

HAPPY FEEDER PLUS III

Operator's Manual

REV. C0 01 / 12 / 2008



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OPTIONAL ACCESSORIES _____ 1

 PRINTER – Cod. 999-0010 _____ 1

 WEIGHT REPEATER – Cod. 999-00175 _____ 1

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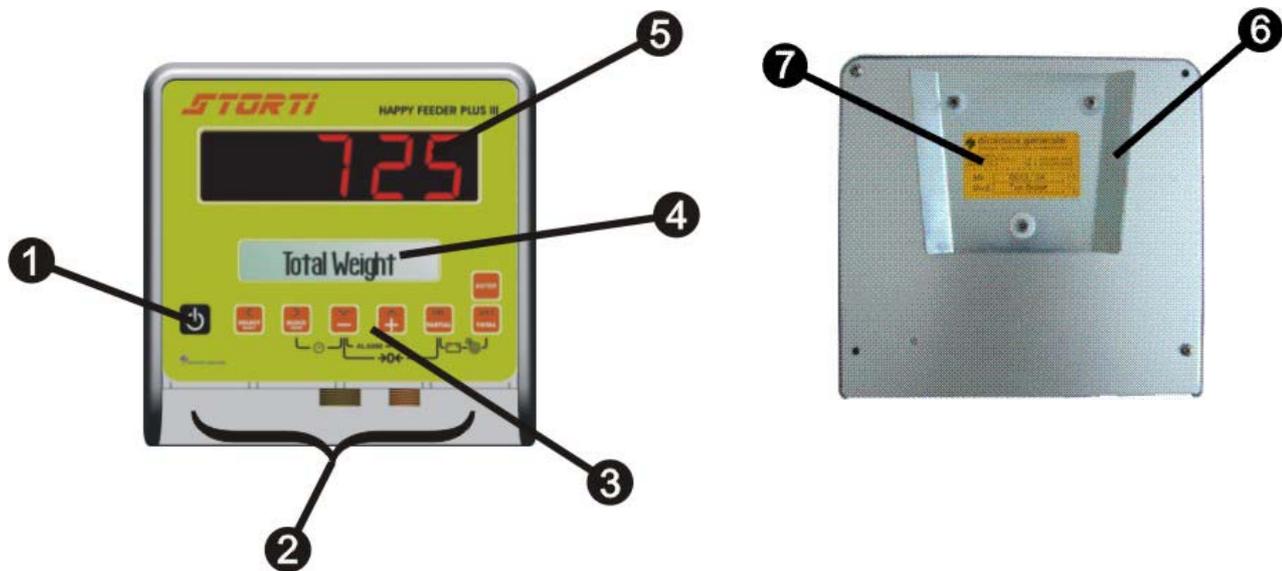
GUARANTEE _____ 3

TECHNICAL DATA

Range (f.s.):	0 – 99.999
Resolution:	1 - 2 - 5 -10 kg
Accuracy:	< +/- 0,015 % f.s.
Operating temperature:	-30 / +65 °C
Power supply:	9,5 – 32 Vd.c. ("LOW BATTERY" alarm < 9,5 Vdc)
Dimensions (mm):	234 x 200 x 100
Weight (gr):	2000
Case:	PC+ABS
Protection grade:	IP 68
Display:	16 LCD alpha-numeric types 14.5mm high with back light. 5 digit high efficiency red LED diodes 40mm high.
Display view:	> 15 m

* Completely dust-proof and splash-proof, water-proof in full water immersion up to 1 meter with connectors closed by cap or with cables/ accessories connected.

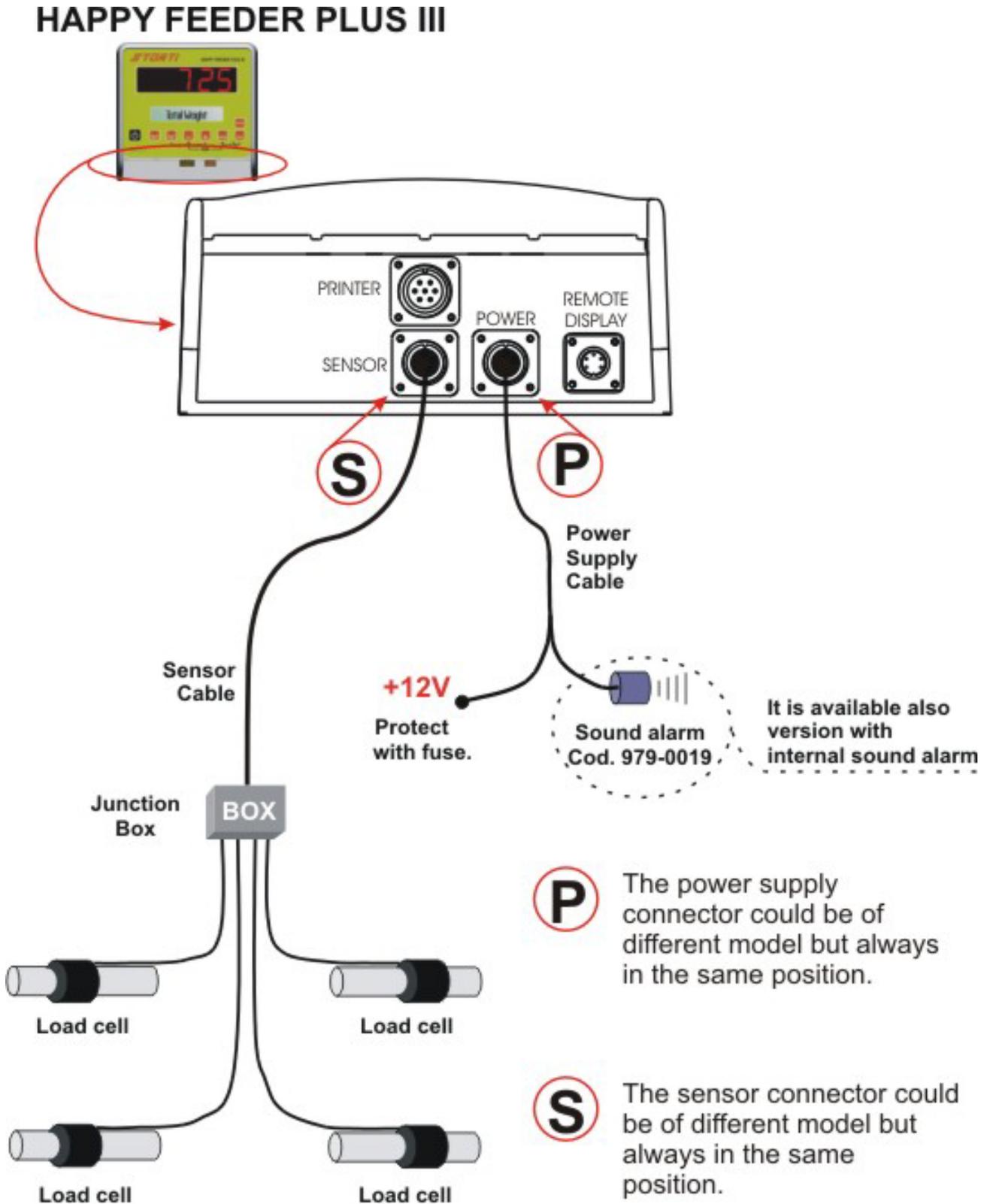
CONFIGURATION



1. ON /OFF key.
2. Connectors.
3. Function and setting key.
4. LCD alpha-numeric types 7.5mm high display with back light.
5. 5 digit high efficiency red LED diodes 40 mm high.
6. Fixing support.
7. Identification label.

CONNECTIONS SCHEME

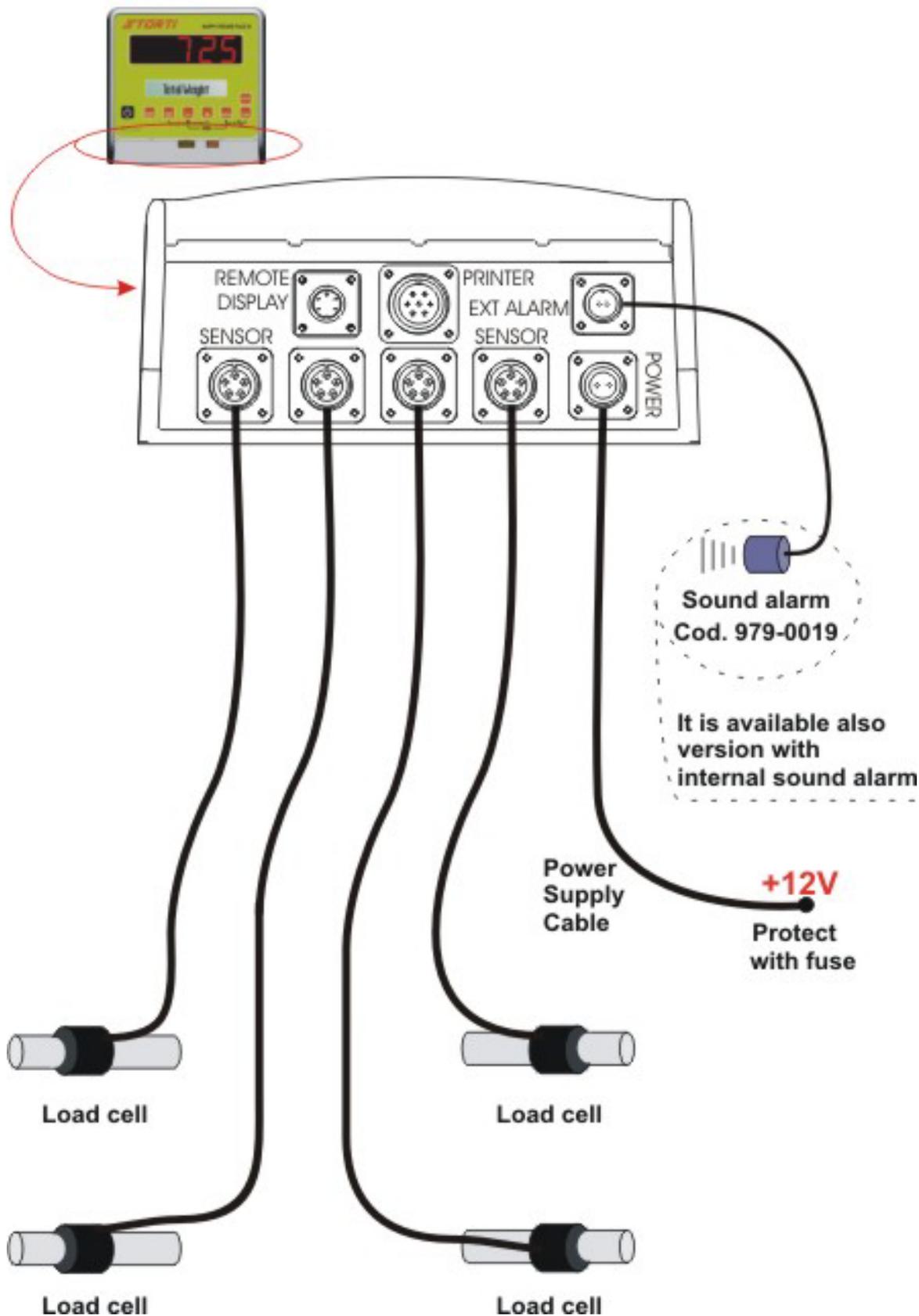
Power and sensor connections (system with junction box)



