

Instructions for use

Web Interface

The instructions for use have to be handed over to the end user.

ENG

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KRONOTERM

Instructions for use of the Web Interface

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1 Instructions for the use of the documentation

Before first use, read the instructions for use thoroughly and get acquainted with its content. You will learn the purpose, functions and the handling procedures for the device.

1.1 Symbols



This symbol marks important information for the user.

A **NOTE** is a notification which holds important information regarding requirements of the manufacturer and the device.

1.2 Important information

The instructions are written to give you information on all the needed activities before the first use and for further use.



NOTE

In case the product shall be given to a third person for use, the manual has to be handed over to them as well.

Incorrectly set parameters of the control unit can lead to stoppage or incorrect operation of the device. To reduce risk, the manual points out important information with the use of symbols. Follow all general safety instructions and warnings connected with the operation.

1.3 About Home.Cloud

The purpose of the service is to provide an easier user management via mobile device applications and / or web browser and to provide better quality and responsive technical support. Use of these service is not a condition for the basic use of the device and its purpose.

HOME.CLOUD, which allows you to connect to the Internet (IoT) and thus to the CLOUD.KRONOTERM.COM, is intended for the customer / owner or operator of the device.

HOME.CLOUD service in addition to connecting to the cloud CLOUD.KRONOTERM.COM includes mobile apps for use on smartphones and tablets Android and Apple.

The HOME.CLOUD system and service are also intended for the provider and its contractors and authorized persons to provide technical support to the user / owner of the device.

1.3.1 Data storage

By connecting the device to a local area network and accessing the Internet, the device connects to the provider's server and then stores the operating parameters of the device and the system. Data storage also allows remote technical support to the user.



NOTE

If the user / owner of the device disagrees with this, do not connect the device to a local network with access to the Internet, or immediately disconnect it from the network.

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2 First steps

2.1 Acquiring a Unique ID Code on the device


1. **Stand-by**.....
Heating **35,5°C**
Return **35,3°C**
DHW **49,0°C**

The procedure starts in the basic menu of the device controller display Termotronic (where the current operation status is displayed).

2. **-LNK 1- WEB -CLD 1-**
PW: AB12CD34EF56GH

Press directional key  to display currently active code.

3. **-LNK 1- WEB -CLD 1-**
PW: AB12CD34EF56GH
Request For New Code
ACTIVATE

To acquire a new unique ID code, first make sure that the value of both **LNK** and **CLD** is 1. Activate request for a new code by clicking the  (ENTER) key.

4. **-LNK 1- WEB -CLD 1-**
PW: HG65FE43DC21BA

New unique ID code is displayed after the request has been activated. Use it for further registration procedure.



NOTE

-LNK 0- WEB -CLD 0-
-LNK 1- WEB -CLD 0-

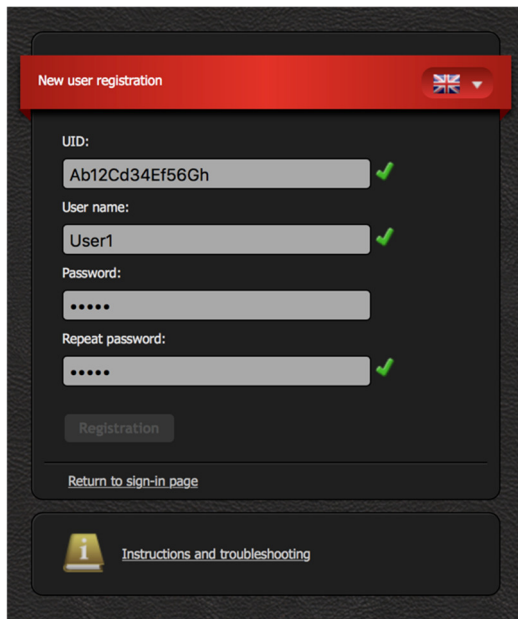
If the value of either **LNK** or **CLD** is 0, this means that an error occurred during connection. For troubleshooting, consult the document »**Instructions for the device Cloud Connection**«.

ID: 1234
PINZ:1234 PINS:5678

If you receive a request for remote technical assistance from a service technician, ID, PINZ and PINS displays will appear on the controller. See section 4.7 for an explanation.

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2.2 New User Account Registration



Before first connection to the web interface can be established, a new user account must be created and connected with your device. Registration is possible with a browser on a personal computer, a tablet computer or a mobile smart phone.

The web application can be accessed through:

- ▶ **the KRONOTERM web page:**

<http://www.kronoterm.com>

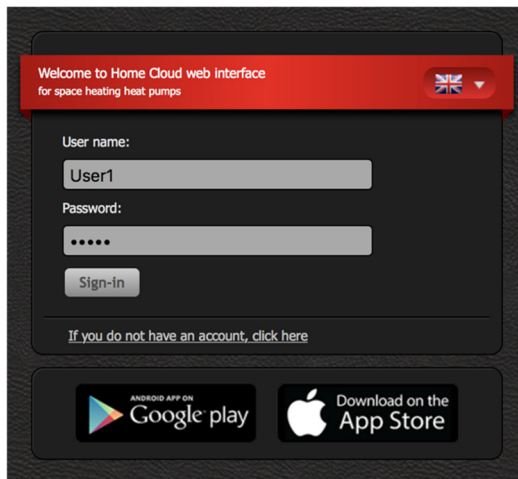
by clicking on the “Cloud” icon

- ▶ **or directly on the web address:**

<https://cloud.kronoterm.com>

The 14-digit ID code is needed for the registration. It can be acquired by following the procedure described in Section 2.1. First, enter the acquired code in the UID box on the web page. Next, enter desired username and password. The validity of each entry is confirmed by a green check mark. A new user account is created by clicking on the “Registration” button.

