

## V12 DIVERTER

# PRODUCT MANUAL

### IMPORTANT

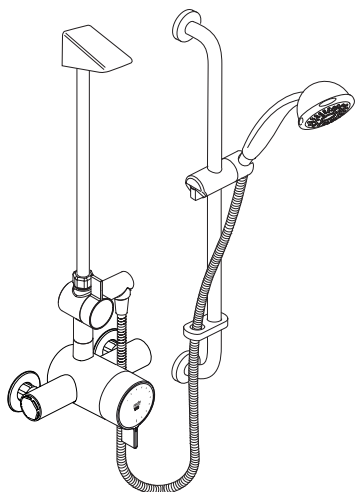
**Installer:** This Manual is the property of the customer and must be retained with the product for maintenance and operational purposes.

# INTRODUCTION

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

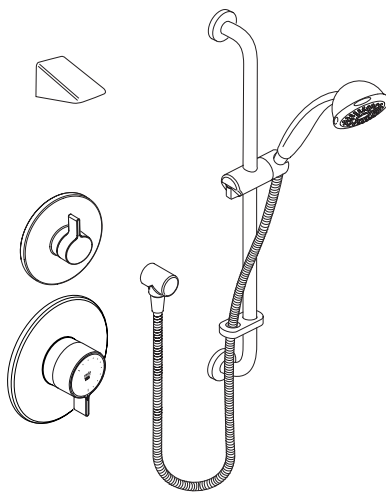
The Rada Diverter is suitable for either high or low pressure systems and are available as exposed or concealed configurations.

This product complies with the Water Supply (water fittings) Regulations 1999.



The Rada Exposed Diverter is designed for use with the Rada V12 mixing valve. It allows two outlets to be selected independently or both simultaneously.

**Note!** When installing and using this product you will need to refer to the Installation and User Guide for the mixer and shower fittings.



The Rada Concealed Diverter is mounted on the outlet of a the mixing valve and allows you to divert water between two different outlets off the same shower (e.g overhead and handset or bath spout and shower).

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

# SAFETY : WARNINGS

Rada products are precision engineered and should give continued safe and controlled performance, provided:

1. They are installed, commissioned, operated and maintained in accordance with manufacturer's recommendations.
2. Do not install the product in a position in which service access is restricted.
3. Make sure that you fully understand how to operate this shower and make sure that it is properly maintained in accordance with the instructions given in this manual.
4. Periodic attention is given, when necessary, to maintain the product in good functional order.

## **Caution!**

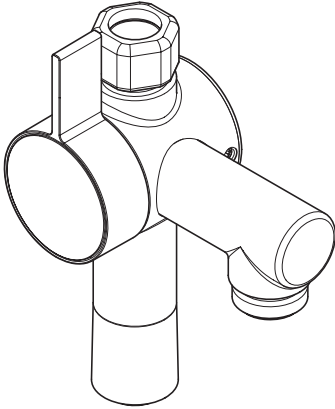
1. Read all of these instructions.
2. Retain this guide for later use.
3. Pass on this guide in the event of change of ownership of the installation site.
4. Follow all warnings, cautions and instructions contained in this guide.
5. Having completed the installation, make sure that the user is familiar with the operation of the diverter.
6. 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.
7. If pipework enters the shower from the rear through a hole in the wall . Provision must be made to prevent water ingress back into the wall structure.
8. DO NOT operate this appliance if it is frozen. Allow the appliance to thaw before using. The shower unit must not be fitted where it may be exposed to freezing conditions.
9. Make sure that any pipework that could become frozen is properly insulated.
10. 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.
11. If the shower is dismantled during installation or servicing then upon completion the product must be inspected to ensure there are no leaks
12. The shower must be fitted to a tiled or sealed finished surface

# PACK CONTENTS



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

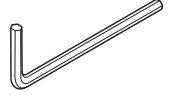
## 1 x Rada Diverter (Exposed)



1 x 'O' Seal



1 x 2 mm Hexagon Key



1 x 15 mm Olive



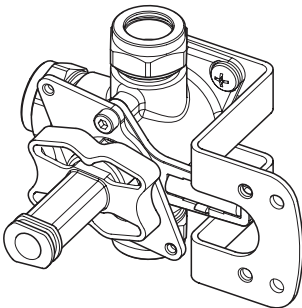
1 x 6 l/min Flow Regulator (Black)



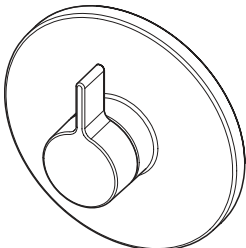
1 x 9 l/min Flow Regulator (Orange)



## 1 x Rada Diverter (Concealed)

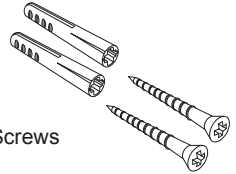


## 1 x Concealing Plate Assembly



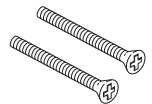
1 x Cardboard Building-in Shroud  
(Not Illustrated)

