

Software Manual

Grind-by-Sync

E65W GbS/E80W GbS & E65T GbS/E80T GbS

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General

This manual is based on release 1.30, applicable to the following products: E65W GbS/E80W GbS and E65T GbS/E80T GbS, which share the same electronic hardware and software.

The purpose of this manual is to guide the user through the menu, explaining the available functions and how to use them effectively. Specifically, it covers the following topics:

1. First Power-Up of the Grinder

This section provides a step-by-step guide for powering up the device for the first time. It explains how to connect the grinder, verify that it is properly powered, and initiate the power-up process. After the initial power-up, it is essential to configure the grinder settings to meet your specific needs. This includes adjusting the grind size, calibrating the dose, and, if necessary, connecting external devices (e.g., apps or monitoring systems).

2. Navigating the Menu

A detailed explanation of how to navigate the device's menu, the available options, and how to modify settings to optimize daily use. This section also provides tips on personalizing the device based on your preferences.

3. Software Updates

New software releases are available via the Mahlkönig Sync Cloud. The grinder can be set to download and install software updates automatically or manually, depending on user preference. For further details, please refer to the "Software Download" section.

4. Grind by Sync

The Grind by Sync grinder is designed to connect with other coffee machines in various ways, such as cloud-to-cloud, Wi-Fi, or cabled connections. When connected, the espresso machine and grinder exchange data, allowing the grind size to be adjusted automatically. If the shot runs too fast (indicating a coarse grind), the grinder algorithm refines the grind. If the shot runs too slow (indicating a fine grind), the grinder adjusts to a coarser grind.

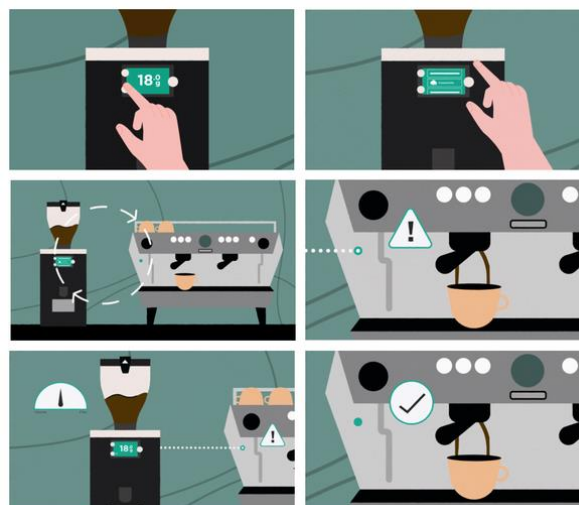


Figure 1; Schematic representation of devices used in Grind by Sync technology

1 User Profiles

Role	Password	Description
Owner (default)	1924	Gives access to all menus except the service menu
Service	1311	Gives access to the service menu
Barista	-	Restricted access for only grinding, no changes possible (except grind size)

1.1 Device setup after production and first power up

When a grinder is first powered up or when a display is replaced, the first screen that appears is the assembly page, further described under the Service Menu. After powering the grinder follow these steps. In the Service menu / Service & Diagnostics

1. Set an Assembly Date
2. Type the Grinder SN (ensure this number is correct as given in the type-plate, otherwise the onboarding process to Wi-Fi & Cloud will not work)
3. Select the Grinder Type (Grinder model)
4. Select the Grinder Sub type (espresso)
5. For each of the components listed in the test page, check that there is no red-indication which would indicate a sensor, or an item is not correctly installed or calibrated. You can optionally test each item under the test page. When finished, click "Finish test"
6. Still under the service menu go to "Disc Distance (DD)" and follow the steps described to calibrate the disc distance
7. Also calibrate the load cell by using a 1kg load cell
8. Additionally, in the case of a new display, follow the Wi-Fi connection steps described further down in this menu

ASSEMBLY DATE

Assembly Date 2025-03-12

Set to Today >

MACHINE CONFIGURATION

Grinder SN 653470

Grinder Type E80W GbS

Grinder Subtype Espresso

HOPPER TEST

Hopper Status Mounted

NOZZLE LIGHT

Nozzle Light Test 0

LOAD CELL

Current Weight -0.2g

Calibrate >

DDD SENSOR

Sensor type Analog

Calibrate >

DDD value 97µm

AGSA

AGSA Test 0

Encoder value -748

Status Failed

GRINDER MOTOR

Motor Test 0

FAN TESTS

Fan 1 25.5°C
0.0%

Fan 1 Test 0

Fan 2 25.5°C
0.0%

Fan 2 Test 0

WIFI CHIP STATUS

COM Status OK

SDIO Status Running

UART Status OK

Fuse Status OK

Reset Chip >

Flash Chip >

Assembly Date: To set or view the assembly date. If selected it brings to an alert where the selection can be confirmed. Once it is confirmed the assembly date is set.

Machine Configuration: Displays the Serial Number and the Grinder's type.

Hopper Status: (Mounted/Dismounted)

Nozzle Light Test: (On/Off) It turns the light on and off to check if it works

Load Cell: If selected brings to Load Cell – Calibration described at the beginning of this section.

DDD Sensor: If selected brings to DDD sensor – Calibration described at the beginning of this section. It shows if the sensor used is an analog or digital sensor and the value measured in microns.

AGSA Test: It performs a test of the AGSA motor moving the motor clockwise and anticlockwise a few times. At the end gives the status of the motor and the value of the encoder in microns.

Motor Test: (ON OFF) It turns on the motor for a short time to check if it works correctly.

Fan Test: It performs a test on the fan which will run on 50 %. Once the test is performed the temperature registered is shown

WiFi chip status: It shows the status of several components used from the WiFi system.

Reset Chip: It allows a reboot of the chip

1.2 General User interaction

Once the device is switched-on via the power switch, the logo as shown in Figure 2 (left) will appear. After a few seconds, the HMI will be loaded, during this phase the LED light will turn on and off and the display screen will appear as shown in Figure 1 on the left side.

When the device is switched-on, the software will by default be set to be used by a owner with access to most settings. For restricting access, see 1 User Profiles.

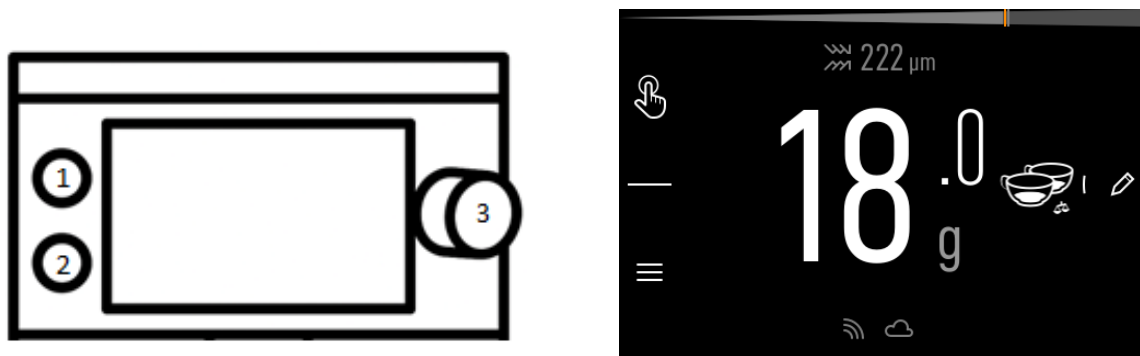
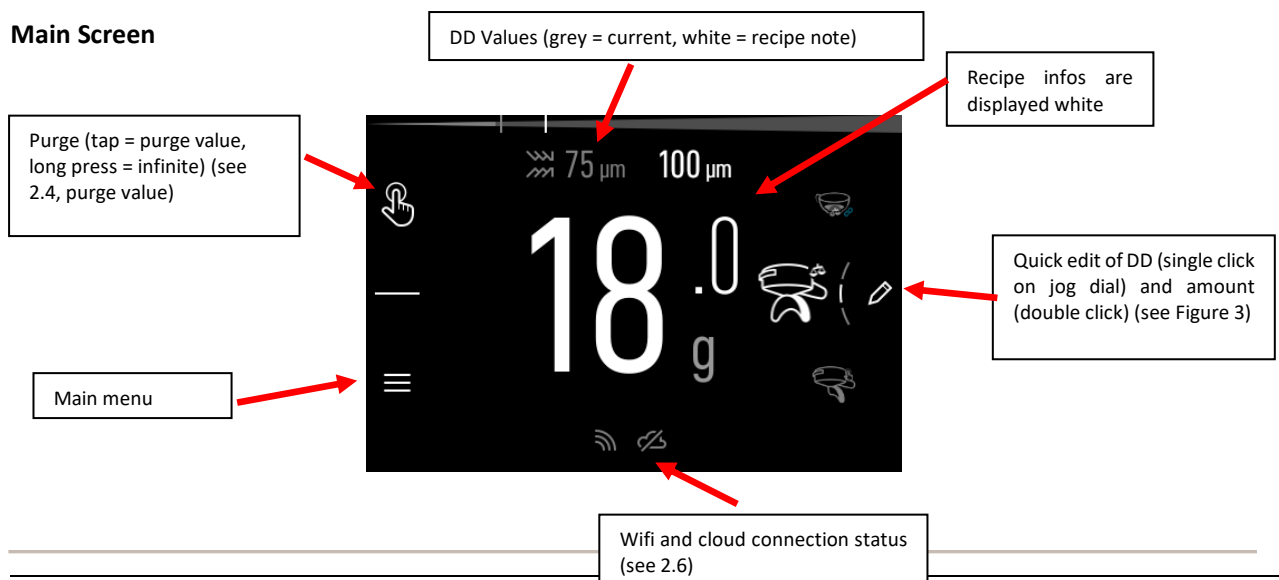


