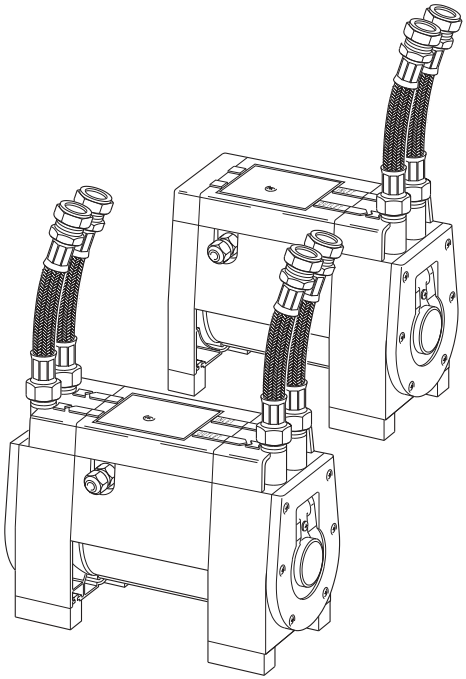
mira

SHOWERS



PP2
PPT3

SHOWER PUMP

Installation

Operation &

Maintenance Guide

THESE INSTRUCTIONS ARE TO BE LEFT WITH THE USER

Contents

Section 1

Important Safety Information

1. WARNING!

1.1. Products manufactured by Mira are precision engineered and should give continuous superior and safe performance provided they are installed, operated and maintained in accordance with the instructions and recommendations given in this manual.

2. Caution!

2.1. Read all of these instructions and retain this manual for later use.

2.2. Pass on this manual in the event of change of ownership of the installation site.

2.3. The plumbing installation must comply with the requirements of UK Water Regulations/Bye-laws (Scotland), 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:

2.3.1. Institute of Plumbing (IOP), throughout the UK.
2.3.2. National Association of Plumbing, Heating and Mechanical Services Contractors (NAPH & MSC), England and Wales.
2.3.3. Scottish and Northern Ireland Plumbing Employers' Federation (SNIPEF), Scotland and Northern Ireland.

2.4. WARNING - THIS APPLIANCE MUST BE EARTHED.

In accordance with the current edition of 'The Plugs and Sockets etc. (Safety) Regulations' in force at the time of installation, this appliance is intended to be permanently connected to the fixed electrical wiring of the mains system.

2.5. Bonding and electrical wiring must be carried out in accordance with the 'Requirements for Electrical Installations', commonly referred to as the IEE Wiring Regulations, or any particular regulations or 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:

2.4.1. National Inspection Council for Electrical Installation and Contracting (NICEIC), throughout the UK.
2.4.2. The Electrical Contractors Association (ECA), England and Wales.
2.4.3. The Electrical Contractors Association of Scotland (ECAS).

2.6. The inclusion of a Residual Current Device (RCD) (Earth trip) with a trip current of 30mA is recommended. This may already be part of the consumer unit.

2.7. 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.

2.8. When this appliance 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.

Introduction

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

Description

The Mira PP2 single impeller regenerative pump is designed to receive a single gravity feed from a mixing valve and provide a pressurised supply to a fixed shower head or shower handset, refer to Figure 2. It can also be used to receive a cold water gravity supply from a cistern and provide a pressurised supply to an instantaneous electric shower unit, refer to Figure 12. The pump is not suitable for installation in the system layout shown in Figure 6.

The Mira PPT3 twin impeller regenerative pump is designed to receive a hot and cold gravity supply and provide a pressurised hot and cold supply to a mixing valve, refer to Figures 3, 4 and 5. The pump is not suitable for installation in the system layouts shown in Figures 7 and 8.

The pump is more effective when pushing water along a pipe rather than pulling. Thus the pump is best positioned as close to the hot water or blend water source as possible to reduce cavitation (air bubbles) in the pipes. The greater the static (inlet) water pressure on the pump the better it will operate. Thus positioning a pump at high level is not advantageous, and may result in inferior performance.

Due consideration should be made to the pump position as any noise generated may be amplified by installation conditions such as reverberant panels etc. The pump motor is air cooled and it is important that the flow of air around the motor is not impeded.

The pump should be sited in a frost free area and inlet/outlet pipework layouts which can create significant airlocks are best avoided. Pipework on the outlet side of the pump that could be prone to airlocks, more commonly the hot on a twin pump, can be fitted with a float-type automatic air vent (bottle vent) at the highest point as shown in Figure 4. This will ensure that air released in the hot water during the pumping and heating process can be vented.

The hot water storage temperature should not exceed 60 ^{o}C. Operation at this temperature will also reduce the rate of formation of limescale in the system. The stored hot and cold water volumes should be sufficient for the required duty. Typical minimum flow rates are 5 l/m for body sprays and 10 l/m for a pulsating handset or overhead shower. The manufacturer's data for the outlet fittings should be consulted.

Operation

The pump would normally start automatically when the mixing valve or pump outlet is turned on. A magnetic float at the pump outlet, (either float in the case of a PPT3 pump) operates when the flow rate in the outlet pipe is more than 1.4 l/m. This action causes a proximity switch (sensor) to close and energize a relay. When this occurs the electrical circuit to the motor is completed and the pump operates. The opposite action occurs when the mixing valve or pumped outlet is turned off.

A vertical distance of 300 mm between the water discharge point through the shower outlet and the base of the cistern would typically achieve the flow rate required. However, long pipe runs or restrictive terminal fittings will increase the gravity head required to produce the required flow.

To overcome an initial low flow rate in the outlet pipe an additional terminal (S) is provided at the pump electrical terminal block. This allows the use of a momentary action switch, the operation of which will bypass the function of the magnetic float and its associated sensor. When the shower flow control is turned on and the switch operated the pump will run. The pump will maintain the necessary flow rate in the outlet pipe and will continue to operate until the shower flow control is turned off.

Suitable momentary action switches are as follows:

MK56408 GRY	- wall mounted seal switch
Crabtree CT2147	- ceiling mounted pull cord switch
MK3190RCWH1(5A)	- ceiling mounted pull cord switch

Specifications

1. Weight

PP2 = 7 kg PPT3 = 8 kg

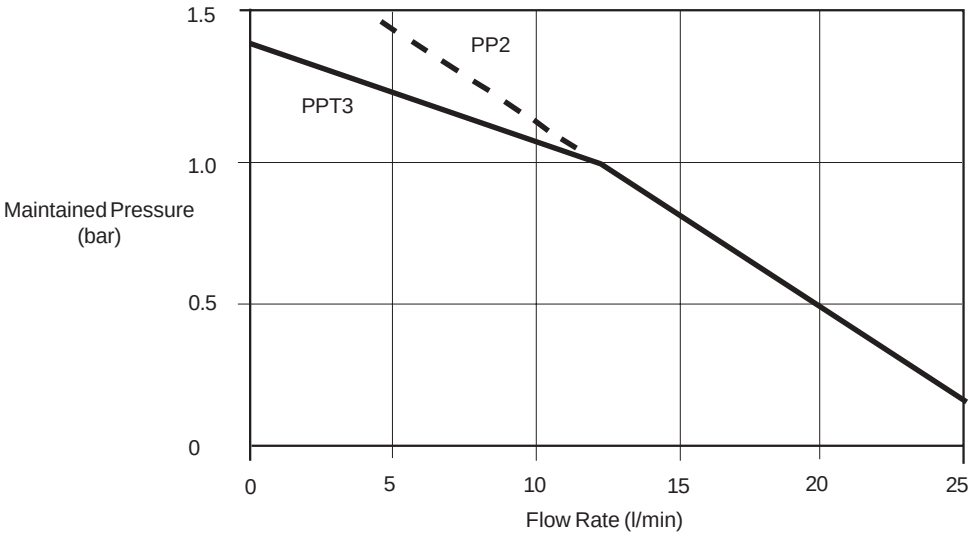
2. Operating Parameters

2.1. Maximum Hot Water Temperature 80°C. The use of hot water above 60°C is not recommended as this may lead to an increased risk of cavitation, (air bubbles) which increases the pump noise generated and can lead to a reduction in the ultimate service life.

2.2. Delivery Rates See Pump Performance Graph. This is for the pump with integral float switch. Terminal fittings and associated pipe work will reduce this figure.

