Thermostatic

mira event

THERMOSTATIC

ALL-IN-ONE

POWER SHOWER

Installation

Operation &

Maintenance Guide

THESE INSTRUCTIONS ARE TO BE LEFT WITH THE USER

Contents

Appendices

Section 1

Introduction

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

The Mira Event is an all-in-one power shower with an integral mains voltage pump unit, with separate controls for flow and temperature.

The Event features outlet flow control and a 15mm dual entry push-fit inlet manifold to enable the appliance to support various inlet supply configurations. The manifold incorporates inlet filters and check valves. The thermostatic mixer assembly incorporates a wax capsule temperature sensing unit and ceramic disc technology for flow control.

Designed to be surface mounted the Event is supplied complete with an adjustable spray handset with three different spray actions (start, champagne, massage) and an economy setting, flexible hose, adjustable clamp bracket assembly, slide bar and supports, soap dish and hose retaining ring. The Event is available with the shower fittings in white/chrome finish or all white finish.

The Event is not suitable for installation in institutional/commercial applications or for use with mains water pressure applications, e.g. Instantaneous electric heaters, instantaneous gas water heaters, unvented mains pressure systems, pumped shower systems and some combination type storage systems.

If you experience any difficulty with the installation or operation of your new Mira Event, then please refer to the back cover of this guide for Caradon Mira contact telephone and fax numbers.

Important Safety Information

1. Caution!

1.1. Read all of these instructions.

1.2. Retain this guide for later use.

1.3. Pass on this guide in the event of change of ownership of the installation site.

1.4. Follow all warnings, cautions and instructions contained in this guide.

1.5. Follow all warnings, cautions and instructions contained on or inside the appliance.

1.6. The electrical installation must comply with BS 7671 “Requirements for Electrical Installations” commonly referred to as the IEE Wiring Regulations, or any particular regulations and practices, specified by the local electricity supply company. The installation should be carried out by an electrician or contractor who is registered, or is a member of, an association such as:

1.6.1. National Inspection Council for Electrical Installation and Contracting (NICEIC), throughout the UK, Tel: 0171 582 7746.

1.6.2. The Electrical Contractors Association (ECA), England and Wales, Tel: 0171 229 1266.

1.6.3. The Electrical Contractors Association of Scotland (ECAS), Tel: 0131 445 5577.

1.7. The plumbing installation must comply with Water Supply Bye-laws, Building Regulations or any particular regulations and practices, specified by the local water company or water undertakers. The installation should be carried out by a plumber or contractor who is registered, or is a member of, an association such as:

1.7.1. Institute of Plumbing (IOP), throughout the UK, Tel: 01708 472791.

1.7.2. National Association of Plumbing, Heating and Mechanical Services Contractors (NAPH & MSC), England and Wales, Tel: 01203 470626.

1.7.3. Scottish and Northern Ireland Plumbing Employers’ Federation (SNIPEF), Scotland and Northern Ireland, Tel: 0131 225 2255.

1.8. 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.

1.9. When this appliance has reached the end of it’s serviceable life, it should be disposed of in a safe manner, in accordance with current local authority recycling, or waste disposal policy.

2. Warning!

2.1. 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.

2.2. THIS APPLIANCE **MUST** BE EARTHED.

2.3. In accordance with 'The Plugs and Sockets etc. (Safety) Regulations 1994', this appliance is intended to be permanently connected to the fixed electrical wiring of the mains system.

2.4. **DO NOT** connect this appliance to a mains-fed water supply. Such a connection will damage the appliance, and is not covered under the manufacturer's guarantee.

2.5. Make sure that any pipework that could become frozen is properly insulated (Bye-law 49).

2.6. **DO NOT** operate this appliance if it is frozen. Allow the appliance to thaw. If water is emitted from either of the pressure relief valves, maintenance will be required before the appliance can be safely used.

2.7. **DO NOT** allow the appliance to be run dry.

2.8. **DO NOT** fit any form of outlet flow control as the outlet acts as a vent for the heater tank. Only Mira recommended outlet fittings should be used.

2.9. If any of the following conditions occur, isolate the electricity and water supplies and refer to **"How to contact us"**, on the back page of this guide.

- 2.9.1. If the cover is not correctly fitted and water has entered the appliance's case.
- 2.9.2. If the case is damaged.
- 2.9.3. If the appliance begins to make an odd noise, smell or smoke.
- 2.9.4. If the appliance shows signs of a distinct change in performance, indicating a need for maintenance.
- 2.9.5. If the appliance is frozen.

2.10. Isolate the electrical and water supply before removing the cover.

2.11. Mains connections are exposed when the cover is removed.

2.12. Moving parts are exposed when the cover is removed.

2.13. Ensure all electrical connections are tight, to prevent overheating.

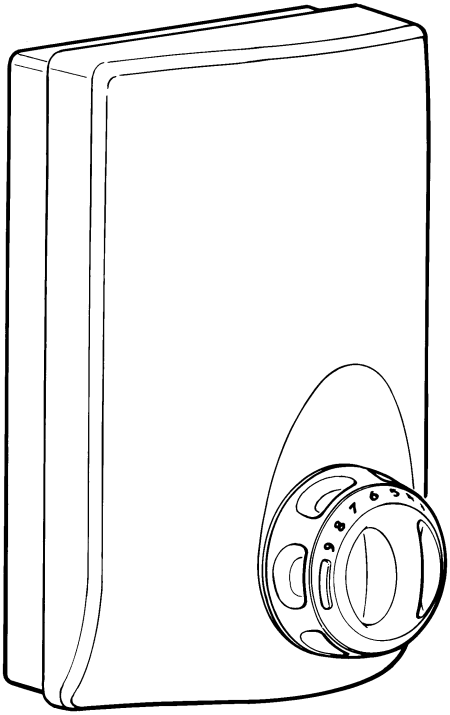
2.14. Before proceeding with any electrical work on this unit, ensure that the capacitors on the printed circuit board are fully discharged by turning the flow control knob 'on' and 'off' again after the unit has been isolated from the power supply.

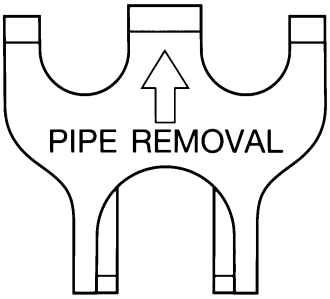
Section 3

Pack Contents Checklist

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

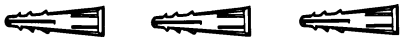
1.Mira Event





1 x Push-Fit Release Tool ☐

1 x Event Thermostatic All-in-One Power Shower ☐



3 x Wall Plugs ☐

3 x Fixing Screws ☐

2. Documentation

1 x Installation, Operation and Maintenance Guide ☐

1 x Customer Support Brochure ☐

Refer to the separate guide book for the shower fittings "Pack Contents Checklist".

Specifications

1. General

1.1. **Continuous duty cycle** - 15 minutes on, 60 minutes off.

1.2. The motor is fitted with self-resetting thermal trip protection, designed to operate if the duty cycle is exceeded or ambient temperatures become too high.

1.3. **Ambient temperature** - Maximum recommended ambient temperature for the appliance is 30°C.

1.4. **Hot Water Temperature** - Maximum temperature 80°C.
BS 6700 recommends 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.

1.5. **Temperature control** - For full listed performance to be obtained the appliance should be installed, operated and maintained in accordance with this guide.

1.6. The full specification performance outlined below for the standard appliance is achieved with a blend set between 35° – 45° and supplies of 15°C cold and 65°C hot with nominally equal pressures.

1.6.1. The blended water temperature is maintained within 2°C with a 10°C change in the hot or cold water supply.

1.6.2. The sensor effects a shut down to seepage in approximately 2 seconds if the cold supply fails.

1.6.3. Shut down to seepage is achieved even if the hot supply is only 12°C above the blend temperature.

1.6.4. The blended water temperature is maintained within 1.5°C when the pressure between inlet and outlet is halved (defined as a pressure loss ratio of 2:1) on either the hot or cold side.

1.7. **Maximum static inlet pressures** - 1 bar or 10m (supplies must be gravity-fed at nominally equal pressures). Refer to **"Installation Requirements – Plumbing; para 3.18"** for futher advice.

1.8. **Minimum static inlet pressure** - 0.0075 bar or 75mm (required to prime the integral centrifugal pump).

1.9. **Maximum recommended inlet pressure** - 0.5 bar or 5m (supplies must be gravity-fed at nominally equal pressures).

1.10. **Noise** - The powerful pump motor is fitted on rubber isolation mounts to

reduce the transmitted sound levels. The type of wall surface will affect the perceived sound levels. Solid walls will provide a quieter operation.

2. Plumbing

2.1. **Inlet** - 15mm Push-fit inlet manifold

2.2. **Outlet** - ½″ BSP to BS2779.

3. Electrical

3.1. **Appliance power supply** - 230/240 V, 50Hz, fused at 3 Amps, via a double pole switched fused connection unit (not supplied) with a minimum 3mm contact separation in each pole.

3.2. **Power supply connection -** The Event is fitted with a terminal block and earth stud which will accept cable up to 2.5mm².

3.3. **Absorbed power -** Approximately 150 Watts under normal working conditions.

4. Standards

4.1. All materials used in the manufacture of this appliance which are in contact with water are “W.B.S. approved”.

4.2. Designed to comply with BS 3456.

4.3. B.E.A.B. approval applied for.

4.4. W.B.S. approved appliance. Certificate No: 9410035

4.5. This appliance complies with the electromagnetic compatibility (EMC) directive EN50082-1 (1992), EN55014 (1987), and EN60555-2/3 (1987). Please see carton for CE approval label.

Section 5

Installation Requirements

1. General

1.1. **Do not** take risks with plumbing or electrical equipment.

1.2 **Do not** install the appliance in a position where it could become frozen.

1.3 Isolate electrical and water supplies before proceeding with the installation of the appliance.

1.4 The shower control **must** be fed from a cold water storage cistern and hot water cylinder providing nominally equal pressures.

1.5 The installation must be carried out by a competent installer.

1.6 When installing into a cubicle, the appliance is best positioned to spray across the opening of the cubicle rather than towards the opening.

1.7 The appliance must be fitted onto the finished wall surface i.e. on top of the tiles. **Do not** fit the appliance to the wall and then tile up to the sides of the casing. (Small pillars moulded on to the back of the case allow water to drain from behind the appliance).

1.8 When fitting the appliance with back inlet supplies it is recommended that the supply pipework is sealed to the wall to prevent water from leaking back into the wall.

1.9 In solid wall installations the supply pipework should be installed within ducting to allow some free lateral movement when making supply connections and to ensure compliance with the requirements of Bye-law 58 “Accessibility of pipes and pipe fittings”.

2. Electrical

2.1. **Do not turn on the electrical supply until the plumbing has been completed and the pump primed as the unit must not be operated dry.**

2.2 The mains supply must be 230/240 V at 50Hz connected to the appliance via a double pole switched 3 Amp fused connection unit (not supplied) with a minimum 3mm contact separation gap in each pole.

2.3 Fuses do not give personal protection against electric shock.

2.4 We recommend the inclusion of a 30mA residual current device (RCD). This may be part of the consumer unit or a separate unit.

3. Plumbing

3.1. **Do not** use excessive force when making connections to the flexible hoses or handset, finger tightness is sufficient.

3.2 **Do not** turn on the electrical supply until the plumbing connections have been completed and the pump primed as the unit must not be operated dry.

3.3 **Do not** solder supply pipework within 300mm of the appliance as transmitted heat may melt the inlet manifold.

