USER MANUAL

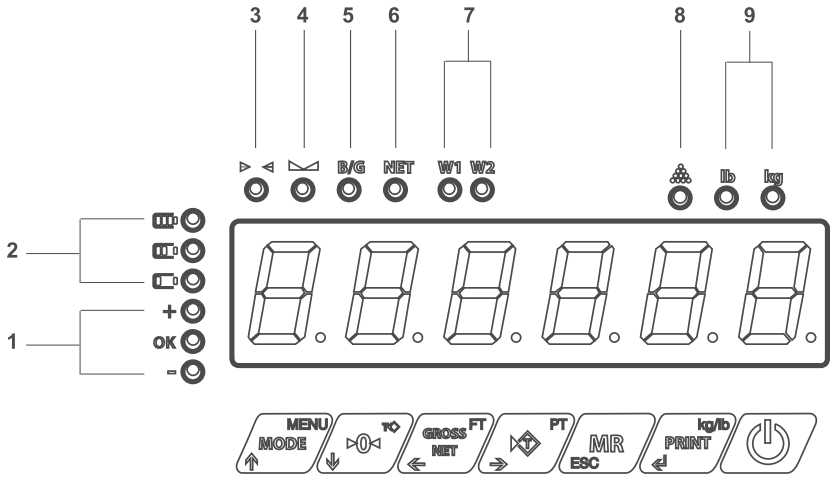
TERMINAL S910

10/12 Boulevard des Alliés 91720 MAISSE
⇨ b3c@orange.fr

ES

1. MECHANICAL DESCRIPTION

1.1 FRONT PANEL



LED SIGNS

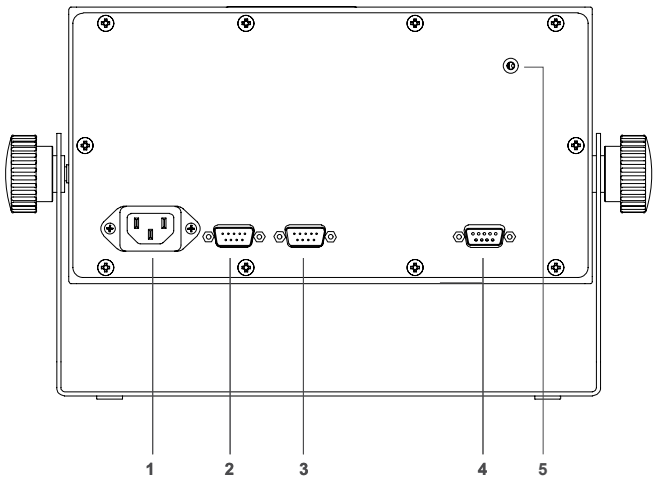
1	Signal of level of battery	6	Net weight
2	Signal of limits (checkweigher)	7	Platform 1-Platform 2
3	Signal of zero	8	Piece counting
4	Signal of steady weight	9	Units of measure
5	Gross weight		

TECLADO

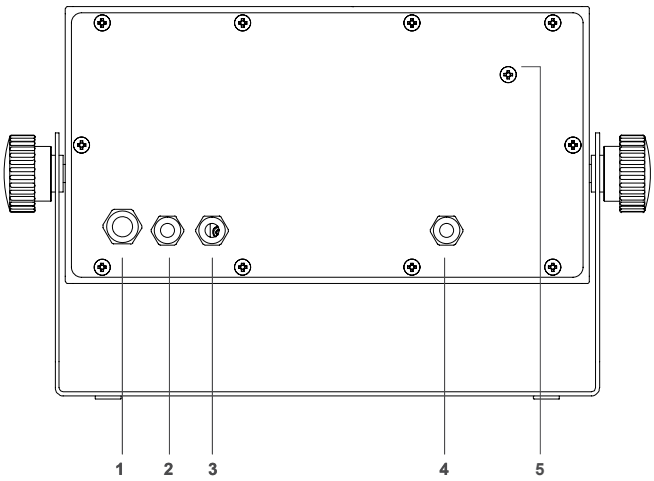
MENU MODE	Access to the user's and technician's menu
T◇ ▸0◂	Do Zero / Remove tare
GROSS NET FT	Show Gross/Net/ Set tare
PT	Do the tare / Introduce tare manually
MR ESC	Total of weights / Exit
kg/lb PRINT	Printing / Sending of manual weight / Selector of unit
	Switch on / Switch off

1.2 BACK PANEL

INOX IP54

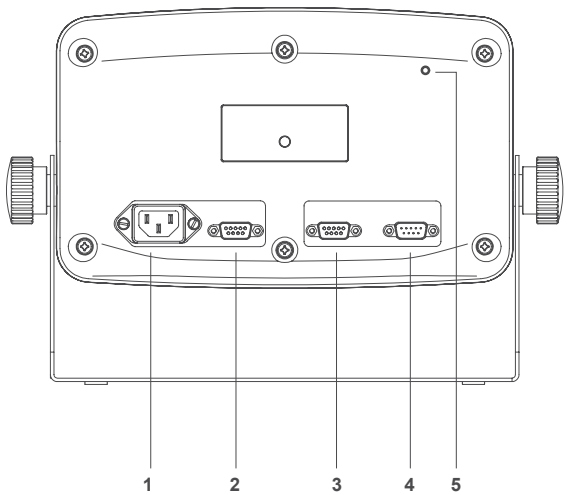


INOX IP65

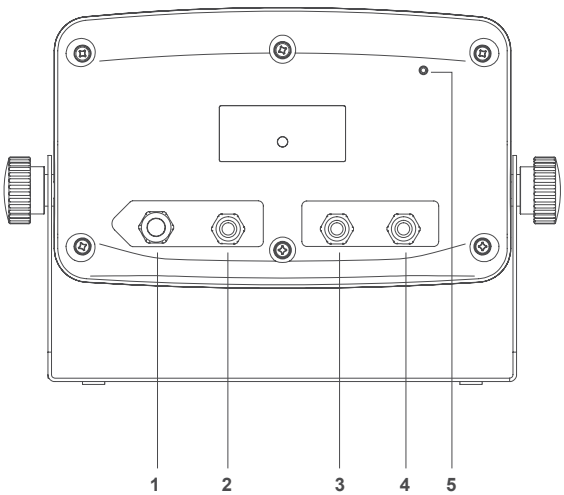


1	**Cable of excitation**
2	**Connector RS232-Com1** (SubD 9 male tracks)
3	**Connector RS232-Com2** (SubD 9 male tracks)
4	**Connector Load cell** (SubD 9 female tracks).
5	**Adjustment button**

ABS IP54



ABS IP65



1	**Connector RS232-Com1**
2	**Connector RS232-Com2** (SubD 9 vias macho)
3	**Load cell connection**
4	**Cable of excitation**
5	**Adjustment button**

2. CONNECTION

Connect the terminal to the platform through a DB9 connector. To switch on the terminal you must press for some seconds the key  . To switch off the terminal it is necessary to press for some seconds the key  ; but to switch off the terminal completely it can only be done by disconnected the terminal from the electrical connection.

