

Software Manual
EK Omnia
Allround Grinder

Description of Software, - Functions & Related Updating Processes.

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Revision History

| Date | Revision comment | Revision No. |
|---------|--|--------------|
| 3.11.23 | Created | 1.0 |
| 1.12.12 | Progress bar issue mentioned in notes. | 1.1 |
| 25.1.24 | Provisionally finalized – SW SAP number pending | 1.2 |
| 2.2.24 | Updated to latest release | 1.3 |
| 4.3.24 | Updated to latest release | 1.4 |
| 7.3.24 | Added most common notifications (see 8.1) | 1.5 |
| 8.5.24 | Updated to W 1.20 (see Software Version History) RPM adjustment explanations added to the modes | 1.6 |
| 4.11.25 | Watermark removed | 1.8 |

Software Version History

This manual is only valid for the most recent version of software listed below.

| Date | Revision comment | SW & Build No | SW HMI | SW ESP | FW MCU |
|---------|--|---------------|--------|--------|--------|
| 1.12.23 | 2nd release for 1st mass production | 1.04-5 | 1.06 | 1.10 | S27 |
| 2.2.24 | 3 rd release for 1 st mass production | 1.14-1 | 1.06 | 1.11 | S30 |
| 4.3.24 | 4 th release, PDU check in service and detection fixed, state file corruption suppressed, NTC plausibility check fixed | 1.16-4 | 1.10 | 1.11 | S30 |
| 8.5.24 | 5 th release <ul style="list-style-type: none"> - PDU power & speed increased - RMP adjustment implemented in all modes - Post run after PDU dosing increased to 4 s | 1.20-1 | 1.20 | 1.14 | S30 |

Terminology

| Term | Explanation |
|-------------|--|
| AGSA | A utomatic G round S ize A djustment Based on the stored DD , the AGSA can, if enabled) set the required disc distance automatically. |
| DD(D) | D isc D istance (D etection) The DDD reads the distance between the discs. It is not to be confused with the grindsize, which always will be a larger value than disc distance. Disc distance on the EK Omnia are between 0 and 800 (when calibrated) |
| ESP | E spressive Board The ESP gets its name from the main chip on it. The ESP board sits behind the main motor under the plastic cover and is creating the grinders WiFi. |
| FW | F irmware The “underlying” software, like Windows for a computer |
| HMI | H uman M achine I nterface Technical term for a touch display |
| IP | I nternet P rotocol The IP is a shortcut for IP-Address. It is the address of a device within a WiFi network and is used for accessing a device. |
| MCU | M otor C ontrol U nit The MCU controls the EK Omnia’s main motor and supplies power to the other electronic parts. It is in the back of the mast, mounted on the backcover of the grinder. |
| PDU | P re D ose U nit The PDU is a hopper with a built-in volumetric dosing function and is available as an accessory. If available, it is to be used in the Library mode. |
| SSID | S ervice S et I dentifier Means the name of a WiFi. |
| SW | S oftware Like Word on Windows |

1 General Description

The EK Omnia is equipped with 3 different electronic boards (HMI, ESP and MCU), each with an own software. Master of all is the HMI, which checks and, if needed, updates the ESP and MCU board.

Functionality:

- HMI Main part for the user interaction. Used for settings and grinding
- ESP Responsible for the WiFi and for connection to the Start/Stop button
- MCU Drives the Main motor and supplies ESP and HMI with power



2 Login

The EK Omnia know 3 users:

| | | |
|---------------|------|---|
| No login/user | - | grinding possible, also changing recipes. in settings only view mode granted |
| Store Owner | 1924 | no access to systems setup and motor configurations |
| Technician | 1311 | unlimited functionality |

If not stated otherwise, the described functions in this document are accessible for the store owner login.

3 Standby and Power Off

3.1 Standby

To save energy and expand the lifetime of the display, the EK Omnia will go into standby mode after a defined time (see 4.6.3). During standby, the Start/Stop button LED will fade. A tap on the display or the Start/Stop button exits standby mode.

3.2 Power Off

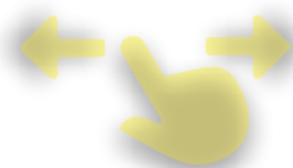
All settings are permanently stored and will remain when the grinder is switched off. However, as date and time are dynamic values, they need to be kept alive. Therefore, the EK Omnia is equipped with a power capacitor which keeps the internal clock alive for at least 10 days. If the EK Omnia is powered off for longer than that, date and time might have to be dialled in at startup again.

Note: For charging the power capacitor sufficiently, the grinder must be switched on for at least 8 hours.

4 Software Functions Overview

4.1 Navigation and Gestures

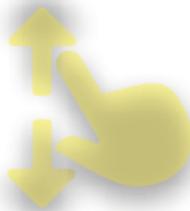
Thanks to the touch screen, the EK Omnia offers a range of input possibilities which are known from other touch-screen devices.



Side Swipe
Swipe left or right to go to the next screen



Long Press
Press for more than 0.5 s to go to edit mode or to directly save changes



Vertical Swipe
Swipe left or right to go to the next screen



Tap
Tap on an icon to select or open

Additionally, there is the disc distance knob which can be used to dial in the disc distance by simply turning in either direction. The red label indicates its current position.



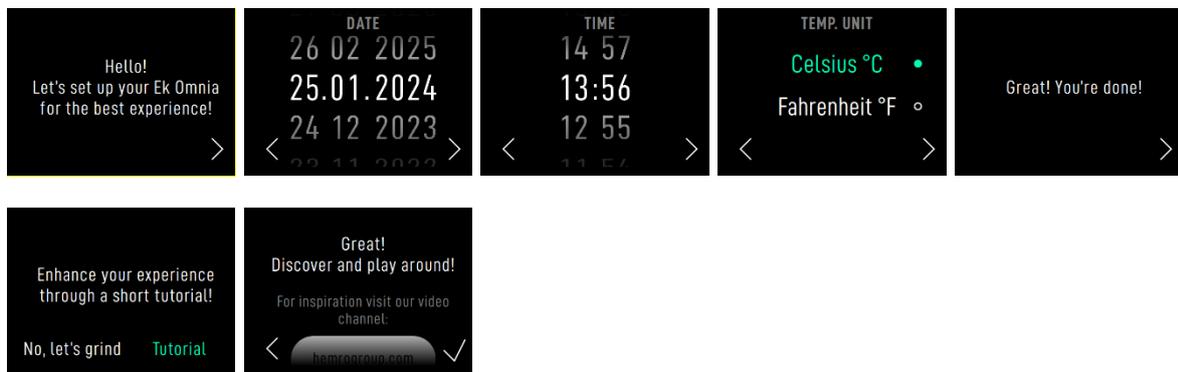
4.2 First Startup

At first startup, a tutorial will show up to ensure that major settings are done, such as date, time and temperature unit.