ENGLISH ▲

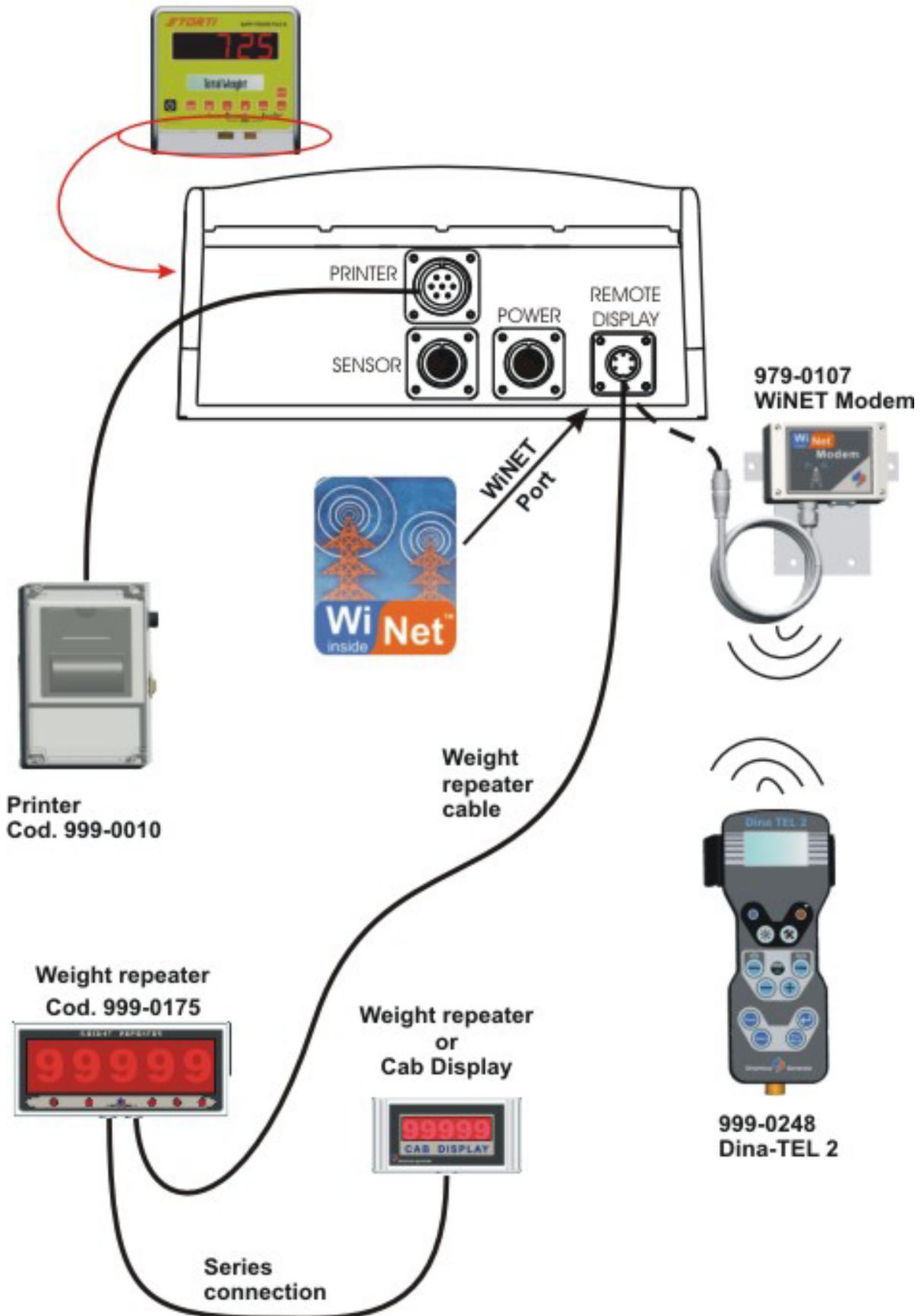
Power and sensor connection (system without junction box)

HAPPY FEEDER PLUS III



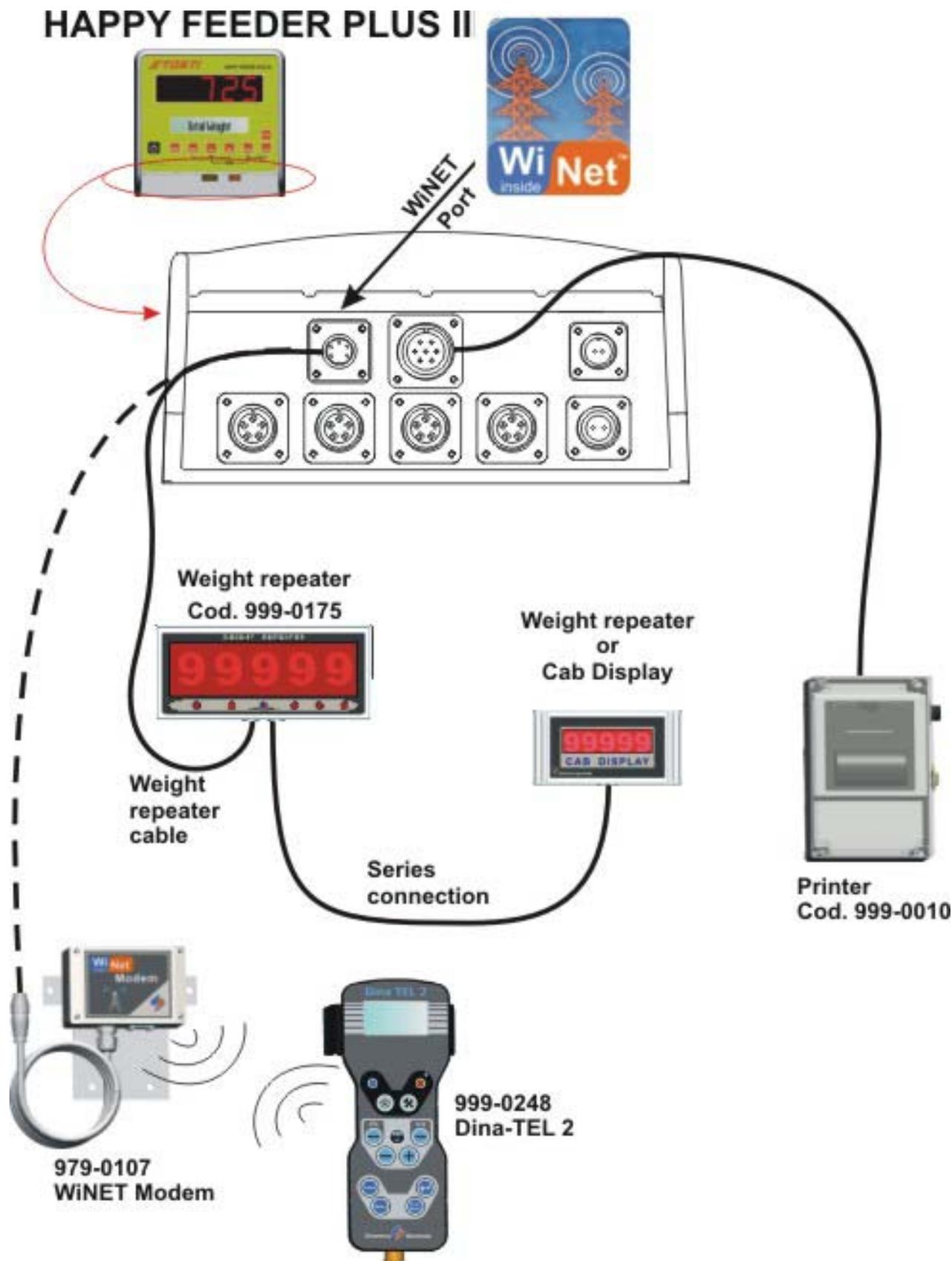
Accessories connection (system with junction box)

HAPPY FEEDER PLUS III



ENGLISH ▲

Accessories connection (system without junction box)



SETTING OF THE PARAMETERS

ACCESS TO THE PASSWORD MENU

- 1 Switch on by pressing



- 2 Once the last software revision has appeared on the LCD display, upon display of...



- 3 The message "PLEASE WAIT" appears...

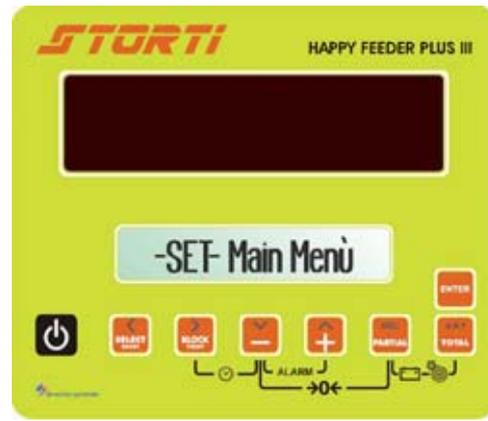


- 4 Keep pressed at the same time

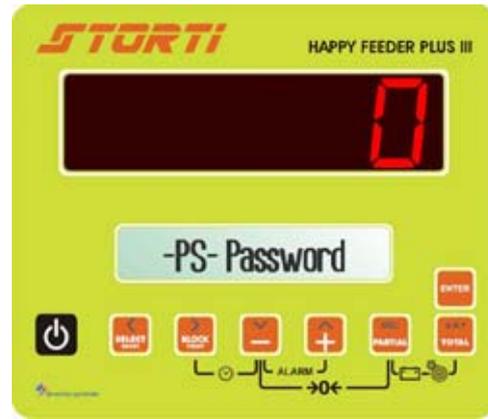


5 Upon display of ...

*** Note 1**



6 Release the PARTIAL and TOTAL key when -PS- PASSWORD appears on LCD display...



*** NOTE 1**

7



If the following does not appear on LCD display:
"-SET- MAIN MENU" and the indicator goes back to TOTAL WEIGHT mode, it means that the keys PARTIAL and TOTAL have not been pressed properly.

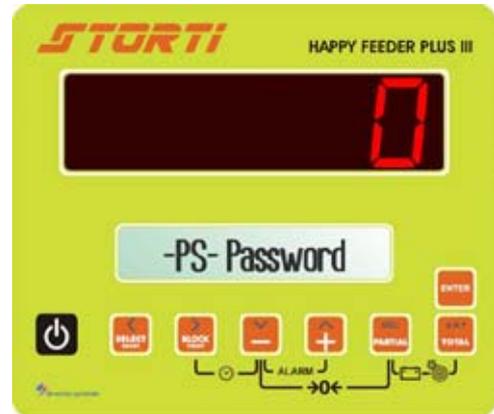


8 To return to the -PS- PASSWORD mode, switch off the indicator and go back to point 1.



TO EXIT THE PASSWORD MENU

- 1 Set the password ZERO by using the MINUS and PLUS keys.



- 2 Press the ENTER key.



- 3 Upon display of "PLEASE WAIT" the indicator goes back to TOTAL WEIGHT mode and the weight appears on the display.

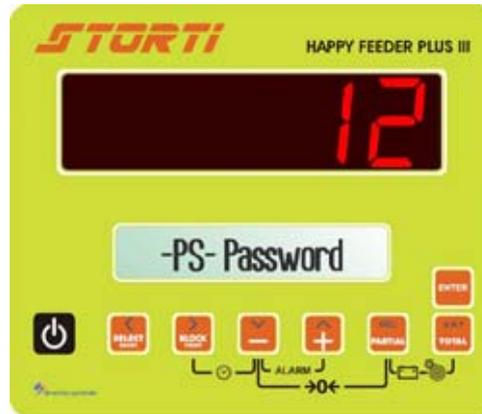


LIST OF THE PASSWORDS

- 12** Calibration
- 19** Base parameters
- 67** Weighing modification in % (fine calibration)
- 99** Setting of the weight limit (over-range)
- 444** Setting of the unit of measurement (N/G – P/T)
- 454** Setting kg / Libbre
- 456** Validation of the modification of the component name
- 600** Working mode of the weight repeater
- 603** How to set up the XL display

PASSWORD 12:
HOW TO SET THE CALIBRATION VALUE

- 1 Set the -PS- PASSWORD mode, by setting up the number 12 with the MINUS and PLUS keys.