2.1 PHASE OF TEST

DISPLAY	DESCRIPCIÓN
91400	In first place it appears the model of the equipment. (91400 =S910)
L0.003	Next it will show the version of the programmer
8.8.8.8.8.8	Then it will appear all of them...
u1.010	After that appears the version of the user's software
GrAvt	This is followed by the message
9.804	Then displays the value of gravity set
n calib	Then the message number of calibrations, followed by the corresponding value appears.
9 1.016	It appears on the screen the message 9 x.xxx internal version
P x.xxx	Finnally it appears on the screen software version of weighing.

2.2 DISPLAY OF THE NUMBER OF SERIES

If during the phase of test display the user presses the key 

the device is going to show the number of series.

ABC 123

2.3 SETTING THE INITIAL ZERO

When connecting the indicator it will start the setting of zero of the scale, to do so the following conditions are necessary:

1. Steady weight (luminous sign of steady weight on;
2. Value of weight not inferior to the -5% of the Max. in relation to the zero of calibration of the scale;
3. Value of weight not superior to the 15% of the Max. in relation to the zero of calibration of the scale.

During the development of the operation of zero setting the display is going to show the following message:

CEro

If the weight is steady but out of the range of zero the display is going to blink for about 1 second more or less.

N.B. The user can't do any operation until the setting of zero has been done

The precision of the setting of zero is inside and not out of the division: 0,25**e**

3. EXECUTABLE FUNCTIONS

3.1 SETTING THE SCALE TO ZERO

When the user presses the key 

asume la función metrológica de puesta a cero del peso en la modalidad descrita debajo en referencia a las normativas vigentes.

1. Steady weight (the bright sign of steady weight is on);
2. Value of weight not inferior to the -5% of the Max. in relation to the zero of calibration of the scale;

3. Value of the weight not superior to the 15% of the Max. in relation to the zero of calibration of the scale.

The brilliant sign  indicates that the function has been done.

3.2 WEIGHT

The device switches on a led of stabilibty when a weight is placed on the platform and when the weight is steady. When the scale is unloaded the device switches one the zero and stability leds.

3.3 TARE, CONSECUTIVE TARES, GROSS-NET

To do a tare the user must press the key  . When this key is pressed the indicator is going to show immediately the net weight, and the Net led switches on.

If the user wants to do another tare, s/he needs to press the key  again.

To know the gross weight (container plus contents) the user must press the key  . On the display the led Net switches off and the sign of gross weight B/G switches on.

If the user presses this key again  the device is going to go back to the net weight and the led of Net is going to switch on again.

3.4 BLOCKING/UNBLOCKING TARE

If the user wants to block the used tare in the previous section, so that it does not disappear the possibility to use the same are in a consecutive way, the user must press for some seconds, at least 2, the key tare  . The value of tare remains blocked. The display informs the operation showing " Tar.Blo".

To unblock the tare the user must press again the key  . The display is going to indicate this action by showing the message" Tar.Sbl" on the screen

3.5 MANUAL TARE

The terminal allows the incorporation of a manual tare by pressing during two seconds the key  . The user must use the keys described below to introduce the new value of tare:

ARROW KEYS	
	This key moves the selection to on the number on the right
	This key moves the selection to on the number on the left
	This key increases the value of the selected number
	This key decreases the value of the selected number
KEYS ESC AND ENTER	
	It eliminates the whole value of the selected field. If the user keeps this key pressed s/he can exit from the function.
	It confirms the content of the field and it allows to exit from the function

3.6 ACCUMULATION

The user can not use this function without activating it first. To do it the user must go to the menu "ModE". To go to the menu the user must follow the steps described in **the section number 4** and watch the procedure in the **section 4.5**.

To accumulate the weight of various weights the user must press the key  . When the system is steady the following message appears on the screen:

-Acc-

This message disappears after some seconds and it shows again the value of the last weight placed on the platform. If the user has a printer connected to the terminal, the printer prints a line with the net weight.

3.7 CONTINOUS MANUAL ACCUMULATIONS

If the user wants to accumulate again other weights, s/he must press the key kg/lb PRINT . The terminal is going to proceed with the memorizing if: the scale has been unloaded first or if a tare has been done and an additional weight has been placed on the platform.

3.8 TOTAL OF THE WEIGHTS

If the user wants to know the total of the weights s/he must press the key MR ESC. Before pressing the key, it is necessary that the scale is in -0- , all the desired weights must be accumulated and one of the modes of accumulation must be active. The terminal is going to show the total number of weights and the total net weight.

- If there is a printer defined in the parameters of rs232 and connected, a ticket is going to be printed.
- If the user presse the key MR ESC the device is going to release another print of the ticket.

4. FUNCTION MENU

DISPLAY	DESCRIPTION
ModE	• The user can access to this menu by pressing the key MENU MODE • The display is going to show the message "ModE" on the screen and next it will appear the first available function.

• The user must use the keys described bellow to select the desired function.

MENU MODE ↑	This key increases the value of the selected number
T◇ ▸0◂ ↓	It goes to the previous function
kg/lb PRINT ↵	It selects the function
MR ESC	If the user keeps this key pressed s/he can exit from the function.

THE AVAILABLE FUNCTIONS ARE:

CALPCU	CALCULATION OF THE UNIT WEIGHT
PCU	PIECE COUNTING
CHECk	CHECKWEIGHER
by 10	IT SHOWS THE WEIGHT WITH A DECIMAL MORE FOR ACCURACY
ACUMUL	ACCUMULATION
SubtoT	SUBTOTAL
t Code	CODE
n. t.C	NUMBER OF TICKET
- dAtE -	DATE
- t.me -	TIME
ICoUnt	INTERNAL COUNTS
UEIgHt	WEIGHT MODE
doSiFi	DOSAGE
LiMiTE	LIMITS

4.1 CALCULATION OF THE UNIT WEIGHT CALPMU

This function calculates the unit weight of the pieces through the piece counting program. To calculate the average unit weight the user must place the number of known pieces on the platform and the press the key 

. The screen of the display is going to show the message SP.xxxx. . The user must then introduce, using the keys, the number of pieces that make the sample.

	This key moves the selection of the active digit to on the number on the right
	It increases the selected number.
	It exits from the function memorizing the selected value.

To calculate and register the value of the average unit weight the user must press the key 

.
The terminal shows- during two seconds- the message "WEiGHt" on the screen, followed by the unit weight of the piece. After that, the indicator goes back to the weight mode and shows the number of pieces in the scale.
If the user presses the key 

and there is no weight on the platform or the weight is inferior to the necessary to calculate it on the screen, the display is going to show the message "add". This message indicates that more pieces are needed so that the calculation can be done.

4.2 PIECE COUNTING PMU

This function is used to do the calculation of the pieces loaded on the platform. It does so by taking the programmed average weight (**PMU**). The indicator asks for the **PMU** by showing the message Px.xxxx. The user must introduce the value of the unit weight using the following keys. .

	This key moves the selection of the active digit to on the number on the right
	It increases the selected number.
	It exits from the function memorizing the selected value.

4.3 CHECKWEIGHER CHECL

This function activates the mode "**CHECK WEIGHER**" or the mode goes-not-goes .

