ICY18xx **Timer-Thermostats**

User Manual

and installation guide

I C Y

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Installation

1. Check whether the power supply for the installation is correct (24VAC or DC) and turn the power off.

2. Remove the plug from the back of the Timer-Thermostat. Connect the 2 thermostat wires to the plug and replace the plug back onto the connector.

3. If applicable, check whether the thermostat wires are connected to the heater clamps used for the On/Off control (option 1 in the schematics below).

4. Mount the Timer-Thermostat using 2 screws of approx. 30 cm via the button openings and turn on the power.

5. The thermostat will start up and will emit an acoustic signal.

6. The flashing % symbol indicates whether any pre-programmed clock settings have been lost. E.g. as a result of a power failure. The % symbol will disappear by programming the thermostat clock (see later on in this guide) or - if you do not want to use the clock - by resetting the thermostat. You can do this by shorting the two contact points to the right behind the right button, e.g. using a small flathead screwdriver.

HEATER	HEATER
ICY	ICY weerstand
option 1	option 2
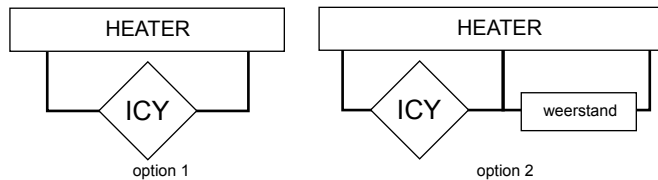
ATTENTION: When the device does not work correctly, it may be necessary to attach the resistor included to the heater's clamp strip. Please consult the manual of your heater and connect the Timer-Thermostat according to the schematics above (option 2).

ICY1830/35/40/45/50 Programming guide

Please read this guide thoroughly and write down all the values you need to fill in before starting programming.

ATTENTION: The ICY1810 has already been pre-programmed. This programme cannot be altered.
If the buttons are not touched for approx. 10s, the Timer-Thermostat will automatically select the next function.

Terminology used in this guide:

COMFORT TEMPERATURE: temperature maintained during the day and when user is present at night.
DORMANT TEMPERATURE: temperature maintained at night and when user is absent.
ANTI-FROST TEMPERATURE: temperature maintained when the Timer-Thermostat has not been used for a longer period of time, e.g. 12 hours.

1. Keep the left –(minus)-button pressed for 10s, until the display reads 'P1'. Release the button. The display will now read '0'.

2. The Timer-Thermostat is now in programming mode and will request the first 2 digits of your PIN code.

3. Use the right +(plus)-button and left –(minus)-button to enter the correct number and wait approx. 10s after you're finished.

4. The display will now read 'P2' and after 2s it will read '0'. The Timer-Thermostat will now request the second 2 digits of your PIN code. Now repeat step 3.

5. If the PIN code is correct, continue with step 6. If the PIN code is incorrect, the Timer-Thermostat will beep and leave the programming mode.

6. The display will now read 't1' and after 2s the pre-programmed ANTI-FROST TEMPERATURE will appear (e.g. '14' °C). You can change the value by repeating step 3.

7. The display will now read 't2' and after 2s the pre-programmed MAXIMUM COMFORT TEMPERATURE will appear (e.g. '24' °C). You can change the value by repeating step 3.

8. The display will now read 't3' and after 2s the pre-programmed COMFORT PERIOD will appear (e.g. '12' x 10 minutes = 2 hours). You can change the value by repeating step 3.

9. The display will now read 't4' and after 2s the pre-programmed DORMANT TEMPERATURE will appear (e.g. '17' °C). You can change the value by repeating step 3.

10. The display will now read 't5' and after 2s the pre-programmed DORMANT PERIOD will appear (e.g. '12' hours). You can change the value by repeating step 3.

**Continue with step 15 for the ICY1830/35/50 Timer-Thermostat.
Continue with step 11 for the ICY1840/45.**

11. The display will now read 't6' and after 2s the HOURS of START COMFORT will appear (e.g. '10' o'clock). When the clock is not being used, the display will now read '--'. You can change the value by repeating step 3. By using the –(minus)-button to go to the minimum '--', the clock will be disabled. When the clock is disabled, continue with step 15. When the clock is enabled, continue with step 12.

12. The display will now read 't7' and after 2s the MINUTES of START COMFORT will appear (e.g. '58' minutes). You can change the value by repeating step 3.

13. The display will now read 't8' and after 2s the HOURS of REAL TIME will appear (e.g. '7' o'clock). You can change the value by repeating step 3.

14. The display will now read 't9' and after 2s the MINUTES of REAL TIME will appear (e.g. '45' minutes). You can change the value by repeating step 3.

15. The display will now read 'P1' and after 2s the first 2 digits of the pre-programmed PIN code will appear (e.g. '11'). You can change the value by repeating step 3.

16. The display will now read 'P2' and after 2s the second 2 digits of the pre-programmed PIN code will appear (e.g. '12'). You can change the value by repeating step 3.

The Timer-Thermostat will then automatically store any changes in the memory and will beep and leave the programming mode.

If a room is unused for a longer period of time, the Timer-Thermostat's energy-saving function will cool the room down to the Anti-Frost temperature (e.g. 5 °C).

If the room is being used again, it may take several hours before it is back to a comfortable temperature. If you e.g. would like your guests to arrive in a warm and cosy bungalow, ensure the heating is switched on well in advance. However, the energy-saving function of the ICY Timer-Thermostat will reactive the Dormant temperature after the Comfort period has elapsed, which means the bungalow will only be heated until e.g. 15 °C. To ensure that in these situations the bungalow is heated until e.g. 20 °C, the Comfort period should be temporarily extended. To make this possible, ICY has developed WarmWelcome.

