



USER MANUAL

AIR-TO-WATER HEAT PUMPS IGLU Inuit/ IGLU Inuit Mono



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INTRODUCTION

Thank you for purchasing an IGLU Inuit / IGLU Inuit Mono heat pump!

Our team hopes you will be satisfied with your new device and enjoy efficient heating, hot water, cooling.

In this manual you will find information on how to use and maintain the purchased air-to-water heat pump correctly. Keep this manual in a safe place for future reference.

IGLU heat pumps are designed and selected for each facility to ensure maximum heating, cooling and hot water preparation in the building.

IGLU heat pumps are equipped with a convenient control system that allows to control the functions of the heat pump, select individual settings and help to quickly find and eliminate faults. The device can also be controlled via a mobile application. All you have to do is download the user-friendly IGLU Home Next app.

It is important to pay attention to the safety requirements that must be observed in order not prevent injuries and enjoy the device for a long time.

CONCEPTS AND SYMBOLS

Water heater (boiler) is a device that performs a very important function – it prepares hot water.

Thermal disinfection (thermal shock) is a process in which the temperature of hot water in a water heater is raised to at least 66°C and maintained for at least 1 hour. Thermal disinfection is used to prevent legionellosis, i.e., to kill bacteria of the genus Legionella.

Heating water is a liquid harmless to the environment and health that is used to fill the indoor part of the heating system (internal circuit).

COP – coefficient of performance. The instantaneous ratio of thermal energy produced to electricity consumed to produce that heat.

SCOP – seasonal coefficient of performance.

Electricity consumption – electricity consumption during the operation of the heat pump.

Thermal energy produced – heat energy produced during the operation of a heat pump.

IMPORTANT INFORMATION

The safety requirements are intended to protect consumers and ensure the long-term operation of the heat pump. By purchasing the device, users confirm that they undertake to use it in accordance with the manufacturer's requirements and rules. Users involved in the operation of the heat pump must be familiar with and comply with all safety requirements. Failure to follow these operating instructions will void the manufacturer's warranty and other guarantees and obligations. All work related to the transport, installation, start-up, activation and maintenance of the heat pump must be carried out by qualified personnel, using suitable tools and test equipment. The work must be carried out in accordance with all safety requirements.

The copyright of these operating instructions belongs to IGLU TECH UAB.

Only a qualified person may transport, connect, activate and maintain the heat pump.

SAFETY INSTRUCTIONS

Storage conditions

The device must be stored in a **vertical position only**, so that the compressor is always at the bottom.

Installation and reconstruction

Only a heating system maintenance company may be authorised to install or reconstruct the device.

Customer recommendation

Functional check. We recommend that you check the functioning of the device regularly, at least once a year*. Contact us for functionality check by e-mail help@iglutech.eu.

Liability and guarantees:

The manufacturer provides 24 months warranty for the product if the user has not violated the technical requirements and conditions of use specified in the user manual.

The product warranty automatically is prolonged up to 60 months, under the following mandatory conditions:

- The 60 months warranty for the device is valid in cases the preventive maintenance is performed until 18 month from the moment when the heat pump is installed.
- Mandatory to connect or sustain connected the heat pump to our serve for remote monitoring;
- Mandatory to ensure a strong WI -FI without any restrictions;
- Not violated the technical requirements and operating conditions specified in the user manual.

If the heat pump does not operate in proper conditions or is not used properly, the present rules and requirements are not followed or the checks are not performed, the manufacturer shall not bear liability for the operation of the product. The heat pump operator must take precautions to prevent accidents and injuries to bystanders. The user is responsible for the safety of the heating system and compliance with environmental protection requirements.

If a fault is detected, it is necessary to react promptly, within a reasonable time and as provided in this user manual, because failure to rectify a fault in a timely manner may result in other faults or damage.

If the fault or other actions were carried out by an unqualified worker and in prejudice to the rules, the manufacturer cannot be held liable for the consequences and the warranty obligations may no longer apply.

The warranty does not apply to normal wear and tear, external damage due to improper maintenance or negligence.