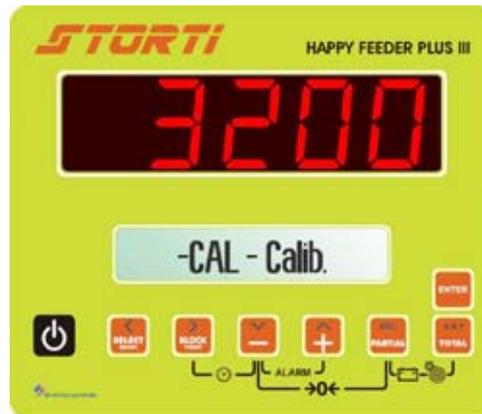
- 2 Confirm by pressing the ENTER keys.



- 3 Press MINUS and PLUS to change the value of this parameter if necessary.



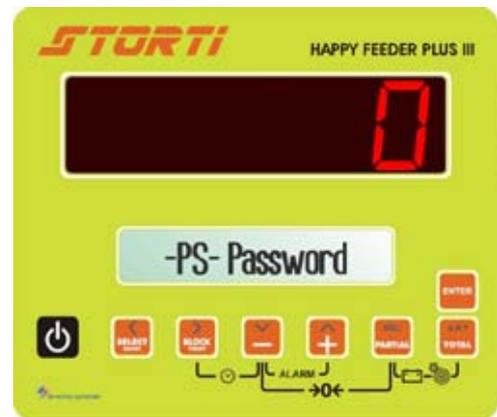
The calibration value depends on the load cells' number and capacity. Please contact Dinamica Generale for further details. If the full equipment has been bought, the indicators have already been gauged by DG.



- 4 Press the **PARTIAL** and **TOTAL** keys in order to confirm the new calibration parameter, upon display of...

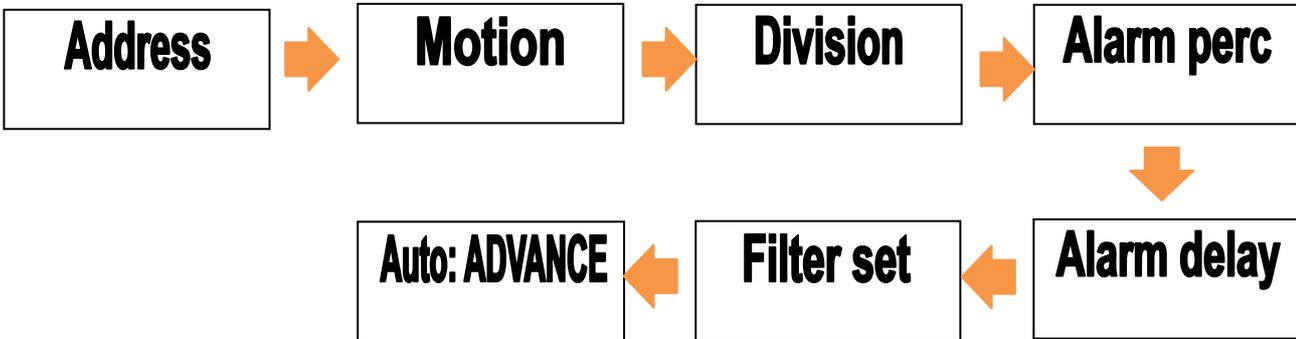


- 5 The indicator displays **-PS- PASSWORD.**

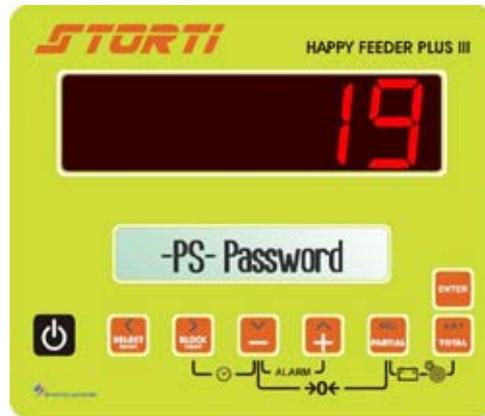


PASSWORD 19: HOW TO SET THE BASE PARAMETERS

Password 19 includes the following base parameters:



- 1 From the -PS- PASSWORD mode set up the number 19, by using the MINUS and PLUS keys.



- 2 Confirm by pressing the ENTER key.



- 3 Once entered, it is necessary to roll up all the parameters by pressing the PARTIAL and TOTAL keys in order to get out.

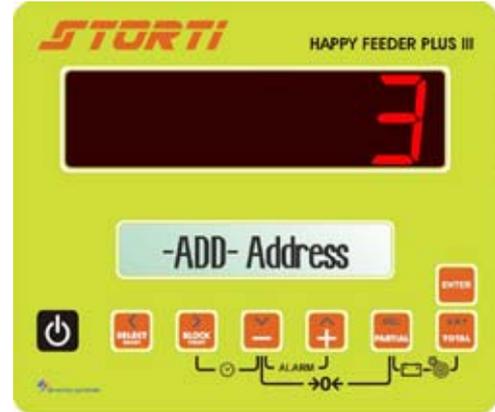


PASSWORD 19: SETTING PROCEDURE

1 ADDRESS (Default: 3)

ADDRESS is an identification code which allows the indicator to get connected by RF only to those devices that communicate using the same address, with no interference with other devices using different addresses.

The change of the parameter has to be done with the **MINUS** and **PLUS** keys.



To confirm and go on to the next parameter, press at the same time the **PARTIAL** and **TOTAL** keys.



2 MOTION (Default: 250)

MOTION is an alarm that signals sudden weight changes that can damage the system.



If it activates, check the installation, the state of the weight system and the calibration settings.

The change of the parameter has to be done with the **MINUS** and **PLUS** keys.



 **Dinamica Generale** recommends not to change this value.

To confirm and go on to the next parameter, press at the same time the **PARTIAL** and **TOTAL** keys.



3 RESOLUTION OF THE WEIGHT VISUALISATION (Default:2)

Displayed weight resolution setting.



The setting up of the division of the Kg. to be displayed can be set at 1, 2, 5 or 10 kg always by pressing the PLUS and MINUS keys.



To confirm and go on to the next parameter, press at the same time the PARTIAL and TOTAL keys.



4 WEIGHT DEVIATION ALARM (%) (Default:10).

The setting of the percentage of weight deviation to activate the sound alarm which controls the weighing, corresponds to the activation of the pre-alarm phase (intermittent acoustic signal).



This is the pre-alarm phase and the sound signal is working in an intermittent way. By setting 15, the alarm will be activated by the deviation of 15% of the programmed weight. For example, by setting 100 for the load/unload value and 15 for the percentage, the value becomes 85, activating in this way the intermittent acoustic signal.

The parameter change has to be done with the MINUS and PLUS keys.



Recommended setting: 15.



To confirm and go on to the next parameter, press at the same time the PARTIAL and TOTAL keys.



5 ALARM TIME (Default:7).

The programming of the sound alarm time at the end of the load/unload phase.



The set number corresponds to the duration of the sound alarm, which is expressed in seconds and starts when the programmed setting is reached.



The change of the parameter has to be done with the PLUS and MINUS keys.



The maximum programmable duration of the sound alarm is 60 seconds.

To confirm and go on to the next parameter, press at the same time the PARTIAL and TOTAL keys.



6 SETTING UP THE FILTER TO STABILIZE WHEIGHT READING (Default:4).

At low settings, the display of the weight will be very sensitive to even the slightest variation. At high settings, the weight display will be more stable and less sensitive to variation.

The change of the parameter has to be done with the MINUS and PLUS keys



Recommended setting = 4 or 5.

To confirm and go on to the next parameter, press at the same time the PARTIAL and TOTAL keys.

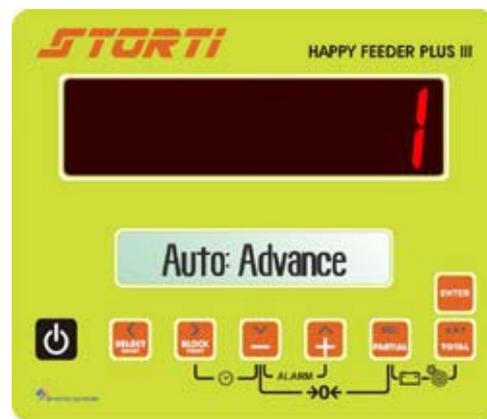


7 PROGRESSION OF COMPONENTS (Default: Yes).

Setting up of the progression from one component/unloading point to the next one, in the AUTOMATIC or MANUAL way, by using the MINUS and PLUS keys.



When the programmed setting has been reached and once the duration alarm has finished, by setting "AUTO = 1" the progress from one component/unloading point to another will be automatic.



By setting "AUTO = 0" the progress to the component/unloading point will be manual. The operation is confirmed by pressing "ENTER".



8 Press at the same time the PARTIAL and TOTAL keys and the indicator will display -PS- PASSWORD-.



PASSWORD 67: HOW TO MODIFY THE WEIGHING

- 1 From the -PS- PASSWORD mode set up the number 67, by using the MINUS and PLUS keys.



- 2 Confirm by pressing the ENTER key.



- 3 By pressing the MINUS and PLUS keys, set up the percentage of weighing modification. Selectable range: from - 10,0% to + 10,0%.

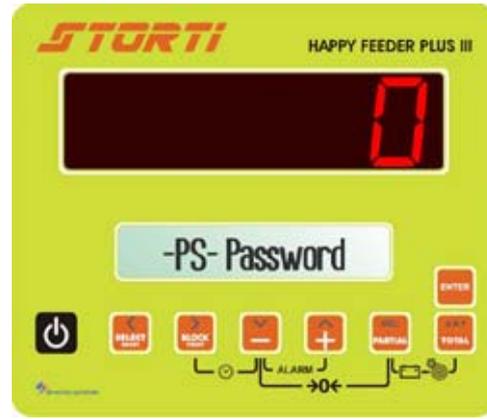


Minimum range 0,1%.

- 4 To confirm the parameter press the PARTIAL and TOTAL keys, until the message -END- is displayed....

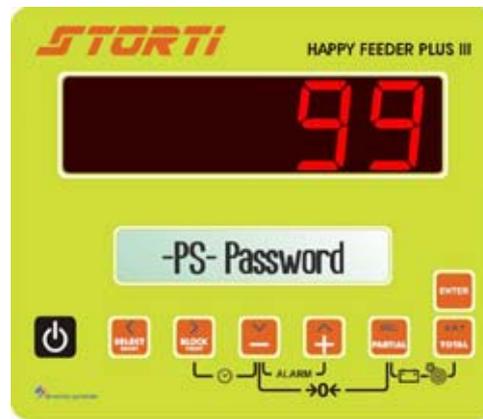


- 5 The indicator displays again -PS-PASSWORD.



PASSWORD 99: HOW TO SET THE WEIGHT LIMIT

- 1 From the -PS- PASSWORD mode set up the number 99, with the MINUS and PLUS keys.



- 2 Confirm with the ENTER keys.



- 3 If necessary, change the parameter by using the MINUS and PLUS keys.

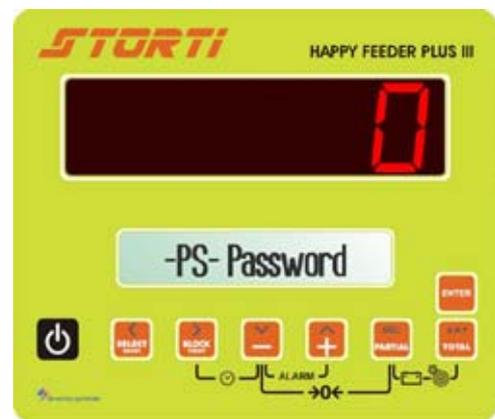
 This parameter depends on the capacity of the machine. Dinamica Generale recommends to put in the maximum load capacity.



- 4 To confirm the parameter press the PARTIAL and TOTAL keys, until the message -END- is displayed...



- 5 The indicator displays again -PS-PASSWORD.



PASSWORD 444:
HOW TO SET THE WORKING MODE

- 1 From the -PS- PASSWORD mode set up the number 444, by using the MINUS and PLUS keys.