2.3. Inlet Pressure Maximum inlet static pressure 1.5 bar (15 m head).

2.4. Outlet Pressure The Mira PPT3 is fitted with pressure regulating valves, and by studying Pump Performance Graph it can be seen that pressure variations due to changes in flow are reduced over the normal operating range of the pump. This results in the mixing valve providing improved temperature stability with easier temperature selection. The PP2 has the pressure regulating valve disabled. It can be enabled by turning the pressure regulating valve around (see Figure 14).



PP2 and PPT3 - Pump Performance Characteristic per Impeller

3. Power Supplies

3.1 **Single Phase** 220-240V ac 50Hz fused supply through a double pole, switched connection unit fitted with a 5A fuse and with a minimum 3 mm contact separation, refer to figure 9.

3.2 **Absorbed Power** Approximately 275W (PP2) and 575W (PPT3) during normal working conditions.

3.3 **Duty Cycle** 30 minute rating, with a 30% duty cycle (30 minutes on, 60 minutes off). The motor is fitted with a self resetting thermal trip to protect the windings.

4. Standards

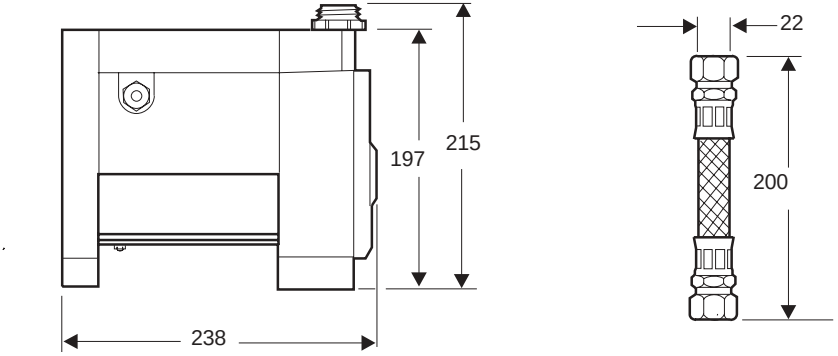
4.1. This appliance complies with all relevant directives for CE marking.

5. Plumbing Connections

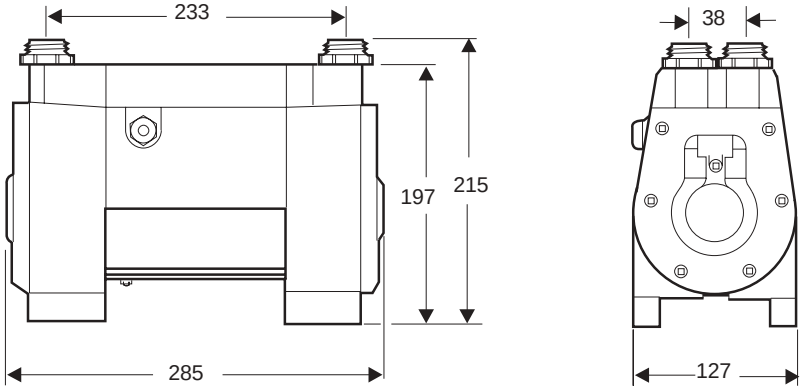
5.1. Inlet and outlet - compression fitting to fit 22 mm copper pipe via flexible connector. The flexible connector should not be bent more than 30° from vertical as a reduction in flow and an increase in pump noise may result.

5. External Dimensions

PP2 Pump



PPT3 Pump



All dimensions in millimetres

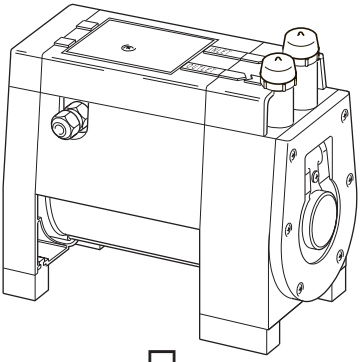
External Dimensions
Figure 1

Section 3

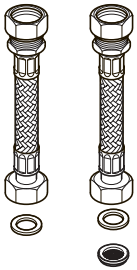
Pack Contents Checklist

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

1. PP2 Pump



1 x PP2 Pump ☐

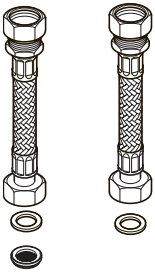


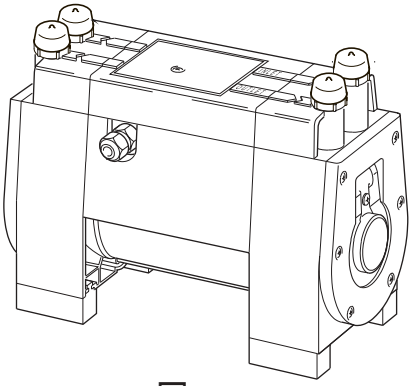
2 x Flexible Connector ☐

2 x Washer ☐

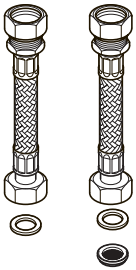
1 x Strainer ☐

2. PPT3 Pump





1 x PPT3 Pump ☐



4 x Flexible Connector ☐

2 x Strainer ☐

4 x Washer ☐

3. Documentation

1 x Installation, Operation and Maintenance Guide ☐

1 x Customer Support Brochure ☐

Installation

Key to symbols used in the system layouts:


Servicing Valve


Mixing Valve


Float Type Automatic Air Vent (Bottle Valve)


Shower Handset

DHW Domestic Hot Water

15 mm Diameter Pipe


Check Valve


Pressure Switch


Pressure Accumulator


Float Operated Valve


Fixed Shower Head


22 mm Diameter Pipe

1. Plumbing

CAUTION: DO NOT FIT INLET CHECK VALVES. INLET CHECK VALVES CAN SERIOUSLY DAMAGE THE PUMP.

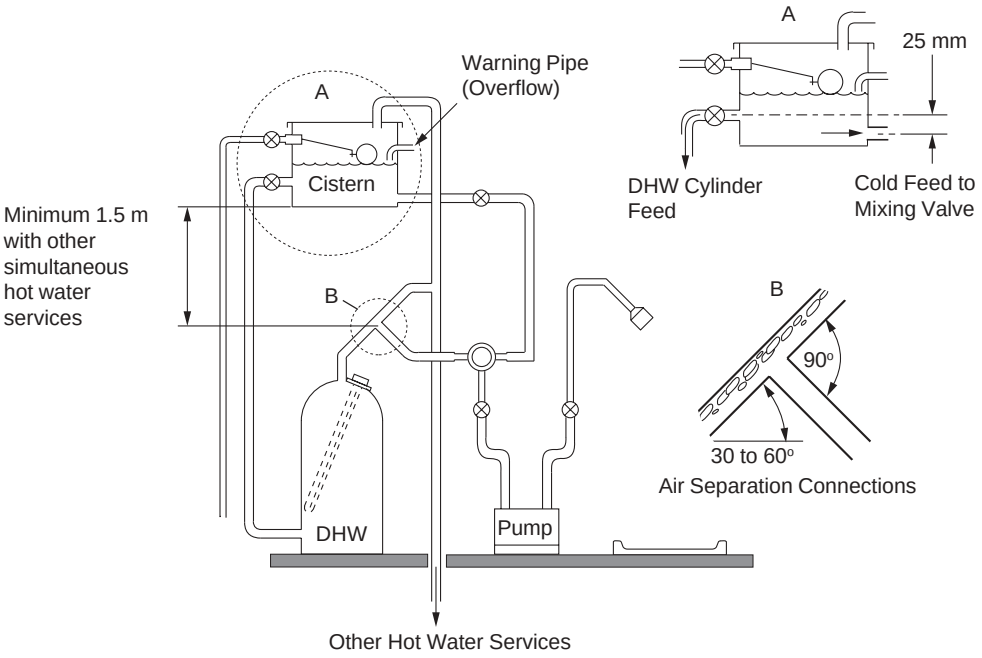
1.1. The pump must be mounted in a horizontal position with inlet and outlet connections vertically upwards. The operation of the magnetic float will be impaired in any other position.

