

# Service menu



## Modification journal

Revision:	Date:	Modifications	Initials:
0	2011-03-22	Basic document, first edition	RZ
1	2011-06-21	Corrections due to new software V2.08	RZ
2	2014-10-22	Complete revision; corrections due to new software V3.31	RZ
3	2015-03-25	Added model AG220; miscallenous corrections	RZ
4	2015-05-04	Added information for learning mode	RZ
5	2015-08-13	Added statistic menus „Brewing unit“ and „Brewing unit reset“ for the AG420	RZ
6	2016-04-19	Description of menu „Load firmware“ adjusted	RZ
7			
8			
9			
10			

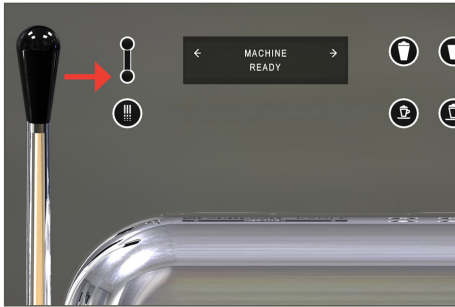
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The Aguila coffee machine offers access to two different service menu levels. In the User Level only a few settings can be changed, for example the display language.

In the Technician Level all settings can be adjusted. To get access to this level, a special programming key is needed. Only a trained technician is allowed to be in possession of this programming key!

## User Level

To access the service menu:



Press the rinse-button for about 3 seconds.

To exit the service menu:

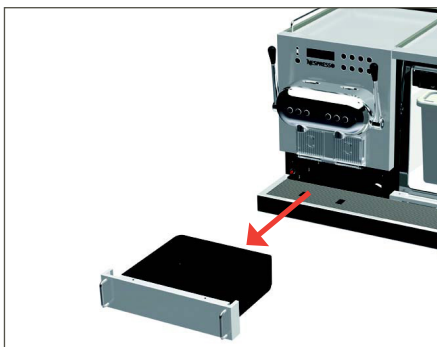


Press the escape-key (lungo-key) several times until the main display („Ready“) is shown again.

## Technician Level

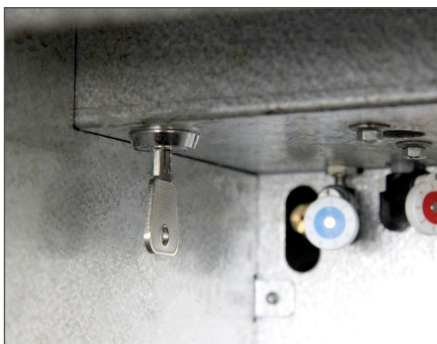
To access the service menu:

1.



Remove the used capsule drawer (AG420: remove used capsule drawer from left module).

2.



Insert programming key in the back of the drawer and turn it clockwise.

*Figure shows model AG420*

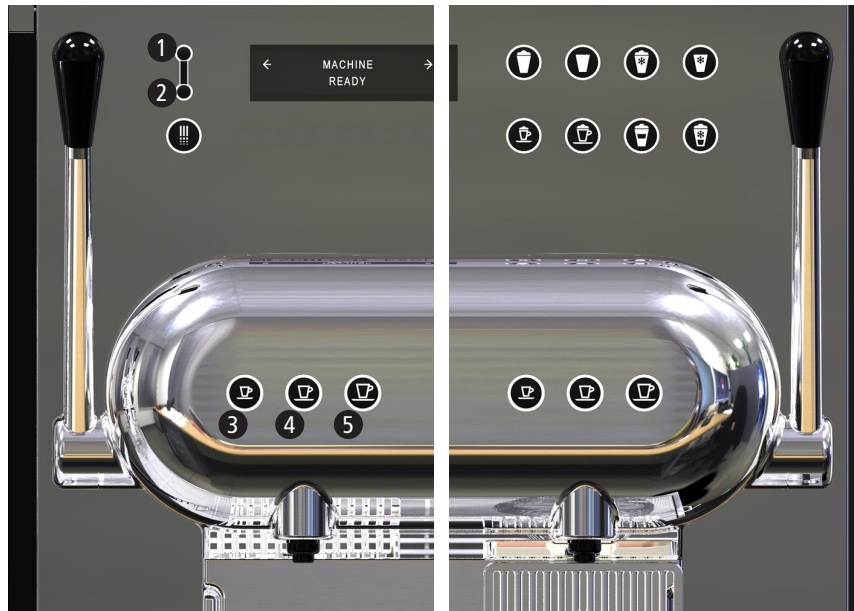
**Note:** Model AG220 does not feature the two air regulators.






To exit the service menu:

Turn the programming key anti-clockwise and remove it, the main display („Ready“) is shown again.

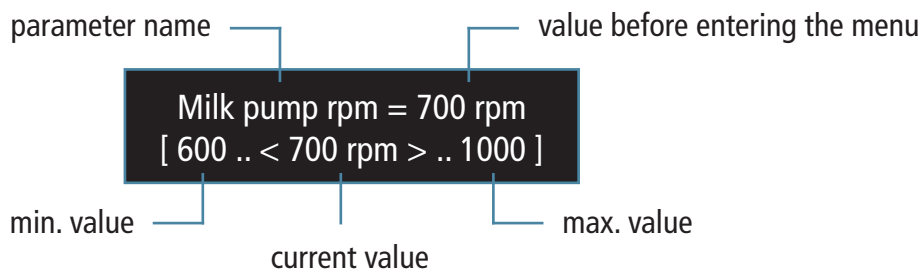
To navigate through the Service Menu, the left side of a module is used. All settings made on the left side of the machine will take effect on the whole machine.

## Programming buttons overview



- |  |                             |                                |
|--|-----------------------------|--------------------------------|
| 1.  | Up (cleaning button):       | Next menu / Increase value     |
| 2.  | Down (rinse button):        | Previous menu / Decrease value |
| 3.  | Default (ristretto button): | Load default value             |
| 4.  | Enter (espresso button):    | Edit / Confirm                 |
| 5.  | Escape (lungo button):      | Exit menu / Cancel             |

## Change parameter settings



Press key **1** or **2** to increase or decrease the value.

If key **3** is flashing you can reset the value to the machine's default value.

Press key **4** to save the changed values.

Press key **5** to exit the menu without saving.

## Example: Changing the language

1. Enter User or Technical Level (see page 4).

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2. Press the Up- or Down-key (Cleaning- or Rinse-key) to change to the menu „MILK SETTINGS“.

