

# **Z-Wave Water Heating Thermostat**

EN - Instructions and warnings for installation and use



## WARNINGS AND GENERAL PRECAUTIONS

- CAUTION! Read the instructions before starting up the unit!
- CAUTION! This product is not a toy. Keep out of reach of children and animals!
- CAUTION! Do not expose the device to moisture, water or other liquids. Do not place liquids near or on the device!
- CAUTION! Do not attempt to disassemble, repair or modify the device yourself!
- CAUTION! This product is for indoor use only. Do not use outdoors!
- CAUTION! Flush-mount only into a UL/ETL/CE certified plastic junction box. The minimum size should be 65\*65\*45mm, minimum Volume is 190cm3. Use Copper Conductors Only.
- CAUTION! Risk of Electric Shock More than one disconnect switch may be required to de-energize the equipment before servicing.

## 2 **PRODUCT SPECIFICATION**

Warm-Control thermostat is a Z-Wave (800 series) device for indoor temperature control. It is mainly applied to control water heating valves, heating actuators etc. This product can be included and operated in any of Nice hubs equipped with Z-wave radio: Yubii Home, Yubii Home Pro or FIBARO Home Center 3 Lite and Home Center 3.

Table A1 - Specifications	
Power Supply:	AC85~260V, 50/60Hz
Output:	Max. 5A
Self Consumption:	≤1W
Built-in Temp. Sensor:	NTC 10K
Working Environment:	0~55°C; <95% RH (Non-condensation)
Temperature Setting:	5-37°C (41-99°F) (Adjustable)
Dimension:	86* 86*14mm
Hole Pitch:	60-65mm
Z-Wave Frequency:	Operating frequency range, defined by the regulatory bodies (for Z-wave in Europe: 868.4 MHz, or other regions 908.4/916.0 MHz , 921.4 MHz)
Over Current Protection:	Required external 10A circuit breaker



#### Location:

The device should be installed indoors, at around 1.5m height above the floor where the average room temperature can be measured correctly. It should be away from direct sunlight, cover, or any heat source to avoid wrong measurements.

#### Note:

- A qualified electrician with the understanding of wiring diagrams and knowledge of electrical safety should complete installa tion following the instructions.
- Before installation, please confirm the real voltage complying with the device's specification. Cut off any power supply to secure the safety of people and device.
- During installation, protect the device from any physical damage by dropping or bumping. If happens, please contact the supplier for maintenance.
- Keep the device away from acid-base and other corrosive solids, liquids, gases, to avoid damage.
- Avoid overexertion during operation, to protect device from mechanical damage.
- Read all instructions and documentation and save for future reference.

#### A CAUTION! - Cut off power supply at circuit breaker or fuse before installation to avoid fire, shock or death!



- 1. Remove the steel frame from the Thermostat (see picture 2) and secure it onto the junction box with two screws (see picture 3)
- 2. Insert all wires into the right terminals (according to wiring diagram shown below) and tighten screws. The wiring diagram is shown below.
- **3.** Attach the wired device on the points of the steel frame (as shown in picture ④) and then push the whole device into the junction box.
- 4. Confirm the device is firmly mounted, and power it on, then it is ready to operate.

#### 4.1 Warm-Control wiring diagram



- L
- Ν - terminal for neutral lead
- NO - terminal for nomally opened valve
- NC - terminal for normally closed valve **COM** - terminal for passive COM

### **BUTTONS AND DISPLAY**

#### 5.1 Warm-Control display screen

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#### 5.2 Warm-Control operational buttons



## MODES OF OPERATION

#### 6.1 On/Off Setting

When power on, device displays "OFF" all outputs are forced off. Press  $\bigcirc$  icon to switch the modes (auto->on->off). After power on, device displays current week, local time, working mode, current temperature, output status etc.

**Note:** After the backlit goes out, please press the button to light up the backlit first, and then press the button again for corresponding operation.

