

# 3008 Advanced Control Panel

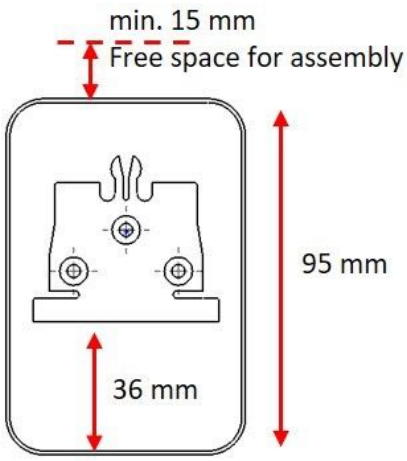
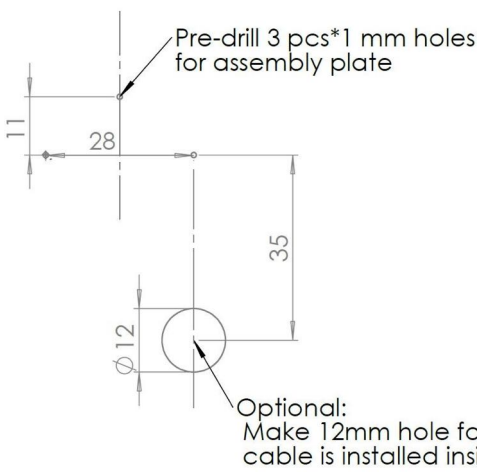
INSTALLATION, OPERATION AND SERVICE INSTRUCTIONS



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# Control Panel Installation

3008 Control Panel cable can be assembled as a surface mount or behind wall.

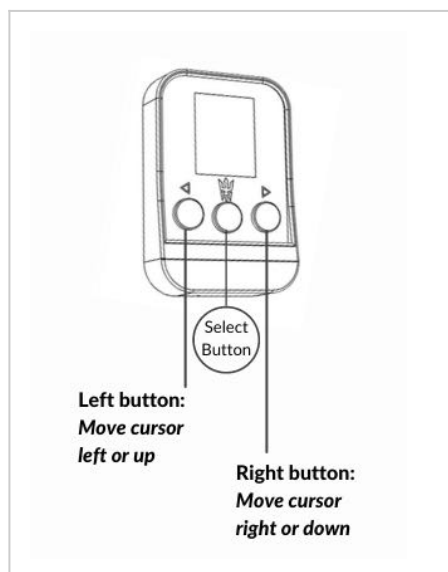
Surface mount, cable visible	Cable hidden behind the wall
	<p>Install assembly plate to flat surface.</p>  <p>Optional: Make 12mm hole for cable if cable is installed inside wall .</p>
<ol style="list-style-type: none"> <li>1) Install the mounting plate and mark places for the screws. Pre-drill 3*1 mm holes for screws.</li> <li>2) Cut the cable opening in bottom of the panel.</li> <li>3) Install the mounting plate.</li> <li>4) Slide the panel in place from the top down.</li> <li>5) Remove the display protection tape.</li> </ol>	<ol style="list-style-type: none"> <li>1) Install the mounting plate and mark places for the screws. Pre-drill 3*1 mm holes for screws.</li> <li>2) Drill 12 mm hole for the cable. Draw and check hole location before drilling, it should not be visible when panel is mounted.</li> <li>3) Install the mounting plate.</li> <li>4) Slide the panel in place top-down.</li> <li>5) Remove the display protection tape.</li> </ol>

	<p><b>Cable connection</b></p> <p>Please note that cable connector release pin is positioned as in the picture, when connecting cable into panel. (Soft "click" sound can be heard when cable is connected.)</p>
	<p><b>Cable release</b></p> <p>Press connector release clip (shown in the picture) before pulling the cable out.</p>

## 3008 Control Panel basic features

### Advanced Control Panel

Before using the Control Panel ensure it is assembled correctly with the assembly plate (see assembly instructions from sales package) and connected to the Wallas unit. This manual refers to Control panel SW 1.2.75. and heater SW 1.6.64

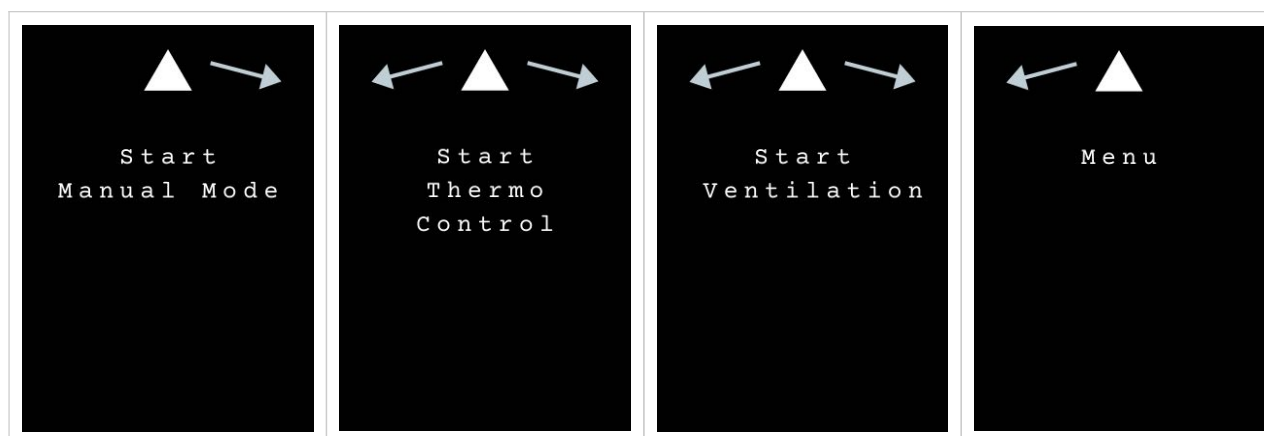


### Starting the heater for the first time after power connected or reconnect

Panel will display black & white intro menu.



Before starting, choose the operation mode using the right and left buttons; Manual Heating Mode, Thermo Control Heating Mode or Ventilation Mode.

Use the arrow buttons to choose the mode you want and press the Select Button.