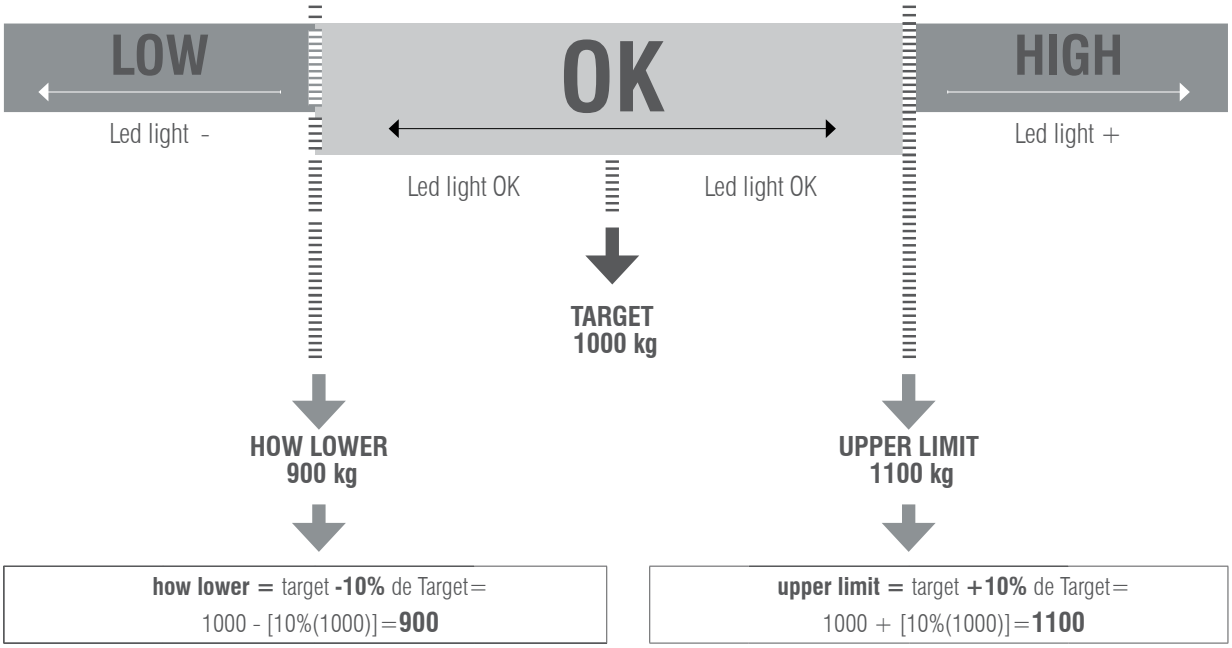
	This key moves the selection of the active digit to on the number on the right
	It increases the selected number.
	It exits from the function memorizing the selected value.

The equipment is ready to manage automatically up to **4 zones** through limits of weight for each one of them.
When the user accesses the menu CHECL the first parameter s/he must configures is the menu tArgEt: this menu programs the value of the target of weight that the user wants to achieve.
After that the user must choose the type of **TARGET** between tType 1 and tType2. To access must enter the parameter CHU TY. Once selected you can choose between ttype1 and ttype2.

4.3.1 TTYPE1

If the user chooses the tType 1 it allows to choose the inferior limits and the superior ones with a **porcentage** of the TARGET value.
Exemple:

-PC. 010 (We chose how lower limit 10% below the Target)
PC. 010 (We chose how upper limit 10% above the Target)

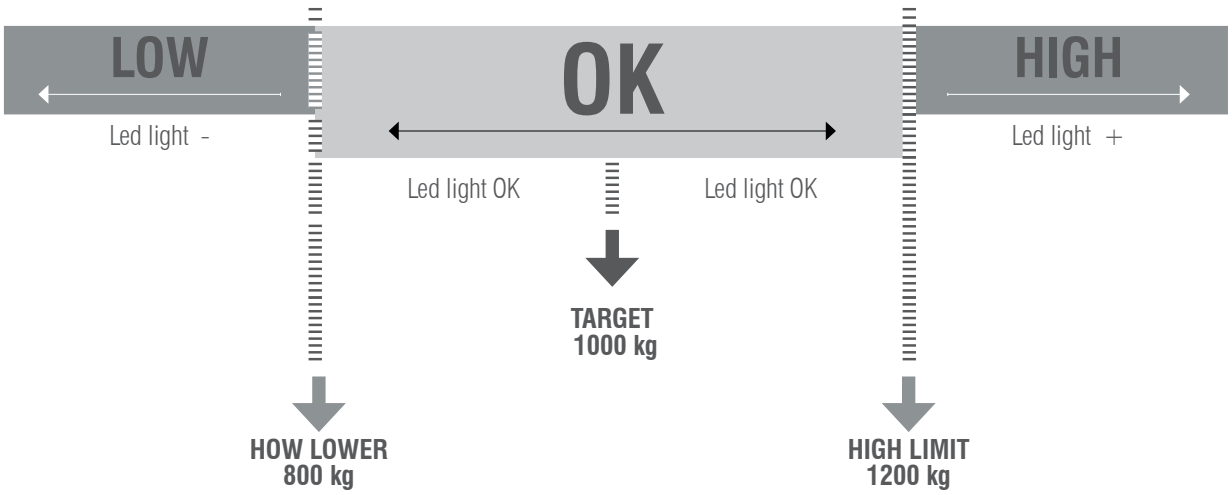


4.3.2 TTYPE2

If the user chooses the tType2 it allows to choose the inferior and superior limits directly: LOU L XXXXX i HiGHL XXXXX

Exemple:

LOU L 800
HiGHL 1200



Once they are configured, the **TARGET** value and the **LIMITS**, the program ask the user to configure the limit of the **ALARM**. The alarm programs the value. Any value above this one is going to activate the alarm sign, and 3 lights are going to bright (A xx.xxx)
Finally the user must choose the alarm sound. He can choose between btype 1 or btype2
.

4.3.3 BTYPE1

If the user chooses the btype 1 can to choose between the:

bmode 1: one beep sound
bmode 2: a short beep sound, when access the OK zone, it can be done above or below.
bmode 3: a long beep sound, when access the OK zone, it can be done above or below,