3.4 When installed, the top of the appliance must be at least 75mm lower than the base of the cold water storage cistern to prevent the pump being run dry.

3.5 Avoid layouts where the hose will be sharply kinked. This may reduce the life of the hose.

3.6 The storage cistern should have a minimum storage capacity of 230 litres to provide adequate showering time and to comply with BS6700 (1987). Insufficient storage may result in the pump being run dry.

3.7 The action of a pump is to increase the flow rate. If the supply pipework cannot handle the higher flow rate then:-

3.7.1 The expected flow rate may not be achieved.

3.7.2 Air may be drawn into the hot supply from the vent pipe, causing spluttering and temperature fluctuations at the handset.

3.8 To prevent such operational difficulties the feed from the cylinder should be as illustrated. Side entry cylinder bosses are not recommended because:-

3.8.1 A drop in cylinder water level could expose a top entry immersion element if fitted.

3.8.2 Air-in-water solution gathers at the edge of the cylinder and in the centre, during the heating process before travelling up the vent.

3.9 A high level hot feed pipe run as illustrated will result in air locking and should be avoided.

3.10 No form of flow control should be fitted to the outlet of the appliance.

3.11 Conveniently situated isolating valves should be fitted for servicing purposes (Bye-law 68).

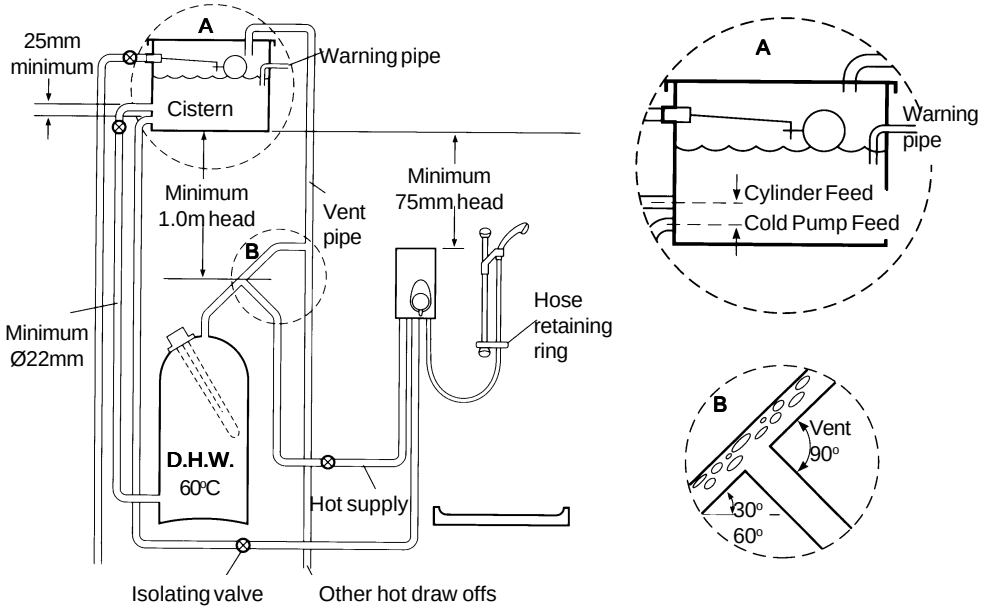
3.13 The use of polyethylene plastic pipe suitable for hot water is recommended to enhance the appearance of the finished installation, when using surface mounted inlet supply pipework. Internal pipe supports (not supplied) should be used with this type of pipe.

3.14 Use only the supplied Mira handset with this appliance.

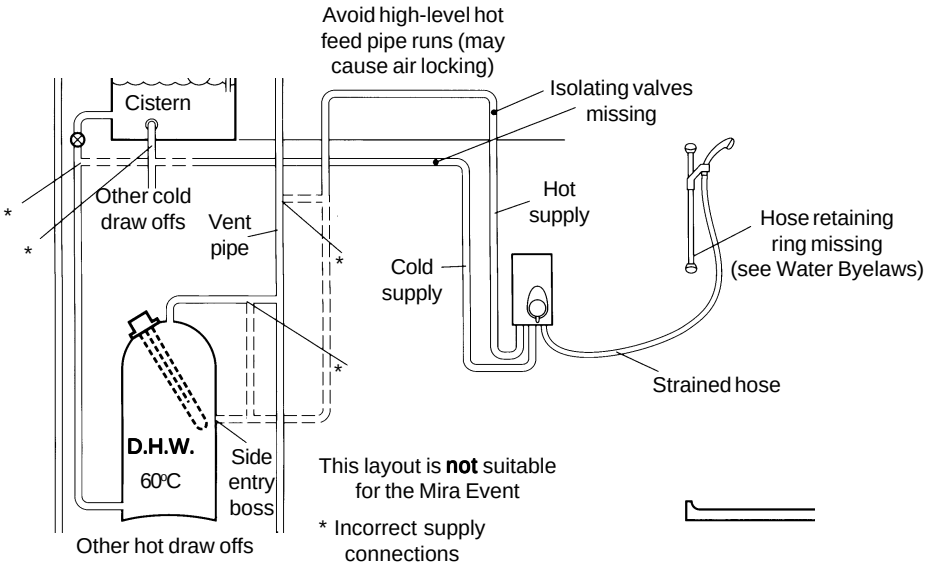
3.15 If the appliance is installed on a common supply which feeds an adjacent tap, the maximum static inlet pressure for the appliance will, under certain circumstances be exceeded; the action of closing the tap can cause a pulse in the supply pressure which will result in damage to the appliance. This can be resolved by the installation of a suitably sized mini expansion vessel, sited as close as possible to the tap and pressurised to 0.5 bar.

3.16 **Do not** fit the appliance to the wall and tile up to the case. The appliance must be fitted on to the finished flat and even wall surface. This is important as difficulty may be encountered when fitting the cover and subsequent operation of the unit could be impaired (small pillars moulded on to the back of the case allow air circulation).

4. Schematic Installation Diagrams



Schematic Installation - Correct



Schematic Installation - Incorrect

5. Before You Start

The Mira Event features a 15mm dual entry push-fit inlet manifold to enable the appliance to support three inlet supply configurations. Choose the appropriate inlet supply configuration to suit your installation before proceeding to install the appliance.

The inlet manifold is factory fitted with two inlet blanking plugs fitted to the top inlets and allows for a bottom inlet suppy configuration. The blanking plugs can be repositioned to suit the installation's supply pipework configuration. A push-fit release tool is provided which can be used to lever out the blanking plugs. Refer to **"Change the Inlet Supply Ports"** for the complete procedure.

The Event will accept three inlet supply configurations:-

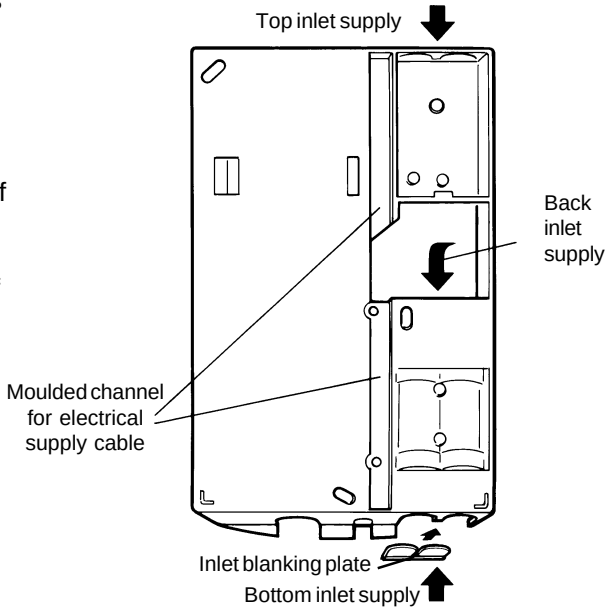
Top inlet supply – Seal off bottom inlets of manifold.
Bottom inlet supply – Seal off top inlets of manifold.
Back inlet supply – Seal off bottom inlets of manifold.

To enhance the final appearance of the appliance the Mira Event case features two removable inlet blanking plates which are factory fitted in to the top and bottom of the case.

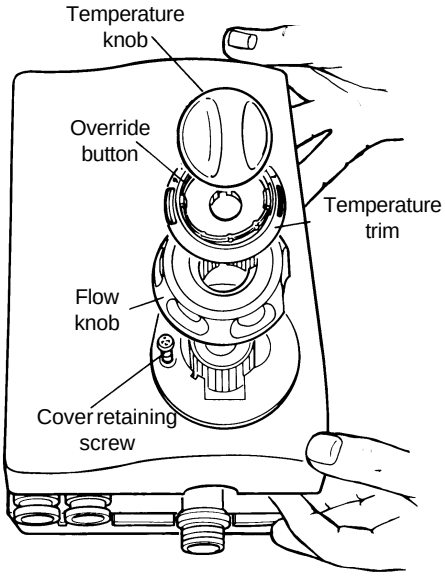
These blanks can be removed as follows to allow the three inlet supply configurations:-

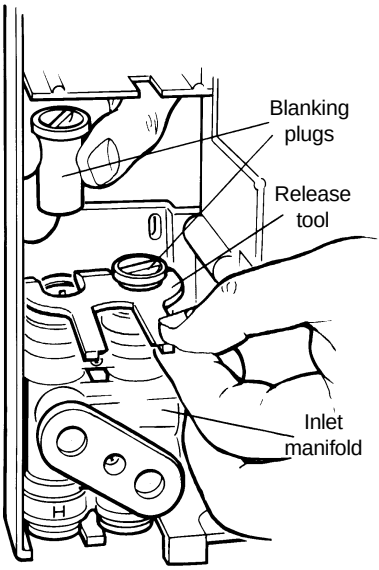
Top inlet supply – Remove top inlet blanking plate.
Bottom inlet supply – Remove bottom inlet blanking plate.
Back inlet supply – Removal of top or bottom inlet blanking plates not required.

The Mira Event case also caters for top, bottom or back electrical supply cable entry.
In the case of top or bottom entry this is achieved by cutting away and trimming thinned sections in the top and bottom of the case. The cable can then be fitted into a moulded channel running up and down the back of the case.



6. Change the Inlet Supply Ports





6.1. This procedure changes the blanking plug positions to allow for a top or back inlet supply configuration.

6.2. Use the push-fit release tool (supplied) to lever off the temperature knob, temperature trim and flow knob.

Note! Use of a screwdriver **will damage** the knobs and the cover assembly

6.3. Unscrew the cover retaining screw and remove the cover by pulling the bottom of the cover in an outward and upward direction

6.4. Remove the inlet blanking plate as appropriate.

6.5. Insert the push-fit release tool between the flange of each of the blanking plugs and the grey collet of the inlet manifold, and lever the plugs outward.

Whilst holding back on the collet, pull out each appropriate blanking plug by hand.

Install the two blanking plugs in the manifold bottom inlets.

