OPERATOR'S MANUAL

DG400

Feeding Monitoring

dinamica generale®
Electronic Solutions & Sensors

INDEX

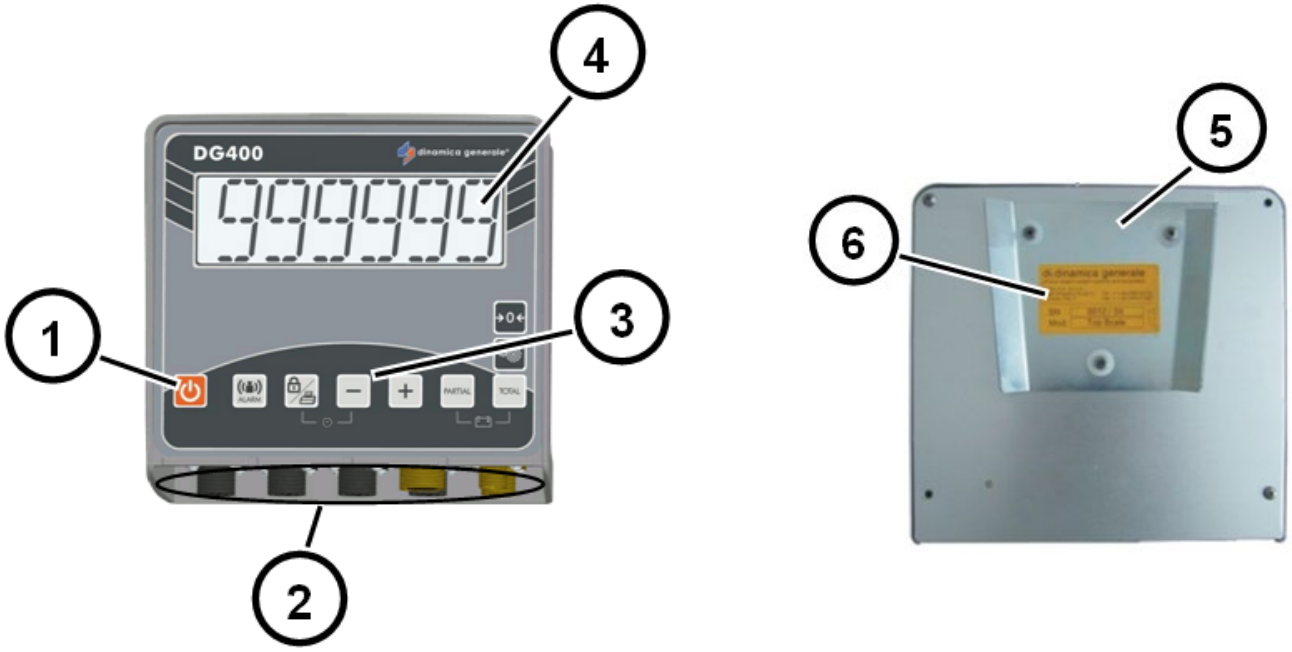
ENGLISH

TECHNICAL DATA

Range (f.s.):	0 – 999.999
Resolution:	0.01 – 0.02 – 0.05 – 0.1 – 0.2 – 0.5 - 1 - 2 - 5 -10 kg
Accuracy:	< +/- 0,015 % f.s.
Operating temperature:	-30 / +65°C (-22 / +150°F)
Storage temperature:	-30 / +65°C (-22 / +150°F)
Power supply:	9,5 – 32 Vd.c. (“LOW BATTERY” alarm < 9,5 Vdc)
Dimensions (mm):	UNIVERSAL: 220 x 210 x 130 mm (8.6 x 8.2 x 5.1 inches) SLIM: 220 x 200 x 80 mm (8.6 x 7.8 x 3.1 inches)
Weight (gr):	~2500
Case:	Specific Nylon with Glass Fiber V0
Protection grade:	IP 68*
Display:	6 digit LCD display 45 mm (1.7t7 inches) to show the weight.
Display view:	15 m and more (50 ft)

* 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. **6 digit LCD display 45 mm to show the weight.**
5. **Fixing support.**
6. **Identification label.**

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KEYBOARD

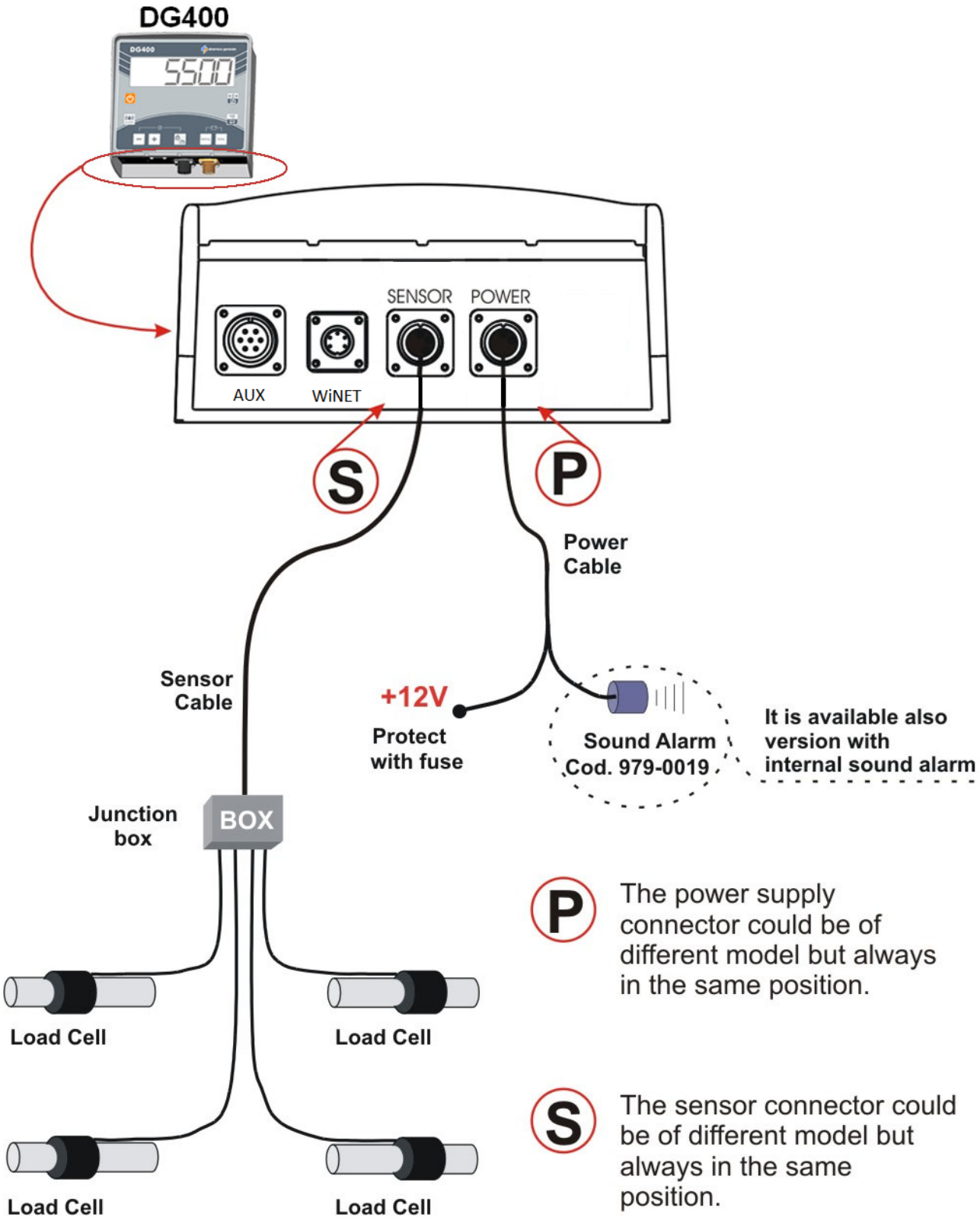
	ON – OFF	Press this key in order to switching on / off the indicator
	ALARM	From the TOTAL WEIGHT mode, press this key in order to set the weight. When this value has been reached, the alarm will start
	BLOCK / PRINT	1- Both in PARTIAL/TOTAL and in NET/GROSS it is possible to suspend the weighing by pushing this key. The same key will be pushed to resume weighing 2- Press this key in order to print the weight value (if the printer is properly connected to the indicator)
	MINUS	Press this key in order to decrease the value
	PLUS	Press this key in order to increase the value
	PARTIAL	1- In the PARTIAL FUNCTION MODE, press this key in order to zeroed the weight that is visualized on the display 2- In the NET/GROSS MODE, press this key in order to memorize a tare
	TOTAL	1- In the PARTIAL/TOTOAL mode, this key is used to display the total weight loaded in that moment 2- In the NET/GROSS mode, press this key in order to display alternatively the gross and the net weight
	SETTINGS / ENTER	During the switching on, when the message “Please Wait” appears, press this key in order to enter in the password configuration Press this key to confirm your choice
	ZERO	Press this key in order to zero (TARE) the system