SAFETY

The device is safe to use as intended. The construction and design of the device comply with all safety regulations. Prior to starting work, any person involved must read and be familiarised with the operating instructions. This also applies if the person concerned has already worked on such or similar equipment or has been trained by the manufacturer. Any person carrying out installation work must meet the health and safety requirements. This is especially true when using personal protective equipment.



DANGER!

Danger of fatal injuries due to electric shock!

The electrical connection may only be installed by a qualified electrician. Prior to opening the device, disconnect the system from the power supply and prevent it from being switched on again!



WARNING!

Work on the device and its components may only be carried out by qualified specialists (heating, refrigeration, coolant technicians and electricians).



WARNING!

Observe the safety signs on and inside the device.



WARNING!

The unit contains coolant!



Which is flammable, acute toxic, having auto ignition temperature

If the coolant leaks, it poses risk to people and the environment, therefore, you must:

- turn off the system;
- make sure the installation room is well ventilated;
- inform the manufacturer's customer service.

ATTENTION!



For safety reasons, never open the device unless the device is disconnect from the power supply.

ENVIRONMENTAL PROTECTION

Environmental protection is a priority of IGLU TECH UAB. Product quality, cost-efficiency and environmental protection are equally important to us. Therefore, we strictly adhere to environmental requirements. In order to protect the environment and take into account financial possibilities, we use the best technologies and materials in our production.

Packaging. When designing packaging, we take into account the countries' local waste recycling systems, which ensure optimal reuse. All packaging materials are environmentally friendly and recyclable.

Disposal. Obsolete devices contain recyclable materials. The structural elements can be easily disassembled. The structural elements must be sorted for processing and recycling.

Glycol (antifreeze mixture) should not be discarded into the drains. Collect glycol and dispose of properly in accordance with applicable regulations, standards and directives.

IN CASE OF FAILURE

If the illuminated IGLU logo on the front panel or the IGLU Home Next mobile application reports system errors, please contact us immediately and report any error by specifying:

- Date of purchase of the device;
- Error that occurred;
- Environmental conditions (indoor and hot water tank temperature).

You can register the heat pump failure using “Iglu Home Next” mobile application.

In case of failure please contact with nearest Iglu Tech equipment distributor.

PURPOSE

Air heating is an alternative building heating system that uses free, air heat. With the help of a air-to-water heat pump, this air energy is extracted and used for heating, cooling and hot water preparation in buildings.

Advantages of IGLU AIR-TO-WATER heat pumps

- Uses inexhaustible and ecological air energy
- Next-generation technologies and solutions ensure maximum efficiency and minimum cost
- One device performs three functions-room heating, cooling and hot water preparation
- Comfort at home can be controlled from anywhere in the world

HOW DOES AIR-TO-WATER HEAT PUMP WORK?

An air-to-water heat pump works by transferring heat from the air outside to water inside a building, such as for heating the space or heating water for domestic use. The heat pump consists of several main components including an outdoor unit, indoor unit, and a distribution system.

Even when it's cold outside, the air still contains heat. The heat pump's evaporator coils, filled with cold refrigerant, absorbs this heat from the outdoor air. As the refrigerant absorbs the heat, it changes from a cool liquid to a gas.

The refrigerant gas is then compressed by the heat pump's compressor, raising its temperature and pressure. At this stage, the refrigerant becomes a high-pressure, high-temperature gas, carrying a large amount of heat energy.

The heat exchanger allows heat to be transferred between the refrigerant gas and the water inside the building. The circulation pump is responsible for circulating the water through the heat exchanger and throughout the building. The distribution system includes pipes or radiators that distribute the heated water throughout the building. This can be used to heat the space, supply hot water for showers and faucets, or even heat a swimming pool.

PRODUCT PACKAGING AND TRANSPORTATION

IMPORTANT! After purchasing a heat pump:

- Inspect the delivered product for external damage incurred during delivery;
- In the event of delivery defects, submit a claim to the company that sold the device immediately.

The heat pump may only be transported and stored in an upright position. The device can only be temporarily tilted, not laid down. The device can be stored at a temperature no lower than -10°C.