Figure 2; left: Display buttons (1 & 2) and Jogdial (3). right: Home menu screen.

Below is the meaning of the icons on the Main Menu and the different ways of interacting with the menu using the interaction buttons. Taking Figure 1 (right) as a reference we will call in this manual:

1. Upper left button.
2. Bottom left button.
3. Jogdial.

Main Screen



2 Grinder HMI – Functionalities

Edit Recipe (Quick Edit DD)

The quick edit DFD is used to change the disc distance to the individual recipe selected. It can be access pushing the jog dial and it appears as in Figure 3.



Figure 3; Quick Edit Disc Distance of a single recipe.

Main Menu

The Main menu can be accessed pushing the top left button . The main functions are grouped in this menu and organized in several sub-menus shown in Figure 4. The use of the submenus is described individually below.

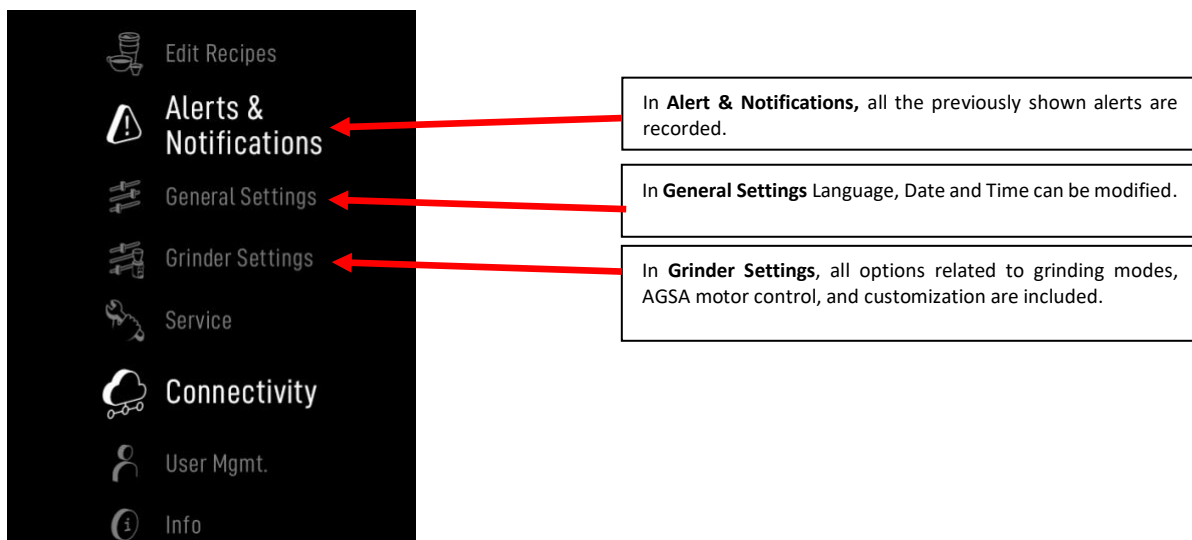


Figure 4; Sub-menus shown in the Main Menu page

2.1 Recipes

In this menu it is possible to edit recipes, decide which ones to show in the home menu and manage the recognition of portafilters.

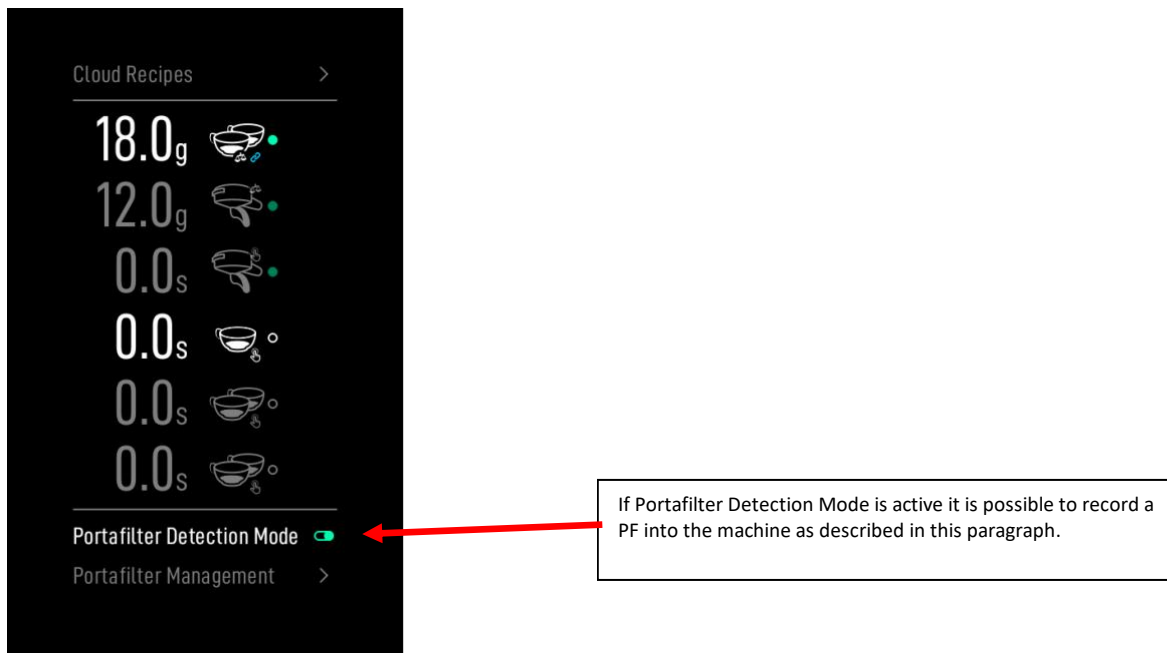


Figure 5; Edit Recipes Menu

The Edit Recipe menu contains a maximum of 6 recipes which can be edited. Each recipe has 1 value, an icon and a switch. The first value indicates the most important parameter of the recipe, and can be defined as a time based a weight based or a manual based recipe

The icon to the right can be chosen as a reminder of the portafilter saved in the recipe, and the last element to the right displays whether the recipe is shown or not in the main menu.

The last item on the Recipes Menu is the Portafilter Management section. Selecting a recipe with the Jog Dial will lead to the Recipe Menu shown in Figure 10.

Portafilter Management: switch detection mode ON and OFF. Once the detection mode is on, a submenu with the switcher for detection mode and a list of the saved portafilter is shown reporting the respective number, weight and tolerance required. If detection mode is active the option “Add Portafilter” will appear in the same menu as shown in

Figure 8 (left).