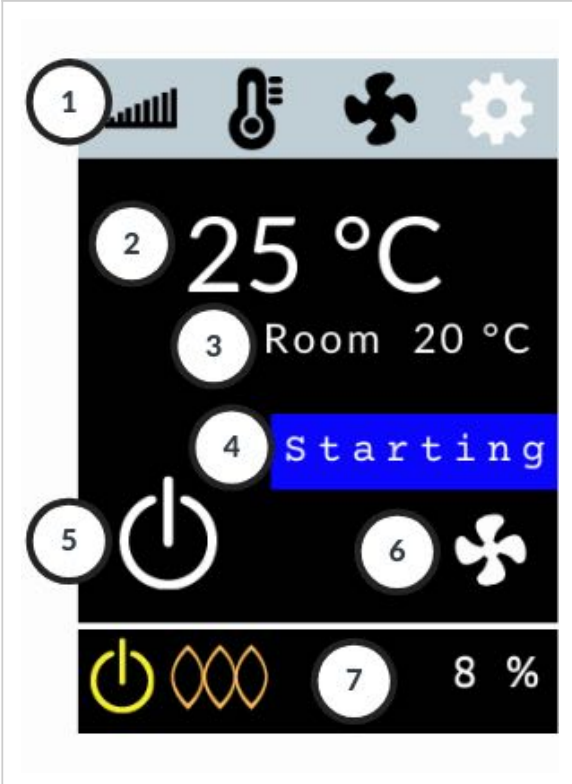
Once running in any mode, the system must be shut down completely before changing to another mode.

Starting the heater for the first time after power is restored

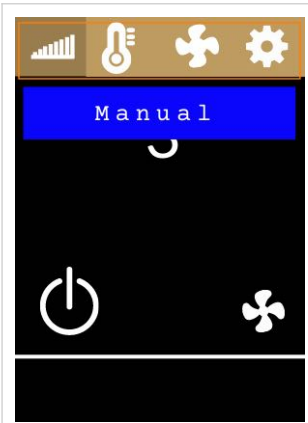
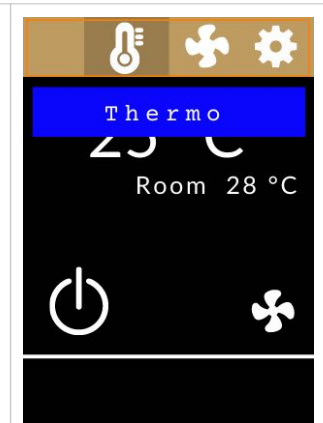
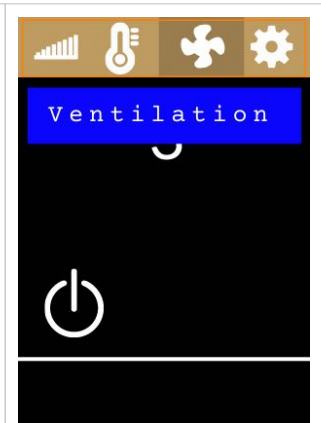
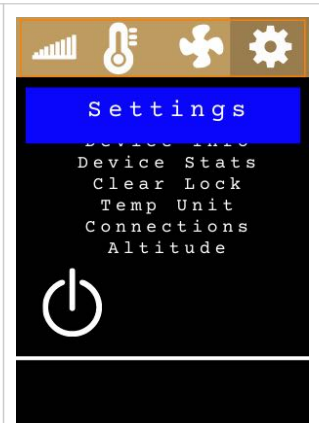
 <p>Start Thermo</p> <p>Long press to start</p>	 <p>Set Adjust 20 °C</p>
<p>If <b>Thermo Control Mode</b> is chosen, press and hold the <b>Select Button</b> for 3 seconds to start the heater (safety feature).</p>	<p>Use <b>Arrow Buttons</b> to set the desired temperature and press the <b>Select Button</b>. Main panel display will appear.</p>

Note: Wallas unit should start heating at about 5 minutes of running, while completing the starting process takes approximately 12 minutes.

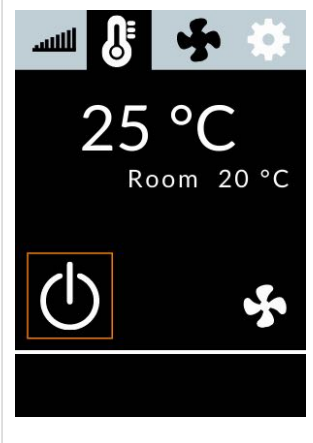
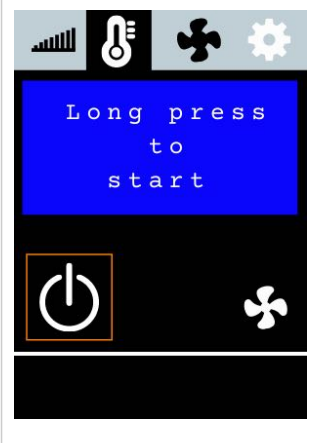
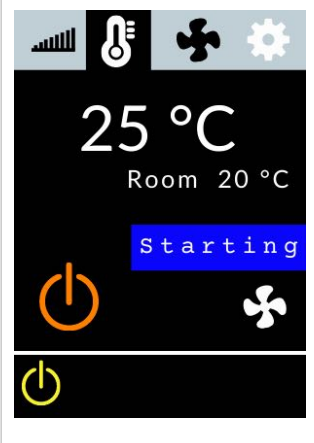
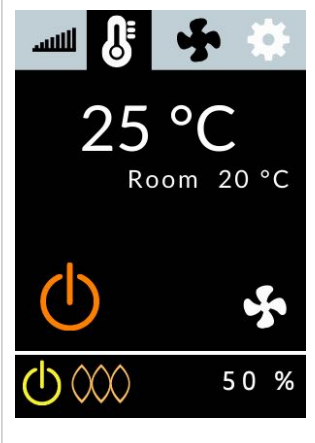
Digital Panel Legend:

	<ul style="list-style-type: none"> <li>1 Main Menu Bar</li> <li>2 Target Temperature , Power Level or Blower Speed</li> <li>3 Room Temperature (C of F available)</li> <li>4 Heater Status</li> <li>5 Start/Stop Icon (white Icon Off, orange Icon On)</li> <li>6 Air Boost Icon</li> <li>7 Info Bar: Power On/Off, Combustion, Info, Lock, Heater power %</li> </ul>
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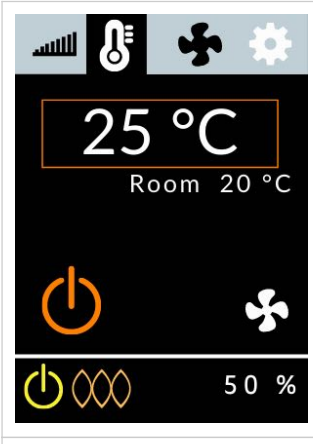
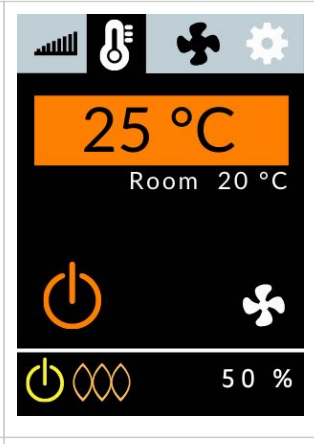
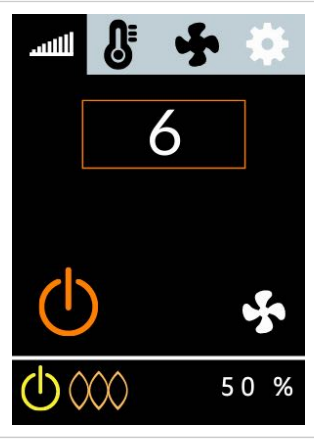
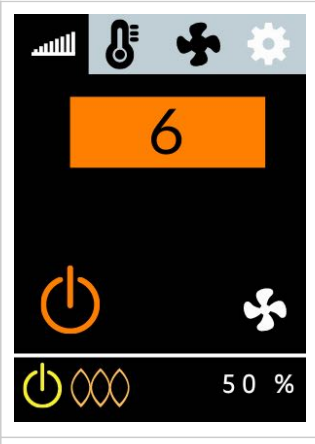
Operation modes (Main Menu Bar)