LOGO ILLUMINATION

The IGLU air – to - water heat pump has an illuminated IGLU logo on the front panel. The logo can be illuminated in three different colours – blue, yellow or red. Each of them has a corresponding meaning:

- **blue** – heat pump on, normal operation;
- **yellow** – warning about non-critical failure of the heat pump or slight deviation of parameters from the norm; the heat pump continues to operate, but it is necessary to react promptly, within a reasonable period of time;
- **red** – heat pump failure, operation is stopped.



1. IGLU HOME NEXT MOBILE APPLICATION





IGLU air - to - water heat pumps are controlled via the IGLU Home Next app. It allows to control the device and monitor the operating parameters of the heating system, electricity consumption, thermal energy produced and instantaneous or seasonal coefficient of performance in real time.

1.1. INSTALLATION OF THE APPLICATION

Download and install the IGLU Home Next app:

- The iOS version is available [here](#);
- The Android version is available [here](#). When the window pop-up type: "IGLU Home Next"

You can also download the app by scanning the QR codes (below);

App Store	Google Play
	

1.2. REGISTRATION AND LOG IN REGISTRATION

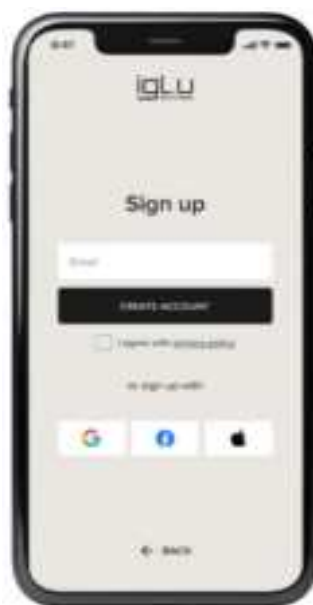
When you open the **IGLU Home Next** app, for the first time you need to create an account by clicking “**CREATE ACCOUNT**” or just “**LOGIN**” button in case you have already an account (**Window 1**).



(Window 1)

When you press “**CREATE ACCOUNT**” button you are redirected to “**Sign up**” window (**Window 2**), where you have to:

- Enter an email;
- Read the [Privacy Policy](#) and indicate that you agree to the terms specified;
- Click “**CREATE ACCOUNT**”

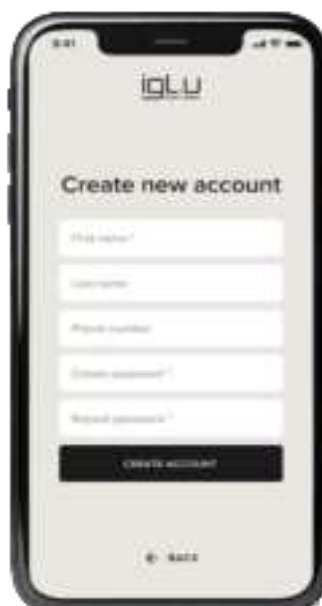


(Window 2)

On the opened new account window, the following information should be provided **(Window 3)**:

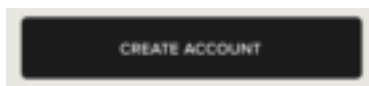
- First name;
- Last name;
- Phone number;
- Create password;
- Repeat password

Note: the password must consist of: number, capital letter, symbol



(Window 3)

To continue the registration, click the button (bellow):



At once the letter with the verification request will be sent to your indicated email. Please open this letter and confirm.

LOG IN

In order to login to already existing account enter the following information **(Window 4)**:

- E-mail address;
- Password;

Log in by clicking the button **“LOGIN”**



(Window 4)

If you forgot your password, click **“FORGOT PASWORD”**. Enter your email and follow further instruction to reset the password. **(Window 5)**



(Window 5)

1.3. ADDING A NEW DEVICE

Upon successful registration, you will be directed to the: “**Add device**” window (**Window 6**), where you need to:

- Choose the device you wish to add;
- Enter the device serial number or scan QR code. This information is placed on the product label code;
- Add device name;
- Click “**GO TO APP**”



(Window 6)

2. MAIN APPLICATION WINDOW

When you log in, you will see the following information in main application window (**Window 7**):

- Notifications;
- Current room temperature;
- Water temperature;
- Other devices that are connected.

