

Software Manual

Grind-by-Sync

Espresso Grinder

E65W GbS / E80W GbS & E65T GbS / E80T GbS

Description of Software, - Functions & Related Updating Processes.

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General

This manual is based on release 1.36, applicable to the following products: E65W GbS and E80W 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, WiFi, 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.

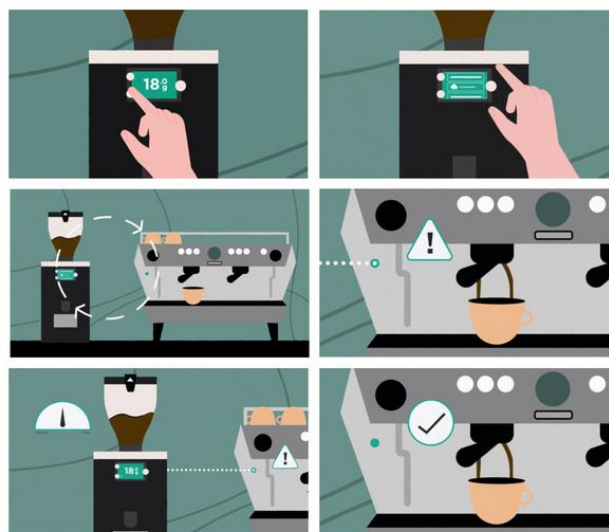


Figure 1; Schematic representation of devices used in Grind by Sync technology

1 User Profiles

Role	Password	Description
Owner (default)	Default 1924 custom	Gives access to all menus except the service menu
Technician	1311	Gives access to the service menu
User	-	Restricted access for only grinding, no changes possible (except grindsize)

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. Use option Set to Today.
2. Type the Grinder SN (ensure this number is correct as given in the type-plate, otherwise the onboarding process to WiFi & 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 WiFi 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 ☐

LOAD CELL

Current Weight -0.2g

Calibrate >

DDD SENSOR

Sensor type Analog

Calibrate >

DDD value 97µm

AGSA

AGSA Test ☐

Encoder value -748

Status Failed

GRINDER MOTOR

Motor Test ☐

FAN TESTS

Fan 1 25.5°C
0.0%

Fan 1 Test ☐

Fan 2 25.5°C
0.0%

Fan 2 Test ☐

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.

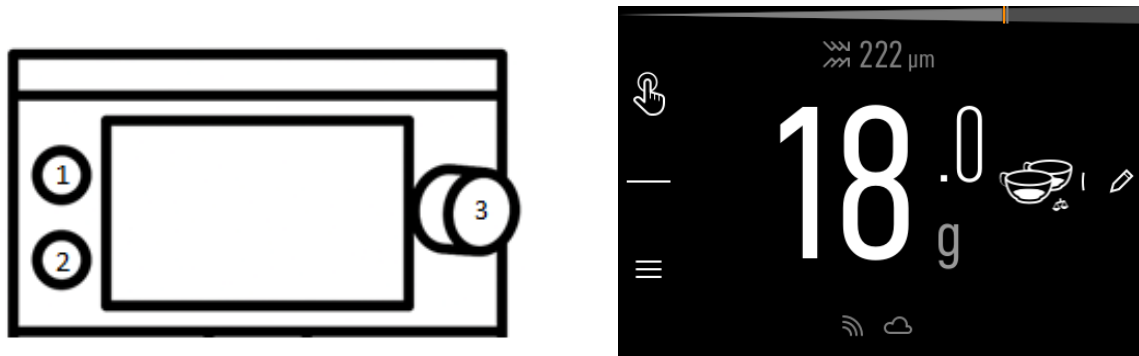
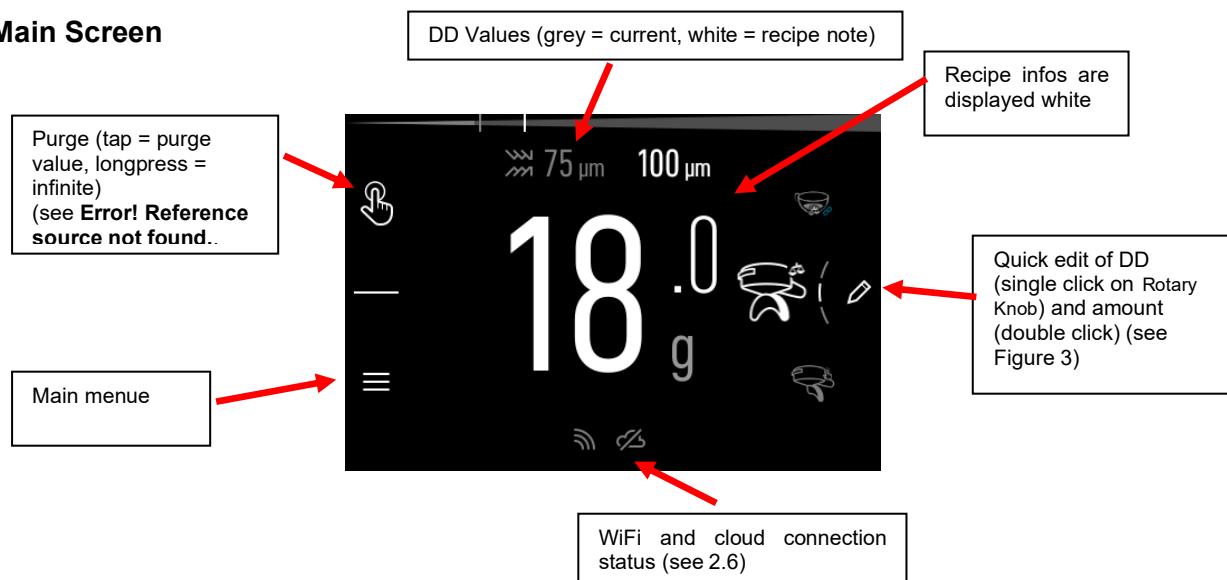


Figure 2; left: Display buttons (1 & 2) and Rotary Knob (3). right: Home menu screen.

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 2 (right) as a reference we will call in this manual:

1. Upper left button.
2. Bottom left button.
3. Rotary Knob.

Main Screen



2 Grinder HMI – Functionalities

Edit Recipe (Quick Edit DD)

The quick edit DD is used to change the disc distance to the individual recipe selected. It can be accessed pushing the Rotary Knob 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.

