

User Manual
HWAM® SmartControl™ Generation 2
Wi-Fi Frequency: 2.4 GHz.

EN



17.01.2019 / 53-1102
www.hwam.com

hwam 
intelligent heat

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*The app for HWAM® SmartControl™ is called IHS SmartControl™ (IHS = Intelligent Heat System).

INSTALLATION INSTRUCTIONS

Introduction to HWAM® SmartControl™

The following sections will provide an introduction to the HWAM® SmartControl™ app named IHS SmartControl™ and the associated wireless room temperature sensor, and how they operate.

HWAM® SmartControl™ provides a number of advantages:

- It's the most environmentally friendly way to heat the stove
- Saves up to 50 percent of the cost of the firewood
- Provides an even temperature in the room
- Makes it easy to fire
- Optional night-time lowering where the fire attenuates and the heat emanates from the embers in an environmental way
- Signals when new wood is required

Before using HWAM® SmartControl™

Before using the stove, it is important that the following steps are taken:

- 1 Make sure there is no power connected to HWAM® SmartStove™.
- 2 Put 2 of the 3 AA batteries in the room temperature sensor. Press the button on the front of the room temperature sensor while the third battery is being placed inside, and hold until the LED flashes green signalling that it is ready to be paired with the stove. See also the section on the pairing of the room temperature sensor with HWAM® SmartControl™ on page 18. Do not use rechargeable batteries.
- 3 Plug in the HWAM® SmartStove™ immediately using the power supply.
- 4 Allow the system to boot up for the first time, this takes about 1 minute. The green diode on the room temperature sensor will briefly turn solid green and then turn off when the room temperature sensor has automatically been successfully paired with the stove.
- 5 The HWAM® SmartControl™ can be used with a smartphone or tablet that uses the operating system iOS or Android. To download the app search for IHS Smart Control™ In the App Store or Google Play Store or scan the QR code below.

App Store:



Google Play Store:



First Setup

Introduction

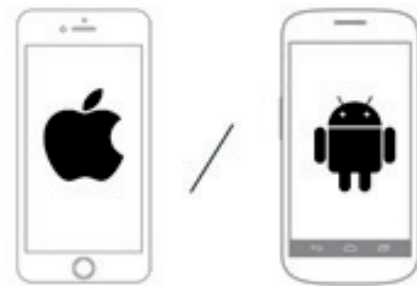
The following sections describe how the HWAM® SmartControl™ is connected to a Wi-Fi network or via Wi-Fi Direct.

It is always best to connect the system to a Wi-Fi network, as this ensures the best connection to the system and the simplest operation. It is not necessary to connect to the Internet in order to use HWAM® SmartControl™ or HWAM® SmartStove™ on a wireless network.

Setup

You can set up HWAM® SmartControl™ via the IHS SmartControl™ app and you can only do this using an iPhone, iPad or Android device.

PCs or MACs cannot be used to setup the system.



Information about the Wi-Fi connection

HWAM® SmartControl™ can be configured to communicate directly with mobile devices or through a Wi-Fi network.

Wi-Fi Direct



It is best to connect a Wi-Fi network as this is the most advantageous and the most user-friendly use of the system.

HWAM® SmartControl™ supports 4 stoves on the same network.

Wi-Fi network



Connection icons

- 1 No connection (red Wi-Fi icon)
- 2 Wi-Wi-Fi Direct connection (green Wi-Fi icon)
- 3 Connected through the network (green Wi-Fi icon with a tick)

HWAM® SmartControl™ can be used by directly connecting the device and HWAM® SmartControl™, also called Wi-Fi Direct, displayed by a green symbol. HWAM® SmartControl™ can also be configured to connect through a Wi-Fi network, which is recommended. This connection is indicated by a green symbol with a tick.

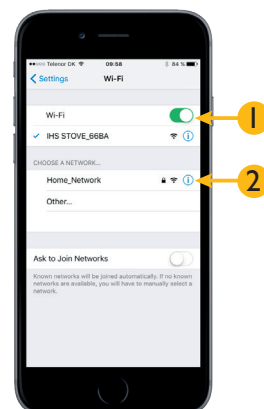


Setting up a Wi-Fi connection

The following sections describe how HWAM® SmartControl™ is connected to a Wi-Fi network for the first time. To set up HWAM® SmartControl™, it is necessary to connect via Wi-Fi Direct first, and then connect HWAM® SmartControl™ to a Wi-Fi network.

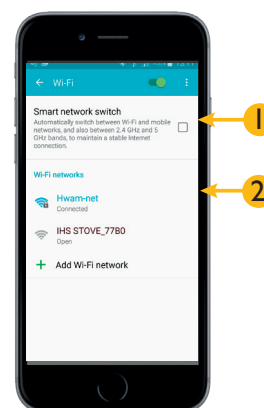
Connecting to Wi-Fi Direct on iPhone

Go to "Settings" on your phone and then select "Wi-Fi" 1. Make sure that the device has Wi-Fi turned on and that power is connected to HWAM® SmartControl™ (the stove). There will now be a Wi-Fi device available called "IHS STOVE_XXXXX" 2. Connect to this. If you do *not* wish to connect HWAM® SmartControl™ to a network, the system is now ready for use.



Connecting to Wi-Fi Direct on Android

Go to "Settings" on your phone and then select "Wi-Fi" 1. Make sure that the device has Wi-Fi turned on and that power is connected to HWAM® SmartControl™ (the stove). There will now be a Wi-Fi device available called "IHS STOVE_XXXXX" 2. Connect to this. If you do *not* wish to connect HWAM® SmartControl™ to a network, the system is now ready for use.