1.2. For a PP2 pump installation a separate cold feed should be taken direct from the cistern to the mixing valve (Refer to Figure 2). For a PPT3 pump, a separate cold feed should be taken direct from the cistern to the pump (Refer to Figure 3).

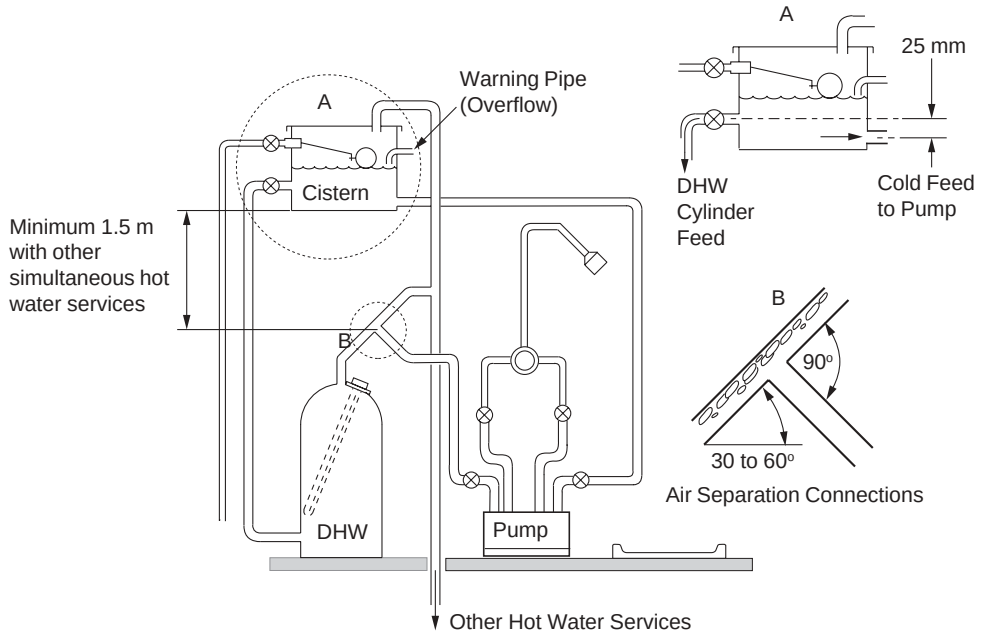
1.3. Operational difficulties may be experienced if plumbing layouts shown in Figures 6, 7 and 8 are used.

1.4. The hot feed from the cylinder must be as illustrated. Side entry cylinder bosses are not recommended. A drop in cylinder water level could expose a top entry immersion element. Air in water gathers at the edge of the cylinder, and in the centre, during the heating process, before travelling up the vent.

1.5. Water pumps can develop leaks and should, therefore, not be situated where seepage may go undetected or cause damage. The pump must be installed such that it is accessible for servicing or removal. When servicing or disconnecting, small amounts of water may drain from the unit and pipework.



System Layout for PP2 Pump
Figure 2



System Layout for PPT3 Pump
Figure 3

1.6 The use of 22 mm pipe will reduce pressure losses and maximise the pump performance, especially on the inlet pipework and where long outlet pipe runs are used.

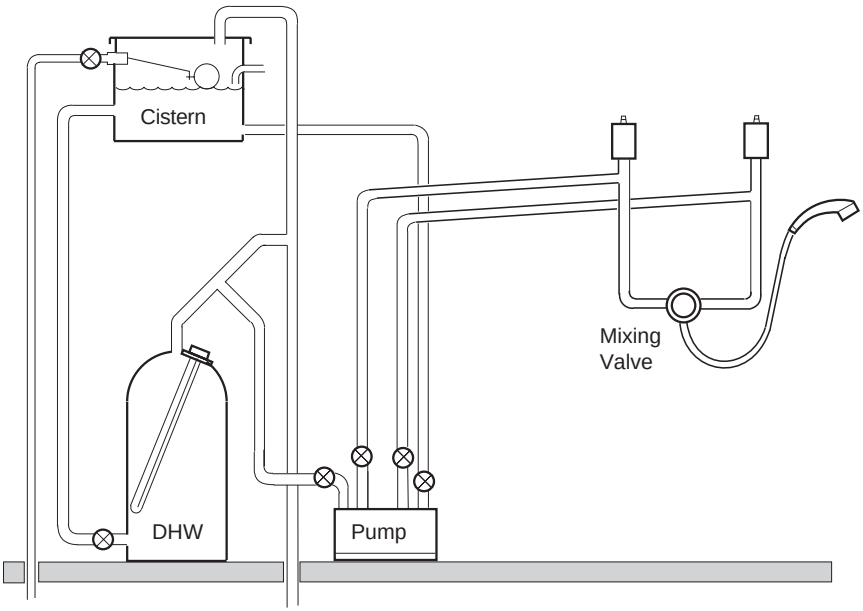
1.7 Pipe jointing should be via PTFE tape or fluid sealant. Do not use hemp and paste which may affect the operation of the flow switch and plastic internal components.

1.8 Care should be taken when using soldering fluxes. Protect the pump from damage whilst making soldered connections as some fluxes will dissolve plastic components causing the pump to leak.

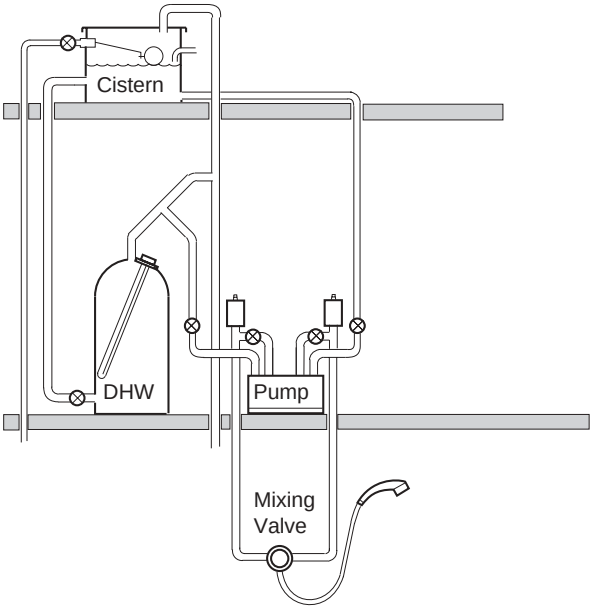
1.9 The flexible connectors must not be bent through more than a small angle (typically 30° either side of vertical) and should not be stressed by the pipework geometry. They are for vibration isolation and not intended to replace plumbing swept elbows. Do not overtighten the pump connections. Fit the flexible connectors to the pump before making the compression joint. This should reduce the risk of cross threading the coupling on the pump.

1.10 It is recommended that inlet/outlet servicing valves are fitted to permit isolation of the pump for servicing.

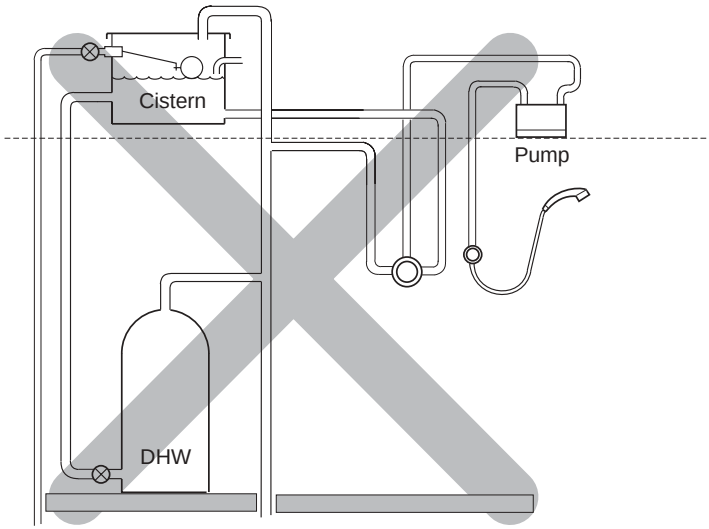
1.11 Fit the disc strainer and flat rubber washer between the inlet flexible connectors and pump body, as shown in Figure 14.