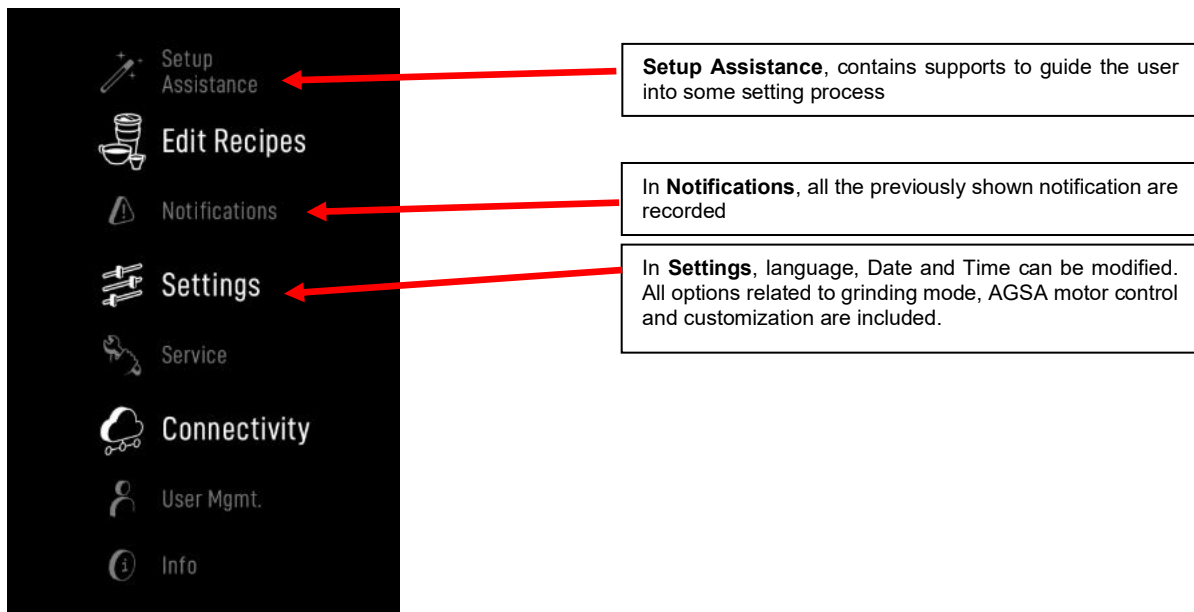


Figure 4; Sub-menus shown in the Main Menu page

2.1 Setup Assistance

In this section of the menu, it is possible to activate guided setup paths for configuring some of the grinder's features, such as cloud and WiFi connections, dialling in the first recipe.

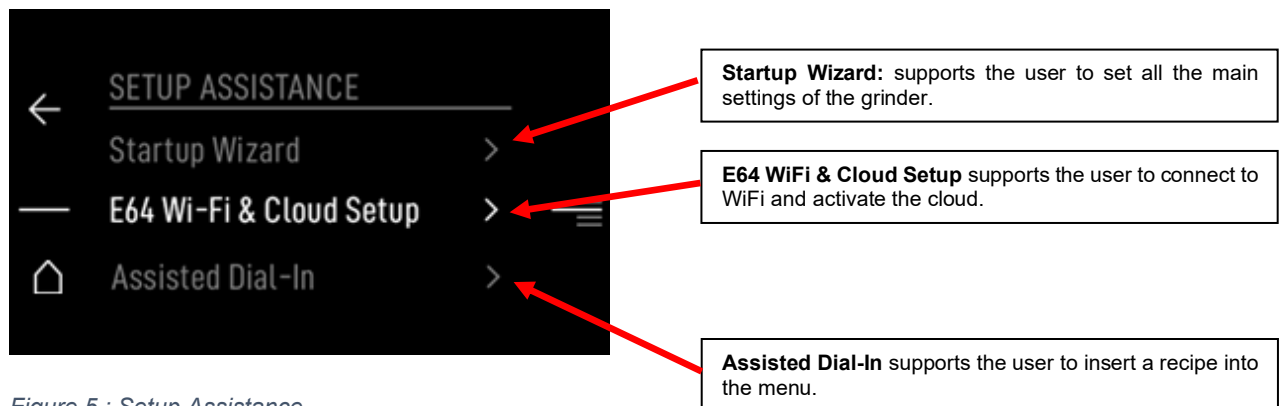


Figure 5 ; Setup Assistance.

2.1.1 Startup Wizard

The Startup Wizard is a guided process that allows the user to set some of the grinder's operating parameters. In particular, the Startup Wizard enables the selection of the grinder name at power-on, the choice and connection of the WiFi network, and the dial-in process for the first recipe.

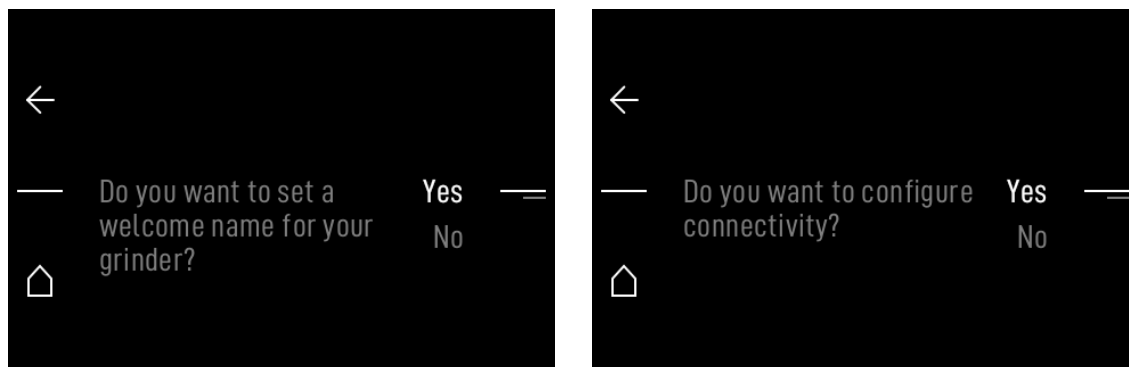


Figure 6 ; Startup Wizard. Grinder name and connectivity configuration.

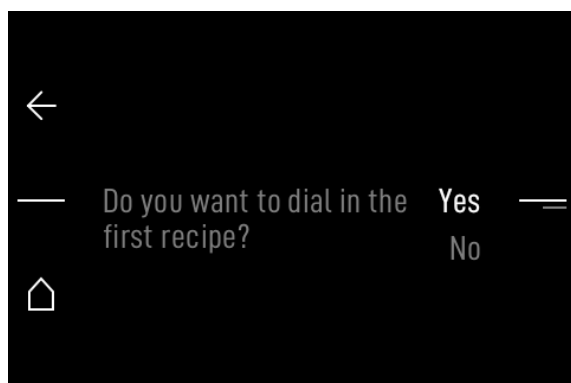


Figure 7; Startup Wizard. First recipe dial in.

2.1.2 E64 WiFi & Cloud Setup

It is possible to configure the WiFi and the cloud using this option in the wizard menu. If the app-based mode is selected, the QR code can be scanned with the app. This procedure leads to the grinder onboarding process, which also includes connecting to WiFi. If the Manually option is selected instead, the user is taken to the WiFi configuration page, where a network can be selected and the password entered to establish the connection.

