# Mira Minilite Built-In Mira Minilite BIV Mira Minilite BIR



These instructions must be left with the user

### Installation & User Guide

Showering perfection



## **Important Safety Information**

WARNING! This shower can deliver scalding temperatures. For continued safe operation, follow all instructions, warnings and cautions contained in this guide and on or inside the shower. Periodic maintenance may be required to keep the product in good working 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.

# PLEASE OBSERVE THE FOLLOWING TO REDUCE THE RISK OF INJURY:

## INSTALLING THE SHOWER

- 1. Installation of the shower must be carried out in accordance with these instructions by qualified, competent personnel. Read all instructions before installing the shower.
- 2. DO NOT install the shower where it may be exposed to freezing conditions. Ensure that any pipework that could become frozen is properly insulated.
- **3. DO NOT** perform any unspecified modifications, drill or cut holes in the shower or fittings other than instructed by this guide. When servicing only use genuine Kohler Mira replacement parts.
- **4.** If the shower is dismantled during installation or servicing then, upon completion, an inspection must be made to ensure all connections are tight and that there are no leaks.

## USING THE SHOWER

5. The shower must be operated and maintained in accordance with the requirements of this guide. Make sure you fully understand how to operate the shower before use, read all instructions and retain this guide for future reference.

- 6. DO NOT switch the shower on if there is a possibility that the water in the shower unit or fittings is frozen.
- 7. The shower can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children must not be allowed to play with the shower.
- 8. 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.
- **9. DO NOT** allow children to clean or perform any user maintenance to the shower unit without supervision.
- **10.** Always check the water temperature is safe before entering the shower.
- **11. DO NOT** adjust the temperature control rapidly while using the shower.
- **12.** Use caution when altering the water temperature while in use, always check the temperature before continuing to shower.
- **13. DO NOT** switch the shower off and back on while standing in the water flow.
- **14. DO NOT** connect the outlet of the shower to any tap, control valve, trigger handset or showerhead other than those specified for use with this shower. Only Kohler Mira recommended accessories must be used.
- **15.** The showerhead must be descaled regularly. Any blockage of the showerhead or hose may affect showering performance.

## Introduction

Thank you for choosing a Mira shower. To enjoy the full potential of your new shower, please take time to read this guide thoroughly, and keep it handy for future reference. Products manufactured by Kohler Mira Ltd are designed to be safe, provided that they are installed, used and maintained in good working order, in accordance with our instructions and recommendations.

Follow all warnings, cautions and instructions contained in this guide, and on, or inside the shower. This guide is also available in digital format from our website or by contacting our customer services department. Details can be found on the back of this guide.

This product should not be disposed of with your general household waste. When this product has reached the end of its serviceable life please take it to a recognised facility such as your local civic amenity site for recycling.

Your local authority or retailer will be able to advise you of your nearest recycling facility.

### Type 2 Valves

This product has been certified as a Type 2 valve. It also complies with the Water Supply (water fittings) regulations 1999. For further information on Type 2 Valves, refer to the *TMV2 Requirements Manual*. The approved designation for this product is listed in the table below.

Product	Model Number	Colour	Type 2 Designation
Mira Minilite BIV	B97B	Chrome	e HP-S, HP-SE, LP-S
Mira Minilite BIR	B97Bc		
Mira Minilite Built-In (shower unit only)	B97Bd		

Mira Mixer Showers covered by this guide:

## Guarantee

This product has been designed for **domestic use only**. Mira Showers guarantee this product against any defect in materials or workmanship for a period of **five** years from the date of purchase (shower fittings for **one** year).

Failure to follow the instructions provided with the shower will invalidate the guarantee.

## Recommended Usage

Recommended Usage		
Domestic	$\checkmark$	
Light Commercial	×	
Heavy Commercial	×	
Healthcare	×	

## Patents

### Patents:

GB 2 422 886 Euro: 1 672 257 DE, FR, GB, IT, NL, SE USA: 8 167 215

### **Patent Application:**

Euro:	07015846.4
USA:	US-2010-0219255-A1
PCT:	GB 2011/050810
	GB 2012/051147

## **Pack Contents**



## **Additional Items Required**







Waterproof Tanking Adhesive (see 'Installation - General' for details)