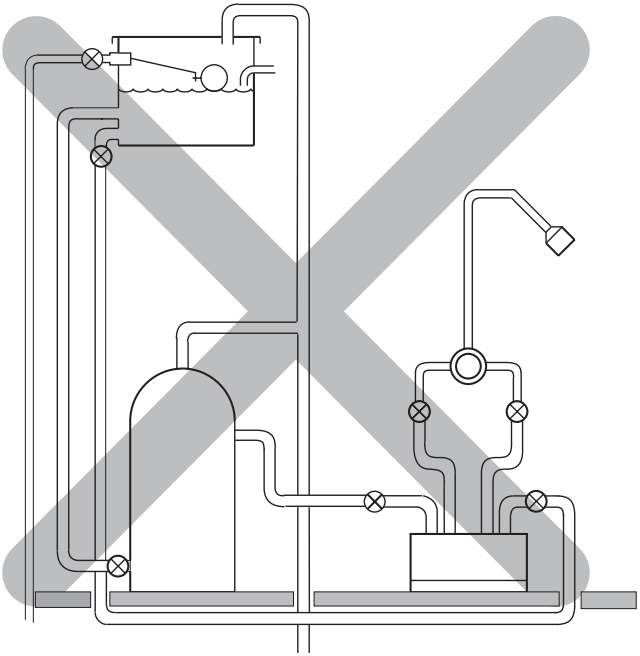
System Layout for PPT3 Pump
Figure 4



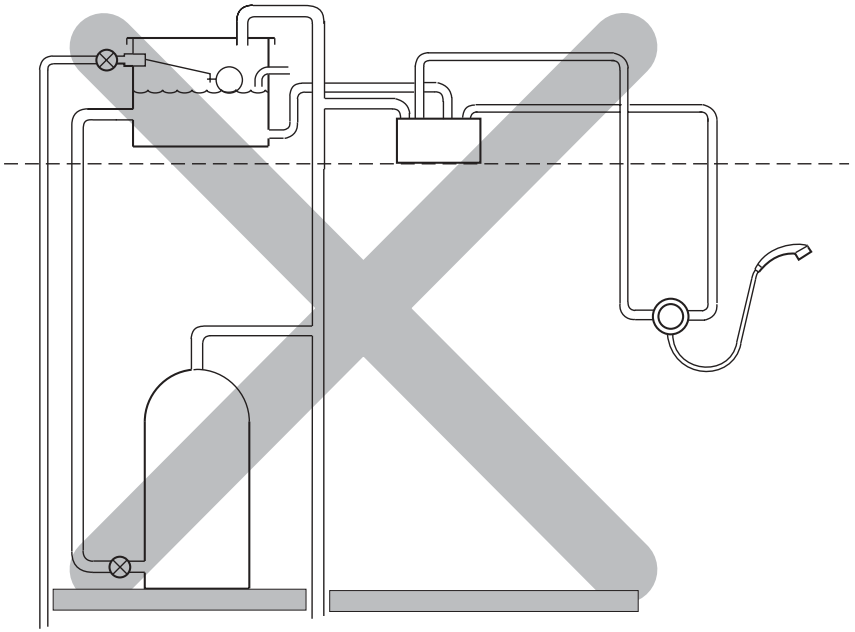
System Layout for PPT3 Pump
Figure 5



Unsuitable Layout for PP2 Pump
Figure 6



Unsuitable Layout for PPT3 Pump
Figure 7



Unsuitable Layout for PPT3 Pump
Figure 8

2. Electrical

WARNING: THIS APPLIANCE MUST BE EARTHED.

All electrical installations must comply with the IEE Wiring Regulations and be undertaken by a qualified person.

2.1. The power to the pump should be through a double pole, switched, fused connection unit or equivalent with a 5A fuse (Figure 9), the contact separation in each pole should be at least 3 mm. A cable with a minimum core area of 0.75 mm2 should be used from the fuse to the pump.

2.2. Remove the terminal cover (single screw) and connect the supply and, if necessary, the momentary action switch to the appropriate terminals:

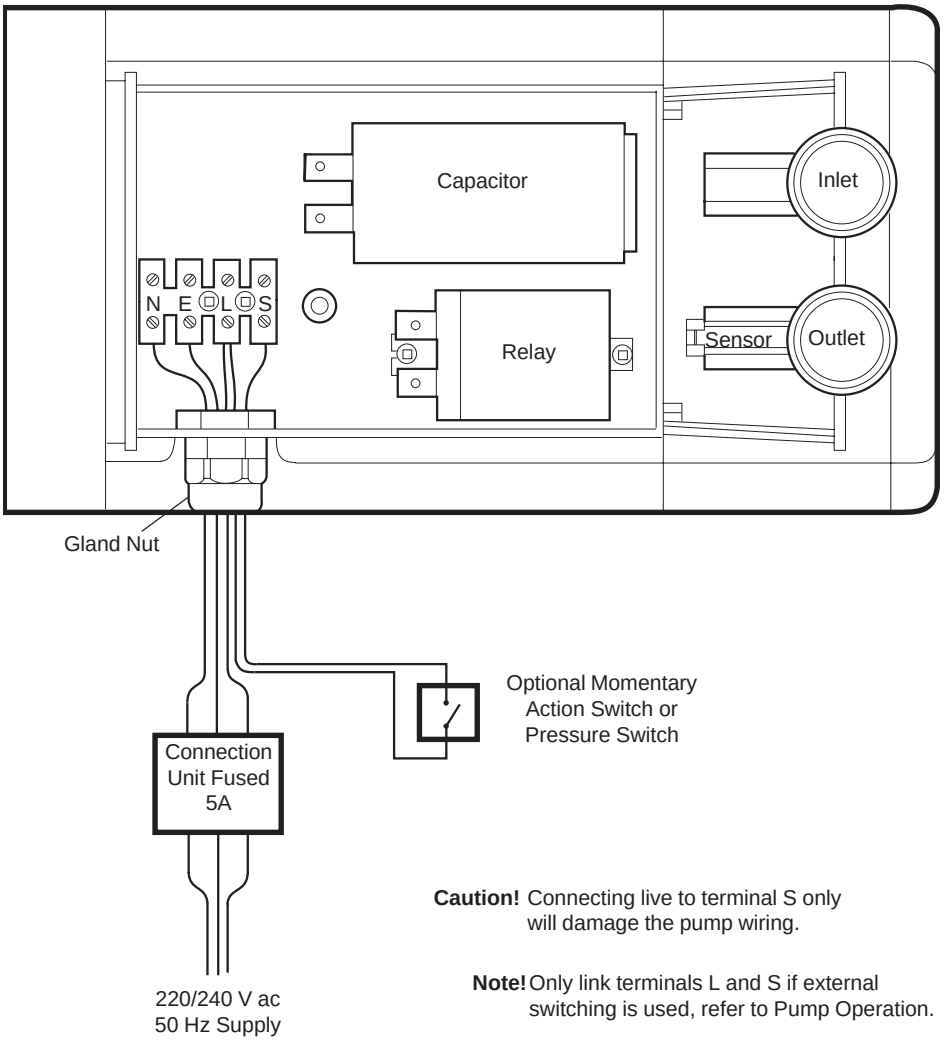
L = Brown, N = Blue, E = Yellow/Green, S = External Switching. (Figures 9 and 10). Ensure that the cable gland nut is tightened to provide strain relief.

Do **NOT** connect the Live Wire to the S terminal only.

2.3. Cross bond the inlet and outlet pipework to the motor bonding stud, using a minimum 6 mm^2 cable and bonding clamps (Figure 11). Plastic pipes do not require bonding.