2.3 Login to Web Interface



Use a username and a password provided during new account registration procedure (Section 2.2) and login into web interface by clicking the “**Sign-in**” button.



NOTE

If you forget your **user name** and/or **password**, you need to obtain a new unique code and repeat the procedure for a new user account registration.

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3 Introduction of the Interface



NOTE

The window displays the entire display interface. The display of the window depends on the installed system and commissioning settings of the device.

The screenshot shows the KRONOTERM interface with the following elements and callouts:

- 1**: Navigation menu at the top right, including 'Basic', 'Schedules', 'System', 'Trends', a language selector, and 'Log-off'.
- 2**: Head area containing 'Connection established', a status bar with power, warning, and alarm icons, and the time '10:42 17. May 2018'.
- 3**: Temperature overview area featuring a central house icon with solar panels and a chimney, surrounded by temperature readings: Outside temp. 17.2°, Alternative source 45.2°, Household water 27.5°, Buffer tank 33.7°, Pool 24.1°, Room 1 23.4°, Room 2 23.7°, Room 3 22.7°, and Room 4 23.1°.
- 4**: Submenus on the left side, including 'Basic', 'System review', 'Shortcuts', 'Buffer tank', 'Room 1', 'Room 2', 'Room 3', 'Room 4', 'Household water', 'Pool', and 'Alarms'.

Facility name: My house

- 1** Navigation menu.
- 2** Head – Contains information about the connection of device to the cloud, currently set date and time and status bar.
- 3** Temperature overview
- 4** Submenus.

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3.1 Status Bar

The status bar contains all relevant information about the operation of the device.



SYSTEM STATUS					
1		Device on	9		Device operating in summer mode (cooling)
		Device off.			Device operating in winter mode (heating)
2		Underfloor, wall or radiator heating active	10		Additional source enabled
		Tap water heating active			Back-up source enabled
		Active cooling active	11		General ECO mode active
		Pool heating active			General COMFORT mode active.
		Anti-legionella program active			Screed drying programme active
		The device is in sleep mode			
		Device in starting-up state			
		Device remotely deactivated			
		Fast heating of tap water up to comfort temperature in progress			
3		Fail-safe anti-freeze mode active			
		Passive cooling active			
4		Additional or backup source active			
5		Alternative source active			
6		Defrosting of the outdoor heat exchanger			
		Service of device required			
7		Device in warning state			
		Device in error state			
8		Device uses photovoltaic energy			



NOTE

Global ECO mode uses less energy for the operation of control loops (with the exception of tap water).

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3.2 Temperature Overview

The window displays data supported by your installation.



Outside temperature

Tap water temperature

Temperature of the heating loop

Temperature of the heating loop, measured on the spatial corrector KT-1, KT-2



Alternative source temperature

Pool temperature

Temperature of the cooling loop in the summer operation mode



NOTE

In case of installed temperature sensor of buffer tank, the temperature of the buffer tank is displayed. Otherwise, the temperature of system return pipe is displayed as 1st heating loop.



NOTE

The display of the control loop temperature operation depends on installed 2nd, 3rd and 4th temperature sensor on the supply pipe of device. In this case, the displayed temperature is from 2nd, 3rd and 4th mixing heating circuit. Otherwise, the 2nd, 3rd and 4th mixing heating circuit shows the temperature of the buffer tank if installed in the system. If not, the return pipe temperature is displayed .



Temperature of buffer tank or return pipe of system.



Temperature of buffer tank or return pipe of system when the device is operating and heating buffer tank.

Temperature of buffer tank or return pipe of system when the device is operating and heating DHW.

4 Menus

4.1 Basic



Depending on the configuration of your system and the enabled startup parameters, various symbols of the temperature sensors that are installed in the system are displayed here. Under the symbols the current temperatures are displayed.



Symbol of the temperature sensor



Name of the temperature sensor



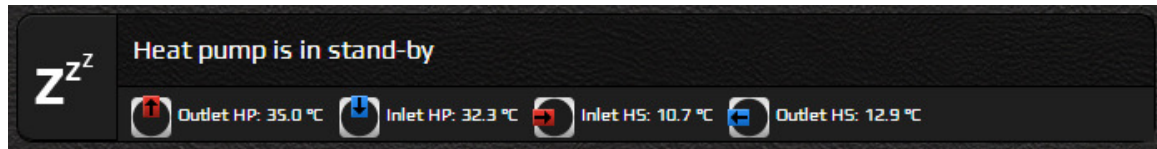
Current temperature

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4.2 System Overview



4.2.1 Device operation



In the first line, you see a symbol and a text description of the status of the device. In the second line, the symbols of the inlet and outlet temperatures of the heat source.

4.2.2 Control loops



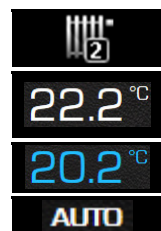
NOTE

The display of temperature of the control loop operation depends on installed 2nd, 3rd and 4th temperature sensor at the supply pipe of the device. In this case the displayed temperature is from 2nd, 3rd and 4th mixing heating circuit.

Otherwise, the 2nd, 3rd and 4th mixing heating circuit shows the temperature of the buffer tank if installed in the system. If not, the return pipe temperature is displayed.



Operation, status and temperature for all control loops present in the system are displayed.



