

GEBWELL

User Manual

Aries Ground Source Heat Pump



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CONTENTS

2 OPERATING THE ARIES GROUND SOURCE HEAT PUMP	6
2.1 Entering heat pump's Wifi settings on your smart device	6
2.2 The Aries ground source heat pump ID plate	9
2.3 Downloading the Gebwell Smart app	9
2.4 Registering as Gebwell Smart user	10
2.5 Logging into the Gebwell Smart app	10
2.6 Connecting to heat pump's Wifi network	11
3 Controlling Aries heat pump with Gebwell Smart application	12
3.1 Home screen.....	12
3.2 Home/Out of Home setting.....	13
3.3 The app's main menu.....	14
3.4 User account	14
3.5 System.....	15
3.6 SCHEDULER.....	15
3.7 Measurements	16
3.8 Events.....	17
3.9 Settings.....	17
Support and servicing	22
User guide.....	22
4 Gebwell Smart application user terms	23
5 Energy labels	24
6 ID plate of your Aries heat pump:	25

KEEP THE OPERATION INSTRUCTIONS IN THE IMMEDIATE VICINITY OF THE DEVICE!



MARKING:

The CE mark is the manufacturer's declaration that the product conforms to EU legal requirements. Gebwell Ltd affirms that the product meets all of the requirements of relevant EU directives. The purpose of the CE mark is to facilitate the free movement of goods on the internal market in Europe.

CONGRATULATIONS ON YOUR GOOD CHOICE!

Ground source heat is an environmentally friendly and inexpensive form of heating. Ground source heat is energy that the ground has captured from the sun and that can be used to heat buildings and domestic water using a ground source heating system. It is freely available to everyone – all that is needed is the equipment to make use of it. Ground source heat is clean, renewable energy. It does not cause carbon dioxide or particle emissions that accelerate global warming, so it is an ecological form of heating.

Ground source heat benefits the environment and also your wallet. When you make a one-off investment in a ground source heating system, you will permanently reduce your heating costs. A ground source heat pump will generate at least three times as much heat energy in relation to its consumption. Ground source heat can permanently reduce your heating costs. At the same time, you will be shielded from potential fluctuations in energy prices. Ground source heat is a prudent investment in the future.

GEBWELL ARIES – A FINNISH INVERTER GROUND SOURCE HEAT PUMP

Gebwell Ltd is a Finnish manufacturer of heat pumps and Gebwell Aries is an advanced heat pump for heating buildings and hot domestic water. Aries' compressor is frequency-controlled, so the heat pump adapts automatically to your house's energy needs. The heat pump increases its output when more heat and hot water are required and decreases its output when the need for energy is lower. By adapting to the demand for energy, the system enables heating costs to be minimised, resulting in high annual efficiency.

Aries uses a 3G connection to connect to the Siemens mindsphere cloud service, providing the pump with continuous remote monitoring functionality.

The heat pump is controlled using an app for iOS or Android smartphones and tablets. The app connects to the heat pump via Wifi. The app is free, and it enables you to monitor the system's operation via heat pump's local area network. For a low monthly fee, you can enjoy access to a more comprehensive app that enables you to view the system's status via a 3G connection when you are out of your house.

We reserve the right to make structural changes!

2 OPERATING THE ARIES GROUND SOURCE HEAT PUMP

The device can be monitored and controlled using the Gebwell Smart user interface app on a smart device: smartphone or tablet. By using the Application, you accept the terms of use of the application (at the end of the instructions).

With the application you can control Aries either via heat pump's WLAN (Wifi) or remotely. When controlling via Wifi network you should be within the range of heat pump's Wifi network. Remotely the heat pump can be connected anywhere 3G or 4G network is available.

If you wish to monitor Aries via Wifi network, follow the below steps on next subparagraph, to deploy the

application. **If you rather monitor Aries remotely, go to section 2.3 'Downloading the Gebwell Smart App' on page 9.**

NOTE! Some features of the Aries heat pump require a mobile data connection (such as 3G or 4G). If Aries is installed at a site with a poor or non-existent mobile data connection, Gebwell cannot guarantee the proper operation of all the features (such as remote access).

Gebwell is not responsible for the operation of mobile data, and if you want to improve the operation of mobile data with amplifiers, for example, Gebwell is not responsible for the resulting costs.

2.1 ENTERING HEAT PUMP'S WIFI SETTINGS ON YOUR SMART DEVICE

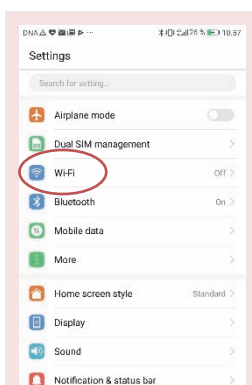
1. Enter Aries heat pump's Wifi settings on your mobile device
2. Install the Gebwell Smart app on your device
3. Register as a Gebwell Smart user by filling out the registration form on the application
4. Sign in the application
5. Connect your smart device to the heat pump's Wifi network

The Wifi settings must be entered on your smart device so that you get access to heat pump's Wifi network and to control the heat pump. Enter the Wifi settings on your smart device by following the below instructions.

Note! Settings menus differ from phone to phone, so these instructions may not directly apply to every device. The Wifi settings must be entered manually because the heat pump's network is hidden for security reasons, so your phone will not automatically show it on the list of available networks.

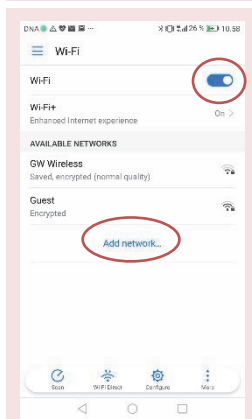


NOTE! At first switch off all the networks on your smart device (mobile data and possible Wifi networks).

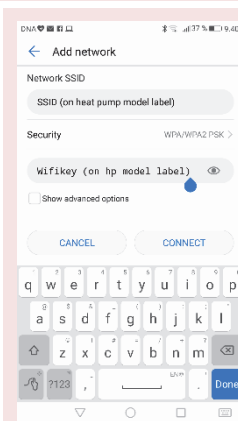


1. Open your phone's settings menu and open the Wifi settings.

ANDROID operating system



2. Turn on Wifi (switch to ON-position) and select "Add network..."

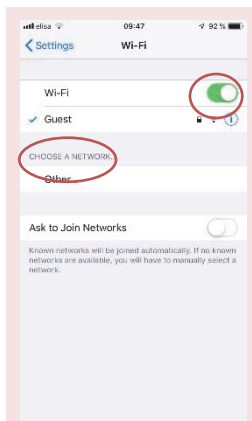


3. Select "Security" and select "WPA/WPA2".

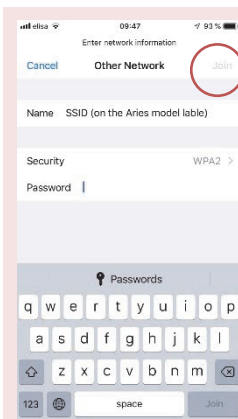
Enter the network name and password. These details are shown on the ID plate on the inner side of the heat pump's door (Network name: SSID, password: Wifi Key). (See next page.)