For each recipe, in addition to the main icons, there are secondary icons that are associated with the main one to provide additional information about the settings of the individual recipe. The secondary icons are associated to the recipe’s mode as shown in Figure 7. It is possible to recognize in the displayed recipes the three different icons—one with a clock, one with a scale, and one with a hand—which are associated with Time Mode, Weight Mode, and Manual Mode.

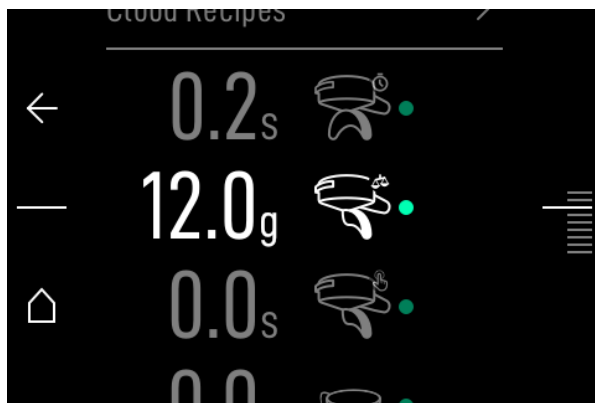


Figure 6; Edit Recipes Menu. Focus on top right icons

As previously seen, it is possible to enable Grind by Sync mode via a switch. Once activated, a screen appears that allows you to choose between current DD and recipe DD.

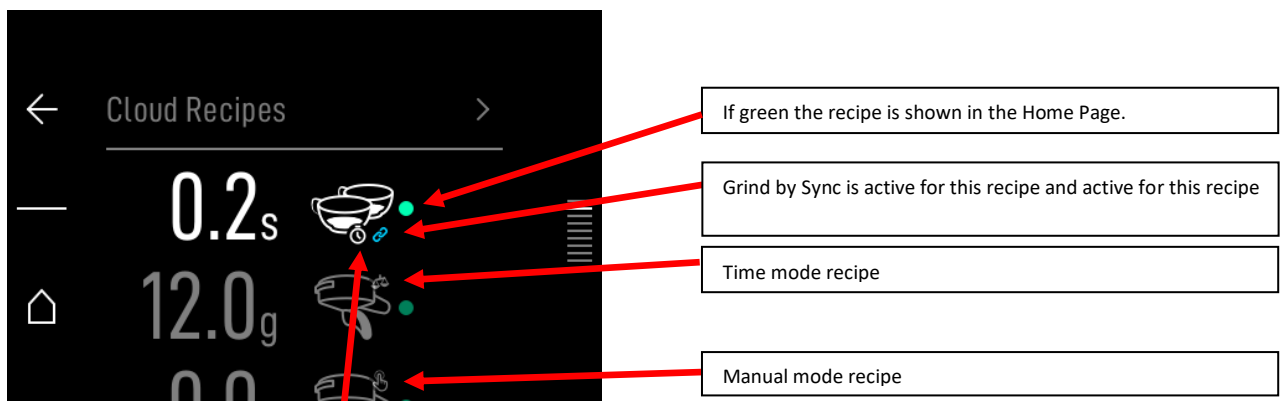


Figure 7; Edit Recipes Menu. Focus on top sync icon

Time mode recipe

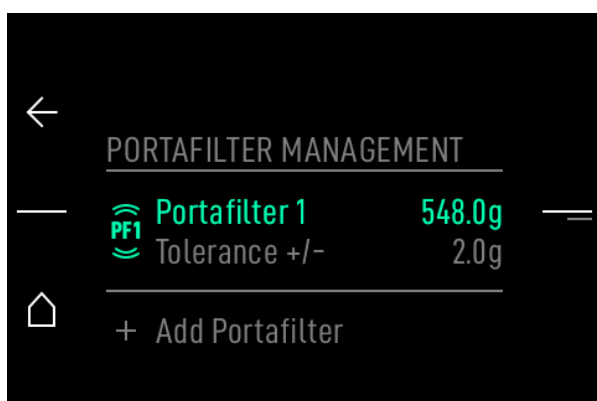


Figure 8; (Left) Portafilter Management menu (left). (Right) Portafilter weight value page

Add Portafilter option brings to a new page as shown in

Figure 8 (right). Once the portafilter is inserted its weight is measured through the load cell. If the weight is within the tolerance range of a saved portafilter, the alert shown in Figure 9 (left) will appear. If the value does not overlap with any saved portafilter weight, a new portafilter management page will be created and saved as shown in Figure 9 (right). In the page are reported the portafilter number, the weight value, the editable tolerance limit and a delete option.

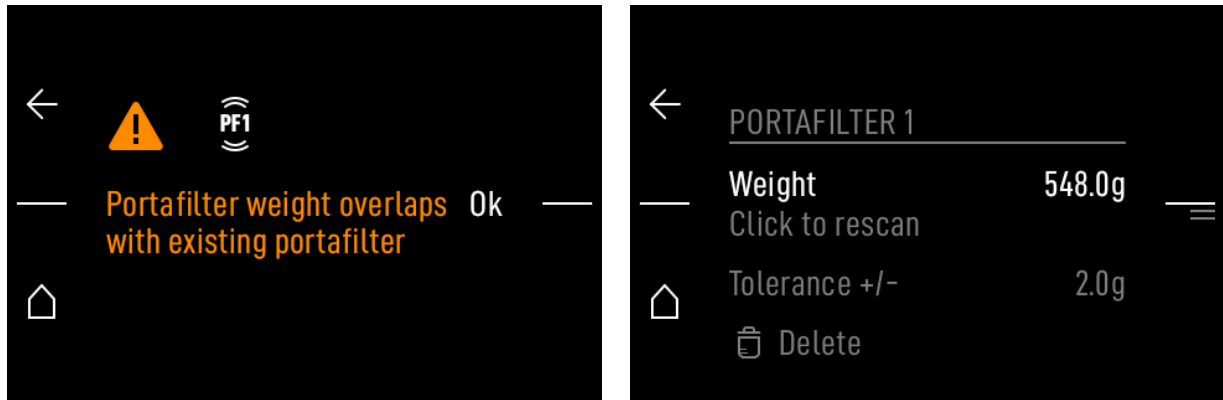


Figure 9; (Left) Portafilter Management Alert. (Right) Portafilter 1 Management Page