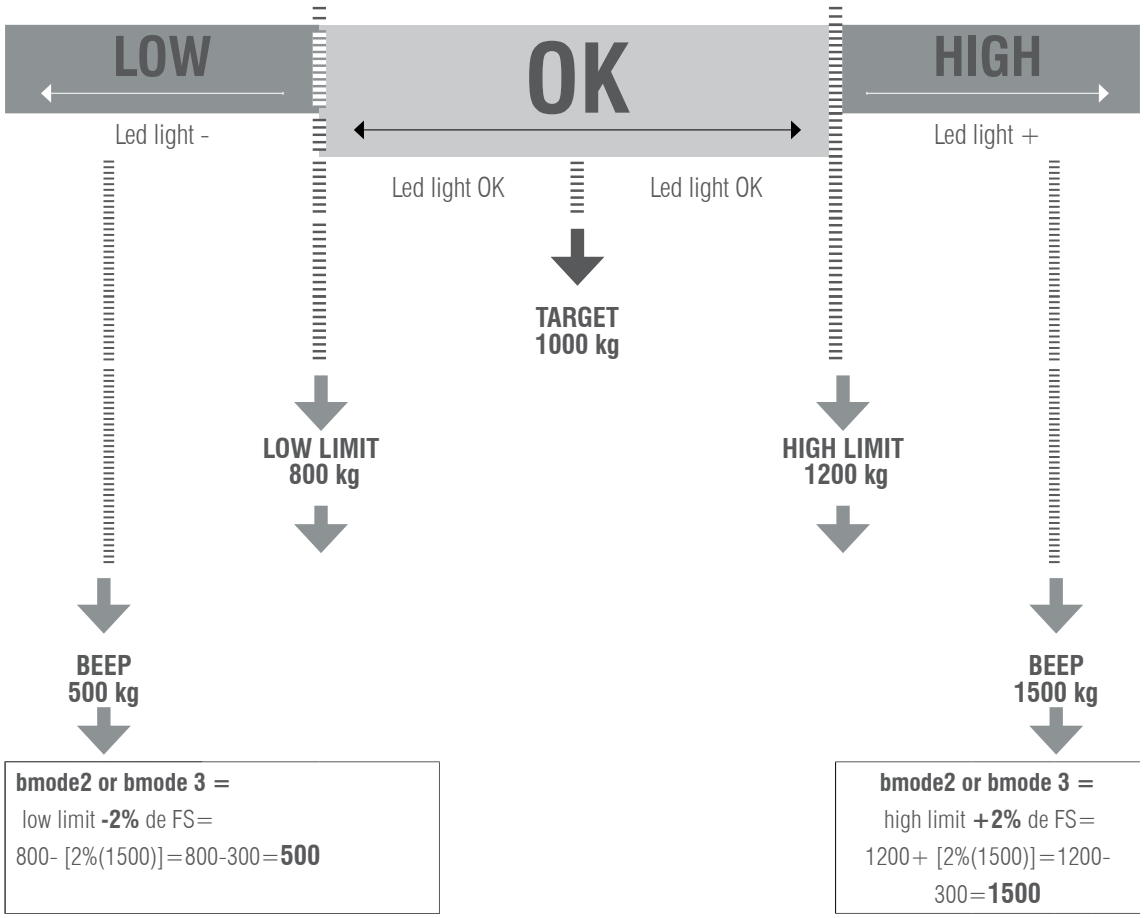
4.3.4 BTYPE2

If the user chooses the btype 2 can to chosse between the:

bmode 1 : with no beep sound
bmode 2 : short beep sound when moving away from the superior or inferior limit +-2% **FS**
bmode 3 : long beep sound when moving away from the superior or inferior limit -+2% **FS**

EXAMPLE;

TARGET= 2000g
FS=1500g
Active btype2 and ALARM is 3000g.
high limit = 2200g
low limit = 1800g

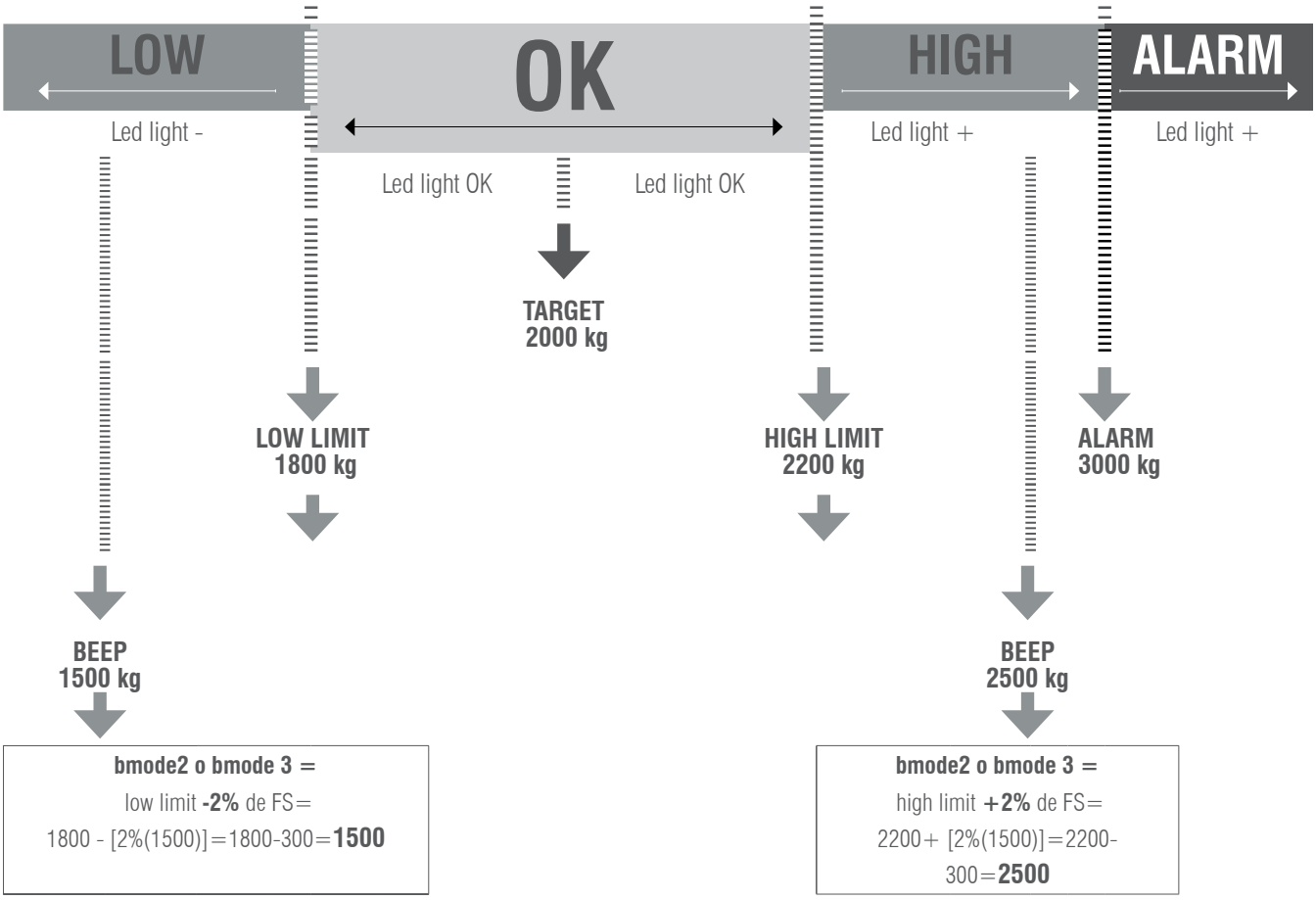


NOTE: ZONE OK

This value can not be programmed but it activates the signal 2 , when the value of the weight is superior to the inferior limit and inferior to the superior limit, the green LED is going to activate

EXAMPLE;

FS=1500g
Active btype2, mode 2 or 3.
ALARM 3000g
Target 2000
high limit = 2200g
low limit = 1800g



To go back to the weighing mode al mode, the user must select the menu WEIGHT (4.12)

4.4 IT SHOWS THE WEIGHT WITH A DECIMAL MORE FOR ACCURACY by 10

With the selection of this function the terminal displays a decimal more in the weight. After 10 seconds the function is automatically deactivated. The user must PRESS the key kg/lb PRINT once it is activated, the following message appears in the display for 1 second::

by 10

Once this function is authorized there is an activation of the display. In this situation the less significant number of the display gets activated and it indicates the value per 1/10 of the division of the verification. The decimal moves but the display does not increase a digit.

