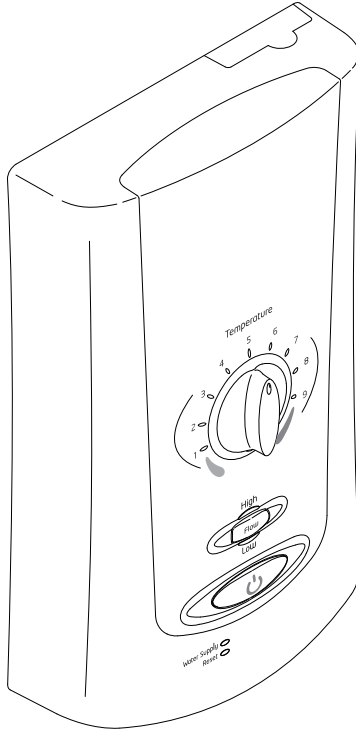


9.0 kW

mira

Advance
ATLP THERMOSTATIC



MIRAADVANCEATLP
LOWPRESSURE
ADJUSTABLE TEMPERATURE LIMIT THERMOSTATIC

PUMPED ELECTRIC
SHOWER

Installation Guide

**This product is suitable for gravity cold water only.
Please leave these instructions at the installation address.**

Important Safety Information

WARNING - This shower can deliver scalding temperatures, cause fire, electric shock or other personal injury if not operated, or maintained in accordance with the instructions, warnings and cautions contained in this guide and on the appliance.

Please read the important safety information and the operation section of this guide before using the shower. Failure to follow the instructions provided with this shower will invalidate the guarantee.

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR INJURY:

1. Children younger than 3 years should not use this shower. Children 3 years to under 8 years should only use this shower under continuous supervision. Children aged 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience or knowledge can use the shower if they are given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
2. Children shall not be allowed to play with the shower.
3. **DO NOT** restrict the water flow from the shower outlet, temporarily bending the shower hose or blocking the shower head while in use can cause a hot shot of water to be discharged.
4. Cleaning and user maintenance shall not be made by children without supervision.
5. The outlet must not be connected to any tap or fitting other than those specified.
6. The showerhead must be descaled regularly. Any blockage of the showerhead or hose can cause damage to the shower.
7. **Warning! DO NOT** switch on if there is a possibility that the water in the heater is frozen.
8. The shower must be provided with means for local disconnection from the supply mains having a contact separation in all poles that provide full disconnection under overvoltage category III, the instructions state that means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.

9. Installation of the shower must be carried out in accordance with these instructions by qualified, competent personnel. Read all instructions before installing the shower.
10. **DO NOT** switch the shower on if water starts leaking from the shower case. Isolate the electrical supply to the shower immediately.
11. **DO NOT** switch the shower on if the case appears to be damaged or incorrectly fitted. Isolate the electrical supply to the shower immediately.
12. **DO NOT** increase the power setting or adjust the temperature control rapidly while using the shower.
13. **DO NOT** switch the shower off and back on while standing in the water flow.
14. **DO NOT** change the handset model. Fit only shower heads recommended by Mira and do not fit any additional device to restrict the water outlet flow.
15. When adjusting the handset mode, point handset away from body and make sure that the water temperature has stabilised before continuing to shower.
16. Use caution when altering the water temperature, always check the temperature before continuing to shower.
17. Switch the shower off at the electrical isolating switch when not in use. This is recommended with all electrical appliances.
18. Installation of the shower must be carried out in accordance with these instructions by qualified, competent personnel. Read all instructions before installing the shower.
19. Isolate the electrical and water supplies before commencing installation. The electricity must be isolated at the consumer unit and the appropriate circuit fuse removed, if applicable. Mains connections are exposed when the cover is removed.
20. **DO NOT** install the shower in areas with high humidity and temperature (i.e. Steam rooms and saunas).
21. **DO NOT** install the shower where it may be exposed to freezing conditions. Ensure that any pipework that could become frozen is properly insulated.

22. **DO NOT** connect the outlet of the shower to any tap, control valve, trigger operated handset or showerhead other than those specified for use with this shower as the outlet acts as a vent for the tank body. Only Kohler Mira recommended accessories should be used.
23. **DO NOT** perform any unspecified modifications, or drill or cut holes in the product other than instructed by this guide. When servicing only use genuine Kohler Mira replacement parts.
24. **DO NOT** connect this shower to a Waste Water Heat Recovery System as this may cause unstable or scalding temperatures to be delivered from the shower head.
25. Always check the water temperature is safe before entering the shower.
26. The water supplies to this product must be isolated if the product is not to be used for a long period of time. If the product or pipework is at risk of freezing during this period they should also be drained of water.
27. If the shower is dismantled during installation or servicing then, upon completion, an inspection must be made to ensure all electrical connections are tight and that there are no leaks.
28. This appliance is intended to be permanently connected to the water mains and not connected by a hose set.
29. The water inlet of this appliance shall not be connected to a water supply obtained from any other water heating system.
30. **Warning!** This appliance is not to be used to provide a potable water supply.
31. Maximum Static Pressure is 100 kPa (1 bar).

Decommissioning and Recycling

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. For more information about recycling, please contact your local council office.

Shower Models

Mira Advance Low Pressure models covered by this guide

Product Variant	Adjustable Temperature Limit	Extended Lever Control	Model No.
Standard 9.0 kW	✓	✘	J97I
Flex 9.0 kW	✓	✓	J97K

Guarantee

For **domestic installations**, Mira Showers guarantee the Mira Advance ATLP against any defect in materials or workmanship for a period of **two years** from the date of purchase (shower fittings for one year).

For **non-domestic installations**, Mira Showers guarantee the Mira Advance ATLP against any defect in materials or workmanship for a period of **one year** from the date of purchase.

For Terms and Conditions refer to the back cover of this guide.

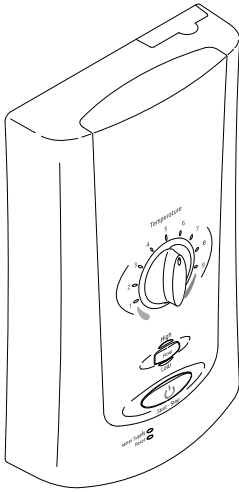
Recommended Usage	
Domestic	✓
Light Commercial	✓
Heavy Commercial	✘
Healthcare	✓

Patents and Design Registration

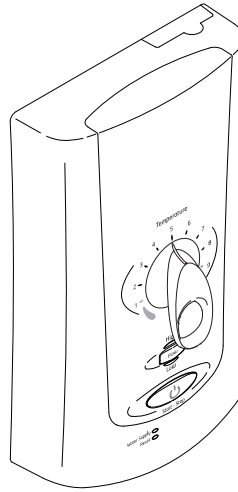
Design Registration:	000738141: 0003, 0006, 0007, 0009
Patents:	GB: 2269466, 2270370, 2298478, 2298479, 2298481, 2289323, 2359339. Ireland: 80655, 83692.

Pack Contents

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



Or



1 x Mira Advance Low Pressure Standard

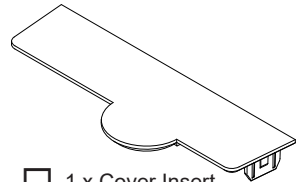
1 x Mira Advance Low Pressure Flex



1 x Compression Nut



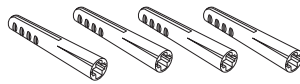
4 x Wall Screws



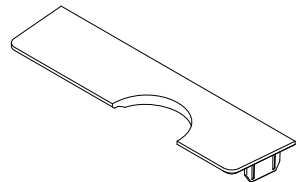
1 x Cover Insert (blank)



1 x Olive



4 x Wall Plugs



1 x Cover Insert (pipe)

Documentation

- 1 x User Guide
- 1 x Installation Template
- 1 x Guarantee Registration Document
- 1 x BEAB Care In-Service Test Record