Compression Cap (suitable for 15mm copper pipe) Silicone Sealant

Plumbing				
Maximum Static Pressure	1000 kPa (10 bar)			
Maximum Maintained Pressure	500 kPa (5 bar)			
Minimum Maintained Pressure	10 kPa (0.1 bar = 1 metre head from base of cold tank to showerhead)			
For optimum performance hot and cold water supplies should be nominally equal.				
Temperature Range - HOT	60°C - 65°C			
Temperature Range - COLD	2°C - 25°C			
Minimum Temperature Difference between HOT supply and OUTLET temperature	12°C (required to ensure safe shut down within 2 seconds if either HOT or COLD supplies fail)			
Inlet	15mm Male Compression			
Outlet	Mira Hub (Mira Minilite BIR) (Mira Minilite Built-In)	15mm Male Compression		
	Right Angle Connector (Mira Minilite BIV)	1/2" BSP Flat Face to flexible hose		

For Type 2 Valves, the supply conditions specified in the TMV2 Requirements Manual take precedence over the above values.



All dimensions in millimetres 1282642-W2-A

### **Suitable Plumbing Systems**

### Gravity Fed:

The shower must be fed from a cold water cistern (usually located in the loft space) and a hot water cylinder (usually located in the airing cupboard) providing nominally equal pressures.

### Gas Heated System:

The shower can be installed with a combination boiler provided the hot and cold water supply pressures are balanced when entering the shower.

### **Unvented Mains Pressure System:**

The shower can be installed with an unvented, stored hot water system.

### Mains Pressurised Instantaneous Hot Water System:

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

### **Pumped Systems:**

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.

### General

- 1. Installation of the shower must be carried out in accordance with these instructions by qualified, competent personnel.
- 2. The plumbing installation must comply with all national or local water regulations and all relevant building regulations, or any particular regulation or practice specified by the local water supply company.
- Make sure all pressures and temperatures comply with the requirements of the shower. See 'Specifications'. For Type 2 Valves, refer to supply conditions given in the TMV2 Requirements Manual.
- Full bore/non restrictive isolating valves must be fitted in a readily accessible position adjacent to the shower to facilitate maintenance of the shower.
  DO NOT use a valve with a loose washer plate (jumper) as this can lead to a build up of static pressure.
- 5. Use copper pipe for all plumbing.
- DO NOT apply excessive force to plumbing connections; always provide mechanical support when making plumbing connections. Any soldered joints should be made before connecting the shower. Pipework must be rigidly supported and avoid any strain on the connections.
- 7. Pipework dead-legs should be kept to a minimum.

- 8. The wall cavity must provide sufficient support for the shower unit. The 4 cavity fixing screws (No. 10 x 2") and wall plugs supplied are suitable for most solid wall and stud partition installations. Use all 4 fixing points to secure the shower unit, be sure to use fixings appropriate for the chosen wall structure. Alternative fixing brackets for panel structures are available as a separate accessory. The front concealing plate must be fitted to a waterproof, flat and even wall surface.
- 9. Position the shower unit where the control handle is at a convenient height for the user. Position the showerhead so that the water sprays in line with the bath or across the opening of a shower cubicle. The installation must not cause the shower hose to be kinked during normal use or obstruct the use of the control handle.
- 10. A suitable waterproof shower tanking adhesive is required for the fabric wall seal supplied. We recommend a liquid based plumbing type to be applied with a paint brush, available from tile/builder merchants. A sufficient amount is required for coating the fabric seal twice during the installation.
- 11. The position of the shower outlet (right angle connector) and hose retaining ring must provide a minimum air gap of 25mm between the showerhead and the spill over level of any bath, shower tray or basin. There must be a minimum distance of 30mm between the showerhead and the spill over lever of any toilet, bidet or other appliance with a Fluid Category 5 backflow risk.



Note! There will be occasions when the hose retaining ring will not provide a suitable solution for Fluid Category 3 installations. In these instances an outlet double checkvalve must be fitted, this will increase the required supply pressure typically by 10 kPa (0.1 bar). Double checkvalves fitted in the inlet supply to the appliance cause a pressure build up, which affects the maximum static inlet pressure for the appliance and must not be fitted. For Fluid Category 5. double checkvalves are not suitable.

12. The water supplies to the shower unit should be isolated if the shower is not to be used for a long period of time. If the shower unit or pipework is at risk of freezing during this period they should also be drained of water.

### Installation of the Shower Unit

Warning, isolate the water supplies before installing the shower!



Decide on a suitable position for the shower unit and fittings. See *'Installation - General'* for further details.