SPECIAL FUNCTIONS

	PARTIAL and TOTAL	1- In TOTAL WEIGHT mode, press simultaneously in order to display the battery voltage 2- In PASSWORD CONFIGURATION, as an alternative to ENTER, press simultaneously to confirm
	BLOCK and PLUS	Press simultaneously in order to increase the value by 100
	BLOCK and MINUS	1- During the switching on, when the message “------” appears, press this key in order to setting the hour and the date 2- In TOTAL WEIGHT mode, press simultaneously in order to visualize the hour and the date 3- Press simultaneously in order to decrease the value by 100

CONNECTIONS SCHEME

Power and sensor connections (system with junction box)



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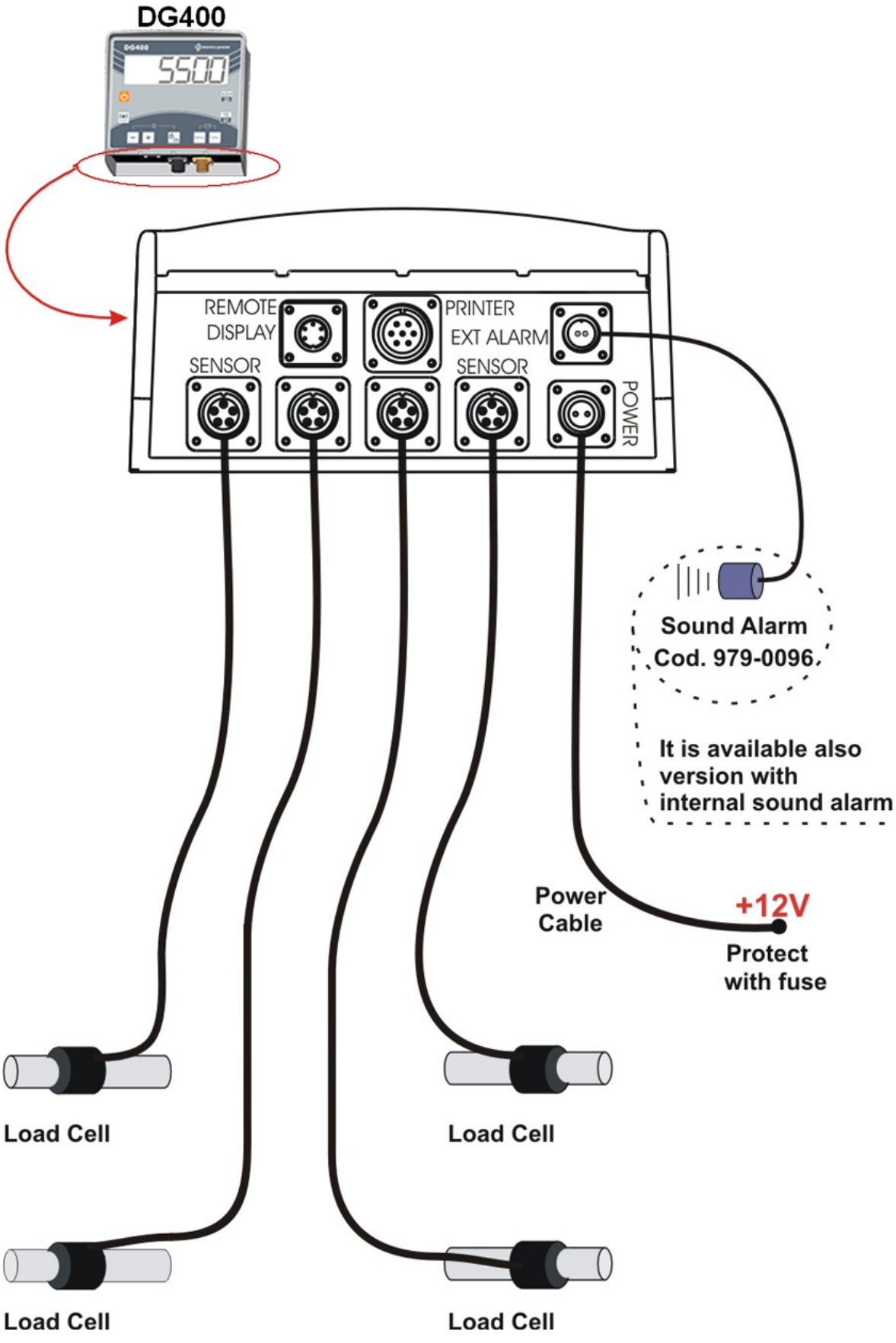
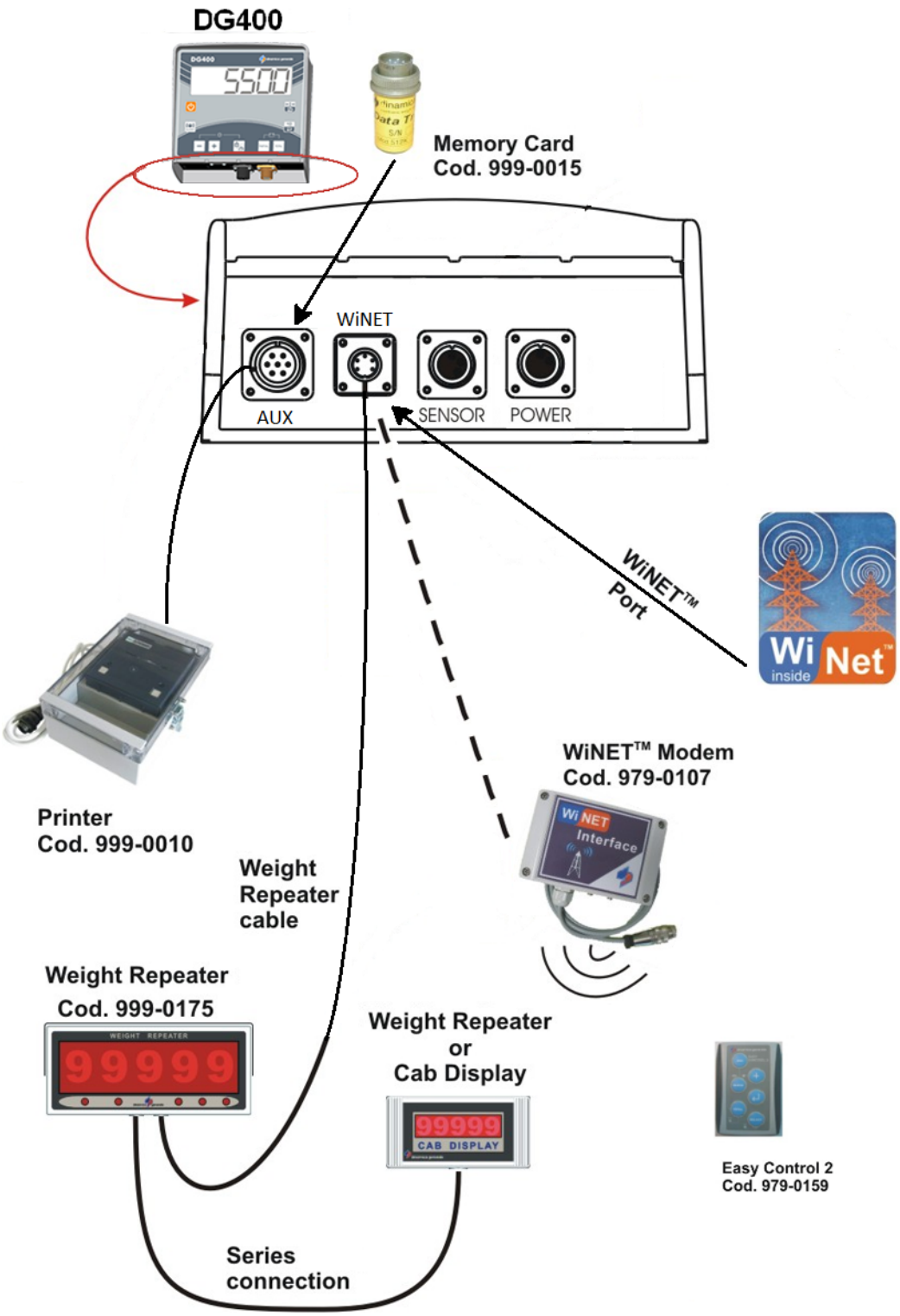
Power and sensor connection (system without junction box)



Accessories connection (system with junction box)



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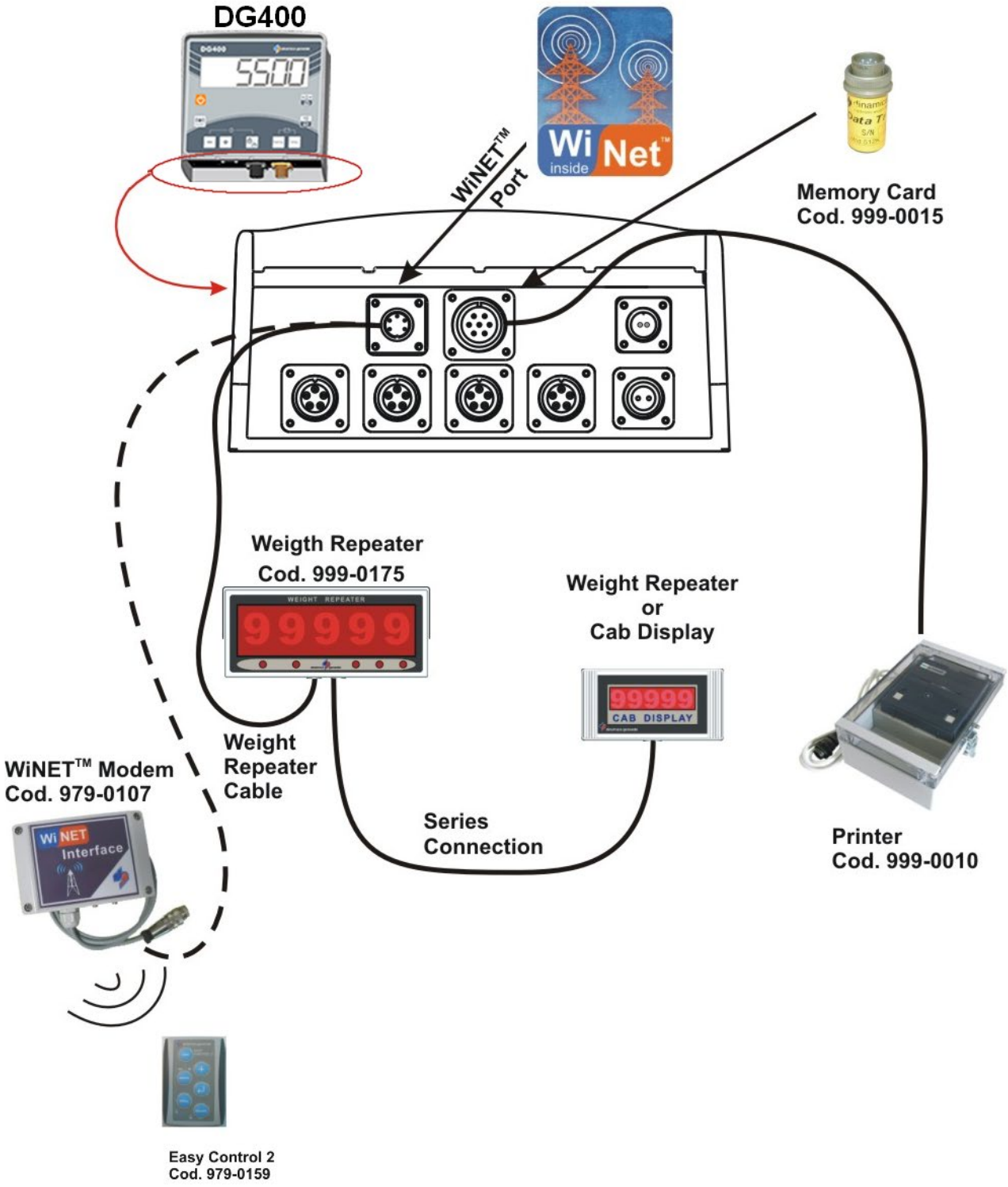
Accessories connection (system without junction box)



