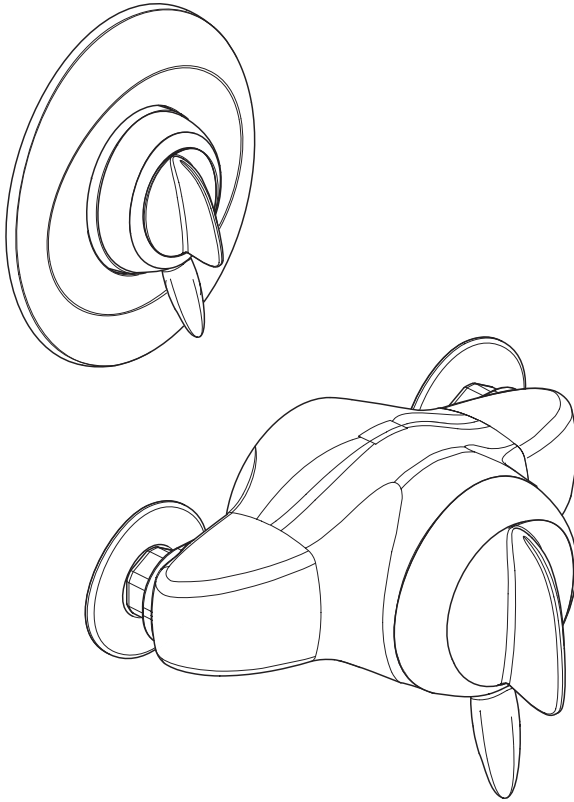


mira

Gem 88



MIRA GEM 88

SHOWER CONTROL

Installation & 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.

A range of Mira 1/2" manual shower controls which provide independent selection of spray force and temperature. The Mira Gem 88 is available with a choice of surface mounted and built-in models.

The Mira Gem 88 is not a thermostatic shower control and does not sense supply temperature or pressure variations. Therefore, inlet water temperatures and pressures especially the hot, should be relatively constant in order to maintain a stable showering temperature.

The Mira Gem 88 is suitable for installation with the following packages:-

- Gravity fed systems (balanced pressure hot and cold)
- Pumped systems (balanced pressure hot and cold)
- Unvented thermal store * (balanced pressure hot and cold)
- Unvented systems * (balanced pressure hot and cold)

* Fitted with a pressure reducing valve (PRV) recommended to be set at 3.5 bar.

The Mira Gem 88 is not suitable for mains pressure (cold) with gravity pressure (hot) or combination boilers/instantaneous water heaters.

Shower controls covered by this guide:

Mira Gem 88

Surface mounted shower control for connection to **exposed pipework**.

Chrome or white colour models are available.

The Mira Gem 88 is designed to be fitted with the pipe centres set at a distance of 153 mm for rear supply connection and the pipes centre set at a distance of 151 mm for rising / falling pipes connection (See the installation template provided).

If the Mira Gem is replacing an existing shower, the distance between the pipe centres can vary from 149 to 154 mm to facilitate the installation.

Mira Gem 88 B

Built-in shower control for connection to **concealed pipework**.

Chrome or white colour models are available.

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

IMPORTANT SAFETY INFORMATION

Warning!

1. Products manufactured by us are safe and without risk provided they are installed, used and maintained in good working order in accordance with our instructions and recommendations.

Caution!

1. Read all of these instructions.
2. Retain this guide for later use.
3. Pass on this guide in the event of change of ownership of the installation site.
4. Follow all warnings, cautions and instructions contained in this guide.
5. Anyone who may have difficulty understanding or operating the controls of any shower should be attended whilst showering. Particular consideration should be given to the young, the elderly, the infirm, or anyone inexperienced in the correct operation of the controls.
6. The temperature control can be turned from **FULL HOT** to **FULL COLD**. As such, turning the control to full hot will deliver water at the hot water storage temperature.
7. When this product 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.

1. Mira Gem 88 Surface Mounted Shower Control

2 x Pipe Concealing Plates

2 x Compression Nuts

**2 x Olives

1 x Mira Gem 88 Shower Control

** 4 x Concealing Caps (2 Spares)

** 2 x Fixing Screws

** 1 x Flow Regulator

1 x Installation Template

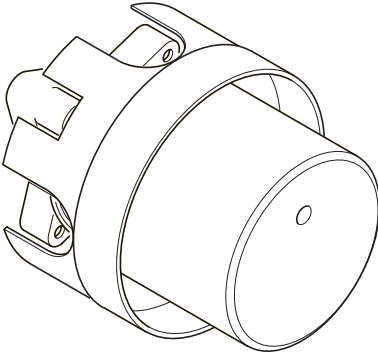
** 2 x Wall Plug

** 1 x 2.5 mm A/F Hexagonal Wrench

** Supplied in the component pack.

2. Mira Gem 88 Built-in shower control

1 x Mira Gem 88 B Shower Control
With Building-in Shroud



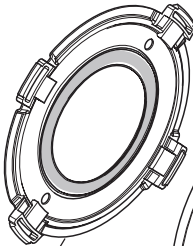
** 2 x Fixing Screw

** 2 x Flow regulator

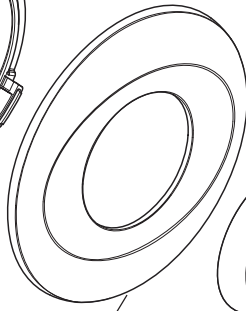


** 2 x Wall Plug

** 1 x 2.5 mm A/F
Hexagonal Wrench



1 x Concealing Plate
Bracket Assembly



1 x Concealing Plate

1 x Flow Lever



1 x Flow Control Bearing



1 x Grey Indicator
Trim Bearing



1 x Indicator Trim



1 x Temperature Knob

** Supplied in the component pack.

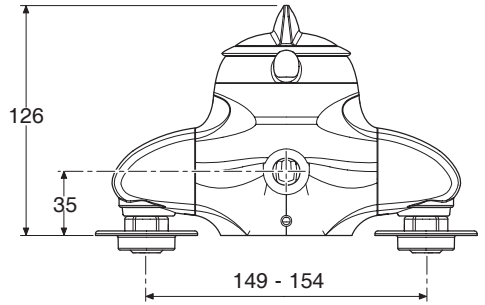
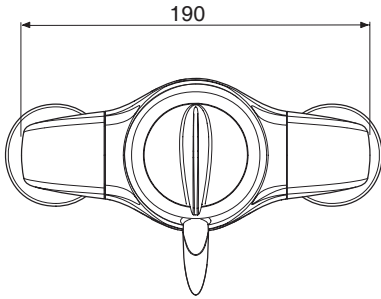
3. Documentation

1 x Installation & User Guide

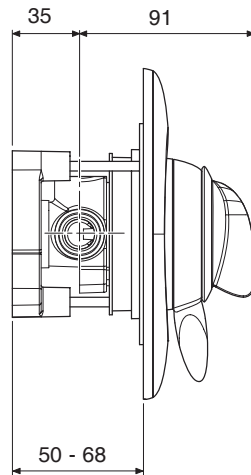
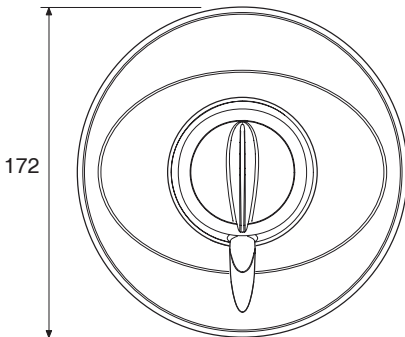
1 x Customer Support Brochure

DIMENSIONS

1. Mira Gem 88 Surface Mounted Shower Control



2. Mira Gem 88 Built-in shower control



Note! NOT TO SCALE - All dimensions are nominal and in millimetres

SPECIFICATIONS

1. Pressure Range

Mira Gem 88

- 1.1 Minimum maintained pressure 0.1 bar (1.0 metre head) when used with Mira shower fittings.
- 1.2 Maximum maintained pressure 5 bar.
- 1.3 Maximum static pressure 10 bar.

Mira Gem 88 B

- 1.4 Minimum maintained pressure 0.1 bar.
- 1.5 Maximum maintained pressure 5 bar.
- 1.6 Maximum static pressure 10 bar.

2. Connections

Mira Gem 88

- 2.1 Inlet 15 mm compression.
- 2.2 Outlet 1/2" BSP male/15 mm Compression.

Mira Gem 88 B

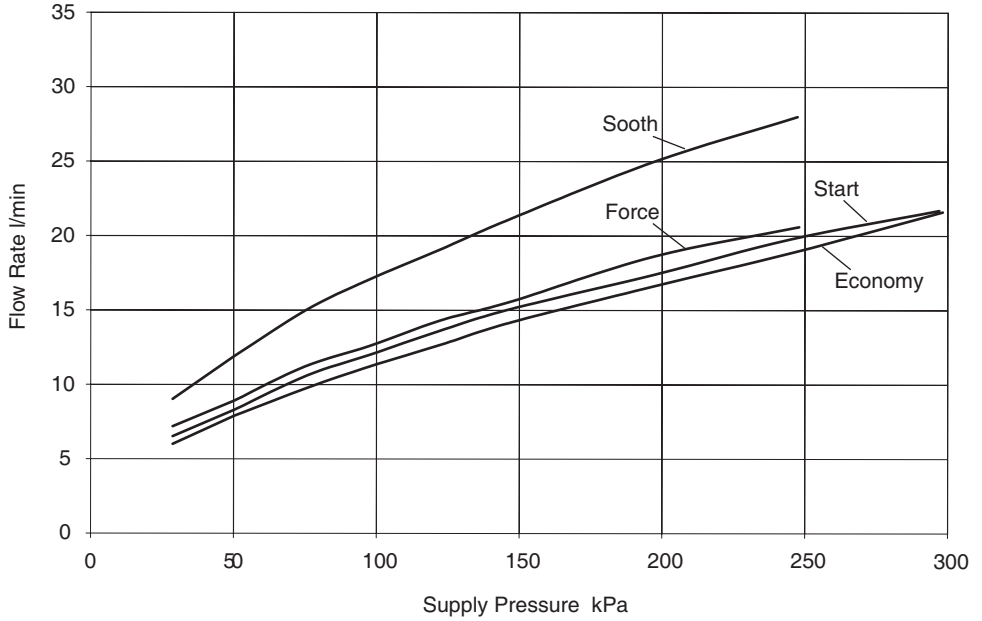
- 2.3 Inlet 1/2" BSP female.
- 2.4 Outlet 1/2" BSP female.