- 2 Confirm by pressing the ENTER keys.



Setting up of the PARTIAL/TOTAL or GROSS/NET working mode by pressing the keys MINUS and PLUS.



- 3 Setting up the PARTIAL/TOTAL mode, press the TOTAL key to display the total weight loaded in that moment.
In order to do partial weighing, press the PARTIAL key: the display is zeroed and it will increase its value at the increasing of the loaded weight.



Once all the partial weighing has been done, press TOTAL to display the total weight loaded till that moment. Passing from PARTIAL to TOTAL mode, the previously displayed partial weight gets lost, for each partial weighing is added up to the total one.

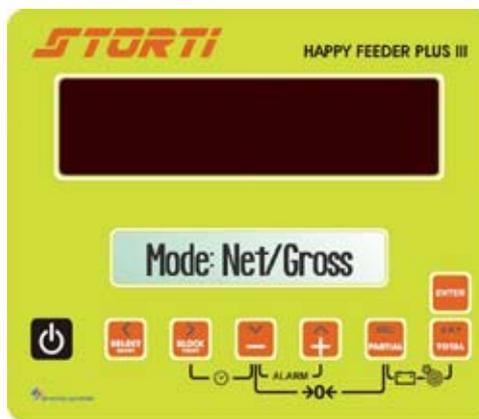


In this configuration it is not possible to store one tare in order to review it, since the system's tare and zero coincide.

This function is recommended especially in the case of feed mixers or trailers in general.

OPERATION	LED DISPLAY	LCD DISPLAY	PARTIAL LOADED WEIGHT	TOTAL LOADED WEIGHT
	200	Total Weight	0	200
Press PARTIAL	0	Partial Weight	0	200
Load 100KG	100	Partial Weight	100	300
Press TOTAL	300	Total Weight	0	300
Press PARTIAL	0	Partial Weight	0	300
Load 500KG	500	Partial Weight	500	800
Press PARTIAL	0	Partial Weight	0	800
Load 200KG	200	Partial Weight	200	1000
Press TOTAL	1000	Total Weight	0	1000
Unload all	0	Total Weight	0	0

By setting the NET/GROSS mode, in order to store a tare, press the PARTIAL key: the display is zeroed and the system stores the weight loaded till that moment, considering it as a tare. Press the TOTAL key to display alternatively the gross and the net weight, that is the result of the gross weight minus the tare previously stored.

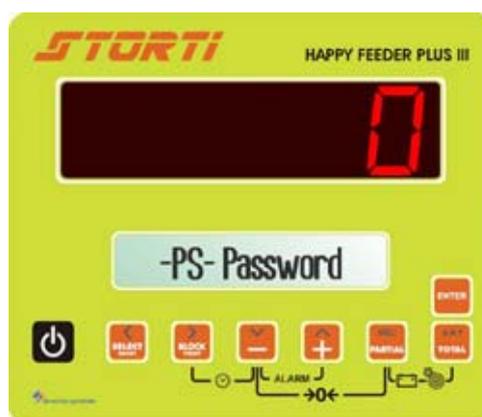


In this configuration a value for the tare can be stored and it is visible on the display, until a new zero setting of the system has been set.

This function is recommended for static applications, i.e. weighing platforms apt to weigh fruit or vegetable boxes or bins, checking the net and the gross weight and storing a tare without modifying the zero setting of the system.

OPERATION	LED DISPLAY	LCD DISPLAY	NET WEIGHT	GROSS WEIGHT	TARE
	200	GROSS Weight	0	200	200
Press PARTIAL	0	Set TARE	0	200	200
	100	NET Weight	0	200	200
Press TOTAL	200	GROSS Weight	0	200	200
Load 100KG	300	GROSS Weight	100	300	200
Press TOTAL	100	NET Weight	100	300	200
Load 500KG	600	NET Weight	600	800	200
Press TOTAL	800	GROSS Weight	600	800	200
Unload all	200	GROSS Weight	0	200	200
Press TOTAL	0	NET Weight	0	200	200

- 4 To confirm the parameter, press the PARTIAL and TOTAL keys. The message displayed is again - PS- PASSWORD.



PASSWORD 454: HOW TO SET THE UNIT OF MEASUREMENT

- 1 From the -PS- PASSWORD mode set up the number 454, by pressing the MINUS and PLUS keys.



- 2 Confirm by pressing the ENTER key.



- 3 Set up the unit of measurement in kilograms (kg) or in pounds (lb) by pressing the MINUS and PLUS keys. The same choice will be indicated beside the weight value on all the printed coupons.



By setting up U or M: Pounds the weight is displayed in Pounds (lb).



One pound = 0,454 kg

By setting up U o M: Kg the weight is displayed in kilograms (kg).



- 4 To confirm the parameter, press the PARTIAL and TOTAL keys. The message -PS- PASSWORD appears on the display.



PASSWORD 456: HOW TO SET UP THE CHANGE OF THE NAME OF ONE COMPONENT/UNLOADING POINT

- 1 From the - PS – PASSWORD mode set up the number 456, by pressing the MINUS and PLUS keys.



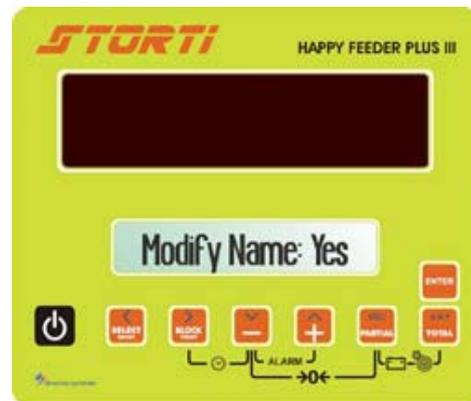
- 2 Confirm by pressing the ENTER key.



- 3 Validation of the possibility to change the name of the component/unloading point directly on the indicator by pressing the MINUS and PLUS keys.



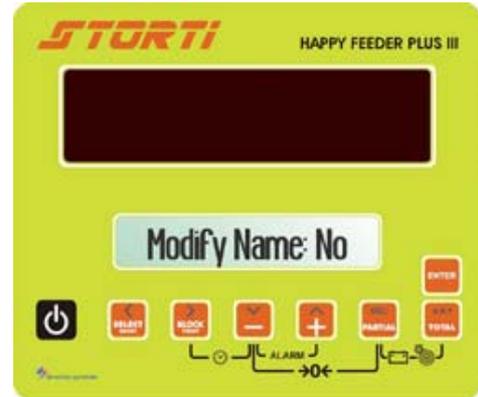
Set up “Yes” to validate the change of the name of the component/unloading point.



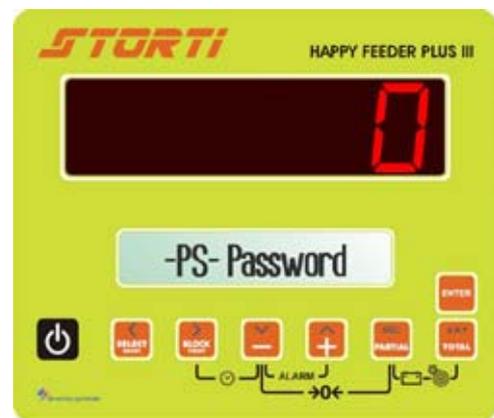
Set up “NO” to reject the change of the name of the component/unloading point.



By setting up this mode, the section “EDIT STRINGS” disappears from the menu.



- 4 To confirm, press the PARTIAL and TOTAL keys and the message - PS - PASSWORD is displayed again.



PASSWORD 600: HOW TO SET UP THE WEIGHT REPEATER

- 1 From the -PS- Password mode, set up the number 600, by pressing the MINUS and PLUS keys.



- 2 Confirm by pressing the ENTER key.



- 3 Setting up of the weight repeater by pressing the MINUS and PLUS keys.



- a) Set up MENU in order to line up the displayed weight repeater with the display setting. The weight repeater shows the information on the indicator.

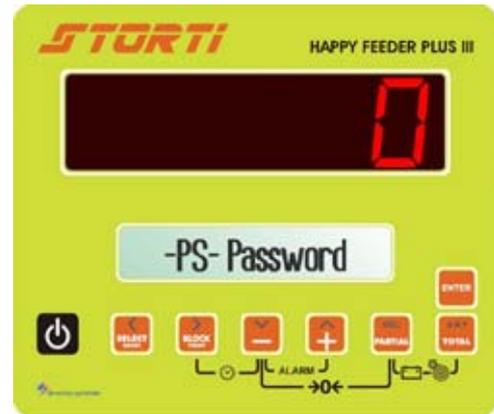


Default value: MENU.

- b) Select always TOTAL in order to set up the total weight display on the weight repeater, regardless of what appears on the indicator.



- 4 To confirm the selected mode, press the PARTIAL and TOTAL keys; the message displayed is again -PS- Password.



PASSWORD 603: HOW TO ENABLE THE XL DISPLAY

- 1 From the - PS - PASSWORD mode, set up the number 603, by pressing the MINUS and PLS keys.



- 2 Confirm by pressing the ENTER key.



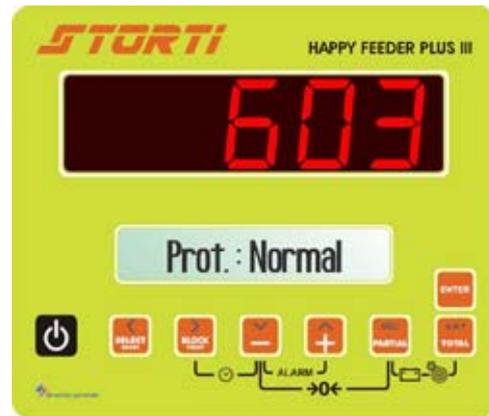
- 3 Validation of the connection/communication between indicator and XL Display by pressing the MINUS and PLUS keys.



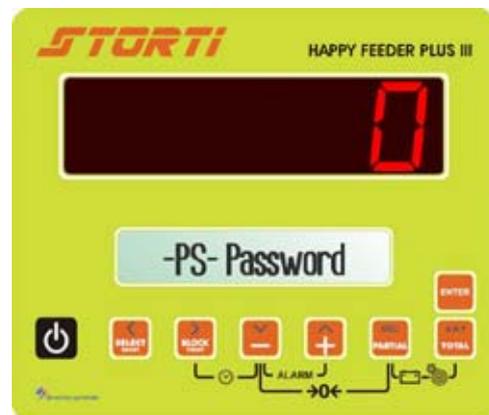
- a) Select ADVANCE in order to set up the communication with XL Display.



- b) Select **NORMAL** to disable the communication with XL Display.



- 4 To confirm the chosen communication mode, press the **PARTIAL** and **TOTAL** keys; the message displayed is **-PS- Password**.



USE OF THE MICROCOMPUTER

SWITCH ON

- a) Switch on the equipment by pressing



, the last software revision appears on the LCD display, then the message "PLEASE WAIT".



- b) A weight value appears on the red LED display, so the message "TOTAL WEIGHT" on the LCD display.



It is recommended to use the indicator at least 15 minutes after the switching, especially in case of cold temperatures (<math><0^{\circ}\text{C}</math>).



* The weight value is just symbolical

PARTIAL / TOTAL WORKING

ZEROING

- a) By using the MINUS and PARTIAL keys, zero the system.
- b) The message --TA-- SET TARE- appears; keep pressed the MINUS and PARTIAL keys, until the message -END- SETTING OK is displayed.
- c) The message of the indicator is again TOTAL WEIGHT.



* The weight value is just symbolical



The zeroing of the system is a very delicate passage. It depends also on the machine's conditions, on the soil's and temperature's conditions, and on the mechanical stresses.

In fact, if the machine is moving on a sloping surface or it is subjected to a different range of temperature or to different mechanical conditions, it is likely that the value displayed may change during the weighing process.

A displayed weight value of 0 Kg for a machine on a plane surface, could change for a machine moving on a sloping surface.

