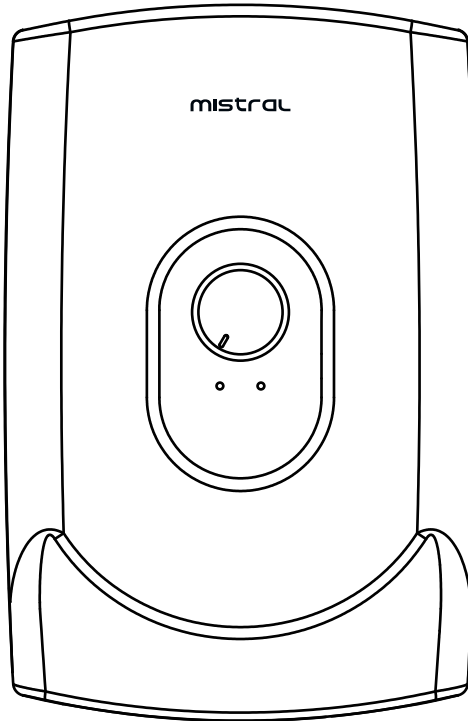


mistral

Instant Shower Heater with DC Pump MSH99



Please read this instruction manual thoroughly before operating and keep it for future reference

IMPORTANT SAFETY INSTRUCTIONS

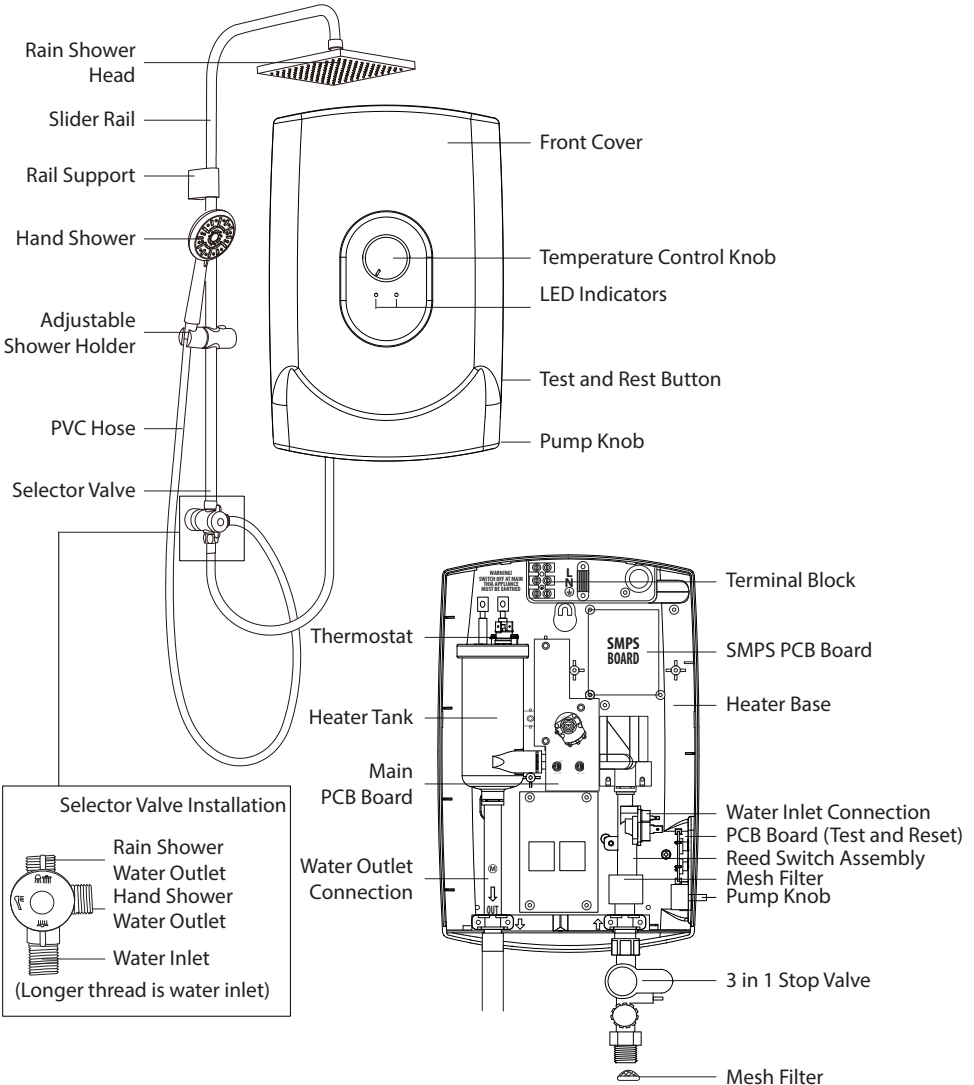
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- Do not operate any appliance with a damaged cord or plug or after the appliance malfunctions, or has been dropped or damaged in any manner. If the power cord is damaged, it must be replaced by the Service Centre to avoid a hazard.
- When using electrical appliances, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and/or injury.
- Do not immerse appliance, cord or plug in water or other liquid.
- Unplug from the outlet when not in use and before cleaning.
- Do not unplug the appliance by pulling on the cord.
- Use the accessories from the appliance only, as other accessories not from the appliance may cause fire, electric shock or injury.
- The appliance must be earthed. Improper grounding could cause electric shock.
- If any of the following occur, switch off the power and contact the Service Centre:
 - The heater begins to make an odd noise, smell or smoke.
 - ELCB and heater lamp does not light up.
 - Water temperature can not be controlled.
 - The heater shows signs of a distinct change in performance.
 - Water leakage from inside.
- It is recommended to connect the water inlet connection to the tank storage supply to avoid damage to the pump model.
- It is advised to test and adjust the water temperature before showering.
- During lightning and/ or thunder, switch off the electric supply to the appliance in advance to protect the appliance against possible damage.
- When unpacking the appliance, a small amount of water may be found inside. This is normal as the appliance is tested during the manufacturing process.
- Installation must be carried out by qualified personnel and in compliance with the local authority regulations.
- This appliance must be permanently connected to the direct main current supply.
- For the correct size of wire conductor corresponding to different electrical loading, please refer to Table 1.
- This appliance operates at a minimum water flow rate of 2.0ltr/min and maximum working pressure of 6 bars. For direct connection to the water tank, the appliance must have a minimum distance of 1.0m below the water tank.