Select "Connect".

iOS operating system



2. Turn on Wifi (switch to ON-position) and select "Other..." under Choose a network

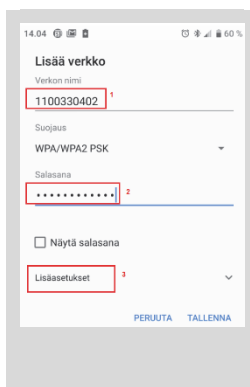


3. Select "Security" and select "WPA2". Enter the network name and password. These details are shown on the ID plate on the inner side of the heat pump's door (Network name: SSID, password: Wifi Key). (See next page)

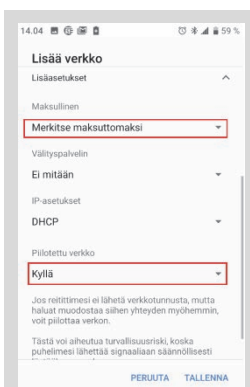
Select "Join" on top right corner.



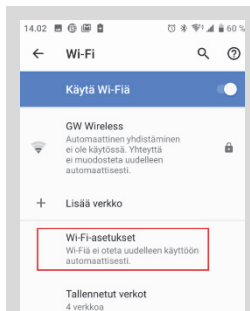
NOTE! On the latest Android devices with operating system version 9 you should also do the following changes on settings when entering Wifi settings:



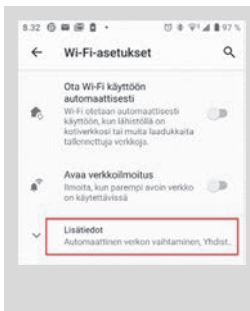
1. After entering Network name (1) and security and password (2), Choose *Additional settings*



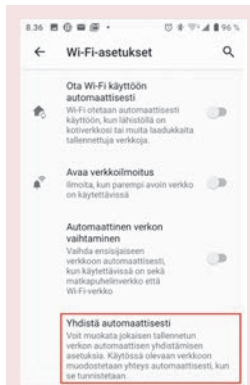
2. Make the following changes on additional settings:
Mark free of charge
and
Choose Yes under Hidden network
Choose Save



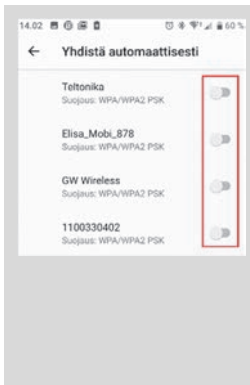
3. Go to front page of Wifi settings and choose *Wifi settings*



4. Open *Additional information* menu



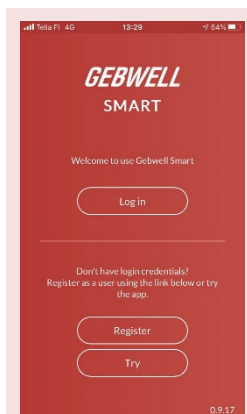
5. Open *Connect automatically* -menu



6. Turn off the automatic connection to Wifi networks (sliders to off position)

2.4 REGISTERING AS GEBWELL SMART USER

Open the app and follow the below instructions:



1. Choose **Register**.



2. Fill in the form (the form opens in web browser)

Choose *Main user* as user level (the possible additional users choose *Additional user* as user level)

Fill in the requested information. The Aries serial number is shown on the ID plate on the back cover of this manual.

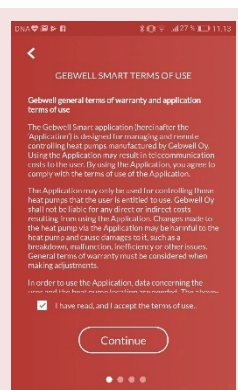
When you submit the form, you will receive your Password by email.

Note! Username is the e-mail address you gave at the registration.

2.5 LOGGING INTO THE GEBWELL SMART APP



Note! When logging into the application your smart device must be connected to the Internet.

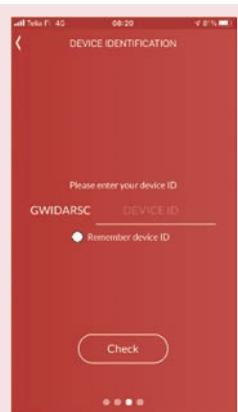


1. Choose Login. Read and accept the terms of use.



2. Enter your username and password. Checking *Remember User ID* will save your username for the next login.

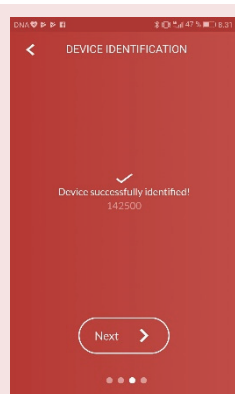
If you have forgotten your password, you can reset it by tapping "I forgot my password". A new password will be sent to the email address linked to your customer account.



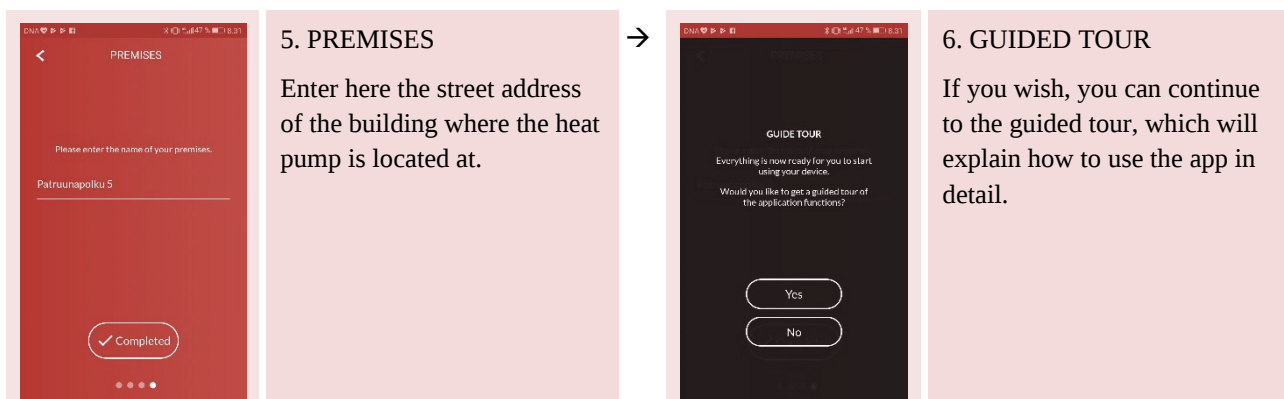
3. **DEVICE IDENTIFICATION**

Enter the remainder of your device ID, which is the *serial number* of your Aries heat pump. Checking *Remember Device ID* will save the device ID for the next login.

