

User Guide

Thermia Online

VUBQD102

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Note! This manual is only valid when read online. As it describes how to operate software it will change in parallel with the development of the software. It is therefore important that the user downloads the latest edition of this guide on www.thermia.com

Introduction

Remote access via Internet

With the accessory Thermia Online you can control and monitor your heat pump via any smart phone, computer or pad, wherever you are. You can for instance lower the indoor temperature when you are away and increase in time for you to come home. If you come home earlier than expected, you see, using Online, to that the house is as nice and warm as you want it to be.

You can always check how your heating system works and what temperature you have at home. If something needs to be fixed, you - or your installer if you contracted it - immediately get information about it through Online. Notice may be obtained by e-mail and / or notification in your mobile. You are also able to control and monitor multiple installations if necessary, for example if you have a summer home with a heat pump or have relatives who need help.

Thermia Online can be connected to your existing broadband so no extra cost will be charged. In cases where no wired internet connection is available it is possible to solve the connectivity by adding an independent 3G/4G-modem (any vendor). Online mobile app is available for both iPhone and Android.

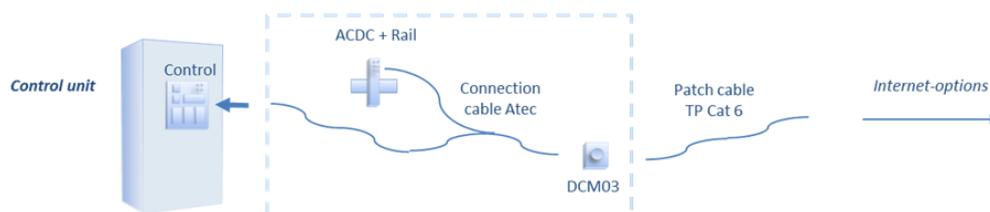
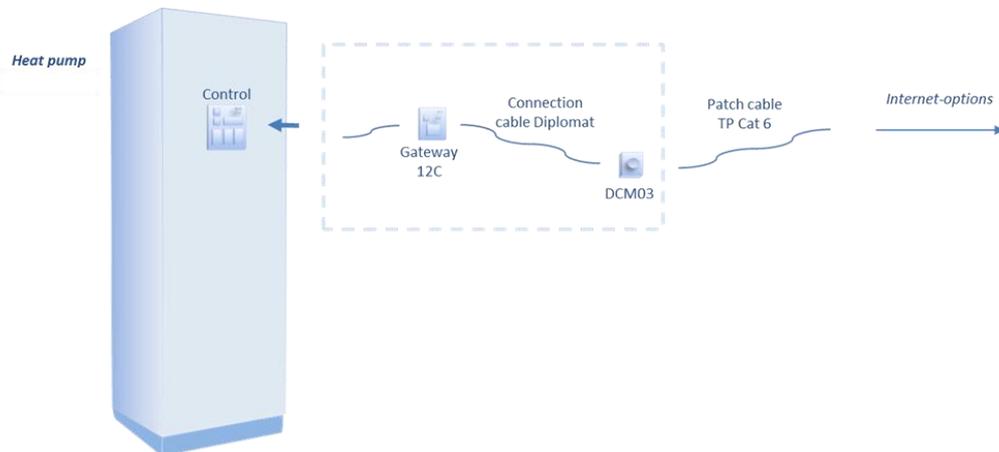
Thermia Online is connected to your heat pump via the internet. Do you already have a connection in place, your Thermia installer plug in the heat pump to this. This solution means no running costs for data traffic. If you do not have internet access (like a summer house), we recommend to get this via an external 3G/4G-router - any supplier.

Due to that all the data sent from the heat pump is stored on an external server, you can at any time access Online - log in from any smartphone, computer, pad, wherever you are in the world. It also means that there is no restriction for the number of users for your Online application.

You download the app for Thermia Online on the App Store (iPhone) or Google Play (Android). The system works for all heat pump models in the Thermia current residential range, and Thermia DHP-L.

Components

Your installer has installed the following components in your heat pump (see hatched area in picture below).