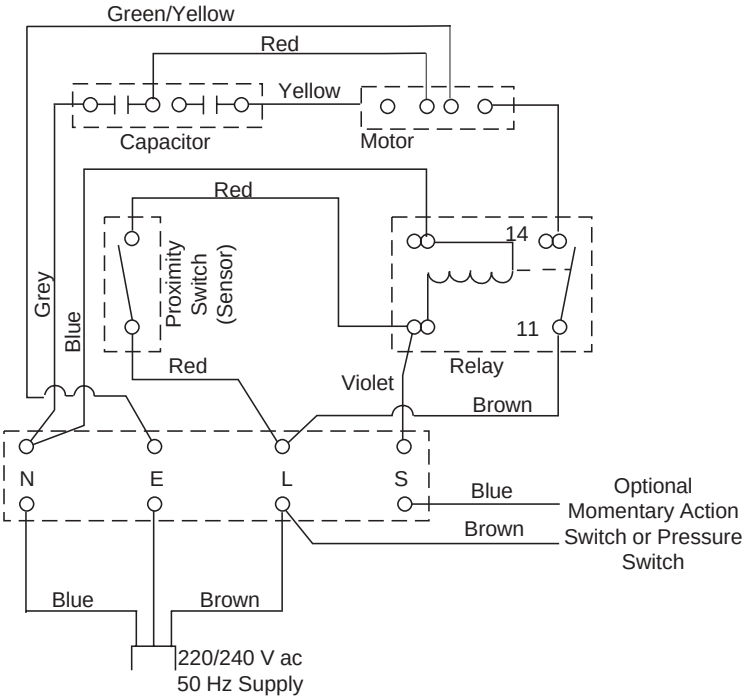
2.4. Turn on the water supplies and observe a flow from the outlet before turning on the electrical supply to start the pump during commissioning. Water seal damage may occur if the pump is run dry.

Note! Internal wiring omitted for clarity. Refer to Figure 10 for Circuit Diagram.

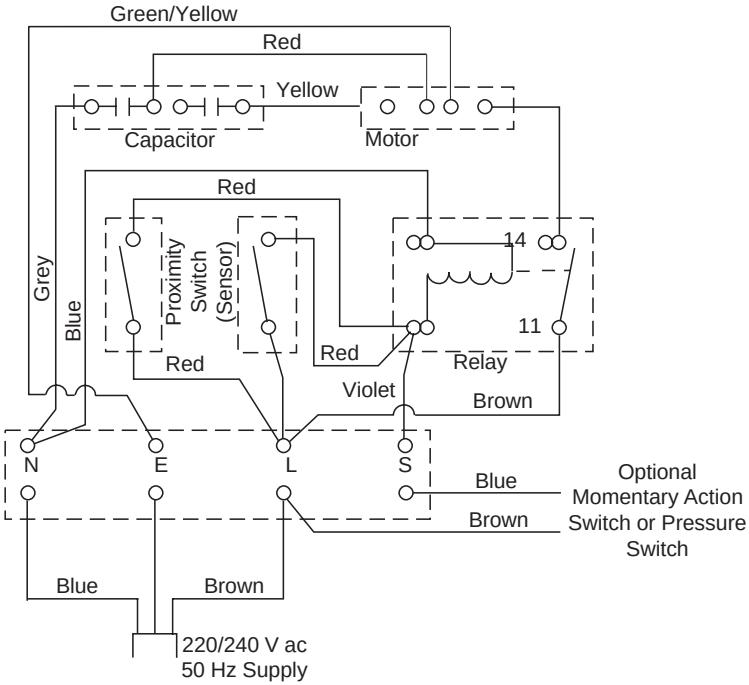


Internal Wiring Diagram
Figure 9

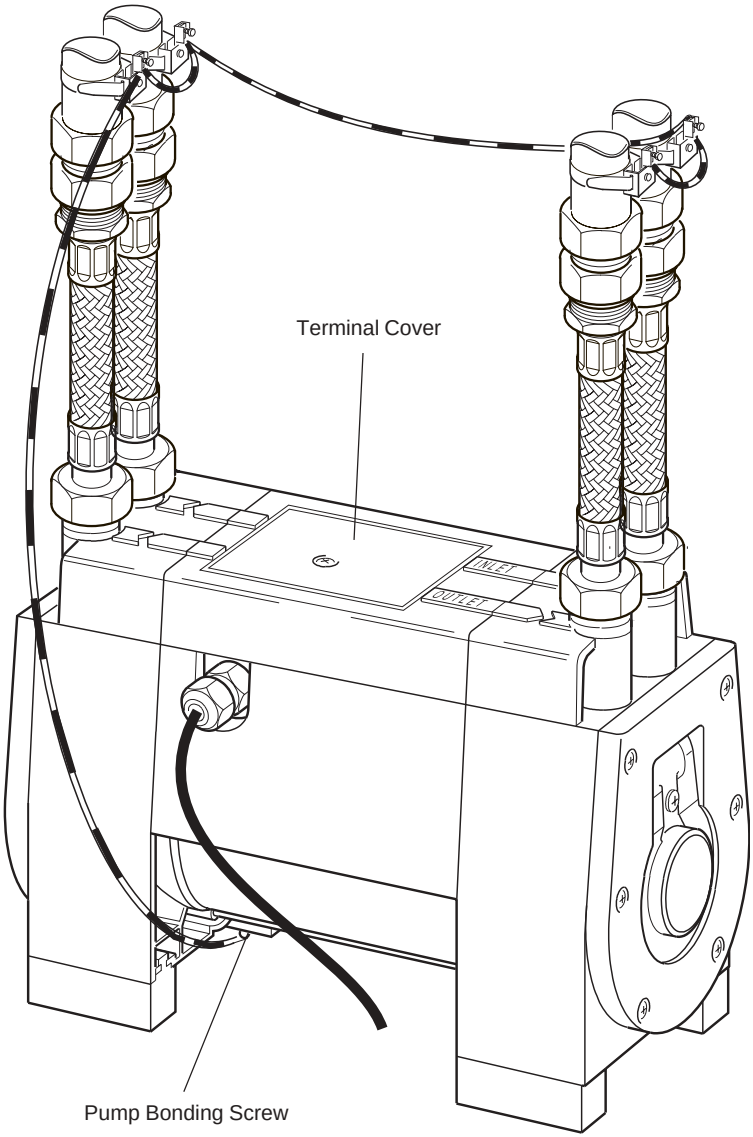
PP2 Pump



PPT3 Pump



Electrical Circuit Diagrams
Figure 10



Pipe and Pump Bonding Details
Figure 11

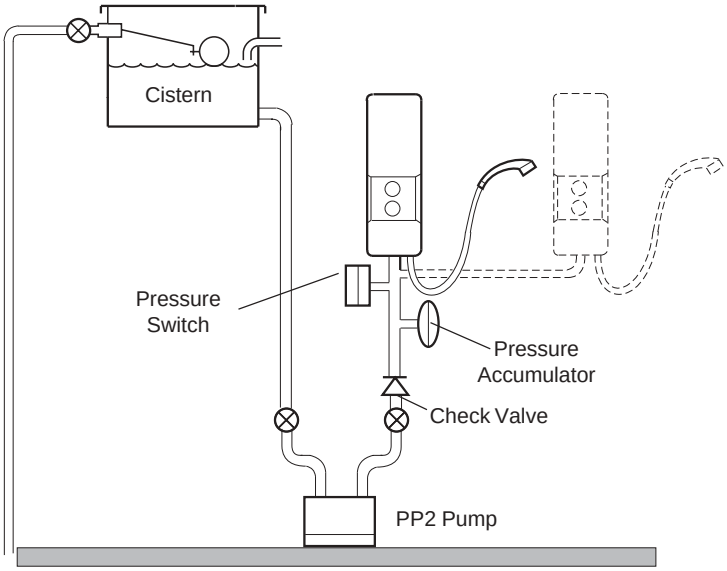
3. Supplies to an Instantaneous Electric Shower (PP2 Pump)

(Refer to Figure 12)

3.1. A booster pump or pumps can be used to increase the pressure from an exclusive cistern feed supply to operate an instantaneous electric shower where the mains water pressure is inadequate for this use. It is contrary to Water Regulations/Bye-Laws (Scotland) to connect a pump to the rising main to increase its flow and pressure. The performance characteristics should be matched to the required flow and pressure.

3.2. Contact the electrical shower manufacturer for advice on the suitability of pumping water to the appliance before proceeding with the installation.

3.3. Most electric showers require a minimum pressure of approximately 0.9 bar to operate to their design specification. The vertical distance between the handset at its highest point and the base of the cistern will effectively provide additional pressure at the rate of 0.1 bar for each metre vertical height. At typical showering rates of 4 l/m for an 8.4 kW heater with a 30 °C temperature rise, 15 mm diameter pipe can be used without significant pressure loss.



The Mira PP2 can supply up to two Mira instantaneous electric showers.