The serial number is shown on the ID plate, which is attached on the back cover of this manual.



4. When the device has been identified, the app will display:
Device successfully identified!



2.6 CONNECTING TO HEAT PUMP'S WIFI NETWORK



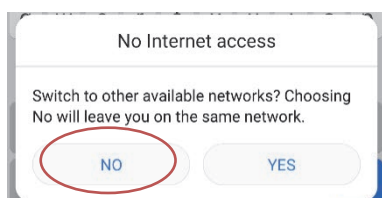
NOTE! If you want to control Aries remotely, you do not have to do this, go directly to page 12.

Turn off all the network connections on your smart device (mobile data / Wifi network, you used in logging in the application) and connect to heat pump's Wifi network. The Wifi network you created according to instructions on page 7 can be found on Wifi menu under *Networks available / Choose a network*.



NOTE! The notification you now receive on your smart device: "Connected to network, no internet connection" **is not an error notification!** Smart device is merely letting you know that now it is using Wifi network and it cannot simultaneously be connected to the Internet.

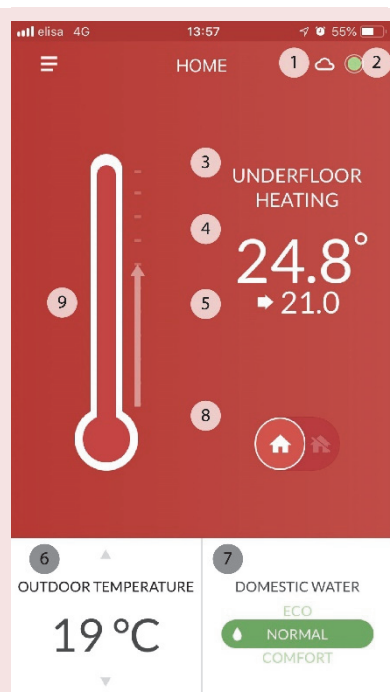
As your device notifies of missing internet connection and suggest switching to other available network, choose NO, so that your device stays connected to Aries Wifi.



3 CONTROLLING ARIES HEAT PUMP WITH GEBWELL SMART APPLICATION

3.1 HOME SCREEN

The app's basic screen is known as the *Home* screen. The screen shows the status of your ground source heating system and enables you to make basic adjustments.



1. Connection status

Cloud symbol indicates that the application connected to the Aries heat pump remotely. Wifi symbol indicates the app is connected to heat pump's WLAN (Wifi). A line across the symbol indicates that there is no connection to Aries momentarily.



2. Device status

The colour of the round symbol indicates the system's status

- Green = the system is operating correctly
- Yellow = the device has an acknowledged alarm on
- Red = the device has an active alarm activated.

Tap the symbol to go directly to the **Events** menu, which shows the system's notifications.

3. The premises (heating circuit) for which the details are shown

If there are several heated areas (heating circuits) in your house, you can view the details for the other areas by swiping the screen from right to left.

4. The room temperature

5. The room setpoint for the heating circuit

6. The outdoor temperature, the heat pump's consumption, the temperature of hot domestic water (browse the information using the up and down arrows)

7. The domestic water heating setting

You can change the domestic water heating setting (7) to Eco, Normal or Comfort. You can change the settings under **Settings → Domestic hot water**.

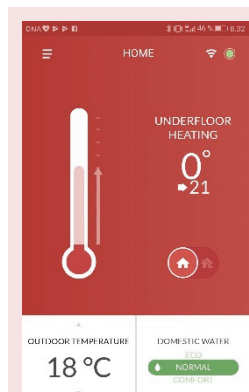
8. The Home/Out of Home setting

9. Quick modification of heating.

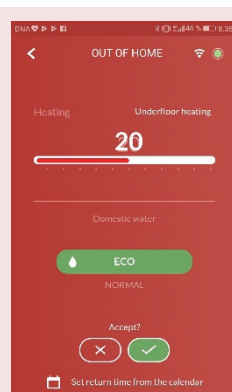
If you wish to decrease or increase the room temperature, you can modify the room set value (5) for the Heating circuit by sliding the thermometer bar up or down - the set value changes accordingly. **NOTE!** If the measurement value (4) is below the set value (5), change the point on the heating curve, which is closest to the current outdoor temperature, in the *Settings, Heating* menu.

3.2 HOME/OUT OF HOME SETTING

You can set different heating and domestic water heating functions for when you are at home and when you are out of home for a longer period of time e.g. on a holiday or a business trip.



1. Turn on 'Out of home' mode on Home screen by sliding the slider to the right

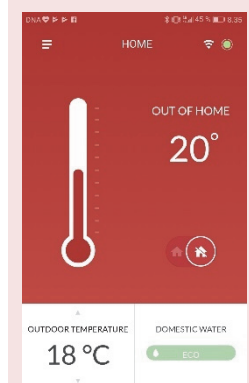


2. Set the desired temperature by scrolling the bar to the left

3. Choose the set point for domestic water

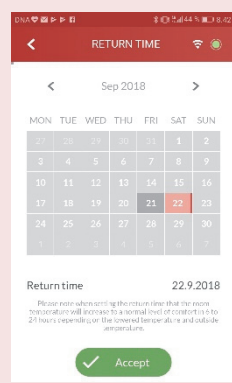
If you want the Out of home function to be automatically disabled, choose 'Set return time for the calendar' at the bottom of the screen and go to point 6.

4. Confirm your selection



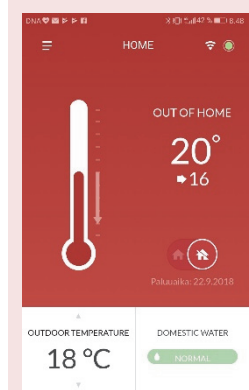
5. The device will enter the Out of Home mode

You can return the device to the 'At Home' mode on the Home screen.



6. Select the return date

7. Confirm your selection

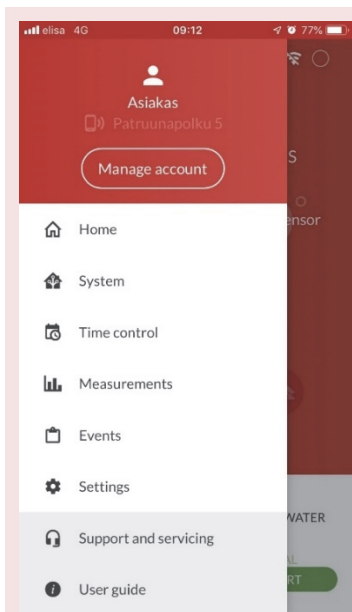


8. The device will enter the Out of Home state

The Out of Home screen shows your return time, and the device will automatically return to the 'At Home' state at this time.