			
<p>Manual control mode - heater power is manually controlled with 6 power levels (1-6)</p>	<p>Thermo control mode - set a target temperature (C°/F°) - heater controls the power level automatically</p>	<p>Ventilation mode - set the desired blower speed (speed levels 1-6) - blows fresh air without heating</p>	<p>Settings - get familiar with the control panel's functionality - read more under Settings</p>

## Ignition

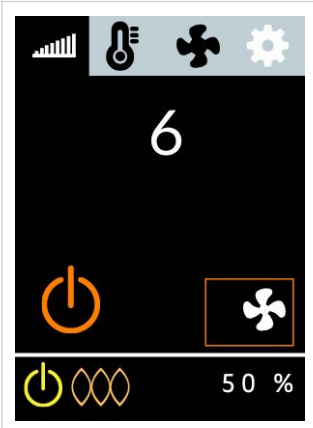
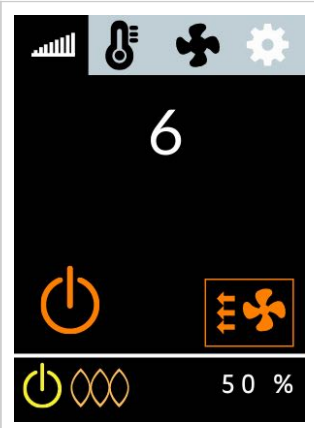
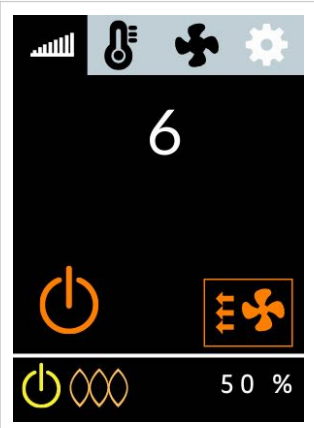
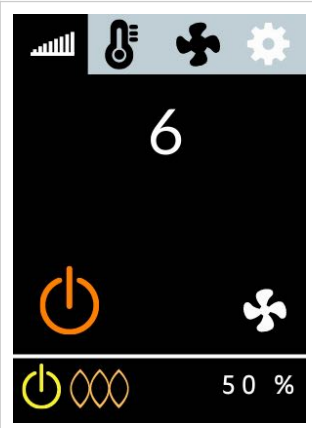
			
<p>To start, use the <b>Arrow Buttons</b> (left or right) to move the orange selection square to the white <b>Start/Stop Icon</b>.</p>	<p>Confirm the selection by holding the <b>Select Button</b> down for 3 seconds (safety feature). White icon turns orange.</p>	<p>Starting will appear on the screen.</p>	<p>The light orange combustion light will light up when the burner flame has been ignited and the combustion has stabilized (in about 5 min). Heater will be fully operational about 10 minutes later.</p>

## Temperature/Power setting

			
<p>In <b>Thermo Control Mode</b>, move the selection square to the <b>Target Temperature</b> and press the <b>Select Button</b>.</p>	<p>Press <b>Arrow Buttons</b> (left or right) to set the desired target temperature.</p>	<p>In <b>Manual Mode</b>, move the selection square to the <b>Power Level</b> and press the <b>Select Button</b>.</p>	<p>Use <b>Arrow Buttons</b> to set the desired power level (1-6). Confirm by pressing the <b>Select Button</b>.</p>

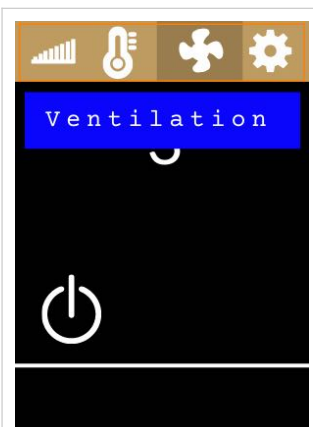
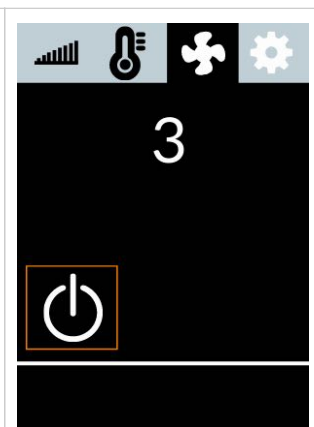
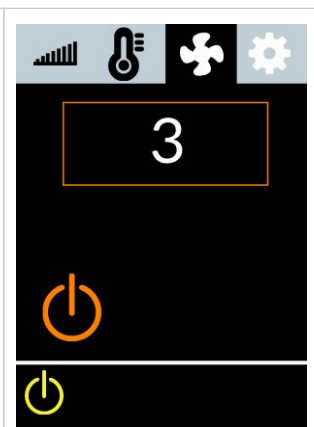
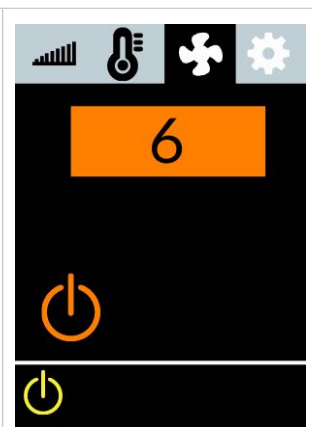
## Air Boost

The Air Boost feature maximizes the air volume for quick defrosting and drying, but does not change the set temperature, power level of fuel rate. Air Boost can be activated either in Manual or Thermo Control Mode, when the system is heating.