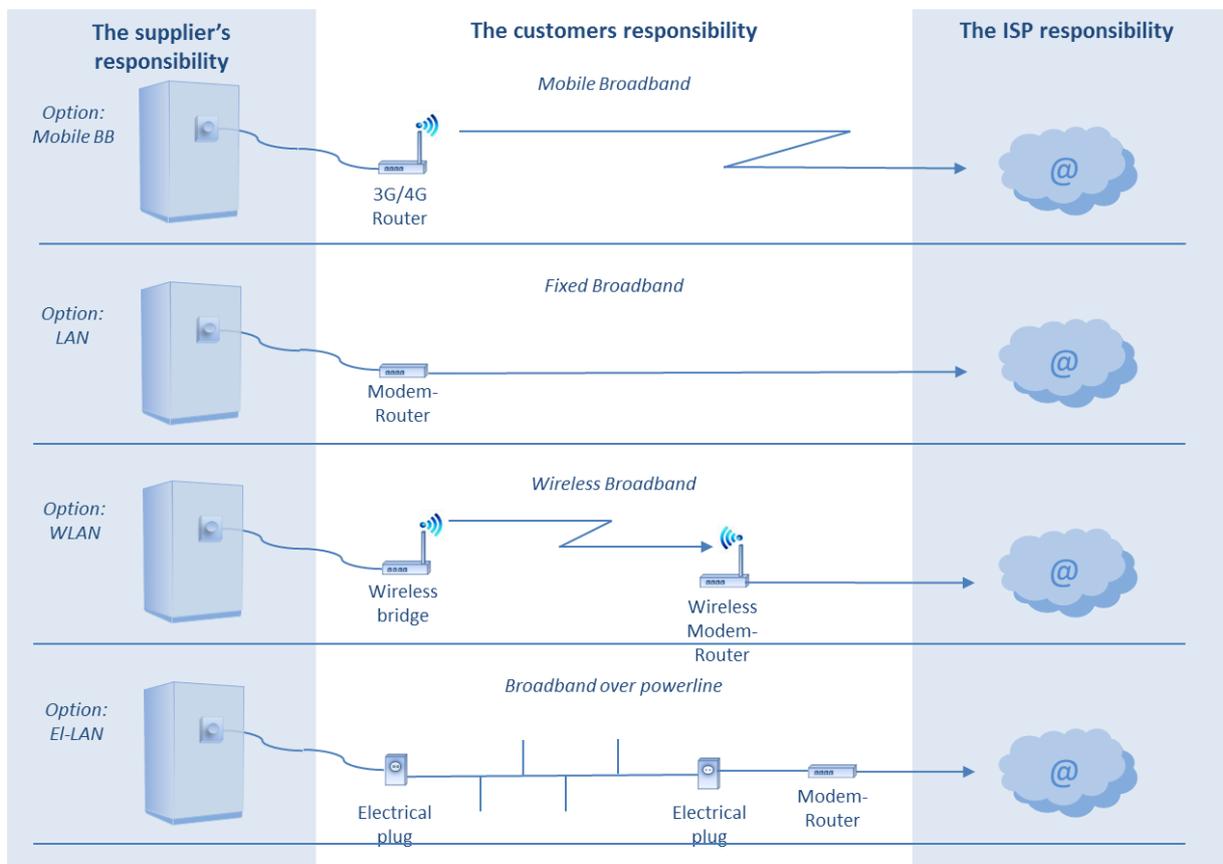


Communication

Since Thermia Online is based on communication over Internet, of course this connection is required. The connection can be divided into two main categories, one of which is called "Mobile" and the other is "Fixed". With mobile means that you are connecting via a 3G/4G router containing a SIM card, and thus communicates over the mobile network. In this case, it is important that a sufficiently strong GPRS signal is available where the router's antenna is located. Check with the prospective provider of mobile broadband that there is coverage in the area where online is to be installed.

Fixed connection means that you are connected to the Internet via any form of cable or fiber. The connection between the heat pump, the different connection options and responsibilities are shown in the figure below.

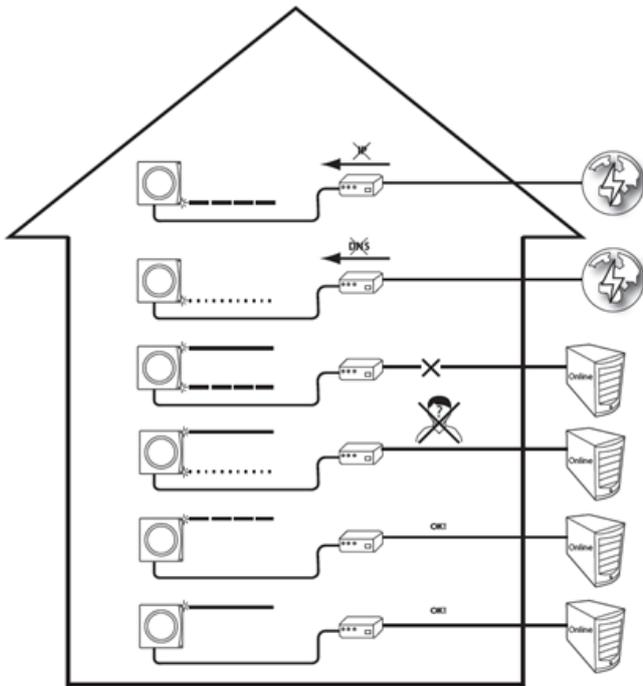
Internet options



DCM diodes significance

The unit that in the one end is connected to the heat pump and at the other, the Internet connection, is called DCM.

