

DATA SHEET

BOX MOUNTED NEOTER SMART ROUND TOUCH THERMOSTAT

Internal code: NEOTSR

1. DESCRIPTION AND USE

The ambient room thermostat is a high-quality thermostat and is designed to display and adjust the desired temperature. Proper programming of the thermostat can provide annual savings of up to 10%.



2. TECHNICAL CHARACTERISTICS

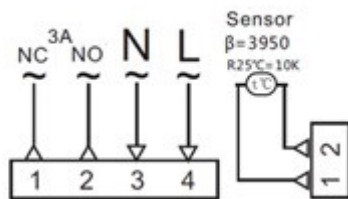
- Power: 90 - 240 VAC 50/60 Hz
- Limit temperature range: 1 ~ 70 °
- Display accuracy: 0,5 °C
- Probe sensor: NTC(10k) 1%
- Contact capacity: 3 A
- Temperature adjustment range: 5 ~ 35 °C
- Dimension (mm): 86 * 86 * 27
- Temperature display range: 1 ~ 70 °C
- Insulation condition: Normal environment
- Operating program: Set for a week as a cycle
- Output: Relay switch
- Installation: Flush (in the wall)

Main benefits

- Includes a built-in sensor
- The 0.5 °C accuracy maintains the temperature at the level set by you.
- Child lock to prevent mishandling by children
- Data memory when power is off.
- The holiday mode allows you to enjoy a more comfortable temperature during your holidays
- The temperature of the external sensor can be checked

3. WIRING AND PROGRAMMING

Wiring diagram



Note: For the NeoTer thermoelectric heads, code CAPA20405MK - 1W THERMOELECTRIC HEAD, the thermostat is connected to the control unit using 2, 3 and 4 according to the diagram above.

The following symbols are used for:



Program mode; it executes the preset program



Clock



Manual mode



Temporary manual mode



Holiday mode, holiday days and temperature can be set to run in countdown mode



The heating icon disappears when heating stops.




External sensor



WiFi connection, flashing in EZ distribution mode













 Child lock



 WiFi status: Disconnection







 Cloud icon: flashes in Ap distribution network mode

Operation keys


NO	symbols	meaning
A		ON/OFF: Short press to turn on/off
B		1 Short press  switching between program mode and manual mode 2 Turn on the thermostat, long press  for 3-5 seconds to enter the program mode settings 3. Turn off the thermostat, long press  for 3-5 seconds to enter the advanced option A
C		1 Confirmation key: used with the key  2 Short press to set the time 3 Turn on the thermostat, long press for 3-5 seconds to set the holiday mode. It displays OFF , press ▼ or ▲ and it changes to ON, then press  to confirm the opening of the holiday mode 4 Turn off the thermostat, long press for 3-5 s to enter the advanced option B
D		1 Decrease key 2 Long press to lock/unlock the keys
E		1 Increase key; 2 Long press to request external sensor temperature (only available for BN, item N3 selection in the advanced option B) 3 In the program template, press ▼ or ▲ to enter the temporary manual mode



Programme mode setting


5+2 (factory default), 6+1 and 7 templates with 6 user selectable time period settings. In the advanced option A, select the template you need; when powered on, long press  for 3-5 seconds to enter the programming mode settings, then  select: hour, minute, time period and press ▼ and ▲ to set the date, final settings, after about 10 seconds it will automatically save and exit the program.

					
Wake up	Leave home	Back home	Leave home	Back home	Sleep
6:00	20 °C	8:00	15 °C	11:30	15 °C
				13:30	15 °C
				17:00	15 °C
				22:00	15 °C

Advanced option A

Turn off the thermostat, long press  for 3-5 seconds to enter the advanced option A.

From A1 to AE, short press  to select the option and set the dates using ▼ or ▲, press short  to switch to the next option. The setting is exited after about 5 seconds after completing the setting.

NO	Setting the options	Data setting function	Factory default
A1	Temperature measurement Calibration	-9- +9 °C (Displayed as room temperature corrected value)	-1
A2	START/STOP Setting the operating temperature difference	0.5 - 2.5 °C	1 °C
A3	Child lock setting	0: half lock 1: full lock	0
A4	On/off status memory after power failure	0: On/off thermostat with memory when supplied 1: Off thermostat when supplied 2: On thermostat when supplied	0
A5	Night backlight	5 ~ 30 seconds	10
A6	Programme mode setting	0: 5+2 1: 6+1 2: 7	0
A7	Setting the minimum temperature limit	1-10 °C	5 °C
A8	Setting the maximum temperature limit	20-70 °C	35 °C
A9	Protection at low temperatures	1-10 °C When setting the temperature = 10 °C, if you press ▲, 【--】 will be displayed, and the low temperature protection is cancelled	5 °C
AA	High temperature protection for external sensor	20 °C - 70 °C When setting the temperature = 20 °C, if you press ▼, 【--】 will be displayed, and the high temperature protection is cancelled	45 °C
AB	Setting the temperature difference for the high temperature protection	1-9 °C	2 °C
AC	The window function triggers the temperature	10-20 °C, set the temperature to 10 °C, if you lower it, 【--】 will be displayed and the function is cancelled	--
AD	Period of operation of the window function	10 - 20 min	10
AE	Restore to factory settings	Ao display, long press the key  for full display	