 <p>The screenshot shows a control panel with a temperature of 6. The Air Boost icon (a fan with three blades) is highlighted with a white border. The power level is 50%.</p>	 <p>The screenshot shows the same control panel. The Air Boost icon is now highlighted with an orange border, indicating it is active.</p>	 <p>The screenshot shows the same control panel. The Air Boost icon is highlighted with an orange border, and the power level is 50%.</p>	 <p>The screenshot shows the same control panel. The Air Boost icon is now highlighted with a white border, indicating it is deactivated.</p>
<p>Use <b>Arrow Buttons</b> to move the selector to the <b>Air Boost</b> icon and press the <b>Select Button</b>.</p>	<p>The orange Air Boost On icon will appear.</p>	<p>To go back to normal air volume, choose the <b>Air Boost</b> icon again and press the <b>Select Button</b>.</p>	<p>The Air Boost icon will change to white.</p>

## Ventilation mode

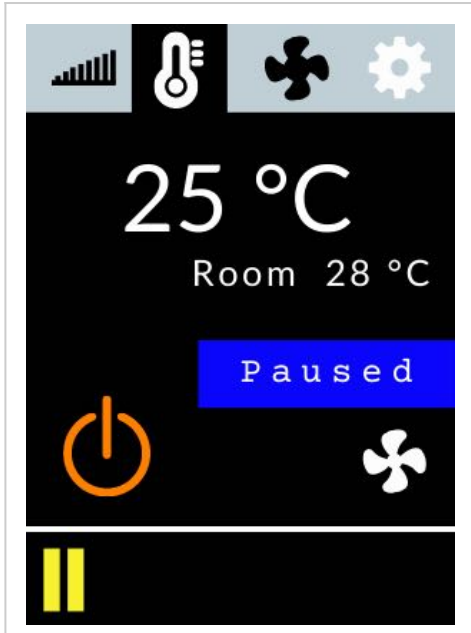
Ventilation Mode blows fresh air without heating at 6 blower speeds. Choose Ventilation Mode prior to starting the device.

 <p>The screenshot shows a control panel with a temperature of 3. The 'Ventilation' mode is selected, indicated by a blue bar at the top. The power level is 50%.</p>	 <p>The screenshot shows the same control panel. The Start/Stop icon (a power button) is highlighted with a white border.</p>	 <p>The screenshot shows the same control panel. The blower speed '3' is highlighted with a white border.</p>	 <p>The screenshot shows the same control panel. The blower speed '6' is highlighted with an orange border.</p>
<p>Use the <b>Arrow Buttons</b> to move the selection square to the <b>Main Menu Bar</b> and press the <b>Select Button</b> to activate it. Use <b>Arrow Buttons</b> to choose <b>Ventilation Mode</b> and press the <b>Select Button</b>.</p>	<p>Move the selection square to the <b>Start/Stop Icon</b> and press the <b>Select Button</b> once. Press the <b>Select Button</b> down again for 2 seconds to confirm and start the heater. Yellow Power On light will appear in the Info Bar.</p>	<p>Choose the blower speed (1-6) by moving the selection square to the <b>Blower Speed</b> and press <b>Select Button</b> to activate the field.</p>	<p>Press <b>Arrow Buttons</b> to the desired power and press the <b>Select Button</b> to choose. To deactivate ventilation, turn the heater off. Re-start in the desired mode.</p>



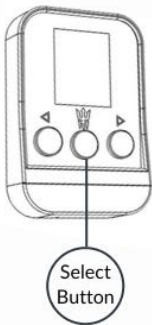
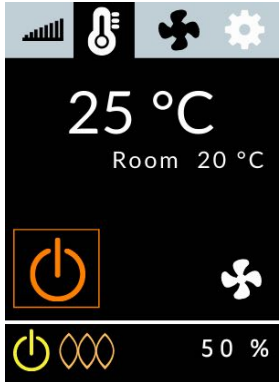


### Pause Mode (in Thermo Control Mode only)

Pause Mode automatically turns the heater off if the temperature remains +2 C° (3,6 F°) above the set level for 1/2 hour due to local ambient conditions. Pause Mode can be delayed temporarily by slightly increasing the target temperature. Power can be turned on by increasing the target temperature in the Pause Mode.



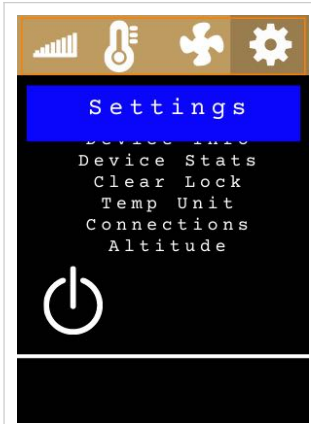
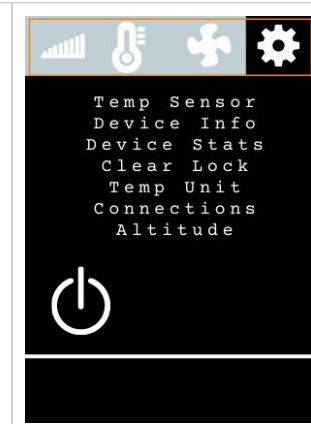
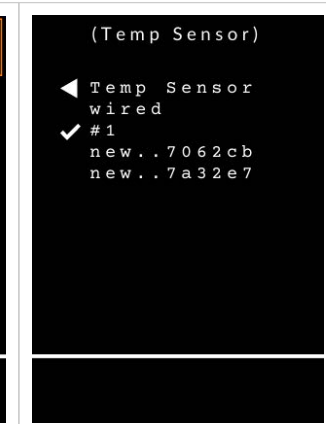
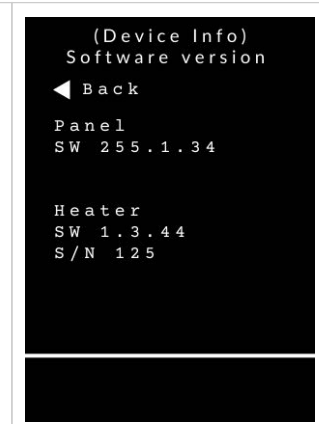
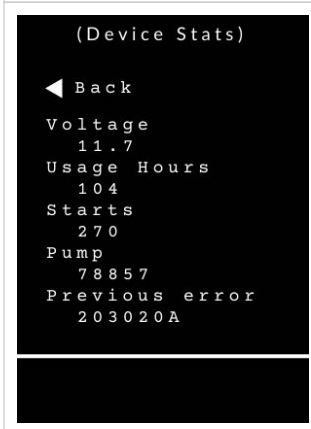
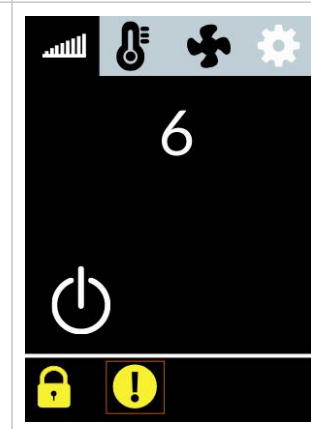

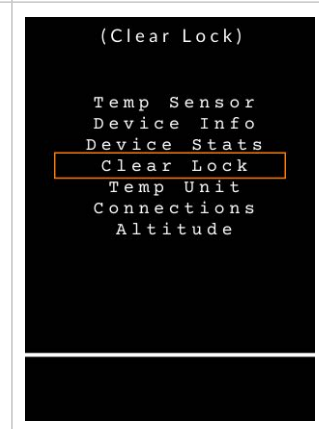
If the heater is in Pause Mode, *Paused* will appear on the screen. Heater will re-start heating again automatically, if the cabin temperature falls 2 degrees C (3,6 F°) below the set target temperature.