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3. Press the Enter-key (Espresso-key) to enter the menu „MILK SETTINGS“.

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4. Press the Up- or Down-key (Cleaning- or Rinse-key) to change to the menu „Refrigerator temp.“.

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5. Press the Enter-key (Espresso-key) to enter the menu „Refrigerator temp.“.

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6. Press the Up- or Down-key (Cleaning- or Rinse-key) to change the value.  
  
By changing the default value, the Default-key (Ristretto-key) will start flashing. Pressing the Default-key now will restore the value to its default setting.  
 Press the Enter-key (Espresso-key) to confirm your selection.  
  
The new setting is activated and the initial menu will appear.

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7. Leave the User or Technician Level (see page 4).

#### TECHNICIAN MENU

##### GENERAL SETTINGS

- Language\*
- Time
- Date
- Global Reset
- Save configuration
- Load configuration
- Load firmware
- Display Milktemp.
- Emptying Sequence
- Demo Mode
- Show boiler temp.\*
- Show flowmeter\*
- AGUILA+ \*1

##### STATISTICS

- User product counter
  - Choose a product\*
- User PAD counter\*
- User counter reset\*
- Service product counter
  - Choose a product
- Service counter reset
- Water counter
- Water counter reset
- Product counter total\*
- PAD counter\*
- Cleanings
- Interrupted cleanings
- BU left <sup>1</sup>
- BU right <sup>1</sup>
- BU left reset <sup>1</sup>
- BU right reset <sup>1</sup>
- Brewing unit 1 <sup>2</sup>
- Brewing unit 2 <sup>2</sup>
- Brewing unit 3 <sup>2</sup>
- Brewing unit 4 <sup>2</sup>
- Brewing unit 1 Reset <sup>2</sup>
- Brewing unit 2 Reset <sup>2</sup>
- Brewing unit 3 Reset <sup>2</sup>
- Brewing unit 4 Reset <sup>2</sup>

##### MACHINE PARAMETERS

- Change filter
- Product max.
- Service interval
- Bu max. products
- Power <sup>2</sup>
- Capsule capacity
- Drawer reset time
- Cupheater \*
- Cupheater power

##### ENERGY SAVE MODE

- Time for mode 1
- Time for mode 2
- On after cleaning

##### MILK SETTINGS

- Milkpump RPM
- Foampump RPM
- Refrigerator temp.\*
- Hot foam \*<sup>1</sup>
- Cold foam \*<sup>1</sup>

##### COFFEE BOILER

- Nom. temperature <sup>1</sup>
- Nom. temperature left <sup>2</sup>
- Nom. temperature right <sup>2</sup>
- Temp. tolerance

##### TEA/MILK BOILER

- Nom. temperature <sup>1</sup>
- Nom. temperature left <sup>2</sup>
- Nom. temperature right <sup>2</sup>
- Temp. tolerance

##### CLEANING PARAMETERS

- Lock time

##### OUTPUT TEST LEFT / RIGHT

- Water Inlet Valve
- Chamber Release Valve 1
- Chamber Release Valve 2
- Brew Valve 1
- Brew Valve 2
- Tea Valve 1
- Tea Valve 2
- Exhaust Valve <sup>1</sup>
- Milk Clean Valve
- Milk Rinse Valve
- Cold Milk Valve
- Milk Outlet Valve
- Milk Drain Valve
- Milk Air Valve
- Air Select Valve <sup>2</sup>
- Cleaning Tablet Valve
- Water Pump
- Refrigerator fan <sup>1</sup>
- Milk Pump
- Coffee Boiler 1
- Coffee Boiler 2
- Tea / Milk Boiler
- Cup heater

##### INPUT TEST LEFT / RIGHT

- EAPB <sup>2</sup>
- Cleaning key
- Cleaning tablet
- Brew Chamber 1
- Brew Chamber 2
- NTC Boiler 1
- NTC Boiler 2
- NTC Boiler 3
- NTC Cooling
- Milk temperature
- Flowmeter 1
- Flowmeter 2
- Milk Level Low
- Milk Container Empty
- Energy Save Button

##### PRODUCTS

- Choose a product
  - Coffee ticks
  - Hot water <sup>1</sup>
  - Hot water right <sup>2</sup>
  - Hot water left <sup>2</sup>
  - Prebrew time
  - Relax time
  - Milk type
  - Milk time <sup>1</sup>
  - Milk time left <sup>2</sup>
  - Milk time right <sup>2</sup>
  - Foam type
  - Foam time <sup>1</sup>
  - Foam time left <sup>2</sup>
  - Foam time right <sup>2</sup>
  - Hot air <sup>1</sup>
  - Cold air <sup>1</sup>
  - Add milk
  - Add foam
  - Coffee delay

##### ERROR HISTORY

- Error history reset
- #1 = dd.mm.yyyy hh:mm:ss

##### NESLINK <sup>2</sup>

- Neslink activated
- NL NETOP
- NL Status
- NL act. date
- Neslink activation
- NL Airplane mode
- NL max. products
- NL max. time
- NL SH
- NL IMSI
- NL IMEI
- NL ICCID
- Neslink Test

##### INSTALLATION

- Inst. date <sup>2</sup>
- SN <sup>2</sup>
- Serial No Year
- Serial No Day
- Serial No
- Serial No Volt
- Serial No Plug <sup>2</sup>
- Eagle Software Version
- Eagle Hardware Version
- CCI activated <sup>1</sup>

\* also available in User Level

<sup>1</sup> only available for model AG220

<sup>2</sup> only available for model AG420

## User Level

The User Level gives access to only a limited amount of settings. All settings from the User Level are also available in the Technician Level.

### GENERAL SETTINGS

By accessing the service menu in the User Level, the display language and some other settings can be changed under „General Settings“.

Menu	Description
Language = English < English >	If the language is changed, the display will give all information in the chosen language.
Show boiler temp. = No < No >	If activated, the temperature of the boilers is shown on the display (only in „Ready“ mode).
Show flowmeter = No < No >	If activated, the revolutions of the flowmeter while dispensing a product are shown on the display (only in „Ready“ mode).
AGUILA+ < LATTE >	<p><i>(only available for model AG220)</i></p> <p>Choose the product to dispense when the „AGUILA+“ button is pressed.</p> <p>The following recipes are available: Cortado Lungo, Cortado, Flat White, Cappuccino Lungo, Cappuccino Chiaro, Cappuccino Freddo, Iced Cappuccino, Latte Grande, Latte, Latte Piccolo, Iced Latte, Macchiatissimo, Cold Milk.</p>

## STATISTICS

In the menu „STATISTICS“ the user can look at the product counters and reset them.