Determine the pipework route. HOT and COLD supplies can be reversed. Position the outlet so that the shower hose will not obstruct the control handle and the fixing screws will avoid the outlet pipe.



Create a suitable cavity for the Mira hub and the pipework.

Secure the Mira hub into the cavity. Use a 6mm diameter drill to suit the wall plugs supplied.



Fit the inlet pipework and connect to the Mira hub using the compression nuts and olives supplied. Hold the Mira hub securely while tightening the joints.



This option is available using the *Panel Brackets Accessory*, contact our customer services department for further information.



Fit the outlet pipework ready for connection to either a right angle connector for a handset, slide bar and hose (adjustable fitting), or a shower arm for a fixed spray head (rigid fitting).



A flushing cup is prefitted into the Mira hub to aid in flushing any dirt or debris from the pipework.

A compression type pipe cap is required to test the Mira hub's inlet and outlet joints for leaks.





Open the water supply and flush left hand side.

Isolate the water, refit the cap to the outlet. Re-open the water supply, check left hand joint for leaks.

6.6

6.7

6.5



Isolate the water. Remove the cap, keep the flushing cup fitted.



Build a surface up to the sides of the Mira hub ready for waterproof finishing.

8



Apply a liberal coat of waterproof adhesive around the Mira hub.

Use a suitable waterproof shower tanking adhesive. We recommend a liquid based plumbing type to be applied with a paint brush, available from tile/builder merchants. A sufficient amount is required for coating this area twice during the installation.



Fit the fabric wall seal and press flat around the edges, creating a radius around the sides of the Mira hub.



Apply further adhesive over the fabric wall seal and around the sides of the Mira hub. Allow to the adhesive to set. Follow the manufacturer's instructions for curing time.



Finish the wall surface. A distance of 14 - 25mm should protrude from the finish.

1282642-W2-A

9



Taking care to prevent damage to the wall finish, trim the Mira hub back to within 3mm from the finished wall surface.



Apply silicone sealant to fill the gap around the Mira hub.





Remove the control handle and temperature trim from the shower control unit.



Make sure both water supplies are isolated and remove the flushing cup. Keep the screws for further use.



Fit the shower control unit into the Mira hub and secure with the screws.

BLUE = COLD

### **Reversed Inlet Supplies**



If the HOT inlet supply is on the RIGHT HAND side, the shower cartridge must be fitted as shown.

Rotate the cartridge by  $180^{\circ}$  and fit into the Mira hub. Remove the parts shown to remove the chrome trim. Rotate the trim by  $180^{\circ}$  and refit.





Carefully unclip the backplate from the concealing plate.

Fit and secure the backplate flat against the wall with the two screws supplied.

DO NOT overtighten the screws.

Clip the concealing plate over the backplate.



Refit the control handle and trim. Tighten the Hex screw and refit the concealing cap.



(SHOWER UNIT ONLY)

Fit the right angle connector or shower arm (see separate instructions for shower arm and deluge head).

One of the Flow Regulators supplied must be fitted to the outlet. Return to this guide for details of how to fit the item depending on the type of spray outlet.



MIRA MINILITE BUILT-IN (SHOWER UNIT ONLY)

Fit the 12 L/min (red) flow regulator as part of the shower fitting. This may be changed to the 6 L/min (black) supplied. (For Mira Minilite BIV continue to step 23.)

We recommend the following as a general guideline for water pressures:

12 L/min (red) for maintained (running) water pressure greater than 0.5 bar. To help resolve issues such as:

- Excessive shower force.
- Noise due to high or unequal water pressure.
- Unstable supply temperatures.

6 L/min (black) for maintained (running) water pressure greater than 0.5 bar to conserve the most water while showering.

**Note!** The flow regulator may affect the performance of some combination boilers while the shower is running. Check with the boiler's manufacturer before fitting the flow regulator.

Remove the flow regulator if the maintained (running) water pressure is less than 0.5 bar or the shower force is too low.

The shower must be tested before use, see 'Commissioning' for full instructions.

23

The following instructions are for installing the *right angle connector* supplied with *Mira Minilite BIV*.



Trim the pipework back to the required depth from the finished wall surface. Remove all burrs and sharp edges.

24



Disassemble the right angle connector assembly and mark the locations of the screw fixings.