3. Stored Water Temperature

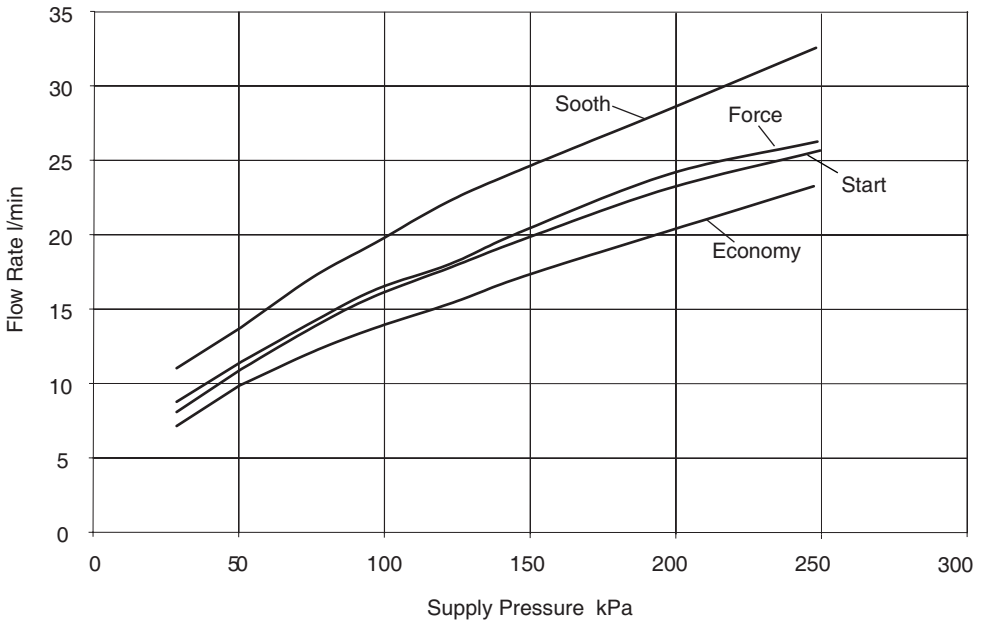
- 3.1 It is recommended that the temperature of stored water should never exceed 65°C. A stored water temperature of 60°C is considered sufficient to meet all normal requirements and will minimise the deposition of scale in hard water areas.

4. Flow Rates

Mira Gem 88 with LC Response Shower Fittings



Mira Gem 88 with HC Response Shower Fittings



INSTALLATION REQUIREMENTS

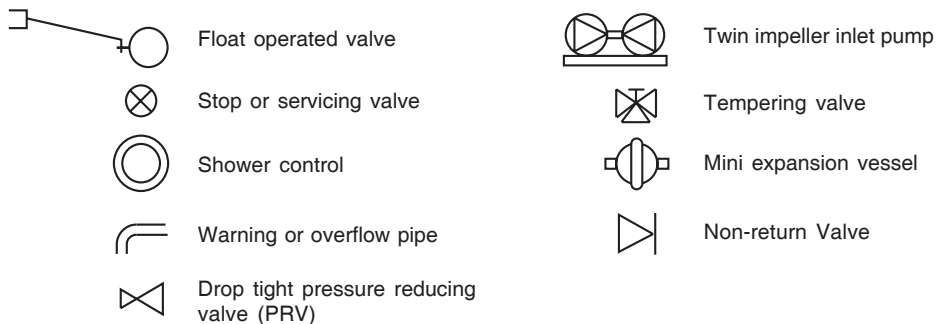
Read the section '**Important Safety Information**' first.

Installation must be carried out in accordance with these instructions, and must be conducted by designated, qualified and competent personnel.

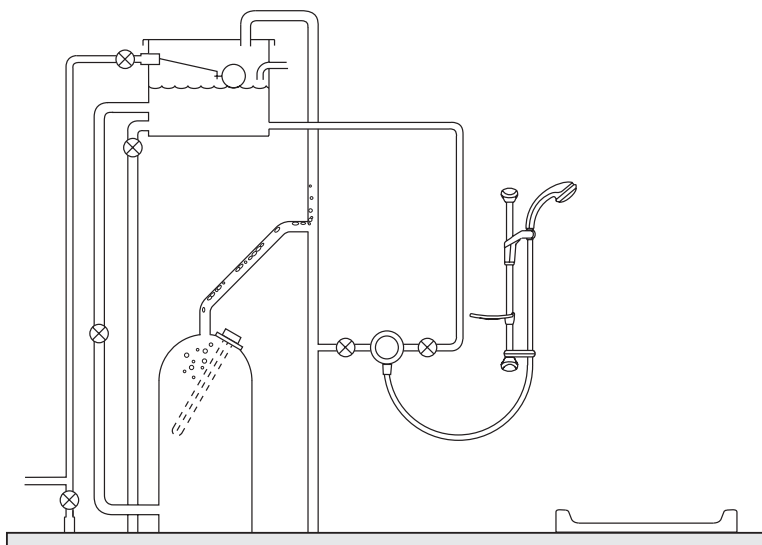
1. Installations **must** comply with UK Water Regulations/ Bye-laws (Scotland), and Building and Plumbing Regulations in force at the time of installation.
2. Layout and sizing of pipework **must** be such that when other services are used, pressures at the shower control inlets are maintained approximately equal and **do not** fall below the recommended minimum.
3. **Do not** install the product in a position in which service access is restricted.
4. **Do not** fit any form of flow control in the shower outlet.
5. **Do not** use excessive force when making connections.
6. **Do not** install the product in a position where it could become frozen.
7. **Do not** install the Gem 88 to an instantaneous water heater or combination boiler system.
8. The Mira Gem 88 is designed to be fitted with the pipe centres set at a distance of 153 mm for rear supply connection and the pipe centres set at a distance of 151 mm for rising / falling pipes connection (See the installation template provided). If the Mira Gem 88 is replacing an existing shower, the distance between the pipes centre can vary from 149 to 154 mm to facilitate the installation.

Typical suitable installations

Key to symbols

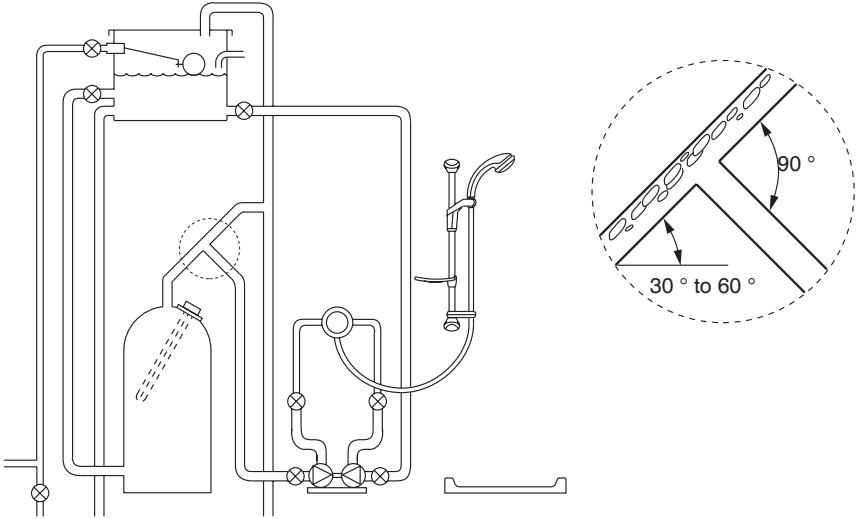


1. **Gravity fed showers** - The shower control **MUST** be fed from a **cold water storage cistern** and **hot water cylinder** providing nominally equal pressures.



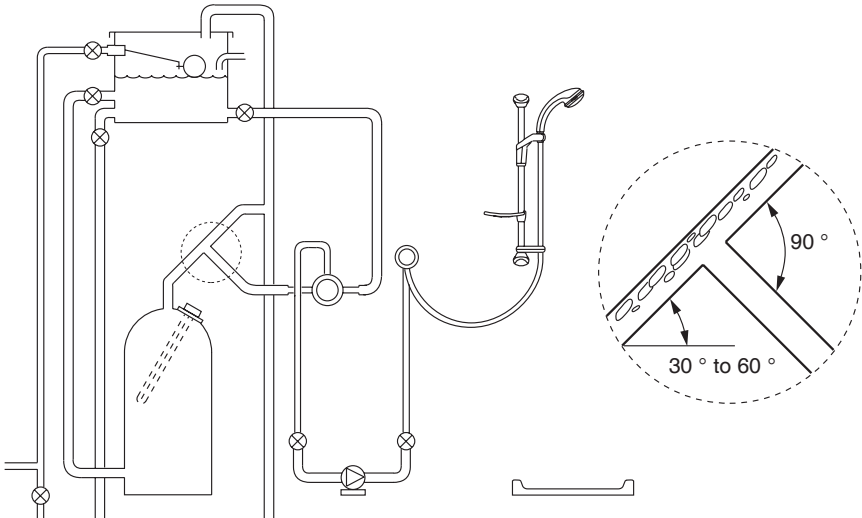
Gravity Fed Showers

2. **Pumped showers (inlet pumps)** - The shower control can be installed with an inlet pump (twin impeller). The pump **MUST** be located on the floor next to the hot water cylinder. The hot water cylinder/vent pipes must be arranged as shown to achieve air separation.



Pumped Showers (inlet pumps)

3. **Pumped showers (outlet pumps)** - The shower control can be installed with an outlet pump (single impeller). The pump **MUST** be located on the floor near to the shower control. The hot water cylinder/vent pipe must be arranged as shown to achieve air separation.