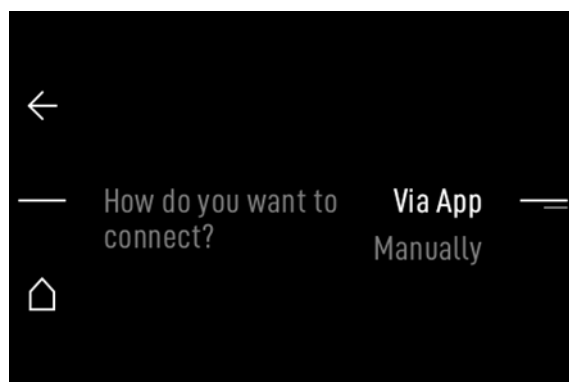
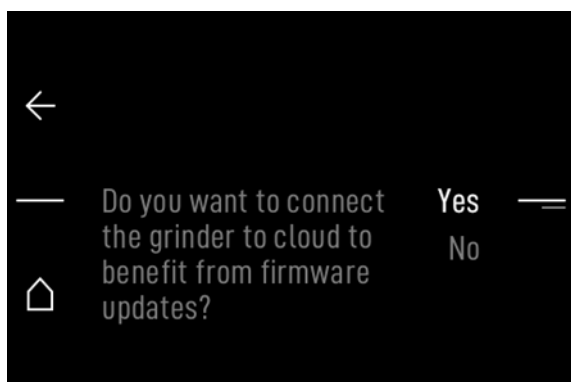


Figure 8 ; Startup Wizard. Cloud connection.

2.1.3 Assisted Dial-In

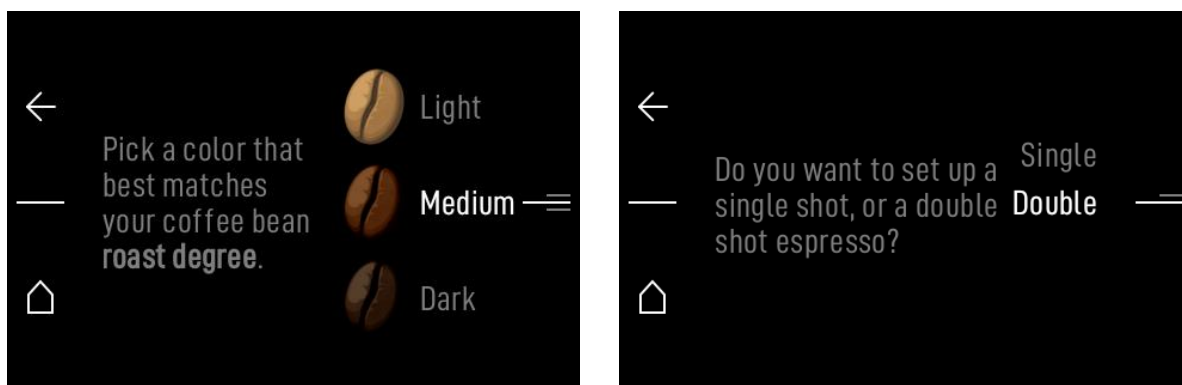


Figure 9 ; Assisted Dial-In. Coffe color and Single/Douple Espresso choice.



Figure 10; Assisted Dial-In. Grind Weight and beverage weight choice.

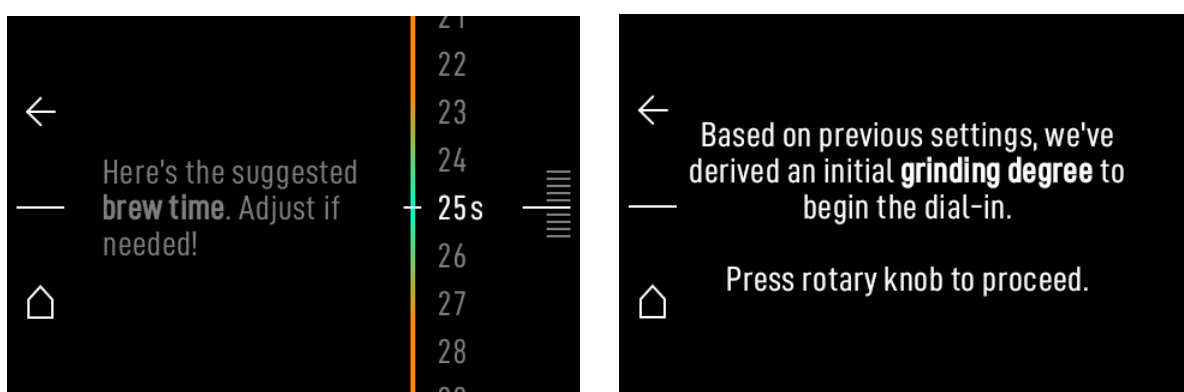


Figure 11 ;Assisted Dial-In. Brew Time and Confirmation of suggested grinding degree



Figure 12; Assisted Dial-In. Refine process and communication of new recipe with the coffee machine.

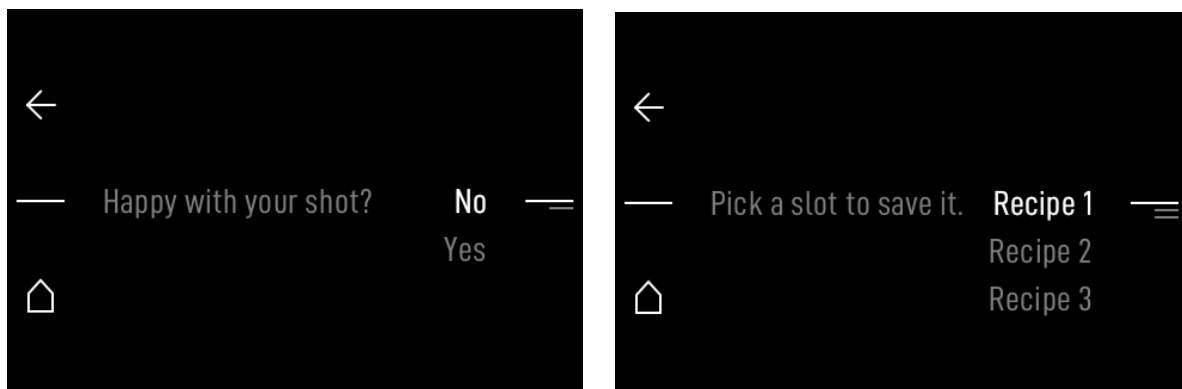


Figure 13; Assisted Dial-In. Recipe allocation.

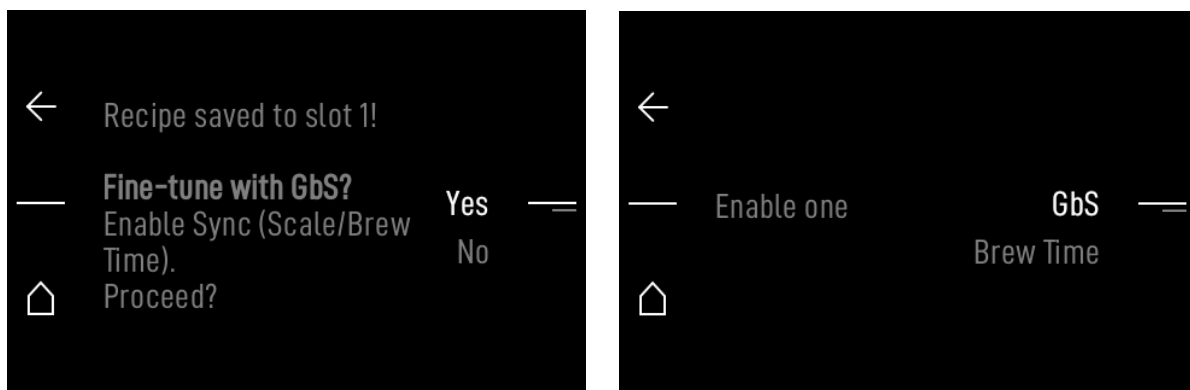


Figure 14; Assisted Dial-In. GbS activation on saved recipe.

