TECHNICAL MANUAL

WT27-R

Manual version – wt27g_mt_v20240206_47

Firmware version – 4.7

wt27r_mt_v20230720_45

- Technical manager: Engineer Alexandre Kremer -

weightechUSA

Thank you for choosing WEIGHTECHUSA!

Now, in addition to purchasing excellent quality equipment, you can count on an agile, dynamic and distinguished support team. Before using the WT27-R Graphic weighing indicator for the first time, please read this manual carefully. You can also find out more about this and all the other products in the WEIGHTECHUSA catalog on the website

www.weightechusa.com

CONTENTS

1 BEFORE USING THE INDICATOR

Read these instructions carefully to ensure that the equipment works properly.

1.1 PRECAUTION FROM SAFETY

- Installation, connection and any type of manipulation of electrical installations must be carried out by professionals who are qualified and/or trained in the field of electricity and who have completed the NR10 (safety in electrical installations and services) course within the validity period, as stated on the certificates issued when these courses were taken;
- This equipment must not be used in hazardous areas;
- Disconnect the power supply before making connections, installing additional interfaces or dismantling;
- Before opening the indicator housing, make sure that the outside is dry and clean;
- This equipment must be grounded;
- The ground impedance for proper device performance must be less than 5Ω (grounding should be seen as a circuit that favors current flow under the lowest possible impedance);
- The TN-S grounding scheme should preferably be adopted, in accordance with standard NBR5410-ABNT;
- Never confuse protective grounding with signal grounding (signal grounding is always noisier and can have a high impedance);
- An earth bus, or earth terminals, concentrated at a specific point in the panel provide adequate distribution to all the elements;
- The grounding conductors must not be branched, the interconnection of the ground cable to this device must be individual, starting directly from the ground bus or the ground terminals;
- According to the design and applications of this equipment, it is subject to the requirements for earthing and equipotential bonding set out in standard NBR5410-ABNT;
- Lack of grounding or incorrect grounding can cause electric shocks and/or damage to the equipment;
- Sources of electromagnetic interference and equipment that generates arcs (radio communicators, cell phones, welding machines, light bulb ballasts, electric motors, generators, contactors, electric fences and others) must be kept away, as they can cause incorrect operation and/or damage to this equipment. When this proximity is unavoidable, use EMC filters,

EMC suppressors, toroids on cables and electrical protection devices must be coupled to all nearby devices as well as to the equipment;

- Atmospheric discharge protection systems must be implemented for structures connected to and close to the indicator, and the project must be carried out by a qualified professional, following the requirements of ABNT standard NBR5419;
- In areas subject to exposure to lightning and high voltage surges, the use of surge protectors (varistors or arrestors with inert gases) is recommended;
- Electrical installations that do not comply with ABNT standard NBR5410 are not suitable for the installation of this equipment and may cause incorrect operation or damage to the product;
- An individual protection element such as a circuit breaker or fuse terminal must be installed on the power supply;
- Avoid branching off the device's supply conductors, which must start from the distribution busbar or terminals, pass through the filters and protection devices and go directly to the indicator;
- Pay attention to the power supply range of this equipment (85-245Vac);
- Whenever possible, separate direct current conductors from alternating current conductors in different pipes and conduits;
- Do not mix the load cell cable(s) with other cables, keep it in a separate pipe or conduit;
- If, due to the application used, the cable from the cell(s) is not connected directly to the indicator, the cable to be used to complete the interconnection must have the necessary pairs of cables according to the cell used and double shielding, with aluminum foil and copper mesh, in addition to the drain conductor for grounding the shield (SHIELD) (cable the same as the cell);
- The shield (SHIELD) of the cell(s) cable must always be grounded, and the continuity of the shield must be ensured along its entire length;
- Splices should be avoided and, when unavoidable, attention should be paid to all the details applicable to the operation (maintaining the shielding, not changing the characteristics of the cable, maintaining the insulation and so on);
- When installing the cell cable, it must be stripped just enough to make the connection to the indicator and the cable must be thrown gently, avoiding it being pulled;
- Keep the product out of the sun and the operating temperature range is -10ºC ~ +40ºC without condensation;
- The internal part and the calibration key of this equipment are protected by a seal. For information on the conditions for access, contact the IPEM (Institute Weights and Measures) in your state.

1.2 FEATURES

- Approved for 10,000 rooms;
- Stainless steel enclosure with IP65 degree of protection;
- Power supply from 85 to 245V AC 60/50 Hz;
- Connection of up to 16 350Ω analog load cells, or Connection up to 16 digital load cells or 16 compatible digitizers.
- 7-inch color graphic LCD display;
- 25 function keys on the front panel, 15 of which have multiple functions, defined according to the legends indicated on the display screen and the next corresponding key.
- It provides for road weighing and individual weighing operations;
- Allows the use of a QWERTY-type PC/AT keyboard;
- Storage **of** up to **16384 weighing records (input and/or output)**;
- Storage **of** up to **16384 individual weighing records.**
- Register up to **1600 customers**;
- Registration of up to **1600 products**;
- Allows ticket printing via serial connection with Epson LX-300 or Bematech MP-20 printers;
- Printing customer records;
- Printing product records;
- Printing of weigh-ins and ;
- Printing exit tickets;
- Reprint the last weighing ticket;
- isolated serial interface with RS422, RS485 or RS232 data exchange standard, for communication with digital cells or digitizers.
- Serial interface with RS232 or RS485 data exchange standard;
- Exclusive serial interface for printer, standard for RS232 data exchange;
- Current loop output, for DRWT-75, DRWT-125 and DRWT-200 displays;
- Zero return function;
- Empty scale" function;
- Internal real time clock;
- It offers specific digital filters for road operation;
- Various protocols are available for data communication;
- Manual tare input possible;
- Provides a tare bank.
- Accepts MERCOSUR-standard license plates for road operations.

1.3 SPECIFICATIONS

1.3.1 DATA FOR WEIGHING SENSORS ANALOG

1.3.1.1 A/D converter

Load cell excitation voltage	5Vdc ±5%
Input sensitivity	Above 0.12µV/d (microvolts per division)
Internal resolution	1/1000000

- Feeds up to 16 350Ω load cells, connected in parallel.

1.3.2 DATA FOR DIGITAL SENSORS OR DIGITIZERS.

1.3.2.1 Serial for digital sensors and digitizers.

Data exchange standards available for digital cells or compatible digitizers.	RS422 (4-wire), or RS485 (2-wire).
Serial communication speeds, for digital cells or compatible digitizers.	1200, 2400, 4800, 9600, 19200, ***38400**, ***57600** e ***115200** no parity, even or parity.
Measurements per second using serial interface.	Example for 10 BRPD-D or BLCQ-D cells, approximately 1 measurement per second.

- ***38400**, **57600** and **115200** speeds only in firmware version 1.7 or higher.
- A power supply with a voltage compatible with that of the digital cells or digitizers must be installed next to the junction box for the system to function correctly.

1.3.2.2 Compatible digitizers and digital cells .

Device	Interface used	Manufacturer
PDCC-M	RS422	WEIGHTECH
PDCC	RS422	WEIGHTECH
AD104C	RS422 (for AD104C-R5)	HBM
AD103C	RS422 (**use of AED required**)	HBM
DHS	RS485 2-wire	VISHAY
HBM Digital Cells	RS422	HBM
BRPD-D	RS422	BERMAN
BLCQ-D	RS422	BERMAN
BSDS	RS485	BERMAN
BEDS	RS485	BERMAN
BHM-D	RS485	ZEMIC
CLM8	RS485	LAUMAS
DSC	RS422	REVERE
DSC2	Mod. RS485 (2-wire half-duplex)	REVERE
	Mod. RS422 (4-wire full-duplex)	REVERE

- The use of the RS232 data exchange format only allows for 1 interconnected device.
- It is not possible to mix devices from different models on 1 platform.
- Maximum of 16 devices of the same model interconnected.

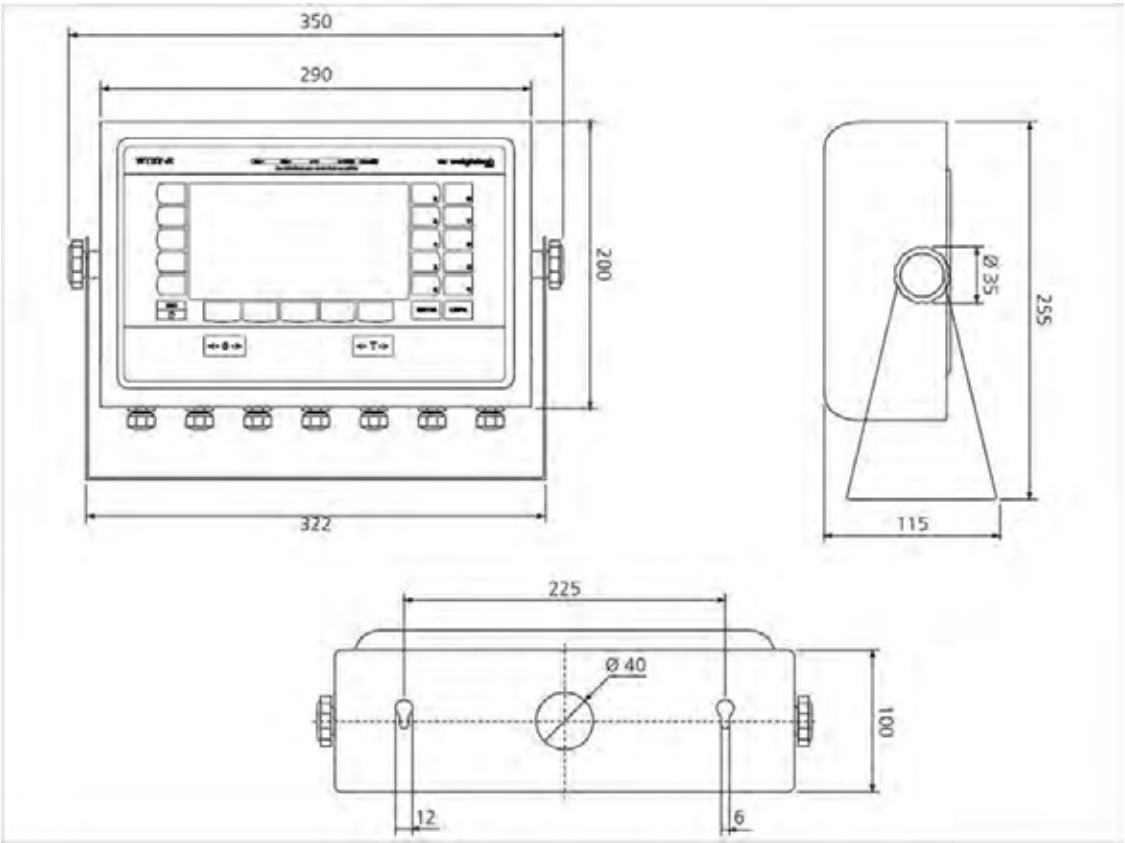
1.3.3 POWER SUPPLY .

Voltage range	85 to 245VAC
Approximate consumption.	10W

1.3.4 OTHER SPECIFICATIONS

Operating temperature	-10°C~ 40°C
Degree of protection (front)	IP65
Encapsulation material	Stainless steel

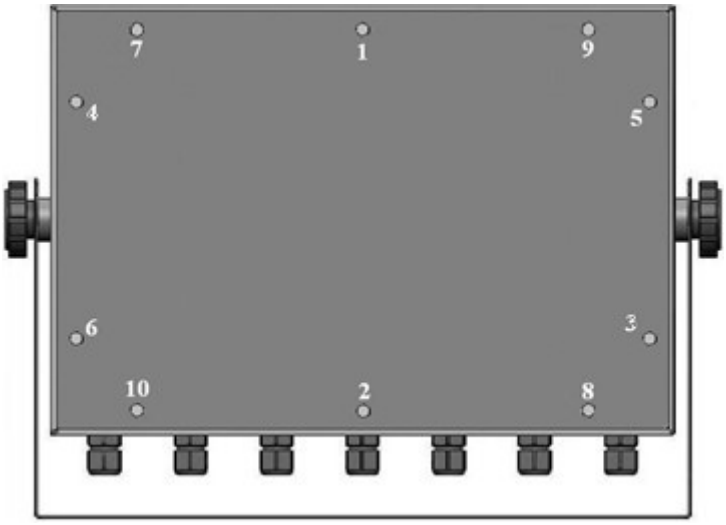
1.3.5 DIMENSIONS



2 CLOSING THE ENCAPSULATION.

To ensure correct operation, follow the instructions in this chapter.

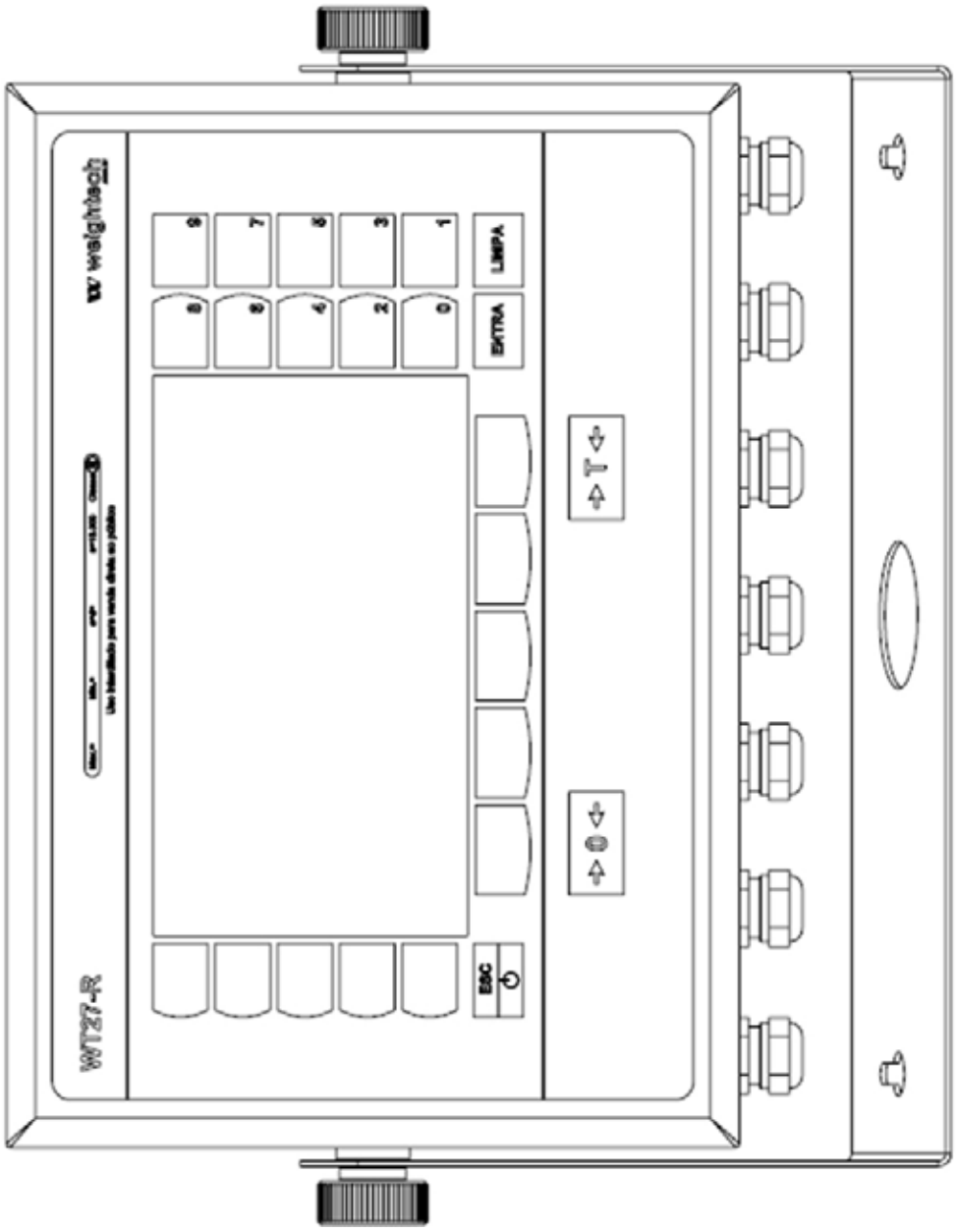
- Disconnect the power supply and preferably handle the inside of this equipment with the device de-energized;
- Before opening the encapsulation, clean and dry the outside as well as the cables entering the cable glands;
- The interior of this device must be exposed in a clean, dry environment, away from substances that could damage the internal parts.
- Keep your hands and tools clean;
- Carry out a visual inspection inside the equipment, ensuring that everything is clean and dry;
- Check the condition of the internal sealing rubber and replace it if it shows signs of wear, breakage or drying out;
- Follow the sequence for tightening the screws as shown in the drawing below, applying torque = 0.12kgf-m;



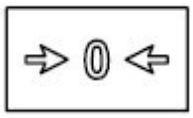
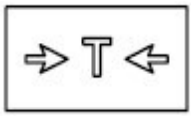
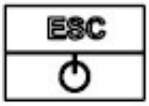
- Pay attention to need to adapt the external to the encapsulation according to the required degree of protection

3 GETTING TO KNOW THE INDICATOR.

3.1 VIEW FRONT.



3.1.1 KEYS ON THE FRONT PANEL .

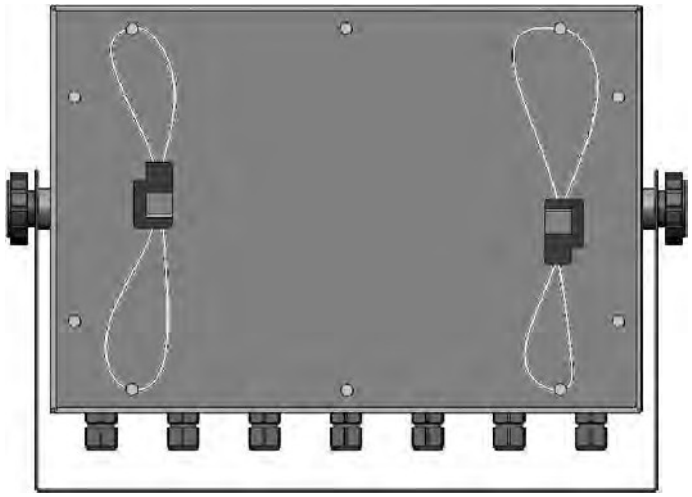
	Zero the device.
	Tare the equipment
	Exit a screen or parameter without validating the changes made. Press for 3 seconds to switch to STAND BY mode. If the device is at rest, it reactivates the device when pressed.
	Confirmation key.
	Deletes the value in the field to be edited.
	Function determined by the legend on the display to the right of the key.
	Function determined by the legend on the display above the key.
	Function determined by the legend on the display to the left of the key. If there is no legend associated with the key on the display, the function of the key becomes be equal to the numeric value contained in the key (only valid when the field for entering numeric data on the display is enabled).
	Function determined by the numeric value on the key. only when the field for entering numerical data on the display is enabled).

3.2 MINI PC KEYBOARD (ALPHANUMERIC).

The functions of the keys vary depending on the screen displayed (reference to the external keyboard, always with a blue background). The functions below work on the main weight display screen.

KEY	FUNCTION
T	TARE.
Z	ZERO. Fixed operating range between -2% of maximum capacity below gross zero and +2% of maximum capacity above gross zero.
B	SHOWS THE GROSS WEIGHT ON THE INDICATOR DISPLAY.
L	SHOWS THE NET WEIGHT ON THE INDICATOR DISPLAY.
R	REPRINT THE LAST TICKET.
I	PRINTS THE DATE, TIME AND WEIGHT INDICATED ON THE INDICATOR DISPLAY.
D	SHOWS INDIVIDUAL CELL READINGS WHEN USING DIGITAL CELLS.
F1	INPUT OPERATION.
F2	OUTPUT OPERATION.
F3	SINGLE WEIGHING OPERATION.
F4	EDITING HEADERS AND FOOTERS.
F5	CUSTOMER RECORDS.
F6	PRODUCT REGISTRATION.
F7	DISCOUNT SETTINGS.
F8	TICKET CONFIGURATION.
F9	PRINTING REPORTS.
F10	TARE BANK.
F11	WEIGHING RECORDS.
F12	GENERAL EQUIPMENT SETTINGS.

3.3 LOCATION FOR SEAL.



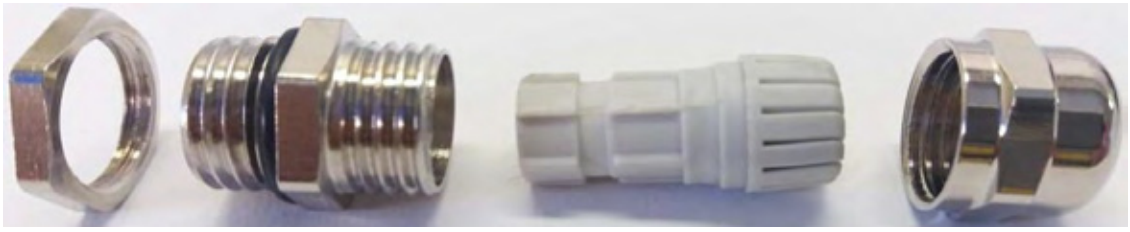
3.4 RECOMMENDED CABLES FOR COMMUNICATION SERIAL.

We recommend using twisted pair cables, individually shielded in aluminum foil and collectively in tinned copper mesh, with a drain conductor between the shields. The conductor gauge should be 22 AWG, and the number of routes will depend on the data exchange standard used. See examples:

3.5 GROUNDING THE CABLE MESH IN THE CABLE GLANDS .

- This procedure should be adopted whenever the encapsulation and the **cable glands are made of metal** and are properly grounded.

3.5.1 GROUNDING EXAMPLE WITH CABLE GLAND TYPE 1.



ARRUELA **FIXING BODY** **LAMELLAR JOINT** **CUPULA**

FIXING BODY WITH THROUGH HOLE

PASS ONLY THE CONDUCTORS OF THE CABLE, TURNING THE MESH INSIDE OUT, OVER THE LAMELLAR JOINT.

WRAP THE OUTSIDE OF THE LAMELLAR JOINT WITH THE MESH.

PROTECT THE CONDUCTORS ON THE INSIDE OF THE CAPSULE, UP TO NEAR THE TERMINAL BLOCK.

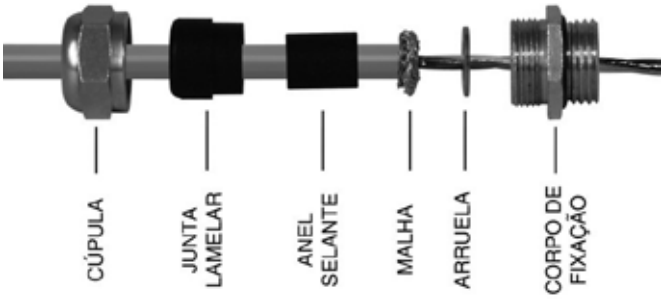
INSERT THE LAMELLAR JOINT (COVERED BY THE MESH) INTO THE CLAMPING BODY

TERMINALS **INSIDE** **OUTSIDE**

- The mesh is pressed by the lamellar joint, the inner walls of the clamping body.
- The outer diameter of the cables must be in the range of 5 to 8 mm.

3.5.2 GROUNDING EXAMPLE WITH CABLE GLAND TYPE 2.

In this model, the clamping body has an internally restricted hole where the internal washer is attached, allowing contact with the mesh. This mesh is pushed by the sealing ring and the lamellar gasket during the threading of the dome:



- The outer diameter of the cables must be in the range of 5 to 8 mm.

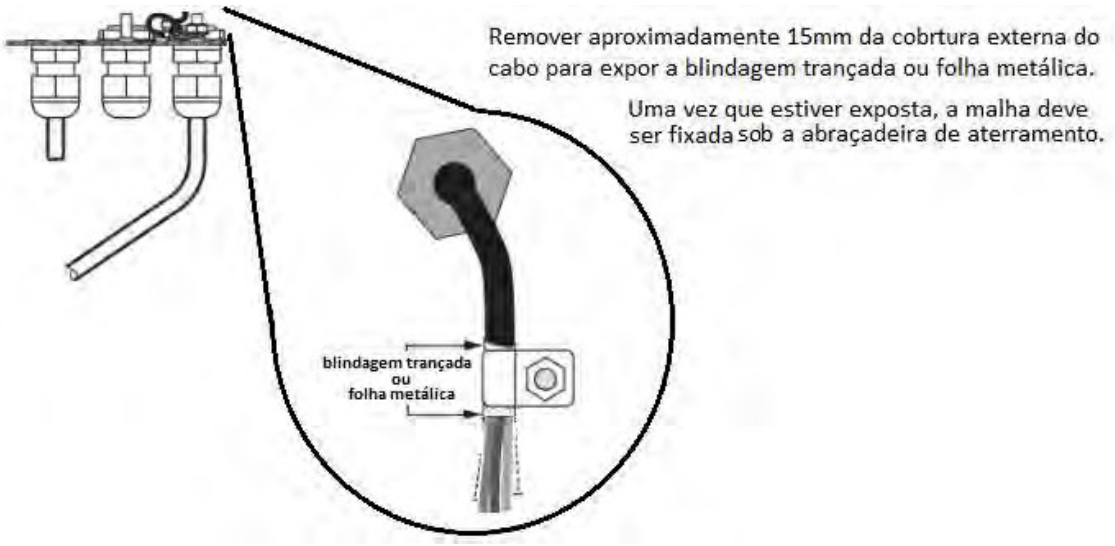
3.5.3 GROUNDING EXAMPLE WITH CABLE GLAND TYPE 3 :

In this model, the clamping body has an internally restricted hole where contact is made with the mesh, which is pushed by the lamellar joint during the threading of the dome:

- The outer diameter of the cables should be between 5 and 8 mm.

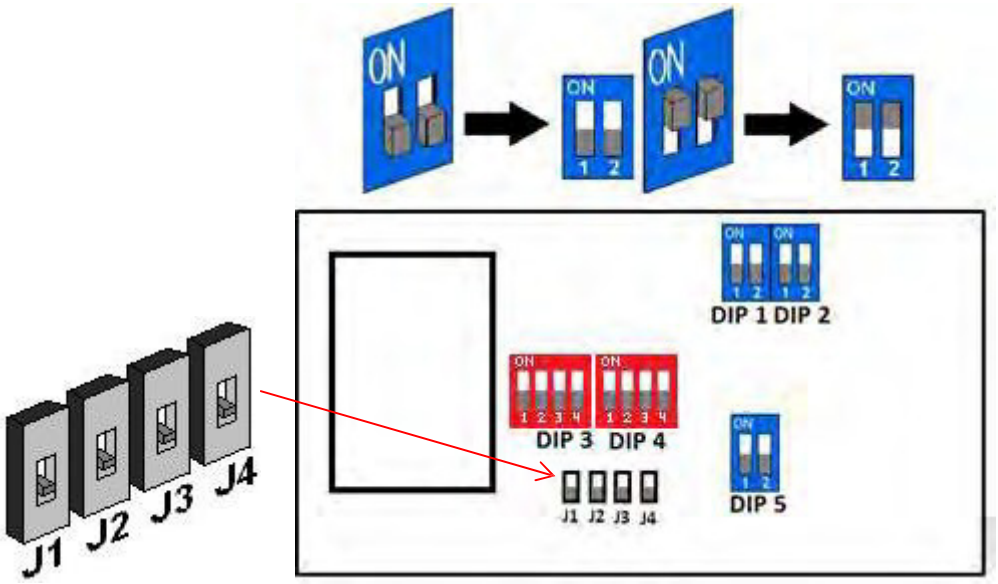
3.5.4 EXAMPLE OF GROUNDING IN THE *HOUSING* OF THE INDICATOR

- This grounding method should only be adopted when using version 3 boards.



3.6 INTERNAL DETAILS, WITH EXAMPLES OF CONNECTIONS.

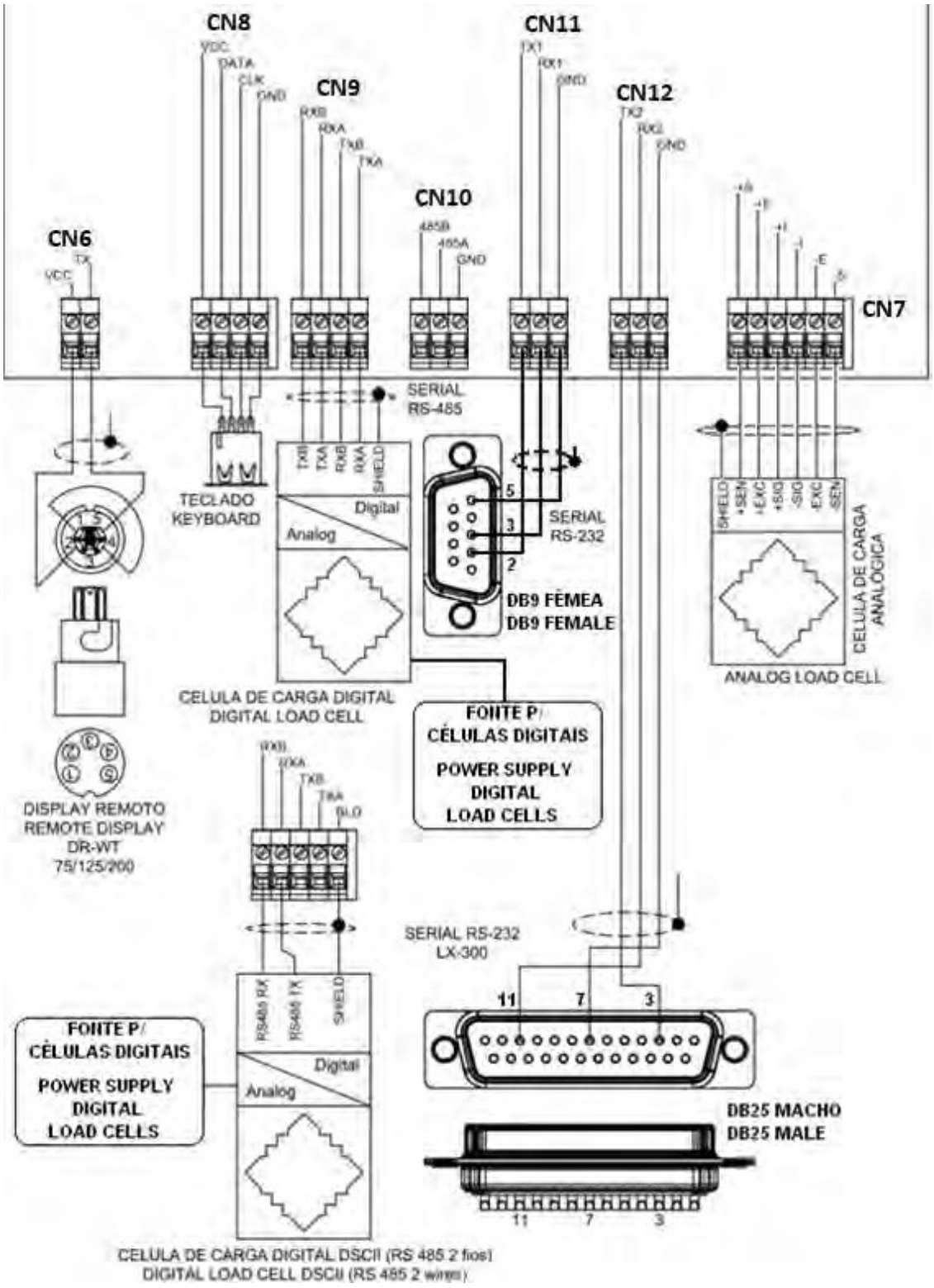
3.6.1 INTERNAL KEYS AND THEIR FUNCTIONS:



- J1 - J4 must remain in the above position to allow the use of digital cells in the RS485 or RS422 data exchange standard.

LEGEND	FUNCTION	NOTE
DIP1	Firmware can be upgraded or downgraded if the 2 keys are activated.	Keep the 2 keys switched off for normal product operation.
DIP2	Access to calibration parameters and procedures.	Keep the 2 keys switched off for normal product operation.
DIP3	Drives the pull up and pull down resistors of the serial port for digital cells. RS422 or RS485	Use only in cases where satisfactory communication has not been achieved.
DIP4	Drives the serial transmission bus terminators for digital cells. RS422	Use only in cases where satisfactory communication has not been achieved. **Proceed follows:** - Only activate switch 1 and check. - Only activate switch 2 and check. - Operate the 2 keys and check.
DIP5	Triggers the PC communication bus terminators in the RS485 data exchange standard.	Use only in cases where satisfactory communication has not been achieved. **Proceed as follows:** - Operate the 2 keys and check.

3.6.2 INTERCONNECTIONS FROM DEVICE.



REFERENCE FOR CONNECTING THE DIGITAL CELLS **ON THE INDICATOR SIDE**:

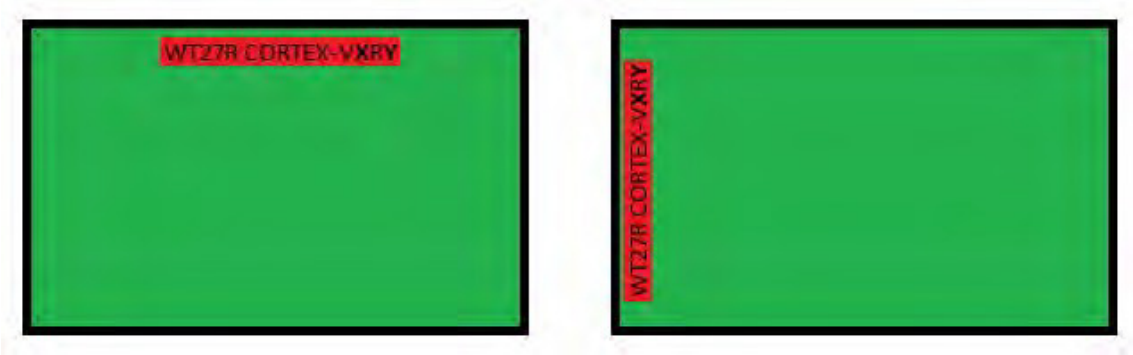
RA **(RX+**) / RB **(RX-)**

TA **(TX+)** / TB **(TX-)**

Check the standard adopted by the manufacturer of the digital cell used.

3.7 IDENTIFYING THE *HARDWARE* VERSION.

The WT27-R Graphic indicator has four different hardware versions: V1, V2, V3 or V4; all board versions have a printout that identifies the board model and *hardware* revision number, which is located on the left or top edge of the board, as shown in the figure below:



The printout contains the version number and revision number of the indicator's main board:

For example: "WEIGHTECH WT27R - CORTEX V2R1", identifying a version 2, revision 1 board.

Another way identifying the version of the indicator's main board is through the model of the source used:

Boards of version 2 or lower use a 4-wire supply with two output voltages 5V and 7V, as shown in the image below:

Version 3 boards use a 2-wire 5V supply as shown in the image below:

Version 4 boards use a 12V supply with 2 wires as shown in the image below:

The table below shows the models and main board and source codes for the WT27-R Graphic indicator:

	Compatible font model and code				Cabinet version and reference code	
Mainboard version and reference code	4 wires 5V and 7V (502352)	4 wires 5V and 7V (502352)	2 wires 5V (503516)	2 wires 12V (503050)	Grounding for grounding in the cable gland (502942)	Earthing points with clamps (503653)
V1Rx (502982)	Compatible	Compatible			Compatible	
V2Rx (503098)	Compatible	Compatible			Compatible	
V3Rx (503627)			Compatible			Compatible
V4Rx (504789)				Compatible		Compatible

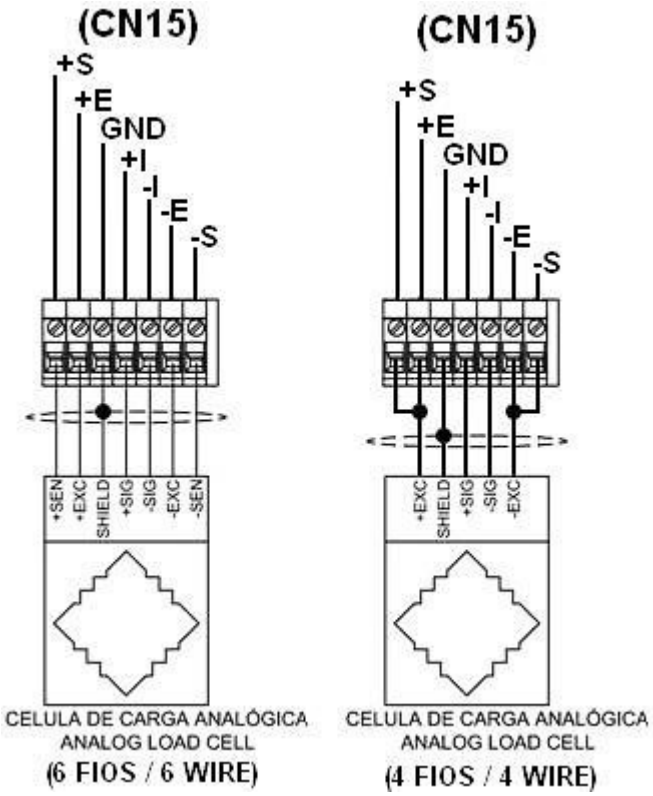
Attention!

When sending any version of mainboard for repair, you must send also the indicator display.

4 CALIBRATION CONVENTIONAL.

The information in this chapter is intended to show the basic procedures for carrying out a conventional calibration using standard weights.

4.1 CONNECTION TO 6 OR 4 ANALOG LOAD CELLS WIRES.



- **+S**= Sense positive (Point for monitoring the supply voltage to the cell).
- **+E**= Positive cell supply (Supplies the supply voltage).
- **GND**= Grounding point (Point connected to the indicator housing ground).
- **+I**= Positive signal from the cell (Reading of the (-) signal sent by the load cell).
- **-I**= Negative signal from the cell (Reading of the (+) signal sent by the load cell).
- **-E**= Negative cell supply (Supplies the negative supply voltage).
- **-S**= Sense negative (Point for monitoring the cell's supply voltage).

ATTENTION:

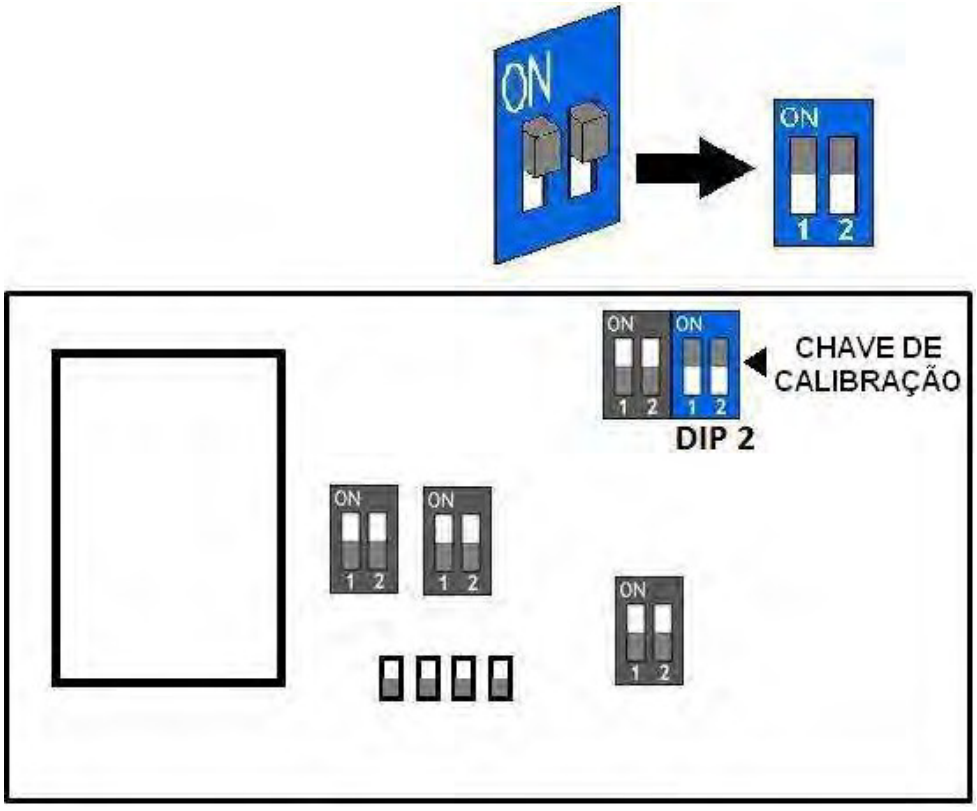
- Never connect the **-E** of the load cells to a GND or housing earth.
- Interconnect the cells with the equipment de-energized.

4.2 ACCESS THE CALIBRATION SCREENS.

Step 1: Disconnect the device from the supply.

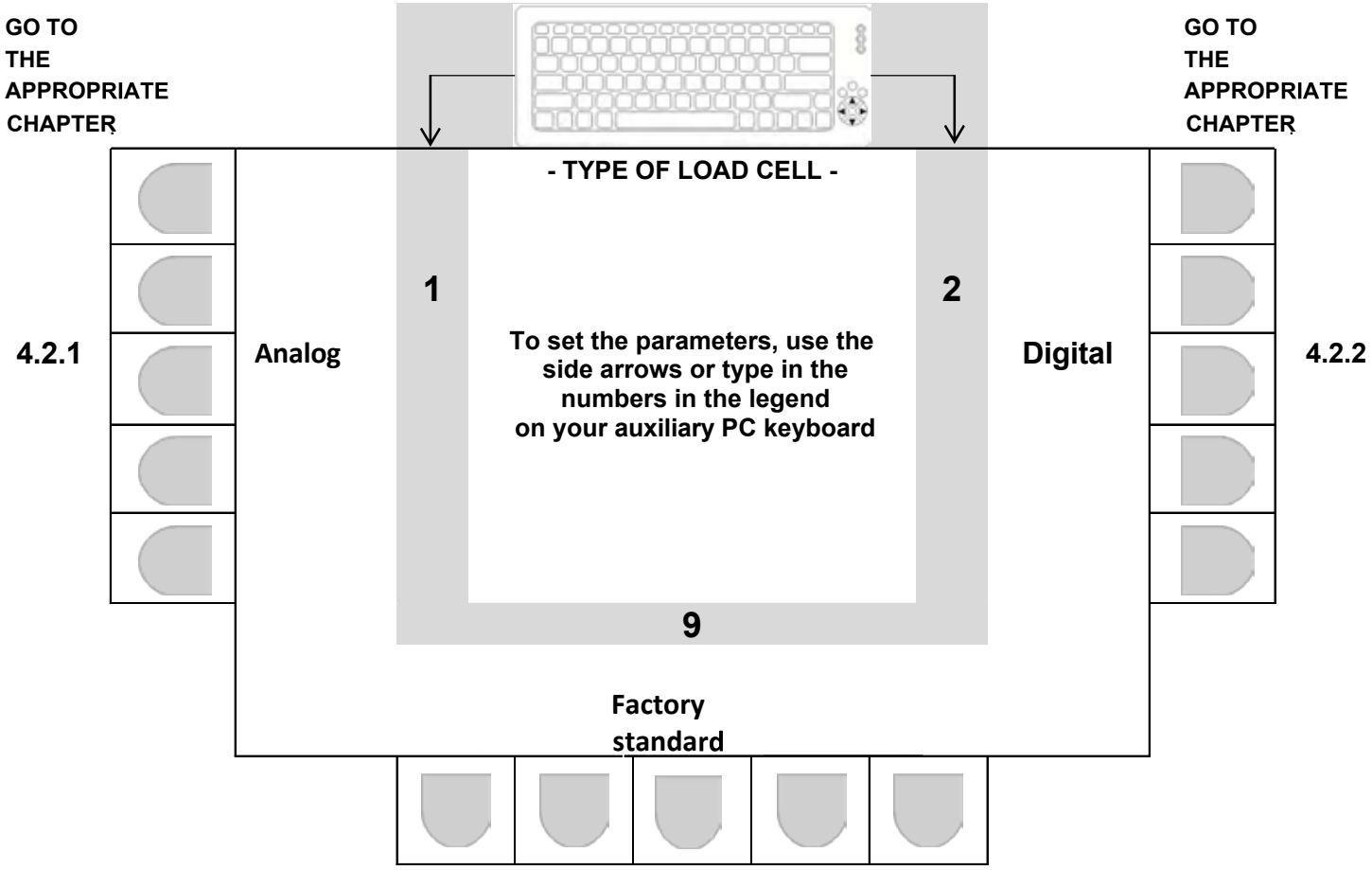
PULL PLUG BEFORE OPENING

Step 2: With the device disconnected from the , access the inside of the unit and switch the 2 switches on DIP2 to the ON position.

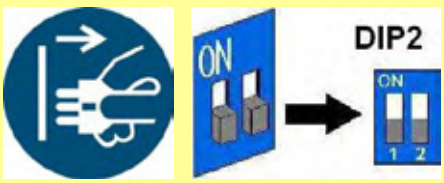


Step 3: Reconnect the equipment to the mains and when the screen below appears, select the desired option and proceed to the corresponding chapter:

- If login is active, a valid login and password must be entered before the screen below:

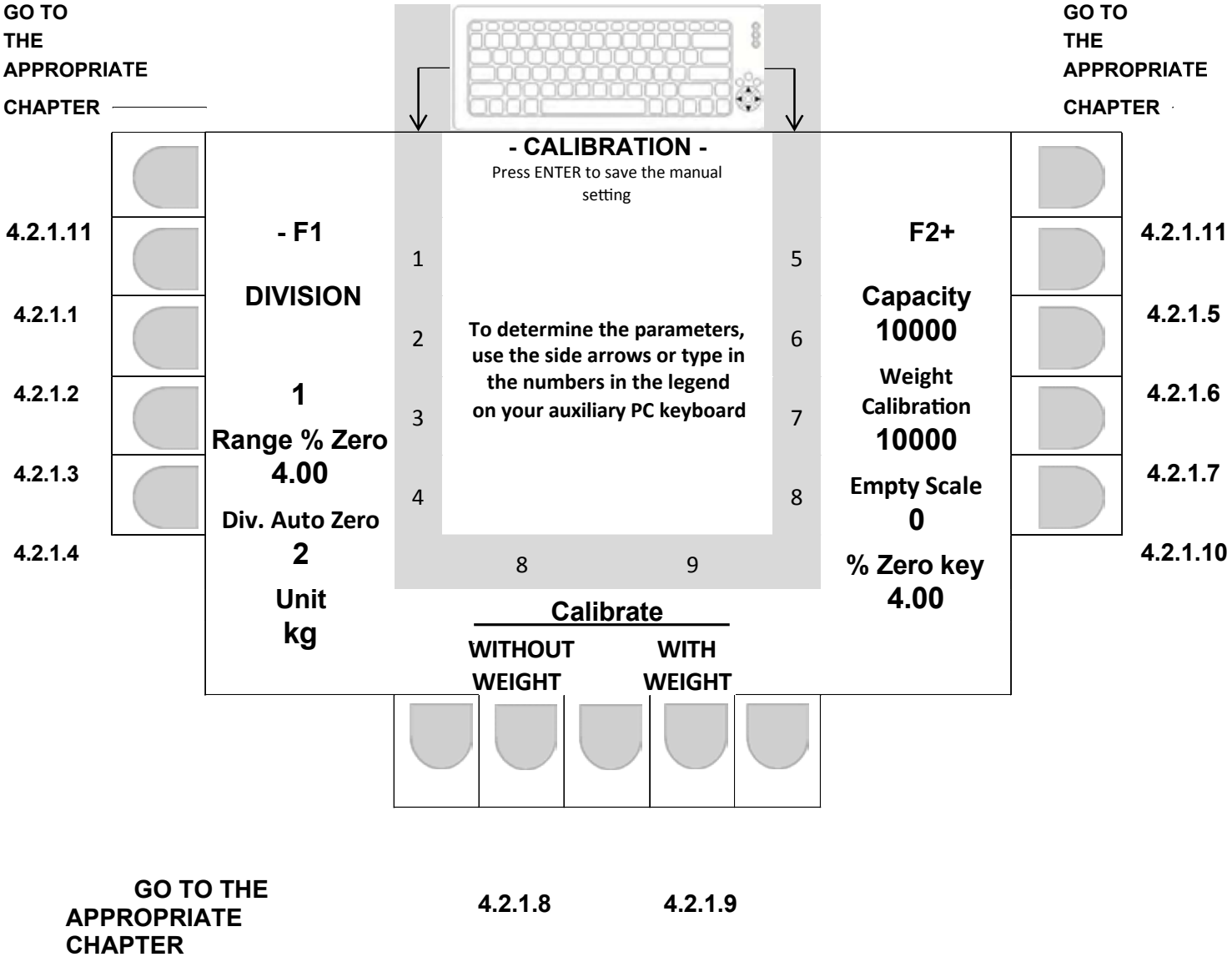


- To exit calibration mode, disconnect the device from the power supply, access the inside of the device and remove the 2 DIP2 switches from the ON position:

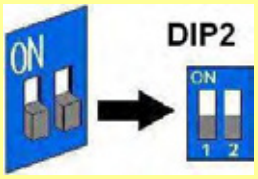


4.2.1 PARAMETERIZATION AND CALIBRATION WHEN USING ANALOG CELLS.

- Below is an example of how to parameterize the main calibration screen.
- The fields on this screen will always be updated according to the last change made to each of the available parameters.

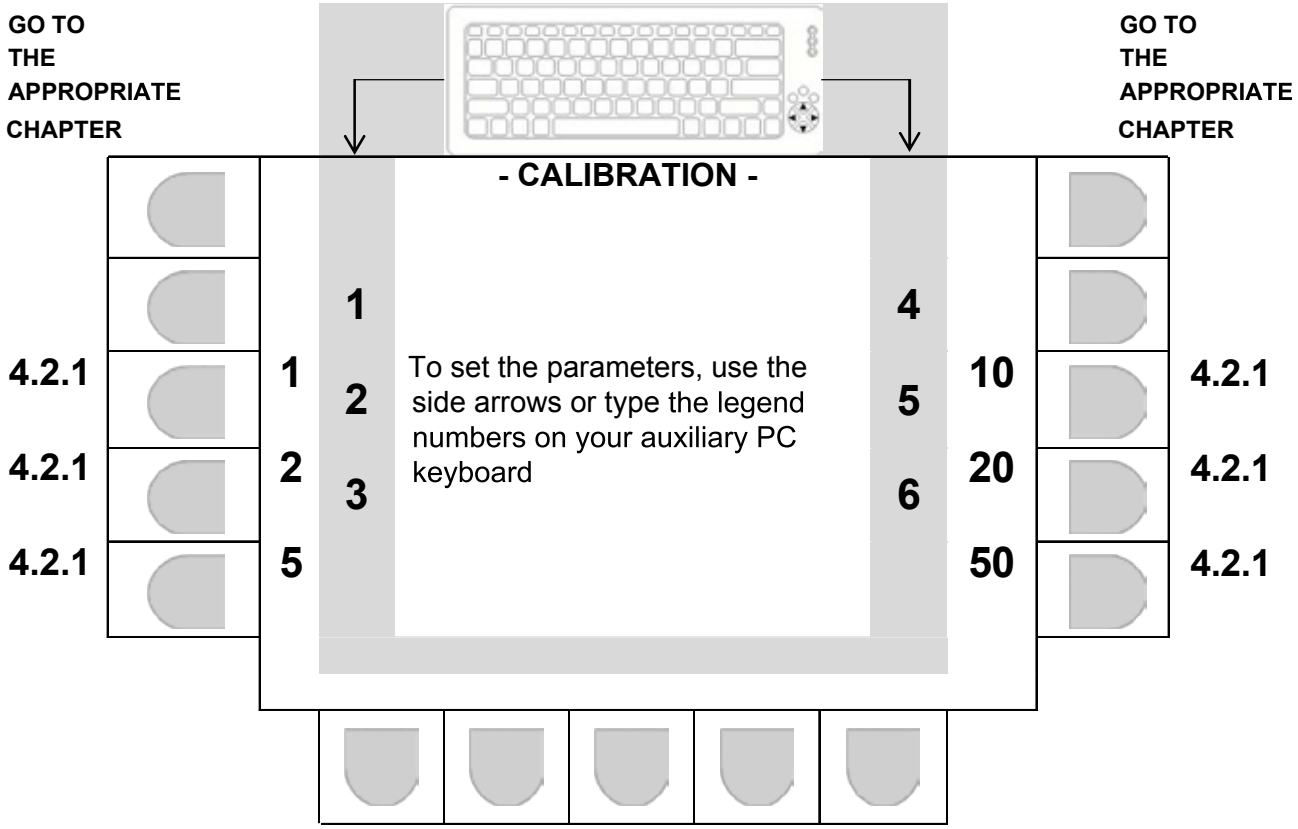


- To exit calibration mode, disconnect the device from the power supply, access the inside of the device and remove the 2 DIP switches2 from the ON position.



4.2.1.1 Editing the parameter of DIVISION.

Select the desired room using the corresponding key on the front panel or the external keypad:



- Once the desired selection has been made, the system automatically returns to the main parameters screen in 4.2.1, where the selected value is already indicated.

4.2.1.2 Parameter RANGE % ZERO (zero at switch on).

It automatically sets a zero when the unit is switched on if the value read is within the established zero % range.

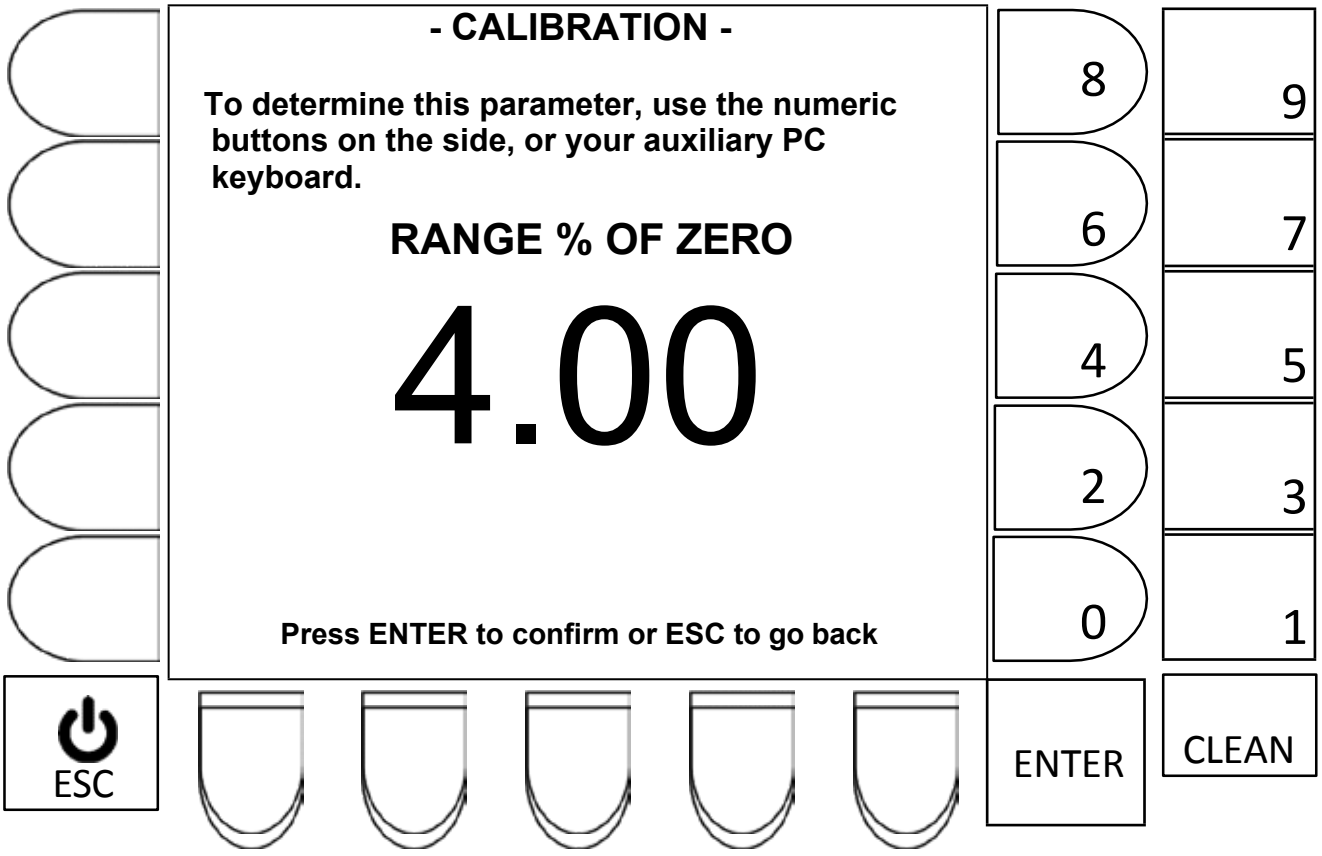
The value that determines the range is based on a percentage of up to 4% of the parameterized maximum capacity.

Example: Maximum capacity 100000 kg, division 10kg and range % of zero equal to

4.00 The range will be from -4000 kg to + 4000 kg (starting from the zero of calibration) and the automatic zero will act if the value read when the equipment is switched on is within this range.

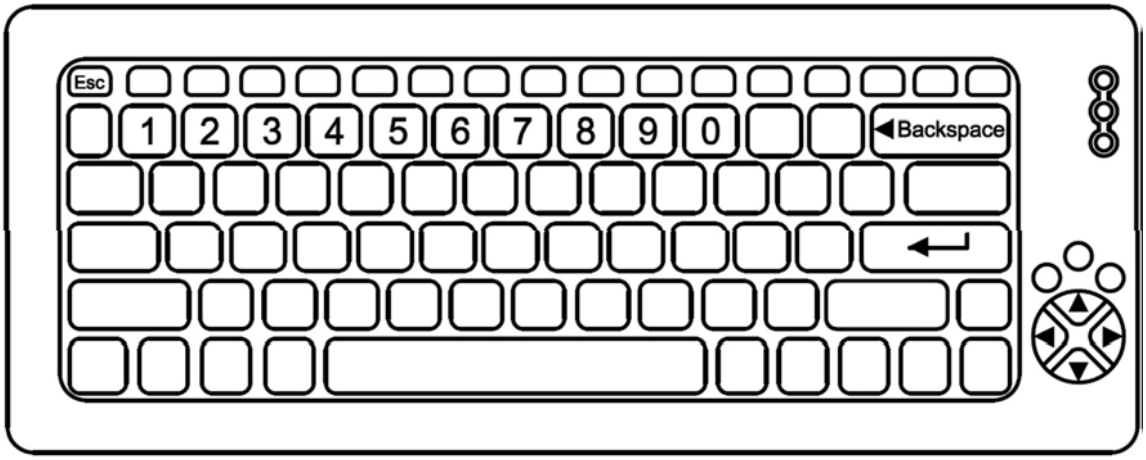
- Navigation using the front panel keys -

- CLEAR key: Deletes the current value (before editing, the current value must be deleted).
- Numeric keys next to the display: Allows you to enter a new numerical value.
- ENTER key: Validates the new value entered and returns to the main calibration screen in 4.2.1.
- ESC key: Returns to 4.2.1 without changing the last value in the parameter.



- Navigation using an external keyboard -

- Backspace key: Deletes the current value (before editing, the current value be deleted).
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and returns to the main calibration screen in 4.2.1.
- ESC key: Returns to 4.2.1 without changing parameter values.



- Once the desired edit has been made, the system automatically returns to the main parameters screen in 4.2.1, where the selected value is already indicated.

4.2.1.3 Editing the DIV AUTO parameter ZERO.

Auto zero only operates if the following conditions are met:

- The type of ZERO must be equal to 1 or 3, e;
- The indicated value must be at zero before the weight is applied or removed, and;
- The value of DIV AUTO ZERO must be greater than or equal to 1 for a range to be established, e;
- The value displayed after applying or removing weight must correspond to a value that, after stabilizing, is within the range set by DIV AUTO ZERO.

To find out the range in which the auto zero will operate, the following calculation must be made:

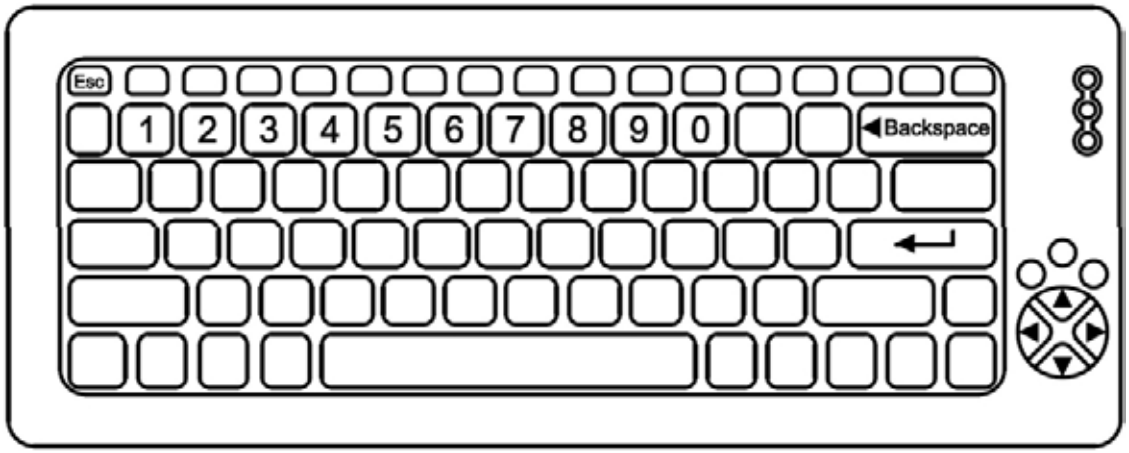
Value of parameter **DIV AUTO ZERO X DIVISION** set.

Example: Scale 100000kg x 10kg and DIV. AUTO ZERO = 2 DIV AUTO ZERO X DIVISION = 2 X 10 = 20

The range will be from -20kg to +20kg.

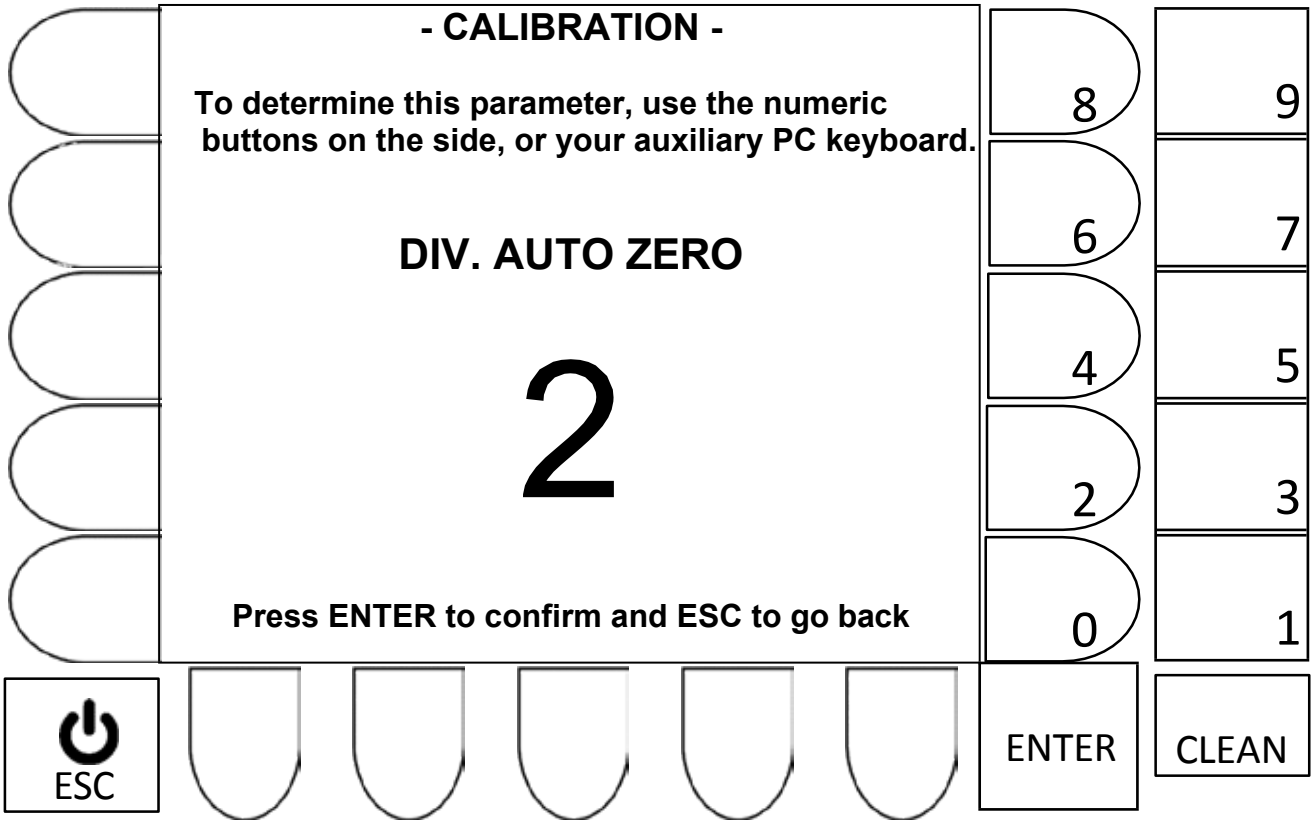
- Navigation using an external keyboard -

- Backspace key: Deletes the current value (before editing, the current value be deleted).
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and returns to the main calibration screen in 4.2.1.
- ESC key: Returns to 4.2.1 without changing parameter values.



