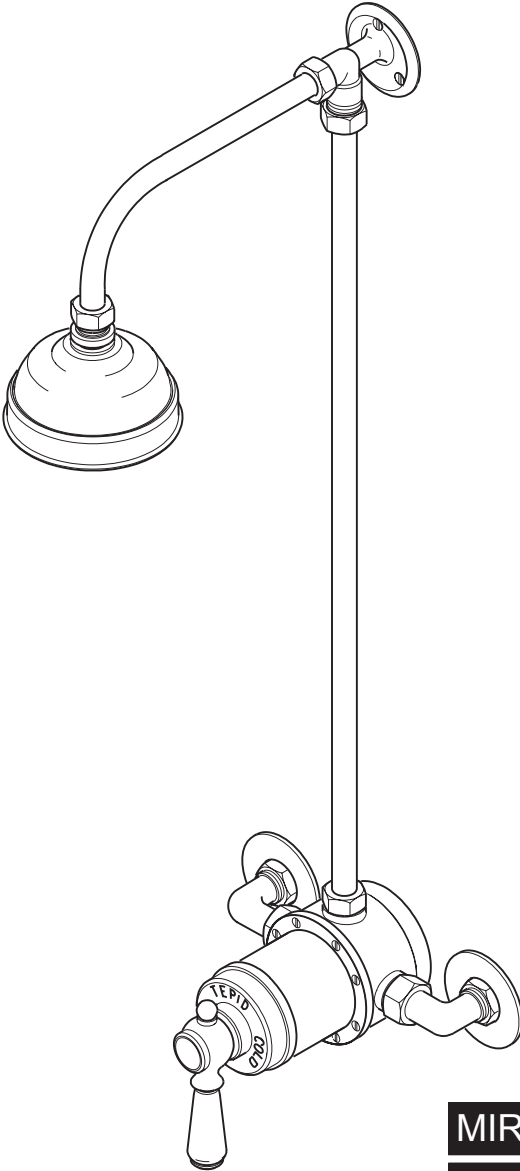


mira

SHOWERS



MIRA REALM

THERMOSTATIC MIXER

Installation and User Guide

These instructions are to be left with the user

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INTRODUCTION

Thank you for purchasing a quality Mira product. To enjoy the full potential of your new product, please take time to read this guide thoroughly, having done so, keep it handy for future reference.

The Mira Realm is a single point 1/2" Thermostatic Shower Control incorporating a wax capsule thermostat to ensure constant showering temperatures. The single sequential control eliminates the possibility of hot water being delivered when initially turning on the shower control.

The Mira Realm comes complete with integral flow regulators which increase the capability of the shower control to cope with pressure imbalances when used in conjunction with combination boilers and multi-point gas water heaters of the modulating type.

The Mira Realm is a surface mounted Shower Control for connection to exposed pipework. A rigid riser pipe, shower head and wall brackets are supplied. Chrome and light golden models are available.

Guarantee

For **domestic installations**, Mira Showers guarantee the Mira Realm against any defect in materials or workmanship for a period of **one year** from the date of purchase.

For **non-domestic installations**, Mira Showers guarantee the Mira Realm against any defect in materials or workmanship for a period of **one year** from the date of purchase.

For terms and conditions refer to the back cover of this guide.

Recommended Usage

Application	
Domestic	✓
Light Commercial	✓
Heavy Commercial	✗
Healthcare	✗

If you experience any difficulty with the installation or operation of your new Thermostatic Mixer, please refer to '**Fault Diagnosis**', before contacting Kohler Mira Ltd. Our telephone and fax numbers can be found on the back cover of this guide.

IMPORTANT SAFETY INFORMATION

This Mira Realm Thermostatic Mixer 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.

Caution!