After these settings, the user can continue the tutorial to get to know the grinders functions. Once exited at first startup, the tutorial will not show up again. However it can be found anytime in the Settings menu in the Info section (see also 4.6 or 4.6.5)

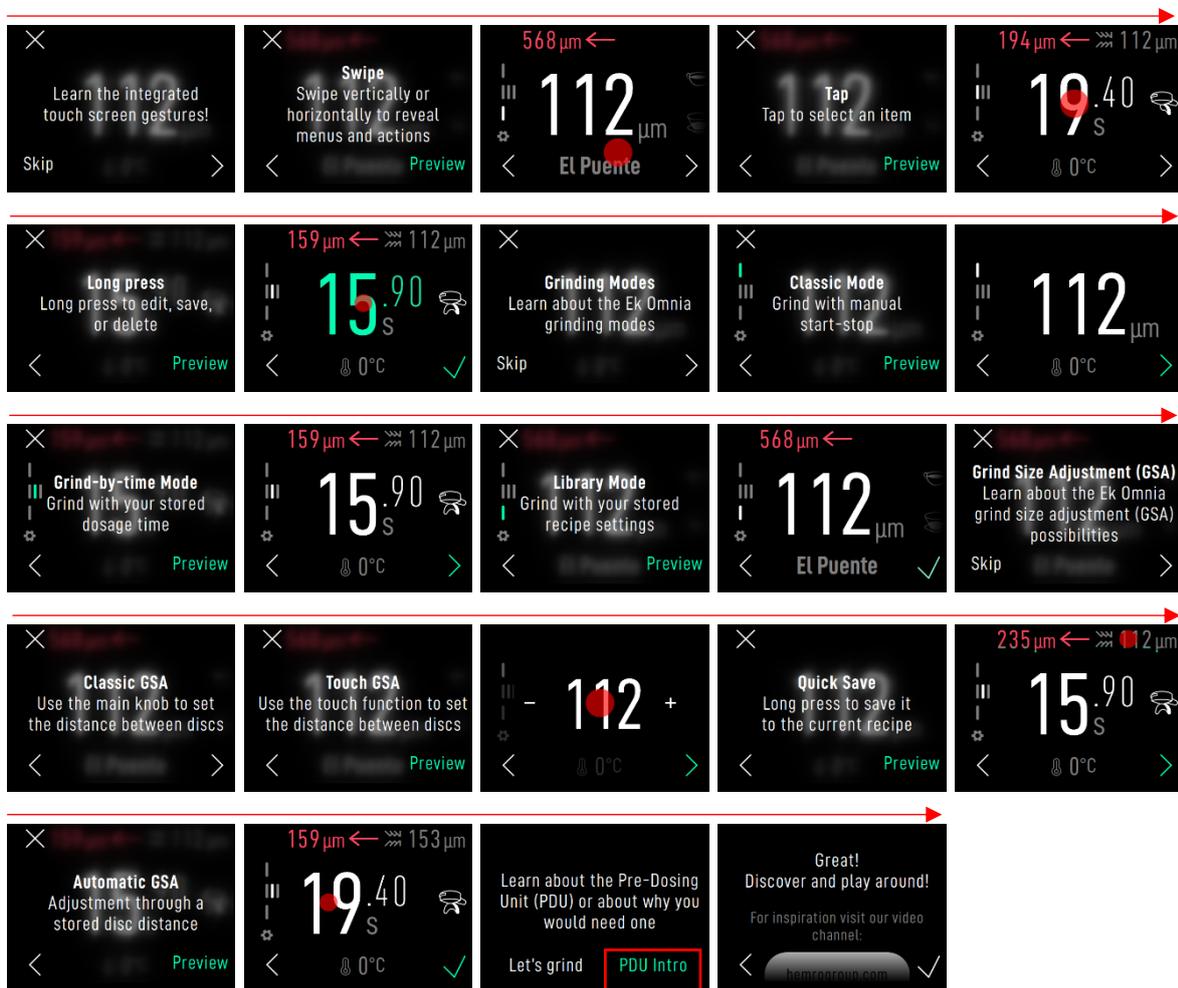
4.2.1 First Start-Setup

The first start-setup leads through the most important settings. It can be continued with the grinder tutorial or left once completed. The QR code will lead to the Mahlkönig video channel for inspiration.



4.2.1 Grinder Tutorial

The grinder tutorial guides through the functions of the grinder. Most screens are followed by a preview of the before explained functionality.

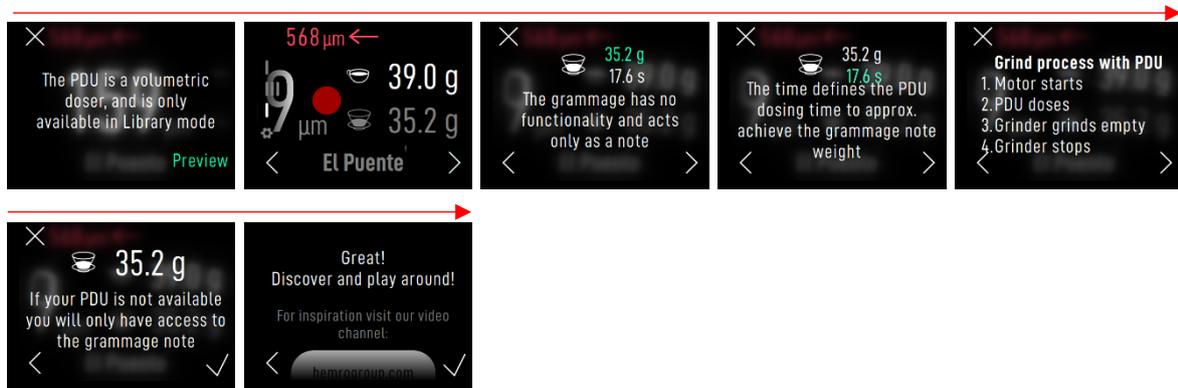


See 4.2.2

The grinder tutorial is available in the info section of the grinder settings (see also 4.6 or 4.6.5).

4.2.2 PDU Tutorial

The **Pre Dose Unit (PDU)** is a volumetric doser, which comes as an accessory to the grinder. It is only available for Library Mode (see 4.5). The PDU tutorial guides through the functions of the PDU. Most screens are followed by a preview of the before explained functionality.



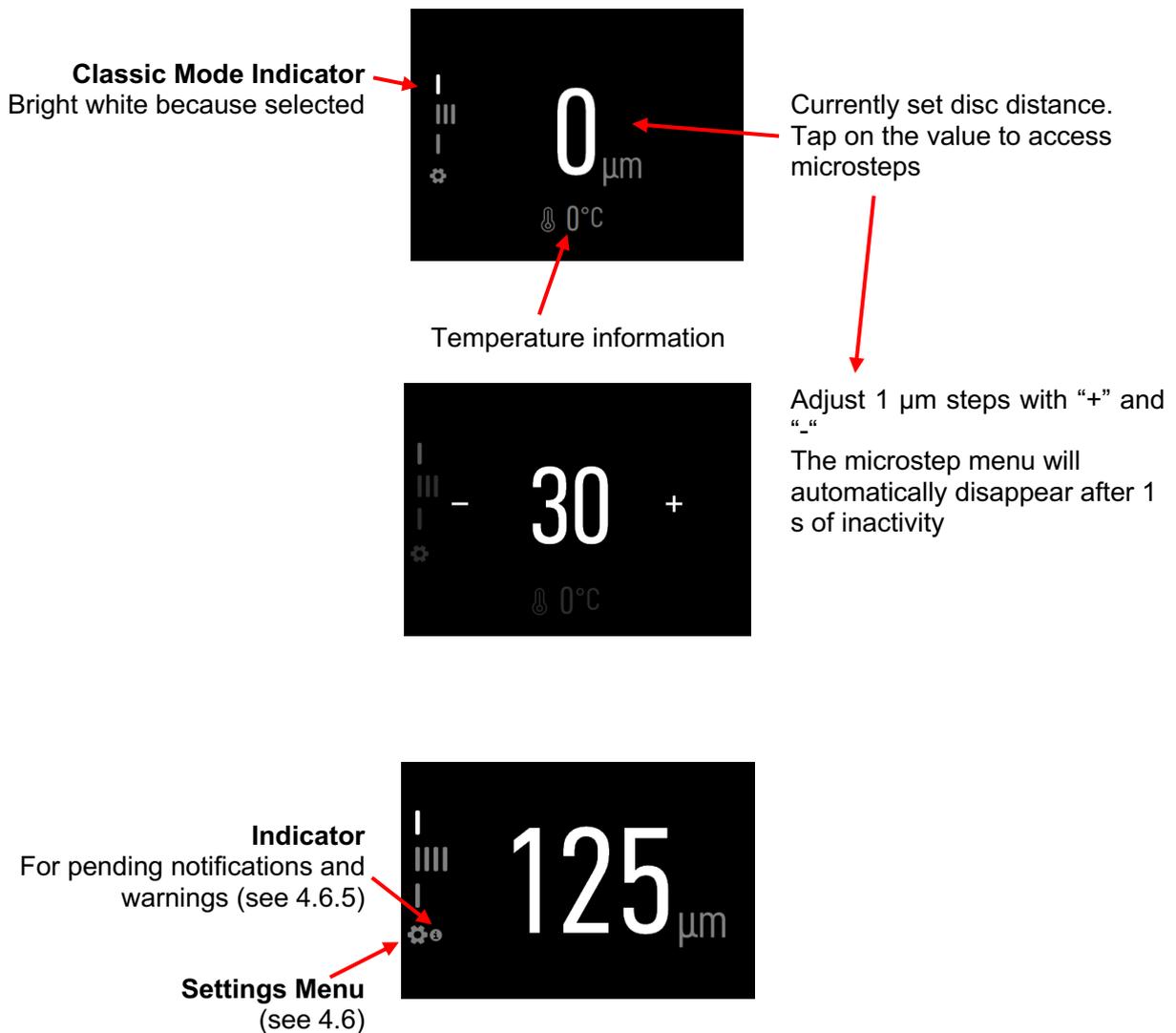
The PDU tutorial is available in the info section of the grinder settings (see also 4.6 or 4.6.5).

