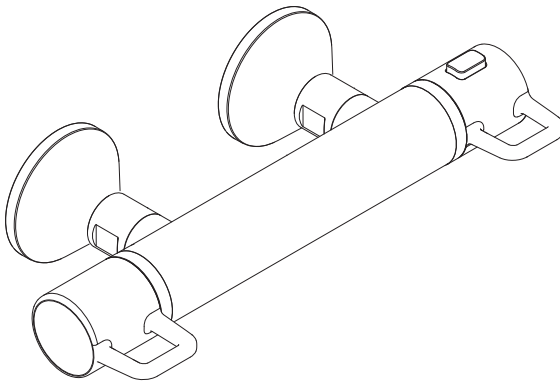


# RADA VZ1 10 Thermostatic Bar Valve

## Installation and User Guide

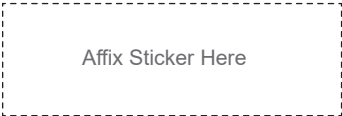


For SPARES,  
ADVICE or REPAIRS  
please call us free  
on 0344 571 1777  
(UK only)

### IMPORTANT

**Installer:** This Manual is the property of the customer and must be retained with the product for maintenance and operational purposes.

Model Name:  
Product Code:  
Date of Manufacture:



Affix Sticker Here

(Your guarantee information is included in this guide. Please keep these details safe as you will need them when registering your product guarantee.)



# Introduction

Thank you for choosing a quality Rada product. To enjoy the full potential of your new product, please take time to read this guide thoroughly, and keep it handy for future reference. Products manufactured by Kohler Rada 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 customer services.

## 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 (available to view or download on our website [www.radacontrols.com](http://www.radacontrols.com)). The approved designation for this product is listed in the table below.

Rada product covered by this guide:

Product Code	Model Number	Colour	Type 2 Designation
N06A	Rada VZ1 10	Chrome	HP-S

The Rada VZ1 10 is a thermostatic shower valve with a separate control lever for on/off and temperature control.

The Rada VZ1 10 incorporates a wax capsule temperature sensing unit which provides an almost immediate response to changes in pressures or temperature of the incoming water supplies to maintain the selected temperature. An adjustable maximum temperature stop is provided which limits the temperature to a safe level. Inlet filters are fitted to protect the thermostatic cartridge.

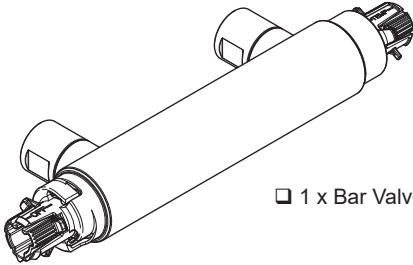
## Guarantee

We guarantee this product against any defect in materials or workmanship for a period of **one** year from the date of purchase.

**Failure to follow the instructions provided with the shower will invalidate the guarantee. For terms and conditions, refer to the customer service page.**

If you experience any difficulty with the installation or operation of your new thermostatic mixer, please refer to 'Fault Diagnosis', before contacting Rada. Our contact details can be found on the back cover of this guide.

# Pack Contents

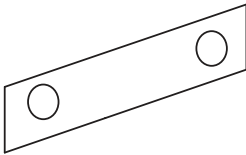


❑ 1 x Bar Valve

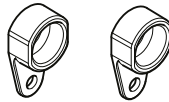


❑ 1 x 6 l/min  
Flow Regulator

❑ 1 x Component Pack, Containing:



❑ 1 x Plastic Pipe Guide



❑ 2 x Wall Brackets



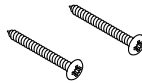
❑ 2 x Olives



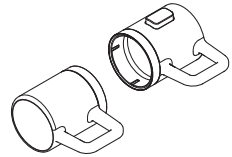
❑ 2 x Compression Nuts



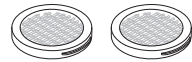
❑ 2 x Wall Plugs



❑ 2 x Fixing Screws



❑ 1 x Pair of Handles



❑ 2 x Sealing Washers

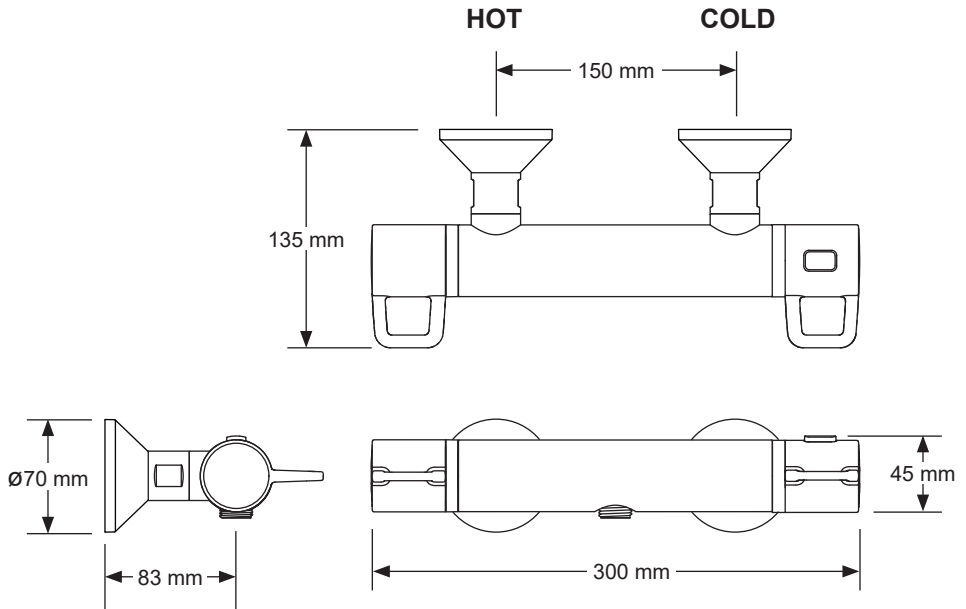


❑ 2 x Concealing Plates

## Documentation

1 x Installation and User Guide

# Dimensions



# Design Registration and Patents

Design Registration: GB 001225254-0003

Patents: GB 2 407 138

## Recommended Usage

Domestic	✓
Light Commercial	✓
Heavy Commercial	✗
Healthcare	✗

## 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 to the shower or its accessories. When servicing only use genuine Kohler Rada 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** fit any form of outlet flow control. Only Rada recommended outlet fittings should be used.
15. The showerhead must be descaled regularly. Any blockage of the showerhead or hose may affect showering performance.
16. The water supplies to this product must be isolated if the product is not to be used for a long period of time. If the product or pipework is at risk of freezing during this period they should also be drained of water.
17. 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.