In the real - time information bar, you will see:

- How much kW of electricity is being used;
- How much kW of heat energy is being produced;
- The status;
- What is the coefficient of performance (COP) (the ratio of thermal energy produced to electricity consumed to produce that heat).



(Window 7)

IMPORTANT!



The IGLU Home Next application is supported by the latest versions of iOS and Android OS, but may not work properly with some mobile phone models. E.g.: OnePlus, Xiaomi. This list is not exhaustive.

2.1. TEMPERATURES SETTINGS

In the main application window you can set the desired room air and hot water temperatures (**Window 8**). This is carried out at follows:

- Choose the particular heat pump where you want to define the temperature or make changes;
- After picking a heat pump click: **"SET POINT"**, select the settings (home temperature, hot water temperature) which you want to change (the activated function turns blue);
- Swipe up or down to increase or decrease the indoor air or hot water temperature;
- The settings can be "locked" by clicking on the wanted value and **"SELECT"**.



(Window 8)

3. SETTINGS SECTION

In the main application window click on the settings icon on the bottom bar (**Window 9**), will take you to the “**SETINGS**” window (**Window 10**), where you will see the sections:



(Window 9)

- **General settings** - to define whether notifications, warnings, alerts you want to make an active or disabled;
- **Information** - to reach an information such as the user manuals in PDF or reach the IGLU TECH website by hyperlink;
- **Report an issue** - to report an issue by attaching a screenshot;
- **Devices** - to add the information related to the device (model, serial number, name), to change the name of the currently selected device and select another device from the list of devices;
- **Heat pump settings** - to conduct the parameters changes;
- **Account settings** - to make changes in profile, log out, or delete an account



(Window 10)

3.1. HEAT PUMP SETTINGS

Click on the section “HEAT PUMP SETTINGS” (Window 10), then the settings window unfold (Window 11)



(Window 11)

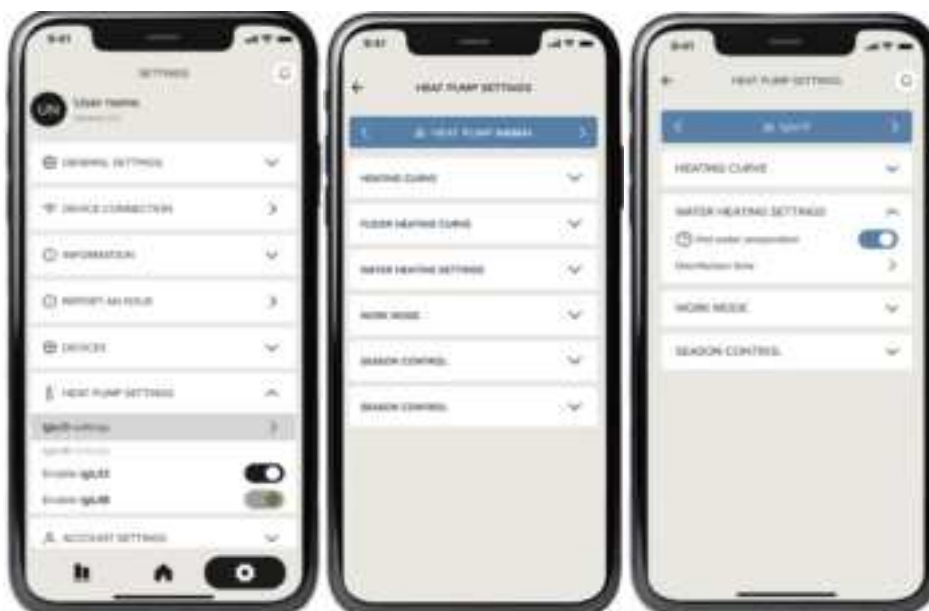
3.2. LANGUAGE

In the “**SETTINGS**” section (**Window 10**) unfold “**GENERAL SETTINGS**” and you may change the language (**Window 12**)

3.4. THERMAL DISINFECTION TIME

When a water heater is installed in the system and an electric heating element is integrated, the system once a week performs thermal disinfection (**Window 14**);

- In the “**SETTINGS**” click on the section “**HEAT PUMP SETTINGS**”;
- Pick a particular heat pump and it's settings;
- From the opened list pick “**WATER HEATING SETTINGS**”;



(Window 14)

- Then click the “**Disinfection time**” (**Window 14**), it takes you to the disinfection time setting window (**Window 15**), where you can select the desired disinfection time. In the water heating settings window you can see information on the time of the next thermal disinfection.