Menu	Description
STATISTICS < User product counter >	In this menu the user counter of all products can be viewed.
↳ User product counter < Choose a product >	To show the counter of a product, press the corresponding product key.
↳ Espresso = 57 <-- 31                      26 -->	After choosing a product, both displays shows the current counter informations of corresponding module. On top is the name of the product and the total amount dispensed. The value on the bottom left shows the amount dispensed on the left outlet of the module, the value on the right shows the amount dispensed on the right outlet.
STATISTICS PAD counter user =	User counter of all dispensed pad products.
STATISTICS User counter reset	In this menu the user counter can be reset to 0. To do so, change the value to „Yes“ by using the Up- / Down-key and confirm with the Enter-key.
STATISTICS Product counter =	Shows the total of all dispensed products.
STATISTICS PAD products counter =	Shows the total of all dispensed pad products.

## MACHINE PARAMETERS

In this menu the cup heater can be turned on or off.

Menu	Description
Cup heater = On < On >	In this menu the cup heater can be activated. „On“: the cup heater is active „Off“: the cup heater is not active

## MILK SETTINGS

In the menu „MILK SETTINGS“ the temperature inside the refrigerator can be adjusted.

Menu	Description
Refrigerator temp. = 5.0 °C [ 4.0 .. < 5.0 °C > .. 8.0 ]	This value will set the temperature inside the refrigerator.
Hot foam = 0.0 % [ -10.0 .. < 0.0 % > .. 10.0 ]	<i>(only available for model AG220)</i> To change the consistency of the hot milk foam, simply change the percentage of air in the milk foam. A lower value leads to more liquid foam, a higher value leads to more solid foam. This value gets reset to 0.0 %, if the settings for „Hot air“ are adjusted in the Technician Level under „Products“.
Cold foam = 0.0 % [ -10.0 .. < 0.0 % > .. 10.0 ]	<i>(only available for model AG220)</i> To change the consistency of the cold milk foam, simply change the percentage of air in the milk foam. A lower value leads to more liquid foam, a higher value leads to more solid foam. This value gets reset to 0.0 %, if the settings for „Cold air“ are adjusted in the Technician Level under „Products“.

## Technician Level

In the service menu on Technician Level all settings can be adjusted, for example the product and machine parameters.

### GENERAL SETTINGS

In this menu general settings such as the language or date can be adjusted or a software update can be performed.

Menu	Description
Language = English < English >	If the language is changed, the display will give all information in the chosen language.
Time = 12:00 <12>:00	In this menu the time can be set. Press the <b>Enter-key</b> to move from „hours“ to „minutes“. Press the <b>Enter-key</b> again to confirm your settings.
Date = 26.08.2014 <26>.08.2014	In this menu the date can be set. Press the <b>Enter-key</b> to move from „day“ to „month“ and to „year“. Press the <b>Enter-key</b> again to confirm your settings.
Global Reset < No >	In this menu the machine can be reset to its factory default settings. To reset the machine to its factory default settings, do as follows: <b>ATTENTION: All user specific settings will be lost!</b> <b>Save these settings to a CF-card before performing a Global Reset (see menu „Save configuration“.)</b> Change the value to „Yes“ by using the <b>Up- / Down-key</b> and confirm with the <b>Enter-key</b> . The display will read „Reset ok“. Turn the machine off, wait for at least 10 seconds and turn machine back on, the machine is successfully reset to the factory default settings.
Save configuration < No >	Use this option to save the user specific settings (e.g. product settings) on a CF-card, before you perform a scheduled software update to restore them afterwards. Follow these steps: 1. Insert an empty CF-card into the card slot on the CPU print 2. In the menu „Save configuration“, change the value to „Yes“ by using the <b>Up- / Down-key</b> and confirm with the <b>Enter-key</b> . 3. The machine will go back to the previous menu after a few seconds. The data has been copied to the CF-card. 4. Remove the CF-card from the card slot.

**Load configuration**  
< No >

Use this option to restore a previously saved configuration from the menu „Save configuration“.

Follow these steps:

**ATTENTION: The current settings will be overwritten!**

1. Insert the CF-card with the saved configuration data into the card slot on the CPU-print.
2. In the menu „Load configuration“, change the value to „Yes“ by using the **Up- / Down-key** and confirm with the **Enter-key**.
3. The machine will go back to the previous menu after a few seconds, the data has been copied to the machine.
4. Remove the CF-card from the card slot.

**Load firmware**  
< Nein >

This menu is used to perform a software update.

Follow these steps:

**ATTENTION: All user specific settings will be lost!**

**Save these settings to a CF-card before performing the update.**

**Preparation:** 1 x CF-card with software, 1 x CF-card empty (to save customer configuration). **Note:** Before copying the software onto the CF-card, the card must be formatted. When using Windows, press on „Restore device defaults“ and uncheck the option „Quick Format“.

1. Download the new software off the Thermoplan Online Campus. Extract the content of the zip-file onto the formatted CF-card. Make sure that only the folder „FIRMWARE“ (written in capital letters) is present on the CF-card and the necessary software files are placed inside this folder.
2. Insert the programming key and turn it.
3. Insert the formatted CF-card (without software!) into the card slot on the CPU print and save the customer configuration to the formatted CF card (see menu „Save configuration“).
4. Remove the CF-card with the customer configuration and insert the CF-card with the software.
5. In the menu „Load firmware“, change the value to „Yes“ by using the **Up- / Down-key** and confirm with the **Enter-key**.
6. The machine begins with reading and copying the data (display stays black for about 30 seconds).  
**► Wait and do not switch off machine!**
7. As soon as the machine is running again and shows the menu „Load firmware“, remove the CF-card from the slot. Afterwards perform a global reset (see menu „Global Reset“). As soon as the machine is showing the menu „Global Reset“ again, turn off the machine using the main switch.
8. Switch the machine on again after about 30 seconds. The software version and date are shown for a few seconds on the display. Check both.
9. Restore the previously saved customer configuration (see menu „Load configuration“).
10. Exit the service menu and remove the programming key. The newest software version is now installed.

