BAG automation

WEITRONIK 5

Weighing Card with Set-Up for Additive Batch Weighing ADD 05.82

USER MANUAL

Version 1, date 18/12/2019 ENG
rev 00 18/12/2019

BAG automation

Think Accurate,
Think BagAutomation

this manual contains 63 pages

INDEX

1. INTRODUCTION

1.1. PURPOSE OF THIS MANUAL

This manual has been designed to provide the operator with installation instructions, commissioning, control of the machine in safe conditions.

The instruction manual is an integral part of the machine.

This document assumes that, in the installations where the machine is intended, they must observe the safety and hygiene standards at work.

	READ THIS INSTRUCTION MANUAL CAREFULLY BEFORE USING THE MACHINE.

The instructions, documentation and drawings contained in this manual are of a confidential technical nature, strictly owned by the manufacturer; therefore, apart from the purposes for which it was produced, all reproduction, either integral or partial, of the content and / or format must take place with the prior consent of the manufacturer.

1.2. RECIPIENTS

This instruction manual is intended for qualified personnel authorized and authorized to carry out installation, use and maintenance of the machine.

1.3. PRESERVATION OF THE MANUAL

The instruction manual must be kept with care and must accompany the machine in all the passages of ownership that it may have in its life cycle.
Any part must not be removed or arbitrarily modified.
The manual must be stored in an environment protected from humidity and heat and in the vicinity of the machine to which it refers.
In the event of deterioration or to request further copies or more simply for technical and operational reasons, directly consult the Technical Assistance of the Company:

BagAutomation s.r.l. – Società Unipersonale – Capitale Sociale € 10.500,00 i.v.
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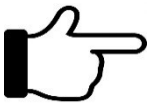
Email: info@bagautomation.com - Web: www.bagautomation.com

1.4. GRAPHICAL SYMBOLS USED IN THE MANUAL

	Prescription	Please Read the Instruction Manual.
	Note	Notes to be read with particular care.
	Prohibition	Generic prohibition.
	Warnings	The description concerns important parts of the machine. Failure to observe can cause serious mechanical or electrical damage or loss of control and serious malfunctions if the relative standards are not respected. Failure to comply with the rules marked with this symbol will automatically invalidate any form of warranty by the Manufacturer.

1.5. UPDATING THE MANUAL

The language chosen by the manufacturer for the Original Instructions is Italian.

If in doubt about the interpretation of the "Instructions translated from the original" refer to the original language or, if necessary, contact the Assistance service.

The manufacturer reserves the right to make changes to the design, variations / improvements to the machine and updates to the instruction manual without prior notice to the customers.

However, in the event of modifications to the machine installed at the customer's premises, agreed with the manufacturer and involving the adaptation of one or more chapters of the instruction manual, it will be the responsibility of the manufacturer to send the customer the parts of the instruction manual affected by the modification. It will be the responsibility of the customer to replace the parts no longer valid with the new ones in all the copies owned.

	For obvious reasons of generalization some of the representations (photographs and/or drawings) in the manual may not correspond entirely to the machine purchased.

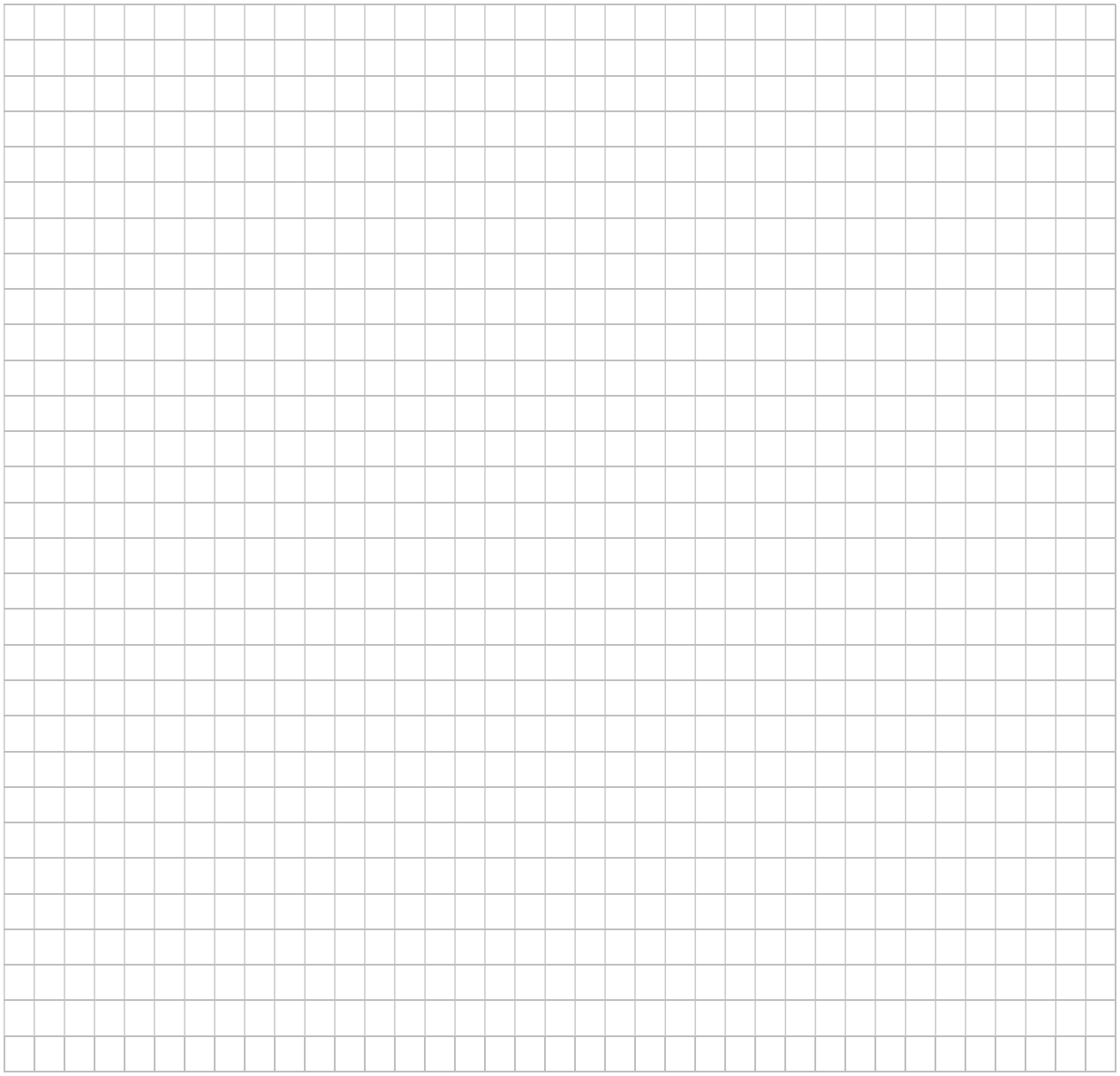
1.6. HOW TO READ THE MANUAL

To clarify and simplify the consultation, the graphic logic and the logic of the references are specified below.

In the Footer of each page, on the left side, there is the description of the chapter to which it belongs, and the identification number of the chapter itself, for example: INTRODUCTION - Chapter 01

In the Footer of each page, on the right-hand side, the page number expressed with a two-number code is reported, the first of which indicates the CHAPTER of belonging, the second indicates the NUMBER OF THE PAGE within the CHAPTER, for example: Page 3-2 indicates the second page of chapter 3.

Notes



2. OPERATOR TERMINAL

The Control Panel is equipped with an Operator Terminal to set the data needed for the machine to run; through this it is also possible to view information, messages and alarms appearing during the normal work of the scale.

The Operator Terminal is a TOUCH SCREEN type; this means that there are no real keys on the panel but touch sensitive icons.

The information available on the Operator Terminal has been divided into menus and submenus.

This tree structure allows you to better distinguish the group and the function you are viewing or executing.

Figure 1 - Display

2.1. MOST USED ICONS AND BUTTONS

ICON BUTTON (HOME)
It allows the return to the MAIN page from any page of the Operator Terminal.

ICON BUTTON (FLAG)
Shows the Language set in the Operator Terminal.

ICON BUTTON (ALARM)
Switch to the ALARM LIST page.
In the presence of an alarm the message appears in black on the orange strip.

ICON BUTTON (PREV)
Go to the previous page of the current MENU.

ICON BUTTON (NEXT)
Go to the next page of the current MENU.

ICON BUTTON (INFO)
Go to the first Page of the MENU 5 Information / Statistics.

ICON BUTTON (CONF)
Switch to the Configuration MENU Page.

ICON BUTTON (MANUAL FUNCTION)
Go to the first MENU page 1 Manual Functions.

ICON BUTTON (RECIPE)
Goes to the first page of the Sub-Pages group written in.
(In this example the Recipe MENU.)

ICON BUTTON (PASSWORD)
(present in the Configuration page) opens a drop-down menu allowing the selection of the desired password level.

EDITABLE FIELD
By pressing the numeric value expressed by the variable, it is possible to display a NUMERIC or ALPHANUMERIC Keypad, which allows the operator to modify the value.

NUMERIC OR ALPHANUMERIC KEYPAD
These Keypads appears when you press the value of an Editable Variable.
They are used to enter or modify the value.

3. WEITRONIK-5 INTRODUCTION

Figure 2 - Weitronik5 complete with Vibrators Card Driver (optional)

Version: xx.

date: xx/xx/xxxx.

Software: ADD xx.xx

English language translated from Italian

3.1. GENERAL

The manual is an integral part of the system and must accompany it even in the event of transfer. For a correct relationship with the product it is necessary to guarantee the readability and correct conservation of the manual, on the machine, also for future reference.

In the event of deterioration of the present or more simply for technical and / or operational reasons as well as for further copies consult the technical assistance directly.

Bag Automation reserves the right to make changes to the production and to the manual without involving the obligation to update the production itself and the previous manuals.

The operator is obliged to read carefully and fully understand all the instructions contained in this manual before starting to use the machine.

Failure to comply with the instructions contained herein or any part of them exempts the manufacturer from any liability for any eventuality and / or damage caused to the machine itself, to things or persons.

Likewise, failure to comply with the rules contained in the instruction manual will automatically invalidate any form of guarantee on the machine.

NOTE:

The weigher is equipped with a visual system that allows immediate verification of the weighing and of any deviations as well as a whole series of useful functions inserted in order to optimize the weighing process to the maximum, such as an efficient management of the reaction signals addressed to the upstream machine.

The following two screens appear when it is necessary to enter the parameters, for example in the case of recipes, when a field containing a value is pressed or the name of the recipe itself:

Figure 3 - Numeric Keyboard

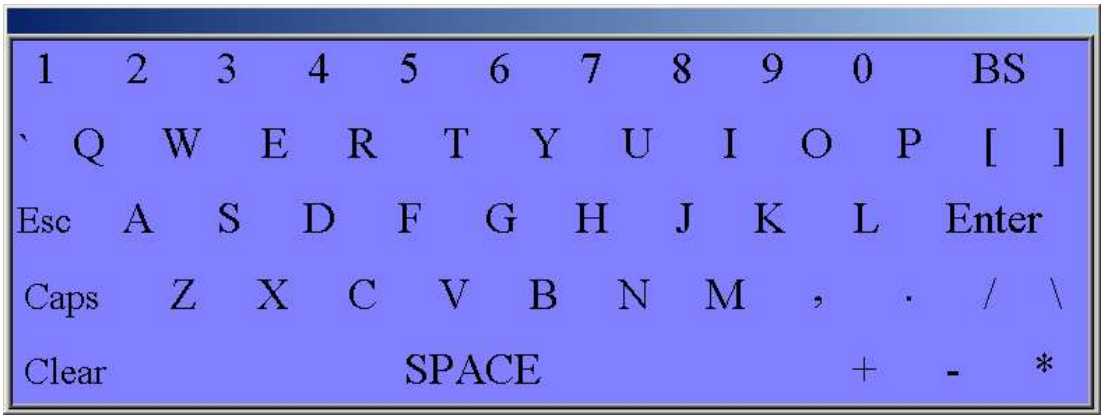


Figure 4 - Alphanumeric Keyboard

In order to guarantee a correct use of the machine, access to the functions has been adjusted according to a hierarchy of use corresponding to various levels: OPERATOR, TECHNICIAN, SUPERUSER and MASTER dependent on keyword (hereinafter referred to as "password").

3.2. MAIN PAGE

The machine can be controlled through the following synoptic panel:

Figure 5 - Weitronik Mainpage

The software version appears in the central panel, were “Panel: ADD XX.XX” is the version of software installed on the display and “Weitronik5: ADD XX.XX” is the scale card software.

Pressing the button  the manufacturer information page is accessed.

Pressing the button  access to the main screen for system control.

	This manual has been redacted using the images of a standard scale in which the panel manages only one scale (mono-weigher), if your system is composed by a panel that manages two or more scales, each scale will be identified by a progressive number (e.g.: "WEIGHER 1") and clearly identified on the same page.

4. HOME PAGE

4.1. (HOME, STOP).

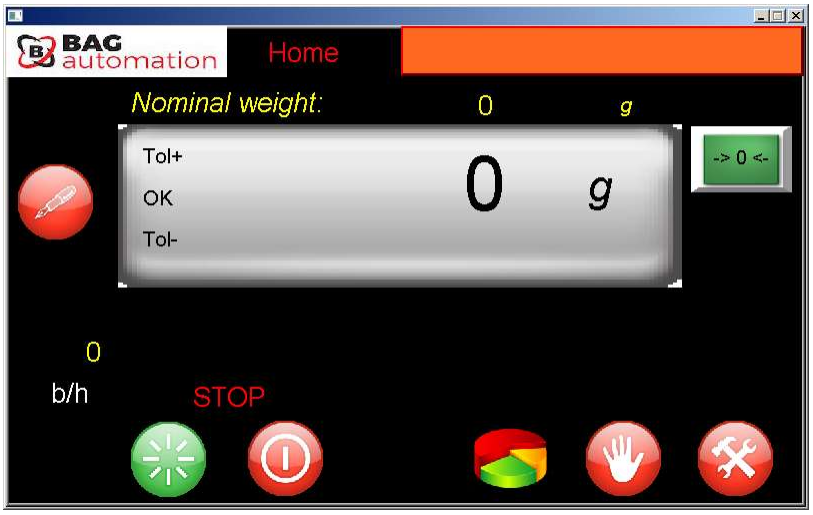


Figure 6 - Weigher Home Page

This page shows the waiting condition of the machine, identified by the red word "STOP":

Nominal weight:	specified in the recipe, the unit of measurement is also followed;
Current weight:	in the gray box, the weight actually measured by the load cell;
Tol+, OK, Tol-:	enlighted indication for instantaneous reference of the weight with respect to the nominal one (during the waiting phase these indications remain off);
Speed (b/h):	shows the production speed, expressed in Weigher Discharges Per Hour;
Status Bar:	located to the right of the word "Home", on an orange background it displays any alarms or anomalies: by clicking on it you access the relative page, see below.
"ZERO"  **:**	button located on the right of the screen, is used to reset the weighing system, to always be carried out with empty and clean basket.