Drill the fixing holes. (7 mm diameter for screws supplied.) **DO NOT** drill through the backplate into the wall. **DO NOT** drill into buried cables or pipes.



Secure the backplate to the wall so the foam seal is compressed fully.

Fit the pipe collar and lock. Re-check the pipe length.

<sub>59 - 33</sub>mm

collar

lock

27



Open the water supplies. Turn the shower on and flush the pipework to clear all debris.



Turn the shower off. Fit the O-seal and elbow.



Turn the shower on and check for leaks.



Fit the cover. Carefully lift the cover to locate the screw. Fully unscrew to lock using the 2.5mm hex key supplied. Fit the adjustable slide bar, hose and handset. See separate instructions for these fittings.



Fit the 12 L/min (red) flow regulator into the outlet of the right angle connector. This may be changed to the 6 L/min (black) supplied.

We recommend the following as a general guideline for water pressures:

12 L/min (red) for maintained (running) water pressure greater than 0.5 bar. To help resolve issues such as:

- Excessive shower force.
- Noise due to high or unequal water pressure.
- Unstable supply temperatures.

6 L/min (black) for maintained (running) water pressure greater than 0.5 bar to conserve the most water while showering.

**Note!** The flow regulator may affect the performance of some combination boilers while the shower is running. Check with the boiler's manufacturer before fitting the flow regulator.

Remove the flow regulator if the maintained (running) water pressure is less than 0.5 bar or the shower force is too low.



Connect the hose to the right angle connector. Use the washers supplied with the shower hose to seal the connections. Turn the water supply on. The shower must be tested before use, see *'Commissioning'* for full instructions.

WATER

FLOW

## Commissioning

Follow this procedure to check and adjust the temperature before using the shower for the first time. Make sure that all users are familiar with the operation of the shower. This guide is the property of the homeowner.

The shower's maximum temperature (full hot) has been preset to 41°C at the factory, but due to site conditions may require adjustment.

**Note!** For Type 2 installations the maximum temperature is determined by application, refer to the *TMV2 Requirements Manual*.

If you experience any difficulty with the operation of your new shower, then please refer to *'Fault Diagnosis'*, before contacting Kohler Mira Limited.

The following procedure requires an adequate supply of hot water at a minimum temperature of  $55^\circ C.$ 



Turn the handle clockwise and test that the shower controls the temperature from cold to hot. Allow a few seconds for any temperature adjustment to take effect.



Turn to maximum temperature (full hot) and allow the temperature and flow to stabilise.



Turn the shower off. If the maximum temperature needs to be either warmer or cooler, remove the cap, loosen the screw with the hex key supplied and remove the handle and temperature trim.



Remove the screw with the hex key and remove the handle drive.



Lift and adjust the position of the red stopper on the back of the handle drive.

- + = warmer
- = cooler



Refit the handle drive and screw. Turn back to full hot. Make sure the stopper operates correctly and the temperature is at the desired level.



Turn off again. Refit the handle and temperature trim. Tighten hex screw and refit the concealing cap.

## Operation

Please read 'Important Safety Information' before using the shower for the first time.



Turn the handle clockwise to start the shower and adjust the temperature from COLD to HOT.



Allow a few seconds for any temperature adjustment to take effect.

Allow temperature to stabilise before making a new adjustment.



Check the water temperature before entering the shower. The maximum temperature (full hot) position can be adjusted, see **'Commissioning'**.



Stop the shower by turning the handle anticlockwise fully.



Residual water may drain for a few minutes.

5

### WARNING! PLEASE OBSERVE THE FOLLOWING TO REDUCE THE RISK OF INJURY OR PRODUCT DAMAGE:

- DO NOT allow children to clean or perform any user maintenance to the shower unit without supervision.
- If the shower is not to be used for a long period, the water supply to the shower unit should be isolated. If the shower unit or pipework is at risk of freezing during this period, a qualified, competent person should drain them of water.

## **Cleaning/Replacing Filter**



Isolate the water supplies and turn the shower on to relieve the water pressure.



Turn the shower off. Remove the cap, loosen the screw with the hex key supplied and remove the handle and temperature trim.





Carefully unclip the concealing plate.



Remove the parts shown to access the shower's control cartridge.



Remove the screws and cartridge. **Caution!** Water will drain from the Mira hub.

7

Remove the seals/filters and inspect for damage or debris blockage.



Rinse each filter in clean warm water, removing any dirt or debris. Renew if the filter mesh is damaged. Refit the seals/filters making sure the parts are fitted into the grooves fully.



