

**PRESTIGE RADIATORS LIMITED**

**LOW SURFACE TEMPERATURE ELEMENT  
MAXIMUM TOWEL RAIL SURFACE TEMPERATURE 43°C**

# MOA 43D

thermostatic heating element

## User Manual



## LST user manual

*Our products have been designed and manufactured in such a way to ensure that all the quality, functionality and aesthetic requirements are met.*

*We would like to congratulate you on this great purchase and wish you a pleasant us*

### Safety Regulations:

Please read the below instructions thoroughly and study the images carefully

1. Never use the device that is damaged in any way.
2. Please check if tally voltage equals the voltage of the electric installation point prior to connecting the device.
3. Please check regularly the power wire is not damaged and if the device can be used in a safe manner.
4. Power wire is not subject to repair. Damaged power wire should be replaced at the manufacturer's or specialised repair shop.
5. Always connect the device to the grounded installation (socket with earthing pin) Elements fitted without the plug (ie connected directly to installation - hard wired) please see chart for colour codes for each wire.

6. The heating element is intended to work in a liquid agent environment. It is advised not to turn the device on in dry conditions for longer than 5 seconds. Do not touch metal parts - burning risk. Always make sure that the wire does not touch the heating element that is hot.

Colour	Letter code	Wire type
<b>Brown</b>	L	Live
<b>Blue</b>	N	Neutral
<b>Yellow</b>	PE	Earthing

7. The device should not be connected while being installed. Unplug the device or disconnect the power wire from electrical circuit.

8. Do not open the casing.

9. Do not allow for the casing of the control head to get flooded or splashed with water or any other liquid.

10. Do not touch the electric device while standing in the bathtub, shower or barefoot on the floor.

11. Heating element's electric output cannot exceed **60%** heating output of the radiator for the following parameters: **75/65/20° C**.

12. Pressure inside the radiator must not exceed the pressure value recommended by the radiators manufacturer or the pressure of 10 bar for this heating element.

Exceeding this pressure may result in the radiator

or heating element damage and cause possible threat for health, life and property.

13. An air pillow of the correct parameters should always be allowed for inside an electric radiator (see installations)

14. If the element is used in conjunction with a dual fuel radiator (connected to the central heating system) one of the valves should be left open prior to turning the heating element on and during its operation to allow for expansion of the heated water. Leaving both valves closed will result in excessive pressure growth which will damaged the radiator and the element.

15. This device is intended for low surface temperature towel radiators, with a maximum surface temperature of 43C.

16. If the heating element is used without the plug (hard wired) then it must be installed by a qualified electrician.



### Intended use of 43D

Terma heating elements and control heads are electric heating devices intended for installation and use with towel radiators for heating interior spaces or drying towels or clothes.

<b>Model code (power wire)</b>	PB
<b>Electric supply</b>	230 V / 50 Hz
<b>Heating output available</b>	120, 200, 300, 400, 600, 800, 1000 W
<b>Device protection class</b>	Class I
<b>Radiator connection</b>	G 1/2" (UK Standard)
<b>Water protection mark [IP]</b>	IPX5
<b>Electric connection type</b>	Y
<b>Finishes</b>	White and Chrome


## LST Technical information

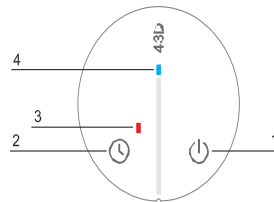
1. Heating element
2. Gasket
3. Heating element head
4. Control head
5. Power wire



## Basic Operation

1. ON/OFF switch
2. 2h TIMER switch
3. TIMER mode diode (red)
4. Device ON – heating mode diode (blue)

Pressing  key switches the heating element on and the radiator will warm up to an average temperature of approximately 43 °C. On the control panel, blue LED lights up to indicate the current (ON) status of the heater



**Please note:** Surface temperature of the radiator will not be constant and may vary in places. This is a normal phenomenon and it is due to the design of the heating element, the physical properties of the heat transfer medium in the radiator as well as other physical phenomena (convection and diffusion)

## TIMER function

Pressing the **time key** activates the 2hour timer. Timer function automatically turns the heater off after 2 hours. Active timer mode is indicated by a red LED located near the key.