<p>Display Milktemp. = °C &lt; °C &gt;</p>	<p>In this menu you can change the temperature unit between °C (Celsius) and °F (Fahrenheit).</p>
<p>Emptying Sequence &lt; No &gt;</p>	<p>This menu is used to completely emptying the hot water boiler. Change the value to „Yes“ by using the <b>Up- / Down-key</b> and confirm with the <b>Enter-key</b>. Now follow the steps shown on the display to empty the hot water boiler.</p>
<p>Demo Mode = No &lt; No &gt;</p>	<p>For demonstration purposes, the machine is non-working, all heatings are switched off. The display is activated and shows „Ready“. All product keys are lightened up.</p>
<p>Show boiler temp. = No &lt; No &gt;</p>	<p>If activated, the temperature of the boilers is shown on the display (only in „Ready“ mode).</p>
<p>Show flowmeter = No &lt; No &gt;</p>	<p>If activated, the revolutions of the flowmeter are shown on the display (only in „Ready“ mode).</p>
<p>AGUILA+ &lt; LATTE &gt;</p>	<p><i>(only available for model AG220)</i> Choose the product to dispense when the „AGUILA+“ button is pressed. The following recipes are available: Cortado Lungo, Cortado, Flat White, Cappuccino Lungo, Cappuccino Chiaro, Cappuccino Freddo, Iced Cappuccino, Latte Grande, Latte, Latte Piccolo, Iced Latte, Macchiatissimo, Cold Milk.</p>

**STATISTICS**

In the menu „STATISTICS“ the technician can look at the product counters and reset the them.

Menu	Description
<p>STATISTICS &lt; User counter &gt;</p>	<p>In this menu the user counter of all products can be viewed.</p>
<p>↳ User counter &lt; Choose a product &gt;</p>	<p>To show the counter of a product, press the corresponding product key.</p>
<p>↳ Espresso = 57 &lt;-- 31                      26 --&gt;</p>	<p>After choosing a product, both displays shows the current counter information of corresponding module. On top is the name of the product and the total amount dispensed. The value on the bottom left shows the amount dispensed on the left outlet of the module, the value on the right shows the amount dispensed on the right outlet.</p>

<p>STATISTICS PAD counter user</p>	<p>User counter of all dispensed pad products.</p>
<p>STATISTICS User counter reset</p>	<p>In this menu the user counter can be reset to 0. To do so, change the value to „Yes“ by using the Up- / Down-key and confirm with the Enter-key.</p>
<p>STATISTICS &lt; Service product counter &gt;</p>	<p>In this menu the service counter of all products can be viewed.</p>
<p>↳ Service product counter &lt; Choose a product &gt;</p>	<p>To show the counter of a product, press the corresponding product key.</p>
<p>↳ Espresso = 57 &lt;-- 31                      26 --&gt;</p>	<p>After choosing a product, both displays shows the current counter informations of corresponding module. On top is the name of the product and the total amount dispensed. The value on the bottom left shows the amount dispensed on the left outlet of the module, the value on the right shows the amount dispensed on the right outlet.</p>
<p>STATISTICS Service counter reset</p>	<p>In this menu the service counter can be reset to 0. This needs to be done after performing preventive maintenance to reset the message „Service required“.</p>
<td data-bbox="501 1187 1474 1272"> <p>To do so, change the value to „Yes“ by using the Up- / Down-key and confirm with the Enter-key.</p> </td>	<p>To do so, change the value to „Yes“ by using the Up- / Down-key and confirm with the Enter-key.</p>
<p>STATISTICS Water counter = x l</p>	<p>Shows the total amount of water (in liters) that ran through the whole system.</p>
<p>STATISTICS Water counter reset</p>	<p>In this menu the water counter can be reset to 0. This needs to be done after changing the water filter to confirm the change and to reset the message „Change water filter“.</p>
<td data-bbox="501 1550 1474 1635"> <p>To do so, change the value to „Yes“ by using the Up- / Down-key and confirm with the Enter-key.</p> </td>	<p>To do so, change the value to „Yes“ by using the Up- / Down-key and confirm with the Enter-key.</p>
<p>STATISTICS Product counter = x</p>	<p>Shows the total amount of all dispensed products.</p>
<p>STATISTICS PAD products counter = x</p>	<p>Shows the total amount of all dispensed pad products.</p>

<p><b>STATISTICS</b> Cleaning counter = x</p>	<p>Shows the total amount of all successfully performed cleanings.</p>
<p><b>STATISTICS</b> Cleaning interrupted = x</p>	<p>Shows the total amount of all interrupted cleanings.</p>
<p><b>STATISTICS</b> BU left / right = x</p>	<p><i>(only available for model AG220)</i> Shows the total amount of all dispensed pads on the left or right brewing unit.</p>
<p><b>STATISTICS</b> BU left / right reset</p>	<p><i>(only available for model AG220)</i> In this menu the counter for the left or right brewing unit can be reset to 0. After 24'000 dispensed pads the message „BU end of life“ appears on the display. Reset the counter after replacing the brew unit. To do so, change the value to „Yes“ by using the <b>Up- / Down-key</b> and confirm with the <b>Enter-key</b>.</p>
<p><b>STATISTICS</b> Brewing unit 1 = x</p>	<p><i>(only available for model AG420)</i> Shows the total amount of all dispensed pads for every brewing unit. The BU's are numbered starting on the left hand side (BU1 to BU4).</p>
<p><b>STATISTICS</b> Brewing unit 1 reset</p>	<p><i>(only available for model AG420)</i> In this menu the counter for every brewing unit can be reset to 0. The BU's are numbered starting on the left hand side (BU1 to BU4). After 24'000 dispensed pads the message „BU end of life“ appears on the display. Reset the counter after replacing the brew unit. To do so, change the value to „Yes“ by using the <b>Up- / Down-key</b> and confirm with the <b>Enter-key</b>.</p>

**MACHINE PARAMETERS**

In this menu general machine settings can be adjusted, like the service interval time or when the water the filter has to be changed.