With the device connected, the display of the data of weight does not respect the metrological indication. It is for this reason that while it is activated all the communication with the series channel is inhibited. The display remains active for a period of approximately **6 seconds**, after this time the terminal, automatically, sets the display in normal weight

4.5 ACCUMULATION ACUMUL

This function carries out the process of auto accumulation and ticket printing

1.

DISPLAY	STEPS
ACUMUL	• When the user select the option ACUMUL and presses the key kg/lb PRINT

THE DISPLAY IS GOING TO SHOW ONE OF THE LEGENDS DETAILED BELOW

ACCoFF ACCAut ACCMAn

The user must choose them with the keys MENU MODE and →0← TC, the selected option is memorized by pressing the key kg/lb PRINT.

2.

DESCRIPTION: ACCOFF, ACCAUT AND MANACC, AND CONFIGURATION

ACCoFF

• **ACCUMULATION OFF**
The accumulation mode is deactivated

ACCAut

• **AUTO ACCUMULATION** The accumulation mode is automatic. In the moment of detecting steady weight the device does the accumulation automatically. Once this function is validated the terminal shows on its display the message (nA xxxx). The user must introduce the desired value of the number of accumulations using the following keys:

PT	This key moves the selection of the active digit to on the number on the right
MENU MODE	It increases the selected number.
kg/lb PRINT	It exits from the function memorizing the selected value

If this value is **DIFFERENT FROM** 0 the system continues with the accumulation of weights until it reaches the prearranged value. If the programmed value is 0, the weights are accumulated until the user decides to press the key kg/lb PRINT (limit 9999).

ACCMAn

• **ACCUMULATION MANUALLY**
The mode of accumulation is done manually by pressing the key kg/lb PRINT. To go back to the total the user must read the point 3.8

TO MAKE THE AUTO-ACCUMULATION FUNCTION WORK, IT IS NECESSARY TO SELECT FIRST THE PROTOCOL PRINT IN COM1 OR COM2, AS IT IS DESCRIBED IN THE SECTION 5 OF THIS MANUAL

4.6 SUBTOTAL SubTot

With this function the user can see the number of accumulated weights and the total weight up to the actual moment. The screen displays first the number of weights and next it automatically shows the total accumulated weight. This function does not entail the elimination of the number of weights and the total of weight.

4.7 CODE t. Code

This function allows the introduction of a code which is added to the printed ticket. To introduce this code the user must use the keys specified below.

PT	This key moves the selection of the active digit to on the number on the right

	It increases the selected number.
	This key exits from the function memorizing the selected value.

THIS OPTION IS ONLY VALID USING PROTOCOL PRINTER WITH THE OPTION PRNF9 ACTIVATED.

4.8 NUMBER OF TICKET n. tic

With this function the user can print in the ticket a number of tickets which is going to increase automatically when at the end of the weight, (number of delivery or number of ticket). If this field is placed equal to 0, the ticket is not printed and it does not increase.

	This key moves the selection of the active digit to on the number on the right.
	It increases the selected number
	This key exits from the function memorizing the selected value.

4.9 DATE -dAtE-

Función para la puesta al día de la fecha.

	This key moves the selection of the active digit to on the number on the right.
	It increases the selected number
	This key exits from the function memorizing the selected value.

4.10 TIME -tiME-

Function for the correct setting of the time

	This key moves the selection of the active digit to on the number on the right.
	It increases the selected number
	This key exits from the function memorizing the selected value.

4.11 INTERNAL COUNTS iCount

Using this function the user can see the internal counts of the converser; the possible options are the following ones: iC oFF y iC on

	This key moves the selection of the active digit to on the number on the right.
	It increases the selected number
	This key exits from the function memorizing the selected value.

When the user selects iC On, the display shows the internal counts If the user wants to go back to the WeiGht Tal, s/he must choose the menu WEIGHT (4.12).

4.12 WEIGHT MODE UEIGHT

The user access the normal mode of weighing again.

4.13 DOSAGE doSiFi

IT ONLY WORKS WITH AN OPTIONAL RELAIS PLATE

The equipment is ready to dose automatically with two different possibilities: 1 product at two speeds or 2 products at one speed, with unload. The device allows the pogramming, for each porduct, of the weight of the value of the thickness or product 1, and the value of the weight when the device works at slow speed (that is the value of the smooth) or the value of the product 2.

The device can also program a zone of unload where it is defined the value of the dosage(to correct the blocking of the system because there is product left in the weighing zone).

When the equipment starts working it automatically functions with the last formula it has worked with. This allows the device to start again with its daily work.

When the user gets into the menu to program the dosage "doSiFi", the following menu is going to appear on the screen::

doSiFi		
DOSAGE	**RESET**	yes-no (It sets the process to zero, it also places all the weights to ZERO)
PROD1	**WEIGHT**	thick weight to program or weight of the product 1
	TIMER	time of lack of material, if the weight on the screen does not change in this space of time, it activates the relais of alarm.
PROD2	**WEIGHT**	smooth weight to program or weight of the product 2
	TIMER	Time of lack of material
PROD2	**PESO**	Maximum waste weight
	TIMER	Time of zero, when the zero is activated a time to wait for the falling of the material is also activated
EXIT	**YES / NO**	

PROD1

It edits the values of the formula for the product 1. If the weight is programmed to 0, the equipment is going to dosify the product 2.

- WEIGHT: The desired weight for this product is programmed.
- TIMER: Time of lack of material, if the weight on the screen does not vary in this space of time, it is going .

PROD2

It edits the values of the formula for the product 2. If the weight is programmed at 0, the equipment will dosify only the product 1.

- WEIGHT: The desired weight for this product is programmed.
- TIMER: Time of lack of material, if the weight on the screen does not vary in this space of time, it is going to activate the relais of alarm.

Z.DESC

- WEIGHT: This option programs the weight within which the equipment determines that the dosage has been finished, (maximum of possible waste weight that may stay without the alarm ringing)
- TIMER: Time waste of material, if the weight on the screen does not vary in this space of time, it is going to activate the relais of alarm.

EXIT

It exits from the menu of dosage and asks to the user if he wants to get start doing the dosage. To start doing the dosage appears on the display the legend - DOSI – The keys can do the functions specified below:

ENTRANCE EXT.	KEY INDICATOR	FUNCTION
INPUT 1	kg/lb PRINT ↵	START key
INPUT 2	MR ESC	STOP Key

INPUT 3	PT	RESTART key
INPUT 4	GROSS NET FT	ABORT key / exits from the DOSI function and goes back to the normal mode

This device includes the **plate S910 -1** with 4 entrances and 4 digital exits salidas with alarm and remote control , apart from the voltage or electricity exit. The dosage function is only available when the plate is connected correctly to the indicator.