Pressing the time key again during 2hr timer mode, operation disables the TIMER and reverts heating element to standard heating mode 43C. Blue LED lights up.

**Please note:** pressing the ON/OFF key during the timer mode deactivates the timer and switches heating element off.

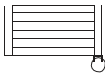
## LST 43D Antifreeze function

With the heating element connected to the mains power supply the 43D heating element temperature sensor continues to control heating medium temperature.

Antifreeze function remains active even when the heater is turned off. As soon as temperature around the sensor falls below 6 °C heating element will switch on automatically preventing heating medium inside the radiator from freezing!

Activation of ANTIFREEZE function is indicated by slow blue LED flashes (every 3 sec.)

## Installation LST heating element – Electric towel radiators



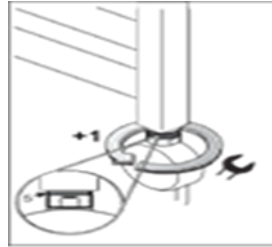
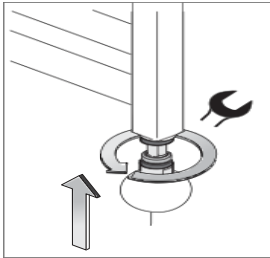
- Towel radiator powered by the heating element only, not connected to the central heating system.
- Water with antifreeze agent or the right type of oil should be used as a heating agent possibility of installation and correct use is conditioned by meeting the manufacturers requirements on the radiator and heating element.
- Filling the radiator with too much liquid leads to excessive pressure and damage of the radiator & element. If you are filling the radiator yourself please act strictly according to the below instructions.
- Radiator should not be filled with a heating agent of temperature higher than 65° C.
- Heating elements should not be fitted horizontally or fitted at the top of the towel radiator.
- The device should not be twisted or untwisted being held by the casing. Always use a spanner 22mm for fitting the element.



**WARNING!** Please take every precaution when filling or emptying the radiator to avoid being burnt.



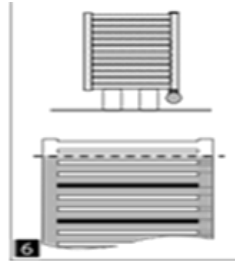
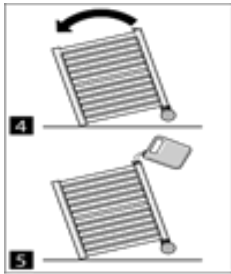
**WARNING!** The device must NOT be connected to the electricity during installation. Always unplug the device prior to installation.



1. Insert heating element into threaded opening at the bottom end collector.
2. Twist head of the heating element with a 22mm spanner clockwise, until you feel resistance, do not over tighten, this could damage rubber gasket and LST heating element.
3. Special gasket (2) assures tightness of connection and allows an additional twist and correct positioning of the control head.
4. Plumbers tape is not normally required for fitting this element but can be used if required!

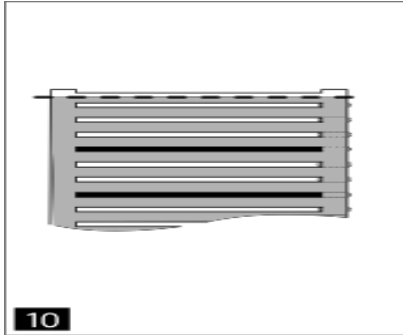


## Filling the radiator with electrical inhibitor solution



4. Upper collector opening is in the highest point!! The radiator must not be rested on the heating element control head or any other part when filling at any time!!
5. Fill the radiator with the protective heating agent.
6. Put the radiator in the upright position and check the level of the liquid inside.
7. Make sure that the connection between the radiator and the heating element is tight.
8. Connect the element to the electricity and turn on the heating element (upper collector opening must be open!)
9. Set the maximum possible temperature and observe the liquid level rise the excess liquid may be sloping through the upper opening in the collector, remove excess liquid in order not to allow for the heating element control head to be flooded or wetted.