(Window 15)

In the **Disinfection Time** window, you can select:

- The day of the week when you want the water heater to be disinfected;
- The time you want the water heater to be disinfected.

After selecting the day of the week and the preferred time, click “**SAVE**”

4. STATISTICS WINDOW

In order to perform monitoring by day/week/month/year of how much kW of electricity is being used or how much kW of heat energy is being produced click on the statistic icon (below) in the main application window (**Window 16**)



(Window 16)

Then pop – up a window where you would be able to make observations (**Window 17**)



(Window 17)

5. SYSTEM ERROR AND FAILURE INDICATIONS

If in the right corner appears a bell with red spot indicates a system error or fault. In this kind of event a system will continue to operate, but every effort should be made to fix the fault. By clicking on the symbol you will be redirected to the **ACTIVE ALARMS** window, where you will see a list of system errors and faults. The full list of the meanings of these messages and possible causes is provided below, as well as instructions on the actions the user should take. When a non-critical issue is resolved, the error message disappears automatically. The fault is confirmed by pressing the button "Reset" (**Window 18**).

In the event of a system fail with a critical fault the heat pump operation will stop. Contact the customer service.



(Window 18)

5.1 LIST OF SYSTEM ERRORS AND FAULTS

ITEM	POSSIBLE CAUSE	ACTION
Incoming glycol temperature sensor	Temperature sensor or connection failure.	Contact customer service.
		When the problem is resolved, the error disappears automatically.
Outgoing glycol temperature sensor	Temperature sensor or connection failure.	Contact customer service.
		When the problem is resolved, the error disappears automatically.
Outgoing heating water temperature sensor	Temperature sensor or connection failure.	Contact customer service.
		When the problem is resolved, the error disappears automatically.
Incoming heating water temperature sensor	Temperature sensor or connection failure.	Contact customer service.
		When the problem is resolved, the error disappears automatically.
Water heater temperature sensor	Temperature sensor or connection failure.	Contact customer service.
		When the problem is resolved, the error disappears automatically.
Room temperature sensor	Temperature sensor or connection failure.	Contact customer service.
		When the problem is resolved, the error disappears automatically.
Outdoor temperature sensor	Temperature sensor or connection failure.	Contact customer service.
		When the problem is resolved, the error disappears automatically.
LP low pressure	Low refrigerant pressure during operation.	Clean the outdoor circuit filter. Check that the outdoor circuit pump is operating properly. Check for air in the outdoor circuit system. Possible freon deficiency.
	Low glycol flow in the outdoor circuit.	Check the heating water pressure in the outdoor circuit, rate 1-2 bar. Clean the dirt trap. If the problem persists, contact customer service.
HP high pressure	High refrigerant pressure during operation.	Clean the internal circuit filter. Check that the internal circuit pump is operating properly. Check for air in the internal circuit system.
	Low heating water flow in the internal circuit.	Check the heating water pressure in the internal circuit, rate 1-2 bar. Clean the dirt trap. If the problem persists, contact customer service.
Compressor thermal protection	Overvoltage, low voltage.	Contact customer service.

Voltage and phase control	Bad phase sequence. One or two phases are missing.	When the problem is resolved, the error disappears automatically.
Hot water preparation time too long	Three-way valve failure.	Contact customer service.
Large temperature difference in the outdoor circuit	Low glycol flow in the outdoor circuit.	Clean the outdoor circuit filter.
		If the problem persists, contact customer service.
Large temperature difference in the internal circuit	Low heating water flow in the internal circuit.	Clean the internal circuit filter.
		If the problem persists, contact customer service.
Tank temperature sensor	Temperature sensor or connection failure.	Contact customer service.
		When the problem is resolved, the error disappears automatically.
Communication between controllers	Control unit failure.	Contact customer service.
Low pressure sensor	Pressure sensor failure.	Contact customer service.
High pressure sensor	Pressure sensor failure.	Contact customer service.
Exhaust temperature sensor	Temperature sensor failure.	Contact customer service.
Valve controller failure	Control unit failure.	Contact customer service.
Solar collector sensor	Sensor or connection failure.	Contact customer service.
		When the problem is resolved, the error disappears automatically.