It is equipped with small diodes placed in the corners, red bottom and green on top. These diodes have a predefined flash system showing the status of the connection. The figure below explains this symbolism.



Diode	Significance
Long red	No IP-address from router DHCP
Short red	DCM get no DNS address from router
Constant green Long red	Online-server does not respond
Constant green Short red	Server doesn't recognize the DCM (the installation)
Long green	Everything OK
Constant green	Everything OK

System requirements

Thermia Online is an HTML5-based web production.

This of course means some system limitations and we have chosen to support the four most popular browsers.

These are in no particular order:

Internet Explorer (9.0 +)

Mozilla Firefox (latest version)

Google Chrome (latest version)

Apple Safari (latest version)

Other system requirements are that Javascript must be enabled and your browser must accept cookies.

It is worth noting that the login process is cookie based. These cookies live a short time before they expire. If the system clock on the login computer, phone or pad differs more than 5 minutes, the cookie will be too old and login will fail.

Internet in business domains, commercial properties, etc.

For the Thermia Online accessory to work, it takes either a direct Internet connection or a NAT-router/firewall. DHCP must be enabled on the router. Is there a proxy server (often used by larger companies / organizations), there is currently no support for this.

Functions

- To make changes in the heat pump settings, use Online, where you log in with the customer data that you received in an email during installation. Communication goes via Internet to the Online Server. Online Server processes the settings you have changed in the application and sent from your computer.
- DCM unit, connected to the heat pump, receive data using the Internet connection.
- The device communicates with the heat pump's control unit and makes sure that the settings you requested changes in the heat pump control. DCM also sends regular information about the heating system status to the Online Server.
- You can whenever you want, log on to Online to see the current status and history of your heating system.

There are some basic features in the Online web application:

- Current status of the heat pump
- Monitor events and alarms
- Controlling and regulating settings (eg calendar control "away mode")
- Contact support

After logging into the application, you'll see an overview of the current heat pump values and settings. Later in this manual you will find more specific information about the application and instructions on how to change settings, monitor events and alarms, and how to contact support.

Important information

- Before changing the control unit setup, you should first find out what these changes mean.
- For possible need for servicing, please contact your installer.
- Only qualified personnel may install, operate and carry out maintenance and repair works of the heat pump.
- The front of the heat pump may only be opened by authorized service personnel.

Getting Started on the Web

The Online application must be run in a browser, according to previous system requirements.

You get your login details via an email in connection with the installation.

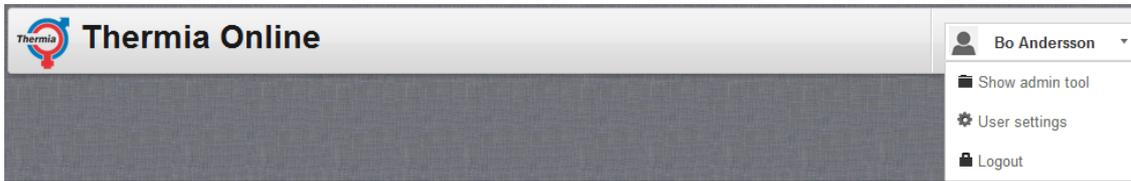
You can find online at the following URL: <http://www.online.thermia.se/>

To log in:

1. Start your web browser; enter the URL above into your browser's address bar.
2. Enter your username and password and click Login

After logging in, an overview is opened of your Heat Pump(s). You can change your password in the application, but keep in mind that there must be at least four characters and that it distinguishes between upper and lower case.

1. Main menu
1.1 The account



a. Settings for the account

 [User settings](#)

Under this item there are two tabs. The first handles "Personal details" ...

User settings

Personal details Password

First name

Last name

Language ▼

Timezone ▼

...where you note your "First" and "Last name", what language you want to have the Online applications displayed in and the Time zone you are in. The latter is important because it controls some calendar functions. More about this later in this manual.

