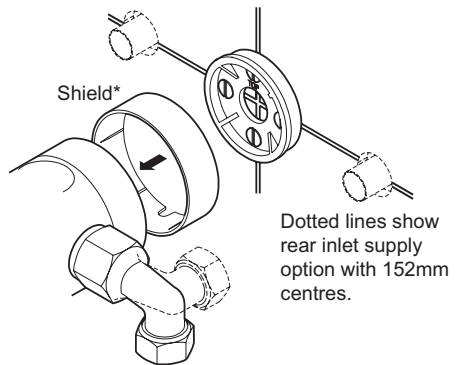
1. Remove wall bracket from rear of mixer by loosening grubscrew on the underside of mixer with hexagon key (supplied).
2. Use wall bracket to mark 4 hole positions. Drill wall and insert suitable wall plugs (not supplied) for No.10 fixing screws.
3. Fit bracket to wall using fixing screws, ensure **TOP** on bracket is positioned correctly.
4. Locate mixer onto wall bracket and use hexagon key to tighten grubscrew.

**Note!** The mixer has number of different elbow styles. See **Dimensions** for correct inlet elbow centres distance to use.

5. Make connections to inlet supplies on mixer.



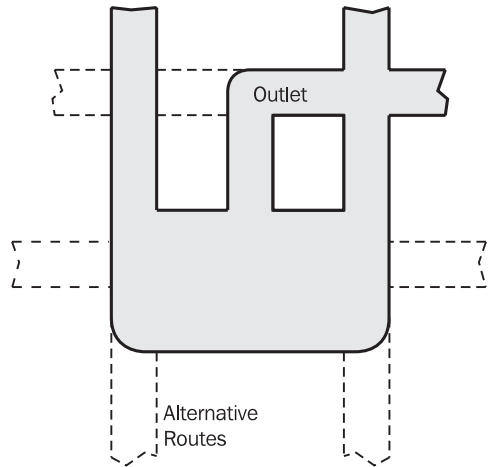
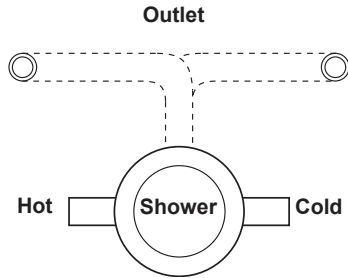
**OR**



\* On Some Models

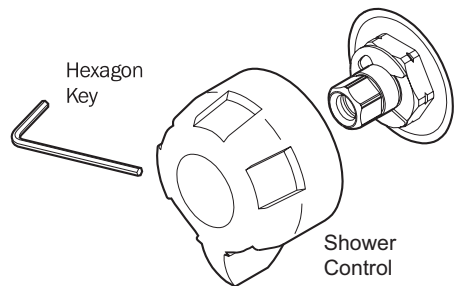
## Recessed Model

1. Determine the routes of the incoming hot and cold supply pipework. They can be rising or falling supplies.
2. Choose the route for the outlet pipework. The outlet elbow should be sited above mixer and on the right or left, as site dictates.
3. Cut away plasterboard or brick work. See **DIMENSIONS** for depth of recessing including finished wall thickness (tiles or fascia board).
4. Fix mixer to wall (see **Exposed/Antique Model**). A wooden batten may be used to correctly position mixer inside cavity.



**Caution!** Ensure supply pipework is flushed through.

5. Make connections to mixer inlets and outlets.
6. Check for leaks at all pipe connections.
7. Loosening grubscrew in side shower control and remove.



