

# INSTALLATION AND USER MANUAL

## TOUCH THERMOSTATIC ELEMENT



Before you begin installation, setup or operation of the unit, please read all of these instructions carefully.

## 1. Safety & Warnings

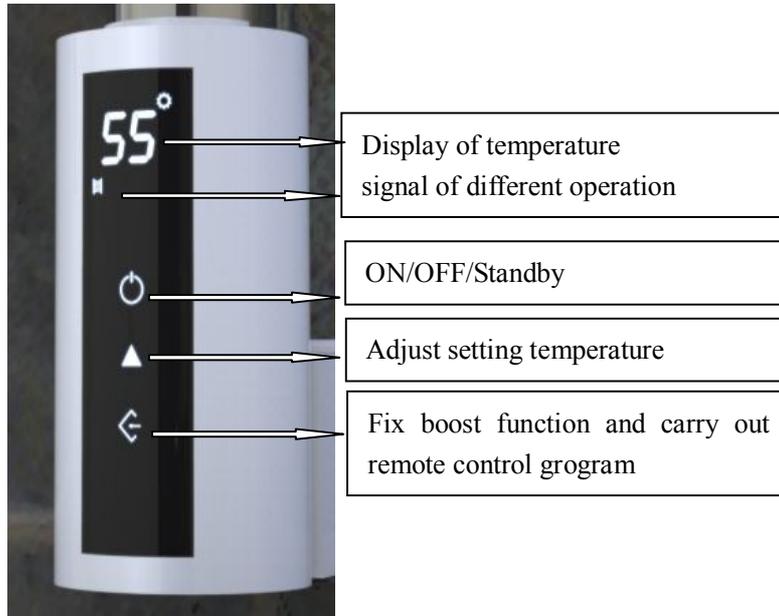
- Electric Towel Rails must be installed by a licensed electrician in accordance with the current IEE wiring regulations.
- The product should be permanently fixed and connected to the 220/240 Volt AC mains power supply via a fused spur/cable outlet, and earth bonded .
- This product is a Class 1 unit and as a result it must be earth connected.
- The element must **NEVER** be used without the towel rail or radiator being filled with water or fluid at correct fluid level.
- Only use the device in a suitable towel rail or radiator, for space heating and/or towel drying.
- This element should be mounted vertically and in the **BOTTOM** of the towel rail . It can be mounted horizontally only when it is in the **ambient** temperature control mode
- It is imperative that you have the correct fluid level(**90%** fluid of towel rail total volume is recommended) in the towel rail before the element is used.
- A Never attempt to disconnect the control unit from the heating element. It is a unit that was factory-sealed.
- Ensure the O-ring is on the connection part before installation. This o-ring is preventing the leakage after installation.
- The appliance is not a toy for children.
- The unit is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, only use if they are supervised by a competent person.

### **Warning!**

Never tighten using the housing itself, Always use the correct tools (Spanner).

## 2. Description of control box and infrared operation.

### 2.1 Control button function:



## 3. Operation of thermostatic control:

The controller has 4 functional modes

3.1: standby mode/frost protection

3.2: work mode

3.3: boost mode

### 3.1: Standby mode

3.1.1: Once the thermostatic heater is power on,the unit will go into standby mode immediately.An arrow signal ▼ will show on the screen

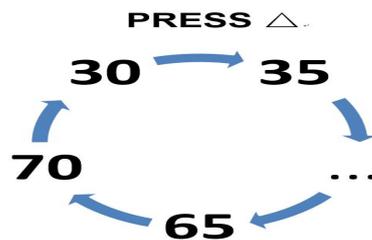
Antifreeze function: when the heater is in stand-by mode, it will automatically default to frost protection state. It means that the fluid temperature falls below 7°C, the heater will be active to work automatically.

### 3.2: Work mode

Once the thermostatic heater is in standby state, by pressing , it will enter into work mode.