PRESSING THE BUTTON  STARTS THE SYSTEM.

	the machine is activated as long as there is no alarm in progress, in which case it is necessary to press on the status bar to identify the problem and remove it

Pressing the button  the recipe loading page is accessed, so that the machine operator can change the type of production.

The button  shows the counts of the statistics and in general the production data, see below.

Pressing the button  access to the manual functions page, and press  give access to system programming, see below.

5. ALARMS PAGE (ALARM).

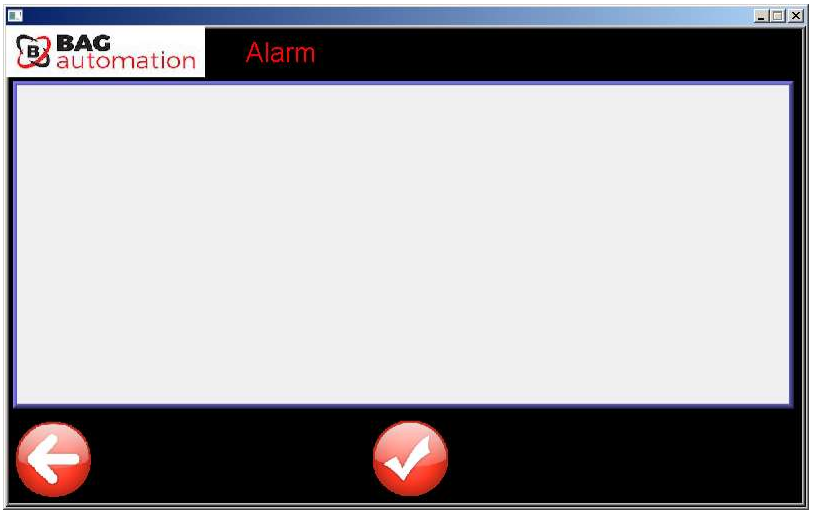


Figure 7- Alarms in Progress

This page displays the history of the alarms in progress.

To delete an alarm from the display on the main screen (top right field with an orange background), as long as it is not yet in progress, select the alert from the list on this page by a simple press on the written line then press the button .

The button allows you to return to the previously viewed screen

	always refer to the diagram for interventions inside the electrical panel.

5.1. Displayable alarms:

DISPLAY	DESCRIPTION	CHECKS TO BE MADE
- Problem with REF not connected on CELL2	Reading anomaly from the Cell 1 connector	breakage of an electrical connection; load cell rupture; excessive load on the cell.
- Problem with REF not connected on CELL2	Reading anomaly from the Cell 2 connector	breakage of an electrical connection; load cell rupture; excessive load on the cell.
Warm-up time	System warm-up time.	
Invalid system parameters	Lack of system parameters.	Set the parameters protected by the manufacturer's keyword.
Overload	The weight detected by the basket exceeds the programmed maximum limit	Check that the basket is free, that the tailgate closes correctly and that there is no leakage of product into the basket.
Minimum level	It is not possible to discharge because the product level in the loading hopper is low.	Check that there is actually a correct supply of product or correct operation of the minimum level photocell.
Calibration error	Error during calibration.	The warning will be deleted automatically at the first successful calibration.
Autozero above limit	During the autozero a weight 20% greater than the full scale of the appliance was detected.	Check the weighing plate freeing it from obstructions or deposited material, then proceed with the calibration of the system before restarting.
- Magnetothermic protections	Safety protections have intervened inside the electrical panel.	Disconnect the power supply, open the electrical panel door and check the status of fuses and thermal breakers.
Emergency	The emergency button has been pressed or an emergency contact has been opened.	Restore the emergency circuit rest position after removing the problem.
Unstable weight during auto tare	The weight reading of the basket during the tare is unstable.	Increase the preset auto zero delay.
Recipe not stored	Error while loading a recipe, which is non-existent.	Repeat the recipe loading operation with an existing one.
Basket sensors (if enabled)	When the machine is switched on, the closed basket signal is not detected.	Check the presence of the correct pneumatic pressure, the basket sensor and the cylinder stroke.
Dosing time-out	The time limit for the weighing cycle has been exceeded.	Check the product in the loading hopper and / or remove the block.

6. STATISTICAL DATA

In the Home Page, using the lower button showing a pie-chart a wide list of data useful for tuning the machine, check production data and troubleshoot errors in programming can be accessed.

6.1. Statistical data (stat 1 of 5).

Below are the descriptions of the parameters visible in the statistics screens, each followed by its own unit of measurement. The values always refer to the last reset performed:

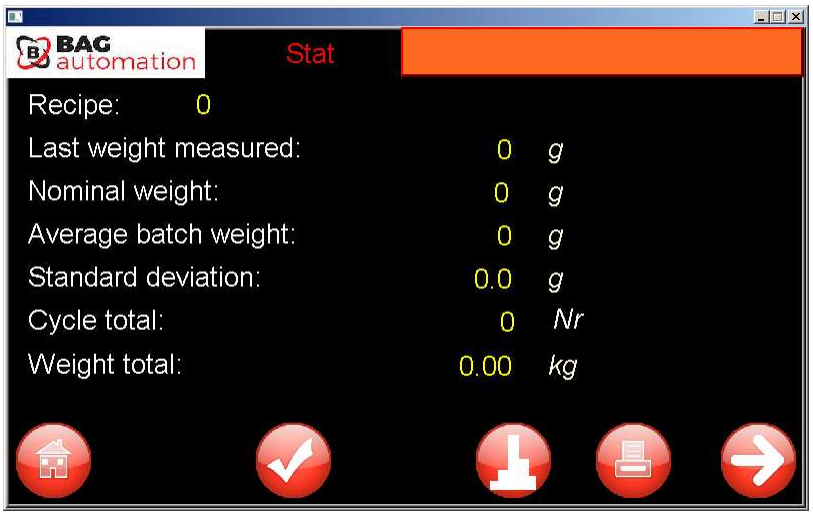


Figure 8 - Stat. 1 of 5

Recipe:	this value indicates the number of the recipe in progress;
Last weight measured:	shows the weight of the last weighing performed;
Nominal weight:	the nominal weight in the current recipe is indicated;
Average batch weight:	with reference to the lot in progress, the mathematical average of the weighs carried out from the beginning of the lot is indicated;
Standard deviation:	this parameter displays the dispersion of data around the weight nominal value;
Cycle totalizer:	displays the total number of cycles performed;
Weight Totalizer:	displays the total weight checked.

To return to the home screen, simply press the button , while the key brings up the next page.

To reset the statistics press the key while to get the graph, simply press the button .

To print the statistics, press the key .

6.2. Statistical data (stat 2 of 5).

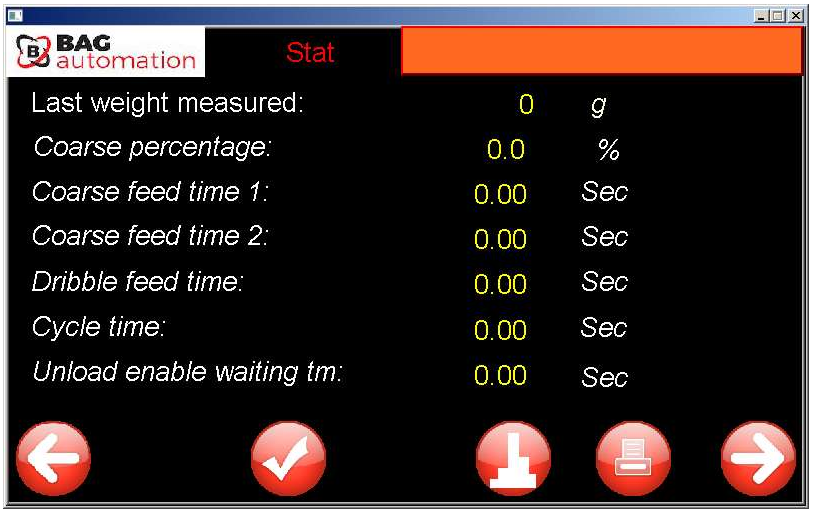


Figure 9 - Stat. 2 of 5

Last weight measured:	the weight of the last batch unloaded by the scale;
Coarse percentage:	displays the percentage value of the nominal weight which is loaded quickly, this parameter can be constant or self-adjusting depending on the value of "dribble feed time" in the recipe (see recipe paragraph);
Coarse feed time 1:	a special fixed time (settable in recipe pages under the “Optional Parameters” sub-menu) giving the capability to take advantage of an extra dosing unit (if existing) to achieve an additional speed in coarse dosing phase;
Coarse feed time 2:	displays the duration of the roughing phase 2, ie the phase following roughing 1, that is the time required to reach the weight percentage set in the "coarse percentage" parameter above;
Dribble feed time:	displays the time in seconds for which the scale loads the product into the basket at a reduced speed to reach the correct nominal weight value;
Cycle time:	displays the time in seconds of the single cycle from when it starts to dose to when the weight is unloaded;
Unload enable waiting time:	displays the time in seconds that the scale waits before receiving the consent to discharge;

To reset the statistics, press the key while to get the graph, simply press the button .

The button allows you to return to the screen previously displayed, while the button brings up the next page.

To print the statistics, press the key .

6.3. Statistical data (stat 3 of 5).

Figure 10 – Stat. 3 of 5

Life counter:	indicates the number of discharges made by the balance from the date of construction;
Calibration counter:	displays the number of calibrations performed since the date of construction;
Weigher mode:	displays the status MASTER if the scale is stand-alone or the host in a multi-scale coupling arrangement, or SLAVE if it is connected to a master for coordination;
Last weight measured:	the weight of the last batch unloaded by the scale;
Weight trend:	the average error on each basket based on the arithmetic mean of the weighs.
Falling product:	(sometimes also known as “tail”) the amount of product that has still to fall in the basket in the meanwhile between the shut-off of the fine feed and the achievement of the final weight in the basket.
Hourly production rate:	the instantaneous speed in bacthes-per-hour of the machine.

To reset the statistics press the key while to get the graph, simply press the button .

The button allows you to return to the screen previously displayed, while the button brings up the next page.

To print the statistics press the key .

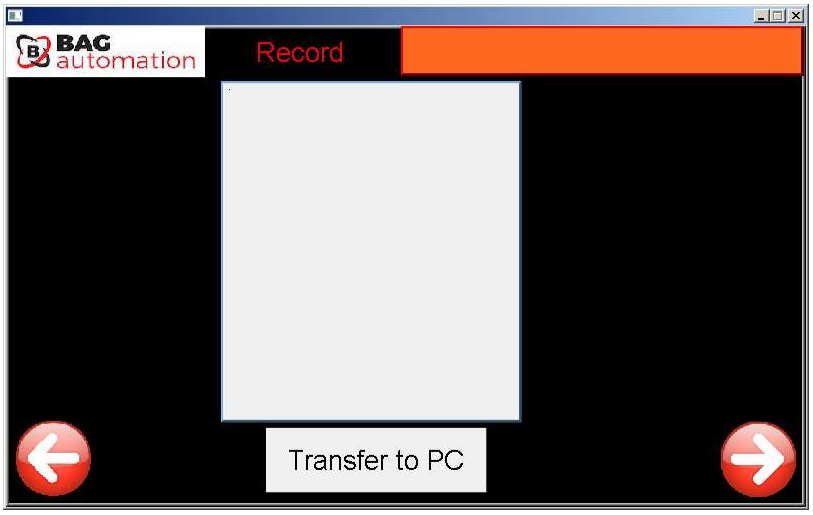
6.4. Statistical data (stat 4 of 5).

This screen displays the Gaussian graph concerning the normal distribution of the weights performed by the scale.

This is a statistical chart that is used by quality control to check the accuracy of the scales.

The button allows you to return to the screen previously displayed, while the button brings up the next page.

6.5. Statistical data (record 5 of 5).



This screen displays the log of the weights.

The button “Transfer to PC” allows to transfer these logs on a remote PC (i.e. SCADA).

The button allows you to return to the screen previously displayed, while the button brings up the next page.

7. MANUAL OPERATIONS

From the Home Page, using the lower button showing a hand a panel with rocker-switches is shown allowing the to do some manual operations for emptying, stopping and cleaning the machine in the most safer and quick way.

7.1. Pages for manual operations (manual 1 of 2).

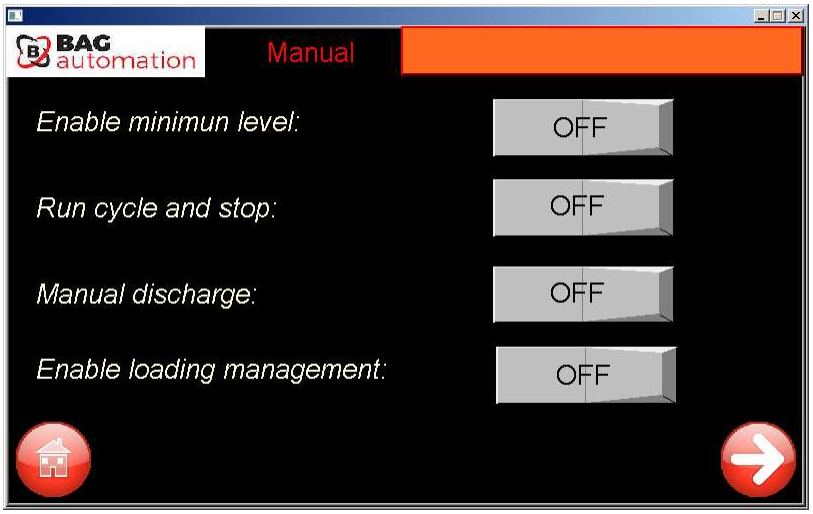


Figure 11 - ManOp. 1 of 2

Enable minimum level:	the selector shown here is used to activate or not the minimum level sensor of the loading hopper.
Run a cycle and stop:	the selector shown here is used to activate or not the possibility of performing a single weighing cycle before stopping the scale.
Manual unloading:	the selector shown here is used to activate or not the possibility of performing a discharge.
Enable loading management:	the selector shown here is used to activate or not the loading of the product in the loading hopper.