Control loop icon

Current temperature of the control loop

Calculated target temperature

Operation status (OFF, AUTO, ON)

Control loop operation modes:

(1,2,3)

1 Control loop in OFF mode: in accordance with its schedule or because of a manual deactivation (blank space)



Control loop in COMFORT mode



Control loop in ECO mode



Control loop in NORMAL mode

2 Control loop thermostat is activated (blank space)



Control loop thermostat is deactivated

3 Control loop pump is deactivated (blank space)



Control loop pump is activated

Controlling loops with the thermostat (spatial corrector KT-1 / KT-2)



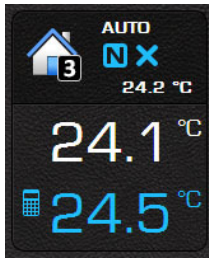
NOTE

OFF - Control loop deactivated.

AUTO - Control loop operating according to its schedule.

ON - Control loop activated.

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The window shows the operation, statuses and temperatures of the regulation circle, within which the spatial corrector KT-1 or KT-2 is present.



- Regulation circle icon
- Temperature of supply pipe
- Current temperature of the control loop
- Calculated target temperature
- Operation status (OFF, AUTO, ON)

For more information about the control loop automatic modes of operation, see Section 4.6 *Schedules*.

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4.3 Shortcuts



The window shows the shortcuts that your system allows.



NOTE

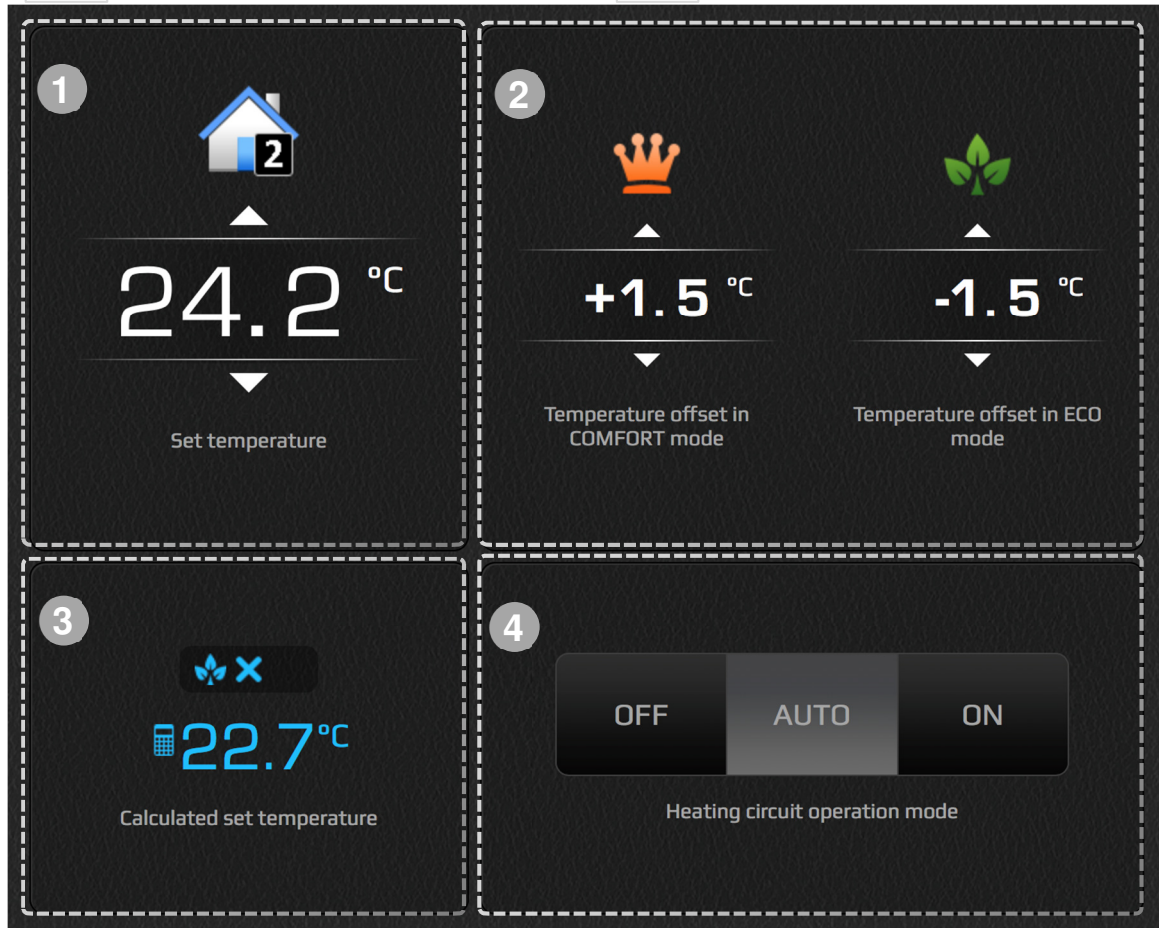
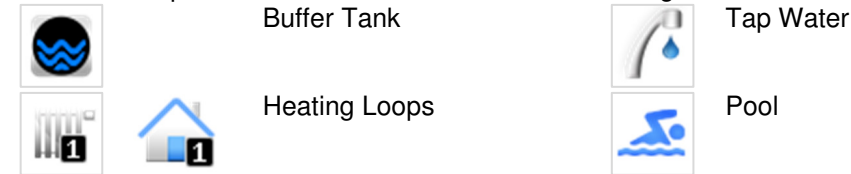
Certain shortcuts require confirmation via dialogue. When the button is active (colored blue), the source function is enabled. You must turn it off manually (by pressing the button again).