#### 6.2 Temperature Setting

In normal working status, press V or A button to adjust the setting temperature value, adjustment gap 0.5°C (1°F. After setting is completed, wait 3 seconds without any key operation will save the setting and return back to the normal operation interface.

**Note:** For auto mode, the changed value only valid in the current time period for this time, and the device will not affect the preset time period value. When there is a circle on the top of the AUTO icon, it means the setting temperature has been revised for current time period of this time.

#### 6.3 Panel Lock Function

In normal operating interface, press  $\textcircled{0} + \bigvee$  button synchronously to lock/unlock the panel, when icon displays, it means the panel is locked and unable to be operated, when  $\clubsuit$  icon disappears, it means the panel is unlocked and back to normal work. Note: After the backlit goes out, please press the button to light up the backlit first, and then press the button again for corresponding operation.

#### **6.4 Control Specification**

- Detection temperature < setting temperature 0.5°C, output turns on, and output icon displays.
- Detection temperature ≥ setting temperature + 0.5°C, output turns off, and output icon disappears.

#### 6.5 Local Time Setting

In normal working interface, long press 0 for 3s to enter into local time setting interface. Press  $\bigvee$  or  $\bigwedge$  to adjust the setting value, press 0 to switch the parameter from week->hour->minute-> save and exit. Press 0 to exit promptly and not save the setting.

#### 6.6 Auto Mode Time Periods Parameter Setting

In normal working interface, short press 🖾 to enter into time periods setting.

Table below shows how to configure the weekly schedules, press  $\vee$  and  $\wedge$  to adjust the week No. from 1-10, for instance,

choose week number 1 that means to modify the schedule setting for Sat only choose week number 5 that means to modify the schedule setting for Mon-Sun synchronously (everyday is the same), choose week number 3 that means to modify the schedule setting for Mon-Fri synchronously and so on, and press

And then enter into the time and temperature setting of period 1-4 (see table 2), press  $\bigvee$  and  $\bigwedge$  to adjust the corresponding value and press  $\boxtimes$  to switch the items to be modified.

During the schedule setting, press is to save the setting and back to week number option interface.

When setting the week number, press 🖾 to exit the setting. It will return to home page without manual operation for a long time. The setting will not be saved without pressing the 🗟.

Table A2 - Au	to Mode Ti	me Periods	Paramete	r Setting						
Week No.	1	2	3	4	5	6	7	8	9	10
Schedule setting	Sat	Sun	Mon-Fri	Sat-Sun	Mon-Sun	Mon	Tues	Wed	Thurs	Fri
Difference for every day	•	•				٠	•	•	•	•
5+1+1	•	•	•							
5+2			•	•						
Same for every day										

The default settings below (table A3):

Table A3				
Week\Periods	Period 1	Period 2	Period 3	Period 4
Mon~Fri	5:00	7:00	17:00	22:00
	28°C (82°F)	24°C (75°F)	28°C (82°F)	24°C (75°F)
Sat~Sun	5:00	9:00	17:00	22:00
	28°C (82°F)	24°C (75°F)	28°C (82°F)	24°C (75°F)

#### 6.7 Anti-freeze protection function:

In shutdown interface:

1. When the built-in temperature sensor detect the temperature value 5°C, device will open anti-freeze protection, electric heating will be forced open .

2. When the built-in temperature sensor detect the temperature value  $< 8^{\circ}$ C, device will turn off anti-freeze protection and return to normal work .

This section describes how to add and remove Warm-Control from Yubii Home gateway. There are 2 possible ways to make it.

#### 7.1 Adding device using the manual method

- 1. Set the Yubii Home into add mode (see the Yubii Home manual).
- 2. In the home page, long press A + V synchronously for 3 sec, Warm-Control enters into adding mode displaying product "--" on the interface.

#### Note:

If there is number displayed it means that device has been already added to the network. In case of re-adding please follow the procedure of removing the device from the network first (described below) or restore the device to factory defaults.

3. Press  $\wedge$  to include the device into Z-Wave network, if the inclusion is successful, it will show node number in the Z-wave network.