Installation

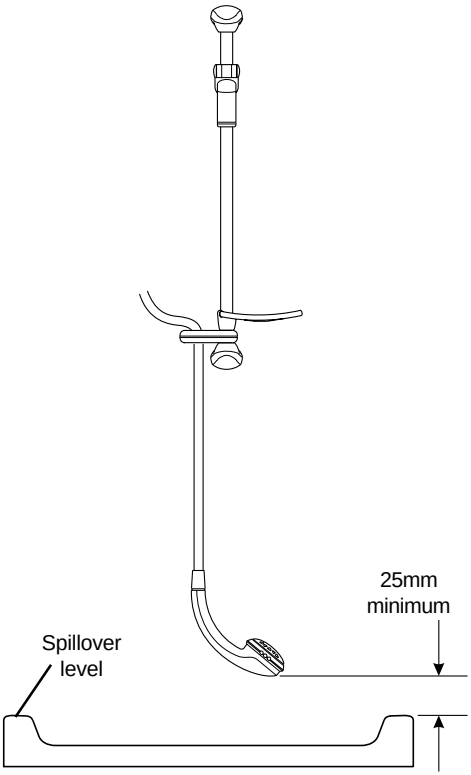
1. Mira Event

The following installation instructions are based on a rising hot and cold water supply entering the appliance from below (bottom inlet) and a falling concealed electrical supply (via miniature trunking) from above. The procedure should be applied to alternative inlet supply or electrical supply configuration as appropriate.

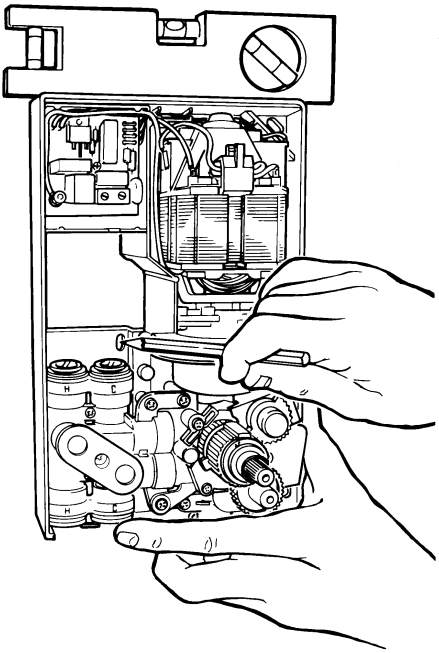
1.1. Ensure that you have read the section entitled **"Before You Start"** to select the appropriate inlet supply configuration to suit your installation.

1.2. The Mira Event should be positioned so that it is at a convenient height for all the family. It should be positioned so that it discharges down the centre line of the bath, or across the opening of the cubicle, and should be directed away from the appliance.

1.3. Decide on a suitable location for the appliance **avoiding buried cables and pipes**. Ensure that when the hose retaining ring is placed on the lowest position on the slide bar, that the handset will not fall below the **minimum clearance gap** between the bath or shower tray spillover level of 25mm.



Using the supplied Hose Retaining Ring to comply with (Bye-Law 17).

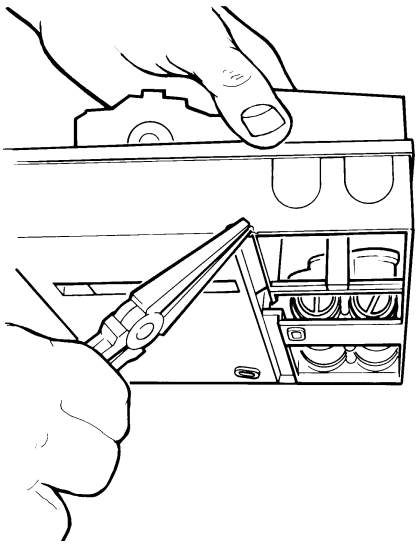


1.4. Using a spirit level position the appliance on the wall, then mark through the three fixing points.

Tip! Special consideration should be given to the fixing arrangements when installing on to a dry lined, stud partition or dry partition wall structure. Installers may wish to obtain alternative proprietary cavity fixings, or choose other options such as fabricating rear supports using wooden blocks, however, these methods of fixing are beyond the scope of this guide.

Important! This Mira Event **must** be fixed to the wall at all three fixing positions.

The fixing holes are elongated to assist in vertical and horizontal alignment.



1.5. Drill and plug the wall.

Caution! Avoid buried cables and pipes!

1.6. Cut away and trim the thinned section in the top of the case to allow the electrical supply cable to run down the back of the case.

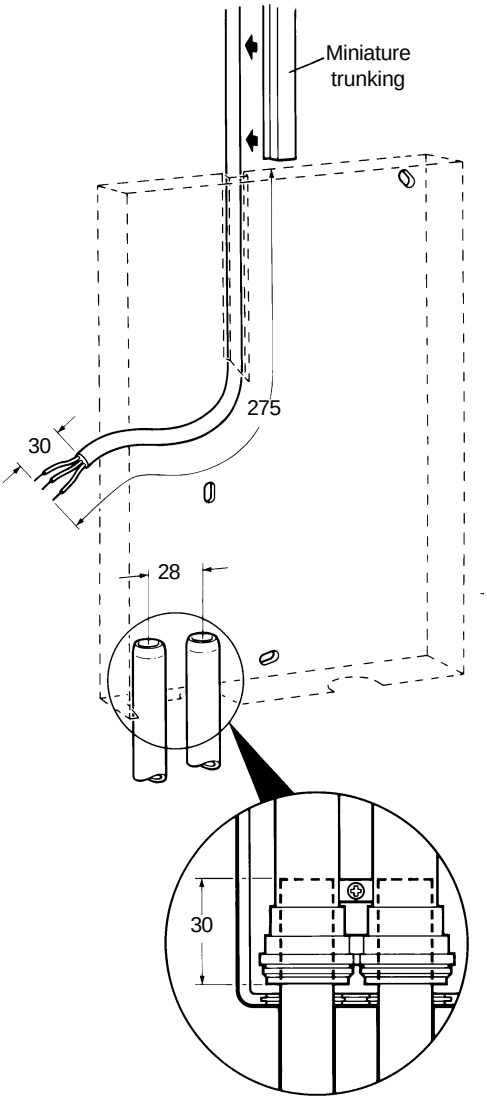
1.7. Run the electrical supply cable in surface mounted miniature trunking (not supplied).
Allow sufficient cable to connect to the appliance terminal block (approximately 275mm).
Strip back approximately 30mm of outer cable insulation.

1.8. Hot and cold inlet supply connections as marked are:-

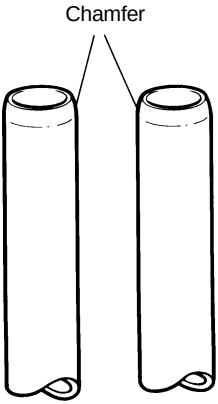
Hot – Left **Cold – Right**

Note! Reversed supply connections **cannot** be catered for with this appliance

Run the hot and cold water supply pipes at 28mm centres, ensuring that the pipe ends project into the appliance by 30mm to allow connection into the inlet manifold.



All dimensions in millimetres



1.9. Ensure that the end of the supply pipework is cut squarely and **free from burrs**, which will damage the inlet manifold seals.

Chamfer the end of the pipe to assist insertion into the fitting and prevent tearing the 'O' seal.

Thoroughly flush the incoming hot and cold water supply pipes (Bye-law 55).

Note! If using chrome plated copper pipework then all traces of chrome plate will need to be removed from the connecting surfaces. If the chrome is not completely removed then the inlet manifold collet will not grip the supply pipe and under pressure the pipes may be forced out.

Do not use stainless steel piping.

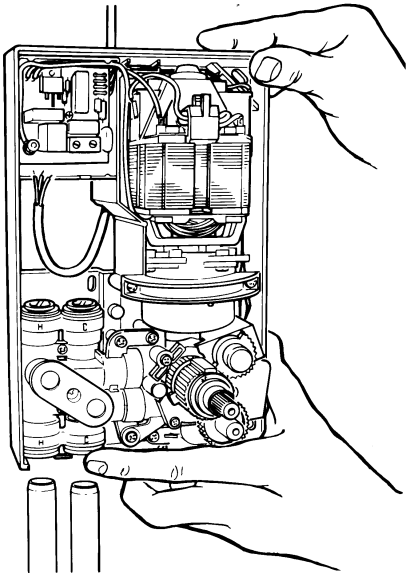
Note! PTFE tape or liquid jointing is **not** required to assist connection.

1.10. Push the supply pipework inside the inlet manifold until resistance is felt.

DO NOT FORCE!

Warning!

Do not insert fingers into the push-fit connectors as this can result in injury.

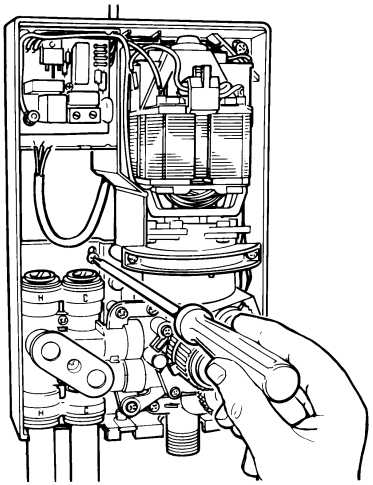


1.11. The collet and 'O' seal will automatically make a hydraulic seal.

Important!

This Mira Event **must** be fixed to the wall at all three fixing positions.

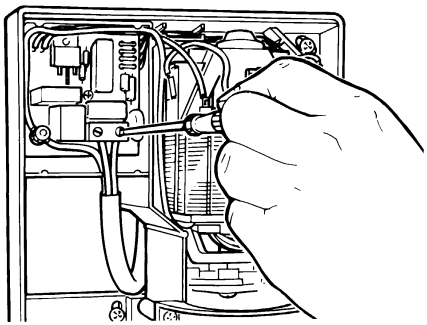
The fixing holes are elongated to assist in vertical and horizontal alignment.



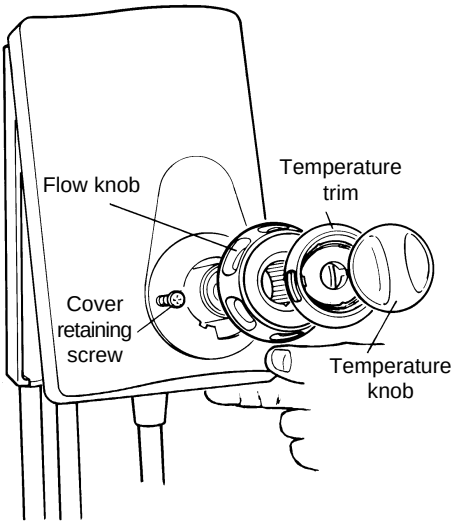
1.12. Screw the Mira Event to the wall using either the supplied wall screws or alternative fixings depending on the wall structure.

Do not over tighten!

Ensure that the electrical supply cable is correctly seated in the channel in the back of the case.



1.13. Connect the conductors of the electrical supply cable to the terminal block.
Take the earth wire to the earth stud adjacent to the PCB terminal block. The supply cable earth connector should be sleeved.

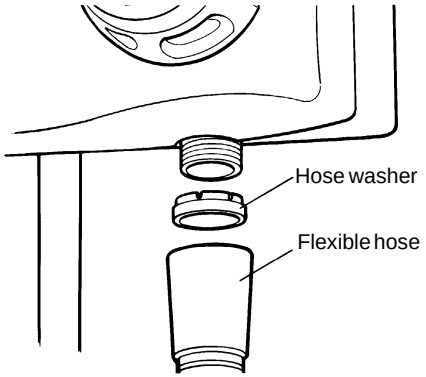


1.14. Refit the cover by locating the cover onto the tongue on the top of the case. Push the bottom of the cover against the case, tighten the cover retaining screw, refit the flow knob, temperature trim and temperature knob.

Note! The flow knob, temperature trim and temperature knob have key-ways to ensure correct alignment.

1.15. This completes the installation of the **Mira Event**. The appliance will now require to be commissioned before connecting the electrical supply. Refer to **"Commissioning: Priming the Appliance"** and **"Adjustable Maximum Temperature Setting"**.