SETTING OF THE PARAMETERS

ACCESS TO THE PASSWORD MENU

1 **Switch on by pressing**

2 **Once the software revision has come up, the message "------" will appear on the display.**

3 **Press the setting key to enter in password configuration. The message "Config." will appear on the display.**

4

Release the key when -PASSWORD- appears on the LCD display.

**** NOTE 1***

6 **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 or press at the same time PARTIAL and TOTAL keys in order to confirm.**

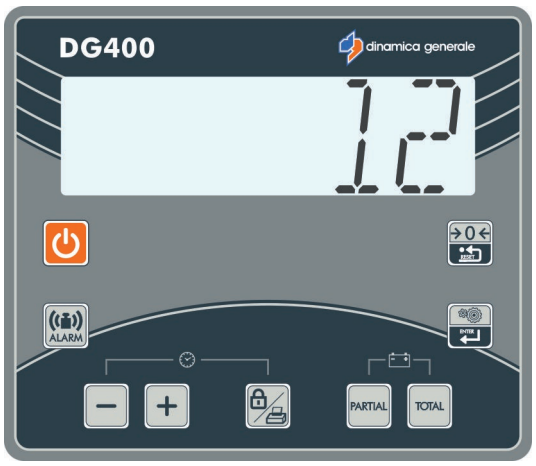
3 **The message "-----" will appear on the indicator. Afterwards the message TOTAL, which indicates the TOTAL WEIGHT mode, will be displayed ; therefore the weight value is visualized on the display.**

LIST OF THE PASSWORDS

12	**Calibration**
19	**Base parameters**
45	**Calibration with a reference weight**
46	**Inverse calibration with sample weight**
67	**Weighing modification in % (fine calibration)**
99	**Setting of the weight limit (over-range)**
444	**Setting of the working mode (N/G – P/T)**
454	**Setting Kg / Pounds**

PASSWORD 12: HOW TO SET THE CALIBRATION VALUE

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



2 **Press the ENTER key or press at the same time PARTIAL and TOTAL keys.**

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

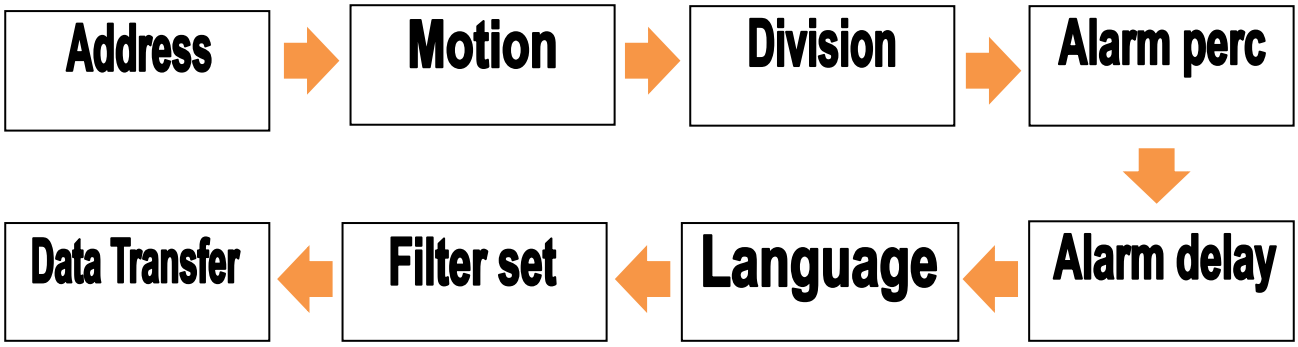
The calibration value depends on the load cells' number and capacity.
Please contact dinamica generale® for further details.
If the full equipment has been bought, the indicators have already been gauged by DG.

4 **Press the ENTER key or press at the same time PARTIAL and TOTAL keys in order to confirm the new calibration parameter: the message "CALIB OK" will appear.**

5 **The indicator return to password 0.**

PASSWORD 19: HOW TO SET THE BASE PARAMETERS

Password 19 includes the following base parameters:



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

2 **Press the ENTER key or press at the same time PARTIAL and TOTAL keys.**

3 **Once entered, it is necessary to scroll ALL the parameters using the ENTER key or pressing at the same time the PARTIAL and TOTAL keys. At the end of the list, press the ENTER key or press at the same time the PARTIAL and TOTAL keys in order to exit.**

PASSWORD 19: SETTING PROCEDURE

1 ADDRESS (Range: 1-255; Default: 3)

ADDRESS is an identification code which allows the indicator to be connected by RF only with those devices that use the same address to communicate, without 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 the ENTER key or press at the same time the PARTIAL and TOTAL keys.

---

2 MOTION (Range: 0-999; Default: 250)

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

If it is active, 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 the ENTER key or press at the same time the PARTIAL and TOTAL keys.

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3 RESOLUTION OF THE WEIGHT VISUALIZATION (Default:5)

Displayed weight resolution setting.

The setting up of the division of the Kg. to be displayed can be set at 0.01, 0.02, 0.05, 0.1, 0.2, 0.5, 1, 2, 5, 10, 20 or 50 kg always by pressing the PLUS and MINUS keys.

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

4 "-PERC ALARM-": WEIGHT DEVIATION ALARM (%) (Range: 0-50; Default:10)

Setting of the percentage of weight deviation necessary 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.

Recommended setting: 15.

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

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

5 ALARM TIME (Range: 0-60; 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 the ENTER key or press at the same time the PARTIAL and TOTAL keys.

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6 LANGUAGE: SELECTION OF THE LANGUAGE

Selection of the language for the printer

The selection of the language is made using the PLUS and MINUS button.