PARTIAL WEIGHING

- a) After zeroing the displayed weight by pressing the **PARTIAL** key (while the previously displayed value has been stored), it is possible to load/unload other material, starting from a fixed value.
- b) Once the load/unload phase has been executed, another partial weighing can be displayed, repeating all the passages starting from the "a" or even displaying the total weight by pressing the **TOTAL** key.
The total weight is the sum of all the partial weighings.



* The weight value is just symbolical

NET/GROSS WORKING MODE

ZEROING

- a) Zero the system by pressing the **MINUS** and **PARTIAL** keys
- b) The messages
"PRESS FOR 3 SECOND"
and
--0--SET ZERO,
and
--END--SETTING OK
appears.
- c) The indicator displays again **GROSS WEIGHT**.
After zeroing the system, net and gross weight coincide and correspond to zero.



* The weight value is just symbolical

NET/GROSS WEIGHT

- a) In this mode the **PARTIAL** key is used to store a tare. By holding pressed for 3 seconds, the messages **PRESS FOR 3 SECOND** and **SETTING TARE OK** appear.

Now the weight “zero” is displayed and the previously displayed one is summed up to the gross weight.

By pressing the **TOTAL** key, the **NET WEIGHT** and the **GROSS WEIGHT** are alternatively displayed.

The net weight is the gross weight minus the previously stored tare.



LOAD WITH ALARM

Available in both the working modes.

- a) Starting from the **TOTAL WEIGHT** or **GROSS WEIGHT** mode, press at the same time the **MINUS** and **PLUS** keys, until the message **ALARM** is displayed.
- b) Set up the weight with the **MINUS** and **PLUS** keys.



c) Confirm the set weight by pressing the PARTIAL key and go on with the load/upload phase. The weight is displayed with a decreasing order, despite the fact it is loading/unloading.



Once the percentage that has been set up with Password 19 (see -PAL-PREALARM) has been reached, the alarm signal starts sounding in an intermittent way. When the programmed duration of the sound alarm, that has been set up with the password 19, is over, the acoustic signal becomes continuous (see -AT- ALARM TIME).

d) At the end the indicator passes automatically on TOTAL WEIGHT or GROSS WEIGHT.

UNLOAD WITH ALARM

Follow the same procedure of the LOAD WITH ALARM. The instrument automatically recognises the unloading phase.



If a load/unload alarm has already been set and during the transfer of the instrument the weight changes, then it is possible to reset it by pressing the PARTIAL key.

If the indicator is switched off with a set load/unload alarm, this value is set at zero.



* The alarm value is just symbolical.

ADDITIONAL FUNCTIONS

BATTERY CONTROL

Hold pressed the PARTIAL and TOTAL keys at the same time in TOTAL WEIGHT or GROSS WEIGHT mode, in order to display the voltage of the battery.



THE NEXT FUNCTIONS ARE AVAILABLE ONLY IF THE INSTRUMENT IS EQUIPPED TO BE CONNECTED TO THE PRINTER (FULL VERSION).

This note is suitable only for the non-HP indicators.

HOURS and MINUTES: DISPLAY

Keep pressed at the same time BLOCK PRINT and MINUS keys, hour and date will be shown on the display.

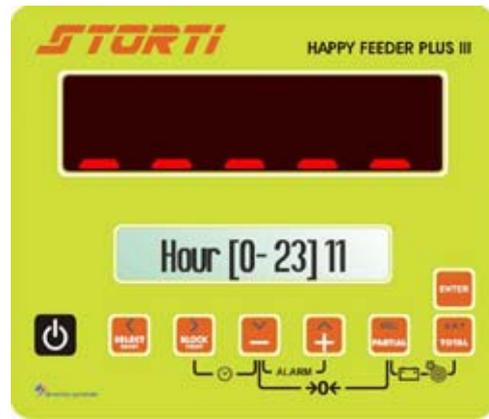


SETTING

- Switch on the system. When the software revision number appears on the display, press the BLOCK PRINT and MINUS keys; then wait, until -SET- MAIN MENU appears on the display.



- b) Once entered the hour setting menu, press the MINUS and PLUS keys in order to set the value.

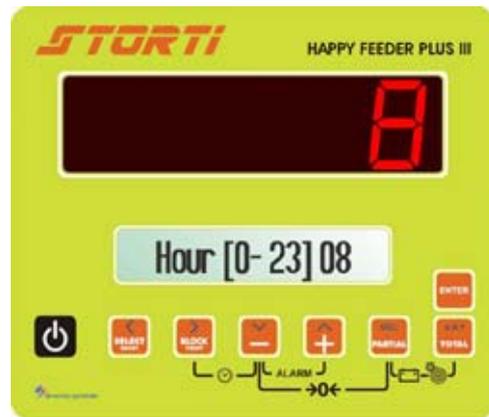


- c) Confirm by pressing the PARTIAL and TOTAL keys (the value is also displayed on the red LED display) and the indicator passes on the next parameters, which are in order:
 Minutes [0 – 59] “Value”
 Day [1 – 31] “Value”
 Month [1 - 12] “Value”
 Year [0 - 99] “Value”.



Repeat the operations for each parameter starting from point b).

- d) After the year setting confirm by pressing the PARTIAL and TOTAL keys, the message “PLEASE WAIT” appears and the indicator returns to TOTAL WEIGHT.



PRINT

- a) In order to print the weight value, hold pressed the PRINT BLOCK key for 3 seconds, as confirmed by the message on the display. Then the indicator returns to TOTAL WEIGHT.



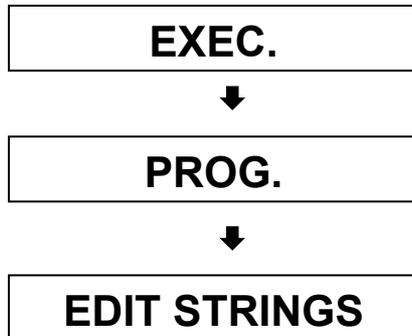
Always check that the printer is properly connected to the indicator before proceeding on with the printing.



PROGRAM MANAGEMENT

HOW TO SET THE STRINGS

- Starting from the TOTAL WEIGHT mode, press the SELECT key. Select EDIT STRINGS after having followed these steps:



If SELECT is immediately pressed again, the indicator returns to TOTAL WEIGHT.

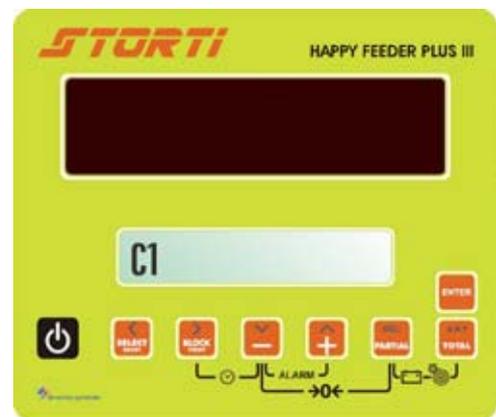


The mode is enabled only if the password 456 has been set in “Modify name: Yes”.

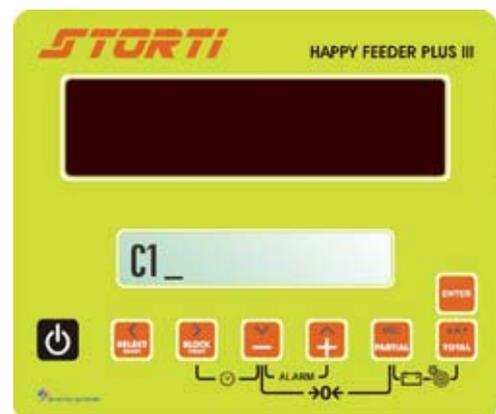
- Confirm by pressing the ENTER key.



- Select the component/unloading point whose name has to be set (or changed), by pressing the MINUS and PLUS keys from C1 to C48.



- Press the ENTER key to enter the selected component/unloading point programming/resetting. The blinking cursor indicates that it is possible to set/modify the name of the component/unloading point.



5



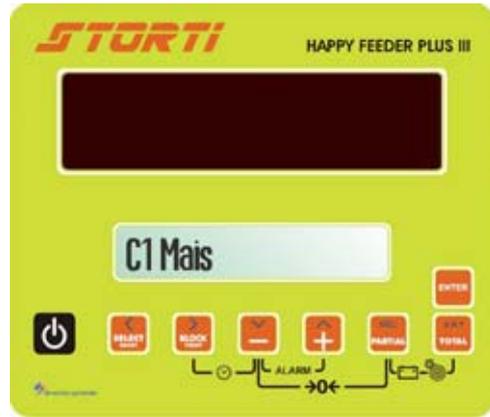
Press to select the letter's type: capital letter, small letter, number or symbol.



6



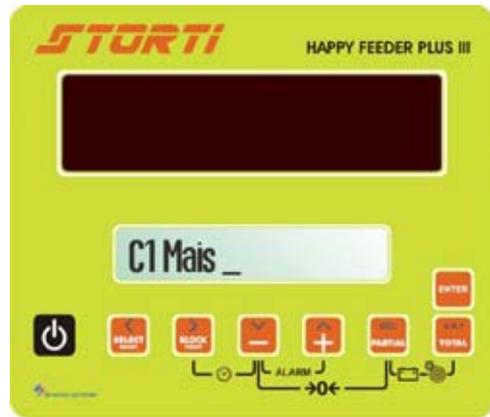
Use the and keys in order to select the letter to put in.



7 Put the cursor on the next right letter



with the key. Repeat the operations from point 5, then press ENTER to confirm. The indicator returns to point 3, where it is possible to select another component/unloading point to set (or to change).



It is possible to move the cursor also to the left, by pressing the



key, whereas by pressing the



key, the cursor modifies the selected letter (that starts blinking) and all those on the letter's right.



***Note 1**

Dinamica Generale recommends to set all the components that have been used by setting their name.

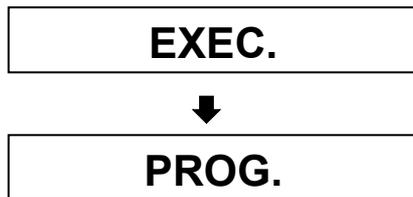
8



Press the  key to get back to the EDIT STRINGS mode. In order to return to TOTAL WEIGHT press it again.

**HOW TO SET THE RECIPES/UNLOADING PROGRAMS**

- 1 From the TOTAL WEIGHT mode press the SELECT key. After EXEC. select PROG.:



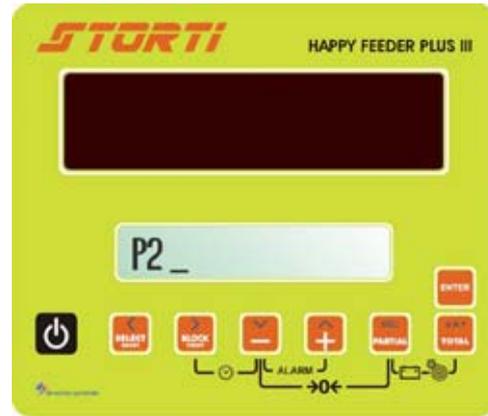
- 2 Confirm by pressing the ENTER key.



- 3 Select the recipe/unloading point that has to be set (or changed) by pressing the MINUS and PLUS key from P1 and P12. If a program has never been set, the message "EMPTY" appears. If the program has already been set, the previously set name appears on the display. If the name has been programmed but not put in, only the message P# will appear.



- 4 Press the ENTER key to enter the recipe/unloading point setting. The blinking cursor on the LCD display suggests the possibility to set (or to change) a name for a program.



- 5 Do you want to set the program's name?



YES

In order to set the recipe/unloading point's name, follow these steps.

NO

In order to abandon the setting of the recipe/unloading point's name, press again the ENTER key and the indicator goes directly to the cattle's number setting (see paragraph 2: How to set the Animal Number).