2 x Wall Plugs

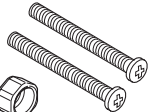


2 x 8 x 1/4" Fixing Screws

2 x M5 x 40 Fixing Screws



2 x M4 x 60 Fixing Screws



3 x Cap Nut



3 x 15 mm Olive



1 x 6 l/min Flow Regulator (Black)



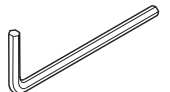
1 x 9 l/min Flow Regulator (Orange)



1 x Blanking Plug

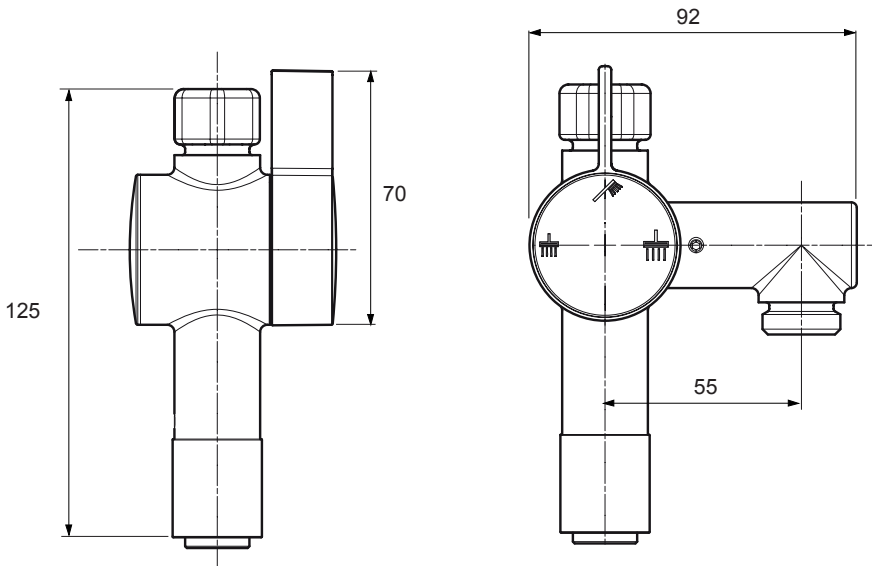


1 x 2.5 mm Hexagon Key

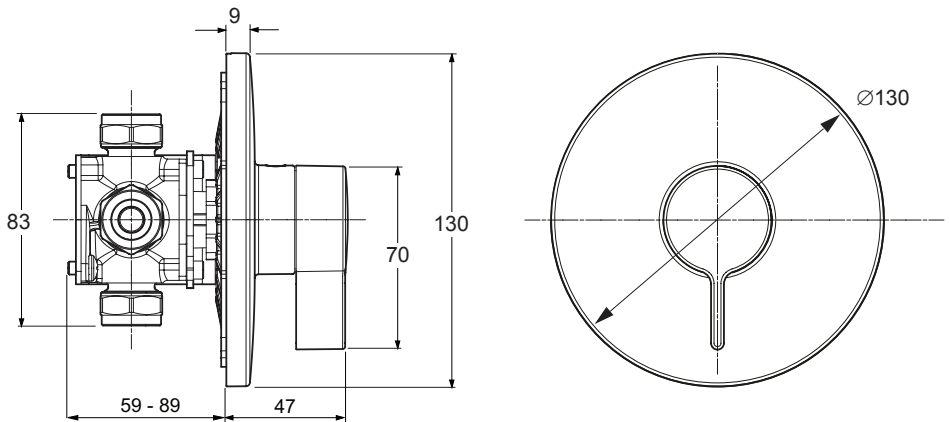


# DIMENSIONS

## Rada Diverter (Exposed)



## Rada Diverter (Concealed)



All dimensions in mm

# SPECIFICATIONS

## Pressures

- Max Static Pressure: **10 Bar**.
- Max Maintained Pressure: **5 Bar**.