	Fast heating of tap water	Activation of fast heating of tap water. After heating the water to the temperature value of KOMFORT, the device returns to the previous program of operations and automatically turns off the program.
	Pool	Activation of the priority pool heating.
	Additional source	Manual start-up of the additional source used to speed up the heating. Both, the device and the additional source (electric heater or boiler) are activated. The active button (blue color) indicates that the source is enabled.
	NOTE	Enabling of additional source does not imply its actual operation – it will automatically turn on when needed.
	Back-up source	Manual start-up of the back-up source. The back-up source is used as a substitute in case of a device malfunction. Active button (blue color) indicates that the source is enabled. The source is disabled manually by pressing the button again.
	NOTE	Enabling of back-up source does not imply its actual operation – it will automatically turn on when needed.
	Mode of operation	Switch between summer (cooling) and winter (heating) mode of operation.
	NOTE	Change of operation mode affects the operation and configuration of the entire system!
	On / off	Turn on / off the device.

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4.4 Control loops (Buffer Tank, Heating Loops, Tap Water, Pool)

All control loops have the same interface for their settings.



- 1 Set of the temperature in NORMAL mode of operation. The value shows the set target temperature of the control loop . Use the arrow buttons to directly influence the desired temperature.

In the event that the heating circuit is controlled via the spatial corrector KT-1 or KT-2, the temperature displays the set point set on the corrector. Use arrows up and down to directly influence the desired temperature on the corrector.

In case of using KT-1 or KT-2, the temperature symbol of the heating circuit will change to the symbol of the room temperature .
- 2 ECO and COMFORT – Offsets from the set target control loop temperature. COMFORT mode (increased operation) is set on the left side and ECO mode (reduced operation) is set on the right side. Offset can be set in steps of 0.1 °C.
- 3 The blue displayed temperature shows the calculated desired temperature of the circuit loop, which includes all the corrections of the set target temperature induced by the system settings and functions (ECO and COMFORT mode, weather-based regulation, general deviation). The statuses of the heating circuit operation are displayed above it.

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4

Control loop operation status – Buttons OFF/AUTO/ON serve for deactivation (OFF), permanent control loop activation (ON) or the control loop set to operate according to its schedule (AUTO).




NOTE



The curve on the control loop icon indicates **weather-dependant regulation**. Weather-dependant regulation of tap water and pool control loops is not possible.



NOTE

The symbol  indicate the air temperature in the room, meanwhile all the other symbols represent the water temperature.

4.4.1 Dependent control loops

For direct heating loop, you can set the dependent temperature, ECO and COMFORT mode in the same way as described in chapter 4.4.

4.5 Alarms



The report/cancellation list of device errors and warnings is displayed in the Alarms window. Alarm types:



Warning – Warning detected during operation. The system could continue to operate.



Error – Critical error occurred during operation. The system had to shut down.



Cleared warning or error.



Notification:





Holds important information during the operation of the device regarding requirements of the manufacturer and the device.

When a critical error occurs, the user is given an option to clear the errors by pressing the “Confirm” button. The operating conditions are verified again and the system will start to operate again if the error is resolved. If the error conditions are not resolved a service of the device is required.

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4.6 Schedules

Schedules enable time-dependent regulation of individual control loops. Three different modes of operation are possible:

	OFF mode	Control loop deactivated.
	NORMAL mode	Temperature set to the set target value (see 4.4 Control loops).
	ECO mode	Temperature lowered from the set target temperature for the value of NORMAL offset (see 4.4 Control loops).
	COMFORT mode	The temperature is increased from the set target temperature for the value of NORMAL offset (see 4.4 Control loops).