2. Shower Fittings



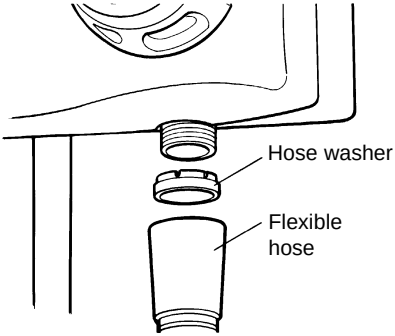
2.1. To install the **shower fittings**, please refer to the appropriate section in the Installation, Operation and Maintenance Guide which accompanies the fittings.

1. Priming the Appliance

The appliance **must not** be run dry. Before proceeding any further with the installation it is important to prime the pump assembly **before** switching on the electrical supply.

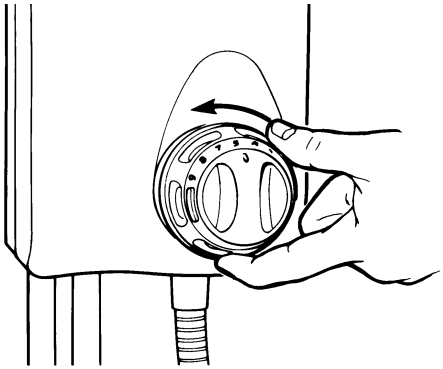
1.1 Connect the flexible hose from the shower fitting to the outlet of the appliance. Ensure hose washer is fitted.

Do not over-tighten.



1.2. Turn on water supplies.

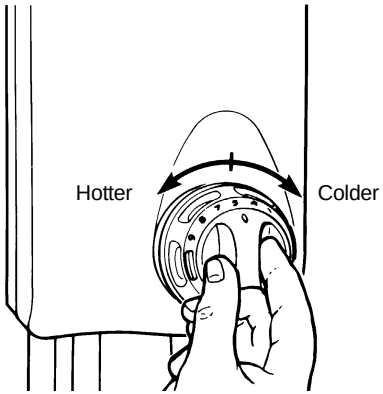
1.3. Turn the flow control fully on.



1.4. Turn the temperature knob anti-clockwise to check the hot supply and clockwise to check the cold supply.

1.5. The pump is now primed.

1.6. Switch on the electrical supply to the product.

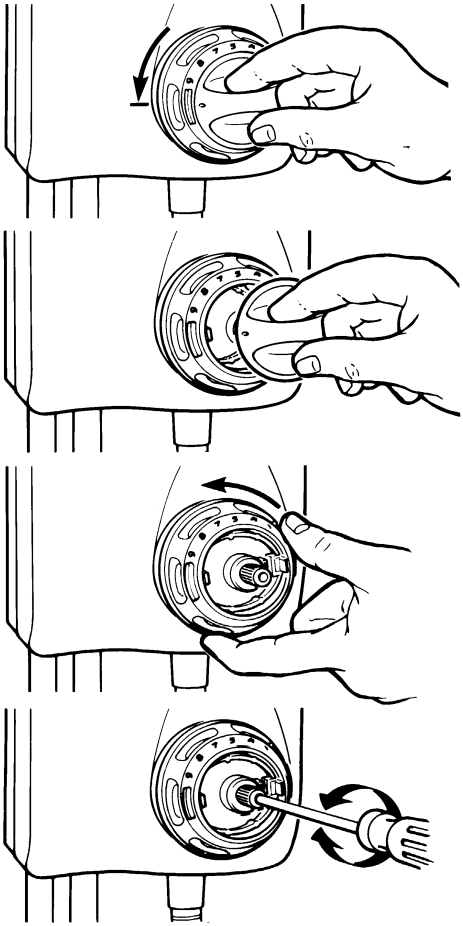


2. Adjustable Maximum Temperature Setting

The Mira Event is fully performance tested and the maximum temperature has been pre-set to approximately 43°C under ideal installation conditions at the factory and depressing the override button will increase the temperature by 5°C to approximately 48°C. Site conditions and personal preference may dictate that the maximum temperature has to be reset.

To reset the maximum temperature ensure that an adequate supply of hot water is available at a temperature at least 12°C in excess of that required from the appliance, and the temperature control knob is set to the full hot position. Turn the flow control knob fully anti-clockwise then check the temperature at the discharge point (allow sufficient time for hot water to reach the hot inlet of the appliance).
If the temperature is correct, turn the flow control knob fully clockwise to the off position as no further adjustment is necessary.

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



2.1 Turn the temperature knob anti-clockwise to full hot. **Do not depress the override button.**

2.2. Use the push-fit release tool to lever off the temperature knob.

2.3. Turn the flow control fully on.

2.4. Insert a thin bladed screwdriver (maximum blade width 4mm) down the centre of the temperature spindle and locate the slotted recessed screw.

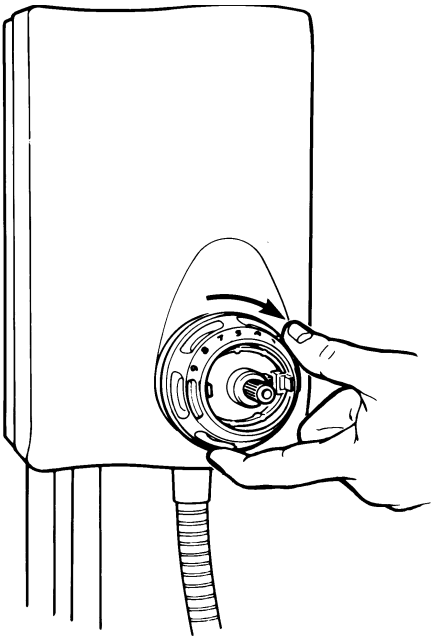
2.5. Adjust as follows:

Warmer ➠ Turn anti-clockwise

Cooler ➠ Turn clockwise

When resistance is felt **DO NOT USE FORCE** to turn the spindle any further as this is the maximum obtainable temperature from the appliance with the available hot water storage temperature.

FORCE will **DAMAGE** the thermostatic capsule.



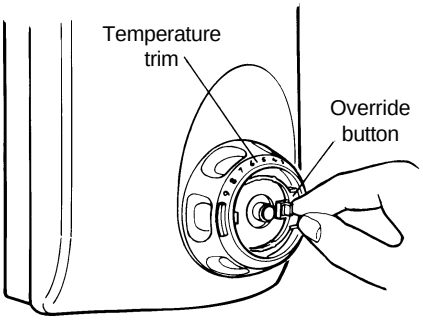
2.6. Turn the flow control fully off.

2.7. Refit the temperature knob taking care to correctly engage the key-way.

2.8. Recheck maximum temperature setting.

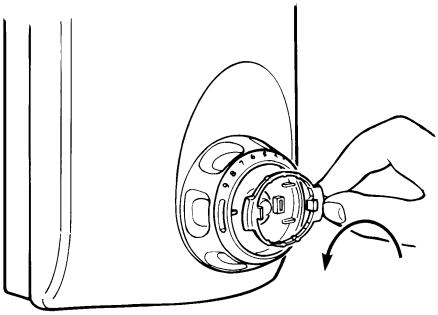
3. Temperature Override Button - Disable

The Mira Event incorporates a temperature override button that allows the user to override the pre-set maximum temperature. The following procedure can be used to disable the override button, limiting the maximum temperature available to the preset value. This setting is recommended for the young, the elderly, the infirm, or anyone inexperienced in the correct operation of the controls.
If the maximum temperature achieved at the discharge point is unsatisfactory then adjust the maximum temperature as follows:

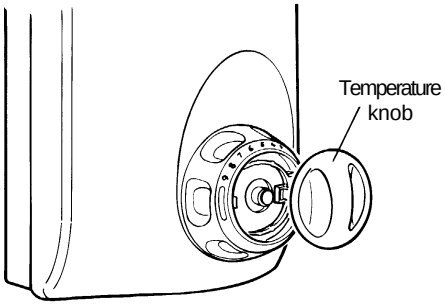


3.1 Use the push-fit release tool to lever off the temperature knob.

3.2. Unclip the concealed end of the override button from the temperature indicator trim and carefully remove the override button.



3.3. Rotate the override button through half a turn (180°) and refit. Make sure that the override button locates correctly in the temperature trim.



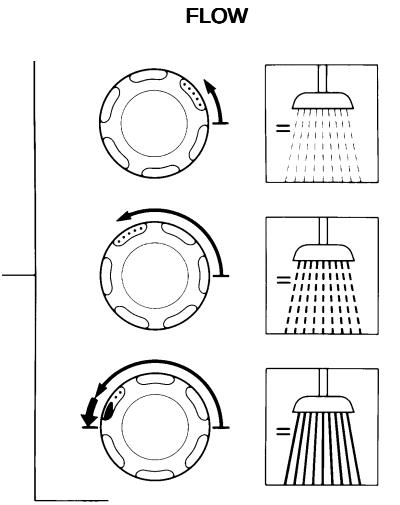
3.4. Refit the temperature knob with the indicator adjacent to the scale on the indicator trim.

3.5. Reversing the above procedure will enable the override button.

Operation

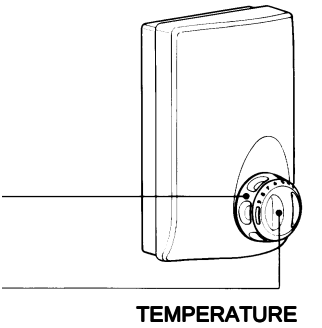
For safety reasons this appliance is fitted with an adjustable maximum temperature setting. This setting must be checked and adjusted as necessary to suit both site conditions and user's comfort. Refer to the section **"Commissioning: Adjustable Maximum Temperature Setting"** for further details.

1.1. Turn the flow control knob until the desired force of water is obtained. The force of water will progressively increase the further the travel of the flow knob. This increase is graphically represented by the indicator trim which is visible as the knob is rotated. An indent will be felt prior to engaging full power. During this operation the tone and speed of the pump will change.

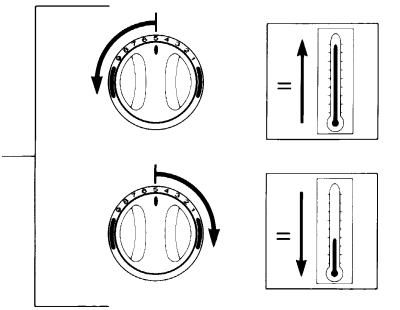


1.2. Turn the temperature control knob in the direction of the red indicator (anti-clockwise) for warmer water and in the direction of the blue indicator (clockwise) for cooler water, until the desired temperature of water is achieved.

Warning! Operation of the override button will allow a shower temperture above the pre-set maximum.



1.3. To override the pre-set maximum temperature depress the override button and turn the temperature knob anticlockwise.



1. Fault Diagnosis - User Maintenance

The Mira Event is fully performance tested after assembly. Providing the Mira Event has been correctly installed and is operated as advised, difficulties should not arise. In the unlikely event that you experience problems with your appliance then the following procedure will enable you to undertake basic fault finding before contacting the person responsible for installing your shower.

Malfunction	Cause	Remedy
Maximum shower temperature too hot.	Incorrect setting of maximum temperature.	Reset maximum temperature. Refer to **"Commissioning: Adjustable Maximum Temperature Setting".**
Shower temperature too cold.	Hot water cylinder temperature less than 12^0C above shower temperature.	Adjust cylinder temperature. (Recommended not to exceed 60^0C BS6700)
	Maximum temperature incorrectly set.	Reset maximum temperature. Refer to **"Commissioning: Adjustable Maximum Temperature Setting"**
Blend temperature unstable	Spray plate blocked.	Clean spray plate. Refer to the Installation, Operation and Maintenance guide supplied with the **shower fittings**.
	Inlet filter blocked.	Contact your installer.
	Isolating valve partially closed.	Open valve.
	Plumbing system fault.	Contact your installer.