2.2 Edit 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.

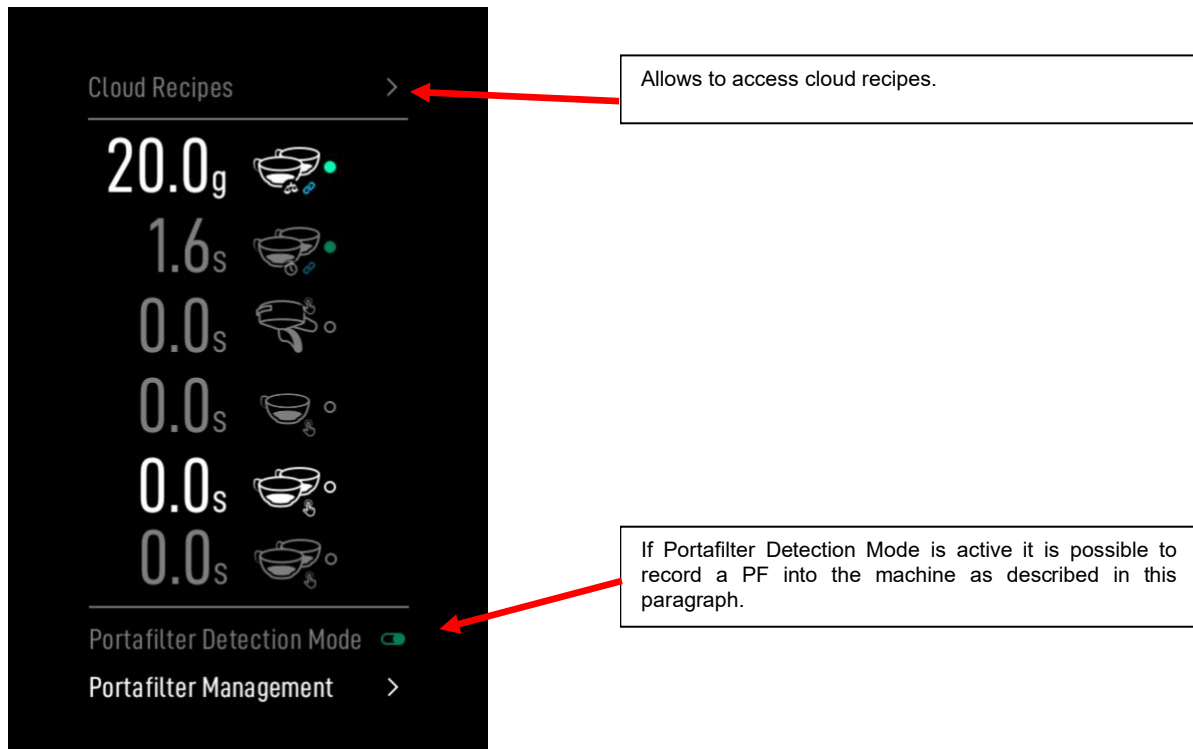


Figure 15 ; Edit Recipes Menu

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 Rotary Knob will lead to the **Recipe Menu**.

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 18 (left).

Each recipe in the list presents some icon and a dot. The green dot at the end means that the recipe is displayed in the Home. The icons provide additional information about the settings of the individual recipe. The icons are associated to the recipe's mode as shown in Figure 16. 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.

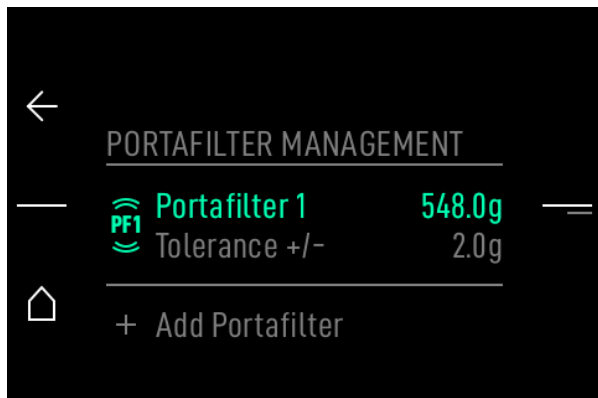
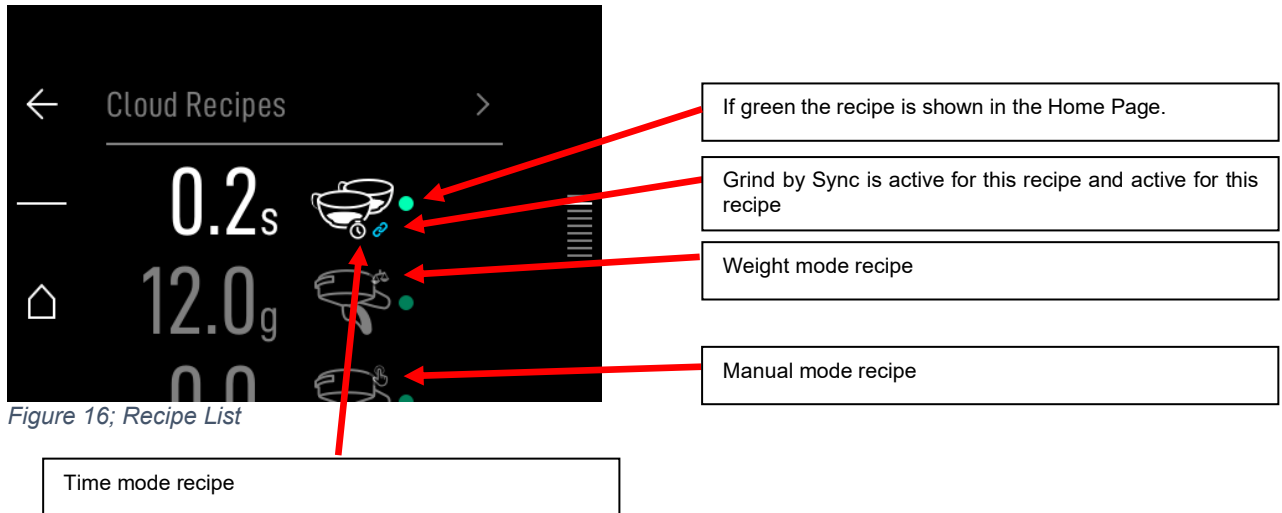


Figure 17; (Left) Portafilter Management menu. (Right) Portafilter weight value page

Add Portafilter option brings to a new page as shown in Figure 18 (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 (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 19 (right). In the page, the portafilter number, the weight value, the editable tolerance limit, and the delete option are reported.