Menu	Description
<p>Filter change max = 8000 l [ 0 .. &lt; 8000 l &gt; .. 20000 ]</p>	<p>In this menu the amount of liters must be set, which equals to the life span of the water filter. By reaching the set value, the message „Change water filter“ will appear on the display. After changing the water filter, the water counter under „STATISTICS“ must be reset (see menu „Water counter reset“).</p>
<p>Product counter max. = 48 x 1000 [ 10 .. &lt; 48 x1000 &gt; .. 100 ]</p>	<p>Set the max. amount of products which can be dispensed, before the message „Service required“ appears on the display.</p>

<p>Service interval = 12 m [ 3 .. &lt; 12 m &gt; .. 24 ]</p>	<p>In this menu the service interval time (in months) can be defined. As soon as the machine has reached the set value, the message „Service required“ appears on the display.</p>
<p>Supply power = 3000 W [ 2500 .. &lt; 3000 W &gt; .. 9400 ]</p>	<p><i>(only available for model AG420)</i> In this menu the power of the machine (in watt) according to the data plate can be set. <b>Only enter the value you will find on the data plate!</b></p>
<p>Drawer capacity = 130 [ 0 .. &lt; 130 pads &gt; .. 300 ]</p>	<p>The capsule capacity defines the capacity of the used capsule container. When the set amount is reached, the message „Empty capsule drawer!“ is shown on the display.</p>
<p>Drawer reset time = 5 s [ 5 .. &lt; 5 s &gt; .. 10 ]</p>	<p>Defines the duration in seconds that the capsule drawer has to be removed and outside of the machine to reset the message „Empty capsule drawer!“.</p>
<p>Cupheater = On &lt; On &gt;</p>	<p>In this menu the cup heater can be activated. „On“: the cup heater is active „Off“: the cup heater is not active</p>
<p>Cupheater power = 75 % [ 0 .. &lt; 75 % &gt; .. 100 ]</p>	<p>In this menu the heating interval of the cup heater can be adjusted in steps of 5%. As the heating is switching on and off in intervals, the duration of heating is set in percent. If set to 50% the cupheater would be heating for example 30s in one minute. If set to 100%, the heating would be active continuous.</p>

## ENERGY SAVE MODE

In this menu the energy save options of the machine can be set.

Menu	Description
<p>Energysave for mode 1 = 30 min [ 0 .. &lt; 30 min &gt; .. 60 ]</p>	<p>After the time set in this menu the machine enters standby mode 1 to save energy: all boilers will cool down to 60 °C. Press any key to let the machine heat up again, the machine will be ready after approx. one minute.</p>
<p>Energysave for mode 2 = 240 min [ 0 .. &lt; 240 min &gt; .. 720 ]</p>	<p>After the time set in this menu the machine enters standby mode 2 to save energy: the heating will be stopped, only the refrigerator is running. Press the Energy Save Button to start up the machine.</p>
<p>Enter after cleaning = On &lt; On &gt;</p>	<p>If set to „On“, the machine will enter standby mode 2 after a cleaning has been performed.</p>

**MILK SETTINGS**

The menu „MILK SETTINGS“ lets you adjust the revolutions for milk and milk foam and the temperature inside the refrigerator.

Menu	Description
Milk pump rpm = 700 rpm [ 600 .. < 700 rpm > .. 1000 ]	Set the number of revolutions of the milk pump when dispensing milk.
Foam pump rpm = 1900 rpm [ 1200 .. < 1900 rpm > .. 2000 ]	Set the number of revolutions of the milk pump when dispensing milk foam.
Refrigerator temp. = 5.0 °C [ 4.0 .. < 5.0 °C > .. 8.0 ]	This value will set the temperature inside the refrigerator.
Hot Foam = 0.0 % [ -10.0 .. < 0.0 % > .. 10.0 ]	<i>(only available for model AG220)</i> To change the consistency of the hot milk foam, simply change the percentage of air in the milk foam. A lower value leads to more liquid foam, a higher value leads to more solid foam. This value gets reset to 0.0 %, if the settings for „Hot air“ are adjusted under „Products“.
Cold Foam = 0.0 % [ -10.0 .. < 0.0 % > .. 10.0 ]	<i>(only available for model AG220)</i> To change the consistency of the cold milk foam, simply change the percentage of air in the milk foam. A lower value leads to more liquid foam, a higher value leads to more solid foam. This value gets reset to 0.0 %, if the settings for „Cold air“ are adjusted under „Products“.

## COFFEE BOILER

In this menu the temperature of the water inside the coffee boilers can be set.

Menu	Description
Set temperature = 92 °C [ 60 .. < 92 °C > .. 95 ]	<i>(only available for model AG220)</i> This value sets the water temperature of the coffee products.
Nom. temperature left = 92 °C [ 60 .. < 92 °C > .. 95 ]	<i>(only available for model AG420)</i> This value sets the water temperature of the coffee products for the module on the left hand side.
Nom. temperature right = 92 °C [ 60 .. < 92 °C > .. 95 ]	<i>(only available for model AG420)</i> This value sets the water temperature of the coffee products for the module on the right hand side.
Temp. tolerance = 5 °C [ 0 .. < 5 °C > .. 8 ]	This value defines, when coffee products are ready for dispense. As soon as the coffee boiler reaches the „Nom. temperature“ minus the tolerance value, the machine will be ready for dispensing coffee products.

## TEA / MILK BOILER

In this menu the temperatures of the tea and milk boiler can be set.

Menu	Description
Set temperature = 80 °C [ 75 .. < 80 °C > .. 85 ]	<i>(only available for model AG220)</i> This value sets the water temperature of the tea / milk boiler.
Nom. temperature left = 80 °C [ 75 .. < 80 °C > .. 85 ]	<i>(only available for model AG420)</i> This value sets the water temperature of the tea / milk boiler for the module on the left hand side.
Nom. temperature right = 80 °C [ 75 .. < 80 °C > .. 85 ]	<i>(only available for model AG420)</i> This value sets the water temperature of the tea / milk boiler for the module on the right hand side.
Temp. tolerance = 2 °C [ 0 .. < 2 °C > .. 4 ]	This value defines, when tea and milk products are ready for dispense. As soon as the coffee boiler reaches the „Nom. temperature“ minus the tolerance value, the machine will be ready for dispensing tea and milk products.

**CLEANING PARAMETERS**

In this menu the lock time can be set. The lock time defines the period after dispensing the first milk product to the point where the machine will be locked to force a cleaning. For hygienic matters the machine has to be cleaned at least once every 24 hours after dispensing a milk product.

Menu	Description
<p>Lock time = 24 h [ 0 .. &lt; 24 h &gt; .. 24 ]</p>	<p>Set the amount of hours that can pass by after the dispense of the first milk product, until the machine will be locked and a cleaning will be required.</p>

**OUTPUT TEST LEFT / RIGHT**

In this menu all the electrical components can be tested for function.