After making the selection, simply press the button to return to the home screen while the button - (available only with passwords level “engineer” or higher), brings up the next page.

7.2. Pages for manual operations (manual 2 of 2).

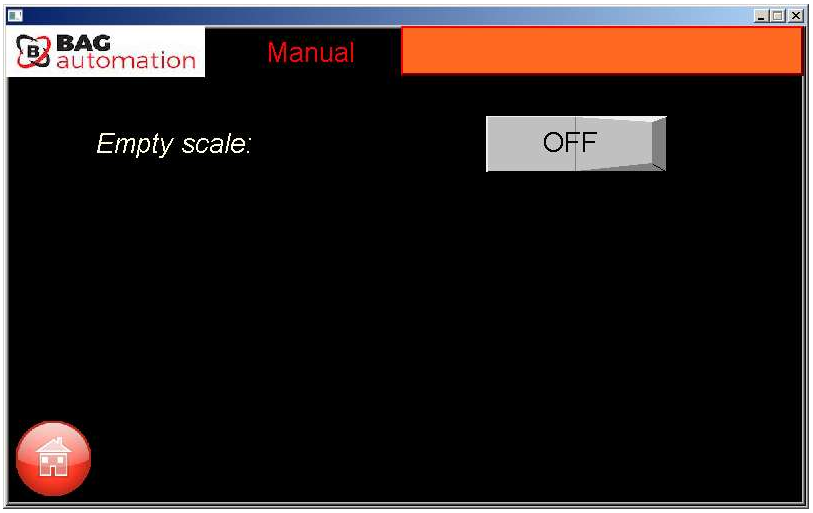


Figure 12 - ManOp 2 of 2

Empty Scale: Complete scale emptying for cleaning/product-change purposes.

	The above selector is intended to start the machine in coarse feed with all the feeding devices at maximum speed and the bucket wide-open. Therefore all the product in the feeding hopper will pass thru the scale until the tank above will be completely empty.

After making the selection, simply press the button  to return to the home screen.

8. PROGRAMMING

Having pressed the key to access the system programming, the person must identify his / her role, specified in the USER field on a purple background, to guarantee the safety of the operation of the system.

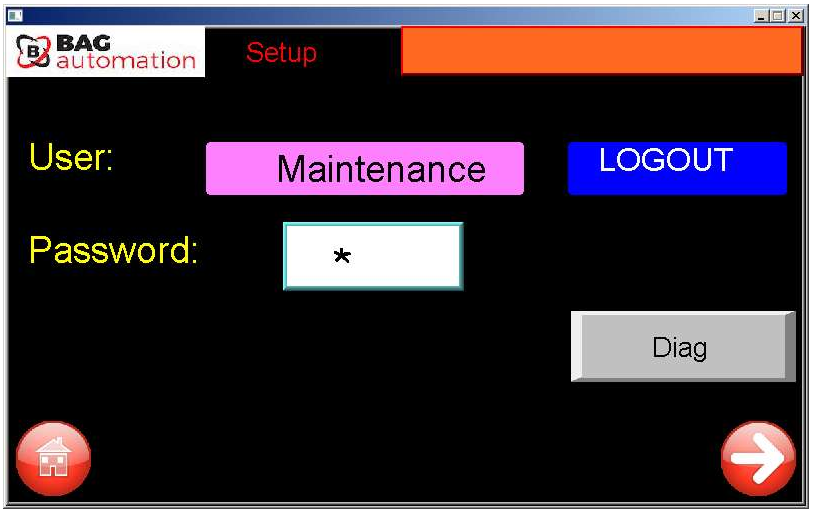


Figure 13 - Setup Page: Home

From this page model, whatever the level that appears in the USER box, without needing to enter any password it is possible to carry out three operations:

enter the diagnostics of the electronic weighing card by pressing the button 

(see below);

Press the button to access the language change menu of the operator panel (see below);

Press the button  to return to the main page.

As mentioned above, you can enter the machine management with four different profiles, each of which can be selected by touching the user field (which in the above example contains "MAINTENANCE").

8.1. Programming access page (setup 1 of 7).

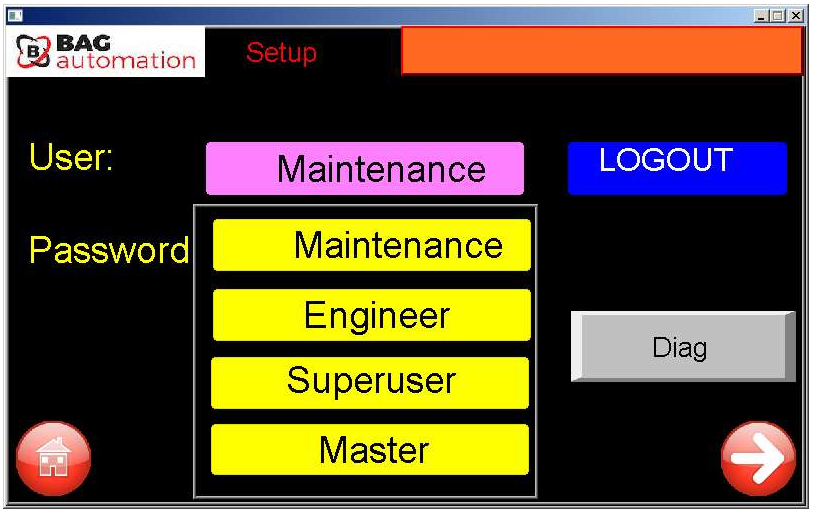


Figure 14 - Setup Page: Level Selection

At this point it is necessary to select the desired access mode (MAINTENANCE, ENGINEER, SUPERUSER or MASTER), on which the following four cases depend:

8.2. Programming access page (setup 2 of 7).

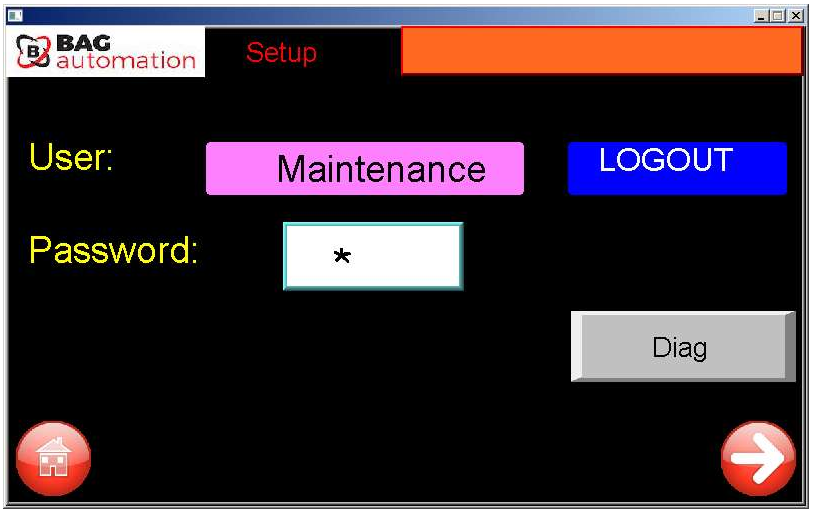


Figure 15 - Setup Page: Maintenance

In this screen you are asked to enter the MAINTENANCE password, thanks to which you can access the complete recipe programming (see below).

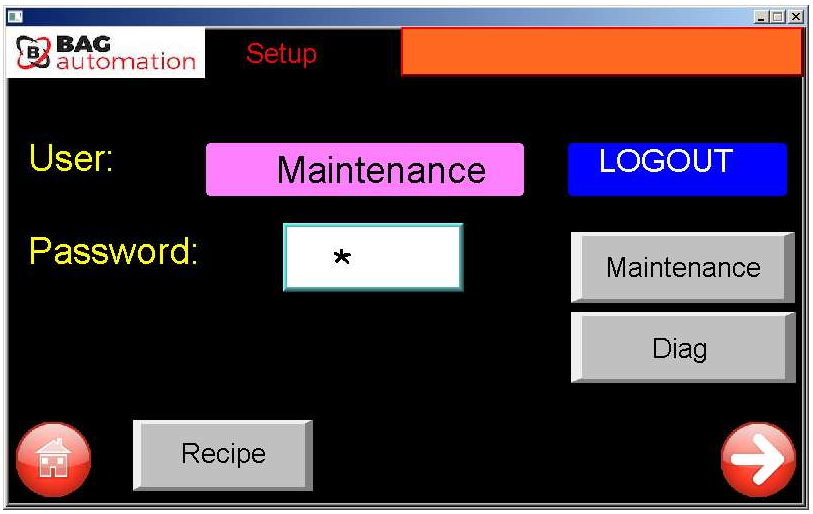


Figure 16 – Maintenance Options

After entering the MAINTENANCE password, you can access the complete programming of the recipe by pressing the RECIPE key which was not previously visible.

8.3. Programming access page (setup 3 of 7).

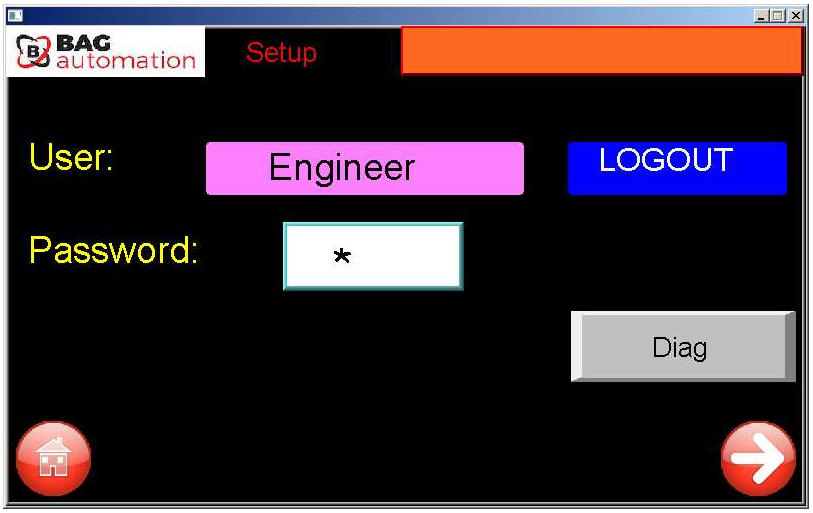


Figure 17 - Setup Page: Engineer

In this screen you are asked to enter the ENGINEER password, thanks to which you can access the complete recipe programming and system calibration (see below).

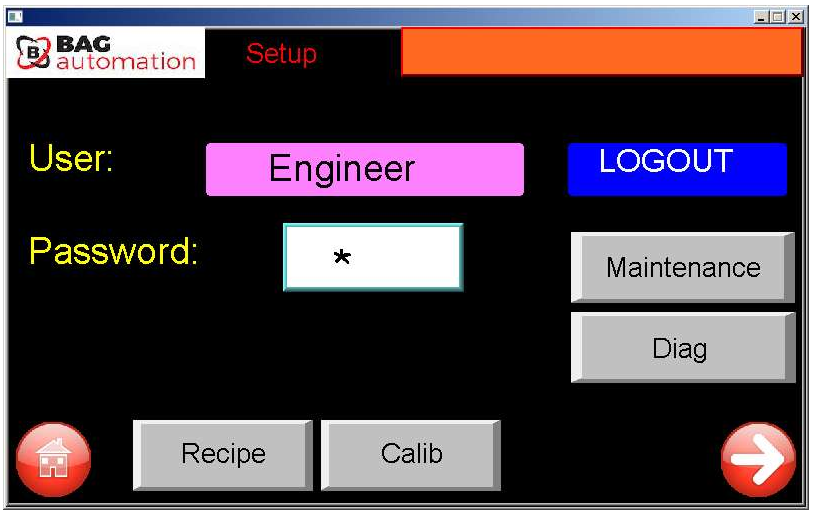


Figure 18 – Engineer Options

After entering the ENGINEER password, you can access the complete recipe programming by pressing the RECIPE button or at the weight calibration by pressing the CALIB button.

8.4. Programming access page (setup 4 of 7).

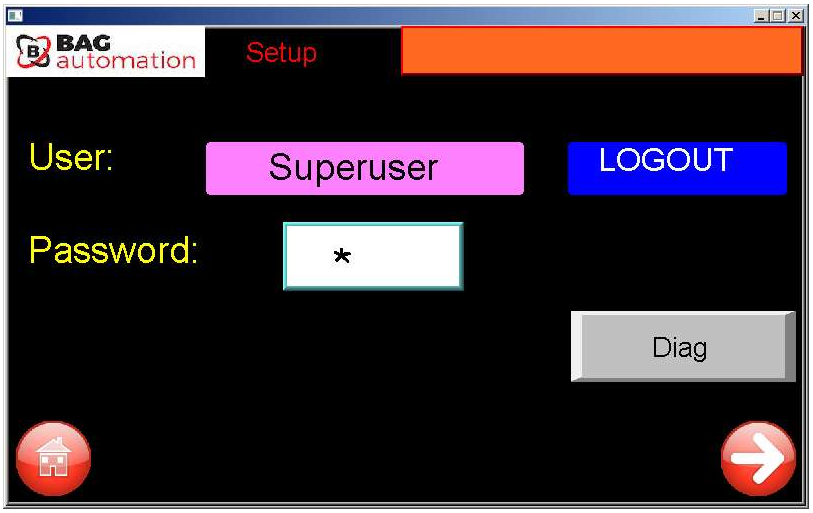


Figure 19 - Setup Page: Superuser

In this screen you are asked to enter the SUPERUSER password, thanks to which you can access the complete recipe programming, system calibration and system parameter programming (see below).