## Connections

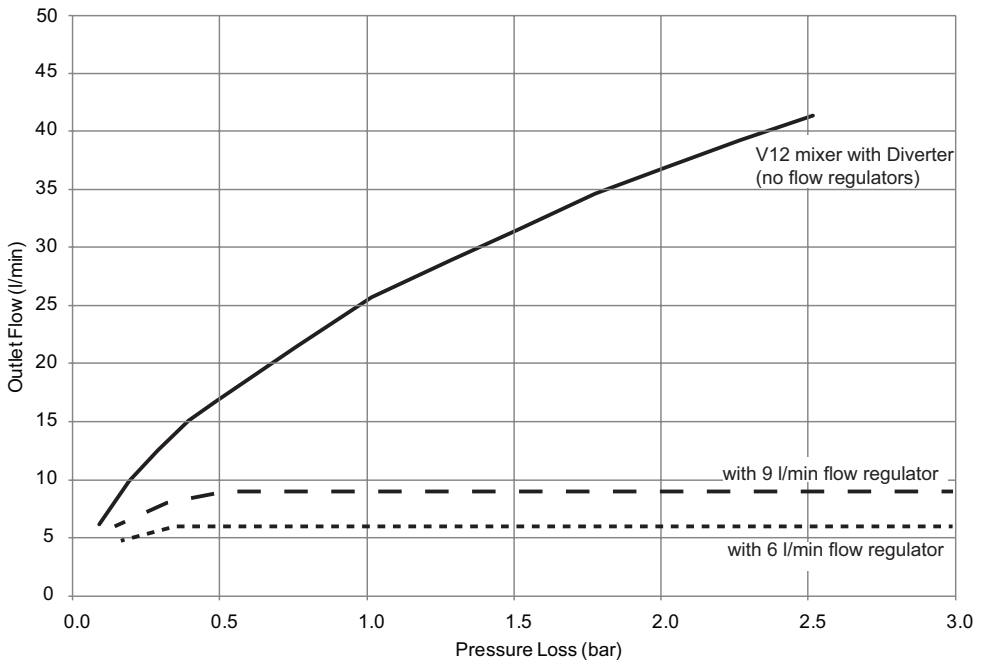
### Exposed Diverter:

- Inlet: Adapter for Rada V12 Mixer Outlet
- Top Outlet: 15 mm Compression.
- Right Angle Outlet (RAC) : ½" BSP Flat Face

### Concealed Diverter:

- Inlets and Outlet: 15 mm Compression.

## Flow Rates



# INSTALLATION

## General

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

The plumbing installation must comply with the requirements of UK Water Regulations/Bye-laws (Scotland), Building or any particular regulations and practices, specified by the local water company or water undertakers.

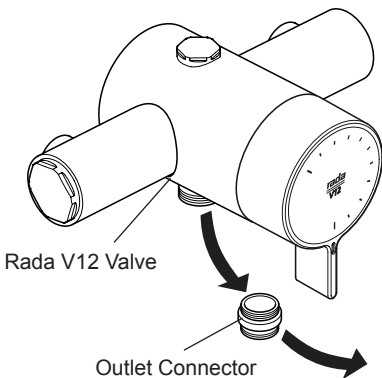
1. Pipework must be rigidly supported and avoid any strain on the connections.
2. Pipework dead-legs should be kept to a minimum.
3. Decide on a suitable position for the Mixer and Diverter. The position of the Mixer and the Shower Fittings must provide a minimum gap of 25 mm between the spill-over level of the shower tray/bath and the showerhead (refer to the Product Manual for the Rada V12 Mixing Valve). This is to prevent back-siphonage.

## Diverter Installation (Exposed)

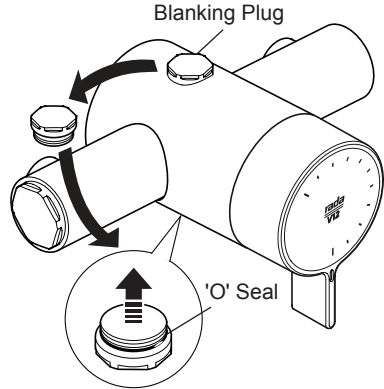
### New or existing Installation

**Note!** If the mixer valve is installed with top outlet (reversed inlet connections **HOT** right, **COLD** Left), move to step 4.

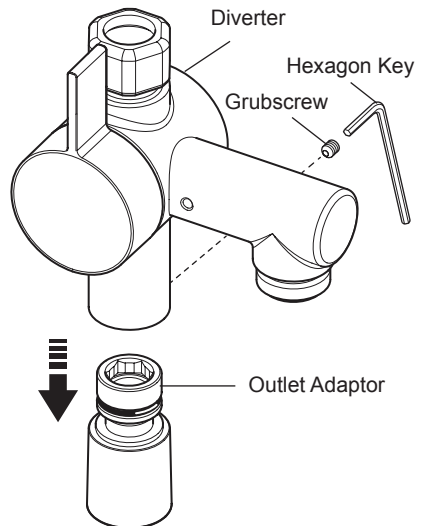
1. Using the 'O' key or 12 mm hexagon wrench, unscrew the outlet connector supplied with the V12 mixer, and discard.



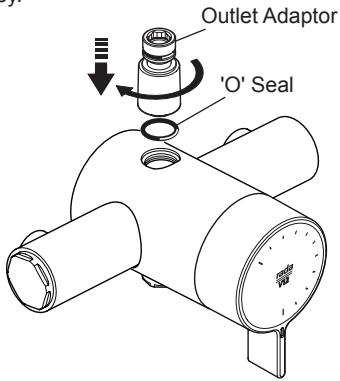
2. Carefully unscrew the blanking plug taking care not to damage the chrome finish.
3. Install the blanking plug into the bottom outlet.  
**Note!** Ensure the 'O' seal is fitted.