**Note:** See section VI „Troubleshooting“ for further instructions on how to test the following components.

Menu	Description
<p>OUTPUT TEST LEFT / RIGHT Water Inlet Valve</p>	<p>Press the <b>Enter</b>-key to open the Water Inlet Valve. The valve is functioning correctly if a „click“ noise is heard.</p>
<p>OUTPUT TEST LEFT / RIGHT Chamber Release Valve 1</p>	<p>Press the <b>Enter</b>-key to open the Chamber Release Valve 1. If the brew chamber is closed, a „click“ noise is heard.</p>
<p>OUTPUT TEST LEFT / RIGHT Chamber Release Valve 2</p>	<p>Press the <b>Enter</b>-key to open the Chamber Release Valve 2. If the brew chamber is closed, a „click“ noise is heard.</p>
<p>OUTPUT TEST LEFT / RIGHT Brew Valve 1</p>	<p>Press the <b>Enter</b>-key to open the Brew Valve 1. If the brew chamber is closed, a „click“ noise is heard.</p>
<p>OUTPUT TEST LEFT / RIGHT Brew Valve 2</p>	<p>Press the <b>Enter</b>-key to open the Brew Valve 2. If the brew chamber is closed, a „click“ noise is heard.</p>
<p>OUTPUT TEST LEFT / RIGHT Tea Valve</p>	<p>Press the <b>Enter</b>-key to open the Tea Valve on the boiler. The valve is functioning correctly if a „click“ noise is heard.</p>

OUTPUT TEST LEFT / RIGHT Tea Valve 2	<p><i>(only available for model AG220)</i> Press the <b>Enter-key</b> to open the Tea Valve 2 (at the front of the machine's module chassis). The valve is functioning correctly if a „click“ noise is heard.</p>
OUTPUT TEST LEFT / RIGHT Exhaust Valve	<p><i>(only available for model AG220)</i> Press the <b>Enter-key</b> to open the Exhaust Valve. The valve is functioning correctly if a „click“ noise is heard.</p>
OUTPUT TEST LEFT / RIGHT Milk Clean Valve	<p>Press the <b>Enter-key</b> to open the Milk Clean Valve. The valve is functioning correctly if a „click“ noise is heard.</p>
OUTPUT TEST LEFT / RIGHT Milk Rinse Valve	<p>Press the <b>Enter-key</b> to open the Milk Rinse Valve. The valve is functioning correctly if a „click“ noise is heard.</p>
OUTPUT TEST LEFT / RIGHT Cold Milk Valve	<p>Press the <b>Enter-key</b> to open the Cold Milk Valve. The valve is functioning correctly if a „click“ noise is heard.</p>
OUTPUT TEST LEFT / RIGHT Milk Outlet Valve	<p>Press the <b>Enter-key</b> to open the Milk Outlet Valve. The valve is functioning correctly if a „click“ noise is heard.</p>
OUTPUT TEST LEFT / RIGHT Milk Drain Valve	<p>Press the <b>Enter-key</b> to open the Milk Drain Valve. The valve is functioning correctly if a „click“ noise is heard.</p>
OUTPUT TEST LEFT / RIGHT Milk Air Valve	<p>Press the <b>Enter-key</b> to open the Milk Air Valve. The valve is functioning correctly if a „click“ noise is heard. (AG220: „click“ noise of proportional valve is difficult to hear)</p>
OUTPUT TEST LEFT / RIGHT Air Select Valve	<p><i>(only available for model AG420)</i> Press the <b>Enter-key</b> to open the Air Select Valve. The valve is functioning correctly if a „click“ noise is heard.</p>
OUTPUT TEST LEFT / RIGHT Cleaning Tablet Valve	<p>Press the <b>Enter-key</b> to open the Cleaning Tablet Valve. The valve is functioning correctly if a „click“ noise is heard.</p>
OUTPUT TEST LEFT / RIGHT Water Pump	<p>Press and hold the <b>Enter-key</b> to test the Water Pump.</p>
OUTPUT TEST LEFT / RIGHT Milk Pump	<p>Press and hold the <b>Enter-key</b> to test the Milk Pump. A short press of the <b>Enter-key</b> will start an internal rinse.</p>

<p><b>OUTPUT TEST LEFT / RIGHT</b> Refrigerator fan</p>	<p><i>(only available for model AG220)</i> Press and hold the <b>Enter</b>-key to test the fan inside the refrigerator.</p>
<p><b>OUTPUT TEST LEFT / RIGHT</b> Coffee boiler 1 = xx.x °C</p>	<p>The display shows the current temp. of coffee boiler 1. By pressing the <b>Enter</b>-key, the boiler will start heating up. <b>ATTENTION: The regulation is not active, the boiler can overheat!</b></p>
<p><b>OUTPUT TEST LEFT / RIGHT</b> Coffee boiler 2 = xx.x °C</p>	<p>The display shows the current temp. of coffee boiler 2. By pressing the <b>Enter</b>-key, the boiler will start heating up. <b>ATTENTION: The regulation is not active, the boiler can overheat!</b></p>
<p><b>OUTPUT TEST LEFT / RIGHT</b> Tea/Milk boiler = xx.x °C</p>	<p>The display shows the current temperature of the tea / milk boiler. By pressing the <b>Enter</b>-key, the boiler will start heating up. <b>ATTENTION: The regulation is not active, the boiler can overheat!</b></p>
<p><b>OUTPUT TEST LEFT / RIGHT</b> Cup Heater</p>	<p>By pressing the <b>Enter</b>-key, the cup heater will either be switched on or off, depending whether it was already activated before or not. The heating can be checked for functionality by taking a look at the LED on the power control board.</p>

**INPUT TEST LEFT / RIGHT**

In this Menu all inputs (sensors) can be tested for functionality.