NOTE: The number after "STOVE" is unique to each individual stove.

Connecting to Wi-Fi networks

After the mobile device is connected via Wi-Fi Direct, HWAM® SmartControl™ can be connected to a Wi-Fi network. To connect a Wi-Fi network, press the green connection icon 1.

If you wish to connect HWAM® SmartControl™ to the network, click "Yes" 2. This is recommended. Enter the name of the stove for example: "Living room" or "First floor." 3

NOTE: The name is used primarily when there are multiple stoves connected to the same network.

HWAM® SmartControl™ will now search for all available networks.

Make sure that your network is turned on and accessible and that your SSID is visible (Service Set Identifier).

NOTE: If there are many available networks, this can take a while.

Select the network that HWAM® SmartControl™ shall be connected to 1.

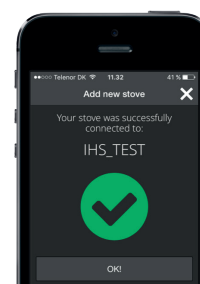
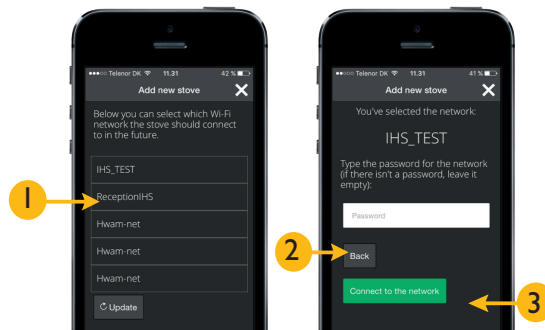
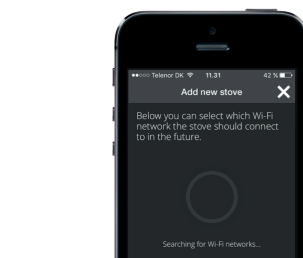
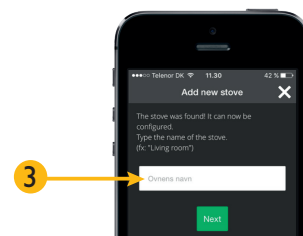
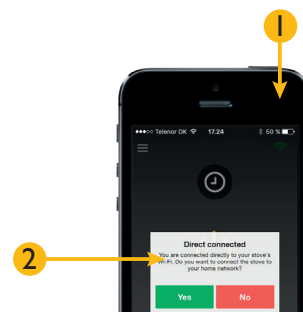
Enter the password for the selected network 2, and press "Connect to network" 3.

HWAM® SmartControl™ will now try to connect to the selected network using the code entered.

HWAM® SmartControl™ is now connected to the selected network. It is no longer possible to access HWAM® SmartControl™ via Wi-Fi Direct. HWAM® SmartControl™ can only be operated by connecting the mobile device to the same network as the HWAM® SmartControl™.

If HWAM® SmartControl™ cannot connect to the network, the Wi-Fi Direct connection will automatically become available again.

NOTE: For servicing the Wi-Fi Direct connection will be available for one minute after the system has been restarted.



OPERATING INSTRUCTIONS

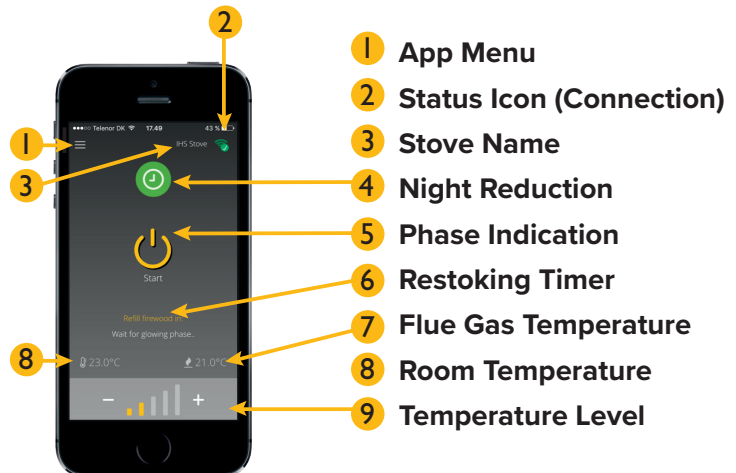
IHS SMARTCONTROL™ APP

Startup - app

When the IHS SmartControl™ app is started, the IHS logo is displayed:



IHS SmartControl™ Main Screen / Front:



Home screen / Front page

The following section comprises the home screen / front page of IHS SmartControl™ app which describes which features are available and how they are operated.

To use all functions, it is necessary to ensure that the IHS SmartControl™ is connected to HWAM® SmartControl™ (a stove with HWAM® SmartControl™). However, many features are available without connecting to the system.

The IHS SmartControl™ menu contains a series of menus, all of which will be discussed in the following sections.

1 App menu

The menu can be found in the top left corner.

2 Connection icon

The connection icon shows when there is a connection between the HWAM® SmartControl™ and the stove.