4.3 Main Page / Classic Mode

Following image shows the main page, which will appear after startup. Depending on settings (see 4.6.3), this can be classic, time or library mode.

Classic Mode replicates the EK43 function and offers pure grinding. The disc distance is displayed on the screen, the grinder starts grinding once the Start/Stop button is pushed and runs until it is pushed again or the automatic shot-off time of 5 min elapsed.

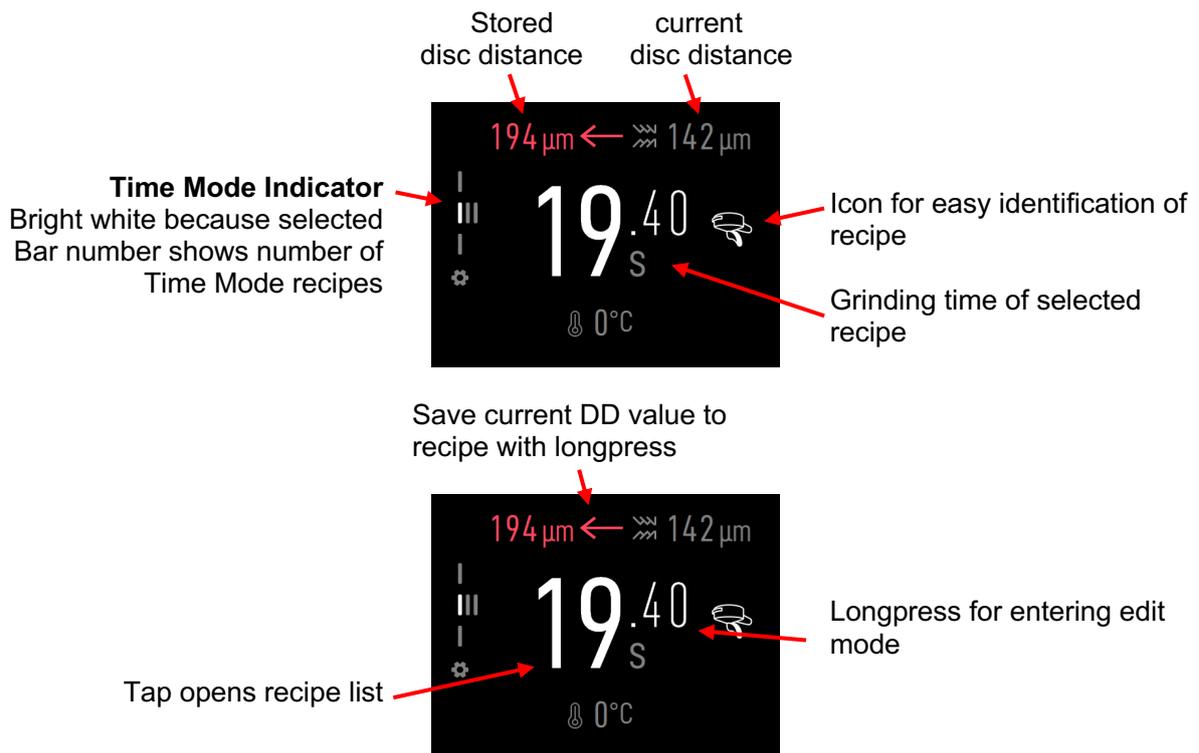
It is possible to change the RPM (default is 1500 rpm) of the grinder and to set a fixed disc distance, to which the grinder returns when another mode was selected before. These settings can be accessed by a longpress on the disc distance value.



4.4 Main Page / Time Mode

Time Mode adds the functionality of an espresso grinder to the EK Omnia. Likewise, up to 6 recipes can be stored, each with a separate grinding time, disc distance and icon. If enabled, the grinder will automatically adjust automatically to the recipes disc distance (see 4.6.3 > Enable AGSA). Grinding is triggered with the Start/Stop button and stops automatically after the recipe time. Default grinding speed in Time Mode is 800 rpm and can be individually set by recipe in the edit mode.

Note: For using Time Mode, the Portafilter-Holder is recommended (comes as an accessory).



4.5 Main Page / Library Mode

Library Mode makes handling various recipes easy. In here, all beans' names, disc distance and grammar notes can be stored in up to 20 recipes and retrieved. If enabled, the grinder will automatically adjust to the recipes disc distance (see 4.6.3 > Enable AGSA). With a PDU available, the dosing of the stored grammar note is dispensed automatically too.

Default speed in Library Mode is 1500 rpm, however the speed can be set per recipe by entering edit mode.

Library Mode Indicator
Bright white because selected
Longpress for entering edit mode

Current disc distance (tap for microsteps)
Recipe name (tap to access recipe list)

Press "+" to add a grammar note.

Exit

Choose an icon and a note of your target grammage. There is no functionality behind this note.
Next step (or confirm with longpress)