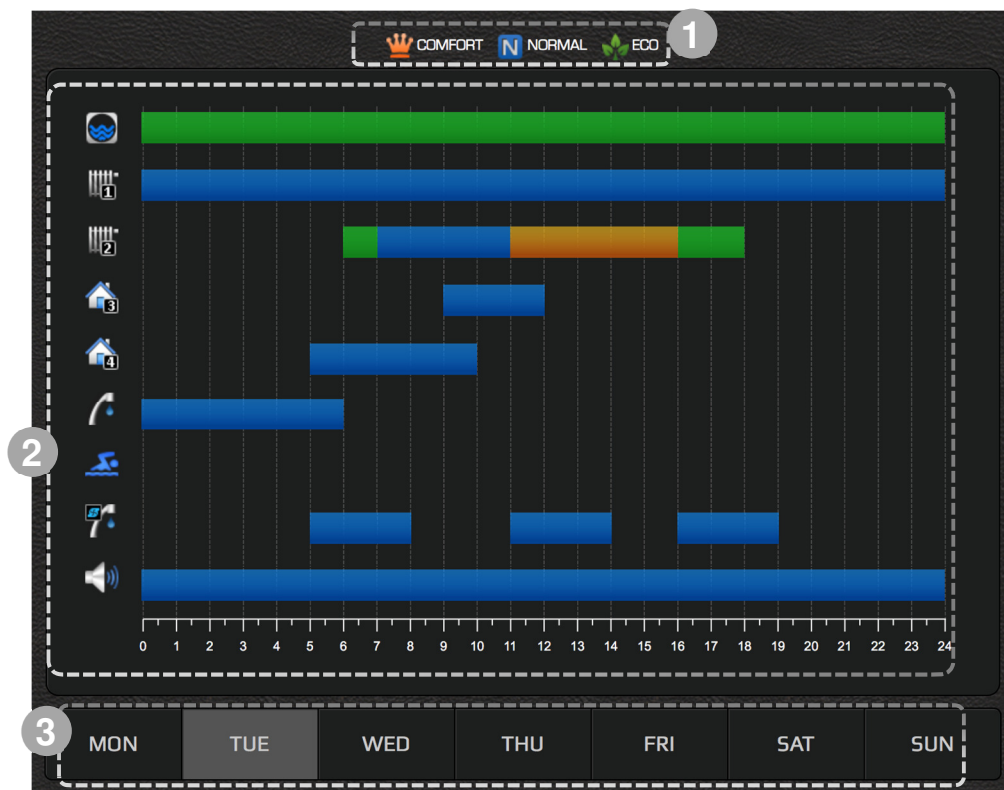


NOTE

In case of a weather-dependant regulation, the set target temperature of the NORMAL mode is calculated from the predefined temperature curve.

4.6.1 Control loops

An overview of all control loops' schedules in the system is given in this window.

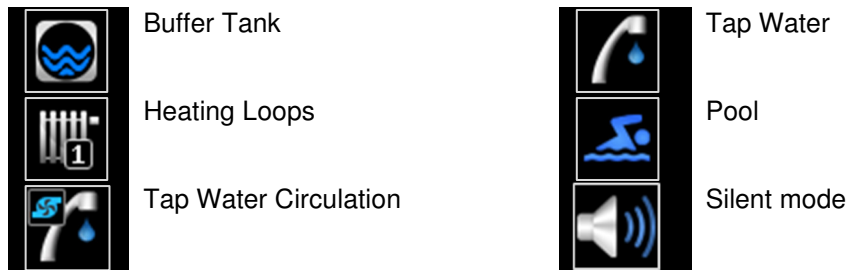


- 1 Used color legend.
- 2 Graphic display of schedules sorted by individual control loops.
- 3 Currently chosen day of the week.

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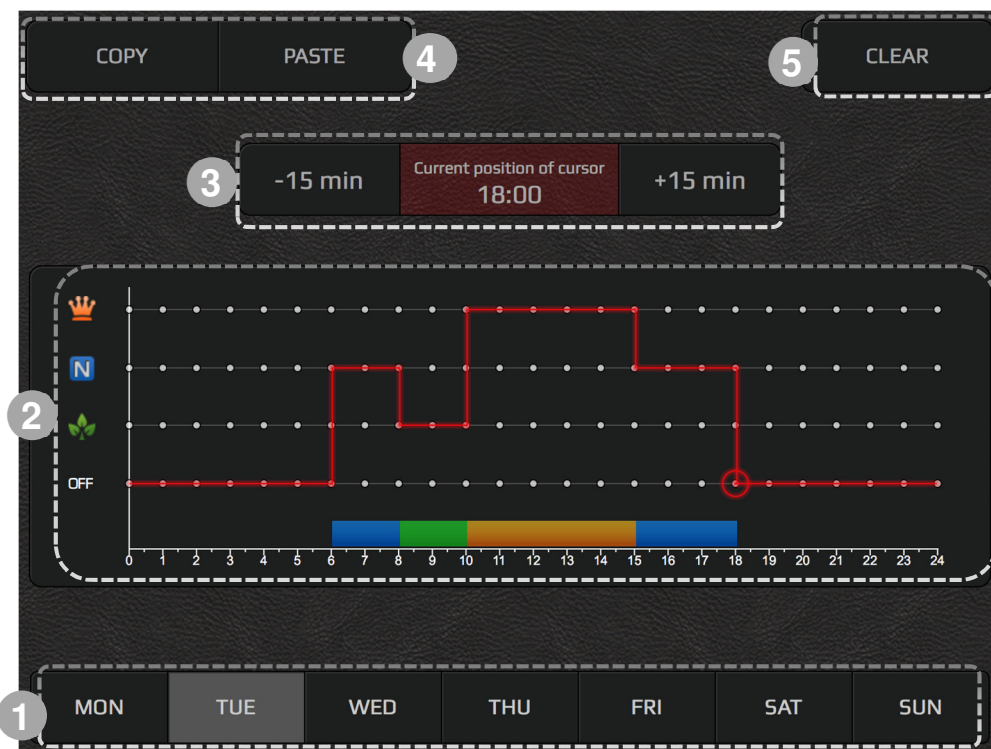
4.6.2 Control loops

The schedule for individual control loops for each day of the week can be set in this window. By default, all control loops are deactivated (set to OFF).



NOTE

The schedule »Silent mode« can only be set on a WPLV and commercial WPL type of the device.



- 1 Select the schedule's day from the lower banner.
- 2 A red line is shown on the graph. It is in the OFF mode and extends over the entire time scale, indicating that on the chosen day the device will be in constant stand-by mode. Change the device schedule by pressing the grey dots at the level of the desired mode OFF, NORMAL, ECO or COMFORT. The red line level shifts to the set mode. The dot circled with red circle indicates an active cursor.
- 3 Smaller corrections for the active time point (indicated by active pointer) to a schedule can be set by pressing »+15 min« and »-15 min« buttons.



NOTE

A maximum of 6 transitions per day are enabled for a schedule.

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- 4 The interface offers a copy/paste feature for easier editing:
- 1) The schedule is copied to the clipboard by pressing the »Copy« button.
 - 2) Move to the day where you want the schedule to be copied to and press the »Paste« button.

- 5 The »Clear« key is used to reset the active day's schedule to the default OFF mode.