- This appliance will not function if there is insufficient water flow (min 2.0ltr/min) to trigger the flow switch.
- The built-in ELCB will automatically cut off the power supply in case there is a current leakage of at least 15mA.
- The thermostat will automatically cut o the power supply if it has sensed an abnormal rise in water outlet temperature.

PRODUCT TECHNICAL PARAMETERS

MODEL	RATED VOLTAGE	RATED POWER	MIN. WATER FLOW RATE
MSH99	230Va.c, 50/60Hz	3300W	2 Litres / min
MIN. WATER PRESSURE	MAX. WATER PRESSURE	WATER CONNECTION	
10 kPa (0.1 Bar)	0.6 MPa (6 Bar)	15mm diameter (½" BSP)	

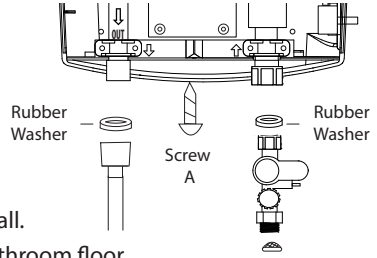
INTRODUCTION OF PARTS



CONTROLS AND OPERATIONS

Installation

1. Select a suitable position in the bathroom.
2. Pull out the Temperature Control Knob and then remove the screw (A) at the bottom of the appliance.
3. Remove the Front Cover first at the bottom and then lift the front cover.
4. Mark the 3 screws points of the Heater Base on the wall.
5. The Heater position should be 1.5 meters from the bathroom floor.
6. Use a 6mm diameter drill and make the wall plug holes to 34mm depth.
7. Insert the wall plugs and mount the Heater firmly in position with the 3 screws provided.