The other tab handles "Password".

User settings

Personal details **Password**

Old password

New password

Confirm new password

2. Installation area



2.1 The installation(s).

All heat pumps that are registered on the logged in user is displayed.

You click on the one you want to see the details on and the button expands.

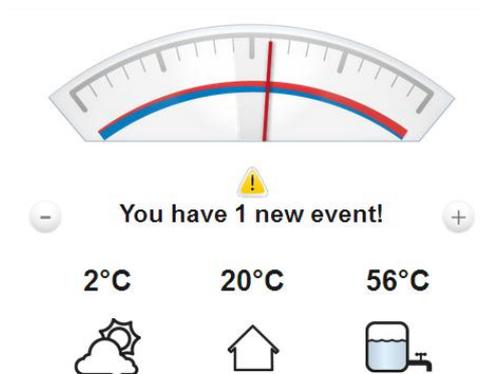
The buttons also show, in addition to the status of the heat pump (if online, if event, if alarm) also symbolize the type of heat pump. Like AQ or DHP.



3. Status tab

3.1 Quick info block

Displays an overview of relevant pump information and quick sets of temperature changes.



- a. The room setpoint (setpoint = the temperature the room strives to fit. If the temperature not is reached, the curve has to be adjusted which is performed by the installer. See heat pump manual).

The center position of the meter corresponds to 20 ° C.



- b. Alarm and event information. Events can be acknowledge directly from the online application while the alarm only be resetted from the heat pump display.

b.  You have 2 new events!  You have 1 unread alarm!  Installation is offline!

- c. Reduction of indoor room setpoint. One click means one degree reduction. The result of the reduction is shown on the meter set point (section a. above).



- d. Increase the indoor room setpoint. One click means one degree increase. The result of the step-up is shown on the meter set point (section a. above).



- e. Outdoor temperature measured by the outdoor sensor.

9°C



- f. The property actual indoor temperature. Default value is set to 20° C if not a room sensor is installed. If one is present, the actual measured is shown.

20°C



- g. The hot water temperature. If the facility don't have a boiler, no value is shown.

51°C



3.2 Quick event block

Showing the last 5 events

 ALARM ACTIVATED: Has not been able to resume connection with DCM	2012-09-30 20:58 ▼
 Connection to heat pump is lost	2012-09-30 19:57 ▼
 Alarm deactivated: Has not been able to resume connection with DCM	2012-09-30 19:48 ▼
 Connection to heat pump resumed	2012-09-30 19:48 ▼
 Connection to heat pump is lost	2012-09-30 15:18 ▼

- a. Each event can be studied in detail by clicking on the arrow at the right end of the line. When this is done, the event is acknowledged and disappear from the Quick Info Block. See Section 3.1

 **ALARM ACTIVATED: Has not been able to resume connection with DCM** 2012-09-30 20:58 ▲
Alarm signal from heat pump changed its status to: ACTIVE

3.3 Active calendar functions

This block summarizes the possibly created date / time-controlled temperature changes that has been done. These are set up under the "Calendar" tab and is described later in this manual (Section 6)

 Reduced temperature from 2012-11-06 16:36 To 2012-11-07 16:36	 Remove
 Reduced temperature from 2012-11-06 20:07 To 2013-11-06 20:07	 Remove
 Reduced temperature from 2012-11-06 20:33 To 2013-11-06 20:33	 Remove
 Reduced temperature from 2012-11-06 23:17 To 2013-11-06 23:17	 Remove
 Reduced temperature from 2012-11-06 23:17 To 2013-11-06 23:17	 Remove

- a. To remove one or more calendar entries, click "Remove."



4. Event tab

4.1 The tab consists of two parts, of which the upper is given the option to register the email addresses to which you want to get their events and alarms reported. Thus, one can specify more than one recipient of the information. Removal of the receiver is done by clicking on the X to the right of the address.

Notify by email:
full name

type your email



The following persons are notified by e-mail

full name	type your email	remove
Lars Larsson	(lars.larsson@larsson.com)	

4.2 The bottom part line up all the events that occurred in the heat pump and these are acknowledged by expanding the line (in the same way as in 1.2.a.). The times are given assumed to timezone specified under "Settings" above (section 1.a.). The logging interval is 1 minute, but worth noting is that if the unit loses contact with the internet, the internet server reports that after an hour of no communication reestablished.