#### 7.2 Adding device using the SmartStart method

To add Warm-Control to the Z-Wave network using SmartStart:

- 1. Scan the DSK QR code or input the underlined 5-digit PIN code (label on the side of the box and on the device).
- 2. Power the device (turn on the mains voltage).
- 3. Successful adding will be confirmed by the Z-Wave indicator on the display.

#### 7.3 Removing device from Yubii Home

- 1. Set the Yubii Home into exclusion mode (see the Yubii Home manual).
- 2. Long press  $\wedge + \vee$  synchronously for 3 sec, Warm-Control enters into removing mode displaying existing product ID
- on the interface. Please note that if a device has been added to the gateway It should be displaying number different from "--".
- 3. Press  $\bigwedge$  to exclude the device from Z-Wave network, if the exclusion is successful, it will show 000 in the interface.

## 8 PARAMETER MENU

Long press b to enter Parameter menu setting interface, press b to switch the items to be modified and then press  $\bigvee$  or  $\bigwedge$  to adjust the setting value, after finishing the setting, press b to save and exit.

Table A6 - Parameter menu		
Item:	P01. Restore factory setting	
Description:	Write 0X5 to restore factory setting	
Settings range:	0X00 0XFF	
Default setting:	0X53	

Item:	P02. Backlight level
Description:	0: dim after no operate 1: always on
Settings range:	0-1
Default setting:	0

Item:	P03. Controlled type
Description:	0: (A-F ) Control based on room (air) temperature, floor temperature to be protection temperature 1: (AIR ) Control based on room (air) temperature 2: (FLO ) Control based on floor temperature
Settings range:	0-2
Default setting:	0

Item:	P04. Beep volume
Description:	0: Mute 1: Beep
Settings range:	0 - 1
Default setting:	1

Item:	P05. Heating type
Description:	0: Water heating 1: Electrical heating
Settings range:	0 - 1
Default setting:	1

Item:	P06. Temp. format
Description:	C : Celsius F: Fahrenheit
Settings range:	C - F
Default setting:	C

Item:	P08. Temperature display option
Description:	Air Floor
Settings range:	0: Air - 1: Floor
Default setting:	Air

Item:	P09. Room (air) temperature calibration C/F
Description:	
Settings range:	-9.5(-19) - 9.5(19)
Default setting:	0(0)

Item:	P10. Floor temperature calibration C/F
Description:	
Settings range:	-9.5(-19) - 9.5(19)
Default setting:	0(0)

Item:	P11. Hysteresis for controlling room (air) temperature C/F	
Description:		
Settings range:	0.5(1) - 10(20)	
Default setting:	0.5(1)	

Item:	P12. Hysteresis for controlling floor temperature C/F	
Description:		
Settings range:	0.5(1) - 10(20)	
Default setting:	0.5(1)	

Item:	P13. Hysteresis of protection temperature C/F	
Description:		
Settings range:	0.5(1) - 10(20)	
Default setting:	5(10)	

Item:	P14. High temperature protection C/F
Description:	OFF: Turn off high temperature protection
Settings range:	45(113) - 95(203)
Default setting:	55(131)

## **9** SUPPORTED Z-WAVE COMMAND CLASSES

Table A4 - Command Class supported by the device
Command Class supported by the device:
COMMAND_CLASS_VERSION,
COMMAND_CLASS_SENSOR_MULTILEVEL,
COMMAND_CLASS_THERMOSTAT_SETPOINT,
COMMAND_CLASS_THERMOSTAT_MODE,
COMMAND_CLASS_THERMOSTAT_OPERATING_STATE,
COMMAND_CLASS_TIME,
COMMAND_CLASS_TIME_PARAMETERS,
COMMAND_CLASS_CONFIGURATION,
COMMAND_CLASS_ASSOCIATION,
COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION,
COMMAND_CLASS_ASSOCIATION_GRP_INFO,
COMMAND_CLASS_MANUFACTURER_SPECIFIC,
COMMAND_CLASS_DEVICE_RESET_LOCALLY,
COMMAND_CLASS_POWERLEVEL,
COMMAND_CLASS_FIRMWARE_UPDATE_MD