- Navigation using the front panel keys -

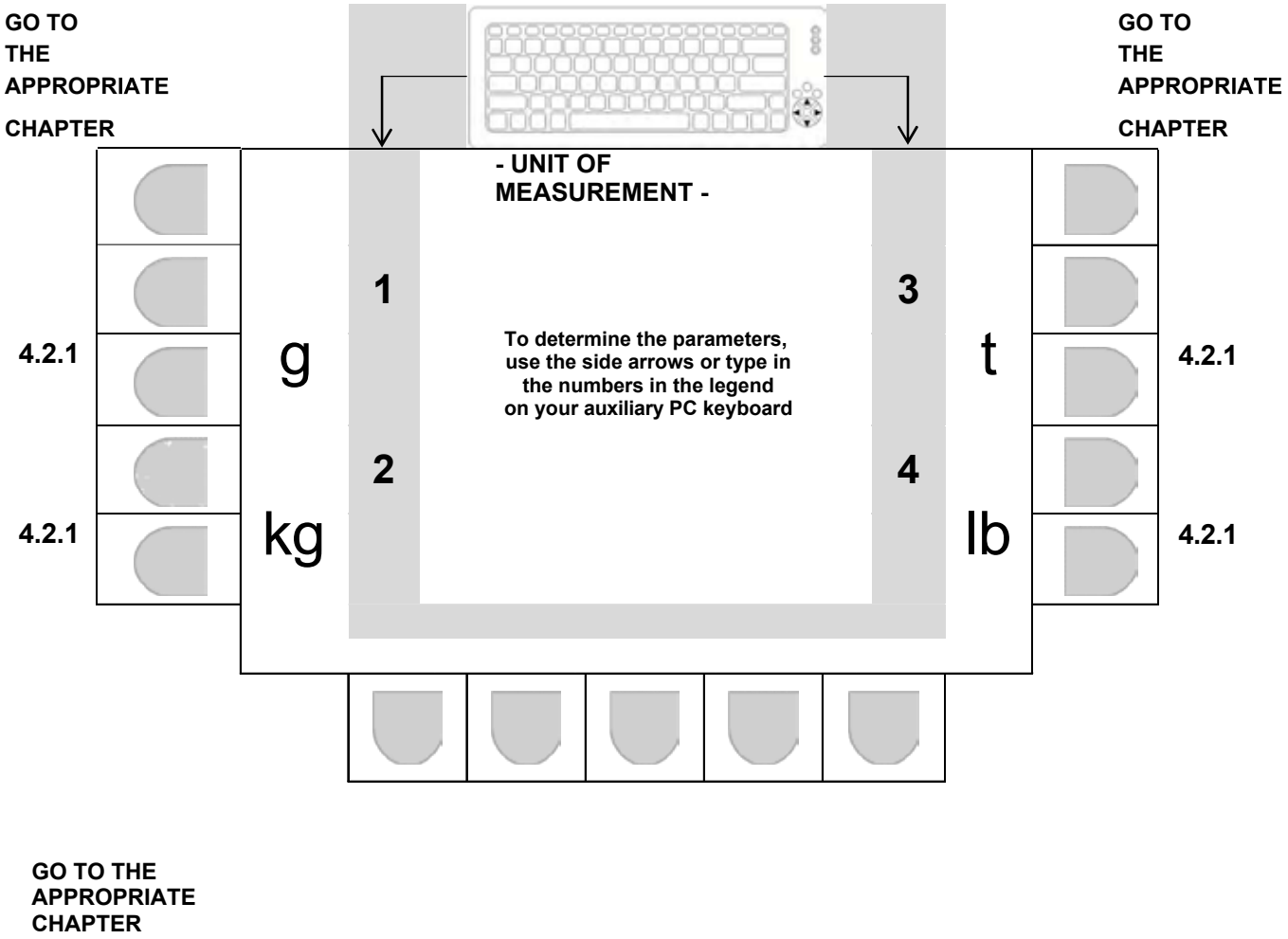
- CLEAR key: Deletes the current value (before editing, the current value must be deleted).
- Numeric keys next to the display: Allows you to enter a new numerical value.
- ENTER key: Validates the new value entered and returns to the main calibration screen in 4.2.1.
- ESC key: Returns to 4.2.1 without changing the last value in the parameter.



- Once the desired edit has been made, the system automatically returns to the main parameters screen in 4.2.1, where the selected value is already indicated.

4.2.1.4 Editing the parameter Unit.

Select the desired unit using the corresponding key on the front panel, or on the external keypad:



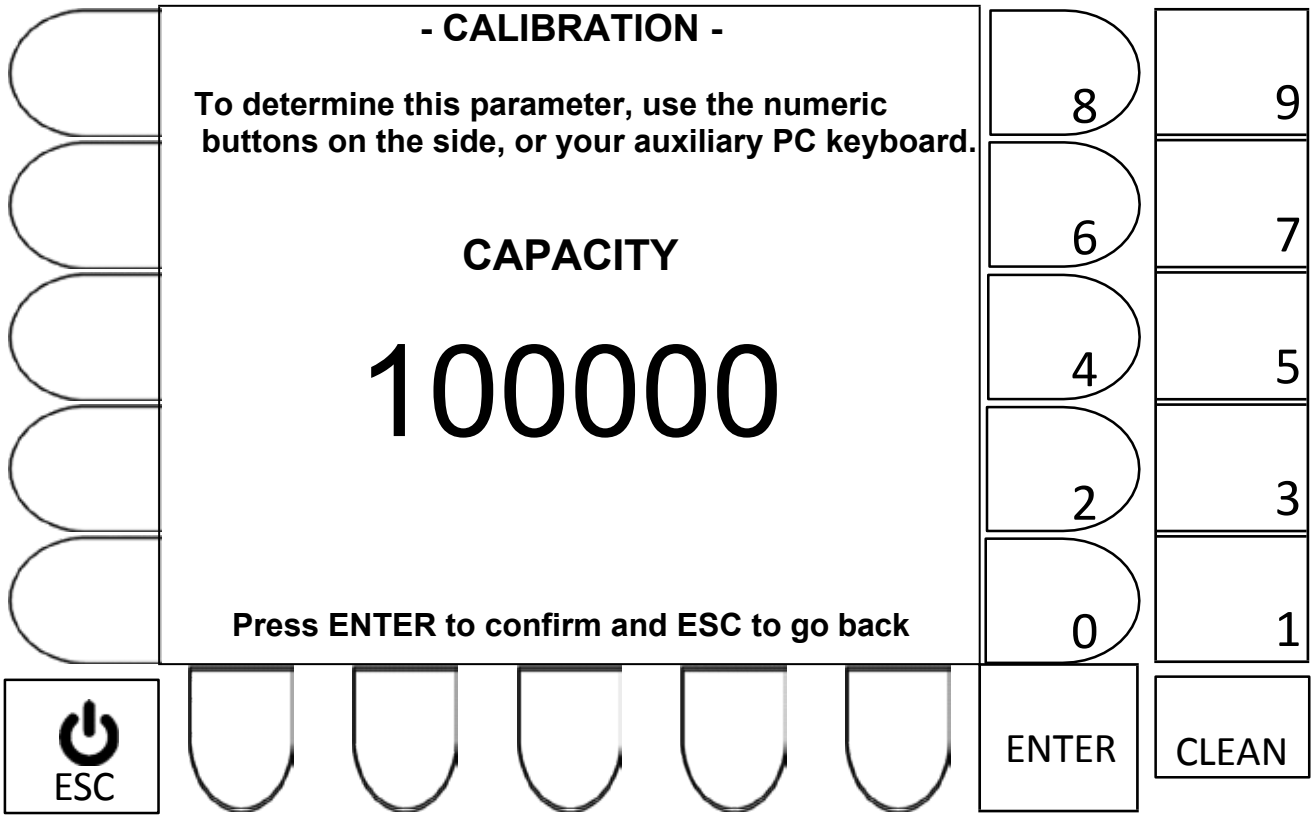
- Once the desired selection has been made, the system automatically returns to the main parameters screen in 4.2.1, where the selected value is already indicated.

4.2.1.5 Editing the CAPAC parameter (option 4).

Establishes the maximum capacity value.

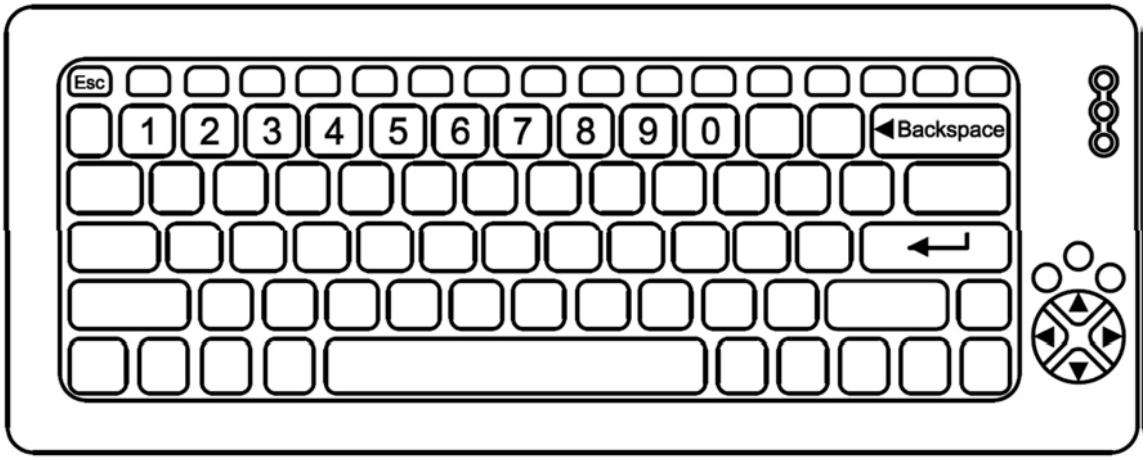
- Navigation using the front panel keys -

- CLEAR key: Deletes the current value (before editing, the current value must be deleted).
- Numeric keys next to the display: Allows you to enter a new numerical value.
- ENTER key: Validates the new value entered and returns to the main calibration screen in 4.2.1.
- ESC key: Returns to 4.2.1 without changing the last value in the parameter.



- Navigation using an external keyboard -

- Backspace key: Deletes the current value (before editing, the current value be deleted).
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and returns to the main calibration screen in 4.2.1.
- ESC key: Returns to 4.2.1 without changing parameter values.



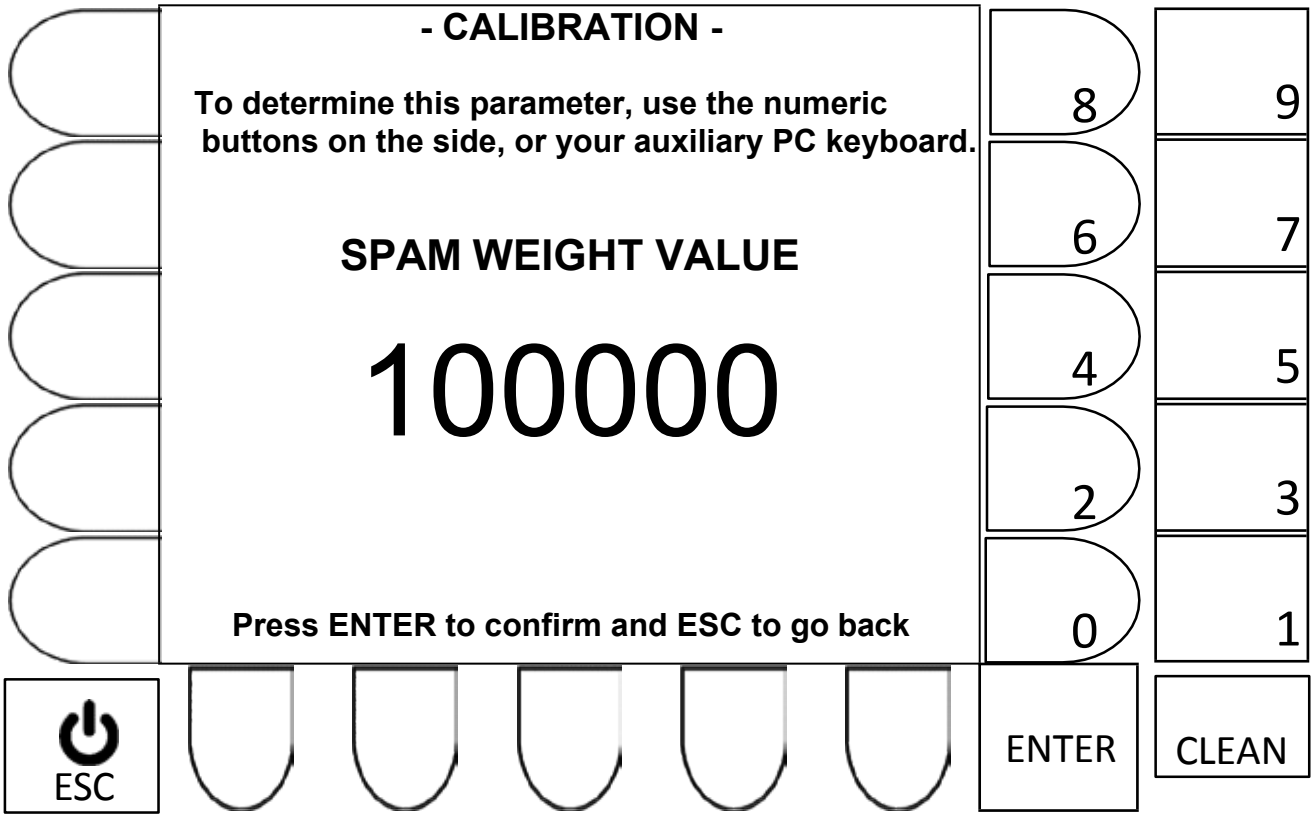
- Once the desired edit has been made, the system automatically returns to the main parameters screen in 4.2.1, where the selected value is already indicated.

4.2.1.6 Editing the Weight parameter Calibration

Establishes the weight value that will be used in the calibration procedure.

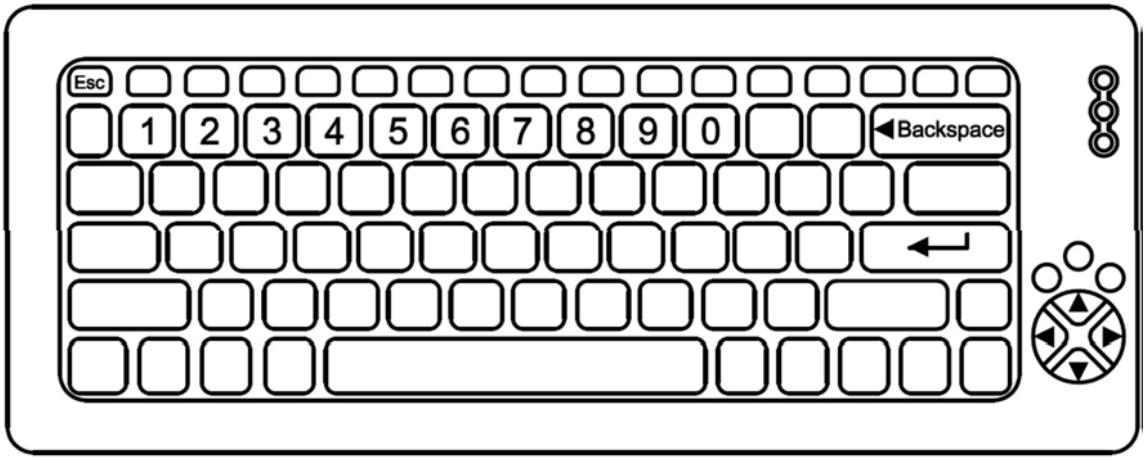
- Navigation using the front panel keys -

- CLEAR key: Deletes the current value (before editing, the current value must be deleted).
- Numeric keys next to the display: Allows you to enter a new numerical value.
- ENTER key: Validates the new value entered and returns to the main calibration screen in 4.2.1.
- ESC key: Returns to 4.2.1 without changing the last value in the parameter.



- Navigation using an external keyboard -

- Backspace key: Deletes the current value (before editing, the current value be deleted).
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and returns to the main calibration screen in 4.2.1.
- ESC key: Returns to 4.2.1 without changing parameter values.



- Once the desired edit has been made, the system automatically returns to the main parameters screen in 4.2.1, where the selected value is already indicated.

4.2.1.7 Editing the Scale parameter Empty.

Value in weight that establishes a range starting from the calibration ZERO, which if exceeded when the equipment is switched on, prevents the device from working, showing the message below on the display:

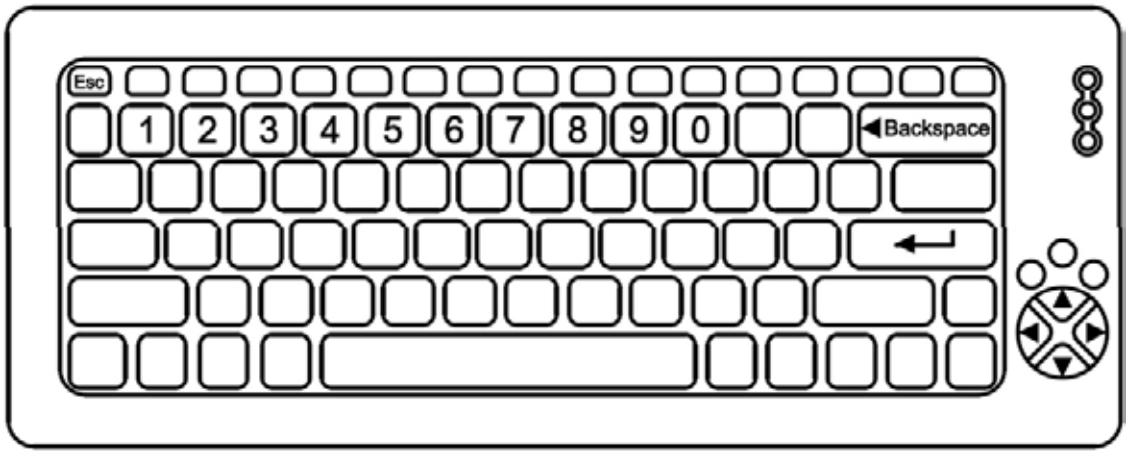
Example: Scale 100000kg x 10kg and parameter EMPTY BAL= 1000

- The message will remain on the display until the weight applied to the scale is less than the value set in the empty scale parameter.

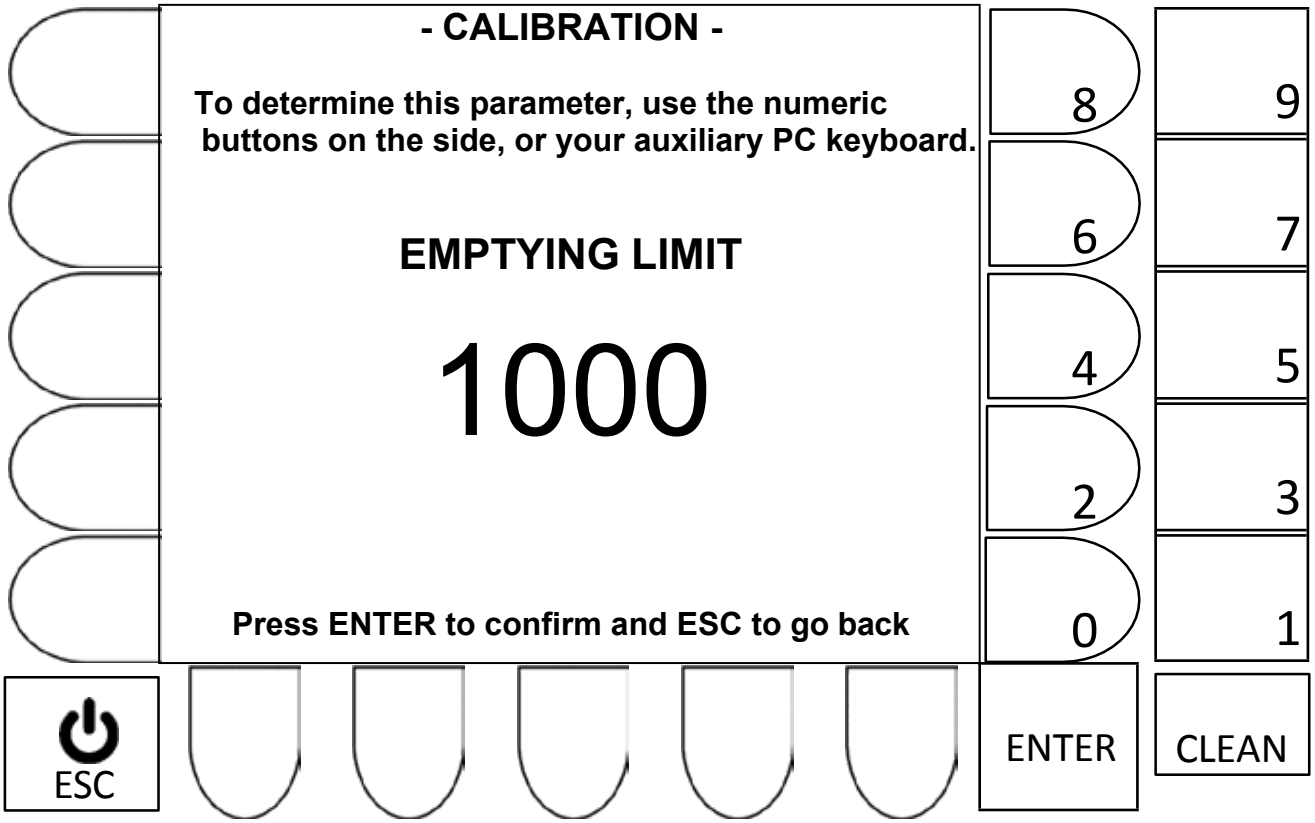
The message only appears if a weight greater than or equal to 1000kg is being applied to the platform when the equipment is switched on.

- Navigation using an external keyboard -

- Backspace key: Deletes the current value (before editing, the current value be deleted).
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and returns to the main calibration screen in 4.2.1.
- ESC key: Returns to 4.2.1 without changing parameter values.



- Navigation using the front panel keys -



- CLEAR key: Deletes the current value (before editing, the current value must be deleted).
- Numeric keys next to the display: Allows you to enter a new numerical value.
- ENTER key: Validates the new value entered and returns to the main calibration screen in 4.2.1.
- ESC key: Returns to 4.2.1 without changing the last value in the parameter.

- Once the desired edit has been made, the system automatically returns to the main parameters screen in 4.2.1, where the selected value is already indicated.

4.2.1.8 Calibration WITHOUT WEIGHT (calibration of ZERO).

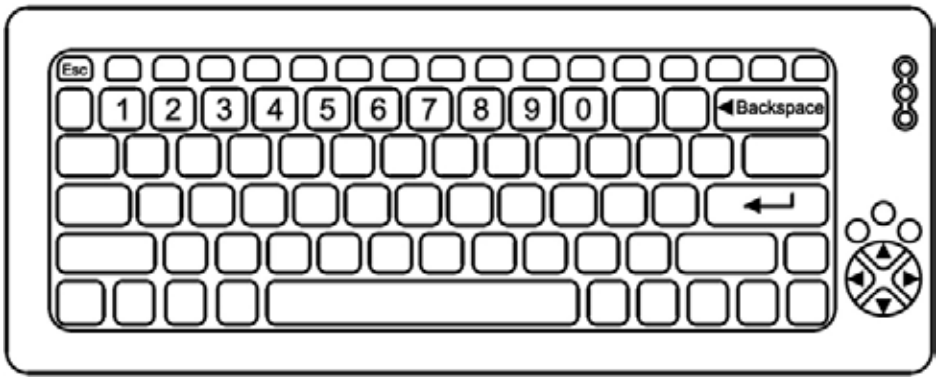
To calibrate the scale's zero, make sure that the weighing platform has no weight applied or mechanical grips.

- Navigation using the front panel keys -

- ENTER key: Performs weightless calibration (zero calibration).
- ESC key: Returns to 4.2.1 without calibrating.

- Navigation using an external keyboard -

- Key↵: Performs weightless calibration (zero calibration).
- ESC key: Returns to 4.2.1 without calibrating.



4.2.1.9 Calibration **WITH WEIGHT** (SPAN calibration).

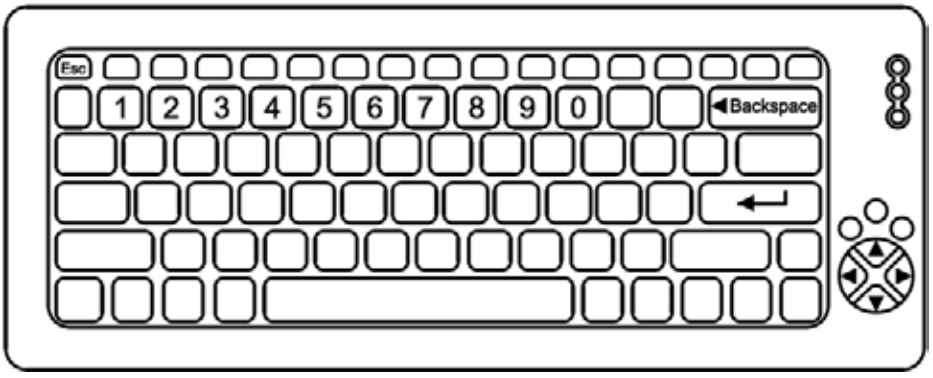
To carry out the SPAN calibration, make sure that the weight value selected in the Calibration Weight parameter (see 4.2.1) has been correctly applied to the platform and that it is free from interference or mechanical grip.

- Navigation using the front panel keys -

- ENTER key: Performs weight calibration (zero calibration).
- ESC key: Returns to 4.2.1 without calibrating.

- Navigation using an external keyboard -

- Key ↵ Key: Performs weightless calibration (zero calibration).
- ESC key: Returns to 4.2.1 without calibrating.



4.2.1.10 % ZERO KEY (% limit range for each drive).

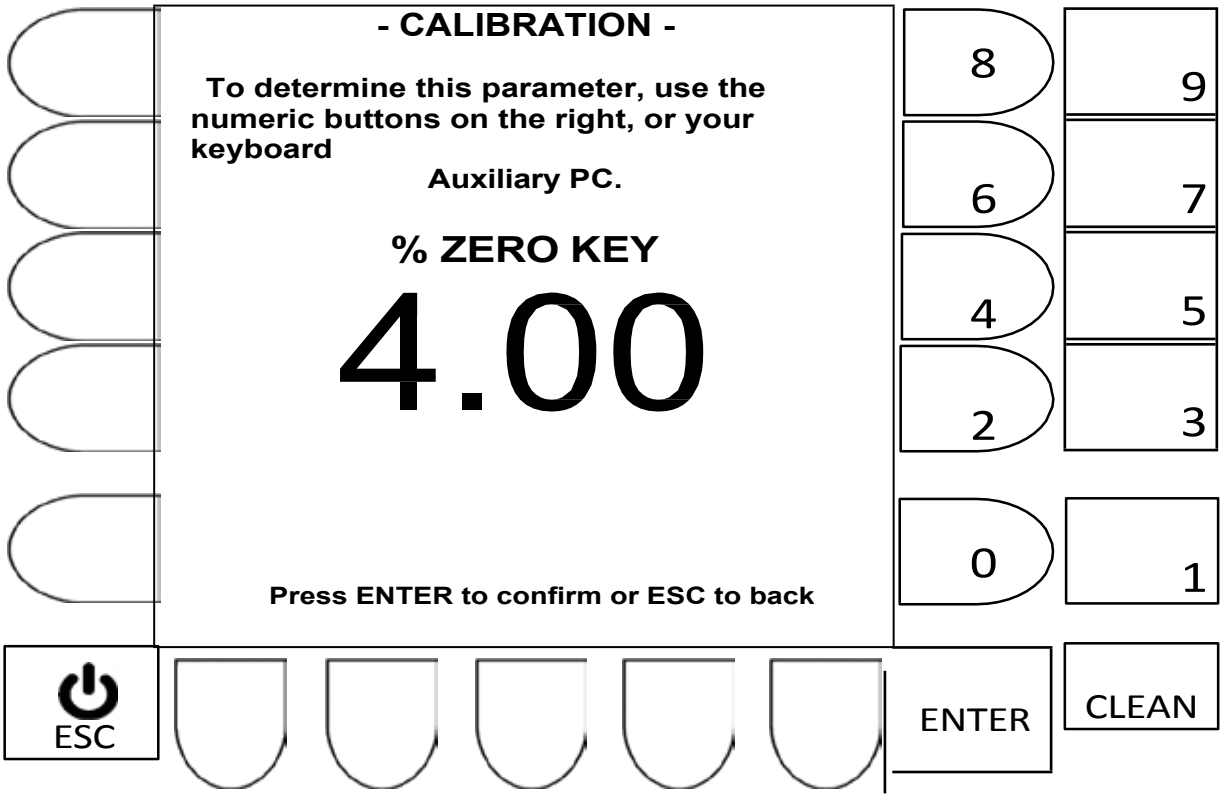
IMPORTANT

- The zero key will only actuate if the value resulting from the cumulative actuations of the zero key does not exceed 4% of the maximum capacity, starting from the calibration zero.
- The % ZERO KEY parameter will have no influence on the zero button's operation for negative values.
- Negative values can be reset by pressing the zero key, provided that the range of 4% of the maximum capacity from the calibration zero has not been exceeded.

The percentage will be calculated based on the established maximum capacity.
Example: Maximum capacity **100000 kg**, division **10kg** and % zero range equal to **0.1**.
The % limit range for each actuation of the zero button will be **100 kg**, and it is not possible to set values greater than 4% of the maximum capacity.

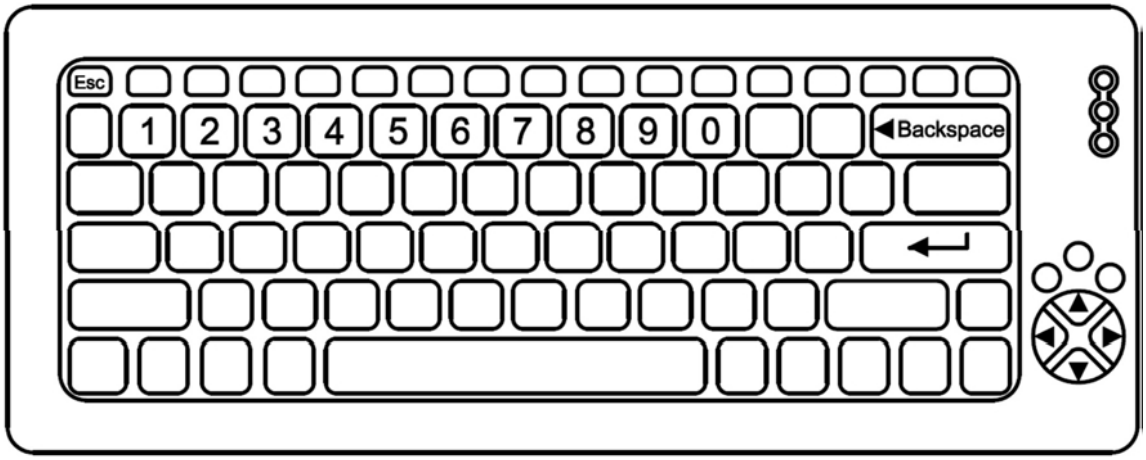
- Navigation using the front panel keys -

- CLEAR key: Deletes the current value (before editing, the current value must be deleted).
- Numeric keys next to the display: Allows you to enter a new numerical value.
- ENTER key: Validates the new value entered and returns to the main calibration screen in 4.2.1.
- ESC key: Returns to 4.2.1 without changing the last value in the parameter.
-



- Navigation using an external keyboard -

- Backspace key: Deletes the current value (before editing, the current value be deleted).
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and returns to the main calibration screen in 4.2.1.
- ESC key: Returns to 4.2.1 without changing parameter values.



- Once the desired edit has been made, the system automatically returns to the main parameters screen in 4.2.1, where the selected value is already indicated.

4.2.1.11 Manual adjustment of linearity

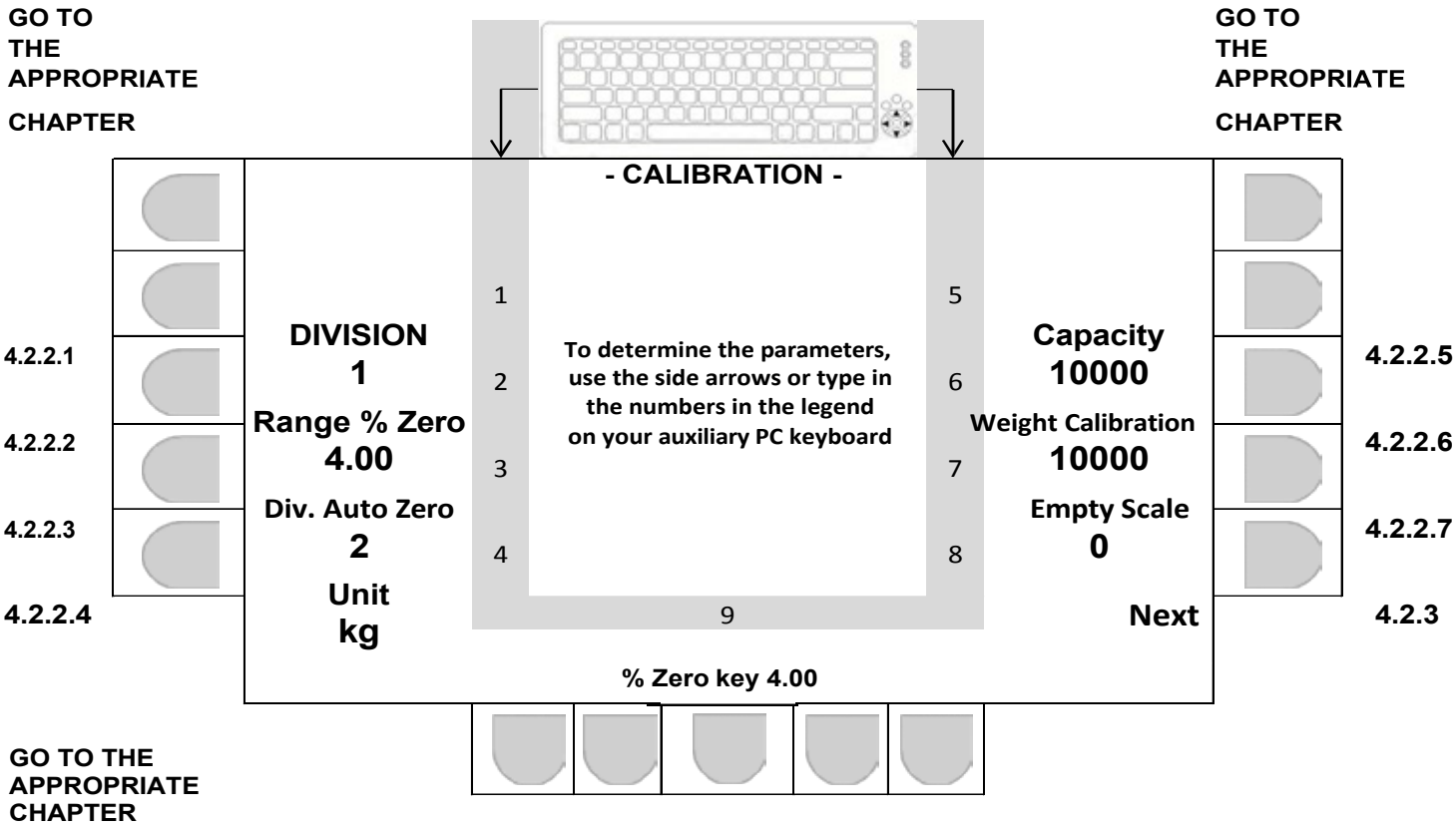
This function allows you to use the side keys on the front panel or the F1 and F2 keys to adjust the system gain to correct linearity errors.

Each key press increases or decreases the gain by 0.2d.

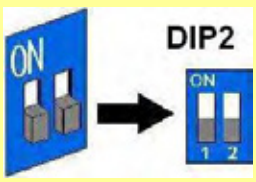
- **ATTENTION: This feature should be used with extreme caution, as it directly interferes with the system's weighing performance.**

4.2.2 PARAMETERIZATION AND CALIBRATION WHEN USING DIGITAL CELLS.

- Below is an example of parameterization **screen 1**.
- The fields on this screen will always be updated according to the last change made to each of the available parameters.

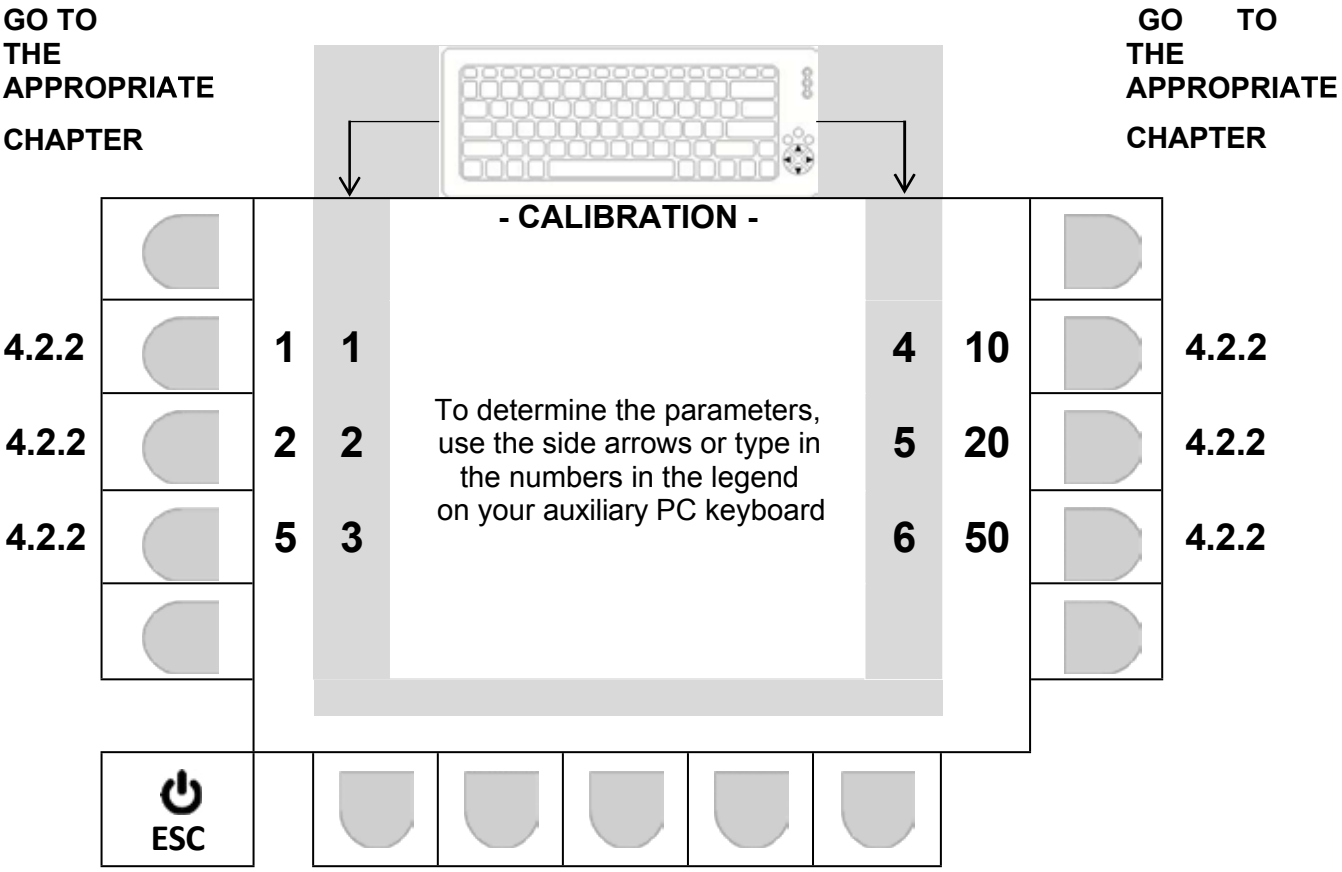


- To exit calibration mode, disconnect the device from the power supply, access the inside of the device and remove the 2 DIP switches2 from the ON position.



4.2.2.1 Editing the parameter of DIVISION.

Select the desired room using the corresponding key on the front panel or the external keypad:



- Once the desired selection has been made, the system automatically returns to the main parameters screen in 4.2.2, where the selected value is already indicated.

4.2.2.2 Parameter RANGE % ZERO (zero at switch on).

It automatically sets a zero when the unit is switched on if the value read is within the established zero % range.

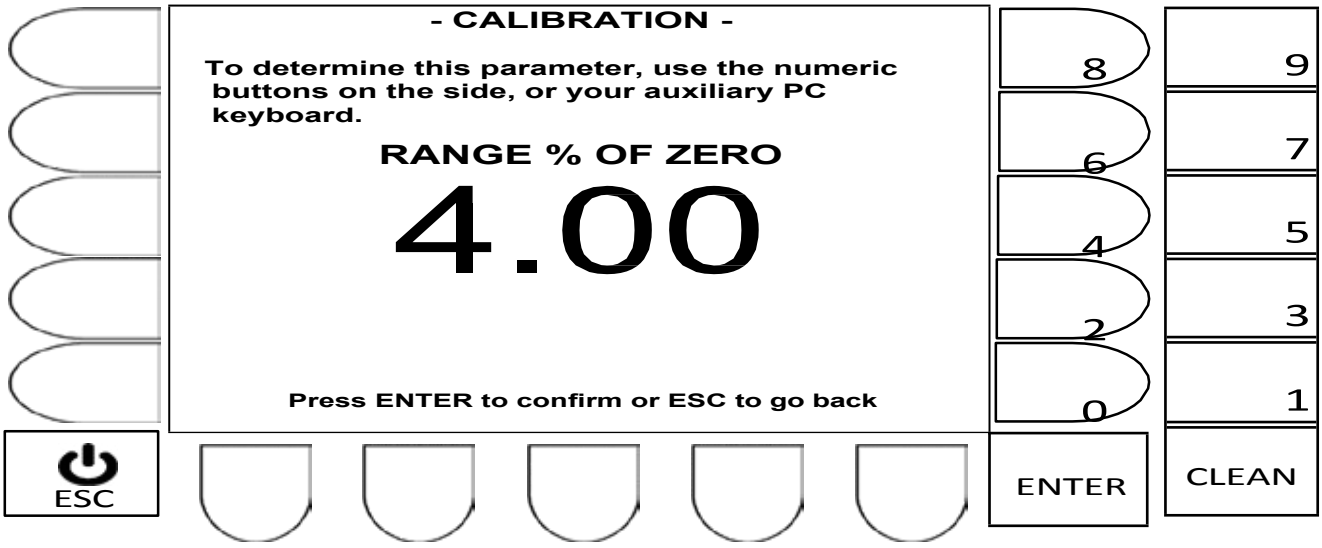
The value that determines the range is based on a percentage of up to 4% of the parameterized maximum capacity.

Example: Maximum capacity 100000 kg, division 10kg and range % of zero equal 4.00

The range will be from -4000 kg to + 4000 kg (starting from the zero of calibration) and the automatic zero will act if the value read when the unit switched on is within this range.

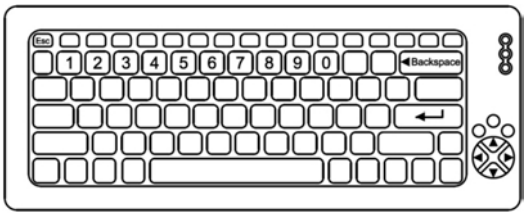
- Navigation using the front panel keys -

- CLEAR key: Deletes the current value (before editing, the current value must be deleted).
- Numeric keys next to the display: Allows you to enter a new numerical value.
- ENTER key: Validates the new value entered and returns to the main calibration screen in 4.2.2.
- ESC key: Returns to 4.2.2 without changing the last value in the parameter.



- Navigation using an external keyboard -

- Backspace key: Deletes the current value (before editing, the current value be deleted).
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and returns to the main calibration screen in 4.2.2.
- ESC key: Returns to 4.2.2 without changing parameter values.



- Once the desired edit has been made, the system automatically returns to the main parameters screen in 4.2.2, where the selected value is already indicated.

4.2.2.3 Editing the DIV AUTO parameter ZERO.

Auto zero only operates if the following conditions are met:

- The type of ZERO must be equal to 1 or 3, e;
- The indicated value must be at zero before the weight is applied or removed, and;
- The value of DIV AUTO ZERO must be greater than or equal to 1 for a range to be established, e;
- The value displayed after applying or removing weight must correspond to a value that, after stabilizing, is within the range set by DIV AUTO ZERO.

To find out the range in which the auto zero will operate, the following calculation must be made:

Value of parameter **DIV AUTO ZERO X DIVISION** set.

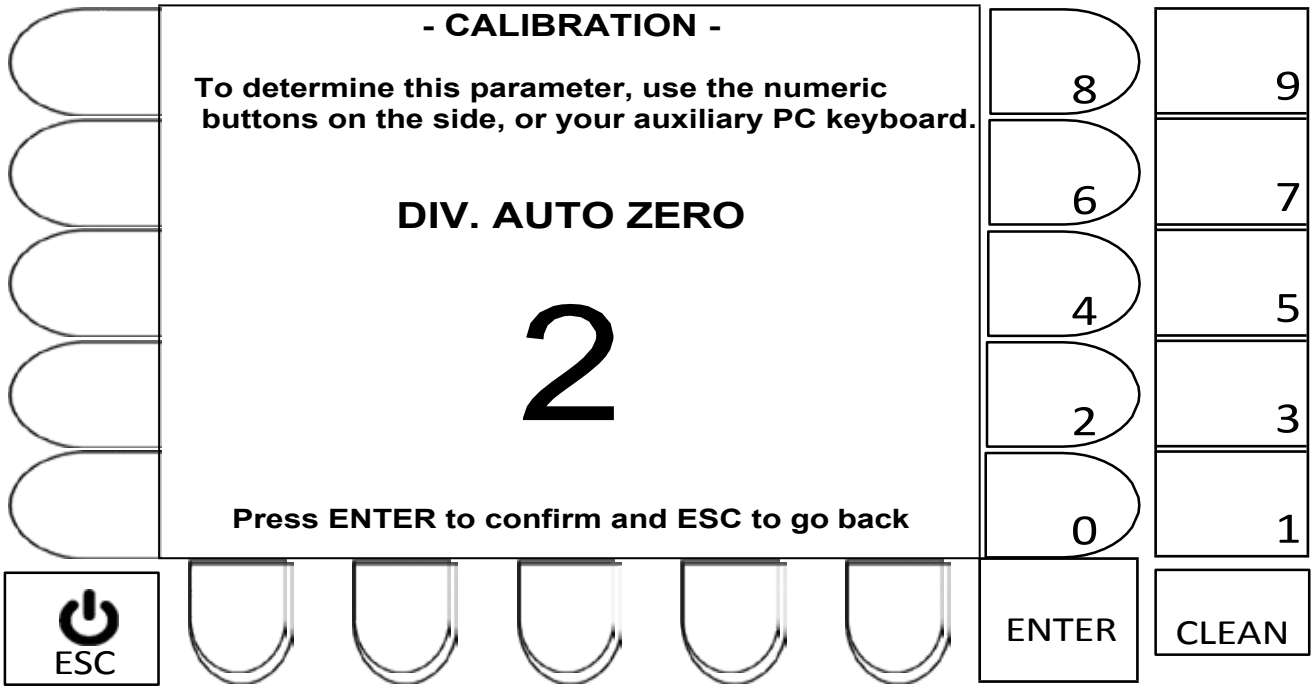
Example:

Scale 100000kg x 10kg and DIV. AUTO ZERO= 2
DIV AUTO ZERO X DIVISION = 2 X 10= 20

The range will be from -20kg to +20kg.

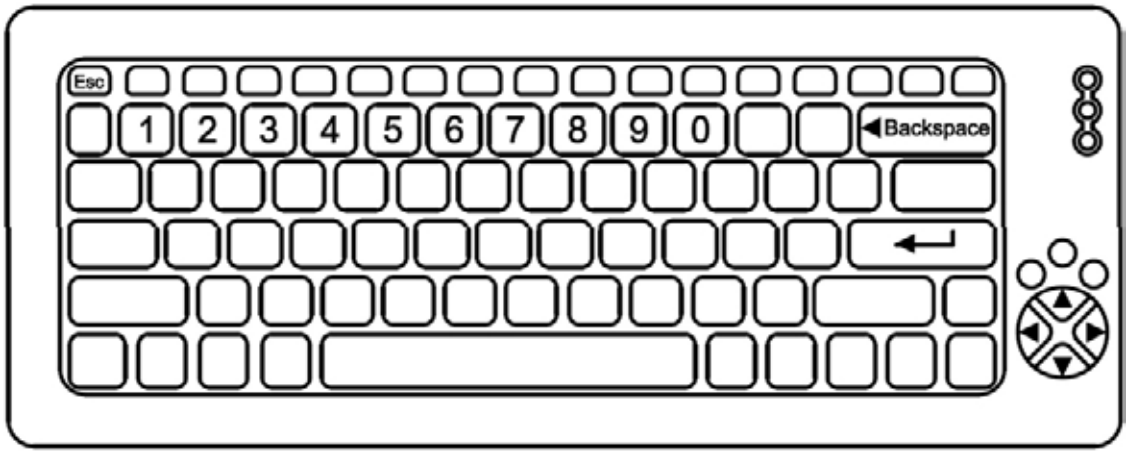
- Navigation using the front panel keys -

- CLEAR key: Deletes the current value (before editing, the current value must be deleted).
- Numeric keys next to the display: Allows you to enter a new numerical value.
- ENTER key: Validates the new value entered and returns to the main calibration screen in 4.2.2.
- ESC key: Returns to 4.2.2 without changing the last value in the parameter.



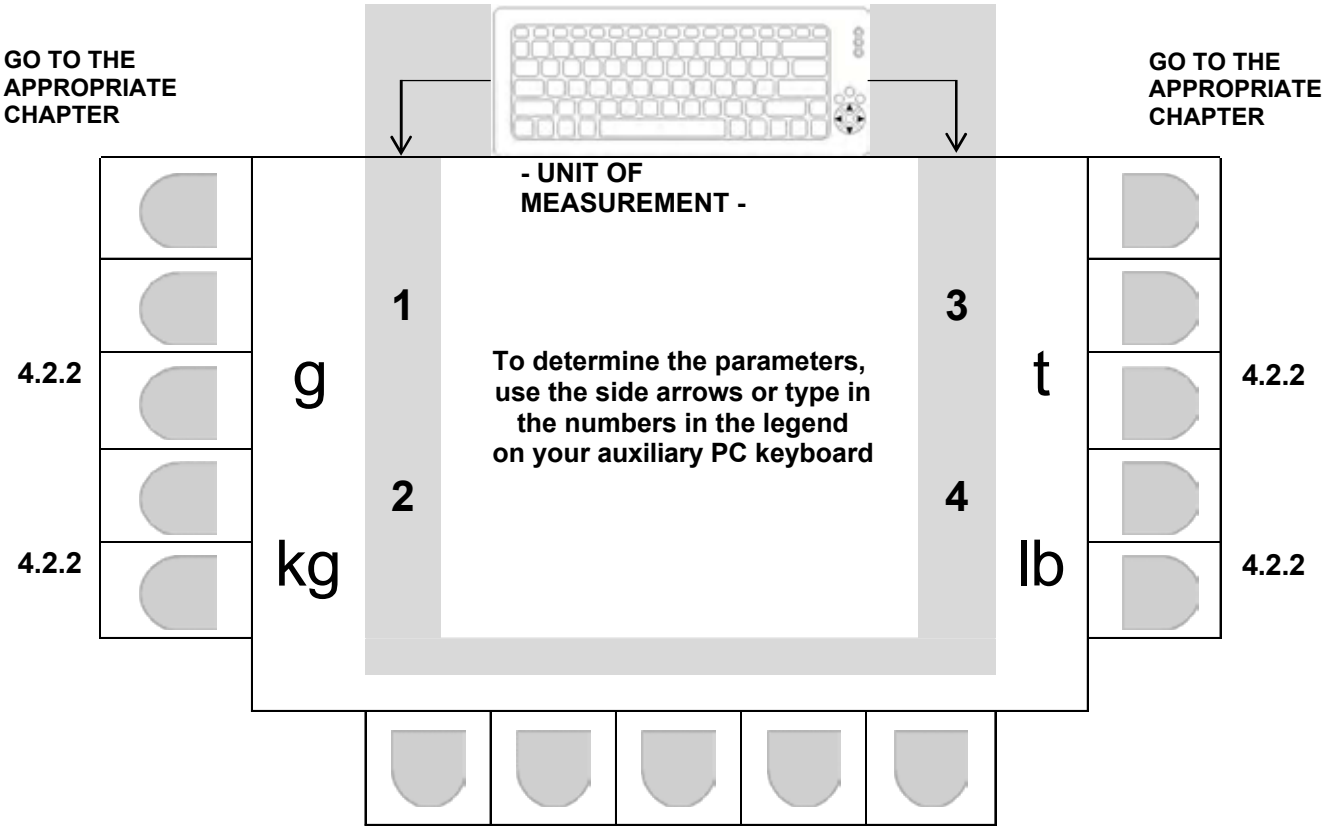
- Navigation using an external keyboard -

- Backspace key: Deletes the current value (before editing, the current value be deleted).
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and returns to the main calibration screen in 4.2.2.
- ESC key: Returns to 4.2.2 without changing parameter values.



4.2.2.4 Editing the parameter Unit.

Select the desired unit using the corresponding key on the front panel, or on the external keypad:



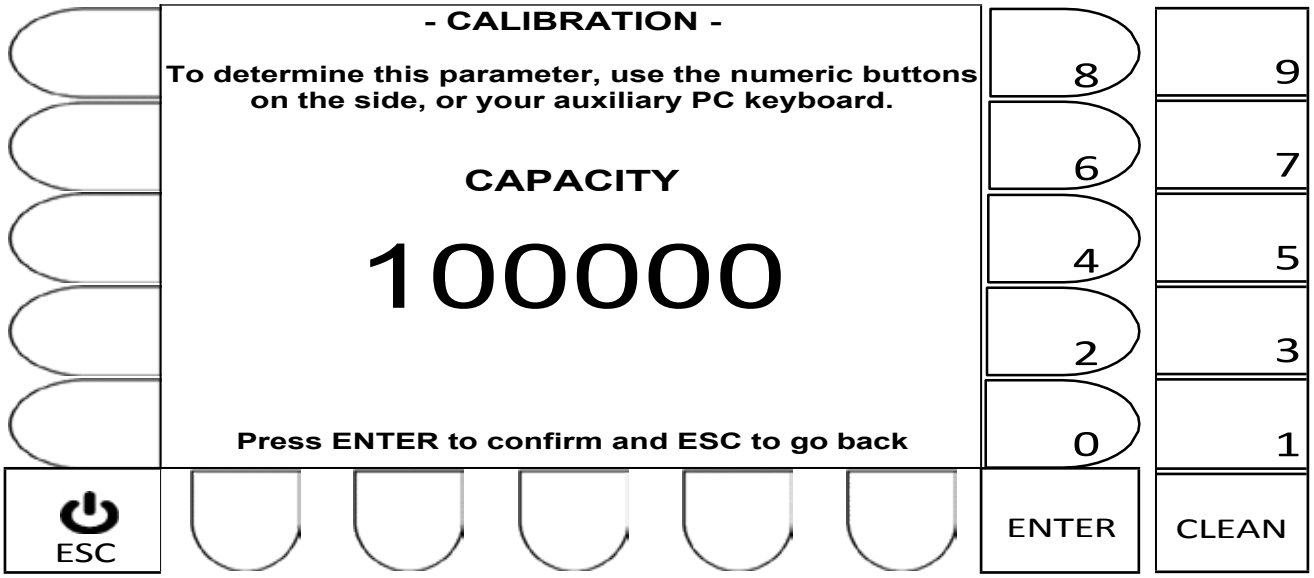
- Once the desired selection has been made, the system automatically returns to the main parameters screen in 4.2.2, where the selected value is already indicated.

4.2.2.5 Editing the CAPAC parameter (option 4).

Establishes the maximum capacity value.

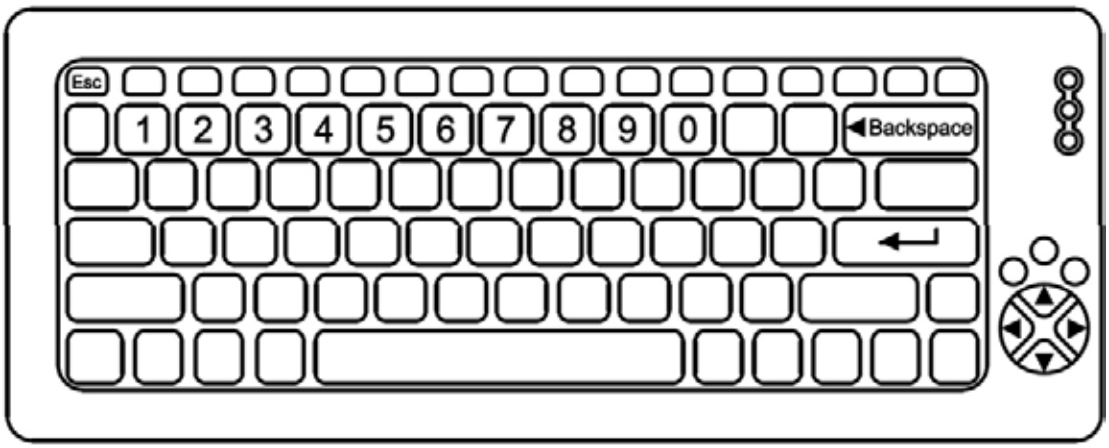
- Navigation using the front panel keys -

- CLEAR key: Deletes the current value (before editing, the current value must be deleted).
- Numeric keys next to the display: Allows you to enter a new numerical value.
- ENTER key: Validates the new value entered and returns to the main calibration screen in 4.2.2.
- ESC key: Returns to 4.2.2 without changing the last value in the parameter.



- Navigation using an external keyboard -

- Backspace key: Deletes the current value (before editing, the current value be deleted).
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and returns to the main calibration screen in 4.2.2.
- ESC key: Returns to 4.2.2 without changing parameter values.

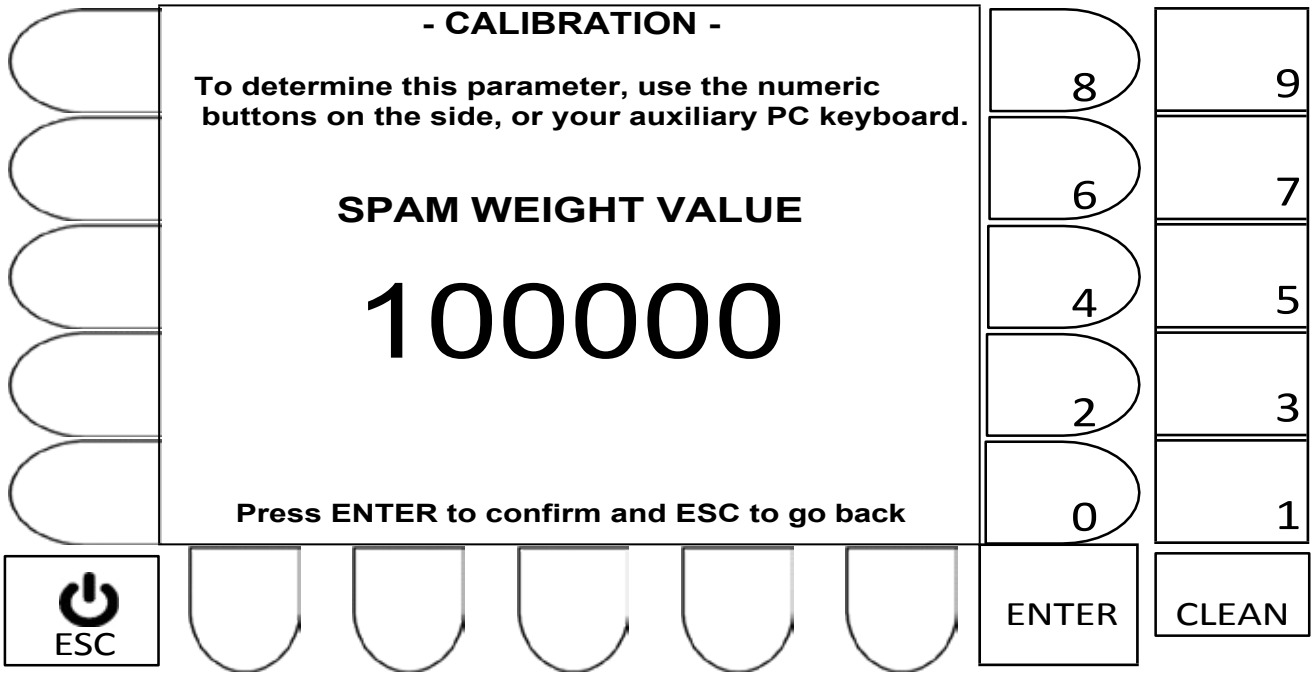


4.2.2.6 Editing the Weight parameter Calibration

Establishes the weight value that will be used in the calibration procedure.

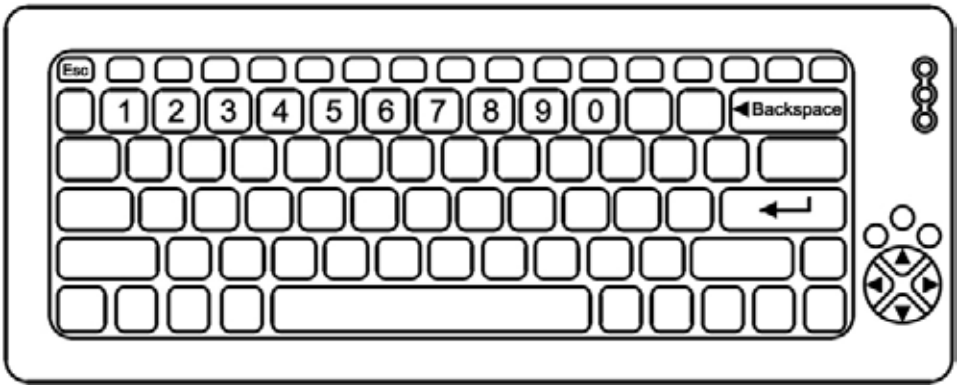
- Navigation using the front panel keys -

- CLEAR key: Deletes the current value (before editing, the current value must be deleted).
- Numeric keys next to the display: Allows you to enter a new numerical value.
- ENTER key: Validates the new value entered and returns to the main calibration screen in 4.2.2.
- ESC key: Returns to 4.2.2 without changing the last value in the parameter.



- Navigation using an external keyboard -

- Backspace key: Deletes the current value (before editing, the current value be deleted).
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and returns to the main calibration screen in 4.2.2.
- ESC key: Returns to 4.2.2 without changing parameter values.