NOTE

In the case of tap water control loop or direct control loops, only NORMAL or OFF modes are available.

The schedule is automatically saved 15 seconds after the last change has been made or after the menu has been left.



4.6.2.1 Schedule silent mode



NOTE

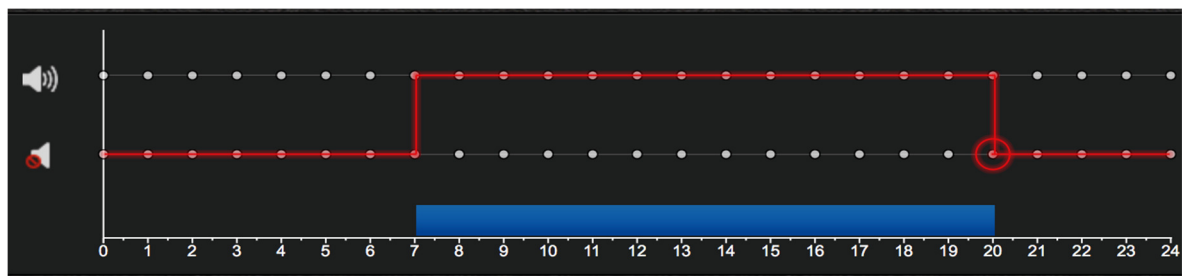
Schedule »Silent mode« can only be set on the WPLV type of the device.



Normal noise level of device



Low noise level of device. Device is operating with reduced power.



NOTE

In mode "Lower noise level", the device operates at reduced power.

4.7 System



The system menu is used to:



Access the device connection instructions and the web interface user manual.



Change the user account password.



Edit the names of individual control loops and set the device location (name). Note: Useful for easier device identification for users with several heat pumps installed.



Set up automated e-mail notifications.



Overview and summary of device operation time.



Setting of time and date on the device.



Information:

You can access information about the manufacturer and individual versions of the device components.

Remote Service Access: For remote technical assistance over the phone, you must provide the Service Provider (Service Provider ID) with a four-digit temporary (PINZ) or permanent access (PINS) number to your system.

Remote service access

Service technician ID:	PINZ (temporary access):	7617
57 - Janez Novak	PINS (permanent access):	1514



NOTE

Location is enabled only when you install the spatial corrector KT-2. For displaying the menu »Weather Forecast« you have to set the location of the place where the device is installed.

User interface: Change the language of web user interface

Building type: Set the display of the building in the "Basic" menu. You can choose between a residential, commercial and industrial type of building.

Location: Set correct location for correct display of the weather forecast.

Location

I agree with the use of my location.

Location of the heat pump is used to find the nearest weather station and is a condition for the operation of the weather forecast on your thermostat. Location won't be stored in the database.

Weather forecast

By entering your address and clicking on the search button a nearest weather station to your location will be automatically found. You can also select a location from the map.

Location:



MAP



Export all system parameters and temperature readings to a text document.

Advanced settings:

1: Automatic switch between winter and summer mode.

2: COMFORT, AUTO, ECO buttons are used to set the overall state of operation of the appliance and apply to all menus (heating / cooling, storage, swimming pool, sanitary water) that were activated during commissioning.

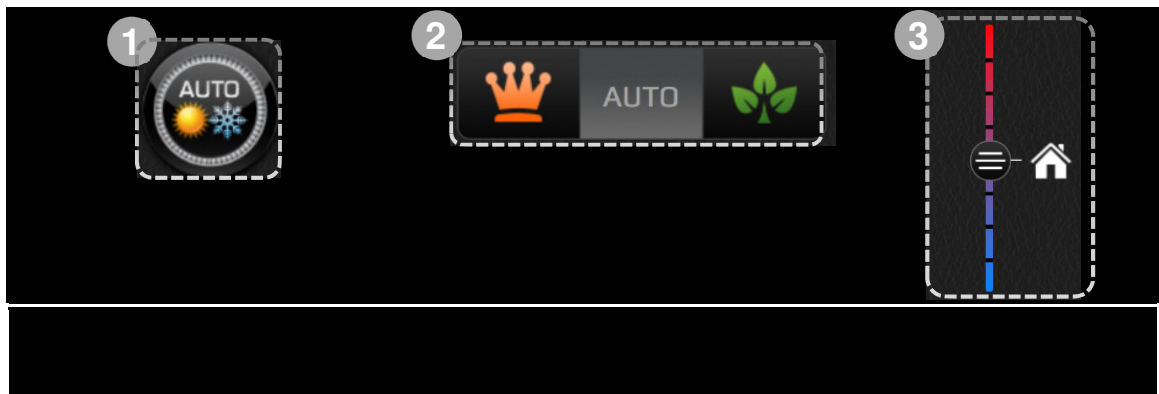
COMFORT - the device works in general COMFORT mode (consumes more energy for operation),

AUTO - the device follows the settings in the control circuits (each individual circuit works as it is set),

ECO - The device works in general ECO mode (consumes less energy for operation).

3: Increase or reduce general temperature deviation for all control loops in 4 steps of 1°C in ± 4°C range. of ± 4 °C.