**Note:** See section VI „Troubleshooting“ for further instructions on how to test the following components.

Menu	Description
<p><b>INPUT TEST LEFT / RIGHT</b> EAPB = detected</p>	<p><i>(only available for model AG420)</i> The display shows „detected“ if the CPU (EAPB) is correctly connected.</p>
<p><b>INPUT TEST LEFT / RIGHT</b> Cleaning key = closed</p>	<p>The display shows the current state of the cleaning key. „closed“: cleaning key is detected and mounted correctly. „open“: cleaning key not detected.</p>
<p><b>INPUT TEST LEFT / RIGHT</b> Cleaning tablet = No</p>	<p>The display shows, whether a cleaning tablet is detected in the cleaning key (Yes) or not (No).</p>
<p><b>INPUT TEST LEFT / RIGHT</b> Brew Chamber 1 = open</p>	<p>The display shows the current state of brew chamber 1.</p>

<b>INPUT TEST LEFT / RIGHT</b> <b>Brew Chamber 2 = open</b>	The display shows the current state of brew chamber 2.riri
<b>INPUT TEST LEFT / RIGHT</b> <b>NTC Boiler 1 = xx.x °C</b>	The display shows the current temperature of coffee boiler 1. By pressing the <b>Enter-key</b> , the boiler will start heating up.
<b>INPUT TEST LEFT / RIGHT</b> <b>NTC Boiler 2 = xx.x °C</b>	The display shows the current temperature of coffee boiler 2. By pressing the <b>Enter-key</b> , the boiler will start heating up.
<b>INPUT TEST LEFT / RIGHT</b> <b>NTC Boiler 3 = xx.x °C</b>	The display shows the current temperature of the tea / milk boiler. By pressing the <b>Enter-key</b> , the boiler will start heating up.
<b>INPUT TEST LEFT / RIGHT</b> <b>NTC Refrigerator = x.x °C</b>	The display shows the current temperature inside the refrigerator.
<b>INPUT TEST LEFT / RIGHT</b> <b>Milk temperature = x.x °C</b>	<i>(only available for model AG220)</i> The display shows the temperature of the milk in the refrigerator. If the temperature is higher than 12 °C, milk products will be locked.
<b>INPUT TEST LEFT / RIGHT</b> <b>Flowmeter 1 = x ticks</b>	The display shows the impulse of flowmeter 1. Press and hold the <b>Enter-key</b> to test the flowmeter, the number of ticks will be shown (brew chamber must be closed).
<b>INPUT TEST LEFT / RIGHT</b> <b>Flowmeter 2 = x ticks</b>	<i>(only available for model AG420)</i> The display shows the impulse of flowmeter 2. Press and hold the <b>Enter-key</b> to test the flowmeter, the number of ticks will be shown (brew chamber must be closed).
<b>INPUT TEST LEFT / RIGHT</b> <b>Milk Level Low = Off</b>	Shows the status of the upper milk level sensor. The display shows „Yes“ if there's only a small amount of milk left in the milk container.
<b>INPUT TEST LEFT / RIGHT</b> <b>Milk Container Empty = Off</b>	Shows the status of the lower milk level sensor. The display shows „Yes“ if there's no milk left in the milk container.
<b>INPUT TEST LEFT / RIGHT</b> <b>Energy Save Button = Off</b>	The display shows the current state of the Energy Save Button. If the Energy Save Button is pressed , the state will change to „On“ .

## PRODUCTS

In this menu all parameters of the different products can be adjusted to personal taste.

**Note:** Not all parameters are available for every product, the „Milk time“ for example can only be adjusted for milk products, „Hot water right/left“ is only available for a tea product.

### Learning mode

The coffee machine Aguila has a learning mode to easily set the dispense quantity of a product. The product will be dispensed while the parameter to adjust is selected in the menu. The dispensed amount will be saved, there is no need to enter any value.

The learning mode is used as follows:

1. Choose a product
2. Choose a parameter
3. Press and hold the product key until dispense starts
4. As soon as the preferred amount is reached, press the product key again.
5. Dispense is stopped and amount will be saved.

**Note:** The Learning mode is only available for parameters marked with „» *Learning mode*“.

Menu	Description
<div style="background-color: #333; color: white; padding: 10px; text-align: center;"> <b>PRODUCTS</b>                      &lt; Choose a product &gt;                 </div>	To show the settings of a product, press the corresponding product key.
<div style="background-color: #333; color: white; padding: 10px;">                     ↳ <b>Coffee ticks = x</b>                      [ 0 .. &lt; x &gt; .. 900 ]                 </div>	In this menu the amount of coffee can be adjusted (in ticks). » <i>Learning mode</i>
<div style="background-color: #333; color: white; padding: 10px;">                     ↳ <b>Hot water = x.x s</b>                      [ 0.0 .. &lt; x.x s &gt; .. 65.0 ]                 </div>	<i>(only available for model AG220)</i> The set value (in sec.) defines, how long hot water will be dispensed. » <i>Learning mode</i>
<div style="background-color: #333; color: white; padding: 10px;">                     ↳ <b>Hot water right = x.x s</b>                      [ 0.0 .. &lt; x.x s &gt; .. 65.0 ]                 </div>	<i>(only available for model AG420)</i> The set value (in sec.) defines, how long hot water will be dispensed (for products dispensed on the right module). » <i>Learning mode</i>
<div style="background-color: #333; color: white; padding: 10px;">                     ↳ <b>Hot water left = x.x s</b>                      [ 0.0 .. &lt; x.x s &gt; .. 65.0 ]                 </div>	<i>(only available for model AG420)</i> The set value (in sec.) defines, how long hot water will be dispensed (for products dispensed on the left module). » <i>Learning mode</i>

 <pre> Prebrew time = x.x s [ 0.0 .. &lt; x.x s &gt; .. 2.0 ] </pre>	In this menu the prebrew time (in sec.) can be adjusted.
 <pre> Settling time = x.x s [ 0.0 .. &lt; x.x s &gt; .. 5.0 ] </pre>	In this menu the settling time (in sec.) can be adjusted.
 <pre> Milk type = hot &lt; hot &gt; </pre>	Choose whether hot or cold milk should be used.
 <pre> Milk time = x.x s [ 0.0 .. &lt; x.x s &gt; .. 60.0 ] </pre>	<i>(only available for model AG220)</i> The set value (in sec.) defines, how long milk will be dispensed. » <a href="#">Learning mode</a>
 <pre> Milk time left = x.x s [ 0.0 .. &lt; x.x s &gt; .. 60.0 ] </pre>	<i>(only available for model AG420)</i> The set value (in sec.) defines, how long milk will be dispensed (for products dispensed on the left module). » <a href="#">Learning mode</a>
 <pre> Milk time right = x.x s [ 0.0 .. &lt; x.x s &gt; .. 60.0 ] </pre>	<i>(only available for model AG420)</i> The set value (in sec.) defines, how long milk will be dispensed (for products dispensed on the right module). » <a href="#">Learning mode</a>
 <pre> Foam type = cold &lt; cold &gt; </pre>	Choose whether hot or cold milk foam should be used.
 <pre> Foam time = x.x s [ 0.0 .. &lt; x.x s &gt; .. 60.0 ] </pre>	<i>(only available for model AG220)</i> The set value (in sec.) defines, how long foam will be dispensed. » <a href="#">Learning mode</a> <i>The foam quality can be adjusted while dispensing. To change the foam quality, press the „Up“- (cleaning) or „Down“-key (rinse) during dispense to increase or decrease the amount of air, until you are satisfied with the result.</i>
 <pre> Foam time left = x.x s [ 0.0 .. &lt; x.x s &gt; .. 60.0 ] </pre>	<i>(only available for model AG420)</i> The set value (in sec.) defines, how long foam will be dispensed (for products dispensed on the left module). » <a href="#">Learning mode</a>