4.2.2.7 Editing the Scale parameter Empty.

Value in weight that establishes a range starting from the calibration ZERO, which if exceeded when the equipment is switched on, prevents the device from working, showing the message below on the display:

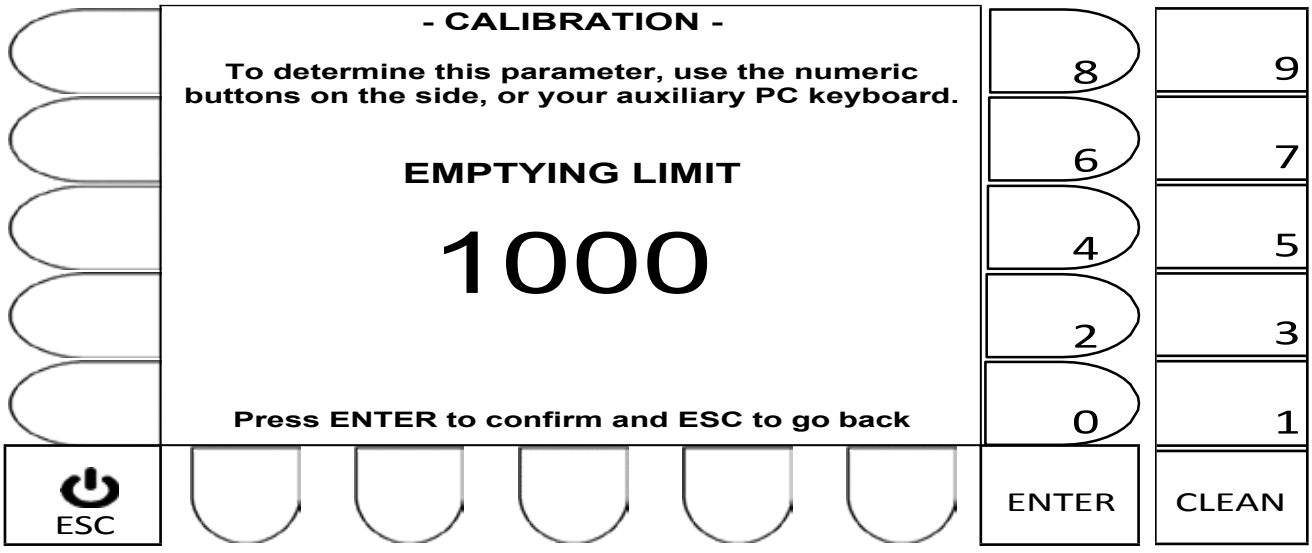
Example: Scale 100000kg x 10kg and parameter EMPTY BAL= 1000

- The message will remain on the display until the weight applied to the scale is less than the value set in the empty scale parameter.

The message only appears if a weight greater than or equal to 1000kg is being applied to the platform when the equipment is switched on.

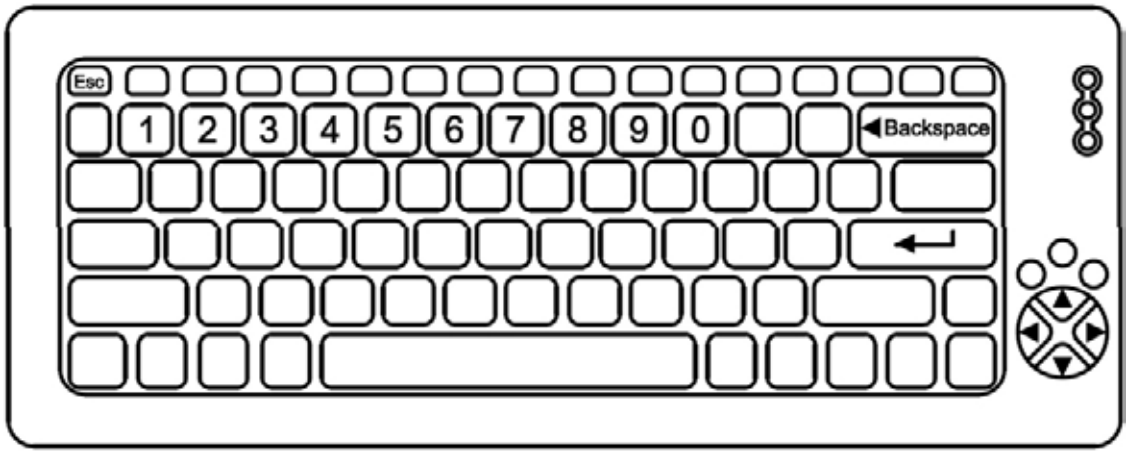
- Navigation using the front panel keys -

- CLEAR key: Deletes the current value (before editing, the current value must be deleted).
- Numeric keys next to the display: Allows you to enter a new numerical value.
- ENTER key: Validates the new value entered and returns to the main calibration screen in 4.2.2.
- ESC key: Returns to 4.2.2 without changing the last value in the parameter.



- Navigation using an external keyboard -

- Backspace key: Deletes the current value (before editing, the current value be deleted).
- Numeric keys: Allows you to enter a new numerical value.
- Key↵ : Validates the new value entered and returns to the main calibration screen in 4.2.2.
- ESC key: Returns to 4.2.2 without changing parameter values.



4.2.2.8 % ZERO KEY (% limit range for each drive).

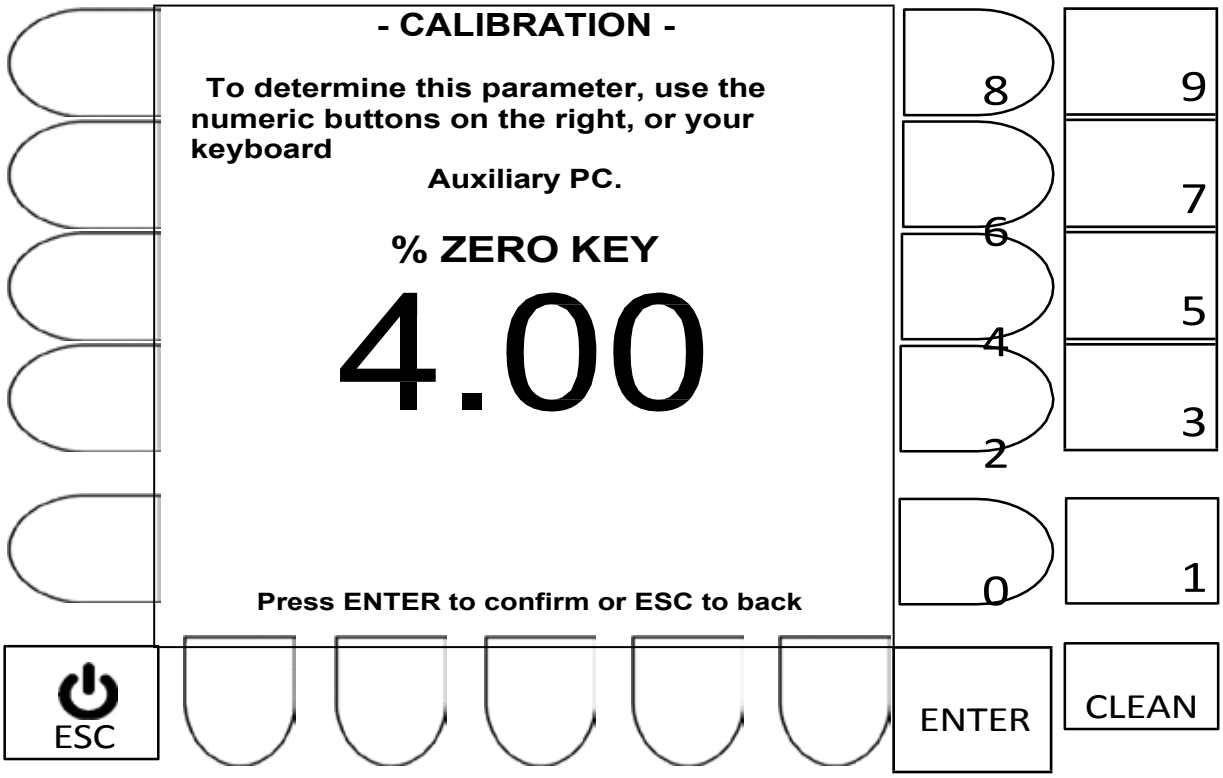
IMPORTANT

- The zero key will only actuate if the value resulting from the cumulative actuations of the zero key does not exceed 4% of the maximum capacity, starting from the calibration zero.
- The % ZERO KEY parameter will have no influence on the zero button's operation for negative values.
- Negative values can be reset by pressing the zero key, provided that the range of 4% of the maximum capacity from the calibration zero has not been exceeded.

The percentage will be calculated based on the maximum capacity established.
Example: Max. capacity **100000 kg**, division **10 kg** and zero key % range equal to **0.1**.
The % limit range for each actuation of the zero button will be **100 kg**, and it is not possible to set values greater than 4% of the maximum capacity.

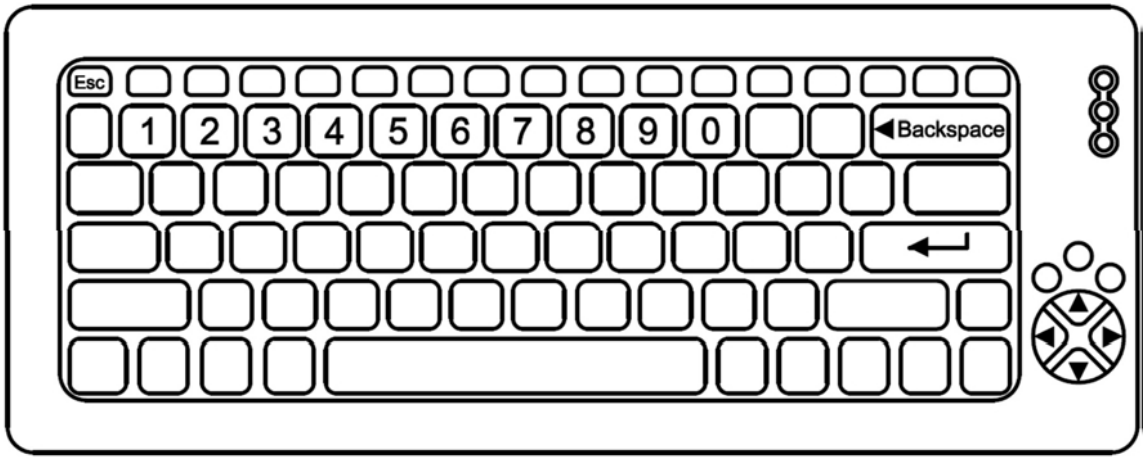
- Navigation using the front panel keys -

- CLEAR key: Deletes the current value (before editing, the current value must be deleted).
- Numeric keys next to the display: Allows you to enter a new numerical value.
- ENTER key: Validates the new value entered and returns to the main calibration screen in 4.2.2.
- ESC key: Returns to 4.2.2 without changing the last value in the parameter.
-



- Navigation using an external keyboard -

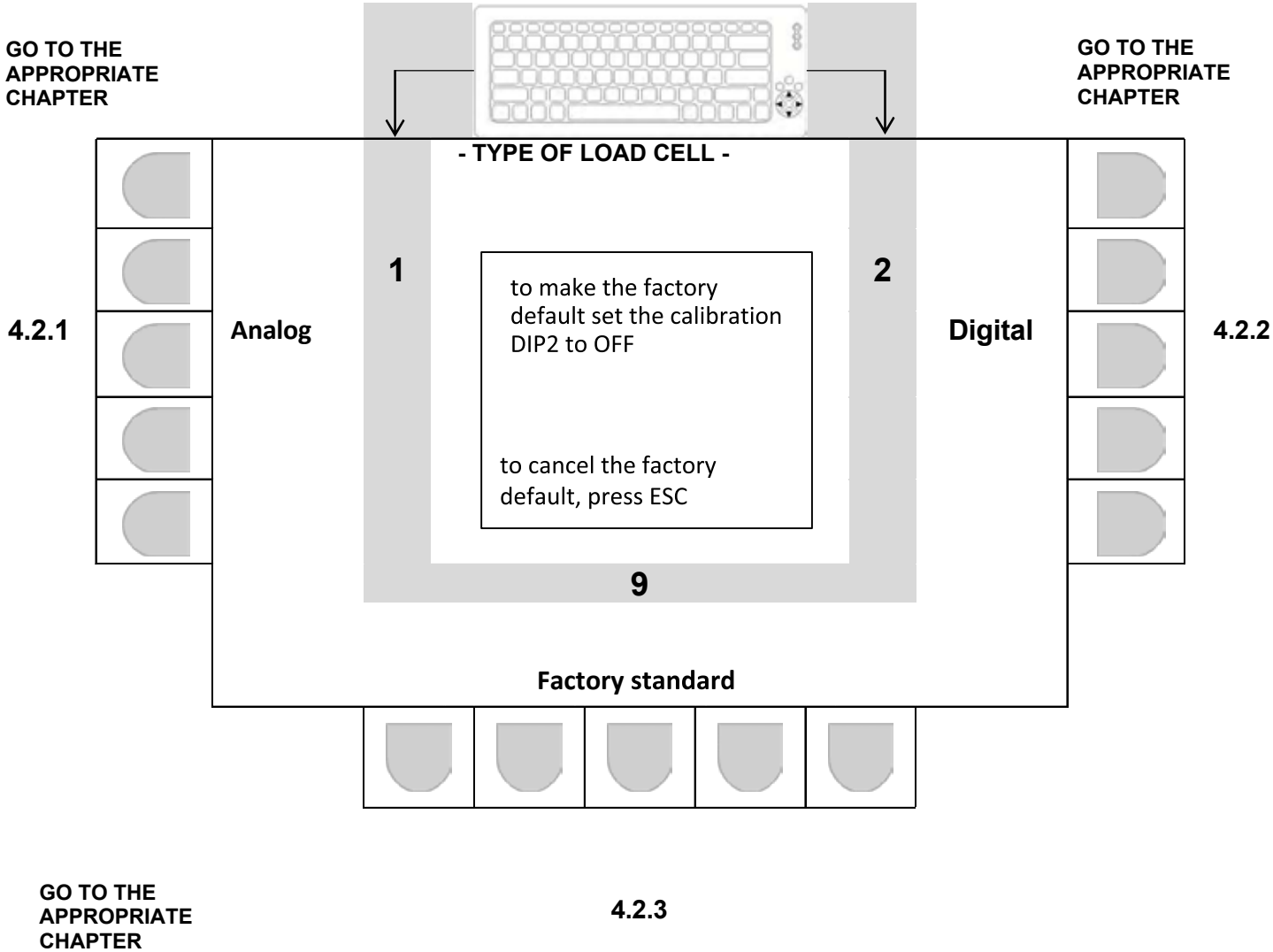
- Backspace key: Deletes the current value (before editing, the current value be deleted).
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and returns to the main calibration screen in 4.2.2.
- ESC key: Returns to 4.2.2 without changing parameter values.



- Once the desired edit has been made, the system automatically returns to the main parameters screen in 4.2.2, where the selected value is already indicated.

4.2.3 STANDARD FROM FACTORY

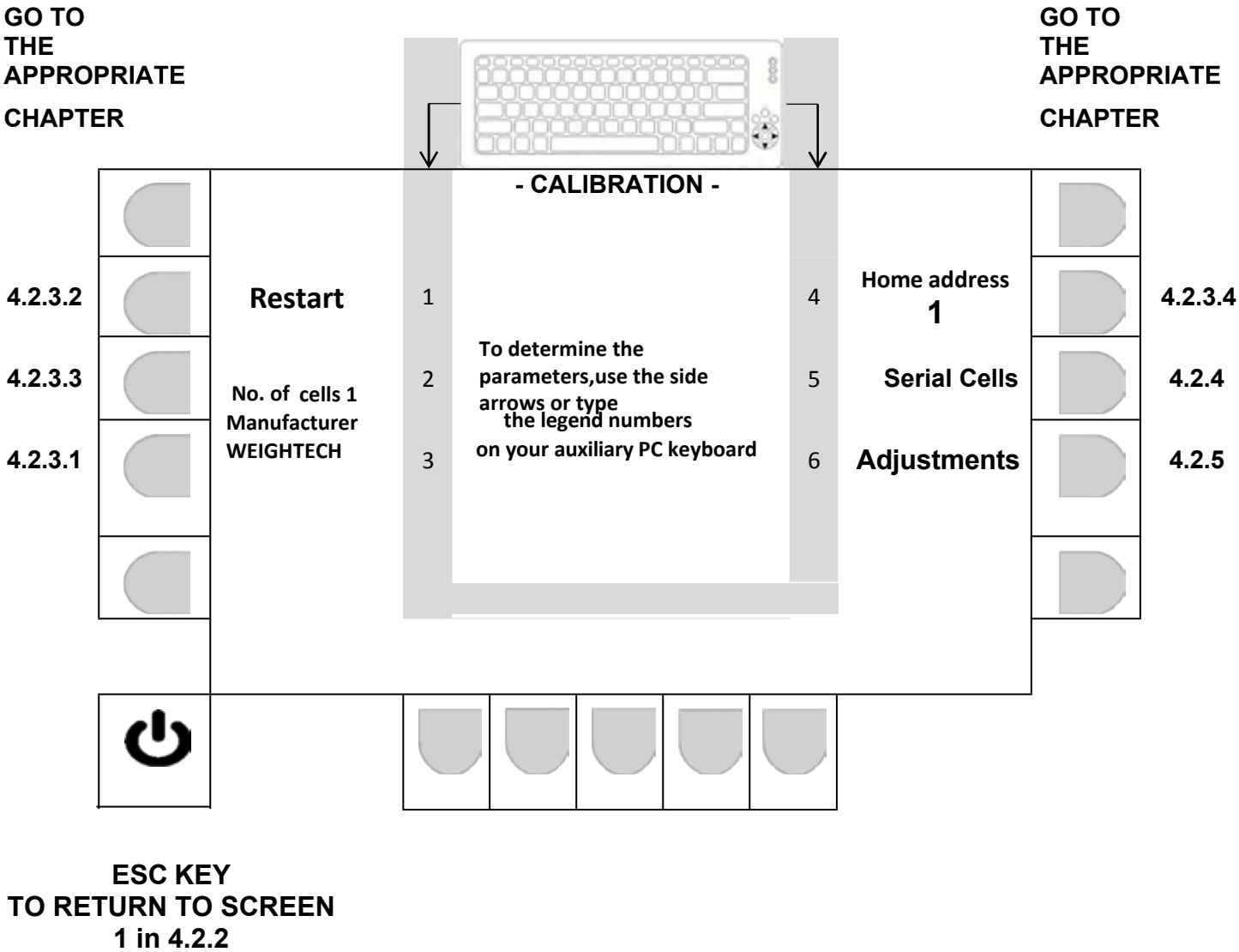
To reset the indicator, select option 9 from the calibration menu;



After setting DIP2 (calibration switch) to OFF, the indicator will run an initialization routine that resets all the settings to the device's factory default.

4.2.4 CONFIGURATION OF DIGITAL CELLS AND SERIAL PORT.

- Below is an example of parameterization **screen 2**.
- The fields on this screen will always be updated according to the last change made to each of the available parameters.



4.2.4.1 Selecting the cell manufacturer digital.

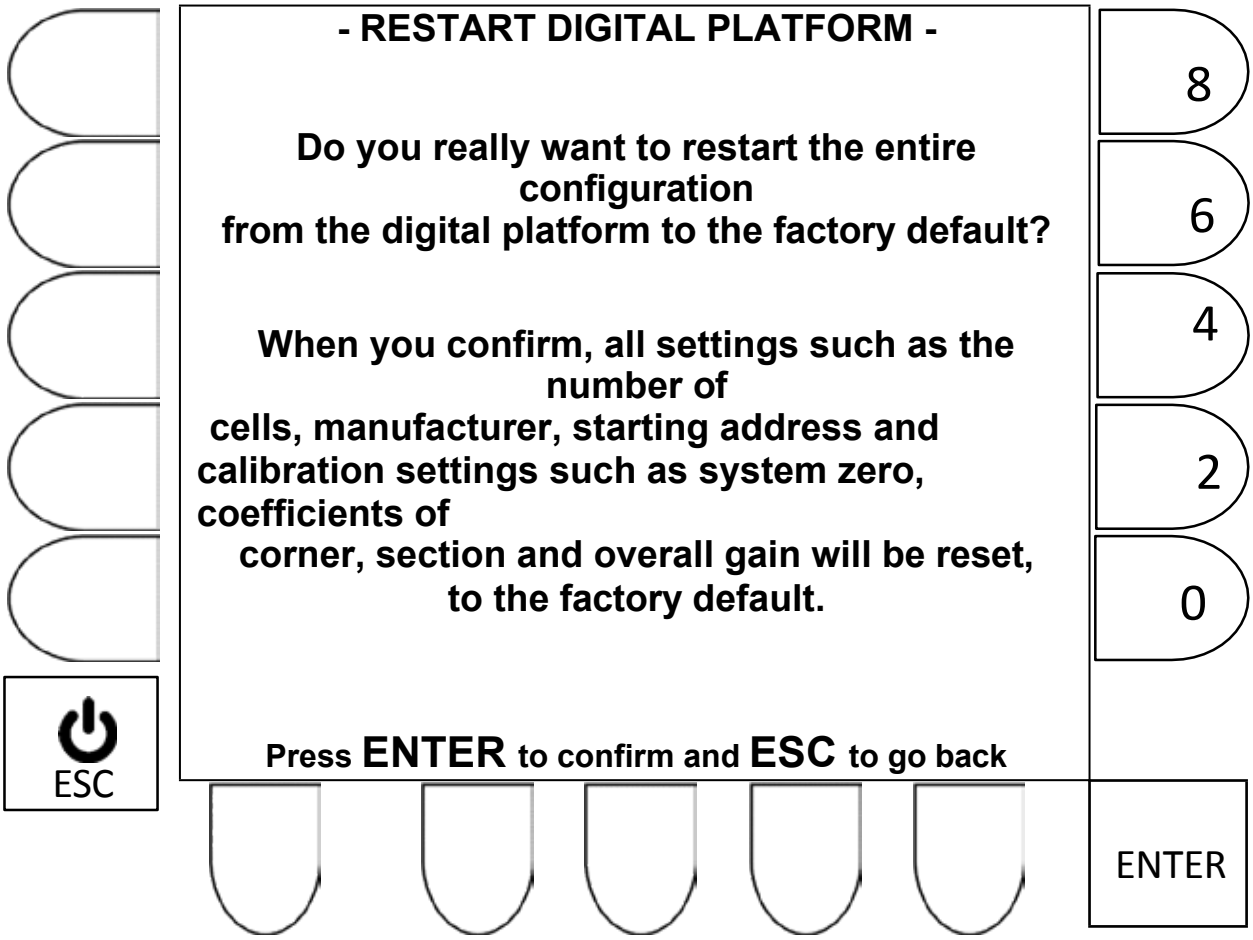
Each time the corresponding key is pressed (key next to the **Manufacturer** legend, or key 3 on the external keyboard), the field switches between the available manufacturers and the valid selection will be the one indicated on the screen.

Manufacturers and models available:

Manufacturer	**Compatible models**
WEIGHTECH	PDCC and PDCC-M
BERMAN-G1	BRP-D and BLCQ-D
BERMAN-G2	BSDS and BEDS
HBM	C16i, AD104 and AD103C
REVERE 2W	DSC1 2-wire
REVERE 4W	DSC1 4-wire
DSC2 2W	DSC2 2-wire
DSC2 4W	DSC2 4-wire
VISHAY	DHS
LAUMAS	CLM8
ZEMIC	BHM-D
AIEN	MPRP-D

- Carefully check the documentation for the selected load cell before parameterizing the cell serialization.
- When using BEDS load cells, you must activate switches 2 and 3 of DIP3
- * **DSC2-2F** and **DSC2-4F** options, only with firmware version 1.7 or higher.
- Once you have finished setting the parameters, press ESC to return to the first parameterization screen in 4.2.2.

4.2.4.2 restore factory settings, for digital cells.



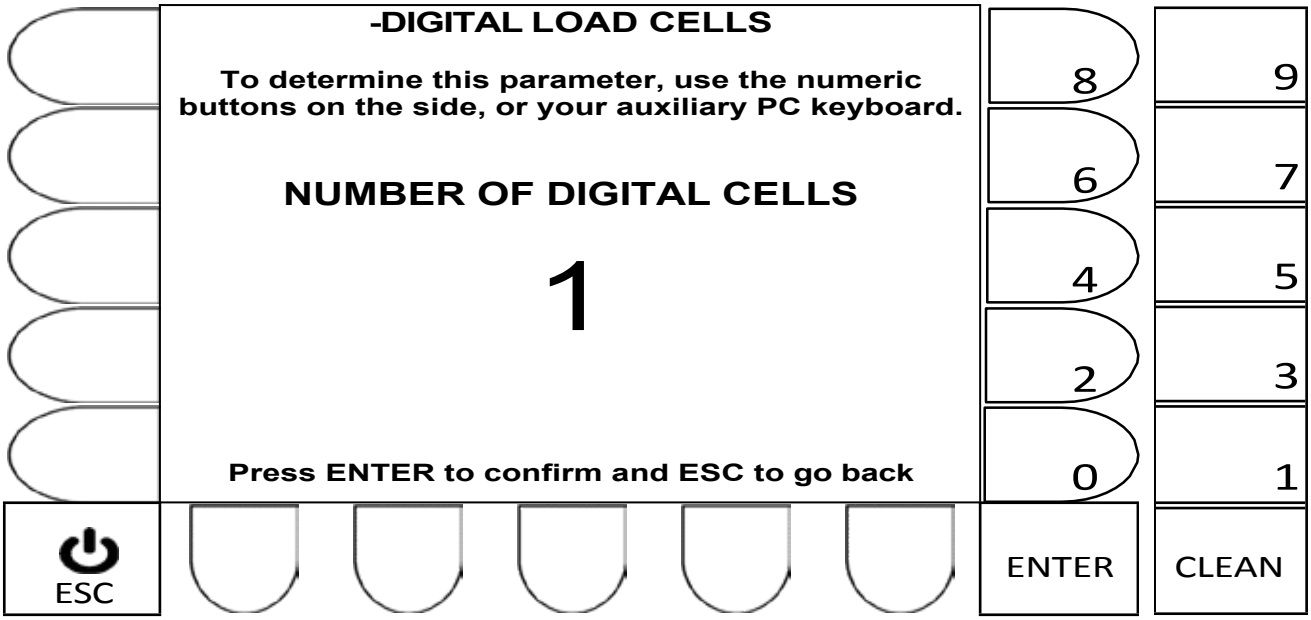
- **When you press ENTER, wait for the factory reset process and return to 4.2.3.**
- **ESC returns to 4.2.3, without performing a factory reset.**

4.2.4.3 Definition of the number of digital cells used

- **The number of cells must be a minimum of 1 and a maximum of 16**.

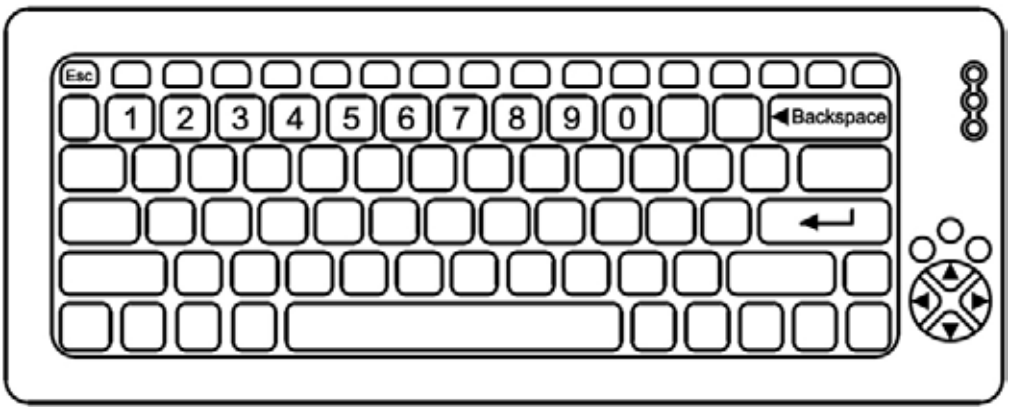
- Navigation using the front panel keys -

- CLEAR key: Deletes the current value (before editing, the current value must be deleted).
- Numeric keys next to the display: Allows you to enter a new numerical value.
- ENTER key: Validates the new value entered and returns to the main calibration screen in 4.2.3.
- ESC key: Returns to 4.2.3 without changing the last value in the parameter.



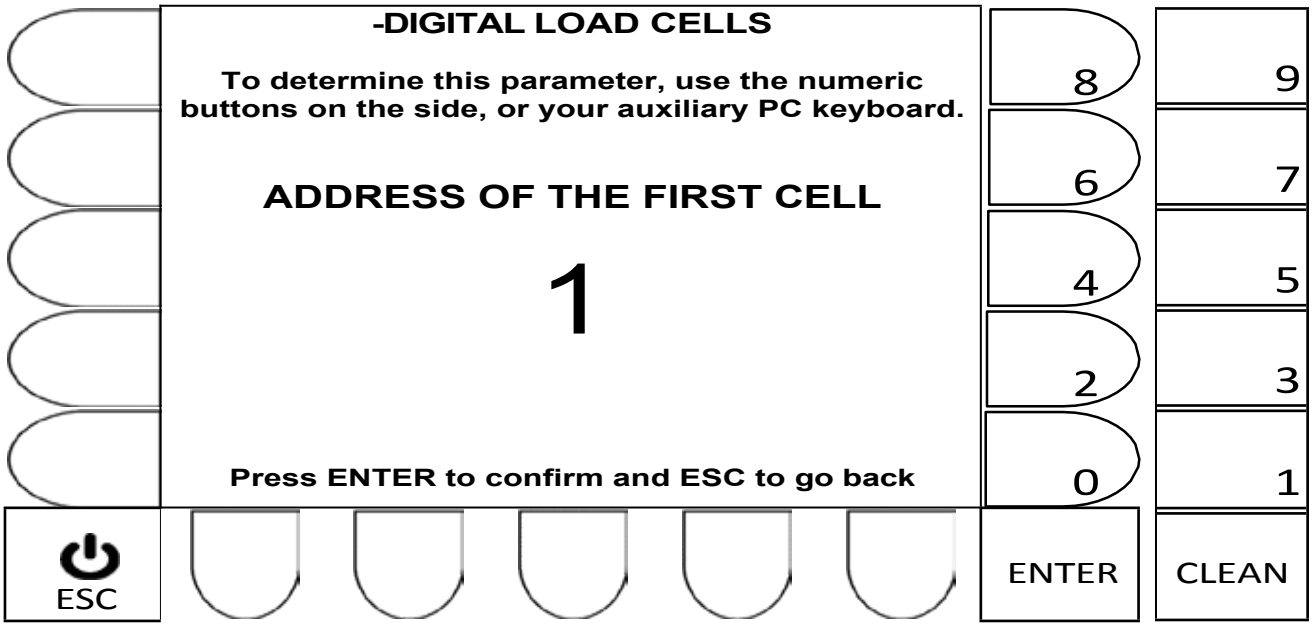
- Navigation using an external keyboard -

- Backspace key: Deletes the current value (before editing, the current value be deleted).
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and returns to the main calibration screen in 4.2.3.
- ESC key: Returns to 4.2.3 without changing parameter values.



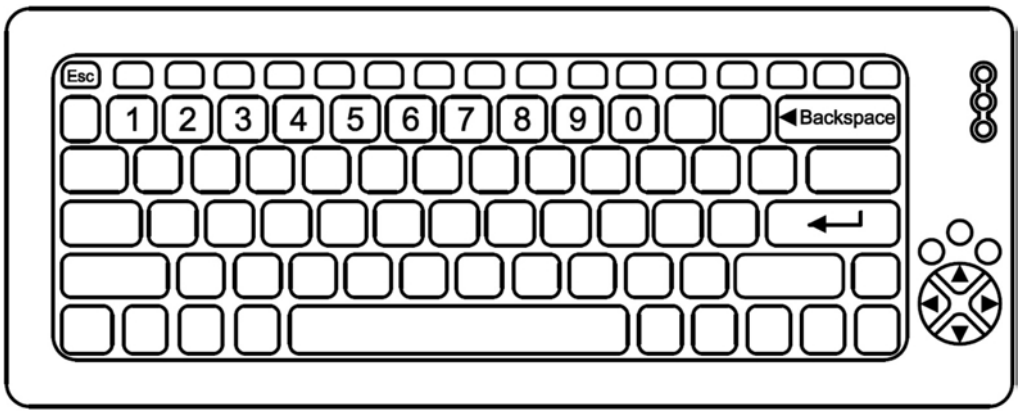
4.2.4.4 Address home

- Navigation using the front panel keys -



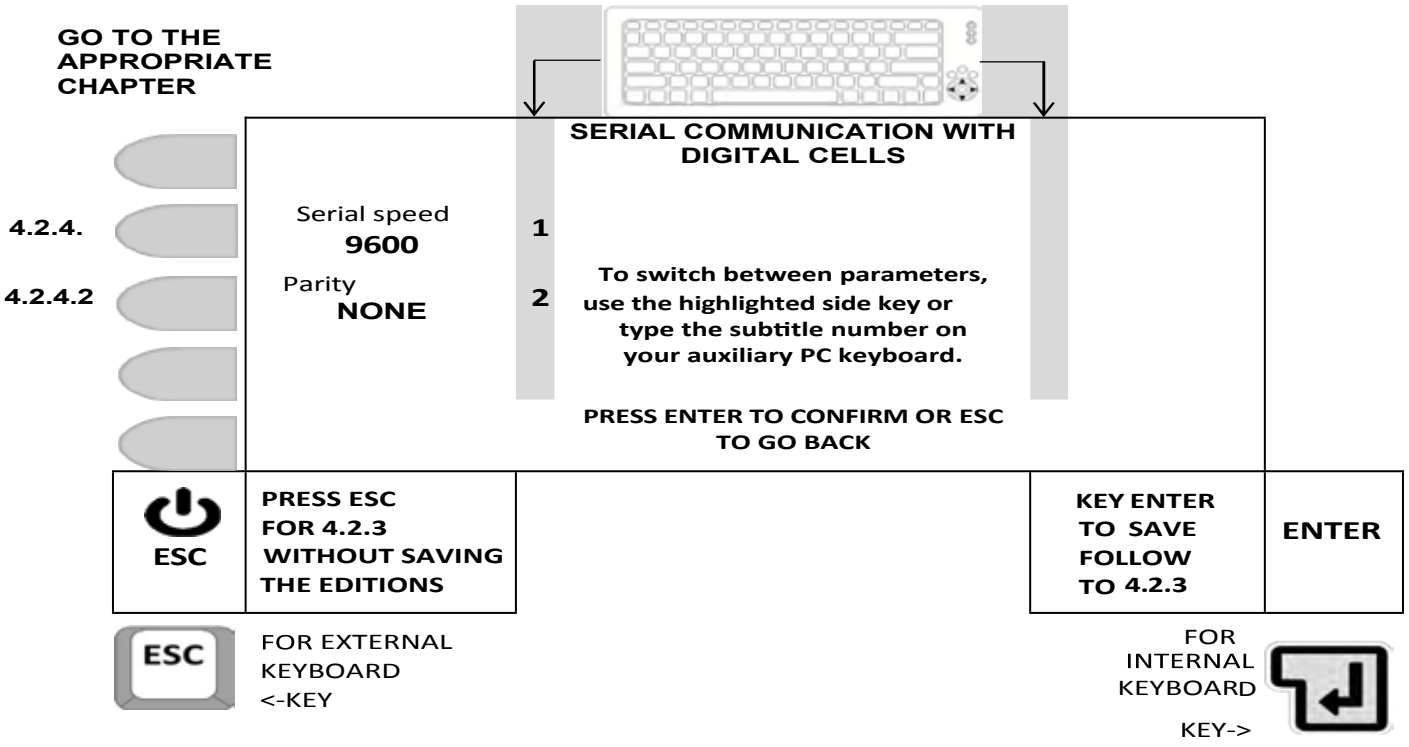
- CLEAR key: Deletes the current value (before editing, the current value must be deleted).
- Numeric keys next to the display: Allows you to enter a new numerical value.
- ENTER key: Validates the new value entered and returns to the main calibration screen in 4.2.3.
- ESC key: Returns to 4.2.3 without changing the last value in the parameter.

- Navigation using an external keyboard -



- Backspace key: Deletes the current value (before editing, the current value be deleted).
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and returns to the main calibration screen in 4.2.3.
- ESC key: Returns to 4.2.3 without changing parameter values.

4.2.5 SPEED AND PARITY SELECTION ON SERIAL.



4.2.5.1 Selecting the speed of communication.

With each press of the corresponding key (key next to the **Serial Speed legend,** or key 1 on the external keyboard), the field switches between 1200, 2400, 4800, 9600, 19200, ***38400, *57600** and ***115200**, with the valid speed being the one indicated on the screen.

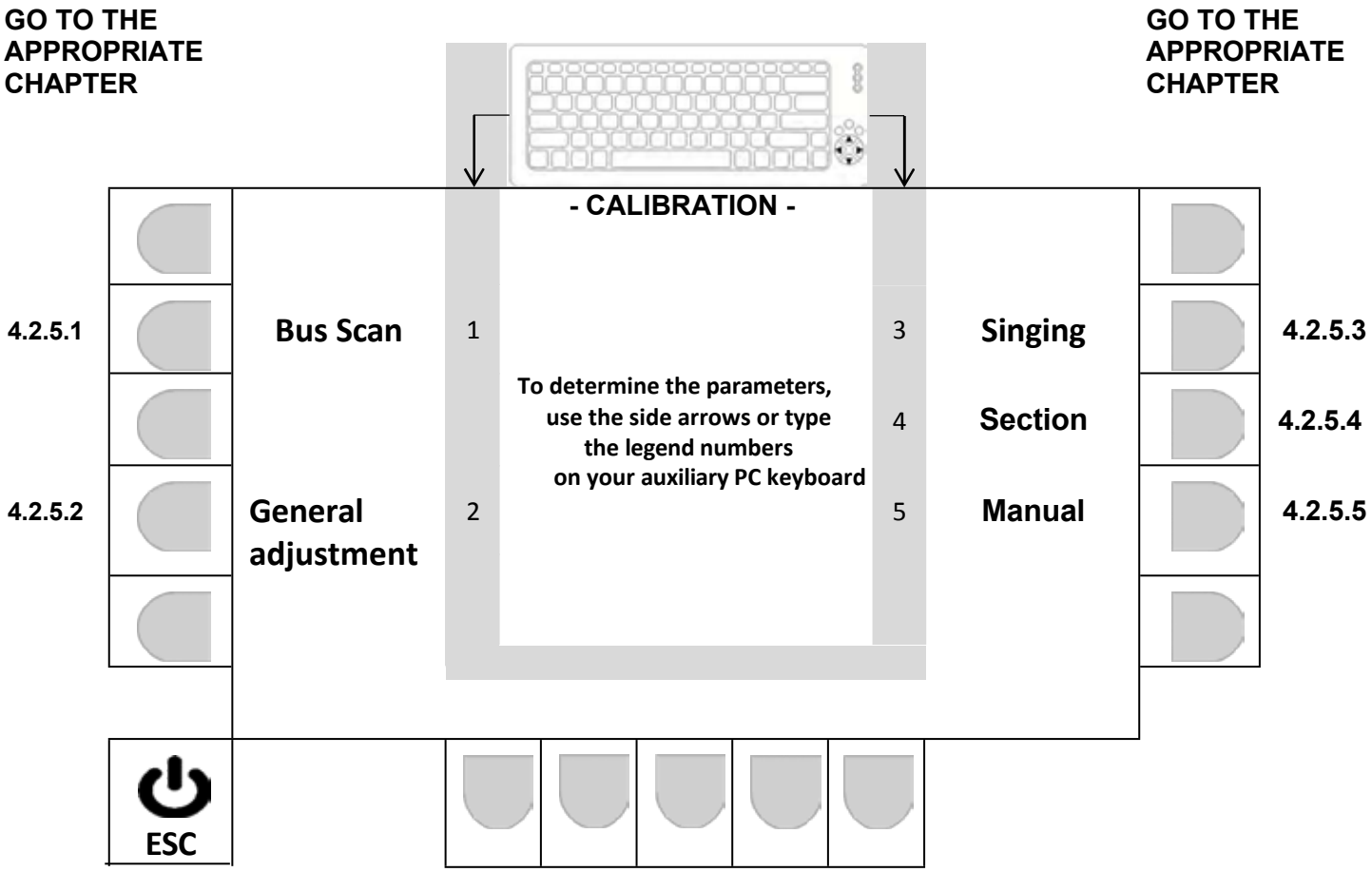
- Carefully check the documentation for the selected load cell before parameterizing the cell's temperature.
- ***38400**, **57600** and **115200** speeds only in firmware version 1.7 or higher.

4.2.5.2 Communication parity selection serial.

Each time the corresponding key is pressed (key next to the **Parity** legend, or key 2 on the external keyboard), the field switches between NONE, PAR or IMPAR, with the valid parity being the one indicated on the screen.

- TO RETURN TO THE SECOND PARAMETRING SCREEN IN 4.2.3, SAVING THE EDITIONS MADE, press **ENTER**.
- TO RETURN TO THE SECOND PARAMETERIZATION SCREEN IN 4.2.3 WITHOUT SAVING THE EDITS MADE, PRESS **ESC**.

4.2.6 ADJUSTMENTS AND CALIBRATION.



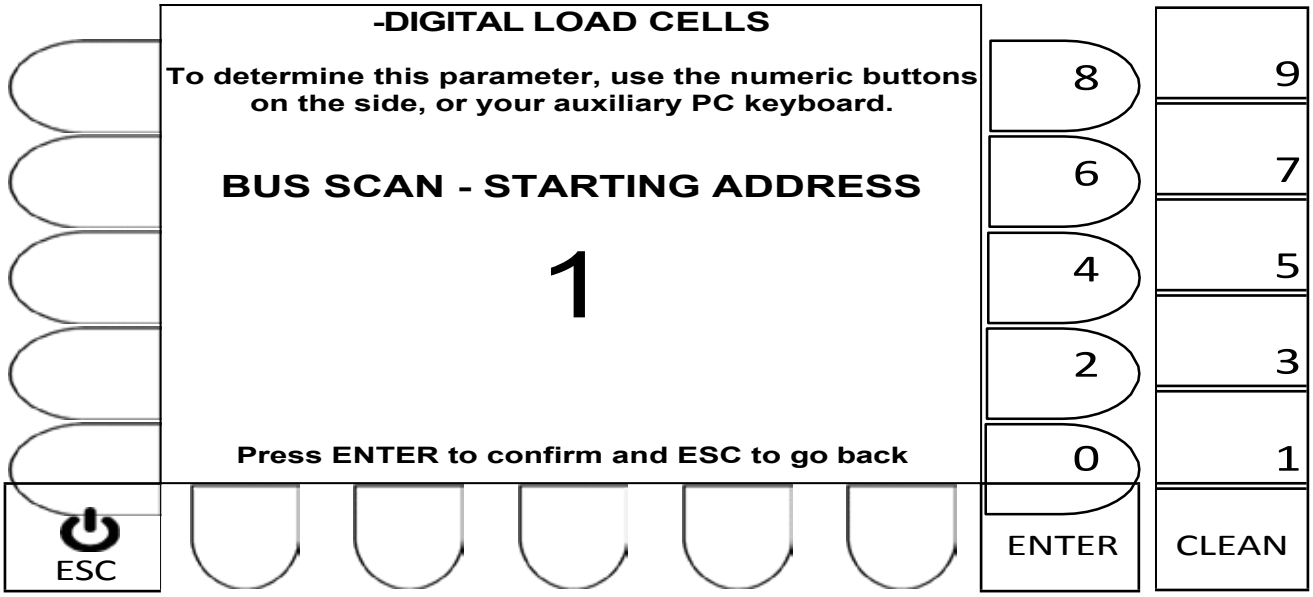
ESC KEY
TO RETURN TO SCREEN 1
IN 4.2.2

4.2.6.1 Bus Scan.

4.2.6.1.1 DETERMINING THE STARTING ADDRESS.

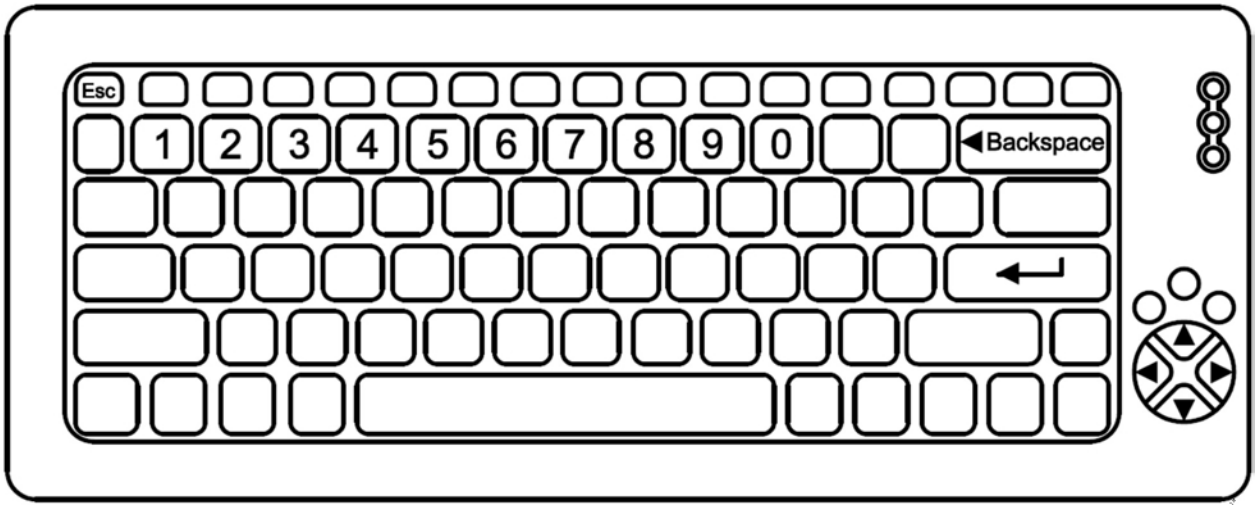
- Addresses must be between 0 and 89

- Navigation using the front panel keys -



- CLEAR key: Deletes the current value (before editing, delete the current value).
- Numeric keys next to the display: Allows you to enter a new value.
- ENTER key: Validates the new value entered and proceeds to the next screen 4.2.5.1.2.
- ESC key: Returns to 4.2.5 without changing the last parameter value.

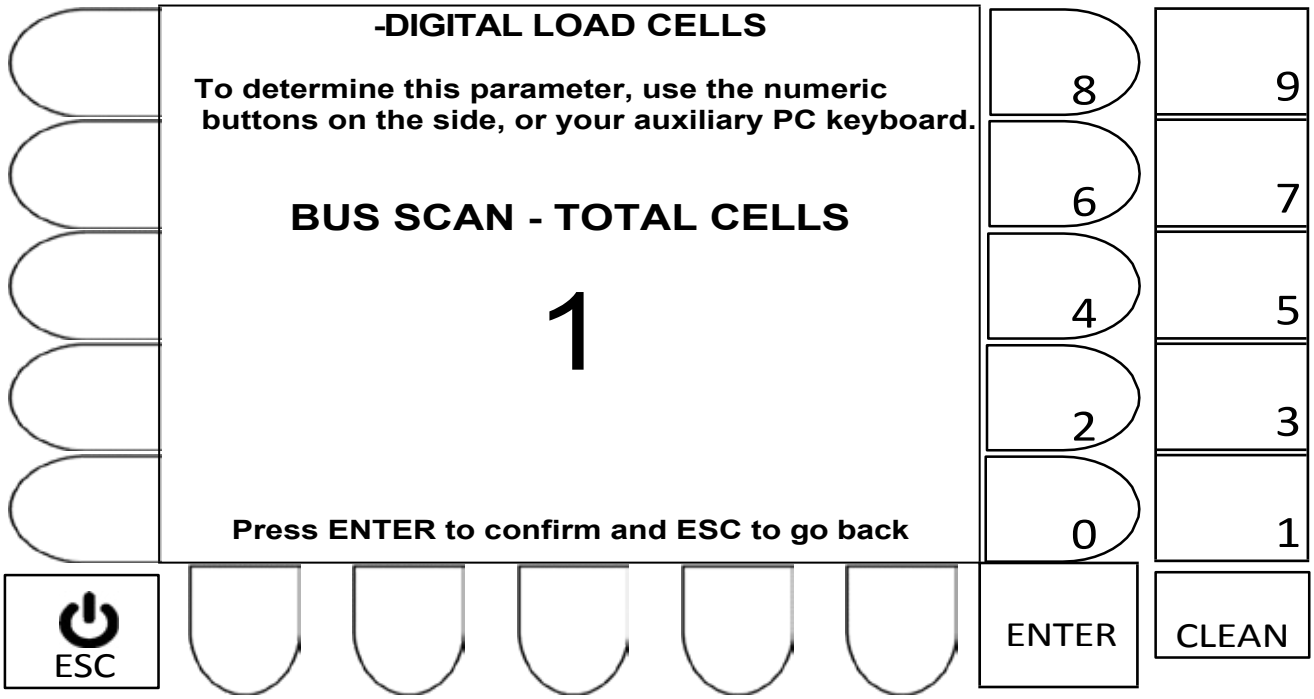
- Navigation using an external keyboard -



- Backspace key: Deletes the current value (before editing, delete the current value).
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ Validates the new value entered and proceeds to the next screen 4.2.5.1.2.
- ESC key: Returns to 4.2.5 without changing parameter values.

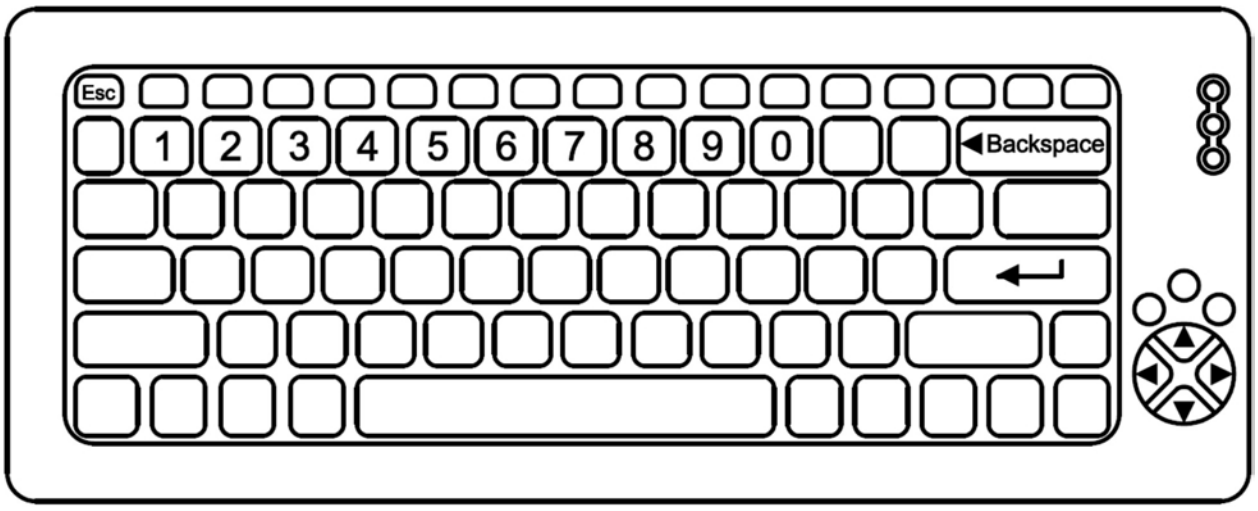
4.2.6.1.2 DETERMINING THE NUMBER OF CELLS USED.

- Navigation using the front panel keys -



- CLEAR key: Deletes the current value (before editing, delete the current value).
- Numeric keys next to the display: Allows you to enter a new value.
- ENTER key: Validates the new value entered and proceeds to the next screen 4.2.5.1.3.
- ESC key: Returns to 4.2.5 without changing the last parameter value.

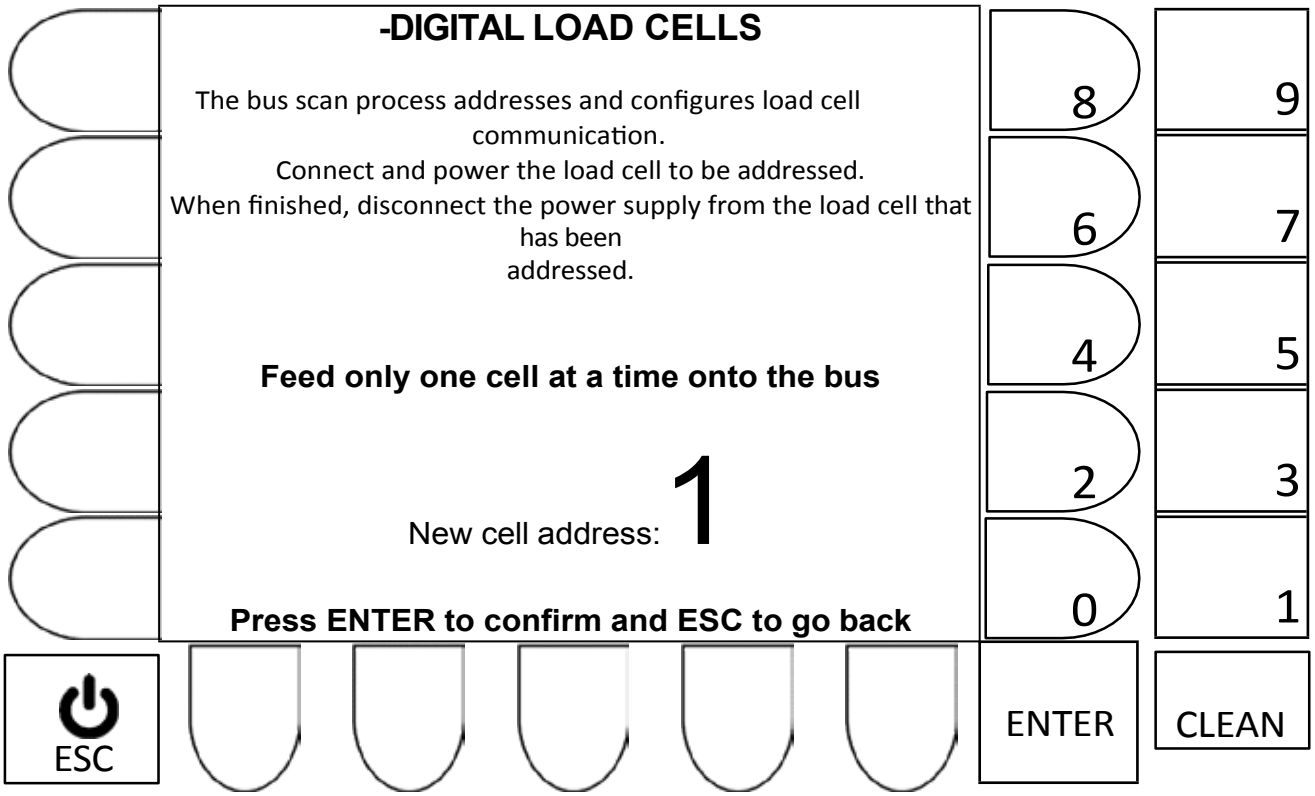
- Navigation using an external keyboard -



- Backspace key: Deletes the current value (before editing, delete the current value).
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ Validates the new value entered and proceeds to the next screen 4.2.5.1.3.
- ESC key: Returns to 4.2.5 without changing parameter values.

4.2.6.1.3 ADDRESSING AND CONFIGURATION.

- Navigation using the front panel keys -

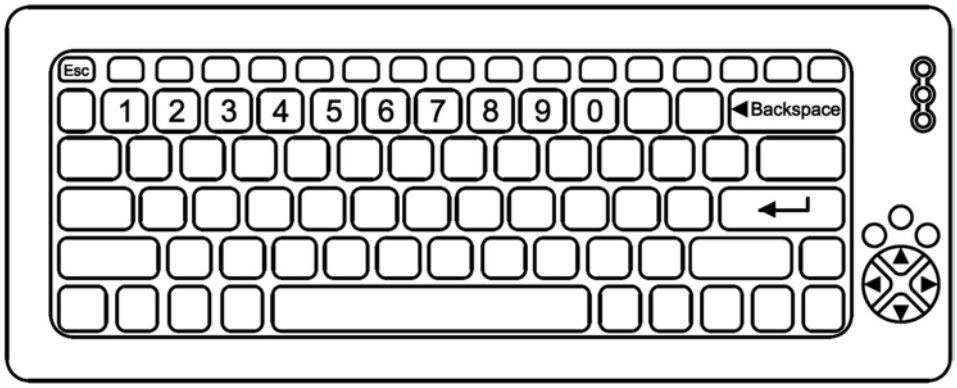


- ENTER key: transfers the settings to the cell that is fed into the bus, and sequences the 2 possibilities:
  - Repeat the same screen, sequencing the number **in** the **New cell address** field**,** until the last cell is addressed (according to the number of cells entered in 4.2.5.1.2.).
  - Returns to the screen shown in 4.2.5, only if the addressing and configuration of the last cell has been successfully completed.
- ESC key: Returns to 4.2.5 without re-addressing and configuring the current cell up to the last cell addressed (according to the number cells entered in 4.2.5.1.2.).

Temporary messages related to the BUS SCAN procedure

- The system is polling the cell bus.
  Please do not remove the load cell or its power supply When finished, the indicator will show the result. Please wait
- Load cell has been successfully configured.
- The digital cell could not be reconfigured.
  Make sure that it is correctly connected, its power supply is correct and that only one cell is connected and powered at a time.

- Navigation using an external keyboard -

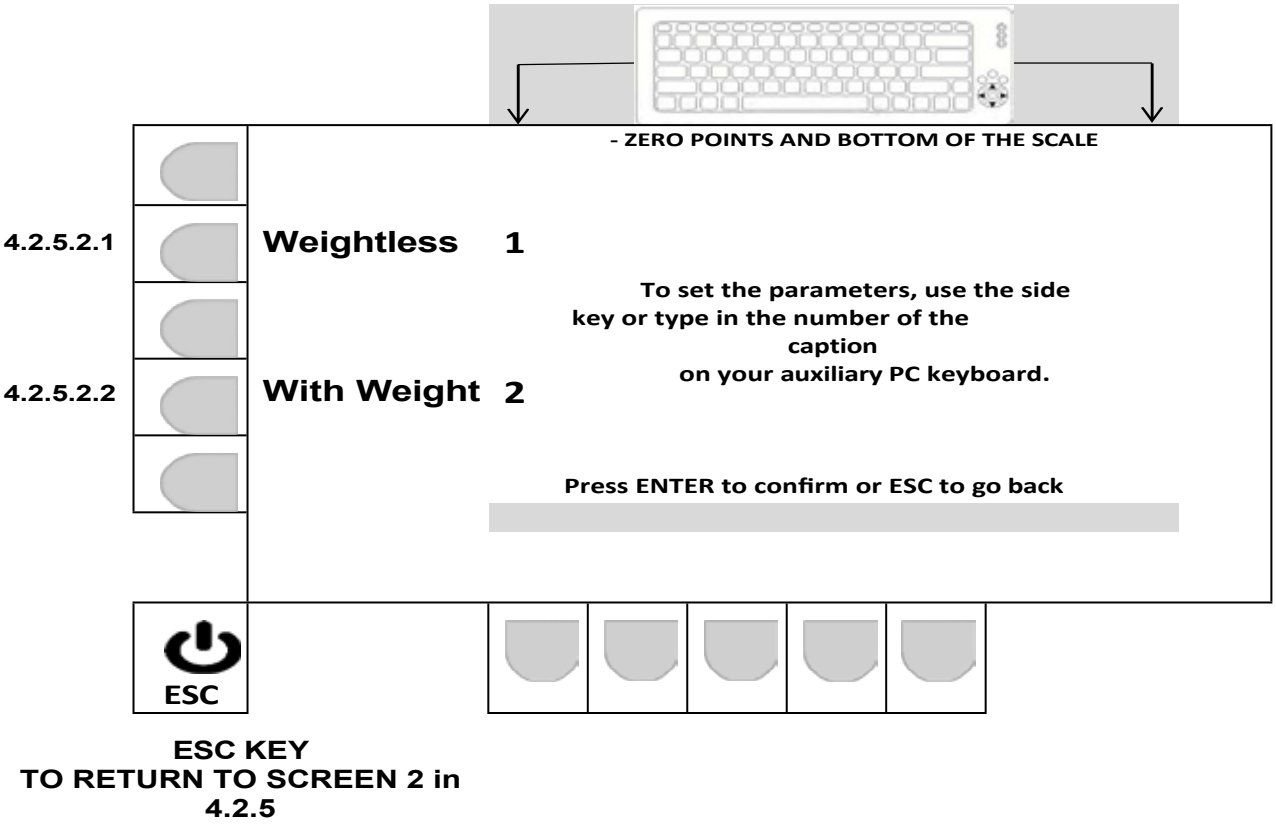


- Backspace key: Deletes the current value (before editing, delete the current value).
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : transfers the settings to the cell that is fed into the bus, and sequences the 2 possibilities:
    - Repeat the same screen, sequencing the number **in** the **New cell address** field**,** until the last cell is addressed (according to the number of cells entered in 4.2.5.1.2.).
    - Returns to the screen shown in 4.2.5, only if the addressing and configuration of the last cell has been successfully completed.
- ESC key: Returns to 4.2.5, without re-addressing and configuring the current cell, up to the last cell (according to the number of cells entered in 4.2.5.1.2.).

Temporary messages related to the BUS SCAN procedure

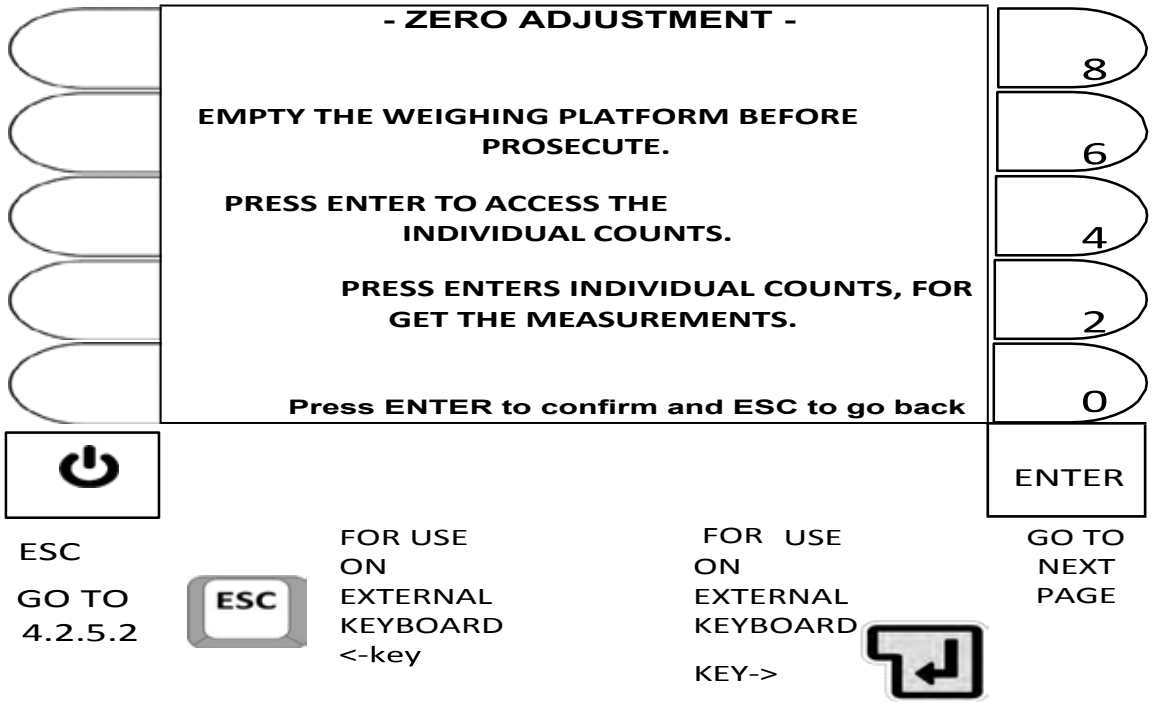
- The system is polling the cell bus.
  Please do not remove the load cell or its power supply When finished, the indicator will show the result. Please wait
- The load cell has been successfully configured.
- The digital cell could not be reconfigured.
  Make sure that it is correctly connected, its power supply is correct and that only one cell is connected and powered at a time.

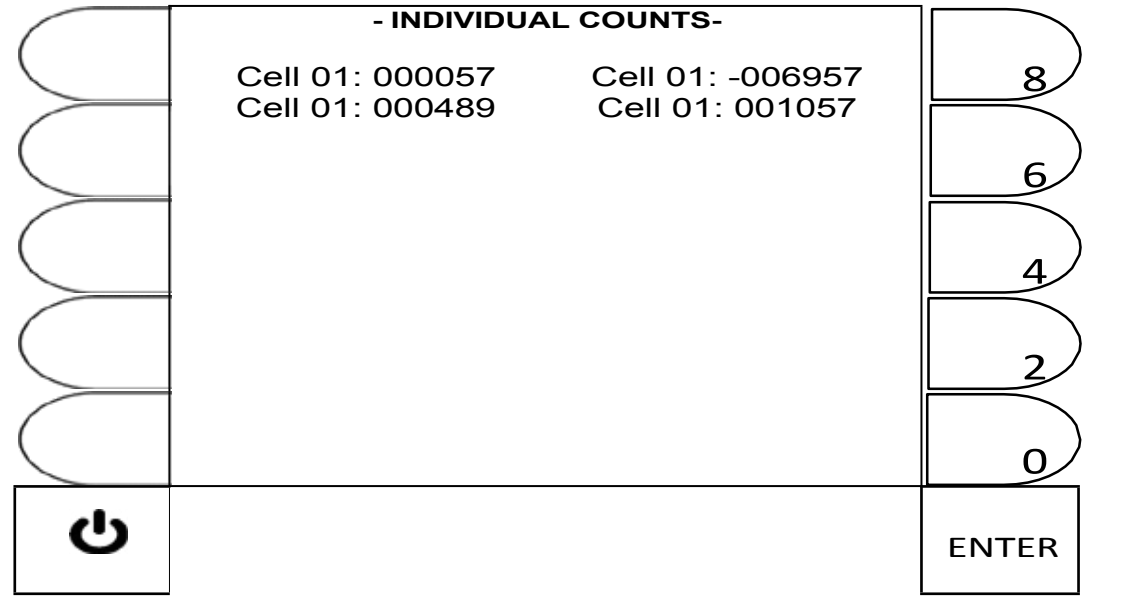
4.2.6.2 Calibration General.



