

AIRREX INFRARED HEATER

USER MANUAL

Models AH-200i / 300i / 800i



AH-200i

AH-300i

AH-800i


- Thank you for purchasing an Airrex infrared heater!
- Please read the user manual carefully before operating the heater.
- Once you have read the user manual, ensure that it is stored in such a way that it is available to everyone using the heater.
- Study the safety instructions with particular care before using the heater.
- These heaters have been adjusted to function in Northern European conditions. If you take the heater to other areas, check the mains voltage in your country of destination.
- This user manual also includes instructions for activating the three-year warranty.
- Due to active product development, the manufacturer reserves the right to make changes to the technical specifications and functional descriptions in this manual without separate notice.
- Please check and use always the latest user manual from our website rexnordic.com


CONTENTS

■ TURVALLISUUSOHJEET	31–33
■ HEATER STRUCTURE	34-37
• STRUCTURAL FIGURES	34
• REMOTE CONTROL	35
• REPLACING THE REMOTE CONTROL BATTERIES	35
• BURNER STRUCTURE	36
• OPERATING SWITCHES AND DISPLAY	37
■ OPERATING INSTRUCTIONS	38-40
• ACTIVATION AND DEACTIVATION	38
• THERMOSTAT OPERATION	39
• TIMER OPERATION	40
■ USING MOBILE APPLICATION	41-45
• INSTALLING APPLICATION	41
• REGISTER AS A USER TO APPLICATION	41
• CONNECTING HEATER TO APPLICATION	42
• TIPS FOR USING MOBILE APPLICATION	43
• USING MOBILE APPLICATION	44
• NOTICE WHEN USING MOBILE APPLICATION	45
• INTERNAL LTE ROUTER (OPTIONAL)	45
■ MAINTENANCE AND CLEANING	46-48
• REPLACING THE FUEL FILTER	46
• BLEEDNING THE FUEL SYSTEM	46
• STORING THE HEATER	46
• YEARLY MAINTENANCE	47
• CLEANING SURFACES	47
• MAINTENANCE LOGBOOK	48
■ DIAGNOSING AND REPAIRING MALFUNCTIONS	49-51
• ERROR MESSAGES	49
• WIFI PROBLEMS	51
■ TECHNICAL SPECIFICATIONS AND CONNECTION DIAGRAM	52-53
• ENSURE SUFFICIENT VENTILATION	53
■ AIRREX WARRANTY	54-55
■ TECHNICAL SUPPORT	56

SAFETY INSTRUCTIONS

The purpose of these safety instructions is to ensure the safe use of the Airrex heaters. Adherence to these instructions prevent the risk of injury or death and damage to the heating device as well as other items or premises. Please read the safety instructions with care. The instructions feature two concepts: "Warning" and "Note".








 **WARNING** This marking indicates a risk of injury and/or death.

 **CAUTION** This marking indicates the risk of minor injury or structural damage.

SYMBOLS USED IN THE MANUAL:

 Prohibited measure  Mandatory measure























WARNING

-  Only use 220/230 V mains electricity. Incorrect voltage may cause a fire or electrical shock.
-  Always ensure the condition of the power cord and avoid bending it or placing anything on the cord. A damaged power cord or plug may cause a short circuit, electric shock, or even fire.
-  Do not handle the power cord with wet hands. This may cause a short circuit, fire, or risk of death.
-  Never use any containers carrying flammable liquids or aerosols near the heater or leave them in its immediate vicinity due to the fire and/or explosion risk they present.
-  Ensure that the fuse adheres to the recommendation (250 V / 3.15 A). The wrong fuse may cause malfunctions, overheating or a fire.
-  Do not deactivate the heater by cutting the power supply or disconnecting the power plug. Cutting power during heating may lead to malfunctions or an electric shock. Always use the power button on the device or the ON/OFF button on the remote control.
-  Do not place any inflammable material near the heater, including curtain, carpet, paper, match, clothes, etc. Otherwise it is exposed to danger of fire.
-  Damaged power cords must be replaced immediately at a maintenance shop authorised by the manufacturer or importer or some other maintenance shop authorised for electrical repairs.
-  If the plug gets dirty, clean it carefully before connecting it to the socket. A dirty plug may cause a short circuit, smoke and/or fire.
-  Do not extend the power cord by connecting additional lengths of cord to it or its connector plugs. Poorly-made connections may cause a short circuit, electric shock or fire.
-  Before cleaning and maintaining the device, disconnect the power plug from the socket and allow the device to cool down sufficiently. Neglecting these instructions may lead to burns or an electric shock.
-  The power cord of the device may only be connected to a grounded socket.
-  Do not cover the heater with any obstructions such as clothing, fabric or plastic bags. This may cause a fire.
-  Put the plug into the socket-outlet tightly, otherwise it may cause an electric shock.

KEEP THESE INSTRUCTIONS ACCESSIBLE NEAR THE DEVICE TO ALL USERS.

SAFETY INSTRUCTIONS

WARNING

-  Do not place your hands or any items inside the safety mesh. Touching the internal components of the heater may cause burns or an electric shock.
-  Do not move an operating heater. Switch off the heater and unplug the power-cord before moving the device.
-  Only use the heater to heat indoor spaces. Do not use it to dry clothing. If the heater is used for heating premises intended for plants or animals, the exhaust gases must be fed outside through a flue, and a sufficient supply of fresh air must be ensured.
-  In case of cleaning you must take out the plug from the outlet, wait until the heated furnace is cooled down sufficiently. Otherwise it may cause an electric shock or a burn.
-  Do not use the heater in closed spaces or spaces primarily occupied by children, elderly people or disabled people. Always ensure that those in the same space as the heater understand the necessity for efficient ventilation.
-  We recommend that this heater should not be used at extremely high elevations. Do not use the device more than 1,500 m above sea level. At an elevation of 700–1,500, the ventilation must be efficient. Poor ventilation of the space being heated may lead to the formation of carbon monoxide, which may cause injury or death.
-  Do not pull out power cord strongly.
-  Don't put combustible things around the heater and reserve the fire-extinguisher.
-  Be careful not to clog the exhaust pipe.
-  Metal noise can be from sudden expansion and contraction of pipe at first ignition.
-  Do not lean more than 30 degrees during moving.
-  Use only DIESEL in this heater.
-  Do not place any electrical devices or heavy items on the heater. Items on the device may cause malfunctions, electric shocks or injury upon falling off the heater.
-  Only use the heater in well-ventilated open spaces where the air is replaced 1–2 times an hour. Using the heater in poorly ventilated spaces may generate carbon monoxide, which can lead to injury or death.
-  Do not use the device in rooms where people sleep without a flue leading the exhaust gases outside the building and without ensuring a sufficient supply of replacement air.
-  Do not use water to clean the heater. Water may cause a short circuit, electrical shock and/or fire.
-  Do not touch any of the heated materials, such as grill, furnace, etc. While the heater is operating or just after extinguishing the grill and the furnace are hot, so do not touch any of those parts. Especially pay attention to keep children away from the hot materials. It may cause a burn.
-  Do not use petrol, thinner or other technical solvents to clean the heater. They may cause a short circuit, electrical and/or fire.
-  The heater must be placed in a location where the safety distance requirements are met. There must a clearance of 15 cm on all sides of the device and at least 1 m in front of and above the device.
-  Never use gasoline, alcohol, etc.
-  Don't touch the hot parts during heating.
-  Do not use this heater near a fabric curtain, carpet or plastic or vinyl curtain which may cover the heater in case of falling down by the wind or by any physical force, may cause a fire.