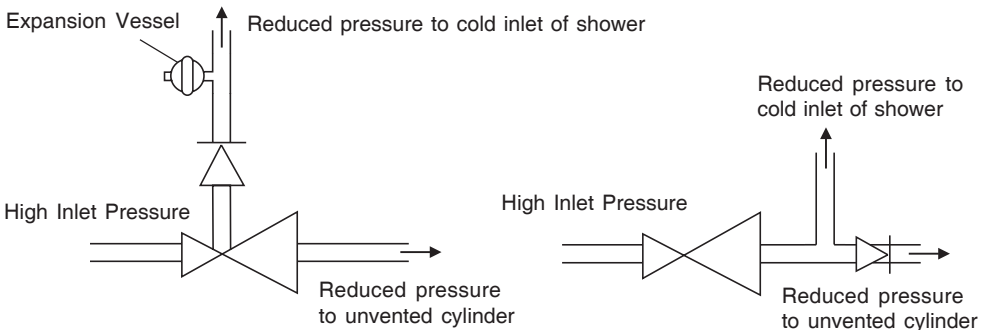
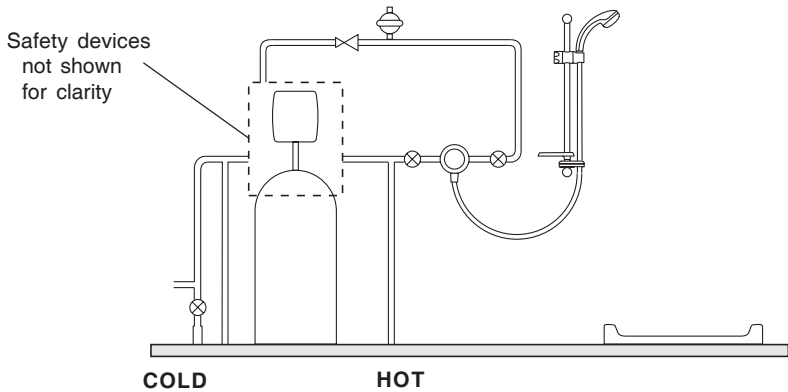


Pumped Showers (outlet pumps)

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

For packages with no cold water take off after the appliance reducing valve, it will be necessary to fit an additional drop tight pressure reducing valve when the mains pressure is over 5 bar. The drop tight pressure reducing valve must be set at the same value as the unvented package pressure reducing valve.

Note! An expansion vessel **MUST** be fitted (and regularly maintained) if any form of backflow prevention device is fitted, e.g. non-return valve or check valve. This will ensure that excess expansion or pulse pressures do not damage the product or the plumbing system.



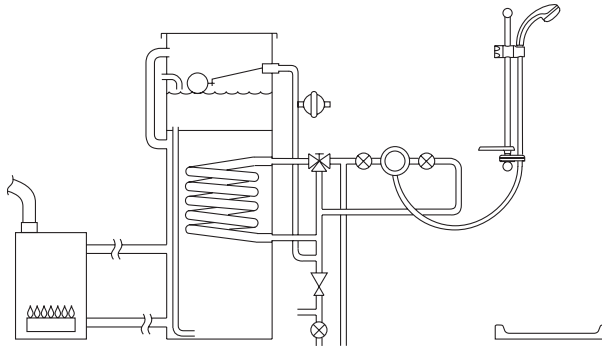
**Combined outlet PRV
with internal non-return valves
- Expansion vessel required.**

**Cold takeoff after PRV
- Expansion pressure taken up by
unvented cylinder expansion vessel.**

Unvented Mains Pressure Showers

5. **Mains pressurised instantaneous hot water shower, heated from a thermal store** - Packages of this type, fitted with a tempering valve can be used. A drop tight pressure reducing valve **MUST** be fitted if the supply pressures exceed 5 bar maintained.

An expansion vessel **MUST** be fitted (and regularly maintained) if any form of backflow prevention device is fitted, e.g. non-return valve or check valve. This will make sure that excess expansion or pulse pressures do not damage the product or the plumbing system. The expansion vessel may already be fitted externally or internally within the thermal store (check with thermal store manufacturer).

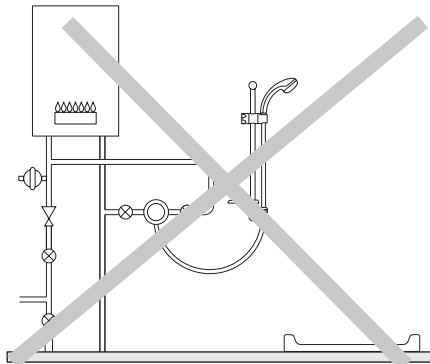


COLD HOT

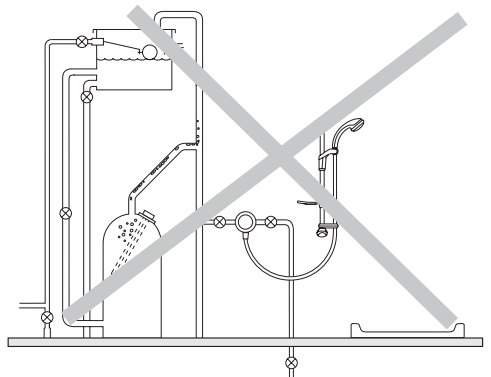
NOT SUITABLE FOR

**INSTANTANEOUS WATER
HEATERS/COMBINATION BOILERS**

**GRAVITY HOT - MAINS PRESSURE
COLD**



COLD HOT

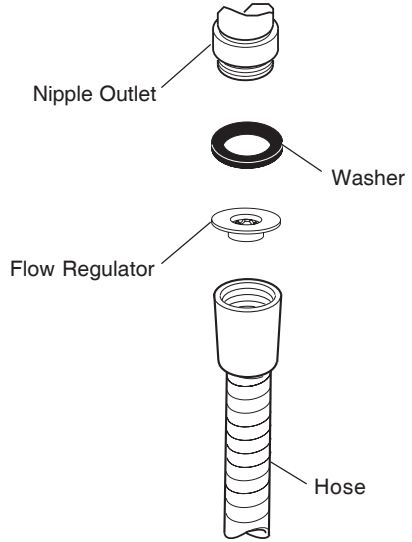


High pressure installations

If water flow from the shower is too high or maintained pressure over 1 bar, the fitting of a flow regulator is recommended (as illustrated below).

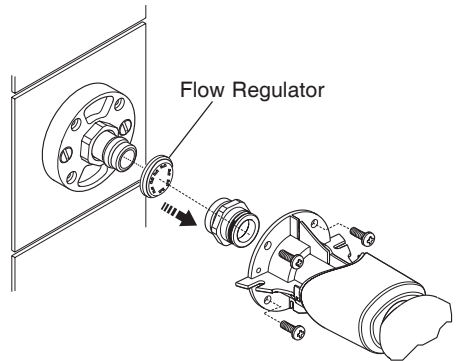
Exposed shower valves and BIV

Fit the white 12 l/min flow regulator to the hose.



BIR Products

Fit the brown 12 l/min flow regulator.

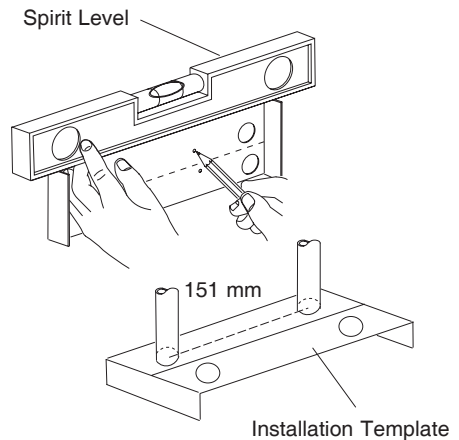
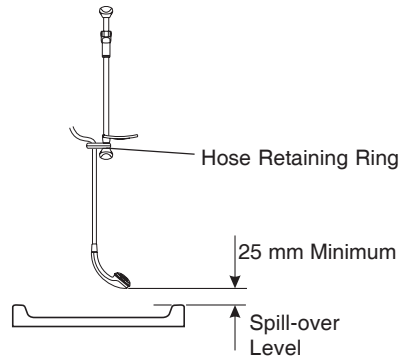


INSTALLATION

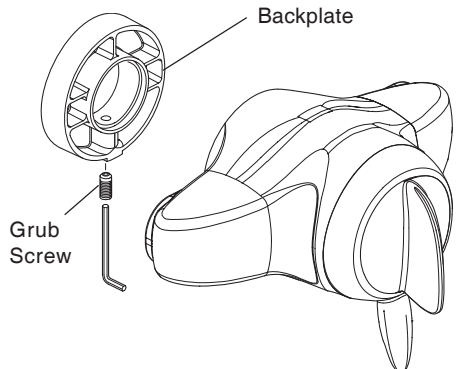
Mira Gem 88 - Surface Mounted Shower Control

1. Rising and falling inlet supplies

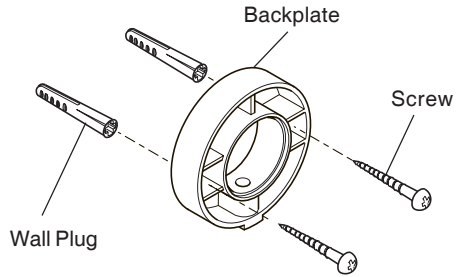
- 1.1** Determine whether the hot or cold water services will be connected to the shower control from the bottom (rising) or top (falling).
- 1.2** The Mira Gem 88 is supplied with inlet connections **hot left, cold right** and **bottom outlet** as standard.
- 1.3** Decide on a suitable position for the shower control. The position of the shower control and the shower fittings must provide a minimum gap of 25 mm between the spill-over level of the shower tray/bath and the handset. This is to prevent back-siphonage.
- 1.4** Use the installation template to mark the positions of the holes for the backplate.
- Note!** For rising/falling supplies the distance between the pipe centres is **151 mm** (See the installation template)



- 1.5** Loosen the backplate grub screws and using the 2.5 mm A/F hexagonal wrench provided, remove the backplate from the shower control body.



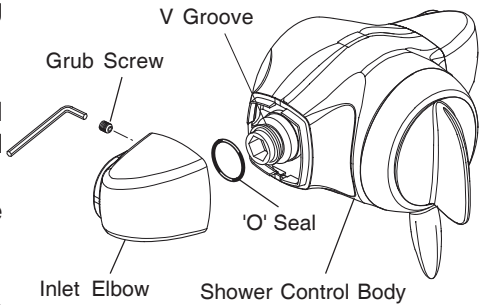
1.6 Drill and suitably plug the two fixing holes. Secure the backplate to the wall by means of the screws provided.



1.7 Install the hot and cold supply pipes. The distance between the pipe centres must be **151 mm**.

1.8 Adjust the inlet elbow to accept falling or rising supplies as follows:-

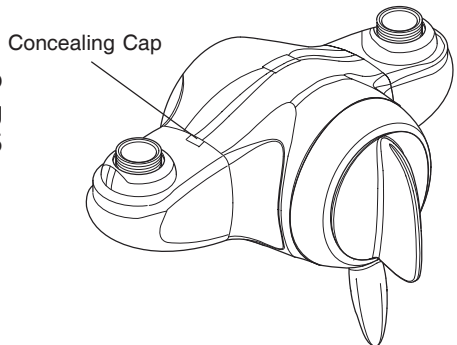
Using the 2.5 mm A/F hexagonal wrench loosen the grub screws and remove the inlet elbows. Make sure that the 'O' seal is on the inlet connector, **not** in the 'V' groove.