ESC KEY TO RETURN TO SCREEN 2 in 4.2.5

4.2.6.2.1 GENERAL WEIGHTLESS CALIBRATION.





ONCE CALIBRATION IS COMPLETE, THE SYSTEM AUTOMATICALLY RETURNS TO 4.2.5.2

Temporary messages related to the general calibration procedure:

- Acquiring digital cell measurements for adjustment
  Do not turn off the indicator or remove power from the cells.
  Please wait for the operation to finish.
- The adjustments were made successfully.
- DIGITAL CELL READING ERROR
  Check the system's connections and power supply
  No adjustments can be made.

IMPORTANT DETAILS:

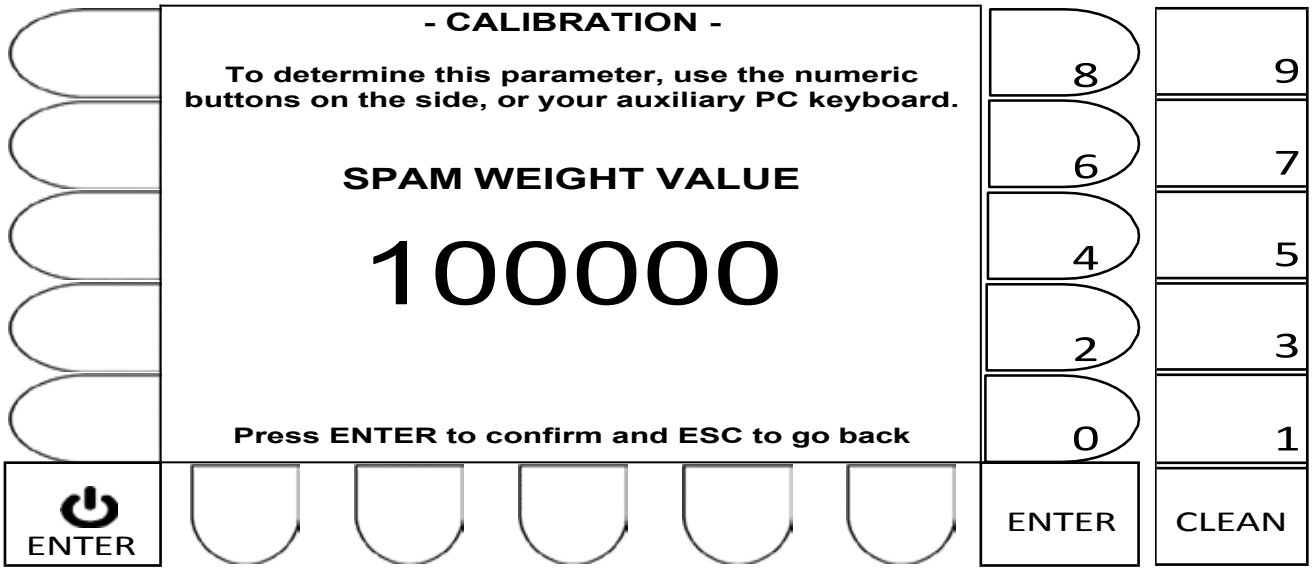
- THE VARIATION LEVELS OF EACH COUNT MUST NOT BE HIGH BEFORE STARTING THE CALIBRATION.
- IF THE SYSTEM LOSES COMMUNICATION WITH A CELL, THE WORD ERROR WILL BE DISPLAYED IN THE COUNTS FIELD OF THE CORRESPONDING CELL.

4.2.6.2.2 GENERAL WEIGHT CALIBRATION.

First establish the weight value available for the procedure:

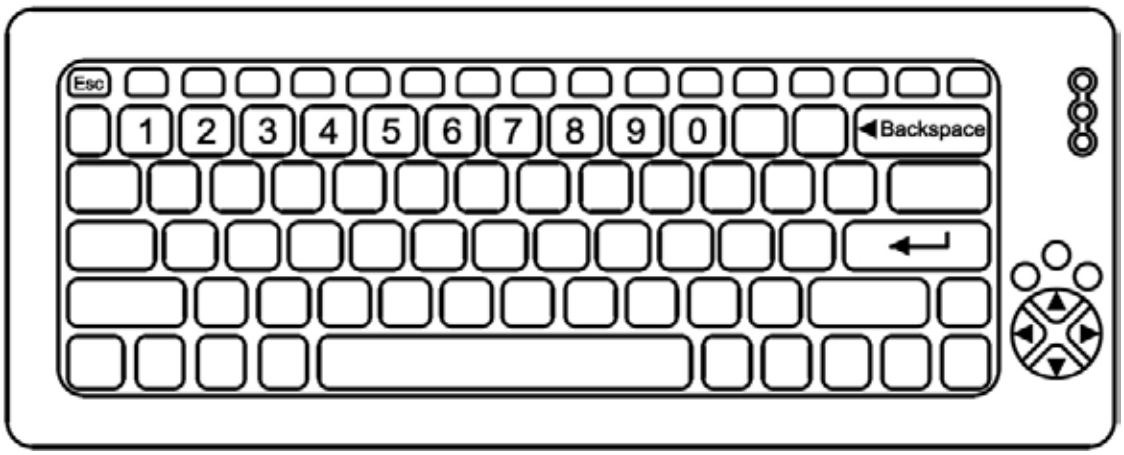
- Navigation using the front panel keys -

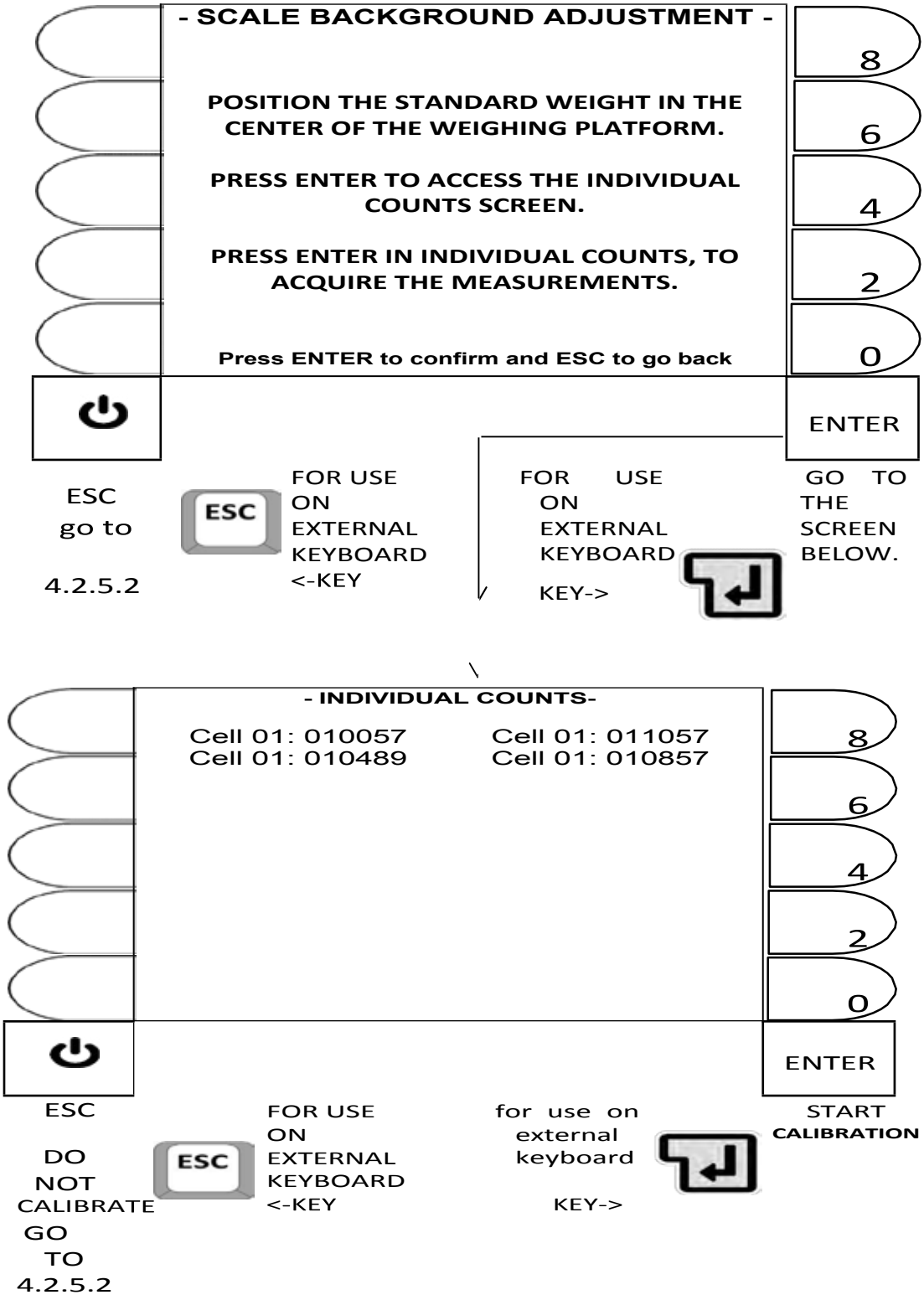
- CLEAR key: Deletes the current value (before editing, delete the current value).
- Numeric keys next to the display: Allows you to enter a new value.
- ENTER key: Validates the new value entered and proceeds to the next screen.
- ESC key: Returns to 4.2.5.2 without changing the last value in the parameter.



- Navigation using an external keyboard -

- Backspace key: Deletes the current value (before editing, the current value be deleted).
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and proceeds to the next screen.
- ESC key: Returns to 4.2.5.2 without changing parameter values.





- Distribute the weight evenly across the platform, and at the end, check that there are no error messages in the cells.
- If you are sure that the weight has been applied correctly, wait until the variation levels the counts are acceptable and press ENTER.
- Once the adjustment has been made, the system returns to 4.2.5.2 after confirming success

Temporary messages related to the GENERAL CALIBRATION procedure:

- Acquiring digital cell measurements for adjustment
  Do not turn off the indicator or remove power from the cells.
  Please wait for the operation to finish.

- The adjustments were made successfully.

- DIGITAL CELL READING ERROR
  Check the system's connections and power supply
  No adjustments can be made.

IMPORTANT DETAILS:

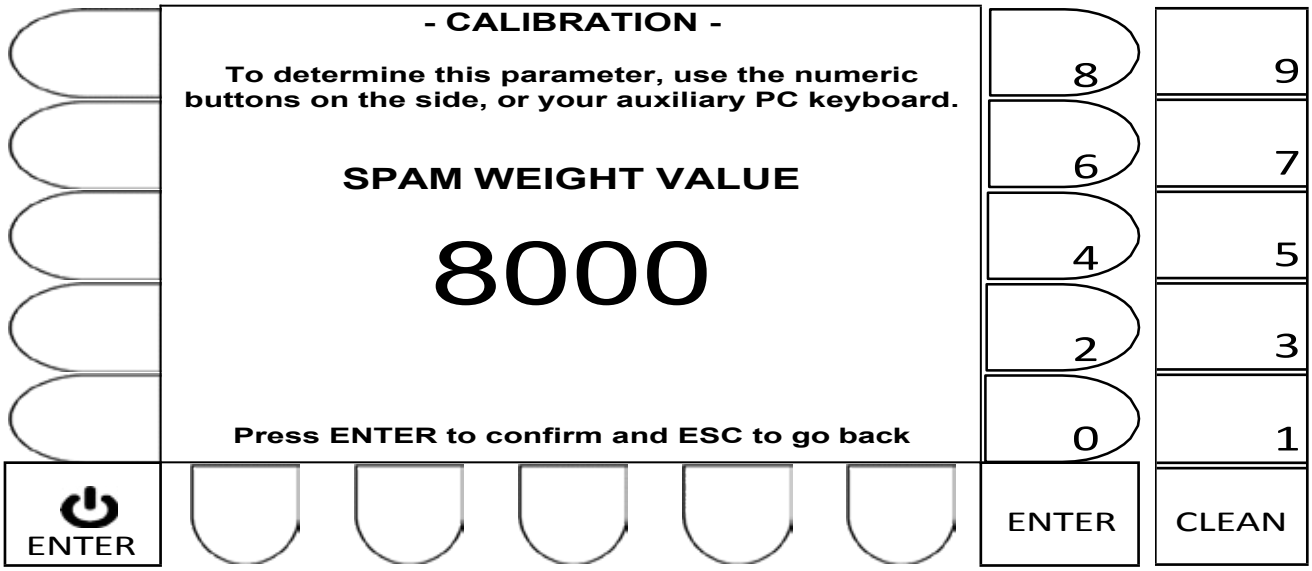
- THE VARIATION LEVELS OF EACH COUNT MUST NOT BE HIGH BEFORE STARTING THE CALIBRATION.
- IF THE SYSTEM LOSES COMMUNICATION WITH A CELL, THE WORD ERROR WILL BE DISPLAYED IN THE COUNTS FIELD OF THE CORRESPONDING CELL.
- THE LACK OF A SUCCESS MESSAGE AT THE END OF THE PROCEDURE INDICATES THE NEED TO REPEAT IT.

4.2.6.3 Adjust corner.

First establish the weight value available for the procedure:

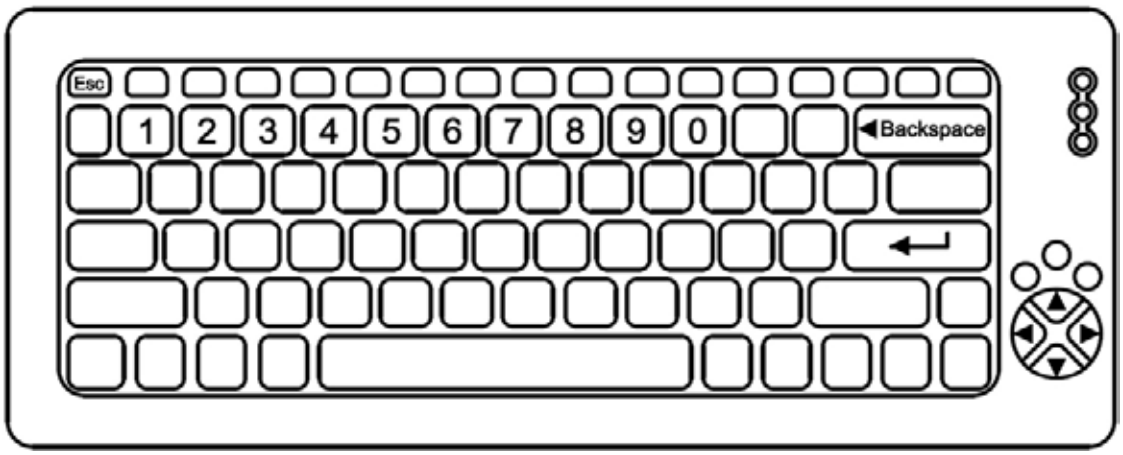
- Navigation using the front panel keys -

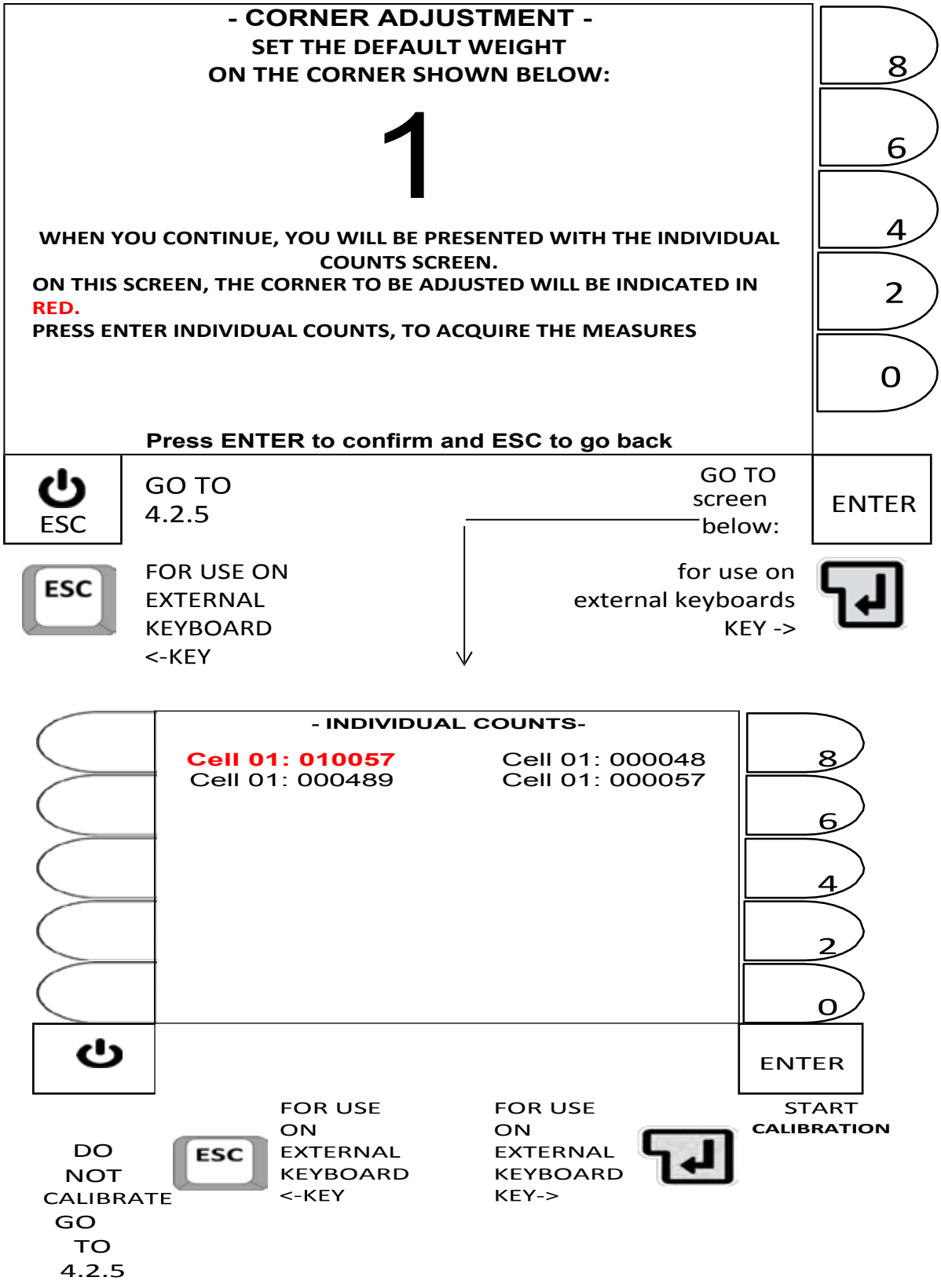
- CLEAR key: Deletes the current value (before editing, delete the current value).
- Numeric keys next to the display: Allows you to enter a new value.
- ENTER key: Validates the new value entered and proceeds to the next screen.
- ESC key: Returns to 4.2.5.2 without changing the last value in the parameter.



- Navigation using an external keyboard -

- Backspace key: Deletes the current value (before editing, the current value be deleted).
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and proceeds to the next screen.
- ESC key: Returns to 4.2.5.2 without changing parameter values.





Apply the weight provided for corner adjustment to the corner corresponding to the cell in red, making sure that the weight value in this cell will have the gretest influence on the change in its count. If you are sure that the weight is in the correct cell, wait until the levels of variation in the count are acceptable and press ENTER to start the adjustment. Once the adjustment has been made, the system returns to the first screen on this page (SONG ADJUSTMENT), moving on to the next cell sequentially until all the cells have been completed, returning to 4.2.5 after confirming success.

- Temporary messages from the corner adjustment procedure

- Acquiring digital cell measurements for adjustment
  Do not turn off the indicator or remove power from the cells.
  Please wait for the operation to finish.

- The adjustments were made successfully.

- DIGITAL CELL READING ERROR
  Check the system's connections and power supply
  No adjustments can be made.

IMPORTANT DETAILS:

- THE VARIATION LEVELS OF EACH COUNT MUST NOT BE HIGH BEFORE STARTING THE CALIBRATION.
- IF THE SYSTEM LOSES COMMUNICATION WITH A CELL, THE WORD ERROR WILL BE DISPLAYED IN THE COUNTS FIELD OF THE CORRESPONDING CELL.
- THE LACK OF A SUCCESS MESSAGE AT THE END OF THE PROCEDURE INDICATES THE NEED TO REPEAT IT.

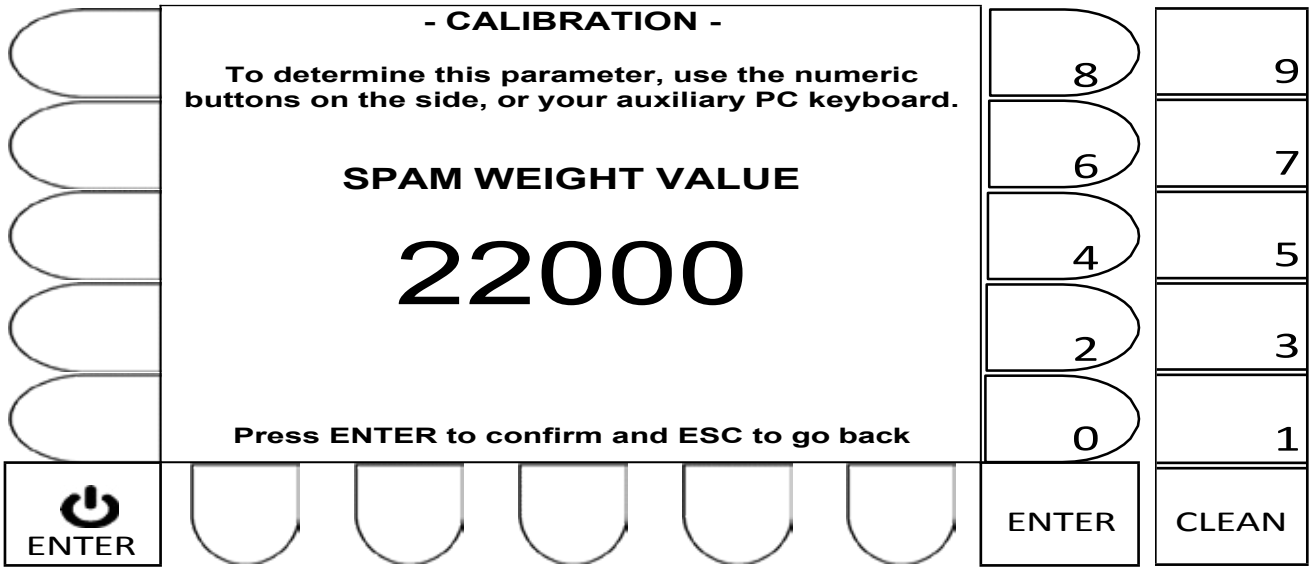
4.2.6.4 Adjustment of section.

- To adjust the section, the system must be configured to operate with more than 3 load cells.

First establish the weight value available for the procedure:

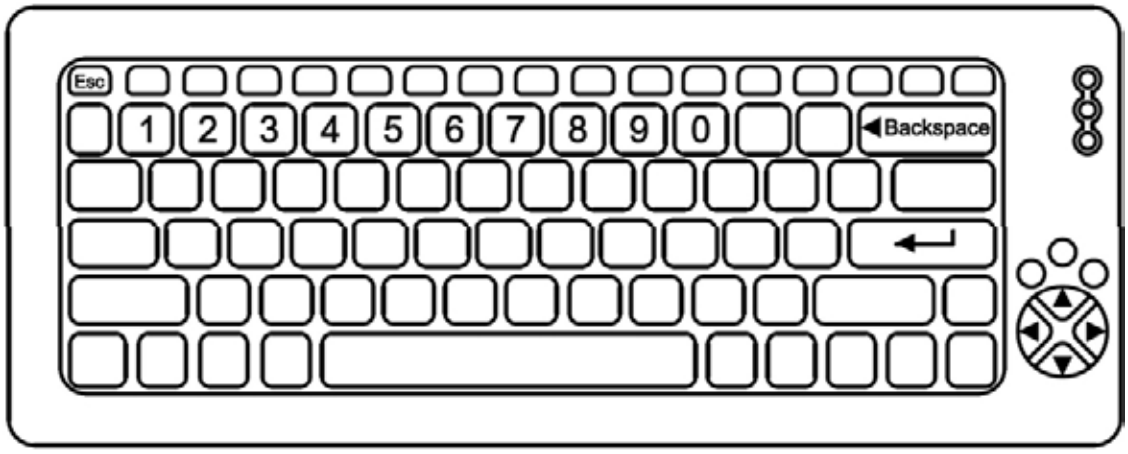
- Navigation using the front panel keys -

- CLEAR key: Deletes the current value (before editing, delete the current value).
- Numeric keys next to the display: Allows you to enter a new value.
- ENTER key: Validates the new value entered and proceeds to the next screen.
- ESC key: Returns to 4.2.5.2 without changing the last value in the parameter.

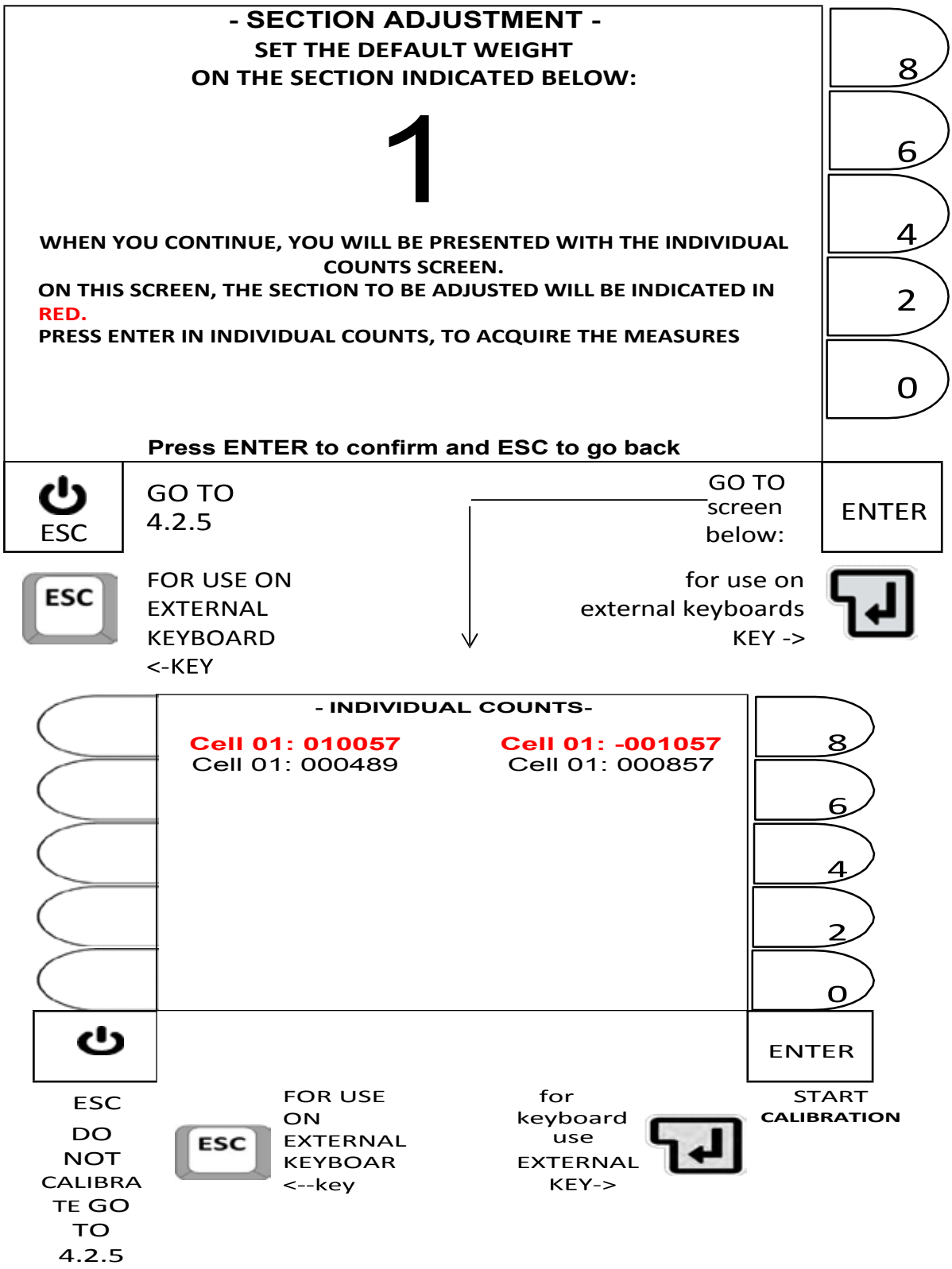


- Navigation using an external keyboard -

- Backspace key: Deletes the current value (before editing, the current value be deleted).
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and proceeds to the next screen.
- ESC key: Returns to 4.2.5.2 without changing parameter values.



Check that the available weight is the same as the SPAN calibrate parameter in 4.2.2



Apply the weight provided for section adjustment to the section corresponding to the cells in red, making sure that weight value of these cells will have a greater influence on the change in their count. Wait until the count variation levels are acceptable and press ENTER to start the adjustment. Once the adjustment has been made, the system returns to 4.2.5.3, moving on to the next cell sequentially until all the cells have been completed, returning to 4.2.5 after confirming success.

Temporary messages from the section adjustment procedure

- To be able to calibrate sections, the number of cells configured in the system must be even and greater than 3.
- Acquiring digital cell measurements for adjustment
  Do not turn off the indicator or remove power from the cells.
  Please wait for the operation to finish.
- The adjustments were made successfully.
- DIGITAL CELL READING ERROR
  Check the system's connections and power supply
  No adjustments can be made.

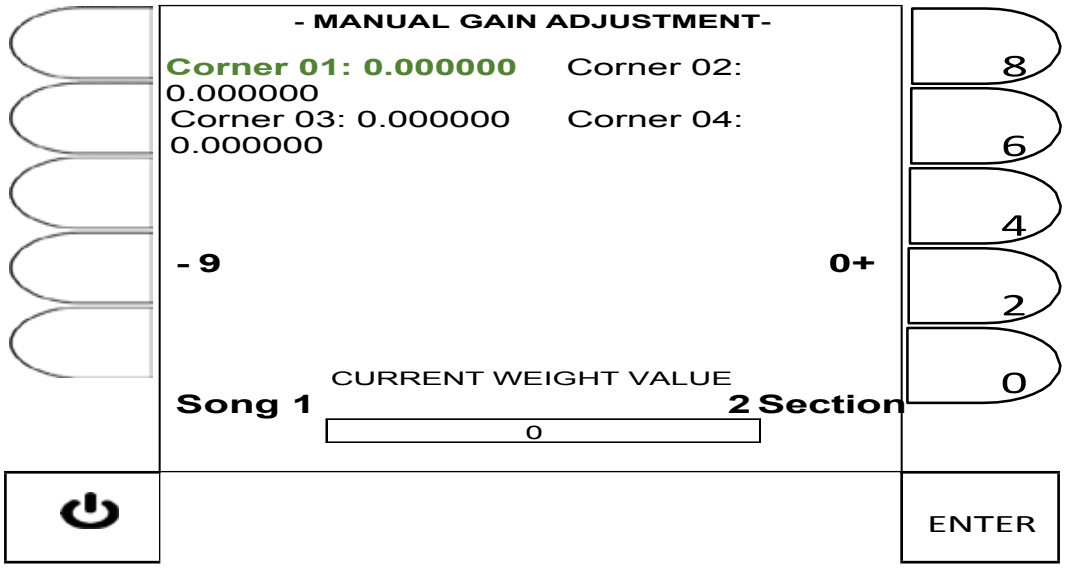
IMPORTANT DETAILS:

- THE VARIATION LEVELS OF EACH COUNT MUST NOT BE HIGH BEFORE STARTING THE CALIBRATION.
- IF THE SYSTEM LOSES COMMUNICATION WITH A CELL, THE WORD ERROR WILL BE DISPLAYED IN THE COUNTS FIELD OF THE CORRESPONDING CELL.
- THE LACK OF A SUCCESS MESSAGE AT THE END OF THE PROCEDURE INDICATES THE NEED TO REPEAT IT.

4.2.6.5 Adjustment Manual

- Navigation using the front panel keys -

- CLEAR key: Deletes the current value (before editing, delete the current value).
- 0 and 9 keys next to the display: Allows you to increase or decrease the gain value of the selected section or corner.
- Keys 1 and 2: Allow you to switch the type of adjustment between corner or section
- ENTER key: Selects the cell or section for adjustment.
- ESC key: Returns to 4.2.5 without changing the last value in the parameter.



ESC

BACK TO

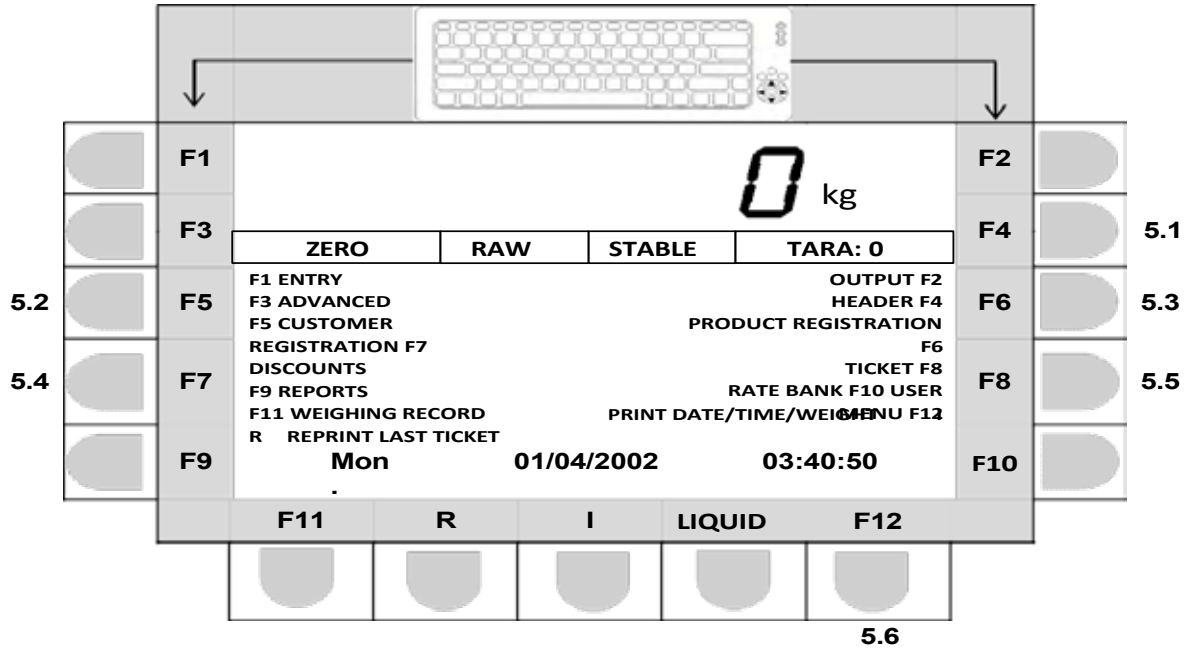
4.2.5

FOR USE ON EXTERNAL KEYBOARD <-KEY

for keyboard use EXTERNAL KEY->

Selects the load cell to be adjusted

5 CONFIGURATIONS AND REGISTRATIONS.



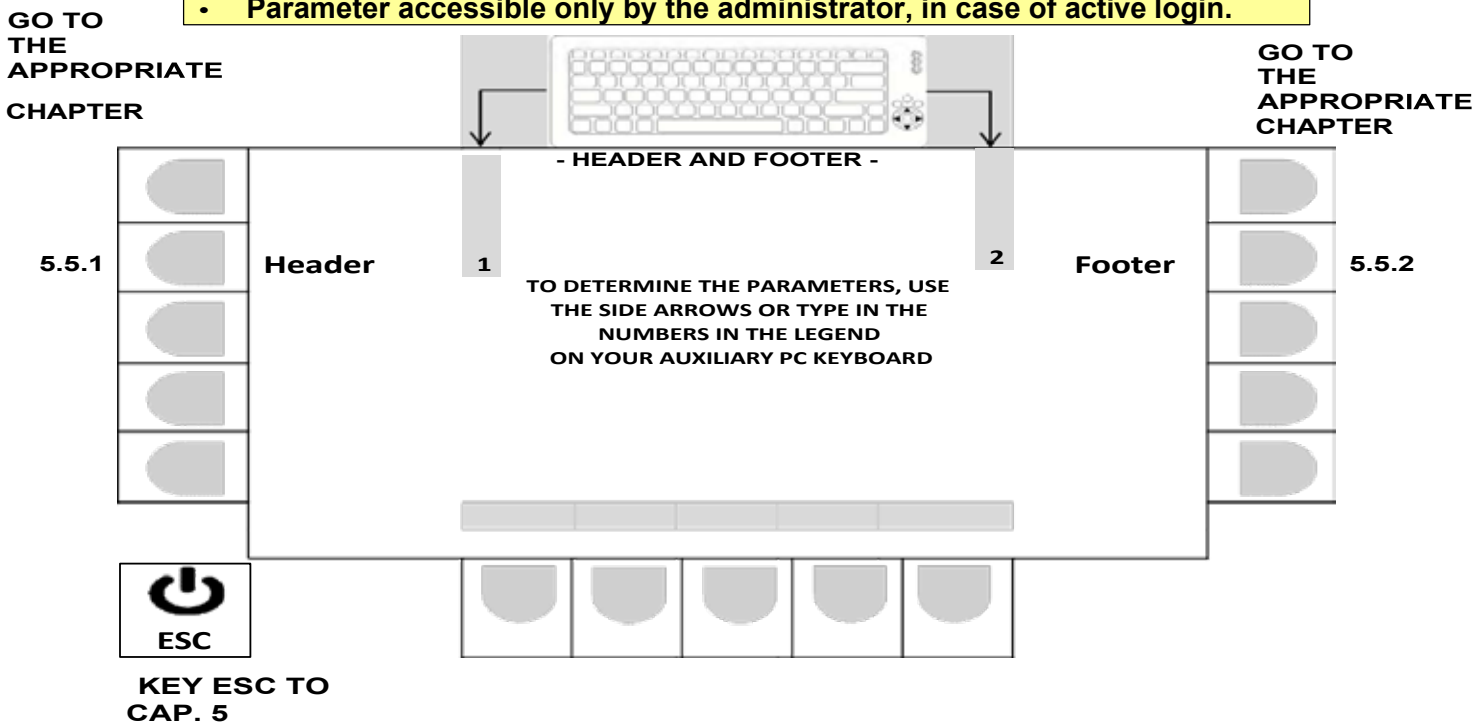
Parameters only accessible by the administrator when logged :

F4 - Header. **F8** - Ticket.

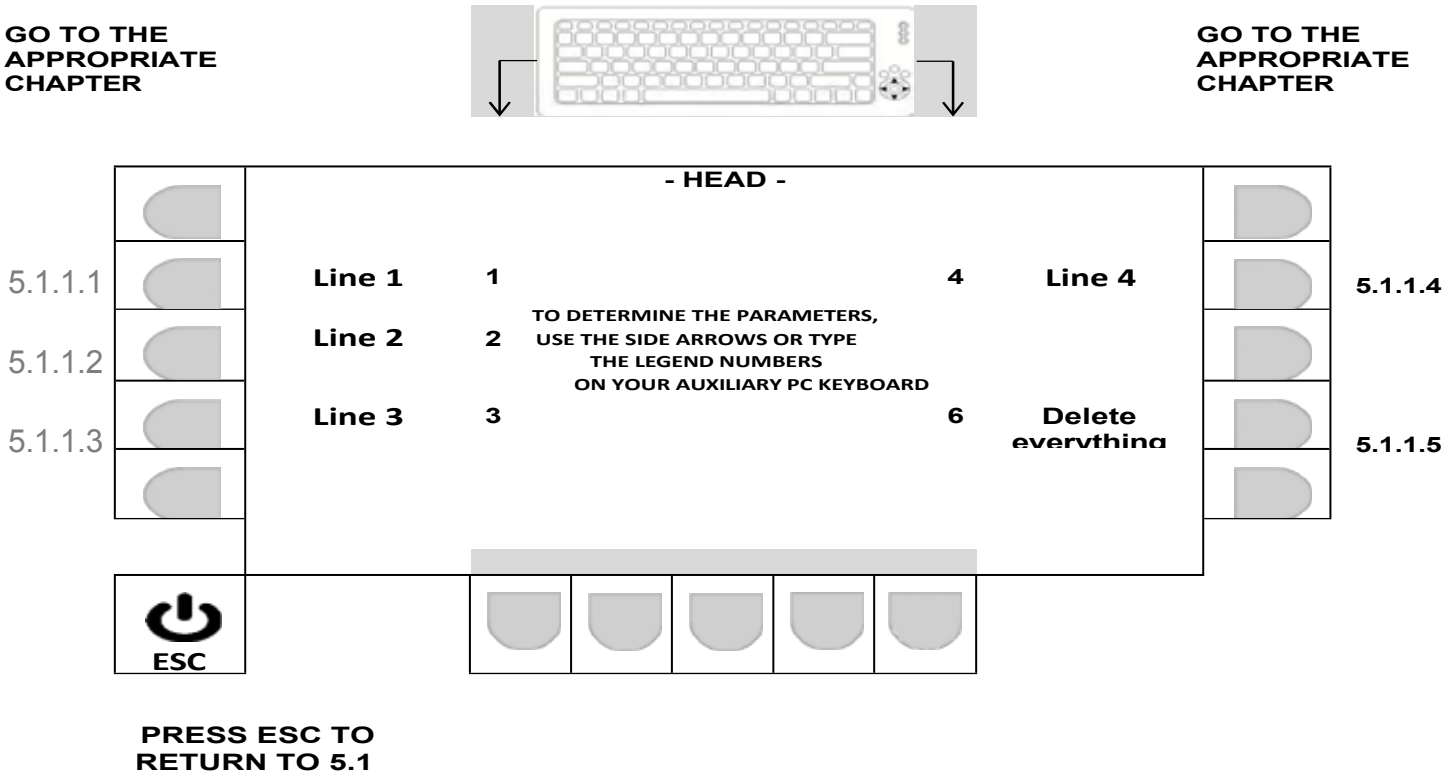
F7 - Discounts. **F12** - User menu.

5.1 CONFIGURING TICKET HEADERS AND FOOTERS (**F4**).

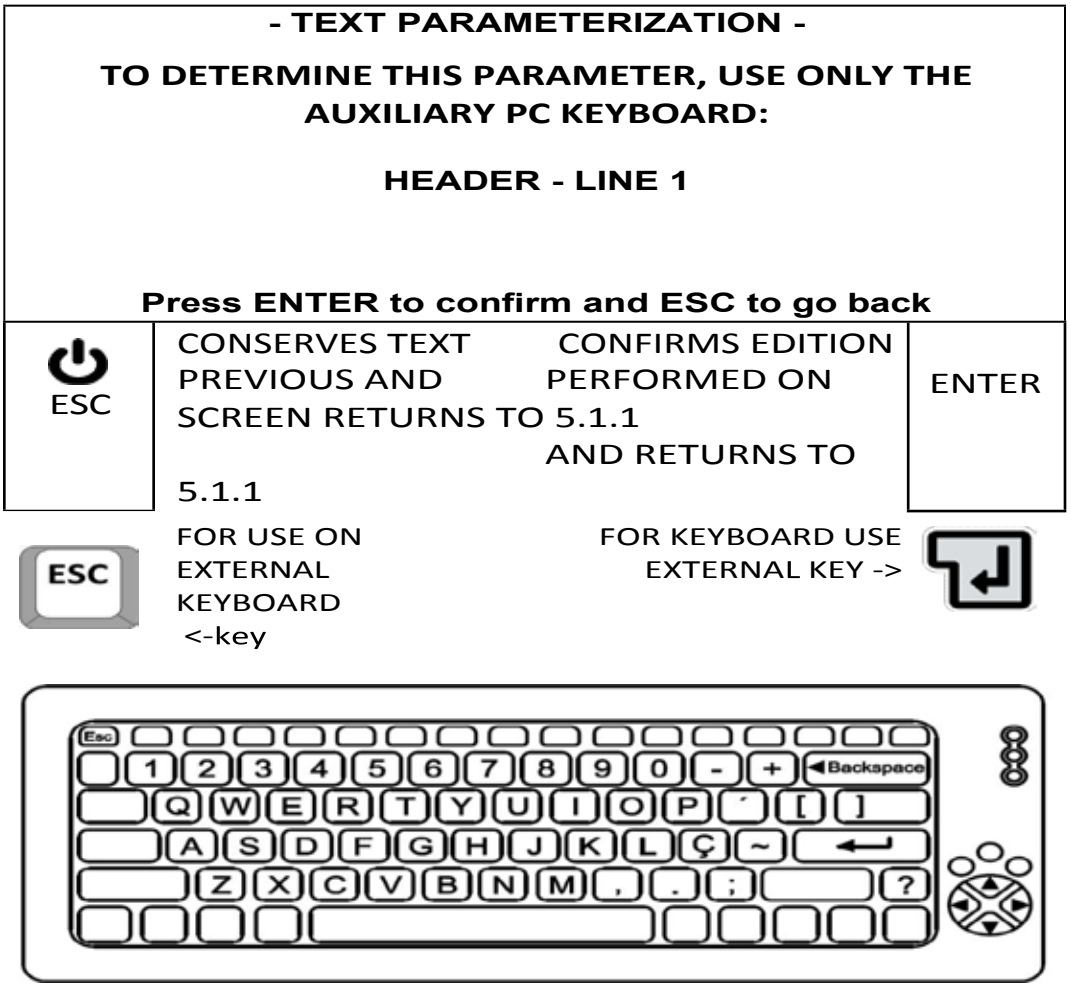
- **Parameter accessible only by the administrator, in case of active login.**



5.1.1 EDITING THE TICKET HEADER (OPTION 1).



5.1.1.1 Editing line 1 of the ticket header.



wt2

- THE TEXT MUST NOT EXCEED 64 CHARACTERS.

5.1.1.2 Editing line 2 of the ticket header.

- TEXT PARAMETERIZATION -

TO DETERMINE THIS PARAMETER, USE ONLY THE AUXILIARY PC KEYBOARD:

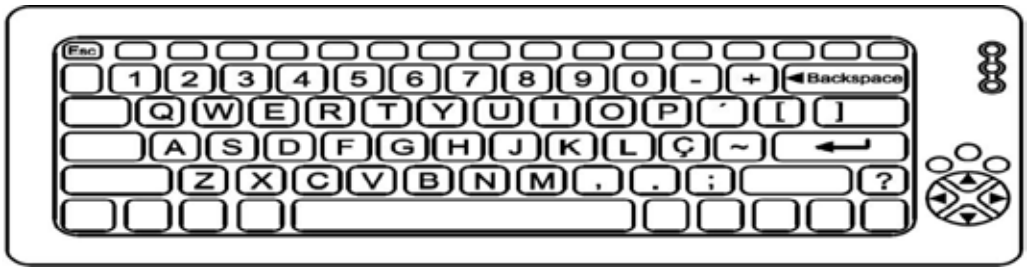
HEADER - LINE 2

Press ENTER to confirm and ESC to go back

ESC	CONSERVES TEXT PREVIOUS EDIT RETURN TO 5.1.1 5.1.1	CONFIRMS MADE ON SCREEN AND RETURNS TO	ENTER

FOR USE ON EXTERNAL KEYBOARD <-key

FOR KEYBOARD USE EXTERNAl KEY ->



- THE TEXT MUST NOT EXCEED 64 CHARACTERS.

5.1.1.3 Editing line 3 of the ticket header.

- TEXT PARAMETERIZATION -

TO DETERMINE THIS PARAMETER, USE ONLY THE AUXILIARY PC KEYBOARD:

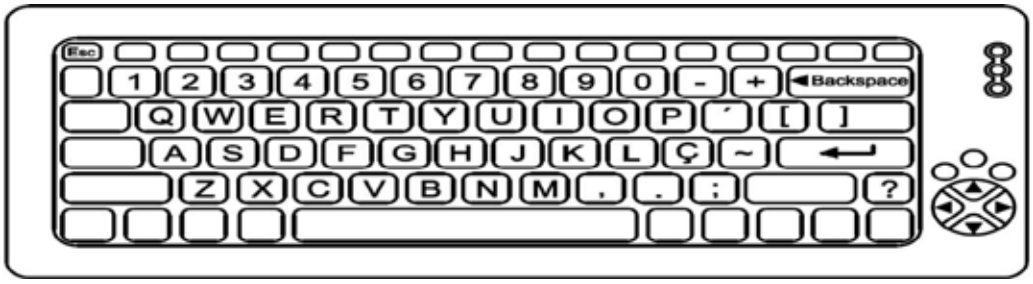
HEADER - LINE 3

Press ENTER to confirm and ESC to go back

ESC	CONSERVES TEX PREVIOUS EDIT RETURN TO 5.1. 5.1.1	CONFIRMS MADE ON SCREEN AND RETURNS TO	ENTER

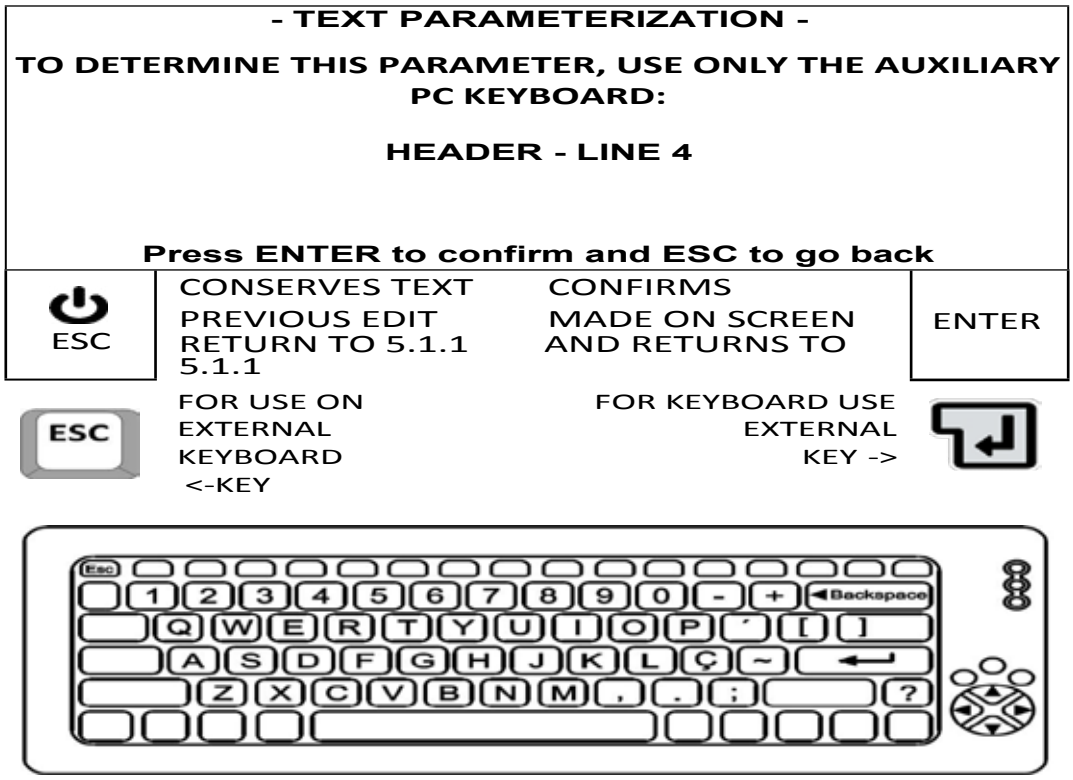
FOR USE ON EXTERNAL KEYBOARD <-KEY

FOR KEYBOARD USE EXTERNAL KEY ->



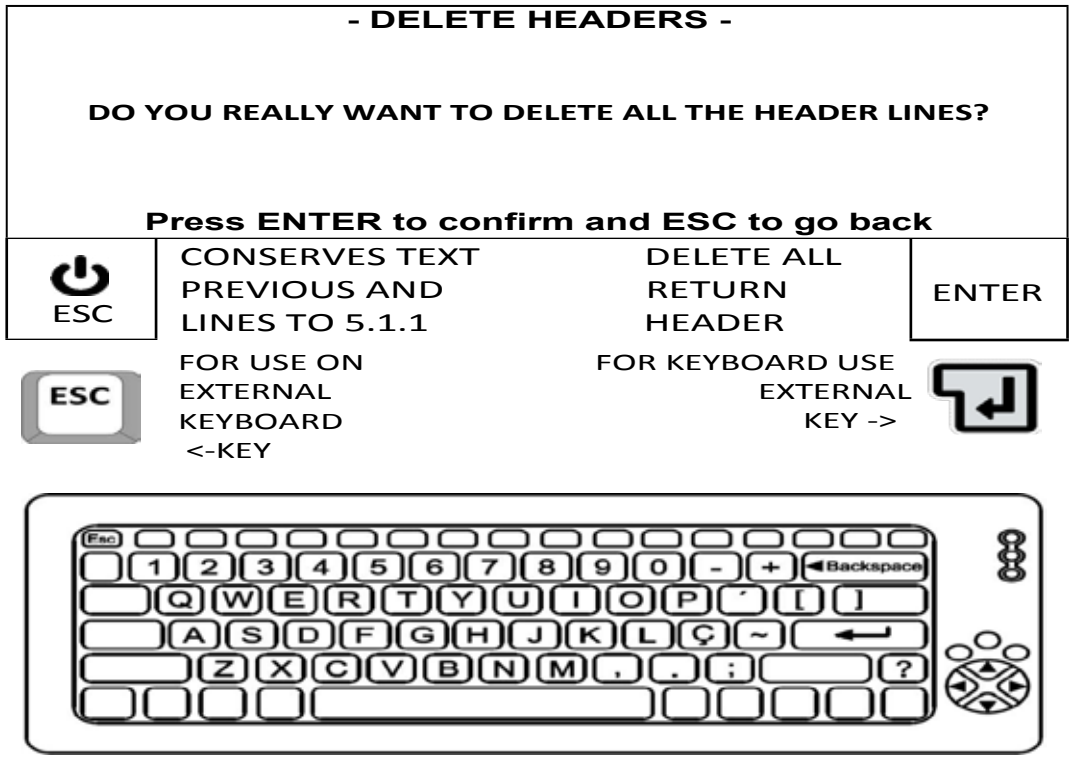
- THE TEXT MUST NOT EXCEED 64 CHARACTERS.

5.1.1.4 Editing line 4 of the ticket header.



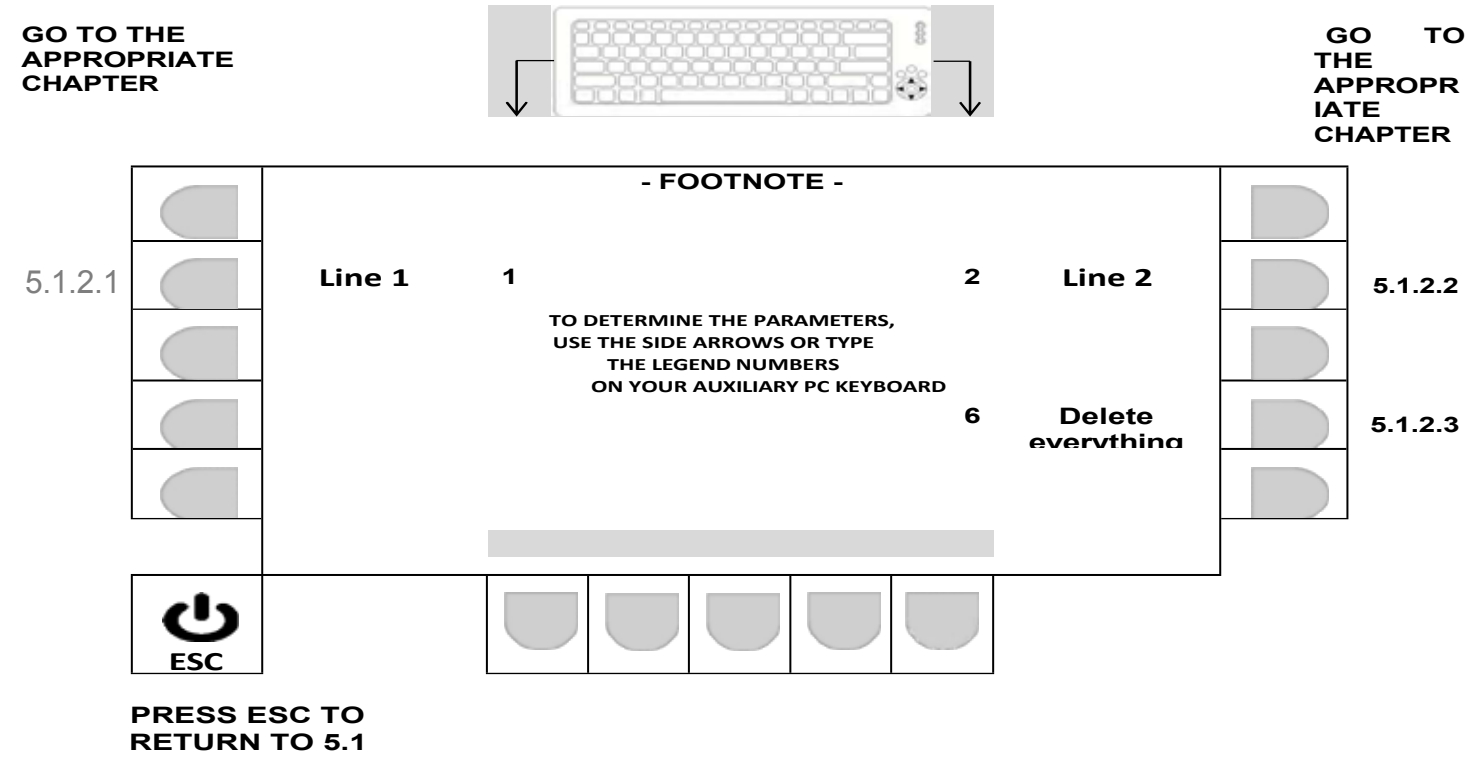
- THE TEXT MUST NOT EXCEED 64 CHARACTERS.

5.1.1.5 Deleting all the lines from HEADER.

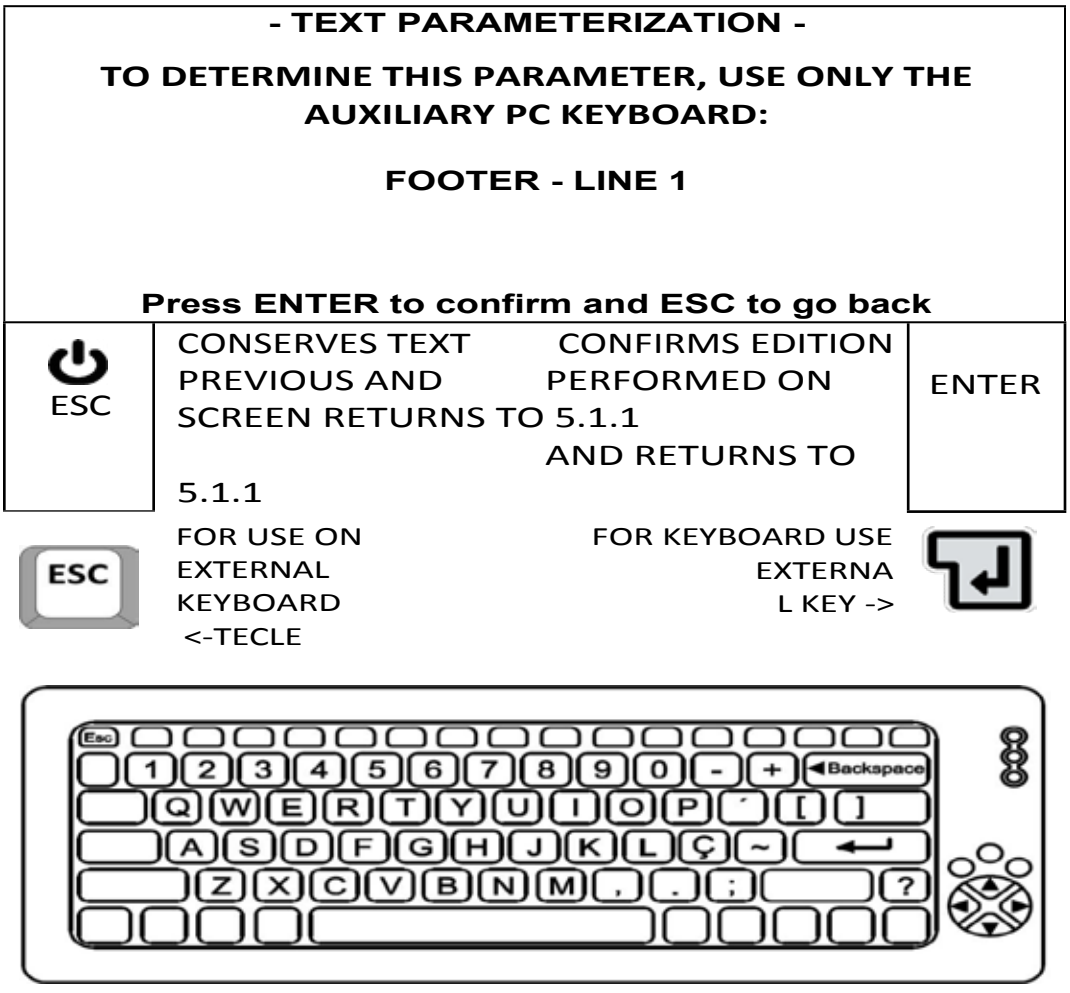


Temporary messages, from the delete header procedure:
Data erased successfully.

5.1.2 EDITING THE FOOTER OF TICKETS.



5.1.2.1 Editing line 1 of the footer of tickets.



- THE TEXT MUST NOT EXCEED 64 CHARACTERS.

5.1.2.2 Editing line 2 of the footer of tickets.

- TEXT PARAMETERIZATION -

TO DETERMINE THIS PARAMETER, USE ONLY THE AUXILIARY PC KEYBOARD:

FOOTER - LINE 2

Press ENTER to confirm and ESC to go back

ESC	CONSERVES TEXT PREVIOUS EDIT RETURN TO 5.1.1	CONFIRMS MADE ON SCREEN AND RETURNS TO 5.1.1	ENTER

FOR USE ON EXTERNAL KEYBOARD <-KEY

FOR KEYBOARD USE EXTERNAL KEY ->

- THE TEXT MUST NOT EXCEED 64 CHARACTERS.

5.1.2.3 Deleting all lines from FOOTER.

- DELETE FOOTER -

DO YOU REALLY WANT TO DELETE ALL THE LINES IN THE FOOTER?