L01	English	L12	Czech
L02	Italian	L13	Croatian
L03	Spanish	L14	Slovak
L04	German	L15	Slovenian
L05	French	L16	Swedish
L06	Portuguese	L17	Norwegian
L07	Danish	L18	Finnish
L08	Dutch	L19	Latvian
L09	Polish	L20	Lithuanian
L10	Russian	L21	Estonian
L11	Hungarian	L22	Turkish

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

7 FILTER: SETTING FILTER TO STABILIZE THE WEIGHT READING (Range: 0-8; Default:4)

If the weight on the display is unstable, the parameter has to be increased; if, on the other hand, the weight is too stable (slow update) the visualization will be improved if this value is decreased.

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 the ENTER key or press at the same time the PARTIAL and TOTAL keys.

8 DT ENABLED: DATA TRANSFER (Default: 0)

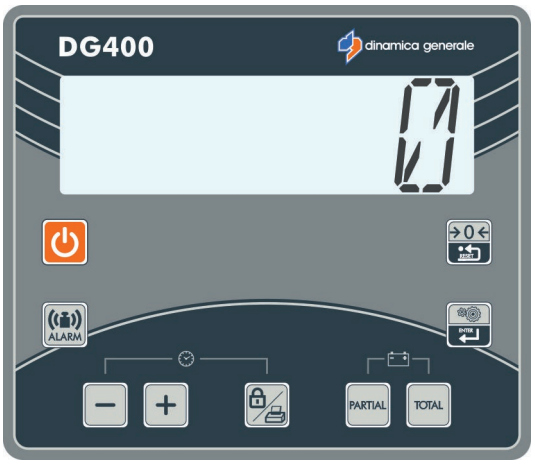
Setting of the Data Transfer:

0 = NO

1 = YES

Confirm by pressing the ENTER key or by pressing at the same time PARTIAL and TOTAL key.

9 The indicator return to password 0.



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PASSWORD 45:
HOW TO SET THE CALIBRATION WITH A REFERENCE WEIGHT

1 **From the modality “PASSWORD 0“, select number 45 with the PLUS and MINUS keys.**

2 **Confirm by pressing the ENTER key or by pressing at the same time PARTIAL and TOTAL key.**

3 **If the message “STEP1-“ appears for 2 seconds, it means that the calibration is starting properly.**

If the message “-STEP1-” does not appear, it means that the ENTER key or the PARTIAL and TOTAL keys have not been pressed correctly.

4 **The message “-ZERO-“ will appear, in this situation empty completely the mixer and then confirm with the ENTER key.**

5 **If the message "-----" appears, it means that the ZERO value will be saved.**

6 **The message "--STEP2-" and after the message "SET VALUE" will appear for 2 seconds, it means that the second step of calibration is starting.**

7 **The calibration value will be shown on the display; in this situation load on the mixer the reference weight and insert on the display the value (in Kgs or Lbs) of the reference weight, then confirm with the ENTER key or with the PARTIAL and TOTAL keys.**

8 **After the message "-----" , the message "-CALIB OK-" will be displayed: it means that the NEW CALIBRATION value has been saved properly.**

If an error message appears, it means that the calibration procedure has NOT been finished successfully; so retry the operation from the point 1.

9 **The indicator return to password 0.**

PASSWORD 46: INVERSE CALIBRATION WITH SAMPLE WEIGHT

This procedure allows to carry out the calibration of the weighing system on the basis of a known weight that must be appropriately weighed on the medium in which the weighing system is mounted.

From the modality Set password -/+, select number 46 with the PLUS and MINUS keys.

Confirm by pressing the ENTER key or by pressing at the same time PARTIAL and TOTAL key.

The message "Calib Step 1" and then "Set Value" will appear for 2 seconds, it means that the calibration is starting.

Load the weight on the mixer and insert the value of the reference weight placed in the mixer (in Kg or Pounds) with PLUS and MINUS keys, then confirm with 

key.

*** The value is only indicative**

The message "------" will appear, the NEW CALIBRATION value will be saved.

The message "Step 2" will appear for 2 seconds, it means that the second step of calibration is starting.

The message "Zero" will appear, in this situation empty completely the mixer and then confirm with the ENTER key.

The message "----" will appear, the Zero value will be saved.

If the message "Calib Ok!" will appear, it means that the calibration procedure has finished successfully.

After the end of the procedure the indicator returns to Set password -/+.

PASSWORD 67: HOW TO MODIFY THE WEIGHING

(Range: -10.0% / +10.0%; Default: 0.0)

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 or by pressing at the same time the PARTIAL and TOTAL keys.

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 ENTER key or the PARTIAL and TOTAL keys.**

The message “CALIB OK” will appear on the display.

---

5 **The indicator return to password 0.**

PASSWORD 99: HOW TO SET THE WEIGHT LIMIT

(Range: 100-99999; Default:15000)

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

2 **Press the ENTER key or press at the same time PARTIAL and TOTAL key.**

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 ENTER key or press the PARTIAL and TOTAL keys.**

The message -SAVED- is displayed.

5 **The indicator return to password 0.**

PASSWORD 444: HOW TO SET THE WORKING MODE

(Default: IP-t Partial/Total)

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

2 **Confirm by pressing the ENTER key or by pressing at the same time PARTIAL and TOTAL key.**

Setting up of the 1 PARTIAL/TOTAL or 0 GROSS/NET working mode by pressing the MINUS and PLUS keys.

3 **Setting up the 1 PARTIAL/TOTAL mode, press the TOTAL key to display the total weight loaded in that moment.**
In order to calculate the value of a partial weighing, press the PARTIAL key: the display is set to zero and this value will be increased 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. Changing the mode from PARTIAL to TOTAL, 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 see it again, since the system's tare and zero coincide.
This function is recommended especially in the case of feed mixers or trailers in general.

OPERATION	DISPLAY	PARTIAL LOADED WEIGHT	TOTAL LOADED WEIGHT
	200	0	200
Press PARTIAL	0	0	200
Load 100KG	100	100	300
Press TOTAL	300	0	300
Press PARTIAL	0	0	300
Load 500KG	500	500	800
Press PARTIAL	0	0	800
Load200KG	200	200	1000
Press TOTAL	1000	0	1000
Unload all	0	0	0

4 **By setting the 0 NET/GROSS mode, in order to store a tare, press the PARTIAL key: the display is set to zero 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 fixed 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	DISPLAY	NET WEIGHT	GROSS WEIGHT	TARE
	200	0	200	200
Press PARTIAL	0	0	200	200
	100	0	200	200
Press TOTAL	200	0	200	200
Load 100KG	300	100	300	200
Press TOTAL	100	100	300	200
Load 500KG	600	600	800	200
Press TOTAL	800	600	800	200
Unload all	200	0	200	200
Press TOTAL	0	0	200	200

5 **To confirm the parameter press the ENTER key or the PARTIAL and TOTAL keys.**
The indicator returns to password 0.