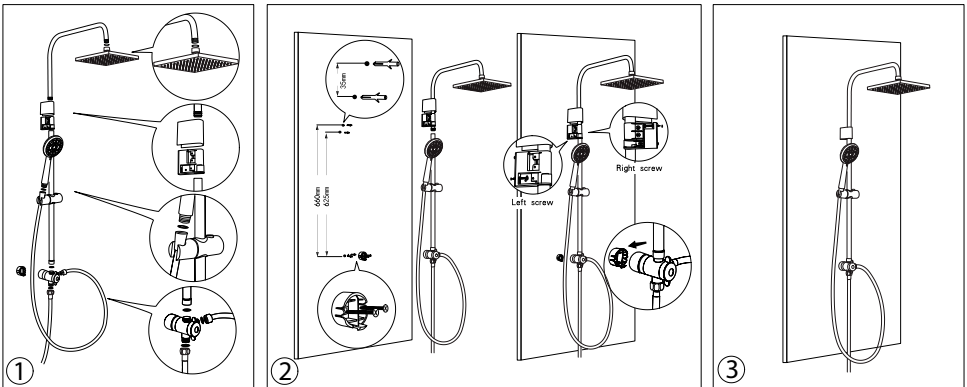
Rain Shower Set Installation

Important

- Selector valve installation
- Rainshower water outlet
- Handshower water outlet
- Water inlet (longer thread is water inlet)

How to install

1. Do marking for the location of the lower and upper bracket.
2. Assemble the upper tube with rain shower and lower tube with divider.
3. Hook the assembled divider to the mounted bracket.
4. Tighten the screws and make sure all joints are completely connected to avoid leakage.



Plumbing Procedure

This Heater is a single point system and the 'Water Outlet' can only be fitted to the PVC Hose and Handshower set provided. No control valve or fitting can be fitted to the water outlet.

1. Connect the Stop Valve to the Water Inlet with a washer. Use correct tools to tighten and be careful not to over tighten and damage the plastic nut.
2. Connect the incoming water piping end to the Stop Valve (1/2" BSP).
3. Turn on the water main to drain out all the plumbing dirt before connecting the water supply to the water heater, the water supply to the heater must always be free from mud and dirt.

Important:

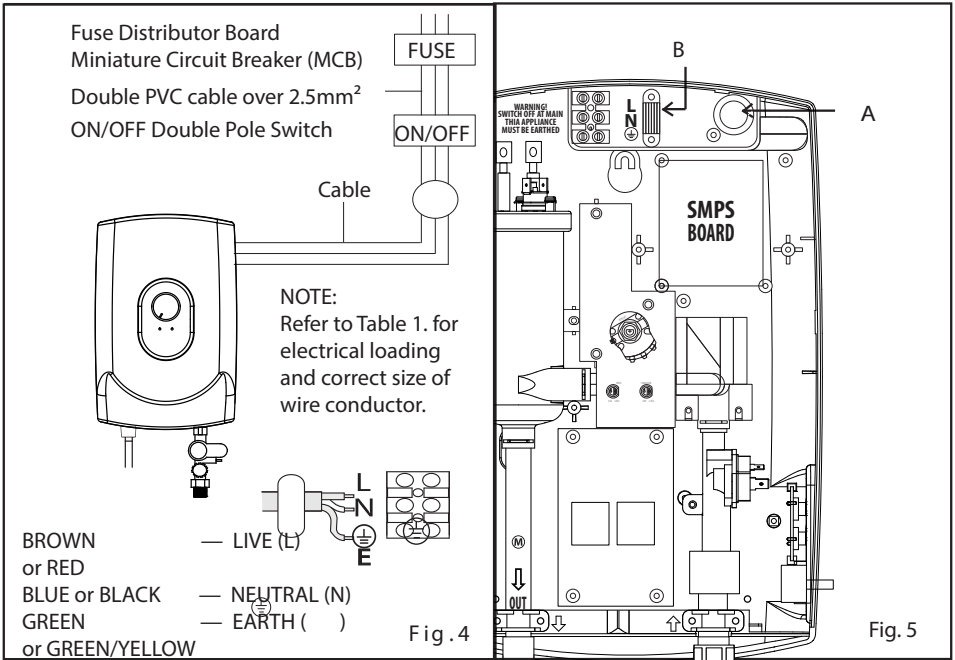
- The heater tank must be filled up with water before switching on the power to the appliance. This is to prevent any dry burn damage to the heating element.
4. Be sure to place in the rubber washer when connecting the PVC Hose and Handshower to the outlet of the Heater.
 5. Hook the Handshower to the Slider Rail Shower Holder and adjust to your ideal position.
 6. Check for any water leakage.

Warning:

- The water inlet and outlet must be installed correctly, otherwise, the heating elements will be spoiled. Not use plumbing cementation connection, if necessary, use only thread or sealing tape.