4 x Rubber Feet

Specifications

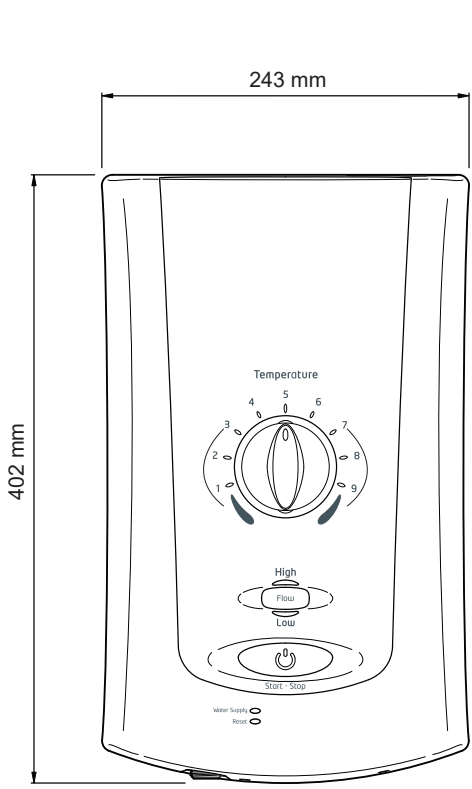
Plumbing Supply	Supply Source	Gravity fed or pumped cold water only.
	Maximum Static Pressure	100 kPa (1 bar)
	Minimum Static Pressure	0.8 kPa (0.008 bar) (10 kPa BEAB Care)
	Maximum Inlet Temperature	30°C (20°C BEAB Care)
	Minimum Inlet Temperature	2°C (5°C BEAB Care)
	Inlet Connection	½" BSP male & 15 mm compression fitting.
	Outlet Connection	½" BSP male fitting
Electrical Supply	Nominal Rating at 230 V	8.3 kW
	Nominal Rating at 240 V	9.0 kW
	Supply Fuse/Circuit Breaker	40 Amps
	Residual Current Device RCD	30 mA
	Supply Cable	No larger than 16 mm ² Note: Refer to current IEE regulations and BS 7671 to determine minimum cable size.
	Isolation Switch	45 Amp Double pole, with 3 mm contact separation.
Maximum Ambient Temperature		30°C
Minimum Ambient Temperature		2°C
Duty Cycle		30 minutes on / 30 minutes off.

Standards and Approvals

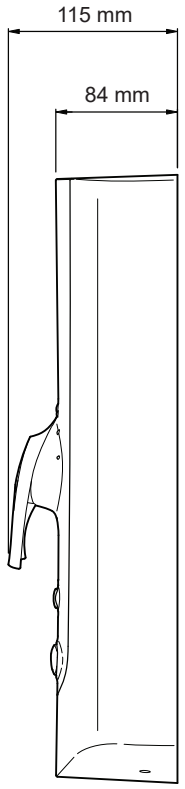
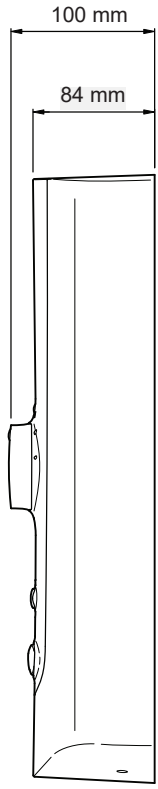
The Mira Advance ATLP complies with the requirements of the BEAB Care Mark Standard and the relevant directives for CE marking.

The BEAB Care mark is invalid if the product is not installed and used in accordance with the manufacturer's specifications and instructions.

Dimensions



Advance Low Pressure
Standard



Advance
Low Pressure Flex

Installation Requirements

General

We recommend that the product be brought into the room where it is to be installed and left to acclimatise to room temperature, this will reduce the possibility of condensation on electronic components. This product works best when supply temperatures and pressures remain stable and within the product specifications, refer to section '**Specifications**'. If the supply conditions fall outside the specifications, the shower may go into a safe shut down condition.

If pipework and/or electrical cables enter the shower from the rear through a hole in the wall, provision must be made to prevent water ingress back into the wall structure.

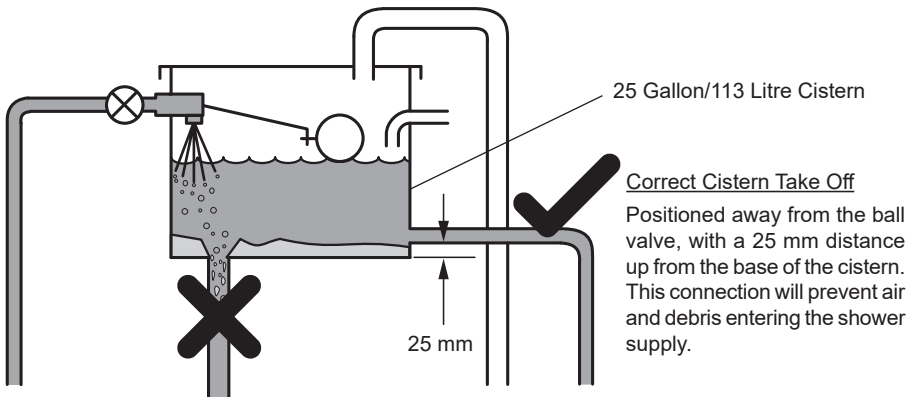
1. Plumbing

Refer to section: '**Important Safety Information**' first.

1.1 The shower is designed to operate with gravity fed water supplies providing pressures from 0.8 kPa * (0.008 bar / 80 millimetres head) to 100 kPa (1 bar / 10 metres head) (i.e. the vertical distance from the base of the cold cistern to the top of the main unit of the shower). The unit should be never be fitted to a mains supply or where the above maximum pressure may be exceeded. Failure to comply with this may result in product damage leading to significant uncontrolled leakage from the unit.

* Note: In practice the minimum head required will increase with pipe length and the guide given in the section '**Pipework**' should be used to make sure that adequate head is available for any given installation.

The shower **MUST** have its own separate supply from the cistern.



Incorrect Cistern Take Off

Debris from the bottom of the cistern and air generated when the cistern refills will enter the shower supply.

- 1.2 Do not use sealing compounds on any pipe fittings or joints.
- 1.3 To avoid damage to the case when soldered fittings are used, pre-solder the pipework and fittings before connecting them to the inlet connector assembly.
- 1.4 Avoid layouts where the shower hose will be sharply kinked. This may reduce the life of the hose.
- 1.5 Supply pipework **MUST** be flushed to clear debris **BEFORE** connecting the appliance. Debris will reduce the performance of the shower.
Avoid running the pipework through excessively hot or cold areas such as hot loft spaces, airing cupboards, or in close proximity to hot water pipes. If this cannot be avoided, we would recommend insulating the pipes.
- 1.6 The shower must be fitted onto a tiled or sealed finished surface, i.e. on top of the tiles. **DO NOT** tile up to the sides of the shower or use a sealant around the case. Failure to do this may cause appliance failure. To ensure the case and other components are not put under strain during installation always provide mechanical support when making plumbing connections. Upon completion of the installation ensure connections and back case are not under any stress due to misaligned pipework or electrical cables.
- 1.7 We recommend that a non-restrictive (free flowing) isolating valve is fitted in the cold water supply pipe from the cistern to the shower, to allow maintenance of the shower.
- 1.8 When installed in very hard water areas (above 200 ppm temporary hardness) your installer may advise the installation of a water treatment device, to reduce the effects of limescale formation. Any malfunction due to limescale is not covered by the manufacturer's guarantee. Your local water company will be able to advise the hardness of water in your area.
- 1.9 To prevent the possibility of backsiphonage, the handset must be prevented from reaching within 25 mm of the spillover level of any bath, shower tray or washbasin. The supplied hose retaining ring should enable this to be achieved for the majority of shower installations. However, there will be occasions when the hose retaining ring will not provide a suitable solution. In these instances, a double checkvalve must be fitted to the outlet. Double checkvalves fitted in the shower's inlet supply can cause a pressure build-up, which could exceed the maximum static inlet pressure for the appliance. The handset must be prevented from reaching within 30 mm of the spillover level of any WC, bidet or other basin that is classified higher than fluid category 3.
- 1.10 Rear entry plumbing is accommodated without the need to recess the 15 mm inlet compression connector. If pipework and/or electrical cables enter the shower from the rear through a hole in the wall provision must be made to prevent water ingress back into the wall structure.
- 1.11 The shower is fitted with a pump motor, and some mechanical noise can be expected in addition to the noise generated by the spray from the handset. The type of wall surface will affect the perceived sound levels. Stud partition and panel walls have a tendency to resonate, whilst solid walls provide the quietest

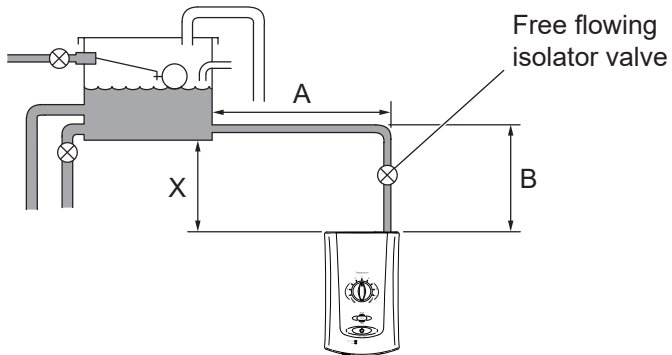
operation. The tone of the pump motor may change when the temperature control knob is adjusted. This is quite normal.