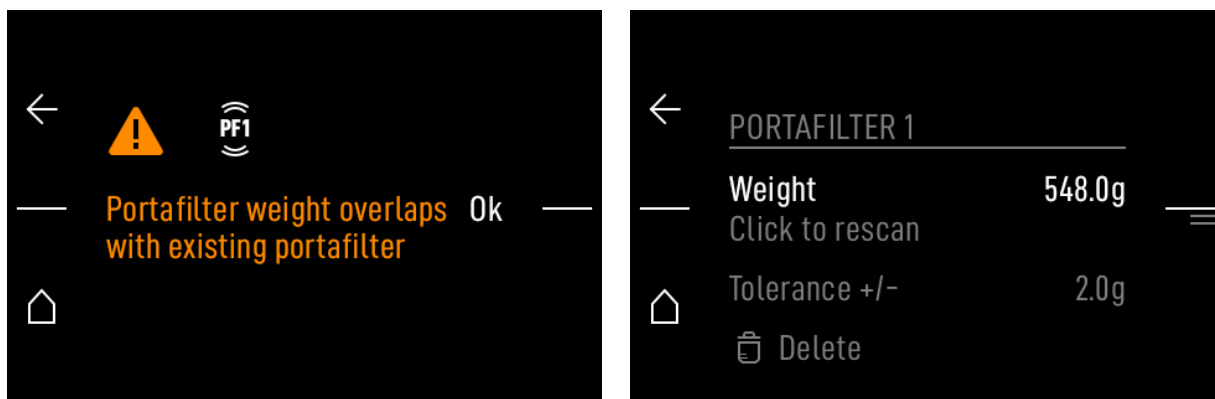
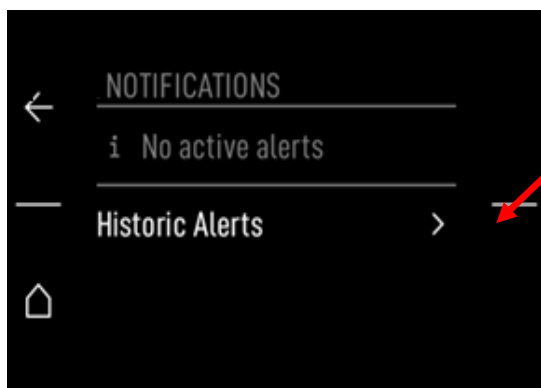


Figure 18; (Left) Portafilter Management Alert. (Right) Portafilter 1 Management Page.



Figure 19; Single recipe Menu

2.3 Notifications



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

Figure 20; Alerts and Notifications Menu

2.4 Settings

GENERAL SETTINGS

- Language: English
- Welcome Name
- Date: 09.04.2026
- Time Display Format: 24 H
- Time: 12:10:57
- Timezone: UTC / UTC
- Name: HemroNg2-27F678

GRINDING SETTINGS

- Disable Edit Recipe for Barista
- Break Function
- Break During Shot (Time-based mode only): 1.0s
- Dose Timeout: 1.0s
- Adjust grind time if DD is adjusted
- Manual Grind Display: Time

GBS SETTINGS

- GbS Algo Name: GbS3
- GbS Brew Time Tolerance: 0.0s

GBW SETTINGS

- Show Actual Weight: Only for Weight-Based

CUSTOMIZATION

- Display Brightness: High
- Temperature Show on Screen
- Permanent LED Lighting
- Standby Mode

AGSA MOTOR SETTINGS

- Auto Adjust to Recipe DD
- Drive to Recipe DD on Startup
- AGSA Blockage Warning Threshold: 50µm
- Show Recipe DD

Language: Set the language of the whole Menu

Welcome name: Set the name that will be shown at the start up

Date and Time settings

Name: Set the name of the grinder

Disable Edit Recipe for Barista: If on the barista is not allowed to edit any recipe

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 Function time defines for how long the brake can last

Break during shots: It defines the duration of the break that can be taken during a shot.

Dose timeout: After a recipe is ground, the final value in grams or seconds stays displayed for the "Dose Timeout" time before the display returns to the

Adjust Grind Time if DD is adjusted: When this option time recipe is adjusted according to the disc distance selected.

Manual Grind Display: What is to be displayed when ground manually (grams or time)

GbS Brew Time Tolerance: Tolerance range for the extraction time in GbS. The cycle is considered correct if the brew time falls within the set value.

Show Actual Weight: It shows the value of the load cell real time.

Display Brightness: Select A level of brightness of Low to High.

Temperature show on screen: If on the icon appear on the Home Menu.

Permanent LED Lighting: To set the LED on with fixed light.

Standby Mode: see next page

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: the grinder returns to the original DD from the recipe when switched on

AGSA Blockage Warning threshold: alert displayed when the threshold is reached

Show Recipe DD: show the DD set in the recipe on the screen

Figure 21; Settings

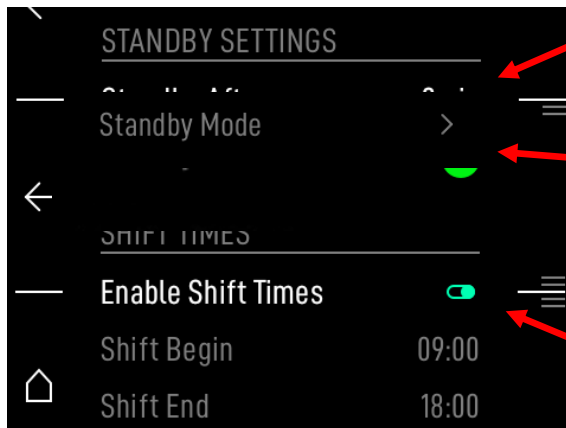


Figure 22; Standby Menu

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 **Error!** Reference source not found.

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!**

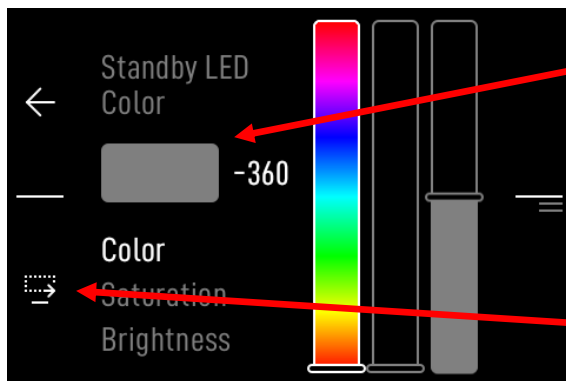


Figure 23; Standby LED Color settings

The current setting is displayed here.