Label	Time	Type	ID	Source	
Connection to heat pump resumed	2012-10-26 15:21		68029	Online	▼
Connection to heat pump is lost	2012-10-26 15:20		67087	Online	▼
Connection to heat pump resumed	2012-10-17 16:19		60007	Online	▼
Connection to heat pump is lost	2012-10-17 16:17		59039	Online	▼
Connection to heat pump resumed	2012-10-12 13:17		53001	Online	▼
Connection to heat pump is lost	2012-10-12 13:16		51040	Online	▼
Connection to heat pump resumed	2012-10-11 15:00		51014	Online	▼
Connection to heat pump is lost	2012-10-11 14:56		49049	Online	▼

a. The columns

Label	Time	Type	ID	Source	
-------	------	------	----	--------	--

Label = The event or alarm
 Time = Time of the above
 Type = Color Blocked symbol categorization type as below

	Alarm
	Event
	Acknowledged alarm or event

Id = Internal database identity
 Source = What triggered the alarm or event
 ▼ = Click to see the row details

5. Detail tab

For all the details on this tab refers to the heat pump manual. The different categories can be expanded by clicking the symbol to the right in each block.

Temperatures 	Operational Status 
Operational Time 	Heating Curve 
Heat pump 	Heating Curve or Pool 
Hot water 	Immersion Heater 
Software versions 	Calibration 

6. Calendar tab (Diplomat series)

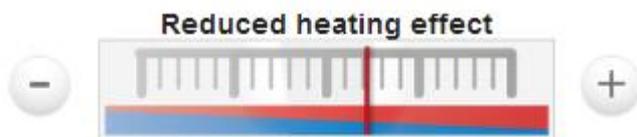
The screenshot shows the 'Calendar' interface for the Diplomat series. It features a calendar for November 2012 with two temperature reduction periods highlighted: 'Reduced temperature 1' on Wednesday, November 7, and 'Reduced temperature 2' on Monday, November 12. On the left, there are controls for 'Local time on the heatpump' (with a 'Fetch' button), 'Reduced heating effect' (a slider), and 'Reduced temperature' (a list of two active periods with 'Remove' and 'add' buttons).

a. By clicking the "Fetch", the calendar date is set to the date that the heat pump is expected to have. If this time is different from what time it is where you are, this "time shift" will be taken into account. The function is there because the heat pump lacks internal clock and this will give you the opportunity to put a relative time, regardless of what time zone you are located in (eg on holiday).

Local time on the heatpump 2012-11-07 11:24

The time zone is specified in the settings in the main menu (at the top right corner of the browser window). More on this later.

b. The indoor setpoint during the temperature change period (set point = the level the indoor temperature strives to fit. Unless the temperature is reached, the curve is adjusted (see the heat pump manual). Meter center position corresponds to 20°C. A click on the button is equivalent to one degree change.



c. Here is the range in which temperature change will take effect. Up to 8 different occasions can be registered.

 Reduced temperature
+

Start datum:

2012-11-07 13:30

✖

Slut datum:

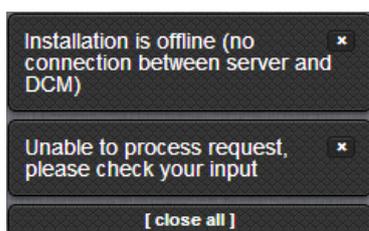
2012-11-08 13:30

Save

In the example below two occasions has been added to the calendar:

Mon	Tue	Wed	Thu	Fri	Sat	Sun
29	30	31	1	2	3	4
5	6	7 Reduced temperature 1	8	9	10	11
12 Reduced temperature 2	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	1	2

If the heat pump is not connected to the Internet at the moment, the calendar can not be set. The following message will be displayed in the browser lower right corner.



d. To remove a registered calendar entry, click 

 Reduced temperature
+

Start datum:

2012-11-07 13:30

✖

Slut datum:

2012-11-08 13:30

Save

7. Calendar (Atec series)

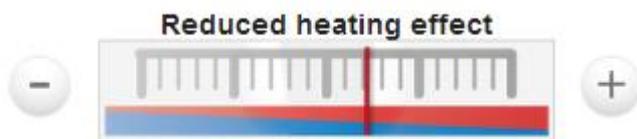
a. By clicking the "Fetch", the calendar date is set to the date that the heat pump is expected to have. If this time is different from what time it is where you are, this "time shift" will be taken into account. The function is there because the heat pump lacks internal clock and this will give you the opportunity to put a relative time, regardless of what time zone you are located in (eg on holiday).