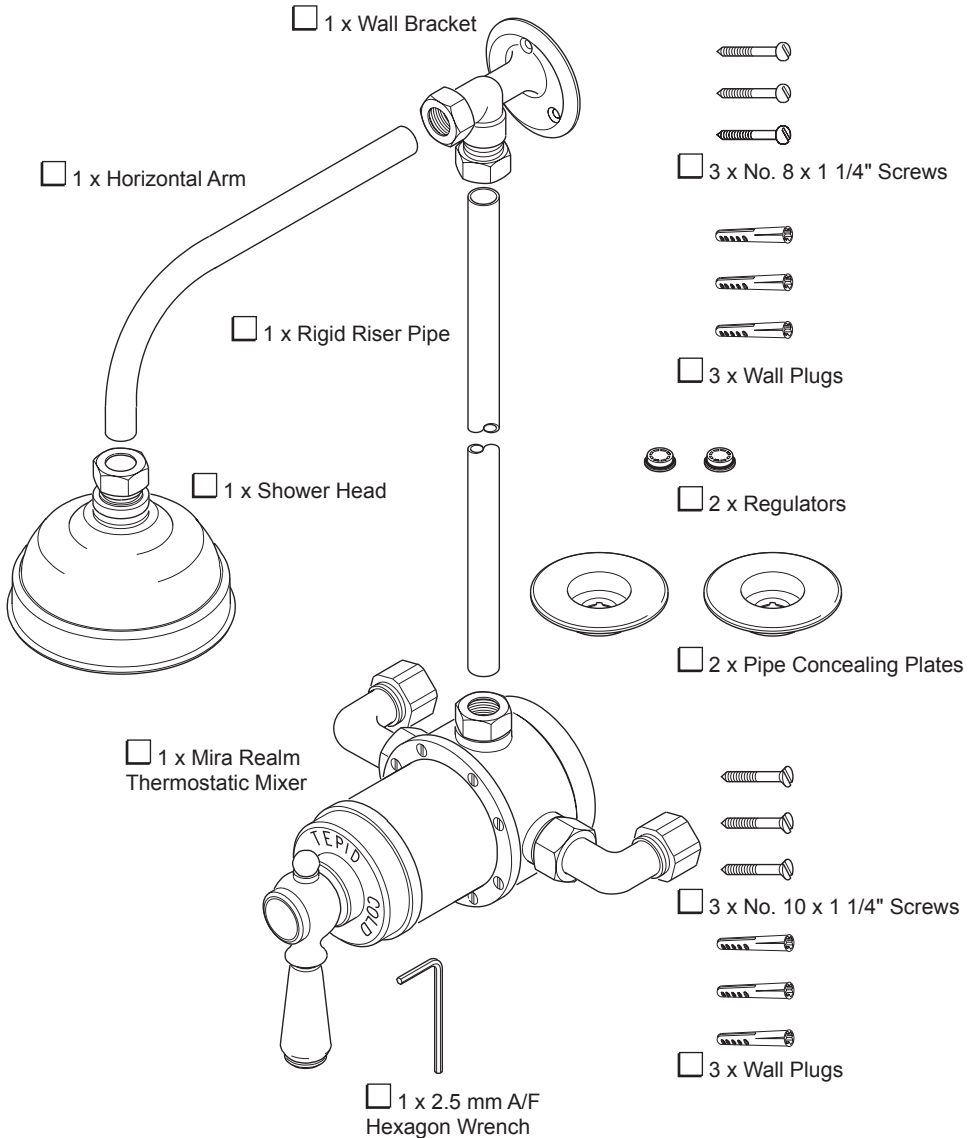
1. **Read all of these instructions and retain this guide for later use.**
2. Make sure that this guide is left with the user. Pass on this guide in the event of change of ownership of the installation site.
3. Follow all warnings, cautions and instructions contained in this guide, and on or inside the shower.
4. Installation must be carried out in accordance with these instructions, and must be conducted by designated, qualified and competent personnel.
5. The plumbing installation must comply with the requirements of UK Water Regulations/Bye-laws (Scotland), Building Regulations or any particular regulations and practices, specified by the local water company or water undertakers. The installation should be carried out by a plumber or contractor who is registered, or is a member of, an association such as:
Institute of Plumbing (IOP), throughout the UK
National Association of Plumbing, Heating and Mechanical Services Contractors (NAPH & MSC), England and Wales
Scottish and Northern Ireland Plumbing Employers' Federation (SNIPEF), Scotland and Northern Ireland
6. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.
7. Children should be supervised to make sure that they do not play with the appliance.
8. Sunburn or skin conditions can increase your sensitivity to hot water.
9. If water leaks from the pressure relief valve, maintenance will be required before the appliance can be safely used.
10. If the shower is dismantled during installation or servicing then upon completion the product must be inspected to ensure there are no leaks.
11. **DO NOT** commission this appliance if water leaks from the unit.
12. **DO NOT** operate this appliance if water leaks from this appliance.

- 13.** The shower head must be de-scaled regularly. Lack of regular shower head cleaning will lead to poor performance and cause early failure of the appliance. Refer to the Shower Fittings User Guide for more information.
- 14.** If pipework and/or electrical cables enter the shower from the rear through a hole in the wall . Provision must be made to prevent water ingress back into the wall structure.
- 15.** Care is required when adjusting flow or temperature, make sure that the temperature has stabilised.
- 16.** Rapid/Excessive movement of the flow and/or temperature control levers may result in momentary unstable blend temperatures.
- 17.** Make sure that you fully understand how to operate this shower and make sure that it is properly maintained in accordance with the instructions given in this manual.
- 18.** Having completed the installation, make sure that the user is familiar with the operation of the appliance.
- 19.** When this appliance has reached the end of its serviceable life, it should be disposed of in a safe manner, in accordance with current local authority recycling, or waste disposal policy.