## 1 () Z-WAVE PARAMETER SETTING

Table A5 - Z-Wave parameter setting			
Parameter:	1. Temp. unit		
Description:	0: Celsius 1: Fahrenheit		
Available settings:	0-1		
Default setting:	0	Parameter size:	1 [byte]

Parameter:	2. Temp. difference reporting		
Description:	Unit 0.1°C 0: Disabled 3-255: n*0.1°C automatically report the temp. to the gateway when temp. variation greater than this value		
Available settings:	0,3-255		
Default setting:	5	Parameter size:	2 [byte]

Parameter:	2. Temp. difference reporting		
Description:	Unit 0.1°C 0: Disabled 3-255: n*0.1°F automatically report the temp. to the gateway when temp. variation greater than this value		
Available settings:	0,3-255		
Default setting:	10	Parameter size:	<b>2</b> [byte]

Parameter:	3. Humidity difference reporting		
Description:	Humidity difference reporting		
Available settings:	0: Disabled 1-99: Automatically report the humidity to the gateway when humidity variation greater than this value		
Default setting:	6	Parameter size:	1 [byte]

Parameter:	11. Schedule function selection		
Description:	0: Disabled 1: Enabled		
Available settings:	0-1		
Default setting:	0	Parameter size:	1 [byte]

Parameter:	12. Backlight		
Description:	Parameter menu No. P2: 0: close after no operate 1: always on		
Available settings:	0-1		
Default setting:	0	Parameter size:	1 [byte]

Parameter:	14. Volume of button		
Description:	Parameter menu No. P4: 0: Mute 1: Beep		
Available settings:	0-1		
Default setting:	1	Parameter size:	1 [byte]

Parameter:	18. Controlled temperature		
Description:	Parameter menu No. P8 0: Air 1: Floor		
Available settings:	0-1		
Default setting:	0	Parameter size:	1 [byte]

Parameter:	19. Room (air) temperature calibration		
Description:	Parameter menu No. P9: unit (°C): n*0.1 °C, setting gap 0.5 °C		
Available settings:	-95~95		
Default setting:	0	Parameter size:	1 [byte]

Parameter:	19. Room (air) temperature calibration		
Description:	Parameter menu No. P9: unit (°F): n*0.1 °F		
Available settings:	-19~19		
Default setting:	0	Parameter size:	1 [byte]

Parameter:	20. Floor temperature calibration		
Description:	Parameter menu No. P10: unit (°C): n*0.1 °C, setting gap 0.5 °C		
Available settings:	-95~95		
Default setting:	0	Parameter size:	1 [byte]

Parameter:	20. Floor temperature calibration		
Description:	Parameter menu No. P10: unit (°F): n*0.1 °F		
Available settings:	-19~19		
Default setting:	0	Parameter size:	1 [byte]

Parameter:	21. Hysteresis when controlling room temperature		
Description:	Parameter menu No. P11: unit (°C): n*0.1 °C, setting gap 0.5 °C		
Available settings:	5-100		
Default setting:	5	Parameter size:	1 [byte]

Parameter:	21. Hysteresis when controlling room temperature		
Description:	Parameter menu No. P11: unit (°F): n*0.1 °F		
Available settings:	1-20		
Default setting:	1	Parameter size:	1 [byte]

Parameter:	22. Hysteresis when controlling floor temperature		
Description:	Parameter menu No. P10: unit (°C): n*0.1 °C, setting gap 0.5 °C		
Available settings:	5-100		
Default setting:	5	Parameter size:	1 [byte]

Parameter:	22. Hysteresis when controlling floor temperature		
Description:	Parameter menu No. P10: unit (°F): n*0.1 °F		
Available settings:	1-20		
Default setting:	1	Parameter size:	1 [byte]