PASSWORD 454: HOW TO SET THE UNIT OF MEASUREMENT

(Default: Kg)

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

2 **Confirm by pressing the ENTER key or by pressing at the same time PARTIAL and TOTAL key..**

3 **Set up the unit of measurement in kilograms (kg) (0–KILOGRAMS) or in pounds (lb) (I–POUNDS) 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 "1 – POUNDS": the weight is displayed in Pounds (lb).

One pound = 0,454 kg

By setting up "0 – KILOGRAMS" : the weight is displayed in kilograms (kg).

4 **To confirm the parameter, press the ENTER key or press the PARTIAL and TOTAL keys. The indicator return to password 0.**

USE OF THE MICROCOMPUTER

SWITCH ON

a) Switch on the indicator by pressing  , the name DG 400 and the last software revision appears on the display, then the message "------".

b) A weight value appears on the display.

It is recommended to use the indicator at least 15 minutes after the switching, especially in case of cold temperatures (<0°C).

*** The weight value is just symbolical**

PARTIAL / TOTAL WORKING

Selected by password 444

ZEROING

a) By using the  key, zero the system.

b) The message "TARE" appears;

keep pressed the  key, until the message "TARE OK" appears.

c) The message of the indicator is again TOTAL WEIGHT.

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 weighing.

NET/GROSS WORKING MODE

Selected by password 444

ZEROING

a) Zero the system by pressing the

key.

b) The messages "ZERO" and "TARE OK" appears.

c) The indicator displays again GROSS WEIGHT "GROSS".
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 the key for 3 seconds, the messages "SAVED and "GROSS" appears.

Now the weight "0" is displayed and the previously displayed one is summed up to the gross weight.

By pressing the TOTAL key, "--NET" (NET WEIGHT) and "GROSS" (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 the

key, 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 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 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 recognizes 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, however, this value is repeated to the next process.

*** The alarm value is just symbolical.**

ADDICTIONAL 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.

HOURS and MINUTES:

1. DISPLAY

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

2. SETTING

a) Switch on the system. When the message "------" appears on the display, press the BLOCK PRINT and MINUS keys; then wait the message "CONFIG" .

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

c) Confirm by pressing the ENTER key 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 ENTER key, the message "------" appears and the indicator returns to TOTAL WEIGHT.

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

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 "PRESS 3 TO PRINT". Then the indicator returns to TOTAL WEIGHT.

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

HOW TO STOP THE WEIGHING

Both in PARTIAL/TOTAL and in NET/GROSS it is possible to suspend the weighing by pushing the key. The same key will be pushed to resume weighing. 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 when the trailer is moving.

LEGEND

CONVENTIONAL SIGNS

This user's manual 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

Accessory interface on request

It records on a ticket the information about the weights loaded or about the recipes that have been saved on the indicator (depending from the dinamica generale microcomputer), including the option to personalize the ticket. Possibility to print the strings in the languages that are available on the indicator.

- Possibility to define the customer's headline, name, address, company title etc.
- Low cost maintenance.
- Print module with thermal impact.
- In accordance with EEC directives.
- It is connectable to every dinamica generale microcomputer.
- 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 program, the RECIPE or the UNLOADING program are automatically printed at the end of the process.
- In order to advance of the paper by hand, press the Feed key on the printer panel.

WiNET™ MODEM

Compatible modem with all dinamica generale accessories and indicators, that is able to manage a wireless network between several devices without any interference issues.

- Best control of the equipment with maximum profit and without cable.
- Possibility to use many accessories connected to the indicator through wire or wireless.
- Only with one radio control the operator can manage several indicators and accessories at a time.
- Working range 25 meters x 360°.
- Improved organization for big companies in which you are working with more than one vehicle.

CAB DISPLAY

Supplementary display with little dimensions, suggested to use into the cabin of the self propelled machine or with WIRELESS Connection on any kind of machine used for the mixer load.

- Weight reading up to 99.999 Kg / Pounds.
- Operating temperature: - 30 / + 65 °C (-22 / +150°F).
- Dimensions 160 x 80 x 60 mm (6 x 3 x 2 inches).
- IP65 protection.
- Red "diodes LED" display high efficiency 25 mm high.
- Display visibility: more than 10 meters (30 feet).
- Simple and direct connection to all indicators dinamica generale®.
- The display can be connected by wire or by radiofrequency (WINET™).
- Possibility of a series connection of more displays.

WEIGHT REPEATER

Weight Repeater Display for a perfect visibility in any position, with the possibility also of WIRELESS Connection, and series connection.

- Weight reading up to 99.999 Kg / Pounds.
- Operating temperature: - 30 / + 65 °C (-22 / +150°F).
- Dimensions 275 x 124 x 87 mm (10 x 4 x 3 inches).
- IP68 protection.
- Red "diodes LED" display high efficiency 60 mm high.
- Display visibility over 30 meters (100 feet).
- Simple and direct connection to all indicators dinamica generale®.
- The display can be connected by wire or by radiofrequency (WINET™).
- Possibility of a series connection of more displays.

XL DISPLAY

Very large led display used for the remote weight visualization and the operator messages.
It is especially indicated for very large machines to allow the operator a constant control of weight as well as component name also at high distance.

- Weight reading up to 999.999 Kg / Pounds.
- Operating temperature: - 30 / + 65 °C (-22 / +150°F).
- Dimensions: 870 x 220 x 120 mm (34 x 8 x 4 inches).
- Red, Green and Yellow "diodes LED" display.
- IP65 protection.
- Display view: over 50 m (165 feet).
- Simple and direct connection to all microcomputers dinamica generale with the WiNET™ interface.
- Metal watertight case protected against radio frequency noises.
- Multilanguage management.
- Graphic bar.

DTM™

Accessory interface on request

Data exchange Computer-Indicator using Memory Card

DTM is a feeding management software developed with farmers in order to satisfy needs of farms. DTM is the evolution of a feeding software management in a professional, user friendly and integrated solution for farmers. All farm activities are controlled with a single innovative tool. An easy way to monitor, decrease costs and increase profits.

- Multi Language Interface and Setup, Contextual Help Online, Sw Upgrade via Internet.
- Ingredient definition with costs traceability, Diet/Recipe definition and feed distribution.
- Automatic Dry Matter adjustment of component (not available on every version of DTM).
- Programming of Components, Recipes, Groups, Unload Programs/Batch.
- Loading/Unloading History and detailed reports (not available on every version of DTM).
- Stock and costs management (not available on every version of DTM).
- Refused and Operators management (not available on every version of DTM).
- Historical data and detailed reports on NIR Analysis made by dg precisionFEEDING and AgriNIR™ (not available on every version of DTM).