The red icon indicates no connection



The green icon indicates a connection via Wi-Fi Direct

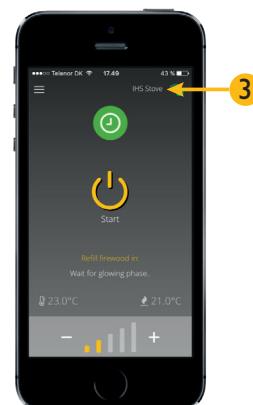


The green icon with a tick signals that the stove has been connected to the user's own Wi-Fi network (home network).



3 Stove name

The stove name displays the name of the stove connected to the IHS SmartControl™ app. This is used in the case where several stoves are connected to the same network. If the stove has not previously been connected to a network, it will have no name and nothing will be displayed.

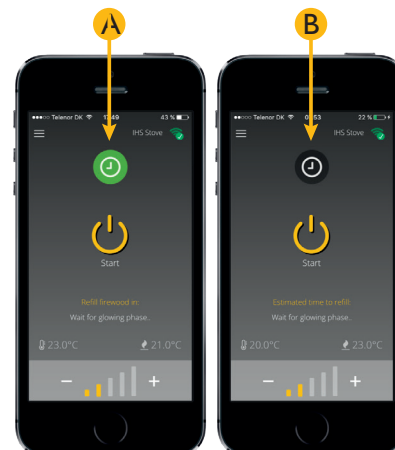


4 Night reduction

A Active (green) **B** Inactiv (black)

To activate / deactivate the night reduction press the icon. Night reduction automatically lowers the temperature setting of the stove, which ensures a longer combustion time with reduced room temperature.

NOTE: Night reduction is only active in the chosen time period (see the section “Night reduction – time management”)

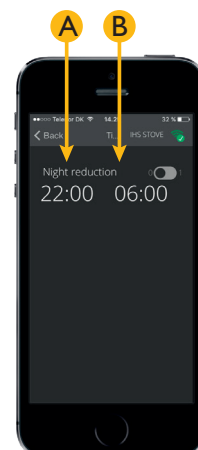


Night reduction – time management

A Start Time **B** Stop time

To set the start or stop time for night reduction, press the icon and hold for 5 seconds. Press the time and select the desired time in the dialogue box. At the start time selected, HWAM® SmartControl™ automatically goes into night reduction mode to achieve the longest possible burning. At the same time, the room temperature function in the HWAM® SmartControl™ is deactivated. At the stop time selected, HWAM® SmartControl™ will automatically return to normal operation and the previously set temperature level.

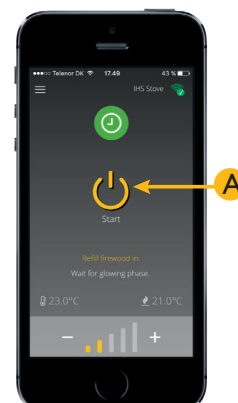
NOTE: If the temperature level is changed while the system is in night reduction mode, night reduction will be automatically disabled.



5 Phase indication

The phase indicator shows the current combustion phase of the HWAM® SmartControl™. There are a total of five phases:

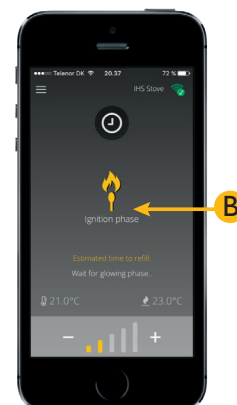
A Start



B Lighting up

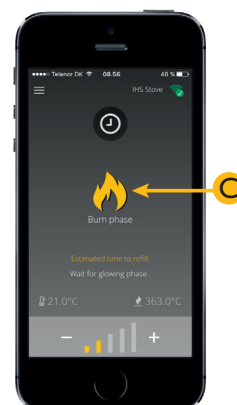
The phase indicator shows that the system is in the lighting up phase. The symbol is displayed after the door has been opened on a cold stove, or in the case where the standby / start icon of the IHS SmartControl™ app has been pressed. If the flue gas temperature does not increase within 15 minutes, the HWAM® SmartControl™ will automatically shut off the air supply and return to standby mode. See the section on correct firing process on page 20.

NOTE: To ensure complete combustion efficiency it is important to obtain a sufficiently high flue gas temperature. Failing this, HWAM® SmartControl™ emits a restoking alarm, even if there is unburned wood and flames.



C Combustion

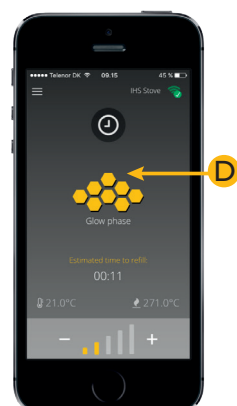
The phase indicator shows that the system is in the combustion phase and has exited the lighting up stage. The system automatically regulates combustion, ensuring optimum combustion and a room temperature as close to the desired level as possible.



D Ember phase

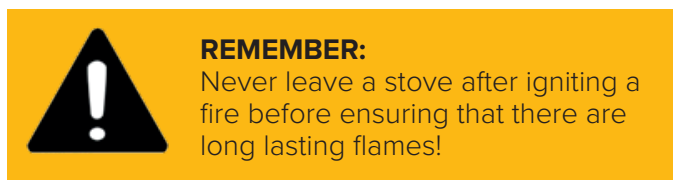
The phase indicator shows that the system is in ember phase. In this phase there will be mainly only embers in the stove, and the system will now also be able to calculate the expected time for the next restoking (described in a following section). The system automatically gives an alert regarding the correct restocking time. It is recommended that you wait before restoking until the restoke alarm is emitted, as the expected firewood saving is otherwise not achievable. If there is a big difference between actual and desired room temperature, the restoking alarm comes on, even though there is unburned wood and flames. Failure to restoke at this time, will lead to a new restoking alarm being emitted, which constitutes the last opportunity to restoke without new lighting up.