**Note!** Shower control shown may differ from one supplied

8. Finish wall surface up to shower, leaving a circular hole around shower of 125 mm diameter.

**Note!** The mixer has number of concealing plate styles. The plate shown may differ from one supplied.

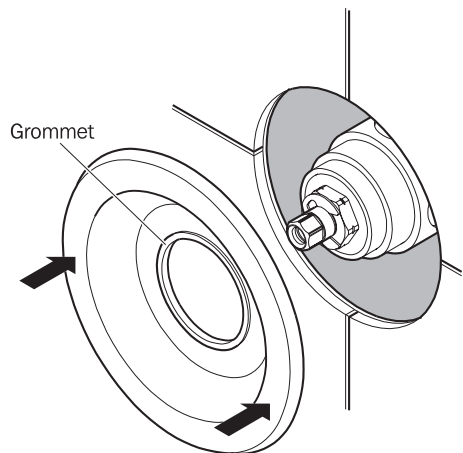
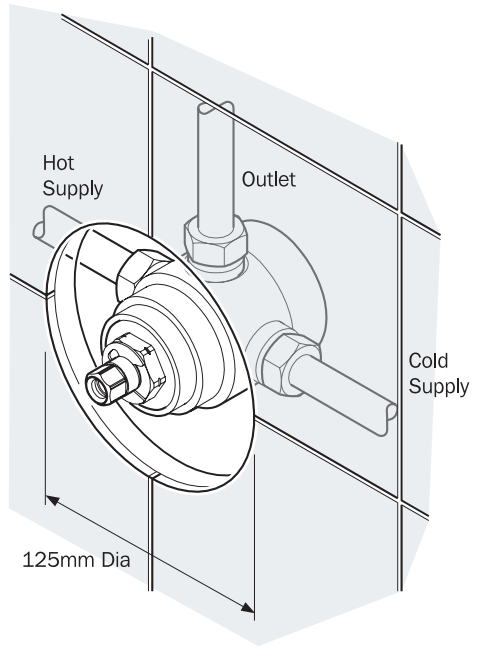
9. Fit sealing grommet to inner diameter of concealing plate, peel protective backing from one side of foam washer and affix to rear of plate.

10. Peel the second protective backing from the foam washer and refit pushing equally to ensure adhesive is fully sealing the perimeter of plate.

**Note!** Any supplementary fixing for concealing plate such as screws should be used.

11. Refit shower control with brand horizontal.

12. Tighten grubscrew in the side of shower control.



**Note!** Concealing Plate shown may differ from one supplied

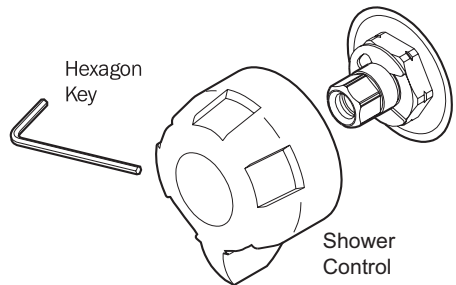


# COMMISSIONING

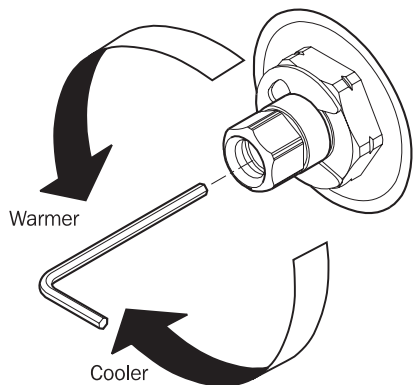
## Maximum Temperature setting (Exposed/Recessed Model)

The Thermostatic Mixer Shower has been preset at approximately 42°C at the factory. Site conditions and personal preference may dictate that the maximum temperature be reset. Before commencing ensure that the hot water temperature is at least 10°C above the required maximum showering temperature. If adjustment is required, set the maximum temperature as follows:-

1. Loosen grubscrew in the side of shower control with 2.5 mm hexagon key supplied.
2. Turn shower control to maximum setting. Let temperature stabilise.
3. Remove shower control completely.
4. Insert the 2.5 mm hexagon key into the centre of valve head.
5. Turn the hexagon key **anticlockwise** to **increase** the temperature, or **clockwise** to **decrease** temperature.
6. Refit shower control and turn off mixer, remove and refit shower control with brand horizontal.
7. Tighten grubscrew in the side of shower control.