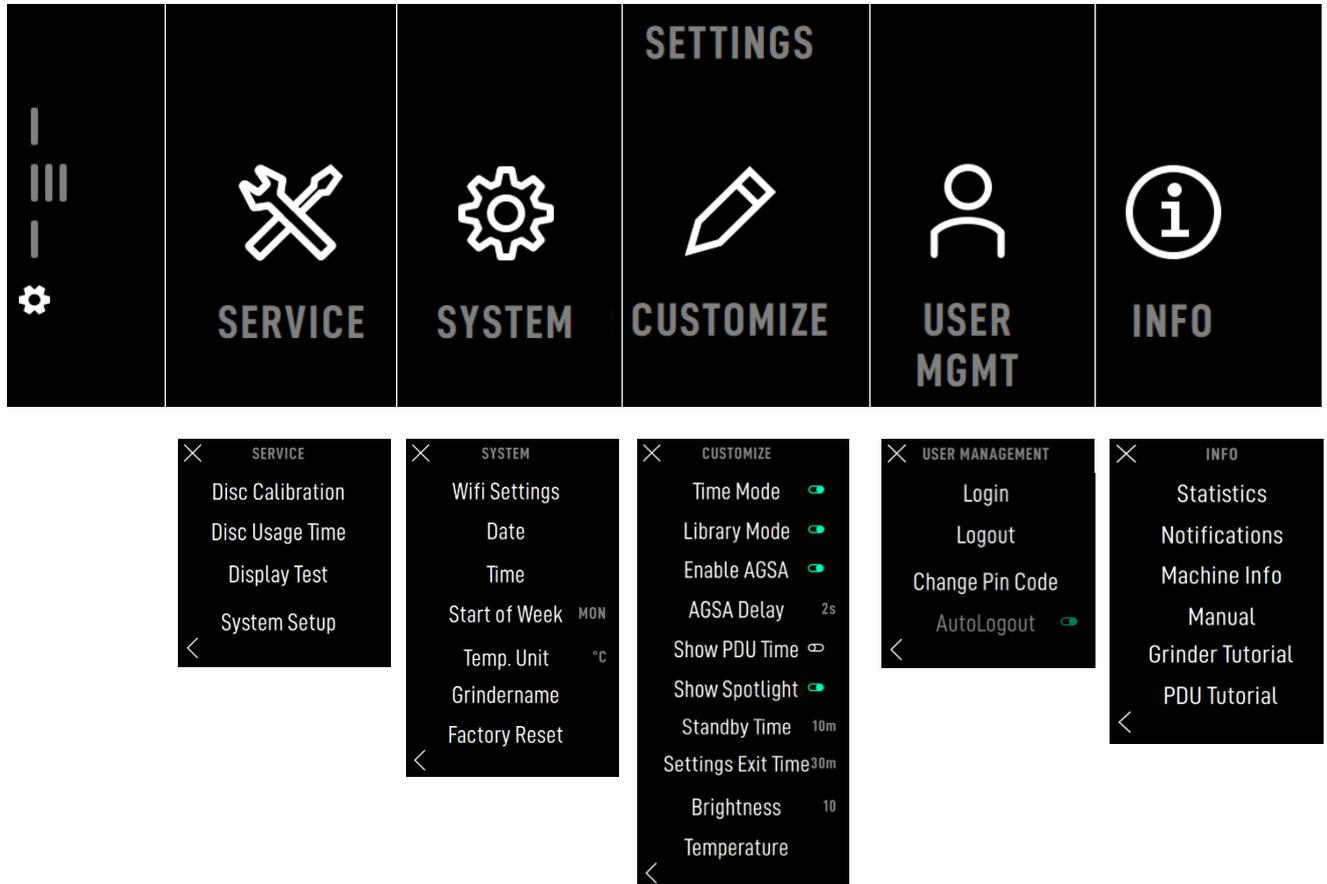
Set the dosing time, only usable with a Pre-Dose-Unit (PDU, see 4.2.2)
confirm

Go back

Tap the notes for automatic bean dosing (only with PDU)
Add up to six additional grammage notes

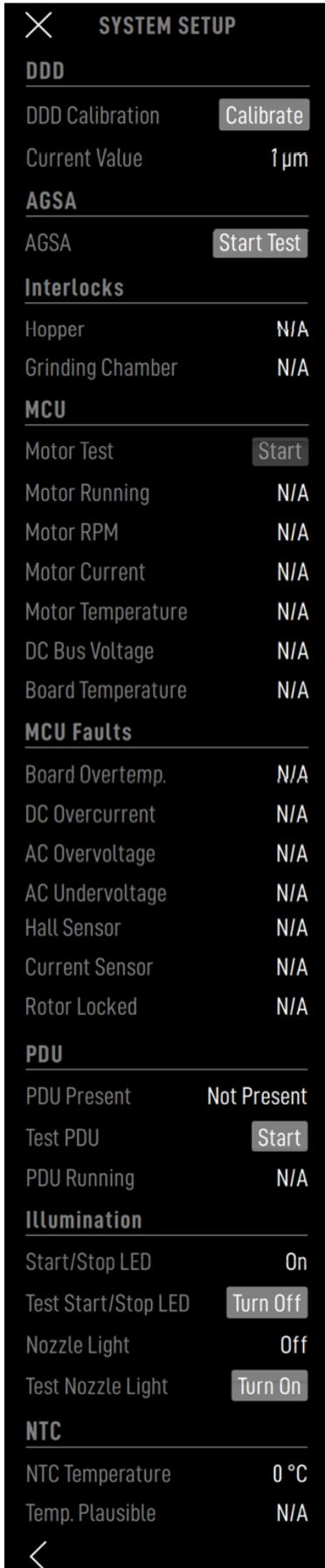
4.6 Settings Overview

Note: Accessibility of menu entries are dependent on user level (User/Owner/Technician).



4.6.1 Service

| | | |
|--|---|--|
| SERVICE Disc Calibration | DISC CALIBRATION Zero the scale & confirm calibration Cancel Calibrate | <p>Used to calibrate the disc distance after replacing</p> |
| DISC USAGE TIME Disc Usage Time | DISC USAGE TIME 0 h -120 h Reset DISC USAGE TIME Do you want to reset the disc usage time? Cancel Reset | <p>To see usage of the discs and plan replacement. Reset the counter after replacing</p> |
| DISPLAY TEST Display Test Motor Test | DISPLAY TEST RGB color bars | <p>RGB colours are shown to check the display functionality</p> |
| MCC Config System Setup | | <p>For setting up or checking grinder functions. See next page for details.</p> |



Set dial to 0 and press calibrate for calibrating the disc distance. After calibrating, the current value should be 0.

With “Start Test”, the **AutomaticGrindSizeAdjustments** runs a test of functionality, it will move back and forward.

The states of the interlocks is displayed, both should be closed for normal operation.

The main motor can be started and stopped here. Following all relevant motor parameters. Most important is the “Running” and “Motor RPM” status which should be “True” and “1500”.

In this section, any possible faults of the **MotorControlUnit** would be displayed.

If a **PreDoseUnit** is mounted, it will state “Present”. “Start” will start the PDU brush to rotate for a short amount of time. While activated “PDU Running” turns to “True”

Status of the LED on the Start/Stop button

Turn the LED on or off

Status of the LED on the Nozzle

Turn the LED on or off

Status of the **NegativeTemperatureCoefficient** (Thermosensor)

The grinder does a self-check whether the value is plausible or not

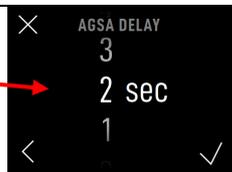
4.6.2 System

| | | |
|--|--|--|
| <p>SYSTEM</p> <p>Wifi Settings</p> | | <p>Turn Wifi On/off Manage the Wifi functions.</p> <p>Show Wifi Name</p> <p>Change Password</p> <p>Show grinder's IP address</p> |
| <p>wifi Settings</p> <p>Date</p> | | <p>Set the date</p> |
| <p>Date</p> <p>Time</p> | | <p>Set the time</p> |
| <p>Time</p> <p>Start of Week MON</p> | | <p>Set start of the week, used for statistics only</p> |
| <p>Temp. Unit °C</p> <p>Grindername</p> | | <p>Temperature unit setting</p> |
| <p>Temp. Unit °C</p> <p>Grindername</p> <p>Factory Reset</p> | | <p>Name the grinder, only relevant for Wifi (SSID)</p> |
| <p>Factory Reset</p> | | <p>Restore the factory settings. All changes made will be lost.</p> |

4.6.3 Customize



If not needed, Time and Library Mode can be disabled which removes them from the Main Page.