EASY CONTROL 2

Radio Frequency communication (WiNET™)

Remote control in order to command the indicator all the way up to 25 meters (82 feet). With the WiNET™ Modem interface, the remote control can be used with all dinamica generale wireless accessories without any interference: all devices talk together in the same network.

- IP66 protection
- Working range 25 meters (82 feet) x 360°
- Battery type AA 1,5 Volt.
- Autonomy 120 days (normal function).
- Possibility to use EASY CONTROL 2 with other accessories connected to the indicator by wire or wireless with WINET™
- New features for zeroing and ID customer set.
- New ergonomic design for a better integration user hand – product, with soft rubber handling surface
- Backside battery house protected with a sliding cover, for a improved maintenance of the product (battery change)
- Available also version *Easy Control 2 PtoP* (no other wireless accessory can be used with this version)

WEIGHT TRANSMITTER 2

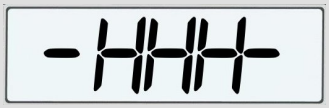
Device for the use of the weighing system in the industrial process lines.
This module is connected to the indicators in order to transform the weight value in an analogical signal 4-20 mA, or 0-10 V for the communication between the weighing system and the industrial devices such as inverter, PLC, etc.

- Analogic Output Voltage: 0 - 5 Vdc; 0 - 10 Vdc.
- Analogic Output Current: 0 - 20 mA; 4 - 20 mA.
- Power Supply: 10 - 32 Vdc (Voltage Output) and 20 - 32 Vdc (Current Output).
- Connection module PROFIBUS to DG-WT 2.
- Connection module PROFIBUS to PLC.
- Directly compatible with all indicators.

SEARCHING FOR FAULTS

MOTION ALARM		
DISPLAY	CAUSE	SOLUTION
DG400 	Cause1 The signal coming from the sensors shows sudden and important weight change. Cause2 A connection cable or a load cell does not work correctly.	Solution1: do the TARE. Solution2: do the calibration with password 12 and then do the TARE Solution3: do the check described as follows

IT DOES NOT SWITCH ON		
DISPLAY	CAUSE	SOLUTION
OFF	The power supply does not reach the microcomputer.	Soluzione1: check very carefully the power connection cable. Soluzione2: check the efficiency of the power supply system (minimum 9,5 Volts / 0.5 A). Soluzione3: contact the service department

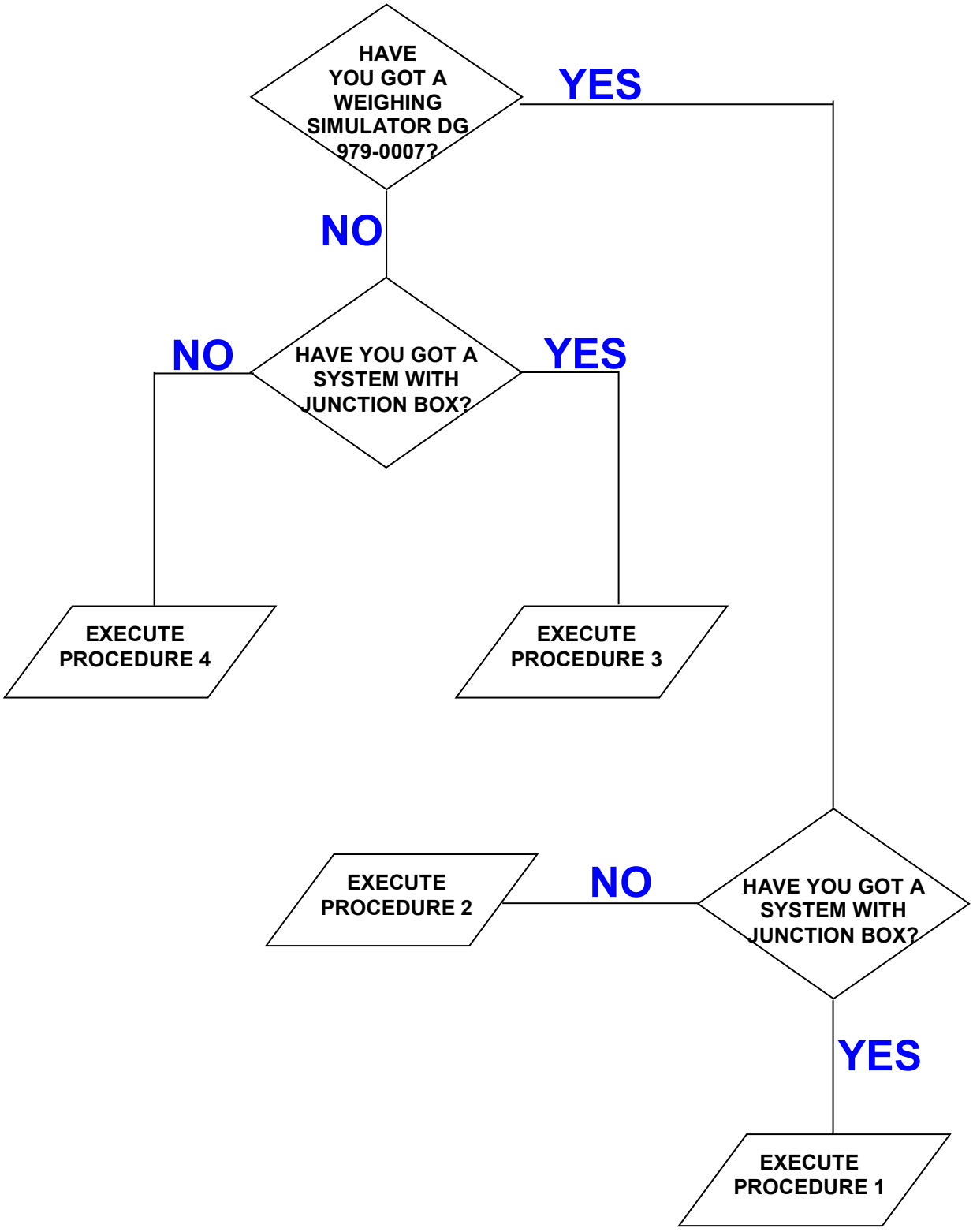
OVERRANGE ALARM		
DISPLAY	CAUSE	SOLUTION
DG400 	Cause1 The microcomputer can not read the signal of the load cells: the load cell connection cable does not work correctly.	Solution1: do the TARE.
	Cause2 A connection cable or a load cell does not work correctly.	Solution2: do the calibration with password 12 and then do the TARE.
	Cause3 The signal coming from the sensors is out of the valid “RANGE” (see the password 99).	Solution3: do the check described as follows.

LOW BATTERY ALARM		
DISPLAY	CAUSE	SOLUTION
DG400 	The microcomputer power is lower than the fixed value.	Solution1: check the efficiency of the battery.
		Solution2: check the CABLES that supply the power from the BATTERY to the MICROCOMPUTER.