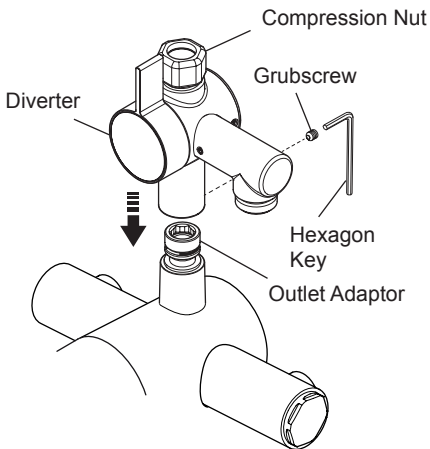
4. Install the Rada V12 mixing valve (refer to the Product Manual).
5. Remove the outlet adaptor fitted to the diverter by loosening the grub screw using a 2 mm hexagon key supplied.  
**Note!** Retain the grub screw.



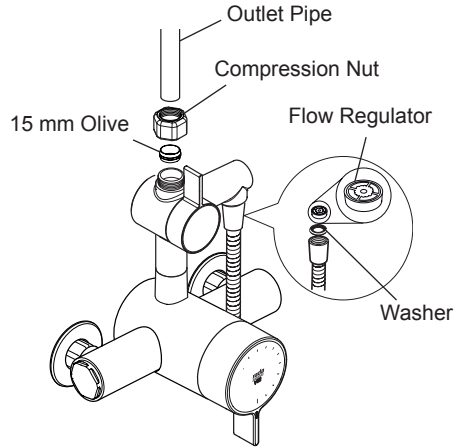
6. Install the outlet adaptor and the 'O' seal (supplied) onto the V12 mixer outlet and **fully tighten** using the 'O' key or 12 mm hexagon key.



7. Carefully install the diverter onto the adaptor outlet and align with the V12 mixer.
8. Tighten the grub screw.
9. Remove the compression nut from the diverter



10. Install the 15 mm olive and compression nut (supplied).
11. Connect outlet pipe for fixed overhead shower fitting and tighten the compression nut.  
**Note!** Before installing the shower fittings refer to the section '**Flow Regulators**'.



12. Install the shower fittings (refer to the 'Product Manual').
13. Turn on the water supplies and check for leaks.
14. Refer to the Rada V12 Product Manual for **Commissioning** procedure.

## Diverter Installation (Concealed)

### Solid Wall or Stud Partition Fixing using Securing Bracket

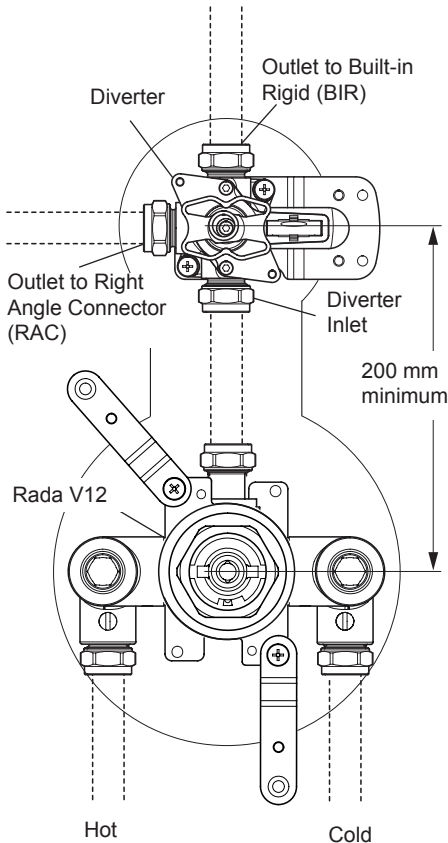
**Note!** The following instructions assume the diverter will be installed with the Rada V12 Concealed mixer (Refer to the Rada V12 Product Manual).

**Note!** The diverter can be installed into a solid wall, stud partition or laminated panels.

**Note!** When installing onto a dry lined, stud partition, or laminated panel installers may wish to obtain alternative fixing, however, these methods of fixing are beyond the scope of this guide.

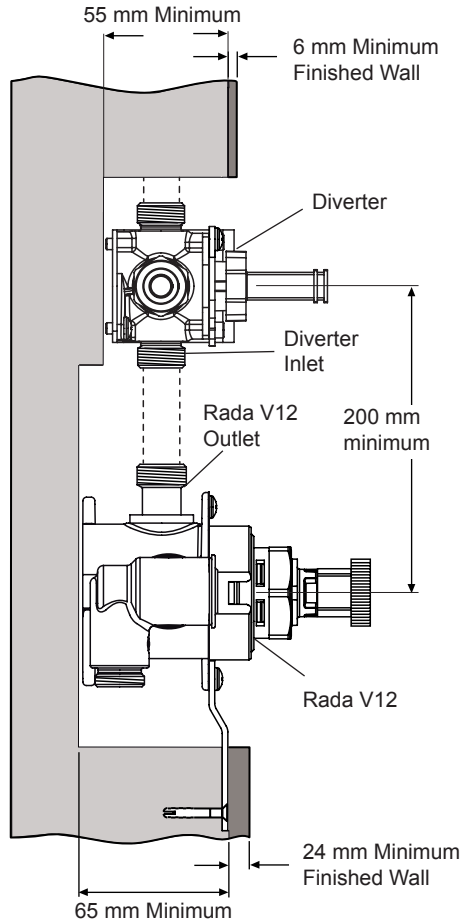
**Note!** It is important that the diverter is connected as shown below to ensure correct operation.