IMPORTANT THINGS TO NOTE BEFORE OPERATION

ENSURE THE SAFETY OF THE HEATER'S LOCATION

- The vicinity of the heater must be free of flammable materials.
- There must always be 15 cm of clearance between the sides and back of the heater and the nearest piece of furniture or other obstruction.
- A distance of one (1) metre in front of and above the heater must be kept clear of all items and materials. Please note that different materials may react differently to heat.
- Ensure that there are no fabrics, plastics or other items near the heater that may cover it if they are moved by an air current or other force. The heater being covered by a fabric or other obstruction may cause a fire.
- The heater must be placed on an even base.
- When the heater is in place, lock its casters.
- Separate flue gas discharge piping must be used in small spaces. The diameter of the piping must be 75 mm and the maximum length is 5 metres. Ensure that water cannot flow into the heater through the discharge piping.
- Place extinguishing equipment suitable for oil and chemical fires in the immediate vicinity of the heater.
- Do not place the heater in direct sunlight or near a strong heat source.
- Position the heater in the immediate vicinity of a power socket.
- The power cord plug must always be easily accessible.

USE ONLY HIGH-GRADE BIODIESEL OR LIGHT FUEL OIL IN THE HEATER.

- The use of fuels other than light fuel oil or diesel may cause malfunctions or excessive soot formation.
- ALWAYS switch off the heater when adding fuel to the tank.
- All heater fuel leaks must be repaired immediately at a maintenance shop authorised by the manufacturer/importer.
- When handling fuel, observe all relevant safety instructions.

THE HEATER'S OPERATING VOLTAGE IS 220 / 230 V / 50 HZ

- It is the responsibility of the user to connect the device to a power grid that supplies the appropriate voltage.
- Please note: use the correct type of adapter with the power plug if needed.

CAUTION



Do not position the heater on an unstable, inclined or wobbly foundation. The device tilting and/or falling over may cause malfunctions and lead to a fire.



Do not attempt to dismantle the remote control of the heater, and always protect it against strong impacts.



If the heater will not be used for an extended period of time, unplug the power cord.



During thunderstorms, the device must be switched off and unplugged from the power socket.



Never allow the heater to get wet; the device must not be used in bathrooms or other similar spaces. Water may cause a short circuit and/or fire.



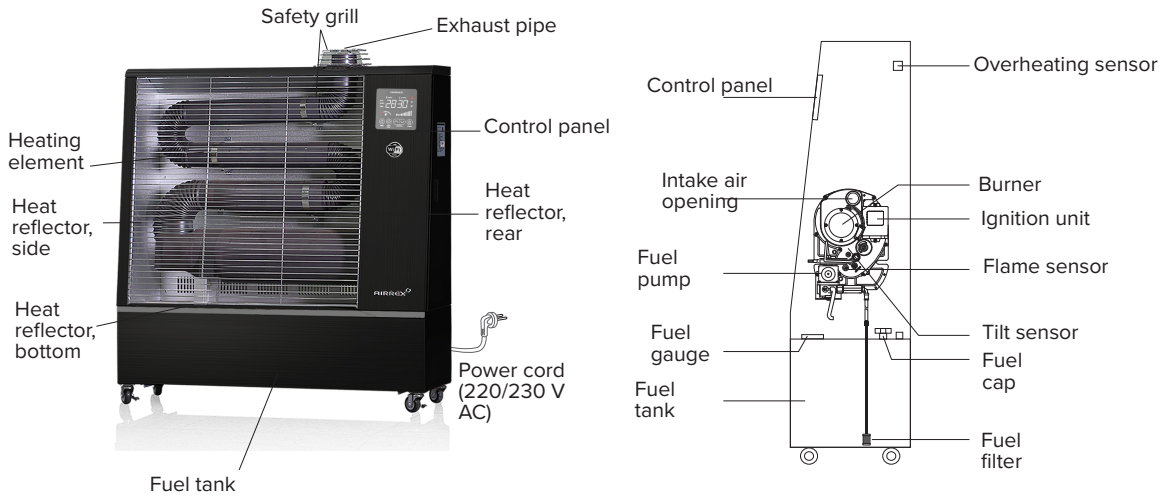
The heater must be stored in a dry location indoors. Do not store in hot or particularly humid spaces. Possible corrosion caused by humidity may cause malfunctions.



When the heater is not used for a longer time, add diesel additive to the tank to avoid a clog in the fuel systems.

HEATER STRUCTURE

STRUCTURAL FIGURES



AH-200i




AH-300i



AH-800i

REMOTE CONTROL




Labels for the remote control:

- MODE: Selecting thermostat/ timer operation
- TIMER: Shutdown timer on/ off
- Temperature or operating time adjustment
- Power button

- Aim the end of the remote control towards the heater.
- Strong sunlight or bright neon or fluorescent lights may disrupt the operation of the remote control. If you suspect that the lighting conditions may be causing problems, use the remote control right in front of the heater.
- The remote control emits a sound whenever the heater detects a command.
- If the remote control will not be used for an extended period of time, remove the batteries.
- Protect the remote control against all liquids.

REPLACING THE REMOTE CONTROL BATTERIES



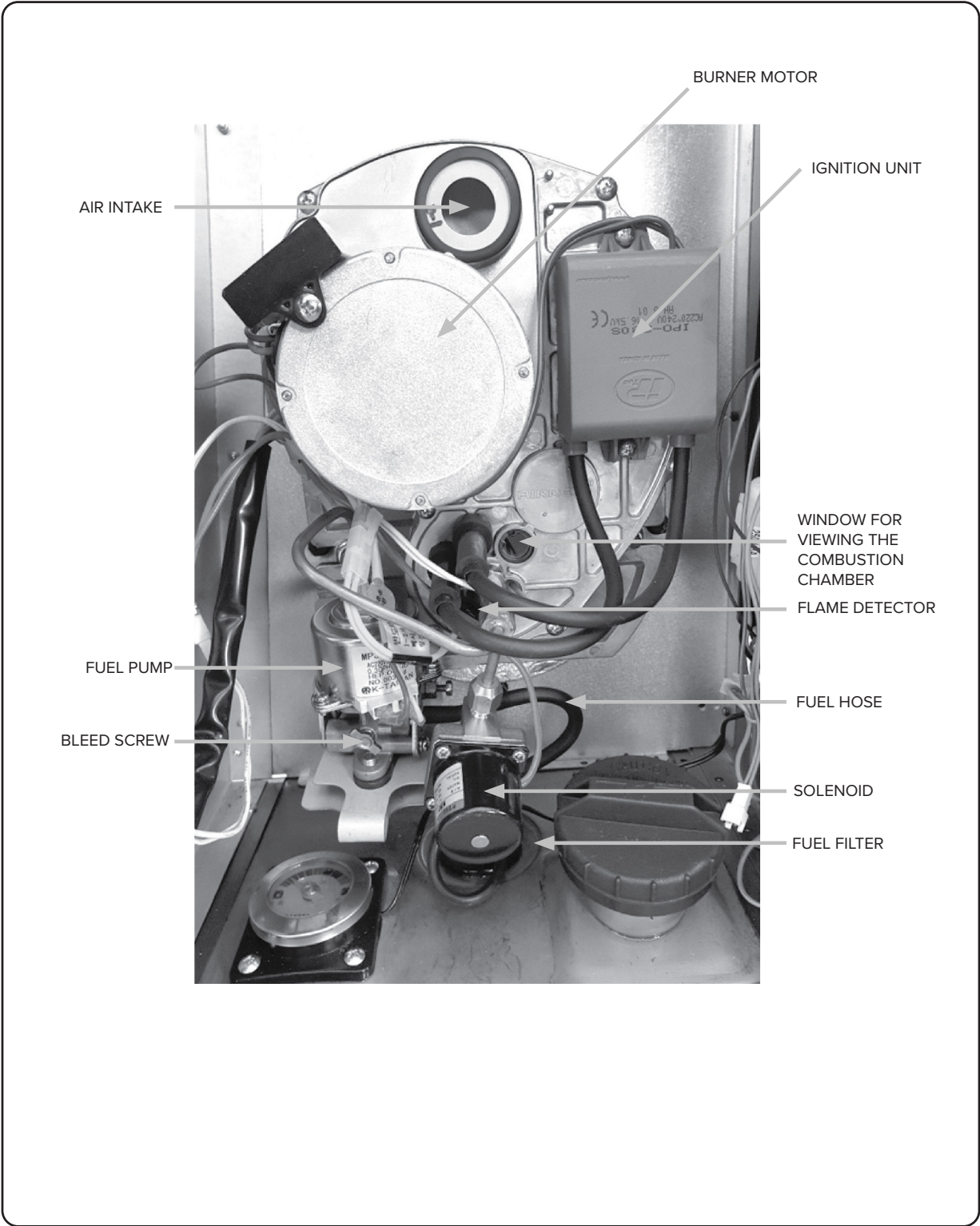
1. **OPENING THE BATTERY CASE**
Press area 1 lightly and push the battery case cover in the direction of the arrow.