3.3 THE APP'S MAIN MENU

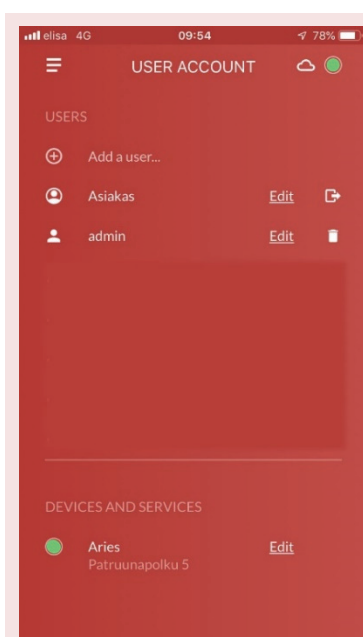
The main menu opens from the list -icon on top left corner. Main menu enables you to navigate between different screens in the app.



Manage account	Manage your account and add other users
Home	The general status of the system
	Changing basic settings
System	The system status broken down by function (temperatures, consumption)
Time control	Time control settings
Measurements	The measurement data saved by the system
Events	The system's events and notifications
Settings	The app and ground source heat pump settings
Support and servicing	Contact customer service and maintenance
User guide	The guided tour of the app

3.4 USER ACCOUNT

This screen allows you to add/edit users or details of the device(s) connected to the account.



Adding a user / editing user information

Additional user must first download the Gebwell Smart application and register as a user (see page 10). 'Additional user' is chosen as User level in this case.

1. Select 'Add user'
2. Give additional user's username i.e. e-mail address.
3. The added user identifies the device by entering the remainder of the heat pump's serial number when logging into the application (see page 10)
NOTE! If you want to change the administrator of the device, contact Gebwell Ltd. info@gebwell.fi. Indicate the serial number of the device and the e-mail address of the additional user who will be made the administrator.

You can edit your own details and those of the basic users you have added by choosing *Edit*

- Change the password
- Change the email address (*NOTE! The e-mail address is also your username to the application so the new address will also be your username*)
- Payment details – *FEATURE TO BE ADDED LATER*

As a main user you can delete a user by tapping the *Dustbin* -icon next to the user's name.

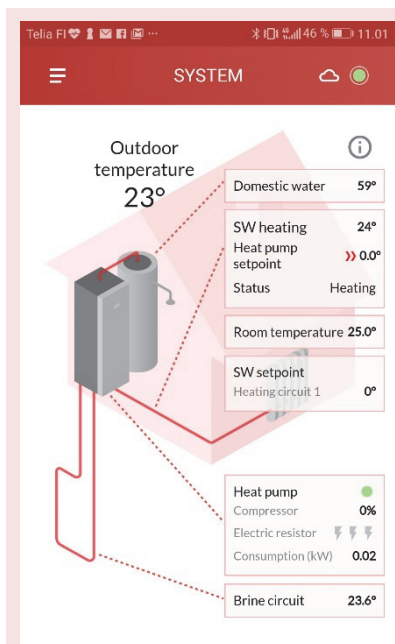
Adding a device / editing device information

Adding a device – *FEATURE TO BE ADDED LATER*

Editing the device – Here you can Edit the property name and area as well as the length of the collector (possible only for main user)

3.5 SYSTEM

This screen shows your system's functions in more detail.



Outdoor temperature: The temperature indicated by the outdoor temperature sensor connected to the system

Domestic water: The temperature of the water in the domestic water reservoir

Supply water - heating: The temperature of the water going to the heating circuit

Supply water - Domestic water charge: The temperature of the water going to the domestic water reservoir

Heat pump setpoint – Heat pump setpoint for heating circuit / domestic water reservoir temperature

Room temperature sensor: The temperature of the home indicated by the room temperature sensor

Supply water setpoint – Computational setpoint given to heating circuit supply water

Heat pump status: The heat pump's status (green, orange, red)

Compressor: The percentage of the compressor's total power in use

Electric heater: The amount of power used by the electric heater (3-step)

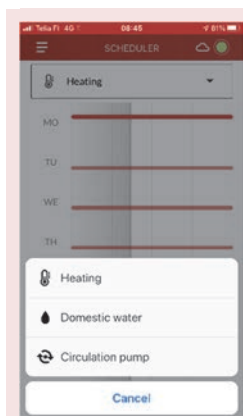
Consumption (kWh): The electricity consumption of the device

Brine circuit: The temperature of the brine circuit

3.6 SCHEDULER

On scheduler you can schedule controls for heating, domestic hot water and circulator pump temperature.

You can for instance drop the room or domestic hot water temperature when you are out of home.



1. Choose either *heating*, *domestic hot water* or *circulator pump* tab, depending on which function you want to schedule.

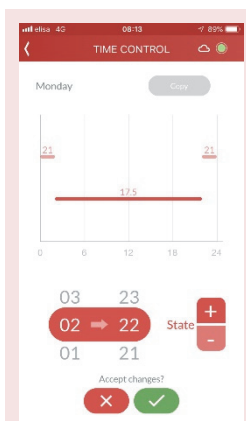
2. Choose the desired day by selecting the curve.



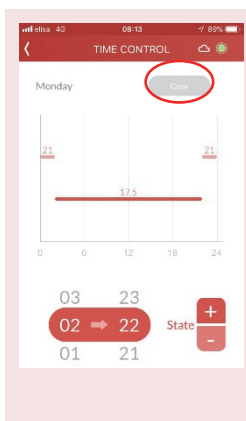
3. Select the curve and select the time interval which you want to set the reduced temperature to. Press the hour values below or above the values in the middle and the hours start rolling. The rolling stops when you take your finger away.

4. When the desired time interval is selected press the – sign on *Status*. The reduced setpoint is now set on the chosen time interval.

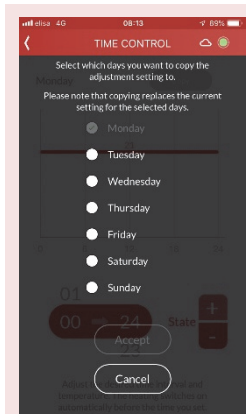
(You can set the normal and reduced setpoints on Settings > Heating)



5. Remember to accept the changes by selecting the green button.



6. You can copy the changes to other days by selecting *Copy*

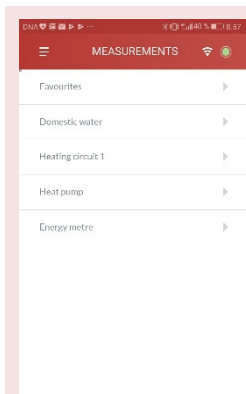


7. Choose the days for which you want the settings to be copied to and choose *Accept*

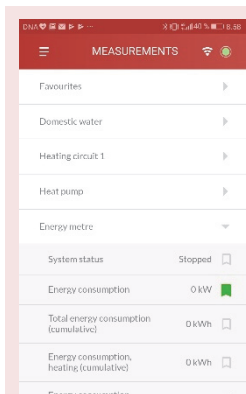
The time control adjustments for domestic hot water are made the same way. There are three setpoints for domestic hot water (Eco, Normal and Comfort), which you can adjust on **Settings > Domestic hot water**.