Turn the inlet elbows to the required position and refit onto the inlet connectors.

Tighten the grub screws to fix the inlet elbows and fit the concealing caps.

1.9 Locate the shower control body onto the backplate and secure by tightening the recessed grub screw using the 2.5 mm A/F hexagonal wrench.



1.10 Thoroughly flush the incoming hot and cold water supply pipes before connecting the shower control.

1.11 Fit the compression nuts and olives over the supply pipes and then make the connection to the inlet pipework. Make sure that you protect the plated surfaces.

1.12 Turn on the water supplies to the shower mixer and check for any leaks.

1.13 Turn the flow lever 1/4 of a full turn anticlockwise for water flow. Operate temperature knob and make sure that the directional hot and cold indicators are correct.

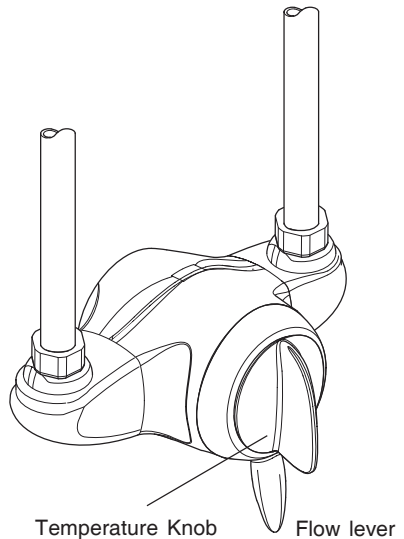
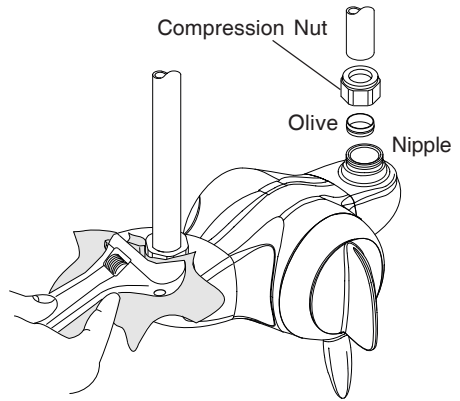
HOT = anticlockwise

COLD = clockwise

Note! If this is not the case, refer to section: **Reversed inlets.**

Turn flow lever fully clockwise to stop water flow.

1.14 This completes the installation of the **Mira Gem 88** for connection to **rising and falling inlet supplies.**



2. Rear entry inlet supplies

2.0 The Mira Gem 88 is supplied with inlet connections **hot left, cold right** and **bottom outlet** as standard.

2.1 Decide on a suitable position for the shower control. The position of the shower control and the shower fittings must provide a minimum gap of 25 mm between the spill-over level of the shower tray/bath and the handset. This is to prevent back-siphonage.

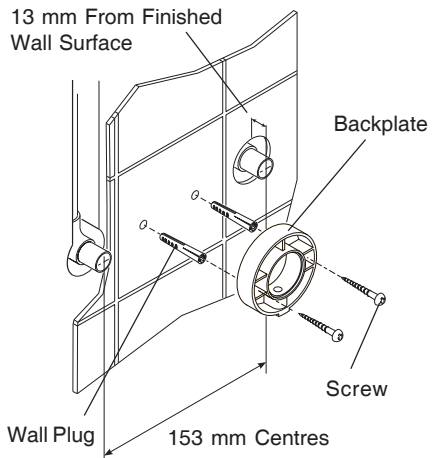
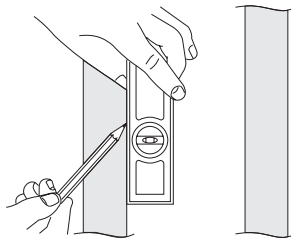
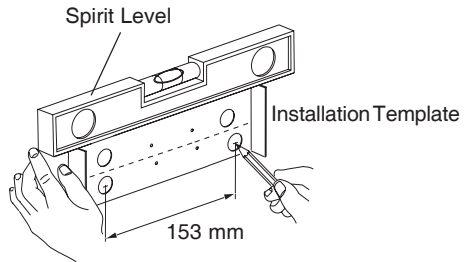
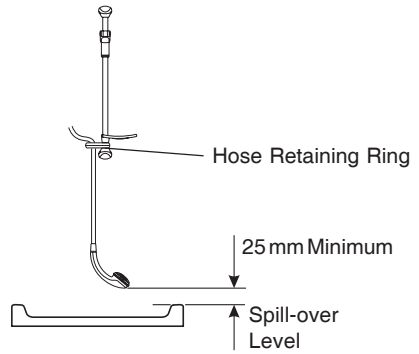
2.2 Use the installation template to mark the positions of the holes for the backplate and the pipes centre.

2.3 Use a spirit level and a pencil to mark the route for the hot and cold water supply pipes at **153 mm** centres.

Note! If the Mira Gem is replacing an existing shower, the distance between the pipe centres is adjustable from 149 to 154 mm to facilitate installation.

2.4 Remove the plaster and brick/block to the required depth to conceal the pipework.

2.5 Install the supply pipes. The pipes must project from the finished wall by **13 mm**. Finish the surface of the wall as required. The recesses in the wall for the concealing plates must be 32 mm diameter x 10 mm deep.



2.6 Loosen the backplate grub screw and using the 2.5 mm A/F hexagonal wrench provided, remove the backplate from the shower control body.

2.7 Drill and suitably plug the two fixing holes. Secure the backplate to the wall by means of the screws provided.

2.8 Fit the concealing plates over the pipework into the enlarged recess in the finished wall surface.

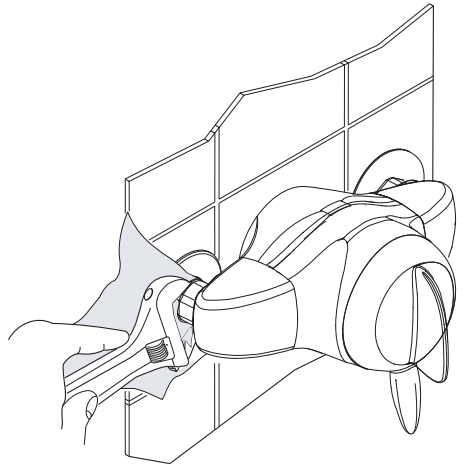
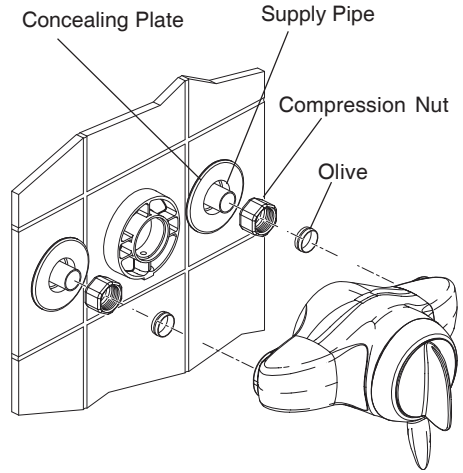
2.9 Thoroughly flush the incoming hot and cold water supply pipes before connecting the shower control.

2.10 Fit the compression nuts and olives to the supply pipes.

2.11 Align the valve over the backplate and inlet pipe work. If the pipe work and the nipples are not aligned, the nipples can be moved to achieve the alignment. This adjustment can achieve an alignment of the pipes centre between 149 - 154 mm.

2.12 Locate the shower control body onto the backplate and secure by tightening the grub screw using the 2.5 mm A/F hexagonal wrench (supplied).

Make the connections to the inlet pipework. Protect the chrome plated surfaces when tightening the compression nuts.



2.13 Turn on the water supplies to the shower mixer and check for any leaks.

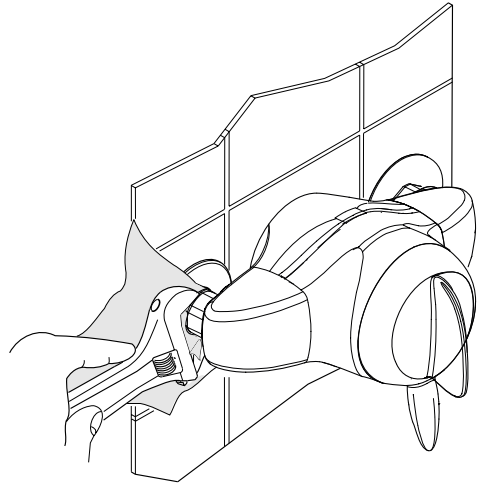
2.14 Turn the flow knob fully anticlockwise for water flow. Operate the temperature knob and make sure that the directional hot and cold indicators are correct.

HOT = anticlockwise

COLD = clockwise

Note! If this is not the case, refer to section: **Reversed inlets.**

Turn the flow knob fully clockwise to stop the water flow.



2.15 This completes the installation of the **Mira Gem 88** for connection to **rear entry inlet supplies.**

Mira Gem 88 B - Built-in Shower Control

The built-in shower control is designed to be concealed into a solid or dry-lined wall structure. A support bracket assembly (optional accessory) is available which can be used to fix the shower control into a shower cubicle, laminated panel, stud partition or dry partition wall.

The building-in depth (to the finished wall surface) is between **50** and **68 mm**. The building-in depth dictates how much of the flow and temperature control knob will be visible through the concealing plate when the installation is completed.

A building-in shroud is supplied to protect the shower control during plastering and tiling and provides a reference for the building-in depth when chasing out the wall.

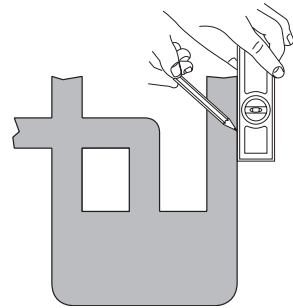
The shower control is not supplied with any interconnecting pipework or plumbing fittings. Inlet and outlet threads are 1/2" BSP female parallel.

The Mira Gem 88 is supplied with inlet connections **hot left, cold right** and **bottom outlet** as standard.