Advanced option B

NO	Setting the options	Data setting function	Factory default
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BN	Sensor type	N1: Internal sensor (high temperature protection closed) N2: External sensor (high temperature protection closed) N3: Control temperature of the internal sensor, limit temperature of the external sensor (the external sensor detects that the temperature is higher than the highest temperature of external sensor, the thermostat will close the relay and stop the load)	N1
BC	Descaling function	0: Disables the descaling function 1: Enables the descaling function	0
Bo	Product Information	It cannot be changed	

Return difference: the limiting valve of the external sensor is set to 45 °C in the factory (A6), the external sensor control return difference value (AB) is 2. When the temperature rises to 45 °C, the relay stops working and enables the high temperature alarm. If the temperature drops to 43 °C, the relay continues to operate and the heating alarm is cancelled. (it can be operated only when the room temperature is lower than the set temperature)

Sensor failure display: select the working mode of the built-in and external sensor correctly, if selected incorrectly or in case of sensor failure, "E1" or "E2" is displayed on the screen (failure). The thermostat will stop heating until the fault is resolved.

4. THERMOSTAT MOBILE APPLICATION PROGRAMMING GUIDE VIA WIFI

Preparation required for WiFi connection:

You need a 4G mobile phone and a wireless router. Connect the wireless router to the mobile phone and record the WiFi password (you will need it when the thermostat is paired with WiFi).

Step 1 Download the NeoTer app:



Android users can search for "NeoTer" on Google Play, iPhone users can search for "NeoTer" on the App Store.

Step 2 Register your account

- After installing the application, click to read the Privacy Policy and then press Agree to proceed to the next step (Figure 2-1)

- The registration account name uses the email address. Select Region, then click “Continue” (Figure 2-2)
- You will receive a 6-digit verification code to the email address entered in the application. (Figure 2-3)
- Set the password; the password must contain 6-20 letters and numbers. Click “Done” (Figure 2-4)

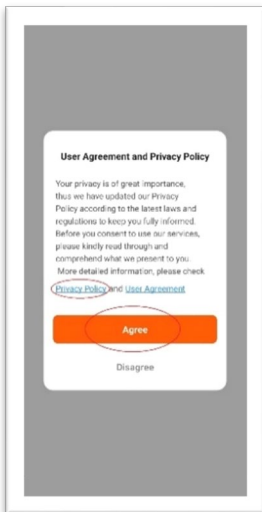


Figure 2-1

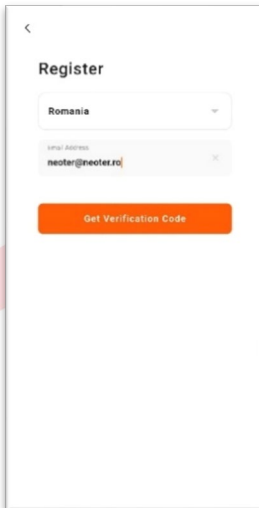


Figure 2-2



Figure 2-3

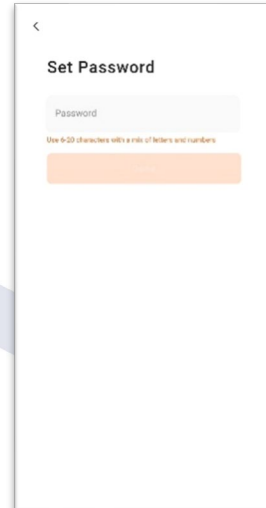


Figure 2-4

Step 3 Create information relating to the family (Figure 3-1)

1. Fill in the last name and select or add a room (Figure 3-2).
2. Set the location permission and the thermostat location (Figure 3-3)