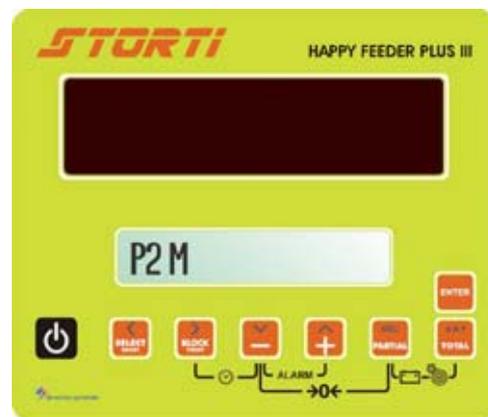
For a better use of the indicator Dinamica Generale suggests to set always a name for each program.

1) HOW TO SET THE RECIPE'S NAME

1

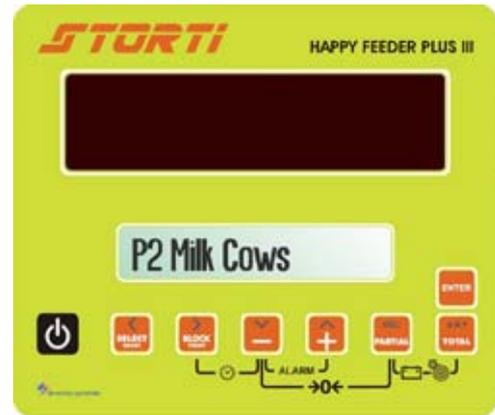


Press the key in order to select the type of letter: capital, small, number or symbol.



2

Use the  and  keys to select the letter to put in.



3 Place the cursor on the next right

letter by pressing the  key.



Repeat the operations from point 2 and once finished, confirm by pressing the ENTER key. The indicator goes on to the cattle's number.



4 It is possible to move the cursor to

the left, by pressing the  key and also to erase that letter (which blinks) and all the others standing at its right with the cursor by pressing

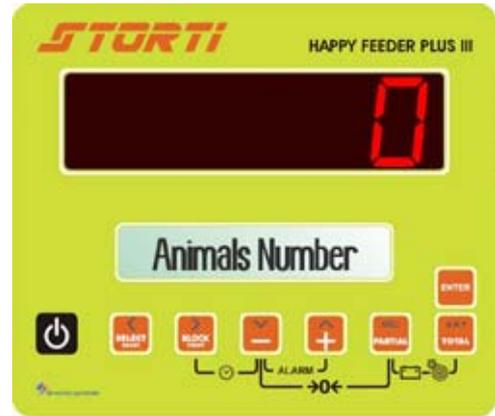
the  key.



2) HOW TO SET THE ANIMAL NUMBER

1

By pressing the  and  keys, set the cows' number up to 999 maximum.



With “Animal number = 0”, the TOTALS value is set.

2

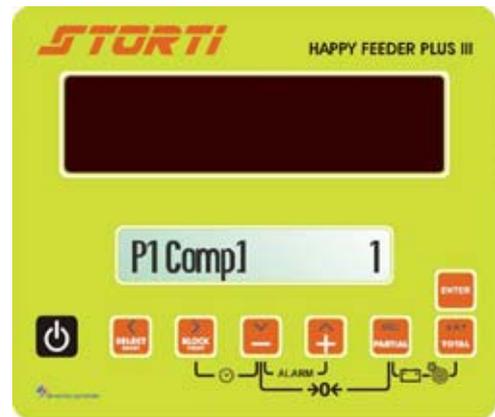
Confirm the value by pressing the ENTER key.



3) HOW TO SET THE COMPONENT/UNLOADING POINT

1

By pressing the  and  keys, select the component/unloading point that has to be set in the loading/unloading point indicated on the right side of the LCD display up to 12 positions.



If the components' names are in EDIT STRINGS, those will be displayed. Otherwise, the message “COMP” will remain.

2

Confirm by pressing the ENTER key.



- 3 Set the weight value by pressing the



- 4 Confirm by pressing the ENTER key.



- 5 Repeat for all the 12 components/unloading point up to “P1 comp. 12”.

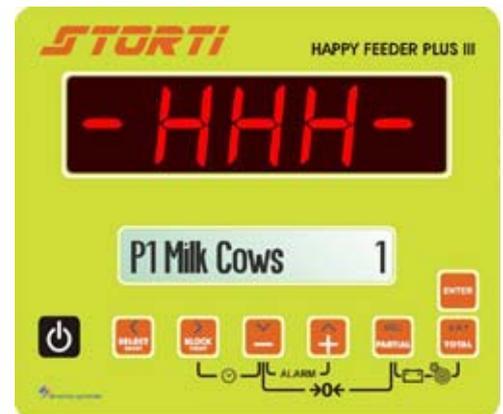
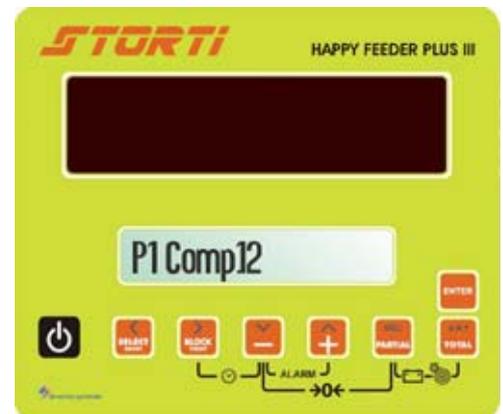


In order to finish the recipe, all the components should be programmed; even those that won't be used should be programmed at 0.0, otherwise the program won't close up.



The maximum settable value for each component/unloading point is 65000 kg/lb per TOTALS, whereas per COWS it is 6500 Kg/lb.

Each program's total value should not exceed the value of the password 99, whose maximum value is 99999. If during one component/unloading point's setting, the total value exceeds, the indicator first displays an error message (HHH), then it suggests a weight value for that component/unloading point so that the program's maximum value won't be exceeded.



6 Now it is possible:

<p>1) To accept that value and to exit the program, zeroing the next components/unloading points.</p>	<p>2) To program other components/unloading points, re-analyzing the previously programmed components/unloading points weight, in order to stay within the total maximum value.</p>
---	---

Once the last component has been programmed, the following messages are displayed:



a) If the cows' number is $\neq 0$ and the program is programmed per COWS:
 "Total recipe 1/12" is displayed.



Confirm by pressing the ENTER key.



The TOTAL PROGRAMMED is displayed.



Confirm by pressing the ENTER key.



b) If the cows' number is = 0, and the program is programmed per TOTALS, the TOTAL PROGRAMMED is immediately displayed.



7 At the end of the setting, with the printer connected, when the message TOTAL PROGRAMMED is displayed, it is possible to print the recipe/unloading program by pressing the BLOCK PRINT key.



8 Confirm by pressing the ENTER key. The indicator returns to PROG.

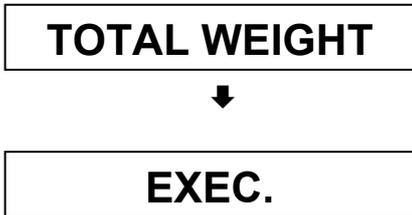


9 Press the RESET key to return to TOTAL WEIGHT. It is possible to exit the programming of the recipe/unloading point and go back to PROG. by pressing the RESET key; in this instance the indicator does not store any data.



HOW TO DO THE PROGRAM EXECUTION OF THE RECIPE/UNLOADING

- 1 From the TOTAL WEIGHT mode press the SELECT key and select EXEC.:



- 2 Confirm by pressing the ENTER key.



- 3 Select the recipe/unloading point that has to be done by pressing the MINUS and PLUS keys from P1 to P12.

If the recipe has never been programmed or if the total is =0 the message "EMPTY" appears; if the ENTER key is pressed, the program returns to EXEC..



- 4 Press the ENTER key in order to confirm and enter the program execution.



- 5 According to the selection per COWS or per TOTALS it is possible to distinguish:



a) If the program /unloading point is set per COWS, it is possible to change the cows' number by pressing the MINUS and PLUS keys.





Once confirmed the modified cows' number, the indicator re-calculates the weight of the components/unloading points and it checks that the total value of the program does not exceed the set value of the password 99, whose maximum value is 99999 kg/lb.



If the total value exceeds the set value of the password 99, after the error message (HHH), the indicator suggests the maximum cows' number in order to not exceed that limit.

Confirm by pressing the ENTER key.



In the case of change, the new programmed total appears; on the contrary, with no change, the previously programmed one appears on the display. This value can not be changed.



b) If the program/unloading point is programmed per TOTALS, i.e. the Cows' number is = 0, the TOTAL PROGRAMMED appears. It is possible to change this value by pressing the MINUS and PLUS keys.



*The weight value is just symbolical.



Once the new value has been confirmed, the indicator verifies that the program's total does not exceed the value which has been set in the password 99.



If the total's program exceed the value which has been set in the password 99, after the error message (HHH), the indicator suggests the settable maximum value that will coincide with the value of the password 99.

Confirm by pressing the ENTER key.



- 6 After the message "PLEASE WAIT", the first component/unloading point to load/unload appears.



- 7 The load/upload should be executed until the weight value reaches zero.



If AUTO ADVANCE = 1 has been set in the password 19, the passage from one component/unloading point to the next occurs automatically. On the contrary, in order to move on to the next component/unloading point, press the ENTER key, thus storing the loaded/unloaded value.



- 8 Repeat the last step for all the loading/unloading point of the program until the message TOTAL LOADED appears.



- 9 Confirm by pressing the ENTER key and the indicator returns to TOTAL WEIGHT.



NOTES:

HOW TO STOP THE WEIGHING

- 1 During the loading/unloading it is possible to stop the weighing by



pressing the key and continue then the procedure by pressing the same key. When the weighing is released, the indicator recalls the value displayed in the moment of the block.



Dinamica Generale recommends to use always this function during the trailer's transfer.



MANUAL MANAGING OF THE COMPONENTS/UNLOADING POINTS BY USING THE ENTER KEY

- 1 It is possible to pass from one component/unloading point to the



next one also by pressing ; in this case only the weight value really loaded/unloaded is stored; this value can be the result of the total of the programmed value or even just a part of it.

* The weight value is just symbolical.



MANAGING THE COMPONENTS/UNLOADING POINTS BY USING THE MINUS AND PLUS KEYS

- 1 When you pass from one component to another with the



and



keys, no

weighing is stored.



HOW TO DISPLAY THE TOTAL DURING THE EXECUTION

- 1 During the execution of a loading/unloading it is possible to display the total weight loaded in case of loading, or the remaining to unload in case of unloading, by

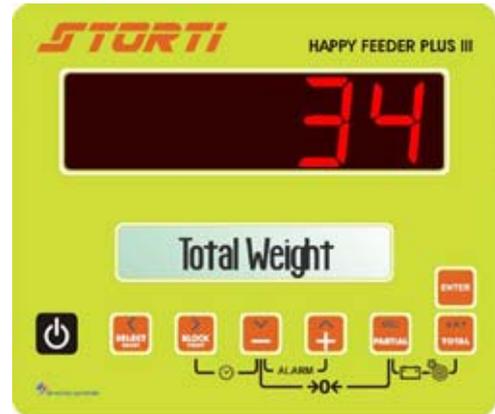
pressing the  key.



In case of loading the state of **TOTAL WEIGHT** coincides with the total weight loaded in that moment; in case of unloading the total weight left to unload is displayed.

-  To go back to the loading/unloading execution

press  again.



LEGEND

CONVENTIONAL SIGNS

This handbook uses some conventional signs, in order to lead the user during the reading of important instructions and advices; these regard especially the setting of the parameters of the system and thus its correct working. Please pay attention to the following icons:



It indicates explaining and further information.



It highly recommends to pay attention.



It signals an operation that can be repeated many times, cyclically.



It highlights a double working option.



It suggests to follow some hint.



It signals that the weight value on the red LED display is just symbolical, because put in as an instance. It can also signal the presence of notes.