### Shut down

			
<p><b>Option 1</b> Quick shut down: Press and hold the <b>Select Button</b> down for more than 4 seconds. <i>Stopping</i> will appear and the Power Icon light will change to white indicating the unit is off.</p>	<p><b>Option 2</b> Alternatively use the <b>Arrow Buttons</b> to move the selection square to the <b>Start/Stop Icon</b> and press the <b>Select Button</b>.</p>	<p>Press and hold the <b>Select Button</b> down for more than 3 seconds and release.</p>	<p>Stopping will appear and the Power Icon light will change to white indicating the unit is off.</p>

**Note:** The system mode that was used last upon shutdown will be the same mode when the heater is turned on again.

**Settings:**

			
<p>Move the selection square to the <b>Main Menu Bar</b> and press the <b>Select Button</b>. Use the <b>Arrow Buttons</b> to choose <b>Settings</b>. Press the <b>Select Button</b>.</p>	<p>Use the <b>Arrow Buttons</b> to move the selection square down and press the <b>Select Button</b> to choose.</p>	<p><b>Temp Sensor</b></p> <ul style="list-style-type: none"> <li>- Choose the desired sensor to measure the indoor temperature with.</li> <li>- Wired is the hardwired sensor in the heater unit</li> <li>- Wireless sensors are listed by sensor numbers</li> <li>- When a wireless sensor is selected, it gets a running number ID</li> </ul>	<p><b>Device Info</b></p> <ul style="list-style-type: none"> <li>- Control panel and heater software versions (needed for customer service/tech help)</li> <li>- Heater unit serial number (needed for customer service/tech help)</li> </ul>
			
<p><b>Device Stats</b></p> <ul style="list-style-type: none"> <li>- Check there is enough voltage to start the unit (must have at least 10 V)</li> <li>- Check usage hours (units must be serviced every 2000 hours/3 years)</li> <li>- System starts</li> <li>- Pump cycles since new</li> <li>- Previous error code</li> </ul>	<p>If a <b>Lock Icon</b> is displayed, the heater has locked itself for safety. The heater will also lock after 3 unsuccessful starts. Move the selection square to the <b>Exclamation Point Icon</b> and press the <b>Select Button</b>. An error Page will appear.</p>	<p>If the heater has locked itself, there may have been a failure that should be investigated and resolved prior to further use. The error page will display a check list and a website for further information. If you need help, reach out to a professional.</p>	<p>To remove the lock, move the selection square to the <b>Main Menu Bar</b> and press the <b>Select Button</b>, choose <b>Settings</b>, and press the <b>Select Button</b>. Choose <b>Clear Lock</b> from the Settings Menu and press the <b>Select Button</b>.</p>


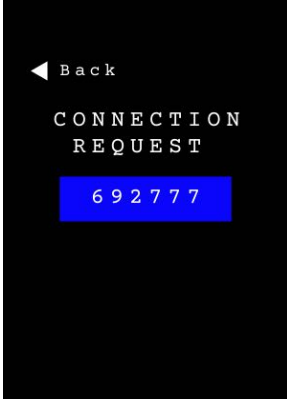
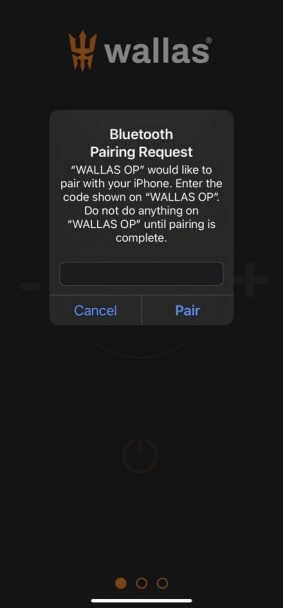
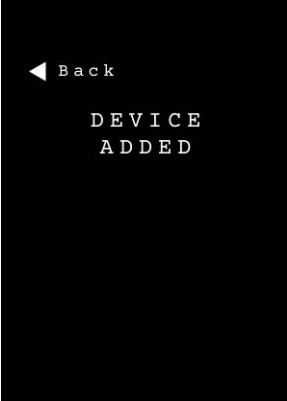
<p>(Temp Unit)</p> <p>◀ Temp Unit</p> <p>✓ °C</p> <p>°F</p>	<p>(Connections)</p> <p>◀ Connections</p> <p>Remove all</p>	<p>(Altitude)</p> <p>◀ Altitude</p> <p>✓ Normal</p> <p>Hill</p> <p>Mountain</p>	
<p>Temp Unit - select temperature unit Celcius / Fahrenheit.</p>	<p>Connections - clear all paired mobile phone devices.</p>	<p>Adjust combustion in high altitudes. Heater operation can be optimized to different altitudes.</p>	