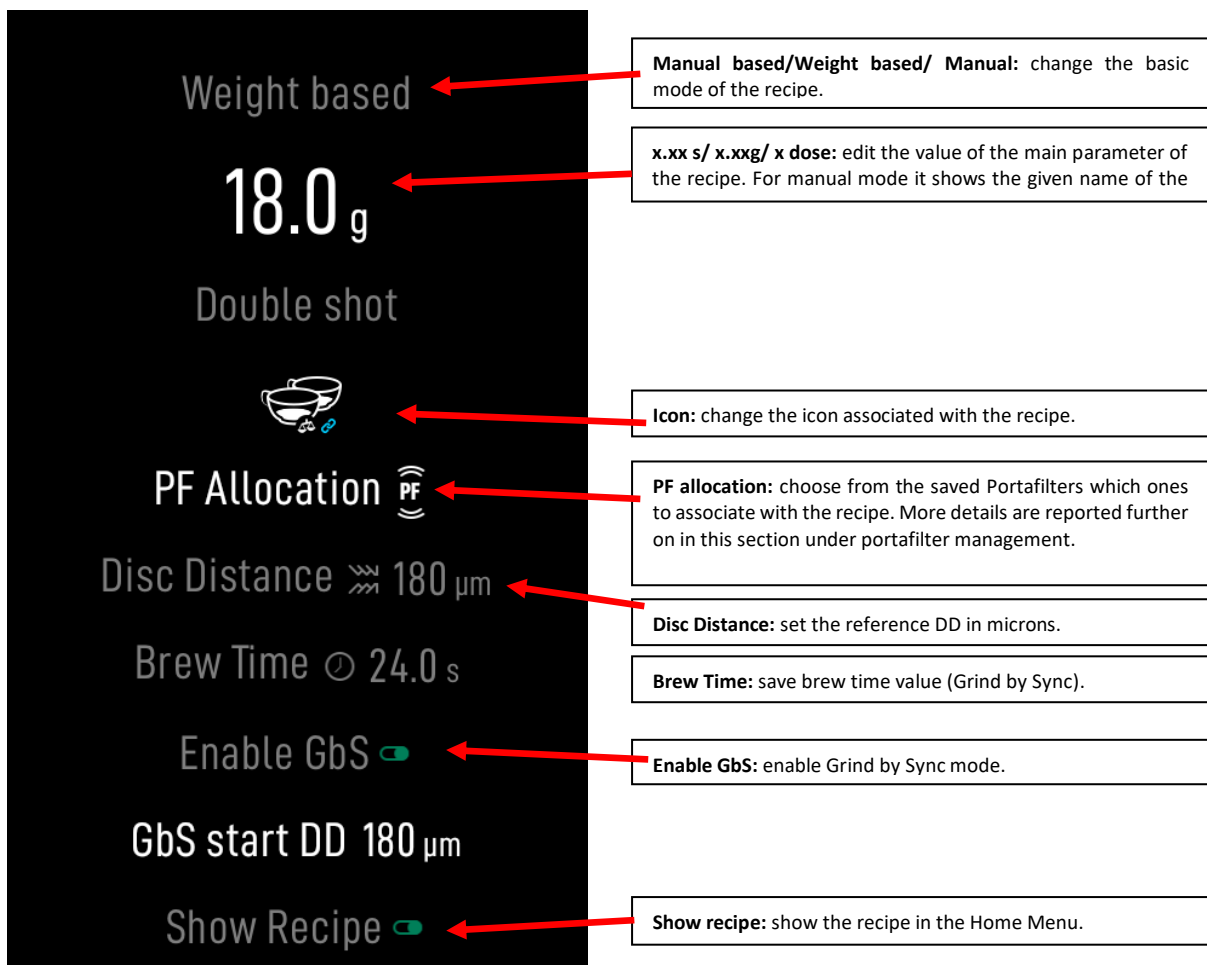
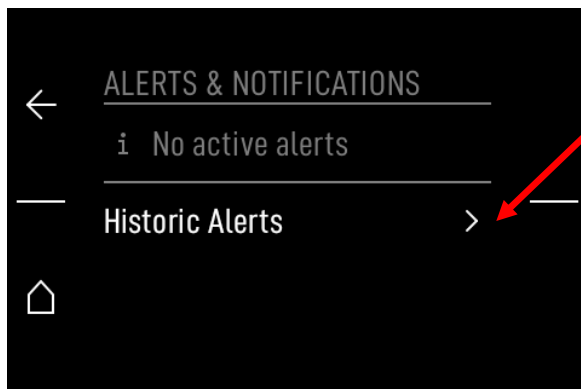


Figure 10; Single recipe Menu

In this menu there are all the features, the modes and parameters used to set a single recipe and decide the settings related to its display.

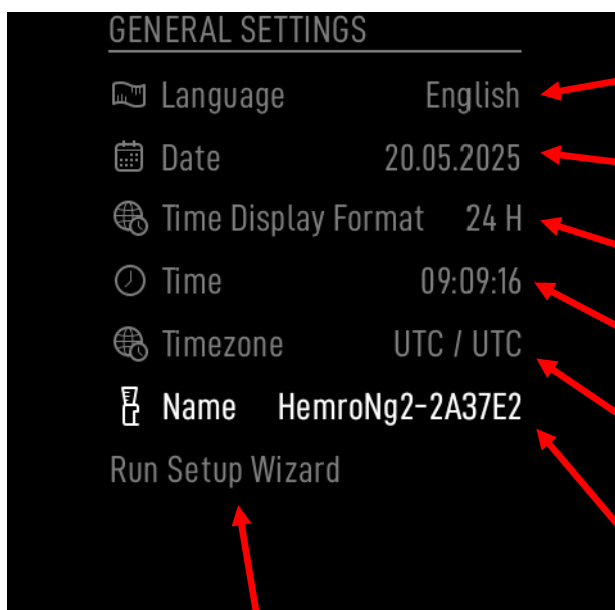
2.2 Alerts & Notifications



Historic Alerts: It is possible to review the alerts that have been recorded from the most recent to the oldest

Figure 11; Alerts and Notifications Menu

2.3 General Settings



Language: to select the language for the whole User Interface

Date: to set the date

Time Display Format: to set the Data Format

Time: to set the time

Time Zone: to include the Time Zone information to the Time set

Name: to set the name of the Grinder. The grinders wifi will be named accordingly.

Figure 12; General Settings Menu

Run Setup Wizard for WiFi and/or onboarding.

2.4 Grinder Settings

The image shows a screenshot of the 'Grinder Settings' menu on a device. The menu is divided into three main sections: GRINDING SETTINGS, GBW SETTINGS, and AGSA MOTOR SETTINGS. Red arrows point from various settings to callout boxes that explain their function.

Setting	Value/Icon	Description
GRINDING SETTINGS		
Disable Edit Recipe for Barista	Off (circle with slash)	Disable Edit Recipe for Barista: If on the barista is not allowed to edit any recipe
Break Function	Off (circle with slash)	Break function: The break function allows to make brakes during a grinding process (eg. For leveraging the grounds in the portafilter). If activated, the related Break
Break during shot (Time-based mode only)	1.0s	Break during shots: It defines the duration of the break that can be taken during a shot.
Dose Timeout	1.0s	Dose timeout: After a recipe is ground, the final value in grams or seconds stays displayed for the "Dose Timeout"
Purge Value	1.1s	Purge value: Purge action runs for a fixed time
Adjust Grind Time for Custom DD	Off (circle with slash)	Adjust Grind Time for Custom DD: whit this option time recipe is adjusted according to the disc distance selected.
Manual Grind Display	Time	Manual Grind Display: What is to be displayed when ground manually (grams or time)
GBW SETTINGS		
Disable Load Cell	Off (circle with slash)	Disable Load Cell: If ON, all the functions related to the usage of the load cell are disabled. Used if there is a malfunctioning of the loadcell. Recipe can be ground with longpress on jog dial (only time-based recipes)
Show Actual Weight Only for Weight-Based	Off (circle with slash)	Show Live Value: It shows the value of the load cell real time.
GbW Resolution	High	GbW Resolution: High for max accuracy, possibly a bit slower, Medium, Low for max speed, possibly less accurate (for unstable environments)
Brightness	7	Brightness: Select A level of brightness of the screen from 1 to 7.
Temperature Show on Screen	Off (circle with slash)	Temperature show on screen: If on the icon appear on the Home Menu.
Permanent LED Lighting	Off (circle with slash)	Permanent LED Lighting: To set the LED on with fixed light.
Standby Mode	>	Standby Mode: see next page
AGSA MOTOR SETTINGS		
Auto Adjust to Recipe DD	Off (circle with slash)	Auto Adjust to Recipe DD: Refresh DD each time the recipe is changed, ON as default, can be disabled.
Drive to Recipe DD on Startup	Off (circle with slash)	Drive to Recipe DD on Startup: the grinder returns to the original DD from the recipe when switched on
AGSA Blockage Warning Threshold	50µm	AGSA Blockage Warning threshold: alert displayed when the threshold is reached
Show Recipe DD	Off (circle with slash)	Show Recipe DD: show the DD set in the recipe on the screen

Figure 13; Grinder Settings Menu

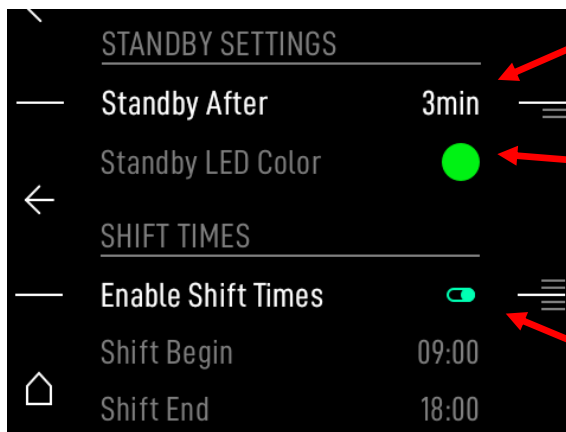


Figure 14; Standby Menu

Standby After shows the time after which the grinder goes to standby if there is no activity.