PACK CONTENTS CHECKLIST



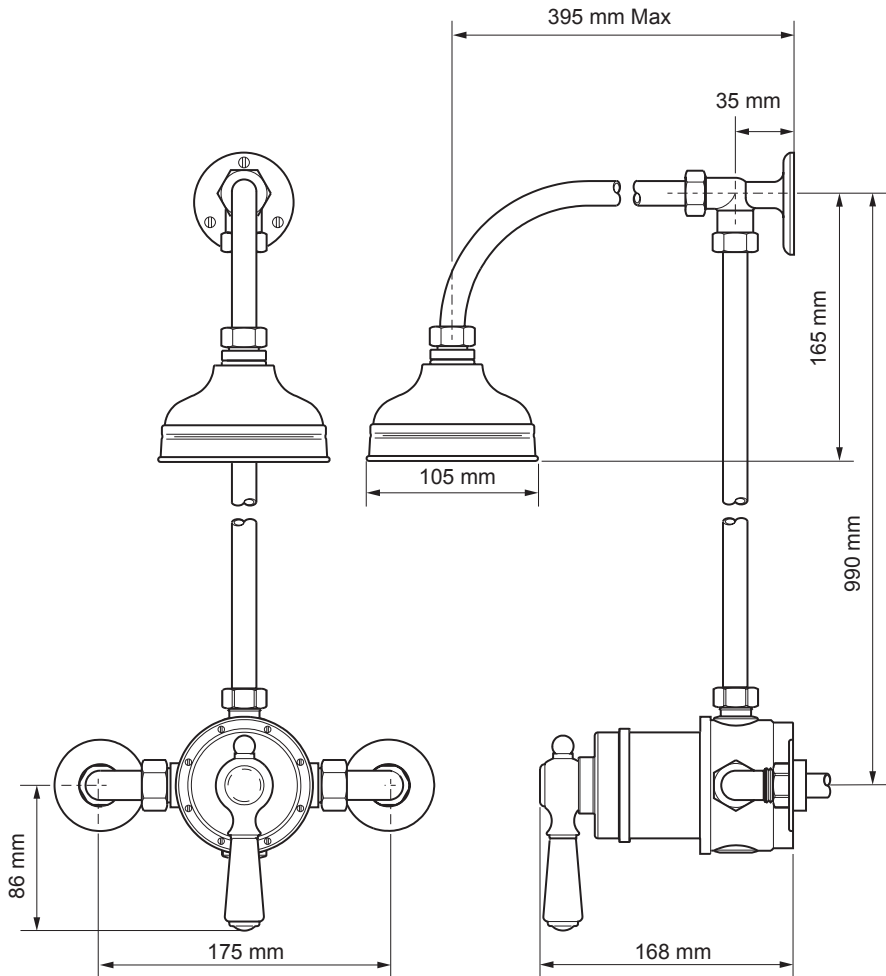
Tick the appropriate boxes to familiarize yourself with the part names and to confirm that the parts are included.



Documentation

1 x Customer Support Brochure

DIMENSIONS



SPECIFICATIONS

1. Pressure Range

- 1.1 Minimum operating pressure (Gas Water Heater) **1 bar**.
- 1.2 Minimum operating pressure (Gravity Feed) **0.1 bar**.
- 1.3 Maximum maintained pressure **3 bar**.
- 1.4 Maximum static pressure **10 bar**.
- 1.5 Maximum pressure loss ratio **5:1**.

2. Temperature Control

- 2.1 Single sequential lever allows the temperature selected to range from the cold water supply temperature through to a pre-set maximum.
- 2.2 The maximum blend temperature is factory set at **42°C**. This can be reset according to site requirements.
- 2.3 Accurate maximum blend temperatures can be set using typical inlet supply temperatures:- Cold **10 - 15°C**, Hot **60 - 65°C**.
- 2.4 The inlet water temperature should be at least **10°C** above the required blend temperature to ensure correct shower performance.
- 2.5 Maximum hot water inlet supply temperature **82°C**.

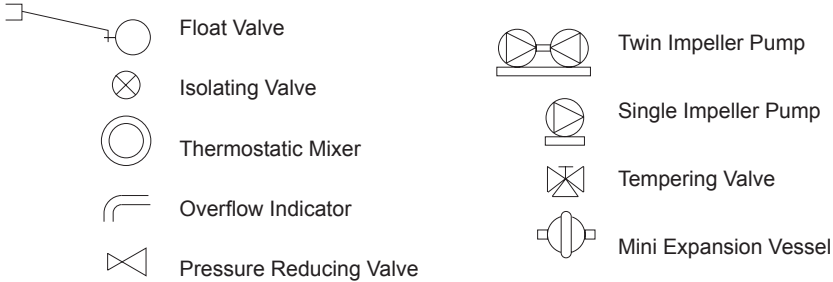
Note! The shower control can accept temporary temperature excursions above **82°C** without damage, however operation at such elevated supply temperatures is not recommended. For reasons of general safety, hot water storage temperatures should ideally be maintained at between **60-65°C** where serving ablutionary applications.

3. Plumbing Connections

- 3.1 The shower control connections are all 15 mm compression (nuts and olives are provided).
- 3.2 Hot and Cold inlets are clearly marked for the shower control and must be connected as described in the Installation section.