System Layout for Electric Shower/PP2 Pump
Figure 12

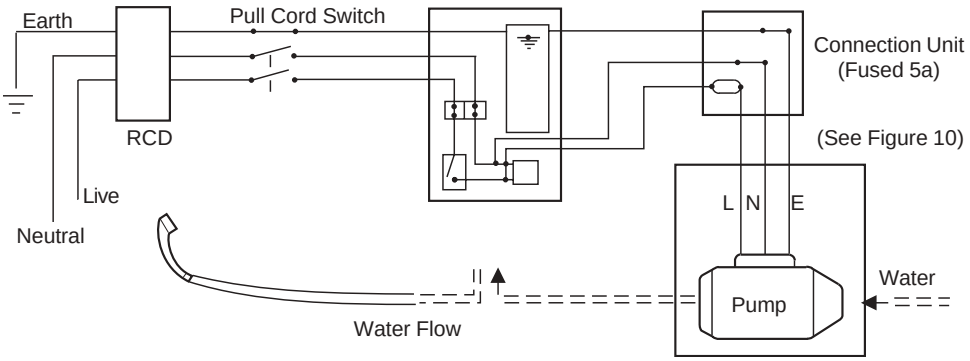
3.4. With a flow of 4 l/m and a 1 m static pressure to the handset the Mira PP2 typically delivers 1.5 bar. This can be decreased if necessary, refer to Pressure Regulator replacement and Figure 14.

3.5. If the shower uses a solenoid valve for flow control, it may be possible to wire the pump via a fused connection unit to the solenoid valve terminals (Figure 13). Link L and S if the pump is wired to the solenoid valve terminals.

3.6. The internal controls of the shower must be capable of handling the additional pump current as must the supply cable to the shower (refer to Figure 9 for pump wiring).

3.7. Such a connection will invalidate the BEAB approval, should the appliance be so listed. (Figure 13).

3.8. Use of the pump flow switch and a pressure switch combination as shown in Figure 12.



Electrical Circuit Diagram for Electric Shower/PP2 Pump
Figure 13

3.8.1. In this installation the flow switch is used to prevent the pump cycling on the pressure switch, refer to the circuit diagram in Figure 10. The pressure switch operates on a drop in pressure which occurs when the shower is turned on. The check valve prevents back flow through the pump and keeps the outlet pipe pressurised to hold the pressure switch in the off position. There must be no pressure seepage past this check valve.

3.8.2. The pressure switch always starts the pump. The flow switch always stops the pump. Upon commissioning, the pressure switch is adjusted such that, under running conditions, it is just in the 'off' position. As the pressure drops, it should operate, refer to Figure 9 for pump wiring.

3.9. The pressure accumulator reduces system surges and provides an improved stop/start operation. This should be sized for 5% of the volume in the pressurised pipe.

3.10. The pressure accumulator should be pressurised to just below the switch-off pressure of the pressure switch. This pressure will be typically 0.3 bar plus the static pressure due to the distance between the pump and cistern base (1 m = 0.1 bar). This system provides full automatic shower operation for a Mira PP2.

1. Fault Diagnosis

It is recommended that fault diagnosis is undertaken by a suitably qualified person, renew parts as necessary - see **SPARE PARTS**.

1.1 Pump does not start

Isolate power and water and check:

1.1.1. Whether the pump has been run for longer than its duty cycle. The internal self resetting thermal trip may have operated. Allow the pump to cool.
1.1.2. Supply fuse and mains supply to the fused connection unit.
1.1.3. Adequate gravity flow (1.4 l/m per flow switch).
1.1.4. Inlet strainer fitted between pump and flexible connectors for blockage.
1.1.5. Free operation of magnetic float fitted in pump outlet, accessed by removing flexible coupling(s) and internal tubular tapered retaining bush (Figure 14) (or integral check valve, if fitted).
1.1.6. Continuity of relay between terminal a and b approximately 7 Kohms. The reed switches operate the relay, which carries the pump current (Figure 10).
1.1.7. Continuity of motor windings - approximately 15 ohms (red/black), 36 ohms (yellow/black) PP2 and 12 ohms (red/black), 19 ohms (yellow/black) PPT3. (Figure 10).
1.1.8. Continuity of sensors - closed circuit with magnetic float in upper position. Alternatively a bar magnet can be placed on the end cover above the sensor(s) to operate it to identify a sensor fault or a non movement of the magnetic float. Isolate from other circuits as necessary.

1.2. Pump does not stop after the water flow has ceased

Isolate power and water and check:

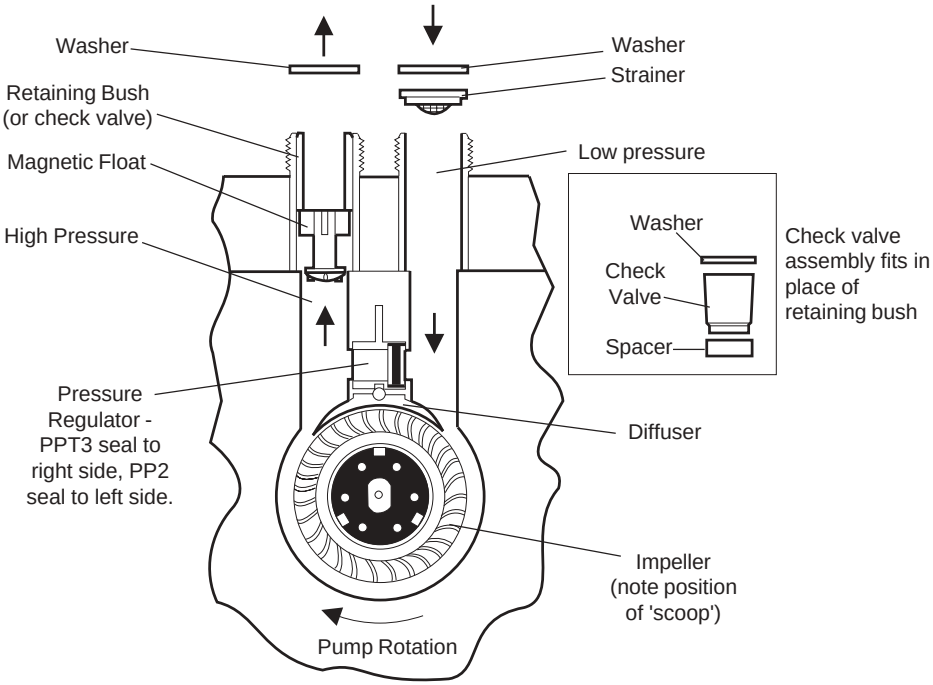
1.2.1. Free movement of magnetic float(s) (Figure 14). Check that the magnetic float is fitted the correct way up.
1.2.2. Relay contacts for 'welding together' (Figure 9).
1.2.3. Any external switching connected to the terminal 'S' is operating correctly.

1.3 Pump operation occurs momentarily

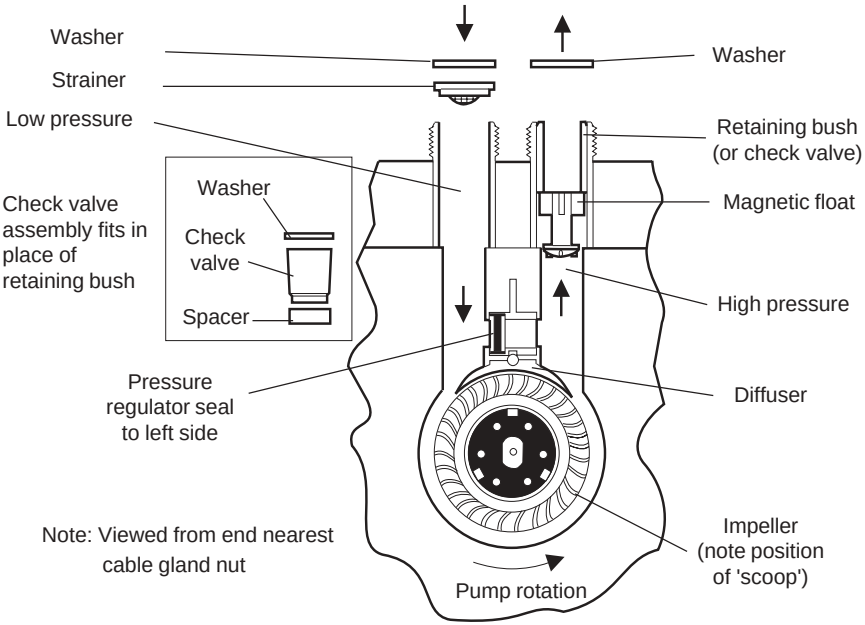
If pump operation occurs, particularly when other hot services that are not on the pumped circuit are used, or pulsed 'on/off' operation occurs when the shower control is turned off, check:-

1.3.1. There are no airlocks in the pump outlet pipework. These will cause water movement through the pump by compression of the air. Reroute the pipe work or fit float type automatic air vents at air collection points (Figures 4 and 5).