Press ENTER to confirm and ESC to go back

ESC	CONSERVES TEXT PREVIOUS AND RETURN TO 5.1.1	DELETE ALL THE LINES OF FOOTER	ENTER

FOR USE ON EXTERNAL KEYBOARD <-KEY

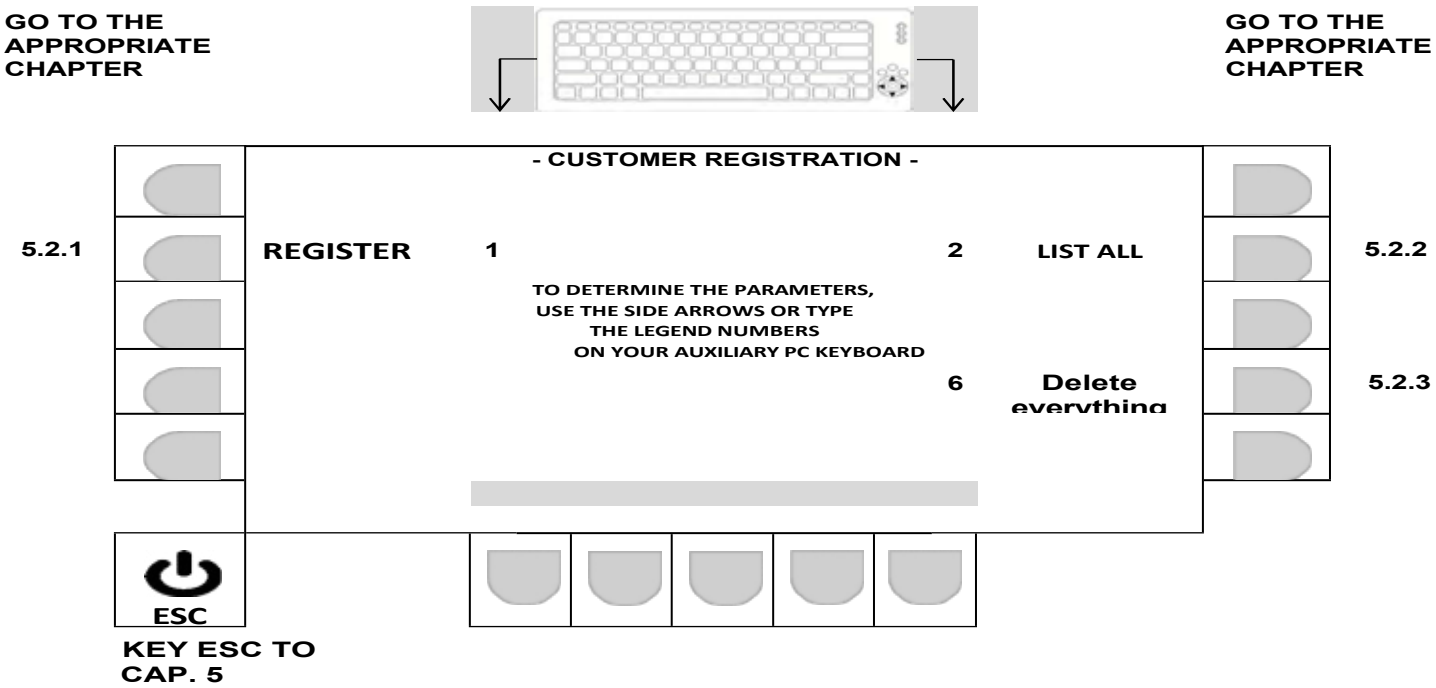
FOR KEYBOARD USE EXTERNAL KEY ->

Temporary message from the delete header procedure.

- Data erased successfully.

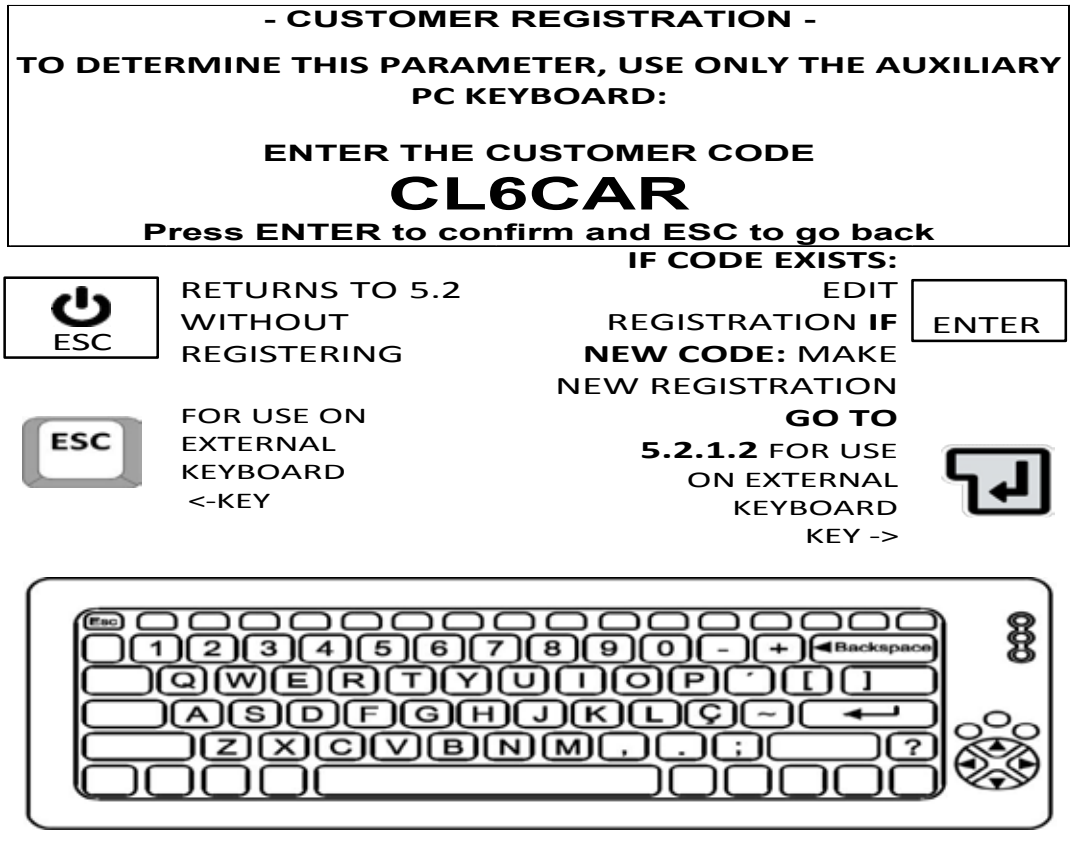
5.2 CUSTOMER REGISTRATION (**F5).**

- **REGISTER AND DELETE, editable only by the administrator, if logged .**



5.2.1 REGISTERING CUSTOMERS (FOLLOW: 5.2.1.1→ 5.2.1.2→ 5.2.1.3).

5.2.1.1 customer code screen.



- THE CUSTOMER CODE MUST HAVE A MAXIMUM OF 6 CHARACTERS

5.2.1.2 Code analysis message from client:

- WAIT FOR VERIFICATION -

SEARCHING FOR THE CODE IN MEMORY. IF FOUND, THE CORRESPONDING REGISTER WILL BE UPLOADED FOR EDITING.

OTHERWISE A NEW RECORD WILL BE INSERTED, PROVIDED THERE IS SPACE IN MEMORY.

- After displaying the above message, the system proceeds to 5.2.1.3

5.2.1.3 Description of client:

- CUSTOMER REGISTRATION -

TO DETERMINE THIS PARAMETER, USE ONLY THE AUXILIARY PC KEYBOARD:

ENTER THE CUSTOMER'S DESCRIPTION:

DESCRIPTION 26 CHARACTER MAX

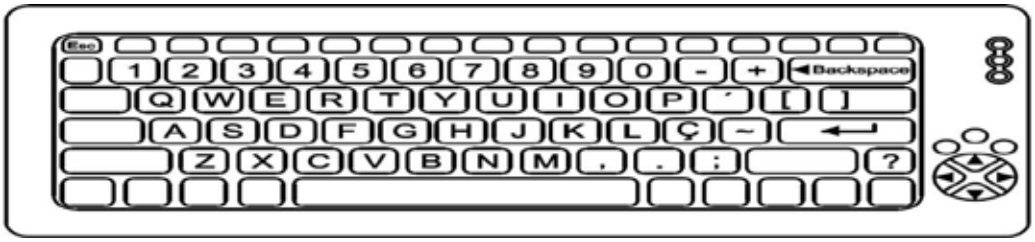
Press ENTER to confirm and ESC to go back

ESC — RETURN TO **5.2.1.1** WITHOUT REGISTERING

ESC — FOR USE ON EXTERNAL KEYBOARD <-KEY

IF CODE EXISTS: EDIT REGISTRATION **IF NEW CODE:** MAKE NEW REGISTRATION **GO TO 5.2** FOR EXTERNAL KEYBOARD USE KEY ->

ENTER



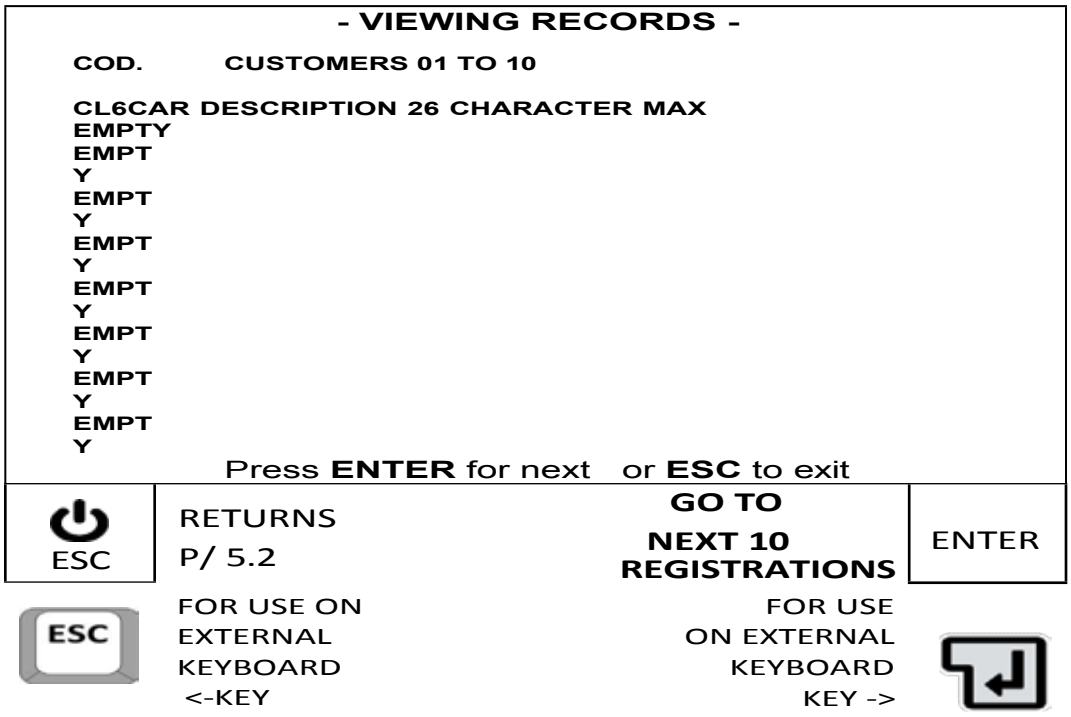
Temporary message from the product registration procedure:

- THE RECORD WAS SAVED CORRECTLY IN MEMORY.

Important details:

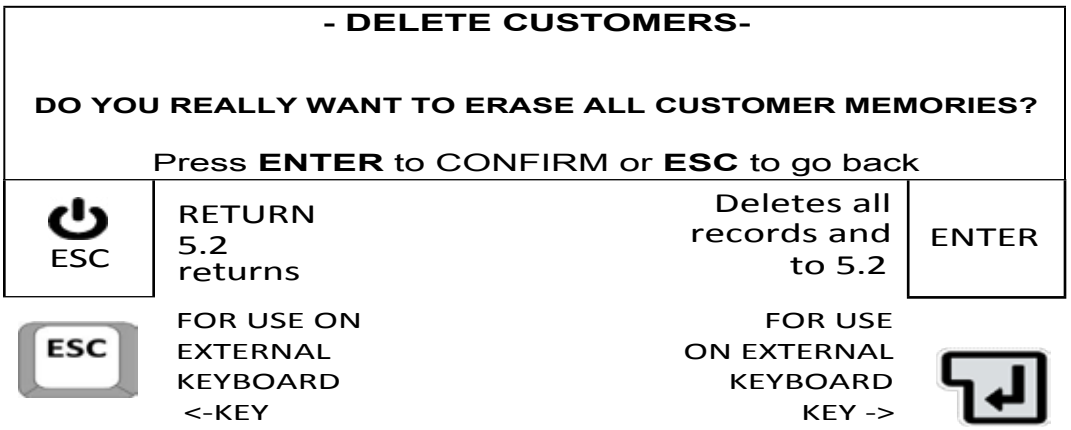
- MAXIMUM 26 CHARACTERS.
- PREVIOUSLY COMPLETED FIELDS INDICATE A PRODUCT THAT HAS ALREADY BEEN REGISTERED AND THE DATA WILL BE EDITED IN 5.2.1.3. **IF YOU DO NOT WANT TO EDIT, PRESS ESC, AND ENTER A NEW CODE IN 5.2.1.1.**
- BLANK FIELDS INDICATE A NEW CUSTOMER TO BE REGISTERED. **FILL IN THE DETAILS OF THE NEW PRODUCT IN 5.2.1.3.**

5.2.2 LIST REGISTERED CUSTOMERS (LIST ALL).



- When the ENTER key is pressed, the next 10 records are displayed.
- When registers 791 to 800 are displayed, pressing the ENTER key results in a return to 5.2.

5.2.3 DELETING ALL RECORDS (DELETE ALL).



Temporary message confirming the deletion of records:

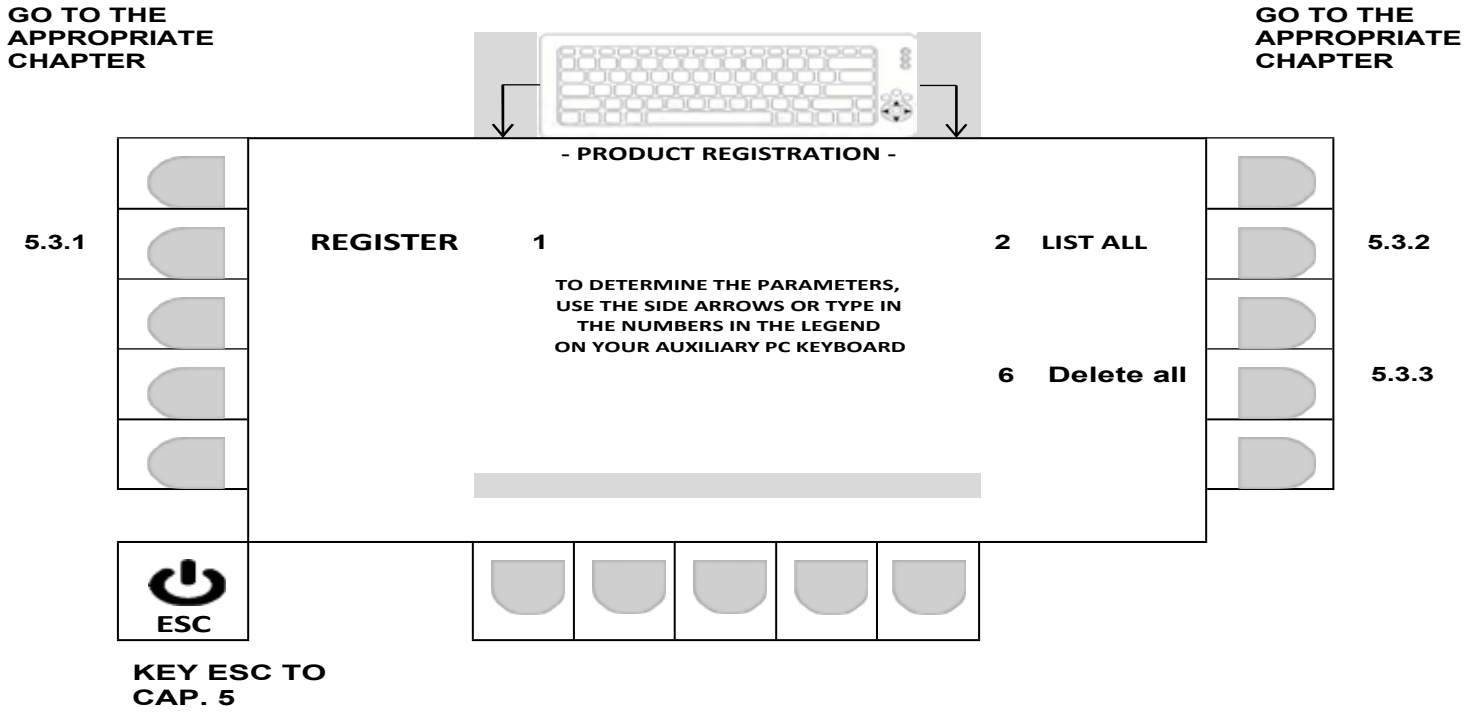
- Data erased successfully.

Important details:

- After displaying the message confirming the deletion of records, the system automatically returns to 5.2.

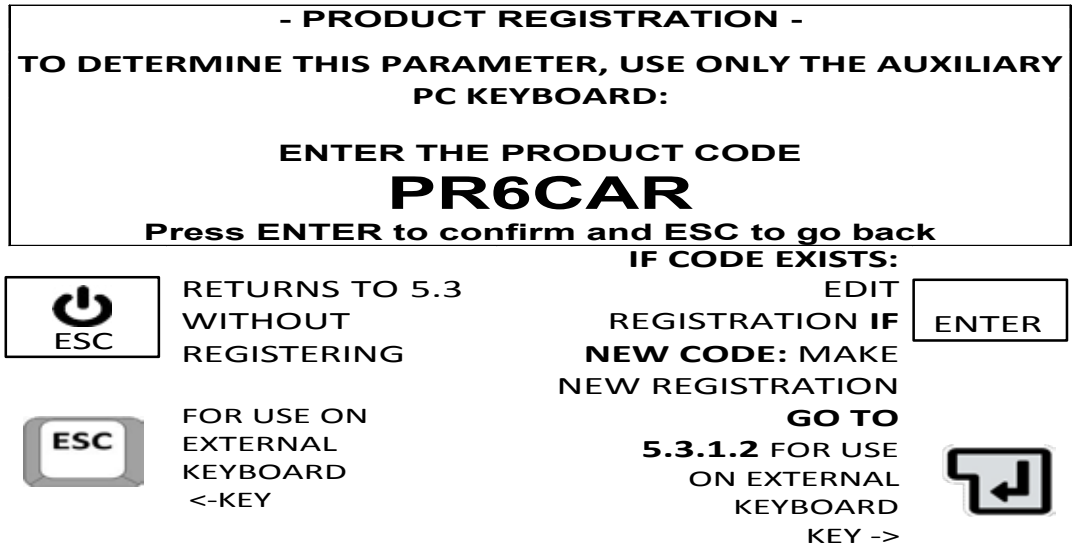
5.3 PRODUCT REGISTRATION (**F6).**

- **REGISTER AND DELETE, editable only by the administrator, if logged .**



5.3.1 REGISTERING PRODUCTS (FOLLOW: 5.3.1.1→ 5.3.1.2→ 5.3.1.3).

5.3.1.1 product code screen.



- THE PRODUCT CODE MUST HAVE A MAXIMUM OF 6 CHARACTERS

5.3.1.2 Code analysis message from product:

- WAIT FOR VERIFICATION -

SEARCHING FOR THE CODE IN MEMORY. IF FOUND, THE CORRESPONDING REGISTER WILL BE UPLOADED FOR EDITING.

OTHERWISE, A NEW RECORD WILL BE INSERTED, PROVIDED THERE IS SPACE IN MEMORY.

- After displaying the above message, the system proceeds to 5.3.1.3

5.3.1.3 Description of product:

- PRODUCT REGISTRATION -

TO DETERMINE THIS PARAMETER, USE ONLY THE AUXILIARY PC KEYBOARD:

ENTER THE PRODUCT DESCRIPTION:

DESCRIPTION 26 CHARACTER MAX

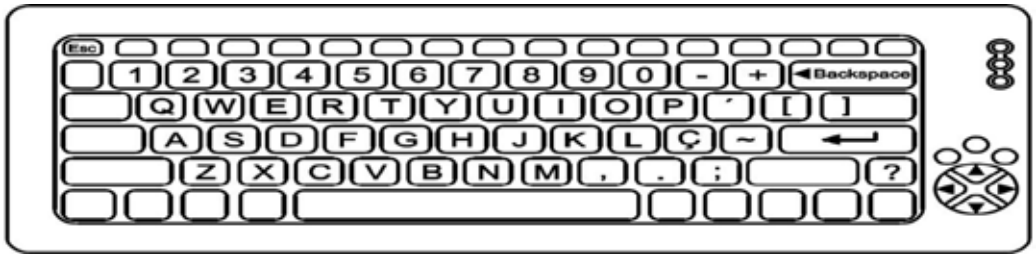
Press ENTER to confirm and ESC to go back

ESC RETURN TO **5.3.1.1** WITHOUT REGISTERING

ESC FOR USE ON EXTERNAL KEYBOARD <-KEY

IF CODE EXISTS: EDIT REGISTRATION **IF NEW CODE:** MAKE NEW REGISTRATION **GO TO 5.3** FOR EXTERNAL KEYBOARD USE KEY ->

ENTER



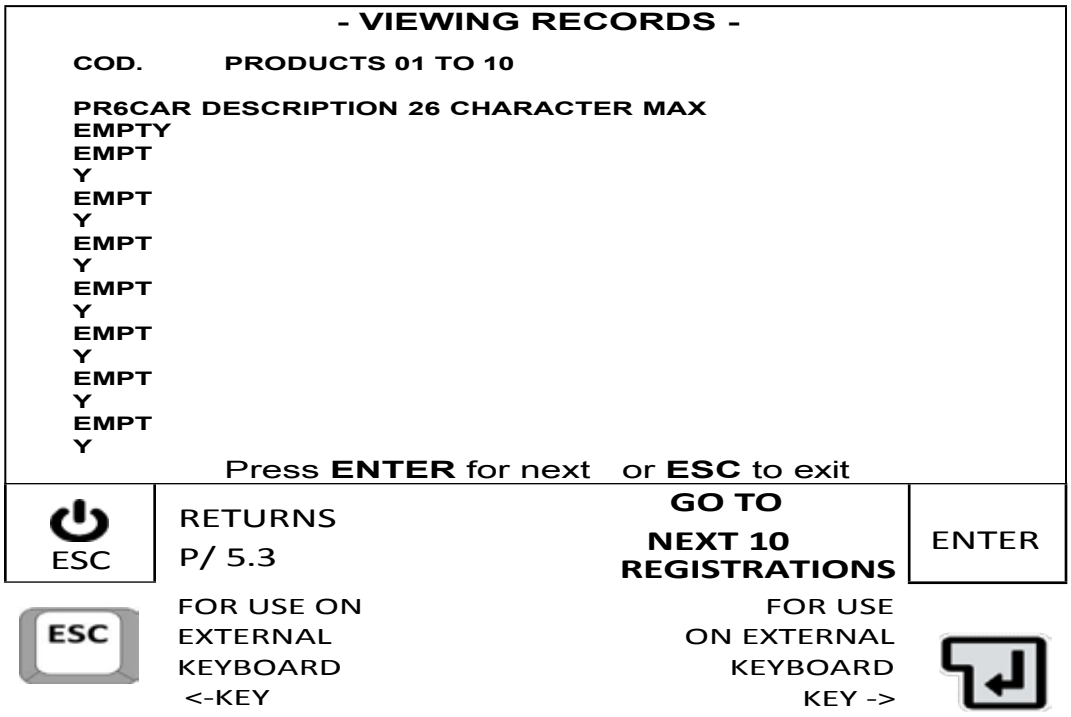
Temporary message from the product registration procedure:

- THE RECORD WAS SAVED CORRECTLY IN MEMORY.

Important details:

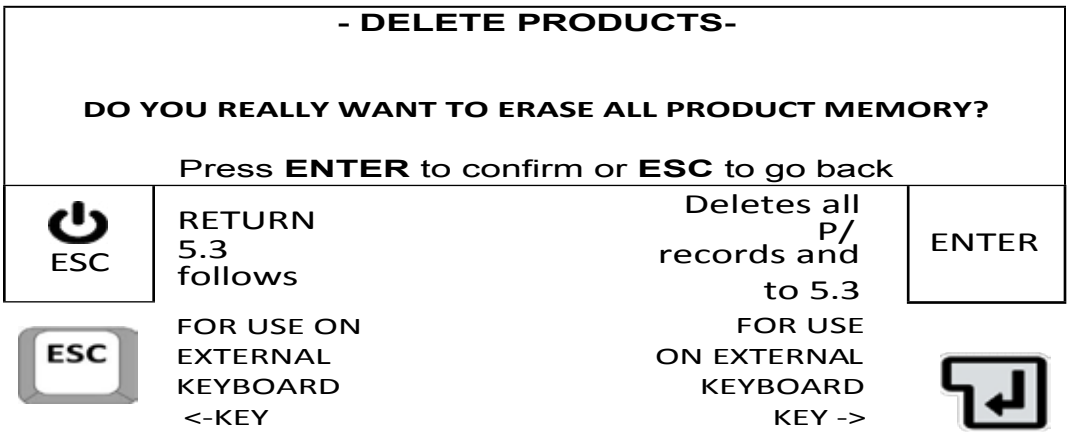
- MAXIMUM 26 CHARACTERS.
- PREVIOUSLY COMPLETED FIELDS INDICATE A PRODUCT THAT HAS ALREADY BEEN REGISTERED AND THE DATA WILL BE EDITED IN 5.3.1.3. **IF YOU DON'T WANT TO EDIT IT, PRESS ESC AND ENTER A NEW CODE IN 5.3.1.1.**
- BLANK FIELDS INDICATE A NEW CUSTOMER TO BE REGISTERED. **FILL IN THE DETAILS OF THE NEW PRODUCT IN 5.3.1.3.**

5.3.2 LIST REGISTERED PRODUCTS (LIST ALL).



- When the ENTER key is pressed, the next 10 records are displayed.
- When registers 791 to 800 are displayed, pressing the ENTER key results in a return to 5.3.

5.3.3 DELETING ALL RECORDS (DELETE ALL).



Temporary message confirming the deletion of records:

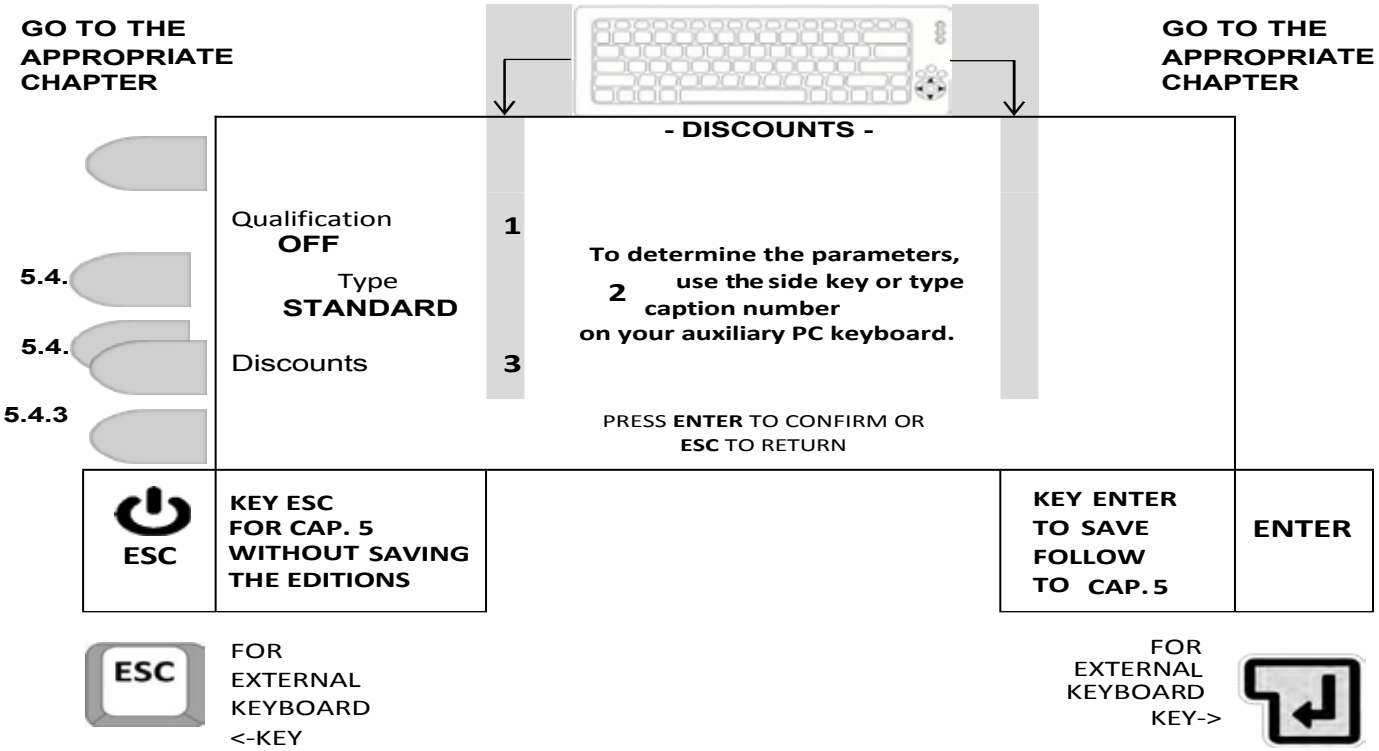
- Data erased successfully.

Important details:

- After displaying the message confirming the deletion of records, the system automatically returns to 5.3.

5.4 DISCOUNTS (**F7**).

- **Parameter accessible only to the administrator, if login is active.**



5.4.1 SELECT WHETHER OR NOT TO ENABLE DISCOUNTS.

Each time the corresponding key is pressed (the key next to the **Enable** legend**,** or key 1 on the external keyboard), the field toggles between **OFF** or **ON,** with the valid action being the one indicated on the screen.

5.4.2 SELECTING THE CALCULATION TYPE FOR THE DISCOUNTS.

With each press of the corresponding key (key next to the **Type legend,** or key 2 on the external keyboard), the field switches between **Standard** or **Cascade**, and the valid action is the one indicated on the screen.

5.4.2.1 Example of the application of the discount Standard.

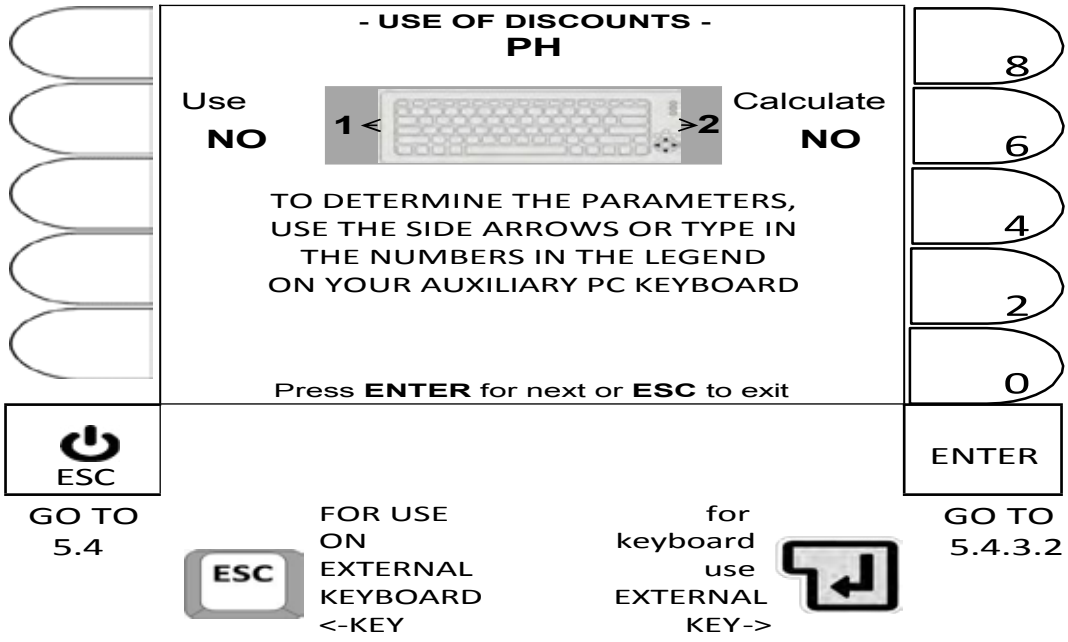
DESCONTO PADRÃO		
PESO NO DISPLAY ANTES DOS DESCONTOS: 1000 kg		
DESCONTOS	PERCENTUAL	PESO DESCONTADO
ARDIDOS	1%	10 kg
QUEBRADOS	1%	10 kg
IMPUREZAS	1%	10 kg
PH	1%	10 kg
OUTROS	1%	10 kg
TOTAL DOS DESCONTOS		50 kg
PESO TOTAL COM DESCONTOS		1000 kg - 50 kg = 950 kg

5.4.2.2 Example of applying the discount Cascade.

DESCONTO EM CASCATA			
PESO NO DISPLAY ANTES DOS DESCONTOS: 1000 kg			
DESCONTOS	PERCENTUAL	PESO DESCONTADO	NOVA REFERÊNCIA DE PESO
ARDIDOS	1%	10 kg	1000 kg - 10 kg = 990 kg
QUEBRADOS	1%	9,9 kg	990 kg - 9,9 kg = 980,1 kg
IMPUREZAS	1%	9,8 kg	980,1 kg - 9,8 kg = 970,3 kg
PH	1%	9,7 kg	970,3 kg - 9,7 kg = 960,6 kg
OUTROS	1%	9,6 kg	960,6 kg - 9,6 kg = 951,0 kg
TOTAL DOS DESCONTOS		49 kg	
PESO TOTAL COM DESCONTOS		1000 kg - 49 kg = 951 kg	

5.4.3 DISCOUNTS.

5.4.3.1 Discount parameters from PH.



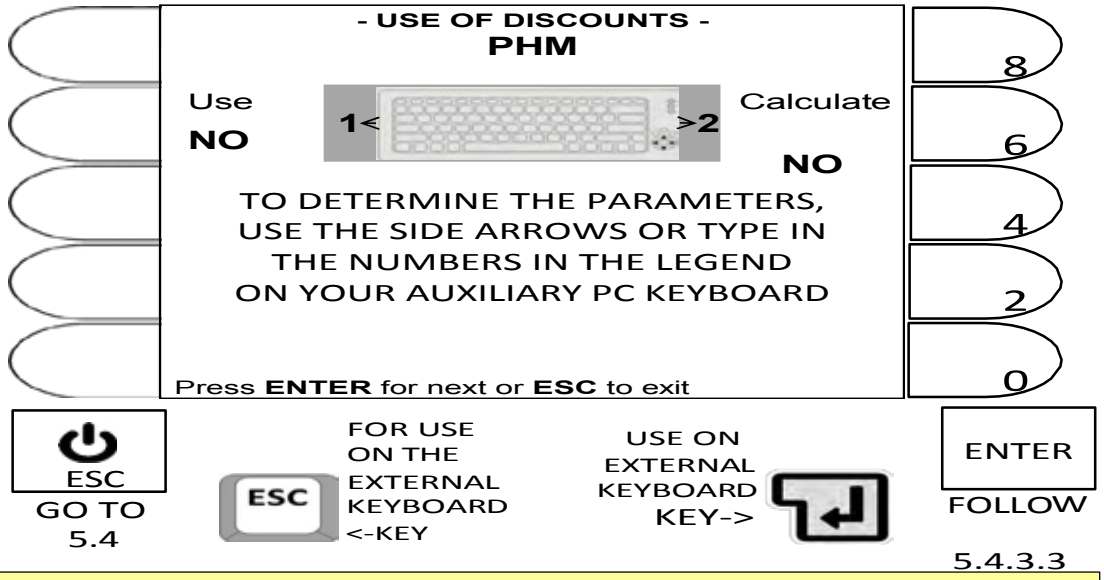
Important details:

Each press of one of the keys corresponds the desired action:

- Key next to the caption **Use** or key **1** on the external keyboard.
- Key next to the legend **Calculate** or key **2** on the external keyboard.

The field toggles between **OFF** or **ON** and the valid action will be the one indicated on the screen.

5.4.3.2 Discount parameters from PHM.



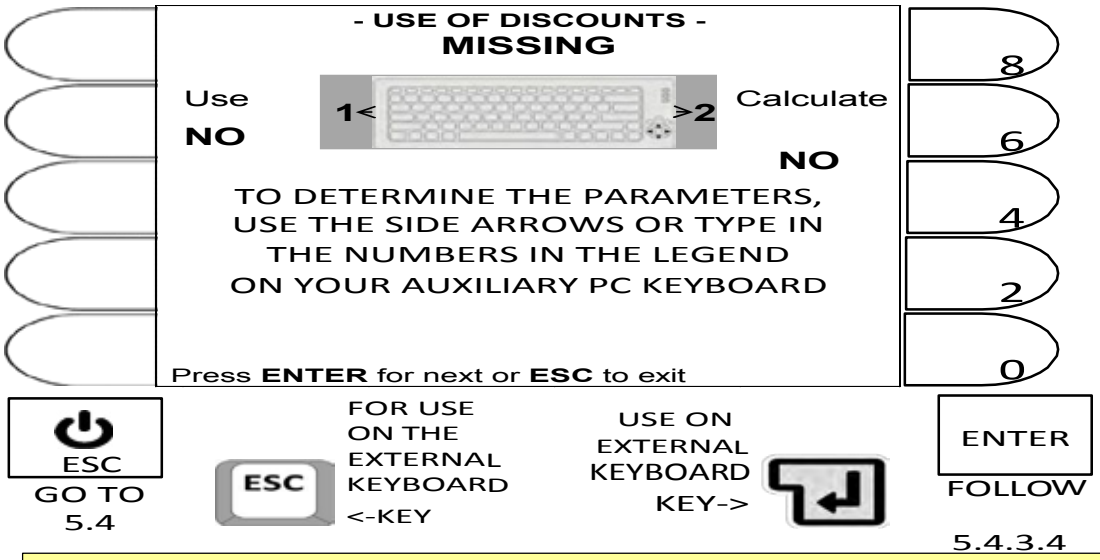
Important details:

Each press of one of the keys corresponds the desired action:

- Key next to the caption **Use** or key **1** on the external keyboard.
- Key next to the legend **Calculate** or key **2** on the external keyboard.

The field toggles between **NO** or **YES** and the valid action will be the one indicated on the screen.

5.4.3.3 Discount parameters for AVARIADOS.



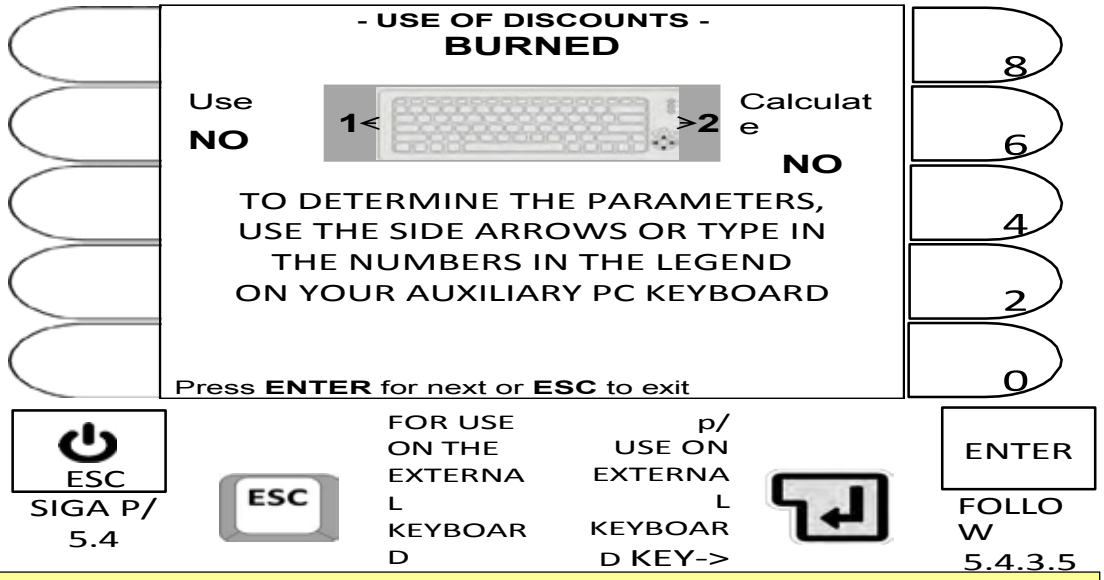
Important details:

Each press of one of the keys corresponds the desired action:

- Key next to the caption **Use** or key **1** on the external keyboard.
- Key next to the legend **Calculate** or key **2** on the external keyboard.

The field toggles between **NO** or **YES** and the valid action will be the one indicated on the screen.

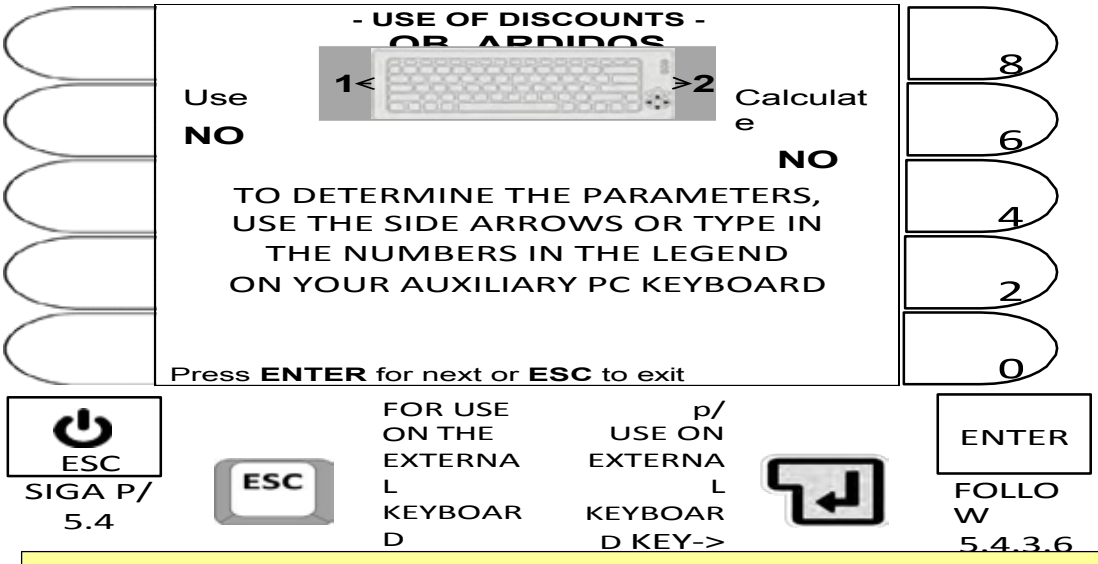
5.4.3.4 Discount parameters for ARDIDOS.



Important details:
Each press of one of the keys corresponds the desired action:
- Key next to the caption **Use** or key **1** on the external keyboard.
- Key next to the legend **Calculate** or key **2** on the external keyboard.

The field toggles between **NO** or **YES** and the valid action will be the one indicated on the screen.

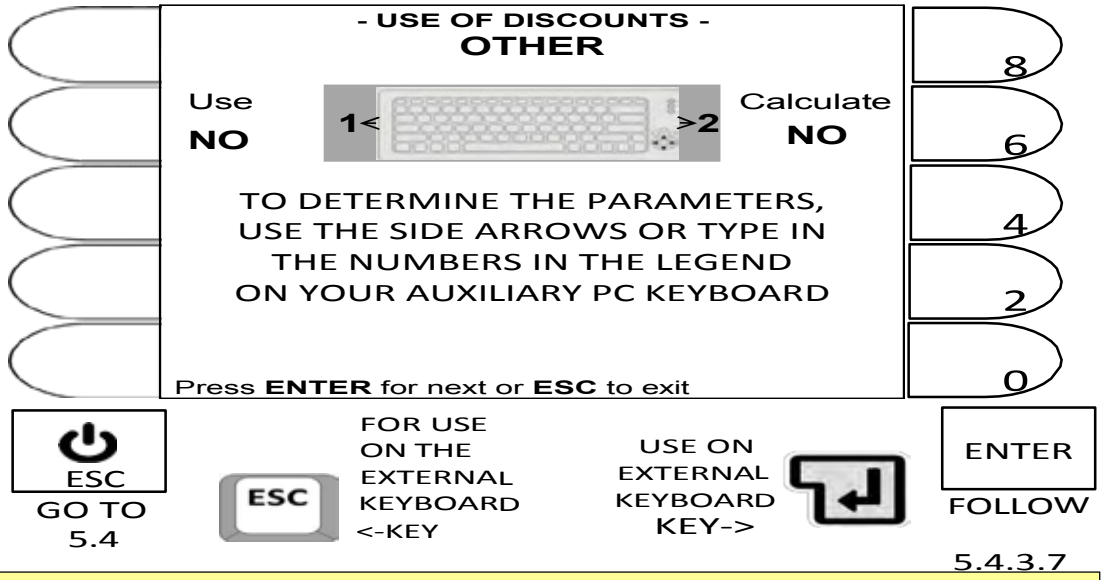
5.4.3.5 QB discount parameters. ARRESTED.



Important details:
Each press of one of the keys corresponds the desired action:
- Key next to the caption **Use** or key **1** on the external keyboard.
- Key next to the legend **Calculate** or key **2** on the external keyboard.

The field toggles between **NO** or **YES** and the valid action will be the one indicated on the screen.

5.4.3.6 Discount parameters from OTHER.



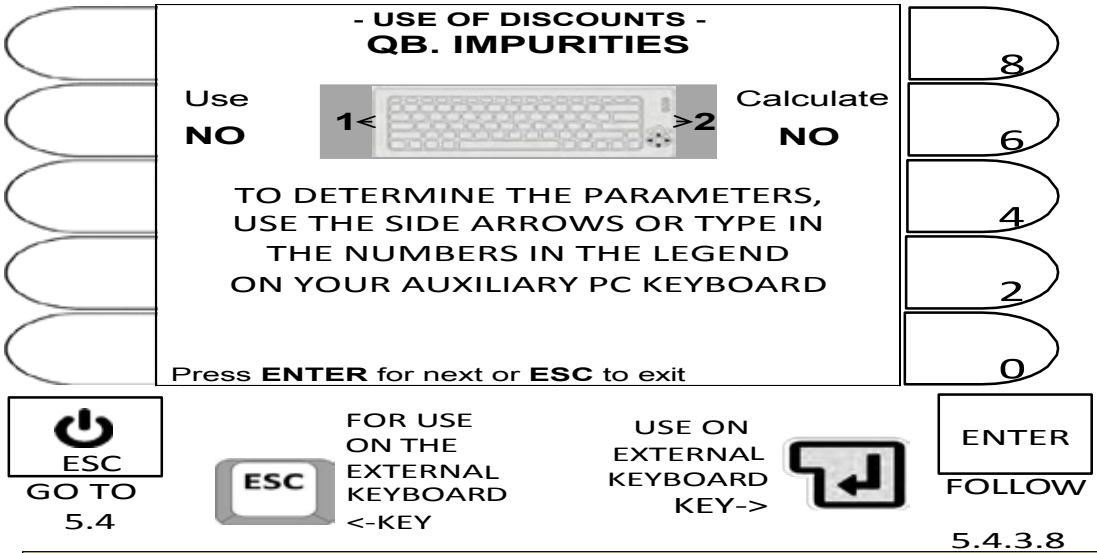
Important details:

Each press of one of the keys corresponds the desired action:

- Key next to the caption **Use** or key **1** on the external keyboard.
- Key next to the legend **Calculate** or key **2** on the external keyboard.

The field toggles between **NO** or **YES** and the valid action will be the one indicated on the screen.

5.4.3.7 QB discount parameters. IMPURITIES.



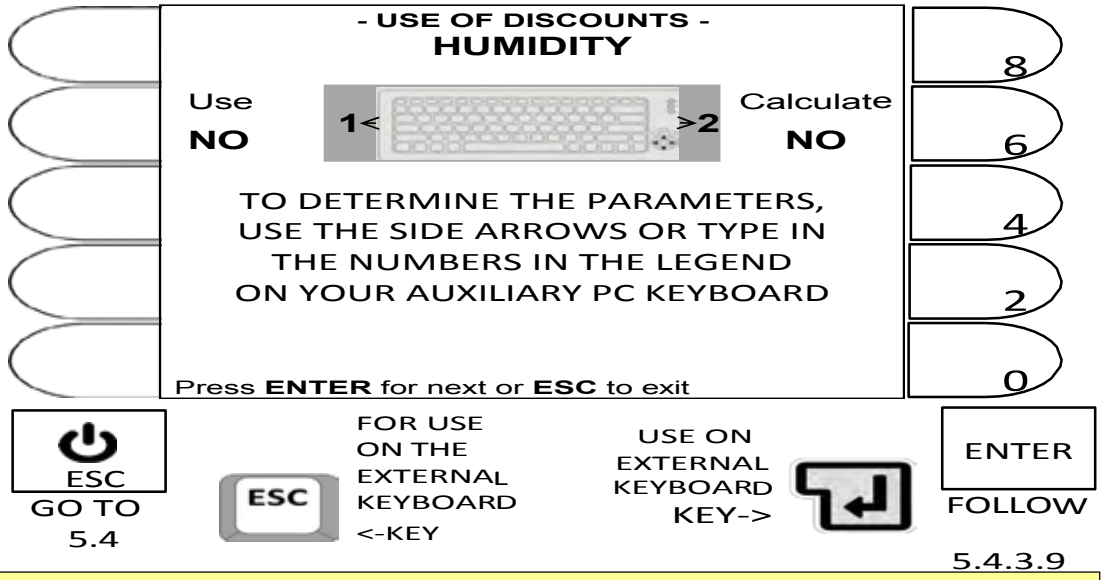
Important details:

Each press of one of the keys corresponds the desired action:

- Key next to the caption **Use** or key **1** on the external keyboard.
- Key next to the legend **Calculate** or key **2** on the external keyboard.

The field toggles between **NO** or **YES** and the valid action will be the one indicated on the screen.

5.4.3.8 Discount parameters from humidity.



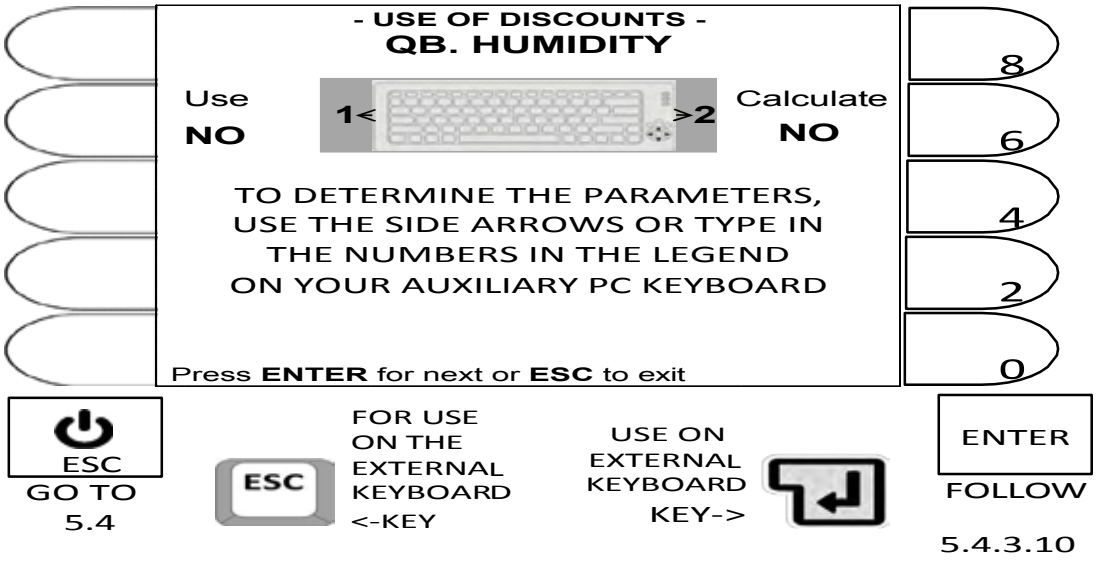
Important details:

Each press of one of the keys corresponds the desired action:

- Key next to the caption **Use** or key **1** on the external keyboard.
- Key next to the legend **Calculate** or key **2** on the external keyboard.

The field toggles between **NO** or **YES** and the valid action will be the one indicated on the screen.

5.4.3.9 QB discount parameters. HUMIDITY.



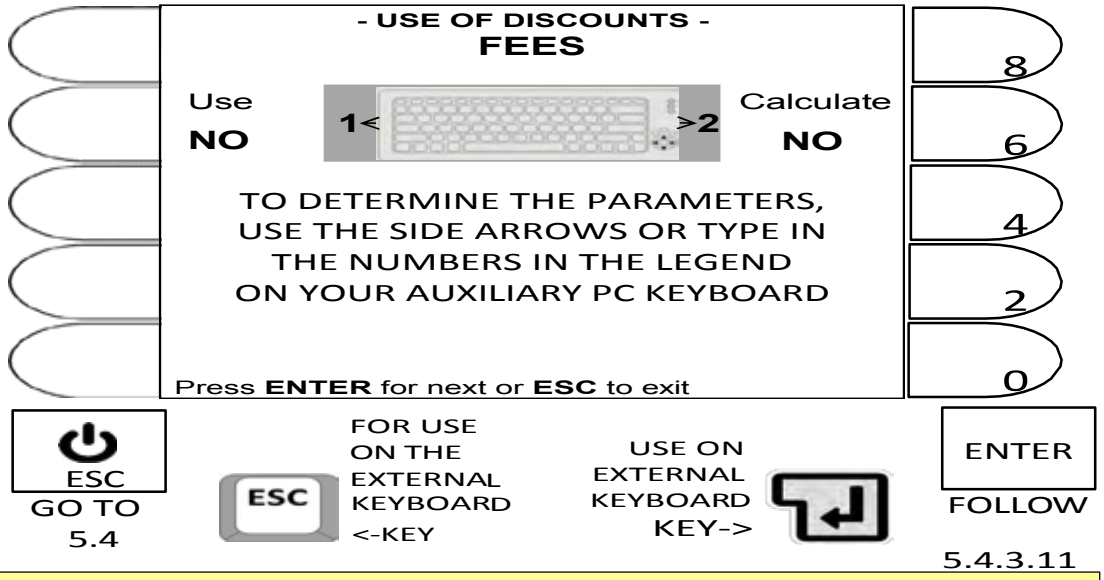
Important details:

Each press of one of the keys corresponds the desired action:

- Key next to the caption **Use** or key **1** on the external keyboard.
- Key next to the legend **Calculate** or key **2** on the external keyboard.

The field toggles between **NO** or **YES** and the valid action will be the one indicated on the screen.

5.4.3.10 Discount parameters from TAXES.



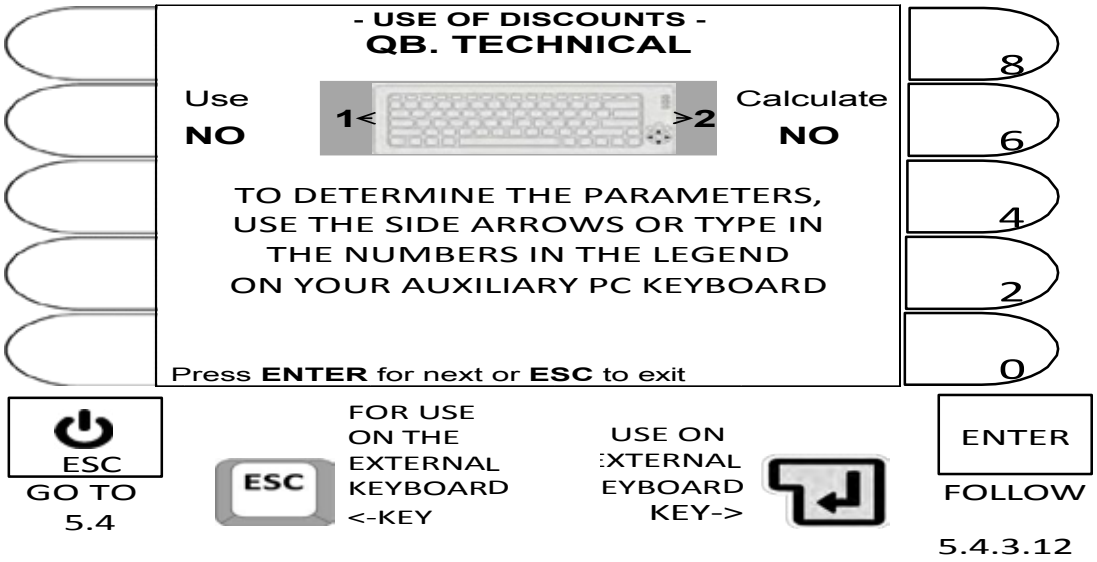
Important details:

Each press of one of the keys corresponds the desired action:

- Key next to the caption **Use** or key **1** on the external keyboard.
- Key next to the legend **Calculate** or key **2** on the external keyboard.

The field toggles between **NO** or **YES** and the valid action will be the one indicated on the screen.

5.4.3.11 QB discount parameters. TECHNICAL.



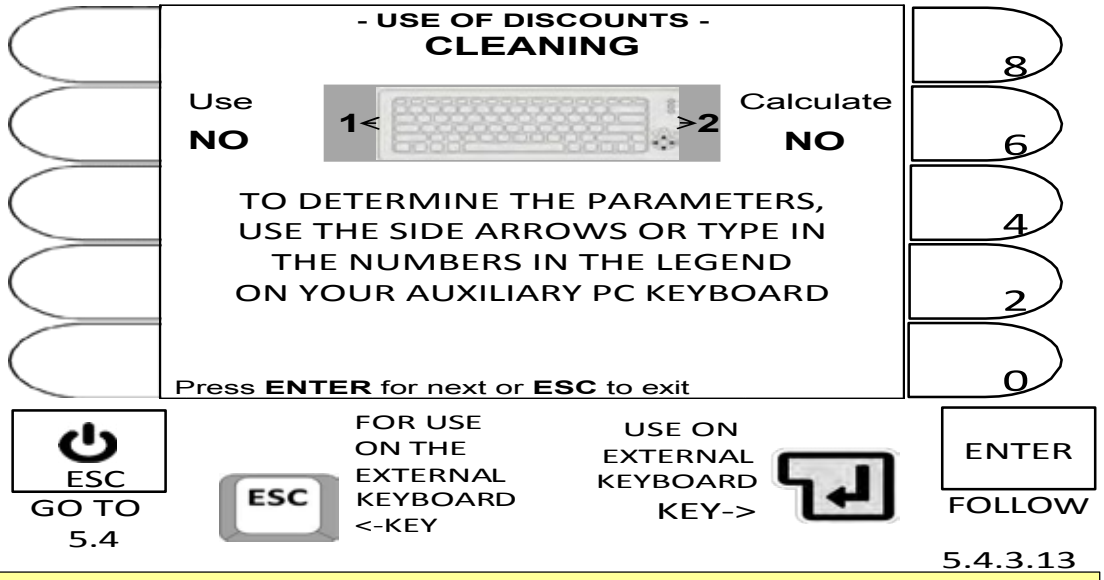
Important details:

Each press of one of the keys corresponds the desired action:

- Key next to the caption **Use** or key **1** on the external keyboard.
- Key next to the legend **Calculate** or key **2** on the external keyboard.

The field toggles between **NO** or **YES** and the valid action will be the one indicated on the screen.

5.4.3.12 Discount parameters for CLEANING.



Important details:

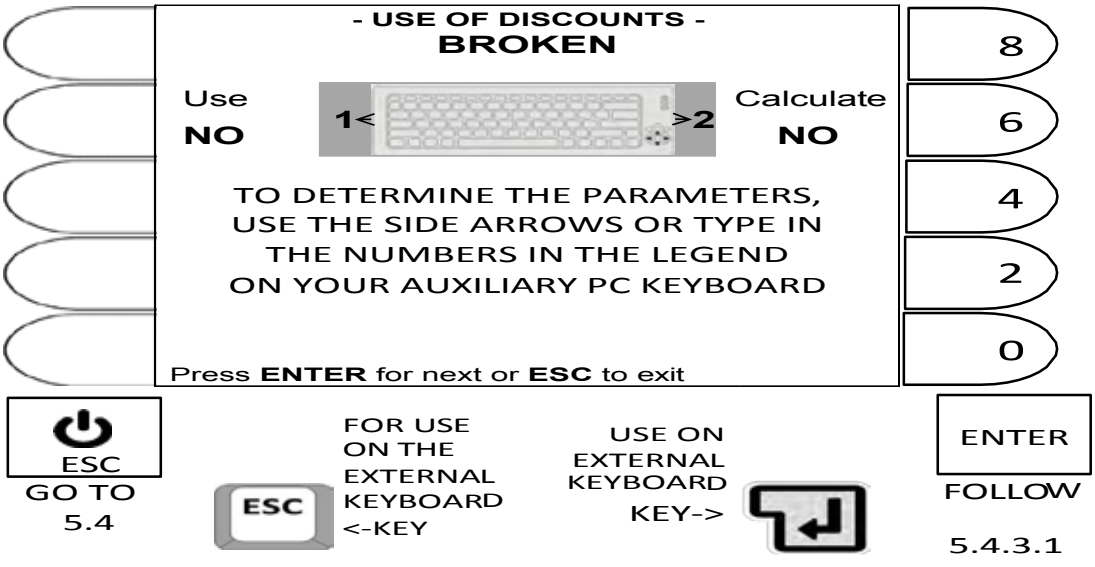
Each press of one of the keys corresponds the desired action:

- Key next to the caption **Use** or key **1** on the external keyboard.
- Key next to the legend **Calculate** or key **2** on the external keyboard.

The field toggles between **NO** or **YES** and the valid action will be the one indicated on the screen.

5.4.3.13 Discount parameters for BROKEN.

Important details:



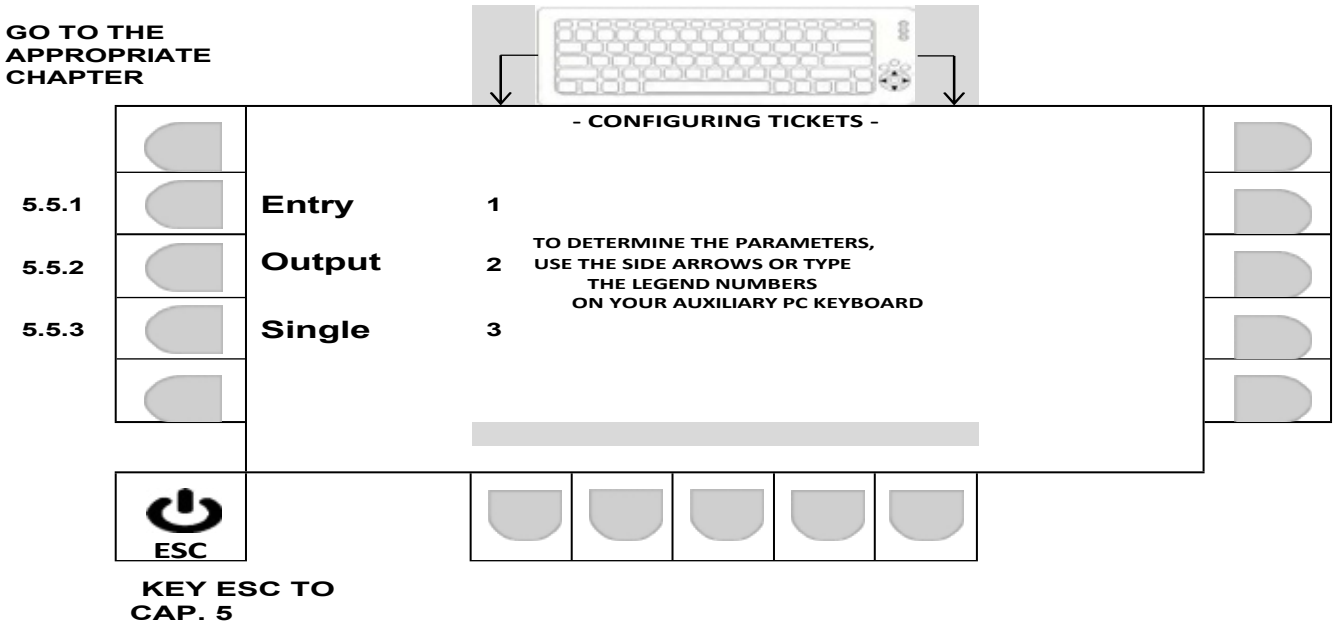
Each press of one of the keys corresponds the desired action:

- Key next to the caption **Use** or key **1** on the external keyboard.
- Key next to the legend **Calculate** or key **2** on the external keyboard.