Jump from Color to Brightness with Button 2

2.5 Service

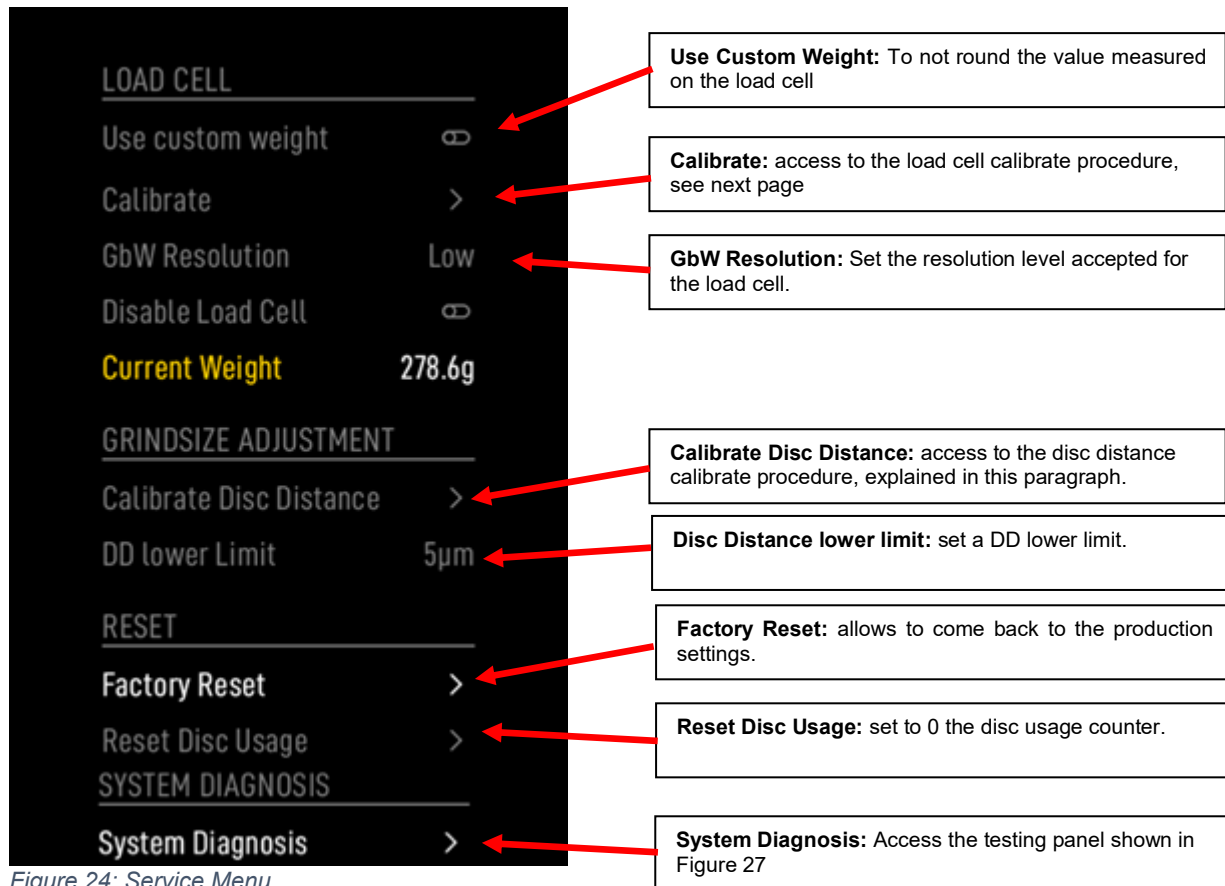


Figure 24; Service Menu

2.5.1 Load Cell - Calibrate



Figure 25; 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.

2.5.2 Calibrate Disc Distance

Allows access to instructions guiding the DDD calibration process.



Figure 26; Disc Distance Calibration Process

2.5.3 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.

2.5.4 System Diagnosis

This menu section is designed to provide a control panel for the grinder, allowing tests on various components and verification of the results.

The screenshot shows a dark-themed menu for 'Systems Diagnostics'. Red arrows point from text boxes to specific menu items. The menu is organized into sections: ASSEMBLY DATE, MACHINE CONFIGURATION, HOPPER TEST, NOZZLE LIGHT, LOAD CELL, DDD SENSOR, AGSA, GRINDER MOTOR, FAN TESTS, and WIFI CHIP STATUS.

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 27; 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 28, it is possible to access several settings.

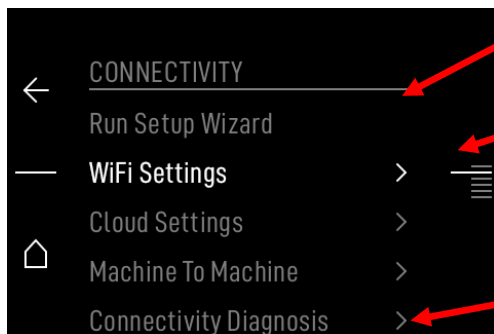


Figure 28; WiFi Settings menu

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.

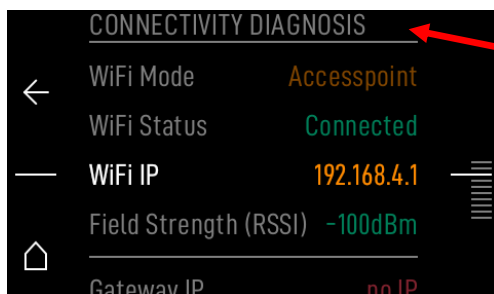


Figure 29; Connectivity Diagnosis

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.

Rotary Knob click on an entry leads to troubleshoot suggestions.

2.6.1 WiFi settings:

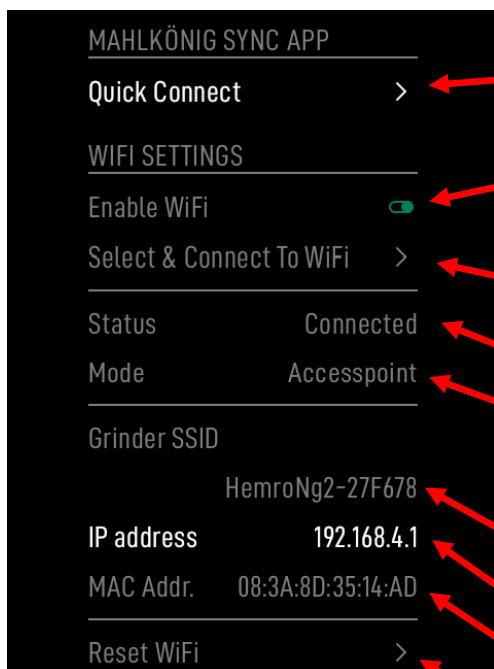


Figure 30; WiFi Settings page

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.

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.

Grinifer SSID: shows the name of the WiFi 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 **Error! Reference source not found..**

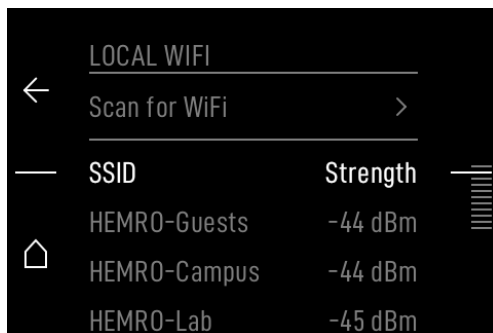


Figure 31; WiFi scan page

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 32. 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.

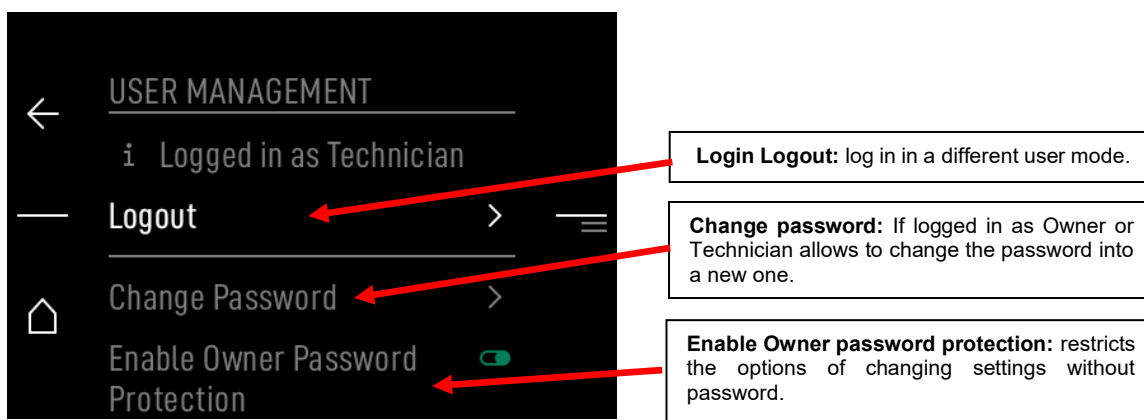


Figure 32; User Management menu in Owner mode.