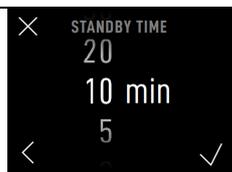
AutomaticGrindSizeAdjustment: When the recipe is changed, the grinder waits with the automatic grind size adjustment for the "AGSA Delay" time, if enabled.



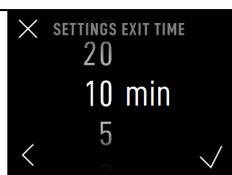
If no PDU is present, PDU dosing time will not be shown in Library Mode unless it is enabled here.



The Spotlight will, if enabled, light the spout area for the time of grinding and 2 s after.



Time of inactivity, after which the grinder goes to standby mode



Time of inactivity, after which the settings menu will be exited. The grinder will change to the last used grinding mode screen.

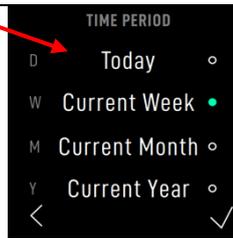
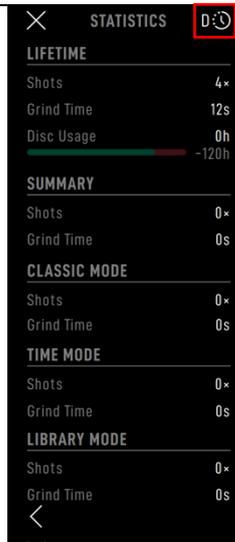


Restore the factory settings. All changes made will be lost.

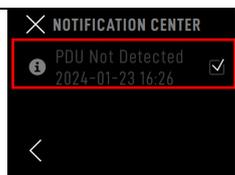
4.6.4 User Management

| | | | |
|--|---|---------------------------------------|--|
| | | | <p>Login as Owner or Technician</p> <p>The green filled circle indicates the current login</p> |
| | | <p>Log out as Owner or Technician</p> | |
| | | | <p>Change the pin. NOTE: Remember your pin! No restore possible if forgotten!</p> |
| | <p>Only available for Owner login. AutoLogout will do a logout after 3 min. of inactivity. Always active for Technician</p> | | |
| | <p>Time of inactivity, after which the grinder goes to standby mode</p> | | |

4.6.5 Info

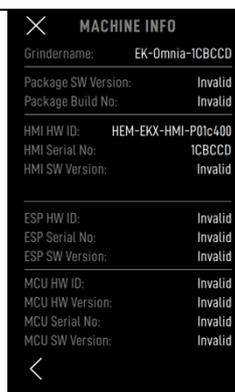


The statistics will show the usage of the grinder for the selected time period. Statistics can also be monitored and extracted via web interface (see 5.5)



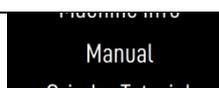
The notification center shows active and acknowledged notifications and warnings. Click on the notification to show details

If there is a pending notification or warning, an indicator will show it on the main screen (see 4.3)

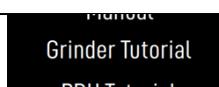


Main SW package
Version of the display unit (**H**uman-**M**achine-**I**nterface)
The ESP board is located at the back of the motor, behind the plastic cover
The MCU is located in the mast of the grinder

Shows the current status of the machine parts as well as the hard-, firm- and software versions.



Scanning the QR code with a smartphone will lead to the grinder manual.



Described in 4.2.1

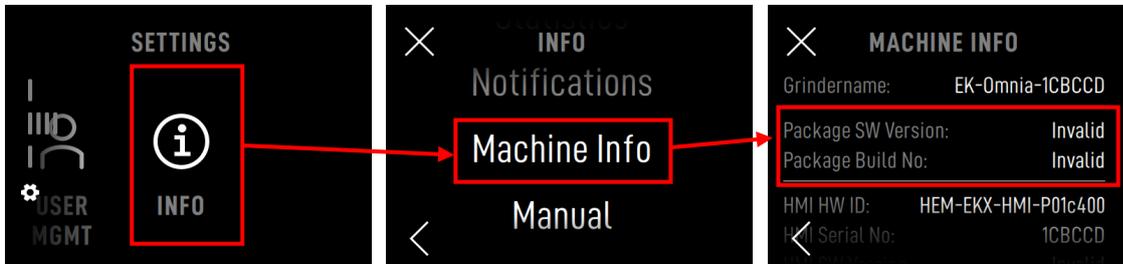


Described in 4.2.2

5 Preparation for Software Update

5.1 Check Software (SW) Version

The software version can be found in the “Settings” in “Info”:



5.2 Needed Equipment

For updating the EK Omnia, a Wifi-capable device is needed. This can be a laptop or a phone.

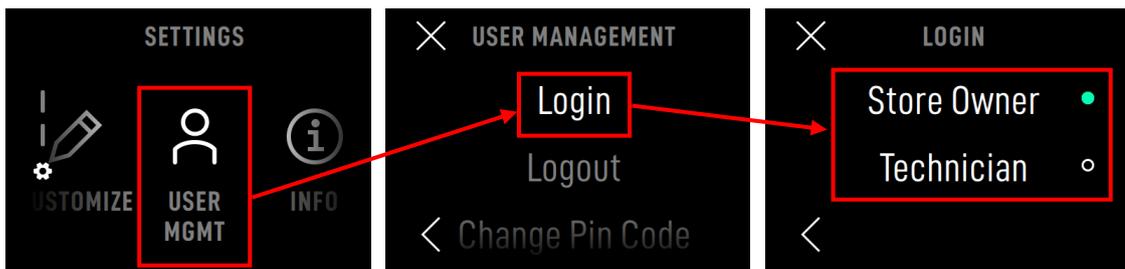
The update file needs to be downloaded to the used device and stored locally. This file will be a “SoftWare Update-file” with a “.swu” suffix:



Software SAP number: **706063** HMI (main) / 706064 ESP / 706065 MCU

5.3 Preparing the EK Omnia

Log in:

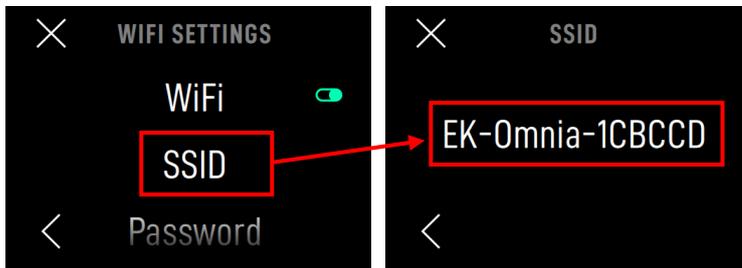


Activate Wifi:

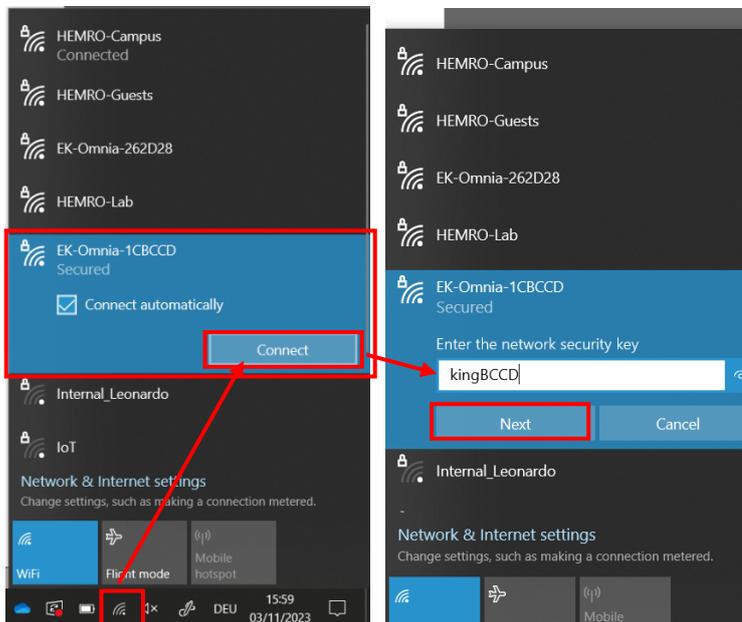


5.4 Connect a device to the EK Omnia WiFi

Once the WiFi is enabled, its name is shown under „SSID“:



For connecting a device to the EK Omnia WiFi, when asked for the security key, the default is “king” & last 4 digits of the SSID:

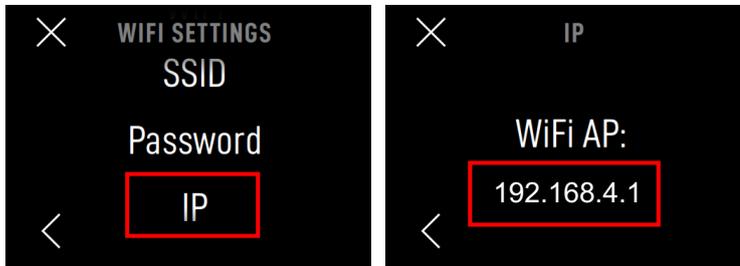


Check or modify the password for EK Omnia wifi:

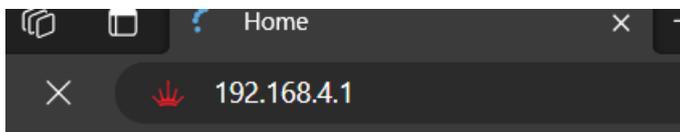


5.5 Access the EK Omnia Webinterface

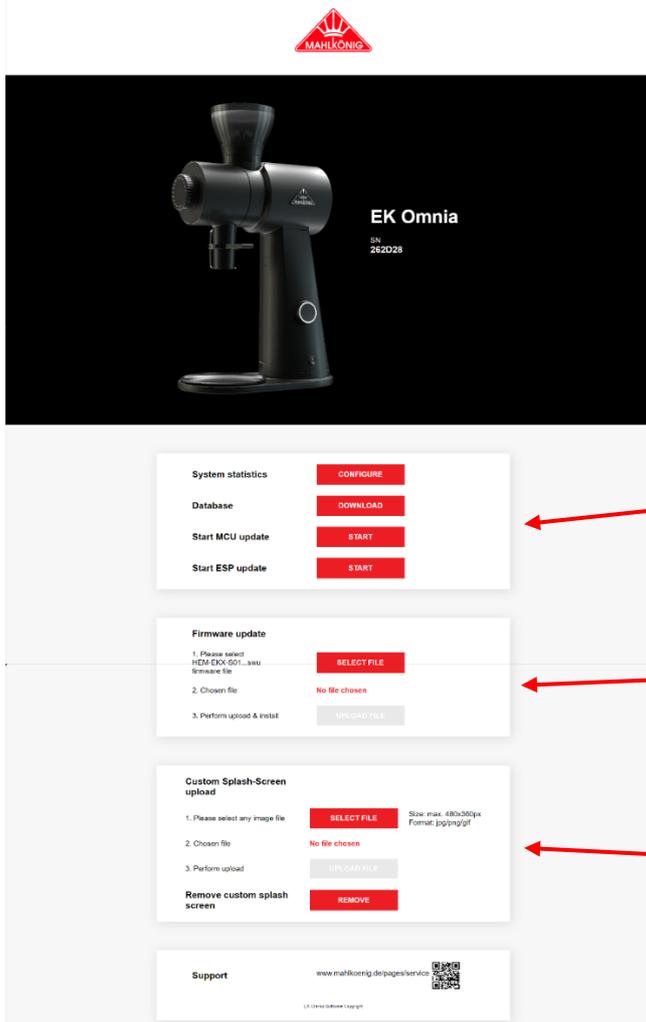
The EK Omnia has a webinterface to serve multiple functions of which one is the update process. Once connected to the EK Omnia WiFi, this webinterface can be reached by typing the IP address into a browser. The grinders IP address can be found under “IP”:



Accessing the webinterface via browser. Type the IP into the address bar and confirm with enter.



If the WiFi connection is established, the EK Omnia webinterface appears:



See & download statistics, trigger manual MCU or ESP update.

Update the Software (here called «Firmware»)

Upload a custom splash screen for the start up phase of tyour grinder. Dimension must be max 480 with x 360 height

6 Perform Software Update

For uploading the software update file to the grinder go to the “Firmware Update” section and load the .swu file:

1. Please select HEM-EKX-S01...swu firmware file

2. Chosen file

3. Perform upload & install

SELECT FILE

No file chosen

UPLOAD FILE

The upload process can take up to 25 minutes. The upload process can be seen on the webinterface:

NOTE: Due to JavaScript-issues it can happen, that the progress bar goes to 100 % within 1-2 seconds. If this happens, no interaction is needed, the upload is continuing in the background. Wait for ~25 min, then the grinder will complete the update.

If there are issues during uploading, deactivating browser plugins or the firewall or trying with a different browser can help.

Firmware upload

Firmware update in progress - don't switch off the grinder!

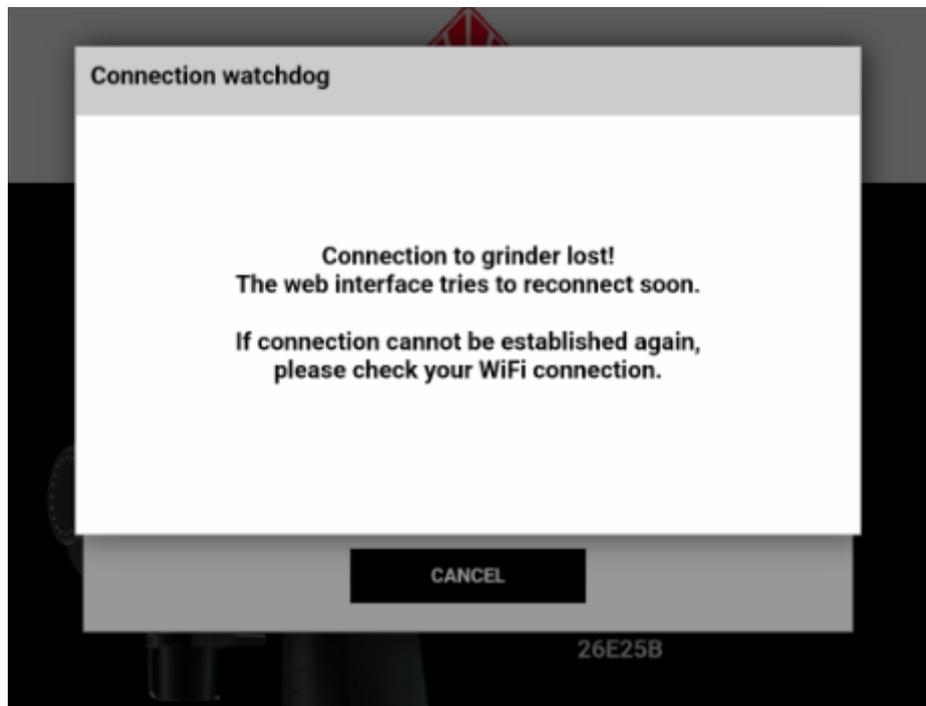
Start file upload ...
Hemro-EK-Omnia-Firmware-V01.00-10.swu