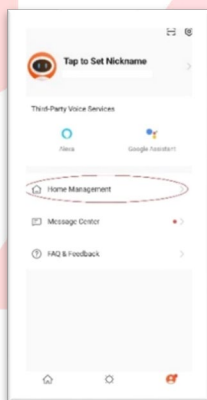


Figure 3-1

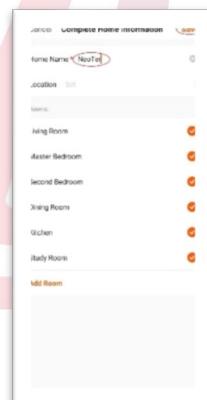


Figure 3-2

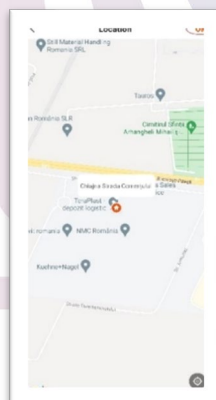


Figure 3-3

Step 4a Connect your Wi-Fi signal (EZ Distribution Mode)

1. Go to the WiFi setting on phone and make sure you are connected via 2.4g, not 5g. Most modern routers have 2.4G and 5G connectivity. 5G connections do not operate with the thermostat.

2. On the phone, press “Add device” or “+” in the upper right corner of the application to add the device (Figure 4-1) and, under the Small appliance section, select the “Thermostat” device type (Figure 4-2)
3. With the thermostat powered on, long press “⏻” for 3-5 seconds, “OFF” and “📶x” which will flash at the same time, short press “📶” until both icons (📶 & 📶) flash indicating the EZ distribution mode. This can take between 5 and 20 seconds.
4. On your thermostat, the confirmation icons 📶 & 📶 flash quickly; go back and confirm this on your app. Enter your wireless router password, which is case sensitive (Figure 4-4), and confirm. The application will connect automatically (Figure 4-5). This operation may usually take up to 5~90 seconds to complete.

If you get an error message, make sure you have entered the correct Wi-Fi password (case-sensitive, usually found at the bottom of the router) and that you're not on a 5G Wi-Fi connection.

Your room name can be edited when the device is connected. (Figure 4-6)

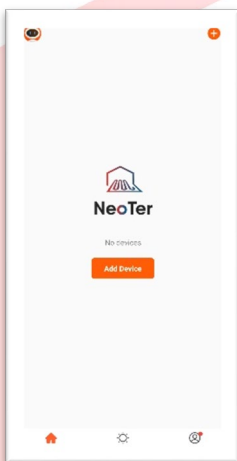


Figure 4-1



Figure 4-2



Figure 4-3

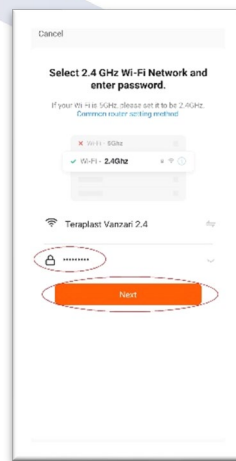


Figure 4-4

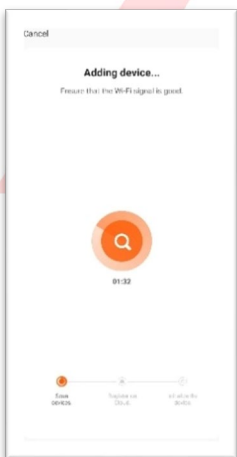


Figure 4-5

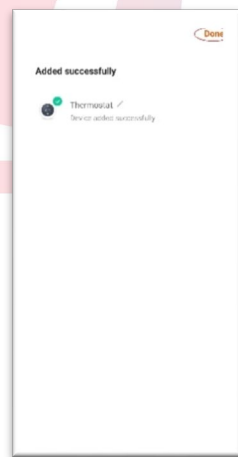


Figure 4-6

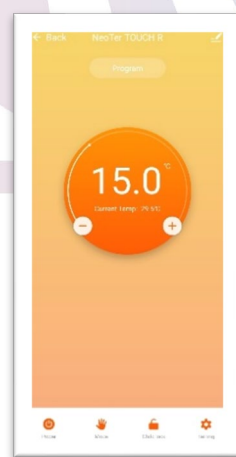


Figure 4-7

Step 4b (alternative method) (AP pairing mode) Perform this step only if you failed to pair the device in step 4a