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)

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 33.



Figure 33; How to access WiFi Settings menu

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

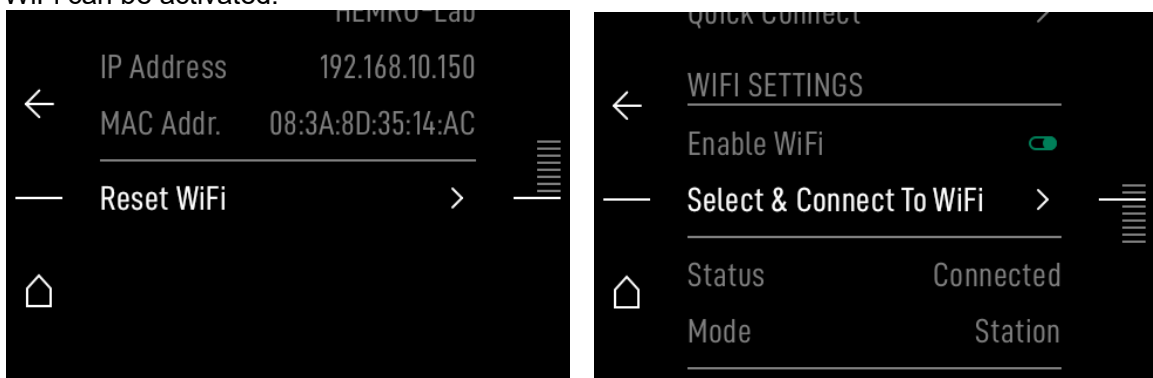


Figure 34; Standard procedure for WiFi activation.

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 35 is shown on the display. this shows the name of the network you are connected to, the IP address and the MAC address.

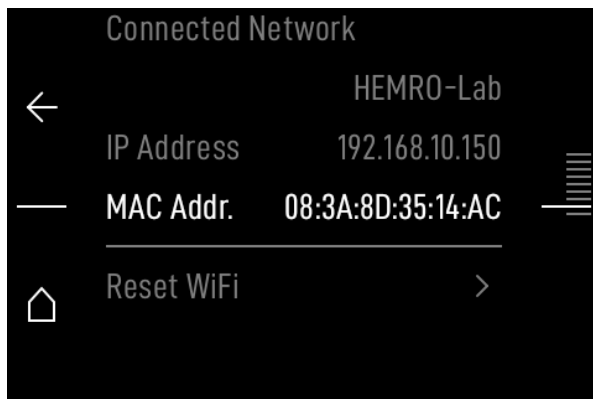


Figure 35; Info screen about WiFi details

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

Please note: This device requires a **2.4 GHz WiFi band** for connection. It is not compatible with 5 GHz networks. If you are using a dual-band router, please ensure that your mobile device is connected to the 2.4 GHz frequency during the setup process.

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).

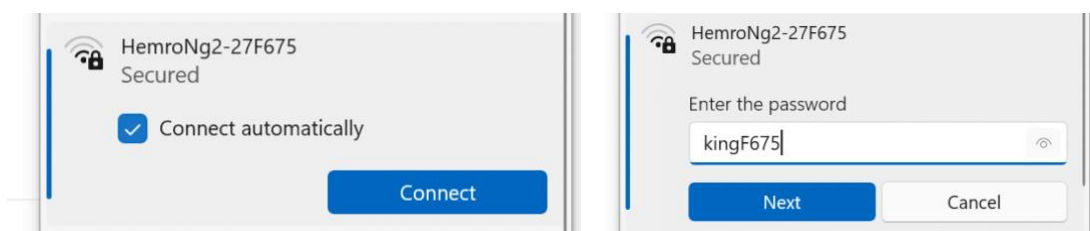


Figure 36; Connect to grinder WiFi.

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:

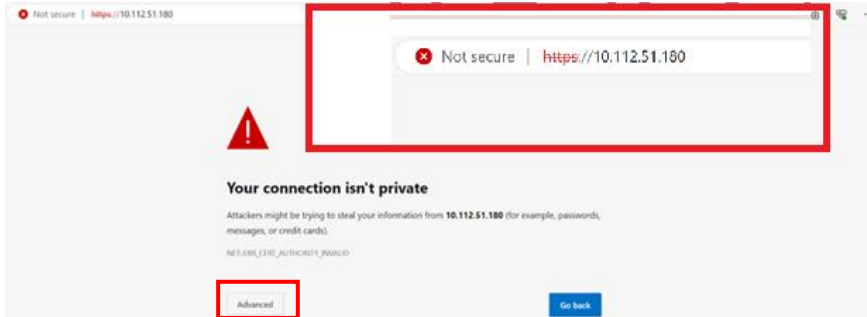


Figure 37; Webinterface login (Google Chrome recommended)

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

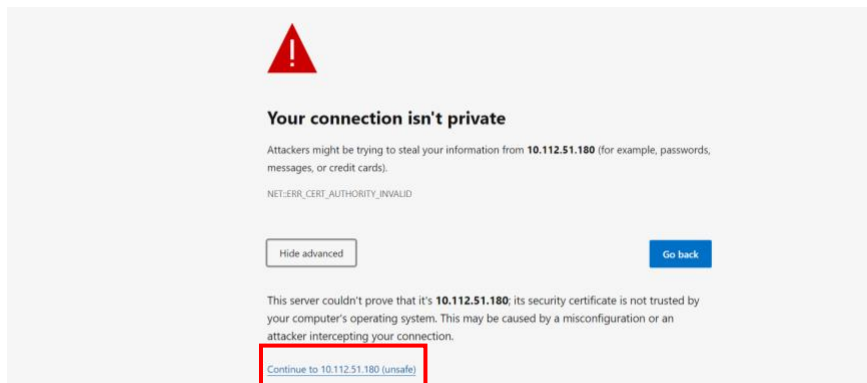


Figure 38; Webinterface access confirm

Login

User Role

TECHNICIAN

Password

LOGIN

Figure 39; 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.