NOTE: The best and most economical combustion is achieved by following the recommended stoking time carefully.



E Standby

The phase indicator shows that the system is in standby mode. This means that the system has been in use, and that the temperature in the stove is now so low that it cannot be guaranteed that the stove can light new wood. It is therefore necessary start anew if you want to burn more wood.



6 Stoking time

The stoking time shows the estimated time to the next stoking. The stoking time will only be estimated when the system reaches the ember phase. If there is a big difference between actual and desired room temperature, the restoking alarm comes on, even though there is unburned wood and flames.

7 Flue gas temperature

Displays the measured flue gas temperature. The thermal sensor is located at the smoke outlet of the stove.

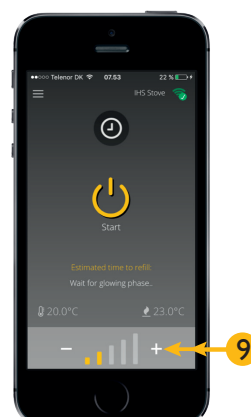
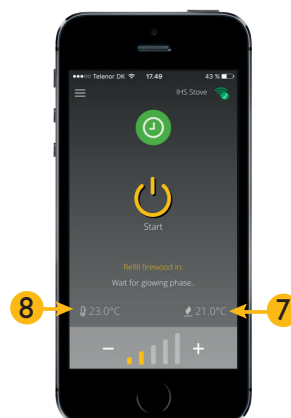
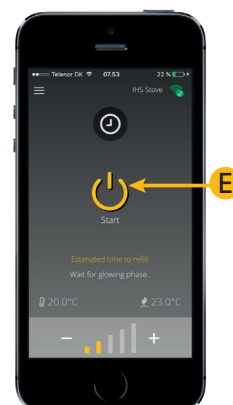
8 Room temperature

Displays the temperature measured by the accompanying room temperature sensor. The temperature may vary by +/-1°C in relation to the temperature measured by another thermometer.

9 Temperature level

The temperature level-setting runs from "Level 0" through "Level 5". The level can be changed by pressing "+" or "-" which regulates the desired temperature level up or down. The individual levels are explained in detail in the following sections.

NOTE: Night reduction automatically puts the system at "Level 0". If, however, the level is subsequently changed, night reduction is disabled.



Level 0 (No bar is yellow)

The temperature level is set to "Level 0".

HWAM® SmartControl™ runs at the lowest possible combustion temperature to maintain proper combustion for the longest period of time possible, irrespective of the room temperature.



Level 1-4 (1-4 bars are yellow)

The temperature level is set to "Level 1- 4". At these levels the HWAM® SmartControl™ runs with the purpose of reaching a temperature in the room that remains as constant as possible, just like a radiator thermostat. It is recommended that you set the temperature level to that which suits you best and refrain from adjusting it upwards or downwards. HWAM® SmartControl™ is designed so that it automatically increases combustion, the greater the difference between the actual and the desired room temperature. If there is a big difference between actual and desired room temperature, the restoking alarm comes on, even though there is unburned wood and flames.



Level 5 (5 bars are yellow)

The temperature level is set to "Level 5". At this level HWAM® SmartControl™ runs with an increased flue gas temperature and increased room temperature. This level is intended for situations where the stove is required to produce much heat in a short time. It is recommended to not run at this level for long periods of time.

NOTE: Due to the increased flue gas temperature and the desire for high room temperature, much energy is required to maintain proper combustion. The restoking alarm may thus be emitted earlier although there are flames and unburned wood.



Home screen - live data

To see live data the device is rotated.

Live data in IHS SmartControl™ displays information received from the stove relating to the ongoing combustion.

NOTE: Live data is refreshed only as long as you are connected to HWAM® SmartControl™ and the app is open. Note that the screen rotation in the mobile device's settings menu must be activated.



IHS SmartControl™ - messages

Updating the HWAM® SmartControl™

IHS SmartControl™ is automatically notified when a new update for HWAM® SmartControl™ is available.

To update your system, select "Yes" ①.

If you do not wish to update, select "No" ②.

Each time the app is opened, it will automatically check to see if there is an updated version available.

NOTE: It is recommended that you always update the system to include the last new software, as this ensures the best functionality of the system. It is not possible to update the stove if it is more than 35°C.

IHS SmartControl™ will begin updating the stove. It may take a few minutes depending on the connection quality and the size of the update.

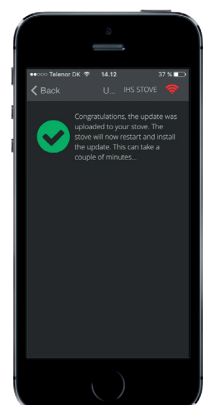
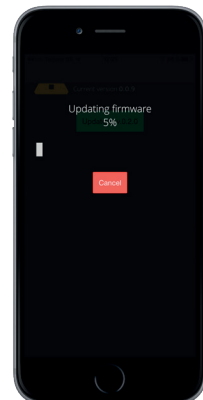
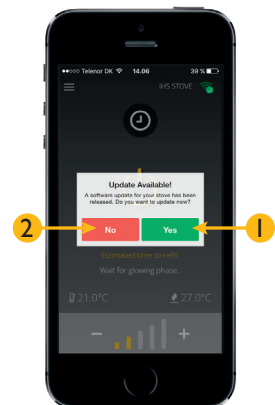
DO NOT TURN OFF THE SYSTEM WHILE UPDATING!