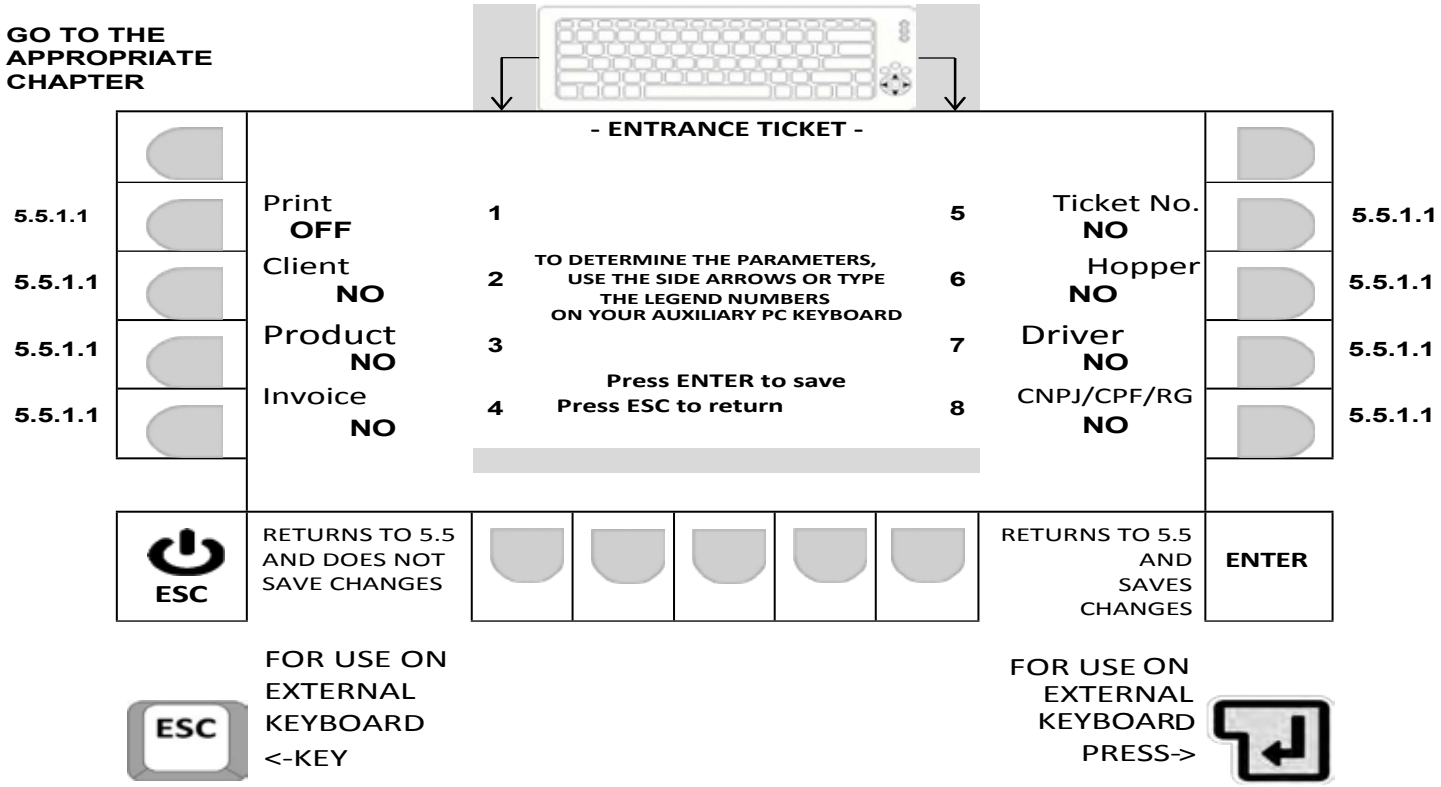
The field toggles between **NO** or **YES** and the valid action will be the one indicated on the screen.

5.5 TICKET CONFIGURATION (**F8).**

- Parameter accessible only to the administrator, if login is active.



5.5.1 SETTING UP AN ENTRY TICKET (ENTRADA).



5.5.1.1 Selection option by pressing the keys.

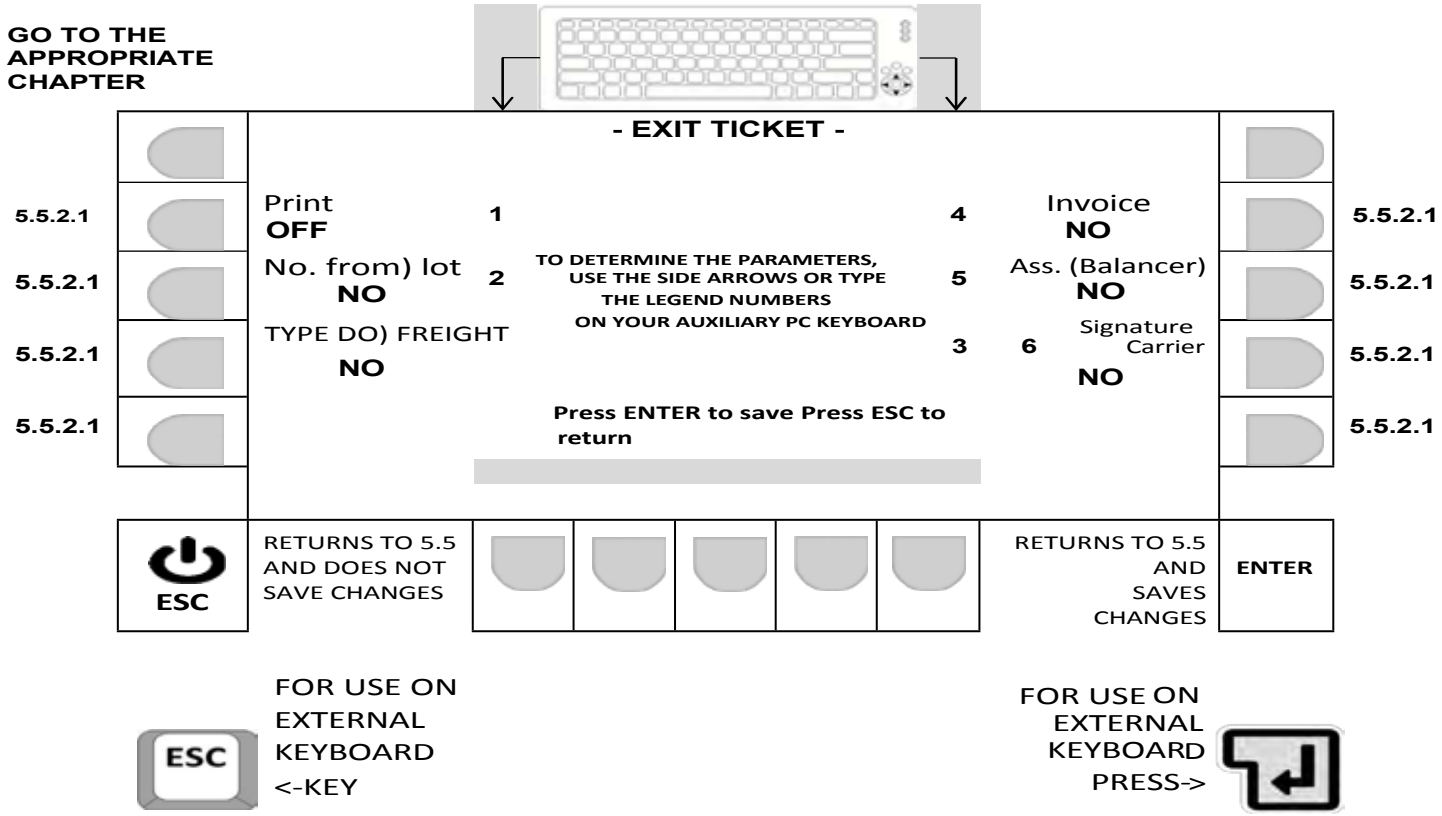
With each press of the corresponding key (key next to the legends on the front panel, or external keyboard), the field switches between the options shown in the table below, with the valid action being the one indicated on the screen.

Field legend on screen	Select options by pressing the corresponding key.	
Print	OFF	ON
Customer	NO	YES
Product	NO	YES
Invoice	NO	YES
Ticket number	NO	YES
Mill	NO	YES
Driver	NO	YES

CNPJ/CPF/RG	NO	YES

- You must press **ENTER** for the edit to be validated.

5.5.2 SETTING UP AN EXIT TICKET (EXIT).



5.5.2.1 Selection option by pressing the keys.

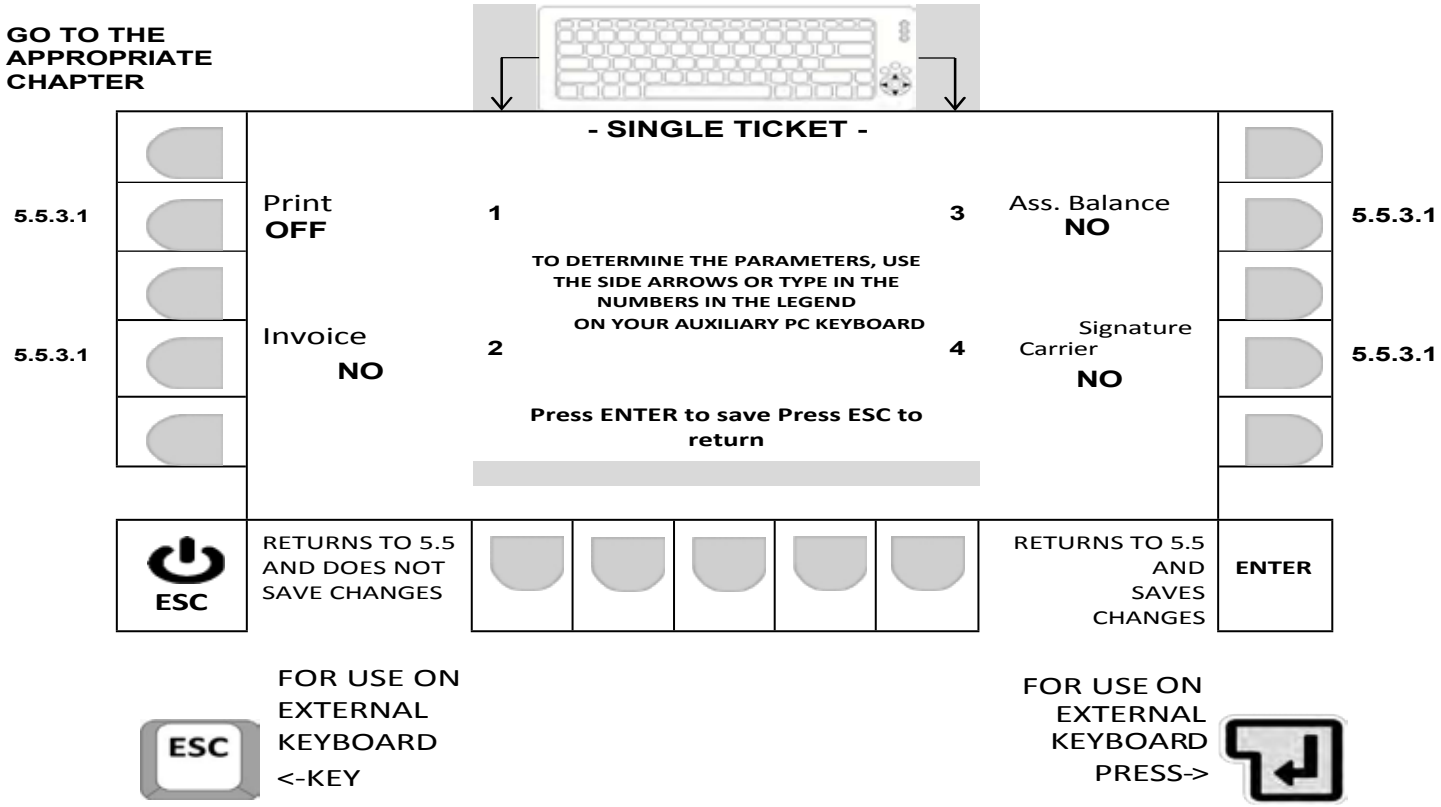
With each press of the corresponding key (key next to the legends on the front panel, or external keyboard), the field switches between the options shown in the table below, with the valid action being the one indicated on the screen.

Field legend on screen	Select options by pressing the corresponding key.	
Print	OFF	ON
Batch number	NO	YES
Type of freight	NO	YES
Invoice	NO	YES
Balance sheet clerk	NO	YES

- You must press **ENTER** for the edit to be validated.

Carrier	NO	YES

5.5.3 CONFIGURING SINGLE TICKETS (SINGLE).



5.5.3.1 Selection option by pressing the keys.

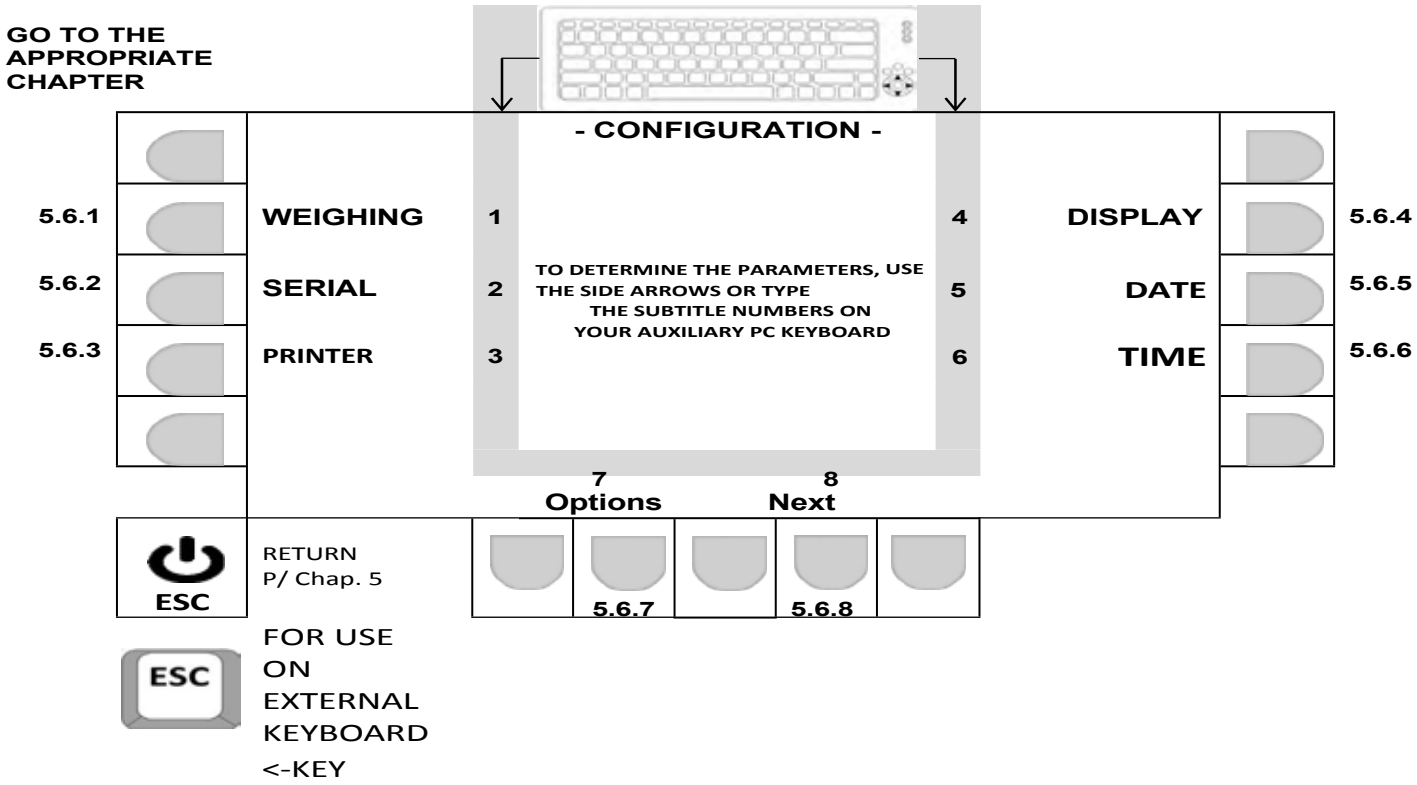
With each press of the corresponding key (key next to the legends on the front panel, or external keyboard), the field switches between the options shown in the table below, with the valid action being the one indicated on the screen.

Field legend on screen	Select options by pressing the corresponding key.	
Print	OFF	ON
Invoice	NO	YES
Invoice	NO	YES
Balance sheet clerk	NO	YES
Carrier	NO	YES

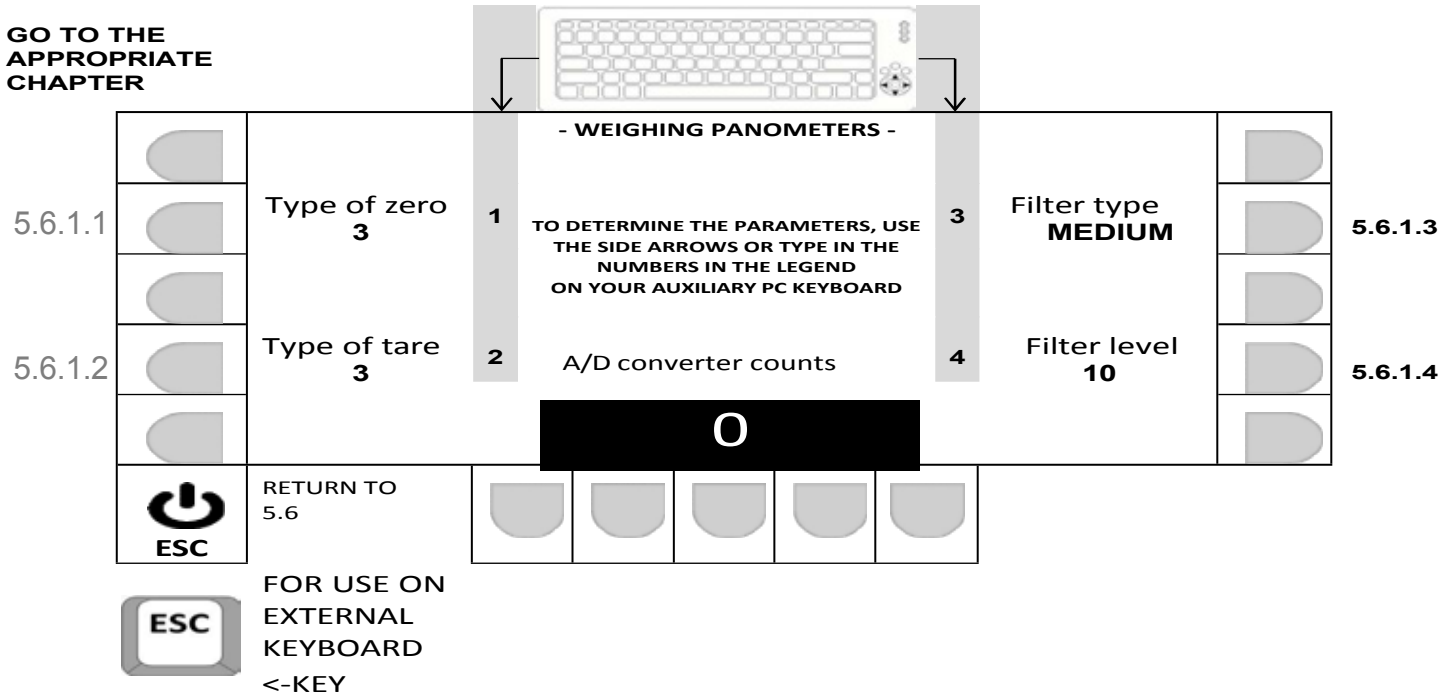
- You must press **ENTER** for the edit to be validated.

5.6 GENERAL SETTINGS (USER MENU - **F12** KEY).

- **Parameter accessible only to the administrator, if login is active.**



5.6.1 PARAMETERS FROM WEIGHING.



- The settings in use will be the ones shown on this screen.
- A/D converter counts, not active when using digital cells

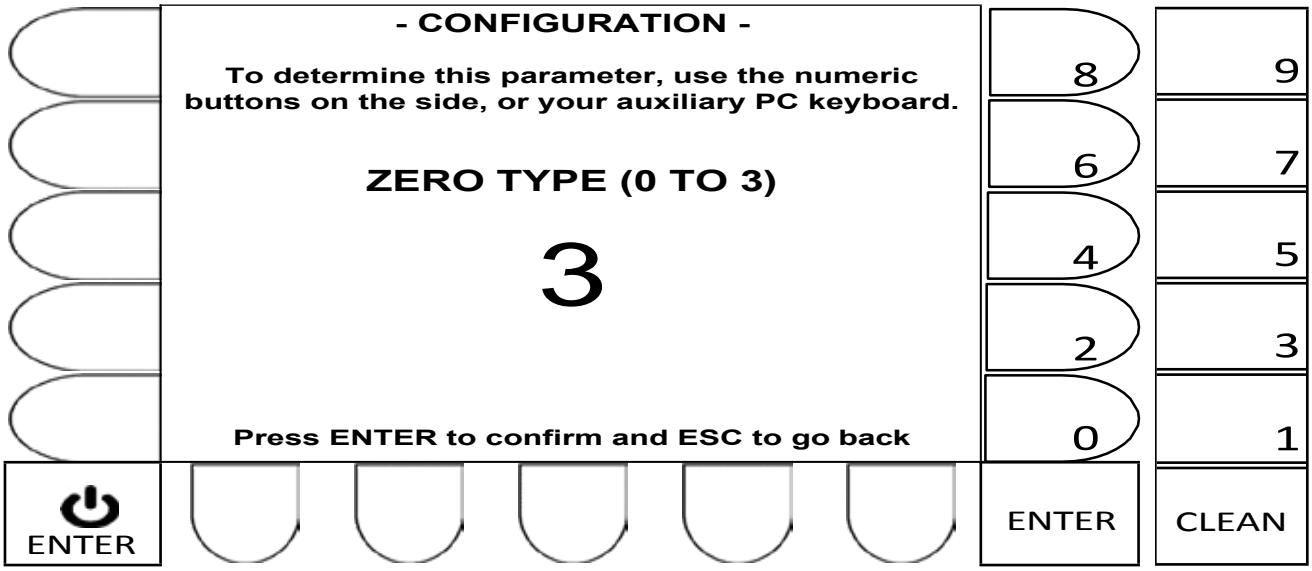
5.6.1.1 Determining the type of zero.

- The value entered determines the actuation of zero, as shown in the table below:

Type of zero	Zero Z key (QWERT keyboard) or ZERO button.	Auto Zero. (See 4.2.1.3 for details)
0	**DISABLED**	**DISABLED**
1	**DISABLED**	**QUALIFIED**
2	**QUALIFIED**	**DISABLED**
3	**QUALIFIED**	**QUALIFIED**

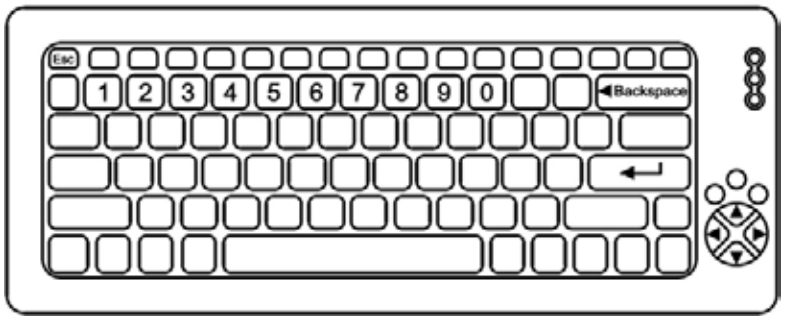
- Navigation using the front panel keys -

- CLEAR key: Deletes the current value.
- Numeric keys next to the display: Allows you to enter a new value.
- ENTER key: Validates the new value entered and returns to 5.6.1.
- ESC key: Returns to 5.6.1 without changing the last value in the parameter.



- Navigation using an external keyboard -

- Backspace key: Deletes the current value.
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and returns to 5.6.1.
- ESC key: Returns to 5.6.1 without changing the last value in the parameter.



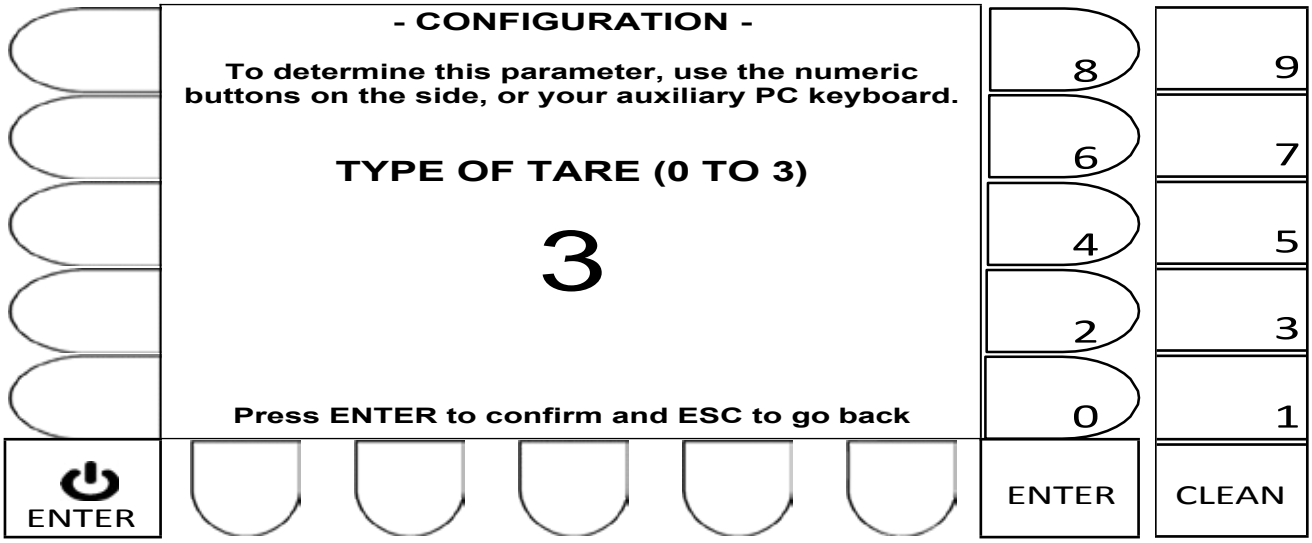
5.6.1.2 Determining the type of tare.

The value entered determines the tare action, as shown in the table below:

	T keys (QWERT keyboard) or TARA button			F10
Type of tare	Single tare	Successive tares	Tare button or t-key	Tar bank
0	NO	NO	NO	NO
1	**YES**	NO	**YES**	**YES**
2	**YES**	NO	**YES**	**YES**
3	NO	**YES**	**YES**	**YES**
4	NO	**YES**	**YES**	**YES**
5	NO	NO	NO	**YES**

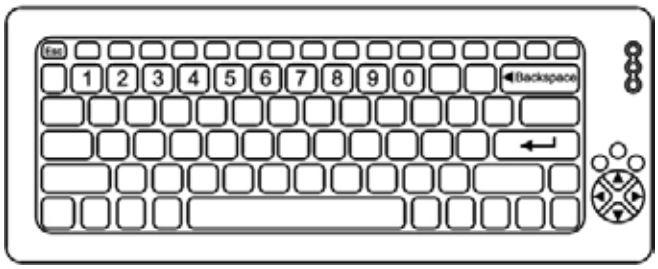
- Navigation using the front panel keys -

- CLEAR key: Deletes the current value.
- Numeric keys next to the display: Allows you to enter a new value.
- ENTER key: Validates the new value entered and returns to 5.6.1.
- ESC key: Returns to 5.6.1 without changing the last value in the parameter.

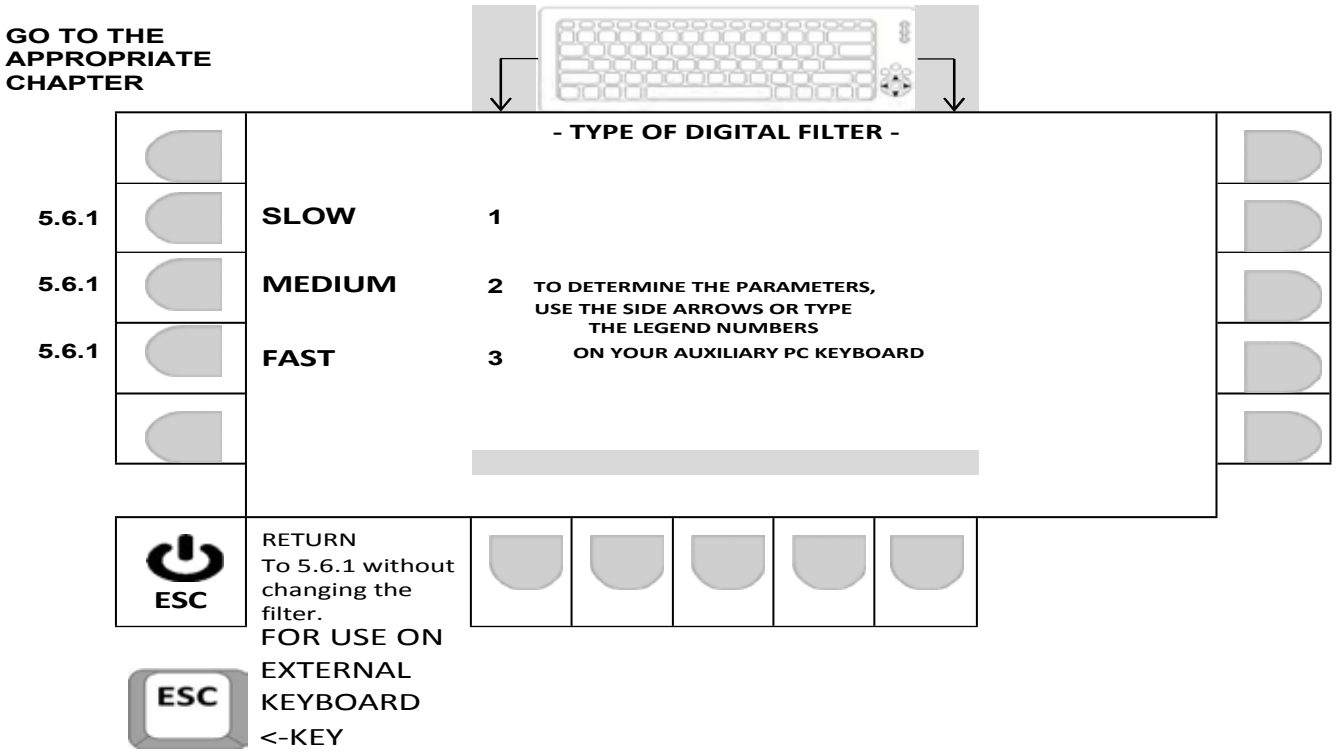


- Navigation using an external keyboard -

- Backspace key: Deletes the current value.
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and returns to 5.6.1.
- ESC key: Returns to 5.6.1 without changing the last value in the parameter.



5.6.1.3 Determining the type of filter.



- When you press the corresponding key (key next to the legends on the front panel, or external keyboard) for the filter option you want, the system takes over the selection and automatically returns to 5.6.1.
- The type of filter selected does not influence the treatment of the measured weight when using digital or digitized cells.

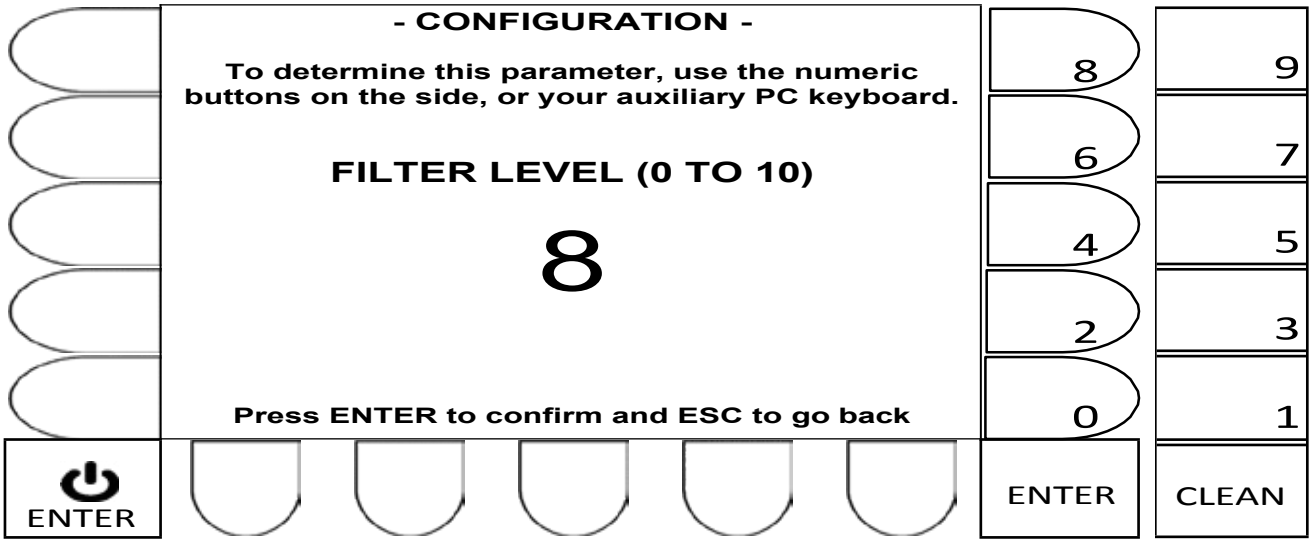
5.6.1.4 Determining the intensity of the filter.

ATTENTION!

- Filter 0: No active filters (can be used if digital cells are used).
- Filters 1 to 4: Recommended for road operation, but **only when using the digital cell scale option.**
- Filters 6 to 10 are recommended for road operation, but **only when using the analog cell scale option**.

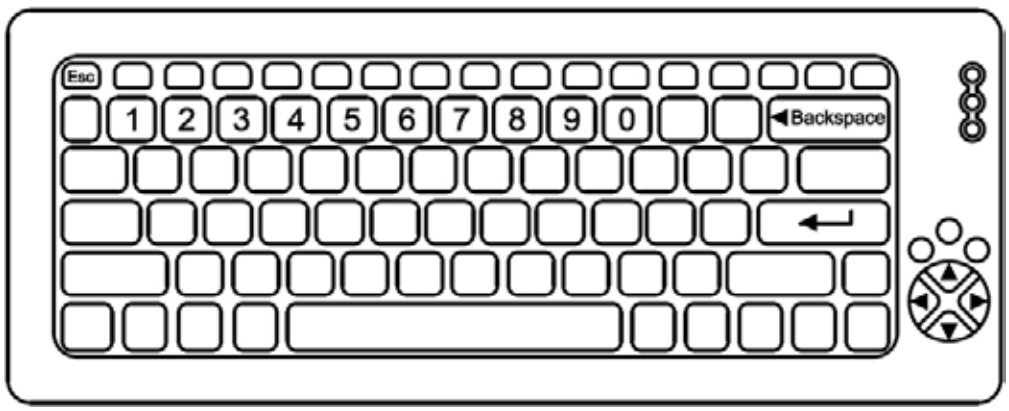
- Navigation using the front panel keys -

- CLEAR key: Deletes the current value.
- Numeric keys next to the display: Allows you to enter a new value.
- ENTER key: Validates the new value entered and returns to 5.6.1.
- ESC key: Returns to 5.6.1 without changing the last value in the parameter.

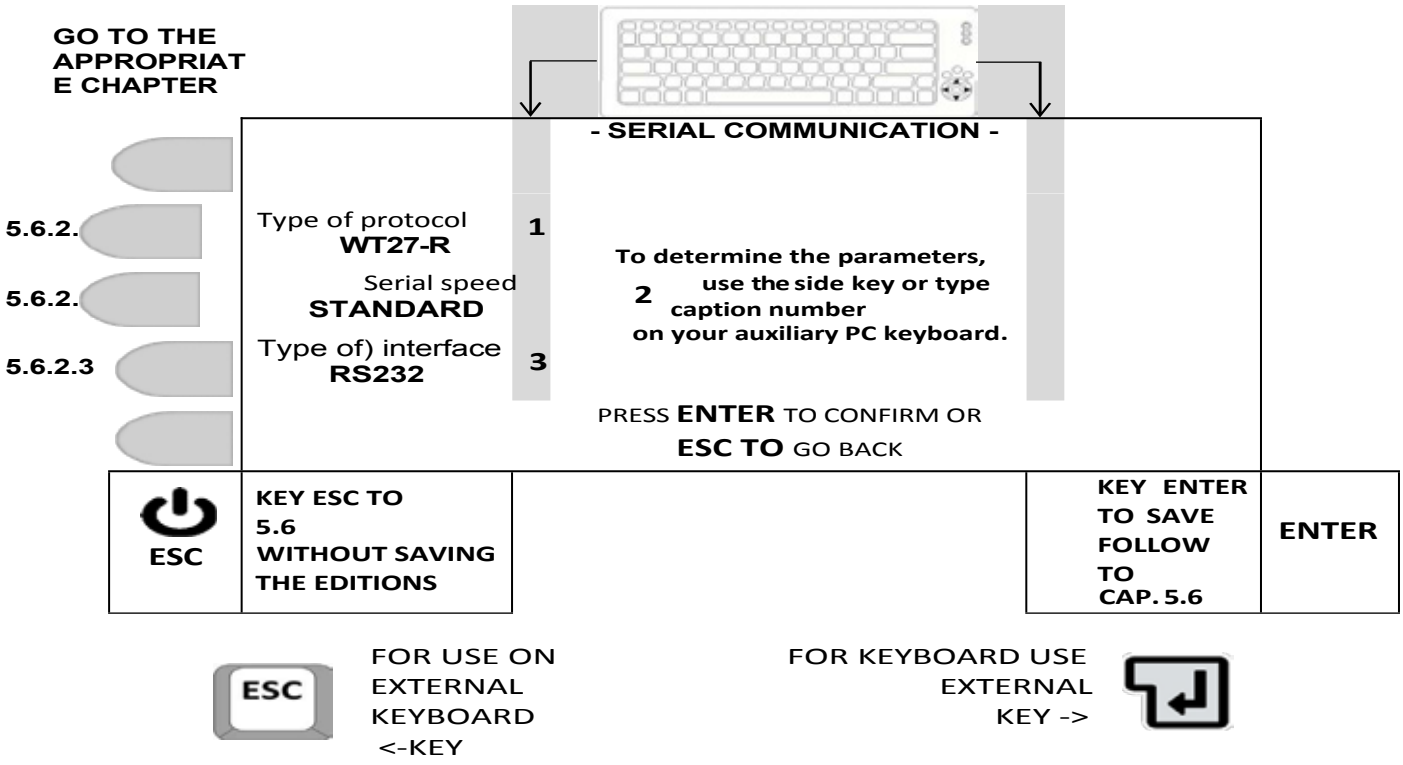


- Navigation using an external keyboard -

- Backspace key: Deletes the current value.
- Numeric keys: Allows you to enter a new numerical value.
- Key↵ : Validates the new value entered and returns to 5.6.1.
- ESC key: Returns to 5.6.1 without changing the last value in the parameter.



5.6.2 COMMUNICATION SETTINGS SERIAL.



5.6.2.1 Selecting the type of protocol.

Each time the corresponding key is pressed (key next to the **Protocol Type legend,** or key 1 on the external keyboard), the field switches between OFF, WT27- R, WT27-ETH, ASCII, SATURNO-1, SATURNO-2, DIGITRON, TOLEDO 1, TOLEDO 2, EPM, W11, W02, DG13, W02, W06 and EPM2 GPTRONICS and the valid action will be the one indicated on the screen.

5.6.2.2 Speed selection serial.

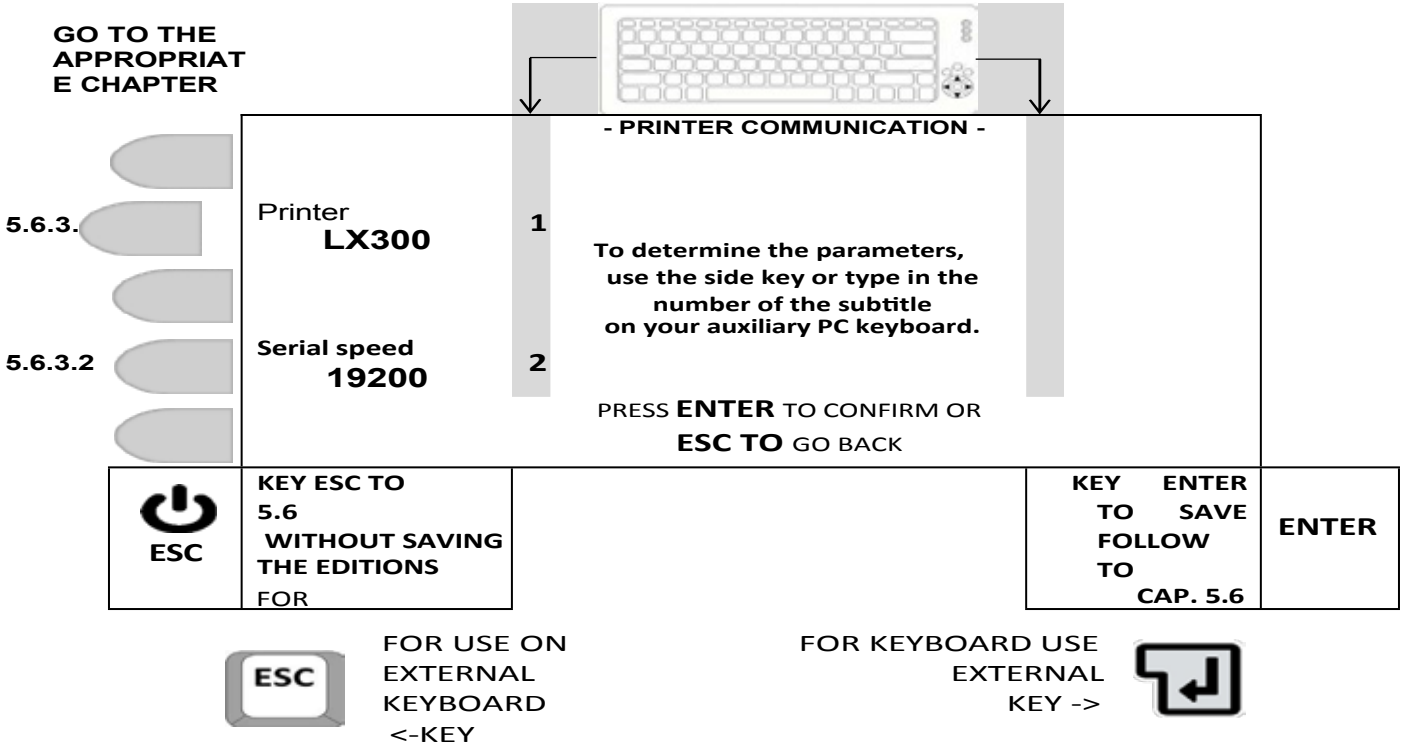
With each press of the corresponding key (key next to the legend **Serial speed,** or key 2 on the external keyboard), the field switches between 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600 and 115200, the valid action being the one indicated on the screen.

5.6.2.3 Selecting the type of interface.

Each time the corresponding key is pressed (key next to the **Interface Type legend,** or key 3 on the external keyboard), the field switches between RS232 or RS485, and the valid action is the one indicated on the screen.

- PRESS ENTER TO CONFIRM THE EDIT

5.6.3 SETTINGS FROM PRINTER.



5.6.3.1 Selecting the model of printer.

Each time the corresponding key is pressed (key next to the **Printer** legend**,** or key 1 on the external keyboard), the field switches between NONE, EPSON LX or BEMATECH, and the valid action is the one indicated on the screen.

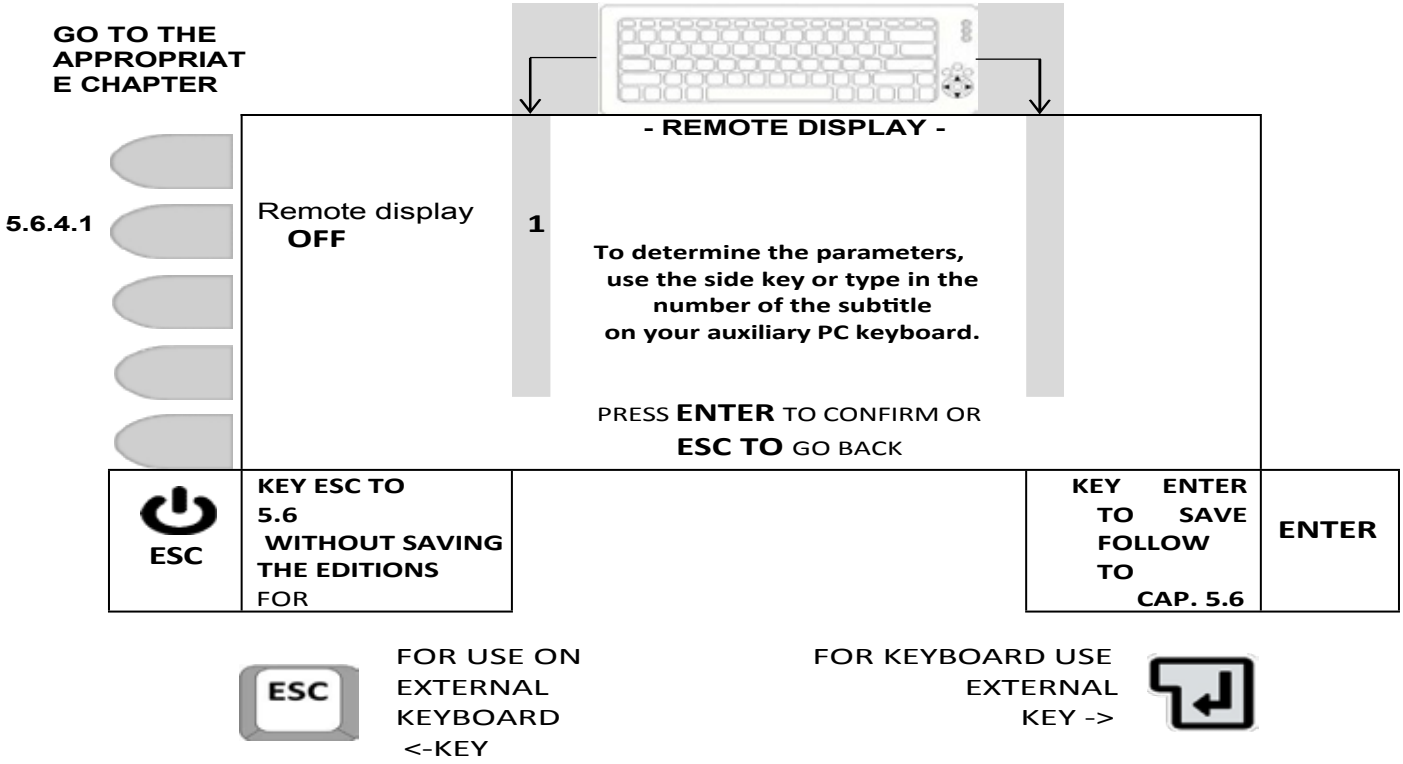
- BEMATECH printer model compatible with the equipment: MP-20 (BEMATECH) and TM-T20 (Epson).

5.6.3.2 Selecting the serial speed for the printer.

Each time the corresponding key is pressed (key next to the legend **Serial speed,** or key 2 on the external keyboard), the field switches between 9600 or 19200, and the valid action is the one indicated on the screen.

- PRESS ENTER TO CONFIRM THE EDIT

5.6.4 DISPLAY SETTINGS REMOTE.



5.6.4.1 Selection to activate or deactivate the remote display.

Each time the corresponding key is pressed (key next to the **Remote Display** legend, or key 1 on the external keyboard), the field switches between OFF or ON, with the valid action being the one indicated on the screen.

- PRESS ENTER TO CONFIRM THE EDIT

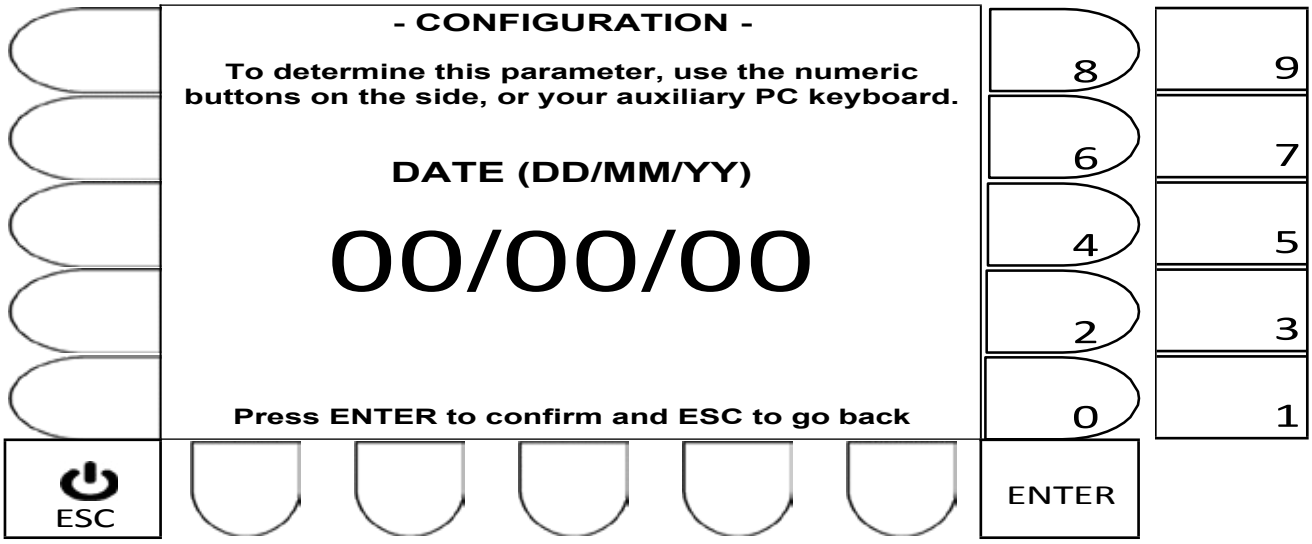
5.6.5 DETERMINING THE DATE.

ATTENTION!

- The fields will always be displayed with a value of zero and will be filled in from right to left.
- If an invalid date is entered, the system resets the fields and waits for a valid date to be entered.
- If an incorrect date is entered, press ESC, return to 5.6 and access date editing again.

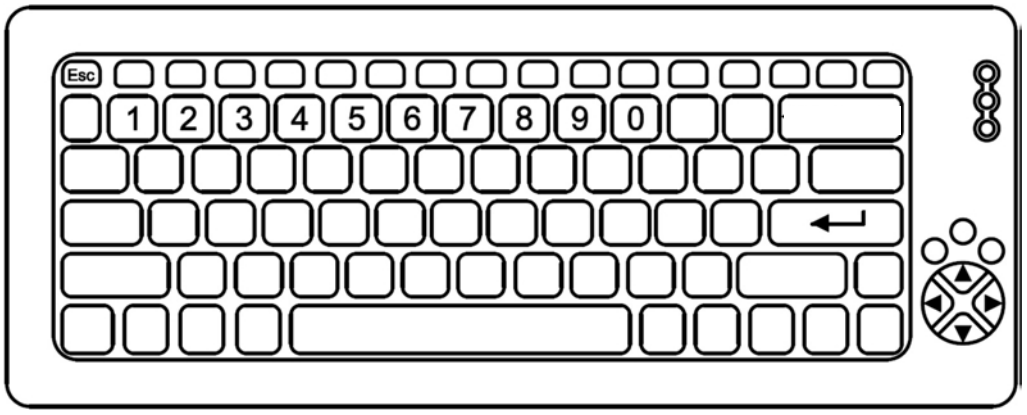
- Navigation using the front panel keys -

- CLEAR key: Does not work on this screen.
- Numeric keys next to the display: Allows you to enter a new value.
- ENTER key: Validates the new value entered and returns to 5.6
- ESC key: Returns to 5.6 without changing the last date value.



- Navigation using an external keyboard -

- Backspace key: Does not work on this screen.
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and returns to 5.6
- ESC key: Returns to 5.6 without changing the last date value.



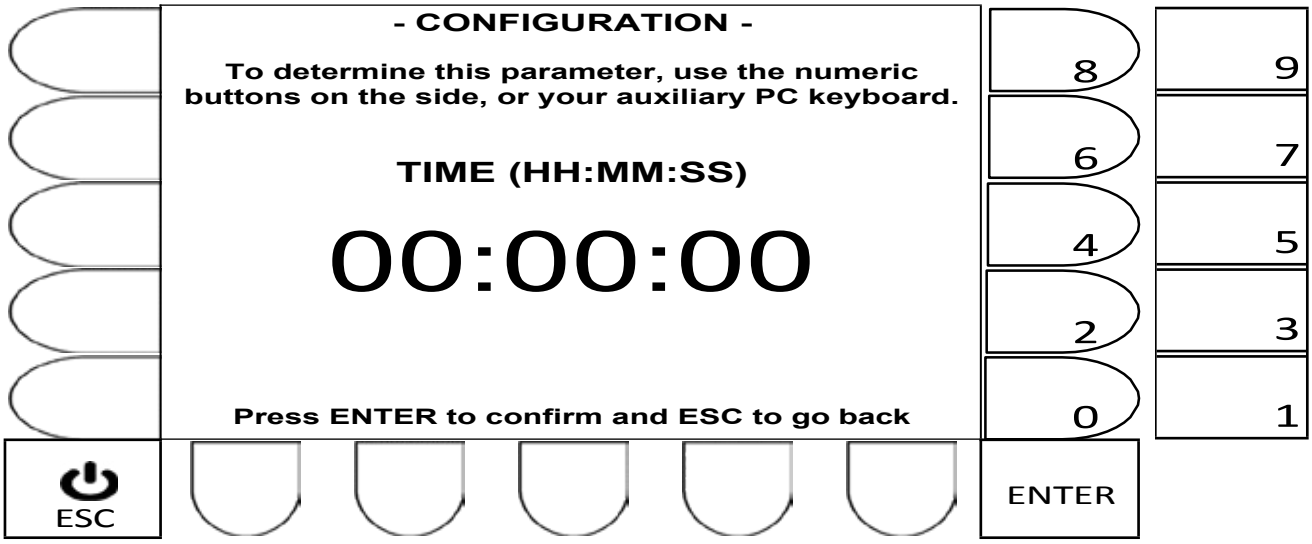
5.6.6 DETERMINING THE TIME.

ATTENTION!

- The fields will always be displayed with a value of zero and will be filled in from right to left.
- If an invalid time is entered, the system resets the fields and waits for a valid time to be entered.
- If an incorrect time is entered, press ESC, return to 5.6 and access time editing again.

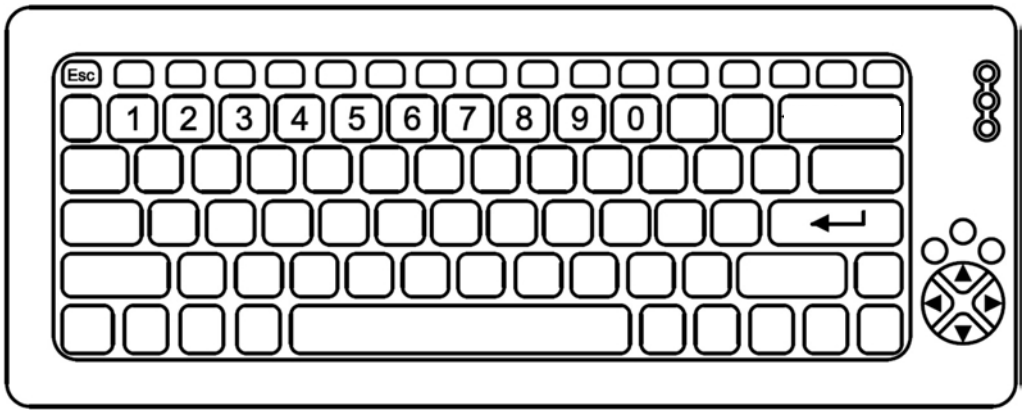
- Navigation using the front panel keys -

- CLEAR key: Does not work on this screen.
- Numeric keys next to the display: Allows you to enter a new value.
- ENTER key: Validates the new value entered and returns to 5.6
- ESC key: Returns to 5.6 without changing the last time value.



- Navigation using an external keyboard -

- Backspace key: Does not work on this screen.
- Numeric keys: Allows you to enter a new numerical value.
- Key ↵ : Validates the new value entered and returns to 5.6
- ESC key: Returns to 5.6 without changing the last time value.



5.6.7 PARAMETERS OF THE OP-ETHERNET OPTION CARD ON THE WT27- R SCREEN.

Temporary messages related to the OP-ETHernet add-on card:

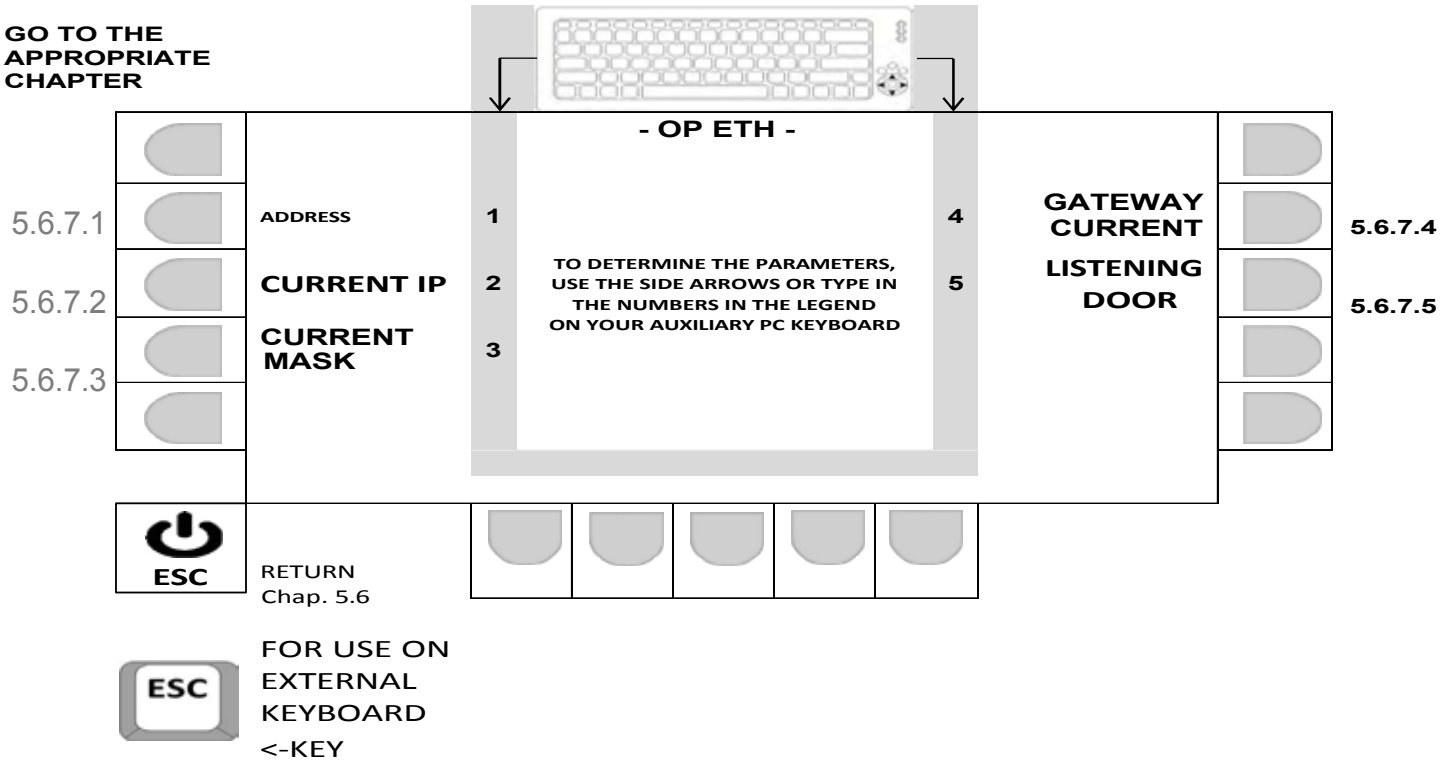
- **ADDITIONAL CARD NOT FOUND! Make sure the card is connected correctly and try searching again.**

Error message that appears after searching for attached devices, only in the event of an error detecting an additional card.
A few seconds after this message is displayed, the system returns to the configuration screen (see chapter 5.6).

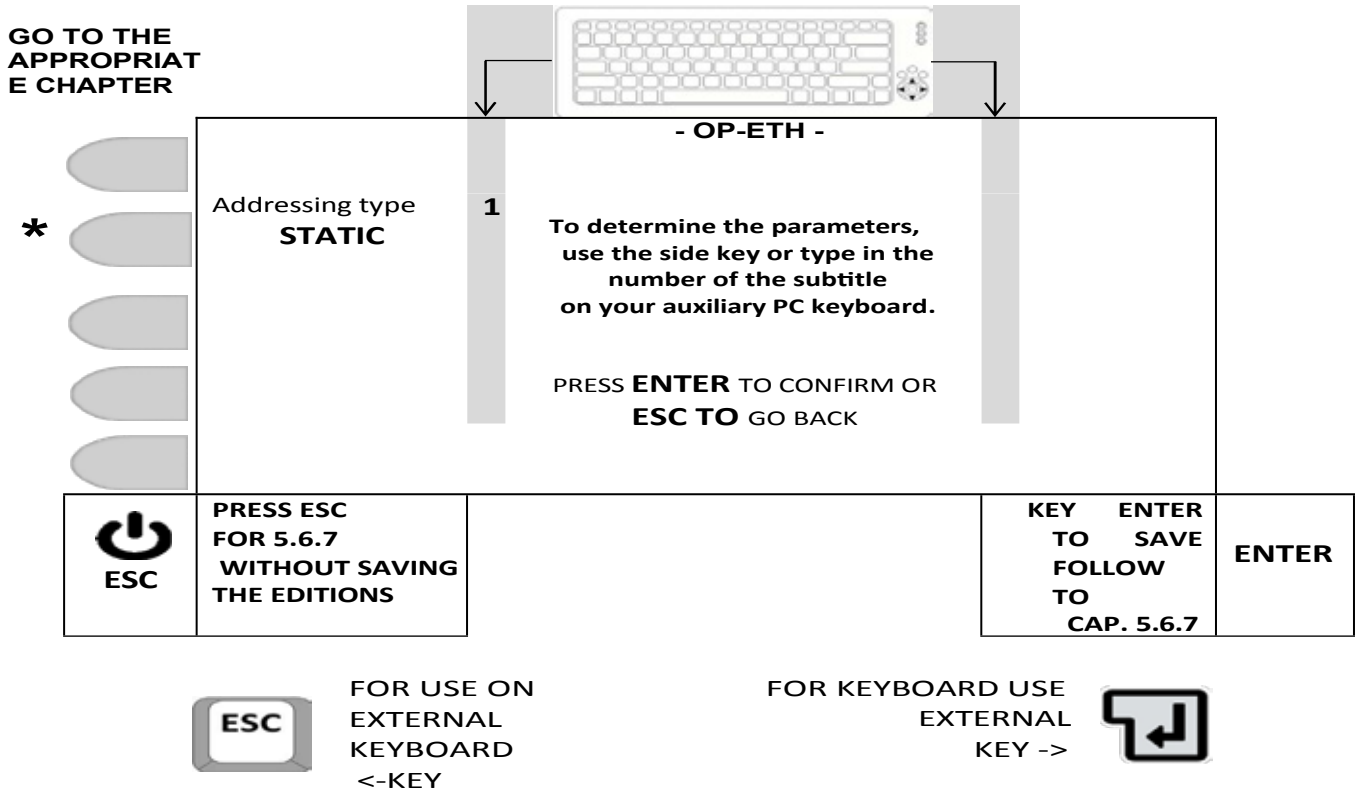
- **Looking for additional board, please wait.**

This message will always appear before the OP ETH screen appears (the OP ETH screen shown below will only appear if the card is detected correctly.

Please note**:** See Annex III of this document for details of the OP-ETHernet PLATE installation procedure



5.6.7.1 Address type of OP- ETHernet.



* Each time the corresponding key is pressed (the key next to the **TYPE OF ADDRESS**, or key 1 on the external keyboard), the field toggles between STATIC or DHCP, and the valid action will be the one indicated on the screen if the ENTER key is pressed at the end.

- PRESS **ENTER** TO CONFIRM THE EDIT, OR **ESC** TO EXIT THE SCREEN WITHOUT MAKING ANY CHANGES.

5.6.7.2 Current IP number of the OP- ETHernet.

- **To edit the number,** press CLEAR until the values to be edited are reset to zero and then type in the new number, remembering to press ENTER at the end so that this value is validated.
- PRESS **ENTER** TO CONFIRM THE EDIT, OR **ESC** TO DISREGARD THE EDIT, AFTER WHICH THE SYSTEM WILL RETURN TO THE SCREEN SHOWN IN 5.6.7.

5.6.7.3 Current mask number of OP- ETHernet.

- **To edit the number,** press CLEAR until the values to be edited are reset to zero and then type in the new number, remembering to press ENTER at the end so that this value is validated.
- PRESS **ENTER** TO CONFIRM THE EDIT, OR **ESC** TO DISREGARD THE EDIT, AFTER WHICH THE SYSTEM WILL RETURN TO THE SCREEN SHOWN IN 5.6.7.