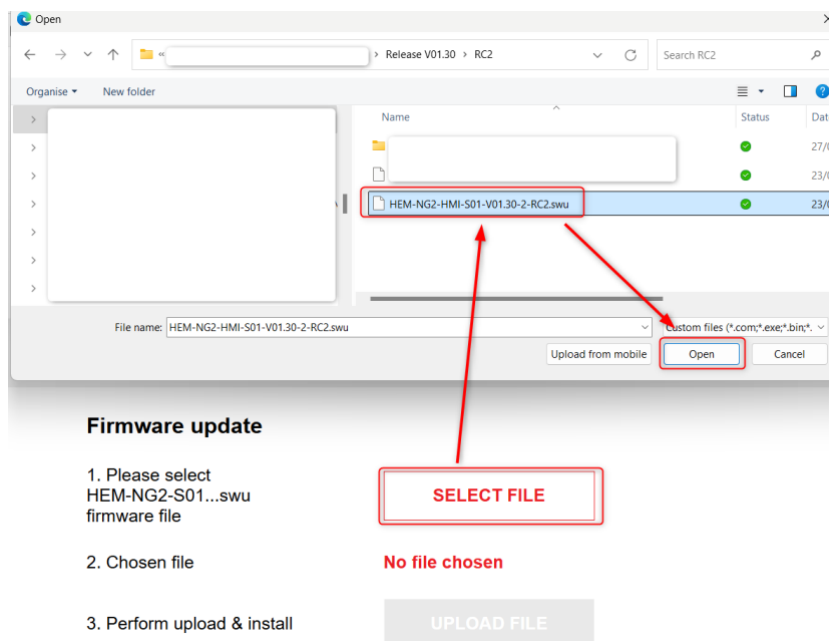


Figure 40; Load the software file to the webinterface

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



Figure 41; Upload .swu file to the grinder

4. The update will take approximately 5-10 minutes, status updates are shown in the webinterface 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

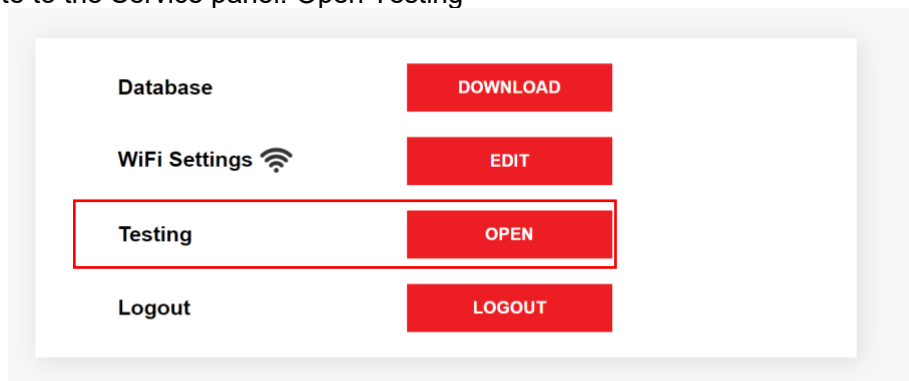


Figure 42; Service Panel

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

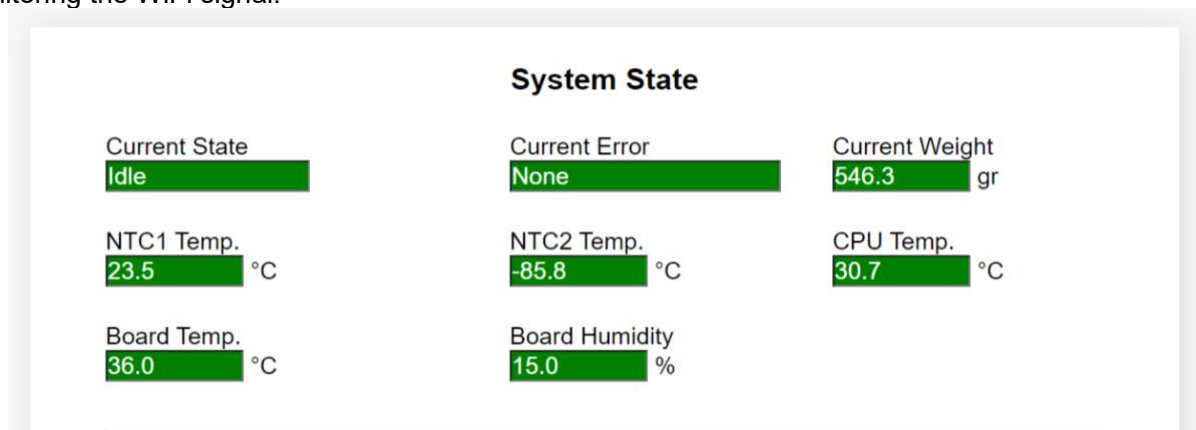
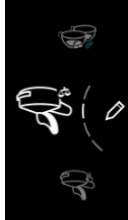


Figure 43; Monitoring page

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 Rotary Knob. *Single Click* on the Rotary Knob will enter the disc distance adjustment. *Double Click* on the Rotary Knob will enter the amount adjustment (grams or seconds).



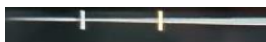
The **Grind on demand** can be activated by pressing the upper left button. The duration for a tap is the "Purge Value" in "Grinder Settings", a long press leads to grinding until the button is released.



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 Rotary Knob. Rotating the Rotary Knob 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 44. It is used to enter a password and be able to access functions restricted to technicians and owners, for example.

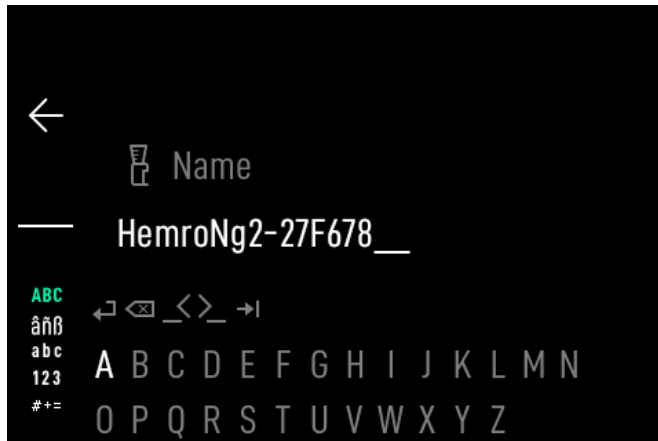


Figure 44; Keyboard tool

The meaning of the icons is shown below:



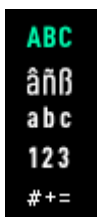
Enter the password.



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 Rotary Knob. The system allows to modify the value by increasing or decreasing the last digit. Pressing the Rotary Knob saves the change.

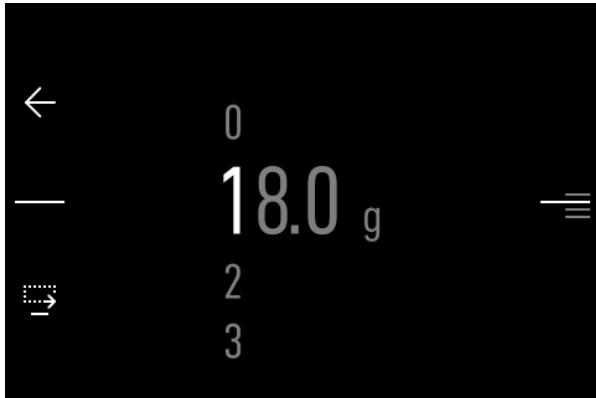


Figure 45; Setting a value using the Rotary Knob;

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 Rotary Knob.

End of the document