Do not turn off the power supply to the stove during the update as it can lead to errors in the system and cause permanent Airbox failure.



After the update is complete, the stove will restart and will then be refreshed and ready for use.

NOTE: IHS SmartControl™ will lose the connection to the system for a short period while the system reboots.

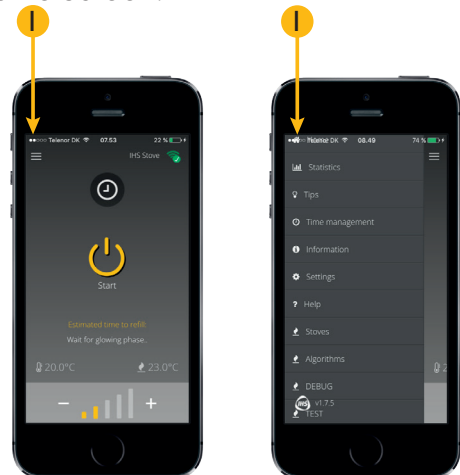


IHS SmartControl™ - menu

The menu of the app IHS SmartControl™ contains a number of menu items offering additional information and options that are not available from the home screen.

1 Menu

The menu is available in the upper left corner of IHS SmartControl™.

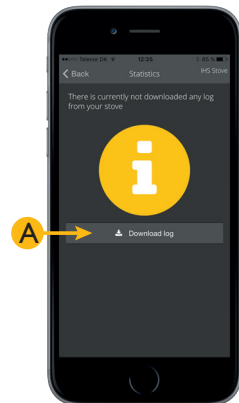


2 Statistics

Statistics show a log with data from the combustion from around the last 40 hours.

It is possible to go back and look at the temperature of the stove during burning, and for how long it was on, amongst other things.

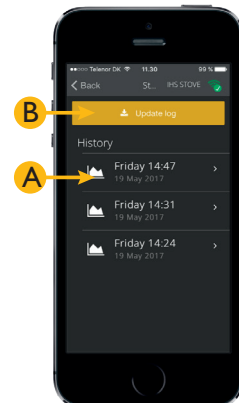
Press "Download log" **A** to download the latest log relating to the stove.



Log information

After the log is downloaded from the stove, it is possible to select the single combustion cycle and see the information for that period. A combustion cycle runs from the time when the stove starts until restoking or standby, or alternatively from restoking to restoking or standby.

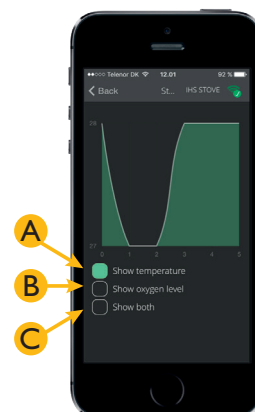
Press the desired combustion cycle **A** to be able to see the information relating to this. Press the "Update log" **B** to update the data with the latest combustion information.



Note: Data from the ongoing combustion will not be available in the log information, but only in "Live Data".

Under information for each combustion cycle, it is possible to see the following:

- A** Flue temperature
- B** Oxygen level
- C** Flue gas temperature and oxygen level



3 Tips

The "Tips" menu contains a number of tips and other relevant information about the stove and its operation.

The content is updated regularly with new information, and you are encouraged to look here regularly.

4 Time management

At the start time selected **A**, the HWAM® SmartControl™ automatically goes into night reduction mode to achieve the longest possible burning. At the same time, the room temperature function in the HWAM® SmartControl™ is disabled. When the stop time is reached, **B** the HWAM® SmartControl™ will automatically return to normal operation and the previously chosen temperature level.

NOTE: If the temperature level is changed while the system is in night reduction mode, night reduction will be disabled.

5 Information

In the information menu, some information is displayed and it is possible to start a self-test:

- A Airbox Version: Software version on airbox**
- B Remote Version: Software version on remote / room temperature sensor**
- C Algorithm Version: Current algorithm version on Airbox**
- D Valve 1 Position: Position of damper number 1**
- E Valve 2 Position: Position of damper number 2**
- F Valve 3 Position: Position of damper number 3**

NOTE: Self-test can only be performed when HWAM® SmartControl™ is idle and the flue gas temperature is below 35°C. The system runs an automatic self-test on a regular basis. The self-test can be actively used, if there is an error message and you want to check that the system is now flawless.