- 1.12 Use a minimum of 15 mm diameter supply pipework. It should be noted, however, that on long pipe runs this should be increased to 22 mm (refer to section 'Pipework' for guidance). When using flexible plastic pipe it is essential that the pipe is kept flat and not looped up at any point as this may lead to air build up.
- 1.13 Long pipe runs and excessive use of 90° elbows will significantly reduce the available head to supply the shower. The pipework table should be completed to ensure that adequate head is available for any given application.

Pipework

The dimension (x) is calculated from the table below to give you a minimum effective head of 80 mm which is necessary to produce a satisfactory shower in all conditions.

Plumbing Schematic Diagram



Example! The example below is based on the diagram above with 15 mm pipework, A = 1.5 m, B = 0.75 m.

Size	Quantity	Head Loss (mm)
15 mm Pipe	(A) <u>1.5</u> + (B) <u>0.75</u> = <u>2.25</u> x 120	270
22 mm Pipe	(A) <u> </u> + (B) <u> </u> = <u> </u> x 20	
15 mm Elbow	Number of Elbows <u> 1 </u> x 55	55
22 mm Elbow	Number of Elbows <u> </u> x 15	
	Minimum Effective Head	80
	(x) mm	405

2. Electrical

Refer to section: '**Important Safety Information**' first.

2.1 In a domestic installation, the rating of the electricity supplier's fuse and the consumer unit must be adequate for the additional demand. All Mira Advance ATLP pumped electric showers are high power appliances, so it is essential to contact the electrical supply company to make sure that the supply is adequate for the appliance. Voltage drop due to local heavy demand will reduce the shower's performance.

2.2 The appliance must be earthed by connecting the supply-cable earth conductor to the earth terminal.

Any supplementary bonding and supply cable size must conform to **BS 7671**.

2.3 As a guide only, and in accordance with **BS 7671** we recommend close circuit protection:

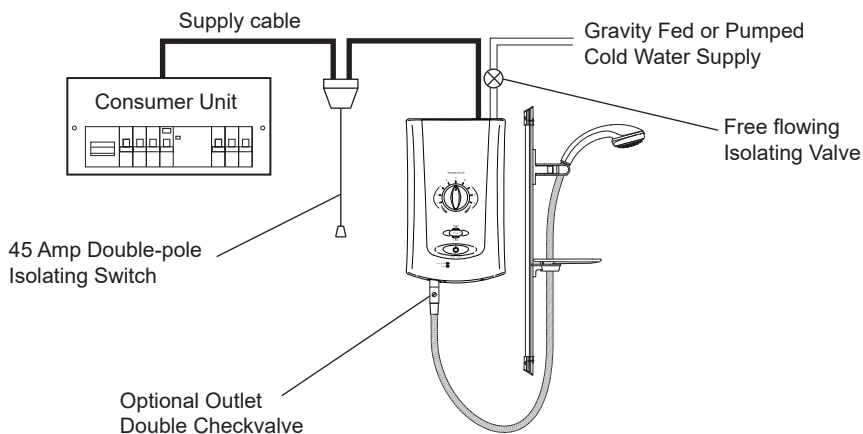
i.e. **9.0 kW = 40 Amp**

In accordance with **BS 7671**, a 30 mA Residual Current Device (RCD) **MUST** be included in the electrical circuit. This may be part of the consumer unit or a separate unit.

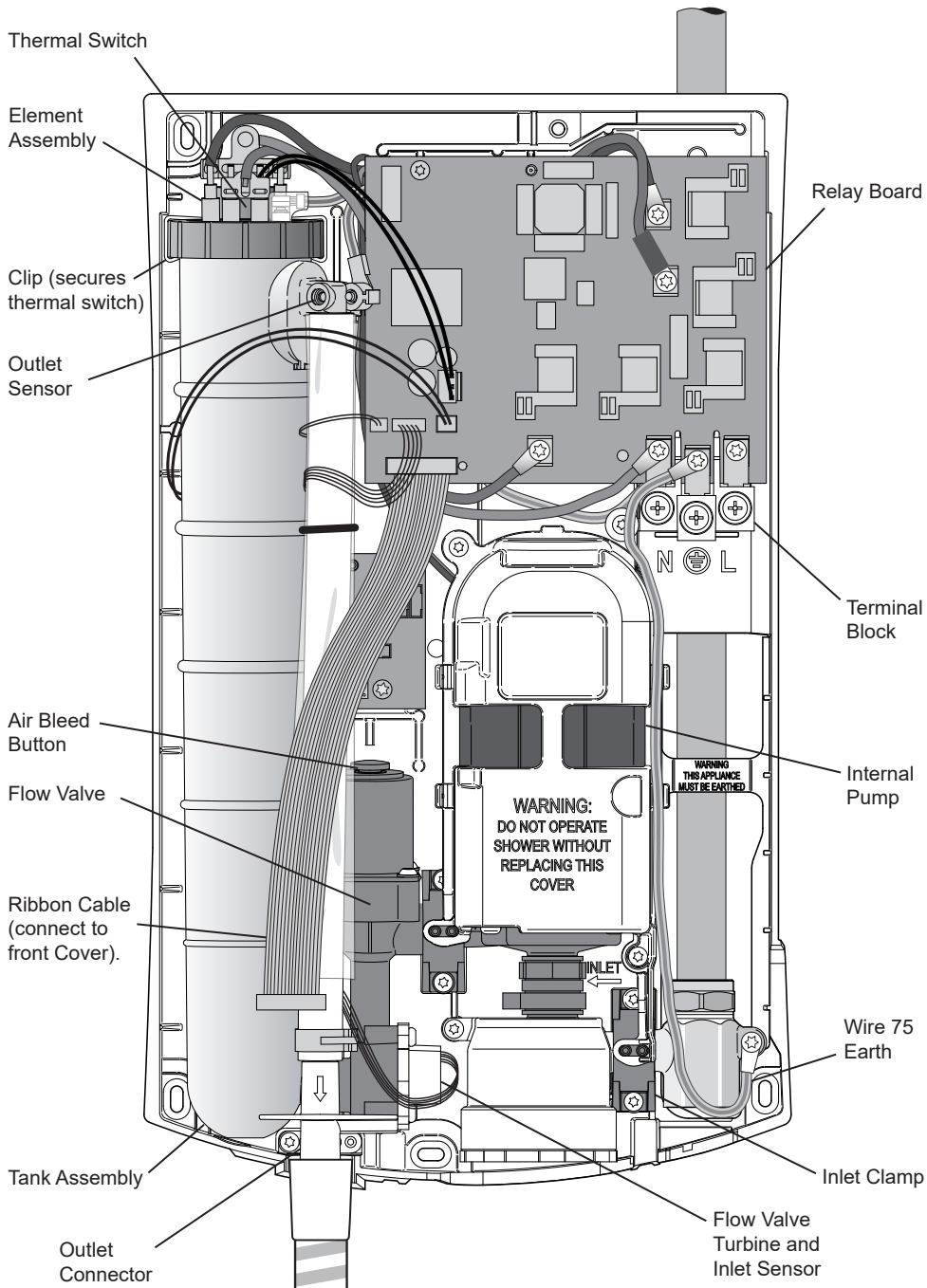
A separate, permanently connected supply must be taken from the consumer unit to the appliance through a double-pole switch, which has at least 3 mm contact separation. The switch can be a ceiling mounted pullcord type or a wall mounted switch in the applicable zone area.