2. **REPLACING THE BATTERIES**
Remove the old batteries and install the new ones. Ensure that you align the batteries correctly. Each battery's (+) terminal must connect with the corresponding marking in the case.

3. **CLOSING THE BATTERY CASE**
Push the battery case into place until you hear the lock click.

HEATER STRUCTURE

BURNER STRUCTURE



OPERATING SWITCHES AND DISPLAY



1. LED-DISPLAY

The display can be used to check the temperature, timer, error codes, etc.

2. THERMOSTAT OPERATION

This light is on when the heater is in thermostat operation mode.

3. TIMER OPERATION

This light is on when the heater is in the timer operation mode.

4. REMOTE CONTROL RECEIVER

5. POWER BUTTON (ON/OFF)

Switches the device power on and off.

6. MODE SELECTION

This button is used to select the desired operating mode between thermostat operation and timer operation. If you push this lock button for 3 sec, the controller is locked. And if you push again for 3 sec, the controller is unlocked.

7. ARROW BUTTONS FOR ADJUSTMENT FUNCTIONS (INCREASE/DECREASE)

These buttons are used to adjust the desired temperature and set the length of the heating cycle.

8. OPERATION LAMP

This light is on when the burner is operating.

9. SHUTDOWN TIMER

This button activates or deactivates the shutdown timer function.

10. SHUTDOWN TIMER INDICATOR LIGHT

The light indicates whether or not the shutdown timer is active.

11. FUEL GAUGE

The column of three lights indicates the remaining fuel.

12. CHECK INDICATOR LIGHT

This indicator light is on if the burner has failed or shut down during operation.

13. WIFI INDICATOR LIGHT

This indicator light is on when the wifi is connected. If the wifi light blinks once, wifi is connected to a router, but not to the internet. If the wifi light blinks twice, the heater is searching for wifi network.

14. BLUETOOTH INDICATOR LIGHT

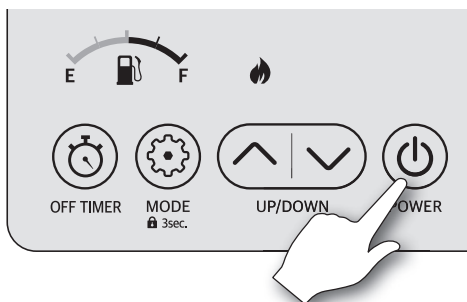
This indicator light is on when the bluetooth is connected. If the bluetooth light is blinking it is searching for a device to connect.

OPERATING INSTRUCTIONS

ACTIVATION AND DEACTIVATION

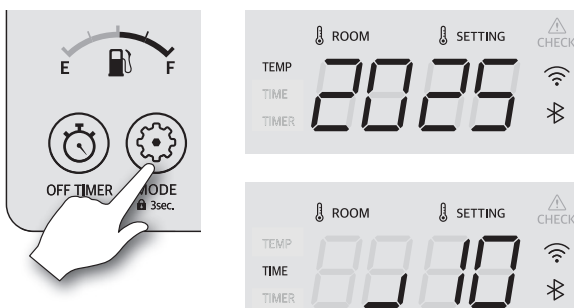
1. START THE HEATER

- Press the power button. The device emits an audio signal upon activation.
- The device can be switched off by pressing the same button.



2. SELECT THE OPERATING MODE

- Select the desired operating mode, either thermostat or timer operation.
- You can make the selection with the MODE button.
- The default is thermostat operation.



3. SET THE TARGET TEMPERATURE OR HEATING TIME WITH THE ARROW BUTTONS

- The temperature can be adjusted between 0–40 °C.
- The minimum heating time in timer operation is 10 min, and maximum of 55 min or continuous use.

NOTE!

After activation, the heater's default operating mode is thermostat operation, which is shown by the corresponding indicator light.

THERMOSTAT OPERATION



TIMER OPERATION



SHUTDOWN TIMER

If you would like the heater to switch off on its own, you can use the shutdown timer.

Use the TIMER button to activate the shutdown function. Then select the desired shutdown delay with the arrow buttons. The minimum delay is 30 minutes.

TIPS FOR USING THE HEATER

- The heater is activated when the adjusted temperature is 2°C higher than the ambient temperature.
- After activation, the heater defaults to thermostat operation.
- When the device is deactivated, all timer functions are reset and must be set again if they are needed.

OPERATING INSTRUCTIONS

THERMOSTAT OPERATION

In this mode, you can set the desired temperature, after which the heater operates automatically and switches itself on as needed to maintain the set temperature. The thermostat operation is selected by default when the heater is activated.

1. Plug in the power cord. Start the heater. When the heater is in operation, the current temperature is shown on the left and the set target temperature is shown on the right.



2. The corresponding signal light is on when thermostat operation is selected. To switch from thermostat operation to timer operation, press the MODE button.

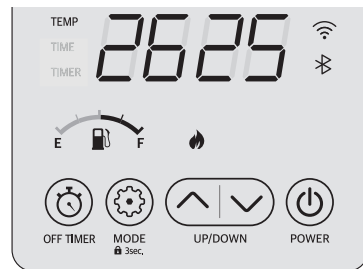


3. The temperature can be adjusted with the arrow buttons.

- The temperature can be adjusted within the range 0–40°C
- The heater's default setting is 25°C.
- Pressing an arrow button for two (2) seconds continuously will change the temperature setting faster.
- The range of the current temperature display is -9...+50°C.



4. When powered on, the heater is activated automatically when the current temperature drops by two (2°C) degrees below the target temperature. Correspondingly, the heater is deactivated when the current temperature rises by one degree (1°C) above the set target temperature.



5. When you press the power button to switch off the device, the display only shows the current temperature.



TIPS FOR USING THE HEATER

- If the current temperature is -9°C or lower, the text "LO" appears in the current temperature view. If the current temperature is +50°C or higher, the text "HI" appears in the current temperature view.
- A single press of an arrow button changes the temperature settings by one degree. Pressing an arrow button for more than two (2) seconds changes the display setting by one digit per 0.2 seconds.
- Pressing both arrow buttons when heater is on for five (5) seconds changes the temperature unit from Celsius (°C) to Fahrenheit (°F). The device uses Celsius degrees (°C) by default.

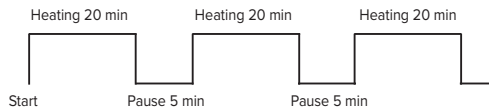
OPERATING INSTRUCTIONS

TIMER OPERATION

Timer operation can be used to operate the heater in intervals. The operating time can be set between 10 and 55 minutes. The pause between cycles is always five minutes. The heater can also be set to be continuously on. In timer operation, the heater does not take the thermostat's temperature or the set temperature into account.



The display indicates a 20-min heating cycle.



Continuous heating display The heater is now operating continuously.

You can activate continuous heating by setting the heating cycle to 60 minutes.