# Specifications

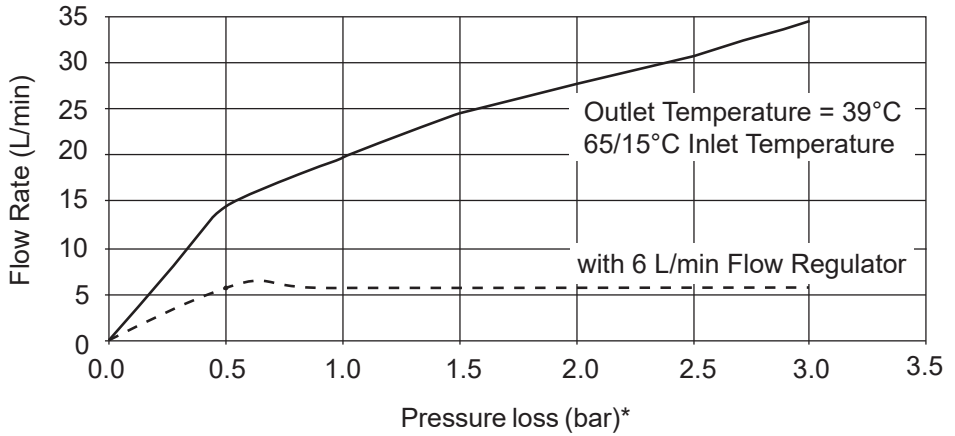
Pressures	
Maximum Static Pressure	1000 kPa (10 bar)
Maximum Maintained Pressure	500 kPa (5 bar)
Minimum Maintained Pressure (Gas Water Heater)	100 kPa (1 bar) (for optimum performance supplies should be nominally equal)
Minimum Maintained Pressure (Gravity System)	10 kPa (0.1 bar) (0.1 bar = 1 Metre head from cold tank base to shower handset outlet)
Plumbing Connections	
Hot: Left	15mm pipework, 3/4" BSP to valve
Cold: Right	15mm pipework, 3/4" BSP to valve
Outlet: Bottom	1/2" BSP Male
Temperatures	
Close temperature control	20°C - 50°C
Optimum Thermostatic Control Range	35°C to 45°C (achieved with supplies of 15°C cold, 65°C hot and nominally equal pressures)
Recommended Hot Supply	60°C to 65°C
Minimum Hot Water Supply Temperature	55°C <b>(Note:</b> The mixing valve can operate at temperatures up to 85°C for short periods without damage. However for safety reasons it is recommended that the maximum hot water temperature is limited to 65°C)
Minimum Recommended Differential between Hot Supply and Outlet Temperature	12°C at desired flow rates
Cold Water Range	1 - 25°C

## Thermostatic Shut-down

- For safety and comfort the thermostat will shut off the mixing valve **within 2 Seconds** if either supply fails (achieved only if the blend temperature has a minimum differential of 12°C from either supply temperature).

## Flow Rates

Typical Flow Rates on Low Pressure System (0.1 bar to 1 bar)



**\*Note:** Pressure Loss = Inlet Pressure - Outlet Pressure (measured at valve outlet)



# Suitable Plumbing Installations

The Thermostatic Mixer can be installed with all systems with balanced pressures. Mixed gravity and mains supplies are not recommended.

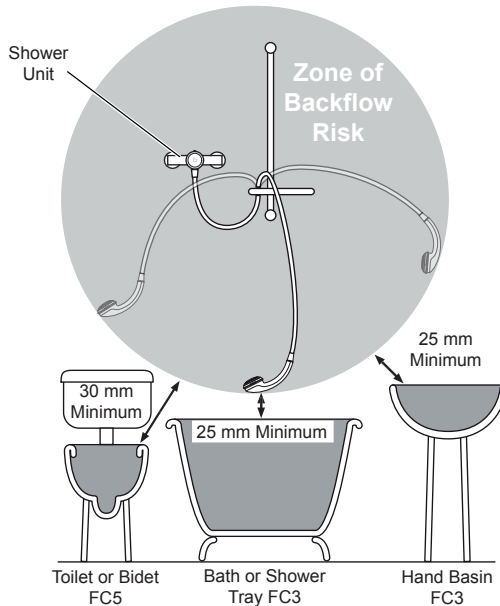
## Installation

**Warning! This product does not allow for reversed inlets and will deliver unstable temperatures if fitted incorrectly.**

### General

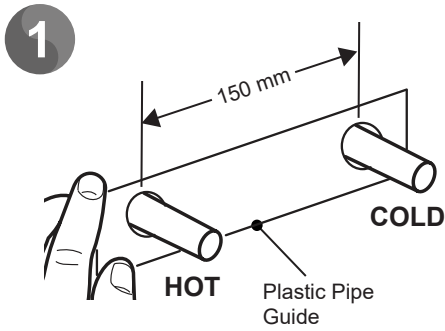
1. Installation of the shower must be carried out in accordance with these instructions by qualified, competent personnel.
2. The plumbing installation must comply with all national or local water regulations and all relevant building regulations, or any particular regulation or practice specified by the local water supply company.
3. 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 (this is available to view or download from our website [www.radacontrols.com](http://www.radacontrols.com))**.
4. Full bore/non restrictive servicing 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. **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.
6. Pipework dead-legs should be kept to a minimum.
7. **DO NOT** install the shower unit in a position where access for maintenance is restricted.
8. The shower must be fitted to a waterproof, flat and even wall surface. The two screws and wall plugs supplied are suitable for most solid wall installations. Alternative fixing screws for panel structures are not supplied. Use both fixing points to secure the shower, be sure to use fixings appropriate for the chosen wall structure.
9. When pipework enters the product from the rear through a hole in the wall, provision must be made to prevent water ingress back into the wall structure.
10. Position the shower unit where the controls are 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.

