



TOWELRADS



“SMART 43D”

Electronic control for towel radiators

SMART 43D is an electronic control for towel radiators.

There are ten different types of available resistances: from 100W to 1000W.

Operational modes: Continuous-Heating, Stand-by, Boost, Timer12, Timer24.

•**“Continuous-Heating”**: the electronic control activates the heating element and remains active until the user decides to set the device to “Stand-by” mode, the maximum temperature available is 43°C.

•**“Boost” mode**: the thermostat feeds the heating element at the maximum power for two hours. At the end of the two hours, the control goes back to “Stand-by” mode.

•**“Timer12” and “Timer 24” mode**: the electronic control activates the “Boost” function for two hours. At the end of the two hours the control reverts to “Stand-by” mode for either 10 or 22 hours (the user has the option to preset it), after which the thermostat repeats the “Boost” function for two hours. This sequence is repeated cyclically.

•**“Stand-by” mode**: by activating this function, the device sets to stand-by, the heating element is then deactivated.



Available color: White.
Chrome.

SMART 43D is a certified product: 

SMART 43D complies to the following directives:

-Eco-design Directive for Energy-using Products, 2005/32/EC (<0,5W).

-EN 60335-1:2012+A11:2014 -EN 60335-2-30:2009+A11:2012

-EN 60335-2-43:2003+A1:2006+A2:2008

-EN 61000-3-2:2014 -EN61000-3-3:2013 -EN 62233:2008

-EN 55014-1:2006+A1:2009+A2:2011 -EN 55014-2:1997+A1:2001+A2:2008

Release 3 - August 2015

Towelrads Ltd.

Unit 4 e 5, Maidenhead Trade Park, Priors Way, Maidenhead, Berkshire SL6 2GQ tel. 01628 659 520 www.towelrads.com

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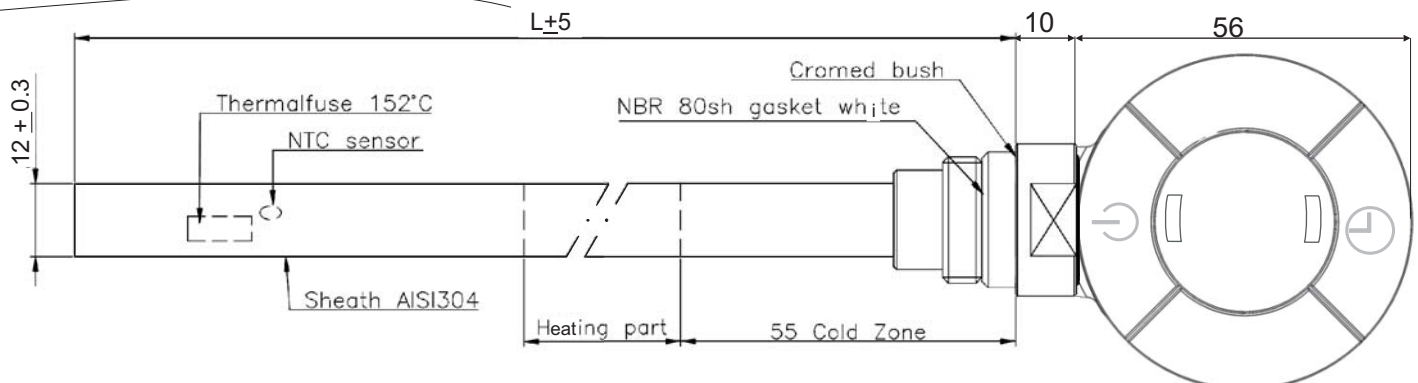
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TECHNICAL CHARACTERISTICS