1.3.2. Fit integral check valve into pump outlet in place of retaining bush (Figure 14 and 15) available as a kit from Kohler Mira. This may increase the pressure required to start the pump. For the PPT3 it may only be necessary to fit a check valve into the hot outlet. If the problem persists fit one in the cold outlet.



Pump Inlet and Outlet Details PP2 and PPT3
Figure 14



Pump Inlet and Outlet Details PPT3 only
Figure 15

1.4 Flow starts adequately and drops after a short time

Check:-

1.4.1 Sufficient stored cold water (230 litres recommended minimum).

1.4.2 Pipe work that is prone to air-locking; most often the hot pipe to the pump. Reroute the pipe work to be self venting when not in use. Float type Automatic Air Vents are, in general, NOT advisable for pump **inlet** pipe work, as a negative pump pressure will allow air to be sucked in through Automatic Air Vents. The pressure at the desired vent position can approximately be determined using the Mira green book 'A Guide to Domestic Pumped Shower Systems', to check whether it remains positive under dynamic conditions.

2. Pump Servicing

In the unlikely event that servicing does become necessary this should be undertaken by a suitably qualified person in accordance with the following guidance. This assumes the fault has been located by the fault finding guide. Only silicone based lubricants to be used with this product.

Pump accessibility will determine whether it is serviced *in situ* or removed for bench work. These instructions assume *in situ* servicing.

2.1. Magnetic Float Cleaning/Renewal. (refer to Figure 14 and 15)

2.1.1. Isolate power and water supplies to the pump end to be serviced.
2.1.2. Remove **outlet** flexible coupling from the pump.

Note! The volume of water between the servicing valve and pump will be discharged. To achieve more control of the drain procedure remove the centre screw from the end cover.

2.1.3. Pull out the tapered tubular retaining bush, or the integral check valve if fitted (a small wire hook will help, but do not use a sharp object that may score the recess) then the magnetic float. If it is damaged it may be necessary to remove the pump end cover to clear away any debris.
2.1.4. Check that the recess into which the magnetic float moves is clear of any debris.
2.1.5. Renew or refit the magnetic float ensuring that it drops fully into the tube, tapered tubular retaining bush (or check valve if fitted), sealing washer and flexible connector (do not overtighten).
2.1.6. Restore supplies and check for leaks.

2.2 Impeller Cleaning/Renewal and Pressure Regulator Cleaning/Renewal. (refer to Figure 14 and 15)

2.2.1. Isolate electrical and water supplies to the pump end to be serviced.
2.2.2. Remove 6 outside and 1 centre screw.

Note! The volume of water between the servicing valve and pump will be discharged. To achieve more control of the drain procedure remove the centre screw from the end cover.

2.2.3. Pressure Regulator. Remove and inspect for free operation and seating of the check valve. Clean or renew and fit. If fitted in reverse a higher but less balanced output pressure will be produced. This may impair the shower valve temperature control.
2.2.4. Impeller. Slide the impeller off the shaft together with the two thin thrust washers. Inspect the impeller for damage. Refit the replacement taking care not to push out the central rubber hub of the impeller when sliding the impeller on to the shaft.
2.2.5. Replace the impeller so that the cup of the impeller 'scoops' the incoming water, this is different for each pump end. Ensure that Diffuser is in position.

2.2.6. Check the condition of the large 'O' seal and centre screw 'O' seal. If they are damaged in any way they should be replaced. Fit the large 'O' seal onto the sealing land on the pump housing. If necessary lightly lubricate the large 'O' seal using a silicone based lubricant.

2.2.7. Replace pump cover and evenly tighten the 6 outer screws. Do not overtighten as this will distort the cover and degrade pump performance. If a torque screwdriver is available this should be set to 2 Nm.

2.2.8. Fit the small 'O' seal to the flanged screw, fit and tighten.

2.2.9. Restore water supplies and allow gravity flow to take place through the shower head BEFORE turning on the electrical supply.

2.2.10. Check for leaks.

2.3. Relay

2.3.1. Isolate electrical supply.

2.3.2. Remove terminal cover screw, seal and terminal cover.

2.3.3. Remove screw between connectors and loosen other fixing screw, slide off relay.

2.3.4. Remove 4 connectors and fit replacement, ensuring correct fitting of wires, (Do not overtighten relay retaining screws).

2.3.5. Replace cover and test.

2.4. Sensor(s)

2.4.1. Isolate electrical and water supplies.

2.4.2. Remove terminal cover screw, seal and terminal cover. Loosen the two grey retaining nuts by unscrewing them up to the flexible hoses. Loosen the outlet flexible connector , if necessary, to enable the two nuts to be raised sufficiently to allow removal of the end cover. Some water may be discharged from the joint.

2.4.3. Prise out sensor gently, it should not be necessary to loosen the brass screw.

2.4.4. Disconnect/remove the terminations from the relay/terminal block.

2.4.5. Press fit new sensor through spring clip and connect wires.

2.4.6. Replace cover, tighten flexible connector(s) and test.

Spare Parts

1. PP2 Pump spare parts list

276.88 Flexible Connector
(400 mm long with 22 mm compression fitting at each end) (Not shown)
935.05 Strainer and Washer Pack
935.06 Check Valve Assembly (Optional extra)
935.07 Compression Fitting Pack (2)
937.32 Relay

937.33 Magnetic Float
Retaining Bush

937.34 Pump Cover
937.35 Cover Screw Pack
937.36 Cover Seals Pack

937.38 Impeller
Thrust Washer
Diffuser

937.39 Pressure Regulating Valve

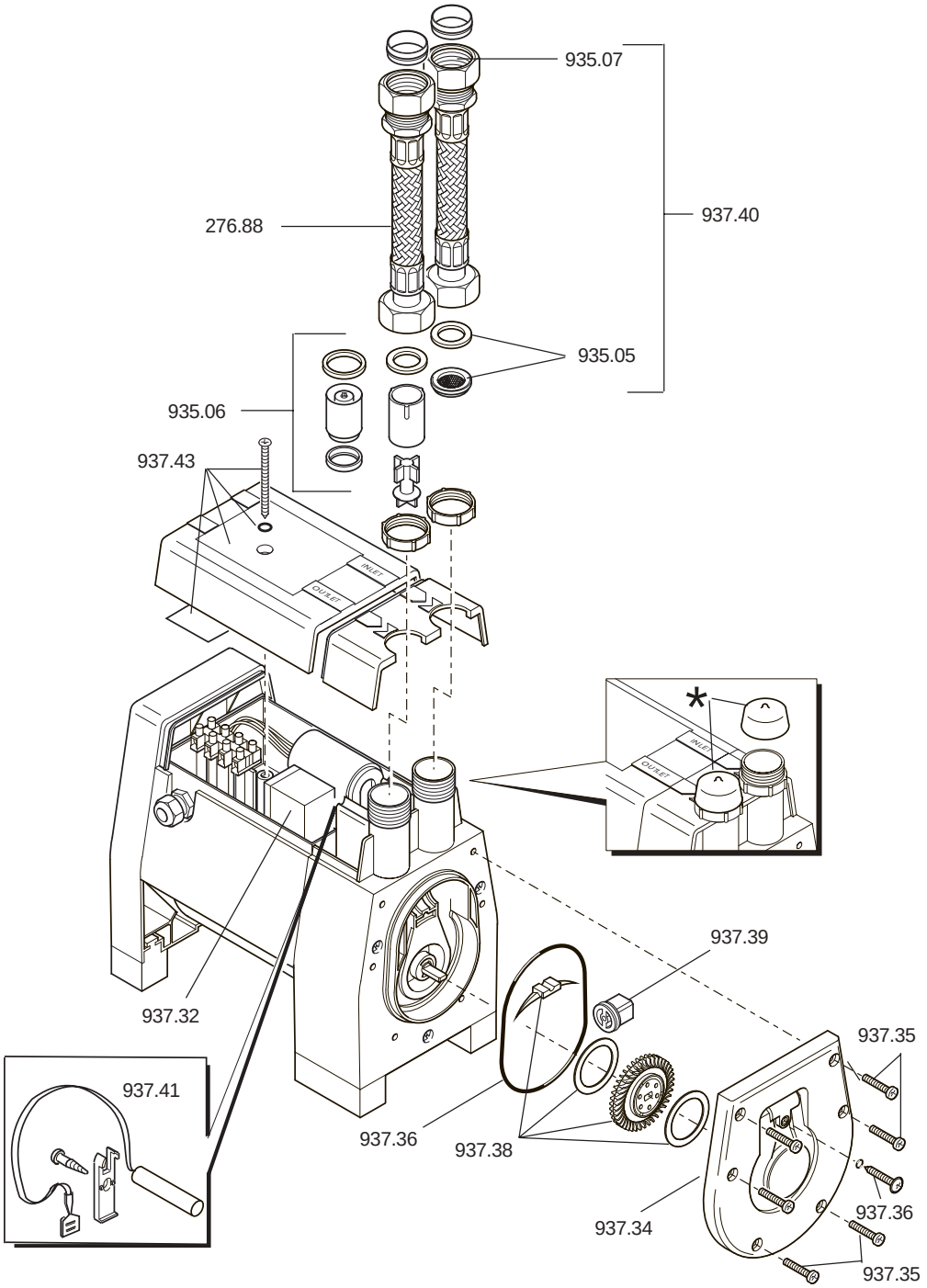
937.40 Flexible Connector
Washer
Strainer