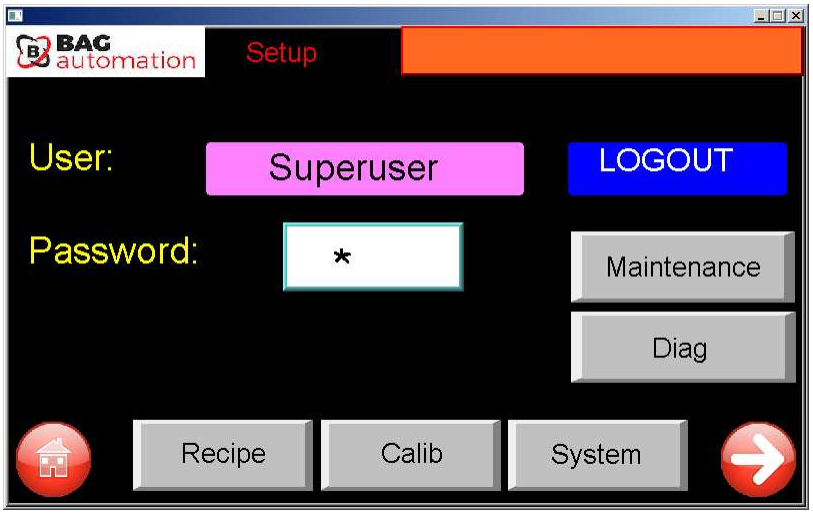


Figure 20 - Superuser Options

After entering the SUPERUSER password, you can access the complete recipe programming by pressing the RECIPE key, to calibrate the system by pressing the CALIB key or to program the system parameters by pressing the SYSTEM key.

8.5. Programming access page (setup 5 of 7).

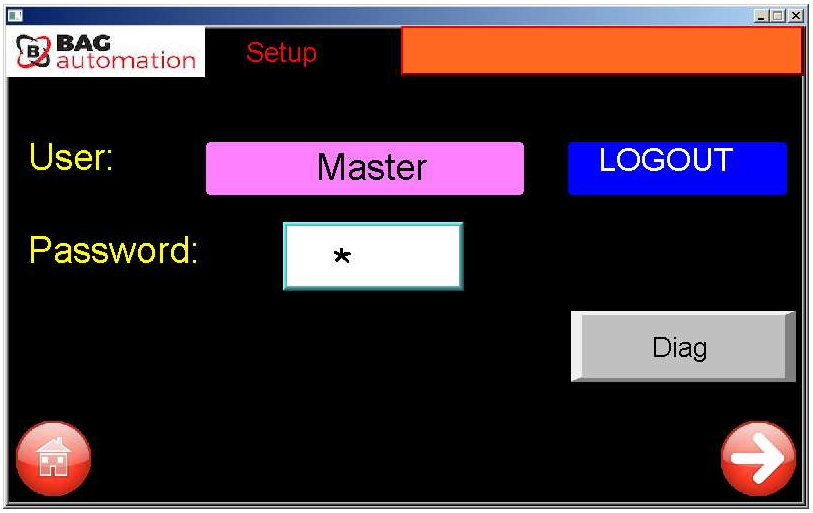


Figure 21 – Setup Page: Master

In this screen you are asked to enter the MASTER password, thanks to which you can access the complete recipe programming, system calibration, system parameter programming and a section reserved for the manufacturer only (see below).

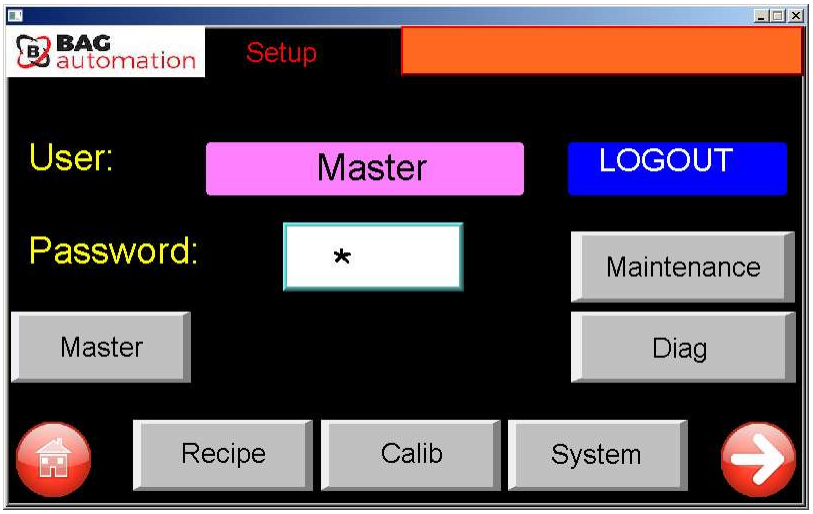


Figure 22 - Master Options

After entering the MASTER password, you can access the complete recipe programming by pressing the RECIPE key, to calibrate the system by pressing the CALIB key, to program the system parameters by pressing the SYSTEM key or to the section reserved for the manufacturer only by pressing the MASTER key.

8.6. Screen panel language change (setup 6 of 7).

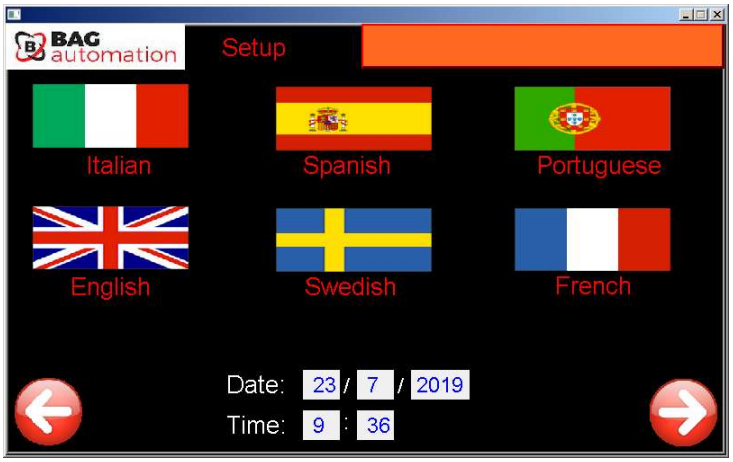


Figure 23 – Date and Language change

On this page you can select the language of the messages that appear on the panel, simply clicking on the flag of the country of interest.

After making your selection, simply press the button to return to previously viewed screen while the key switches to the next page.

8.7. Screen panel software protection (setup 7 of 7).

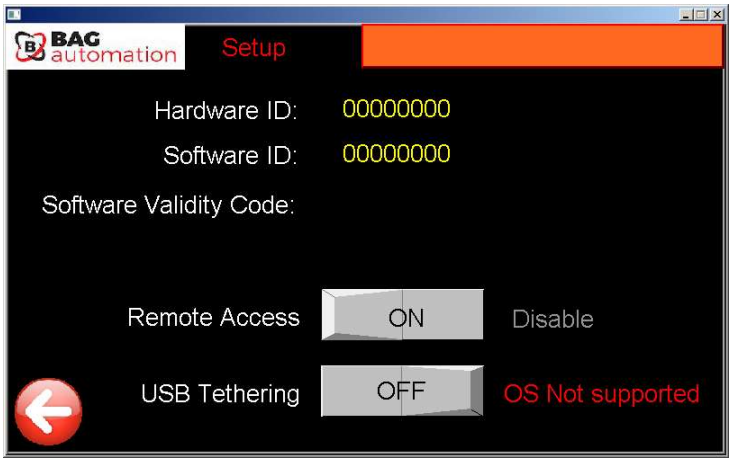


Figure 24 – Setup: Validation and Remote Access

The upper part of this screen is used to validate the card.
Validation is needed only the first time the card is turned on to check the matching between hardware and card software.

Remote Access:	the selector shown here is used to activate Ethernet access by the Manifacturer to all the screens of the touch screen panel and therefore to the modification of the parameters. If remote access occurs, the word "Enable" appears below the word "Status".
USB Tethering:	(if available) allows remote connection using a mobile phone connected to the USB port of the display.

9. MAINBOARD DIAGNOSYS

9.1. INPUT/OUTPUT STATUS CHECK (1 of 3)

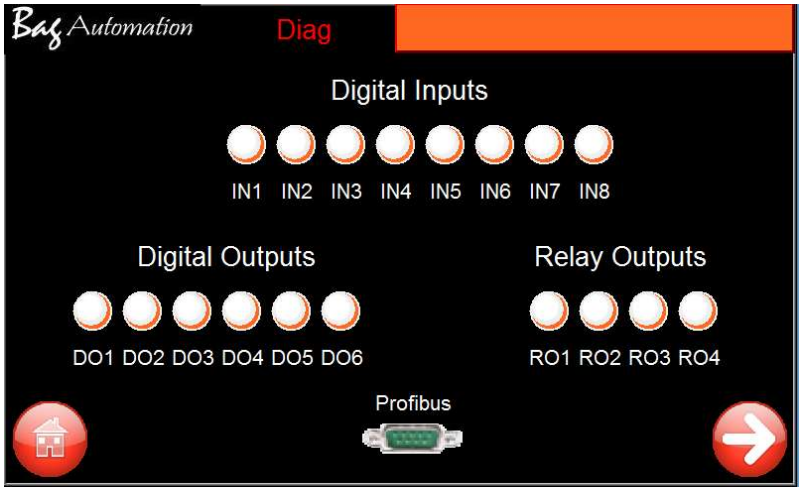


Figure 25 - Diagnosis Page

The purpose of this page is to check in realtime the status of any input or output, outlined with a coloured spot.

When finished, going back to home screen is performed pressing the icon, while the key brings up the next page.

9.2. Weight trend graphic (weight graph 2 of 3).

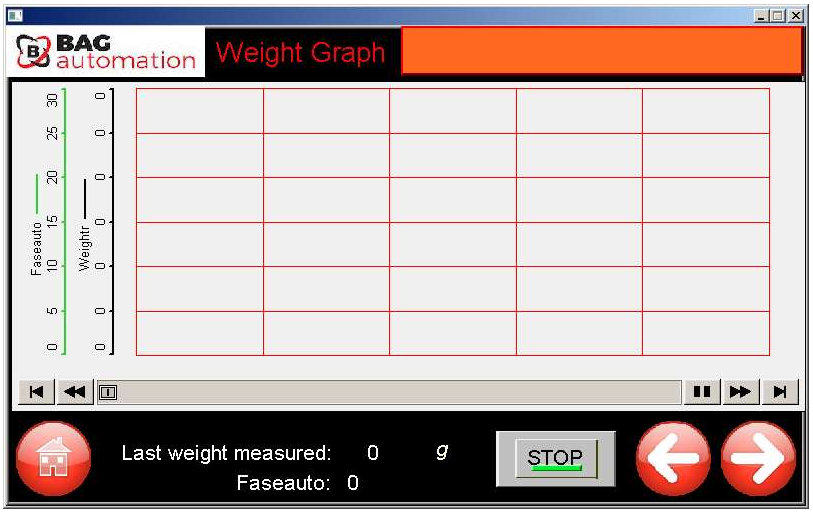


Figure 26 - Weight Graph

Through this screen it is possible to observe in the graph the value of the weights detected at each reading.

After checking, simply press the button to return to the home screen.

The button allows you to return to the screen previously displayed, while the button brings up the next page.

9.3. Profibus protocol diagnosis (profibus 3 of 3).

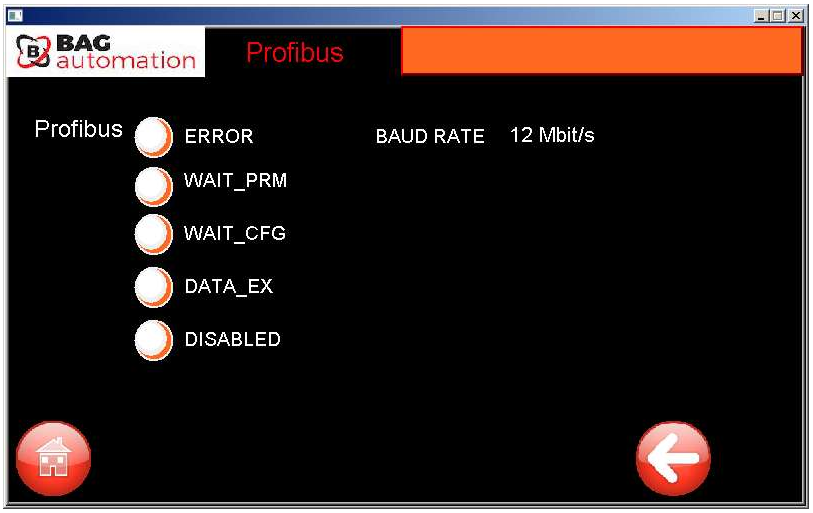


Figure 27 - Profibus Diagnosis

Through this screen you can check the operation of the Profibus.

After checking, simply press the button to return to the home screen.

The button allows you to return to the previously viewed screen.

10. RECIPE PROGRAMMING

Limited access to this page is available pressing the button on the main page or by accessing the programming with the MAINTENANCE or subsequent levels, which allow you to continue modifying the parameters illustrated in the following pages.

Figure 28 - Recipe Mainpage

Recipe:	This field indicates the progressive number of the loaded recipe and a brief description for reference set at the programming time;
Nominal weight:	Insert here the nominal value of the weight requested (refer to net or gross depending on the setting in system parameters);
Coarse percentage:	Entering into this field the percentage of the gross weight rating, it has to be made during the first stage of filling the basket;
Dribble feed time:	If a time higher than zero is imputed, the weighing machine will automatically slightly adjust the “Coarse percentage” parameter each cycle until this target value will be reached. This self-adjustment mechanism can be disabled setting it to zero;

In this screen it is possible to return to the main page by pressing the button .

Pressing the button you can save the current recipe.

The button is intended for loading a previously saved recipe.

Pressing the button you copy the displayed recipe to be able to create a new one starting from the latter's data.

Pressing the button brings up the next page.