2.4 DO NOT exert strain on the terminal block. Make sure that the electrical connections are tightly screwed down.

2.5 Unless otherwise stated, electrical equipment such as extractor fans, pumps must not be connected via this product.



Electrical Schematic Diagram

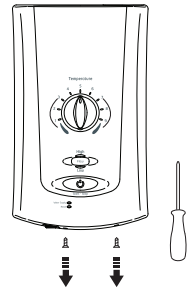
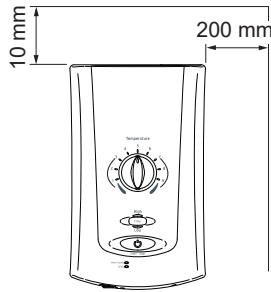


Mira Advance Low Pressure

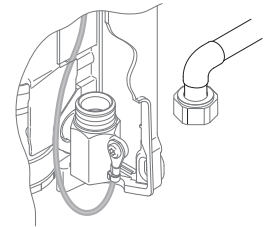
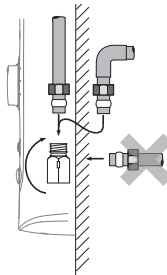
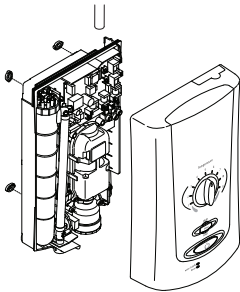
Installation

Refer to section: 'Important Safety Information' first.

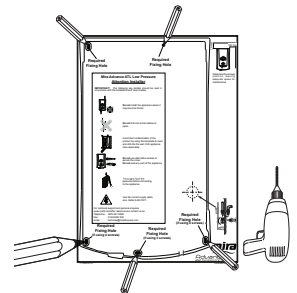
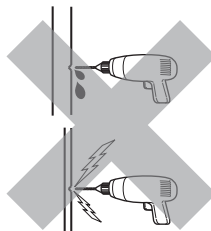
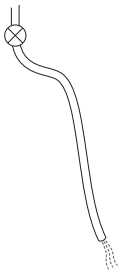
This installation covers all models of the Mira Advance ATLP Thermostatic shower.



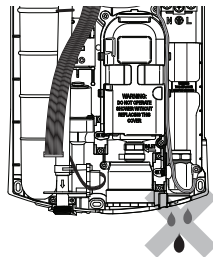
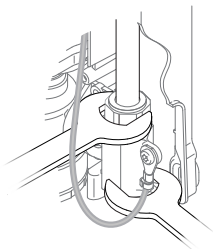
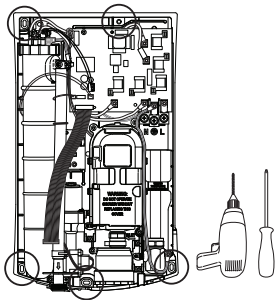
1. Electrical supply is turned off at the mains.
2. Determine the shower position, leaving adequate space for maintenance.
3. Remove cover screws.



4. Remove front cover. Determine supply pipe position.
5. Turn inlet connector to suit supply pipe. **Do not trap green (earth) wires.**
6. Complete any soldering required away from appliance.



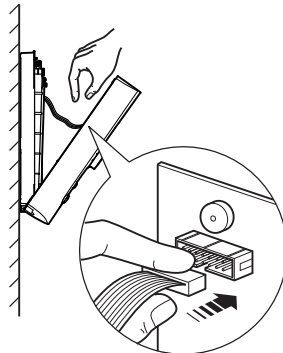
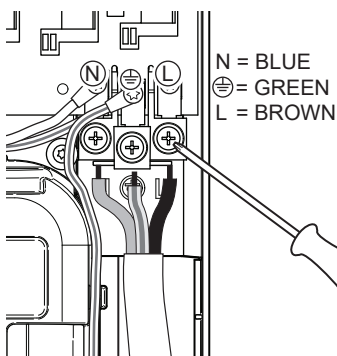
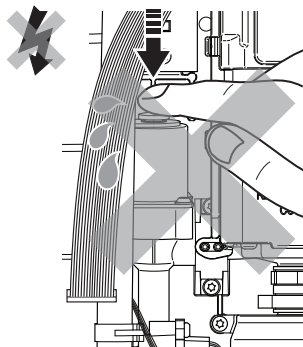
7. Flush a minimum of 10 litres (2 gallons) through pipework prior to connection.
8. **Caution!** Do not drill into buried cables or pipes.
9. Use template provided to mark and drill required fixing holes. Screws and plugs are supplied for 4 holes.



10. Drill holes through plastic case as required. Fix appliance to wall. (Make sure rubber feet are fitted with all holes used.)

11. Connect supply pipe. **Do not** overtighten.

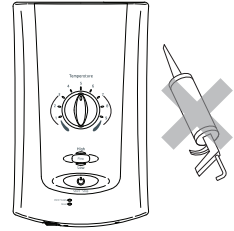
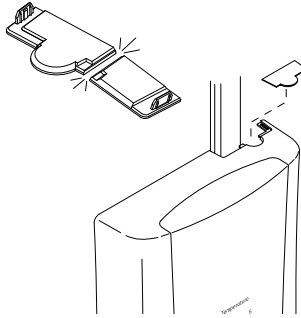
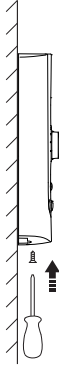
12. Turn on water supply and check the pipe connections for leaks .



13. Important! This shower does not require bleeding.

14. Feed cable into case and strip insulation. Firmly connect the conductors. **DO NOT** exert strain on terminal block.

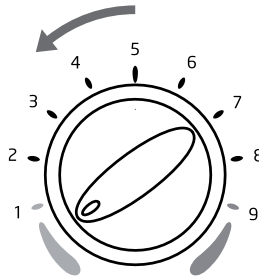
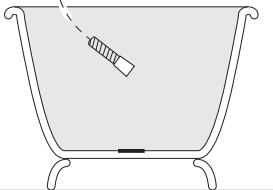
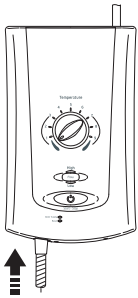
15. Connect ribbon cable to the inside of the cover.



16. Refit cover using the 2 screws provided. **DO NOT** use alternative screws to secure the cover as this can cause damage to the appliance.

17. Plastic Inserts are provided to finish the top of the cover as required. Can accommodate sizes up to 25 mm Electrical Cable Trunking.

18. Do not seal around any part of the appliance.



19. Connect hose and showerhead, pointing into bath or tray.

20. Temperature to full cold.

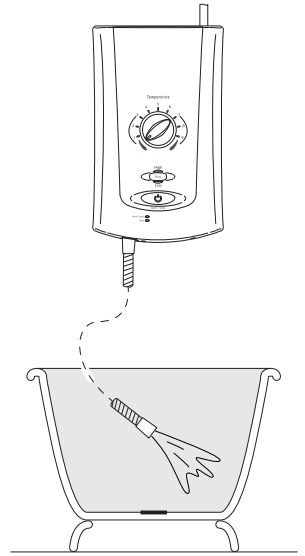
21. Turn on electrical supply.



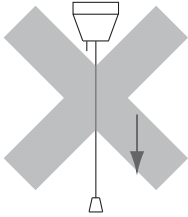
22. Power to appliance, check **Start/Stop** for blue light.



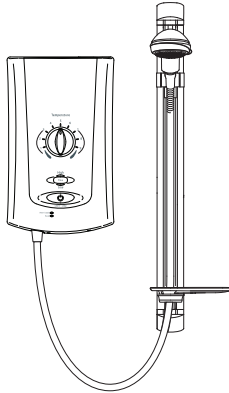
23 Start shower to prime pump.



24. Allow water to flow until all air has been purged.



25. Push **Start/Stop** to turn off the appliance. The pulsing light and "beep" indicates that the appliance is shutting down. **Important! DO NOT** isolate the power until the water has stopped.



26. Install the shower fittings. Refer to separate Installation and User Guide.

Commissioning

On initial installation, the appliance needs to 'learn' about the site conditions and does so during the commissioning cycle.

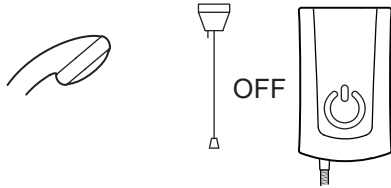
Once set, the shower constantly updates it's memory with information about the site conditions to deliver the best performance.