66.4%

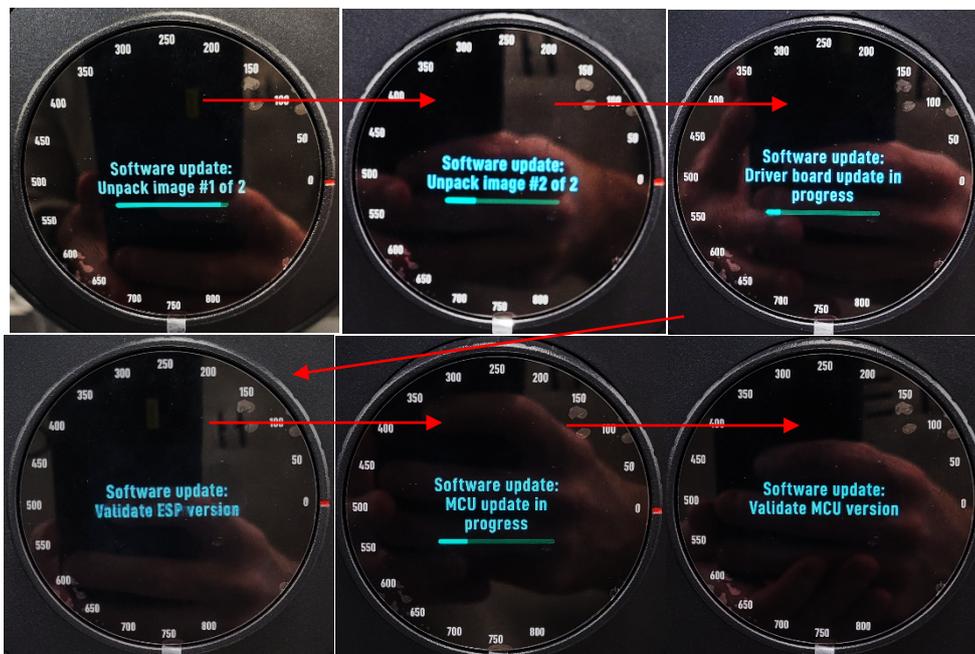
Time to go: 0min 0sec

CANCEL

After the upload process, the grinder will reboot (restart) with the new software. This reboot interrupts the WiFi connection what most likely will lead to following message on the webinterface:



During the reboot, will run through the update of the single internal parts, while all steps are shown on the screen:

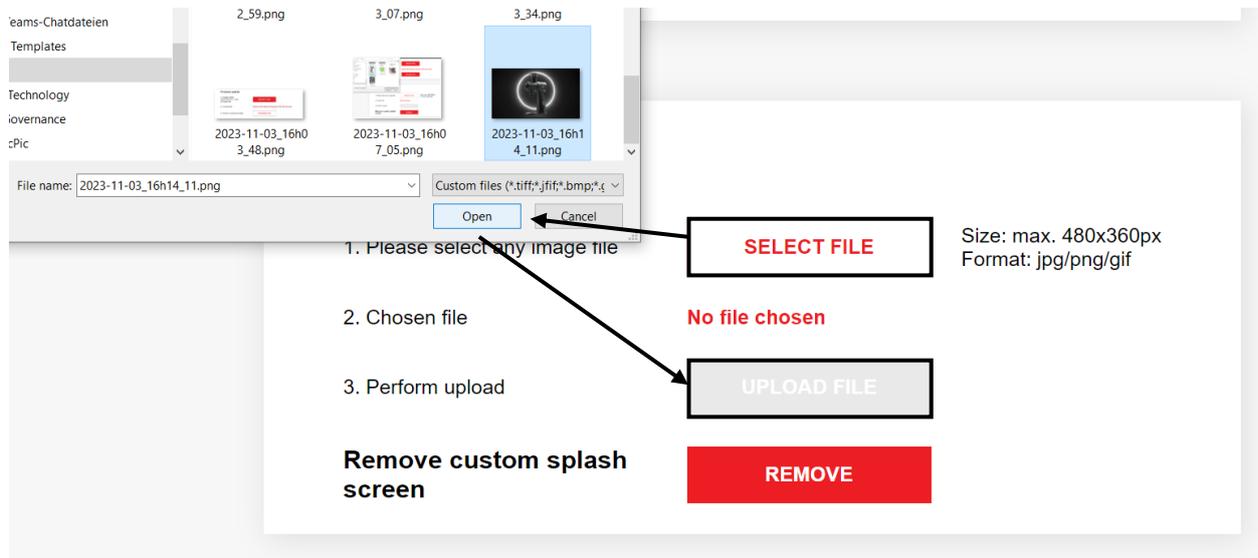


Once it run successfully through all updates and validations, following final screen should appear:

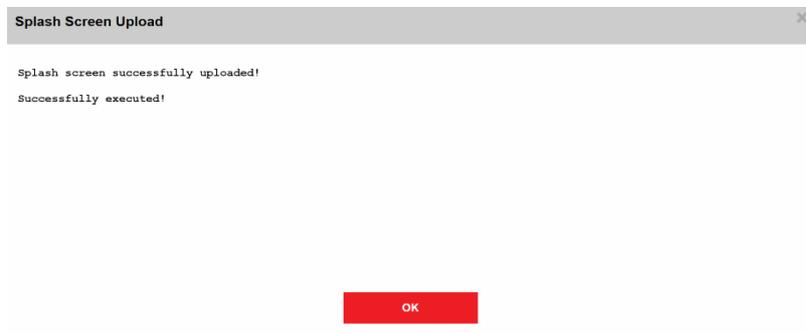


7 Upload Custom Splash Screen

For updating a custom splash screen, the “Splash Screen” Section on the webinterface must be used. Any image must be formatted in jpg/png/gif and has a maximal size of 480x360 pixels (width x height).



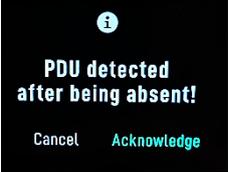
After the upload, following notification should appear:



The custom splash screen will appear upon next startup of the grinder.

8 Errors and Notifications

8.1 Most Common Notifications

| Screen | Explanation | Proposed Action |
|--|---|---|
|  <p>System time lost, please set manually! Try Recover Acknowledge</p> | System time is kept using a rechargeable capacitor. Time is lost if a) the grinder has been switched off for more than 10 days or b) if the grinder is new and has never been switched on for a couple of hours | Press „Try Recover“, set date and time and keep the grinder switched on for 8 hours |
|  <p>Bean hopper dismantled! Cancel Acknowledge</p> | The bean hopper is dismantled. This prevents the grinder from starting. | Mount the bean hopper. |
|  <p>Grinder chamber opened! Cancel Acknowledge</p> | The grinding chamber is opened. This prevents the grinder from starting. | Close the grinding chamber. |
|  <p>PDU detected after being absent! Cancel Acknowledge</p> | A Pre-Dose-Unit (PDU) has been detected. | See 4.2.2 |
|  <p>PDU not detected after being present! Cancel Acknowledge</p> | a) A standard hopper (no-PDU) was attached after the removal of a PDU. b) If a PDU was attached, it is not recognized by the grinder. | a) no action needed b) switch the grinder off, then on again, if the issue remains, call service |