11. The water supplies to this product should be isolated if the product is not to be used for a long period of time. If the product or pipework is at risk of freezing during this period they should also be drained of water.
12. The position of the shower and shower fittings must provide a minimum air gap of 25 mm between the showerhead and the spill over level of any bath, shower tray or basin. There must be a minimum distance of 30 mm between the showerhead and the spill over level of any toilet, bidet or other appliance with a Fluid Category 5 backflow risk.

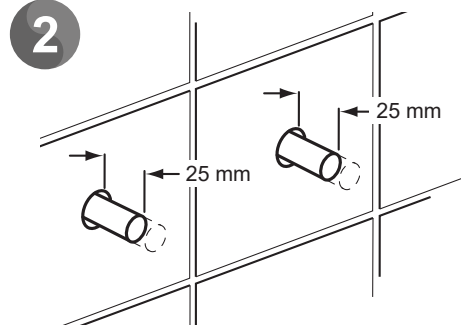


**Note:** There will be occasions when the hose retaining ring will not provide a suitable solution for Fluid Category 3 installations. In these instances an outlet double checkvalve must be fitted, this will increase the required supply pressure typically by 10kPa (0.1 bar). Double checkvalves fitted 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.

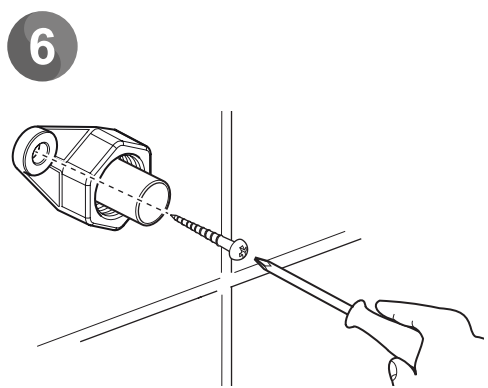
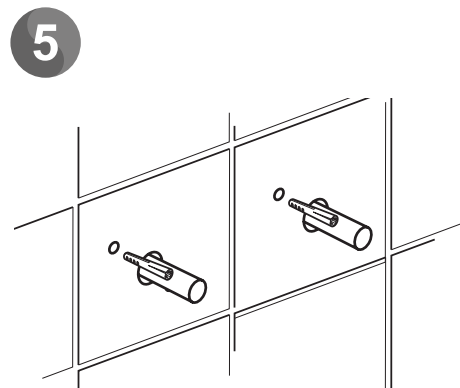
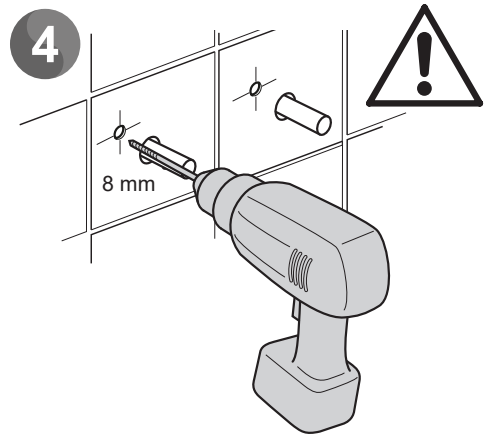
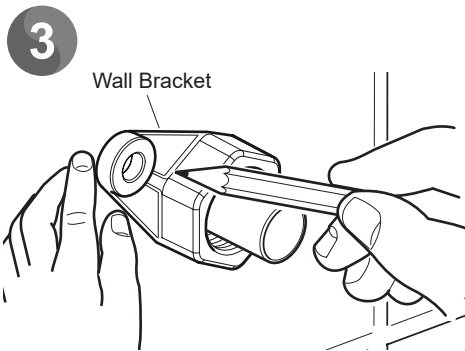
## Installation of Bar Valve