↳	Foam time right = x.x s [ 0.0 .. < x.x s > .. 60.0 ]	<i>(only available for model AG420)</i> The set value (in sec.) defines, how long foam will be dispensed (for products dispensed on the right module). » <a href="#">Learning mode</a>
↳	Hot air = x.x % [ 0.0 .. < x.x > .. 100.0 ]	<i>(only available for model AG220)</i> The set value (in percent) defines the amount of air, which will be used to create hot milk foam. If set to 0 %, the air valve is not open, at 100 % it is fully opened.
↳	Cold air = x.x % [ 0.0 .. < x.x > .. 100.0 ]	<i>(only available for model AG220)</i> The set value (in percent) defines the amount of air, which will be used to create cold milk foam. If set to 0 %, the air valve is not open, at 100 % it is fully opened.
↳	Add milk = x < x >	In this menu the milk dispensing sequence for the product can be set: - at begin: milk is dispensed before coffee - during: milk and coffee are dispensed simultaneous - at the end: milk is dispensed after coffee
↳	Add foam = x < x >	In this menu the foam dispensing sequence for the product can be set: - at begin: foam is dispensed before coffee - during: foam and coffee are dispensed simultaneous - at the end: foam is dispensed after coffee
↳	Coffee delay = x s [ 0 .. < x s > .. 30 ]	This menu is used for delaying the dispense (in sec.) of coffee (e.g. needed for Macchiato products, to let the milk foam settle in the cup).

## ERROR HISTORY

The error messages are logged. The latest error is shown at the first position in the list, use the **Up- / Down-key** to navigate through the different error messages.

Menu	Description
<b>ERROR HISTORY</b> Error history reset = No	In this menu the error history can be reset. To do so, change the value to „Yes“ by using the <b>Up- / Down-key</b> and confirm with the <b>Enter-key</b> .
#1: dd.mm.yyyy hh:mm:ss Error: x	Error messages are saved with a time and date stamp and a short description of the error.

## NESLINK *(only available for model AG420 with a production date prior to march 2015)*

Neslink sends different data of the machine over the GSM network to your Nespresso affiliate, to allow the automatic planning of the next preventive service.

In this menu the settings for Neslink can be adjusted.

Menu	Description
<b>NESLINK</b> Neslink enabled = Yes	If the machine has been registered for data exchange with the Nespresso server and a connection was established (see menu „NL NETOP“), this will be confirmed with „Yes“ (value cannot be changed manually).
<b>NESLINK</b> NL NETOP = 18.09.2014 08:58	Shows date and time of the last successful connection to the Nespresso server over the GSM network. If no time stamp is shown, the machine could not communicate with the server.
<b>NESLINK</b> NL Status = ready	Shows the state of the GSM modem.
<b>NESLINK</b> NL act. date = 26.05.2014	If the machine has been registered and a connection to the server was established, the machine shows the date of registration on the Nespresso server.
<b>NESLINK</b> Neslink activation = Yes	In this menu Neslink can be activated or deactivated.

<p>NESLINK NL airplane mode</p>	<p>In airplane mode, the GSM-signal is deactivated and prevents any communication to the Nespresso server.</p>
<p>NL max. products = 2000 [ 0 .. &lt; 2000 &gt; .. 4000 ]</p>	<p>After this amount of dispensed products, the machine will automatically send data to the Nespresso server.</p>
<p>NL max time = 14 d [ 1 .. &lt; 14 d &gt; .. 31 ]</p>	<p>After this number of days, the machine will automatically send data to the Nespresso server.</p>
<p>NESLINK NL SH = xxxxxxxxxxxxxxxx</p>	<p>Shows the firmware version of the GSM module.</p>
<p>NESLINK NL IMSI = xxxxxxxxxxxxxxxx</p>	<p>Shows the SIM card number of the GSM module.</p>
<p>NESLINK NL IMEI = xxxxxxxxxxxxxxxx</p>	<p>Shows the serial number of the GSM module.</p>
<p>NESLINK NL ICCID = x</p>	<p>Shows the serial number of the SIM card.</p>
<p>NESLINK Neslink Test</p>	<p>By activating, the machine will send a data package as test to the Nespresso server. The message „Package sent“ is shown, if the package was sent successfully.</p>

## INSTALLATION

In this menu the serial number and the installation date is entered. See chapter 1.14 „Type plate“ for more information about the different serial number entries. Furthermore the software and hardware version of the machine is shown.

Menu	Description
Inst. date = 26.11.2013 <26>.11.2013	<i>(only available for model AG420)</i> Set the date of installation of the machine. Press the Enter-key to move from „day“ to „month“ and to „year“. Press the Enter-key again to confirm your settings.
INSTALLATION SN = xxxxxxxxxxxxxxxxxxxxxx	<i>(only available for model AG420)</i> Shows the complete serial number of the machine, which can be put together by using the following menus.
Serial No Year = xx [ 1 .. < 11 > .. 99 ]	Set the production year according to the type plate.
Serial No Day = x [ 1 .. < 150 > .. 365 ]	Set the production day according to the type plate.
Serial No = x [ 1 .. < 2 > .. 9999 ]	Set the production number according to the type plate.
Serial No Volt = E=380-415V < E=380-415V >	Set the voltage according to the type plate.
Serial No Plug = P < P >	<i>(only available for model AG420)</i> Set the type of plug according to the type plate.
INSTALLATION Eagle Software Version = Vx.xx	Shows the software version of the machine.
INSTALLATION Eagle Hardware Version = xxxx	Shows the hardware version of the machine.
INSTALLATION CCI activated = Yes	<i>(only available for model AG220)</i> In this menu the CCI-Interface can be activated (needed for a connection to a cash register system).