**Note!** Shower control shown may differ from one supplied

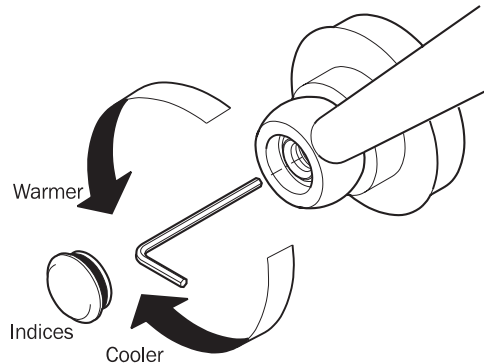


## Maximum Temperature setting (Antique Model)

The Thermostatic Mixer Shower has been preset at approximately 42°C at the factory. Site conditions and personal preference may dictate that the maximum temperature be reset.

Before commencing ensure that the hot water temperature is at least 10°C above the required maximum showering temperature. If adjustment is required, set the maximum temperature as follows:-

1. Turn shower control to maximum setting, Let temperature stabilise.
2. Using a suitable thin tool remove indices from centre of shower control.
3. Insert the 2.5 mm hexagon key into the centre of valve head.
4. Turn the hexagon key **anticlockwise** to **increase** the temperature, or **clockwise** to **decrease** temperature.
5. Turn off mixer, and refit indices with brand horizontal.



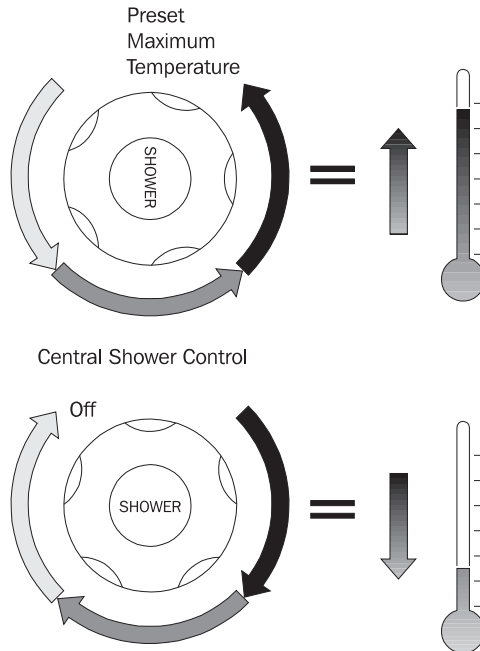
# OPERATION

## Shower Control (Exposed/Recessed Models)

The central shower control operates the shower. Turning on shower control anticlockwise the sequence is:-

**Off → Cold → Warm → preset maximum temperature**

**Note!** The shower performance may be degraded if other water appliances are operated whilst the shower is in use.

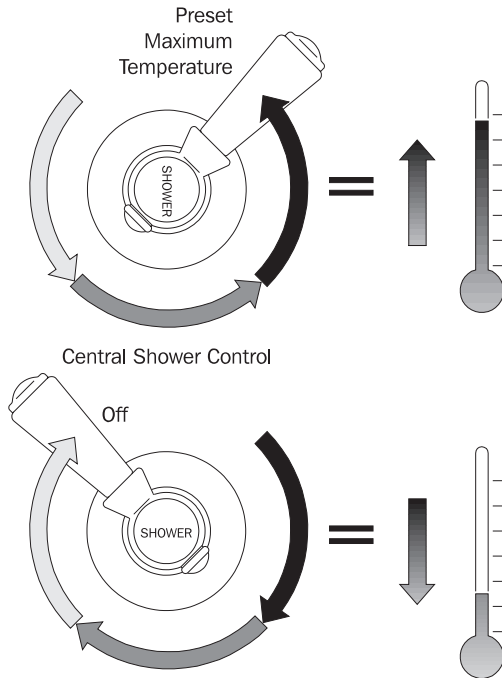


## Shower Control (Antique Model)

The central shower control operates the shower. Turning on shower control anticlockwise the sequence is:-