10.1. Recipe Programming (Recipe 1 of 3)

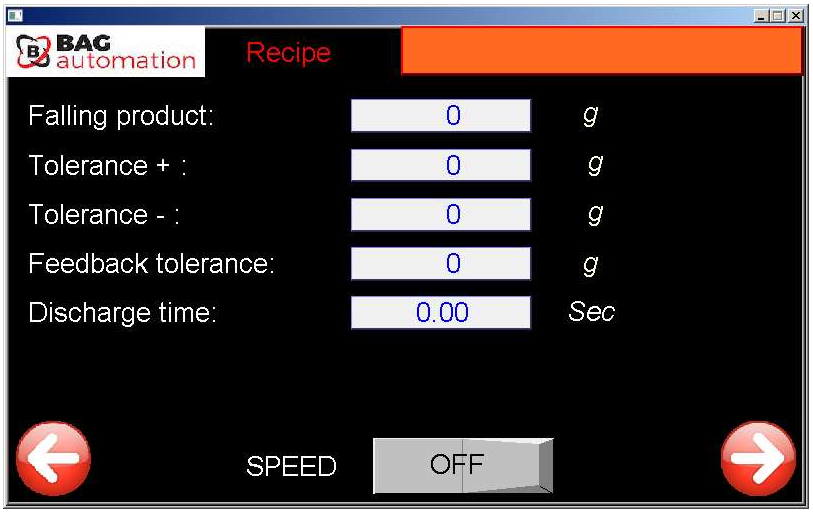


Figure 29 - Recipe (1 of 3)

Falling product:	(sometimes also known as “tail”) the amount of product that has still to fall in the basket in the meanwhile between the shut-off of the fine feed and the achievement of the final weight in the basket.
Tolerance +:	enter here the maximum value of the positive tolerance as a reference to the alarm “overload warning”;
Tolerance -:	enter here the maximum value of the negative tolerance as a reference for activating the “refill” mechanism in case of premature stop of the filling;
Feedback tolerance:	enter here the error threshold beyond which the “Falling Product” parameter is self-calculated by the scale card. To disable this feature keep this field to zero;
Discharge Time:	enter the duration of opening of the basket. In case of scales equipped with the “open bucket” sensor, this amount of time will be added after the activation of this sensor;
Speed:	the rocker switch shown here is used to activate or not the SPEED mode, which increases the speed of the scale.

On this screen you can move to the next page by pressing the button or press the button to return to the previous view.

10.2. Recipe Programming (Recipe 2 of 3)

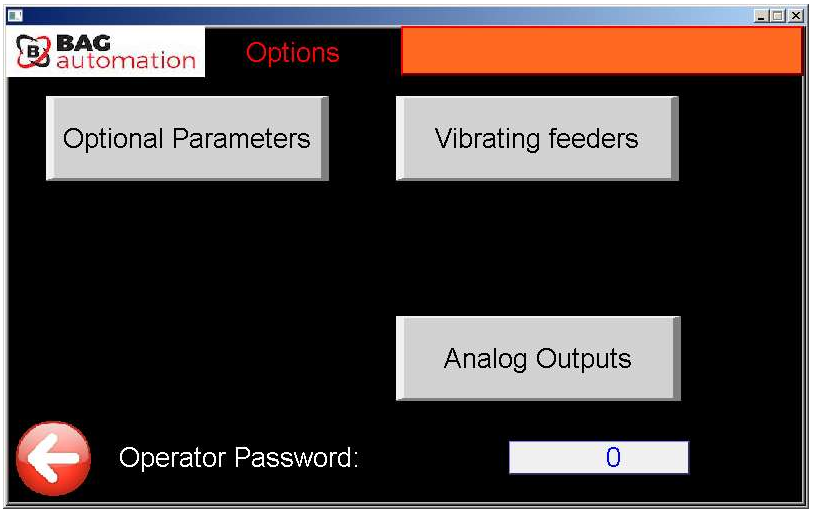


Figure 30 – Options Dashboard (Recipe)

This page allows access to parameterization sub-pages which may or may not appear depending on the scale configuration set in the MASTER pages (for example: the capability of adjusting the vibrations is allowed only for scales equipped with vibrating feeders)

	NOTE: the parameters in this section act only on the current recipe, it follows that a change of recipe can involve a different set of parameters and therefore a different behavior

After finishing the programming, simply press the button to return to the previously viewed screen.

10.3. Optional Parameters (Options 1 of 3)

Figure 31 - Options (Recipe)

Coarse feed time 1:	a special fixed time giving the capability to take advantage of an extra dosing unit (if existing) to achieve an additional speed in coarse dosing phase;
Twin weighers mode:	in the case of a multi-scale arrangement (i.e. MASTER / SLAVE configuration) the setting of this parameter allows the user to decide whether the discharge of the scale will be "single" and therefore inhibiting the discharge of the coupled one, or "simultaneous". This last possibility allows to reach weighs greater than the volume of the single basket or to weigh heterogeneous substances between them and to unload them at the same time.
Product unloading time to tray:	delay after the bucket unloading, supposed to be the time necessary for the product to reach the tray of the packing machine
Max level OFF timer:	in case the loading is managed by the scale board, the delay of the loading system switch-off, timed starting from the maximum level sensor.

10.4. Vibrating Feeders (Options 2 of 3)

Figure 32 – Vibrators Strength

Velocity main prefeeder:	enter here the vibration value to be set in the roughing pre-feed channel;
Velocity dribble prefeeder:	enter here the vibration value to be set in the finishing pre-feeding channel;
Velocity 1 main feeder:	enter here the vibration value to be set in the roughing channel during the roughing phase;
Velocity 2 main feeder:	enter here the vibration value to be set in the roughing channel during the finishing phase;
Velocity 1 dribble feeder:	enter here the vibration value to be set in the finishing channel during the roughing phase;
Velocity 2 dribble feeder:	enter here the vibration value to be set in the finishing channel during the finishing phase;
Vibration feedback:	the selector shown here is used to activate or not the auto correction of the vibration values, based on the finishing time and feedback tolerance;

After finishing the programming, simply press the button to return to the previously viewed screen.

10.5. Analog Outputs (Options 3 of 3)

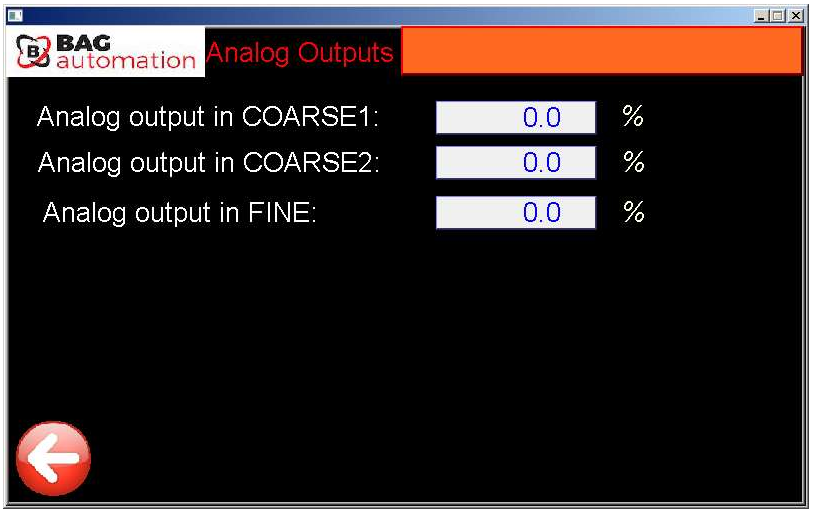


Figure 33 - Analog Outputs

Analog output in COARSE1:	the rotating speed of the auger during the very first coarse phase (time fixed);
Analog output in COARSE1:	the rotating speed of the auger, during the gravimetric coarse phase;
Analog output in FINE:	the rotating speed of the auger, during the gravimetric dribble phase;

All the values above are intended as in percentage, all values from 0 (idle) to 100 (maximum speed) are allowed.

11. CALIBRATION

Use of these pages is available through access to programming with the ENGINEER level, which allows changing the parameters of the recipes and system calibration.

This screen gives the user the possibility to calibrate the balance, if already balanced (see the second page of this section for the procedure).

11.1. Calibration Main Page (Calib 1 of 3)

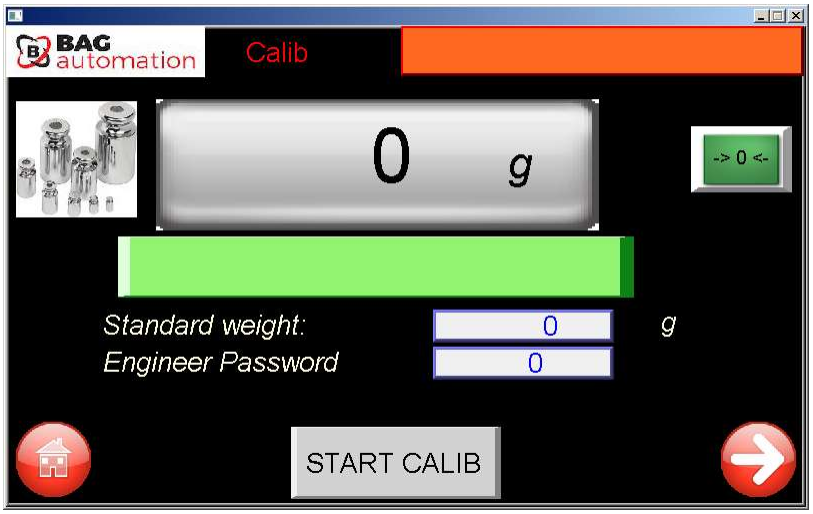


Figure 34 - Main Calibration Page

As on the main page, the ->0<- button located on the right of the screen is used to reset the weighing system, to always be carried out with the empty basket.

Standard weight:	In this field can be modified the standard weight used for calibration of weighing machine;
Engineer Password:	This field can be changed the password to access ENGINEER.

To avoid the operation of calibration or to return to the main page, simply press the button to start the

procedure follow detailed instructions on the next page of this manual.

Pressing the button allows you to switch to the next screen, used for balancing the system

11.2. Calibration (calib 2 of 3).

	- Use of this page is considered strictly technical or direct to a Responsible of processing, as a mistake can easily undermine the correct next production.

11.3. HOW TO CALIBRATE.

- check that the weighing basket is free;
- obtain a sample weight ensuring that corresponds to that indicated on the display and possibly fix it pressing on the "STANDARD WEIGHT" the machine asks to insert the new value, which should preferably be chosen near or equal to the nominal weight;
- start the calibration procedure pressing START CALIB button, will be displayed the following screen:

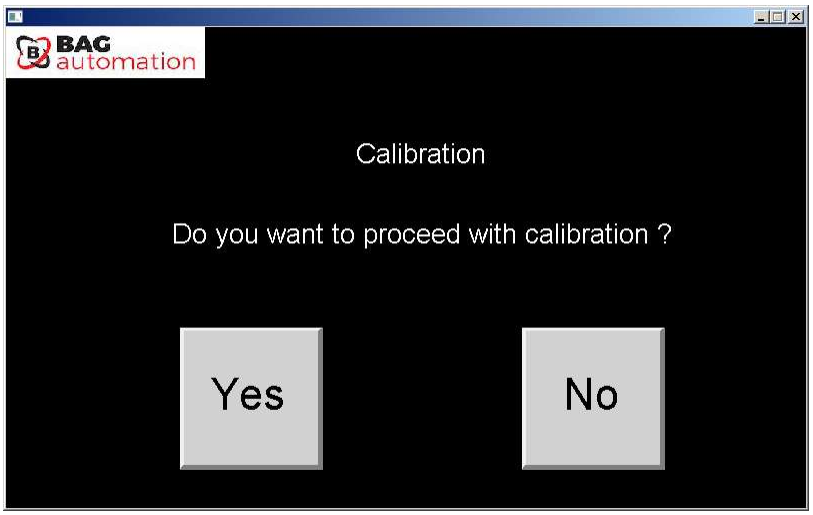


Figure 35 - Calibration: Confirm Operation

- Confirm the will to proceed with calibration by pressing the "Yes" key or quit the operation by pressing "No"
- the viewer display “Weigher empty? ": If true, just press on the writing appeared to scan the weight of the empty basket.

Figure 36 - Calibration: Empty Weigher Acknowledge

- the viewer does show "Place standard weight !!!": place the sample weight in the basket in the center possibly avoiding collisions and confirm by clicking on the newly written pop, allowing the acquisition of sample weight;

Figure 37 - Sample Weight Aquisition

- verify that the weight displayed varies from zero to the sample weight by removing and placing the sample weight, thus concluding the process. Otherwise, repeat the entire process.

To return to the main page, press the button  .

11.4. Load cell balancing (calib 3 of 3).

This screen gives to the engineer the ability to balance the scales, if the basket is suspended on more than one load cell; in case there is only one, set all VDAC at value 128 and the value of balancing at 100 %.

NOTE: CELL1 and CELL2 are references to the two inputs of the electronic weighing board, each of which houses two load cells, it is clear that cells 1, 2 are connected to CELL1 while cells 3, 4 are connected to CELL2 input.

For example, for mounting on three load cells located at 120 ° electric balancing in the case of mechanically perfect zero must be 128 points for all VDAC with a balance of 50.0% between CELL1 and CELL2.