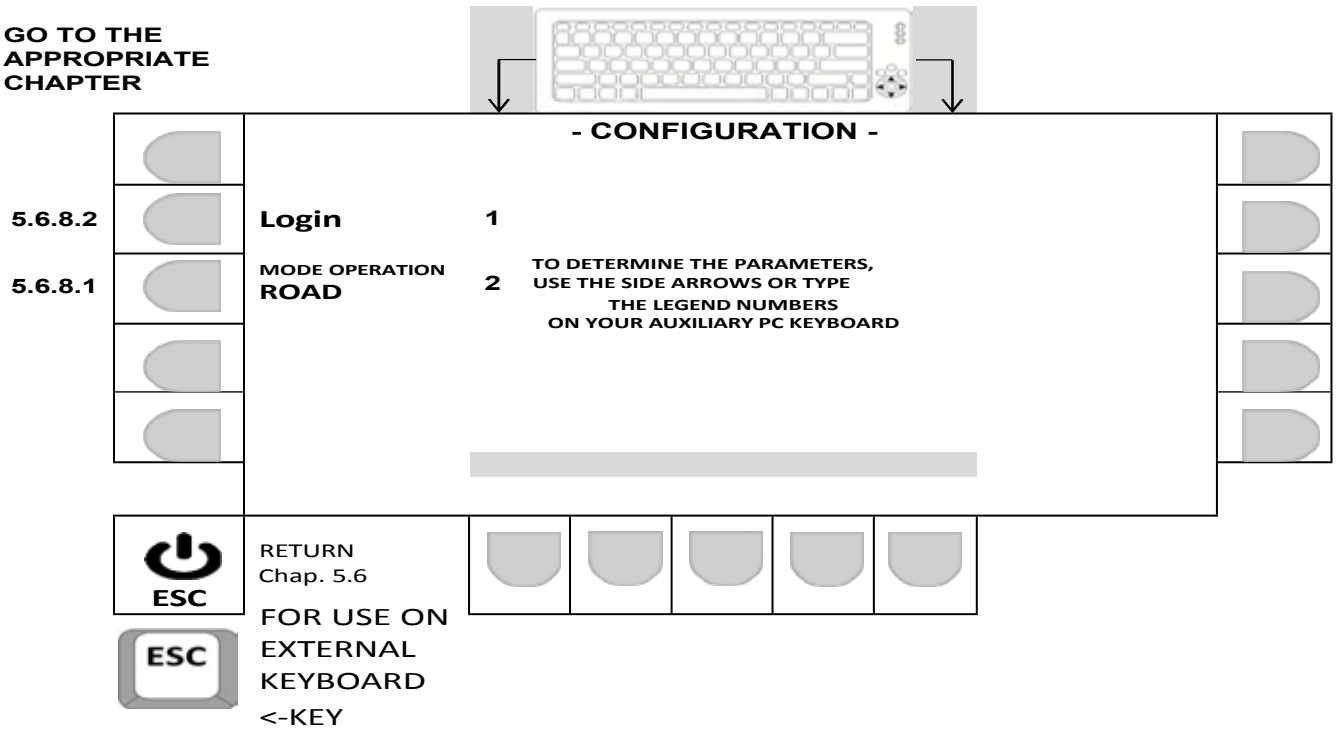
5.6.7.4 Current mask number of OP- ETHernet.

- **To edit the number**, press CLEAR until the values to be edited are reset to zero and then enter the new number, remembering to press ENTER at the end so that this value is validated.
- PRESS **ENTER** TO CONFIRM THE EDIT, OR **ESC** TO DISREGARD THE EDIT, AFTER WHICH THE SYSTEM WILL RETURN TO THE SCREEN SHOWN IN 5.6.7.

5.6.7.5 Number of the listening port on OP- ETHernet.

- **To edit the number,** press CLEAR until the values to be edited are reset to zero and then type in the new number, remembering to press ENTER at the end so that this value is validated.
- PRESS **ENTER** TO CONFIRM THE EDIT, OR **ESC** TO DISREGARD THE EDIT, AFTER WHICH THE SYSTEM WILL RETURN TO THE SCREEN SHOWN IN 5.6.7.

5.6.8 GENERAL SETTINGS **F12 (CONTINUATION OF OPTIONS)**.

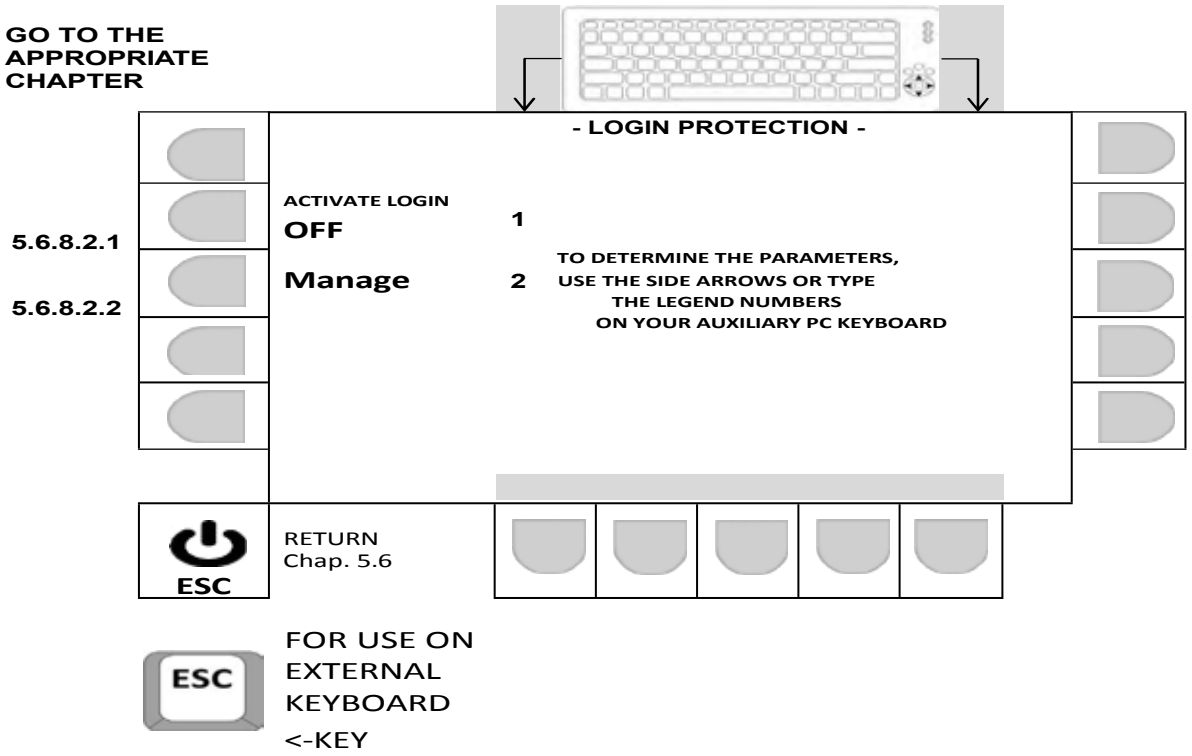


5.6.8.1 Selecting the mode of operation.

Each time the corresponding key is pressed (the key next to the OPERATING MODE legend, or key 2 on the external keyboard), the field switches between ROADS or CONTAINERS, and the valid action is the one indicated on the screen.

- PRESS **ESC** TO EXIT THE SCREEN, KEEPING YOUR CHANGES.

5.6.8.2 Protection by login.



5.6.8.2.1 ACTIVATING LOGIN TO ACCESS THE SYSTEM.

- **BEFORE TO ON, SEE ON PAGE A NEXT, INFOMATIONS OF THE SYSTEM'S OPERATION WHEN THE LOGIN FUNCTION IS ON.**

With each press of the corresponding key (key next to the ACTIVATE LOGIN legend, or key 1 on the external keyboard), the field switches between OFF or ON, the valid action is the one indicated on the screen.

- PRESS **ESC** TO EXIT THE SCREEN, KEEPING YOUR CHANGES.

COMPORTAMENTO DO SISTEMA, QUANDO A FUNÇÃO LOGIN FOR ATIVADA.

- Login and password required when connecting the device (including access to the calibration screen).
- The user linked to COD.:1 in the user list is the administrator and only when accessing the system with this login can the F4, F7, F8 and F12 configuration menus be accessed.
- Registrations and deletions can only be made by the administrator.
- The administrator does not have access to inbound (F1), outbound (F2) and bulk (F3) operations.
- The screen below will be displayed whenever the device is activated:

- LIST OF USERS -	
USER LOGIN - ENTER CODE	COD.:1 ADMINISTRATOR
COD.:2	REGISTERED USER-01 EXAMPLE
COD.:3	REGISTERED USER-02 EXAMPLE
COD.:4	NO USER REGISTERED
COD.:5	NO USER REGISTERED
COD.:6	NO USER REGISTERED
COD.:7	NO USER REGISTERED
COD.:8	NO USER REGISTERED
COD.:9	NO USER REGISTERED

- To log , simply type in the number corresponding to the code, and you will be asked for the user's password.
- Example of a password request from the ADMINISTRATOR user (key 1 pressed):

- PASSWORD -
ENTER THE USER PASSWORD - ADMINISTRATOR
ENTER A PASSWORD OF UP TO 4 CHARACTERS
Press ENTER to confirm or ESC to go back

5.6.8.2.2 LOGIN AND PASSWORD MANAGEMENT.

- **The user linked to COD.:1 in the user list is the administrator and when the login function is activated, only the administrator has access to the F12 configuration menu.**

- LIST OF USERS -	
TO EDIT THE USER, TYPE IN THE RELEVANT CODE	
COD.:1	ADMINISTRATOR
COD.:2	NO REGISTERED USERS
COD.:3	NO REGISTERED USERS
COD.:4	NO REGISTERED USERS
COD.:5	NO REGISTERED USERS
COD.:6	NO REGISTERED USERS
COD.:7	NO REGISTERED USERS
COD.:8	NO REGISTERED USERS
COD.:9	NO REGISTERED USERS

Example of the screens when **editing an existing user** COD.:1 (option 1, on the previous screen):

USERNAME OF UP TO 24 CHARACTERS

- USER -

ENTER THE USER NAME - ADMIN

ADMIN_EXAMPLE_EDITION

Press ENTER to confirm or ESC to go back

- NOTICE -

EDITING THIS TYPE OF RECORD REQUIRES ALL WEIGHING RECORDS IN MEMORY TO BE DELETED.

DO YOU WANT TO PROCEED WITH DELETING THE WEIGHTS?

Press ENTER to confirm or ESC to go back

- To **return without editing the name** and **without losing the records**, press **ESC**.
- If you **press ENTER**, the **new user name will be entered** and **all weighing records will be lost**. The next page shows the continuation of the process after the records have been deleted.

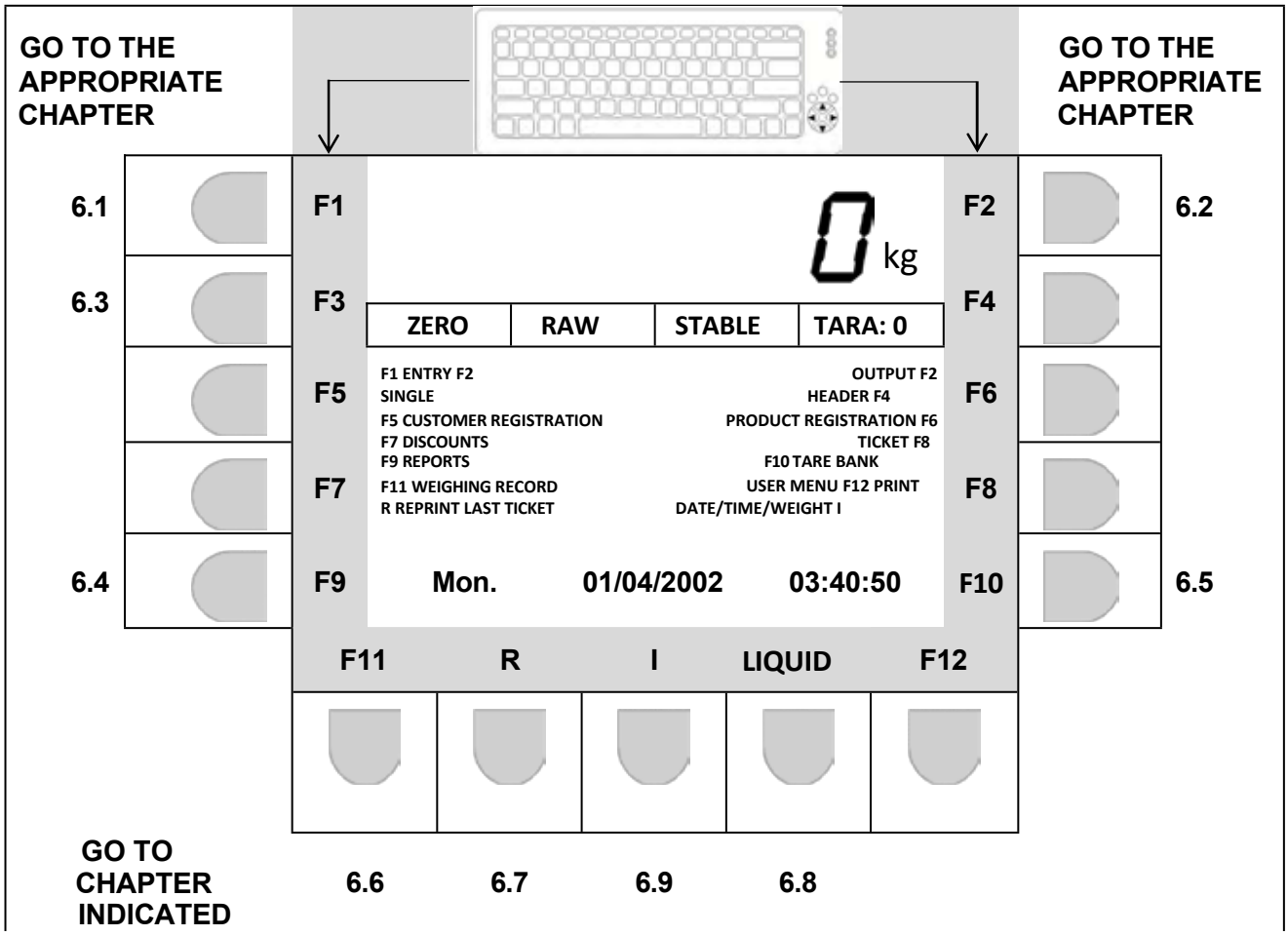
- USER -
ENTER USER PASSWORD - ADMINISTRATOR
PASSWORD UP TO 4 CHARACTERS LONG
Press ENTER to confirm or ESC to go back

- WHEN YOU CONFIRM BY ENTERING, THE SYSTEM RETURNS TO THE LIST OF USERS, TAKING OVER THE EDITS MADE.

- LIST OF USERS -	
TO EDIT THE USER, TYPE IN THE RELEVANT CODE	
COD.:1	**ADMIN_EXAMPLE_EDIT**
COD.:2	NO REGISTERED USERS
COD.:3	NO REGISTERED USERS
COD.:4	NO REGISTERED USERS
COD.:5	NO REGISTERED USERS
COD.:6	NO REGISTERED USERS
COD.:7	NO REGISTERED USERS
COD.:8	NO REGISTERED USERS
COD.:9	NO REGISTERED USERS

- The mandatory deletion of weighing records only when editing the user name (either the administrator or operators).
- Editing only the password (keeping the name previously registered) does not require deleting the weighing records. This means that the administrator can change passwords without losing the weighing data, as long as the previously registered names are not changed.
- When creating a new user name, there is no obligation to delete the weighing data (the "user name" field when registering a new user will be empty).

6 OPERATION.



6.1 VEHICLE ENTRY RECORD (**F1).**

- **ATTENTION:** If LOGIN ACTIVE, function only available with operator login

The input record can follow 2 different paths, depending on the operating mode configured (see 5.6.8.1). The sequence of screens for both operating modes will be shown in chapters 6.1.1 Road and 6.1.2 Container:

6.1.1 REGISTRATION OF INCOMING VEHICLES, IN ROAD MODE.

SCREEN 1	SCREEN 2
- LICENSE PLATE - **To determine this parameter, use the auxiliary PC keyboard.** **VEHICLE ENTRY** **_** **Press ENTER to confirm or ESC to go back.**	- VEHICLE ENTRY - **To determine this parameter, use the numeric buttons on the side, or your auxiliary PC keyboard.** **ENTER THE CUSTOMER CODE** **_** **Press ENTER to confirm or ESC to go back.**

SCREEN 3	SCREEN 4
- VEHICLE ENTRY - **To determine this parameter, use the auxiliary PC keyboard.** **ENTER THE PRODUCT CODE** **_** **Press ENTER to confirm or ESC to go back.**	- VEHICLE ENTRY - **To determine this parameter, use the numeric buttons on the side, or your auxiliary PC keyboard.** **ENTER THE INVOICE NUMBER** **_** **Press ENTER to confirm or ESC to go back.**

SCREEN 5	SCREEN 6
- VEHICLE ENTRY - **To determine this parameter, use the auxiliary PC keyboard.** **ENTER THE HOPPER NUMBER** **_** **Press ENTER to confirm or ESC to go back.**	- VEHICLE ENTRY - **To determine this parameter, use the numeric buttons on the side, or your auxiliary PC keyboard.** **ENTER THE DRIVER'S NAME** **_** **Press ENTER to confirm or ESC to go back.**

- The table continues on the next page.

- Continuation of the table started on the previous page

SCREEN 7	SCREEN 8
- VEHICLE ENTRY - **To determine this parameter, use the auxiliary PC keyboard.** **ENTER THE DOCUMENT NUMBER** _ **Press ENTER to confirm or ESC to go back.**	- WEIGHING RECORD -  **OBTAINING THE WEIGHT VALUE** **PLEASE WAIT** **Only stable weight values will be used**

- Once the weight value has been obtained, the system will confirm that the weighing has been recorded and, if enabled, the ticket will be printed.
- The sequence of screens may vary depending on the configuration made in 5.5.1.

6.1.2 VEHICLE ENTRY REGISTER, IN CONTAINER MODE.

SCREEN 1	SCREEN 2
- LICENSE PLATE - **To determine this parameter, use the auxiliary PC keyboard.** **VEHICLE ENTRY** _ **Press ENTER to confirm or ESC to go back.**	- LICENSE PLATE - **To determine this parameter, use the auxiliary PC keyboard.** **VEHICLE ENTRY** _ **Press ENTER to confirm or ESC to go back.**
SCREEN 3	SCREEN 4
- CONTAINER CODE - **To determine this parameter, use the auxiliary PC keyboard.** _ **Press ENTER to confirm or ESC to go back.**	- MANUAL VEHICLE TARE - **To determine this parameter, use the auxiliary PC keyboard.** **VEHICLE ENTRY** 0 **Press ENTER to confirm or ESC to go back.**
SCREEN 5	SCREEN 6
- MANUAL CONTAINER TARE - **To determine this parameter, use the auxiliary PC keyboard.** **VEHICLE ENTRY** 0 **Press ENTER to confirm or ESC to go back.**	- VEHICLE ENTRY - **To determine this parameter, use the numeric buttons on the side, or your auxiliary PC keyboard.** **ENTER THE CUSTOMER CODE** _ **Press ENTER to confirm or ESC to go back.**

• The table continues on the next page.

- Continuation of the table started on the previous page

SCREEN 7	SCREEN 8
- VEHICLE ENTRY - **To determine this parameter, use the auxiliary PC keyboard.** **ENTER THE PRODUCT CODE** _ **Press ENTER to confirm or ESC to go back.**	- VEHICLE ENTRY - **To determine this parameter, use the auxiliary PC keyboard.** **ENTER THE HOPPER NUMBER** _ **Press ENTER to confirm or ESC to go back.**

SCREEN 9	SCREEN 10
- VEHICLE ENTRY - **To determine this parameter, use the numeric buttons on the side, or your auxiliary PC keyboard.** **ENTER THE DRIVER'S NAME** _ **Press ENTER to confirm or ESC to go back.**	- VEHICLE ENTRY - **To determine this parameter, use the auxiliary PC keyboard.** **ENTER THE DOCUMENT NUMBER** _ **Press ENTER to confirm or ESC to go back.**

SCREEN 11
- WEIGHING RECORD -      **OBTAINING THE WEIGHT VALUE** **PLEASE WAIT** **Only stable weight values will be used**

- Once the weight value has been obtained, the system will confirm that the weighing has been recorded and, if enabled, the ticket will be printed.
- The sequence of screens may vary depending on the settings made in 5.5.1.

6.2 VEHICLE EXIT RECORD (**F2).**

- **ATTENTION:** If LOGIN ACTIVE, function only available with operator login

The output record can take 2 different paths, depending on the operating mode configured (see 5.6.8.1). The sequence of screens for both operating modes will be shown in chapters 6.2.1 Road and 6.2.2 Container:

6.2.1 VEHICLE EXIT REGISTRATION, IN ROAD MODE.

SCREEN 1	SCREEN 2
- LICENSE PLATE - **To determine this parameter, use the auxiliary PC keyboard.** **VEHICLE EXIT** _ **Press ENTER to confirm or ESC to back.**	- LICENSE PLATE - **To determine this parameter, use the auxiliary PC keyboard.** **VEHICLE EXIT** _ **Press ENTER to confirm or ESC to go back.**

SCREEN 3

- VEHICLE EXIT -

FREIGHT TYPE

CIF **1**

FOB **2**

Other **3**

To set this parameter, use the side keys or enter the numbers in the legend (blue background) on the auxiliary PC keyboard.

- The table continues on the next page.

- Continuation of the table started on the previous page

SCREEN 7	SCREEN 8
- VEHICLE EXIT - **To determine this parameter, use the numeric buttons on the side, or your auxiliary PC keyboard.** **ENTER THE INVOICE NUMBER** _ **Press ENTER to confirm or ESC to go back.**	- WEIGHING RECORD -  **OBTAINING THE WEIGHT VALUE** **PLEASE WAIT** **Only stable weight values will be used**

- Once the weight value has been obtained, the system will confirm that the weighing has been recorded and, if enabled, the ticket will be printed.
- The sequence of screens may vary, depending on the configuration made in 5.5.2.

6.2.2 VEHICLE EXIT LOG, IN CONTAINER MODE.

SCREEN 1	SCREEN 2
- LICENSE PLATE - **To determine this parameter, use the auxiliary PC keyboard.** **VEHICLE EXIT** _ **Press ENTER to confirm or ESC to go back.**	- LICENSE PLATE - **To determine this parameter, use the auxiliary PC keyboard.** **VEHICLE EXIT** _ **Press ENTER to confirm or ESC to go back.**
SCREEN 3	SCREEN 4
- CONTAINER CODE - **To determine this parameter, use the auxiliary PC keyboard.** _ **Press ENTER to confirm or ESC to go back.**	- MANUAL VEHICLE TARE - **To determine this parameter, use the auxiliary PC keyboard.** **VEHICLE EXIT** 0 **Press ENTER to confirm or ESC to go back.**
SCREEN 5	SCREEN 6
- MANUAL CONTAINER TARE - **To determine this parameter, use the auxiliary PC keyboard.** **VEHICLE EXIT** 0 **Press ENTER to confirm or ESC to go back.**	- VEHICLE EXIT - **To determine this parameter, use the numeric buttons on the side, or your auxiliary PC keyboard.** **ENTER THE BATCH NUMBER** _ **Press ENTER to confirm or ESC to go back.**

• The table continues on the next page.

- Continuation of the table started on the previous page

SCREEN 7

- VEHICLE EXIT -

CIF

1

FREIGHT TYPE

FOB

2

To determine this parameter, use the corresponding side keys, or enter the numbers in the legend (background blue) on the auxiliary PC keyboard.

Other

3

SCREEN 8

- VEHICLE EXIT -

To determine this parameter, use the numeric buttons on the side, or your auxiliary PC keyboard.

ENTER THE INVOICE NUMBER

_

Press ENTER to confirm or ESC to go back.

SCREEN 9

- WEIGHING RECORD -

GETTING WEIGHT VALUE

PLEASE WAIT

Only stable weight values will be used

- Once the weight value has been obtained, the system will confirm that the weighing has been recorded and, if enabled, the ticket will be printed.
- The sequence of screens may vary, depending on the configuration made in 5.5.2.

6.3 SINGLE WEIGHING RECORD (**F3).**

- **ATTENTION:** If LOGIN ACTIVE, function only available with operator login.

The single weighing record can follow 2 different paths, depending on the operating mode configured (see 5.6.8.1). The sequence of screens for both operating modes will be shown in chapters 6.3.1 Road and 6.3.2 Container:

6.3.1 SINGLE WEIGHING RECORD, IN ROAD MODE.

SCREEN 1	SCREEN 2
- LICENSE PLATE - **To determine this parameter, use the auxiliary PC keyboard.** **ADVANCED WEIGHING** _ **Press ENTER to confirm or ESC to go back.**	- MANUAL VEHICLE TARE - **To determine this parameter, use the auxiliary PC keyboard.** **ADVANCED WEIGHING** 0 **Press ENTER to confirm or ESC to go back.**
SCREEN 3	SCREEN 4
- SINGLE WEIGHING - **To determine this parameter, use the numeric buttons on the side, or your auxiliary PC keyboard** **ENTER THE USER CODE** _ **Press ENTER to confirm or ESC to go back.**	- SINGLE WEIGHING - **To determine this parameter, use the numeric buttons on the side, or your auxiliary PC keyboard.** **ENTER THE INVOICE NUMBER** _ **Press ENTER to confirm or ESC to go back.**

- The table continues on the next page.

- Continuation of the table started on the previous page

SCREEN 5	
- WEIGHING RECORD -  **GETTING WEIGHT VALUE** **PLEASE WAIT** **Only stable weight values will be used**	

- Once the weight value has been obtained, the system will confirm that the weighing has been recorded and, if enabled, the ticket will be printed.
- The sequence of screens may vary, depending on the configuration made in 5.5.3.

6.3.2 SINGLE WEIGHING RECORD, IN CONTAINER MODE.

SCREEN 1	SCREEN 2
- LICENSE PLATE - **To determine this parameter, use the auxiliary PC keyboard.** **ADVANCED WEIGHING** _ **Press ENTER to confirm or ESC to go back.**	- LICENSE PLATE - **To determine this parameter, use the auxiliary PC keyboard.** **ADVANCED WEIGHING** _ **Press ENTER to confirm or ESC to go back.**

SCREEN 3	SCREEN 4
- CONTAINER CODE - **To determine this parameter, use the auxiliary PC keyboard.** _ **Press ENTER to confirm or ESC to go back.**	- MANUAL VEHICLE TARE - **To determine this parameter, use the auxiliary PC keyboard.** **ADVANCED WEIGHING** 0 **Press ENTER to confirm or ESC to go back.**

SCREEN 5	SCREEN 6
- MANUAL CONTAINER TARE - **To determine this parameter, use the auxiliary PC keyboard.** **ADVANCED WEIGHING** 0 **Press ENTER to confirm or ESC to go back.**	- SINGLE WEIGHING - **To determine this parameter, use the numeric buttons on the side, or your auxiliary PC keyboard.** **ENTER THE USER CODE** _ **Press ENTER to confirm or ESC to go back.**

- The table continues on the next page.

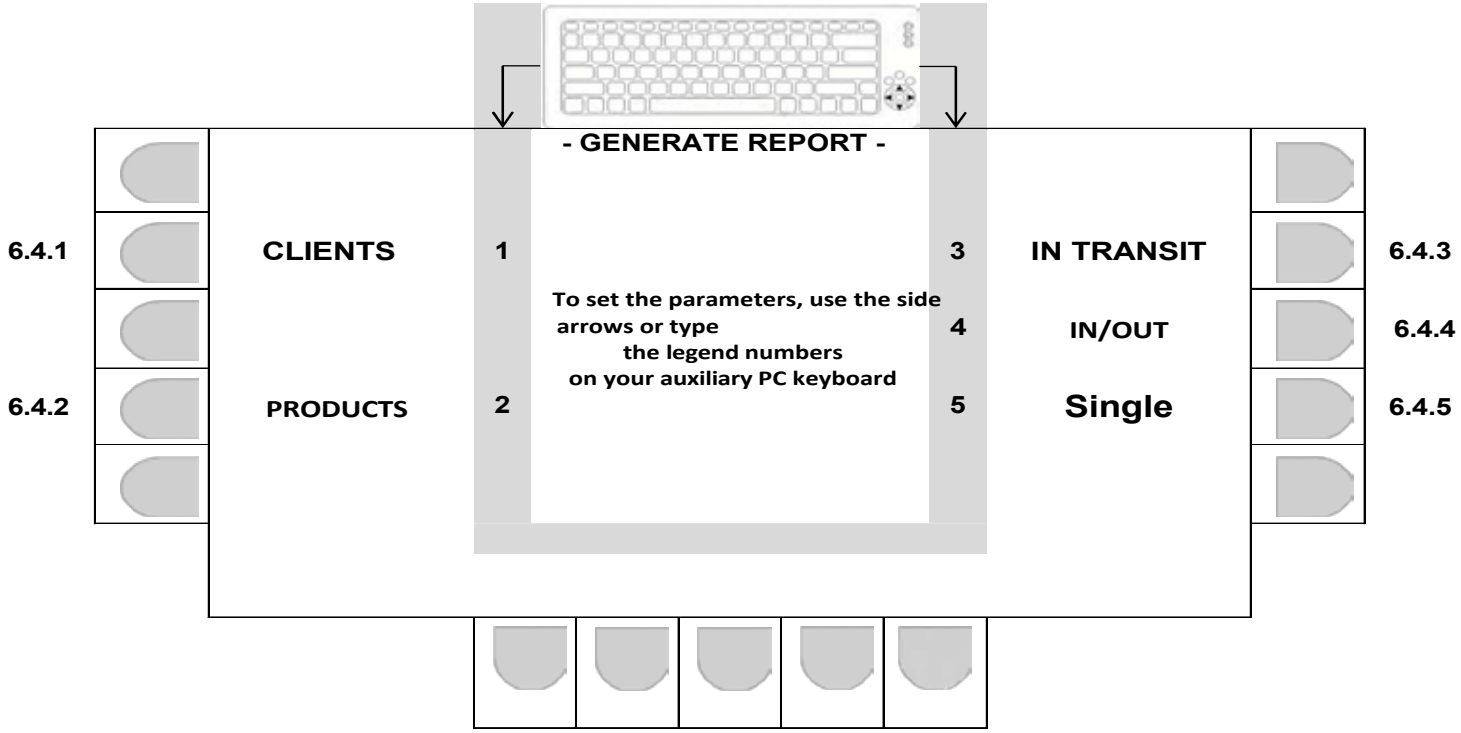
- Continuation of the table started on the previous page

SCREEN 7	SCREEN 8
- SINGLE WEIGHING - **To determine this parameter, use the numeric buttons on the side, or your auxiliary PC keyboard.** **ENTER THE INVOICE NUMBER** _ **Press ENTER to confirm or ESC to go back.**	- WEIGHING RECORD -  **OBTAINING THE WEIGHT VALUE** **PLEASE WAIT** **Only stable weight values will be used**

- Once the weight value has been obtained, the system will confirm that the weighing has been recorded and, if enabled, the ticket will be printed.
- The sequence of screens may vary, depending on the configuration made in 5.5.3.

6.4 REPORTS (**F9).**

When you access the reports function, the indicator will display the screen below.



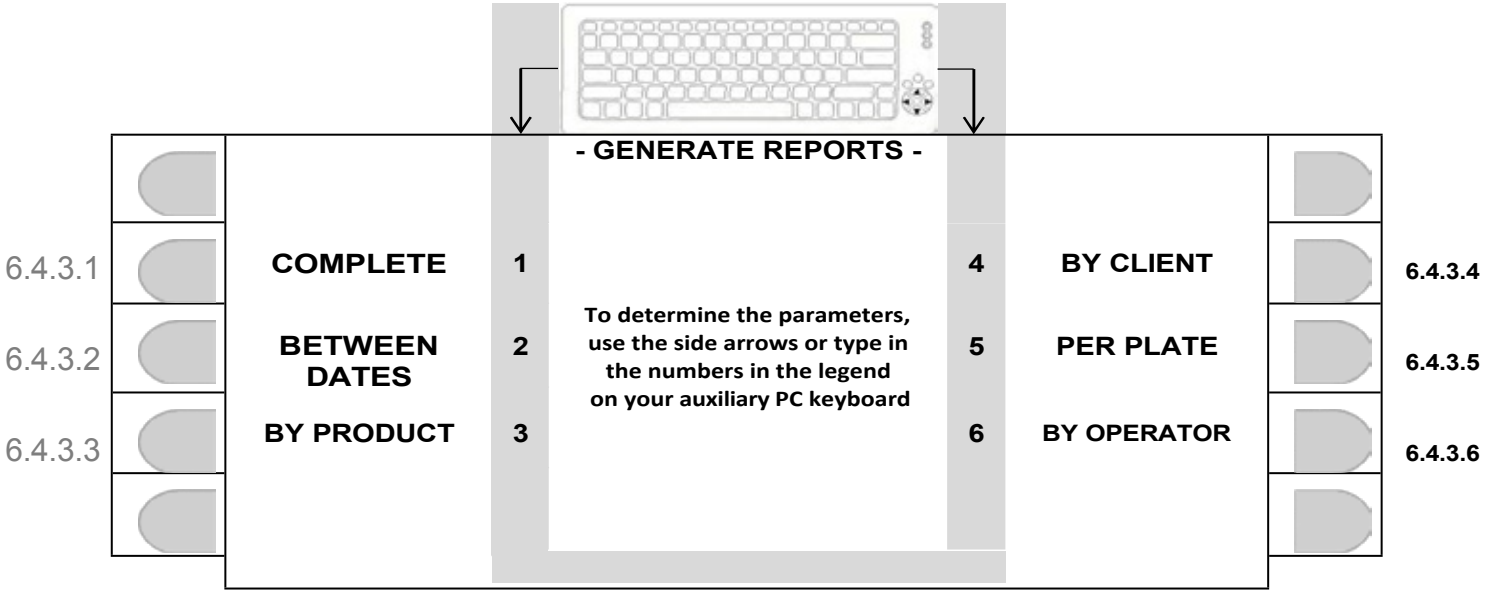
6.4.1 REPORT FROM CLIENTS.

Printed report, immediately after pressing the corresponding key.

6.4.2 REPORT FROM PRODUCTS.

Printed report, immediately after pressing the corresponding key.

6.4.3 REPORT ON VEHICLES IN TRANSIT.



6.4.3.1 Full vehicle report at transit.

Printed report, immediately after pressing the corresponding key.

6.4.3.2 Report between vehicle dates at transit.

The system will prompt you:

- The start date in the format DD/MM/YY (day/month/year), confirm with ENTER.
- The end date in the format DD/MM/YY (day/month/year), confirm with ENTER. Printing will start immediately after the date range has been determined.

- If there is an error in entering the data, press ESC to return to the screen in 6.4.3.

6.4.3.3 Report by vehicle product at transit.

The system will ask you for the product code, just press ENTER to confirm. Printing will start as soon as the product code is confirmed.

6.4.3.4 Report by client of products in transit.

The system will ask for the customer's code and you just need to press ENTER to confirm. Printing will start as soon as the customer code is confirmed.

6.4.3.5 Report by license plate at transit.

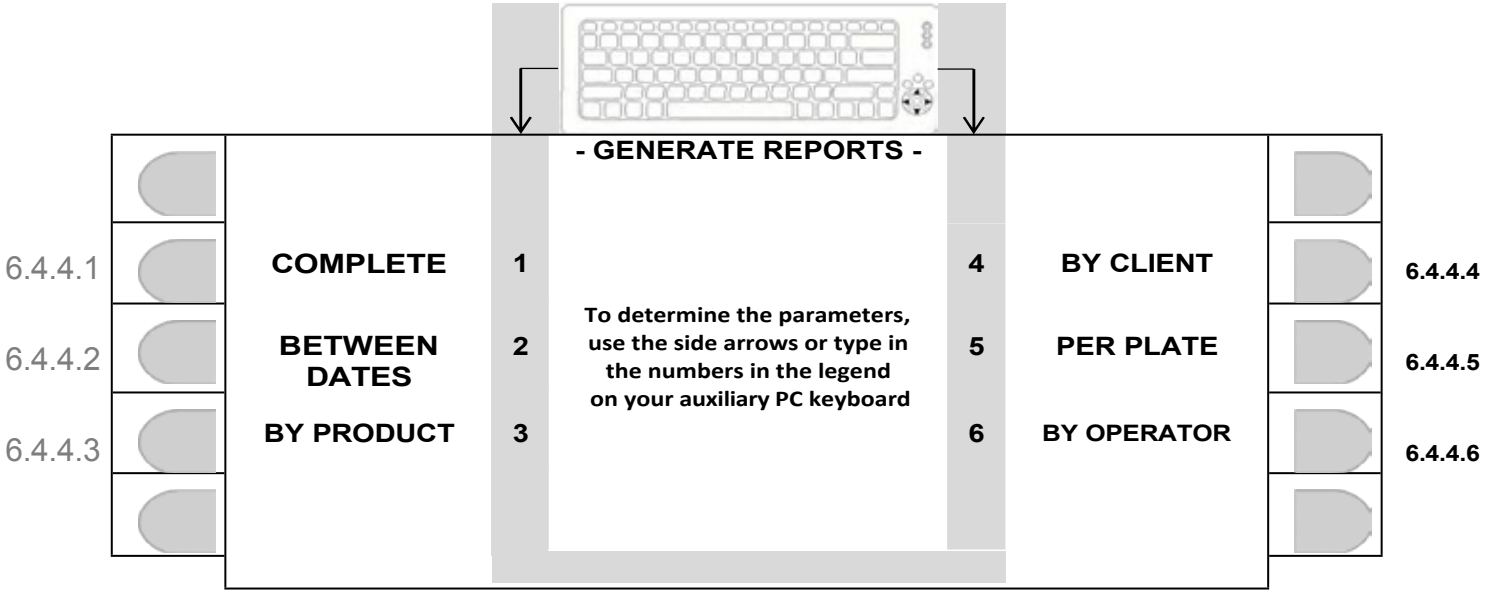
The system will ask for the vehicle's license plate and you just have to press ENTER to confirm. Printing will begin as soon as the license plate is confirmed.

6.4.3.6 Report by system operator of vehicles in traffic.

The system will list the operators by simply typing in the corresponding code. Printing will start as soon as you enter the corresponding code.

- Use an auxiliary PC keyboard for products, customers and signs (alphanumeric data).
- ESC returns to 6.4.3.
- After printing, the system returns to 6.4 automatically.

6.4.4 INPUT/OUTPUT REPORT.



6.4.4.1 Full report from input/output.

Printed report, immediately after pressing the corresponding key.

6.4.4.2 Report between dates of entry/exit.

The system will prompt you:

- The start date in the format DD/MM/YY (day/month/year), confirm with ENTER.
- The end date in the format DD/MM/YY (day/month/year), confirm with ENTER. Printing will start immediately after the date range has been determined.

- If there is an error in entering the data, press ESC to return to the screen in 6.4.3.

6.4.4.3 Report by product from input/output.

The system will ask you for the product code, just press ENTER to confirm. Printing will start as soon as the product code is confirmed.

6.4.4.4 Report by client of input/output.

The system will ask for the customer's code and you just need to press ENTER to confirm. Printing will start as soon as the customer code is confirmed.

6.4.4.5 Report by license plate covering entry/exit.

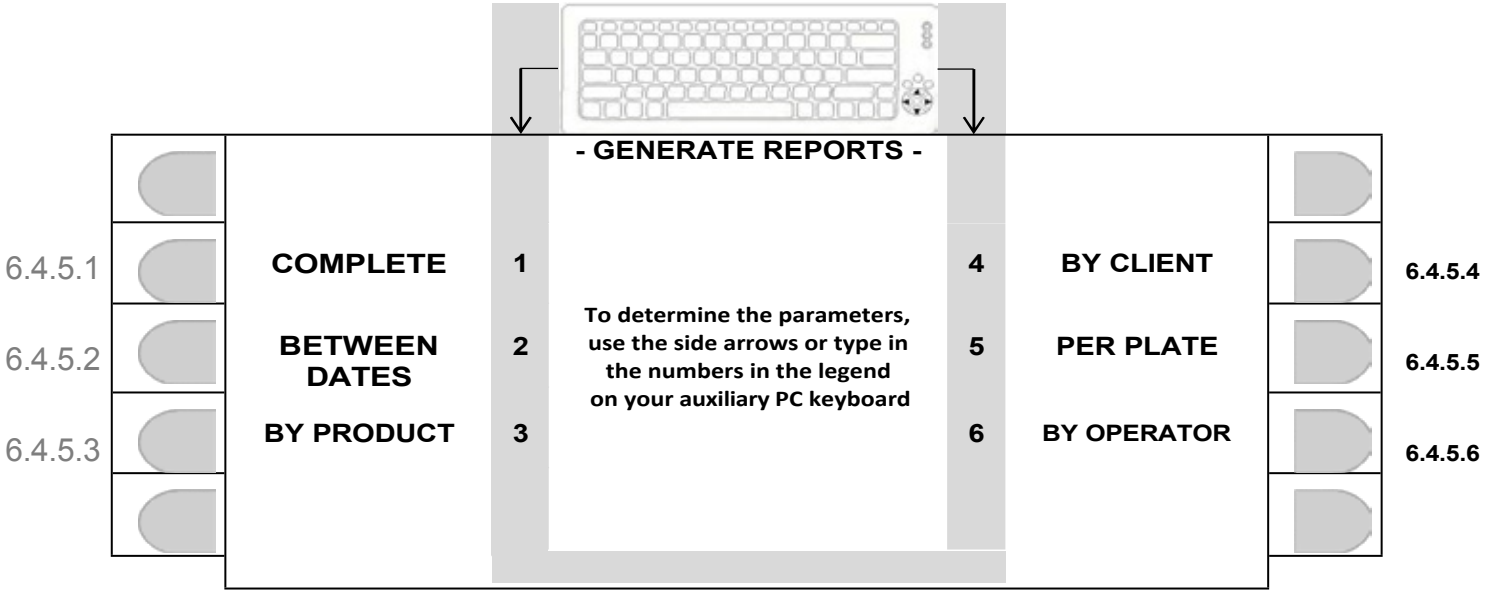
The system will ask for the vehicle's license plate and you just have to press ENTER to confirm. Printing will begin as soon as the license plate is confirmed.

6.4.4.6 Report by system operator, covering input/output.

The system will list the operators by simply typing in the corresponding code. Printing will start as soon as you enter the corresponding code.

- Use an auxiliary PC keyboard for products, customers and signs (alphanumeric data).
- ESC returns to 6.4.3.
- After printing, the system returns to 6.4 automatically.

6.4.5 SINGLE WEIGHING REPORT.



6.4.5.1 Complete weighing report .

Printed report, immediately after pressing the corresponding key.

6.4.5.2 Report between weighing dates .

The system will prompt you:

- The start date in the format DD/MM/YY (day/month/year), confirm with ENTER.
- The end date in the format DD/MM/YY (day/month/year), confirm with

ENTER. Printing will start immediately after the date range has been determined.

- If there is an error in entering the data, press ESC to return to the screen in 6.4.3.

6.4.5.3 Report by weighing product .

The system will ask you for the product code, just press ENTER to confirm.
Printing will start as soon as the product code is confirmed.

6.4.5.4 Weighing reports for each client .

The system will ask for the customer's code and you just need to press ENTER to confirm. Printing will start as soon as the customer code is confirmed.

6.4.5.5 Report by vehicle license plate covering weighing .

The system will ask for the vehicle's license plate and you just have to press ENTER to confirm. Printing will begin as soon as the license plate is confirmed.

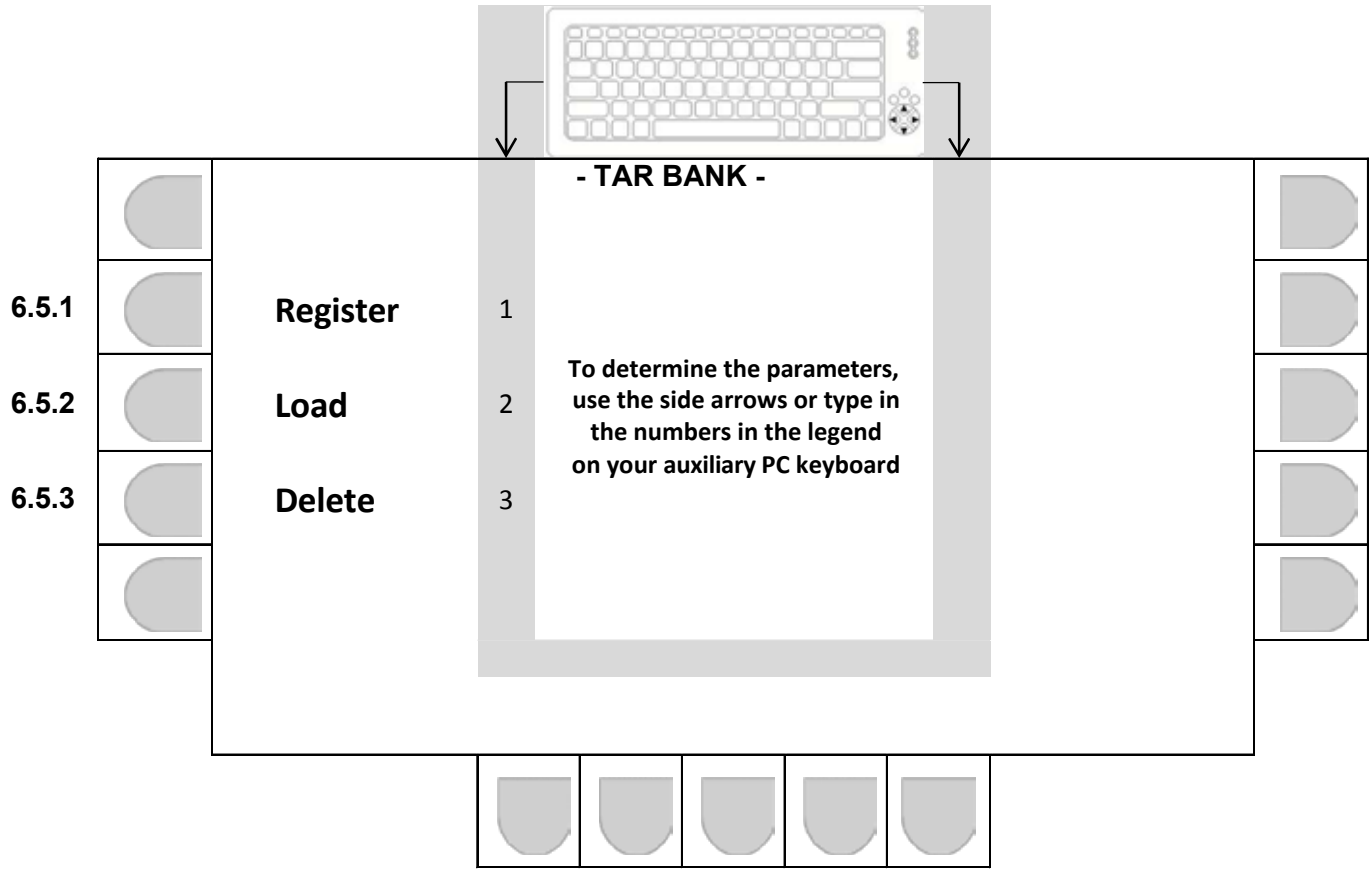
6.4.5.6 Report by system operator, covering individual weighings.

The system will list the operators by simply typing in the corresponding code.
Printing will start as soon as you enter the corresponding code.

- Use an auxiliary PC keyboard for products, customers and signs (alphanumeric data).
- ESC returns to 6.4.3.
- After printing, the system returns to 6.4 automatically.

6.5 TARE BANK (**F10).**

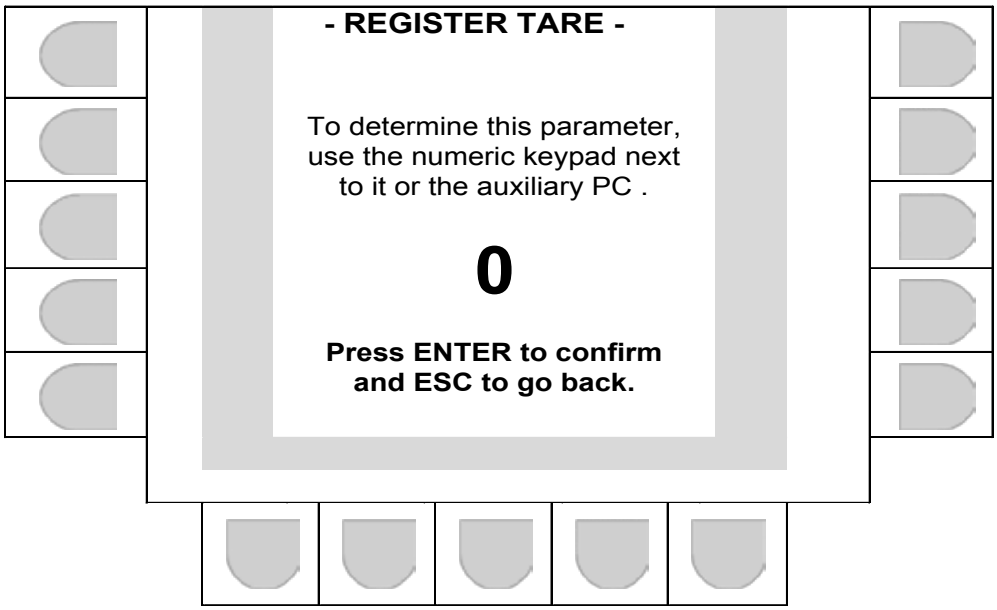
When you access the tare bank function, the indicator will display the screen below.



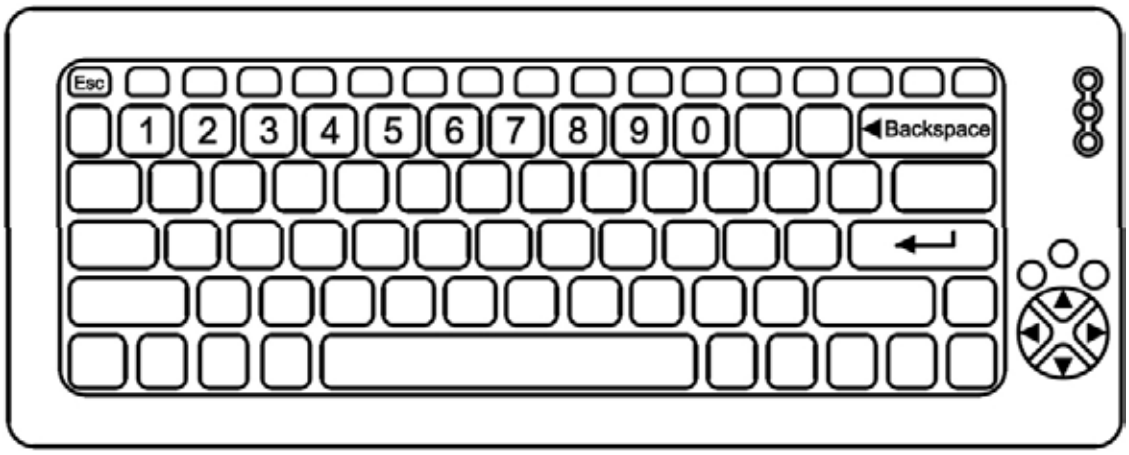
- Select the desired task by pressing the corresponding key.

6.5.1 REGISTER.

- **ATTENTION:** If LOGIN ACTIVE, only the administrator will perform the operation.



Enter the desired tare value using the auxiliary PC keyboard or via the indicator's numeric keypad and press "Enter".



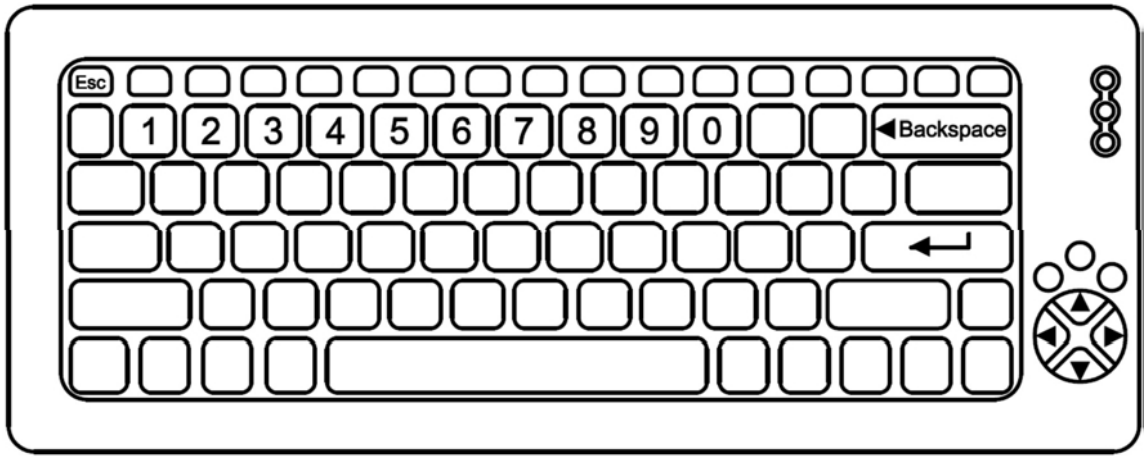
6.5.2 LOAD.

- CARREGAR TARA DA MEMORY -							
01:	**000000**	**11:**	**000000**	**21:**	**000000**	**31:**	**000000**
02:	**000000**	**12:**	**000000**	**22:**	**000000**	**32:**	**000000**
03:	**000000**	**13:**	**000000**	**23:**	**000000**	**33:**	**000000**
04:	**000000**	**14:**	**000000**	**24:**	**000000**	**34:**	**000000**
05:	**000000**	**15:**	**000000**	**25:**	**000000**	**35:**	**000000**
06:	**000000**	**16:**	**000000**	**26:**	**000000**	**36:**	**000000**
07:	**000000**	**17:**	**000000**	**27:**	**000000**	**37:**	**000000**
08:	**000000**	**18:**	**000000**	**28:**	**000000**	**38:**	**000000**
09:	**000000**	**19:**	**000000**	**29:**	**000000**	**39:**	**000000**
10:	**000000**	**20:**	**000000**	**30:**	**000000**	**40:**	**000000**

Enter the tare position (1 - 40) and press ENTER

0

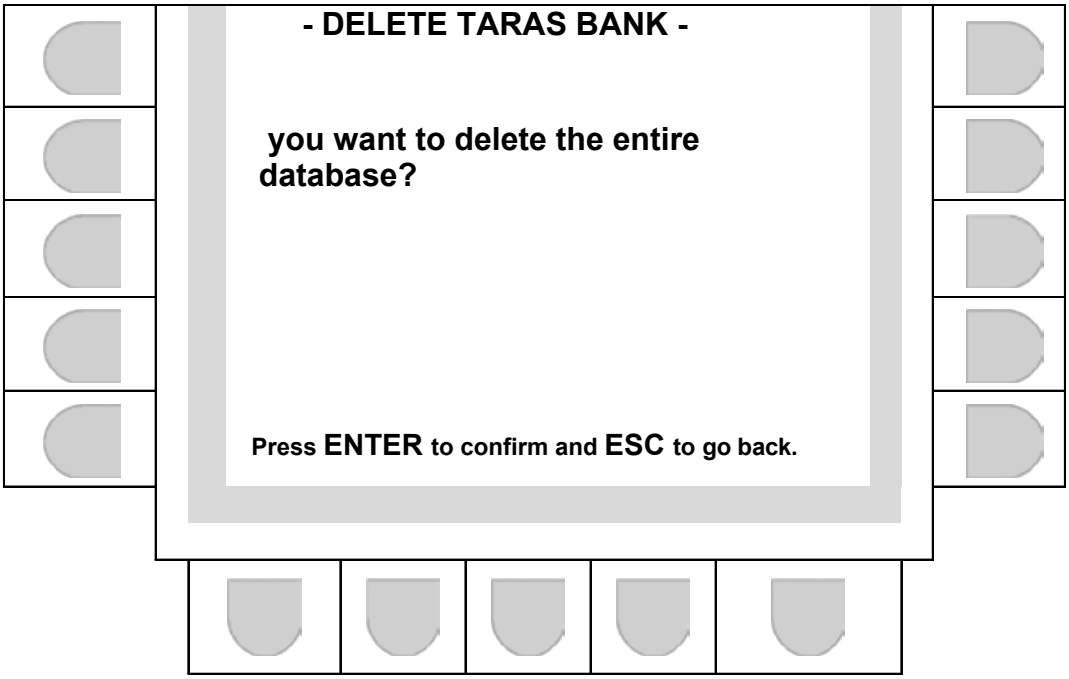
Select the desired tare number using the auxiliary PC keyboard or the indicator's numeric keypad and press "Enter".



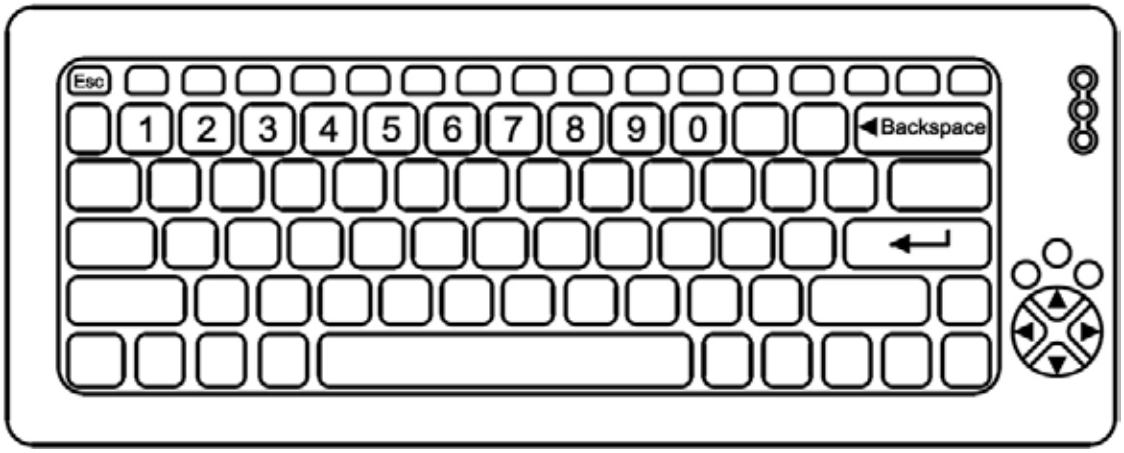
After confirmation, the indicator returns to the initial screen with the selected value subtracted from the net weight value.

6.5.3 DELETE.

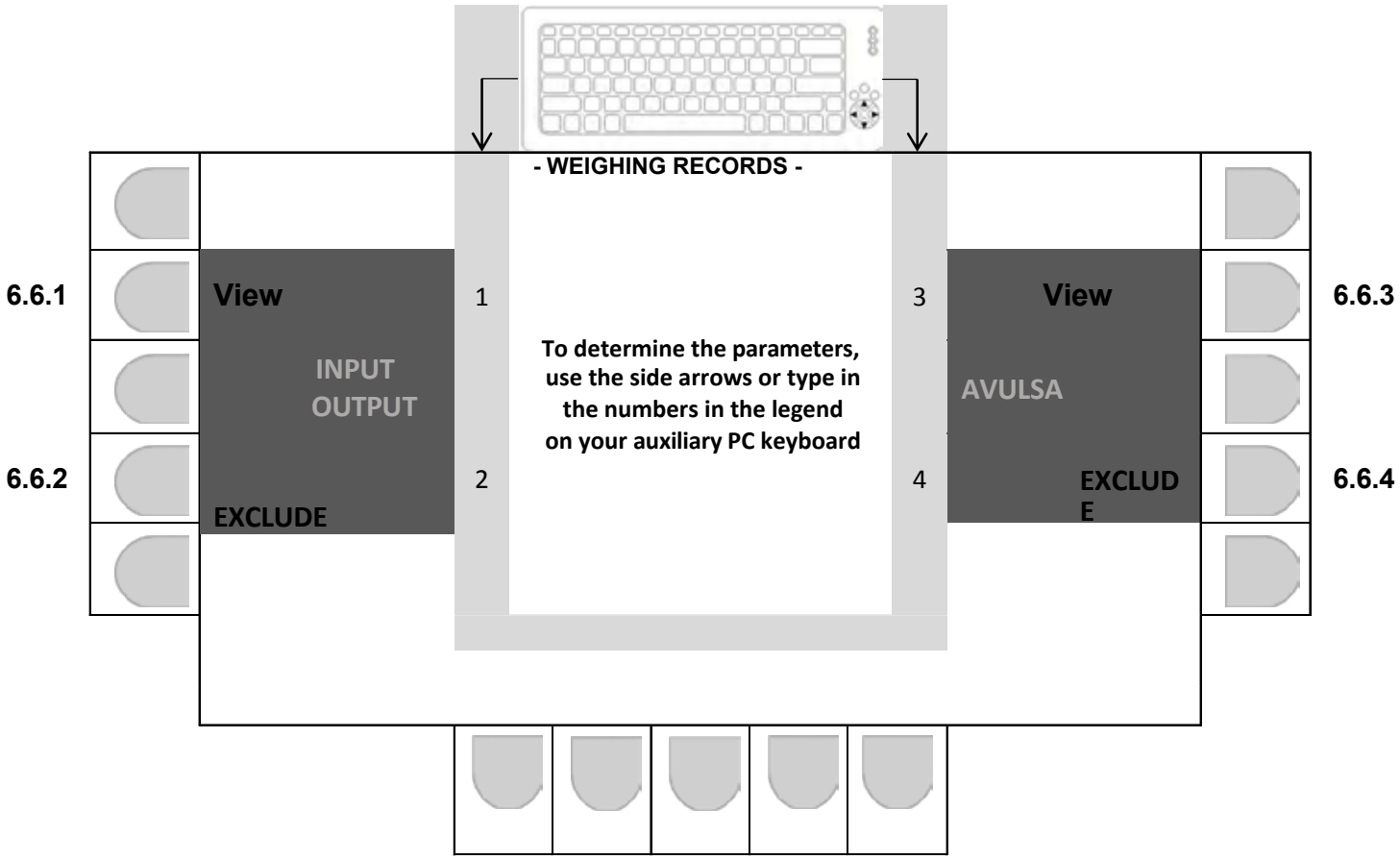
- **ATTENTION:** If LOGIN ACTIVE, only the administrator will perform the operation.



To confirm the operation, use the auxiliary PC keyboard or the "enter" key on the indicator.



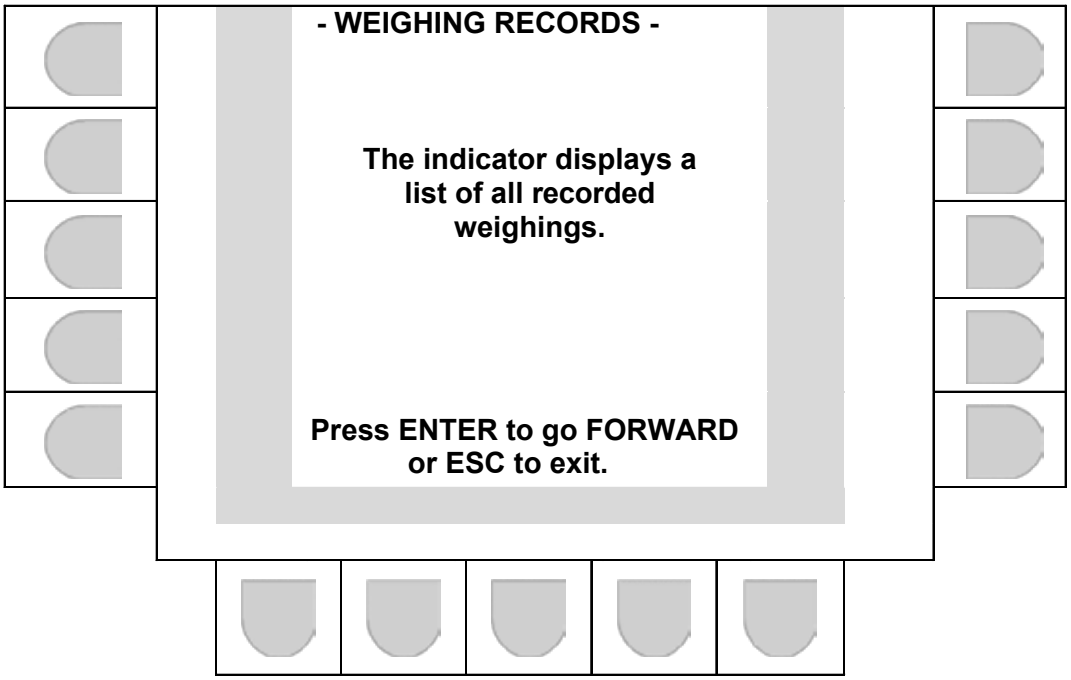
6.6 WEIGHING REGISTER (**F11).**



Select the desired function by pressing the corresponding key.