Refit the shower cartridge and screws. Restore the water supplies and check for leaks. Refit the concealing plate parts without overtightening the screws.



Refit the control handle and trim. Check the operation of the shower.

### 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.

**Important!** The showerhead must be descaled regularly. Keeping the shower spray clean and free from limescale will ensure that your shower continues to give the best performance. Limescale build up can restrict the flow rate and may cause damage to your shower.

### **In-service Tests**

The principal means for determining the continuing satisfactory performance of the shower unit is the in-service test, refer to the *TMV2 Requirements Manual*.

Frequency of In-service Tests - Commercial (non-domestic installations) Check for correct blend setting every 6 months.

## **Fault Diagnosis**

Only use genuine Kohler Mira replacement parts.

If you require a Mira trained service engineer or agent, please see '*Customer Service*' on the back cover of this guide.

Symptom	Cause	Recommended Action
Only hot or cold water from the shower.	Water inlets are reversed (hot supply to cold supply).	Adjust the shower unit cartridge. See ' <i>Reversed Inlet Supplies</i> '.
The shower temperature is either too hot or too cold.	No hot or cold water reaching the shower unit.	Check there is an adequate supply of hot water. See ' <b>Specifications</b> '.
		Check the filters for any blockage. See <b>'User Maintenance'</b> .
		A combination type boiler may not produce sufficient hot water for the desired flow rate, see <b>'Specifications'</b> . Fit the flow regulator supplied to the outlet of the shower unit. For more information, contact Mira Showers of visit <b>www.mirashowers.co/uk</b>
Fluctuating or reduced flow rate.	Hose, shower head or filter blocked.	Remove and clean. Check hose and replace if necessary. Check the filters for any blockage. See <b>'User Maintenance'</b> .
	The inlet pressures are insufficient or unbalanced.	See 'Specifications'.
	The inlet temperature differentials are insufficient.	See 'Specifications'.
	Air lock or partial blockage in the pipework.	Flush inlet pipes.
	Flow regulator fitted incorrectly.	Check flow regulator.
	Flow regulator causing combination boiler to cycle.	Remove, or replace flow regulator with higher rating.

Symptom	Cause	Recommended Action
Water leaking from the shower head.	Normal for a short period after shut off.	
	The inlet pressures exceed the requirements for the shower unit.	See 'Specifications'.
<	Damage to the shower unit cartridge.	Replace.

## **Spare Parts**



## Notes

#### Guarantee

Your product has the benefit of our manufacturer's guarantee which starts from the date of purchase. This guarantee only applies in the United Kingdom and Republic of Ireland. To activate this guarantee, please return your completed registration card, visit our website or free phone 0800 5978551 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.

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

- · The guarantee applies solely to the original installation under normal use and to the original purchaser only. The product must be installed and maintained in accordance with the instructions given in this 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, inappropriate cleaning, lack of maintenance, build up of limescale, frost damage, chemical attack, 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 or indirect 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 TMV2 or TMV3 healthcare schemes.
- Accidental or wilful damage.
- · Products purchased ex-showroom display.

#### What to do if something goes wrong

If your product does not work correctly refer to this guide for fault diagnosis and check that it is installed and commissioned in accordance with our instructions. If this does not resolve the issue, contact us for help and advice.

> Mira is a registered trade mark of Kohler Mira Limited.

The company reserves the right to alter product specifications without notice.



#### Helpdesk Service

Contact our Customer Service Team for product advice, to purchase spare parts or accessories or to request a service visit. You can contact us via phone or e-mail - contact details below. Please provide your model name, power rating (if applicable) and date of purchase.



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

Visit our website to register your guarantee, download user guides, diagnose faults, purchase our full range of accessories and popular spares, or request a service visit.

#### Spares and Accessories

We hold the largest stocks of genuine Mira spares and accessories. Contact us for a price or visit our website to purchase items from our accessory range and popular spares. (Only available in the United Kingdom.)

#### Service/Repairs

No one knows our products better than our nationwide team of Service Technicians. We carry out service or repair work to your product both during and after the guarantee period. (Only available in the United Kingdom and Republic of Ireland.) Ask about our fixed price service repairs.

#### To Contact Us: UK





## 01242 282595





#### Email - Visit www.mirashowers.co.uk/contactus



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

#### To Contact Us: Eire Only





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