Malfunction	Cause	Remedy
Low or no water flow	Isolating valves closed.	Open valves
	Inlet filters blocked.	Contact your installer.
	Check valve fitted incorrectly.	Contact your installer.
	Appliance sited above cold water storage cistern	The appliance is not suitable for negative head installations. Refer to **"Installation Requirements".**
	Plumbing system fault (airlock)	Contact your installer.

2. Fault Diagnosis - Installer Maintenance

The Mira Event is one part of an entire plumbing system. The fitting of a pump places additional requirements on the plumbing system. Some systems may require plumbing modifications to allow them to cope with higher flow rates.

Providing the Mira Event has been correctly installed and is operated as advised, difficulties should not arise. Fault diagnosis and maintenance must be carried out by a competent person for whom the fault diagnosis table is provided.

In the event of any of the following tests failing, re-check as appropriate before contacting the Caradon Mira Customer Support Department (Refer to Back Cover).

Malfunction	Cause	Remedy
Shower runs for a short time (30-60 seconds) then flow reduces, splutters or stops. Aggravated when other hot taps are in use. Less evident on full cold.	Air is being sucked down the vent pipe, as the hot take off to the shower is too high up the pipe.	Refer to plumbing system diagrams in the section "**Installation Notes**" for correct connection method. Note the 1 metre hot take-off dimension. Consider increasing cold feed pipe to cylinder to 28mm diameter.
Shower runs cool after a short time (1-2 minutes) then flow splutters.	Air ingress into hot pipework.	Refer to plumbing system diagrams in the section "**Installation Notes**" for correct connection method.
Flow of water virtually stops and surges on/off, after a few minutes.	Insufficient storage of cold water in cistern. BS6700 recommends 230 litres.	Increase storage of cold cistern.
Shower runs cold after 5-10 minutes.	Insufficient storage of hot water in cylinder.	Increase storage of hot water.
Shower temperature affected by use of adjacent hot/cold tap.	Insufficiently sized pipework for both systems to be used together.	Increase pipe sizes or separately feed shower. Refer to plumbing system diagrams in the section "**Installation Notes**".

Malfunction	Cause	Remedy
Maximum shower temperature too hot.	Incorrect setting of maximum temperature.	Reset maximum temperature. Refer to **"Commissioning: Adjustable Maximum Temperature Setting".**
Shower temperature too cold.	Hot water cylinder temperature less than 12^0C above shower temperature.	Adjust cylinder temperature. (Recommended not to exceed 60^0C BS6700)
	Maximum temperature incorrectly set.	Reset maximum temperature. Refer to **"Commissioning: Adjustable Maximum Temperature Setting"**
Blend temperature unstable	Spray plate blocked.	Clean spray plate. Refer to the Installation, Operation and Maintenance guide supplied with the shower fittings.
	Inlet filter blocked.	Contact your installer.
	Isolating valve partially closed.	Open valve.
Drip from shower head.	Flow control gear positioned incorrectly. Defective flow control.	Contact Caradon Mira Service Office. Renew Mixer Assembly.
Pump does not operate.	Electrical supply failure.	Check power supply.
	On/off micro-switch failure.	Renew.
	PCB failure	Renew.
	Potentiometer defective.	Replace PCB and Potentiometer

Malfunction	Cause	Remedy
Pump does not operate.	Motor overheated, thermal switch operated.	Allow motor to cool before further operation. (Refer to **"Specifications: Continuous duty cycle"**).
Pump speed does not increase when flow knob turned past indent.	Potentiometer gear incorrectly alighed or disengaged.	Refer to **"Maintenance: Mixer Assembly Renewal"**.
Low or no water	Isolating valves closed.	Open valves
	Inlet filters blocked.	Clean filters.
	Check valve fitted incorrectly.	Refer to **"Maintenance: Check Valve Renewal"**.
	Appliance sited above cold water storage cistern	The appliance is not suitable for negative head installations. Refer to **"Installation Requirements".**
	Plumbing system fault (airlock)	Re-route the pipework to avoid airlock.
	Blocked spray plate.	Clean spray plate. Refer to the Installation, Operation and Maintenance guide supplied with the **shower fittings**.
Pump does not stop.	Micro-switch defective.	Renew.
	PCB failure.	Renew.

Maintenance

1. General

Each Mira Event is precision engineered to provide satisfactory performance provided it is installed and operated in accordance with our recommendations contained in section entitled **"Installation Notes"**.

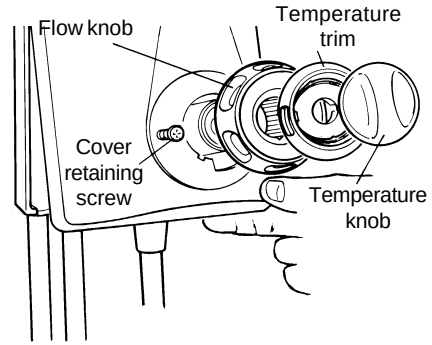
2. Cleaning

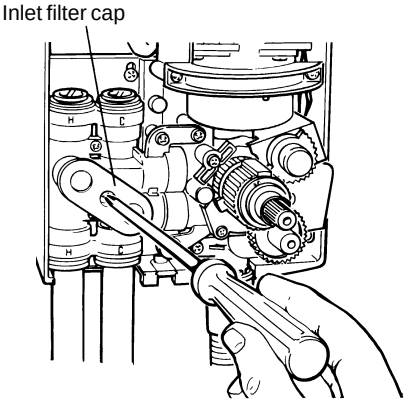
Many household cleaners contain abrasives and chemical substances, and should not be used for cleaning plated or plastic fittings. These finishes should be cleaned with a mild washing up detergent or soap solution, and then wiped dry using a soft cloth.

3. Inlet Filters, Cleaning or 'O' Seals Renewal

The following procedure can be applied for cleaning or renewing the inlet filters or inlet filter 'O' seals.

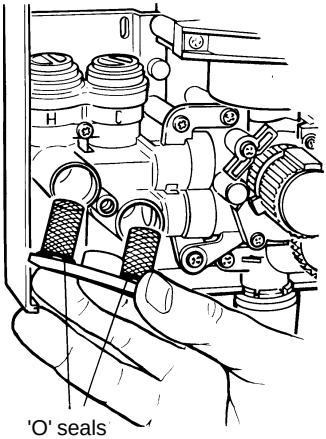
Warning!
Isolate the electrical and water supply to the appliance before proceeding.
Turn flow control on and off to relieve water pressure.

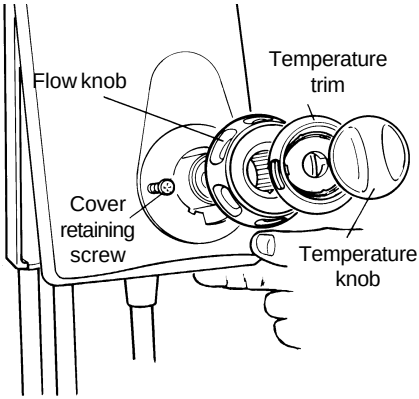




3.1. Use the push-fit release tool to lever off the temperature knob, temperature trim and flow knob. Unscrew the cover retaining screw and remove the cover by pulling the bottom of the cover in an outward and upward direction.

3.2. Remove the inlet filter cap retaining screw and filter cap.





3.3. Thoroughly clean the inlet filters. Inspect the 'O' seals and renew if required.

Before refitting the inlet filter cap lightly grease 'O' seals with a silcone based lubricant.

3.4. Refit in reverse order.

3.5. Restore the water supplies and check for any leaks.

3.6. Refit the cover by locating the cover onto the tongue on the top of the case. Push the bottom of the cover against the case, tighten the cover retaining screw, refit the flow knob, temperature trim and temperature knob.

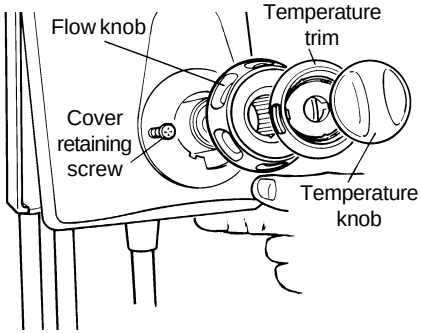
3.7. Prime the pump, refer to **"Commissioning: Priming the Appliance"**.

3.8. Restore the electrical supplies.

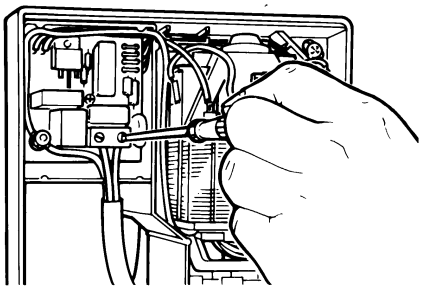
4. Inlet Manifold, Check Valve or 'O' Seals Renewal

The following procedure can be applied for cleaning or renewing the inlet manifold, inlet check valves or 'O' seals.

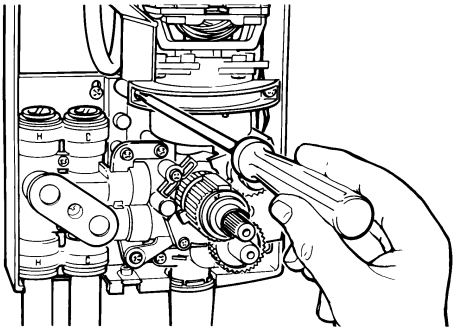
Warning! Isolate the electrical and water supply to the appliance before proceeding.



4.1. Use the push-fit release tool to lever off the temperature knob, temperature trim and flow knob. Unscrew the cover retaining screw and remove the cover by pulling the bottom of the cover in an outward and upward direction.

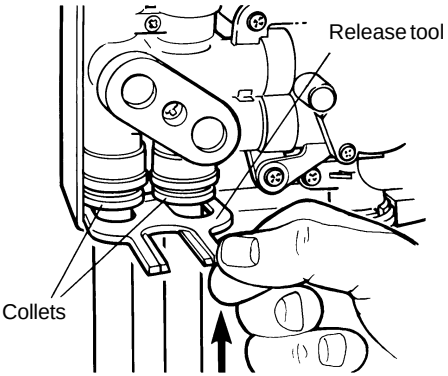


4.2. Disconnect the electrical supply cable from the terminal block and earth stud.
Remove the flexible hose from the appliance.



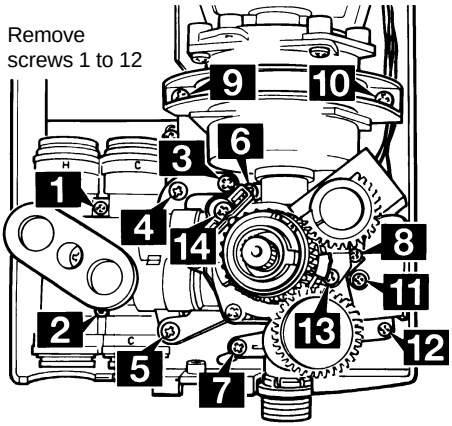
4.3. Disconnect the electrical supply cable from the terminal block and earth stud.