UNSTABLE WEIGHT		
DISPLAY	CAUSE	SOLUTION
The weight continues to oscillate between tens or hundreds kg	The signal coming from the sensors is jammed: a cable or a load cell does not work correctly.	do the check described as follows.

CHECK THE DAMAGED COMPONENTS

DEFINE THE TEST PROCEDURE:



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 adapter.

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, anti-clockwise, 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 important, 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 functioning 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

DICHIARAZIONE DI CONFORMITA' - DECLARATION OF CONFORMITY KONFORMITÄTSERKLÄRUNG - DÉCLARATION DE CONFORMITÉ - DECLARACION DE CONFORMIDAD - ДЕКЛАРАЦИЯ О СООТВЕТСТВИИ

Nr 23/16

IT Il sottoscritto, designato a legale rappresentante della Dinamica Generale s.p.a. , via Mondadori 15, Poggio Rusco (MN) - Italy, dichiara che i prodotti sottoelencati:

EN The undersigned, an authorised officer of Dinamica Generale s.p.a. , via Mondadori 15, Poggio Rusco (MN) - Italy, hereby declares that the products listed hereunder:

D Der Unterzeichner, rechtlicher Vertreter der Dinamica Generale s.p.a. , via Mondadori 15, Poggio Rusco (MN) – Italy, erklärt, daß die nachstehend beschriebenen Produkte:

FR Je soussigné, représentant légal désigné de Dinamica Generale s.p.a. , via Mondadori 15, Poggio Rusco (MN) - Italy, déclare que les produits énumérés ci-après:

ES El suscrito, nombrado representante legal de la Dinamica Generale s.p.a. , via Mondadori 15, Poggio Rusco (MN) - Italy, declara que los productos indicatos a continuación:

RU Нижеподписавшийся, являющийся законным представителем компании Dinamica Generale s.p.a., расположенной по адресу via Mondadori 15, Poggio Rusco (MN) – Italy, заявляет, что продукция ниже

DG400

IT Sono conformi a quanto prescritto dalle seguenti direttive:
EN Are in compliance with the following directives:
D Mit den Vorschriften konform sind, die in den folgenden Richtlinien:
FR Sont conformes aux prescriptions des directives suivantes:
ES Respetan las prescripciones contenidas en las siguientes directivas:
RU Соответствует требованиям следующих директив:

2014/30/EU

IT E dalle seguenti norme:
EN And with the following standards:
D Und Normen stehen:
FR Et aux normes ci-apres:
ES Y en las siguientes normas:
RU И следующих стандартов:

Main Standards:
EN ISO 14982
EN 61326-1 (2013-01)
EN 61326-2-3 (2013-01)
Test Methods:
EN 55011 (2009-11) + A1 (2010)
EN 61000-4-2 (2009-03)
EN 61000-4-3 (2006-05) + A1 (2008) + A2 (2010)
EN 61000-4-4 (2012-11)
EN 61000-4-5:2014-08

IT E, in applicazione a quanto previsto dalle direttive citate, sono stati dotati di marcatura CE ed é stato predisposto un adeguato fascicolo tecnico presso la ns. sede.

EN And, pursuant of the above-mentioned directives, the CE mark has been applied. Furthermore, adeguate technical file has been prepared and is available from our offices.

D Und daß sie in Übereinstimmung mit den Vorschriften der obengenannten Richtlinien mit dem CE-Zeichen versehen sind und daß dafür ein angemessenes technisches Heft erstellt wurde, das bei uns in der Firma zur Verfügung steht.

FR En application des directives citées, ils portent la marque CE et un dossier technique est deposé auprès de notre siège.

ES Y, conforme con lo previsto en las citadas directivas, han recibido la marca CE. Existe asimismo un especifico prospecto técnico relativo disponible en nuestra sede.

RU И, в исполнении данных директив, был нанесен знак CE и соответствующее техническое досье было заведено в нашем офисе.

Poggio Rusco, 20/04/2016

Andrea GHIRALDI

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.

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.

ENVIRONMENT: Disposal Rules

This marking on the product or on its packaging means that this product can not be disposed with normal household waste.
You are responsible for disposal of this equipement in a correct way and in according to local regulations.
Electronic equipement, which has become useless, must be collected separately and sent an eco-rense.
It is forbidden to abandon in the environment device components or spare parts.
The manufacturer declines any responsibility for possible damage to environment, resulting from non-compliance with the existing legislation regarding disposal / recovery.

GUARANTEE

The supplier guarantees, for 24 months from the delivery date, the good quality of materials used, the excellent construction and the steady functioning of the instrument they have manufactured and that bears the trademark or the production serial number. During the guarantee period the supplier undertakes to repair or replace, free supplier's head office, faulty parts due to poor materials or faulty construction, provided that such parts are delivered free port supplier's head office.
Shortcomings and defects due to incorrect use of instruments, inadequate maintenance, changes carried out without the supplier's approval, normal wear are not included in this guarantee.
Liability and compensations by the supplier due to direct or indirect damages to persons, objects or production, even as a consequence of faulty functioning of the supplied instruments or of material or construction defects, are not included in this guarantee.

NOTES:

dinamica generale® has the faculty to modify the content of this handbook due to hardware and software implementations in order to improve their products and thus to guarantee the best service to their users.

Congratulations Dear User!

You have chosen a product by dinamica generale®, a leading company in the development and production of electronic weighing systems, automation systems and NIR solutions. These systems bring a highly technological level in every field of application such as zootechnical, feeding, industrial and biomedical. Year by year the international market recognizes our quality, experience, reliability and most of all our innovative technology, as a part of a highly developed and innovative know how. These are the pillars of our work and according to these beliefs we are at your service, providing you with a simple as well as new, precise and professional product, which is going to make your job easier for many years. This users manual intends to take you through the different performances of the weighing system in the easiest way and to show you some new functions as well. dinamica generale® did not forget to provide you even with the basic information: the configuration, the use of different accessories at your disposal, the service of "searching for faults" and the equipment's safety rules, in order to guarantee our customers always more and more support and technical assistance for years to come.

Now there is nothing left for us to do but wish you a work well done!

The team of dinamica generale®

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Service & Support

Weighing & Sensors
Technical support through our ticketing system (8.30 to 18.00 CET):
https://osticket.dinamicagenerale.com
or via e-mail: help@dinamicagenerale.com
24/7 hotline for critical breakdown support:
+39 346 96 55 640 or service@dinamicagenerale.com

NIR & Software
Tech support: 8.30 to 18.00 CET
NIR Support: Phone +39 0386 52134 E-mail nir.support@dinamicagenerale.com
Software Support: Phone +39 0386 741459 E-mail support@dinamicagenerale.com

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