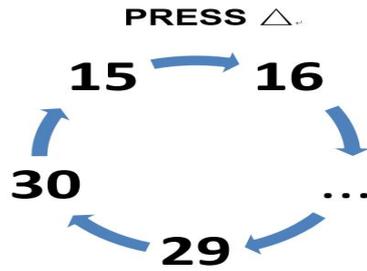
#### 3.2.1: Liquid temperature control:

The first indicating temperature on display is always 40°C. You can set your desired temperature by pressing  key on the control, when it goes to 70°C, it will recircuit from 30°C to 70°C . 5°C increments between 30°C and 70°C. For example:



#### 3.2.2: Ambient temperature control:

If you want to control the ambient temperature from the thermostatic controller, press the button  to AC state shown on the display, then press  on the controller, it is at ambient control condition . 1°C increments between 15°C and 30°C, when it goes to 30°C, it will recircuit from 15°C to 30°C. For example:

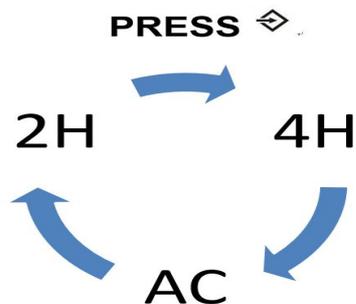


**3.2.3:** if the enter target temperature is higher than the current temperature ,a flashing sun symbol ☀ will appear on the display. If the actual temperature is falling in order to reach the target temperature,the sun symbol will flash quickly.Instead,the sun symbol will disappear when the target temperature is reached. If no sun symbol on the display,it means that the actual temperature is same as setting temperature shown on the display.

- A: radiator temperature control 
- B: room temperature control 

### 3.3: Boost mode

If you need a short boost Maximum heating performance,then press the button  on the control unit,boost time option is 2 and 4 hours.the element will stay working at the setting boost hours at maximum performance.After heating at the setting hours,it will revert back to previous chosen mode and temperature.



## 4. Automatic settings

## 4.1 Over heated protection

If the automatic control system is faulty and the water temperature in the radiator is increasing in an uncontrolled manner, the system has two safety mechanisms to prevent excessive pressure in the radiator. Firstly, the entire system is completely shut down electronically when a water temperature of 95°C is reached. If this protection mechanism fails for whatever reason, a simple downstream thermal fuse ensures complete shut-down, and the heating boiler dies.

## 4.2 Freeze protection

Once the control unit is in “STANDBY” mode (Power on), the control unit has an automatic freeze-protection setting. The default setting for frost protection is between  $< 7^{\circ}\text{C}$  and  $15^{\circ}\text{C}$ . If the radiator temperature falls below  $7^{\circ}\text{C}$ , the heating system switches on automatically, heats the liquid in the radiator to  $15^{\circ}\text{C}$  and then switches off again. An Ice  appears on the display. And it will work as a circulation way.

## 4.3 Room temperature compensation

As the NTC that measures the room temperature and feeds back information to the controller is located on the back of the controller, it is close to the warm radiator. The measured temperature will therefore not accurately reflect the temperature in other parts of the room. For this reason, there is an automatic temperature adjustment of  $-3^{\circ}\text{C}$  in the control unit.

## 4.4 Open window/open door detection

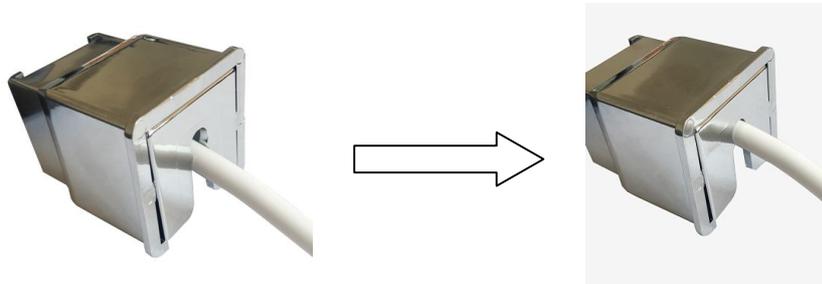
This automatic function detects when the temperature falls by 2°C or more over a short period of time. In this case, the system assumes that this reduced temperature is due to opened windows or open doors, “OP” will be displayed on the controller unit and heating system is switched off automatically and will be active to heat automatically once the temperature is detected back to stable condition .

## **5. How to install the cable mask to the element box after installing the element to the towel radiator**

Step 1: slide the decorative cable mask into track on the back of element box



Step 2: lock the cable to the hole on the mask



### Technical specification

\*Voltage: 220-240VAC

\* Power:100W-1000W

\*Insolation Class: I

\*IP rating: IP44

\*Temperature setting: 30-70° C(fluid).

15-30° C(ambient)

\*Boost: 2/4 hours

\*Thread size: G 1/2

\*Open window detection