Product	Electronic control for electric towel radiators
Applications	Towel radiators
Insulation class	Class I, Class 2
IP Level	IP44
Operational temperature	-10°C ÷ 40°C
Maximal power	See table and figure below
Supply Voltage	230VAC 50Hz
Dimensions	See table and figure below
Warranty	2 years
Standards	-EN 60335-1:2012+A11:2014 -EN 60335-2-30:2009+A11:2012 -EN 60335-2-43:2003+A1:2006+A2:2008 -EN 61000-3-2:2014 -EN61000-3-3:2013 -EN 62233:2008 -EN 55014-1:2006+A1:2009+A2:2011 -EN 55014-2:1997+A1:2001+A2:2008
Approval mark	CE
Case	ABS-VO
Environmental directive	WEEE, RoHS
Operative modes	Continuous-heating, Boost 2h, Timer 12h, Timer 24h, Stand.by
Thermostat status indicators	Boost/Timer led (red/green/amber). On/Off led (red)
Connection to mains	3 Cables (neutral, live, earth); L.120cm; Italian plug L.120cm; 2 Cables (neutral, live). Swiss plug L.120cm; Uk plug L.120cm; Schuko plug L.120cm.
Available colors	White (RAL9016); Chrome
Maximal temperature	43°C

Power	(W)	100	200	250	300	400	500	600	700	700	800	900	1000
Watt density	(W/Cm ²)	1.1	2.3	4	3.2	3.4	4	4.1	3.6	3.6	3.6	3.7	3.7
L (heating element)	(mm)	350	350	370	370	430	450	560	630	700	700	760	830



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WARNING

RISK OF ELECTRIC SHOCK!

Disconnect power supply before proceeding with installation.

Please read carefully before using the device.

- The present device has been designed for exclusive use on a towel radiator.
- The thermostat in combination with a heating element is designed for heating the liquid contained inside a towel radiator. Any other use is forbidden.
- Before using, carefully ensure that the line voltage is the same as that specified for the thermostat (see technical specifications).
- Only use heating elements compatible with the type of used towel radiator
- Disconnect power supply before cleaning or before performing maintenance of the product.
- In case of damage to the supply cable, turn off the device and do not touch. The damaged power supply cables can be replaced by the manufacturer or by an authorized service center. Failure to either adheres to the above rules could lead to compromised system safety and invalidate the warranty.
- Store the heating element exclusively in the protecting packaging.
- Replacement of the heating element can be done exclusively by the product manufacturer.

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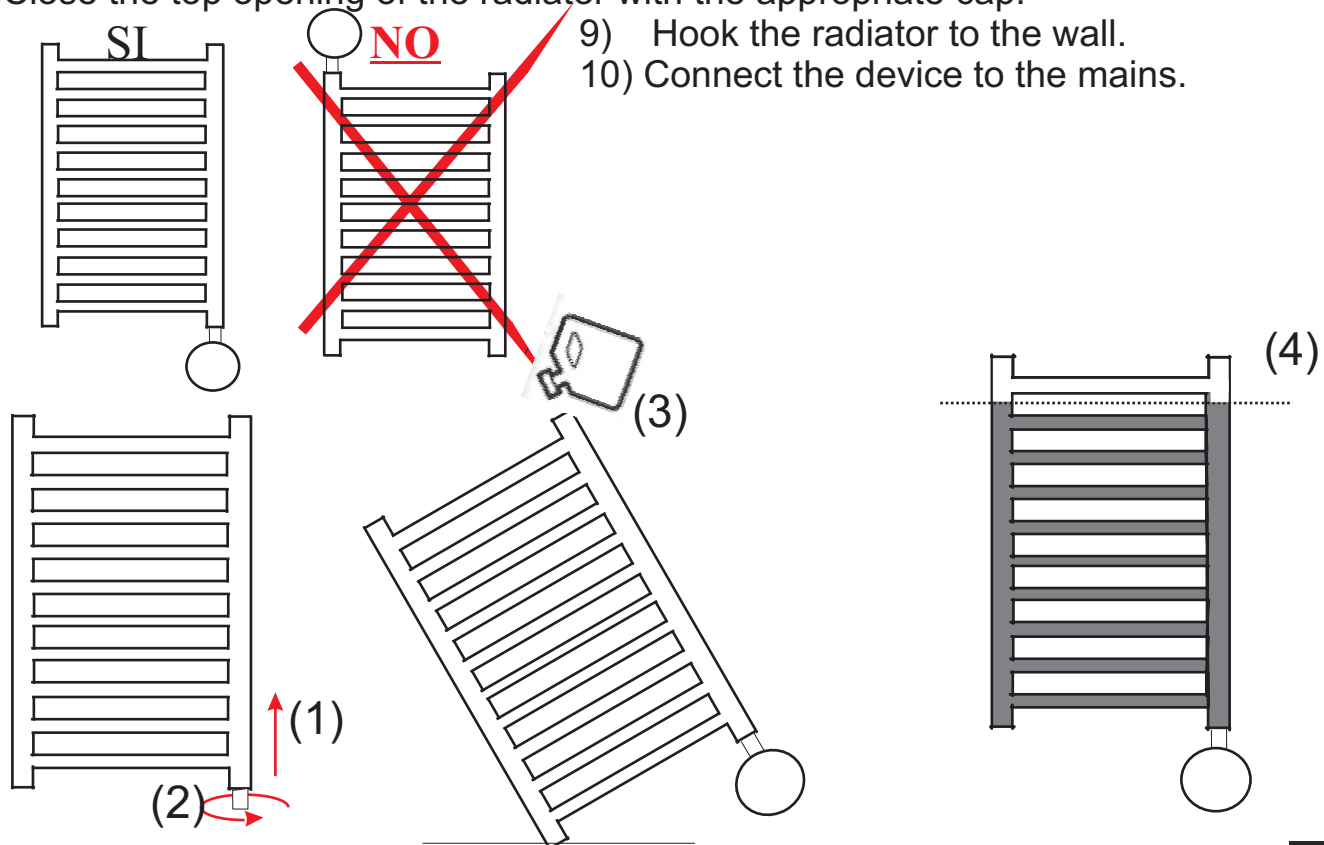
Installation Guide