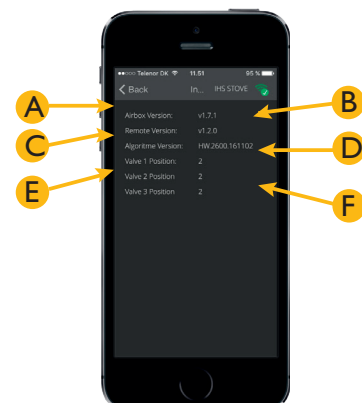
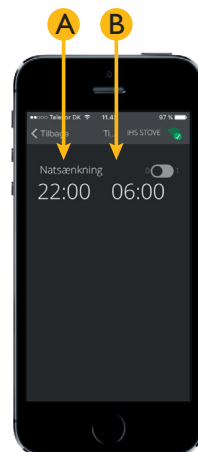
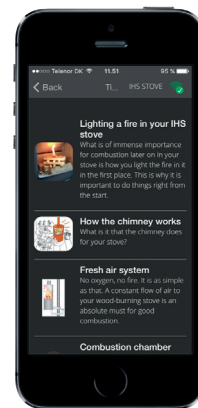
6 Settings

It is possible to deactivate the following messages:

- A "Restoking"**
- B "Standby"**
- C "Alarms"**
- D "Restoking alarm room temperature sensor"**

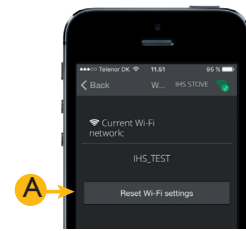
Further, it is possible to reset the Wi-Fi settings and update the HWAM® SmartControl™ with new software available here. When the app opens, you will automatically be notified if new software is available.

NOTE: Updating the HWAM® SmartControl™ from the app IHS SmartControl™ does not imply an update of the app. The app is updated through the App Store or Google Play Store.



Settings: Wi-Fi

Here you can see to which network the HWAM® SmartControl™ is connected. To reset this, for example, if you want to connect to another network, select "Reset Wi-Fi settings" **A**.

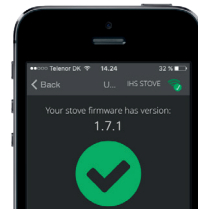


Settings: Update firmware

If a new update is available, this will be shown in the menu "Update firmware". To update HWAM® SmartControl™ to the most recent version, press the button with "Update to V x.x.x" **A** upon which, the update starts automatically (see previous section "Updating the HWAM® SmartControl™" for instructions to update).

NOTE: When the app is opened, the system will display a message if there is a newer version available.

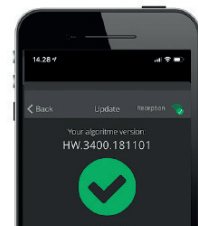
Update complete ✓



Settings: Update algorithm

If a new update is available, this will be shown in the menu "Update algo". To update HWAM® SmartControl™ to the most recent version, press the button with "Update to V x.x.x" **A** upon which, the update starts automatically (see previous section "Updating the HWAM® SmartControl™" for instructions to update).

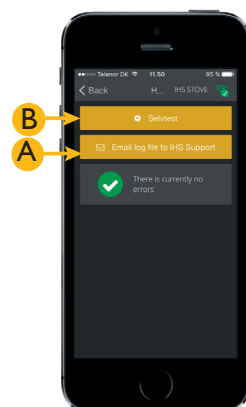
Update complete ✓



Help

In the "Help" menu, the current status of the HWAM® SmartControl™ can be seen and whether or not the system has detected a fault.

It is also possible to send a log file from the stove to an e-mail recipient **A** in case of combustion problems and start a **B** self-test. This requires a mail programme on the smartphone or tablet on which the app has been installed.

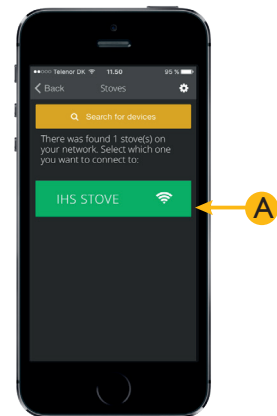


7 Stoves

If there are more than one stove connected on the network **A**, it is also possible to communicate with them. The system supports 4 stoves on the same network.

In the "Stoves" menu, select the stove you want to communicate with.

NOTE: Only stoking alarms for the selected stove will be emitted.



Alarms & Warnings

The HWAM® SmartControl™ can provide a number of alarms and warnings along with the possible causes underlying the problem. It is also possible to see if there are errors in the system.

To see the status of your system, select the "Help" menu **A**

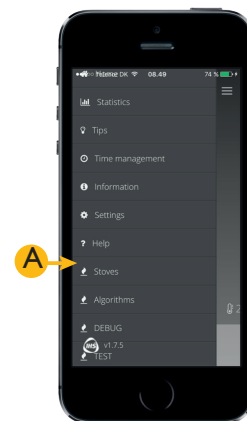
Error ID: Red

This is an alarm and you should stop using your stove until the fault is rectified. Contact your dealer if you do not find the answer in your app.

If the system emits an "Overheating" alarm, the stove has become too hot. HWAM® SmartControl™ will make sure to regulate, so the stove cools down in temperature. You do not need to do anything. The system automatically returns to normal operation when the flue gas temperature goes down.

Error ID: Yellow

This is a warning and you can continue to use your stove. Nevertheless, contact your dealer so the fault can be repaired if you do not find the answer in your app.



Room temperature sensor

A room temperature sensor is provided as a standard with the HWAM® SmartControl™. This is used by the system to detect the room temperature and adjust the combustion in order to ensure an even and comfortable room temperature.

The sensor communicates with HWAM® SmartControl™ via a wireless connection. The maximum distance in clear view between the HWAM® SmartStove™ and the room temperature sensor is **4 -5** metres. The range is shorter if there are walls in between.

The room temperature sensor is provided with a light indicator **1** at the bottom of the unit, a button on the front of the unit **2**, and an in-built speaker.

NOTE: It is not possible to adjust the volume on the device.

1 LED indicator

There is an LED indicator at the bottom of the wireless room temperature sensor. This will indicate the following:

A No connection to HWAM® SmartControl™

In the absence of a connection to the HWAM® SmartControl™, the room temperature sensor will alternately flash green and red.