1. START THE HEATER



2. SELECT TIMER OPERATION

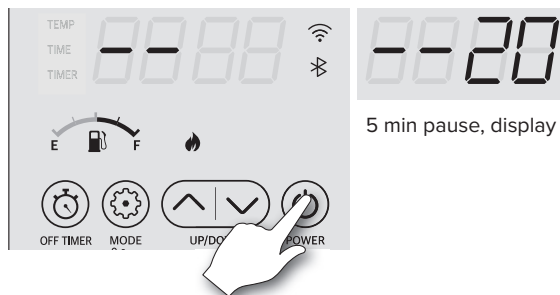
Select timer operation by pressing the MODE button. The timer operation light is lit after pressing mode button.



3. When timer operation is on, a light ring is shown on the left. The set operating time (in minutes) is displayed on the right. Select the desired operating time with the arrow buttons. The selected time flashes on the display. If the arrow buttons are not pressed for three (3) seconds, the time setting shown on the screen is activated.



4. The operating time can be set between 10 and 55 minutes, or the heater can be set to run continuously. Once the operating cycle ends, the heater always suspends operation for five (5) minutes. Two lines (- -) are shown on the display alongside the operating time to indicate the pause.



5 min pause, display

USING MOBILE APPLICATION

INSTALLING APPLICATION



1. Start Google Play or App Store
2. Find **Airrex** application (available in countries: Finland, Sweden, Norway, Denmark, Iceland, Estonia, Latvia, Lithuania, United Kingdom)
3. Install the application



REGISTER AS A USER TO APPLICATION



■ Sign In

E-mail

Password 

[Forgot Password](#) | [Join](#)

Sign In


1. On the login screen, press JOIN button to start a new user registration. If you already have an Airrex account, sign in with your email and password.



■ Join

E-mail

Password 

Confirm Password 

Join

2. Enter your e-mail and desired password twice and click JOIN button.



Waiting for your **E-mail Authentication.**



Please check your E-mail.

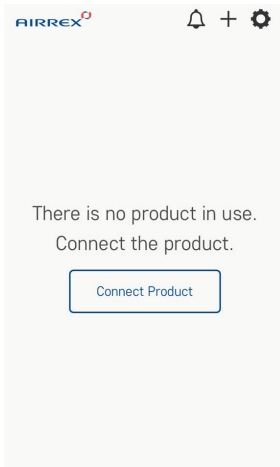
Resend

Authentication Done

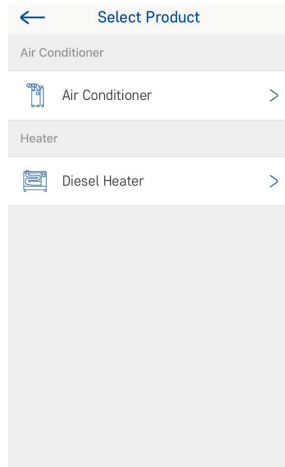
3. Check your email inbox and verify your email by clicking the button/link in your email.

USING MOBILE APPLICATION

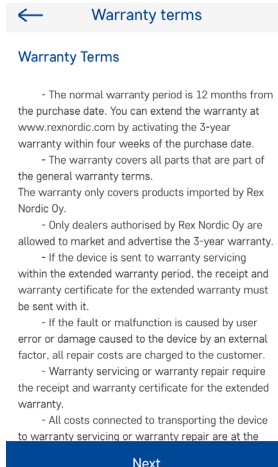
CONNECTING HEATER TO APPLICATION



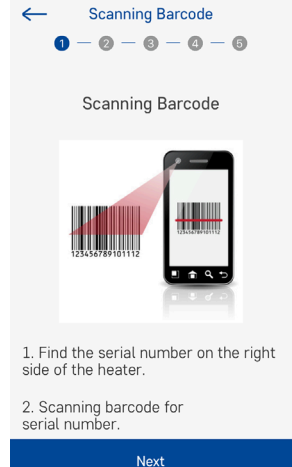
1. Press **CONNECT PRODUCT** button to start the connection process.



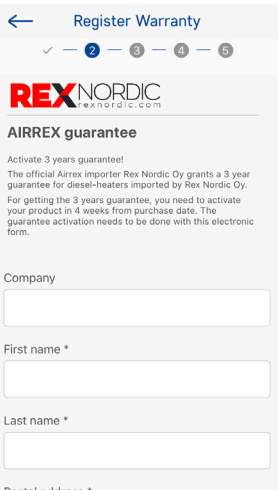
2. Choose diesel heater from the product options.



3. Please read all terms of service and accept them by clicking **ACCEPT** button.



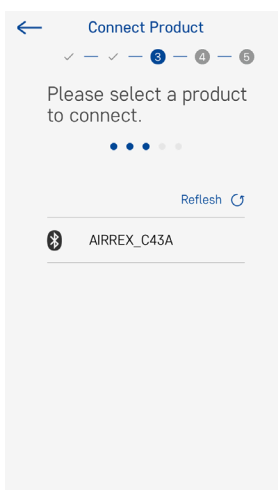
4. Find the serial number on the right side of the heater. Scan the barcode with your camera to read to barcode. Press **MANUAL** to type the serial number manually.



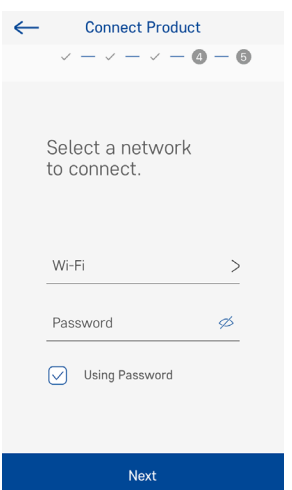
5. Fill in the Rex Nordic 3 years warranty form. Remember to fill in all information.



6. Turn the heater power off and press the up button for 5 seconds. Then the bluetooth icon flashes. Press **NEXT** button in the application.



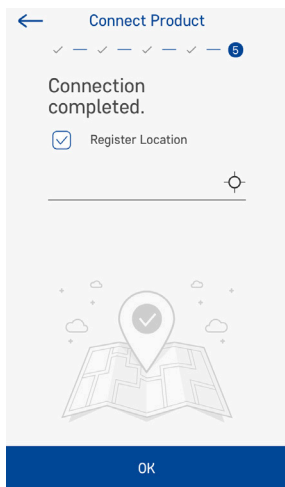
7. Choose the product to connect from the bluetooth list provided.




8. Choose your Wi-Fi network by pressing the Wi-Fi selection. After choosing your Wi-Fi, fill in the correct Wi-Fi password in the password field. Press **NEXT** to connect your heater to your own Wi-Fi.


USING MOBILE APPLICATION

CONNECTING HEATER TO APPLICATION



9. Press the location cursor to provide location information to the application. If you don't want to register your heater location, uncheck the register location box.

 **NOTICE**



Wi-Fi light blinking twice
Searching for Wi-Fi network

Wi-Fi light blinking once
Connected to Wi-Fi, but not to internet

Wi-Fi light on
Connected to Wi-Fi and internet.

Bluetooth blinking
Searching for smartphone connection

Bluetooth light on
Bluetooth connected to smartphone

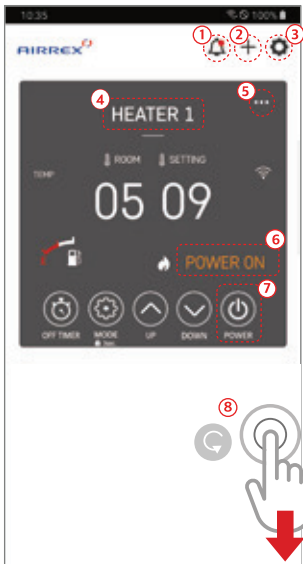
TIPS FOR USING MOBILE APPLICATION

TIPS FOR USING THE MOBILE APPLICATION

- You can refresh the screen by swiping down with one finger.
- When the heater is turned off you can reset the wifi and bluetooth settings by pressing TEMP UP and TEMP DOWN buttons for 5 seconds.
- Please notice that you can not start the heater from the mobile application if you turn it off.