To be used by installer only

- Disconnect the device from power supply before proceeding with installation or maintenance.
- Protect the device with a 30mA RCD circuit breaker and an isolating switch to disconnect from the network.

- 1) Insert the heating element in the threaded opening located on the bottom part of the radiator.
- 2) Securely fasten the electric resistance to the body of the towel radiator with a 22mm wrench.
- 3) The special sheath ensures a secure mounting and eventually allows a slight supplemental torsion to perfectly align the thermostat with the radiator.
- 4) Tilt the radiator as in fig. 3, making sure that the opening on top of the radiator is located on the highest side. **WARNING.** Do not lean the radiator on the electronic control!
- 5) Put the radiator back in vertical position and check the internal level of the liquid (fig. 4).
- 6) Ensure that the element has been securely fastened.
- 7) Connect the device to mains and start heating (the top opening of the radiator must remain open!).
- 8) Close the top opening of the radiator with the appropriate cap.

- 9) Hook the radiator to the wall.
- 10) Connect the device to the mains.





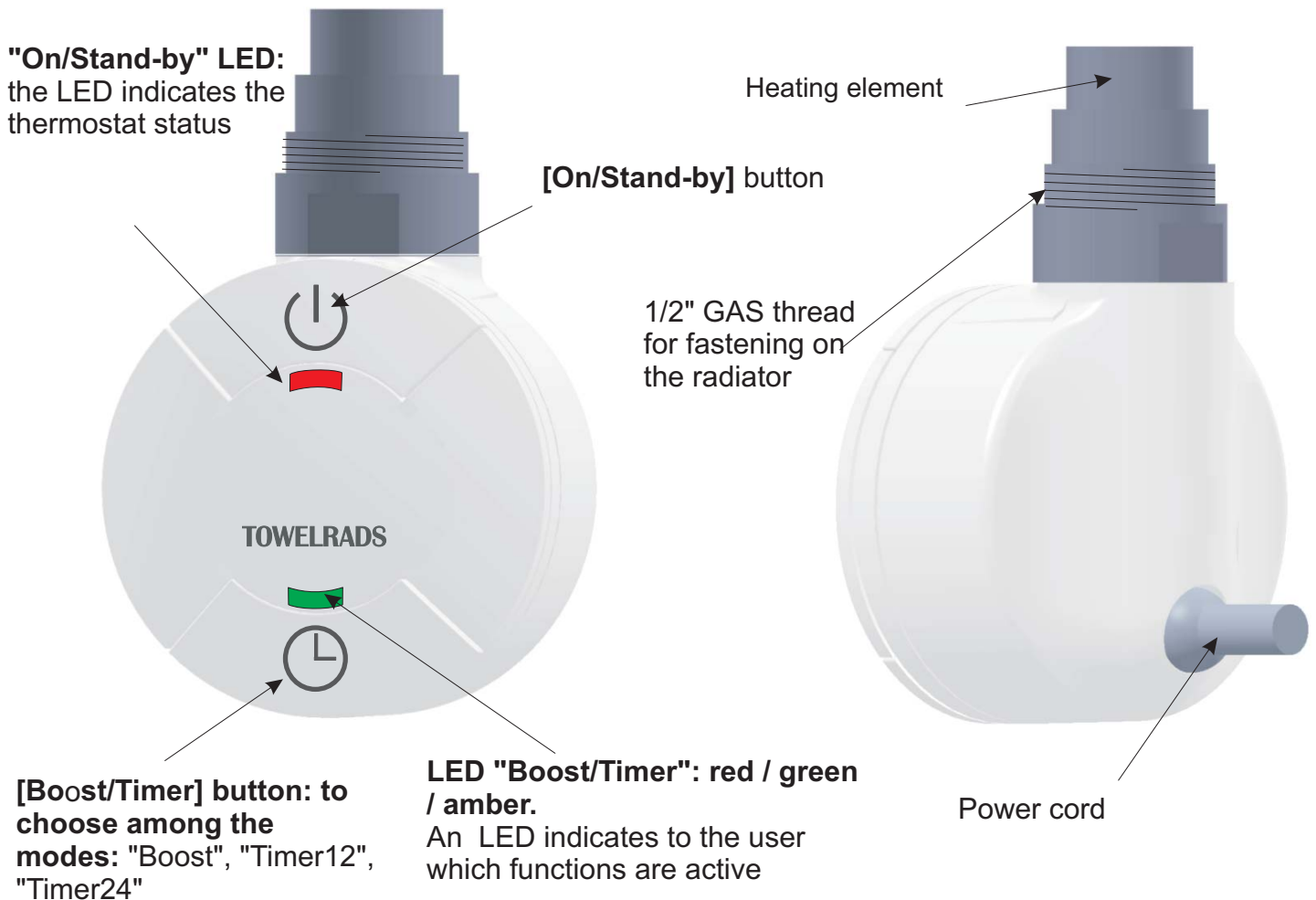
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User manual



Press the [On/Stand-by] button to power on the device or to activate the "Stand-by" mode; during the "Stand-by" mode, all LED are off.

NOTE:

- The device will beep twice for 0.5 seconds when put into "Standby" mode.