OPTIONAL ACCESSORIES

PRINTER – Cod. 999-0010

Stad 04	Stad 04 Plus	Win Scale	Top Scale
O	√	√	√

- It is connectable to every Dinamica generale microcomputer.
 - Possibility to define the customer's headline, name, address, company title etc...
 - Watertight case IP65 for critical environment.
 - Low cost of maintenance.
 - Operating temperature from 0 to 50°C.
 - Thermal Roll paper, width 57,5 mm, max. diameter 50 mm.
 - Print module with thermal impact.
 - In accordance with EEC directives.
-
- During manual working, it is possible to print the current weight value (TOTAL and/or PARTIAL) with date and time by pressing the PRINT key.
 - During the execution of loading or unloading with program, the RECIPE or the UNLOADING program are automatically printed at the end of the process.
 - As for the printing of LOADING and UNLOADING programmes stored in the weight system see the specific instructions in the user's manual of the microcomputer in use
 - In order to get the advancing of the paper by hand, press the Feed key on the printer panel.

WEIGHT REPEATER – Cod. 999-00175

Stad 04	Stad 04 Plus	Win Scale	Top Scale
√	√	√	√

Weight repeater display with big digits connectable to every microcomputer

- Dimensions 281 x 125 x 90.
- High efficiency red "led diodes" display 60 mm high.
- Display visibility over 20 meters.
- Weight reading up to 99.999 Kg / Pounds.
- ABS with IP66 protection, noise shielded.
- Simple connection direct to microcomputers DINAMICA GENERALE.
- Possibility of a series connection of more displays.
- Every datum which is displayed by the microcomputer is repeated on the Weight Repeater
- Possibility to convert a wire communication to a wireless (WINET™) one at any time.

DATA TRANSFER MANAGEMENT (DTM™)

Stad 04	Stad 04 Plus	Win Scale	Top Scale
O	-	√	√

Data transfer on the Cartridge, from the microcomputer to the PC and vice-versa

- With Data Transfer installed on your weight system, you can store all work phases and then check and analyse them.
- 6 months continuous acquisition.
- Programming for 99 Recipes each with 24 components.
- Storage and costs control and statistics analysis.

RADIO CONTROL – Cod. 979-0103

Stad 04	Stad 04 Plus	Win Scale	Top Scale
√	√	√	-

Radio Frequency communication (WiNET™)

- Repeat all the functions of the microcomputer (except ON / OFF).
- Range up to 25 meters.
- Battery type AAA 1,5 Volt.
- Autonomy 120 days (normal function).

Dina TEL 2 – Cod. 999-0248

Stad 04	Stad 04 Plus	Win Scale	Top Scale
	√	√	√

Radio Frequency communication (WiNET™)

- Hand held control for remote control of the weight system up to 25 metres from the microcomputer, with possibility to execute the main functions:
 - Tare of the system;
 - Total and partial weighing;
 - Execution of loadings;
 - Visualisation of weight and of functions on graphical display.

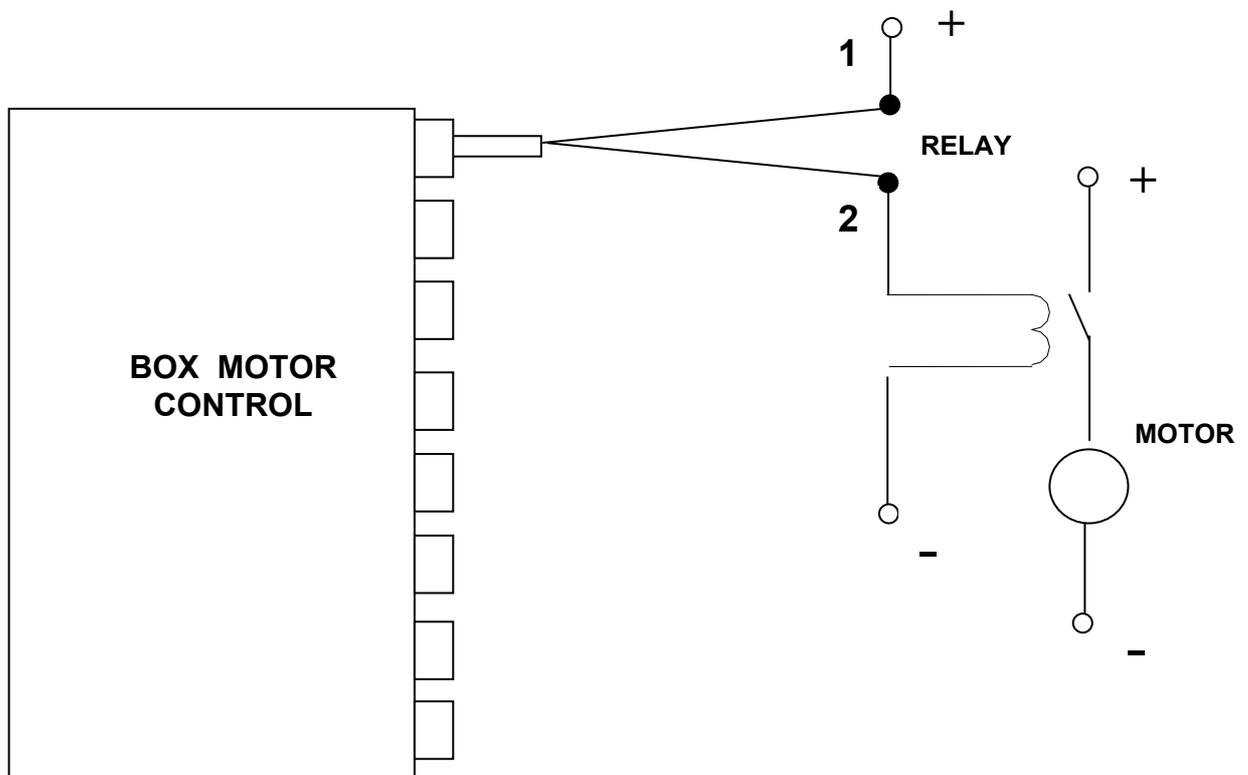
MOTOR CONTROL – Cod. 979-0077

Stad 04	Stad 04 Plus	Win Scale	Top Scale
-	-	-	0

The motor control card allows control of::

- 8 or 16 LOAD motors
- 8 or 16 UNLOAD motors
- 8 LOAD motors and 8 UNLOAD motors

Each output on the motor card is provided with a driving relay (1A – 12V contact) and with a led indicating its activation.



The board motor control (Motor Control) is connected to Top Scale through the same connector for Weight Repeater or Dina- Palm (see the manual of each microcomputer for specific information).

To use the motor control board it is necessary to set the broadcast communication protocol with the following password (in Top Scale configuration menu 6) :

- Password 1999 → Remote display with simple protocol? NO

To set and use correctly the Motor Control board see the corresponding manual of this device.

GSM CONNECTION

Stad 04	Stad 04 Plus	Win Scale	Top Scale
-	-	-	O

The GSM communication module allows Dina Service remote service center to:

- Check the status of Top Scale installed in customers' farm
- Work on configuration parameters of Top Scale in case the customer needs it

The GSM communication module is connected to specific connector through GSM and Can Bus (see the manual of each microcomputer for specific information).

IRM™ ANALYSIS SYSTEM

Stad 04	Stad 04 Plus	Win Scale	Top Scale
-	-	-	O

Besides the execution of the normal weighing operations with/without loading/unloading programs, the Top Scale microcomputer can also have a accessory system I.R.M. (Intelligent Ration Management).

The purpose of the IRM™ system is:

- To analyse the alimentary components that have to be loaded according to the loading recipes
- To Modulate the weight of the components set in the recipes, according to the values of chemical parameters requested by the nutritionist that the breeder is following

In particular there are two types of IRM™ systems:

- "Advanced" IRM™ that enables analysing of the components as regards only the parameter HUMIDITY
- "Professional IRM™" that enables analysing of the components as regards the chemical parameters HUMIDITY, STARCH, PROTEIN, FIBER ADF, FIBER NDF, ASHES

In order to set up the IRM™ system on the Top Scale microcomputer you need to enter the password:

Password 113 → IRM™ setting parameters.

For further information about the setting and the correct use of the IRM™ system please see the appropriate manual supplied with this accessory device.

Legend:

√	Standard accessory interface
O	Accessory interface on request
-	Accessory interface not available

SEARCHING FOR FAULTS

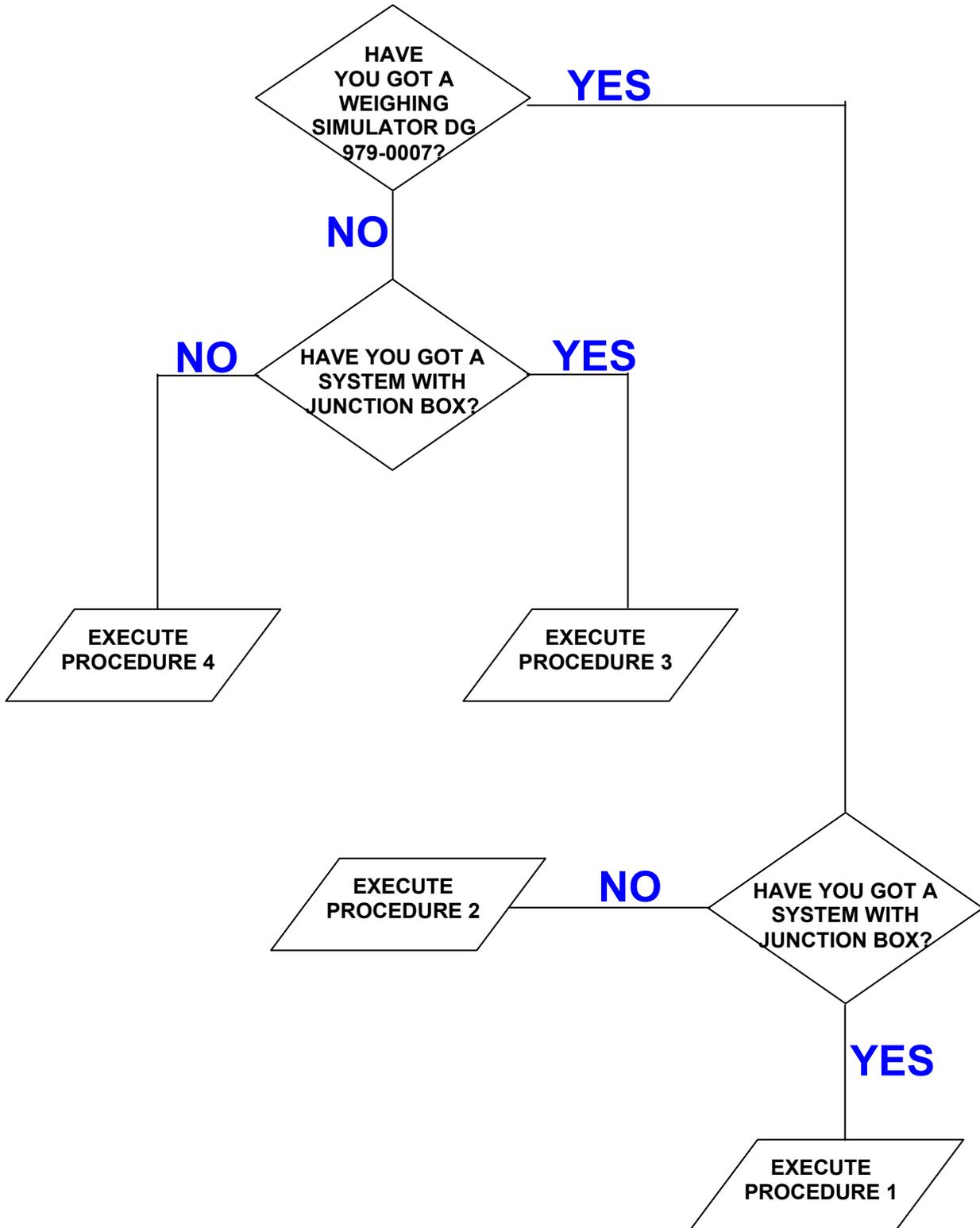
MOTION ALARM		
DISPLAY	CAUSE	SOLUTION
<p>STAD 04</p> 	<p>Cause1 The signal coming from the sensors shows sudden and important weight change.</p> <p>Cause2 A connection cable or a load cell does not work correctly.</p>	<p>Solution1: do the TARE.</p>
<p>STAD 04 PLUS</p> 		<p>Solution2: do the calibration with password 12 and then do the TARE</p>
<p>WIN SCALE</p> 		<p>Solution3: do the check described as follows</p>
<p>TOP SCALE</p> 		
IT DOES NOT SWITCH ON		
DISPLAY	CAUSE	SOLUTION
<p>OFF</p>	<p>The power supply does not reach the microcomputer.</p>	<p>Soluzione1: check very carefully the power connection cable.</p> <p>Soluzione2: check the efficiency of the power supply system (minimum 9,5 Volts / 0.5 A).</p> <p>Soluzione3: contact the service department</p>