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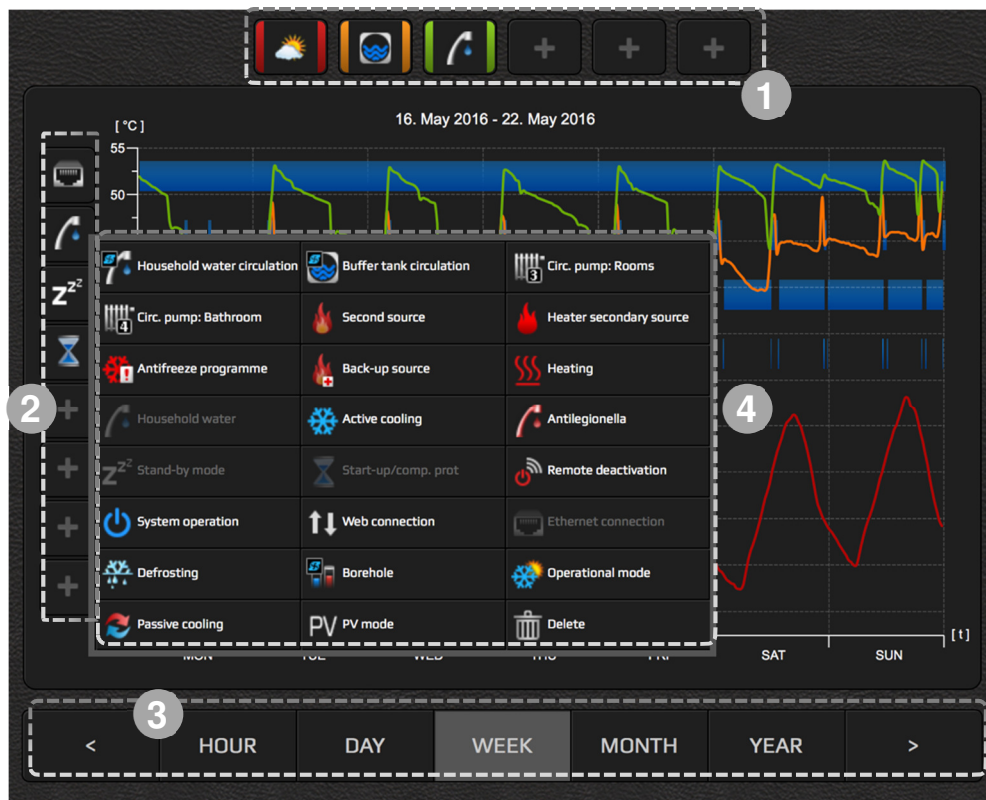


4.8 Trends



The trends are an indispensable part of the Home cloud interface. They enable a precise overview and comparison of operation of all heating system components. The data is shown in high capacity, well organised diagrams. We can use individual diagrams to optimise system operation and thus reduce heating expenses. The histogram of theoretical use enables the change of electricity use of the system. Daily, weekly and monthly use can be reviewed directly in the EURO currency.

4.8.1 Graphs



- 1 Measurement value selection.
- 2 Event selection.
- 3 Time interval selection. Buttons “<<” and “>>” are used to move forward and backwards for one time unit.

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4 Pop-up window from which the events are selected.

Temperature Selection:

- ▶ Click on the + icon.
- ▶ Select temperature.
- ▶ The temperature icon and a line are added to the diagram; the line is outlined and has a new color, which serves as a legend.

Event Selection:

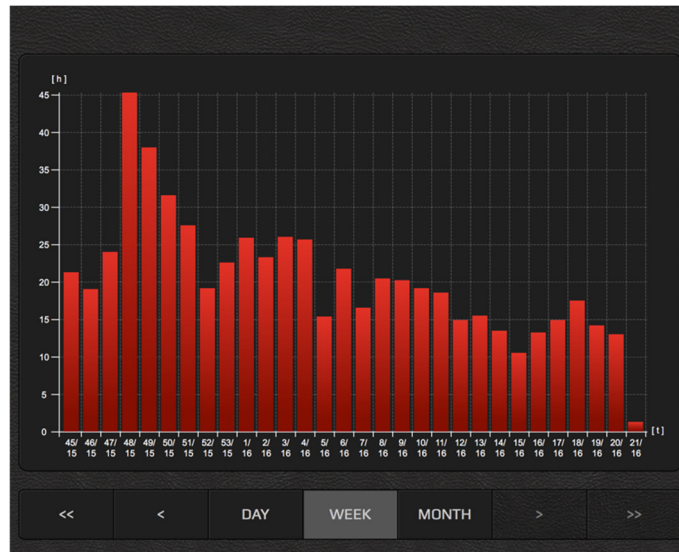
- ▶ Click on the + icon.
- ▶ Select event.
- ▶ The event icon and a bar are added to the diagram; the bar is outlined and blue color represents the operation.

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4.8.2 Sanitary water histogram



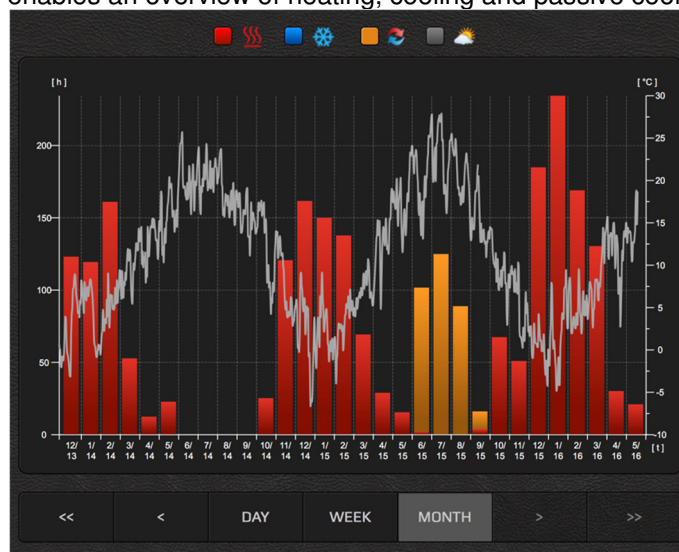
The histogram enables a review of sanitary water heating history by days, weeks and months.