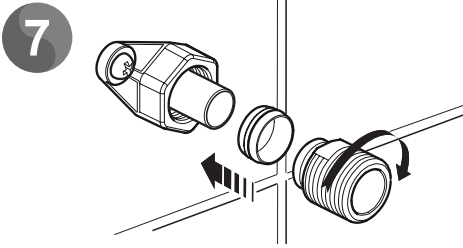


Fit the plastic pipe guide over the inlet pipes. Level the pipe guide and secure to the wall to hold in position. **Leave the guide in place and finish the wall.**



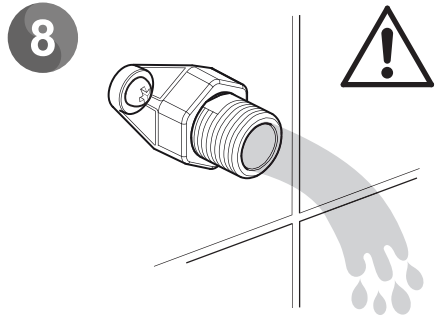
**Note: Connections are; Hot-Left, Cold-Right.**



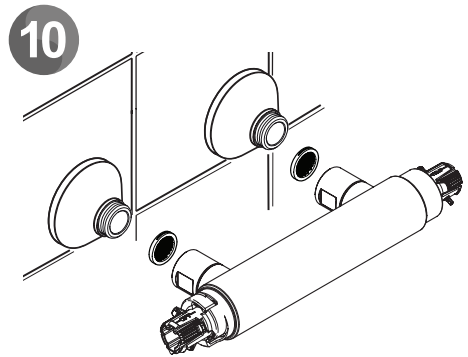
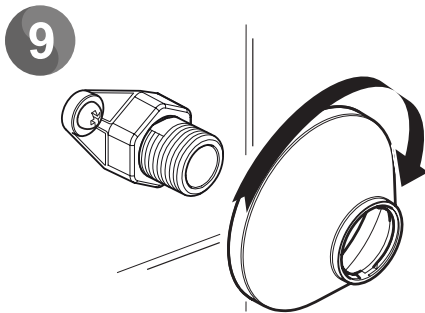


Install the olives and the connectors. Tighten finger tight and then another 1/4 to 1/2 turn.

**Note: Supplied olives must be used. Ensure pipe manufacturer's instructions are followed (i.e. use pipe inserts for plastic pipe).**

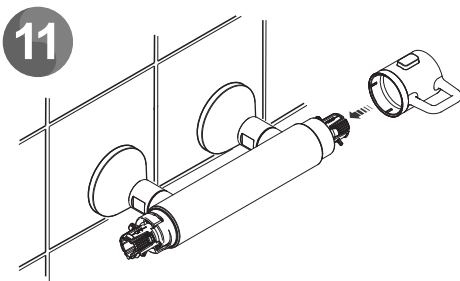


Turn on the water supply and flush the pipework.

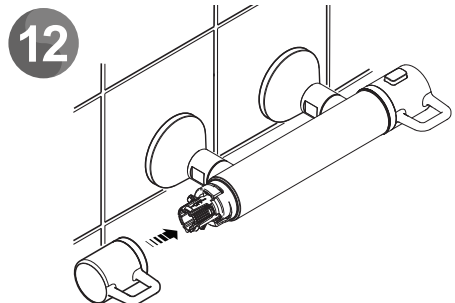


Attach the bar valve to the wall fixings.

**Note: Make sure that the sealing washer/filter is installed in each inlet.**



Install the temperature handle.



Install the flow handle.