Standby LED Color can be adjusted here, see Figure 15

Enable Shift Times allows you to set times where the grinder does not go to standby at all. **NOTE: This reduces the lifetime of the display and is not covered by warranty!**

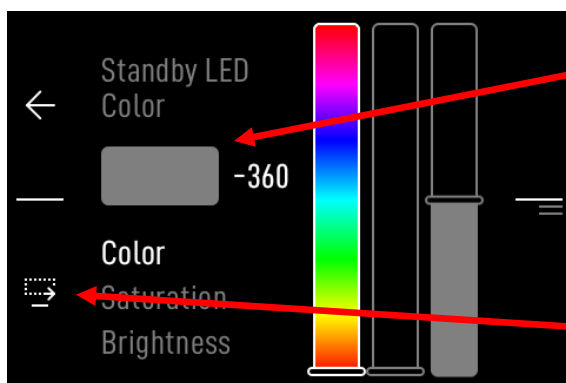


Figure 15: Standby LED Color settings

The current setting is displayed here.

Jump from Color to Brightness with Button 2

2.5 Service

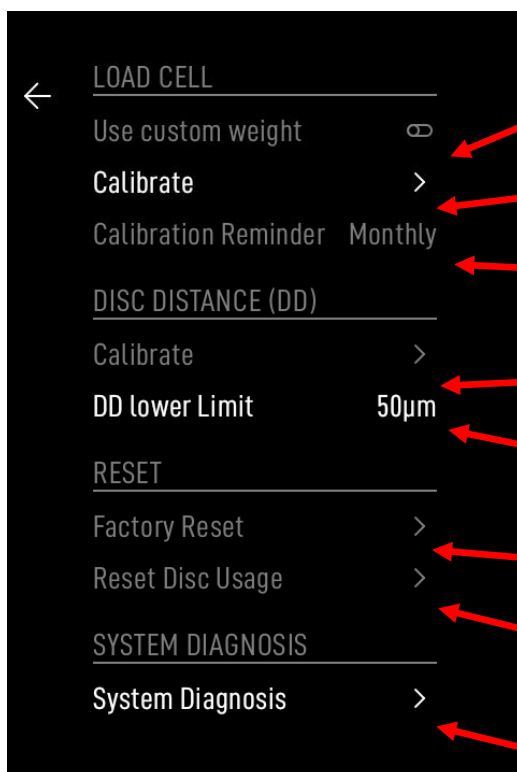


Figure 16; Service Menu

Use Custom Weight:

Calibrate: access to the load cell calibrate procedure, see next page

Calibrate Reminder: Set up a reminder for the load cell calibration

Calibrate: access to the disc distance calibrate procedure, explained in this paragraph.

DD Lower Limit: Set a lower limit for the disc distance to prevent damage.

Factory Reset: allows to come back to the production settings. See 2.5.2

Reset Disc Usage: set to 0 the disc usage counter.

System Diagnosis: Access the testing panel shown in 2.5.3

Load Cell - Calibrate:

Calibrate the load cell using the given instructions as shown in Figure 17.



Figure 17; Load Cell calibration process

The filter holder must be removed and not in contact with the holder so that the load cell can evaluate the scale zero. Once the reference weight has been used, the grinder performs a calibration of the weight measuring instrument. This process is called calibration and once it is done correctly, the screen will show 'calibration complete' in green.

2.5.1 Calibration of Disc Distance

Allows access to instructions guiding the DDD calibration process.



Figure 18; Disc Distance Calibration Process

2.5.2 Reset Factory - Reset

Returns to factory configuration. Selection leads to an alert where choice can be confirmed. Note, this deletes all settings and recipes.

EMERGENCY FACTORY RESET: In case a password is changed from the default and is lost, there is a hard key reset possibility:

- Remove the hopper from the grinder
- Switch the grinder off
- Press both buttons (1 & 2), keep them pressed for 15 s while switching the grinder on
- The grinder shows the Factory Reset page where the factory reset can be confirmed.

2.5.3 System Diagnosis

This menu section (see Figure 19, next page) is designed to provide a control panel for the grinder, allowing tests on various components and verification of the results.

ASSEMBLY DATE

Assembly Date 2025-03-12

Set to Today >

MACHINE CONFIGURATION

Grinder SN 653470

Grinder Type E80W GbS

Grinder Subtype Espresso

HOPPER TEST

Hopper Status Mounted

NOZZLE LIGHT

Nozzle Light Test 0

LOAD CELL

Current Weight -0.2g

Calibrate >

DDD SENSOR

Sensor type Analog

Calibrate >

DDD value 97µm

AGSA

AGSA Test 0

Encoder value -748

Status Failed

GRINDER MOTOR

Motor Test 0

FAN TESTS

Fan 1 25.5°C

0.0%

Fan 1 Test 0

Fan 2 25.5°C

0.0%

Fan 2 Test 0

WIFI CHIP STATUS

COM Status OK

SDIO Status Running

UART Status OK

Fuse Status OK

Reset Chip >

Flash Chip >

Assembly Date: To set or view the assembly date. If selected it brings to an alert where the selection can be confirmed. Once it is confirmed the assembly date is set.

Machine Configuration: Displays the Serial Number and the Grinder's type.

Hopper Status: (Mounted/Dismounted)

Nozzle Light Test: (On/Off) It turns the light on and off to check if it works

Load Cell: If selected brings to Load Cell – Calibration described at the beginning of this section.

DDD Sensor: If selected brings to DDD sensor – Calibration described at the beginning of this section. It shows if the sensor used is an analog or digital sensor and the value measured in microns.

AGSA Test: It performs a test of the AGSA motor moving the motor clockwise and anticlockwise a few times. At the end gives the status of the motor and the value of the encoder in microns.

Motor Test: (ON OFF) It turns on the motor for a short time to check if it works correctly.

Fan Test: It performs a test on the fan showing the completion bar. Once the test is performed the temperature registered is shown

WiFi chip status: It shows the status of several components used from the WiFi system.

Reset Chip: It allows a reboot of the chip

Figure 19; Systems Diagnostics Page

2.6 Connectivity

The connectivity menu provides access to all features where the grinder is connected to a network and can interact with other devices. Specifically, from the connectivity menu as seen in Figure 16, it is possible to access several settings.

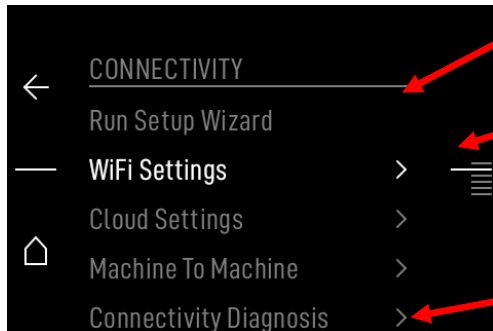


Figure 20; WiFi Settings menu

Setup Wizard: Guides the user through the required steps of wifi connection and cloud onboarding

Further Settings: For advance users to manually change wifi and cloud settings

Connectivity Diagnosis: Troubleshooting guide if the connection does not work as intended. (see Figure 21)

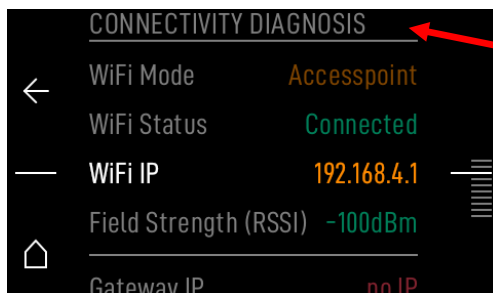


Figure 21; Connectivity Diagnosis

Diagnosis: The diagnosis page shows the status chain from grinder to cloud (top to bottom). Failures are displayed red and indicate something is wrong at that place. Orange text shows a potential setting is leading to the displayed value.

Jogdial click on an entry leads to troubleshoot suggestions.