1. On the phone, press “Add device” or “+” in the upper right corner of the application to add the device (Figure 4-1) and, under the Small appliance section, select the “thermostat” device type and press the AP mode in the top right corner. (Figure 5-1)
2. On the thermostat, press the power switch and long press “⏻” for 3-5 seconds, the “OFF” key and “📶” will flash at the same time, short press “⏻” until 📶 flashes. This can take between 5 and 20 seconds. 📶 If this icon is flashing, press and hold “⏻” and “⏻” again until only 📶 flashes.
3. On the app, click “confirm light is blinking” and enter the password of your wireless router (Figure 4-4)
4. Press “Connect now” and select the WiFi signal (NeoTer-XXXX) of your thermostat (Figure 5-3 and 5-4), it will say that the Internet may not be available and ask you to change the network, but ignore it. Figure 5(2)Figure 5(3)
5. Go back to your application and click “Connect”, and the application will connect automatically (Figure 4-5)

This may typically take up to 5~90 seconds to complete and will display confirmation (Figures 4-6) and allow you to change the thermostat name (Figure 4-7)

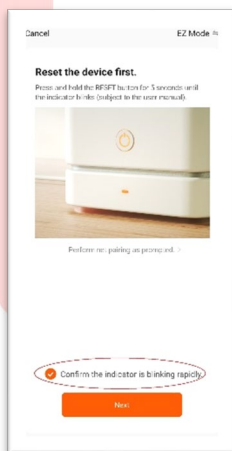


Figure 5-1

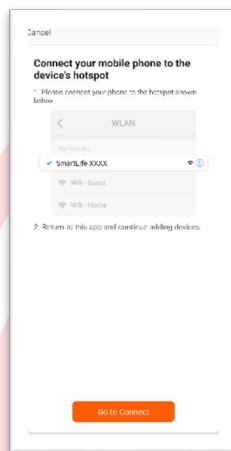


Figure 5-2

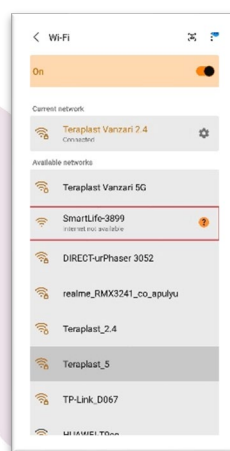


Figure 5-3

Step 5 Change the sensor type and temperature limit


Press the setting key (Figure 4-8) in the lower right corner to display the menu.

Click on the Sensor type option and enter the password (normally 123456). Here you will have 3 options:

- (1) “Single built-in sensor” will only use the internal air sensor.
- (2) “Single external sensor” will only use the floor probe (ideal for bathrooms where the thermostat is installed outside the room).
- (3) “Internal and external sensors” will use both sensors to read the temperature (most used option).

After choosing the type of sensor, check if the “Set temp. Max” is set to a suitable temperature for your floors. (usually 45 °C)

Step 6 Programming the thermostat

Press the setting key  (Figure 4-8) in the lower right corner to display the menu. At the bottom of the menu there will be 2 separate options called “Week program type” and “Weekly program setting”.


The “Week program” type allows you to choose the number of days for which the program applies, i.e. 5+2 (weekdays + weekend), 6+1 (Mon-Sat + Sun) or 7 days (whole week).



The “Weekly program” setting allows you to choose the time and temperature of the daily program at different times. There are 6 time and temperature options to set. See the example below.


Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Wake up	Leave home	Back home	Leave home	Back home	Sleep
06:00	08:00	11:30	13:30	17:00	22:00
20 °C	15 °C	20 °C	15 °C	20 °C	15 °C

If you don't need the temperature to increase and decrease during the day, you can set the temperature to be the same in parts 2, 3 and 4 so that it doesn't increase again until the time in part 5.

Additional characteristics

Holiday mode: You can program the thermostat to be on for a set temperature for up to 30 days so that there is some heating in the house while you are away. This is available in the module  section (Figure 4-8). You can set the number of days between 1-30 and the temperature up to a maximum of 27 °C.

Locked mode: This option allows you to remotely lock the thermostat so that no changes can be made. This can be done by clicking the  symbol (Figure 4-8). To unlock, click the  symbol again (Figure 4-8).

Device grouping: You can connect multiple thermostats together as a group and control them all at once. This can be done by clicking on  (Figure 4-8) in the upper right corner and clicking the Create Group option afterwards. If you have multiple thermostats linked, it will allow you to check each thermostat you want to have in the group and, after conforming the selection, you can name the group.

Family management: You can add other people in your family and allow them to control the devices you have linked. For this, go back to the home page and click on the family name in the upper left corner and click on Family Management afterwards. After selecting the family you want to manage, there is given the Add Member option, you will need to enter the mobile number or email address the members have registered the app on to send them an invitation. You can set whether they have the administrator status, which allows them to make changes to the device, i.e. remove it.

5. WARRANTY PERIOD

The warranty period is 24 months from the date of delivery, provided that the customer/user fully complies with the transport, handling and installation rules.