DO NOT commission the appliance if water leaks from the unit.

Set Maximum Temperature and Commissioning Cycle

1. Shower is **OFF**.

Water has **STOPPED** flowing.
Power/Electric is **OFF**.



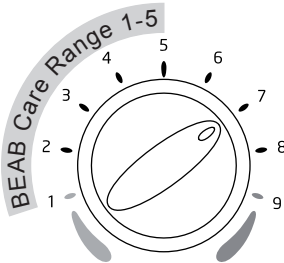
2. Set Maximum Temperature

Turn the dial to the desired position in the table. This will set the maximum temperature for showering.

When showering, the set maximum temperature is reached when the dial is turned to number '9'.

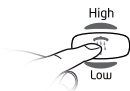
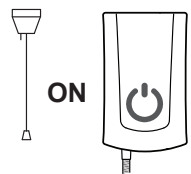
(See also section: "**BEAB Care**".)

Record the Maximum Temperature setting on the BEAB Care In-Service Test Record (separate form supplied) if applicable to the installation.







No.	Max. Temp °C
1	37
2	38
3	39
4	40
5	41
6	42
7	45
8	48

3. Turn Power/Electric **ON**.



Within 30 seconds push and hold **HIGH/LOW & START/STOP** buttons at the same time.



4.   1st Beep (LONG) - Release **START/STOP**. 
 2nd Beep (SHORT) - Release **FLOW**. 

5. HIGH FLOW LIGHT FLASHES

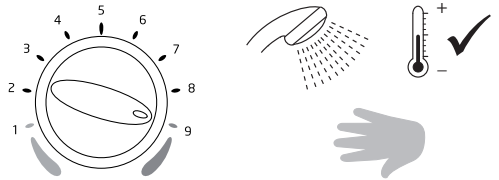
This indicates the shower is commissioning.
 Water flows for approximately 1 minute 20 seconds.
 In some cases the cycle can take up to 3 minutes.
 Allow the shower to stop automatically.



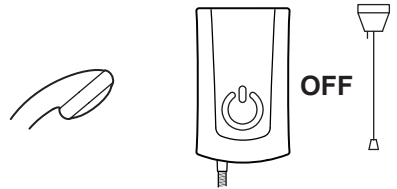
IMPORTANT! DO NOT INTERRUPT THE CYCLE!

FLOW LIGHT doesn't flash... solution ...Restart the commissioning cycle as step one.

6. Push **START/STOP** to turn the shower **ON**.
 Check that the maximum temperature is acceptable to the user.



7. Push **START/STOP** to turn the shower **OFF**.
 Wait until the water has stopped flowing **BEFORE** turning the Power/Electric **OFF**.

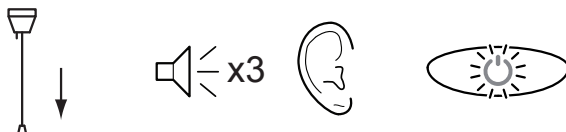


8. Residual water may drain over a few minutes.



BEAB Care

If the shower's maximum temperature is set to 41 °C or cooler, there is a clear triple beep tone and single pulse of the **Start/Stop** light every time the double pole switch is turned on. This is to indicate that the appliance is in a '**BEAB Care**' compliant mode. If recommissioning is required whilst in this mode, wait until beeps have passed before starting the commissioning cycle.

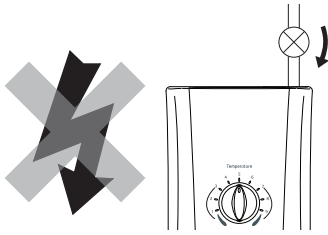


When set in 'BEAB' mode, the maximum set temperature is reached when the temperature control is turned to number '9'.

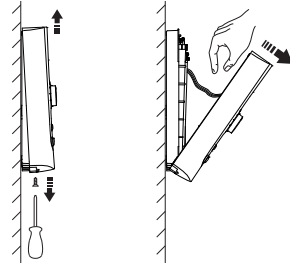
Maintenance

Tradesperson Maintenance - Inlet Filter Cleaning/Replacing

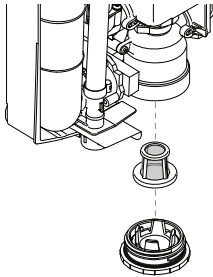
Read the section 'Important Safety Information' first.



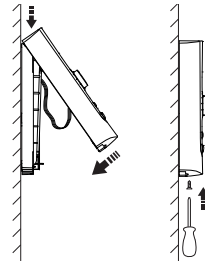
1. Electrical and water supplies to the appliance are turned off.



2. Remove the cover screw, cover and splash guard. Disconnect the ribbon cable from the cover.



3. Unscrew the filter cap. Remove, clean and refit, or replace the filter as necessary. Refit the filter and the filter cap, making sure it is screwed fully home.



4. Restore the water supply and check for leaks. **Re-prime the appliance** (refer to 'Installation') before restoring the electricity supply. Refit ribbon cable and cover.

Fault Diagnosis

1. Installer Troubleshooting Guide

Refer to section: 'Important Safety Information' first and refer also to 'User Trouble Shooting Guide'.

The following troubleshooting solutions may require the removal of the cover of the shower. The cover should only be removed by a competent trades person and when doing so they should be aware of the following:

- Isolate the electrical and water supplies before initially removing the cover.
- Make sure Ribbon Cable is disconnected when removing the front cover and reconnect when maintenance is complete.

- Mains connections are exposed when the cover is removed.
- Refer to wiring diagram before making any electrical connections.
- Make sure all electrical connections are tight to prevent arcing/overheating.
- Make sure all plumbing connections are watertight.

When following these instructions, it is sometimes necessary to examine the appliance with the electrical and water supplies turned **on**. It is therefore essential that the appropriate safe working practices are followed in accordance with the current Health and Safety Legislation.

If conducting a continuity check using a multimeter, make sure the electrical supply is **ISOLATED**.

2. DIAGNOSTIC PROCEDURE

1. Ensure the shower pullcord / isolator switch is in the **OFF** position, then turn **ON** the pullcord / isolator switch.
2. If the unit 'Beeps' & the Start / Stop button is flashing **WAIT for 20 SECONDS** until the button stops flashing.

NOTE! If the Start / Stop button continues to flash & no beep was heard upon start up, then the failure is due to a sticking switch on the Control PCB - Refer to **ERROR CODE 16** on the fault code sheet.

3. Start the shower & observe light fault indication (if any) & refer to Error Code Sheet to determine failure and rectify.

NOTE! If the shower operates normally run the unit for at least 5 minutes at showering temperature & ensure the temperature remains stable.




















4. Turn the shower off at the Start / Stop Button & observe 'phased shutdown'. **DO NOT** isolate the power at the pullcord / isolator switch until the water flow stops.
5. Turn off the power at the pullcord / isolator switch, then turn the power back on and commission the shower.
6. Run the shower for at least 5 minutes.
7. Show the user the correct start / stop procedure and general operation of the shower. Advise user that isolating the shower before the flow has stopped may damage the shower.

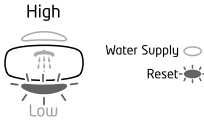
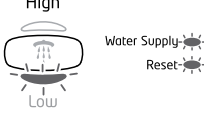
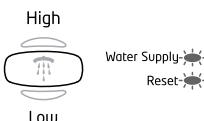
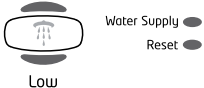
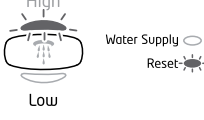
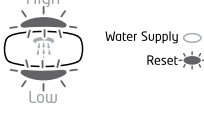
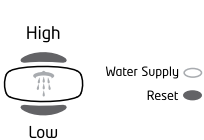
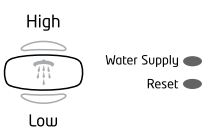
For all fault codes 0 to 14 the reset light will be on or flashing. This will require the shower to be turned off at the pullcord / isolator switch to reset the unit. When the pullcord / isolation switch is turned back on the shower may beep and the Start / Stop button may flash. If this occurs go back to action number 2 and re-follow the Diagnostic Procedure.