2.6.1 WiFi settings:

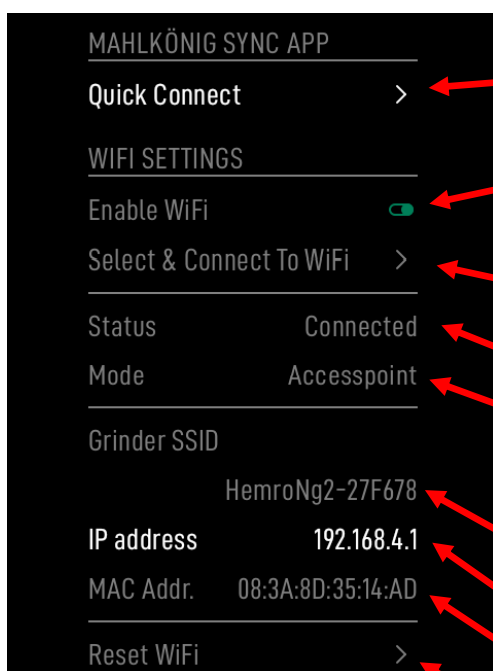


Figure 22; WiFi Settings page

Quick connect: Through this option it is possible to generate a QR Code if the device is in access mode. The device can be connected to the Mahlkönig app.

Enable WiFi: Enables and disables the WiFi connection options of the device.

Select and Connect to WiFi: It shows the status of several components used from the WiFi system. Begins the scan of available wifi networks. Those found are shown in a list as in Figure 23

Status: Connection status to the WiFi network

Mode: Shows whether the device is used in access point mode or station mode. In the default option, the device is set as an access point. It is possible to connect to the device using the password kingxxxx where xxxx is the last digit of the grinder serial number.

Grinfer SSID: shows the name of the Wi-Fi network

IP Address: shows the numerical device's identifier in the network.

MAC Address: The unique identifier assigned to the device's network

Reset WiFi: resets all WiFi settings

Scan for WiFi: begins the scan of available wifi networks. Those found are shown in a list as in Figure 23.

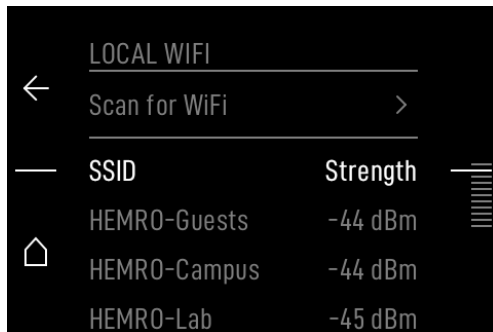


Figure 23; WiFi scan page

2.6.2 Cloud settings:

- Activate:** Activates the cloud connection. Once the cloud is activated the icon will appear among the status icons of the Home Menu.
- Internet Alert as Popup:** Displays alert if internet connection is not available.
- Prompt for new Update:** Displays an alert to download and install the new update.

2.6.3 Machine to Machine:

From this menu, it is possible to turn cloud communication between devices on and off.

- Station IP (number):** The IP address identifies the device on the network. this number also allows access to the device via a web user interface as described in chapter 4.

2.7 User Mgmt.

In this menu it is possible to change access to the device by accessing Owner or Technician functions highlighted in the logic tree attached to this document. The menu appears as shown in the Figure 15. The "i" icon indicates the current mode of access to the device.

The menu has the following functions:

- Login:** Log in in a different user mode. Available: Owner, Technician
- Change password:** If logged in as Owner or Technician allows to change the password into a new one.

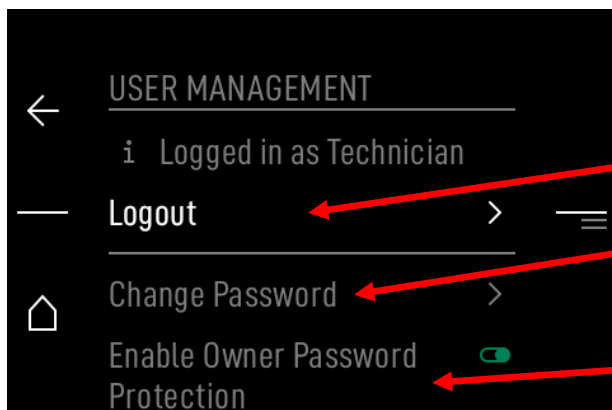


Figure 24; User Management menu in Owner mode.

Login Logout: log in in a different user mode.

Change password: If logged in as Owner or Technician allows to change the password into a new one.

Enable Owner password protection: restricts the options of changing settings without password.

2.8 Info

This menu allows different types of information to be shown on the display.

Machine Info (Hardware version code, Software version code, Electronic SN code)

2.8.1 Production Dates:

Assembly Date (Date)

2.8.2 Statistics:

Since (date)

Reset Statistics (reset)

Shots Ground Today (units)

Shots Ground Total (units)

Kg Ground Today (weight value in Kg)

Kg Ground Total (weight value in Kg)

2.8.3 Recipe Statistics:

Other:

Count (number)

Duration Sum (Time in d/h/m/s)

Duration Average (Time in d/h/m/s)

2.8.4 Weight based:

DD (value in microns)

Count (counts)

Duration sum (Time in d/h/m/s)

Duration average (Time in d/h/m/s)

2.8.5 Manual based:

DD (value in microns)

Count (number)

Duration sum (Time in d/h/m/s)

Duration average (Time in d/h/m/s)

2.8.6 Time based:

DD (value in microns)

Count (number)

Duration sum (Time in d/h/m/s)

Duration average (Time in d/h/m/s)

2.8.7 Grinder Statistics:

Motor Runtime (Time in d/h/m/s)

Uptime (Time in d/h/m/s)

Burr Runtime (Time in d/h/m/s)

Burr Health (Completion bar)

On/Off Cycles (counts)

Motor Cycles (counts)

2.9 Alert & Notifications:

Active Alerts: Reports pending alerts.

Historic Alerts: Reports alert history. Each alert has an icon that determines its degree of importance through its yellow or red color; A title that identifies the cause; The date and time it was reported; An error message that explains its meaning.

Shot log: Reports a list that keeps track of the operations performed while using the recipes.

Error log: Reports a list that keeps track of the operations performed while using

Service log: Reports a list that keeps track of the operations performed while using

3 Web User Interface – Functionalities

There are two ways to access the web user interface: using the grinder as an access point and using the grinder as a station mode.

Access point: Allows you to generate your own network to which you can connect with a device, e.g. a laptop. This mode allows the device to be used even in the absence of an external WiFi network.

Station mode: Allows the device to connect to an external network. In this mode, the web user interface can be used without losing the Internet connection.

3.1 Connect Grinder to existing Network (Station Mode)

Select the Main Menu with the lower button. Scroll with the wheel to “Connectivity” and select. This menu option is only visible if logged in as owner or technician. In the menu connectivity select “WiFi Settings” as shown in Figure 25.

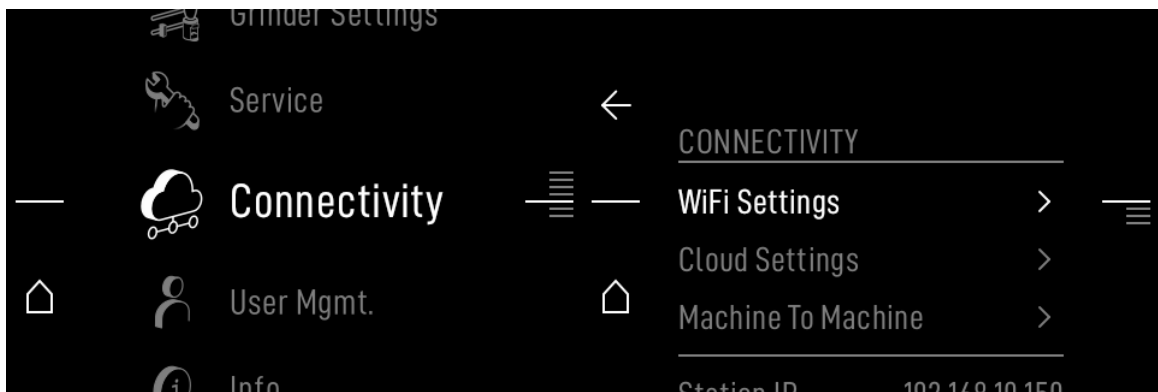


Figure 25; How to access WiFi Settings menu

The standard procedure involves before use, a WiFi reset. After performing a reset, the option enable Wi-Fi can be activated.