3.7 MEASUREMENTS

This screen shows the measurement data saved on the device.



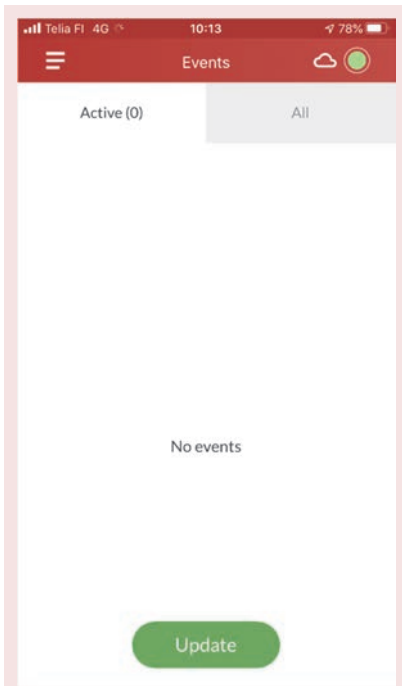
1. Measurement data can be shown by tapping the arrow next to the group.



2. You can set measurement data in Favourites by tapping the button at the end of the row, turning it green.

3.8 EVENTS

The screen lists events related to the device, Active events shown Active tab and event history on All tab.



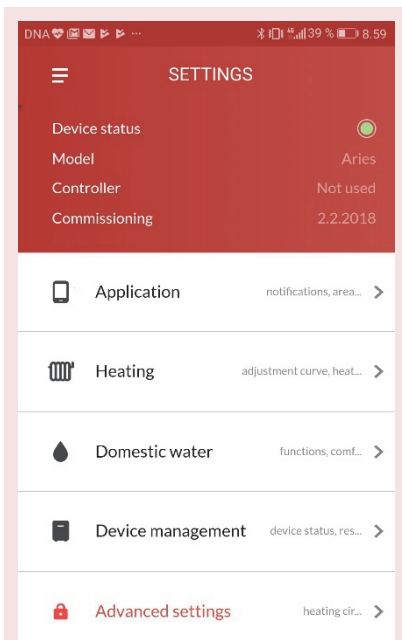
Events listed:

Active alarms

Alarm history

3.9 SETTINGS

The settings menu allows you to adjust the device's settings.



Device details

Application

The application version being used and application language setting.

Heating

The set points for the various heating circuits

Domestic water

The set points for domestic water

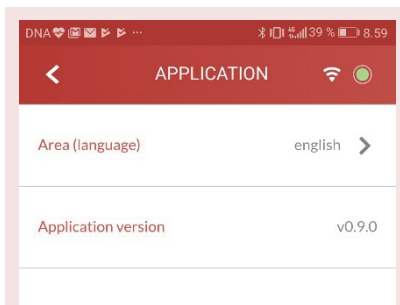
Device management

Stopping the device and restarting it in different areas

Advanced settings

Advanced settings for heating and domestic water. PIN code: 1000

APPLICATION

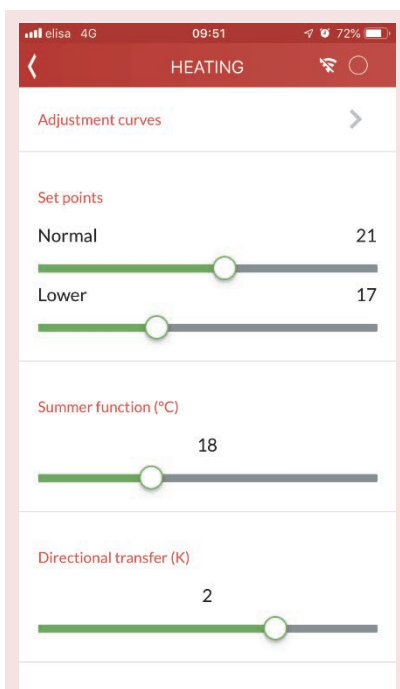


Application

Change the language (Finnish, Swedish, English and Polish) of the application

Version of the application

HEATING



NOTE! We suggest you adjust these settings only if you know your heat pump well. Unconsidered adjustment can result to unwanted consequences, or large energy bills when heating.

Adjustment curves

Adjusting the adjustment curve used by the heat pump

Set points

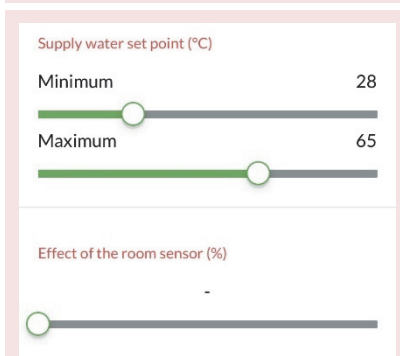
Setting of the set points for the various heating modes

Summer function

Setting the temperature at which the device will stop heating during the summer

Directional transfer

Transferring the adjustment curve horizontally so that the gradient of the curve does not change



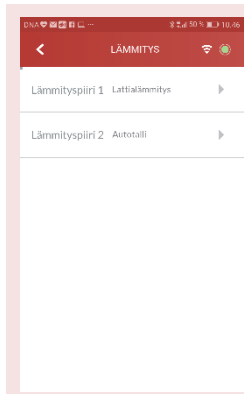
Supply water set point (C°)

Setting the limits for heating supply water temperature set points

Effect of the room temperature sensor (%)

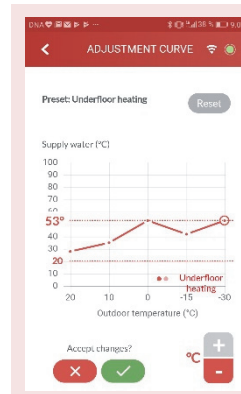
Setting the room temperature sensor's effect on the heating

CHANGING THE ADJUSTMENT CURVE



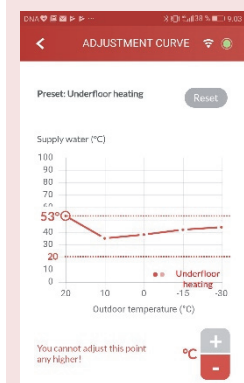
1. Select the heating circuit whose settings you want to change

2. Select the adjustment curves.

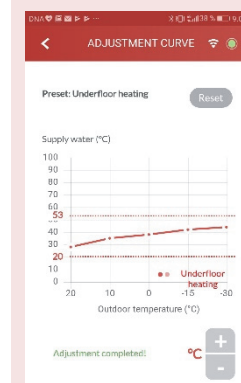


3. Adjust the control curve by selecting a point to change and using the $\pm$ selection.

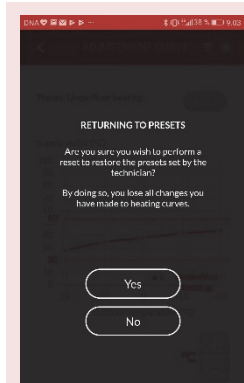
4. Remember to confirm your selections.