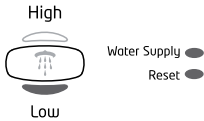
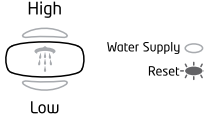
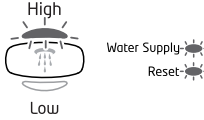

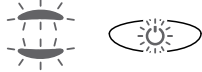

Advance² Error Codes X - 7 / Display, Causes and Rectification

No light  Flashing light  Solid light 

For all fault codes 0 to 14 the Reset light will be on or flashing. This will require the shower to be turned off at the pullcord / isolator switch to reset the unit. When the pullcord / isolation switch is turned back on the shower may beep and the Start / Stop button may flash. If this occurs go back to action number 2 and re-follow the Diagnostic Procedure

Error Code	Indicator Display	Possible Cause/Rectification
X	All lights in a normal state	No fault found
A	Water Supply  OR  Reset 	Problem with water supply, unit still operates. 1. Check all isolator valves are fully open. 2. Clean / replace filter, refer to section: 'Maintenance' . 3. Check Inlet Temperature not too high. 4. Blocked Hose / Handset.
0	High  Water Supply  Reset  Low 	An unidentified error has occurred. 1. Replace Control PCB / Cover.
1	High  Water Supply  Reset  Low 	Incoming flow too low for appliance to operate safely. 1. Check all plumbing isolator valves to the shower are turned fully on 2. Reset - Commission the shower. 3. Blocked or partially blocked filter. 4. A section of the supply pipe may be frozen (thaw). (Advise customer of incorrect installation) 5. Replace Flow Valve. 6. Replace Thermal Switch. 7. Replace Heater Tank. 8. Check header tank installation height. 9. Ensure Pump is running.
2	High  Water Supply  Reset  Low 	Internal electrical supply problem. 1. Replace Relay Board. 2. Replace Control PCB / Cover. 3. Replace Thermal Switch.
3	High  Water Supply  Reset  Low 	

4		<p>Appliance has been incorrectly shut down.</p> <ol style="list-style-type: none"> 1. Replace Relay Board & Control PCB / Cover TOGETHER. <p>Advise the user on correct start/stop procedure and general operation of the shower, refer to User Guide.</p>
5		<p>Incoming water temperature too high.</p> <ol style="list-style-type: none"> 1. Check inlet water temperature is not too high. 2. Replace Flow Valve. 3. Replace Control PCB / Cover.
6		<p>Flow Valve Assembly is disconnected or faulty.</p> <ol style="list-style-type: none"> 1. Check Multiway Cable Connection. 2. Check Flow Valve connection. 3. The shower or a section of the supply pipe may be frozen. 4. Replace Flow Valve. 5. Replace Control PCB / Cover.
7		<p>False flow reading/No shut off failure.</p> <ol style="list-style-type: none"> 1. Isolate power to the unit. Does the flow stop? No - Replace Flow Valve. Yes - Replace Relay Board.
8		<p>Safety relay failure.</p> <ol style="list-style-type: none"> 1. Check relay contacts. (debris on contacts or welded closed) 2. Check Multiway Cable Connection. 3. Replace Relay Board. 4. Replace Control PCB / Cover. 5. Replace Thermal Switch.
9		
10		<p>Internal Electrical Supply problem / Faulty Control PCB or Relay Board. Appliance has been incorrectly shut down.</p> <ol style="list-style-type: none"> 1. Push bleed button to flush the heater tank. 2. Replace Relay Board 3. Replace Control PCB / Cover. <p>Advise the user on correct start/stop procedure and general operation of the shower, refer to User Guide.</p>
11		<p>Outlet Sensor faulty or disconnected from Relay Board or faulty Control PCB.</p> <ol style="list-style-type: none"> 1. Check Outlet Sensor connection to the Relay Board. 2. Check Multiway Cable Connection. 3. Replace Control PCB / Cover. 4. Replace Relay Board. 5. Replace Heater Tank.

12		<p>Unsafe hot water detected.</p> <ol style="list-style-type: none"> Unit incorrectly shut down causing hot water to trip the max temp limit, this would be following ERROR 17. Hot water in the heater tank, bleed via the blue button. Check Outlet Sensor connection to the Relay Board. Check Multiway Cable Connection. Replace Control PCB / Cover. Replace Relay Board. Replace Heater Tank. <p>Advise the user on correct start/stop procedure and general operation of the shower, refer to User Guide.</p>
13		<p>This failure only occurs during commissioning.</p> <ol style="list-style-type: none"> Check operation of relays / replace Relay Board Replace Flow valve. Replace Control PCB / Cover. Check resistance of Heater Tank elements./ replace Heater Tank.
14		<p>Error lights when unit is re-started.</p> <p>This error occurs when the shower has been incorrectly shutdown and the unit senses over temperature (refer to ERROR 17).</p> <p>Advise the user on correct start/stop procedure and general operation of the shower, refer to User Guide.</p>
15	 <p>Lights flashing in peculiar ways.</p>	<p>Unit fails to start.</p> <ol style="list-style-type: none"> Replace Relay Board and Control PCB / Cover TOGETHER.
16		<p>High & Low or Start / Stop lights pulsing rapidly.</p> <ol style="list-style-type: none"> Associated Button stuck / Replace Control PCB / Cover.
17		<p>Start / Stop Lights Pulsing Slowly</p> <ol style="list-style-type: none"> If a 2 second beep and the Start / Stop button is pulsing SLOWLY = Appliance has been incorrectly shut down. Refer to Diagnostic Procedure action number 2. <p>Advise the user on correct start/stop procedure and general operation of the shower, refer to User Guide.</p>

Unattended Operation

The appliance has a built in 'Shower Stop' timer to protect from accidental unattended operation. This feature automatically switches the shower off after 30 minutes of continuous use. Normal operation is restored by re-selecting the **Start/Stop** button, but should be allowed to cool for 30 minutes first.


BEAB Care In-Service Tests

The following procedure applies to products operated and maintained within the BEAB Care requirements. This procedure should be conducted by designated, qualified and competent personnel only.

To maintain the validity of the BEAB Care mark, regular inspections of the installation and appliance should be carried out. The purpose of the in-service tests is to monitor and record the performance of the shower. Any deterioration in performance can indicate the need for maintenance work on the appliance and/or the water supplies.

Frequency of Inspections

Upon the initial installation of the shower and after any major repair work (e.g. Renewing the Flow Valve or Heater Tank etc...), the in-service tests must be performed and the results recorded on the BEAB Care In-Service Test Record to provide a reference point for future inspections (The BEAB Care In-Service Test Record is on page 31).

BEAB Care In-Service Test Record									
Installation Address: _____				Maximum Temperature Setting: _____ <small>(maximum of 41 °C for showering)</small>					
Location of Shower: _____			Installed by: _____		Date: _____				
Date / Signature	Not Operating			Normal Operation			Restricted Supply <small>(see report for definition of a restricted supply)</small>		Equipment Details <small>(make, model, serial number, distribution date etc...)</small>
	Terminal Block Voltage (V)	Inlet Water Temp. (°C)	Inlet Filter Cleaned	Terminal Block Voltage (V)	Outlet Water Temp. (°C)	Flow Rate (l/min)	Outlet Water Temp. (°C)	Flow Rate (l/min)	

Please record all test results on this form, including details of all measurement equipment used. This form is available to download at www.mirashowers.co.uk

The shower should be inspected again within 6 to 8 weeks after installation or any major repair. If there is no significant change in the outlet water temperature greater than ± 1 °C between the two inspections, the in-service test frequency may be reduced but must not exceed 12 months between any two inspections.