4.4. Remove the flexible hose from the appliance.

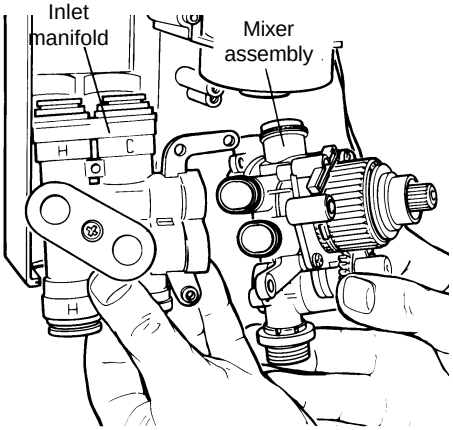


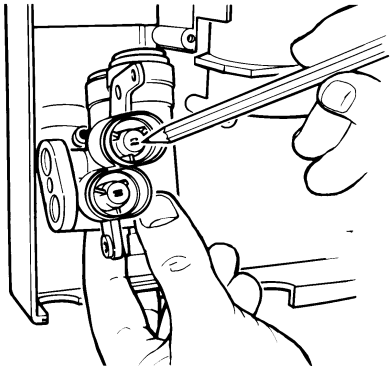
4.5. Remove the three wall fixing screws,

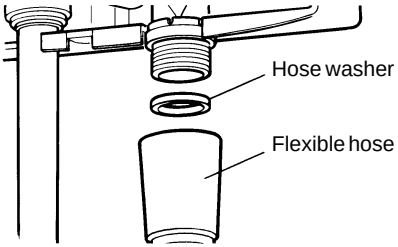
4.6. Using the push-fit release tool, push back and hold the collets from the supply pipework, lift the appliance from the wall to remove the supply pipework from the inlet manifold.

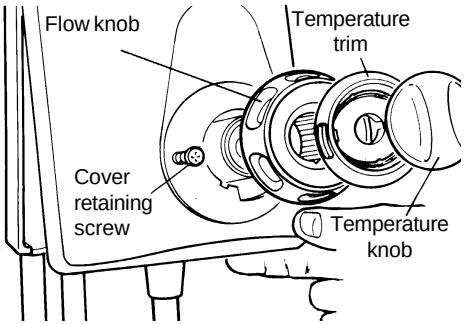


4.7. Remove the inlet manifold, mixer assembly, pump saddle clamp and on/off micro-switch retaining screws. Remove the drip shield the micro-switch and the pump saddle clamp.









4.8. Whilst gripping the mixer assembly disconnect the inlet manifold.

4.9. The ports adjacent to the mixer assembly contain the inlet check valves. The check valves can be removed and replaced if required. Ensure the check valve is inserted so the 'O' seal on check valve faces into the outlet of the manifold.

4.10. Inspect inlet manifold 'O' seals and renew if required.

Tip! When refitting the inlet manifold, lightly grease 'O' seals with a silicone based lubricant.

4.11. Refit in reverse order.

4.12. Restore the water supplies and check for any leaks.

4.13. Refit the cover by locating the cover onto the tongue on the top of the case. Push the bottom of the cover against the case, tighten the cover retaining screw, refit the flow knob, temperature trim and temperature knob.

4.14. Prime the pump, refer to **"Commissioning: Priming the Appliance"**.

4.15. Restore the electrical supplies.

5. Push-fit Collet or 'O' Seals Renewal

The following procedure can be applied for renewing the push-fit collets or inlet manifold internal 'O' seals.

Warning! Isolate the electrical and water supply to the appliance before proceeding.

5.1. Follow the instructions **4.1** to **4.4** contained in the section **"Inlet Manifold, Check Valve or 'O' Seals Renewal".**

5.2. **For top or back inlet supplies**

Using the push-fit release tool lever out the collets. Renew the collets if required.

For bottom inlet supplies
Follow the instructions **4.5** to **4.6** contained in the section **"Inlet Manifold, Check Valve or 'O' Seals Renewal".**

Using the push-fit release tool lever out the collets. Renew the collets if required.

Warning!

Do not insert fingers into the collets as this can result in injury.

5.3. Inspect the internal 'O' seals for signs of damage and renew if required.

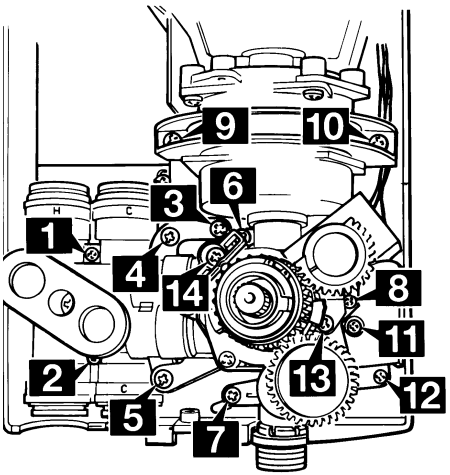
5.4. Follow the instructions **4.9** to **4.13** contained in the section **"Inlet Manifold, Check Valve or 'O' Seals Renewal"**.

6. Mixer Assembly Renewal

The following procedure can be applied for cleaning or replacing the mixer assembly.

Warning! Isolate the electrical and water supply to the appliance before proceeding.

Remove screws 1 to 10



Remove screws 11 to 13

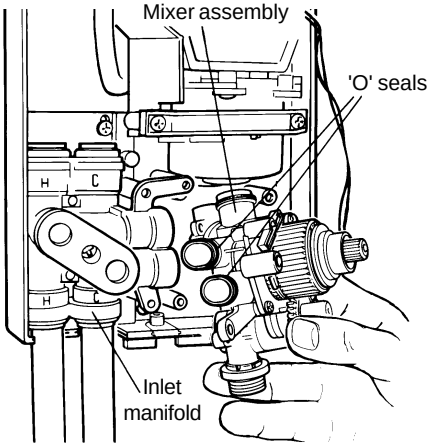
6.1. Follow the instructions **4.1** to **4.4** contained in the section **"Inlet Manifold Renewal"**.

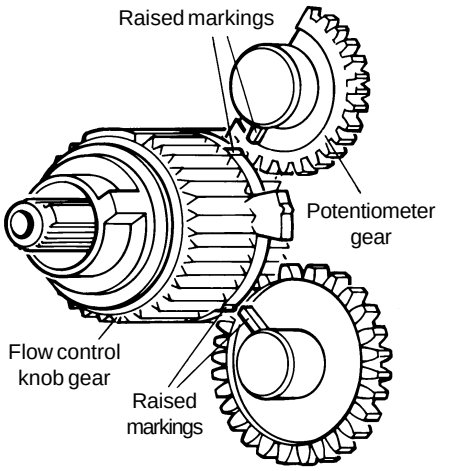
6.2. Remove the inlet manifold and mixer assembly retaining screws, pump saddle clamp retaining screws and clamp.

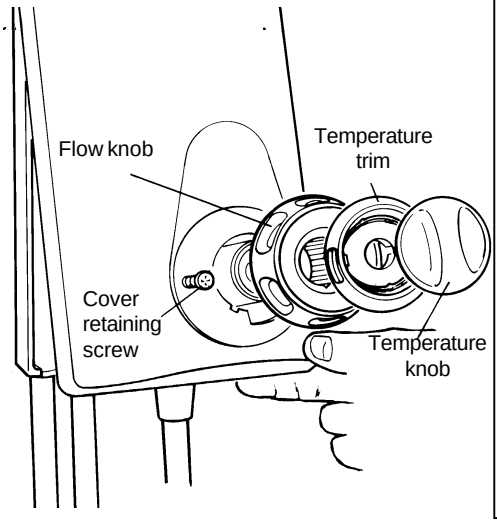
6.3. Remove the gear pot securing screw and gear pot from mixer assembly.

6.4. Remove micro-switch retaining screws, drip shield and micro-switch.

Do not remove PCB wiring from micro-switch.







6.5. Separate the mixer assembly from the inlet manifold and the pump assembly.

6.6. Refit in reverse order.

Note! Ensure that the 'O' seals between the mixer assembly and the pump assembly are correctly seated on **each** male spigot.

Tip! When refitting the mixer assembly lightly grease 'O' seals with a silicone based lubricant.

Note! When refitting the gear pot care should be taken to align the raised marking on gear with the adjacent marking on the flow control knob gear.

6.7. Restore the water supplies and check for any leaks.

6.8. Refit the cover by locating the cover onto the tongue on the top of the case. Push the bottom of the cover against the case, tighten the cover retaining screw, refit the flow knob, temperature trim and temperature knob.

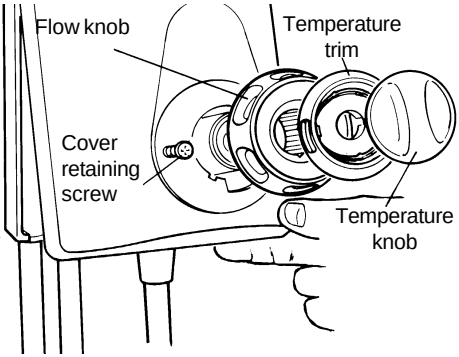
6.9. Prime the pump, refer to **"Commissioning: Priming the Appliance"**.

6.10. Restore the electrical supplies.

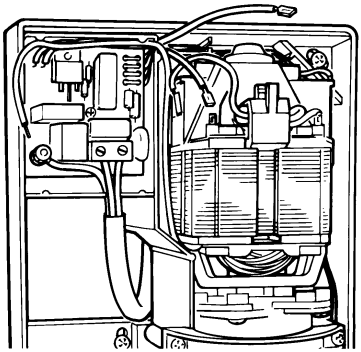
7. Pump Assembly Renewal

The following procedure can be applied for cleaning or replacing the pump assembly.

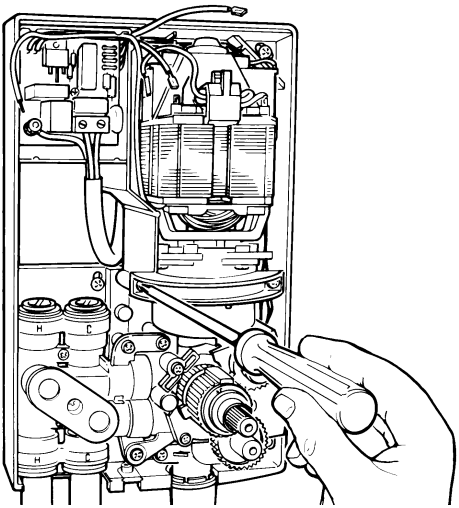
Warning! Isolate the electrical and water supply to the appliance before proceeding.



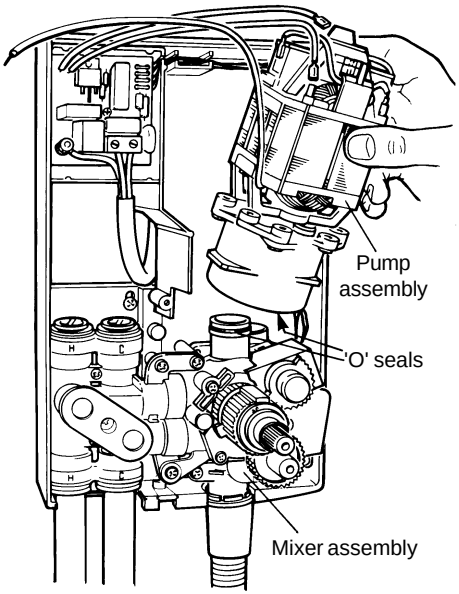
7.1. Use the push-fit release tool to lever off the temperature knob, temperature trim and flow knob. Unscrew the cover retaining screw and remove the cover by pulling the bottom of the cover in an outward and upward direction.