INSTALLATION REQUIREMENTS

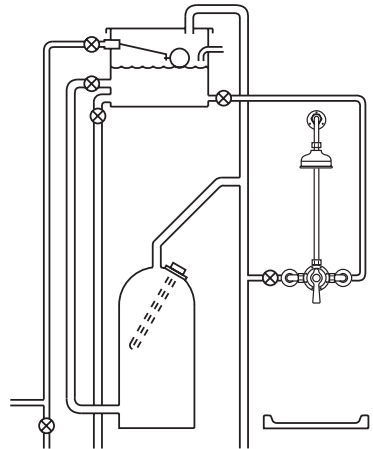
Key to Symbols



The Mira Realm Thermostatic Mixer is compatible with the following systems:

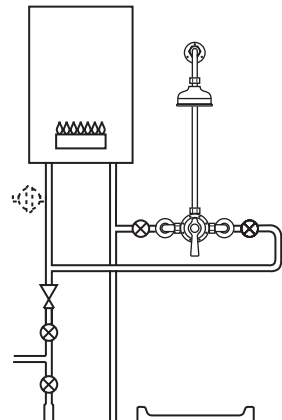
Gravity fed system

The Thermostatic Mixer **MUST** be fed from a cold water cistern and hot water cylinder providing nominally equal pressure.



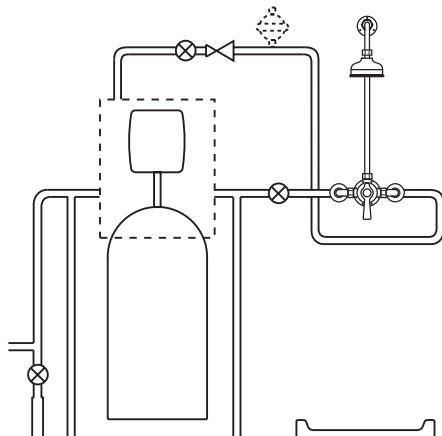
Gas heated system

The Thermostatic Mixer **MUST** be installed with a gas water heater or combination boiler of a fully modulating design.



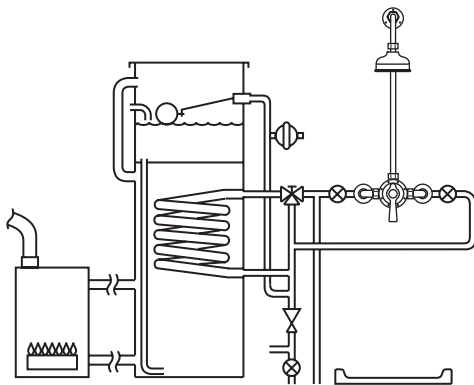
Unvented mains pressure system

The Thermostatic Mixer can be installed with a unvented, stored hot water cylinder.



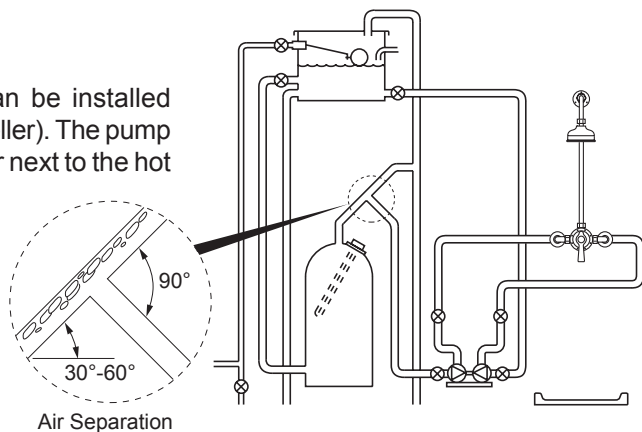
Mains pressurised instantaneous hot water system (thermal store)

The Thermostatic Mixer can be installed with systems of this type with balanced pressures.



Pumped system

The Thermostatic Mixer can be installed with an inlet pump (twin impeller). The pump must be installed on the floor next to the hot water cylinder.



INSTALLATION

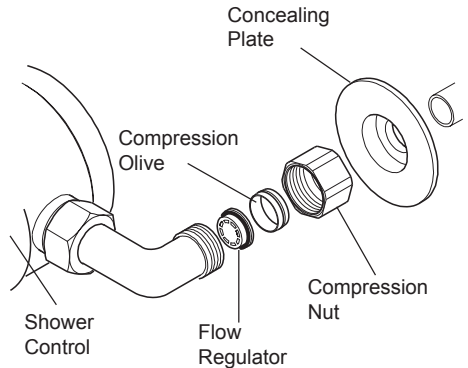
General

1. The Mixer must not be installed in an area where it may freeze.
2. For stud partitions alternative fixings may be required.
3. Isolating valves must be installed close to the Mixer for ease of maintenance.
4. Pipework must be rigidly supported and avoid any strain on the connections.
5. Pipework dead-legs should be kept to a minimum.
6. Supply pipework layout should be arranged to minimise the effect of other outlet usage upon the dynamic pressures at the Mixer inlets.
7. Inlet and outlet threaded joint connections should be made with PTFE tape or liquid sealant. Do not use oil-based, non-setting joint compounds.
8. To eliminate pipe debris it is essential that supply pipes are thoroughly flushed through before final connection.