4.8.3 Histogram of heating and cooling



The histogram enables an overview of heating, cooling and passive cooling through time.



4.8.4 Setting of usage



NOTE

In order to display the menus **Setting of theoretic usage**, **Setting of tariff counter** and **Theoretical usage histogram**, a correct device model number must be set ("System / Info / Heat pump controller"). The model number is typically set by a technician at the device setup. In case the device model is not set (n/a), please contact KRONOTERM technical support. Theoretical usage menus are supported by most heat pump models.



4.8.4.1 Setting of Theoretical usage

We enter theoretical data on the usage of individual components of the heating system into the empty fields and the price of electricity of your energy supplier. This data is a foundation for the generation of a histogram of theoretical usage.

The screenshot shows the 'Use of electricity' settings screen. It features a dropdown menu for 'Graph type' set to 'Costs [€]'. Below are several input fields for power consumption in Watts (W):

Component	Value (W)
Heating loop circ. pump 3:	50.0
Heating loop circ. pump 4:	30.0
Household water pump:	0.0
Buffer tank circulation pump:	40.0
Borehole pump:	650.0
Heater:	6000.0

At the bottom, there is a note: 'Usage histogram does not show measured values but a theoretical calculation!' and a 'CONFIRM' button.



4.8.4.2 Setting of the tariff counter

In the menu, select the type of tariff counter (single tariff, double tariff) and enter the price you purchase electricity for. In the case of a double tariff system, set daily tariff times in the schedule below. This data is a foundation for the generation of a theoretical usage histogram.

The screenshot shows the 'Setting of the tariff counter' screen. It has two radio buttons: 'One-tariff' (selected) and 'Dual-tariff'. Below them are input fields for electricity prices in Euros (€):

Tariff Type	Price (€)
One-tariff	0.11000
Dual-tariff	0.14500

There are 'COPY', 'PASTE', and 'CLEAR' buttons. Below these are navigation buttons: '-15 min', 'Current position of cursor N/A', and '+15 min'. At the bottom, there is a 24-hour tariff schedule graph showing two price levels (€) and a corresponding bar chart. The days of the week are listed at the bottom: MON, TUE, WED, THU, FRI, SAT, SUN.

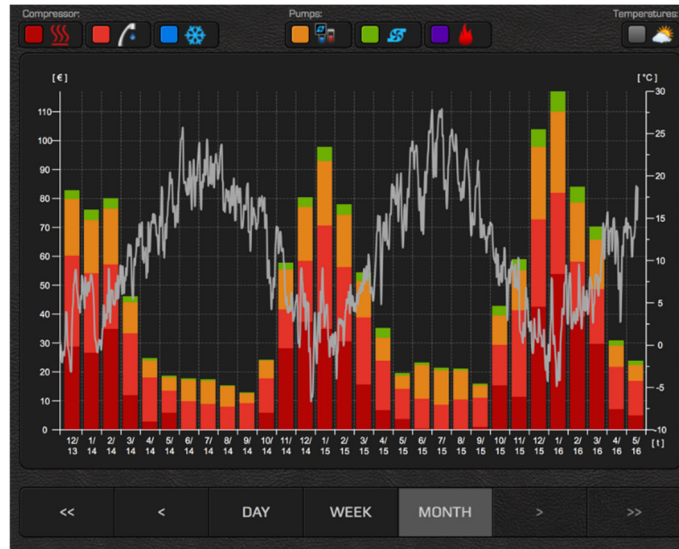
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4.8.4.3 Theoretical usage histogram



The histogram enables an overview of the history of electricity usage of individual heating system components.

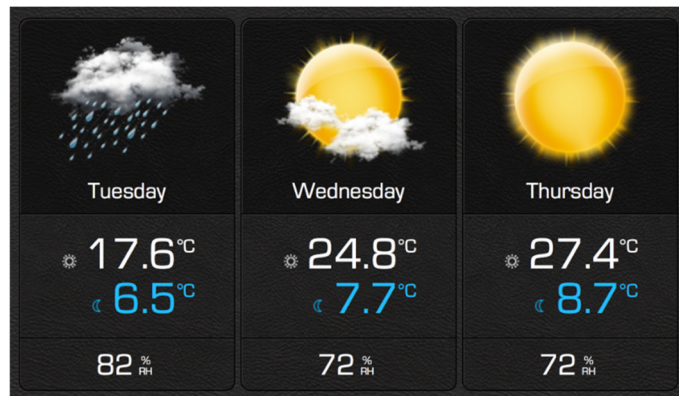
For a proper display of usage, data on component usage and price of electricity of your energy supplier must be entered in the menu THEORETICAL USAGE SETTINGS.



4.8.5 Weather forecast



Review the weather forecast for the three days in advance.



NOTE
Weather forecast synchronized once a day.



NOTE
To display the menu "Weather Forecast", you need to install the spatial corrector KT-2 and set the location settings in "User Interface" (see section 4.7).

**The headquarters of the company and place of
production**

**Kronoterm d.o.o.
Trnava 5e
3303 Gomilsko**

Tel.: (00386) 3 703 16 20 | Fax: (00386) 3 703 16 33 | Web-page: www.kronoterm.com |
E-mail: info@kronoterm.com