The card includes four relays with exit of free of potential. With them the user can command remote instruments such as relays, lamps of signal and PLC. The card also includes four remote entrances opto isolated. The four entrances emulate the keys of the equipment when they are in dosage mode and the connection of the relays in the dosage mode is the following one:

CONNECTOR XM2	FUNCTION
1 / 2	Out 1 product 1
3 / 4	Out 2 product 2
5 / 6	Out 3 Unload
7 / 8	Out 4 Alarm
11	Input 1
12	Input 2
13	Input 3
14	Input 4
10	Common INPUT 1-4

4.14 LIMITS LiMiLE

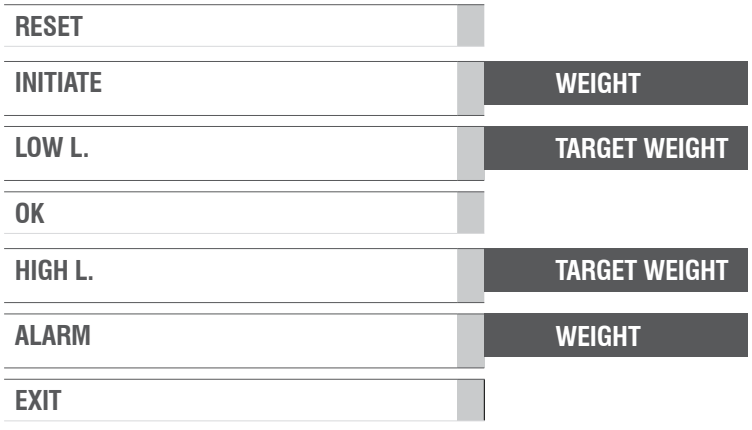
THEY ONLY FUNCTION WITH THE OPTIONAL RELAYS PLATE

The equipment is able and thought to manage automatically up to 3 limits through registers of weight for each one of them.
These registers are called

- Low Limit (Low.L.)
- Target (OK)
- High Limit (High. L.).

The associated relays is always activated when the weight of the scale is placed between the two limits.

As each relay is in fact a commute circuit, taking the normaly closed contacts, the user is going to obtain the inverse sign of the previous figure.
When we go to the function of the programming of limits (LiMiLE), the following menu is going to appear on the screen:



RESET	It places at 0 all the relays so that it deactivates all of them.
StArt	It programs the value, every value above this one is going to activate the relays of the L.INF, RELAYS 1 (S xx.xxx)
Low L	It programs minimum value, every value below this one is going to activate the relays of the L:INF, RELAYS 1 (L xx.xxx)
O.K.	This value can not be programmed but it activates the RELAYS 2 whenever the value of the weight is superior to Low L and inferior to the High L
High L	It programs the high value, every value above this one is going to activate the relays of the L.SUP, RELAYS 3 (H xx.xxx)
ALARM	it programs the high value, every value above this one is going to activate the relays of alarm, RELAYS 4 (A xx.xxx)
EXIT	The function of the limits is automatic when it exits from the zero range.

NOTES: THE FUNCTION OF THE LIMITS IS AUTOMATIC WHEN IT EXITS FROM THE ZERO RANGE.

THE CONNECTION OF THE RELAYS IN THE LIMITS MODE IS THE FOLLOWING ONE

CONNECTOR XM2	FUNCTION	CONNECT TO
1 / 2	Relays 1	
3 / 4	Relays 2	
5 / 6	Relays 3	
7 / 8	Relays 4	
11	Input 1	Not used
12	Input 2	Not used
13	Input 3	Not used
14	Input 4	Not used
10	Common INPUT 1-4	Not used
N.B. Out 1-4 max 110AC 0,5 A 30Vdc 1 A		

4.15 ANALOG EXIT 4-20MA / 0-10V

ACCESS TO THE MENU IS POSSIBLE ONLY WHEN THE CARD IS CONNECTED

This card allows the exit of 4-20mA o 0-20mA or 0...+10V o 2…+10V, proportional to the gross weight or the net weight in the scale.
The exit of the current is active and supplies the necessary voltage.
The analog exit is actualized every 50ms and acquires the appropriate value of the weight, converted into in that moment. It is for this reason that if the filter in the weight is decelerated, the analogical exit is also decelerated.
To do the setting of the parameters, the user must access to:

ANALOG		
4-20MA	YES-NO REQUESTING THE FULL SCALE (U MAX) IN KG THAT WILL DELIVER 20MA.	
0- 10V	APPLY FULL SCALE (U MAX) IN KG THAT WILL DELIVER 10V.	
AJUSTAR AJUSTA	**AN MIN**	OUTPUT FOR NEGATIVE WEIGHT
	AN ZER	OUTPUT FOR ZERO WEIGHT
	AN MAX	DEPARTURE FOR THE FUND ALLOCATED SCALE (U MAX)
ACTIVA	SELECT YES / NO TO ACTIVATE OR DEACTIVATE FUNCTIONALITY	

The setup process begins by selecting the operating mode, either 4-20mA or 0-10V depending on the type of output you want. At this point you must specify the full scale **MAX U** which must be equal to or less than the full scale of the computer.

When the back of the scale is confirmed, the device starts the establishment of values of the analog exit, or the values of the digital/analog converter are introduced (comprised between 0 and 65535), for these values it is appropriated a determined value of exit in voltage or current.
In this configuration the keys of the device acquire the following functions:

An MAX

It establishes the magnitude of the analog exit, be that in current or voltage, when the scale displays the maximum weight, which is going to belong to the previous FS programmed.
This value can acquire a value between 0 and 65535 (values of the digital/analog converter); if a superior number is introduced, the device sends out a large sound and returns to zero the introduced value.

An ZEr

It establishes the magnitude of the analog exit, be that in current or voltage, when the scale displays the minimum weight, which is going to belong to the Zero of the scale.
This value is comprised between 0 and 65535 (values of the digital/analog converter); if a superior number is introduced, the device sends out a large sound and returns to zero the introduced value.

An Mn

It establishes the minimum value of the analog exit. With this value we adjust so that the equipment gives a value below 4 mA or 0v. It also allows us to program the magnitude of the signal when the value loaded on the platform is below zero, belonging to the condition underload.
This value can assume a value comprised between 0 and 65535 (values of the digital/analog converter); if a superior number is introduced, the device sends out a large sound and returns to zero the introduced value.

Example

We are going to take as example a hopper scale with a back of scale of 300kg. Of this scale we only use the range up to 200kg for the exit of 20mA as this is the maximum capacity of the hopper.
In F.S we will introduce 200kg and we will adjust the value of An_Max so that in the exit we can register 20mA with a multimeter or an automaton. Next we are going to go to the parameter An_Zer and adjust the value to obtain 4mA in the exit; with this we are going to have a perfect measuring range of 200kg and 16mA. In the parameter An_Min we are going to introduce a value so that we can read the negatives to up to the 3mA. In the case that the automaton does not allow it, we will adjust the zero to 5mA. The measuring range is going to be of 200kg and 15mA.

GUIDE VALUES BETWEEN D/A CONVERTER AND ANALOG EXIT

VALUES D/A CONVERTER	VALUES OF VOLTAGE (V)	VALUES OF CURRENT (mA)
1200	0	0
12700		4
58600		20
62650	10	

When the modality 2-10v o 4-20mA is selected, if the weight is negative it is used the measuring range 0-2v or 0-4mA to represent the negative value;

THE CONNECTION OF THE CIRCUIT IS AS FOLLOWS

CONNECTOR J2	function	Connect to
1	Iout +	Salida Corriente (+) 4-20 mA
2	Iout -	Retorno Corriente (-) 4-20 mA
3	Vout +	Tensión (+) 0-10 V
4	Vout -	Tensión (-) 0-10 V

5. NO METROLOGICAL TECHNICAL MENU

In this page the user can find the description of the options of the LIMITED PROGRAMATION. Functions to personalize ONLY the configuration of the NO METROLOGICAL PART (printers, peripherals, analog exits and relays):

- The procedure of the limited programming is done by pressing for a long time the key MENU MODE
- A pin code must be inserted (4 digit numbers)

In the mode of programming the display is going to show the following message (The pin of factory is 0000): P:0000

> If the user does not know the pin or to program it for the first time, the user must enter the set up through the switch and access the menu CHG_PIN. .