Flow Regulators

Important! Two flow regulators (grey housing with black insert) are supplied with this product. By fitting these in the inlet elbows of the shower control this product can be used with high pressure systems. The regulator is fitted into the inlet elbow of the shower control. Put the smaller diameter in first and push until the flange locates up against the internal shoulder.

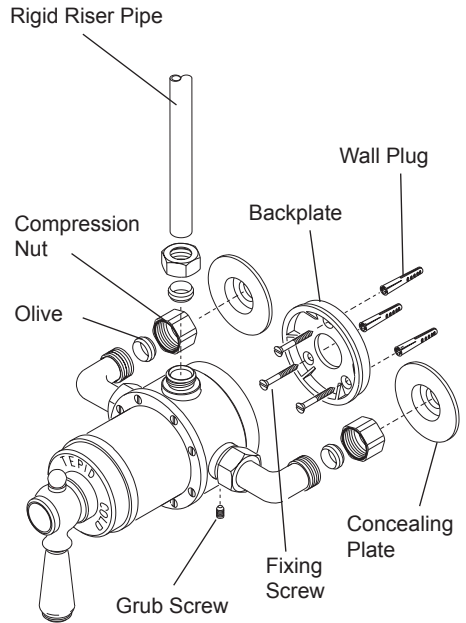
Important! If they are to be retro-fitted the inlet pipe will need to be shortened by the thickness of the regulator flange to prevent damage.



System	Regulators	
	Hot	Cold
Unvented mains pressure.	✓*	✓
Mains pressurised instantaneous hot water, heated from a thermal store.	✓*	✓
Gas heated showers up to 30kW output.		✓
Gas heated showers above 30kW output.	✓*	✓
Gravity Fed.		
Pumped.	Optional	

* As there is no separate flow control, the regulators provide the most satisfactory performance. The fitting of the hot regulator is optional and will determine the strength of the spray from the shower head.

1. The hot water service must always be connected to the inlet marked "HOT" in the base of the shower control body.
2. The inlet elbows can be swivelled to accept rising, falling or back entry supplies, or any combination of two.
3. In choosing the position for the shower control ensure that the fixed shower head will be at a suitable height for the application, and that there is sufficient vertical distance between the fixed shower head and the base of the cold cistern to produce an acceptable shower.
4. **Important!** Flush the incoming hot and cold water supplies before connection of the shower control.
5. Use the 2.5 mm hexagon wrench (supplied) to loosen the grubscrew and separate the backplate from the shower control.
6. Fix the backplate to the wall with the supplied fittings if appropriate.
7. Fit the shower control to the backplate, align the shower control body as necessary and tighten grubscrew.
8. Connect the hot and cold water supplies to the shower control using the 15 mm compression fittings.
Note! Care must be taken when tightening compression nuts so that you do not damage the plated surfaces.



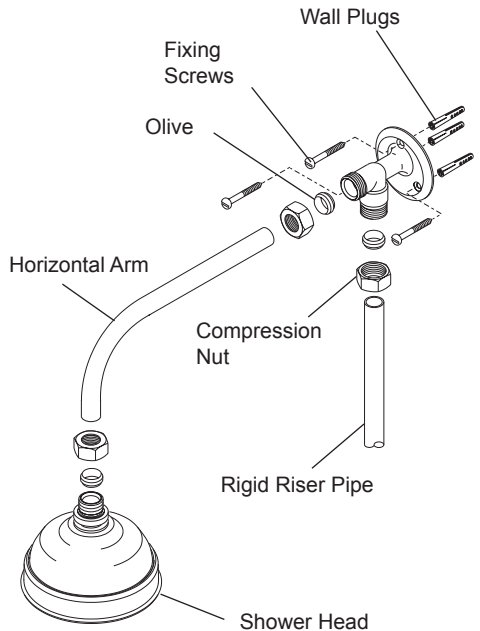
9. Temporarily fit the rigid riser pipe and horizontal arm and wall bracket to the shower control outlet and mark the position of the wall bracket. Use a spirit level to ensure the pipe is vertical.

Note that the horizontal arm can be shortened if required. De-burr the pipe ends before making the final connection.

10. Fix the wall bracket, rigid riser pipe and hand-tighten the three compression fittings on the shower control outlet and horizontal arm. Apply a further 3/4 to 1 1/4 turns to each compression nut, with a spanner, to effect a seal.

Note! Care must be taken when tightening compression nuts so that you do not damage the plated surfaces.

11. Thoroughly flush the outlet pipework before connecting the shower head. Slide the compression nut over the horizontal arm and make the connection to the shower head.