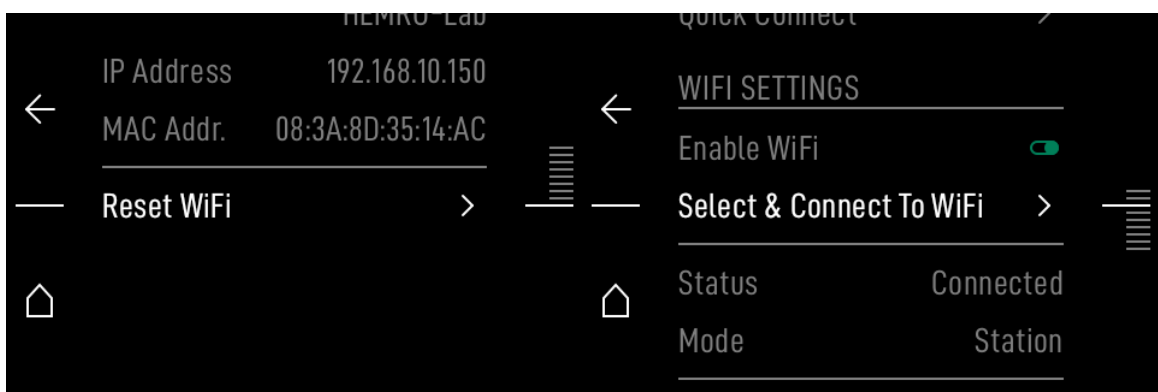


Figure 26; Standard procedure for WiFi activation.

Through the Select & connect to a WiFi option you can connect your device to your preferred WiFi network. After connecting to the network, the page shown in the figure is shown on the display. this shows the name of the network you are connected to, the IP address and the MAC address.



Figure 27; Info screen about WiFi details

With this address it will then be possible to access the web user interface as described in section The Web User Interface.

3.2 Connect Grinder to Device (Access Point Mode)

When WiFi is reset, by default the device will be in accesspoint mode. This mode allows the grinder to generate its own WiFi network which will have as its name HemroNg2-XXXXXX where XXXXXX is the serial number of the device's HMI, visible in the info section (see 2.8 Info). It is possible to connect to the device using the password kingxxxx where xxxx is the last 4 digits of the HMI serial number. Once connected to the WiFi generated by the grinder you will be able to access the web user interface (next chapter).

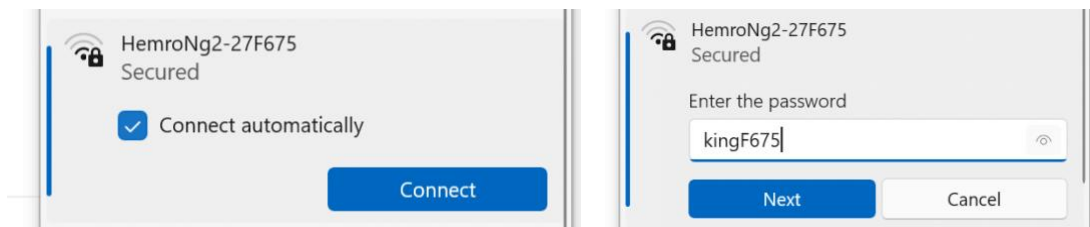


Figure 28; Connect to grinder wifi

3.3 The Web User interface

Once connected to WIFI, an IP address is associated to the device. This address allows access to a web interface with which it is possible to communicate with the device and to perform software updates. The IP address can be found in the last item of the connectivity menu in the grinder.

The IP address must then be entered in the search bar on your web browser as shown in the figures below. This will first take you to a security page, click on advanced, and subsequently on continue to IP, which will take you to the web user interface access page. The page has two panels, the first for logging in and the second allowing access to a web page via QR code. On the log in page the access mode between shop owner and technician can be selected. The owner and technician passwords are as indicated in 1 User Profiles.

Once the IP is typed into the browser address bar (without https//, only "10.112.51.180"), the browser might require a confirmation to connect to that IP:

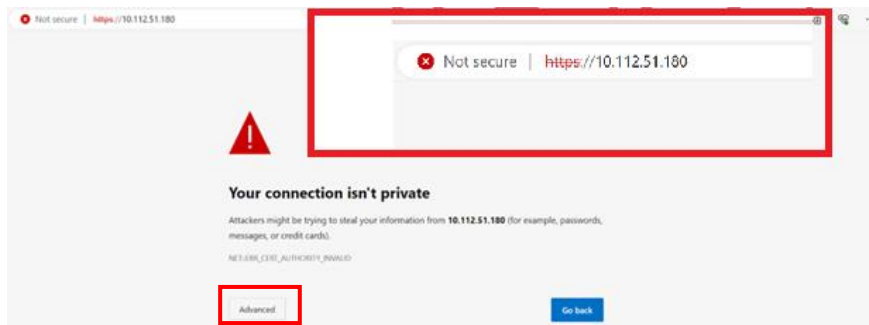


Figure 29; Webinterface login (Google Chrome recommended)

This confirmation can be given via “Advanced” and “Continue to...”:

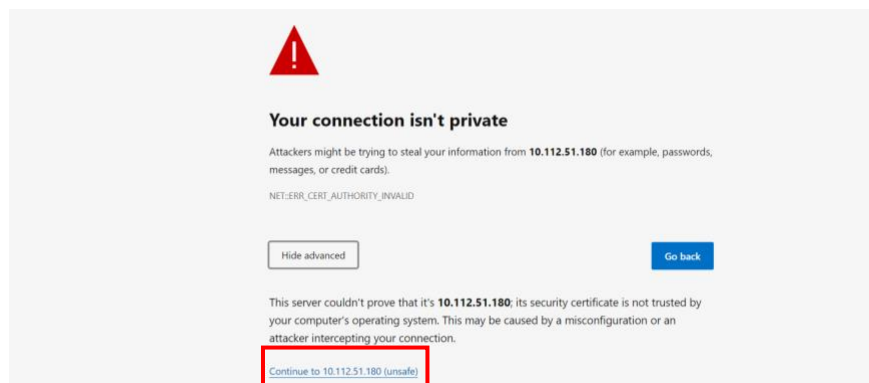


Figure 30; Webinterface access confirm

Login

User Role

TECHNICIAN

Password

LOGIN

Figure 31; Webinterface login

Note: Further description of the Web UI is not given in this document as this is reserved for skilled technicians and support. Mishandling the configuration of the grinder can result in permanent damage to the grinder electronics!

3.4 Software Update

If the grinder is connected to the cloud, it will prompt you to update the software once a new version is available.

For grinders not connected to the cloud, there is the option of updating via webinterface. For doing the update manually, the update file (.swu) is needed. It can be found on the Mahlkönig product website.

1. Download the update file and store it on your device (laptop or mobile)
2. Connect to the grinder and open the webinterface as described in 3.3
3. Go to the “Firmware update” section and select the downloaded .swu file.

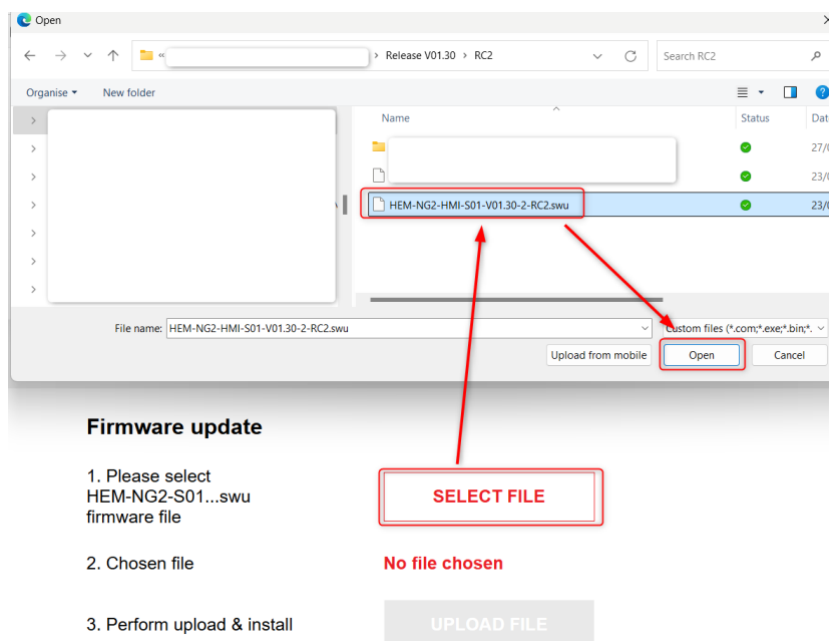


Figure 32; Load the software file to the webinterface

Then, upload the file to the grinder which will start the update process:



Figure 33; Upload .swu file to the grinder

4. The update will take approximately 5-10 minutes, status updates are shown in the web interface and on the grinder.

After the update, your device will lose the connection to the grinder as it reboots.