1. Mark the routes of the pipework assuming the diverter is positioned a minimum distance of 200 mm vertically above the Rada V12 mixer valve.



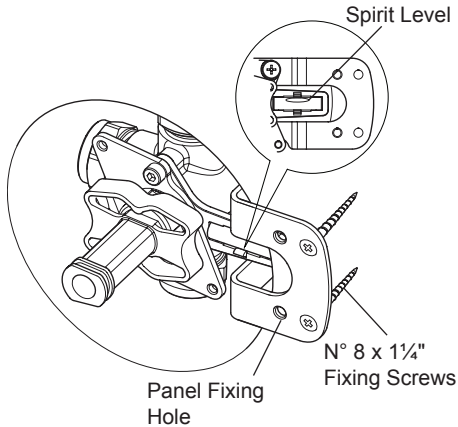
2. Remove the plasterboard and or brickwork to a minimum depth of 55 mm depth so that the outlet of the Rada V12 mixer aligns with the diverter inlet.

**Note!** The Rada V12 mixer is mounted 10 mm deeper than the diverter.



3. Drill two  $\varnothing 6$  holes suitable for the wall plugs and N° 8 x 1¼" fixing screws.
4. Install the diverter assembly into the prepared cavity and secure with the two N° 8 x 1¼" fixing screws supplied.

**Note!** Use the spirit level included to ensure the diverter is mounted level.



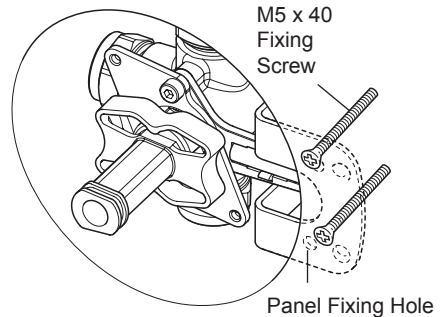
5. Install the 15 mm compression nuts and olives (supplied) to the diverter connections.
6. Connect the outlet of the Rada V12 mixer to the diverter inlet with a length of 15 mm copper tube and fully tighten the compression nuts.
7. Connect the outlet pipework, and install your **shower fittings** (refer to your Shower Fittings Product Manual).
8. Turn on the water supply and check all joints for leaks.
9. Finish the wall (plaster and tile to the finished wall thickness).  
**Important!** Make sure that you use the cardboard building-in shroud when finishing the wall. This will protect the diverter and make sure that you tile up to the correct diameter.
10. Install the concealing plate assembly (refer to section 'Concealing Plate Assembly').

## Panel Fixing using Securing Bracket

**Note!** For laminated panels the diverter must be positioned from the rear of the panel. Panel thickness must be between 4 and 30 mm (if a thicker panel is used, it will be necessary to recess the bracket into the rear of the panel).

**Important!** Make sure that there is a minimum clearance of 60 mm behind the laminated panel to house the diverter.

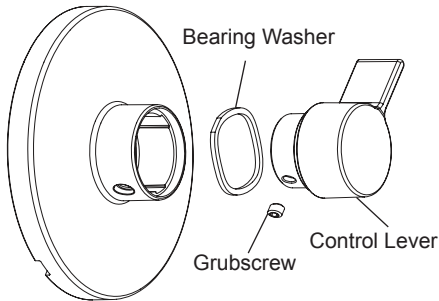
1. Carefully cut out the laminated panel.
2. Drill two holes suitable for the M5 x 40 fixing screws.  
**Note!** Use the spirit level included to ensure the diverter is mounted level.
3. Install the diverter assembly into the prepared cavity and secure with the two M5 x 40 fixing screws supplied.



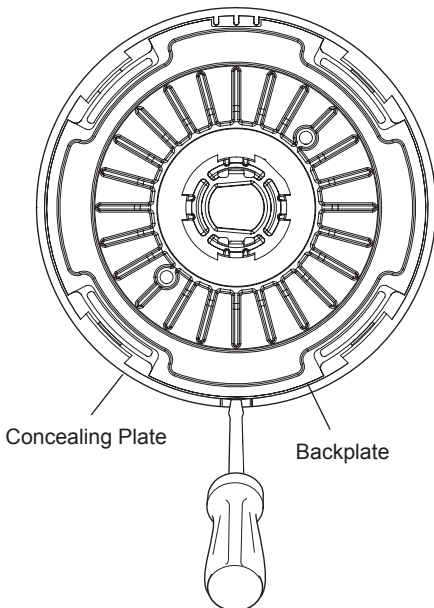
4. Install the 15 mm compression nuts and olives (supplied) to the diverter connections.
5. Connect the outlet of the Rada V12 mixer to the diverter inlet with a length of 15 mm copper tube and fully tighten the compression nuts.
6. Connect the outlet pipework, and install your **shower fittings** (refer to your Shower Fittings Product Manual).
7. Turn on the water supply and check all joints for leaks.
8. Finish the wall.
9. Install the concealing plate assembly (refer to section 'Concealing Plate Assembly').