USING MOBILE APPLICATION

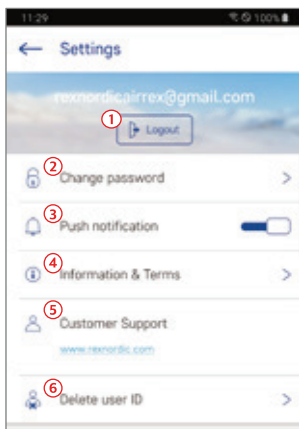
USING THE MOBILE APPLICATION



APPLICATION DASHBOARD

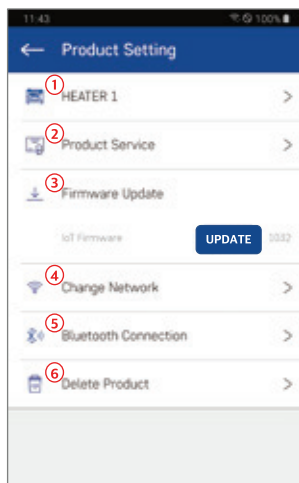
The mobile application works the same way with the normal control panel. Please refer to the operating instructions in this user manual to understand what each button does.

1. Push notifications
2. Add new product
3. Application settings menu
4. Product name
5. Product settings menu
6. Product operating status
7. Turn off heater
8. Swipe down for reloading product status



APPLICATION SETTINGS MENU

1. You are automatically always logged in after signing up. You can logout if necessary.
2. If you want to change your password click this button. You will receive an email with instructions to change the password.
3. Select to turn push notifications on / off.
4. Here you can read License information, Terms of Service and Privacy information.
5. You can see the customer support website.
6. To delete user id you need to delete all products first. Then contact the importer to delete your user information.



PRODUCT SETTINGS MENU

1. Modify the name of the product
2. View product service information
3. Update IoT firmware
4. Change the Wi-Fi network
5. Connect bluetooth (used only for changing the Wi-Fi information)
6. Remove the product from the application

USING MOBILE APPLICATION

NOTICE WHEN USING MOBILE APPLICATION

- Wireless router and LAN cable are separate purchases. Each must be installed separately.

- Airrex heater uses WPA2 Security method to connect to the router.

- Airrex supports only 2,4GHz of Wi-Fi Frequency. It doesn't support 5GHz.

- Airrex uses Bluetooth v4.2 and BLE. BLE connection is used only for initial searching and connection between the smartphone and the product. The connection will be maintained by Wi-Fi network. If you want to change the network of the product, you must reconnect the BLE.

- Airrex mobile application supports Android version 5.1 and later. For iPhone the application supports iOS version 10 and later and iPhone 7 or later.

- Install a wireless router close to the product. Depending on the location or distance between the product and the wireless router, the RSSI (strength of the wireless network signal) may vary, and the transmission time and data rate in receiving may also differ.

- Check to set your SSID (wireless router ID or name) to a combination of English and numeric. If you see special characters, the information might not be properly transferred to the product modem and might not be connected.

- You might not be able to connect depending on your network settings or connection status. If you are not connected or have problems setting up your network, contact your network service provider.

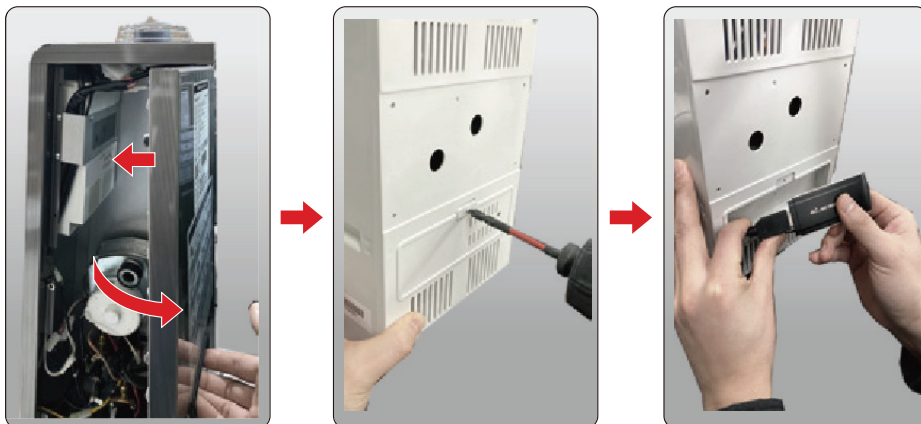
- Other SSID (wireless router name) in your neighborhood can be detected when you search for a wireless network. It is illegal to use another user's network. There might be legal sanctions upon detection if you break the law. Be sure to connect to a network (router) that you have permission to use.

- Details of description can be different, depending on the version of the application. Things may be changed in part without notification to the user.



INTERNAL LTE ROUTER (OPTIONAL)

If you don't have access to a wi-fi network, Airrex heater can be equipped with an internal LTE Router. You can buy a router from your Airrex dealer.



HOW TO INSTALL LTE ROUTER TO HEATER

1. Turn off the main power to the Airrex heater
2. Open the Airrex heater side door
3. Loosen the bolt on the cover of controller for the mounting router.

4. Connect to the LTE Router to the connector and cover it.
5. Close the side cover and power on the heater.
6. Connect your heater to the LTE Router with the instructions followed with the router.

MAINTENANCE AND CLEANING

REPLACING THE FUEL FILTER



The fuel filter is located in the heater tank.

REPLACING THE FUEL FILTER

1. Disconnect the fuel hoses from the fuel pump.
2. Lift off the rubber seal on the fuel tank with a screwdriver.
3. Unscrew the nut lightly with a spanner.
4. Ensure that two (2) small O-rings remain on the copper pipe before installing the new fuel filter.
5. Screw the fuel filter lightly onto the copper pipe.
6. Place the fuel filter back into the tank and attach the fuel hoses to the fuel pump.

NOTE!

The fuel system may require bleeding after fuel filter replacement.

BLEEDING THE FUEL SYSTEM



If the heater's fuel pump sounds exceptionally loud and the heater does not run properly, the probable cause is air in the fuel system.

BLEEDING THE FUEL SYSTEM

1. Loosen the bleeder wing nut at the bottom of the fuel pump by 2–3 rotations.
2. Start the heater.
3. When you hear the fuel pump start, wait for 2–3 seconds and close the bleed screw.

Bleeding the system may require this procedure to be repeated 2–3 times.

STORING THE HEATER

It is a good idea to unplug the power cord for every period of storage. Place the power cord in the tank inside the heater to ensure that it is not caught under a tyre, for example, when being moved.

Allow the heater to cool down completely before placing it in storage. Protect the heater during storage by covering it with the bag included in the delivery.

Storing the heater outdoors or in an extremely humid environment may cause corrosion resulting in significant technical damage.

CAUTION

If the heater will be out of use for an extended period, fill the fuel tank with an additive to prevent any microbial growth inside the tank.



MAINTENANCE AND CLEANING

YEARLY MAINTENANCE

It is recommended to do a yearly maintenance service to the heater. It includes change of oil filter, nozzle and gaskets and overall cleaning and checking of heater.

Needed spare parts for yearly maintenance service are all included in separately sold Airrex heater service kit. Ensure to use right service kit for your heater.

Yearly maintenance service is also available as an all included paid service.

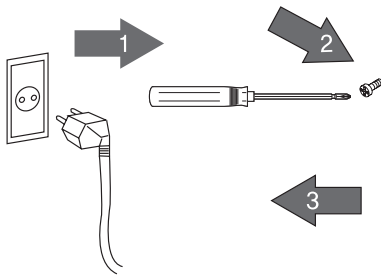


NOTICE

Yearly maintenance service is an obligatory action to maintain the 3 years warranty of the heater.



CLEANING SURFACES



To disconnect the front safety grill, lift it slightly and pull it off. Install the grill by performing these steps in reverse order.