WarmWelcome will maintain the last set temperature until the Timer-Thermostat is operated again.

This makes it possible - without changing any settings - to maintain a certain temperature for a maximum of 2 days.
When your guests arrive, someone will, for whatever reason, touch the Timer-Thermostat. WarmWelcome will automatically be deactivated and the Timer-Thermostat will resume its normal cycle!

WarmWelcome will be activated by entering the last 2 digits of your PIN code. After entering the code, the Timer-Thermostat will not give any indication whether the PIN code was correct or incorrect. This means it is not noticeable if WarmWelcome is activated or not! The only way to see this is when the Comfort period is maintained. This means it is almost impossible for your guests to activate WarmWelcome, as after every attempt they have to wait for an entire Comfort period to see whether it elapses – which indicates whether the PIN code entered was correct or incorrect.

Activating WarmWelcome

1. Set the temperature to the setting you want WarmWelcome to maintain.

2. Keep pressing the right-hand button until, after approx. 10s, the display reads 'P2'.

3. Release the button. The display will now read '0'.

4. The Timer-Thermostat is now in WarmWelcome mode and will request the last 2 digits of your PIN code.

5. Use the +(plus)-button and –(minus)-button to enter the correct number and wait approx. 10s after you're finished.

6. If the PIN code is correct, WarmWelcome will be activated. If the PIN code is incorrect, WarmWelcome will not be activated. The Timer-Thermostat will now leave the WarmWelcome mode.

Attention!
Activating WarmWelcome has to be the last change to the Timer-Thermostat! If you touch the Timer-Thermostat again, WarmWelcome will be deactivated! The functions of the ICY Timer-Thermostat are best explained by using a realistic situation: e.g. a recreational bungalow.

How it used to be
With a conventional thermostat, we often see that users keep the heating on 20 or 22 °C day and night, even when they are away for a day to go cycling or swimming. It is always better to come home to a warm bungalow or to wake up to a cosy room. This is something they would not do at home, and which costs the owner or manager of the accommodation a lot of money.

How it will be
By using an ICY Timer-Thermostat with presence detection, it is no longer possible to keep the thermostat set to such a high temperature. This results in a huge reduction in energy use.

The Comfort period
With an ICY Timer-Thermostat, the user can set the desired temperature, by simply pressing the buttons on the thermostat. The maximum temperature can, however, be set by you (e.g. 24 °C).
This results in the first important saving!

After a certain period (the Comfort period), the Timer-Thermostat will beep, indicating that the temperature will be lowered. You can decide how long the Comfort period will last (e.g. 2 hours). (This does not apply to the ICY1810.) When the user is present, the Timer-Thermostat can be reactivated to start a new Comfort period. In the case of the ICY1845 and the ICY1850, the user does not need to reactive the Timer-Thermostat. These two types detect the presence of users by means of a motion detector and a key responder respectively.

The Dormant period
When no-one is present, the temperature will be reduced to the Dormant temperature set (e.g. 15 °C) as soon as the Comfort period elapses. The user will have to press the Timer-Thermostat again to start a new Comfort period.

This results in the second important saving!
The Dormant temperature is maintained until the Dormant period has expired. You can decide how long this Dormant period will last (e.g. 12 hours).

The Anti-Frost period
When the Dormant period has elapsed and no-one has reactivated the Timer-Thermostat, this usually means the bungalow is no longer in use.
The Timer-Thermostat will now switch to the Anti-Frost temperature (e.g. 7 °C). The Anti-Frost period will be maintained until the thermostat is used again. This means it is impossible that an empty bungalow is being unnecessarily heated.
This results in the third important saving!

Saving energy
Results of tests and experiences from customers indicate that the reduction, depending on the application, is between 20% and 55%!

Living comfort and the environment
The experiences of several bungalow parks have shown that with the right programming, your guests will not experience any negative impact on their living comfort.
The effect is mostly the opposite. Because people are becoming more and more environmentally conscious, they experience this function as a positive contribution to a reduction in energy wastage and as a contribution towards a better environment.

The patent
Because of their unique function, the ICY Timer-Thermostats cannot be compared to other electrical thermostats. That is why our Timer-Thermostat is patented.

What are the applications?
Bungalow parks, holiday homes, hotels, congress centres, apartment complexes, student housing, nursing homes, schools, office buildings, community centres, sports facilities.

Why use a Timer-Thermostat?
- High energy-saving, approx. 30%, because unnecessary heating is prevented.
- Very user friendly.
- Highly reliable, as a result of the touch controls and absence of moving parts and a relay.
- Robust and stylish: solid, impact-proof cover and modern design.
- Totally maintenance-free: no wear and tear to contact points and other moving parts.
- No separate power supply or battery necessary, because of the advanced electronics used.

	ICY1810	ICY1830	ICY1835	ICY1840	ICY1845	ICY1850
Warm Welcome		▲	▲	▲	▲	▲
Light sensor	▲		▲	▲	▲	▲
Clock functions				▲	▲	
Wirelessly controllable and programmable		o	o	o	o	▲
Presence detection by using						
Touch control		▲	▲	▲	▲	▲
Motion detector					▲	
Key responder						▲

▲ = standard O = optional

The IN option
The IN option makes it possible to control and program the ICY Timer-Thermostats remotely via radiotelegraphic communication! The IN option is available for a surcharge, and offers you the opportunity to activate and alter all the functions and settings from reception if using the ICY-Net.