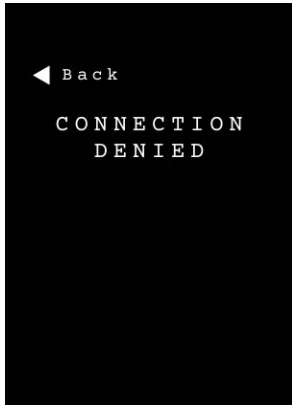



# Wallas Remote application and Control Panel connection

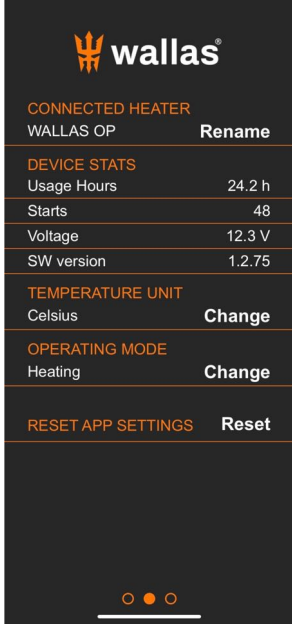
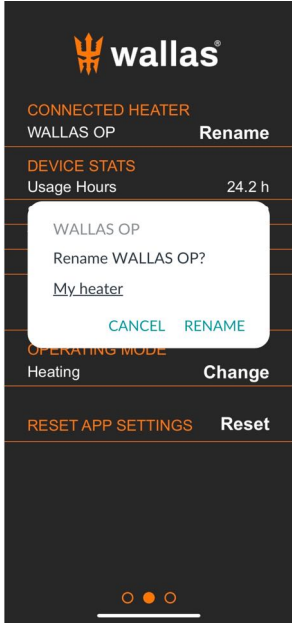
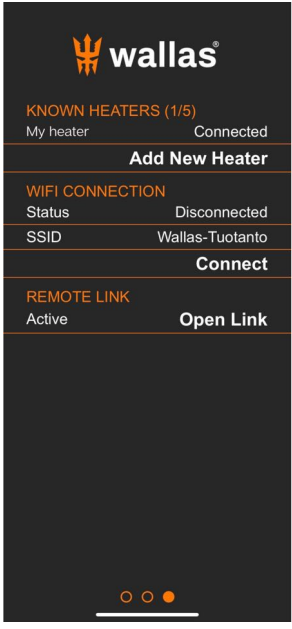
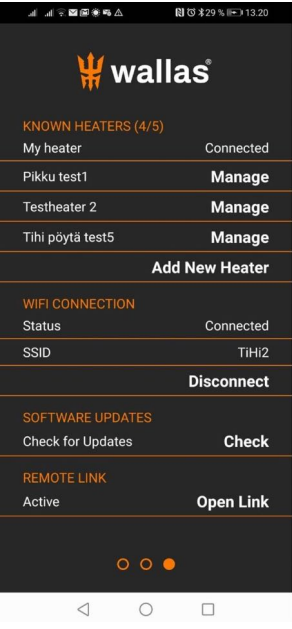
## Local Connection

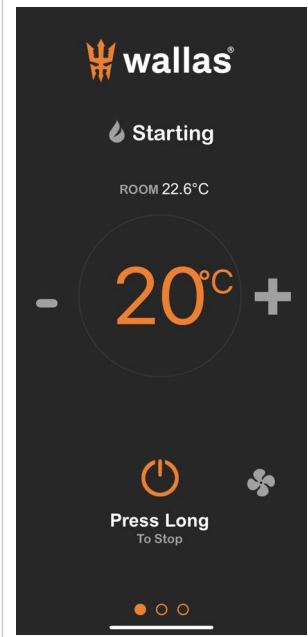
Advanced Control Panel can be connected into the mobile application with local connection. You can then operate your heater with the "**Wallas Remote**" application. First, download the "Wallas Remote" application to your mobile device from your application store.

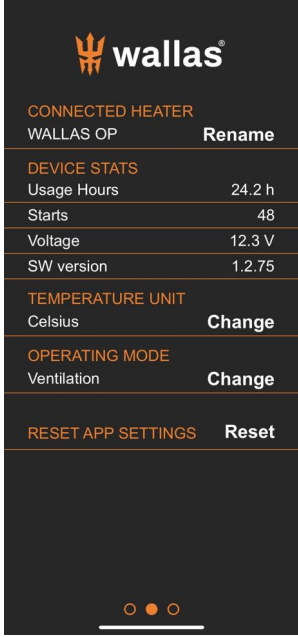
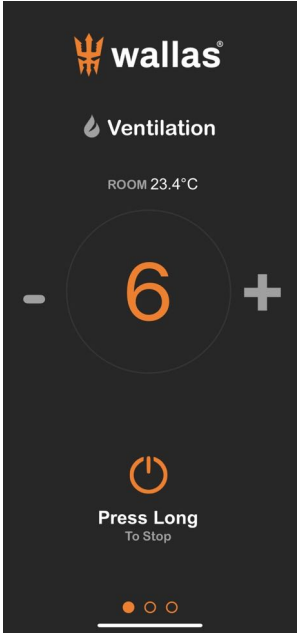
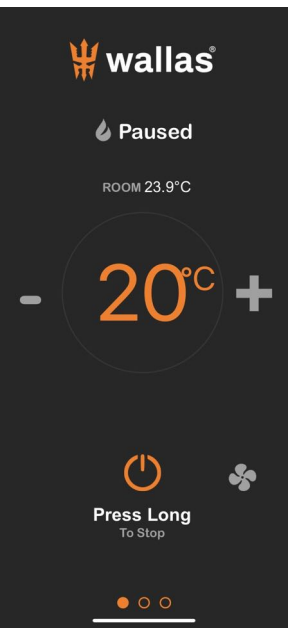
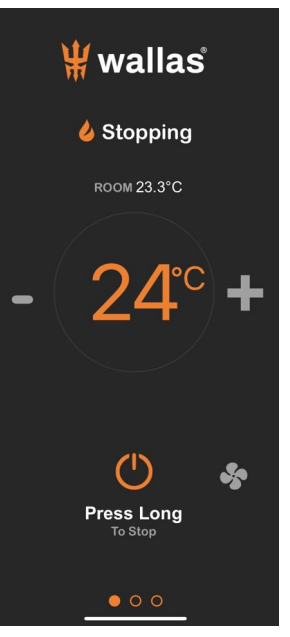
## Pairing the app with the heater

Mobile Device	Advanced Control Panel	Mobile Device	Advanced Control Panel
			
<p>Turn the short range wireless connection on your mobile device for pairing the app with the control panel. When you open the app for the first time, it will search for a Wallas heater nearby.</p>	<p>When a heater is found , a pin code will appear on the screen of the Advanced Control Panel.</p>	<p>Type the pin code in the app and press <b>Pair</b> to continue.</p>	<p>Once the pairing has been successful, it is confirmed on the Control Panel with <i>Device Added</i>.</p>

Advanced Control Panel	Advanced Control Panel	Advanced Control Panel	Advanced Control Panel
			
<p>If the connection was not successful, <i>Connection Denied</i> will appear on the Control Panel.</p>	<p>Use Arrow Buttons to go to the <b>Main Menu Bar</b> and press the <b>Select Button</b>. Go to the <b>Settings</b> and press the <b>Select Button</b>.</p>	<p>Choose <b>Connections</b> and press the <b>Select Button</b>. Select <b>Remove All</b> and press the <b>Select Button</b>.</p>	<p>Turn the app off, open it again and repeat the pairing process.</p>

Mobile Device	Mobile Device	Mobile Device	Mobile Device
			
<p>When the heater is connected for the first time it will be named by Wallas OP.</p>	<p>Each heater/connection can be renamed (max 20 characters).</p>	<p>User can add new heater and repeat the pairing process with the new heater.</p>	<p>Application supports up to 5 different heater connections. It is also possible to pair same heaters with another mobile device but only one active user (active connection) is possible at a time.</p>