7.2. Disconnect the pump electrical supply wiring from the pump assembly and the earth wire from the earth stud on the pcb.



7.3. Remove saddle clamp retaining screws and clamp.



7.4. Separate pump assembly from mixer assembly.

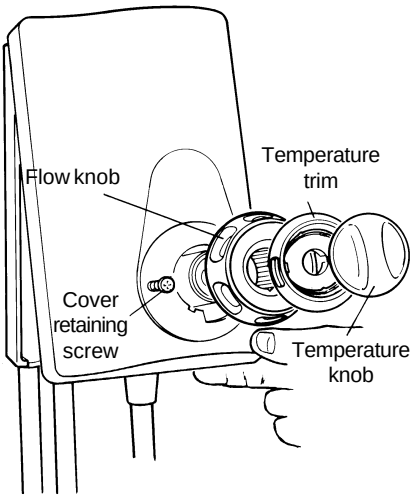
7.5. Refit in reverse order.

Note! Ensure that the 'O' seals between the mixer assembly and the pump assembly are correctly seated on **each** male spigot.

Tip! When refitting the pump assembly lightly grease 'O' seals with a silicone based lubricant.

7.6. Restore the water supplies and check for any leaks.

7.7. Refit the cover by locating the cover onto the tongue on the top of the case. Push the bottom of the cover against the case, tighten the cover retaining screw, refit the flow knob, temperature trim and temperature knob.



7.8. Prime the pump, refer to **"Commissioning: Priming the Appliance"**.

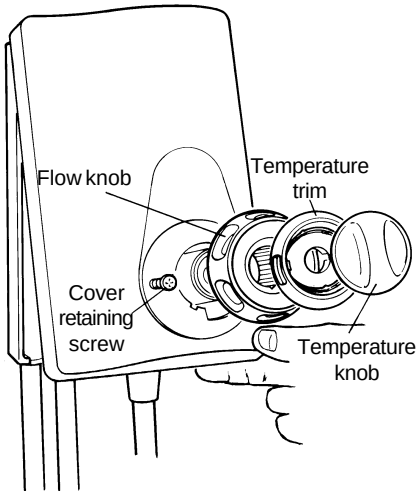
7.9. Restore the electrical supplies.

8. PCB and Potentiometer Renewal

Warning! Isolate the electrical and water supply to the appliance before proceeding.

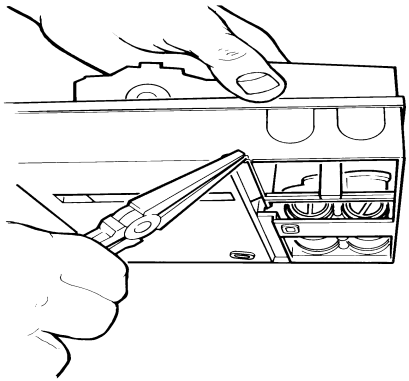
Disconnect wiring by pulling on body of spade connector only and not the wire itself.

CAUTION! Before proceeding with any electrical work on this unit ensure that the capacitors on the printed circuit board are fully discharged. To do this, turn the flow control knob fully 'ON' and 'OFF' again after the power has been isolated from the unit.

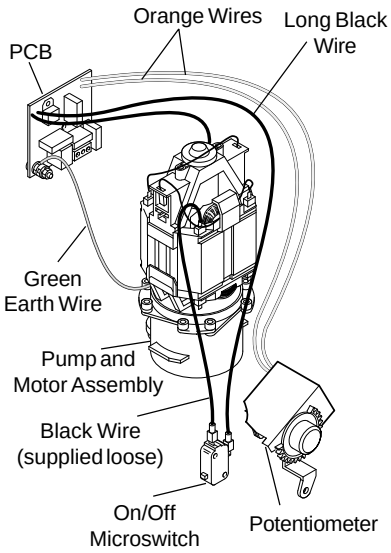


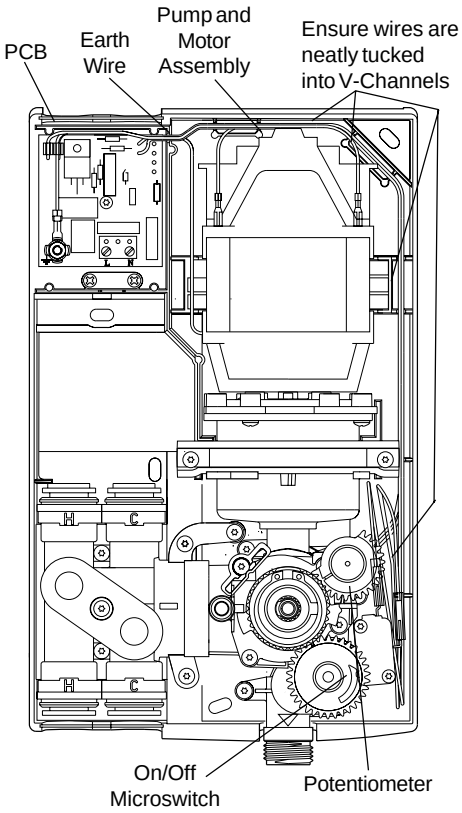
8.1. Use the push-fit release tool to lever off the temperature knob, temperature trim and flow knob. Unscrew the cover retaining screw and remove the cover by pulling the bottom of the cover in an outward and upward direction.

8.2. Disconnect the electrical supply cable from the appliance terminal block.



8.3. Remove the PCB securing screw and disconnect the PCB supply wires from on/off micro-switch.





8.4. Disconnect and remove the old PCB.

8.5. Fit the shorter black wire of the new PCB to the free rear motor terminal.

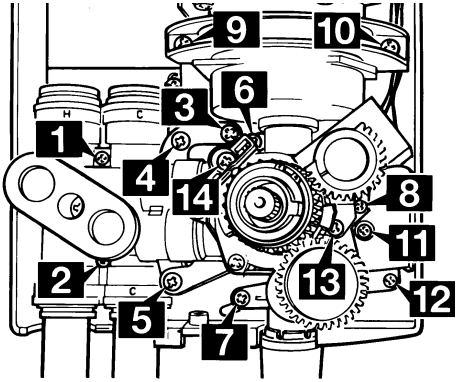
8.6. Fit the longer black wire of the new PCB to one of the on/off micro-switch terminals.

8.7. Fit one end of the black wire that is supplied loose to the free front motor terminal and the other end to the free on/off micro-switch terminal.

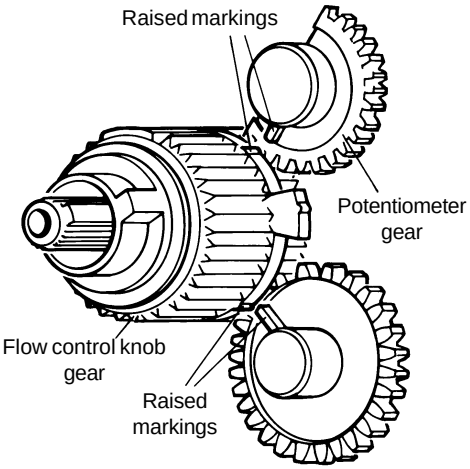
8.8. There is no change to the connection of the orange wires to the potentiometer.

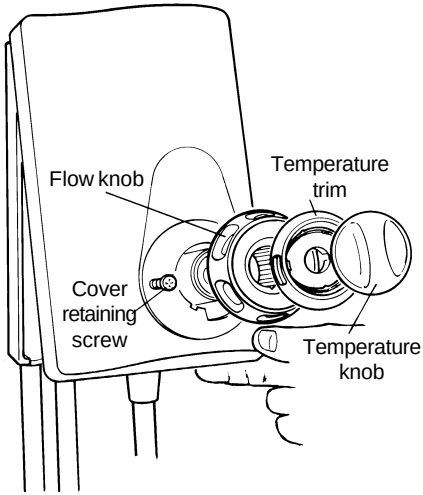
8.9. Position and secure the PCB and reconnect the Earth wire.

8.10. Ensure all wires are neatly tucked into the case V channels around the motor & mixer assembly.



Remove screw 13





8.11. Remove the gear potentiometer securing screw and gear potentiometer with drip shield from mixer assembly.

Note! When refitting the gear pot care should be taken to align the raised marking on gear with the adjacent marking on the flow control knob gear.

8.12. Refit in reverse order.

8.13. Refit the cover by locating the cover onto the tongue on the top of the case. Push the bottom of the cover against the case, tighten the cover retaining screw, refit the flow knob, temperature trim and temperature knob.

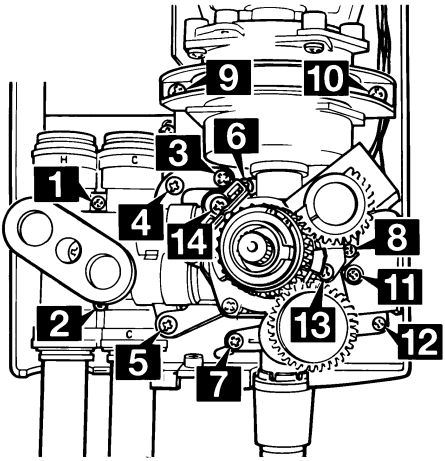
Restore the electrical supplies.

9. Micro-switch

Warning! Isolate the electrical and water supply to the appliance before proceeding.

Disconnect wiring by pulling on body of spade connector only and not the wire itself.

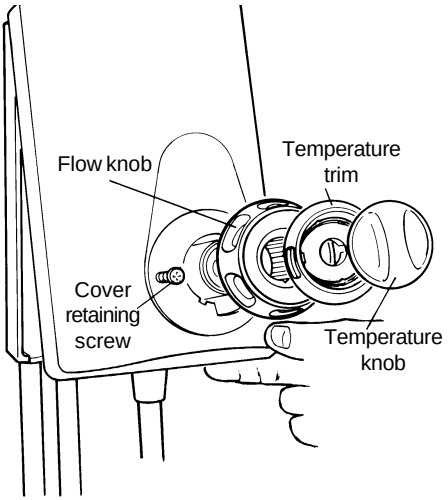
9.1. Remove micro-switch retaining screws the drip shield and micro-switch. Remove electrical supply wiring to micro-switch.



9.2. Renew micro-switch.

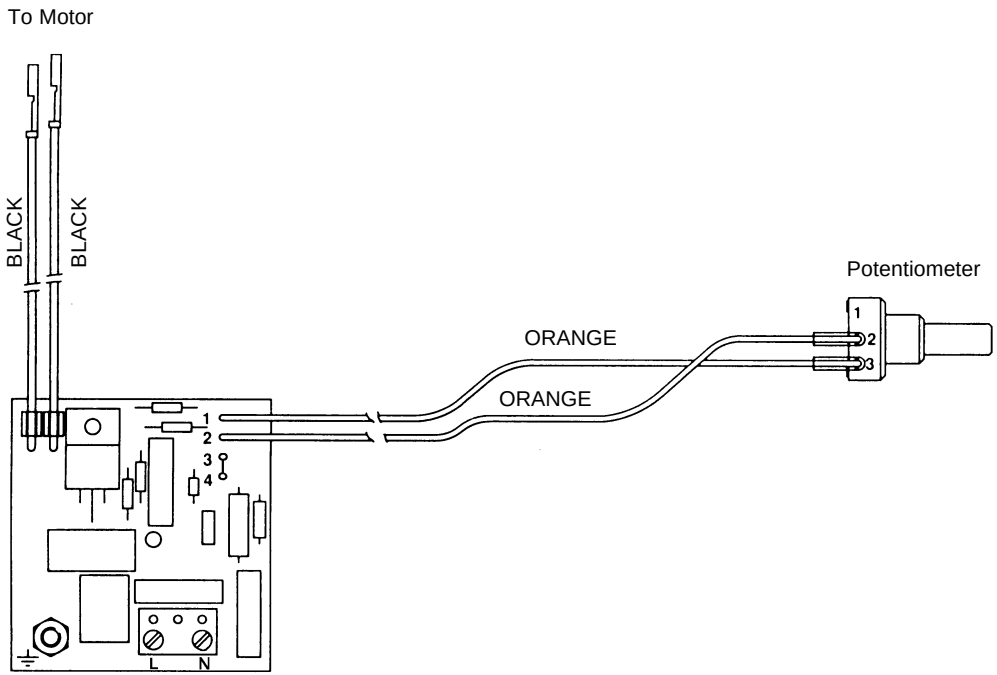
9.3. Refit in reverse order.