Parameter:	23. Hysteresis when controlling high temperature protection		
Description:	Parameter menu No. P10: unit (°C): n*0.1 °C, setting gap 0.5 °C		
Available settings:	5-100		
Default setting:	50	Parameter size:	1 [byte]

Parameter:	23. Hysteresis when controlling high temperature protection		
Description:	Parameter menu No. P10: unit (°F): n*0.1 °F		
Available settings:	5-100		
Default setting:	50	Parameter size:	1 [byte]

Parameter:	24. High temperature protection		
Description:	Parameter menu No. P14: unit (°C): n*0.1 °C, setting gap 0.1 °C setting gap 0,5°C; 445: turn off high temperature protection		
Available settings:	445-950		
Default setting:	550	Parameter size:	2 [byte]

Parameter:	24. High temperature protection		
Description:	unit (°F): 113-203: n*1°F 112:turn off high temperature protection		
Available settings:	112-203		
Default setting:	131	Parameter size:	<b>2</b> [byte]

Parameter:	46. The 1st period from Mon-Sun		
Description:	Byte1(MSB): hour Byte2(LSB): min		
Available settings:	Byte1: 0-23 Byte2: 0-59		
Default setting:	Byte1: <b>5</b> Byte2: <b>0</b>	Parameter size:	<b>2</b> [byte]

Parameter:	47. The 2nd period from Mon-Sun		
Description:	Byte1(MSB): hour Byte2(LSB): min		
Available settings:	Byte1: 0-23 Byte2: 0-59		
Default setting:	Byte1: <b>7</b> Byte2: <b>0</b>	Parameter size:	2 [byte]

Parameter:	48. The 3rd period from Mon-Sun		
Description:	Byte1(MSB): hour Byte2(LSB): min		
Available settings:	Byte1: 0-23 Byte2: 0-59		
Default setting:	Byte1: <b>17</b> Byte2: <b>0</b>	Parameter size:	<b>2</b> [byte]

Parameter:	49. The 4th period from Mon-Sun		
Description:	Byte1(MSB): hour Byte2(LSB): min		
Available settings:	Byte1: 0-23 Byte2: 0-59		
Default setting:	Byte1: <b>22</b> Byte2: <b>0</b>	Parameter size:	2 [byte]

Parameter:	50. Heat Setpoint for 1st period from Mon-Sun		
Description:	n*0.1 Celsius or n*1 Fahrenheit		
Available settings:	The range is greater than the lower limit and smaller than the upper limit		
Default setting:	Celsius: <b>280</b> Fahrenheit: <b>82</b>	Parameter size:	<b>2</b> [byte]

Parameter:	51. Heat Setpoint for 2nd period from Mon-Sun		
Description:	n*0.1 Celsius or n*1 Fahrenheit		
Available settings:	The range is greater than the lower limit and smaller than the upper limit		
Default setting:	Celsius: <b>240</b> Fahrenheit: <b>75</b>	Parameter size:	2 [byte]

Parameter:	52. Heat Setpoint for 3rd period from Mon-Sun		
Description:	n*0.1 Celsius or n*1 Fahrenheit		
Available settings:	The range is greater than the lower limit and smaller than the upper limit		
Default setting:	Celsius: <b>280</b> Fahrenheit: <b>82</b>	Parameter size:	<b>2</b> [byte]

Parameter:	53. Heat Setpoint for 4th period from Mon-Sun		
Description:	n*0.1 Celsius or n*1 Fahrenheit		
Available settings:	The range is greater than the lower limit and smaller than the upper limit		
Default setting:	Celsius: <b>240</b> Fahrenheit: <b>75</b>	Parameter size:	<b>2</b> [byte]

Parameter:	58-64. The 1st period for MonSun		
Description:	Byte1 (MSB): hour Byte2 (LSB): min		
Available settings:	Byte1: 0-23 Byte2: 0-59		
Default setting:	Byte1: <b>5</b> Byte2: <b>0</b>	Parameter size:	2 [byte]