5. The app will warn you if the settings conflict with the threshold values.

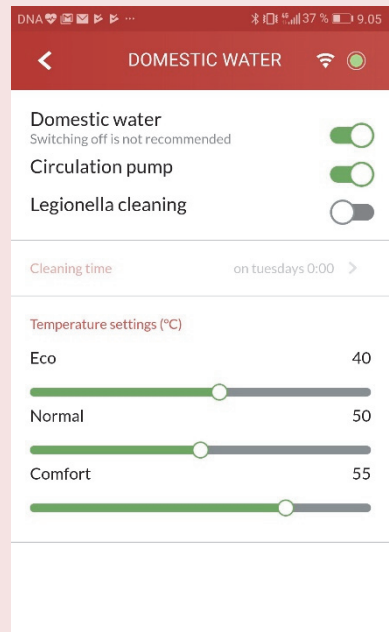


6. When a change is acceptable, the app will display a success notification.



7. You can restore the settings entered by the installation technician by tapping **Reset**. Accept the resetting by clicking **Yes**.

DOMESTIC HOT WATER



Domestic hot water

Turning off domestic hot water heating

Circulator pump

Circulator pump on/off

Legionella cleansing

Raising the temperature in the domestic hot water tank to prevent Legionella bacteria from building up, Legionella cleansing function on / off

Cleansing time

The time when the temperature will increase for Legionella cleansing.

Hot water tank settings (C°)

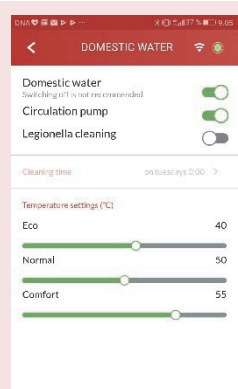
Setting the domestic hot water temperature with various domestic water settings

- Eco
- Normal
- Comfort

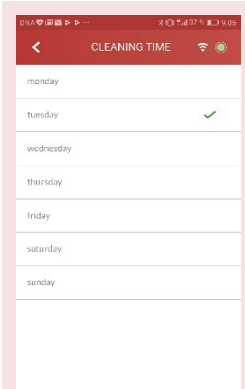
NOTE! The temperature of domestic water going out of the heat pump is approximately 5 to 8 degrees warmer than the set value of the domestic water tank.

NOTE! If the domestic water tank is set to a temperature higher than 55 degrees, the final heating of domestic water takes place with an electric element.

LEGIONELLA CLEANSING TIME

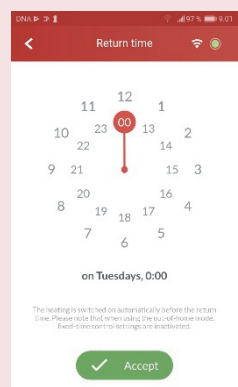


1. You can turn Legionella cleansing function on by sliding the on/off toggle to the right



3. Select the day of the week for cleansing.

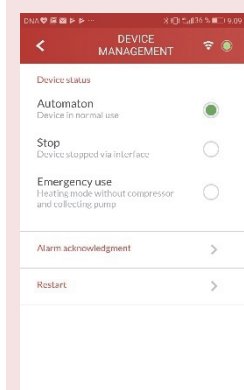
Go to time selection by clicking the selected day for cleansing.



4. Select the time.

5. Confirm the changes

DEVICE MANAGEMENT



Device status

Automation

The device is operating normally

Stop

The device has stopped

Emergency use

The device is using the electric heater without the compressor and collection pump

Alarm acknowledgement

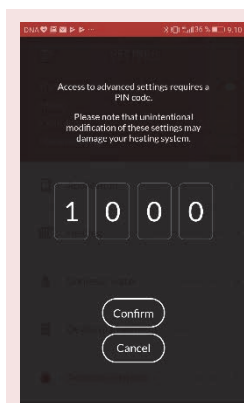
Restart

Restarting the device

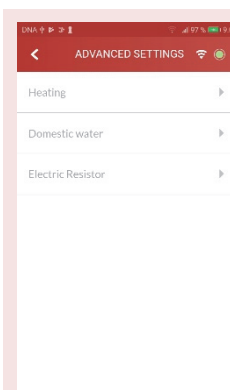
ADVANCED SETTINGS



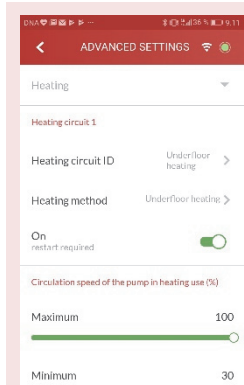
Note that if adjustments are not made with care, they may lead to damage to your heating device.



A PIN code is required to access the advanced settings. The code is 1000.



Select a setting to view or change.



HEATING

Heating circuit ID

The heated area (e.g., rooms, garage or washroom)

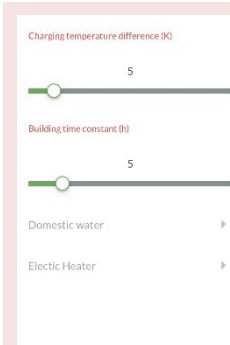
Heating method

Underfloor heating/radiator heating

Heating circuit status

On/off

Circulation speed of the pump in heating, %

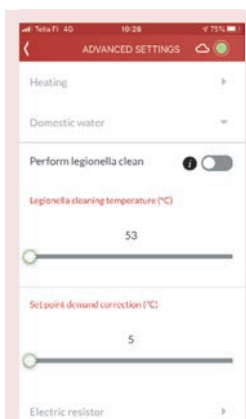


Setting the charging temperature difference (K)

Setting the building time constant (h)

Time Constant is the average temperature of a defined period of time according to which the curve is functional. The higher the time constant the slower the heating control reacts to changes in outside temperature.

The tighter the house and the better its energy storing, the higher the time constant can be. In case of an old and flimsy house on a windy spot should time constant be low.