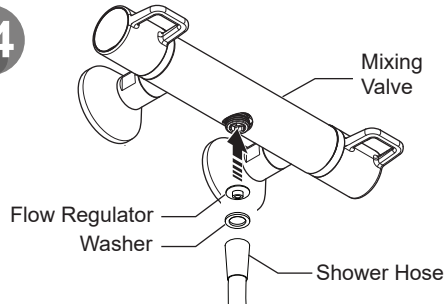
**Note: Fit the handles. See Instructions on the box in which the handles are packed.**

13

Install the shower fittings, refer to the Installation Guide packed with the product.

Check for leaks on all connections you have made.

14



A 6 l/min flow regulator can be fitted into the outlet.

**Note: Orientate flow regulator as shown above.**

## Commissioning

### Maximum Temperature Setting

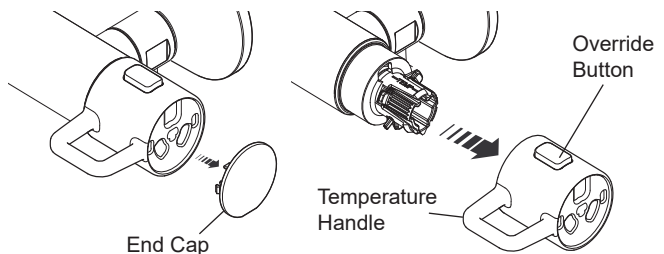
Before using the shower, the maximum temperature must be checked to make sure that it is at a safe level. It has been preset to a safe showering temperature under ideal conditions at the factory, appropriate for most systems. However, site conditions and personal preference may make it necessary to reset this temperature.

**Note: Make sure that the hot water temperature is at least 55°C and that there is sufficient supply.**

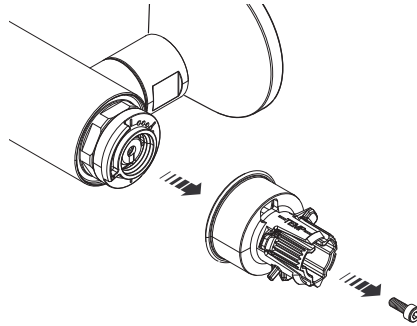
**Caution! Before testing the mixer, make sure that the hot and cold water is flowing correctly by exercising the temperature handle from hot to cold.**

1. Turn the temperature handle **anticlockwise** until it stops and test that the temperature of the water from the shower outlet is hot enough.
2. If not, depress the override button and **carefully** rotate the handle further. If the water temperature is still not hot enough complete the following procedure.
3. Rotate the temperature selector handle back to the override position.
4. Remove temperature handle by pressing the override button and pulling the handle.

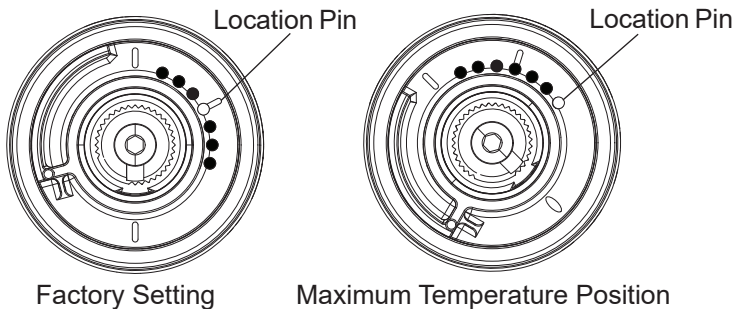
**Note: The end cap on the Assist handles must be removed before pulling off.**



5. Remove the fixing screw holding on the handle attachment components using a 3 mm Allen key. Remove the two attachment components.



6. Temperature adjuster can be moved 3 positions in either direction, one position equals 1°C. Rotate adjuster anti-clockwise to increase temperature and rotate clockwise to decrease temperature.