**Please note!** You can use a hot heating agent to speed the process however the agent should not exceed **65° C**. In such case, always fill in the upright position and then turn the heating element on.



10. When the level of the heating agent stops rising, wait another 5 minutes, turn off the heating element and disconnect the device from the electricity.
11. Do not wait until the radiator cools down and pour a small amount of inhibitor solution out to mid-level of the top horizontal pipe.
12. Close the upper opening of the collector with the dedicated seal and fix the towel radiator to the wall.
13. Connect the heating element to the socket/installation point. The device is ready for use.

## Element disassembly

1. Disconnect the element from the power supply.
2. Remove the towel rail from the wall brackets.
3. Turn the towel radiator upside down with the element to the top.
4. Remove the opposite stopper to the element and empty the liquid solution into a suitable container.
5. Twist the heating element off anticlockwise using 22mm spanner.

## Maintenance of element

1. Disconnect the element from the power supply prior to cleaning.
2. Heating element control head should be cleaned with a dry or damp cloth with a very small amount of detergent, which should not contain any solvents or abrasive agents.

## Product disposal



This product should not be disposed of as general waste but should be brought to the appropriate collection point for recycling of electric and electronic devices. This information is provided by the sign on the product,

user manual and packaging. Information on the appropriate point for used devices can be provided by Your local distributor or manufacturer of the product. Thank You for Your effort towards environment protection

## Fault Indication

The heating element has a built-in protection against a risk of overheating while running in a dry radiator. This does not eliminate a possibility of temperature sensor failure. 43D will signal temperature sensor malfunction which is indicated by a rapid flashing of blue LED (every 1 sec.).

## Troubleshooting

<b>Problem</b>	<b>Possible Cause</b>	<b>Solving the problem</b>
The heater is connected to the mains power, no LED is on.	Connection problem.	Check the mains power cable connection to the spur.
Rapid flashing of blue LED (every 1 second).	Temperature sensor failure.	Heater must be returned to the supplier.
Device protection class.	Electronics failure.	Disconnect heating element from mains power supply and wait until the radiator has cooled down. Turn heating element on again. If the fault persists, element must be returned to the supplier.
The radiator heats up to very high temperatures.	Heating element power output radiator power output mismatch. Possibility of electronics fault.	Verify the correct heating element power output is used. If not, disconnect heater from mains and contact your supplier.

## Warranty terms and conditions

1. The subject of this warranty is Terma electric heating element with control head. Product name and characteristics are specified on the packaging.
2. By accepting the device on purchase, the Client confirms that the product is of full value. The Client should immediately inform the Seller of any discovered faults otherwise it will be understood that the Product was faultless at the time of purchase.

This refers especially to any faults or damages of the control panel case.

3. Warranty period for the Product is 24 months from the date of purchase, but no longer than 36 months from date of production.
4. Any claims made will be processed on production of the warranty card and the evidence of purchase. Manufacturer has the right to reject any claim on the grounds of not presenting of any of the above documents.
5. This warranty does not comprise any faults that are due to: incorrect (not in accordance with the manual) installation, use or disassembly, incorrect use of the heating element (ie. for any purpose that is not specified by the Manufacturer as intended for this type of product), Product being handled by unauthorised persons, any faults or damages caused by the Client after having purchased and accepted the Product.
6. The attached Product Manual is an integral element of the Warranty. Please read it carefully prior to the Product installation and use.
8. The Manufacturer is obliged to remove any production fault within 14 working days from receipt of the faulty device to Manufacturer's premises.
9. Should the repair turn out impossible, Manufacturer is obliged to replace the faulty Product with a new, full-value unit of identical parameters.

### **Prestige Radiators Ltd**

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