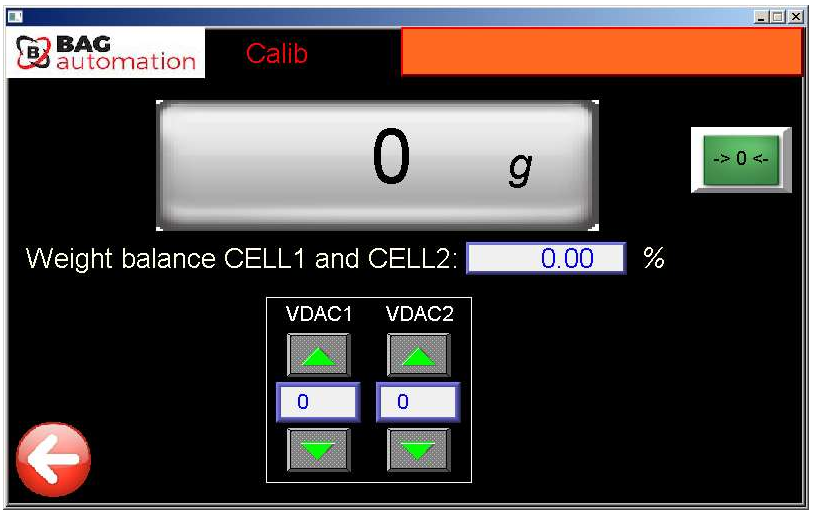


Figure 38 - Load Cells Balancing

11.5. HOW TO BALANCE:

- obtain a sample weight with a hook;
- make sure the balance weighing basket is free of restrictions;
- put all the VDAC to 128 points;
- load the sample weight on the vertical of the load cell # 1 then on the vertical load cell n ° 2: without moving the value of VDAC1, act on VDAC2 repeating step 4 of this procedure until the values shown are equal;
- load the sample weight on the Vertical Load Cell # 3 then on the vertical Load Cell No. 4 without moving the value of VDAC3, act on VDAC4 repeating step 5 of this procedure until the values shown are equal;without moving the VDAC values obtained previously, now load the sample weight on the median vertical between the load cell #. 1 and the load cell # 2 then on the median vertical between the load cell # 3 and the Load cell #. 4 and change the percentage of balance between CELL1 CELL2 and repeating the point 6 of this procedure until the values shown are equal, thus concluding the process of balancing.

If you press the button 

, it executes the reset of weight of the basket of weighing scales, including everything in it. In the lower left is the button  allows you to return to the previous page.

12. SYSTEM PARAMETERS SETTING

The use of these pages is obtainable through access to programming with the SUPERUSER level, which allows the modification of the recipe parameters, the system calibration and the modification of the system parameters.

units and software upgrade (sysprog 1 of 7).

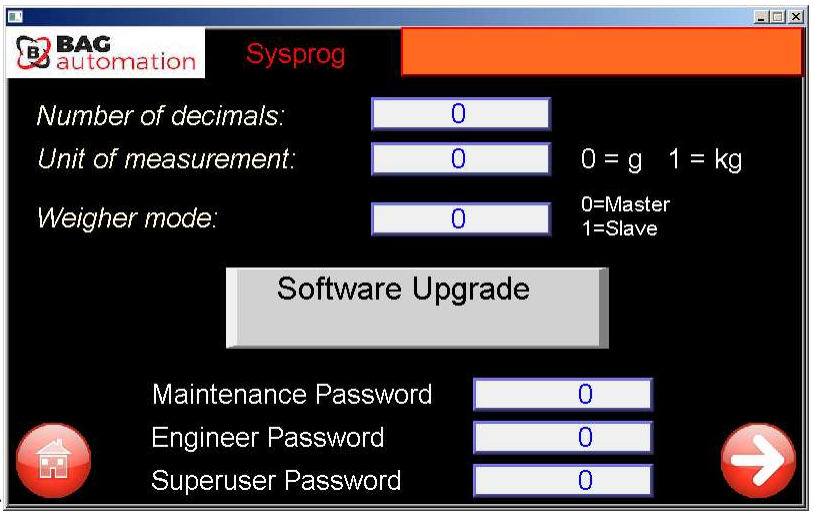


Figure 39 – System Parameters Main Page

Number of decimals:	place in this field the number of decimals to be displayed on the main page;
Unit of measurement:	select the unit to be displayed on the main page.(Grams or Kilograms)
Weigher mode:	select the role of this weigher (i.e. Master or Slave) in a multi-weigher arrangement.
Software Upgrade:	Pressing this button is possible to enable the board to enable the loading of a new software from PC connected on the USB port (see paragraph “software upgrade - 12.1”).
Maintenance Password:	MAINTENANCE password can be modified changing this value;
Engineer Password:	TECHNICIAN (engineer) password can be modified changing this value;
Superuser Password:	SUPERUSER (manufacturer) password can be modified changing this value.

On this screen you can return to the main page by pressing the button while pressing the button go to the next page-

12.1. SOFTWARE UPGRADE (sysprog 2 of 7).

☞	*** WARNING *** Please do not attempt to do this operation without technical assistance from Manufacturer as a mistake will delete the program and therefore make the card unusable.

In order to perform the upgrade procedure, you will need at least:

- a laptop with the programming software installed,
- the .bin file containing the new software,
- USB 2.0 cable type A male to B male.

Note: the scale mainboard must be accessible as the programming cable will be inserted directly into the card's USB socket.

After pressing the icon "SOFTWARE UPDATE" indicated in the above paragraph, this screen appears, which asks for software update confirmation or quitting.

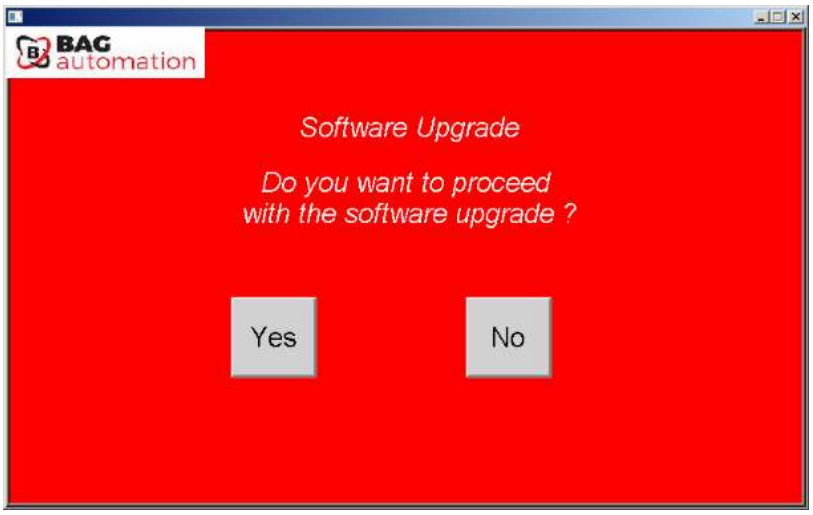


Figure 40 - Upgrade Acknowledgement

☞	*** WARNING *** Pressing “YES” on this page erases instantaneously the software installed on the weigher. **THIS OPERATION CANNOT BE UNDONE !!!.** technical assistance from the manufacturer is MANDATORY.

Subsequent upload operations are outside the scope of this manual and therefore please contact the manufacturer for further instructions.

12.2. Modification of system parameters (sysprog 4 of 7).

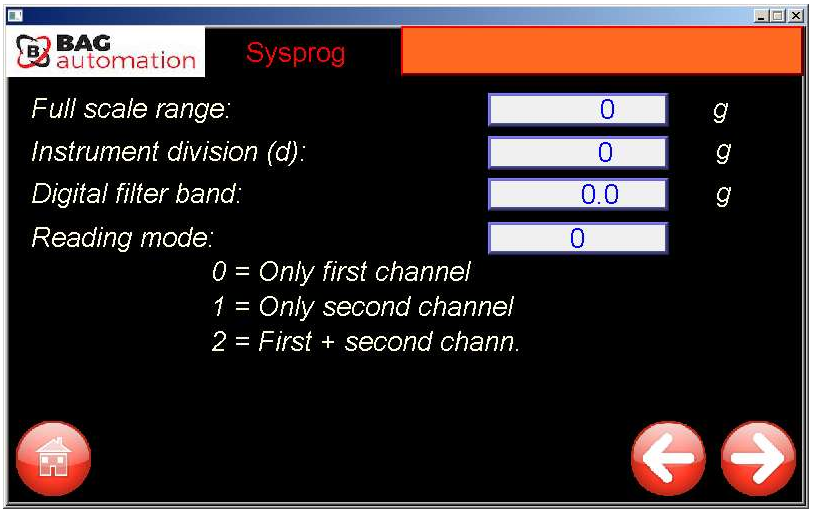


Figure 41 - Weigher Range Setup

Full scale range:	The maximum value will be displayed by the weighing instrument;
Instrument division:	Value of the minimum variation displayed by the weighing instrument;
Digital filter band:	Select the width of the band in which the values of the readings must stay to be considered wrong, and then discarded from the calculations;
Reading mode:	Insert which load cell socket must be considered for the weighing data acquisition, as shown on the touch screen panel.

In this screen it is possible to return to the main page by pressing the button .Pressing the button it is possible to pass to the next page, while it is enough to press the key to return to the previous view.

12.3. Modification of system parameters (sysprog 5 of 7).

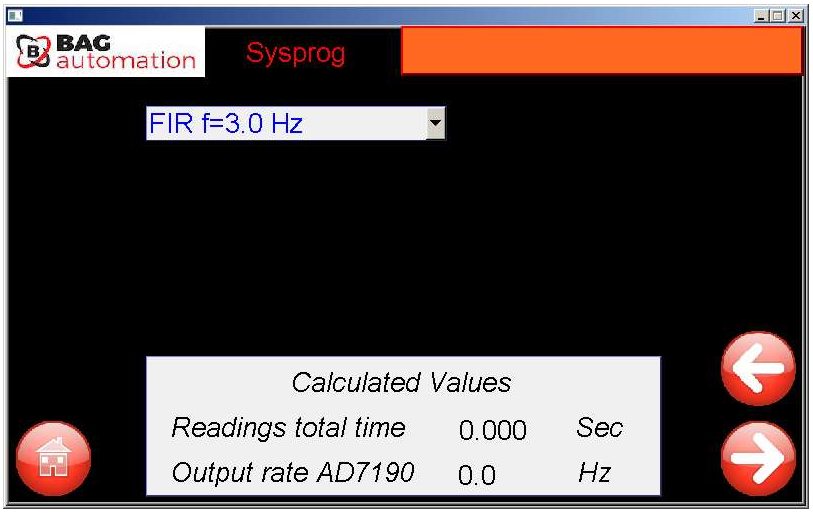


Figure 42 - Sampling Speed Setting

FIR f=… Hz: This drop-down menu allows you to choose a cut-off frequency for the FIR filter and therefore vary the response speed of the system and its accuracy. We recommend intervening on these parameters only after approval by the manufacturer.

In the gray box are shown the filtering values obtained with the combination of the entered parameters.

In this screen it is possible to return to the main page by pressing the button  .

Pressing the button  it is possible to pass to the next page, while it is enough to press the key  to return to the previous view.

12.4. Modification of system parameters (sysprog 6 of 7).

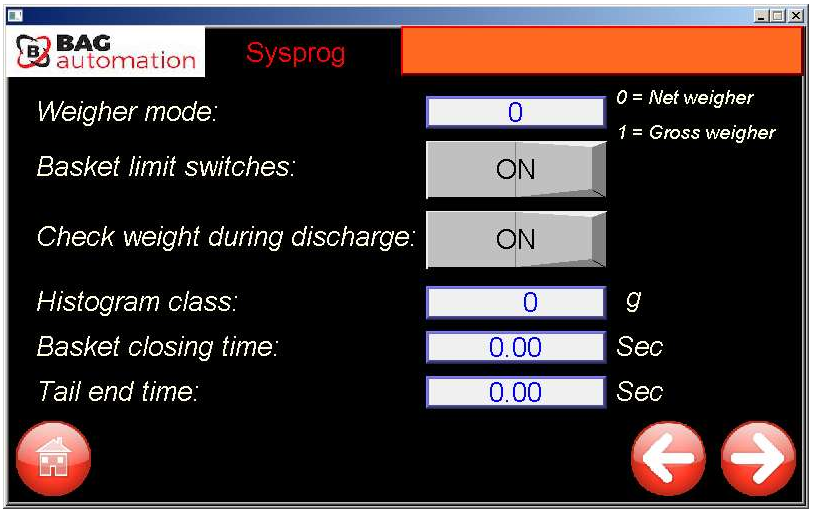


Figure 43

Weigher mode:	serves to define use of balance: if you set 0 in weighing is considered the only product contained (net weight), whereas if you set 1 is also considered a container (gross);
Basket limit switches:	If the weigher is equipped with the “bucket opened” and “bucket closed” sensors, by activating this switch the controller monitors and enter into the cycle the verification of the achievement of the relative position of the basket opening /closing cylinders (Note: the unload time starts when the basket is fully open and a new cycle since this is completely closed);
Check weight during discharge:	This rocker switch force to the weigher to also check the loss of weight during the discharge instead of the default only time-based discharging.behaviour. It is used in case of very big buckets and/or bad flowing of the product;
Histogram class:	This parameter is used to set class of the Histogram show on the statistic page.
Refill Time:	the duration of a single refill when the weight is out of the Toll –
Basket closing time:	This delay is the supposed time needed to have the basket closed (mechanical latency) and enable the start of new weighing. If basked limit switches are working, this delay is not considered,
Tail end time:	This the supposed time needed by the last product to fall into the basket after the complete shutting of the fine feed.

In this screen it is possible to return to the main page by pressing the button .

Pressing the button it is possible to pass to the next page, while it is enough to press the key to return to the previous view.