## Concealing Plate Assembly

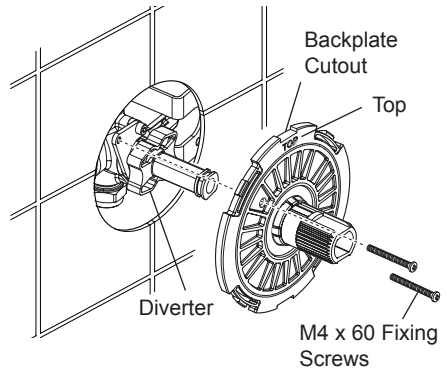
1. Align the control lever to position 1 and using the 2.5 mm hexagon key remove the grub screw, control lever and bearing washer. Retain the grub screw.



2. Using a suitable tool carefully unclip the chrome concealing plate from the backplate.

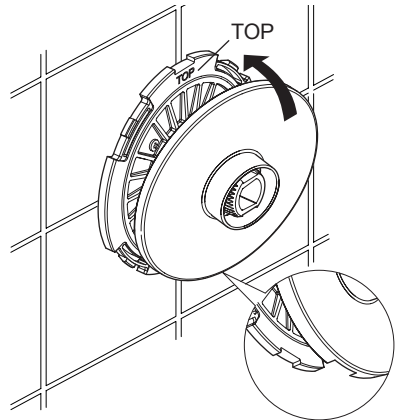


3. Install the backplate onto the diverter.  
**Note!** Ensure that the backplate is installed with the 'TOP' mark in the vertical position.



4. Install the M4 x 60 fixing screws (supplied) and tighten the screws evenly to ensure the foam seal is compressed.

5. Align the cut-out on the backplate with the notch on the concealing plate and clip into position.



**Note!** The number 1 on the concealing plate should be positioned at the top.

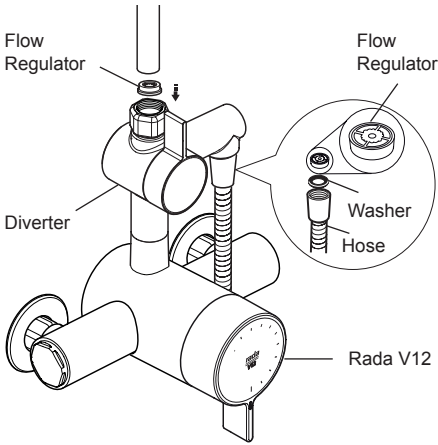
6. Install the bearing washer and lever, align the lever with '1' on the concealing plate.
7. Using the 2.5 mm hexagon key install and tighten the grub screw.

## Flow Regulators

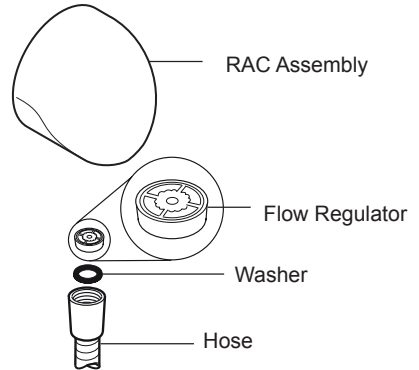
Flow regulators ( 6l/min Black and 9 l/min orange) are supplied with the Rada V12 mixing valve and diverters.

For the Concealed Diverter the flow regulators can be installed in the RAC (right angle connector) and the overhead shower fitting (Refer to the relevant Product manual).

### Exposed Diverter



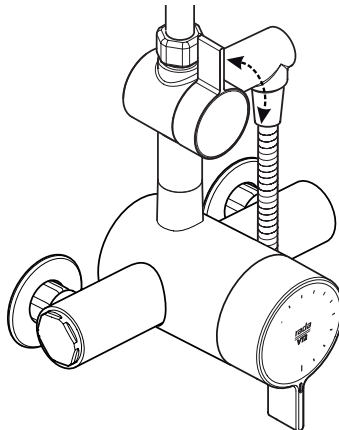
### Right Angle Connector



**Note!** If the diverter is installed with the Rada VR range of showerheads, a 9 l/min flow regulator is factory fitted in the showerhead. If a 6 l/min flow regulator is required, the 9 l/min flow regulator should be removed from the showerhead.

# OPERATION

Select the outlet required by turning the lever to position '1' or '2'.



# MAINTENANCE

Rada Diverters are designed to provide long maintenance free operation, with no regular servicing required.