- The device will beep once for 1 seconds when turned on.

"Continuous-heating" mode: it is possible to activate this function through the [ON/Stand-by] button, the heating element is activated and remains active (hence heating the towel radiator) until the function is deactivated through the [ON/Stand-by] button. From this mode it is possible to activate the functions: "Boost", "Timer12" e "Timer24". Note: the maximal reachable temperature is 43°C.

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“**Boost**” mode: Press the [**Boost/Timer**] button to activate this mode.

This mode activates the heating element to the maximum power for 2hrs (maximum temperature 43°C).

To exit the “Boost” mode press the [**Boost/timer**] button.



“Boost” mode indication: “Boost/Timer” LED has red color and it blinks.

“**Timer24**” mode: Press the [**Boost/Timer**] button for 3 seconds to activate this mode.

The control system activates the “Boost” mode for 2 hours, after that it returns into “Stand-by” mode and after 22 hours the “Boost” mode is started again for 2 hours (maximum temperature 43°C). This sequence will repeat endlessly.

To exit the “Timer24” mode press the [**Boost/Timer**] button.

NOTE: During the first cycle the duration of the “Stand-by” mode is of 21 hours.



“Timer24” indication during 2hrs “Boost”: “Boost/Timer” LED blinking green.



During 22hrs “Stand-by”: “Boost/Timer” LED permanent green.

“**Timer12**” mode: Press the [**Boost/Timer**] button for more than 5 seconds to activate it.