9.4. Refit the acover by locating the cover onto the tongue on the top of the case. Push the bottom of the cover against the case, tighten the cover retaining screw, refit the flow knob, temperature trim and temperature knob.

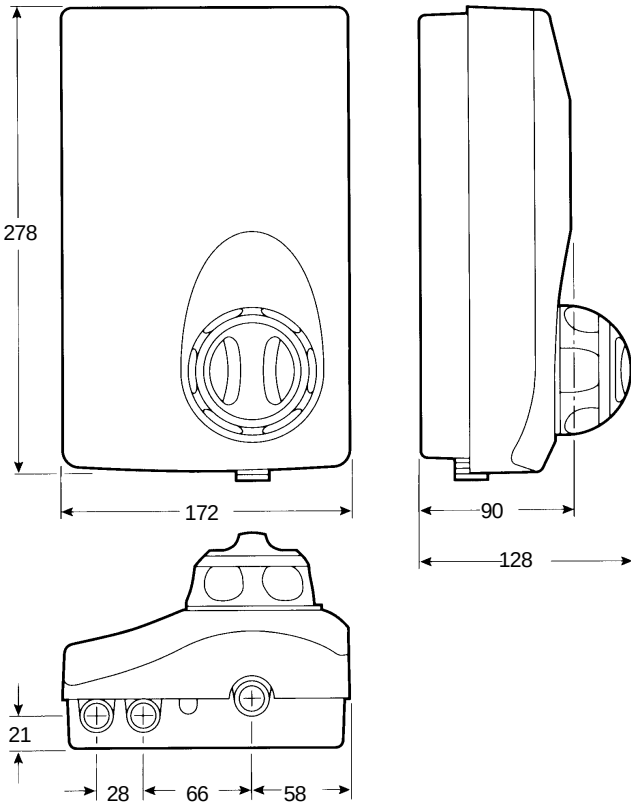


Restore the electrical supplies.

Wiring Diagram



Dimensions



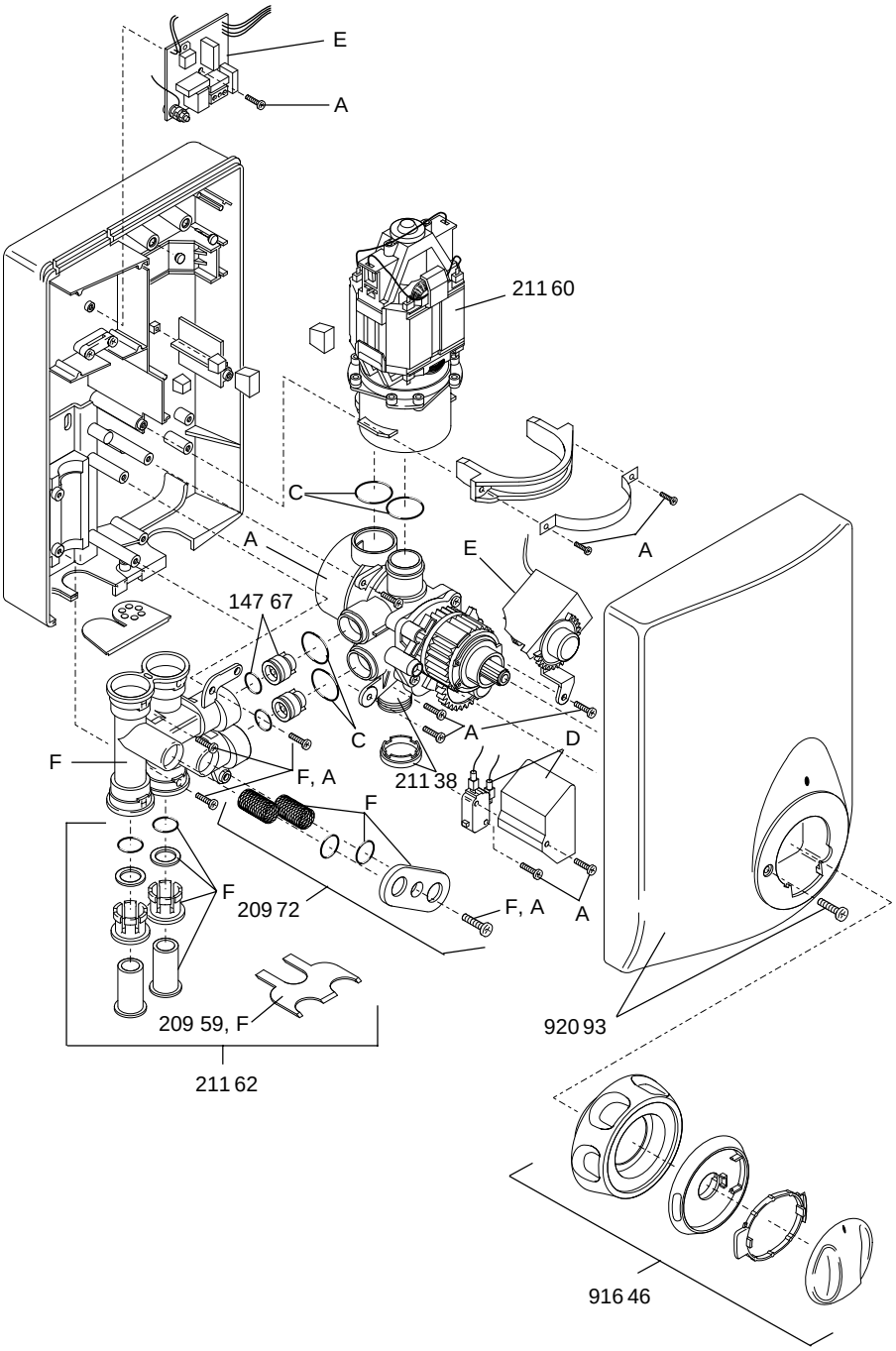
All dimensions are nominal and in millimetres.

Spare Parts

1. Spare Parts List

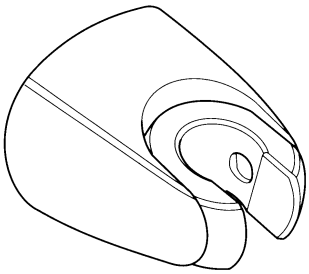
147 67	Check Valve Pack
209 59	Push-fit Release Tool
209 72	Filter Pack Spares
209 73	Unit Screw Pack - components identified 'A'
209 74	Fixing Screw Pack (not shown)
209 75	Seal Pack, Mixer - components identified 'C'
209 79	Manifold Assembly - components identified 'F'
209 80	Switch Assembly - components identified 'D'
211 38	Mixer Assembly
211 60	Pump Assembly
211 61	Speed Control Pack - components identified 'E'
211 62	Push-fit Pack
916 46	Knob Set
920 93	Cover Assembly

2. Spare Parts Diagram



Optional Accessories

RF2 Fixed handset holder. A simple alternative or additional holder for a shower handset, available as an optional accessory from your Mira stockist.



RF2 Fixed handset holder

Notes

Customer Service

Guarantee

Caradon Plumbing Solutions guarantee this product against any defect of materials or workmanship for two years from the date of purchase, provided that the product has been installed correctly and used and maintained in accordance with the instructions supplied.

Any part found to be defective during the guarantee period will be replaced or repaired – at our option – without charge, provided that the product has been properly used and maintained.

The product should not be taken apart, modified or repaired except by a person authorised by Caradon Plumbing Solutions.

Your statutory rights are in no way affected by this guarantee.

After Sales Service – how we can help you

Caradon Plumbing Solutions have a team of expert staff ready to provide assistance, should you experience any difficulty with your Mira shower.

The Caradon Plumbing Solutions Customer Services is available to give you advice on any problem encountered. Should the problem be unable to be resolved by advice, we will offer either a replacement part to be sent to you, or for one of our Service Engineers or Agents to call.

Spare Parts

At Caradon Plumbing Solutions we keep a stock of all functional parts of our products for up to ten years from the date of final manufacture of the product.

If during that period, our stock of a particular part is exhausted we will, as an alternative, provide an equivalent new product or part at a price equating to the cost of repair to the old, bearing in mind the age of the product.

Caradon Plumbing Solutions will normally despatch spare parts within two working days and by 1st class post. In the interests of customer safety, spares that require exposure to areas of mains voltage can only be sent to a competent person.

Payment for such parts – if applicable – can be made by Visa or Access over the phone at the time of ordering. Should payment by cheque be preferred a pro forma invoice will be sent.

Customer Care Policy

If within a short time of installation the product does not function correctly, first check with the Installation, Operation and Maintenance Guide to see if the difficulty can be overcome by simple home maintenance.

Failing this, contact your installer to ensure that the product has been installed and commissioned in full accord with our detailed installation instructions. Our Customer Services is available, on the number shown below, to advise you or your installer.

If this does not resolve the difficulty, contact our Customer Services who will give every assistance and, if appropriate, arrange for our local Service Engineer or Agent to call on a mutually agreeable date.

If, through circumstances beyond our control, we are unable to provide this cover we will, with prior agreement, authorise a competent local installer to attend.

Within the Guarantee period there will be no charge for the parts or labour insofar as a fault with our product is concerned. However, it is important to appreciate that our Guarantee extends to our product only and that it does not cover difficulties arising from incorrect installation or misuse.

During a Service visit a responsible person – familiar with the purpose of the visit – should be present. Should our Service Engineer or Agent be unable to gain access at the pre-arranged time a callout charge may be made.

Payment for Service visits, if applicable, should be made directly to the Service Engineer or Agent, using either Visa, Access or a cheque supported by a banker's card.

To contact us:-

For England, Wales and Scotland

Telephone 01242 262888 (12 Direct Lines) and ask for Caradon Plumbing Solutions Customer Services

- For advice on product maintenance
- To order spare parts
- To arrange a service visit
- For product advice and problem solving
- To order Installation, Operation and Maintenance Guides
- For your feedback on our products or services

By Fax: (01242) 282595

By Post: Caradon Plumbing Solutions, Cromwell Road Cheltenham, Gloucestershire, GL52 5EP.

For Northern Ireland

By Phone: 01232 401909 – Monday to Friday 9am–5pm

By Fax: 01232 401235 – 24 Hours

By Post: Wm. H. Leech & Son Ltd, Unit 3, 34, Montgomery Road, Belfast, BT6 9HL.

For Eire

By Phone: Dublin 01 4591344 – Monday to Friday 9am–5pm

By Fax: Dublin 01 4592329 – 24 Hours

By Post: Modern Plant Ltd, Otter House, Naas Road, Clondalkin, Dublin 22, Eire.

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www.mira-showers.co.uk

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Reg. No. FM 14648

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