## Cleaning

The chrome plated parts should be cleaned using a mild washing up detergent or soap solution, rinsed and then wiped dry with a soft cloth.

**Warning!** Many household cleaners contain abrasive and chemical substances, and should not be used for cleaning plated or plastic fittings.

**Do not** use descalents on this product.

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

## Fault Diagnosis

### Symptom:

- *Water dripping from the showerhead.*

### Cause Rectification:

- *Normal for a short period after shut off.*
- *Check that the pressures are not in excess of the specifications for the product.*
- *If the water continues to drip from the outlet (not selected), replace the internal assembly.*

### Symptom:

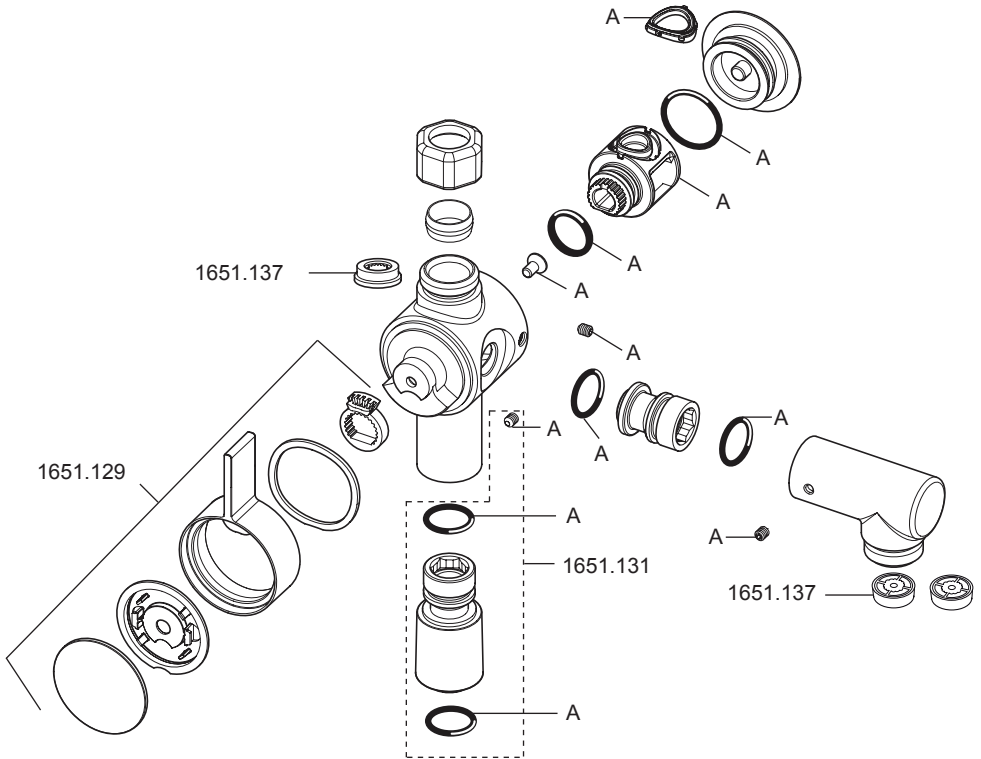
- *Flow rate too low/high.*

### Cause Rectification:

- *Check the showerhead, hose and mixer inlet filters for any blockage, clean or descale as necessary.*
- *Check that the correct flow regulator(s) are fitted, and fitted correctly (Refer to '**Flow Regulators**').*