Parameter:	65-71. The 2nd period for MonSun		
Description:	Byte1 (MSB): hour Byte2 (LSB): min		
Available settings:	Byte1: 0-23 Byte2: 0-59		
Default setting:	Byte1: <b>7 (Mon-Fri)</b> Byte1: <b>9 (Sat-Sun)</b> Byte2: <b>0</b>	Parameter size:	2 [byte]

Parameter:	72-78. The 3rd period for MonSun		
Description:	Byte1(MSB): hour Byte2(LSB): min		
Available settings:	Byte1: 0-23 Byte2: 0-59		
Default setting:	Byte1: <b>17</b> Byte2: <b>0</b>	Parameter size:	2 [byte]

Parameter:	79-85. The 4th period for MonSun		
Description:	Byte1(MSB): hour Byte2(LSB): min		
Available settings:	Byte1: 0-23 Byte2: 0-59		
Default setting:	Byte1: <b>22</b> Byte2: <b>0</b>	Parameter size:	<b>2</b> [byte]

Parameter:	86-92. The 1st heat Setpoint for MonSun		
Description:	The range is greater than the lower limit and smaller than the upper limit		
Available settings:	n*0.1 Celsius or n*1 Fahrenheit		
Default setting:	Celsius: <b>280</b> Fahrenheit: <b>82</b>	Parameter size:	2 [byte]

Parameter:	93-99. The 2nd heat SetPoint for MonSun		
Description:	The range is greater than the lower limit and smaller than the upper limit		
Available settings:	n*0.1 Celsius or n*1 Fahrenheit		
Default setting:	Celsius: <b>240</b> Fahrenheit: <b>75</b>	Parameter size:	<b>2</b> [byte]

Parameter:	100-106. The 3rd heat Setpoint for MonSun		
Description:	The range is greater than the lower limit and smaller than the upper limit		
Available settings:	n*0.1 Celsius or n*1 Fahrenheit		
Default setting:	Celsius: <b>280</b> Fahrenheit: <b>82</b>	Parameter size:	<b>2</b> [byte]

Parameter:	107-113. The 4th heat Setpoint for MonSun		
Description:	The range is greater than the lower limit and smaller than the upper limit		
Available settings:	n*0.1 Celsius or n*1 Fahrenheit		
Default setting:	Celsius: <b>240</b> Fahrenheit: <b>75</b>	Parameter size:	2 [byte]

Parameter:	255. Factory restore		
Description:	1: Restore factory setting 0: Invalid		
Available settings:	0-1		
Default setting:	0	Parameter size:	1 [byte]

### WARRANTY

We warrant this product to be free from defects in material and workmanship under normal and proper use for one year from purchase date of the original purchaser. We will, at its option, either repair or replace any part of its products that prove defective by reason of improper workmanship or materials. THIS LIMITED WARRANTY DOES NOT COVER ANY DAMAGE TO THIS PRODUCT THAT RESULTS FROM IMPROPER INSTALLATION, ACCIDENT, ABUSE, MISUSE, NATURAL DISASTER, INSUFFICIENT OR EXCESSIVE ELECTRICAL SUP-PLY, ABNORMALMECHANICAL OR ENVIRONMENTAL CONDITIONS, OR ANY UNAUTHORIZED DISASSEMBLY, REPAIR OR MODIFICA-TION. This limited warranty shall not apply if: (i) the product was not used in accordance with any accompanying instructions, or (ii) the product was not used for its intended function. This limited warranty also does not apply to any product on which the original identification information has been altered, obliterated or removed, that has not been handled or packaged correctly, that has been sold as second-hand or that has been resold contrary to Country and other applicable export regulations.

## **PRODUCT DISPOSAL**

The device marked with this symbol should not be disposed of with household waste. It is the user's responsibility to deliver the used appliance to a designated recycling point.



## 13 declaration of conformity

Hereby, NICE S.p.A., declares that the radio equipment Warm-Control is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: http://www.niceforyou.com/en/supports under the "support" and "download" sections.

### 14 z-wave compliance



The thermostat is a fully compatible Z-Wave Plus V2 device.



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