COMMISSIONING

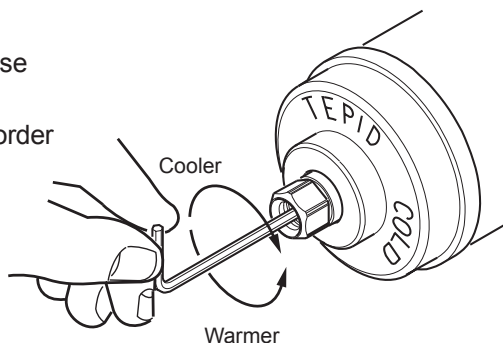
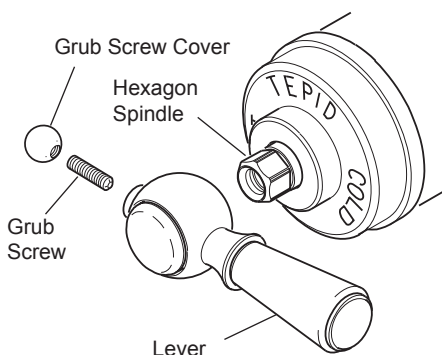
Maximum temperature setting

This thermostatic shower control has been fully performance tested and the maximum temperature has been pre-set to approximately **42°C** under ideal installation conditions at the factory. Site conditions and personal preference may dictate that the maximum temperature has to be reset.

To reset the maximum temperature ensure that an adequate supply of hot water is available at a temperature at least **10°C** in excess of that required from the shower control. Turn the lever fully anti-clockwise then check the temperature at the discharge point, (allowing sufficient time for hot water to reach the hot inlet of the shower control). If the temperature is correct, turn the lever fully clockwise to the off position as no further adjustment is necessary.

If the maximum temperature achieved at the discharge point is unsatisfactory then adjust the maximum temperature as follows:

1. Before making any adjustments ensure that upon installation the correct flow regulators have been fitted. Refer to the section: **'Installation, Flow Regulators'**.
2. Turn the lever fully anti-clockwise to the hot position.
3. Carefully unscrew the grub screw cover and remove.
4. Use the 2.5 mm hexagon wrench (supplied) to loosen the grubscrew.
5. Remove the lever housing from the hexagon spindle.
6. Locate the 2.5 mm A/F hexagon wrench (supplied) in the grub screw.
7. Adjust as follows:
 - Warmer - Turn anti-clockwise
 - Cooler - Turn clockwise.
8. Refit the lever assembly in reverse order and turn the shower control off.



OPERATION

This thermostatic shower control has a single sequential lever. The shower control is turned on by turning the control lever anti-clockwise. The shower control is turned off by turning the control lever clockwise. When the control lever is turned on (anti-clockwise) the sequence is:

Cold water → Warm water → Pre-set maximum temperature.

Initial anti-clockwise movement turns the water on at full flow of cold water, further anti-clockwise movement increases the temperature. The flow rate is determined by the supply pressures at the inlets of the shower control, or by the effective output power of the heater appliance. Flow rates for gas water heaters and combination boilers can vary typically between 8 L/min (winter) and 15 L/min (summer).

Warning! For safety reasons this product incorporates a maximum temperature setting. This setting must be checked and adjusted as necessary to suit both site conditions and user's comfort. Refer to the section: '**Commissioning, Maximum Temperature Setting**'.

MAINTENANCE

General

Read the section '**Important Safety Information**' first.

Providing the shower control has been correctly installed and is operated in accordance with the instructions contained in this guide, difficulties should not arise. If any maintenance is required then it must be carried out by a competent tradesperson for whom the fault diagnosis chart and maintenance instructions are provided. Before replacing any parts ensure that the underlying cause of the malfunction has been resolved.

Shower controls are mechanical devices and should be serviced annually depending on the water conditions. Areas of the country which are affected by hard water should consider shorter service intervals.

When installed in very hard water areas (above 200 p.p.m. temporary hardness) your installer may advise the installation of a water treatment device to reduce the effects of limescale formation.

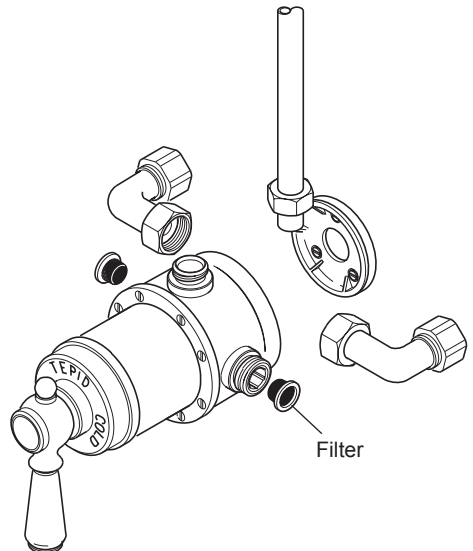
You may, if you wish, choose to engage the services of a Mira Service Engineer or Agent, the terms of which are outlined on the back page of this guide.