12.5. Modification of system parameters (sysprog 7 of 7).

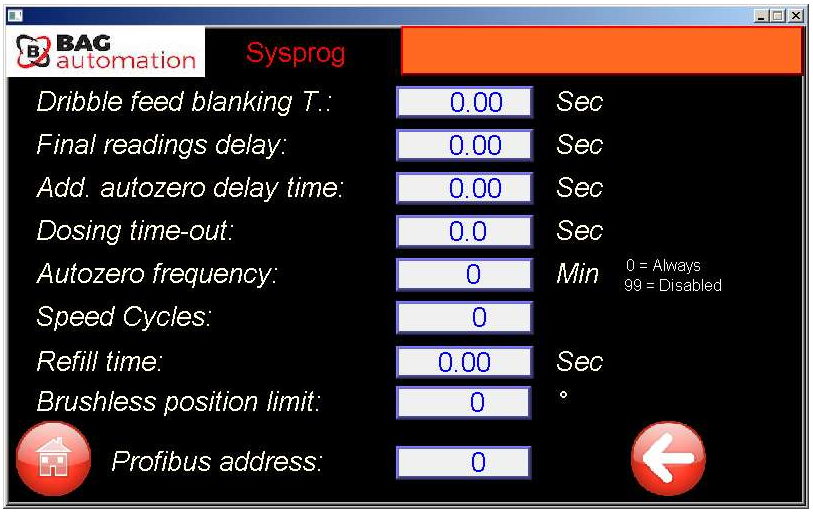


Figure 44 - Sysprog 7 of 7

Dribble feed blanking time:	is the time of initial activation of the finishing phase (starting with the shutdown of the coarse feed) during this time is not considered the signal from the load cell, normally used to avoid reading of the sudden change in weight due to the slowdown in filling;
Final readings delay:	is the delay of reading phase and calculation of ready weight (starting with the shutdown of the fine feed) during which it is not considered the signal from the load cell, normally used to avoid interference generated by the product in flight;
Add. autozero delay time:	is the delay to the basket regular reset phase (starting from the deactivation of the unloading or activation of closed basket sensor, if activated) during which is not considered the signal from the load cell, used normally to avoid interference generated by the closure of the basket;
Dosing timeout:	Maximum dosing time allowed for a batch. If the time exceed this value, the weigher is commuted to STOP;
Autozero frequency:	Enter how often the system must make a Auto-reset, using the following rules:
A)	setting 0 is executed at each cycle;
B)	setting XX is executed every XX minutes;
C)	setting 99 means disabled;
Speed cycles:	number of consecutive high-speed cycles processed by the weighing machine, after that a standard cycle is executed in order to control the correct trend of the weigher.
Brushless position limit:	(used only with brushless operated scales). Insert here the limit of brushless
Profibus address:	insert here the communication node –

In this screen it is possible to return to the main page by pressing the button while pressing the button return to the previous display.

13. MASTER PARAMETERS

The use of this page can only be obtained after entering the MASTER password in the MASTER menu, for internal use only.

13.1. Machine configuration (1 of 3).

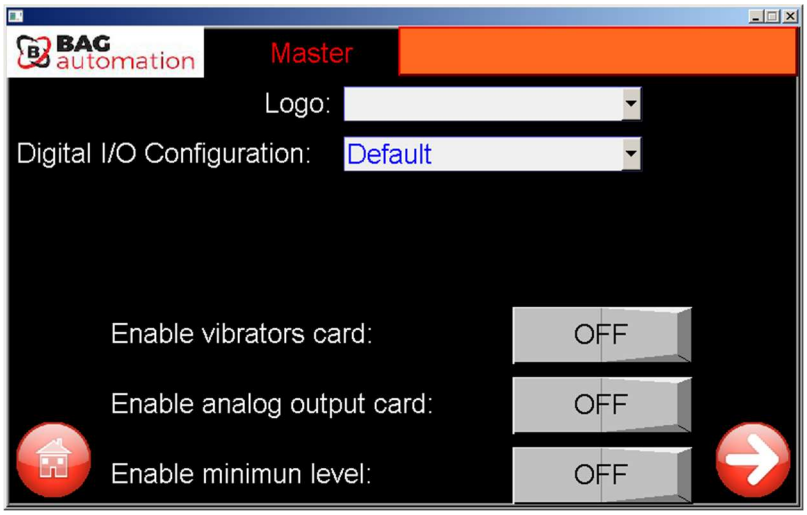


Figure 45 - Master Main PAge

Logo:	From this drop-down menu it is possible to choose the logo of the main screen;
Digital I/O Configuration:	This drop-down menu offers a range of different configuration depending on the kind of scale controlled, like brushless, filling spout, tray filler, etc.;
Enable vibrators card:	This switch tells the controller that the optional vibrators card is installed and allows the access to the page “vibrators” seen above in the recipes pages;
Enable analog output card:	Similarly to the previous switch this is intended to activate the optional Analog Output Card, typically used for controlling actuators needing an analog signal (in voltage or current)
Enable minimum level:	Use this switch to activate the management of the minimum level and in this way bring the scale to standby if the product inside the feed hopper goes below this sensor. This is used to ensure consistency in the weigher feeding and therefore the best accuracy

In this screen it is possible to return to the main page by pressing the button , while pressing the button it is possible to pass to the next page

13.2. Check and change password (master 2 of 3).

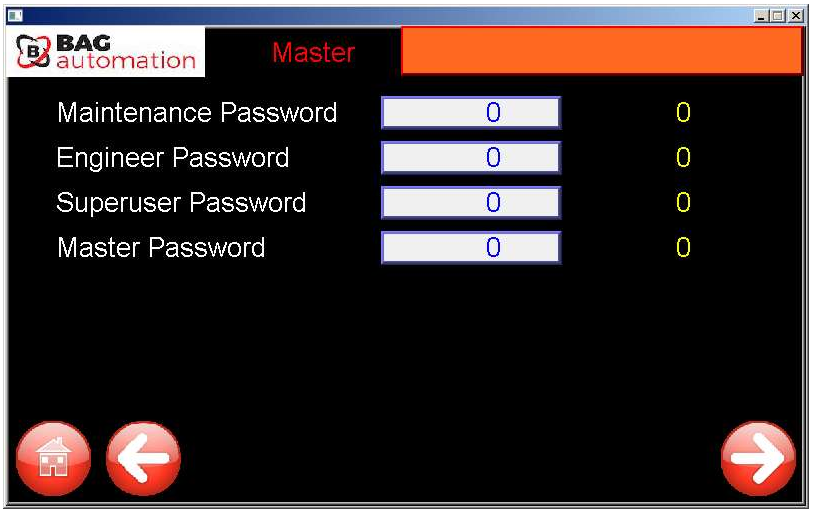


Figure 46 - Master 2nd Page

In this screen it is possible to return to the main page by pressing the button .

Pressing the button it is possible to pass to the next page, while it is enough to press the key to return to the previous view.

13.3. Remote access (master 3#3).

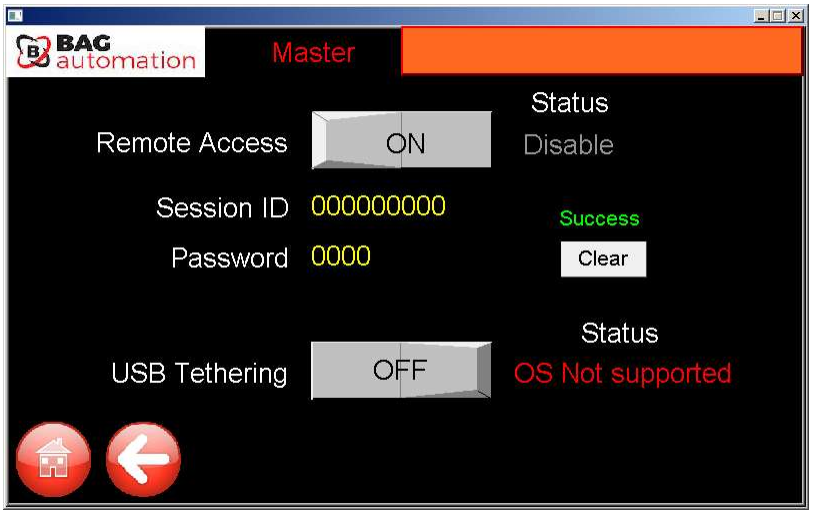


Figure 47 - Master 3rd Page

Remote Access:	Activate or Deactivate the network capability of the scale (using the factory network);
USB Tethering:	(if applicable) Activate or Deactivate the remote-connection capability of the scale using a USB tethered mobile phone

In this screen it is possible to return to the main page by pressing the button , and pressing the button it is possible to return to the previous page

13.4. Counters page (sysprog 2 of 7).

Use of this page can only be obtained by pressing the Factory logo on the previous screen, for internal use only.

Figure 48 - Machine Counters

After finishing the change, press the  key to return to the main page.

Notes

14. ALARMS LIST (WEIGHER)

14.1. ALARMS LIST

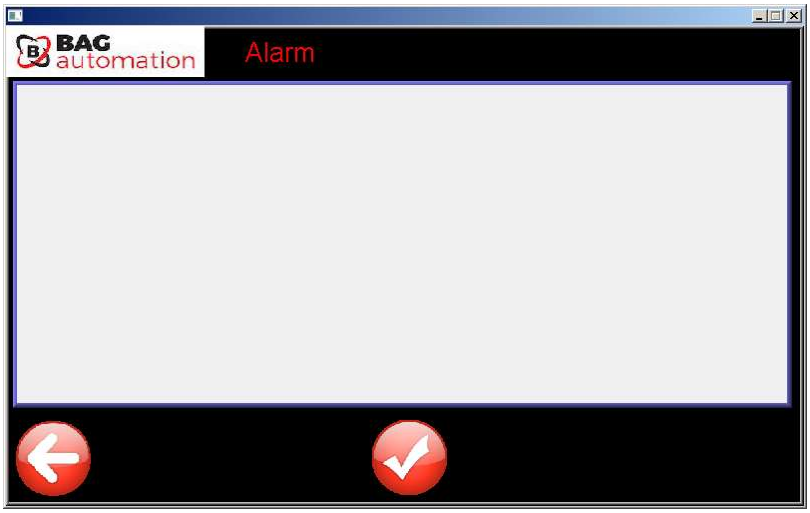


Figure 49 - Alarm List Page

This page shows the history of the alarms in progress (black), acknowledged (green).

To delete an alarm from the display on the main screen (top right field with an orange background), as long as it is not yet in progress, select the alert from the list on this page by a simple press on the written line then press the button .

Key allows you to return to the previously viewed screen.

14.2. ALARMS TABLE:

Attention: always refer to the diagram for interventions inside the electrical panel.

DISPLAY	DESCRIPTION	CHECKS TO BE MADE
Problem cells connected to CELL1	Reading anomaly from the Cell 1 connector	breakage of an electrical connection; load cell rupture; excessive load on the cell.
Problem cells connected to CELL2	Reading anomaly from the Cell 2 connector	breakage of an electrical connection; load cell rupture; excessive load on the cell.
Warm-up time	System warm-up time.	
Invalid system parameters	Lack of system parameters.	Set the parameters protected by the manufacturer's password.
Overload	The weight detected by the basket exceeds the programmed maximum limit	Check that the basket is free, that the tailgate closes correctly and that there is no leakage of product into the basket.
Minimum level	It is not possible to discharge because the product level in the loading hopper is low.	Check that there is actually a correct supply of product or correct operation of the minimum level photocell.
Calibration error	Error during calibration.	Remove the warning or it will be deleted automatically at the first successful calibration.
Autozero beyond limit	During the autozero a weight 20% greater than the full scale of the appliance was detected.	Check the weighing plate freeing it from obstructions or deposited material, then proceed with the calibration of the system before leaving.
Magnetot.	Safety protections have intervened inside the electrical panel.	Disconnect the power supply, open the electrical panel door and check the status of QM1 and FU1.
Emergency	The emergency button has been pressed or an emergency contact has been opened.	Restore the emergency circuit rest position after removing the problem.
Unstable weight during auto tare	The weight reading of the basket during the scale tare is unstable.	Increase the preset auto zero delay.
Recipe not stored	Error while loading a recipe, which is non-existent.	Repeat the recipe loading operation with an existing one.
Basket sensors	When the machine is switched on, the closed basket signal is not detected.	Check the presence of the correct pneumatic pressure, the basket sensor and the cylinder stroke.
Dosing time-out	The time limit for the weighing cycle has been exceeded.	Check the product in the loading hopper and / or remove the block.

15. FUNCTIONAL PROCEDURES

☞	These basic weigher procedures are briefly described in this chapter assuming that the card is installed on a Bag Automation scale, for a thorough explanation of the operating modes, please refer to the manual of the scale where the Weitronik5 card is installed.

15.1. Machine Power-Up

How to proceed:

- Operate the GENERAL SWITCH located on the Electrical Board.

Check that there are no pressed emergencies.

- Press the RESET ALARMS button on the display to reset any transient alarms during the power-up phase and not currently active.

15.2. Reset Scale Emergency Status

This procedure is necessary to restore the Emergency status.
How to restore:

- Reset any Emergency Button pressed.

At this point the reset is automatic and the machine goes into the STOP state, the operator must restart it with the procedures explained later in this chapter.

15.3. Start-Up In Automatic

This procedure is needed to enable the operation of the scale in Automatic.
How to proceed:

- STOP the machine (red button).

Check that there are no alarms.

- Call up the HOME page of the display by pressing the dedicated icon.
- Press the START (green button).

15.4. In-Phase STOP

This procedure is necessary to stop the machine in a safe position.
The in-phase stop can be obtained following these steps:

- Calling up the "Manual Functions" page from the HOME page of the display.
- Activating the virtual selector "Run a cycle and STOP" in the ON position.

Waiting for the weighing cycle to complete

The scale will then complete the weighing, the “Execute a cycle and STOP” selector will return to the OFF position, the machine will discharge the product into the packaging machine and will automatically go into STOP mode with the empty weighing basket.

15.5. Start Production with Single Weighing

How to proceed:

- STOP machine (in STOP).

Check that there are no alarms.

- Go to the "Manual Functions" page.
- Switch the command "Execute a cycle and STOP" to ON.

The scale will produce a single weigh to stop at an empty basket. At this point it will be possible to correct the programming parameters (see the dedicated chapter) or decide to start automatically if the optimal parameterization has been reached.

15.6. Machine SHUTDOWN

How to proceed:

- The machine can be switched off at any time, however it is advisable to first perform a STOP IN STAGE to empty the contents of the drum and avoid product waste.
- Then switch off the power to the switchboard via the GENERAL SWITCH.

15.7. Emptying from The Product

	**PLEASE NOTE:** **The following operations makes <u>all the product present in the upper loading system pass-through the scale without any weight-check</u> and is intended for a quick removal of the leavings for cleaning and/or product-change purposes.**

How to proceed:

- Machine in STOP.
- Go to the "Manual Functions" page.
- Activate the function "Emptying the scale".

All vibrating channels will start simultaneously, and the drum discharge device will activate and keep the basket open.

- Once the desired condition is reached, disable "Emptying Scale" to return to the normal STOP condition.