5.1 MENU PArAME ; COM1, COM2 and RS485

Once the Pin is introduced in the mode of limited programming, the display is going to show the following message:

PArAME

This functions allows the programming of the general No metrological parameters of the scale, which are the following ones

COM 1	Setting up port 1 Rs 232 to PC, Printer, etc….
COM 2	Setting up port 2 Rs 232 to PC, Printer, etc….
RS485	chanel configuration RS485.

5.1.1 FRAME

The frame allows the definition of the format of the data of communication using the channel of series rs232 com1.
The possible choices are:

7/none/2, 7/odd/1, 7/odd/2, 7/even/1, 7/even/2, 8/none/1, 8/none/2, 8/odd/1 y 8/even

5.1.2 BAUD RATE bAUd

It allows the definition of the speed of communication using the cannel of series rs232 com1.
The possible choices are:

300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 baud.

5.1.3 PROTOCOLO ProtoC

Currently the terminal includes different protocols of communication that can be used through the port of RS-232:

SPI2	Protocol – SIPI II -- standar sipi series of the type II (22 characters)
tol dS	Protocol – Toledo DS
EPSA	Protocol EPEL
M-t	Protocol of METLER
F501	Protocol of F501
SAIE	Protocol SAIE
MuLtiP	Protocol MULTIPUNTO 2000
Seur	Protocol SEUR
Tisa	Protocol TISA
Ud-0	Protocol VD0
Ud-300	Protocol VD300

User df	Protocol editable
SScar	Protocol SENSOCAR
CScomp	Protocol CAS NOVITUS
none	Protocol none
remtr	Protocol remtr
remslv	Protocol remslv
Print	Apply the print format. (see 6.1)

5.1.4 Ind.Add

Adjust the direction of the terminal.

5.1.5 tr.99r (MODE OF TRANSMISSION)

It allows the configuration of the terminal to send the information to the PC via the channel of series of RS-232 com1 through one of the following modes:

Continuos: the terminal sends the chain of information, depending on the protocol, in a continuous way.

Manual: the terminal sends the chain of information, depending on the protocol, when pressing the key 

pc req.: the terminal sends the chain of information, depending on the protocol, when the order from the PC has been received PC the user must read the section 7.2

Stable: the terminal sends the chain of information, depending on the protocol, once it has acquired a value of steady weight.

Interval: the terminal sends the chain of information, depending on the protocol, when a variation of the weight is obtained.

6. PRINTER

The available printers are the following ones:

- BTP-M280
- TM-V220
- POS 76

The working of the printer is described below:

When the user presses the key 

the weight is printed, with its number of weighing and its corresponding tare if the mode of transmission is manual (5.1.15).

The user can do successive weights pressing the key 

. This process can be done if the system goes first to zero or if a tare is done or if an additional weight is situated on the platform.

Once the user has done all the needed weights, when pressing the key 

the user will obtain the definitive ticket with the number of weights and the total weight in case that the device has the accumulation option in active mode.

> If the accumulation mode is automatic, there should be chosen **tri99r Stable**. Conversely, if the transmission mode is manual should be chosen **manually tri99r**

The printed ticket has 40 characters.

6.1 TICKETS FORMATS S910

FORMATS FOR WEIGHT WITHOUT ACCUMULATION

PRNF 1

```
Weighing Number: #85
08:33:57        25/11/14
Net:            2.400 kg
Tare:           0.000 kg
------------------------
```

PRNF2

```
Weighing Number: #86
08:37:25        25/11/14
Net:            2.000 kg
Tare:           0.000 kg
Gross:          2.000 kg
------------------------
```

FORMATS COUNTING WITHOUT ACCUMULATION

PRNF3

```
Weighing Number: #87
08:41:28        25/11/14
Unit W:     222.222229 g
Tare:           0.000 kg
Gross:          2.000 kg
Net:            2.000 kg
Total Units:         9 u
------------------------
```

PRNF4

```
Weighing Number: #88
Unit W:     222.222229 g
Tare:           0.000 kg
Gross:          0.400 kg
Net:            0.400 kg
Total Units:         0 u
------------------------
```

FORMATS CHECKWEIGHER NO ACCUMULATION

PRNF5

```
Weighing Number: #89
08:46:13        25/11/14
Target weight: 1.000 kg
Actual weight: 0.400 kg
Deviation:      0.600 kg
------------------------
```

PRNF6

```
Weighing Number: #90
Target weight: 1.000 kg
Actual weight: 2.000 kg
Deviation:      1.000 kg
------------------------
```

FORMATS FOR ACCUMULATION (MANUAL OR AUTOMATIC)

PRNF8

```
----------------------------------------

 FECHA:       HORA:         NR. TICKET

25/11/0014  08:51:06         000091

N.PESADA CÓDIGO   TARA KG       NETO KG

   0     041608    0.000 KG    0.400 KG

   1     041608    0.000 KG    0.400 KG

   2     041608    0.000 KG    0.400 KG

TOT. PESADAS      TOT.PESO NETO KG

        3              1.200 KG

----------------------------------------
```

PRNF9

```
----------------------------------------

FECHA:25/11/0014 HORA:08:54:42 PRG: 001

NR. TICKET: 000093    CÓDIGO: 041608

G    2.000 KG

T    0.000 KG

N    2.000 KG

----------------------------------------
```

FORMATS *PRNF1* TO *PRNF6* WITH ACCUMULATION (MANUAL)

```
========================

         TOTAL

========================

08:58:33       25/11/14

************************

Weights:#00095 - #00096

Number of Weights:00002

========================

Tot Gross:     4.000 kg

------------------------

Tot Net:       4.000 kg

------------------------

Tot Tare:      0.000 kg

========================
```

7. MESSAGES OF ERROR

DISPLAY	POSSIBLE CAUSES	SOLUTION
 Function of initial zero setting or through a key  in process (blinking message).	1. On the scale there is a weight value superior to the accepted limit of the function. 2. The weight on the scale is not steady.	1. Unload the scale . 2. Wait until the weight is steady. **If the anomaly persists you must ask for help to your supplier service centre.**
 **OVER LOAD** The analog sign of the load cell is out of the working range of the A/D chip. This error finishes when the sign reenters the expected range.	1. Connector of the load cell not connected. 2. Broken cable. 3. Broken load cell (due to overload).	1. Control that the connector is correctly connected. 2. Control carefully the cable of connection to the load cell and replace it if it defective. 3. Control the sign of the cell when unloading. If it is very high you must also replace it. **If the anomaly persists you must ask for help to your supplier service centre.**
 **UNDER FLOW** The analog sign of the load cell is out of the working range of the A/D chip. This error finishes when the sign reenters the expected range.	1. Connector of the load cell not connected. 2. Broken cable. 3. Broken load cell (due to overload).	1. Control that the connector is correctly connected. 2. Control carefully the cable of connection to the load cell and replace it if it defective. 3. Control the sign of the cell when unloading. If it is very high you must also replace it. **If the anomaly persists you must ask for help to your supplier service centre.**
 **ERROR RD/WR EEPROM**	1. Error after an operation of Reading or writing of the EEprom device	**If the anomaly persists you must ask for help to your supplier service centre.**

8. CONNECTIONS

INTERFACE SERIES RS-232 COM1

The instrument includes in the standar model a series exit of the type RS232.