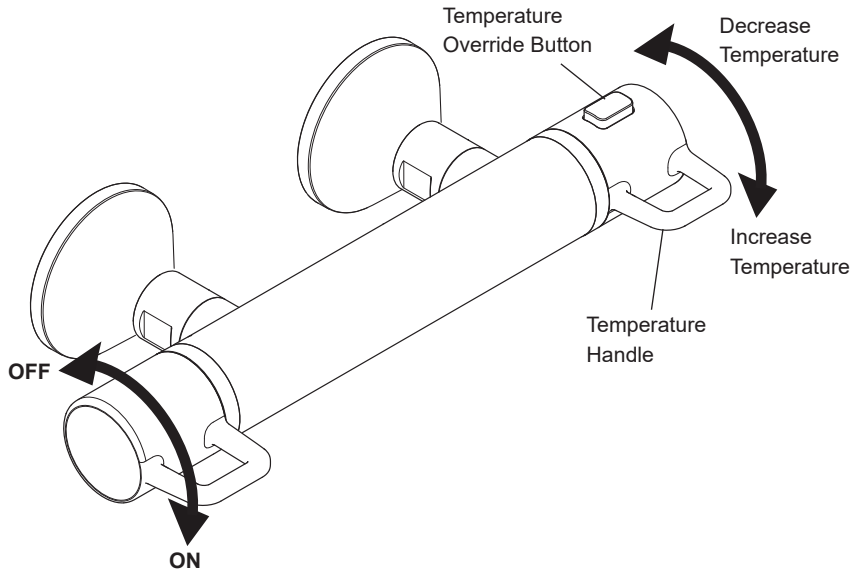
7. Replace the attachment components and make sure the fixing screw is fully tightened. Refit the handle.

## Cleaning

Many household and commercial cleaners, including hand and surface cleaning wipes contain abrasives and chemical substances that can damage plastics, plating and printing and should not be used. 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 de scaled regularly,** keeping the showerhead clean and free from lime scale will ensure that your shower and showerhead continue to perform to their maximum. A blocked showerhead can restrict the flow rate and may cause damage to your shower.

# Operation



## Adjusting the Temperature

The temperature is controlled by rotating the temperature handle. For safety reasons, the temperature is limited by an override stop. To obtain a higher temperature, press the override button on the temperature handle and continue to rotate the handle.

## Adjusting the Flow

The flow is controlled by rotating the flow handle.

# Fault Diagnosis

If you require a Rada trained service engineer or agent, refer to **'Customer Service'**.