1. Solid or dry-lined wall structures

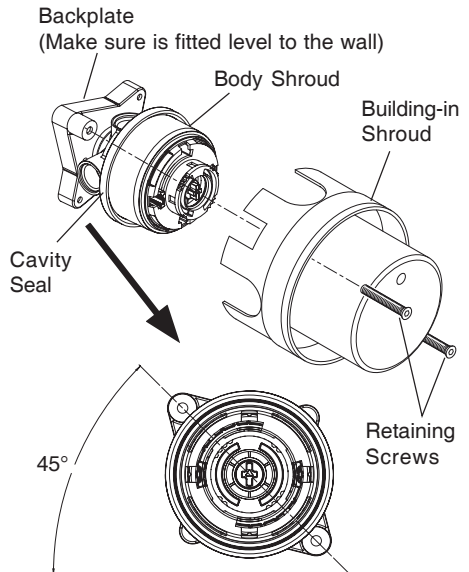
1.1 Make a recess in the wall large enough for the shower control, pipework and plumbing connections.

Make sure that the building-in depth is correct.



1.2 Remove the plastic building-in shroud. The two building-in shroud retaining screws should be screwed temporarily into the base for use later.

Note! Do not remove the Body Shroud or Seal. If the cavity seal or shroud have been removed or are incorrectly fitted, refer to section: **'Refitting the Cavity Seal'**.



1.3 Drill and plug the fixing holes. Using the screws provided, if appropriate, fix the shower control and backplate assembly into the recess, making sure that the two retaining screw holes are at 45° as illustrated. (**Make sure that the shower control inlets are horizontal with the shower control outlet at the top**).

1.4 Install the hot and cold supplies.

1.5 **Thoroughly flush the incoming hot and cold water supply pipes before connecting the shower control.**

1.6 Make the connections to the incoming hot and cold water supply pipes and outlet supply pipe using the appropriate fittings (install the shower outlet pipework).

1.7 Turn on the water supplies and check for any leaks.

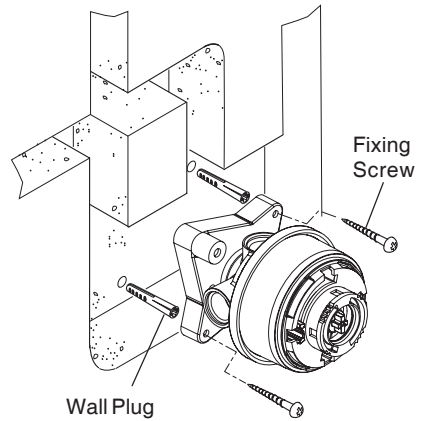
1.8 Refit the plastic building-in shroud over the shower control body and secure with the two shroud retaining screws removed in instruction 1.2.

Plaster and tile to the sides of the plastic building-in shroud (refer to illustration), when set remove the shroud, retain the screws for later use.

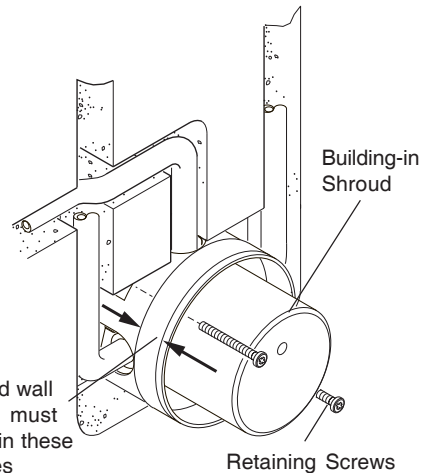
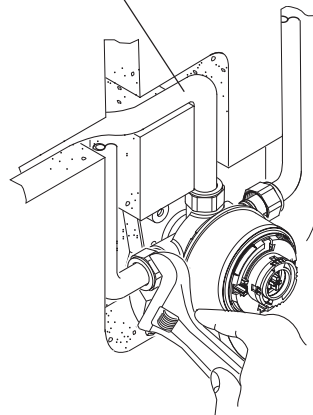
Make sure that the supply pipework is able to maintain free movement in a solid wall and is protected, it is suggested that each pipe is concealed into a suitably sized conduit.

Note! If the shower control is recessed too deep the two shroud retaining screws will not reach the backplate assembly and the shower flow control may foul the concealing plate.

If the cavity seal or shroud have been removed or are incorrectly fitted, refer to section: '**Refitting the Cavity Seal**'.



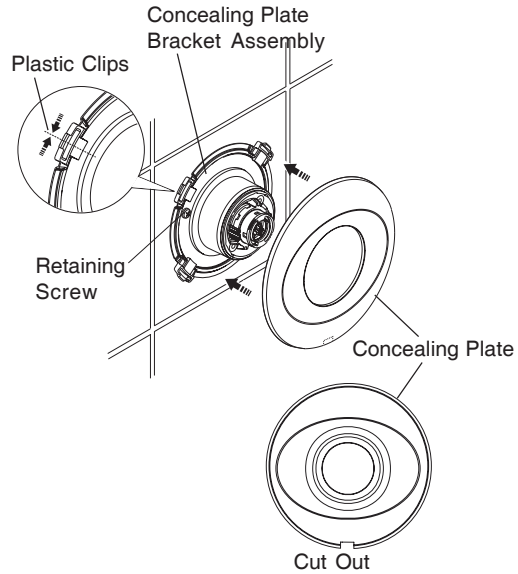
Pipework Set Deeper



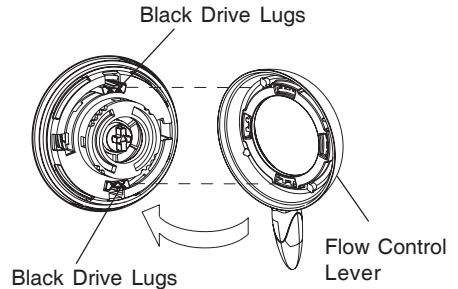
1.9 Fit the concealing plate bracket assembly over the valve and fix to the wall with the two retaining screws (Take care not to damage the foam seal).

1.10 Fit the concealing plate over the valve. Make sure that the plastic clips are aligned centrally on the metal bracket recess as illustrated. The cut out must be facing downwards.

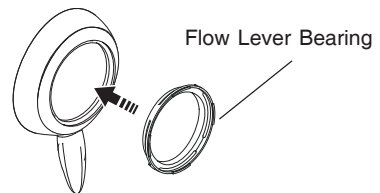
Note! Do not silicone seal the concealing plate to the finished wall surface.



1.11 The black drive lugs should be at the 12 o'clock and 6 o'clock positions. Firmly push the flow control lever, with the handle pointing downwards over the black lugs.



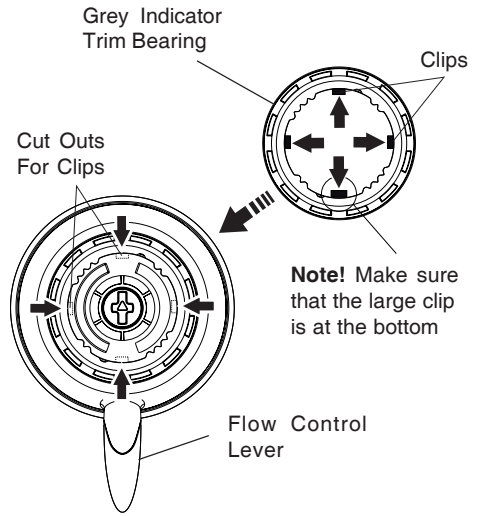
1.12 Push the flow lever bearing into the recess on the flow control lever.



1.13 Lock the flow control lever in position by pushing the grey indicator trim bearing over the cartridge. The four clips on the inner edge of the grey indicator trim bearing should clip into the four cut outs in the cartridge.

Note! Make sure that the larger of the four clips is fitted at the bottom.

Tip! Fit the bottom clip first.



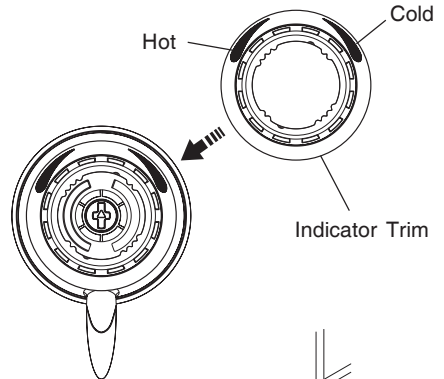
1.14 Locate the indicator trim over the splines of the cartridge. Make sure that the colour temperature graphics are at the top with cold in the clockwise position.

1.15 Make sure that the temperature knob is correctly aligned and push into position until it clicks.

1.16 Install the shower fittings (refer to separate installation guide).

1.17 Turn the flow lever 1/4 of a turn anticlockwise for water flow.

Operate the temperature knob and make sure directional hot and cold indicators are correct.



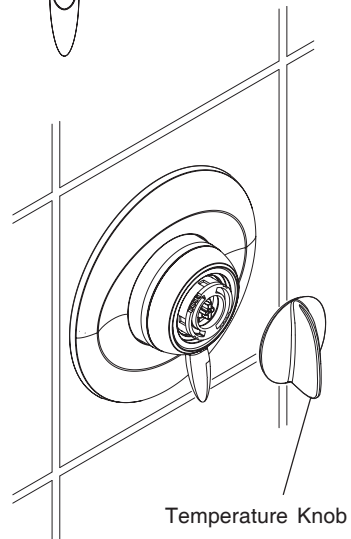
HOT = anticlockwise

COLD = clockwise

Note! If this is not the case refer to section: '**Reversed inlets**'.

Turn flow knob fully clockwise to stop water flow.

1.18 This completes the installation of the **Mira Gem 88 B** into **solid or dry-lined wall structures**.



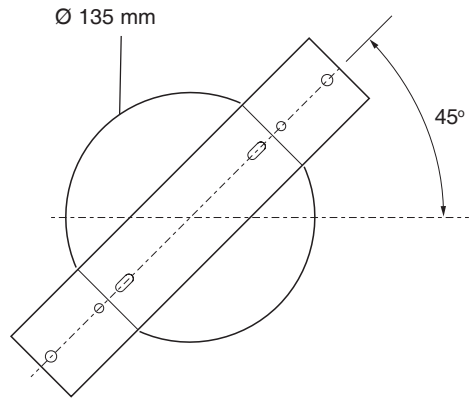
2. Stud partition or dry partition wall structures

The support bracket (from Mira stocklist as an optional accessory) has been designed to allow the shower control to be installed into the front face of a stud partition wall and is recommended for this type of installation. However, installers may wish to consider other options such as fabricated rear supports using wooden noggins, however, these methods of fixing are beyond the scope of this guide.

The building-in depth (to the finished wall surface) is between **50 mm** and **68 mm**. The building-in depth dictates how much of the flow and temperature control knob will be visible through the concealing plate when the installation is completed. The bracket must be fixed into a wall recess at an angle of **45°** from horizontal.