Electrical Installation

1. This appliance must be earthed. Improper grounding could cause electrical shock.
2. Remember to switch off the main power before carrying out any electrical work.
3. Refer to Table 1 for the correct cable size.
4. Use a double-coated cable of over 2.5mm².
5. Lead the power cable from the MCB to an "ON/OFF" double pole Linked switch having a contact separation of at least 3mm in all poles outside the bathroom, then lead a cable connected to the terminal block inside the appliance. (Fig. 4)

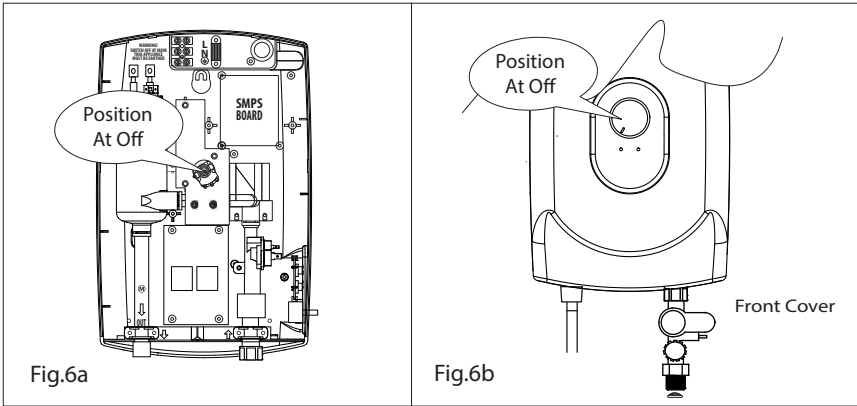


Procedure:

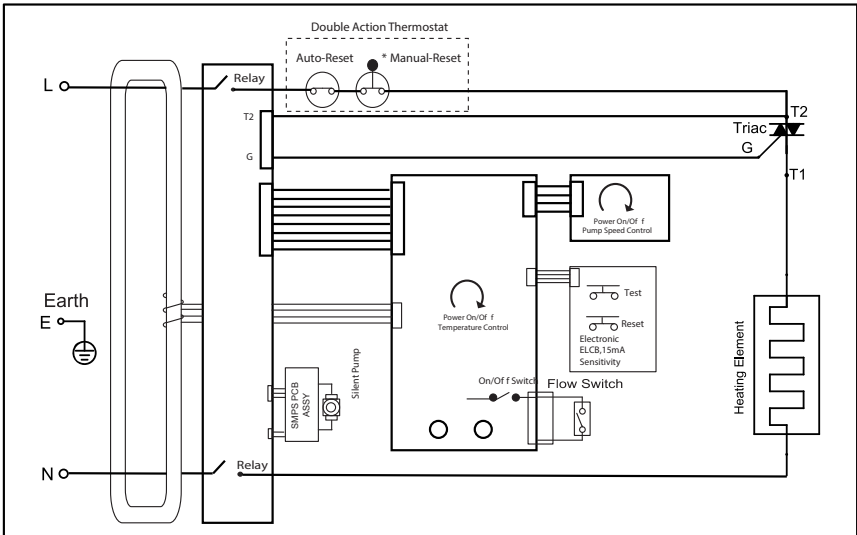
1. Insert the cable through 'A' for side entry or 'B' for wall embedded cable by cutting a hole through the source cord rubber holder. (Fig. 5)
 2. Connect the cable to the Terminal Block and fully tighten them as follow:
 BROWN or RED - LIVE (L)
 BLUE or BLACK - NEUTRAL (N)
 3. GREEN or GREEN/YELLOW - EARTH (⊕)
- When replacing back the Front Cover, please take note of the below:
 To ensure the correct position, turn the Temperature VR Knob insert to OFF position as shown in Fig. A (at the Heater's Base)
 - To install the Front Cover, turn the Temperature Control Knob to the OFF position to align with the VR Knob Insert as shown in Fig. B. (at the Front Cover)

4. Fix back screw A.

METHOD OF ALIGNMENT WHEN FIXING FRONT COVER



WIRING DIAGRAM - DC PUMP MODEL



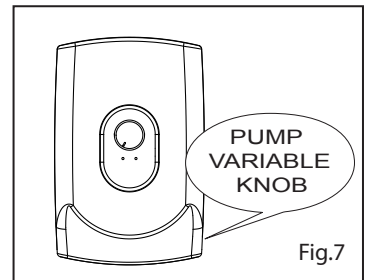
- * Manual Reset (90 C Thermostat)
- For Models rated 4.5kW and below, thermostat is manually resettable.