The control system activates the “Boost” mode for 2 hours, after that it returns into “Stand-by” mode and after 10 hours the “Boost” mode is started again for 2 hours. This sequence will repeat endlessly. (maximum temperature 43°C)

To exit the “Timer12” mode press the [**Boost/Timer**] button.

NOTE: During the first cycle the duration of the “Stand-by” mode is of 9 hours.

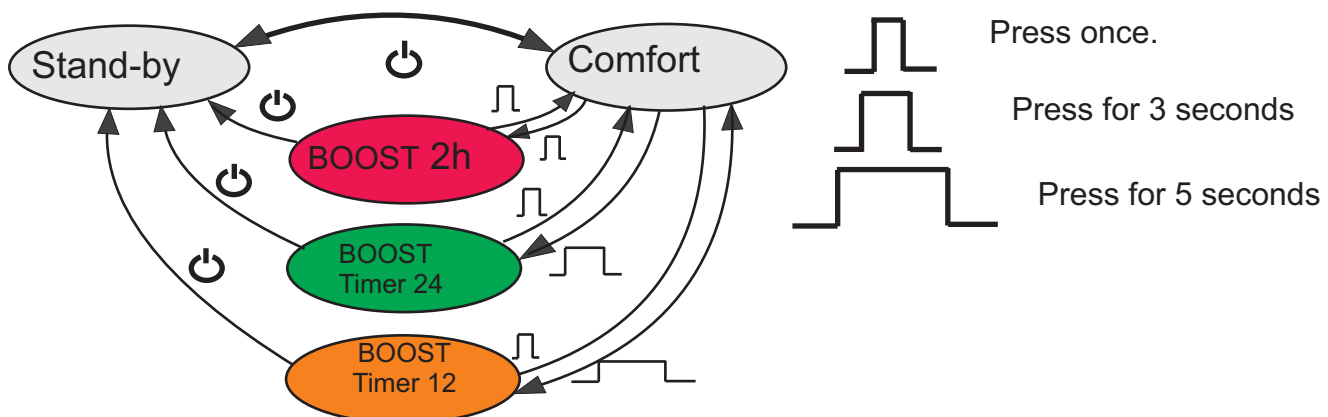


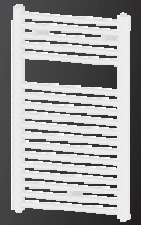
Timer12 mode (boost 2h): Boost/Timer LED amber and blinking



“Stand-by” mode (12h): Boost/Timer lit and amber

Functional diagram





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Functional diagram of the "On/Stand-by" led

Led off	Stand-by mode
Red lit led	The thermostats is active

Functional diagram of the "Boost/Timer" led

Blinking red	Boost active. The heating element is active for 120 minutes.
Blinking green	Boost active (Timer24). The heating element is active for 120 minutes.
Green	Return to "Stand-by" mode for 22 hours.
Blinking amber	Boost active (Timer12). The heating element is active for 120 minutes.
amber	Return to "Stand-by" mode for 10 hours.

NOTE: In case of interruption of the power supply the thermostat remains in "Continuous-heating" mode, with the exception of the modes: "Boost2h", "Timer12h", "Timer24h", from which the thermostat goes back into "Stand-By"

Accessory: For the mixed operation with the Smart control, mount the “T” accessory in the way back of the towel radiator, and subsequently introduce into the vertical manifold of the “T” accessory the smart, and connect the way back of the heating circuit to the square connection of the “T” accessory.



Available colors: White; Chromed

Repairing: they must be carried out by authorized personnel in order not to void the warranty.

The manufacturer reserves the right to make any changes to the product described in this manual, at any time, and without prior warning.

DISPOSAL

This product may not be treated as ordinary household waste. It has to be disposed in proper waste collection sites. In case of replacement it shall be returned to Towelrads.

Such an end-of-life treatment of the product will preserve the environment and will reduce consumption of natural resources.

This symbol applied to the present product indicates the obligation to bring it to a proper waste collection site, in order to let it be disposed according to 2002/96 / CE (RAEE - WEEE) directives.