3.5 Testing page

Navigate to the Service panel. Open Testing

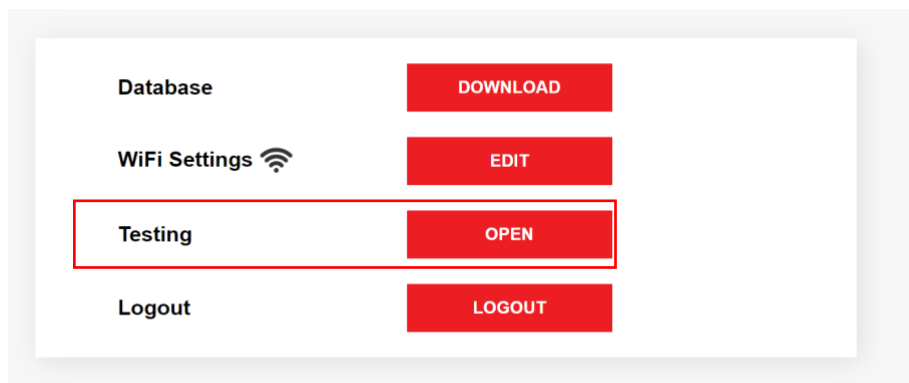


Figure 34; Service Panel

Following page should appear. Here you can monitor the current weight, which can serve as well for monitoring the WIFI signal.

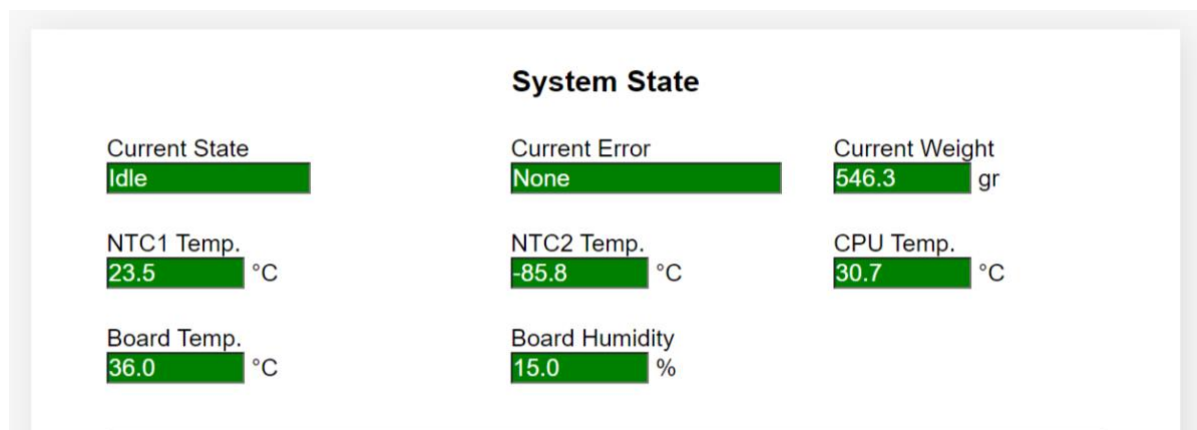


Figure 35; Monitoring page

4 Interaction icons

Interaction icons are used to show the functions of the interaction buttons.



The Recipes panel shows the different saved recipes that can be selected. It is possible to navigate through the displayed recipes by rotating the jog dial.
Single Click on the Jog Dial will enter the disc distance adjustment
Double Click on the Jog Dial will enter the amount adjustment (grams or seconds)



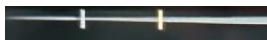
The Grind on demand can be activated by pressing the upper left button. The duration for a tap is the "Purge Value" in "Grinder Settings", a long press leads to grinding until the button is released



The Main Menu can be accessed via the bottom left button.

Recipe icons

The recipe icons are used to display all the essential information concerning the selected recipe.



The horizontal line displays the distance between the discs and its reference value in the selected recipe covering a distance from 0 to 300 microns. Recipe DD (disc distance) is only shown if activated.



Disc Distance: grey line and value show current position of disc distance, white line & value shows the disc distance as saved on the recipe (if activated)



Shows the main parameter of the selected recipe: weight if in GbW mode; time if in GbT mode.

Status Icons

The icons on the bottom of the Main Menu are the status icons. They provide information on the general conditions of the grinder.



Shows the temperature measured on the HMI board.



Shows the status of the cloud connection



Shows the strength of the WIFI connection

Menu navigation

Through the display buttons it is possible to navigate through the Quick Menu and the Main Menu. The buttons are associated with different icons that suggest their functionality. Below are the navigation icons and their meaning.



icon associated with the bottom-left button. Return to the Home menu.



Icon associated with the up-left button. Return to the previous sub-menu.



Icon associated with the bottom left button. Selecta next/previous digit or character.



Icon associated with the Jog Dial. Rotating the Jog Dial different items can be selected.

Interaction tools

In the menus, some tools are used to change values, usually a number, an alpha-numeric code or the status of a switch. This section describes these interaction tools:

Keyboard

An example of a keyboard is the one shown in Figure 32. It is used to enter a password and be able to access functions restricted to technicians and owners, for example.

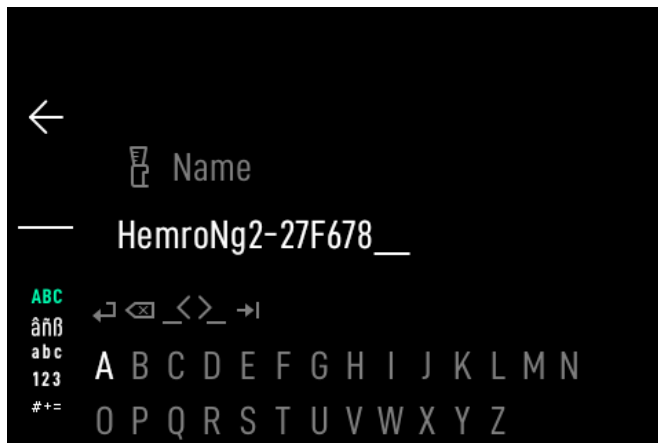


Figure 32: The Keyboard Tool.

The meaning of the icons is shown below:



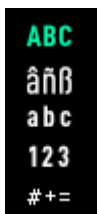
Enter the password.



Delete the last character.



Return with the cursor to the end of the string



Open upper-case keyboard with letters
Open special letters keyboard
Open lower-case keyboard with letters
Open number keyboard
Open symbols keyboard

Changing numerical values

Changing numerical values is possible by rotating the Jog Dial. The system allows to modify the value by increasing or decreasing the last digit. Pressing the jog dial saves the change.

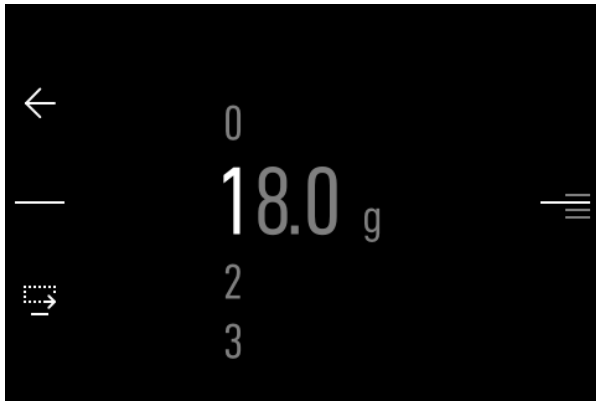


Figure 33. Setting a value using the Jog Dial.

Enable Icon

The switch is generally represented by the icon  and is used to turn a function ON or OFF. It is possible to change the state of the switch by pressing the Jog Dial.