Cleaning

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

Filters

1. Isolate the hot and cold water supplies and turn on the flow control to relieve pressure and drain any residual water.
2. Unscrew the inlet and outlet connectors.
3. Using a 2.5 mm hexagon wrench, loosen the grub screw and remove the shower control from the backplate.
4. Clean or replace the inlet filters.
5. Re-assembly is the reversal of the above procedure.
6. Restore the hot and cold water supplies and check for leaks.

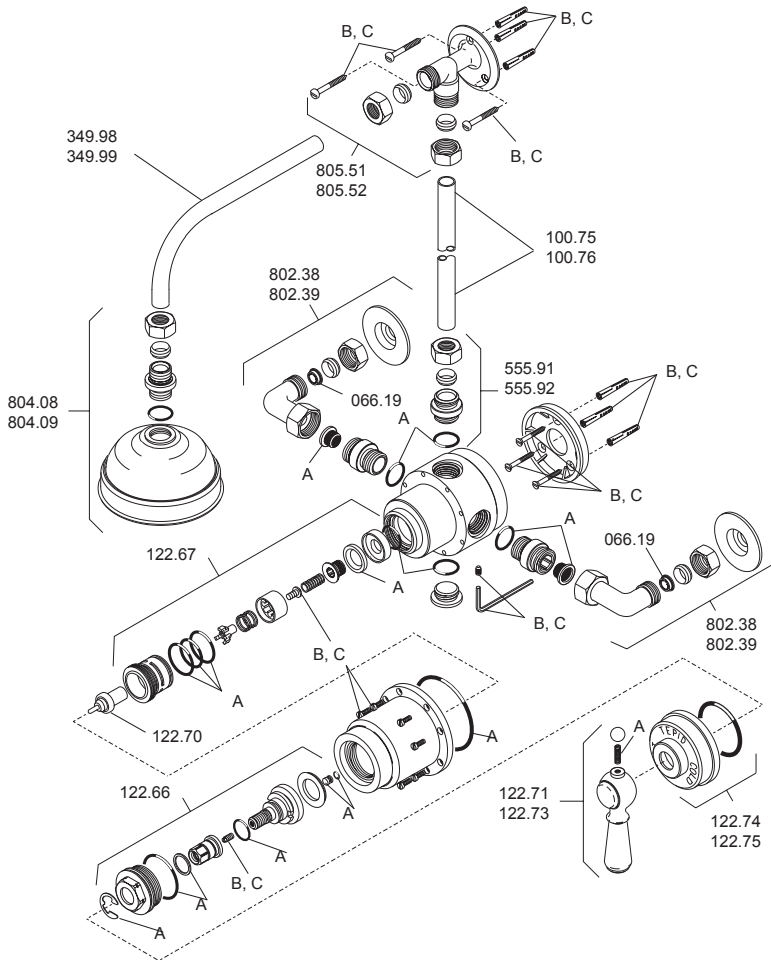


Fault Diagnosis

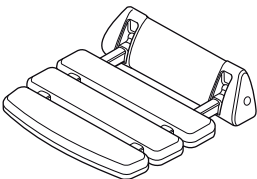
Malfunction	Cause	Remedy
Incorrect temperature at outlet.	Insufficient hot water.	Check temperature setting of hot water system (60°C - 65°C).
	Flow regulators fitted incorrectly.	Refer to section: ' Installation, Flow Regulators '.
	Maximum Temperature set incorrectly.	Refer to section: ' Commissioning, Maximum Temperature Setting '.
Flow rate too high.	Flow regulators fitted incorrectly, or not fitted.	Refer to section: ' Installation, Flow Regulators '.
Flow rate too low.	Flow regulators fitted when not required.	Refer to section: ' Installation, Flow Regulators '.
	Isolating valves not fully open.	Open isolating valves.
	Airlock or partially blocked pipework.	Flush system and if appropriate fit float type automatic air vent.
	Blocked shower head.	Remove and clean.
	Blocked Filters.	Clean or replace.
Outlet temperature either too hot or too cold when turned fully on.	Hot and cold supplies have been connected in reverse.	Check connections and if necessary turn over shower control and swap outlet fitting with blanking plug.
Shower control cannot be shut off.	Pipework not flushed before connecting the shower control.	Clean shower control and if necessary replace seals.
Unstable blend temperature.	Spray plate blocked.	Descale.
	Flow regulators fitted incorrectly.	Refer to section: ' Installation, Flow Regulators '.
	Isolating valve partially closed.	Open fully.