937.41 Wire Pack
Sensor
Screw
Clamp

937.43 Terminal Cover Pack

* Transport Protection Pack

2. PP2 Pump spare parts diagram



3. PPT3 Pump spare parts list

276.88 Flexible Connector
(400 mm long with 22 mm compression fitting at each end) (Not shown)
935.05 Strainer and Washer Pack
935.06 Check Valve Assembly
935.07 Compression Fitting Pack (2)
937.32 Relay

937.33 Magnetic Float
Retaining Bush

937.34 Pump Cover
937.35 Cover Screw Pack
937.36 Cover Seals Pack
937.37 Terminal cover pack

937.38 Impeller
Thrust Washer
Diffuser

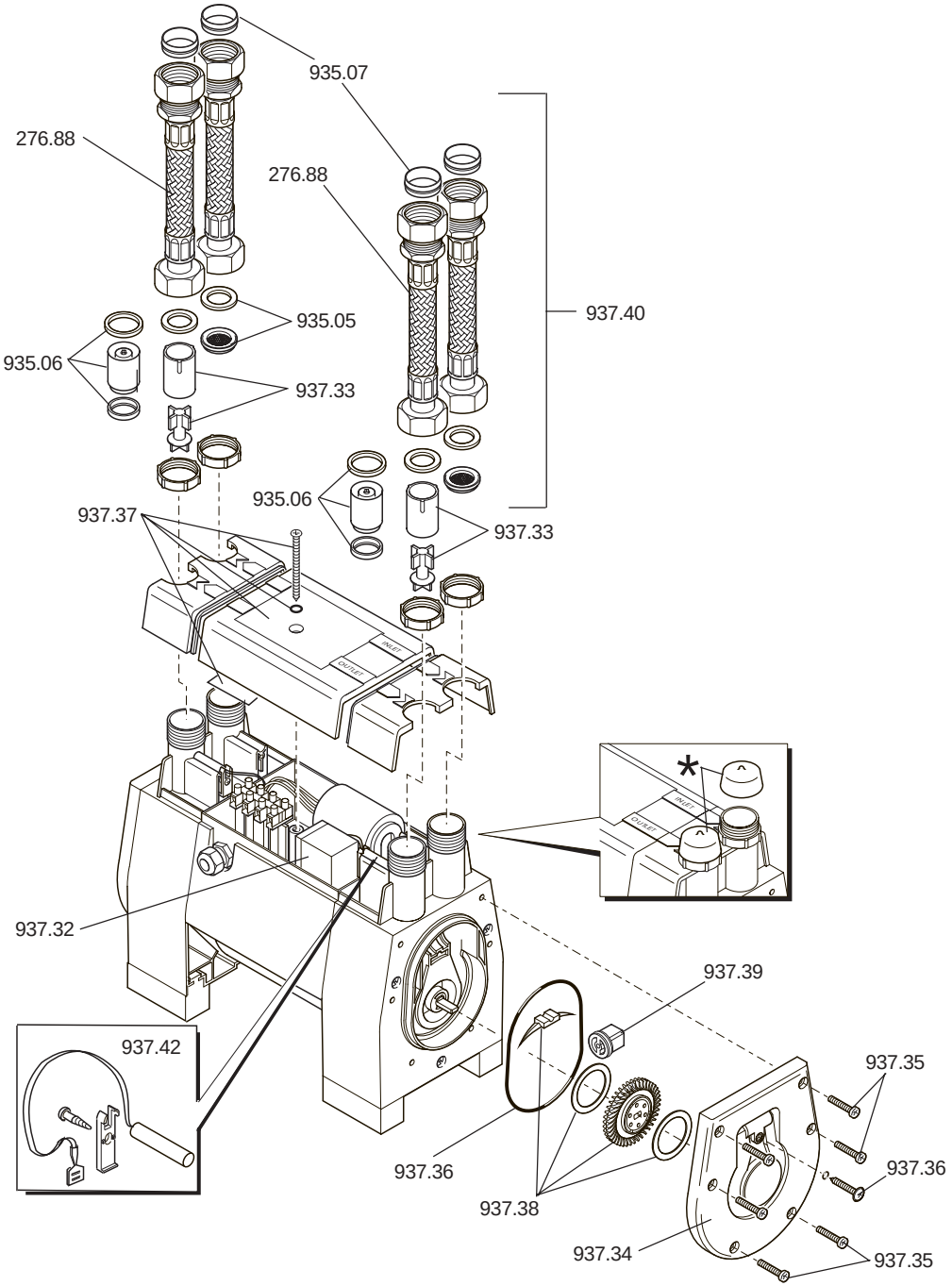
937.39 Pressure Regulating Valve

937.40 Flexible Connector
Washer
Strainer

937.42 Wire Pack
Sensor (2)
Screw (2)
Clamp (2)

* Transport Protection Pack

4. PPT3 Pump spare parts diagram



Customer Service

Guarantee of Quality

Mira Showers guarantee products against any defect of materials or workmanship for one year from the date of purchase (2 years for Mira Select and 3 years for Mira Excel ranges).

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

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

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

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

Not covered by this guarantee:

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

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

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

Before using your shower

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

What to do if something goes wrong

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

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

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

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

After Sales Service

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

Spare Parts

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

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

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

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

Service

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

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

To contact us:

England, Scotland & Wales

Mira Showers Customer Services

Telephone: 01242 262888
8.30am to 5pm Working days (4.30pm Fri)
8.30 am to 12.30pm Saturday
E-mail: Mira_technical@mirashowers.com
Fax: 01242 282595
By Post: Cromwell Road
Cheltenham
Gloucester GL52 5EP

For Customers in Northern Ireland

Wm H Leech & Son Ltd

Telephone: 028 9044 9257 – Mon to Fri 9 am-5pm
Fax: 028 9044 9234 – 24 hours
Post: Maryland Industrial Estate
Ballygowan Road
Moneyreagh, Co Down
BT23 6BL

For Customers in Republic of Ireland

Modern Plant Ltd

Telephone: Dublin 01 4591344 - Mon to Fri 9am to 5pm
Fax: Dublin 01 4592329 – 24 hours
Post: Otter House
Naas Road
Clondalkin
Dublin 22

Mira Showers
Kohler Mira Ltd
Cromwell Road,
Cheltenham GL52 5EP.

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