8.2 Full Error list

| ID | Text | Class | Explanation |
|----|------------------------------|---------|--|
| 1 | GRINDER_CHAMBER_OPENED | Error | The grinder chamber is opened. Motor cannot be actuated. No grind action possible. |
| 2 | HOPPER_DISMOUNTED | Error | The bean hopper has been dismantled. Motor cannot be actuated. No grind action possible. |
| 3 | ESP_INTERFACE_FAILED | Error | Communication between HMI and WiFi board is interrupted. No grind actions possible. WebServer is not available. |
| 4 | MCU_INTERFACE_FAILED | Error | Communication between HMI board and motor control unit is interrupted. No grind actions possible. |
| 5 | DDD1_FAILED | Error | DDD 1 (coarse) sensor is not available or sensor data invalid. DDD display is invalid and AGSA deactivated. |
| 6 | AGSA_FAILED_BLOCKAGE | Warning | AGSA motor drive has been stopped because of a blockage within drive system. Try to repeat action. |
| 7 | CHANGE_DISCS_INFO | Info | Grinding discs life time has been exceeded. Exchange grinding discs and reset counter. |
| 8 | START_GRIND_FAILED | Error | Grinding motor hasn't started although commanded to do so. Maybe grinding motor is blocked or communication disturbed? |
| 9 | STOP_GRIND_FAILED | Error | Grinding motor hasn't stopped although commanded to do so. Maybe communication to motor control unit disturbed? |
| 10 | SYSTEM_TIME_LOST | Warning | |
| 11 | DDD2_FAILED | Error | DDD 2 (fine) sensor is not available or sensor data invalid. DDD display is invalid and AGSA deactivated. |
| 12 | AGSA_FAILED_TIMEOUT | Warning | AGSA motor drive has been stopped by timeout |
| 13 | SW_UPDATE_UPLOAD_FAILED | Warning | Upload of software update package failed. Try to repeat SW update. |
| 14 | SW_UPDATE_PACKAGE_FAILED | Error | Consistency check of SW update package failed. Try to repeat SW update or validate package source. |
| 15 | SW_UPDATE_PACKAGE_NO_UPGRADE | Warning | Software update package rejected. Package contains no upgrade version. |

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| 16 | SW_UPDATE_UNPACK_ROOTFS_FAILED | Error | Software update failed. Unpacking image #1 of 2 failed. Try to repeat SW update. |
| 17 | SW_UPDATE_UNPACK_APPLICATION_FAILED | Error | Software update failed. Unpacking image #2 of 2 failed. Try to repeat SW update. |
| 18 | STARTUP_ROOTFS_VERSION_FAILED | Error | Check of core system version information failed. Repeat SW update to recover. |
| 19 | LOAD_SETTINGS_FAILED | Error | Loading of configuration data failed. Try to reconfigure the grinder. |
| 20 | SW_UPDATE_MCU_UPDATE_FAILED | Error | Software update of MCU failed. System will be rolled back to previous state. Try to repeat SW update. |
| 21 | SW_UPDATE_ESP_UPDATE_FAILED | Error | Software update of WiFi board failed. System will be rolled back to previous state. Try to repeat SW update. |
| 22 | SW_UPDATE_UPLOAD_ABORTED | Warning | Upload of software update package has been aborted by user. Try to repeat SW update. |
| 23 | SW_UPDATE_ROLLED_BACK | Info | System has been rolled back to previous state after failed SW update. Try to repeat SW update. |
| 24 | SW_UPDATE_ROLLBACK_APP_FAILED | Error | Rollback of image #2 of 2 to previous state failed after failed SW update. System is probably inconsistent. Try to repeat SW update. |
| 25 | SW_UPDATE_ROLLBACK_ROOTFS_FAILED | Error | Rollback of image #1 of 2 to previous state failed after failed SW update. System is probably inconsistent. Try to repeat SW update. |
| 26 | SW_UPDATE_COMPLETED | Info | Software update has been successfully completed. |
| 27 | SW_UPDATE_ROLLBACK_FAILED | Error | Rollback to previous system state failed after failed SW update. Try to repeat SW update. |
| 28 | STARTUP_ESP_CHECK_VERSION_TIMEOUT | Error | Read of WiFi board version information timed out. |
| 29 | STARTUP_MCU_CHECK_VERSION_TIMEOUT | Error | Read of MCU version information timed out. |
| 30 | SW_UPDATE_ESP_UPDATE_TIMEOUT | Error | Software update of WiFi board timed out. System will be rolled back to previous state. Try to repeat SW update. |
| 31 | SW_UPDATE_MCU_UPDATE_TIMEOUT | Error | Software update of MCU timed out. System will be rolled back to previous state. Try to repeat SW update. |

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| 32 | SW_UPDATE_ESP_VALIDATE_VERSION_TIMEOUT | Error | Validation of WiFi board version timed out after software update. System will be rolled back to previous state. Try to repeat SW update. |
| 33 | SW_UPDATE_MCU_VALIDATE_VERSION_TIMEOUT | Error | Validation of MCU version timed out after software update. System will be rolled back to previous state. Try to repeat SW update. |
| 34 | AGSA_FAILED_NO_DDD | Error | AGSA motor drive has been stopped because at least one DDD sensor is failed. |
| 35 | ROLLBACK_STARTUP_FAILED | Error | Rollback to previous system state failed after a failed SW update. Try to repeat SW update. |
| 36 | SW_UPDATE_STARTUP_FAILED | Info | System startup failed due to previous error. Maybe restart grinder. |
| 37 | SW_UPDATE_MCU_VALIDATE_VERSION_FAILED | Error | Validation of MCU version failed after software update. System will be rolled back to previous state. Try to repeat SW update. |
| 38 | SW_UPDATE_ESP_VALIDATE_VERSION_FAILED | Error | Validation of WiFi board version failed after software update. System will be rolled back to previous state. Try to repeat SW update. |
| 39 | DB_UPDATE_FAILED | Error | Internal database error. Database update failed. |
| 40 | SAVE_SETTINGS_FAILED | Error | Save of configuration file failed. Changes are lost. |
| 41 | DB_QUERY_STATISTICS_RESULT | Warning | Internal database error. Query of statistics database result failed. |
| 42 | DB_CHANGE_RECIPE | Warning | Internal database error. Inserting a recipe change failed. |
| 43 | DB_INSERT_RECIPE | Warning | Internal database error. Insertion of a new recipe failed. |
| 44 | DB_ADD_GRIND | Warning | Internal database error. Adding a grind result into database failed. |
| 45 | DB_ADD_DELTA_TO_COUNTER | Warning | Internal database error. Incrementing of a counter has been failed. |
| 46 | DB_RESET_COUNTER | Warning | Internal database error. Reset of counters failed. |
| 47 | DB_QUERY_COUNTER | Warning | Internal database error. Database request for a counter failed. |
| 48 | DB_CREATE_NEW_SCHEME | Info | A new database scheme has been successfully activated. |
| 49 | DB_CREATE_NEW_SCHEME_FAILED | Error | Internal database error. Buildup of a new database failed |

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| 50 | MAIN_STATE_FILE_CORRUPTED | Error | Internal state file corrupted. Maybe inconsistent grinder behaviour. |
| 51 | SW_UPDATE_STATE_FILE_CORRUPTED | Error | Internal SW update state file corrupted. System state reset to normal. |
| 52 | MAIN_STATE_FILE_READ_FAILED | Error | Internal state file couldn't be read and will be resetted. Maybe inconsistent grinder behaviour. |
| 53 | MAIN_STATE_FILE_WRITE_FAILED | Error | Internal state file couldn't be written and will be resetted. Maybe inconsistent grinder behaviour. |
| 54 | SW_UPDATE_STATE_FILE_WRITE | Error | Internal SW update state file couldn't be written. System state reset to normal. |
| 55 | PDU_INSTALLED_AFTER_ABSENCE | Info | PDU has been automatically detected as installed after being absent. |
| 56 | PDU_UNINSTALLED_AFTER_PRESENCE | Info | PDU has been automatically detected as not installed after being present. |