OBSERVE THE FOLLOWING CLEANING INSTRUCTIONS:

- External surfaces can be cleaned lightly with mild cleansing agents, if necessary.
- Clean the reflectors behind and to the sides of the heating pipes with a soft and clean (microfibre) cloth.

NOTE!

The heating pipes are coated with a ceramic layer. Clean them with special care. Do not use any abrasive cleaning agents.

DO NOT DETACH OR REMOVE ANY HEATING PIPES!

- Clean the key panel and LED display with a soft and clean (microfibre) cloth.
- Reinstall the safety mesh after cleaning.

MAINTENANCE AND CLEANING

MAINTENANCE LOGBOOK

Heater model:

Serial number:

Date:

Maintenance done by:

Maintenance done:

Date:

Maintenance done by:

Maintenance done:

Date:

Maintenance done by:

Maintenance done:

Date:

Maintenance done by:

Maintenance done:

DIAGNOSING AND REPAIRING MALFUNCTIONS

ERROR MESSAGES

TIPS!

Bing sound can be stopped by pressing power button.



BURNER ERROR

Heater tries to start twice and after that gives this error message.
Most probably reason: blocked nozzle or oil filter. Is the yearly maintenance service done?



FLAME SENSOR ERROR

The flame sensor detects light before the burner is activated. Ensure that the flame sensor is positioned properly. The sensor may also be damaged.



TEMPERATURE SENSOR ERROR

Temperature sensor is probably damaged. Heater can still be used in timer operation mode. Please contact official Airrex service to fix temperature sensor.



SHOCK OR TILT ERROR

The warning light is lit if the device is tilted by more than 30°C or subjected to a strong shock or jolt. The heater is deactivated by its safety systems.



OVERHEAT ERROR

The warning light is lit when the temperature in the top section of the heating element exceeds 105°C. The heater is deactivated by its safety systems. Once the device has cooled down, it is automatically restarted.



PREHEATING ERROR

This error appears when preheating sensor or preheater may be damaged.



EMPTY FUEL TANK

When the fuel tank is entirely empty, the message "OIL" appears on the display. The device lets out a continuous audio signal. The tank cannot be emptied enough to require the fuel pump to be bled.



CAUTION

NOTE!

If the heater is shut down by the safety systems, carefully ventilate the space being heated to clear all exhaust gases and/or fuel vapours.

DIAGNOSING AND REPAIRING OPERATING FAILURES

FAULT DESCRIPTION		POSSIBLE CAUSE	REPAIR MEASURE
The heater will not start	The device does not receive electricity.	The power cord is not connected to the socket.	Plug in the power cord.
		The power grid does not supply current.	Check the operation of the power grid and the on-site fuses.
		Burnt fuse	Replace the fuse (250V 3A).
		The power cord is disconnected from the device.	Contact an authorised maintenance service.
	The fuel warning light is on.	The fuel tank is empty.	Add diesel or fuel oil.
		The current temperature is higher than the set target temperature.	Set the target temperature higher than the current temperature.
	The fuel pump makes a loud noise.	There is air in the fuel system.	Bleed the fuel system as described in the user manual.
	The burner is not receiving fuel.	The fuel filter is dirty.	Replace the fuel filter.
		The fuel pump's bleed screw is loose.	Tighten the wing nut intended for bleeding.
	The burner is not receiving sufficient voltage.	The mains voltage is too low.	Connect the device to a 220/230V mains network.
	ERR error message	There is air in the fuel pump.	Bleed the fuel system as described in the user manual.
		The fuel filter is clogged.	Check the condition of the fuel filter and replace it if it is not fully yellow in colour.
		The fuel filter and nozzle are clogged.	If the fuel filter has been replaced and the device still cannot be activated, the nozzle, too, is most likely clogged and must be replaced.
	ER 1 error message	Flame sensor issue	The flame sensor detects light before the burner is activated. Ensure that the flame sensor is positioned properly. The sensor may also be damaged.
	ER 2 error message	Temperature sensor error	The temperature sensor is probably damaged. The heater can still be used in timer operation mode. Please contact the official Airrex service to fix temperature sensor.
ER 3 error message	Shock or tilt error	The warning light is lit if the device is tilted by more than 30°C or subjected to a strong shock or jolt. The heater is deactivated by its safety systems.	
ER 4 error message	Overheat error	The warning light is lit when the temperature in the top section of the heating element exceeds 105°C. The heater is deactivated by its safety systems. Once the device has cooled down, it is automatically restarted. Place the device on an even and solid foundation.	
ER 9 error message	Preheating error	This error appears when preheating sensor or preheater may be damaged.	
The heater is shut down soon after activation.	The fuel warning light is on.	The fuel is about to run out.	Add diesel or fuel oil.
	The exhaust pipe emits a puff of smoke when the device is switched off.	The fuel filter is clogged.	Replace the fuel filter.
		The fuel filter and nozzle are clogged.	If the fuel filter has been replaced and the device still cannot be activated, the nozzle, too, is most likely clogged and must be replaced.
		Incorrect fuel type	Drain the fuel tank and fill it with high-grade diesel or fuel oil
		The fuel contains water or other impurities.	Drain the fuel tank and fill it with high-grade diesel or fuel oil
		The fuel pump is damaged.	Contact an authorised maintenance service.

DIAGNOSING AND REPAIRING OPERATING FAILURES

FAULT DESCRIPTION		POSSIBLE CAUSE	REPAIR MEASURE
The heater shuts down after a power outage.	The heater has switched off on its own.	The electricity network has suffered an outage and the heater has been without power.	This is a safety feature. Reactivate the heater as normal.
The heater shuts down during the night.	ERR error message	Insufficient ventilation	The space being heated has run out of fresh air. Ventilation in the space must be increased.
The heater shuts down after a few hours of operation.	ERR error message	Insufficient ventilation	The space being heated has run out of fresh air. Ventilation in the space must be increased.
The heater produces smoke and accumulates soot.	There is a blockage in the fuel system.	Incorrect fuel type	Drain the fuel tank and fill it with high-grade diesel or fuel oil
	The burner is not receiving enough fresh air.	Insufficient ventilation	The space being heated has run out of fresh air. Ventilation in the space must be increased and the heater must be serviced.
		The fuel filter is clogged.	Replace the fuel filter.
Noisy burner		The fuel filter is clogged.	Replace the fuel filter.
	The fuel pump makes a loud noise.	There is air in the fuel system.	Bleed the fuel system as described in the instruction manual.