SPARE PARTS

066.19	Regulator Set
100.75	Rigid Riser Set - chrome
100.76	Rigid Riser Set - light golden
122.66	Head Assembly
122.67	Sleeve Assembly
122.68	Seal Pack - components identified 'A'
122.69	Component Pack - light golden - components identified 'B'
122.70	Thermostat
122.71	Lever Assembly - chrome
122.72	Component Pack - chrome - components identified 'C'
122.73	Lever Assembly - light golden
122.74	Indicator Trim - chrome
122.75	Indicator Trim - light golden
349.98	Shower Arm Set - chrome
349.99	Shower Arm Set - light golden
555.91	Outlet Connector Set - chrome
555.92	Outlet Connector Set - light golden
802.38	Elbow Set - chrome
802.39	Elbow Set - light golden
804.08	Rose Set - chrome
804.09	Rose Set - light golden
805.51	Bracket Set, Shower Arm - chrome
805.52	Bracket Set, Shower Arm - light golden

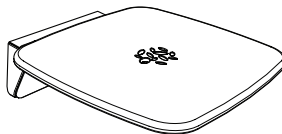


ACCESSORIES



Shower Seat
White - 2.1536.128
White/Chrome - 2.1536.129

For use in or out of the showering area. Folds up when not in use. Maximum User Weight - 127 kg (20 stone) **Note!** Must be installed onto a solid wall.



Premium Shower Seat
White/Chrome - 2.1731.001
Grey/Chrome - 2.1731.002

Stylish, slim-line and robust shower seat for use in or outside of the shower area. Folds up when not in use. Maximum User Weight - 150 kg (23.5 stone) **Note!** Must be installed onto a solid wall.



Wall Mounted Soap Dish
White - 1.1540.278
Chrome - 1.1540.279

Wall mounted for use anywhere in, or outside the showering area.

CUSTOMER SERVICE

Guarantee

Your product has the benefit of our manufacturer's guarantee which starts from the date of purchase.

To activate this guarantee, please return your completed registration card, visit our website or free phone 0800 0731248 within 30 days of purchase (UK only).

Within the guarantee period we will resolve defects in materials or workmanship, free of charge, by repairing or replacing parts or product as we may choose.

If you have not previously activated the guarantee, you will be required to do so prior to the provision of assistance. If you do not activate your guarantee our Engineer will be entitled to charge full payment for the visit (Call out fee plus parts).

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

- The product must be installed and maintained in accordance with the instructions given in this user guide.
- Servicing must only be undertaken by us or our appointed representative. **Note!** if a service visit is required the product must be fully installed and connected to services.
- 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.
- For shower fittings or consumable items we reserve the right to supply replacement parts only.

The guarantee does not cover:

- Call out charges for non product faults (such as damage or performance issues arising from incorrect installation, improper use, lack of maintenance, build up of limescale, frost damage, corrosion, system debris or blocked filters) or where no fault has been found with the product.
- Water or electrical supply, waste and isolation issues.
- Compensation for loss of use of the product or consequential loss of any kind.
- Damage or defects caused if the product is repaired or modified by persons not authorised by us or our appointed representative.
- Routine maintenance or replacement parts to comply with the requirements of the TMV 2 or TMV 3 healthcare schemes.

What to do if something goes wrong

If your product does not function correctly when you first use it, contact your installer to check that it is installed and commissioned in accordance with the instructions in this manual. Should this not resolve the issue, contact our Customer Services Team who will offer you or your installer advice and if applicable arrange for a Service Technician to call. If the performance of your product declines, check in this manual to see if simple home maintenance is required. If you require further assistance call our Customer Services Team.

Extended Guarantees

A selection of protection plans are available that enable you to cover repair bills for the life of your policy (excludes Eire). Ring 01922 471763 for more details.

Helpdesk Service

Our dedicated Customer Services Team is comprehensively trained and can offer help and advice, spare parts, accessories or a service visit. We will need you to have your model name or number, power rating (if applicable) and date of purchase. As part of our quality and training programme calls may be recorded or monitored.

Mira Showers Website (www.mirashowers.co.uk)

From our website you can register your guarantee, download additional user guides, diagnose faults, purchase our full range of accessories and popular spares, refer to our FAQ's and request a service visit.

Spares and Accessories

We maintain extensive stocks of genuine spares and accessories and aim to provide support throughout the product's expected life. Payment can be made by phone at time of order using most major Credit or Debit cards and we aim to despatch orders within two working days. Items purchased from us are guaranteed for 12 months from date of purchase. For safety reasons spares exposed to mains voltages should only be fitted by competent persons.

Returns – items can be returned within one month of date of purchase, providing that they are in good condition and the packaging is unopened. Please obtain authorisation from our Customer Services Team before return. We reserve the right to apply a 15% restocking charge.

Service / Repairs

We have a nationwide team of Service Technicians who can carry out all service or repair work to your product within the guarantee period and beyond. You have the assurance of a fully trained Mira Technician, genuine Mira spare parts and a 12 month guarantee on any chargeable work done.

Payment should be made directly to the Service Technician who will accept most major Credit or Debit cards.

To Contact Us

UK

Telephone: 0844 571 5000

www.mirashowers.co.uk

E-mail: technical@mirashowers.com

Fax: 01242 282595

By Post: Mira Customer Services Dept, Cromwell Road, Cheltenham, Gloucestershire, GL52 5EP

Eire

Telephone: 01 459 1344

E-mail: sales@modernplant.ie

Fax: Dublin 01 459 2329

By Post: Modern Plant Ltd (Dublin), Otter House, Naas Road, Clondalkin, Dublin 22

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product specifications without notice.



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