Equipment Required

The following equipment or suitable equivalent will be required in order for the tests to be performed:

- Digital Multimeter (crocodile clip probes are recommended)
- 100 mm diameter plastic funnel
- Digital liquid thermometer accurate to 0.1 °C
- 2 - 22 l/min flow measure cup
- Cup or container suitable for catching water

1. Run the shower with the temperature control set to full cold and the flow set to high for 2 - 3 minutes and then stop the shower. Clean and if necessary renew the inlet filter (see Maintenance) but do not refit either the filter, the filter cap or the shower front cover.
2. Gradually turn on the water supply at the isolator valve enough to catch a small quantity of water in the cup or container and measure the temperature. Isolate the water supply again and record the temperature on the test record.
3. Switch on the electrical supply to the shower and measure the voltage at the terminal block. Isolate electrical supply again and record the voltage on the test record.
4. Refit the inlet filter and filter cap. Turn on the water supply and check for leaks. Reprime the shower (see Installation - Priming the Shower).
5. Remove the handset from the hose. Position the end of the hose to allow water to drain safely when the shower is running, if necessary secure the hose in this position.
6. **WARNING, LIVE ELECTRICAL WIRES ARE EXPOSED WHILE SHOWER IS RUNNING!**
Connect the ribbon cable to the cover. Switch on the electrical supply to the shower and run the shower with the temperature control turned to full hot and the flow set to high. Measure the supply voltage at the terminal block (this may require a second person to assist). Stop the shower, isolate the electrical supply and record the voltage on the test record.
(If the ribbon cable becomes disconnected the shower will assume a failure has occurred and stop automatically. Isolate the electrical supply, reconnect the ribbon cable and restart this section of the test.)
7. Refit the cover and screws. Refit the handset to the hose and reattach to the sidebar or handset holder.
8. Switch on the electrical supply to the shower and run the shower with the temperature set to full hot and the flow set to high. Using the plastic funnel, catch all the water flowing from the handset and measure the temperature of the water flowing from the funnel. Record the temperature on the test record. Using the flow measure cup, measure the rate of water flow from the funnel and record the result on the test record.
9. Run the shower set to full hot and the flow set to high. Slowly restrict the water supply to the shower by closing the isolating valve gradually until the water starts to cavitate. This is indicated by a change in the tone of the internal pump and a '*whooshing*' sound (typically this is achieved when the isolating valve is closed by at least half). Allow the shower to run for 2 - 3 minutes to make sure that it will operate continuously, then measure the water temperature and rate of flow as described in test 8 and record the results on the test record. If the shower will not run continuously for at least 2 minutes, then the isolating valve should be reopened fully and the shower reset and reprimed. Attempt a retest without closing the isolating valve as much as previously. When a successful test has been performed and recorded, reopen the isolating valve fully and set the temperature to mid blend. Stop the shower and isolate the electrical supply.

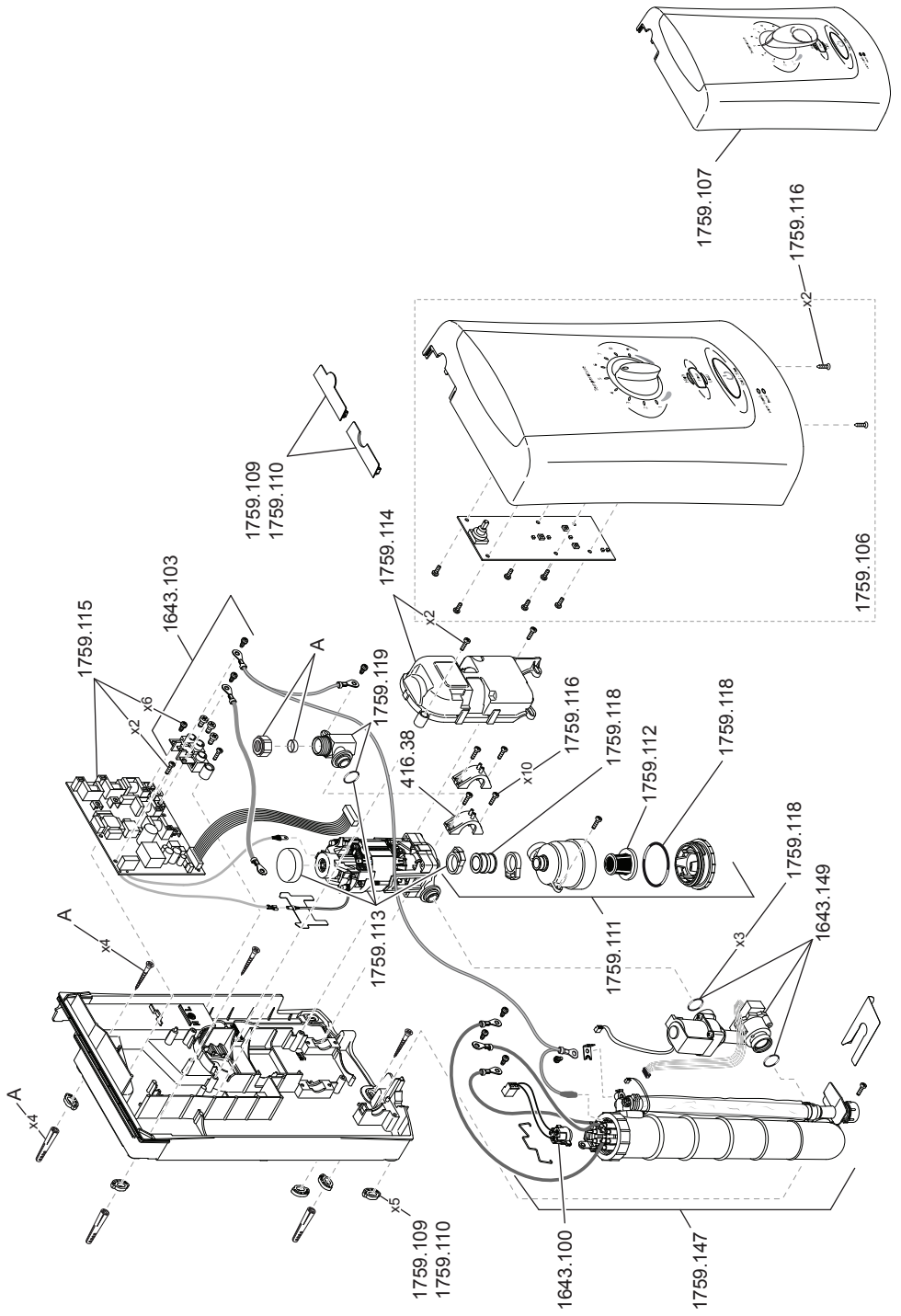
If the normal operation outlet water temperature has changed by more than 1 °C since the previous inspection, or if either of the outlet water temperature measurements are more than 2 °C above the maximum temperature setting, the shower handset, hose and inlet filter should be checked for blockages and cleaned and descaled or if required renewed. Checks should be performed to confirm that any check valves or other backflow prevention devices are working correctly and that any isolating valves in the supply pipework are fully open. The shower should be recommissioned at the relevant maximum temperature setting and retested. If the temperatures are not able to be brought in line with these requirements, **the shower must not be used.**