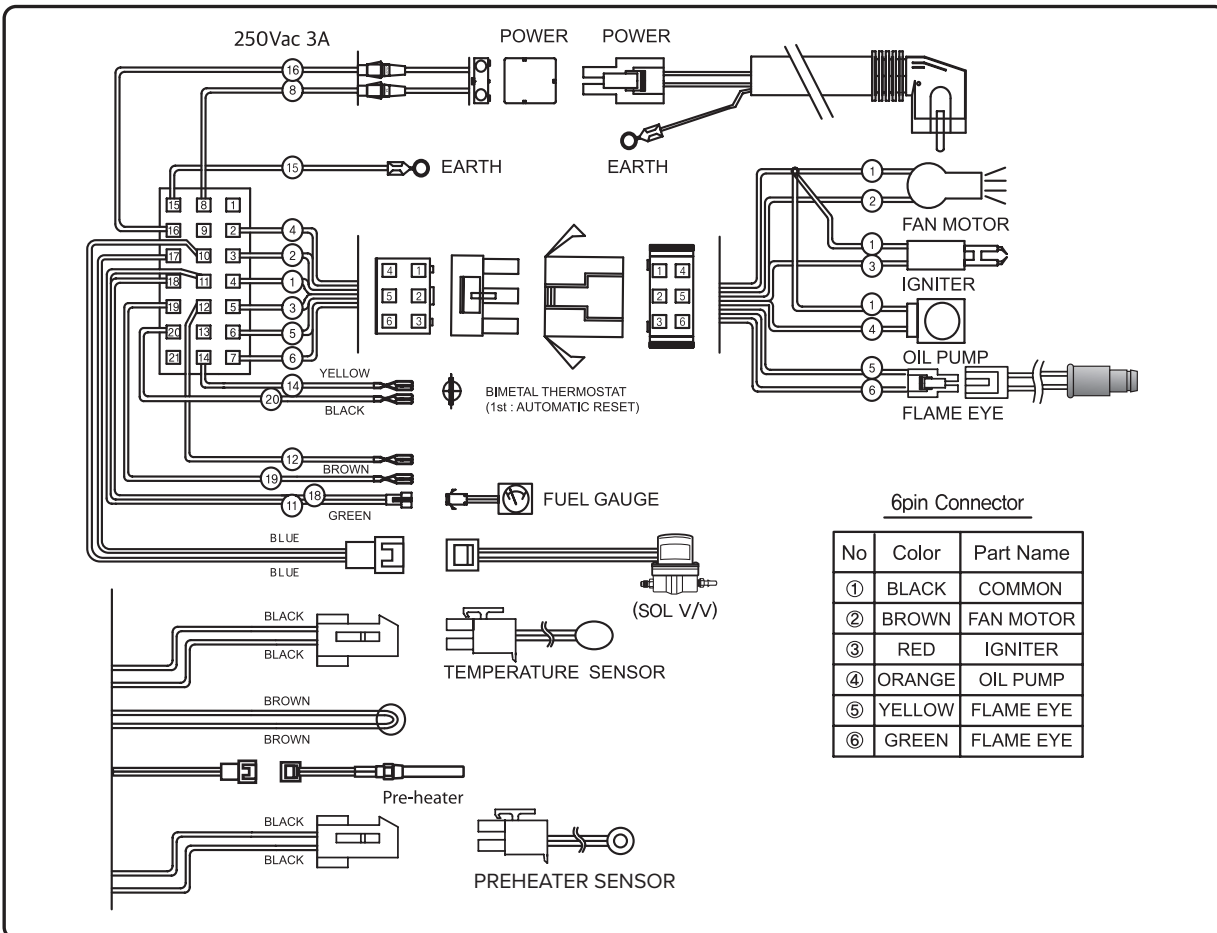
WIFI PROBLEMS

FAULT DESCRIPTION	REPAIR MEASURE
The wifi light is on (not blinking) on the heater display, but the mobile app keeps going offline.	Swipe down the screen of the mobile app to refresh it. If that doesn't work, quit the app and try again.
The wifi light blinks once on the heater display and the mobile app keeps going offline.	<ol style="list-style-type: none"> 1. Check your wireless router for internet connection. It is also good to turn the power off and on. 2. Press the UP and DOWN buttons simultaneously for 5 seconds, check that the ding sound and wifi light are off, and then press again for 5 seconds to check the wifi light. 3. If that doesn't work, turn the heater's main power off and on.
The wifi light blinks twice on the heater display and the mobile app keeps going offline.	The wifi light twice blinking means that it is not connected to the wireless router. Please check the following.
	1) Install a wireless router close to the product. Depending on the location or distance between the product and the wireless router, the RSSI (strength of the wireless network signal) may vary, and the transmission time and data rate in receiving may also differ.
	2) Check to set your SSID (wireless router ID or name) to a combination of English and numeric. If you use special characters, the information might not be properly transferred to the product modem and might not be connected.
	3) You might not be able to connect depending on your network settings or connection status. If you are not connected or have problems setting up your network, contact your network service provider.
	4) Turn the wireless router off and on
	5) In the mobile app, select the network change menu in the product detail menu to changing the wireless router.
6) Delete the product from the mobile app and register the product again from the beginning. (Note: For iPhone, turn Bluetooth off and on in the phone settings and forget the device named "AIRREX" on the device list.)	

TECHNICAL SPECIFICATIONS AND CONNECTION DIAGRAM

	AH-200i	AH-300i	AH-800i
Heating capacity	13kW/h (11,180kcal/h)	15kW/h (12,900 kcal/h)	22kW/h (18,920 kcal/h)
Fuel	Biodiesel, diesel		
Fuel consumption	0.95 - 1.14 L / h	1.14 - 1.33 L / h	1.71 - 1.9 L / h
Burner type	Electric pump (pressurized spray type)		
Power supply	220/230Vac, 50Hz, Single phase		
Electric power consumption	80W		
Fuel tank size	25 L	45 L	70 L
Product size (WxDxH)	780 x 305 x 1010mm	950 x 305 x 1080mm	1300 x 350 x 1400mm
Weight	40 kg	46 kg	81 kg
Safety devices	Overheating prevention, auto misfire detection, excessive shock / inclination sensor, fuel shortage indication		
Control method	Digital MiCOM wifi controller		
Fuse	Fast short type ampere fuse (250Vac, 3A)		
Wifi frequency	2,4Ghz		
Bluetooth	V4.2BLE		

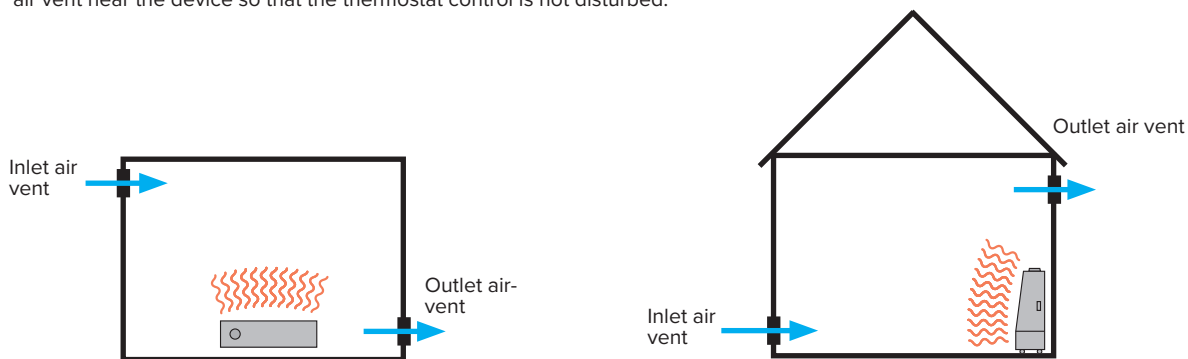
- The manufacturer does not recommend these heaters be used in temperatures under -20°C.
- Due to active product development, the manufacturer reserves the right to make changes to the technical specifications and functional descriptions in this manual without separate notice.



CAUTION

ENSURE SUFFICIENT VENTILATION!

More than 85% of all operating malfunctions are due to insufficient ventilation. It is advisable to place the heater in a central and open location so that it can radiate heat in front of it without obstruction. The heater needs oxygen to run, which is why sufficient ventilation in the room must be ensured. Natural ventilation in accordance with the applicable building regulations is sufficient, provided that no inlet or outlet vents have been blocked. It is also not recommended to position a replacement air vent near the device so that the thermostat control is not disturbed.



- It is important to ensure that air circulates in the space being heated. Ideally, air should be fed in through an inlet vent at the bottom and the CO₂-containing air should be discharged through an outlet vent at the top.
- The recommended diameter of the ventilation openings is 75–100 mm.
- If the room has an inlet **or** outlet vent only, air cannot circulate in it and the ventilation is insufficient. The situation is the same if ventilation is only provided through an open window.
- Air flowing in from slightly opened doors/windows does not guarantee sufficient ventilation.
- The heater requires sufficient ventilation even when the exhaust pipe is led out of the room being heated.