Valve configuration	Incorrect EEV valve configuration.	Contact customer service.
FC not ready	The frequency converter is not ready for operation. E.g., oil return to the compressor.	Contact customer service. When the problem is resolved, the error disappears automatically.
External alarm	External failure (DI). If it is provided that the heat pump can be stopped from an external signal.	Eliminate the external fault signal.
Possible refrigerant leakage	Possible refrigerant leakage.	Contact customer service.
Blocking of the outdoor circuit circulation pump (jamming)	Blocking of the outdoor circuit circulation pump (jamming).	Clean the intake or supply nozzle of the outdoor circuit pump. If the problem persists, contact customer service.
Electrical failure of the outdoor circuit circulation pump	Electrical failure of the outdoor circuit circulation pump.	Contact customer service.
High temperature in the outdoor circuit circulation pump electronics	High temperature in the outdoor circuit circulation pump electronics.	If the operating mode was extreme: after switching off the heat pump, wait for the outdoor circulation pump to cool down. If the problem persists, contact customer service.
Operation failure of the outdoor circuit circulation pump	Operation failure of the outdoor circuit circulation pump.	Contact customer service.
Blocking of the internal circuit circulation pump (jamming)	Blocking of the internal circuit circulation pump (jamming).	Clean the intake or supply nozzle of the internal circuit pump. If the problem persists, contact customer service.
Electrical failure of the internal circuit circulation pump	Electrical failure of the internal circuit circulation pump.	Contact customer service.
High temperature in the indoor circuit circulation pump electronics	High temperature in the internal circuit circulation pump electronics.	If the operating mode was extreme: after switching off the heat pump, wait for the internal circulation pump to cool down. If the problem persists, contact customer service.
Operation failure of the internal circuit circulation pump	Operation failure of the internal circuit circulation pump.	Contact customer service.
Electric heater protection has tripped	Electric heater protection has tripped.	Contact customer service.
Thermal disinfection failed	The required disinfection temperature has not been reached for too long.	Contact customer service.
Risk of freezing	The temperature dangerously close to the possible freezing point.	In order not to damage the device, piping and heating system, measures must be taken to raise the ambient temperature.

Supply temperature too high	Supply temperature too high.	Contact customer service.
Controller communication failure	The connection between the controller modules is lost.	Contact customer service.
Internal circuit circulating pump power measurement failure	Fault in the power measurement chain of the internal circuit's circulating pump.	Contact customer service.
Outdoor circuit circulating pump power measurement failure	Fault in the power measurement chain of the outdoor circuit's circulating pump.	Contact customer service.
Compressor frequency converter failure	Compressor frequency converter failure. Details are displayed on the frequency converter screen.	Contact customer service.
Internal circuit flow sensor failure	Internal circuit pressure sensor is defective.	Contact customer service.
Failure of analogue measurement from frequency converter	Measurement failure of the frequency converter's power measurement circuit.	Contact customer service.

6. CONTROL PANEL (an optional)

The control panel comes with the heat pump as an optional

The main panel window (**Window 1**) displays:

- Outside temperature;
- Water temperature;
- Set room air temperature.



(Window 1)

In the device status window (**Window 2**) you can:

- Turn the device off or on;
- Reset faults if any;



(Window 2)

Navigation between windows in the control panel is performed using the "<" and ">" buttons.

In the water temperature window (**Window 3**) you can:



(Window 3)

- See the set hot water temperature;

In the room temperature window **(Window 4)** you can:

- See the current room temperature;



INFORMATION CONCERNING THE EU DECLARATION OF CONFORMITY



The IGLU TECH heat pumps meet the basic and other essential requirements of the European Union directives and standards and are CE marked. The full text of the EU declaration of conformity can be provided by distributors or importers.