Spare Parts

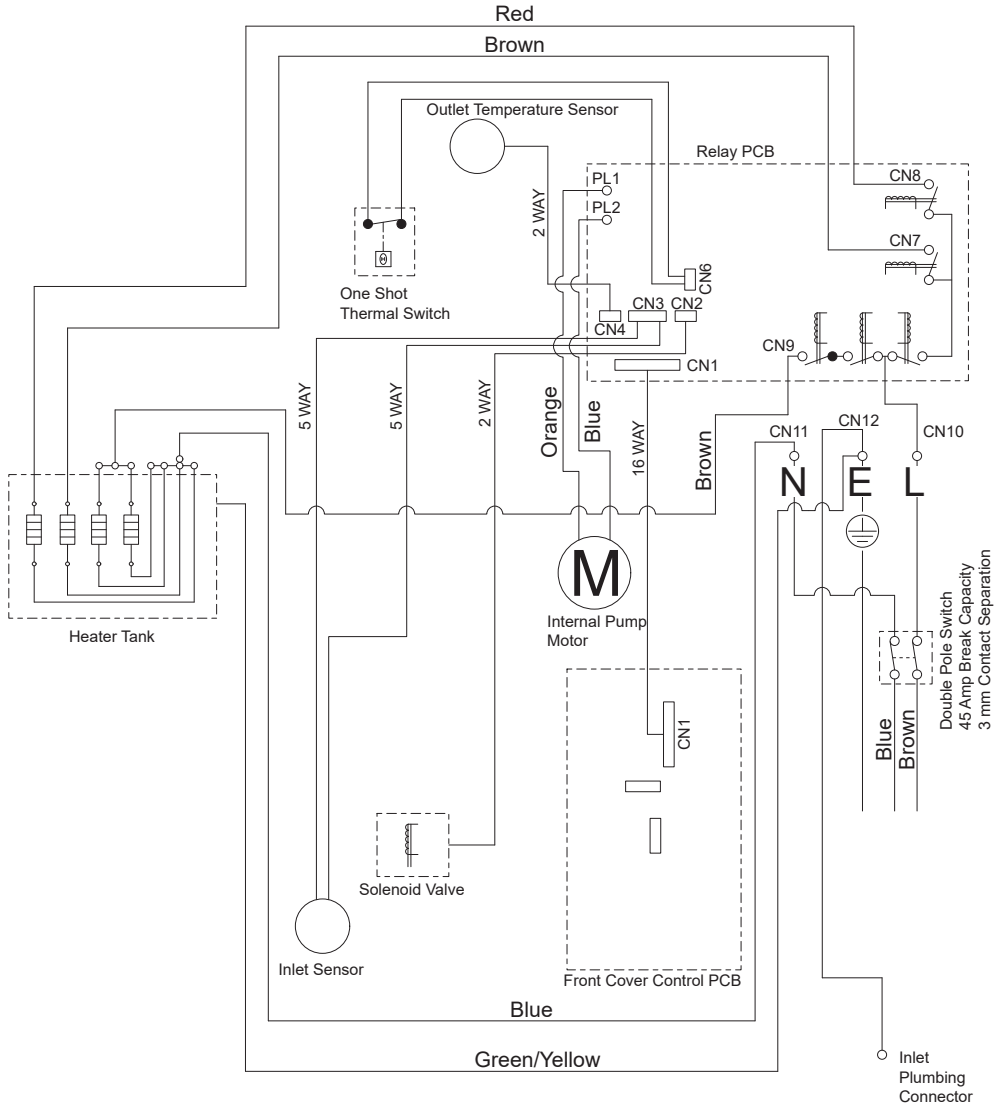
416.38	Universal Inlet Clamp Bracket.
1643.100	Thermal Switch.
1643.103	Terminal Block/Earth Wire/Neutral Wire.
1643.149	Flow Valve Assembly.
1759.106	Cover and PCB Assembly (Standard).
1759.107	Cover and PCB Assembly (Flex).
1759.109	Cover Inserts (white) includes rubber case feet.
1759.110	Cover Inserts (grey) includes rubber case feet.
1759.111	Filter Assembly.
1759.112	Filter.
1759.113	Pump Motor Assembly.
1759.114	Pump Motor Cover.
1759.115	Relay Board (including screws).
1759.116	Screw Pack.
1759.117	Component Pack (components identified 'A').
1759.118	Seal Pack.
1759.119	Inlet Connector.
1759.147	Tank Assembly 9.0 kW/230 V (earth wire not included).

Warning! If the wiring layout is changed or amended, the product functionality and safety may be affected.

Warning! In the interests of safety, spares requiring exposure to mains voltage should only be fitted by competent persons.



Wiring Diagram



Accessories

Genuine Mira accessories can be purchased direct from Customers Services (our contact details can be found on the back cover of this guide) or from approved stockists or merchants.



Everclear Showerhead
White - 2.1616.030
Chrome - 2.1616.031

Mira's new Everclear range has been specially designed for hard water areas and reduces the risk of lime scale build up.



Wall Mounted Soap Dish
White - 1.1540.278
Chrome - 1.1540.279

Wall mounted for use anywhere in, or outside the showering area.



Logic Showerhead Holder
White - 2.1605.149
White/Chrome - 2.1605.150

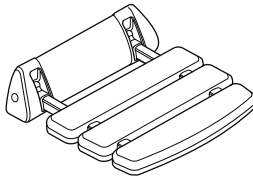
An alternative to the traditional slide bar. Often a useful addition when positioned for the smaller members of the family.



Mira Standard Grab Bars
300 mm - 2.1605.070
450 mm - 2.1605.071
600 mm - 2.1605.072

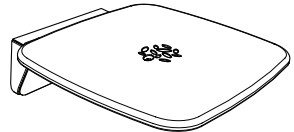
Premium grade, highly polished, stainless steel grab bars.

Note! Must be installed onto a solid wall.



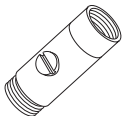
Shower Seat
White - 2.1536.128
White/Chrome - 2.1536.129

For use in or out of the showering area. Folds up when not in use. Maximum User Weight - 127 kg (20 stone) **Note!** Must be installed onto a solid wall.



Premium Shower Seat
White/Chrome - 2.1731.001
Grey/Chrome - 2.1731.002

Stylish, slim-line and robust shower seat for use in or outside of the shower area. Folds up when not in use. Maximum User Weight - 150 kg (23.5 stone) **Note!** Must be installed onto a solid wall.



Outlet Double Check Valve (DCV-H)
Chrome - 1.0.110.55.1

An outlet double check valve, designed to prevent the back flow or back-siphonage of potentially contaminated water, through shower controls which are fitted with a flexible shower hose as part of the outlet shower fitting.

BEAB Care In-Service Test Record



Installation Address: _____

Location of Shower: _____

Maximum Temperature Setting: _____
(maximum of 41 °C for showering)

Installed by: _____

Date: _____

Date / Signature	Not Operating			Normal Operation		Restricted Supply		Equipment Details (make, model, serial number, calibration date etc...)
	Terminal Block Voltage (V)	Inlet Water Temp. (°C)	Inlet Filter Cleaned	Terminal Block Voltage (V)	Outlet Water Temp. (°C)	Flow Rate (l/min)	Outlet Water Temp. (°C)	

Please record all test results on this form, including details of all measurement equipment used. This form is available to download at www.mirashowers.co.uk.

Customer Support

Guarantee

Your product has the benefit of our manufacturer's guarantee which starts from the date of purchase. This guarantee only applies in the United Kingdom and Republic of Ireland.

Activating Your Guarantee

Registering your guarantee is quick and simple. To ensure your product is covered, please register online.



Scan the QR code to activate your guarantee now or call 0800 5978551 within 30 days of purchase (UK only).

What is Covered:

- The guarantee applies solely to the original installation under normal use.
- The product must be installed and maintained in accordance with the instructions given in this guide.
- Servicing must only be undertaken by us or our appointed representative.
- Repair under this guarantee does not extend the original expiry date. The guarantee on any replacement parts or product ends at the original expiry date.
- For shower fittings or consumable items we reserve the right to supply replacement parts only.

The guarantee does not cover:

- Call out charges for non product faults (such as damage or performance issues arising from incorrect installation, improper use, inappropriate cleaning, lack of maintenance, build up of limescale, frost damage, chemical attack, corrosion, system debris or blocked filters) or where no fault has been found with the product.
- Water or electrical supply, waste and isolation issues.
- Routine maintenance or replacement parts to comply with the requirements of Building / Plumbing / Electrical Standards or Schemes.
- Compensation for loss of use of the product or consequential or indirect loss of any kind.
- Damage or defects caused if the product is repaired or modified by persons not authorised by us or our appointed representative.
- Accidental or wilful damage.
- Products purchased ex-showroom display.
- Disinfection or descaling to reduce bacterial growth or contamination.

What to do if something goes wrong

If your product is not working correctly please refer to this manual for fault diagnosis and to check that it is installed and commissioned in accordance with our instructions. If this does not resolve the issue, our Customer Services team are here to help get you back up and running. To help us solve your problem quickly, please have your product name, power rating (if applicable) and date of purchase to hand.

Visit www.mirashowers.co.uk

Visit our website to register your guarantee, book a service visit, diagnose faults and purchase products.

Spares and Accessories

We stock a full range of spare parts and fittings and are all available to purchase either online or over the phone. Our online spare parts selector tool will help you quickly and easily identify the spare part for your product.

Visit www.mirashowers.co.uk/parts-accessories

Replacements and Repairs

In the unlikely event that your product needs a repair, our nationwide repairs and installation team are here to help. You can book a convenient date and time online.



Scan the QR code to book a service visit now or visit www.mirashowers.co.uk/support/repair-services/repair-service

We also offer a comprehensive replacement service for when your product needs a little refresh, visit our website or contact our team for more information on our replacement services.

Help us improve

Your experience is important to us and your review (whether good, bad or otherwise) will be posted on Trustpilot.com immediately to help other people make more informed decisions.

Visit uk.trustpilot.com/review/www.mirashowers.co.uk

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

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