**Off → Cold → Warm → preset maximum temperature**

**Note!** The shower performance may be degraded if other water appliances are operated whilst the shower is in use.



# FAULT FINDER

Symptom	Cause/Rectification
1. Only hot or cold water from mixer outlet.	<ul style="list-style-type: none"> <li>a. Inlets reversed (hot supply to cold supply).</li> <li>b. No hot water reaching mixer.</li> <li>c. Check fittings for blockage.</li> <li>d. Installation conditions continuously outside operating parameters: refer to <b><u>SPECIFICATION</u></b>, and <b><u>COMMISSIONING</u></b>.</li> </ul>
2. Fluctuating or reduced flow rate.	<ul style="list-style-type: none"> <li>a. Check fittings for blockage.</li> <li>b. Make sure minimum flow rate is sufficient for supply conditions.</li> <li>c. Make sure the maintained inlet pressures are nominally balanced and sufficient.</li> <li>d. Make sure the inlet temperature differentials are sufficient.</li> <li>e. Check thermostatic performance.</li> <li>f. Flow regulators fitted incorrectly.</li> <li>g. Airlock or partial blockage in pipework.</li> <li>h. Check filters for blockage.</li> </ul>
3. No flow rate from mixer outlet.	<ul style="list-style-type: none"> <li>a. Check fittings for blockage.</li> <li>b. Hot or cold supply failure.</li> <li>c. Check filters for blockage.</li> </ul>
4. Blend temperature drift.	<ul style="list-style-type: none"> <li>a. Refer to symptom <b>2.</b> above.</li> <li>b. Hot supply temperature fluctuation.</li> <li>c. Supply pressures fluctuating.</li> <li>d. Seal damage or wear. Renew seals.</li> </ul>
5. Maximum blend temperature setting too hot or too cold.	<ul style="list-style-type: none"> <li>a. Indicates incorrect maximum temperature setting; refer to <b><u>COMMISSIONING</u></b> section.</li> <li>b. Refer to symptom <b>4.</b> above.</li> </ul>
6. Water leaking from Mixer Shower. Shower Fitting.	<ul style="list-style-type: none"> <li>a. Obtain Seal Kit, renew all seals.</li> <li>b. Renew shut off head assembly.</li> <li>a. Renew shut off head assembly.</li> </ul>
7. Flow rate too low or too high.	<ul style="list-style-type: none"> <li>a. (Too low) Insufficient supply pressures.</li> <li>b. (Too low) Refer to symptom <b>2.</b> above.</li> <li>c. (Too high) Supply pressure too high.</li> <li>d. (Too high) Refer to symptom <b>2.</b> above.</li> </ul>

# MAINTENANCE

## General

This Product is precision engineered and should give continued safe and controlled performance, provided:

1. It is installed, commissioned, operated and maintained in accordance with manufacturers recommendations.
2. Periodic attention is given, when necessary, to maintain the product in good functional order.

The exploded view and parts list illustrates the assembly of the product.

You may, if you wish, choose to engage a service engineer or agent, the terms are outlined on the back page.

## Lubricants

**Important:** Use silicone-only based lubricants. **Do not** use oil based or other lubricant types as rapid deterioration of seals may occur.

Standard silicone-only based lubricants may be used to assist refitting.