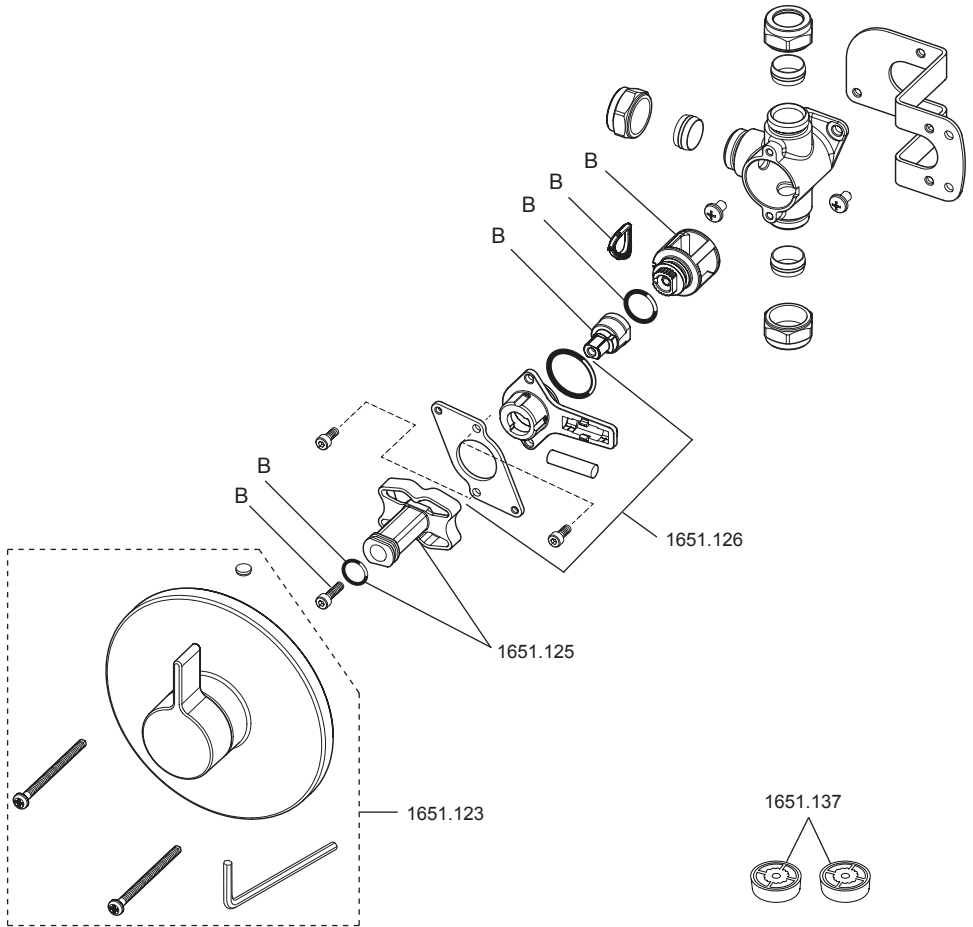
# SPARE PARTS

## Exposed Models

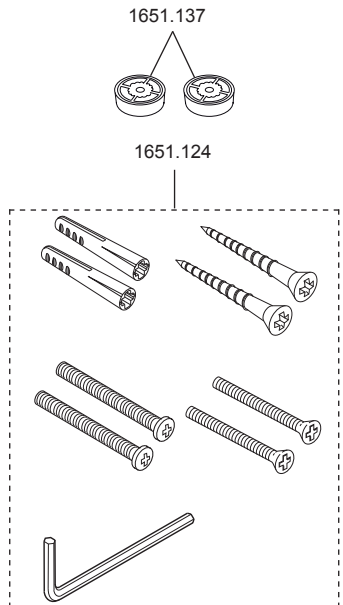


- 1651.129 Lever Assembly
- 1651.130 Service Kit (identified 'A')
- 1651.131 Inlet Adapter
- 1651.137 Flow Regulators (6 & 9 l/min)

**Concealed Models**



- 1651.123 Concealing Plate Assembly
- 1651.124 Component Pack
- 1651.125 Detent
- 1651.126 Cover
- 1651.127 Service Kit (identified 'B')
- 1651.137 Flow Regulators (6 & 9 l/min)



# CUSTOMER SERVICE

## Guarantee of Quality

Rada products have the benefit of our one year manufacturer's guarantee which starts from the date of purchase.

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 subject to the following conditions:

- The product must be installed and maintained in accordance with the instructions given in this guide.
- Repair work must only be undertaken by us or our approved agent. **Note!** If a service visit is required the product must be fully installed and connected to services.
- Repair under this guarantee does not extend the original expiry date. The guarantee on any replacement parts or product ends at the original expiry date.
- For shower fittings or consumable items we reserve the right to supply replacement parts only.

### The guarantee does not cover:

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

## What to do if something goes wrong

If your product does not function correctly when you first use it, contact your installer to check that it is installed and commissioned in accordance with the instructions in this manual.

Should this not resolve the issue, contact us and we will offer you or your installer advice.

If the performance of your product declines, check within this manual to see if maintenance is required. Contact us if you require further assistance.

## Rada Customer Service

### Technical Helpdesk Service

Our dedicated Customer Services Team is comprehensively trained and can offer help and advice, spare parts, accessories or a service visit.

We will need you to have your model name or number and date of purchase.

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

### Spares and Accessories

We maintain extensive stocks of genuine spares and accessories and aim to provide support throughout the products life.

Payment can be made by phone at time of order using most major Credit or Debit cards and we aim to despatch orders within two working days. Items purchased from us are guaranteed for 12 months from date of purchase.

For safety reasons spares exposed to mains voltages should only be fitted by competent persons.

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

### Service / Repairs

We have a nationwide team of fully trained and approved Service Technicians who can carry out all service or repair work both within the guarantee period and beyond.

You have the assurance of a fully trained Technician, genuine Rada spare parts and a 12 month guarantee on any chargeable work done.

### Service Contracts

A regular service ensures your product continues to perform at the peak of performance. We offer yearly or bi-annual servicing carried out by our full trained technicians subject to site survey.

Contact us for more details.

Rada Controls,  
Cromwell Road,  
Cheltenham,  
Gloucestershire,  
GL52 5EP

### Customer Service & Specification Enquiries

Telephone: 0844 571 1777

E-mail: [rada\\_technical@mirashowers.com](mailto:rada_technical@mirashowers.com)

Fax: 01242 282595

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