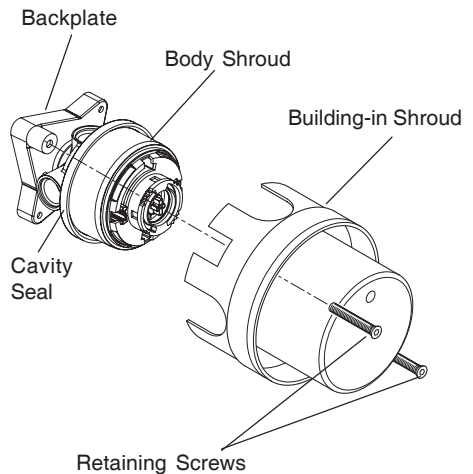
- 2.1** Cut a 135 mm diameter hole in the panel and mark the fixing holes for the support bracket (if used) at 45°.

Make sure that the building-in depth is correct.



- 2.2** Remove the plastic building-in shroud. The two building-in shroud retaining screws should be screwed temporarily into the backplate for use later.

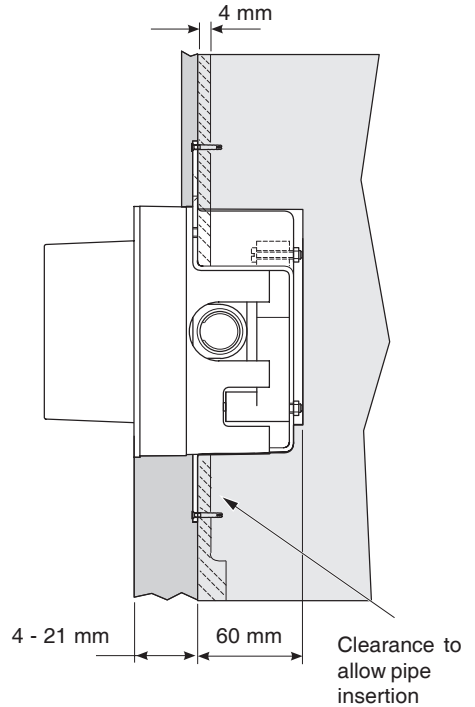
Note! Do not remove the Body Shroud or Seal. If the cavity seal or shroud have been removed or are incorrectly fitted, refer to section: **'Refitting the Cavity Seal'**.



2.3 Fit the shower control to the support bracket with the screws, nuts and washers supplied.

Fix the support bracket and shower control in position using suitable fixing (not supplied).

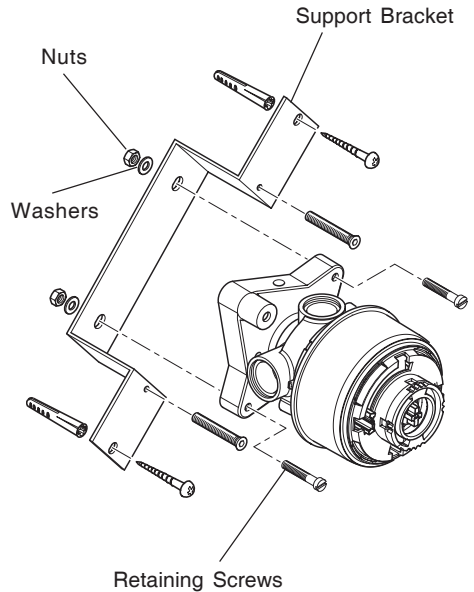
Note! The support bracket requires a clearance depth of **60 mm**, with a wall thickness of **4 mm**. Wall thicknesses in excess of 4mm can be accommodated, but clearance will be required around the inlet and outlet connections to allow insertion of pipe and tightening of compression nuts. The raised portion on the building-in shroud can be used as a depth gauge, to allow a finished wall thickness between 4 and 21 mm.



2.4 Drill and suitably plug the four marked fixing holes.

2.5 Secure the support bracket to the wall with the screws and plugs provided.

2.6 Follow the shower control installation procedure as for "**Solid or dry-lined wall structures**": **instructions 1.4 to 1.17 inclusive** to complete the installation.

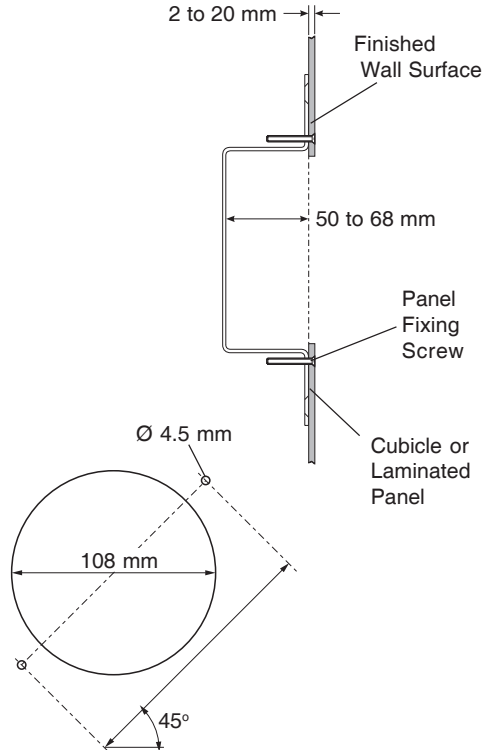


3. Shower cubicle or laminated panel

The support bracket (optional) is recommended to fit the shower control into a shower cubicle or laminated panel **2 - 20 mm** thick.

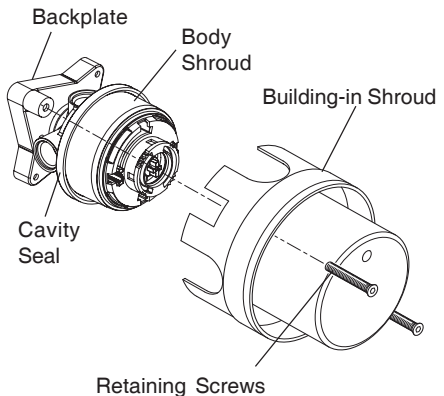
The dimension from the bracket to the finished wall surface is **50 - 68 mm**.

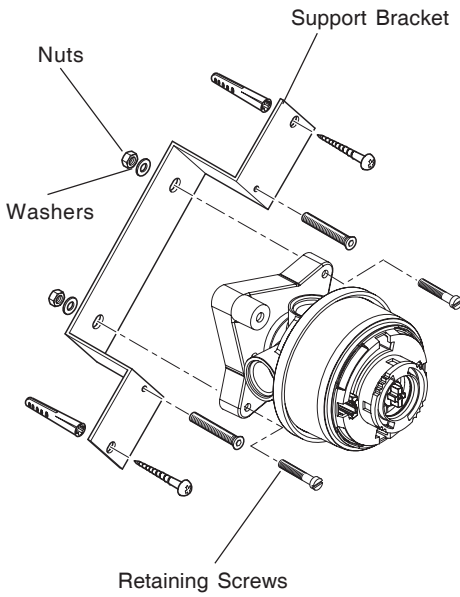
3.1 Cut a **108 mm** diameter hole in the panel and drill two **4.5 mm** holes at **138 mm** centres at an angle of **45°** from the horizontal.



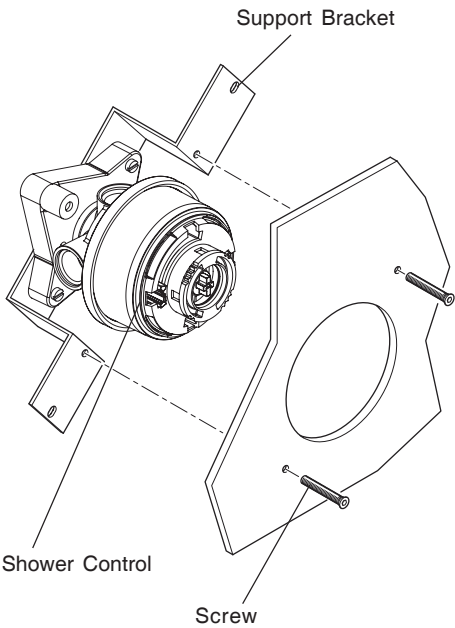
3.2 Remove the plastic building-in shroud. The two building-in shroud retaining screws should be screwed temporarily into the backplate for use later.

Note! Do not remove the Body Shroud or Seal. If the cavity seal or shroud have been removed or are incorrectly fitted, refer to section: **'Refitting the Cavity Seal'**.





3.3 Fit the shower control and the backplate to the support bracket with the screws, the nuts and the washers supplied.

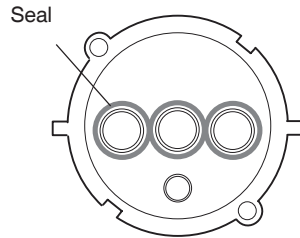


3.4 Secure the bracket to the wall with the screws provided.

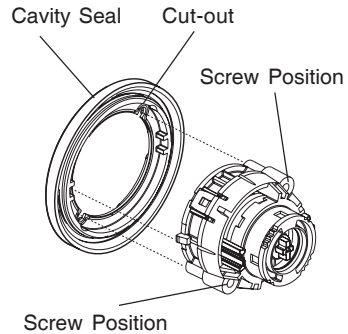
3.5 Follow the shower control installation procedure as for **Solid or dry-lined wall structures instructions 1.4 to 1.7 and 1.9 to 1.17.**

REFITTING THE CAVITY SEAL

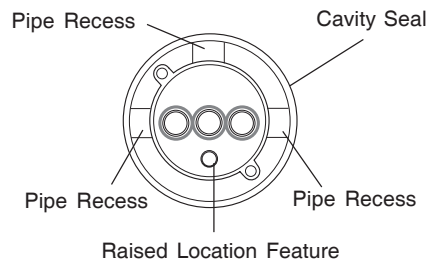
1. Unscrew and remove the two cartridge retaining screws and remove the cartridge from the body.
2. Check that the seal on the base of the cartridge is clean and fitted.



3. Align the cut-outs on the cavity seal with the screw positions on the cartridge.



4. Make sure that the pipe recesses on the cavity seal are aligned as illustrated.



5. Place the cavity seal and the cartridge assembly on a flat surface.

6. Align the cut-outs on the shroud with the screw positions on the cartridge. Push down firmly on the shroud while lifting the edge of the cavity seal over the lip of the shroud.