B Pairing mode

When the room temperature sensor is ready to be paired with the HWAM® SmartStove™, it will flash green at a fast pace.



C Restocking

When HWAM® SmartControl™ detects that it is time to refill with additional wood, the room temperature sensor makes repetitive sounds while flashing green at a steady pace.

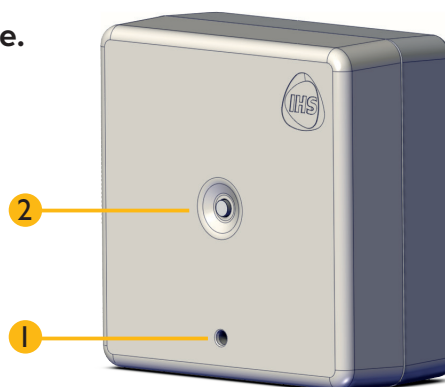


D Alarms & Warnings

When HWAM® SmartControl™ detects an alarm or warning, the room temperature sensor makes repetitive sounds and simultaneously flashes red.



For further information and details about the alarm or warning in question, use the IHS SmartControl™ app.



Pairing of the room temperature sensor with HWAM® SmartControl™

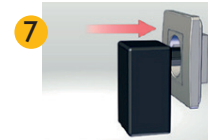
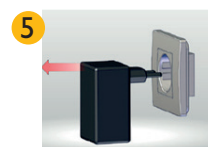
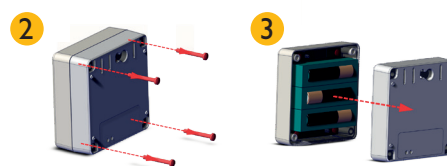
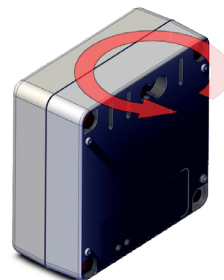
It may sometimes be necessary to pair the wireless room temperature sensor with HWAM® SmartControl™. To do this, it is necessary to put the wireless room temperature sensor in pairing mode (see instructions below).

- 1 Turn the unit on its rear end.
- 2 Unscrew the four screws on the backside (as shown in the picture) to access the batteries.
- 3 Remove the lid from the unit.
- 4 Take one battery out of the unit.
- 5 Disconnect the power supply to the stove.
- 6 Press the button on the front of the wireless room temperature sensor and hold the pressure while the battery is put back into the unit, until the LED lights green. When the wireless room temperature sensor starts up, it will flash green at a fast pace as illustrated below:



NOTE: After 2 minutes, the unit will leave the pairing mode and automatically go into standby mode.

- 7 Connect the power supply immediately to the stove. If the supply to the stove is not connected within 2 minutes after the wireless room temperature sensor is plugged into "pairing mode", the pairing will not succeed, and will have to be restarted.
- 8 After the room temperature sensor is connected to HWAM® SmartControl™ the light will briefly turn solid green and the indicator light will then turn off. Pairing has been successfully completed. Put on the lid and screw in again.



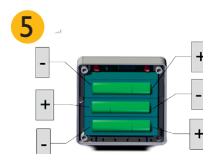
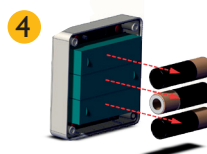
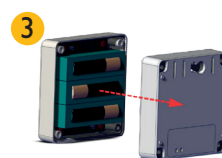
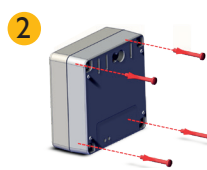
Changing the batteries of the room temperature sensor

The wireless room temperature sensor requires 3 AA batteries. These are not included in the package. In order to install and / or replace the batteries, follow these instructions carefully. HWAM® SmartControl™ will automatically notify you when it is time to replace the batteries in the wireless room temperature sensor.

- 1 Turn the unit on its rear end.
- 2 Unscrew the four screws on the backside (as shown in the picture) to access the batteries.
- 3 Remove the lid from the unit.
- 4 Replace the 3 AA batteries. Always replace all 3 batteries at the same time, and do not use old batteries. Do not use rechargeable batteries.
- 5 It is important to ensure that the batteries are properly positioned in the unit. Make sure the batteries are positioned as shown.
- 6 When the new batteries are positioned correctly, the device can be reassembled - put the lid on the device.
- 7 Screw the 4 screws in again as shown on the image. Be careful not to overtighten them.
- 8 The batteries have now been replaced and the device is ready for use.



Used batteries should not be thrown in the trash, but should be disposed of properly.



Firing process

The following guide is an introduction as to how the HWAM® SmartStove™ is to be operated from start to restoking and until the fire finally burns out. The stove is only EN-approved for burning wood. It is recommended that you use dry split wood with a moisture content of a maximum of 18%. Firing wet firewood causes soot, environmental pollution and bad fuel economy. It is recommended that you purchase a moisture metre to verify that the wood has the correct moisture content before being used for firing.

Starting the stove

Open the stove door to activate the system. The system will automatically go back to standby and the dampers will be closed if lighting up does not occur within 15 minutes.

Lighting up

Your new HWAM® SmartStove™ closes all valves when not in use to prevent hot air from being sucked into the chimney and out into the open (loss of energy). For the HWAM® SmartStove™, this valve function comprises the challenge that, at each new lighting, you will always start out with a cold chimney - pay attention to this. It requires extra rapid heating of the stove and chimney when lighting the stove.