Operating Mode	Ignition	Temperature	Air Boost
			
<p>Heater can be started remotely in two modes:  <b>Heating/Thermo Control:</b> Set a target room temperature C°/F°  <b>Ventilation:</b> Blow fresh air without heating            Prior to starting the heater, choose mode by swiping the screen to the <b>2nd page</b> and tap <b>Change</b> under <b>Operating Mode</b> to set the desired mode (Heating or Ventilation).            Due to safety, heater cannot be started remotely in Manual Mode.            To switch between the modes, turn the heater off and start in the desired mode.</p>	<p>Press and hold the <b>Start/Stop Icon</b> down for 2 seconds to start the heater.</p> <p><i>Starting</i> will appear on the screen. Orange combustion light will light up when the burner flame has been ignited and the combustion has stabilized (approx. in 5 min). Heater will be fully operational about 10 min later.            Heater starts in Thermo Control Mode.</p>	<p>In Heating/Thermo Control Mode the thermostat can be set to a target room temperature.</p> <p>Press the <b>Minus</b> or <b>Plus Icons</b> to adjust the temperature to the desired level.</p>	<p>Air Boost maximizes the air volume for quick defrosting and drying, but does not change the set temperature.</p> <p>While the system is heating, press the <b>Air Boost Icon</b> until the orange Air Boost light appears.            To go back to normal air volume, press the <b>Air Boost Icon</b> again. The light will turn off.</p> <p>Be aware that when running in Air Boost mode, the system amperage draw will be quite high, so use it with care if DC power is limited.</p>

Ventilation	Ventilation	Pause	Shutdown
			
<p>Ventilation mode blows fresh air without heating with 6 blower speeds.</p> <p>Swipe the screen to the <b>2nd page</b> and tap on <b>Change</b> under <b>Operating Mode</b> until you see Ventilation. It is now set and you can start the heater as usual (see ignition).</p>	<p>Press and hold the <b>Start/Stop Icon</b> down for 2 seconds to start the heater.</p> <p>Press <b>Minus</b> or <b>Plus</b> icons to set the desired power for the fan (1-6).</p> <p>To deactivate Ventilation Mode turn the heater off. Re-start in the desired mode.</p>	<p>Pause Mode automatically turns the heater off if the temperature remains +2° (3 F°) above the set level for 1/2 hour due to local ambient conditions.</p> <p>If the heater is in Pause Mode, <i>Paused</i> will appear on the screen.</p> <p>Pause Mode can be turned off temporarily by slightly increasing the target temperature. Heater will re-start heating again automatically, if the cabin temperature falls 2 degrees (3 F°) below the set target temperature.</p>	<p>Press and hold the <b>Start/Stop Icon</b> down for 2 seconds.</p> <p><i>Stopping</i> will appear and the Start/Stop icon will turn white indicating the unit is off.</p> <p>Note: The heating mode that was used last upon shutdown will be the same mode when the heater is turned on again.</p>

### WiFi Connection

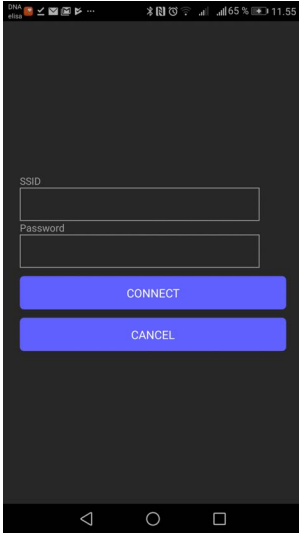
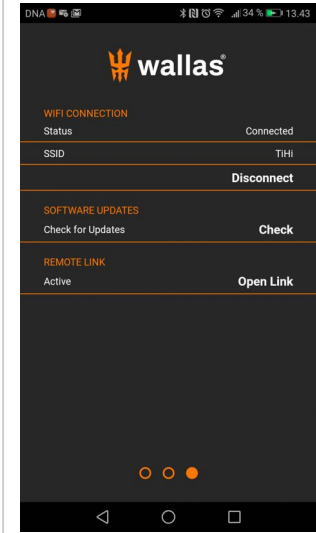
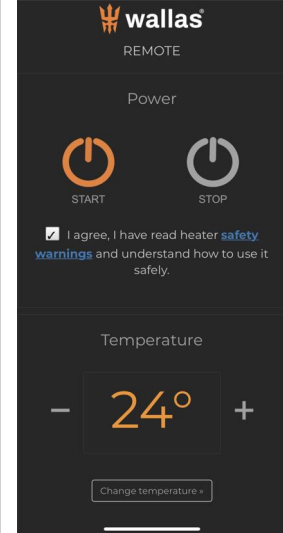
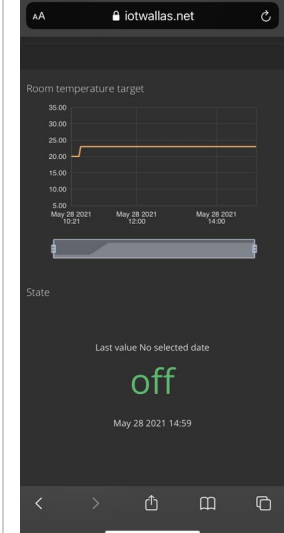
The 3008 Control panel can be connected to the internet with a WiFi connection.

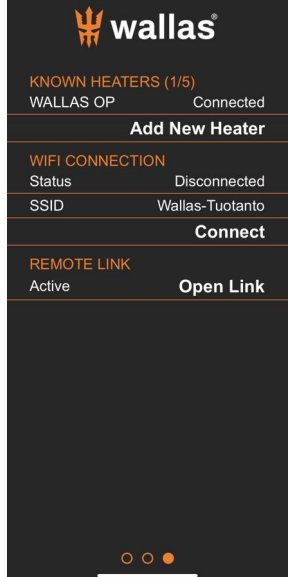
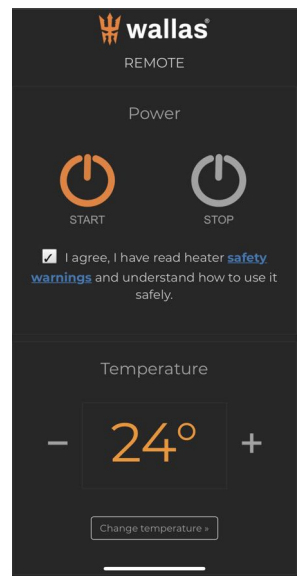
You can then operate your heater with the " **Wallas Remote**" application through the Internet.

Wifi connection is created through the Wallas Remote application. ( Local connection between application and Control Panel must be available before setup)

The first time selecting Connect, the application will ask for SSID and Password. Application will share this information with Control Panel.

NOTE! If you sell your heater or give it away, you need to clear WiFi settings. ( SSID="empty", password="empty") and you should remove the Wallas application from your device.

			
<p>Feed your internet connection details.</p>	<p>When internet connection is finalized status will be "connected". After few minutes "REMOTE LINK" will appear.</p>	<p>"REMOTE LINK" display will connect to internet panel. You can :          - set room temperature target          - start /stop your heater          Note: heater start and stop takes several minutes.</p>	<p>You can see when heater was last connected into internet, and what the heater state is. You can see some statistics of your heater. Available graphs will vary depending of your heater model.</p>

	
<p>When you start application and heater is not in range you can operate heater by opening the "Remote Link".</p>	<p>Note! Before you can operate heater, you need to read safety warnings and agree.</p>

Wallas-Marin reserves the right to develop usability and features of the application.