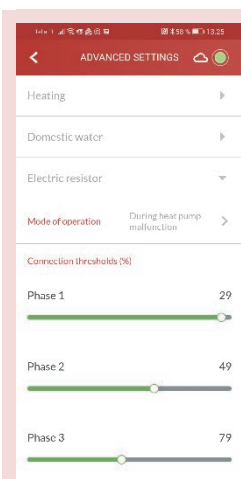
DHW

Perform legionella cleansing now

Legionella Cleansing temperature (C°)

Setting the temperature for automatic legionella cleansing

Setting the domestic water charging connection difference (C°)



ELECTRIC HEATER

Setting the operation method

Always operating parallel with the compressor

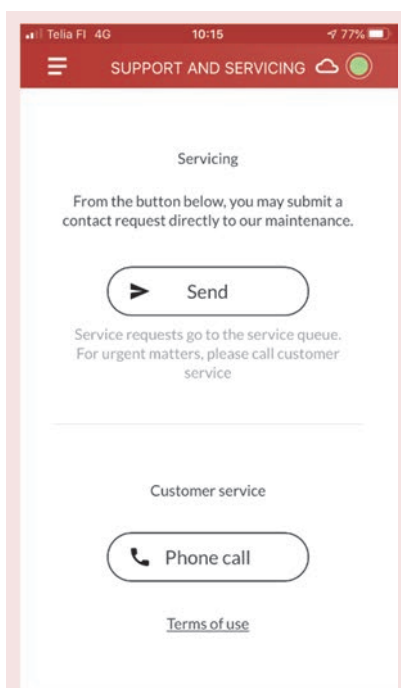
During heat pump malfunction

Parallel operation with the compressor for DHW

Parallel operation with the compressor for heating

SUPPORT AND SERVICING

This screen allows you to contact customer support or servicing.



Order servicing

Here you can order maintenance for your device. Please read this manual before ordering service

Phone call

If the matter is urgent, you can also call Gebwell Ltd.'s customer service directly.

USER GUIDE

The screen will display the user guide, which reviews the app's functionality in detail.

4 GEBWELL SMART APPLICATION USER TERMS

The Gebwell Smart application (hereinafter the ‘Application’) is designed for managing and remote controlling heat pumps manufactured by Gebwell Oy. Using the Application may result in telecommunication costs to the user. By using the Application, you agree to comply with the terms of use of the Application.

The Application may only be used for controlling those heat pumps that the user is entitled to use. Gebwell Oy shall not be liable for any direct or indirect costs resulting from using the Application. Changes made to the heat pump via the Application may be harmful to the heat pump and cause damages to it, such as a breakdown, malfunction, inefficiency or other issues. General terms of warranty must be considered when making adjustments.

Gebwell reserves the right to monitor the heat pump functions, update its controller software and edit its functioning in a way that does not greatly reduce living comfort. The main purpose for this is to enhance the heat pump functioning, lengthen the device’s lifetime and to provide information for Gebwell product development. Some of the above-mentioned services may be included in additional services sold by Gebwell for heat pump owners/users. Gebwell reserves the right to assign the aforementioned rights to a third party subject to the same terms and conditions.

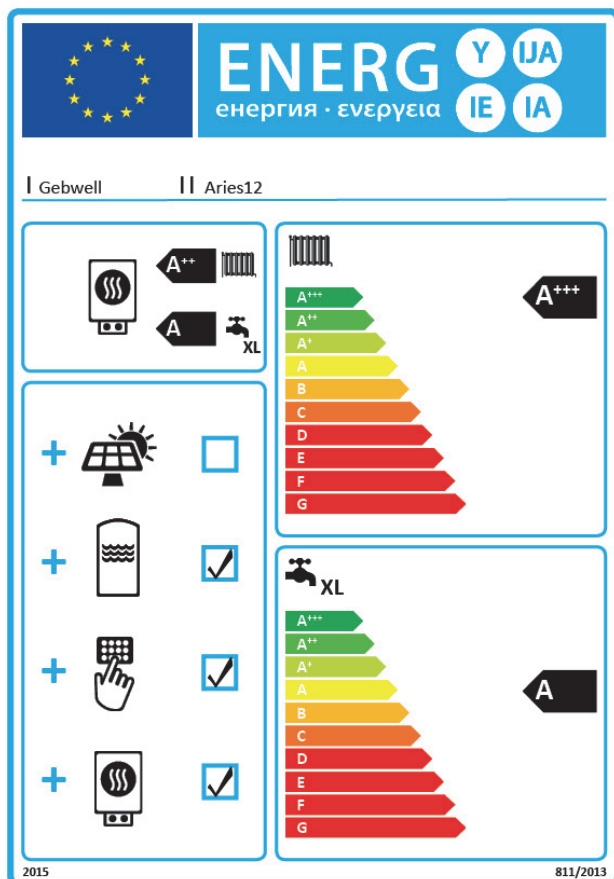
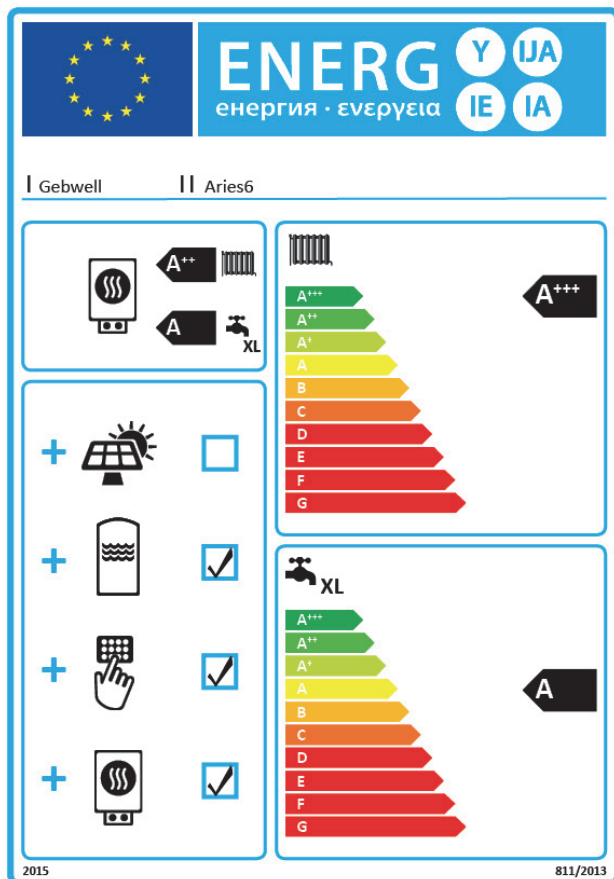
In order to use the Application, data concerning the user and the heat pump location are needed. After commissioning, the heat pump automatically sends telemetry data to the Gebwell Smart cloud. Storing data in the cloud allows you to view device history information in an application. The data may also be used for maintenance and product development purposes. The above-mentioned data will be used for the Application functionalities and some of it will be saved in a server controlled by Gebwell Oy in order to ensure the required service level. Data will be stored for the period during which the Application is used or for as long as the user is active, i.e. he/she manages one or more heat pumps. The user has the right to request to inspect the data collected concerning him or her and request for rectification or deletion of that data. Requests must be directed to the data controller by mail using a free-form letter. Please note that the letter must be signed by the requester.