A proper lighting is best done with 1-2 kg. of firewood chopped into 2-4 rather small pieces (the amount of wood depends on the model - see the user manual for instructions regarding the specific model). Then add 8-10 pieces of fine kindling wood, and on top of it all, place a couple of fire-lighters. Light up the firelighters and close the door.

The HWAM® SmartControl™ starts when the combustion chamber door is opened. The HWAM® SmartControl™ has a cold start-up program requiring that the operating temperature is reached within 15 min. If the heat-up is too slow, the app will ask for more firewood. This may seem illogical when there is both firewood and flames in the stove, but as long as the proper operating temperature has not been reached, the stove does not burn environmentally clean, and, therefore, the temperature has to be reached fast. The reasons for a slow rise in temperature may be: insufficient draught in an ancient brick chimney, damp firewood, too large firewood pieces, or insufficient firewood/kindling wood.



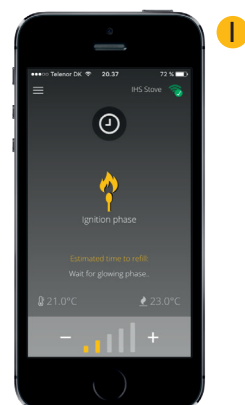
IMPORTANT!

If the flue gases do not reach a high enough temperature for kindling or firing, HWAM® SmartControl™ and the wireless room temperature sensor emit a stoking alarm, even if there is still unburned wood and flames in the combustion chamber. The stoking alarm is emitted to make you aware that the fire needs more energy. Restoking with small pieces of kindling wood can often provide a more rapid and sufficient temperature rise.

Combustion phases

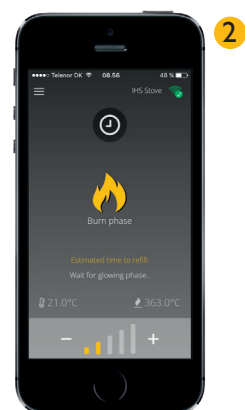
1 Lighting up

The lighting up symbol is displayed until the fire is well underway and the flue gases have reached a sufficiently high temperature.



2 Combustion

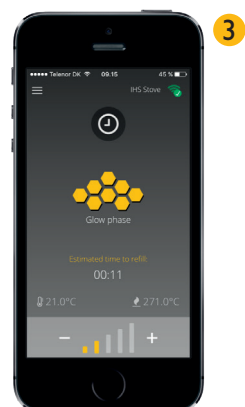
When a sufficient flue gas temperature is reached, HWAM® SmartControl™ changes phase from lighting up to combustion. HWAM® SmartControl™ will typically run in this phase most of the time.



3 Ember phase

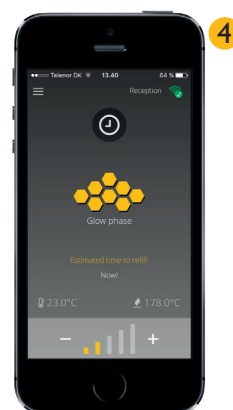
When most of the wood is burned, HWAM® SmartControl™ switches to ember phase and will now display the estimated time remaining until the next restoking. If there is a big difference between actual and desired room temperature, the restoking alarm comes on, even though there is unburned wood and flames. Failure to restoke at this time will lead to a new restoking alarm being emitted, which constitutes the last opportunity to restoke without new lighting up.

NOTE: The time left to restoking is an approximate time and may vary depending on the circumstances.



4 Restoking

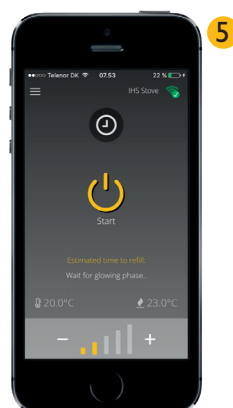
When HWAM® SmartControl™ detects that it is time to restoke, a notification is displayed on all devices with IHS SmartControl™ open. In addition, the wireless room temperature sensor emits an audible signal for restoking. Add 2-3 pieces of new wood to the combustion chamber. HWAM® SmartControl™ will automatically switch back to the combustion phase when the door is opened and additional wood is added. The above cycle is then repeated.



5 Standby

When there is no more wood burning in the stove and the temperature has dropped, HWAM® SmartControl™ goes into standby mode and the valves are closed to prevent warm air from the room escaping into the chimney (loss of energy).

When the wood-burning stove is not in use, it is recommended that the app should be shut down.



Specifications for HWAM® SmartControl™ generation 2

Wireless features	
Frequency	2.4-2.4835GHz
Wireless security	WPA / WPA-2
Wireless standards	IEEE 802.11n, IEEE 802.11g, IEEE 802.11b
5GHz	Not available

Distance	
Distance between stove and sensor	4-5 m.

Environment	
Operating temperature	0°~40°

Features	
OS support	IOS & Android
Connections	Wi-Fi direct or Network connection
Device connections	Up to 5 units when configured on Wi-Fi Network

Features	
External power supply	110V – 250V AC 50/60 Hz, Output 12V DC 2A.
Airbox input	12V DC
Power consumption operation	20W MAX
Power consumption standby	<2W

Accessories	
SmartBackup	
2 m extension cable	
90 degree cable USB → USB mini	

HWAM® SmartStove™

- A whole new class of wood-burning stoves