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**Connections tips:**

1. Read from your mobile device user guide how connections and WiFi connections are managed in your device.
2. Make sure that local connections and WiFi are allowed in you mobile device (airplane mode is OFF).
3. Your mobile device is not in power save mode and location permission is given to Wallas application.
4. Check that heater is connected to power and Control panel is connected via cable to the heater.
5. Distance between Mobile device and Control Panel is not too long.
6. Control Panel is not in use by another person. Only one local connection is possible at a time.
7. If your mobile device already has connection to the heater it can not create new connection before the old connection is removed from your device. In some phone models this has to be made manually. Remove "WALLAS OP" from your phones paired short range wireless connection devices list (note there might be several OP pairings in mobile device list, remove all) and restart short range wireless connection before new pairing is possible. This may be the case if control panel pairing code only blinks fast and your mobile device is repeating the connection requests.
8. Change connection to other Wallas heater.
  - Close Wallas remote application.
  - Remove old connections from your mobile device short range wireless connection paired devices list. Restart your devices short range wireless connection.
  - If there is no other users for new Wallas heater you can select Control panel menu Settings/Connections/Remove all.
  - Restart application.
  - When/if "Change Device " link appears (30-60 sec) press the link.
  - Wait connection procedure to finalize.
9. In some phone models Pairing request will open in background info window. ( See your mobile devices user guide.)

## Software update

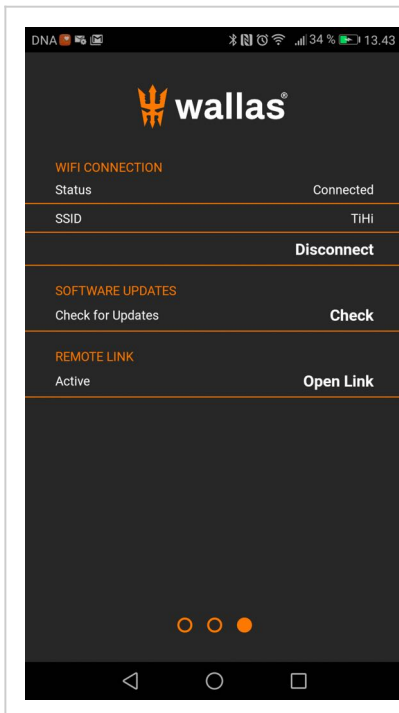
It is recommended to check software updates and perform software updating regularly to ensure optimal heater performance.

Before updating the software:

- check that the heater and the cell phone have sufficient level of power in battery
- check that the WiFi signal is strong and the internet connection is reliable
- be prepared to disconnect control panel cable, or heater power to make master reset to the system if necessary

Software update is a complex process, and errors may happen if there is a power or network failure during the update, including complete system failure.

Therefore it is forbidden to start software update for control panel if the Wallas heater is the only heat source and being unable to start heater would create a danger.



For software update make sure that

- WiFi signal is strong and the internet connection is reliable
  - WiFi HotSpot name (SSID) is visible in application page and the status is "Connected"
  - the heater is "OFF" before starting the update
- Updating may take up to 6 minutes, depending on network and connection.

If new software version is available *Update link* will appear on the screen. Select update.

Do not close application or heater power while update is ongoing. Control panel display will close and start a few times during the update. After the update is done, control panel will start and application will reconnect to panel.

**Note: In some phone models you may have to do the pairing again after software update.**

### Possible problems/errors:

If the software update is not successful

- if *File error* message appears, start update again after few minutes

If the software update stops during download

- close the application
- restart the short-range wireless connection from your mobile device
- start update again
- Tip! find different location, where WiFi signal is better or WiFi hotspot has a better connection

If control panel is jammed during update:

- disconnect panel cable and try again after few minutes

## Error Codes

Possible error codes are listed on the table below.

Combined Code	Error message	Problem	Troubleshooting
10A06	Ignition failed	Ignition failed, maximum allowed number of pump pulses	Check the fuel, check the fuel filter, tighten all joints.
1020B	Low voltage	Supply voltage is below minimum	Renew/charge the battery.
10001	System error		Contact service
10003	System error		Contact service
10201	System error	Unexpected flame-out	Check the fuel level, check the fuel filter.
10206	Ignition failed	Preheating failed, residual fuel burning for too long	Try to start again, if same fault, contact service.
20005	System error		Contact service
20A0207	System error	Water thermostat is missing water temperature data	Contact service
20B0205	System error	Analog control (potentiometer) is missing	Connect the controller, check control panel wiring.
203020A	Ignition failed	No fuel was detected, maximum allowed number of pump pulses	Check the fuel, check the fuel filter, tighten all joints.
2010204	Combustion fan	Burner fan is not working (no tachometer signal)	Contact service
2020204	System error	Ventilation fan is not working (no tachometer signal)	Contact service
2030204	System error	Fuel pump output short-circuit	Fuel pump wires are in shortcut, check the wiring.
2030205	System error	Fuel pump not connected (no current detected on output)	Fuel pump is missing, connect fuel pump connector.
2040205	Water pump	Water pump is missing (no load on output)	Connect the waterpump connector.
2050204	System error	Burner or ventilation fan power short-circuit	Contact service
2060204	Glow plug	Glow plug short-circuit	Renew the glow plug.

2060205	Glow plug	Glow plug missing (no current detected on output)	Renew the glow plug, check that the glow plug connector is connected to the ECU.
2070005	System error		Contact service
2080001	System error		Contact service
2080006	System error		Contact service
2080008	System error		Contact service
2080208	System error		Contact service
3000007	Burner temp sensor	Burner temperature is missing/invalid	Contact service
3010007	Air temp sensor	Air temperature is missing/invalid	Connect air temperature sensor.
3010202	Air overheat	Air temperature is too high	Check air vent's and warm air hoses for blockages.
3020007	Water temp sensor	Water temperature is missing/invalid	Contact service
3020202	Water overheat	Water temperature is too high	Water is not circulate, bleed the air out of the system, check the waterpump.
50001	System error	CAN bus other errors	Contact service
50006	System error	CAN bus timeout error	Contact service
50008	System error	CAN bus busy error	Contact service
7020B	Low voltage	Cannot start, low voltage	Renew/charge the battery
7020C	System error	Cannot start, device locked	Open locking mode from the control panel, check control panel user manual.
7020D	System error	Cannot start, enable input not asserted	Enable wire is missing, connect the enable wire or set the main power ON
7020E	System error	Cannot start, burner temperature missing or too high	Powercut during the operation, Wait that unit cools down and try to start again.