DESCRIPTION OF THE CONNECTOR PIN-OUT MALE EXIT SERIES RS232-COM1

N° PIN	DESCRIPTION	DIRECTION
2	TX (RS232C - TRANSMITTER)	EXIT
3	RX (RS232C - RECEIVER)	ENTRANCE
5	GND (SIGNAL COMMON)	

INTERFACE SERIES RS-232 COM2

The instrument includes in the standar model a series exit of the type RS232.

DESCRIPTION OF THE CONNECTOR PIN-OUT MALE EXIT SERIES RS232-COM2

N° PIN	DESCRIPTION	DIRECTION
2	TX (RS232C - TRANSMITTER)	EXIT
3	RX (RS232C - RECEIVER)	ENTRANCE
5	GND (SIGNAL COMMON)	

INTERFACE SERIE RS-485 COM2

The instrument includes in the standar model a series exit of the type RS485.

DESCRIPTION OF THE CONNECTOR PIN-OUT MALE EXIT SERIES RS485-COM2

N° PIN	DESCRIPTION	DIRECTION
1	TX+ (RS485 POS. TRANSM.)	EXIT
4	TX- (RS485 NEG. TRANSM.)	EXIT
6	RX+ (RS485 POS. RECEIVER)	ENTRANCE
9	RX- (RS485 NEG. RECEIVER)	ENTRANCE

9. LOAD CELL CONNECTOR

The device is completely supplied for the connection of the transducer (load cell). The kit includes:

- 1 male connector to be welded (9 tracks)
- 1 coverage/blocking cable protected

The cable that comes from the transducer or transducers is connected by welding it to the device. The user must be very careful with its quality and the isolation between the conductors and the use of a good alloy of tin. A bad quality product or a product that is not appropriated could damage or alter the correct working of the device.

In the figure 7 it is indicated the topography of the connector; the pins have the following functions:

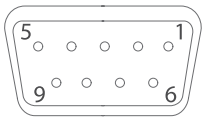


Fig. 8 - Delta connector 9 tracks for the LOAD CELL(S) ENTRANCE

FUNCTION PIN IN C.D.C.					
N° PIN	NOMBRE	FUNCTION	**N°PIN**	NAME	FUNCTION
1	-EXC	(- EXCITATION)	**4**	+SENSE	(+ TERMINAL OF CORRECTION)
2	-SENSE	(- TERMINAL OF CORRECTION)	**5**	+EXC	(+ EXCITATION)
3	GND_A	(ANALOG MASS)	**6**		NOT CONNECTED
7	-IN	(- TRANSDUCER SIGN)	**9**		NOT CONNECTED
8	+IN	(+ TRANSDUCER SIGN)			

If the transducer includes a connection cable with 4 wires plus protection, and not with 6 wires plus protection, the excitation (+) of the device must be connected with SENSE (+) and the excitation (-) with SENSE (-) joining the pin 1 with the pin 2 and the pin 4 with the pin 5.

To reduce the electrical and radio interferences to the minimum , all the connection cables between the device and the transducer must be of a protected type, and all the system must be connected to an optimal earth wire.

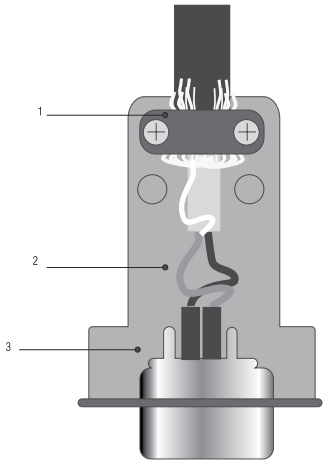
The supplying company of the device can supply a type of connection cable that was made on purpose for such conditions. This cable includes a double protection to be welded to the terminals of the shield or on earth.

The following figure shows the different parts involved in the connection of the shields of protection of the cable.

External protection of the cable. It must be pressed in the metal box for cables with terminal moustaches which must be tightened between the two lids of the coverage

Ending of the internal protection of the cable. It must be closed in the metal box for cables of the NB. Protection: Do not connect to the pin 3 of the connector

Coverage protected with conductive material



10. REMOVAL OF ELECTRONIC EQUIPMENT

For the European Union customers:
All the products that have arrived to its ending in their life cycle must be restored to their builder so that they can be recycled. For further information about the restoring modalities, please contact your supplier.

11. WARRANTY

This viewer is guaranteed against defects in materials or workmanship for a period of 1 year from the date of delivery.
B3C SAS, will be responsible for repairing the viewer during this period.
This warranty does not cover damage caused by misuse or overloading.
The warranty does not cover shipping costs (freight) necessary to repair the balance.

CE - DÉCLARATION DE CONFORMITÉ (FR)
EU- DECLARATION OF CONFORMITY (GB)
CE - DECLARACIÓN DE CONFORMIDAD (ES)
DICHIARAZIONE CE DI CONFORMITÀ (IT)
EG CONFORMITEIT-VERKLARING (NL)
DECLARAÇÃO CE DE CONFORMIDADE (PT)
EC-KONFORMITÄTSERKLÄRUNG (D)

FR Balance multi-fonctions S910-S911
GB Platform scale S910-S911
ES Balanza multifunción S910-S911
IT Bilancia multifunzione S910-S911
ND Multifunctionele weegschaal S910-S911
PT Balança multifunções S910-S911
D Multifunktions waagen S910-S911

S911

S910

FR Nous déclarons sous notre entière responsabilité que le produit, auquel se rapporte la présente déclaration, est conforme aux normes citées ci-après.

GB We hereby declare that the product to which this declaration refers conforms with the following standards.

ES Manifestamos en la presente que el producto al que se refiere esta declaraci6n esta de acuerdo con las normas siguientes.

IT Dichiariamo con cià che il prodotto al quale la presente dichiarazione si riferisce è conforme aile norme di seguito citate.

NL Wij verklaren hiermede dat het product, waarop deze verklaring betrekking heeft, met de hierna vermelde normen overeenstemt.

PT Declaramos por meio da presente que o produto no quai se refera esta declaraçao, corresponde às normas seguintes.

DE Wir erklaren hiermit, dass das Produkt, auf das sich diese Erklarung bezieht, mit den nachstehenden Norman übereinstimmt.

2004/108/CE (EMC)
2006/95/CE (LVD)
2009/23/CE (IPFNA)

B3C SAS
10, Boulevard des Alliés
91720 MAISSE - FRANCE
b3c@orange.fr

Mme BRUNETAUD Fabienne
Suivi Qualité

DATE : 08 .08.2018