Local time on the heatpump 2012-11-07 11:24

Fetch

The time zone is specified in the settings in the main menu (at the top right corner of the browser window). More on this later.

b. The indoor setpoint during the temperature change period (set point = the level the indoor temperature strives to fit. Unless the temperature is reached, the curve is adjusted (see the heat pump manual). Meter center position corresponds to 20°C. A click on the button is equivalent to one degree change.

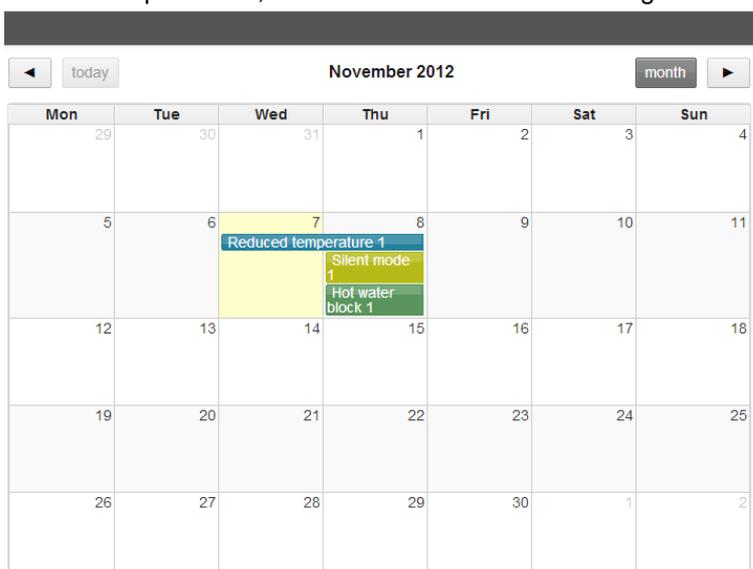


c. Here is the range in which the 4 category change will take effect. Up to 8 different occasions for 4 different categories can be registered.

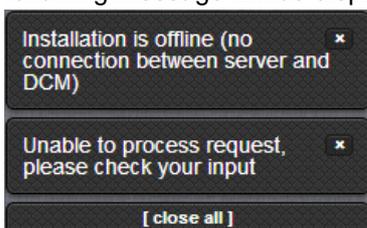
Start datum:

Slut datum:

In the example below, one occasion for the three categories has been added to the calendar:



If the heat pump is not connected to the Internet at the moment, the calendar can not be set. The following message will be displayed in the browser lower right corner.



d. To remove a registered calendar entry, click

Reduced temperature
✖

Start datum:

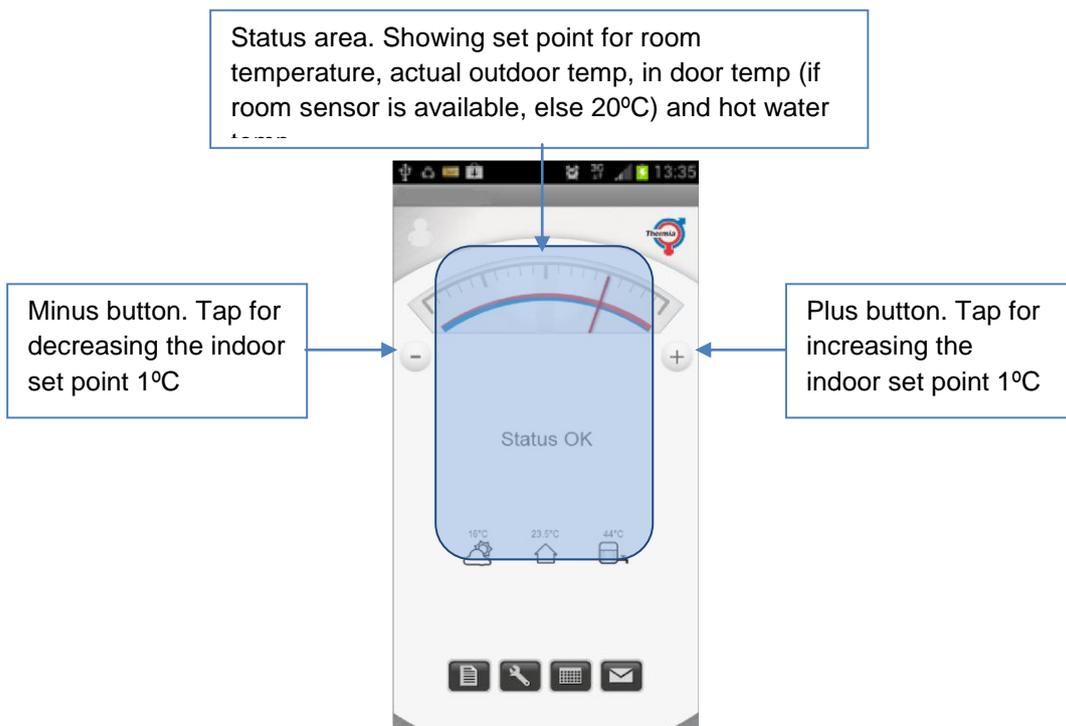
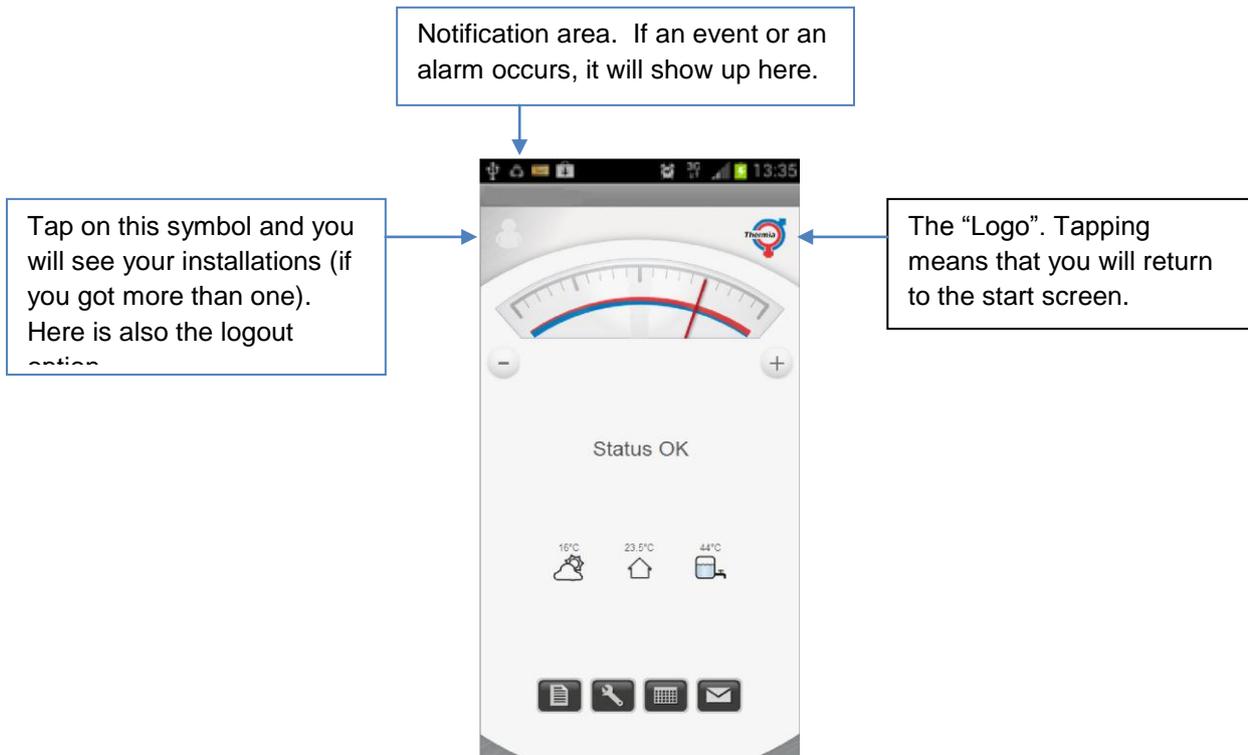
Slut datum:

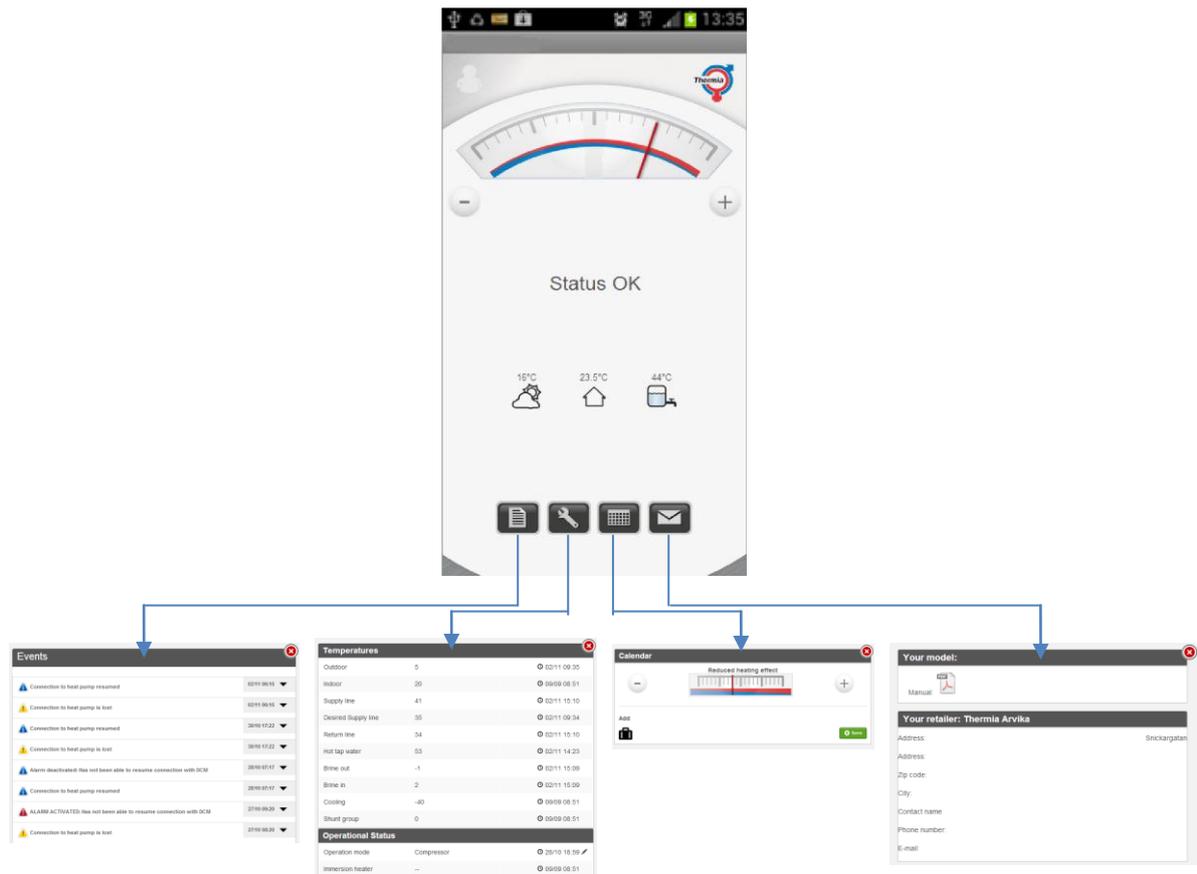
Getting started with the mobile and the pad

If you have a mobile with Android or Ios, a Thermia Online app can be downloaded from Google Play (Android) or the App Store (iPhone).

Your login details are the same as on the web and you get this by email in connection with the installation.

The app looks like the picture below, and consists of a notification area, a status area and 8 buttons.





The buttons on the bottom row of the app hides from left to right:

Events The same symbolism of the icons as in the web interface.

Details Here you can control and monitor a number of heat pump settings.

Calendar Activation and deactivation of calendar controlled value changes.

Your model Link to a information page about your heat pump model, phone number and mail address to your installer. A click on the phone number activates your phone function and calls directly. A click on the email address will open your Email application with the predefined address.

Comments

1. Communication

Simplified one can describe the communication between the pump and the Internet as follows:

The control board in the heat pump communicates with an expansion card (in the Online case with a gateway card). The Gateway card communicates in turn with the so-called DCM unit (the square white box). In the box there is a small memory, the first time the DCM unit is powered it starts looking for an address on the internet. Then if an internet connection is available the DCM start transmitting data including its unique MAC address. If the address is registered on the server, you can as an administrator or installer can log on to the heat pump profile.

2. Administration

For an end users / heat pump owners to login to the heat pump data it requires that an administrator or an installer link the installation (MAC address) to the user. User identity to be used is his/her email address. This is so that when the link is done, the login information is sent to the end user / heat pump owner's address.

3. Permission profiles

In the system / application there are three levels of permissions available.

Global: Members in this profile can utilise all the features that the website has. Thus: Adding and changing installers, installations and users. This profile also allows the ability to change device id in the DCM (required if the device is changed (historical data associated with the device can also follow))

Installer: Members in this profile can utilise all the features that the website has, even those who normally is hidden under the "Service" menu. Adding installations, connect installation to the new device (DCM) or remove devices. Adding users and link them to installations or installers . Installatörerer can be given service or admin privileges.

User: Can manage and control the same features available on the heat pump display and change settings for their account, such as change the language and reset passwords.