Data controller: Gebwell Oy (2008956-7) Patruunapolku 5 FI-79100 LEPPÄVIRTA, Tel. +358 20 1230 800, email: info@gebwell.fi

Name of the register: Gebwell Smart application

Data content of the register: User data (name, e-mail, username, protected password, controlled heat pumps).

5 ENERGY LABELS



Vaatimustenmukaisuusvakuutus Declaration of Conformity Försäkran om överensstämmelse

Gebwell Oy vakuuttaa omalla vastuullaan, että tuotteet
We, Gebwell Ltd, hereby declare under our sole responsibility that the product
Gebwell Ab försäkrar under eget ansvar att de produkter

Aries heat pump
Qi heat pump
T2 heat pump
T3 heat pump
Gemini heat pump
Taurus heat pump

joita tämä vakuutus koskee, on seuraavien direktiivien ja asetusten mukainen
to which this declaration relates is in conformity with the
som omfattas av denna försäkran är i överensstämmelse med följande direktiv

ELECTROMAGNETIC COMPATIBILITY (EMC) DIRECTIVE 2014/30/EU

LOW VOLTAGE DIRECTIVE (LVD) 2014/35/EU

ECO-DESIGN REQUIREMENTS FOR ENERGY-RELATED PRODUCTS DIRECTIVE 2009/125/EC

RESTRICTION OF THE USE OF HAZARDOUS SUBSTANCES DIRECTIVE (RoHS II): 2011/65/EU

REGULATION (EU) 2017/1369 ON ENERGY LABELLING

(Pressure Equipment Directive (PED) 2014/68/EU shall not apply to this pressurized equipment according to item 2.f.iii in Article 1.)

ja seuraavia yhdenmukaistettuja standardeja ja teknisiä eritelmiä on sovellettu:
and the following harmonised standards and technical specifications have been applied:
och följande harmoniserade standarder och tekniska specifikationer har tillämpats:

LVD: EN 61439-1:2011
EN 61439-2:2011
EN 61439-3:2012

EMCD: EN 61439-1 Annex J, Point J.9.4.2

HD: 60364 Low-voltage electrical installations
384 Electrical installations of buildings

EN 14511

Commission Regulation (EU) No 813/2013 on eco design of space heaters and combination heaters
Commission Delegated Regulation (EU) No 811/2013 on energy labelling of space heaters and combination heaters.

Tuotteilla on CE-vaatimuksenmukaisuusmerkintä.
Products are provided with a CE marking of conformity.
Produkterna är försedda med CE-märkning av överensstämmelse.

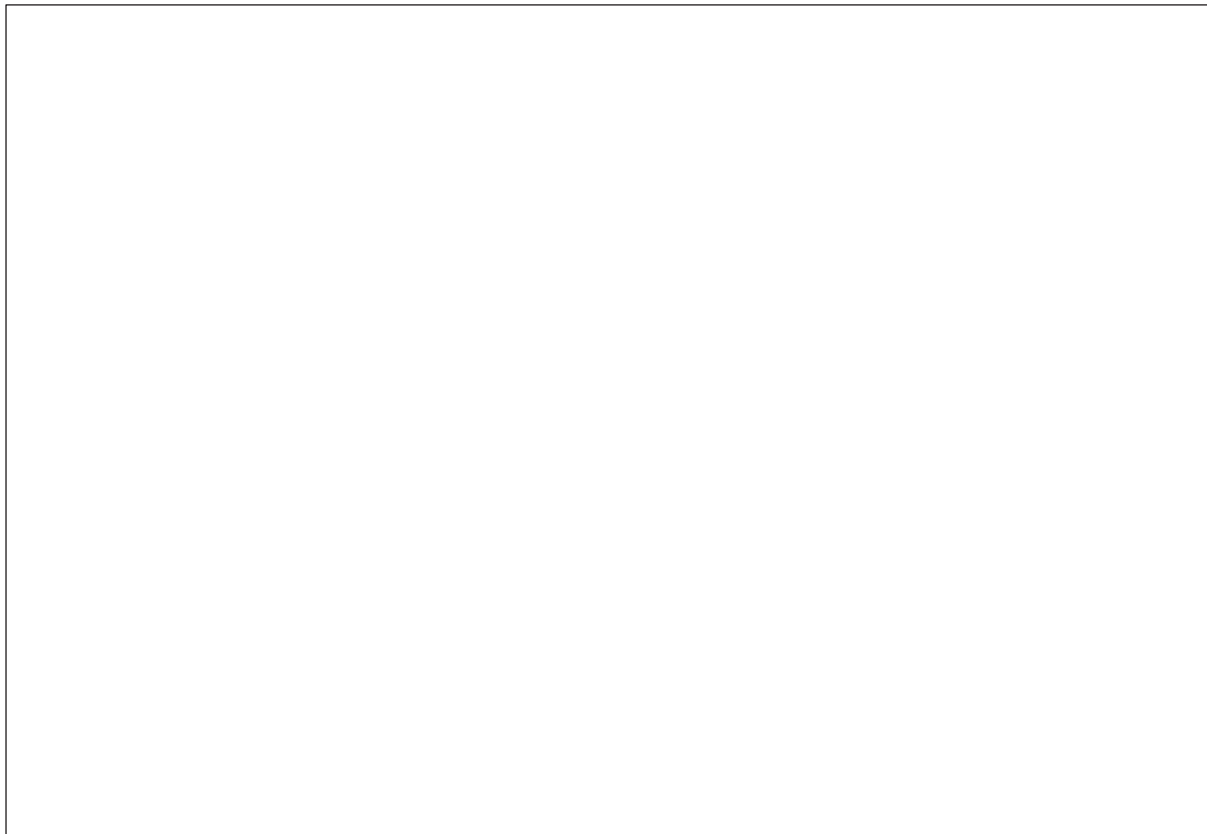
Leppävirta 21.4.2021



Janne Rahunen
Managing Director

6 ID PLATE OF YOUR ARIES HEAT PUMP:

On the plate you can find e.g. the serial number of your heat pump, which is needed when registering as a user of Gebwell Smart application.



Gebwell Ltd.

Patruunapolku 5, FI-79100 Leppävirta, FINLAND

Customer service Tel. +358 20 1230 800

info@gebwell.fi | www.gebwell.com