ENGLISH ▲▲▲▲

OVERRANGE ALARM		
DISPLAY	CAUSE	SOLUTION
<p>STAD 04</p> <p>STAD 04 PLUS</p>   <p>WIN SCALE</p>  <p>TOP SCALE</p> 	<p>Cause1</p> <p>The microcomputer can not read the signal of the load cells: the load cell connection cable does not work correctly.</p> <p>Cause2</p> <p>A connection cable or a load cell does not work correctly.</p> <p>Cause3</p> <p>The signal coming from the sensors is out of the valid "RANGE" (see the password 99).</p>	<p>Solution1:</p> <p>do the TARE.</p> <p>Solution2:</p> <p>do the calibration with password 12 and then do the TARE.</p> <p>Solution3:</p> <p>do the check described as follows.</p>
LOW BATTERY ALARM		
DISPLAY	CAUSE	SOLUTION
<p>STAD 04</p>  <p>STAD 04 PLUS</p>  <p>WIN SCALE</p>  <p>TOP SCALE</p> 	<p>The microcomputer power is lower than the fixed value.</p>	<p>Solution1:</p> <p>check the efficiency of the battery.</p> <p>Solution2:</p> <p>check the CABLES that supply the power from the BATTERY to the MICROCOMPUTER.</p>
UNSTABLE WEIGHT		
DISPLAY	CAUSE	SOLUTION
<p>The weight continues to oscillate between tens or hundreds kg</p>	<p>The signal coming from the sensors is jammed: a cable or a load cell does not work correctly.</p>	<p>do the check described as follows.</p>

CHECK THE DAMAGED COMPONENTS

DEFINE THE TEST PROCEDURE:



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PROCEDURE 1 **Ref. YES / YES**

Check the working of the scale

- a) Switch off the microcomputer.
- b) Disconnect the sensor cable between the scale and the junction box.
- c) Connect the WEIGHT SIMULATOR (calibrator 979-0007) with the lever in position “Var” (varying) to the SENSORS connector of the scale.
- d) Switch on the microcomputer.
- e) Do the TARE (for the execution see the microcomputer manual).
- f) The scale has to become stable displaying “0” kg.
- g) Verify the correct functioning of the scale by turning the WEIGHT SIMULATOR knob (turning clockwise increases the weight, counter-clockwise decreases the weight).

RESULT	CAUSE	ACTION
Zero stable and correct functioning	The microcomputer is NOT damaged	Proceed with the other tests
Zero NOT stable or NOT correct functioning	The microcomputer is damaged	Contact the service department

Check the functioning of the SENSOR CABLES and of the JUNCTION BOX

- a) Switch off the microcomputer.
- b) Open the JUNCTION BOX.
- c) Disconnect the sensors, leaving only the cable that reaches the weight system (SENSOR CABLES).
- d) Connect the WEIGHT SIMULATOR (979-0007) in place of one of the sensors using the proper adaptor. .
- e) Switch on the microcomputer.
- f) Do the TARE (use the microcomputer’s manuals for instructions).
- g) The scale has to become stable displaying “0” kg.
- h) Check the correct functioning by turning the knob of the WEIGHT SIMULATOR (turning clockwise, the weight increases, counter clockwise, the weight decreases).

REPEAT THE TEST CONNECTING THE WEIGHT SIMULATOR IN PLACE OF EACH SENSOR.

RESULT	CAUSE	ACTION
Zero stable and correct functioning	The sensor cable and the junction box are NOT damaged	Proceed with the other tests
Functioning not correct only in some junction box connectors.	The junction is damaged or wet	Try to dry the junction box and repeat the test; in case you do not have success, replace the junction box.
Zero NOT stable or NOT correct functioning in all the box's connectors	The sensor cable is damaged	Replace the sensors' cable

Check the working of the SENSORS

- a) Open the JUNCTION BOX.
- b) Just leave connected one sensor and the cable to the scale.
- c) Do the TARE (use the microcomputer's manuals for instructions).
- d) The scale must steady, viewing "0" Kg.
- e) Verify the right working, trying to load weight on the connected sensor (the displayed weight is not important, but it must be steady).

REPEAT THE TEST CONNECTING ONE AT ONCE THE SENSORS.

RESULT	CAUSE	ACTION
Zero and weight stable.	The sensor is NOT damaged	Go on with the other sensors
Zero and weight not stable.	The sensor is damaged	Contact the assistance service

PROCEDURE 2 **Ref. YES / NO**

Check the functioning of the scale

- a) Switch off the microcomputer.
- b) Disconnect all the sensors.
- c) Connect the WEIGHT SIMULATOR (calibrator) with the lever in "Var" (varying) position to one of the sensor connectors of the weighing system.
- d) Switch on the microcomputer.
- e) Do the TARE (use the microcomputer's manuals for instructions).
- f) The scale must steady, viewing "0" Kg.
- g) Verify the correct functioning, turning the knob of the WEIGHT SIMULATOR (clockwise, the weight increase, anticlockwise, the weight decreases)

REPEAT THE TEST CONNECTING THE WEIGHT SIMULATOR AT THE PLACE OF EACH SENSOR.

RESULT	CAUSE	ACTION
Zero stable and correct working of all the connectors	The sensor is NOT damaged	Go on with the other tests.
Zero not stable and incorrect working of all the connectors	The sensor is damaged	Contact the assistance service

Check the working of the SENSORS

- a) Switch-off the microcomputer.
- b) Just leave one sensor connected to the scale connector.
- c) Switch-on the microcomputer.
- d) Do the TARE (use the microcomputer's manuals for instructions).
- e) The scale has to be stable, displaying "0" Kg.
- f) Check the correct functioning, by trying to load weight on the connected sensor (the displayed weight is not important, but it must be steady).

REPEAT THE TEST CONNECTING THE SENSORS ONE AT A TIME.

RESULT	CAUSE	ACTION
Zero and weight stable.	The sensor is NOT damaged	Proceed with the other sensors.
Zero and weight not stable.	The sensor is damaged	Proceed with the other sensors. Contact the assistance service.

PROCEDURE 3**Ref. NO / YES**Check the functioning of the SYSTEM and of the SENSORS

- a) Switch off the microcomputer.
- b) Open the JUNCTION BOX.
- c) Just leave connected one sensor and the cable to the scale (SENSORS' CABLE).
- d) Switch on the microcomputer.
- e) Do the TARE (use the microcomputer manuals for instructions).
- f) The scale has to be stable, displaying "0" Kg.
- g) Verify the correct functioning, trying to load weight on the connected sensor (the displayed weight is not impostnat, but it must be steady).

REPEAT THE TEST CONNECTING ONE AT ONCE EACH SENSOR IN ITS FIRST POSITION

RESULT	CAUSE	ACTION
Zero and weight stable in all the connectors	The system works correctly.	Connect everything and try again with normal use.
Zero and weight NOT stable only in some connectors of the junction box	The box and the sensors connected to those connectors are damaged	Connect a working sensor to the "critical" connector; repeat the test and check the two following lines.
With a new sensor: zero and weight NOT stable.	The junction box is damaged.	Replace the junction box and repeat the tests.
With a new sensor: zero and weight stable.	The sensor previously connected is damaged.	Contact the assistance service
Zero and weight NOT stable in all the connectors of the junction box	The sensor cable or the microcomputer is damaged	Replace the sensor cable, repeat the tests and check the following line.
Zero and weight NOT stable yet	The microcomputer is damaged	Contact the assistance service

PROCEDURE 4**Ref. NO / NO**Check the functionig of the SYSTEM and of the SENSORS

- a) Switch off the microcomputer.
- b) Just leave connected one sensor to the scale.
- c) Switch on the microcomputer.
- d) Do the TARE (use the microcomputer's manuals for instructions).
- e) The scale has to be stable, displaying "0" Kg.
- f) Check the correct functioning trying to load weight on the connected sensor (the displayed weight is not important, but it must be steady).

REPEAT THE TEST CONNECTING EACH SENSOR, ONE AT A TIME, IN THE ORIGINAL CONNECTOR .

RESULT	CAUSE	ACTION
Zero and weight of a sensor NON stable.	The sensor is damaged	Contact the assistance service
Zero and weight of all the sensors on the same connector NOT stable	The microcomputer is damaged	Contact the assistance service
Zero and weight stable with all the sensors in the same connector	None	Repeat the test with another scale connector.
Zero and weight stable with all the sensors in all the connectors	The system works correctly.	Connect everything and try again in normal use

CE CONFORMITY DECLARATION

Company: Dinamica Generale srl
 Address: Via Mondadori, 15
 46025 Poggio Rusco (MN)
 ITALY

WE DECLARE THAT THE PRODUCT:

Model:	All weighing microcomputer Dinamica Generale
Description:	Simple and programmable weighing system
Options:	All the configurations

is in conformity with all the essential requirements of European Directive 2004/108/EC, making with the following directives:

EMC for emission:

EN 61326-1
 EN 55011(1999) – A1(2000) – A2(2003)

EMC for immunity:

EN 61000-4-2 (96) – A1 (99) – A2 (01)
 EN 61000-4-3 (97) – A1 (02)
 EN 61000-4-4 (96) – A1 (01) – A2 (01)
 EN 61000-4-5 – (1997)
 EN 61000-4-6 (97) – A1 (01)
 EN 61000-4-8 (97) – A1 (01)

The systems were tested in a typical configuration with "Dinamica Generale s.r.l." load cells.

POGGIO RUSCO, 28/08/2006

WARNING



The power supply must be connected directly to the battery or to a regulated feeder.
If it is not the case, DG is not responsible for damages to the micro computer.



Disconnect the power supply cable from the micro computer when the battery is undergoing recharge.
If it is not the case, DG is not responsible for damages to the micro computer.



Disconnect all lines from the local plant before undertaking welding on the lorry.
If it is not the case, DG is not responsible for damages to the micro computer.

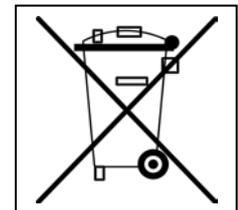


For a correct functioning, please make sure that the battery has always a higher voltage than 10,5 Volt.



This marking on the product or on its packaging illustrates that, under European Directive 2002/96/EG governing used electrical and electronic device, this product may not be disposed of with normal household waste.

You are responsible for disposal of this equipment through a designated waste electrical and electronic equipment collection. To determine the locations for dropping off such waste electrical and electronic, contact your government office, the waste disposal organization that serves your household or the company at which you purchased the product.



Before cleaning the mixer wagon with jets of water under high pressure, protect the equipment from possible ingress of water. In addition, take great care not to subject the indicator, load cell, junction box, audible alarm, cables or any options to direct jets of water.



If the equipment needs to be cleaned, use a soft, damp, lint-free cloth. Never use sprays, solvents, abrasives, or sharp or pointed objects that could damage the indicator.



Dinamica generale s.r.l.
Weight systems and automation

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ISO 9001 : 2000



ISO 14001