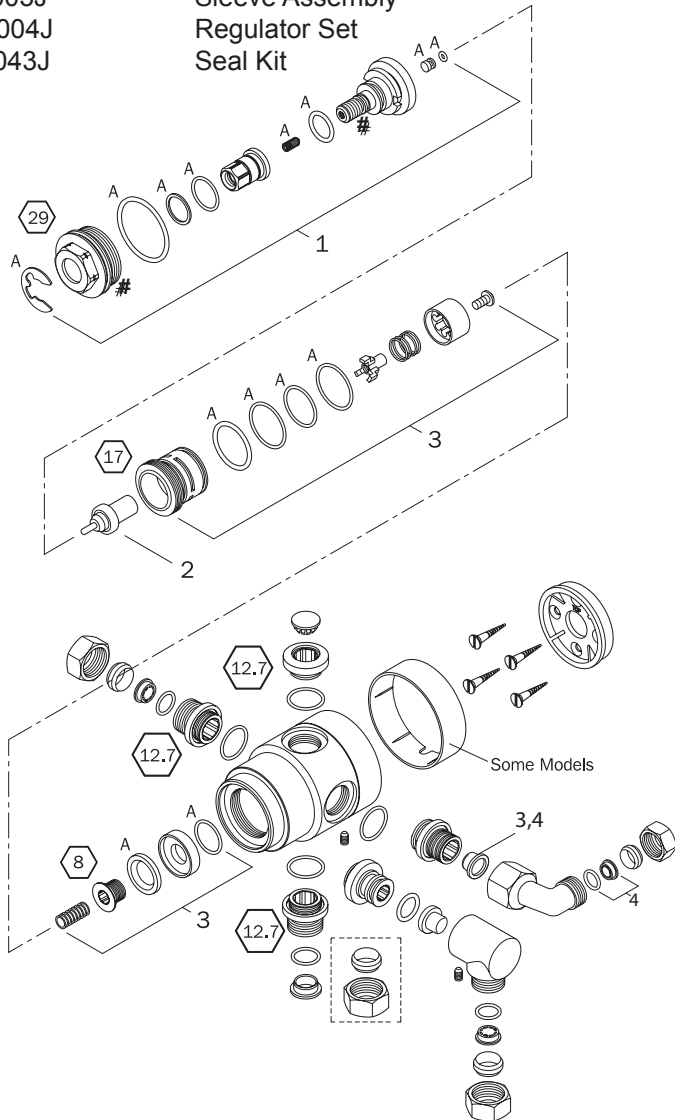
## Cleaning

**Warning!** Many household cleaners contain abrasive and chemical substances, and should not be used for cleaning plated or plastic fittings. These finishes should be cleaned using a mild washing up detergent or soap solution, rinsed and then wiped dry with a soft cloth.

# SPARE PARTS

## Thermostatic Mixer Shower

- |   |           |                 |
|---|-----------|-----------------|
| 1 | SPHD0013J | Head Assembly   |
| 2 | SPEL0003J | Element         |
| 3 | SPSL0003J | Sleeve Assembly |
| 4 | SPRR0004J | Regulator Set   |
| A | SPSK0043J | Seal Kit        |



# Denotes **Left Hand Thread** - Turn **clockwise** to remove

**29** Denotes tool size in mm A/F required to remove component

# CUSTOMER SERVICE

## Guarantee

Kohler Mira Ltd. guarantee this product against any defects in materials or workmanship for a period of one year from the date of purchase.

To be covered by this guarantee, service work must only be undertaken by Kohler Mira Ltd. or approved agents.

## Not covered by this guarantee

Defects or damage arising from incorrect installation, improper use or failure to maintain in accordance with the instructions in the 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 Kohler Mira Ltd. or approved agents.

## After Sales Service - how we can help you

We have a network of fully trained staff ready to provide assistance, should you experience any difficulty operating your Meynell equipment.

## Spare Parts

All functional parts of Meynell Products are kept for up to ten years from the date of final manufacture. If during that period, our stock of a particular part is exhausted we will, as an alternative, provide an equivalent new product or part at a price equating to the cost of repair to the old, bearing in mind the age of the product.

All spares are guaranteed for 12 months from the date of purchase. Spares that have been supplied directly from us can be returned within one month from the date of purchase providing that they are in good order and the packaging unopened.

**Note!** Returned spares will be subject to a 15% restocking charge and authorisation must be obtained 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 Manual 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 ring your nearest Meynell contact who will give every assistance and, if appropriate, arrange for the local Service Engineer or Agent to call on a mutually agreeable date.

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## Contact:



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## Meynell Valves

Cromwell Road,  
Cheltenham,  
England, GL52 5EP, UK.  
Telephone: +44 (0)870 600 0221  
Fax: +44 (0)1242 221925

## SPECIFICATION ENQUIRIES

Telephone: +44 (0)1242 282527  
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