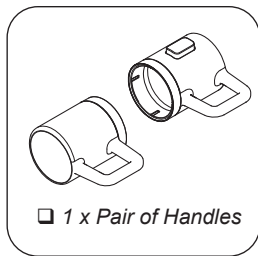
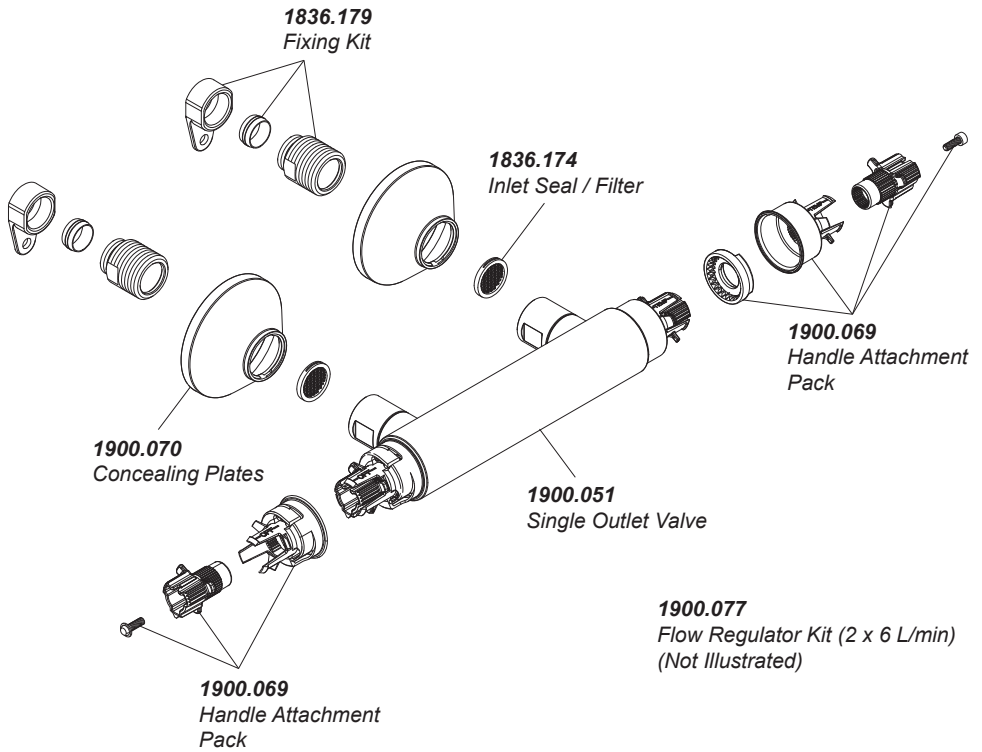
Symptom	Cause/Rectification
Water too hot or too cold	Inlets reversed (hot supply to cold supply). Rework inlet pipework. Check filters for any blockage. Check the maximum temperature setting (If you have a combination type boiler it may not be producing sufficient hot water at the desired flow rate). Fit a flow regulator to the shower valve outlet. Installation conditions outside operating parameters. Refer to <b>Specifications</b> and <b>Commissioning</b> .
Poor temperature control	Make sure that the inlet temperature differentials are sufficient, refer to <b>'Specifications'</b> . If fitted to a combi boiler ensure there is sufficient pressure and flow to deliver a constant hot water inlet supply. Check the shower handset, hose and inlet filters for any blockage and clean where necessary.
Fluctuating or reduced flow	Check the shower handset, hose and filters for any blockage. Make sure that the maintained inlet pressures are nominally balanced and sufficient. Refer to Specifications. Air lock or partial blockage in the pipework.
Water leaking from the shower handset/overhead	Normal for a short period after shut off. Check that the pressures are not in excess of the specifications for this product. There may be occasions where the overhead shower or shower handset empties for a while after the shower has been used, this is due to changes in ambient temperatures and is normal. It is recommended that all outlets are therefore enclosed within the water catchment area.

## What to do if something goes wrong

If your product does not work correctly 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. Refer to Customer Service page for more details.



# Spare Parts



**1900.068**

# Notes

# Notes

# Customer Service

## Customer Services Guarantee

Your product has the benefit of Rada's comprehensive parts and labour manufacturer's guarantee which commences from date of purchase. Full guarantee terms and conditions can be found at [www.radacontrols.com](http://www.radacontrols.com) or contact your in region Rada representative or sales agent for further details.

## Contact Us

If your product is not working correctly please refer to this manual for fault diagnosis and to check that it is installed and commissioned in accordance with our instructions. If this does not resolve the issue, then please contact our specialist teams who will be happy to help.

### For UK based customers support please contact Rada Customer Services

T: + 44 (0)344 571 1777 Please note: UK calls cost 7p per minute plus your phone company's access charge

E: [RadaCustomerServices@RadaControls.com](mailto:RadaCustomerServices@RadaControls.com)

[www.radacontrols.com](http://www.radacontrols.com)

### For customers based in the Republic of Ireland please contact our Rada Service agent

T: + 353 (0) 1 531 9337

E: [CustomerServiceEire@mirashowers.com](mailto:CustomerServiceEire@mirashowers.com)

For customers based in all other geographical regions please get in touch with your local Rada representative or agent whose contact details can be found by visiting our website [www.radacontrols.com/en/contact-us/find-a-partner](http://www.radacontrols.com/en/contact-us/find-a-partner)

## Services

Our UK Rada Customer Service Team can provide **pre-specification** information as well as details on the **UK Rada product Commissioning Service and Maintenance Service Plans** whilst our nationwide team of field-based technicians are here to help if you need a **Reactive Service Call**. We stock a full range of Rada spare parts and fittings which can be purchased over the telephone.

**Note!** Regional services do vary please speak to your Rada representative or Sales agent for information on service provisions provided in your area.

*Rada is a registered trade mark of Kohler Mira Limited.*

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

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