16. INPUT / OUTPUT Map

	**Please refer to the I/O configuration set in your scale in Master Page 1 (Chapter 13.1) for your specific configuration.**

In order to simplify the installation and use, the software ADD 0582 has several preset working modes able to manage autonomously the following scale types:

0. Standard (gravity or vibrating channels feeding)
1. By feeding the product through a brushless motor operated gate.
2. Semiautomatic filling spout)
3. Vibrating channels with motorized gate hopper feeding
4. semiautomatic filling spout with brushless feeding

16.1. DIGITAL INPUTS (Configurations 0 and 1)

Pin #	Input	Standard, I/O Configuration = **0**	BB brushless scale, I/O Cfg. = **1**
J13.1	Input InD1	+24Vdc	
J13.2	Input InD1	Discharge Enable	Discharge Enable
J13.3	Input InD1	0 Vdc	
J13.4	Input InD2	+24Vdc	
J13.5	Input InD2	Bucket Open	Bucket Open
J13.6	Input InD2	0 Vdc	
J14.1	Input InD3	+24Vdc	
J14.2	Input InD3	Bucket Open (net weight scales) Start Cycle (gross weight scales)	Bucket Open (net weight scales) Start Cycle (gross weight scales)
J14.3	Input InD3	0 Vdc	
J14.4	Input InD4	+24Vdc	
J14.5	Input InD4	Hopper Minimun Level	Hopper Minimun Level
J14.6	Input InD4	0 Vdc	
J15.1	Input InD5	+24Vdc	
J15.2	Input InD5	Maximum level	Maximum level
J15.3	Input InD5	0 Vdc	
J15.4	Input InD6	+24Vdc	
J15.5	Input InD6	Emergency	Motion Sequence Done
J15.6	Input InD6	0 Vdc	
J16.1	Input InD7	+24Vdc	
J16.2	Input InD7	Photocell on pre-feeding fine channel	Motion Active
J16.3	Input InD7	0 Vdc	
J16.4	Input InD8	+24Vdc	
J16.5	Input InD8	Interlock	Emergency
J16.6	Input InD8	0 Vdc	

16.2. DIGITAL INPUTS (Configurations 2 and 3)

Pin #	Ingresso	Semi-auto Filling Spout, I/O Cfg. = **2**	Standard plus motorized gates **3**
J13.1	Input InD1	+24Vdc	
J13.2	Input InD1	Emergency	Discharge Enable
J13.3	Input InD1	0 Vdc	
J13.4	Input InD2	+24Vdc	
J13.5	Input InD2	Bucket Open	Bucket Open
J13.6	Input InD2	0 Vdc	
J14.1	Input InD3	+24Vdc	
J14.2	Input InD3	Bucket Open (net weight scales) Start Cycle (gross weight scales)	Bucket Closed
J14.3	Input InD3	0 Vdc	
J14.4	Input InD4	+24Vdc	
J14.5	Input InD4	Maximum level	Coarse feed gate closed
J14.6	Input InD4	0 Vdc	
J15.1	Input InD5	+24Vdc	
J15.2	Input InD5	Maximum level	Coarse feed gate opened
J15.3	Input InD5	0 Vdc	
J15.4	Input InD6	+24Vdc	
J15.5	Input InD6	Filling spout low pressure	Fine feed gate closed
J15.6	Input InD6	0 Vdc	
J16.1	Input InD7	+24Vdc	
J16.2	Input InD7	Filling spout high pressure	Fine feed gate opened
J16.3	Input InD7	0 Vdc	
J16.4	Input InD8	+24Vdc	
J16.5	Input InD8	Bag release (automatic / manual)	Photocell on pre-feeding fine channel
J16.6	Input InD8	0 Vdc	

16.3. DIGITAL INPUTS (Configuration 4)

Pin #	Ingresso	Filling Spout + brushless scale: **4**	
J13.1	Input InD1	+24Vdc	
J13.2	Input InD1	Bag release (automatic / manual)	
J13.3	Input InD1	0 Vdc	
J13.4	Input InD2	+24Vdc	
J13.5	Input InD2	Bucket Open	
J13.6	Input InD2	0 Vdc	
J14.1	Input InD3	+24Vdc	
J14.2	Input InD3	Bucket Closed (net weight)	
J14.3	Input InD3	0 Vdc	
J14.4	Input InD4	+24Vdc	
J14.5	Input InD4	Hopper Minimun Level	
J14.6	Input InD4	0 Vdc	
J15.1	Input InD5	+24Vdc	
J15.2	Input InD5	Filling spout high pressure	
J15.3	Input InD5	0 Vdc	
J15.4	Input InD6	+24Vdc	
J15.5	Input InD6	Motion Sequence Done	
J15.6	Input InD6	0 Vdc	
J16.1	Input InD7	+24Vdc	
J16.2	Input InD7	Motion Active	
J16.3	Input InD7	0 Vdc	
J16.4	Input InD8	+24Vdc	
J16.5	Input InD8	Emergency	
J16.6	Input InD8	0 Vdc	

16.4. RELAY OUTPUTS CONNECTOR (Cfg. 0 and 1)

Pin #	Output	Standard, I/O Configuration = **0**	BB brushless scale, I/O Configuration = **1**
J1.1	Output O1	Weight READY	Weight READY
J1.2	Output O1	Common	Common
J1.3	Output O2	Discharge	Discharge
J1.4	Output O2	Common	Common
J1.5	Output O3	Interlock	Out of TOL+
J1.6	Output O3	Common	Common
J1.7	Output O4	ALARM	Fault Reset Motion
J1.8	Output O4	Common	Common

16.5. RELAY OUTPUTS CONNECTOR (Cfg. 2 and 3)

Pin #	Output	Semi-auto Filling Spout, I/O= **2**	Standard plus motorized gates, cfg. = **3**
J1.1	Output O1	Weight READY	Weight READY
J1.2	Output O1	Common	Common
J1.3	Output O2	automatic	discharge
J1.4	Output O2	Common	Common
J1.5	Output O3	Hopper refill from maxlevel	Coarse 1
J1.6	Output O3	Common	Common
J1.7	Output O4	ALARM	ALARM
J1.8	Output O4	Common	Common

16.6. RELAY OUTPUTS CONNECTOR (Configuration 4)

Pin #	Output	Filling Spout + brushless scale: **4**	
J1.1	Output O1	Spout Side Clamps	
J1.2	Output O1	Common	
J1.3	Output O2	Hopper Fluidization Blow E.V.	
J1.4	Output O2	Common	
J1.5	Output O3	Spout Max Pressure E.V.	
J1.6	Output O3	Common	
J1.7	Output O4	Fault reset motion	
J1.8	Output O4	Common	

16.7. DIGITAL OUTPUTS CONNECTOR (Cfg. 0 and 1)

Pin #	Output	Standard, I/O Configuration = **0**	BB brushless scale, I/O Configuration = **1**
J5.1	OutD1	Out Coarse Feed 1	Opening Gate bit 0
J5.2	OutD1	0 VDC	0 VDC
J5.3	OutD2	Out Coarse Feed 2	Opening Gate bit 1
J5.4	OutD2	0 VDC	0 VDC
J5.5	OutD3	Out fine Feed	Opening Gate bit 2
J5.6	OutD3	0 VDC	0 VDC
J5.7	OutD4	Discharge	Opening Gate bit 3
J5.8	OutD4	0 VDC	0 VDC
J4.1	OutD5	Delayed Belt	Start Motion
J4.2	OutD5	0 VDC	0 VDC
J4.3	OutD6	Interlock	Discharge
J4.4	OutD6	0 VDC	0 VDC
J4.5	Supply I/O	+24Vdc	+24Vdc
J4.6	Supply I/O	0 Vdc	0 Vdc

16.8. DIGITAL OUTPUTS CONNECTOR (Cfg. 2 and 3)

Pin #	Output	Semi-Auto Filling Spout, cfg. = **2**	Standard w/h motorized gates, cfg. = **3**
J5.1	OutD1	Coarse Feed 1	Coarse Feed 2
J5.2	OutD1	0 Vdc	0 Vdc
J5.3	OutD2	Coarse Feed 2	Fine Feed
J5.4	OutD2	0 Vdc	0 Vdc
J5.5	OutD3	Fine Feed	Discharge
J5.6	OutD3	0 Vdc	0 Vdc
J5.7	OutD4	Discharge	Close Slide Gates
J5.8	OutD4	0 Vdc	0 Vdc
J4.1	OutD5	Min. pressure spout E.V-	Open Slide Gate
J4.2	OutD5	0 Vdc	0 Vdc
J4.3	OutD6	Max. pressure spout E.V	Slide Gate Selection: OFF: Coarse Feed Slide Gate ON: Fine Feed Slide Gate
J4.4	OutD6	0 Vdc	0 Vdc
J4.5	Supply I/O	+24Vdc	+24Vdc
J4.6	Supply I/O	0 Vdc	0 Vdc

16.9. DIGITAL OUTPUTS CONNECTOR (configuration 4)

Pin #	Output	Filling Spout + brushless scale: **4**	
J5.1	OutD1	Opening Gate bit 0	
J5.2	OutD1	0 Vdc	
J5.3	OutD2	Opening Gate bit 1	
J5.4	OutD2	0 Vdc	
J5.5	OutD3	Opening Gate bit 2	
J5.6	OutD3	0 Vdc	
J5.7	OutD4	Opening Gate bit 3	
J5.8	OutD4	0 Vdc	
J4.1	OutD5	Start Motion	
J4.2	OutD5	0 Vdc	
J4.3	OutD6	Discharge	
J4.4	OutD6	0 Vdc	
J4.5	Supply I/O	+24Vdc	
J4.6	Supply I/O	0 Vdc	

Notes

17. LOAD CELLS

17.1. LOAD CELL CONNECTOR “0” (LOAD CELL 1+2)

Pin#	LOAD CELL	Description
J12.1	LOAD CELL 1	SIG1- Input- (Flintec red wire)
J12.2	LOAD CELL 1	SIG1+ Input+ (Flintec white wire)
J12.3	LOAD CELL 1	EXC1-
J12.4	LOAD CELL 1	EXC1- Supply- (Flintec black wire)
J12.5	LOAD CELL 1	SENSE1- Sense - (Flintec brown wire)
J12.6	LOAD CELL 1	SENSE1+ Sense + (Flintec blue wire)
J12.7	LOAD CELL 1	EXC1+ Supply+ (Flintec green wire)
J12.8	LOAD CELL 1	EXC1+ Supply+
J12.9	LOAD CELL 2	SIG2- Input- (Flintec red wire)
J12.10	LOAD CELL 2	SIG2+ Input+ (Flintec white wire)
J12.11	LOAD CELL 2	EXC2- Supply- (Flintec black wire)
J12.12	LOAD CELL 2	SENSE2- Sense- (Flintec brown wire)
J12.13	LOAD CELL 2	SENSE2+ Sense+ (Flintec blue wire)
J12.14	LOAD CELL 2	EXC2+ Supply+ (Flintec green wire)
J12.15	LOAD CELL 2	EXC2+ Supply+

17.2. LOAD CELL CONNECTOR “1” (LOAD CELL 3+4)

Pin #	LOAD CELL	Description
J8.1	LOAD CELL 3	SIG1- Input- (Flintec red wire)
J8.2	LOAD CELL 3	SIG1+ Input+ (Flintec white wire)
J8.3	LOAD CELL 3	EXC1-
J8.4	LOAD CELL 3	EXC1- Supply- (Flintec black wire)
J8.5	LOAD CELL 3	SENSE1- Sense - (Flintec brown wire)
J8.6	LOAD CELL 3	SENSE1+ Sense + (Flintec blue wire)
J8.7	LOAD CELL 3	EXC1+ Supply+ (Flintec green wire)
J8.8	LOAD CELL 3	EXC1+ Supply+
J8.9	LOAD CELL 4	SIG2- Input- (Flintec red wire)
J8.10	LOAD CELL 4	SIG2+ Input+ (Flintec white wire)
J8.11	LOAD CELL 4	EXC2- Supply- (Flintec black wire)
J8.12	LOAD CELL 4	SENSE2- Sense- (Flintec brown wire)
J8.13	LOAD CELL 4	SENSE2+ Sense+ (Flintec blue wire)
J8.14	LOAD CELL 4	EXC2+ Supply+ (Flintec green wire)
J8.15	LOAD CELL 4	EXC2+ Supply+

18. OPTIONAL BOARDS

18.1. OPTION BOARD VIBRATING CHANNELS

a) J1 CONNECTOR - SUPPLY

Pin#	Description
1 = LINE	Supply220Vac
2 = PE	Earth
3 = NEUTRAL	Neutral

b) J2 CONNECTOR - VIBRATING CHANNELS

Pin#	Description
1	Vibrating Channel 4 = fine feed
2	Vibrating Channel 4 = fine feed
3	Vibrating Channel 3 = coarse feed
4	Vibrating Channel 3 = coarse feed
5	Vibrating Channel 2 = fine pre feeding
6	Vibrating Channel 2 = fine pre feeding
7	Vibrating Channel 1 = coarse pre feeding
8	Vibrating Channel 1 = coarse pre feeding

18.2. OPTION BOARD ANALOG OUTPUTS

c) J1 CONNECTOR - SUPPLY

Pin #	Description
1 = +24Vdc	Supply+24Vdc
2 = +24Vdc	Supply+24Vdc
3 = 0 Vdc	Supply0 Vdc
4 = 0 Vdc	Supply0 Vdc

d) J2 CONNECTOR – ANALOG OUTPUTS

Pin#	Description
1 = Vout1	Output 1 Voltage 0-10Vdc
2 = Vout1-GND	Output 1 Voltage 0-10Vdc (GND)
3 = Iout1	Output 1 Current 4-20mA
4 = Iout1-GND	Output 1 Current 4-20mA (GND)
5 = Vout2	Output 2 Voltage 0-10Vdc
6 = Vout2-GND	Output 2 Voltage 0-10Vdc (GND)
7 = Iout2	Output 2 Current 4-20mA
8 = Iout2-GND	Output 2 Current 4-20mA (GND)

19. DISPLAY CONNECTION RS 422

Communication between weitronik5 com1 and 7” display Weintek mt8073ie com2

Pin# WEITRONIK5	Destination of the operator panel WEINTEK 7” MT8073iE COM2 in RS422 configuration
1 = TX+	2 = RX+
2 = TX-	1 = RX-
3 = RX-	3 = TX-
4 = RX+	4 = TX+
5 =0 Vdc	5 = 0 Vdc
6	
7	
8	
9	

Notes

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