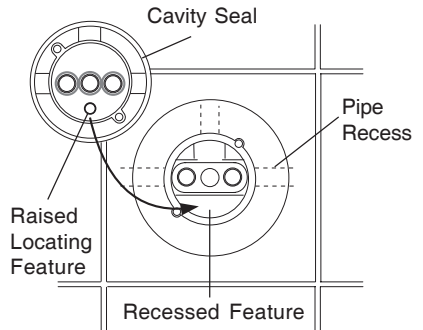
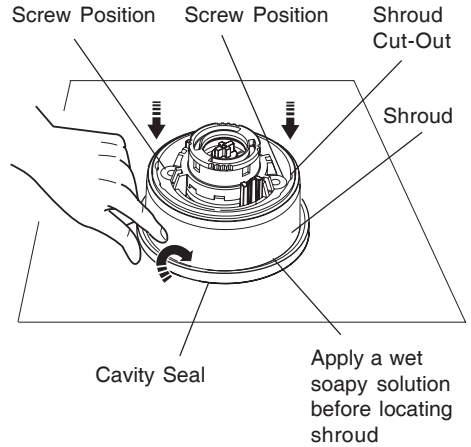
Note! A wet soapy solution applied around the edge of the cavity seal will aid location.

7. Note the raised locating feature on the cartridge, align this feature as shown with the recessed feature in the brass body. Push the cartridge firmly into position.

Caution! If the cartridge is not positioned correctly the shower will leak from the body when the water supply is turned on.

8. Secure the cartridge into position with the two cross head screws.

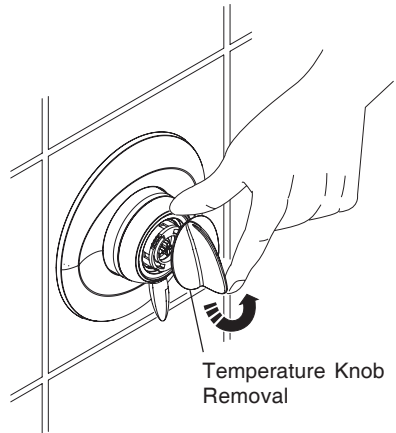
Caution! Do not overtighten the screws as you may damage internal components.



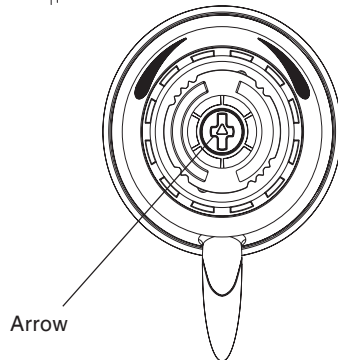
REVERSED INLETS

In the event that the temperature control is not functioning as described, anticlockwise **HOT** and clockwise **COLD**, then follow the instructions below.

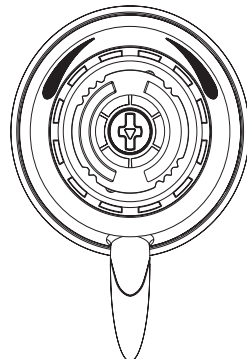
1. Make sure the temperature control is positioned with the levers pointing down, as illustrated.



2. Unclip the temperature knob by hand to access the cartridge spindle. The arrow on the spindle must be in the upwards position.



3. Rotate the temperature spindle through 180° until the arrow points downwards to reverse the inlets.



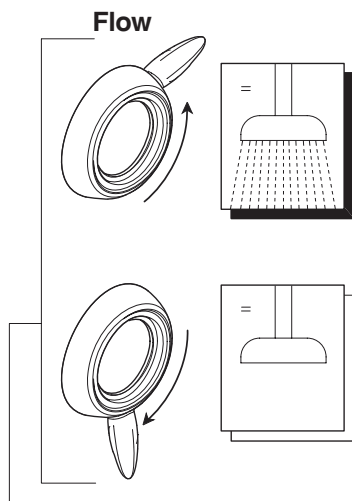
4. Fit the temperature knob.

OPERATION

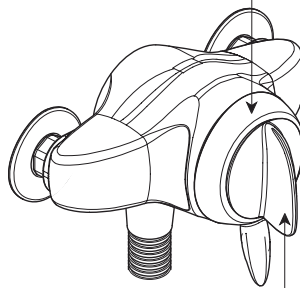
Warning!

The temperature control can be turned from **FULL HOT** to **FULL COLD**. As such, turning the control to full hot will deliver water at the hot water storage temperature.

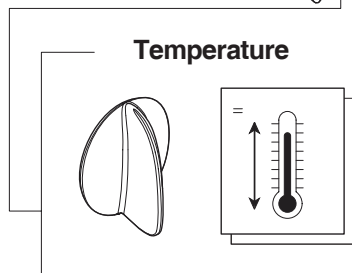
1. Turn the flow control lever 1/4 of a full turn anticlockwise to turn the water on or clockwise to turn the water off.



2. Turn the temperature control knob in the direction of the red arrow for warmer water and in the direction of the blue arrow for cooler water, until the desired temperature of water is obtained.



Note! If this is not the case refer to section: **Reversed inlets**.



MAINTENANCE

Fault diagnosis

Read the section “**Important Safety Information**” first.

Mira products are fully performance tested after assembly. In the unlikely event that you experience problems with your shower the following procedure will enable you to undertake basic fault finding before contacting Kohler Mira Limited for further assistance or spare parts as necessary.

If after completing the checks no improvement in performance is experienced, then further investigation should be undertaken by the person responsible for installing your shower. Only competent persons should remove the cover of the shower control.

Malfunction	Cause	Remedy
Cold water flow from the shower handset.	a) Hot water used up. b) Low water temperature, setting of hot water system (typically 60° - 65°C). c) Cold supply pressure too high relative to hot.	Wait for the water to reheat. Contact the person responsible for installing your shower. Refer to section: Installation Notes for plumbing advice.
No flow or low flow rate from the shower handset.	a) Spray plate blocked. b) Stop or servicing valve in supply pipe partially closed. c) Head of water below minimum required. d) Wrong handset or spray plates for available pressure.	Clean spray plate. Open valve/s. Raise cistern or fit Mira pump. Fit correct handset or change spray plates.
Cold water when hot is selected or vice versa.	a) Reversed inlets.	Refer to section: Reversed Inlets.
Too high flow when flow control is fully open.	a) Mixer installed on a High pressure system. Note! This shower is not suitable for combination boilers or instantaneous water heaters.	Fit the flow regulator supplied
Drip from the shower handset.*	a) Defective flow control seals, possibly caused by failure to flush pipework prior to installation.	Replace cartridge. Refer to section: Parts list.

* A small amount of water may be retained in the shower head after the shower control has been turned off. This may drain off over a period of minutes and should not be confused with a "Defective flow control".

General

The Mira Gem 88 shower control is precision engineered to provide satisfactory performance provided that it is installed and operated in accordance with our recommendations contained in this guide.

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.

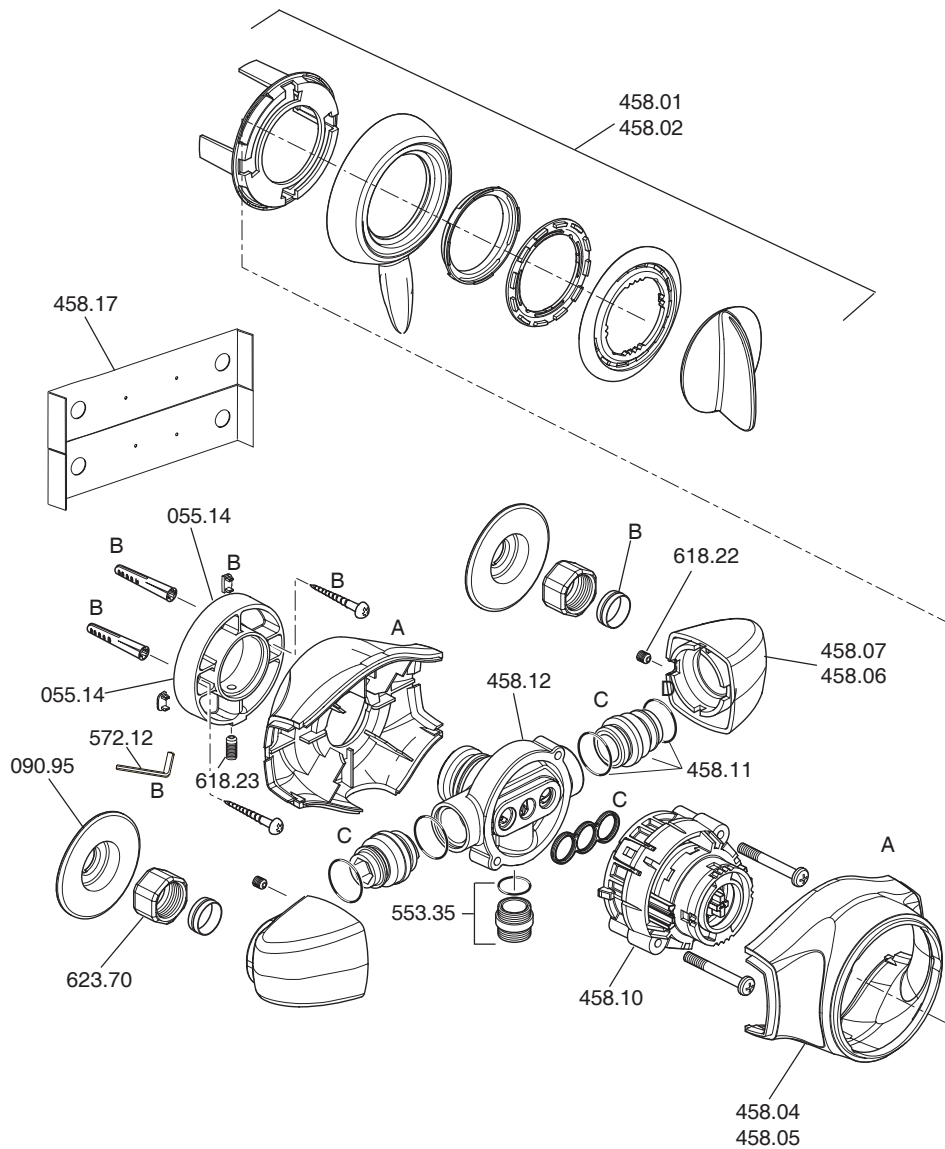
You may, if you wish, choose to engage the services of a Mira Service Engineer or Agent, the terms of which are outlined on the back page of this guide.