Electrical Loading Table

Voltage (AC)	Power (kW)	Current (A)	Minimum Conductor Size (CSA)		On/ Off Switch (A)	Fuse/ MCB (A)				
			mm ²	Conduit Cable						
240~ 50/60Hz	2.5	10.4	2.5	7/ 0.67 mm	50/ 0.25 mm	20	20			
	3.5	13.8								
	3.6	15								
	4	16.7								
230~ 50/60Hz	5	20.8	4		56/ 0.30 mm	32	32			
	2.4	10.4	2.5	7/ 0.67 mm	50/ 0.25 mm	20	20			
	3	13								
	3.3	14.4								
	4	17.4								
5	21.8	4						56/ 0.30 mm	32	32
220~ 50/60Hz	2.4	10.9	2.5	7/ 0.67 mm	50/ 0.25 mm	20	20			
	3.5	15.9								
	4.5	20.5								
	5.5	25	4					56/ 0.30 mm	32	32
	6	27.3								

Test run

1. Turn on the water supply and Stop Valve, the water will flow through the Handshower.
2. Switch on the electrical supply.
3. Turn the Temperature Control Knob to 'ON', the Yellow Indicator light (Power) will turn on, hot water will flow out within a few seconds. The more Temperature
4. Control Knob being turned in clockwise direction, the hotter the shower is.



- The shower might not be hot enough even at 'MAX' position if incoming water supply from the mains is too cold or pressure water is too high. In this case, you may adjust the Stop Valve to reduce the water inflow in order to get the desired showering temperature.
5. Check the Built-in ELCB as following:
 - Press the "TEST" Button, the Built-in ELCB should trip and cut off the power supply, all LED Indicators should light off.
 - Press the "RESET" Button, the Heater Unit should resume normal function, the White LED

6. Indicators should light on.

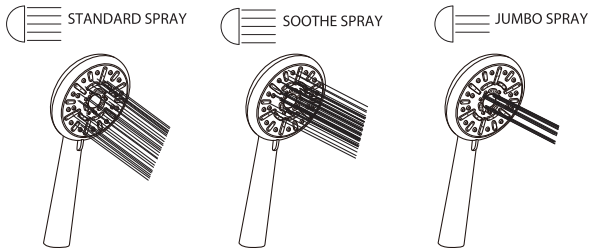
7. If procedures stated above prevailed, the ELCB is functioning in normal condition.
 - Switch OFF the electricity supply after shower.

For Pump Models: Turn the Pump Knob to test on Pump's functionality.

If the shower is not hot enough, you may adjust the stop valve until the desired shower temperature is obtained.

Handshower

- This innovative adjustable Handshower has 3 different spray actions (STANDARD, JUMBO, SOOTHE). The actions are described as follows.



Clean the Handshower Head holes by using the soft brush from time to time. (Recommended once a week) Note: Take care not to damage the holes of the Handshower Head during cleaning.

CLEANING AND MAINTENANCE

ELCB

- Test the ELCB regularly
- This procedure is highly recommended to test at least once a month.
- Turn on the electricity and water supply, the Green ELCB lamp will light up.
- If the Temperature Control Knob is in 'ON' position, the Red Heater LED will light up also.
- Press the ELCB Test button, the ELCB and HEATER lamp should go off.
- Press the Reset button to resume back the electricity supply.
- If the ELCB or HEATER lamp does not go off when you press the ELCB Test button, SWITCH OFF the mains supply and contact your sales agent for repair. Special skill is required for repair.

Precaution

- Do not use thinner, alcohol, petrol or any other organic solutions to clean the set, use only a damp cloth with mild detergent.
- Clean the Handshower Head holes by using a soft brush from time to time. Recommended once a week.

Note

- Take care not to damage the holes of the Handshower Head during cleaning.

Filter

- There are two filters located at the stop valve, one is Mesh Filter (installed at the incoming water supply), another one is the built-in Filter as shown in Fig. 10.
- Clean the Mesh Filter regularly to prevent blockage.
- Remove the built-in Filter by turning it anti-clockwise as shown in Fig. 9.
- Take out the filter and flush it with water to remove any trapped sediments. (as shown in Fig. 10)
- Special skill is required for repair. Do not try to repair the appliance yourself.