AIRREX WARRANTY

Warranty terms and conditions

Warranty provided by
Rex Nordic Oy (2646942-1)
Mustanlähdeentie 24A,
07230 Askola, FINLAND

1. General description

Rex Nordic provides a warranty to consumers who have purchased a product imported by an importer either directly or from a reseller. The consumer's rights during the warranty period are determined based on the regulations valid in the country where the warranty or warranty service claim has been presented. This warranty is a voluntary manufacturer's warranty providing consumers with additional rights in addition to their rights under national consumer legislation and shall, therefore, not impact these legal rights. The warranty shall remain valid provided that the device is operated and serviced in accordance with the instruction manual.

Time-restricted or temporary offers are country-specific, and the related warranty claims shall not be presented in any country other than the country or countries in which the offer is valid.

2. Warranty coverage

The importer shall provide the products it has imported with a warranty for material and manufacturing defects in accordance with these warranty terms. The provider of the warranty shall be responsible for ensuring that the usability and quality of the device remain normal throughout the warranty period. Otherwise, the device has a defect.

A defect refers to an expertly assessed deviation from the normal quality of the importer's products or the related guidance values provided by the manufacturer, taking into account the age of the device and the time it has been in use. For example, manufacturing and structural defects and other defects and deficiencies impairing usability of the device during the warranty period shall be considered defects covered by the warranty.

However, the warranty provider shall not be responsible for the defect if it puts forward a reasonable case that the deviation in the normal quality or usability of the device is due to a reason related to the purchaser. The reason may be, for example, handling the device contrary to the maintenance instructions or other wrongful use of the device or neglecting the maintenance to be carried out according to a maintenance programme and prepared by the manufacturer or a deficient implementation thereof. The warranty limitations have been described in more detail in Section 6.

The warranty only covers Rex Nordic Oy products imported by Rex Nordic Oy and sold by an official dealer thereof.

Only dealers authorised by Rex Nordic Oy are allowed to market and advertise the 3-year warranty.

3. Start and duration of the warranty

The warranty period begins on the day of purchase of the product. A receipt or similar certificate of the purchase of the product must be retained and presented in warranty-related matters to confirm the warranty.

The importer grants a 12-month warranty for products starting from the date of purchase of the device. In case of specifically mentioned and marketed products, the warranty may be extended at rexnordic.com by activating a 2-year additional warranty within 4 weeks of the date of purchase.

Following the registration of the additional warranty, the maximum warranty period of the product shall be 3 years in total. More information about the warranty periods of different products is available at rexnordic.com.

4. Work included in the warranty scope

If the device is sent to warranty servicing within the extended warranty period, the receipt and warranty certificate (or a reliable clarification of the date of purchase) for the extended warranty must be sent with it. Based on the warranty, repair of the defect covered by the warranty shall be performed free of charge during the warranty period during normal working hours as indicated by Rex Nordic Oy.

Possible costs connected to transporting the device to warranty servicing or warranty repair are at the customer's expense. Keep the original packaging to facilitate any transport. The costs connected to returning the product to the customer after warranty servicing or warranty repair, if the device was approved for warranty servicing/repair are at the expense of the dealer/importer. If a defect in or repair of the product is not covered by the warranty, the customer must pay for all service costs, including any postal fees.

If the product or part thereof is replaced as part of the rights under this warranty term, the replacing part shall become the customer's property and the replaced old part shall become the importer's property.

5. Warranty of a repaired product

The warranty of a device repaired or replaced under the warranty shall continue until the end of the original warranty period.

6. Warranty limitations

The warranty shall not cover:

- a. repair of a defect caused by natural wear and tear or inappropriate use; deficient or faulty service performed by a party other than the importer or conditions of use deviating from the dimensioning basis; or selection by the purchaser of a device unfit or wrongly dimensioned for use or for a certain application. Instructions on annual maintenance are provided in the instruction manual delivered with the product and available online at rexnordic.com
- b. use of the product in facilities incompatible with the instruction manual and/or problems caused by conditions. Always check the required technical specifications in the product manual
- c. insufficient ventilation (products requiring sufficient ventilation to function)
- d. compensation for direct or indirect damage caused by the defective device
- e. repair of a defect if a third party has performed modifications or repairs to the device
- f. repair or replacement of parts subject to wear with no specifically granted warranties

If it emerges during a warranty repair that the defect or possible defect has been caused by one of the aforementioned factors, the importer shall have the right to invoice the customer for any work and material costs induced by the work. The importer shall report such a situation once the matter has emerged, in which case the customer shall have the option of not repairing the defect not covered by the warranty terms. In the situation described above, the product's return charges shall fall under the customer's responsibility. The product can also be recovered from the Importer's maintenance service where the product has been sent at no extra charge.

A reasonable time in which to report a defect shall be no later than 60 days following the detection of the defect or the day when it should have been detected. However, in the event of a defect, the customer must always act in a way that ensures that the damage will not be heightened due to the customer's actions or negligence. When reporting a defect, the purchaser must present a warranty certificate or another reliable clarification on where and when the device was purchased.

When estimating a reasonable repair time, the degree of defect shall be taken into account in consideration of the safety and reliability of the device, the difficulty of locating the defect, the scope of repair and the availability of spare parts.

With regard to software, the manufacturer's licence and terms of use shall be observed.

7. Presenting a warranty claim

You can submit a warranty claim at rexnordic.com or by phone or e-mail to Rex Nordic's customer service during service hours. The up-to-date customer service contact information is available at rexnordic.com.

Alternatively, if you purchased the product from an official Rex Nordic Oy reseller, you can contact the reseller.

8. Warranty service and options

The most suitable warranty service option can be determined through contact with the importer. With the below options, Rex Nordic shall determine one or more options to be used:

- a. an authorised servicing staff member arrives on site to perform the warranty service measures
- b. the customer sends the product to warranty service by post. Rex Nordic shall pay the postal fees both ways if the warranty terms are met
- c. the customer delivers the product to an authorised reseller, and the reseller delivers the product to Rex Nordic.
- d. the customer delivers the product directly to a service location indicated by Rex Nordic. The customer shall be responsible for the costs incurred by them.
- e. Rex Nordic shall deliver an easily replaceable part by post for the customer to replace by themselves.

We shall not bear any direct or indirect responsibility for any labour-related costs. If you need guidance or more information, please contact the Rex Nordic maintenance department. The up-to-date contact information is available at rexnordic.com.

9. Disclaimer

This warranty shall be interpreted according to the laws of the country in which the product imported by Rex Nordic Oy has been sold.

To the extent allowed by local legislation, Rex Nordic shall not bear responsibility for any operational defects, harm, loss or other indirect damage to the product caused by misuse of the product, inability to use it or breach of the direct or indirect warranty.

TECHNICAL SUPPORT

WHY OUR SERVICE?

1. We are the official service shop for Airrex products.
2. We only use original spare parts.
3. All spare parts for devices are available in our warehouse.
4. A well-trained, professional and friendly maintenance staff.
5. We provide quick and reliable maintenance service.
6. Our service comes to your machine – it is that easy!

WE ARE HERE TO HELP YOU

FINLAND	+358 400 470 915
SWEDEN	+46 72 555 29 09
NORWAY	+47 930 00 411
UNITED KINGDOM	+44 13 553 773 70
INTERNATIONAL	+358 400 470 915
service@rexnordic.com	

AIRREX[®]

MANUFACTURER



HEPHZIBAH CO., LTD.

HEPHZIBAH CO., LTD
(Juan-dong) 86, Gilpa-ro
71beon-gil, Nam-gu,
Incheon, Korea
+82 32 509 5834

DISTRIBUTOR

REX NORDIC
rexnordic.com

REX NORDIC GROUP
Mustanlähteentie 24 A
07230 Askola, Finland

FINLAND	+358 40 180 11 11
SWEDEN	+46 72 200 22 22
NORWAY	+47 4000 66 16
UNITED KINGDOM	+44 13 553 773 70
INTERNATIONAL	+358 40 180 11 11

info@rexnordic.com
www.rexnordic.com