SPARE PARTS

Mira 88 spare parts list

055.14	Backplate Assembly
090.95	Pipe Concealing Plate - chrome
458.01	Handle pack - chrome
458.02	Handle pack - white
458.04	Body trim pack - chrome - components identified 'A'
458.05	Body trim pack - white - components identified 'A'
458.06	Elbow pack - chrome
458.07	Elbow pack - white
458.10	Cartridge
458.11	Inlet connector
458.12	Body
458.13	Component pack - Exposed chrome - components identified 'B'
458.14	Component pack - Exposed white - components identified 'B'
458.15	Seal pack - components identified 'C'
458.17	Installation template
458.19	Flow Regulators pack (Not illustrated)
553.35	Nipple Assembly - chrome
575.12	2.5 mm A/F Hexagonal Wrench
618.22	Grub screw
618.23	Grub screw
623.70	Compression Nut - chrome

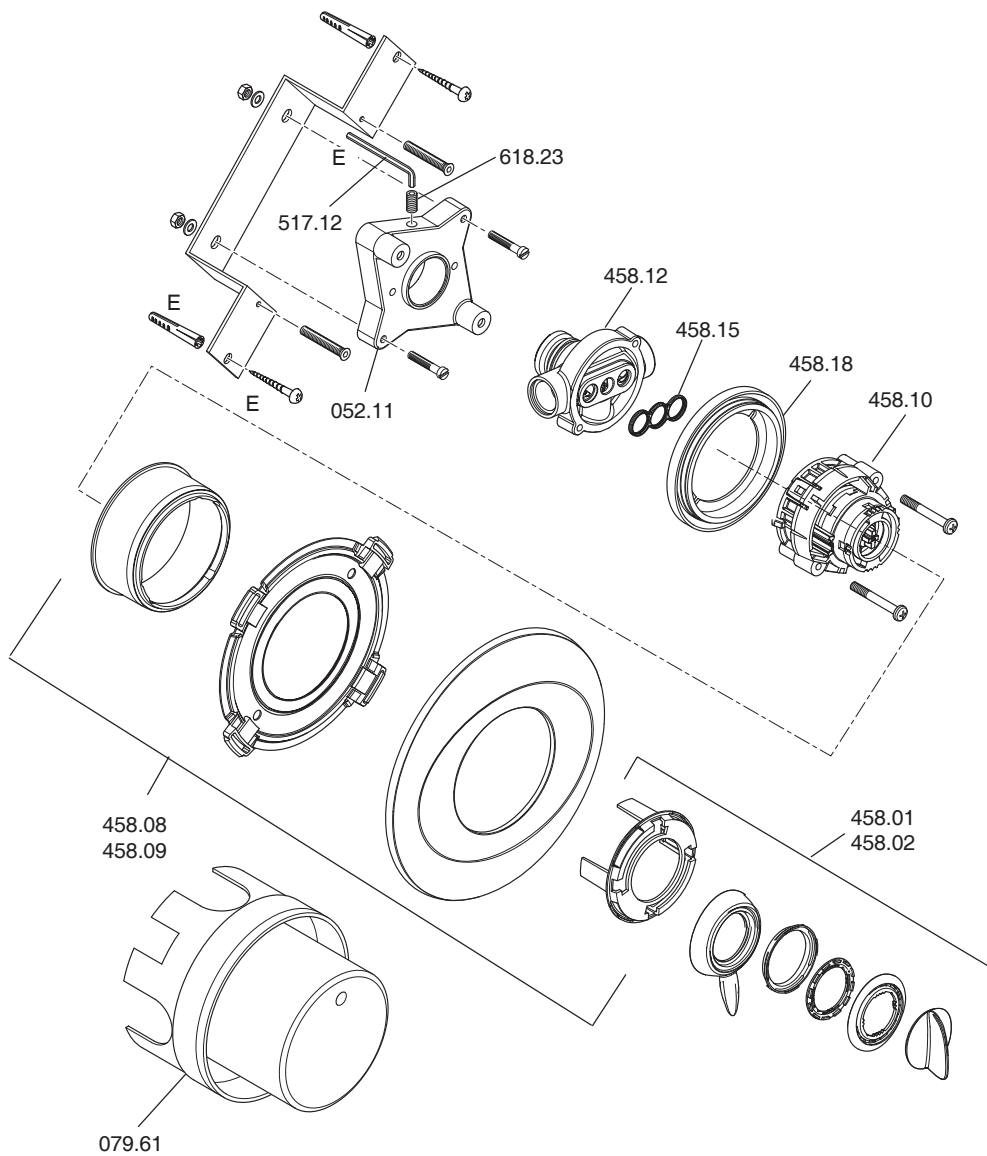
Mira Gem 88 spare parts diagram



Mira Gem 88 B spare parts list

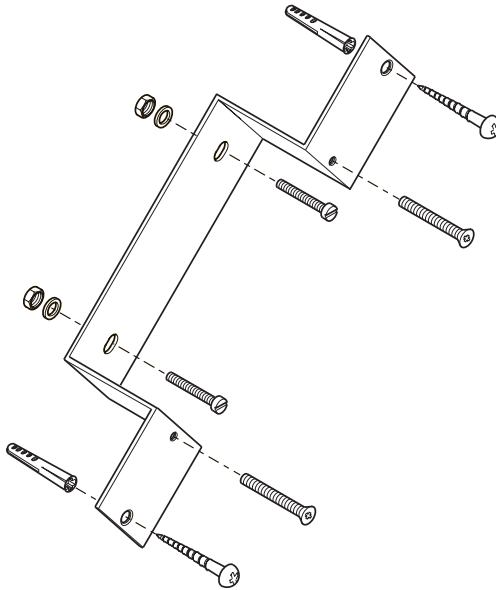
052.11	Backplate Assembly
079.61	Building-in Shroud
458.01	Handle pack - chrome
458.02	Handle pack - white
458.08	Concealing plate assembly
458.09	Concealing plate assembly
458.10	Cartridge
458.12	Body
458.16	Concealing plate mounting kit - components identified 'D'
458.18	Cavity seal
458.19	Flow Regulators pack (Not illustrated)
458.20	Component Pack - components identified 'E'
575.12	2.5 mm A/F Hexagonal Wrench
618.23	Grub screw

Mira Gem 88 B spare parts diagram

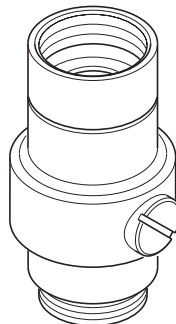


ACCESSORIES

Support Bracket: Allows the shower control to be fitted into a shower cubicle, stud partition or dry partition wall. Available as optional accessory from your Mira stockist.



DCV-H: An outlet double check valve, requiring a minimum inlet supply pressure of 0.5 bar, which has been designed to prevent the backflow or back-siphonage of potentially contaminated water, through shower controls which are fitted with a flexible hose as part of the outlet shower fitting. Available as an optional accessory from your Mira stockist.



NOTES

NOTES

NOTES

CUSTOMER SERVICE

Guarantee of Quality

Mira Showers guarantee your product against any defect in materials or workmanship for the period shown in the Guarantee Registration Document included with your shower.

Alternatively, to confirm the applicable guarantee period please contact Customer Services.

To validate the guarantee, please return your completed registration card.

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

To be free of charge, service work must only be undertaken by Mira Showers or our approved agents in Northern Ireland and Republic of Ireland.

Service under this guarantee does not affect the expiry date. The guarantee on any exchanged parts or product ends when the normal product guarantee period expires.

Not covered by this guarantee:

Damage or defects arising from incorrect installation, improper use or lack of maintenance, including build-up of limescale.

Damage or defects if the product is taken apart, repaired or modified by any person not authorised by Mira Showers or our approved agents.

This guarantee is in addition to your statutory and other legal rights.

Before using your shower

Please take the time to read and understand the operating and safety instructions detailed in this manual.

What to do if something goes wrong

If when you first use your shower it doesn't function correctly, first contact your installer to check that installation and commissioning are satisfactory and in accordance with the instructions in this manual. We are on hand to offer you or your installer any advice you may need.

Should this not resolve the difficulty, simply contact our Customer Services who will give every assistance, and if necessary arrange for our service engineer to visit.

If later the performance of your shower declines, consult this manual to see whether simple home maintenance is required. Please call our Customer Services to talk the difficulty through, request service under guarantee if applicable, or take advantage of our comprehensive After-Sales service.

As part of our quality and training programme calls may be recorded or monitored.

Our Customer Services Team is comprehensively trained to provide every assistance you may need: help and advice, spare parts or a service visit.

Spare Parts

We maintain an extensive stock of spares, and aim to have functional parts available for ten years from the date of final manufacture of the product.

Spares can be purchased from approved stockists or merchants (locations on request) or direct from Customer Services.

Spares direct will normally be despatched within two working days. Payment can be made by Visa or MasterCard at the time of ordering. Should payment by cheque be preferred a pro-forma invoice will be sent.

Note! In the interests of safety, spares requiring exposure to mains voltages can only be sent to competent persons.

Service

Our Service Force is available to provide a quality service at a reasonable cost. You will have the assurance of a Mira trained engineer/agent, genuine Mira spares, and a 12 month guarantee on the repair.

Payment should be made directly to the Service Engineer/Agent, using Visa, MasterCard or a cheque supported by a banker's card.

To Contact us

England, Scotland & Wales

Mira Showers Customer Services

Telephone: 0870 241 0888 - Mon to Fri 8:00 am - 5:30 pm
Sat 9:00 am - 4:00 pm

E-mail: technical@mirashowers.com

Fax: 01242 282595

By Post: Cromwell Road, Cheltenham
Gloucestershire, GL52 5EP

Northern Ireland

Wm H Leech & Son Ltd

Telephone: 028 9044 9257 - Mon to Fri 9:00 am - 5:00 pm

E-mail: leech@dnet.co.uk

Fax: 028 9044 9234

Post: Maryland Industrial Estate
Ballygowan Road, Moneyreagh
Co Down, BT23 6BL

Republic of Ireland

Modern Plant Ltd (Dublin)

Telephone: 01 459 1344 - Mon to Fri 9:00 am - 5:00 pm

E-mail: sales@modernplant.ie

Fax: Dublin 01 459 2329

Post: Otter House, Naas Road
Clondalkin, Dublin 22

Modern Plant Ltd (Cork)

Telephone: 021 496 8755 - Mon to Fri 9:00 am - 5:00 pm

E-mail: cork@modernplant.ie

Fax: 021 496 8607

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