- **ATTENTION:** If **LOGIN ACTIVE**, only the administrator will carry out the DELETE operation.

6.6.1 VIEW WEIGHING RECORDS FROM INPUT/OUTPUT.

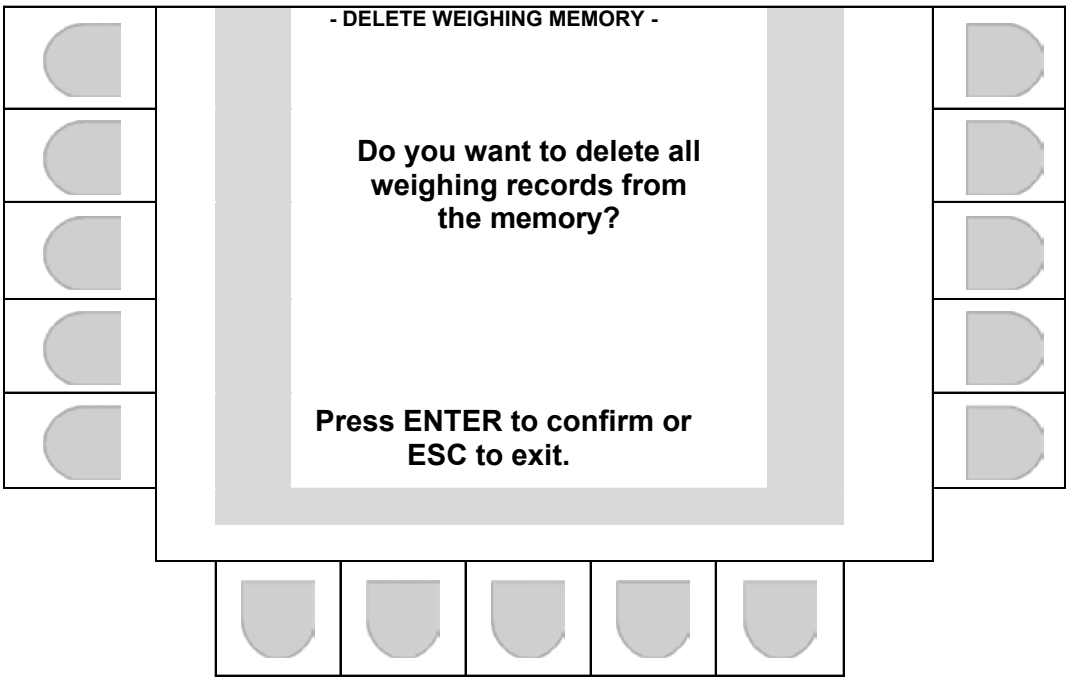


Press "Enter" to advance to the next page of records or "Esc" to exit and return to the previous screen.

- If the last records are on the screen, the message "No more records to display" will appear on the screen and the system will return to the screen in 6.6.

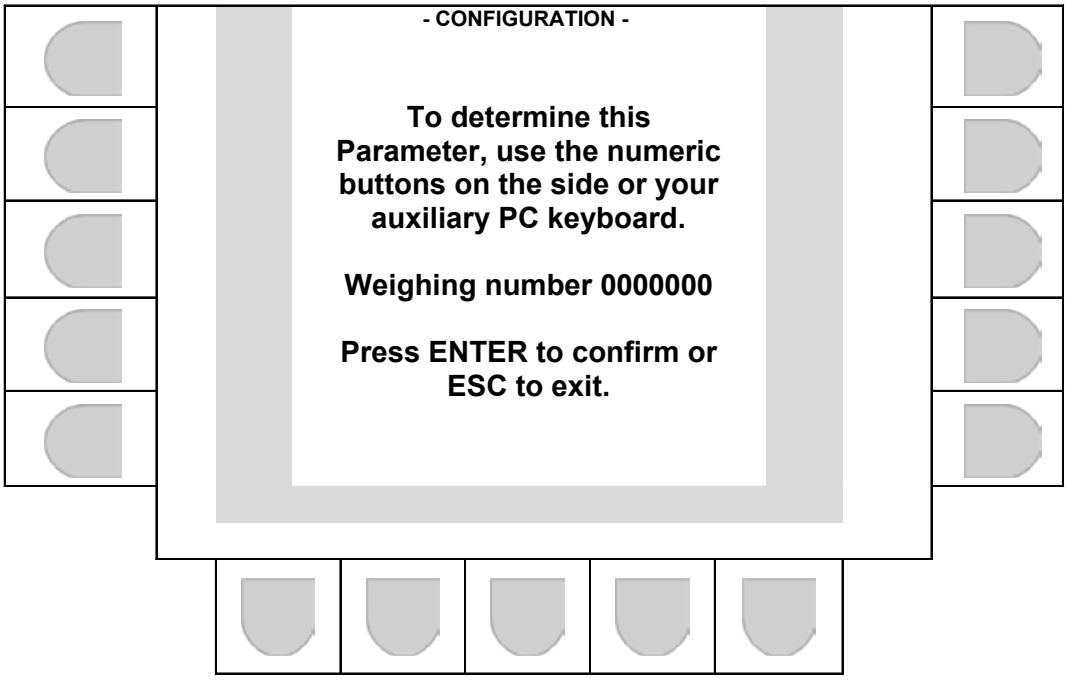
6.6.2 DELETE WEIGHING RECORDS FROM INPUT/OUTPUT.

- ATTENTION: If LOGIN ACTIVE, only the administrator will perform the operation.



Press "Enter" to delete records, or "Esc" to exit and return to the previous screen.

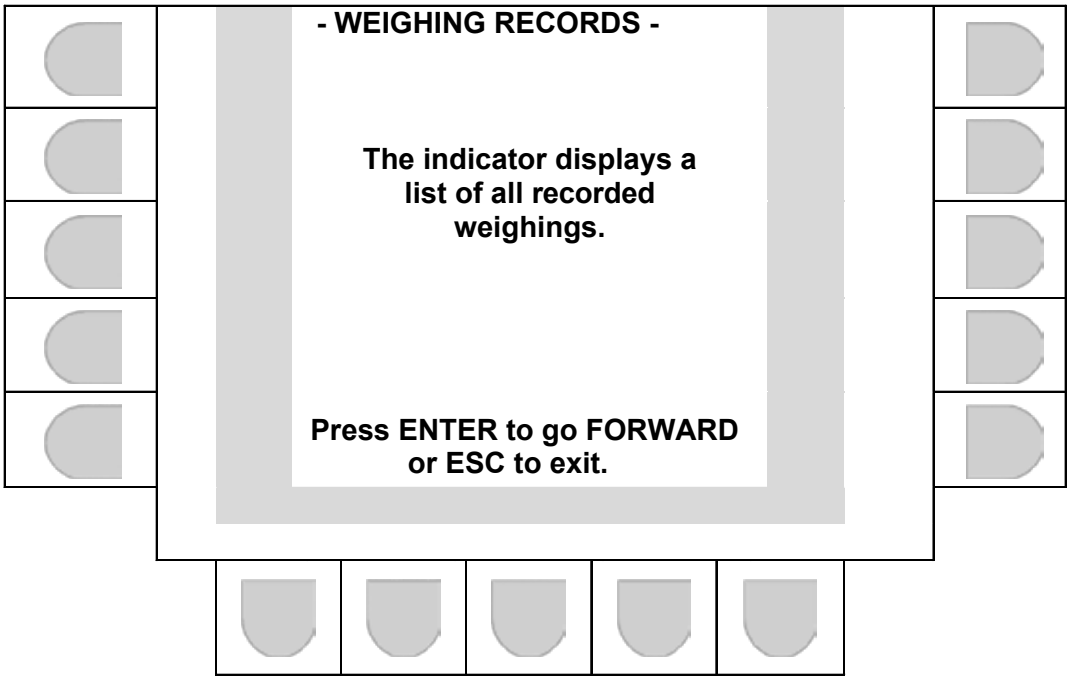
After deleting the data, the indicator displays the weighing number selection screen and asks the operator to enter a new ticket number to start operations.



Enter the desired numerical value and press Enter to confirm and return to the Weighing Records screen 6.6

- This screen will only be displayed if there are no weighing records in the indicator's memory.

6.6.3 VIEW WEIGHING RECORDS .

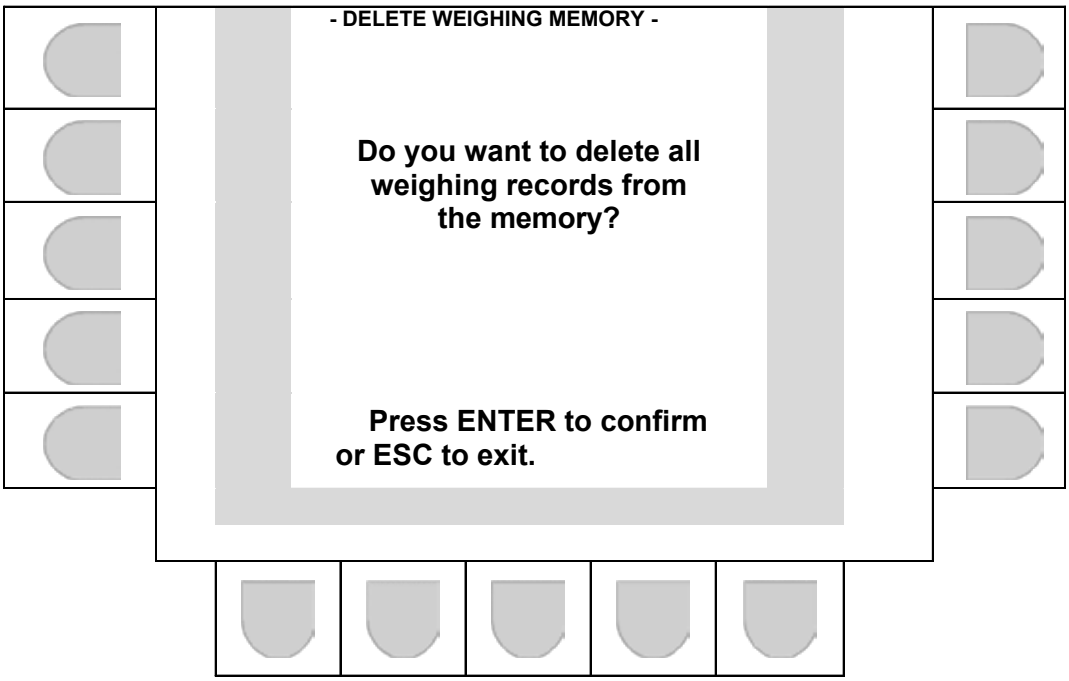


Press "Enter" to advance to the next page of records or "Esc" to exit and return to the previous screen.

- If the last records are on the screen, the message "No more records to display" will appear on the screen and the system will return to the screen in 6.6.

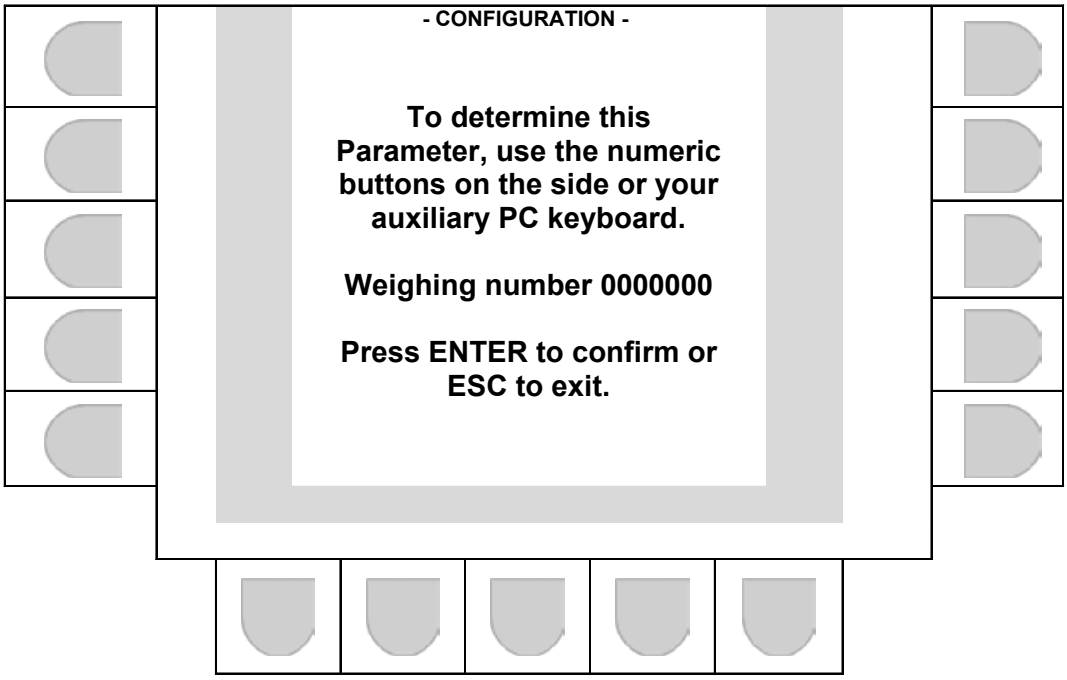
6.6.4 DELETE WEIGHING RECORDS .

- ATTENTION: If LOGIN ACTIVE, only the administrator will perform the operation.



Press "Enter" to delete records, or "Esc" to exit and return to the previous screen.

After deleting the data, the indicator displays the weighing number selection screen and asks the operator to enter a new ticket number to start operations.

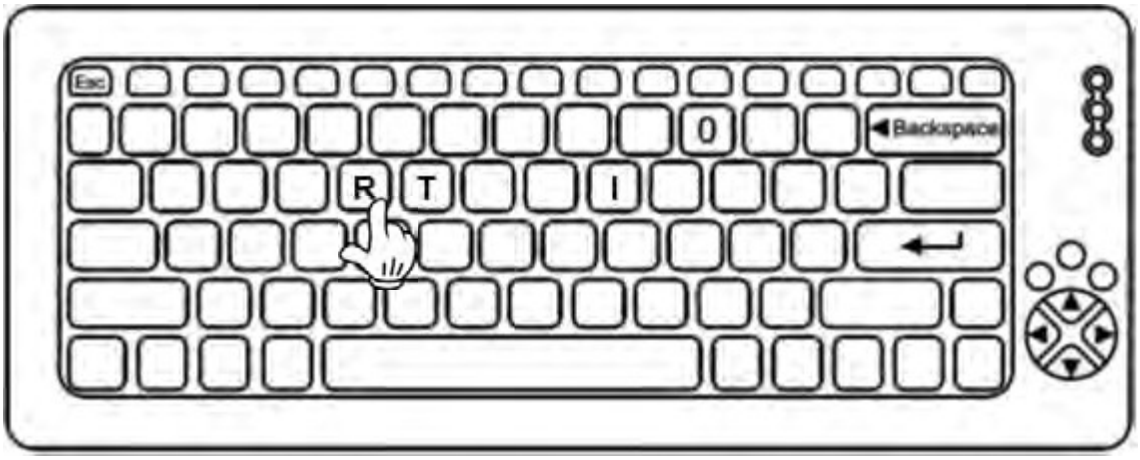


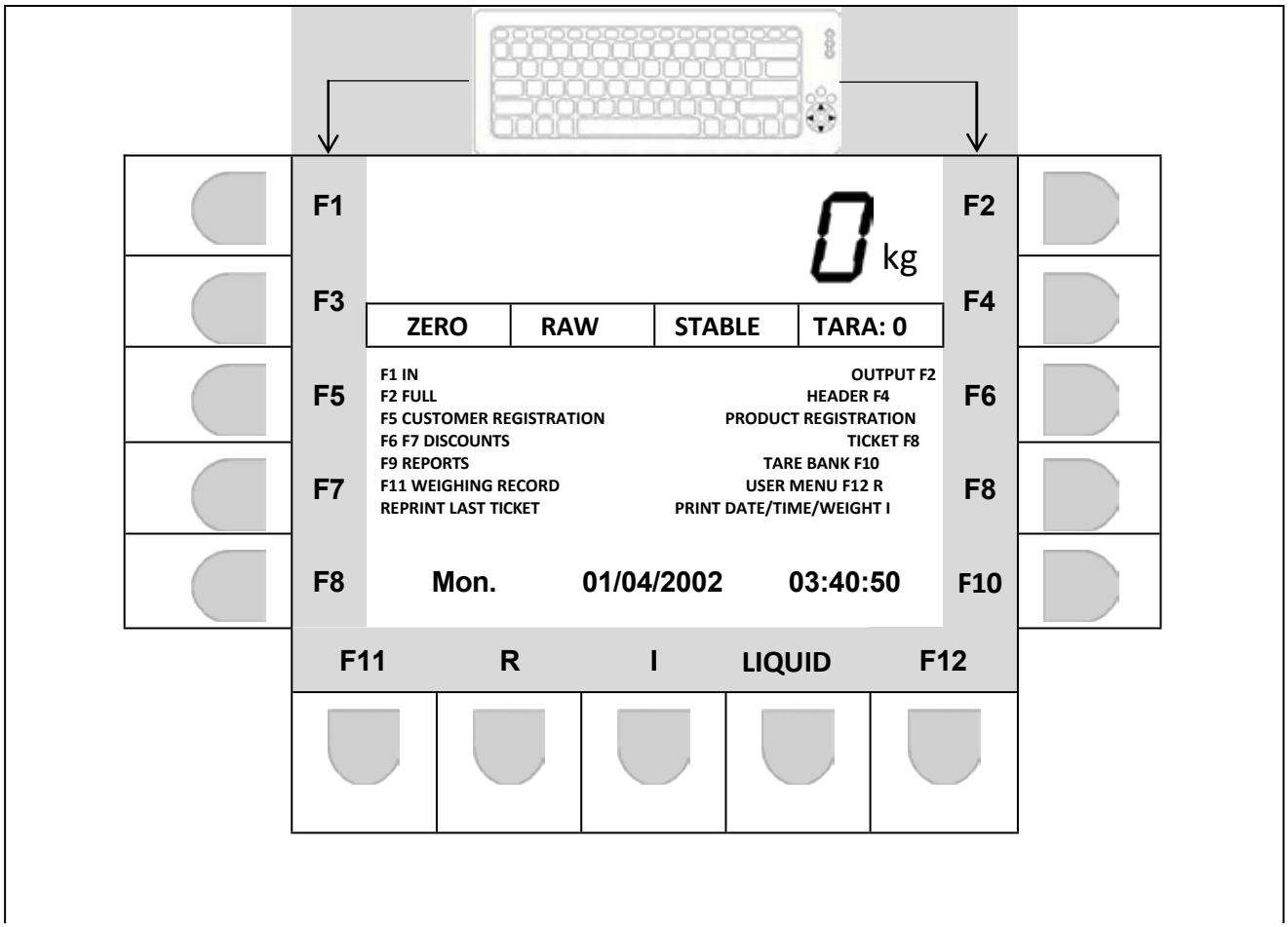
Enter the desired numerical value and press Enter to confirm and return to the Weighing Records screen 6.6

- This screen will only be displayed if there are no weighing records in the indicator's memory.

6.7 REPRINT FROM TICKET.

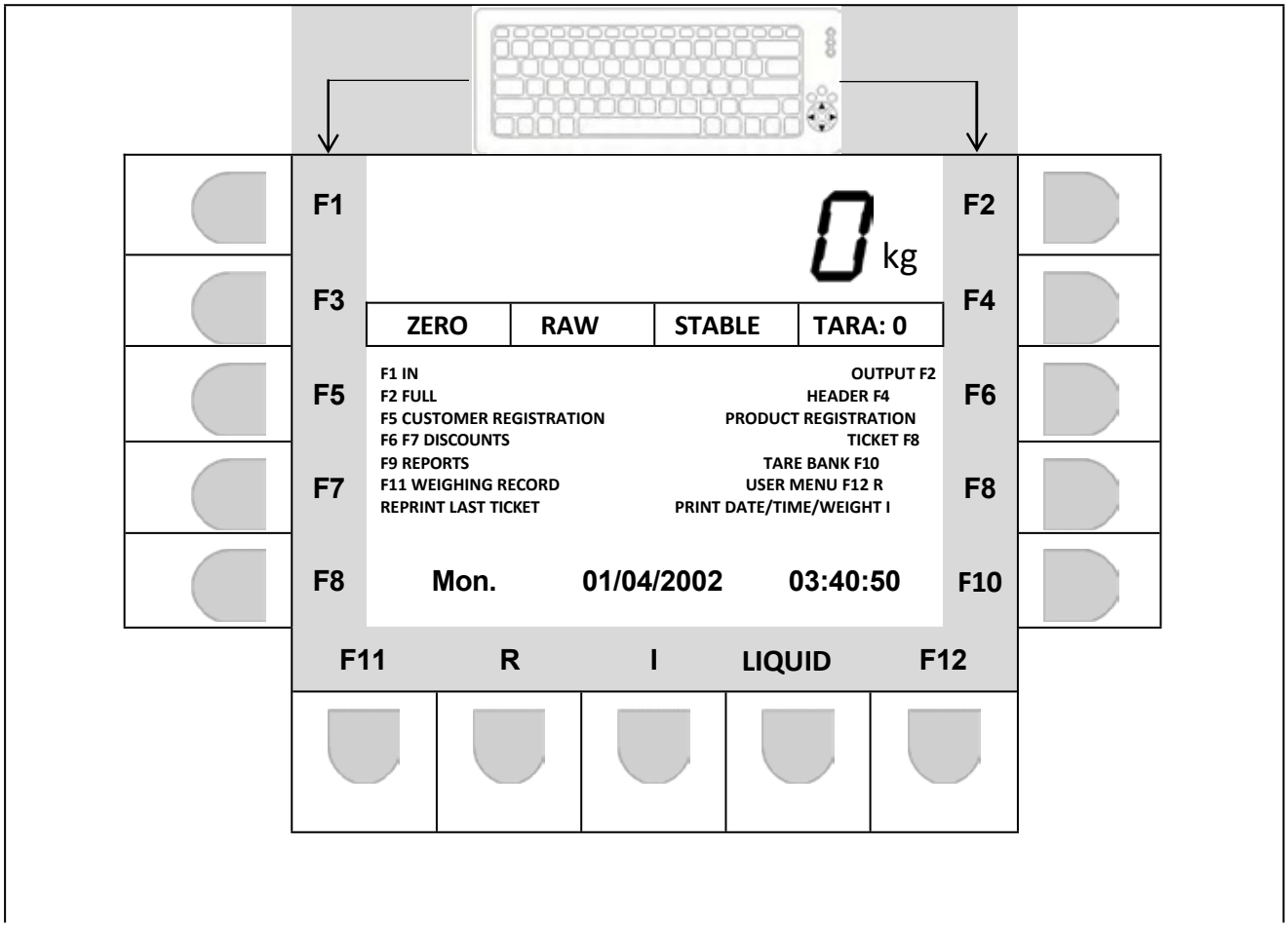
While the indicator is displaying the initial screen, press R on the auxiliary PC keyboard or the button corresponding to the "R" key on the indicator panel to reprint the last recorded weighing.





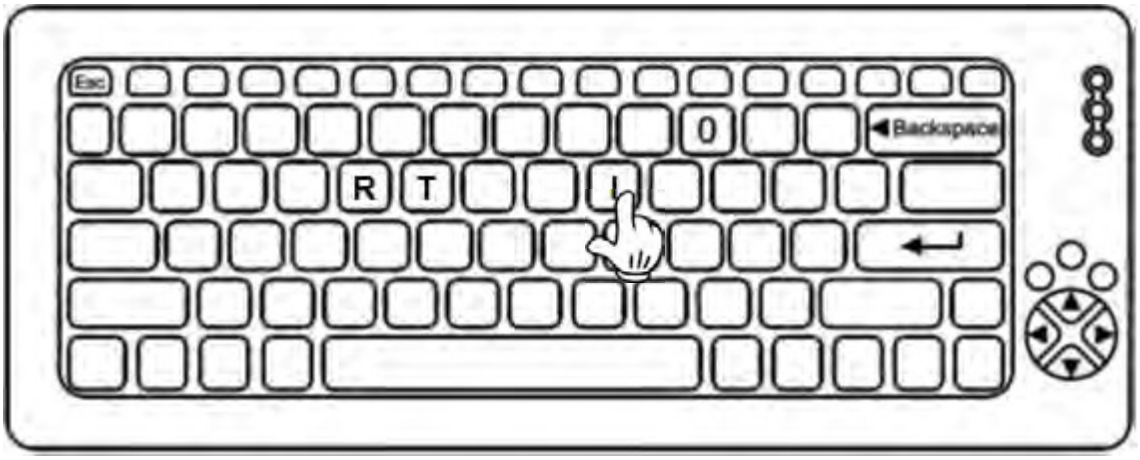
6.8 WEIGHT INDICATION NET.

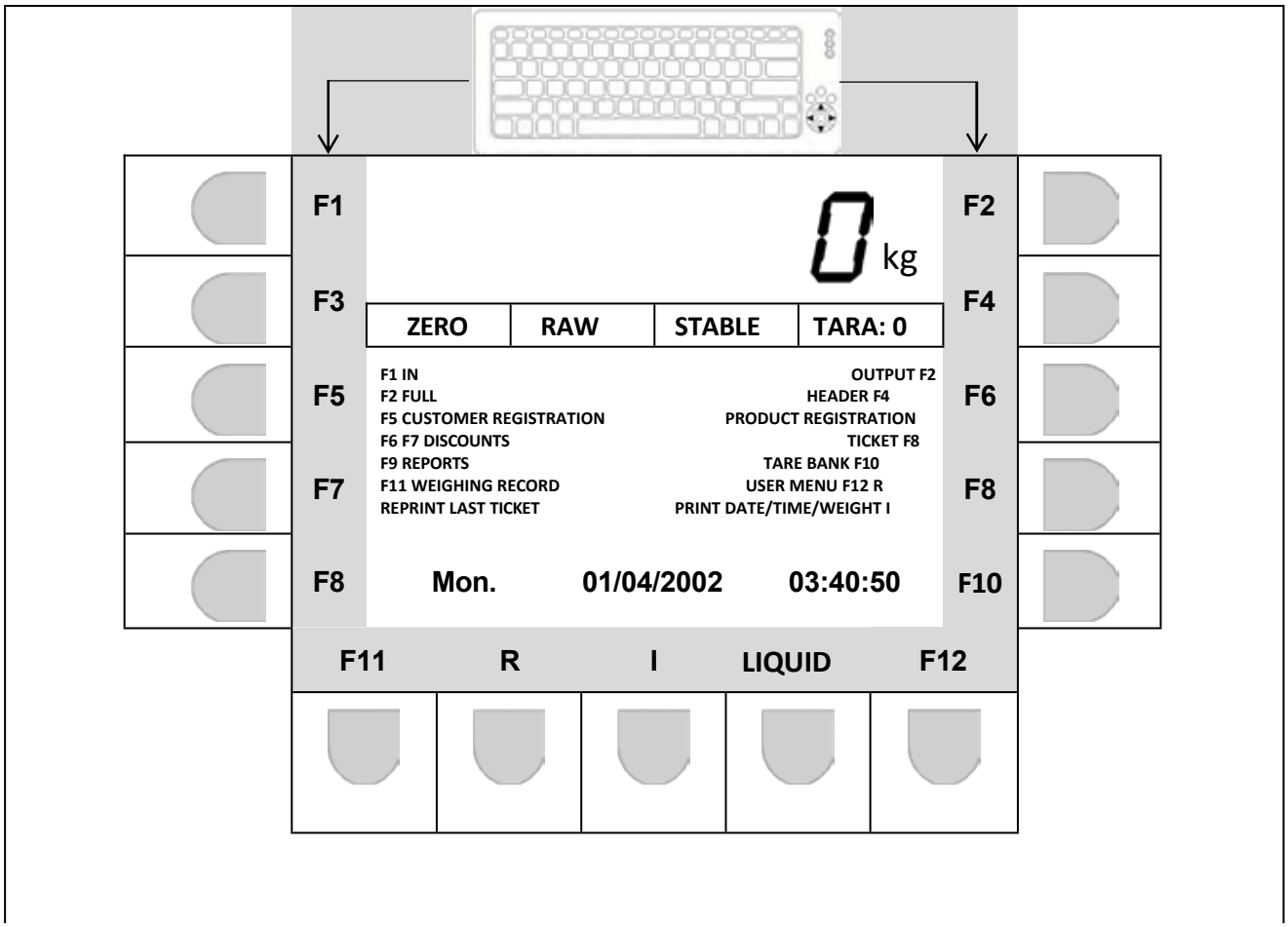
While the indicator is displaying the initial screen, press the button corresponding to "NET" on the indicator panel to switch between the net and gross weight display.



6.9 PRINT.

While the indicator is displaying the initial screen, press I on the auxiliary PC keyboard or the button corresponding to the "I" key on the indicator panel to print the instantaneous weight value.





7 ANNEX I - LX-300 PARAMETERS.

Page length for tractor	5.5 inch
Skip over perforation	Off
Auto Tear Off	On
Auto line feed	Off
Print direction	Bi-D
Software	ESC-P
O slash	0
High Speed draft	On
I/F Mode	Auto
Auto I/F wait time	10 seconds
Baud Rate	19200 bps
Parity	None
Data Length	8bit
Paralel I/F bi-directional mode	On
Packet Mode	Auto
Character Table	BRASCII
International character set for Italic table	Italic U.S.A
Manual Feed wait time	1.5 seconds
Buzzer	On
Auto CR (IBM 2380 Plus)	Off
IBM character table	Table1
Page length for tractor	5.5 inch

8 ANNEX II - PROTOCOLS SERIAL.

8.1 SERIAL FORMAT WT27-R (WEIGHTECH COD.: W01).

		GROSS WEIGHT								TARA								Net weight								
0=Stable / 1= Unstable	Separation character	If positive = 0 / if negative -=	6 digits value GROSS WEIGHT							Separation character	If positive = 0 / if negative -=	6-digit TARE value						Separation character	If positive = 0 / if negative -=	6 digits NET WEIGHT						Terminator	
0	,	0	0	0	0	0	0	0		,	0	0	0	0	0	0	0	,	0	0	0	0	0	0	0	CR	LF

8.1.1 TRANSMISSION AT OVERLOAD.

0	,	o	I	,	o	I	,	o	I	CR	LF

8.2 ASCII SERIAL FORMAT (WEIGHTECH COD.: T10).

PB = GROSS STABLE WEIGHT PL= NET STABLE WEIGHT		SEPARATION CHARACTER	IF POSITIVE = 0 IF NEGATIVE= -	6 digits to measure the value						Terminator	
P	L	:	0	0	0	0	0	0	0	CR	LF

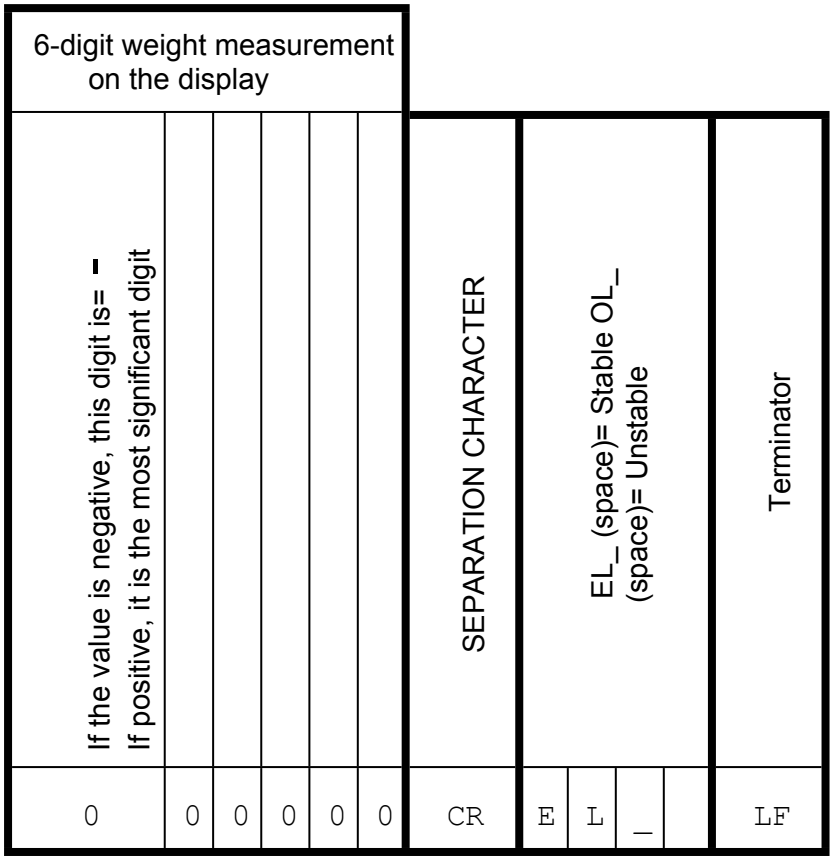
8.2.1 TRANSMISSION AT OVERLOAD.

S	O	B	R	E	CR	LF

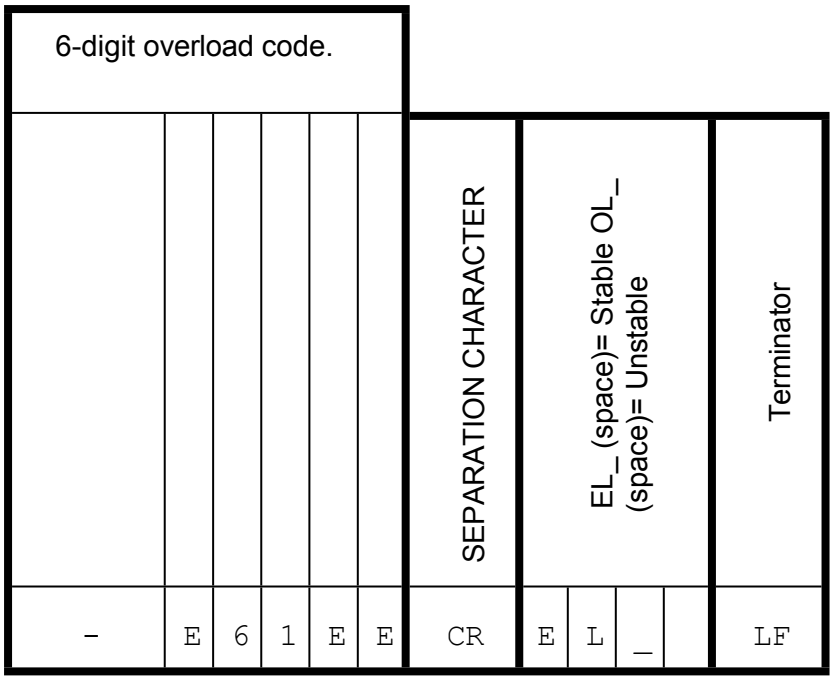
ATTENTION

- This protocol is not compatible with the ASCII protocol (Weightech cod. **T09**) of the WT27-R weighing indicator with small display (LCD display 128 x 64 pixels blue/white).

8.3 SATURN 1 SERIAL FORMAT (WEIGHTECH COD.: T03).



8.3.1 TRANSMISSION AT OVERLOAD.



8.4 DIGITRON SERIAL FORMAT (WEIGHTECH COD.: T06).

E = POSITIVE STABLE A = POSITIVE UNSTABLE O NEGATIVE STABLE I= UNSTABLE NEGATIVE	6-DIGIT WEIGHT VALUE ON DISPLAY						SEPARATION CHARACTER	TERMINATOR
E	0	0	0	0	0	0	.	CR

8.4.1 TRANSMISSION AT OVERLOAD.

U= OVERLOAD	6 DIGITS WITH OVERLOAD CODE.						SEPARATION CHARACTER	TERMINATOR
U	0	0	9	5	4	0	.	CR

8.5 EPM SERIAL FORMAT (WEIGHTECH COD.: T04).

FIXED	SIGNAL INDICATION	Weight	FIXED	Date (DD/MM/YYYY)					Time (hh:mm)			CHECKSUM
4 spaces (0x20 0x20 0x20)	0 for Value positive (0x30) - for negative value (0x2D)	5 digits for weight value on the display (EX: 0x30 0x30 0x30 0x30 0x30)	2 zeros (0x30 0x30)	2 digits day (EX: 0x32 0x33)	/= data separator (0x2F)	2-digit month(EX:0x30 0x32)		4-digit year (EX: 0x32 0x30 0x32 0x31)	2 hour digits (EX: 0x30 0x34)	:= time separator (0x3A)	2 minute digits (EX: 0x30 0x37)	2-digit CHECKSUM (EX: 0x30 0x32)
	0	0 0 0 0 0	0 0	2 3	/	0 2	/	2 0 2 1	0 4	:	0 7	0 2

8.5.1 OVERLOAD TRANSMISSION.

FIXED	Weight	FIXED	Date (DD/MM/YYYY)					Time (hh:mm:ss)			CHECKSUM
4 spaces (0x20 0x20 0x20)	7 digits w/ value 9 (0x39 0x39 0x39 0x39 0x39 0x39 0x39)	2 zeros (0x30 0x30)	2 digits day (EX:0x32 0x33)	/= data separator (0x2F)	2-digit month(EX:0x30 0x32)	/= date separator (0x2F) 4	digits year (EX: 0x32 0x30 0x32 0x31)	2 hour digits (EX: 0x30 0x34)	:= time separator (0x3A)	2 minute digits (EX: 0x30 0x37)	2-digit CHECKSUM (EX: 0x30 0x32)
	9 9 9 9 9 9 9	0 0	2 3 /			0 2	/ 2 0 2	0 4	:		0 2

8.6 SATURN 2 SERIAL FORMAT (WEIGHTECH COD.: T11).

START CHARACTER	6-DIGIT WEIGHT VALUE ON DISPLAY						TERMINATOR
CR	0	0	0	0	0	0	LF

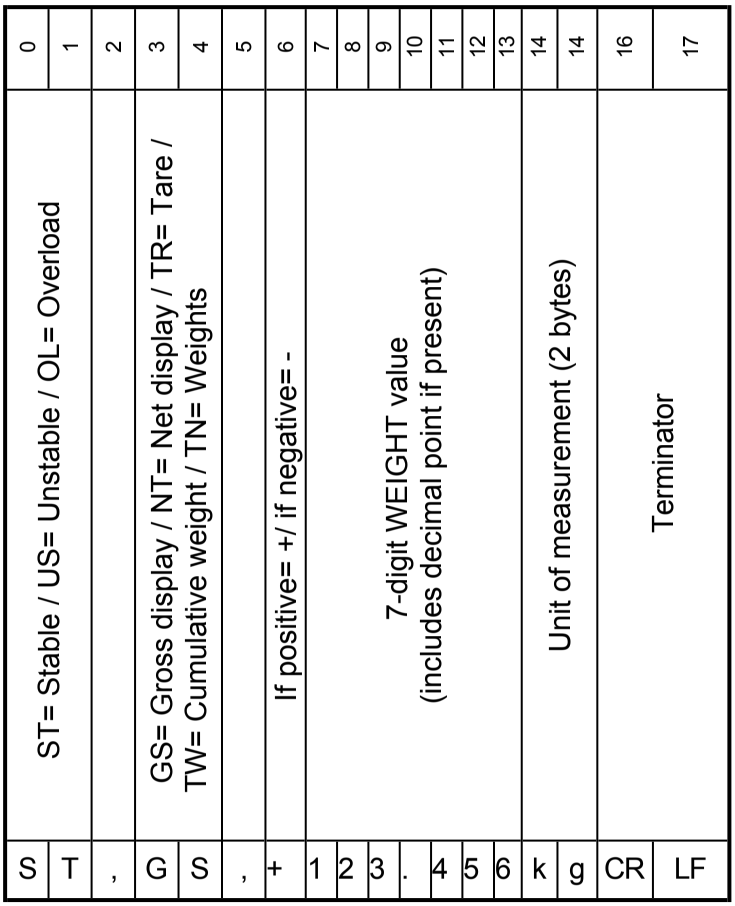
8.7 SERIAL FORMAT OP-ETH BOARD (WEIGHTECH COD.: W08)

					GROSS WEIGHT				TARA			Net weight				
E=Stable / I= Unstable	Type of weight shown on the display: B = gross weight L= net weight	separator	Unit of measurement (2 bytes)	separator	2 digits identifying weight type	If positive= if negative= -	6 digits value GROSS WEIGHT	separator	2 digits identifying weight type	6-digit TARE value	separator	2 digits identifying weight type	If positive= if negative= -	6 digits NET WEIGHT	Terminator	
E	B	,	k g	,	B:		0 0 0 0 0 0	,	T:	0 0 0 0 0 0	,	L:		0 0 0 0 0 0	CR	LF

8.8 SERIAL FORMAT W11 (WEIGHTECH CODE: W11).

						Net weight							Tara							Weight displayed								
0=Stable / 1=Unstable / 3=Overload / 4=Underload	0=Displaying gross weight / 1=displaying net	Decimal places (0= none)	0=1d / 1=2d / 2=5d / 3=10d / 4=20d 5=50d	0=g / 1=kg / 2=t / 3=lb	0=No tare / 1=with tare / 2 =with pre-tare	If positive= +/ if negative= -	6-digit NET WEIGHT value (includes decimal point if present)						If positive =+/ if negative= -	6-digit TARE value (include decimal point if present)						If positive =+/ if negative= -	6-digit value WEIGHT DISPLAYED (includes decimal point if present)						Terminator	
0	0	0	0	0	0	+	1	2	3	.	4	5	6	+	1	2	3	.	4	5	6	+	1	2	3	.	4	5	6	CR	LF
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

8.9 SERIAL FORMAT W02



8.10 SERIAL FORMAT DG13

E	B	,	B	:		1	2	3	.	4	5	6	CR	LF	
E= Stable / I= Unstable / OL= Overload	B= Gross / L= Net / T= Tare		B= Gross / L= Net / T= Tare	If positive= (Space) / if negative= -	7-digit WEIGHT value (includes decimal point if present)								Terminator		
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	

8.11 TOLEDO 1 AND TOLEDO 2 SERIAL FORMAT.

ABREVIATURAS:

STX	Start of Text	02H
CR	Carriage Return	0DH
(CS)	Byte de Checksum FOR	
I	Peso indicado no Display (Líquido ou Bruto)	
T	Tara	

FORMATO DOS DADOS:

STX,SWA,SWB,SWC,I,I,I,I,I,I,T,T,T,T,T,T,CR,(CS)

SWA - STATUS WORD "A":

BIT 2, 1 e 0: 001 = DISPLAY x 10
010 = DISPLAY x 1
011 = DISPLAY x 0.1
100 = DISPLAY x 0.01
101 = DISPLAY x 0.001
110 = DISPLAY x 0.0001

BIT 4 e 3: 01 = TAMANHO DO INCREMENTO É 1
10 = TAMANHO DO INCREMENTO É 2
11 = TAMANHO DO INCREMENTO É 5

BIT 6 e 5: 01 SEMPRE

BIT 7: PARIDADE PAR

SWB - STATUS WORD "B":

BIT 0: PESO LÍQUIDO = 1
BIT 1: PESO NEGATIVO = 1
BIT 2: SOBRECARGA = 1
BIT 3: EM MOVIMENTO = 1
BIT 4: SEMPRE = 1
BIT 5: SEMPRE = 1
BIT 6: SEMPRE = 0
BIT 7: PARIDADE PAR

SWC - STATUS WORD "C":

BIT 0: SEMPRE = 0
BIT 1: SEMPRE = 0
BIT 2: SEMPRE = 0
BIT 3: TECLA IMPRIMIR = 1
BIT 4: EXPANDIDO = 1
BIT 5: SEMPRE = 1
BIT 6: TARA MANUAL = 1
BIT 7: PARIDADE PAR

ATENÇÃO: Se houver sobrecarga, o campo de peso IIIIII apresenta 000000.

8.12 SERIAL FORMAT W06

Protocolo nativo do display gigante WT-75/ WT-125/ WT-200.

Peso positivo

=	W	W	W		W	W	W	W

Peso negativo

=	W	W	W		W	W	W	-

Total: 9 bytes

=: Start of transmission

W: Weight value inverted with decimal point

8.13 SERIAL FORMAT EPM2

O formato de envio dos dados pelo SP-6000 é descrito abaixo (todos os dados são ASCII):

4	7	2	1	7	1	6	2
Brancos	Peso Bruto	Numero do equipamento	Estável	Peso Líquido	Fotocélula	Zeros	Checagem

O campo estável terá o valor 0 se o peso estiver instável, e 1 se estiver estável.

O campo fotocélula tem o valor 1 se o caminhão estiver mal posicionado na plataforma e 0 caso contrário (apenas se a placa de entrada e saída estiver conectada).

A checagem é feita com XOR dos 24 bytes anteriores (os brancos não entram no cálculo). O valor do XOR é dividido em 2 bytes da seguinte forma: suponha que o resultado do XOR seja 82H. Os bytes enviados serão: 38H e 32H, nesta ordem.

9 ANNEX III - DETAILS, ASSEMBLY AND PARAMETERS OP- ETH.

The OP-ETH installed in the WT27-R graphic weighing indicator allows weight measurements be obtained via an ethernet connection, as well as allowing remote commands in ASCII format to be sent in parallel to ZERO and TARE the equipment.

9.1 PROTOCOL FORMAT SENT BY OP- ETHERTNET.

The measurements are sent in the following format:

					GROSS WEIGHT				TARA			Net weight				
E=Stable / I= Unstable	Type of weight shown on the display: B = gross weight L= net	separator	Unit of measurement (2 bytes)	separator	2 digits identifying weight type	If positive= if negative= -	6 digits value GROSS WEIGHT	separator	2 digits identifying weight type	6-digit TARE value	separator	2 digits identifying weight type	If positive= if negative= -	6 digits NET WEIGHT	Terminator	
E	B	,	k g	,	B:		0 0 0 0 0 0	,	T:	0 0 0 0 0 0	,	L:		0 0 0 0 0 0	CR	LF

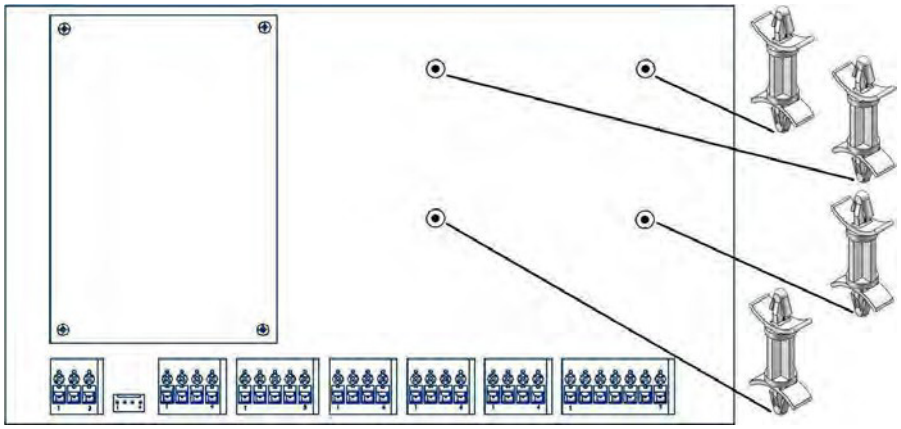
The successive transmission of measurements starts as soon as a connection is established, and the device terminates communication after about 10 seconds automatically if no commands are exchanged with the device during this period (whenever a command is exchanged or data is sent to the device, the sending time is extended by about another 10 seconds from the the command was received by OP-ETH).

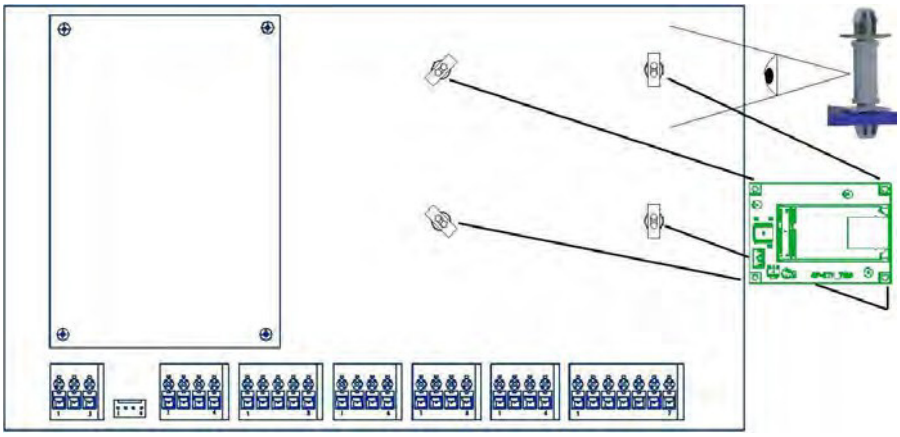
9.2 REMOTE COMMANDS FROM OP- ETHERNET.

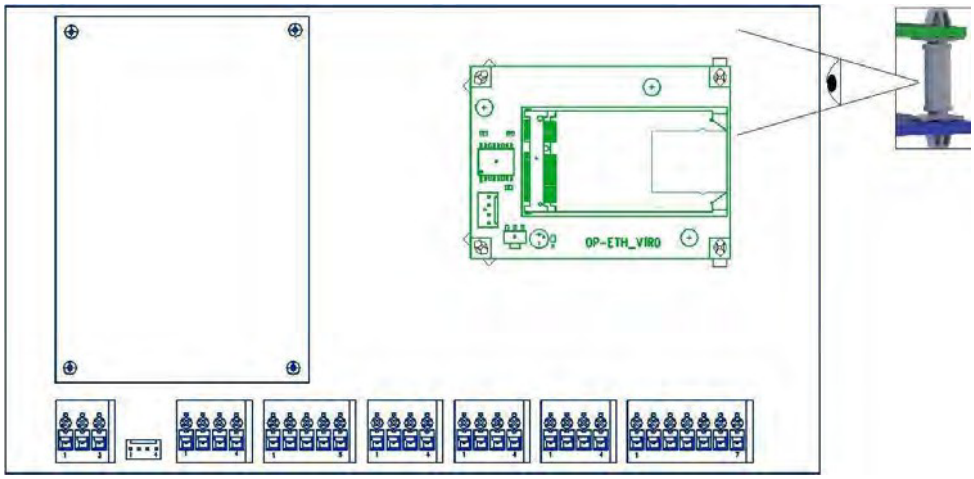
Remote commands recognized by the device:

Command	Function	Details
CDL	ZERO	Resets the device or cancels the TARE.
TAR	TARA	TARA the device

9.3 MECHANICAL COUPLING OF THE OP- ETHERNET.

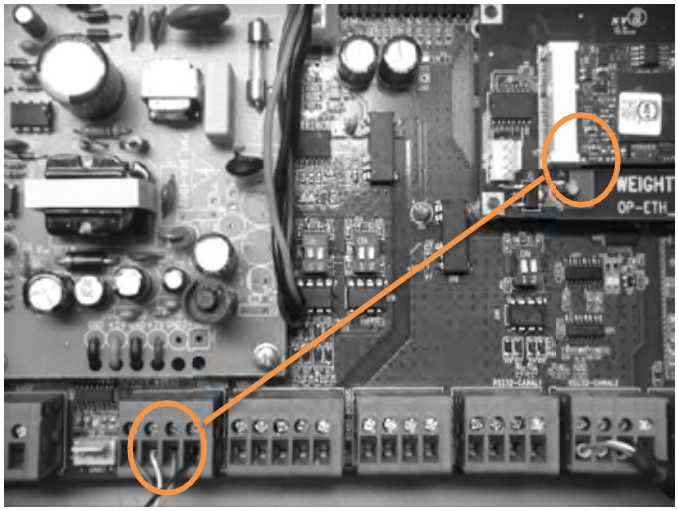


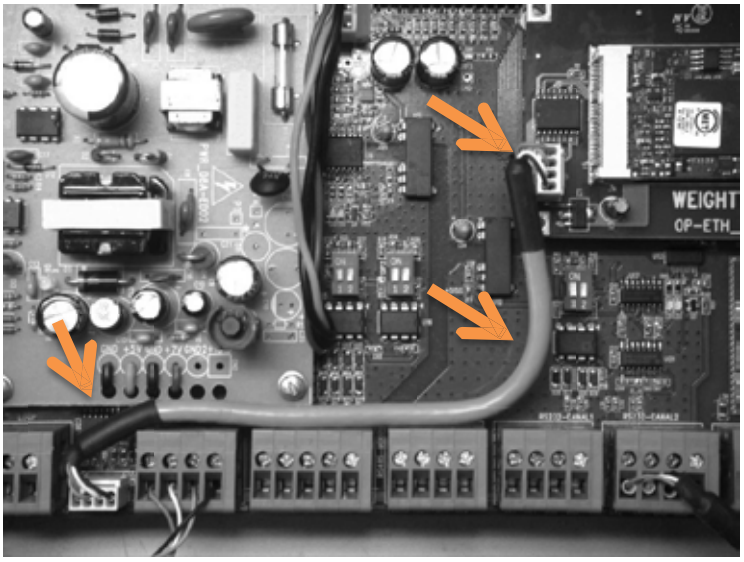


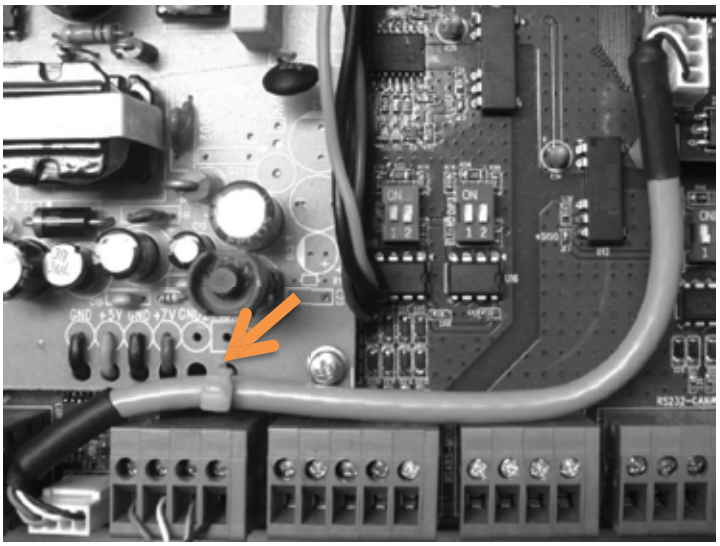


- The spacers come with the product.

9.4 ELECTRICAL INTERCONNECTION OF OP- ETHERNET.





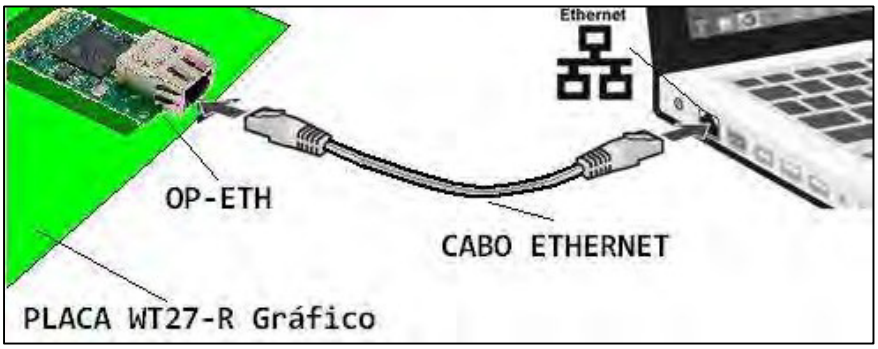


- The cable for electrical interconnection is included with the product.

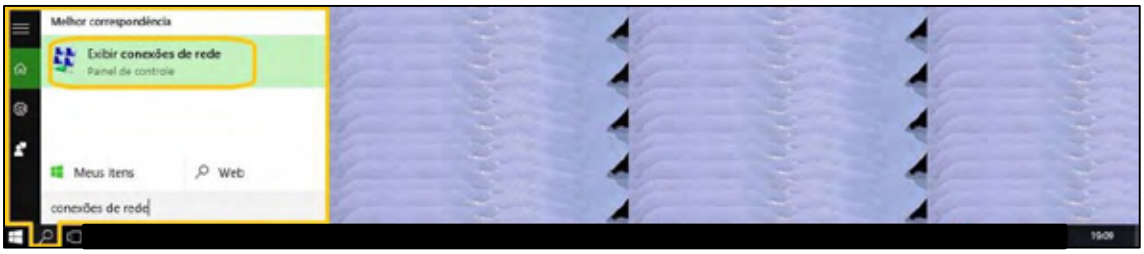
9.5 PARAMETERS VIA THE OP- ETHERNET WEB PAGES.

9.5.1 DIRECT PC ACCESS - OP-ETHERNET FOR INITIAL PARAMETERIZATION .

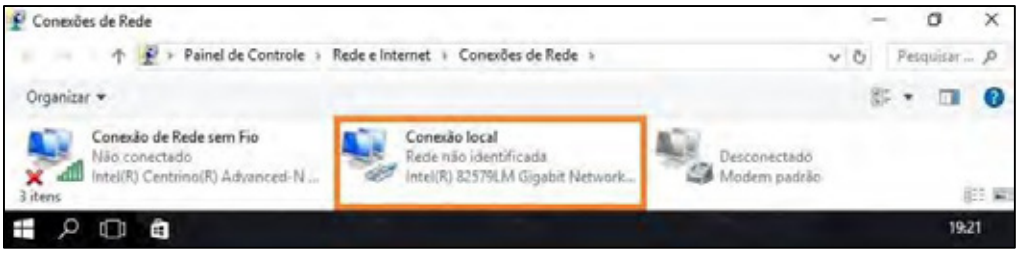
With the OP-ETH card already correctly installed in the WT27-R Graphic (which must be switched on), connect it to the ethernet port of a PC or laptop using a standard ethernet cable.



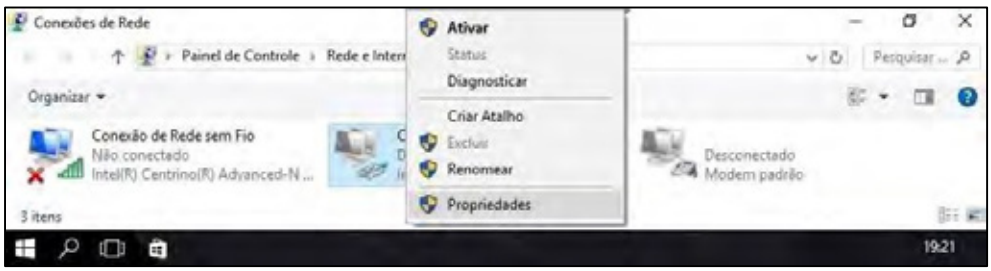
Search in the computer's windows for "Network connections" and display these connections in the control panel by clicking on the icon circled below. Example Windows 10:



Network connections screen:



Right-click on the "Local Area Connection" icon, deactivate and right-click again, selecting properties.



Select the item IP Protocol Version 4 (TCPARAIPv4) and click on properties.

IMPORTANT: Remember to write down the data on how these parameters were before editing, so that you can go back to the settings once the OP-WEB has been parameterized.

Consult the basic OP-ETH parameters on the WT27-R Graph screens, leaving the static addressing type and setting a value within the valid range for the computer's IP address (the IP address value must be different from the one set for WT27-R Graph).

Following the OP-ETH configuration used in the manual (chapter 5.6.7), we have:

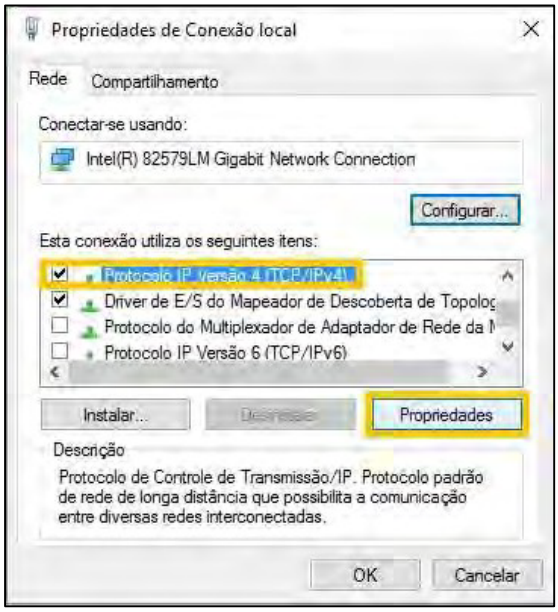
OP-ETHernet addressing type = Static.

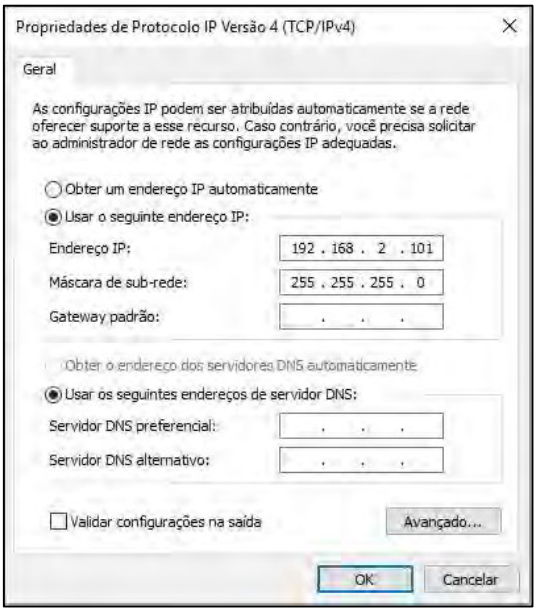
Current OP-ETHernet IP number = 192.168.002.102 Current

OP-ETHernet mask number= 255.255.255.000 Current OP-

ETHernet gateway number= 192.168.002.001

Based on these parameters, we'll give you an example of how to set the IP protocol version 4 (TCPARAIPv4) properties to establish the link with the PC:





Click "OK" on the Protocol Properties screen and "Close" on the Local Connection Properties screen.

- Activate the "Local connection" (right-click on the local connection icon and select ACTIVATE).

Open your browser and enter the IP address configured in the OP-ETHernet installed in the graphical WT27-R (the device must be powered). Example following the settings made previously:

By confirming the address, the browser will give access to this home page and through it, the other pages hosted within OP-ETHernet will be accessed:

9.5.2 EDITING PARAMETERS VIA WEB PAGES HOSTED ON OP- ETH.

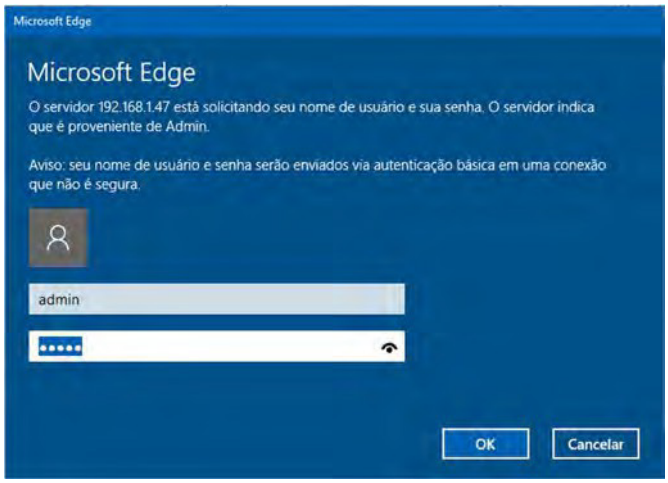
OP-ETH hosts web pages to allow you to edit their parameters remotely via Ethernet.

Below, in sequence, we'll show you how to navigate these pages, taking as a starting point the procedures begun in chapter 9.5.1.

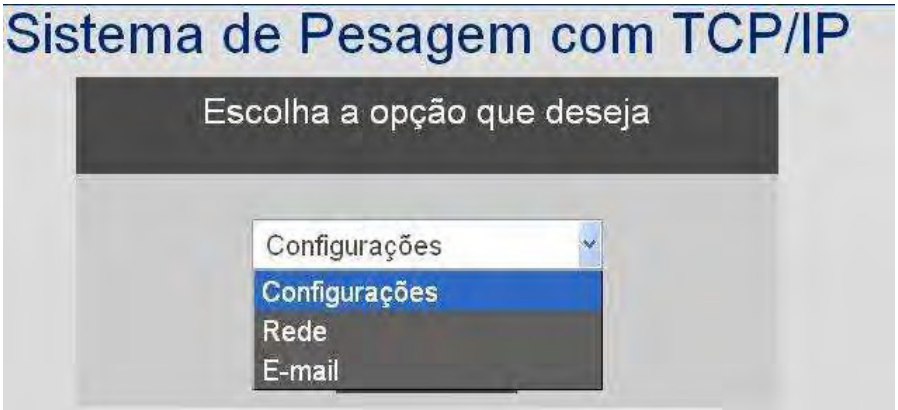
Click on the icon with the gear and fixed key on the home screen, then enter your username and password and press OK (username and password assigned in the factory default = "**admin**").

- If the user has edited the password, the default password will no longer take effect.

In the example, we will use the factory default password:



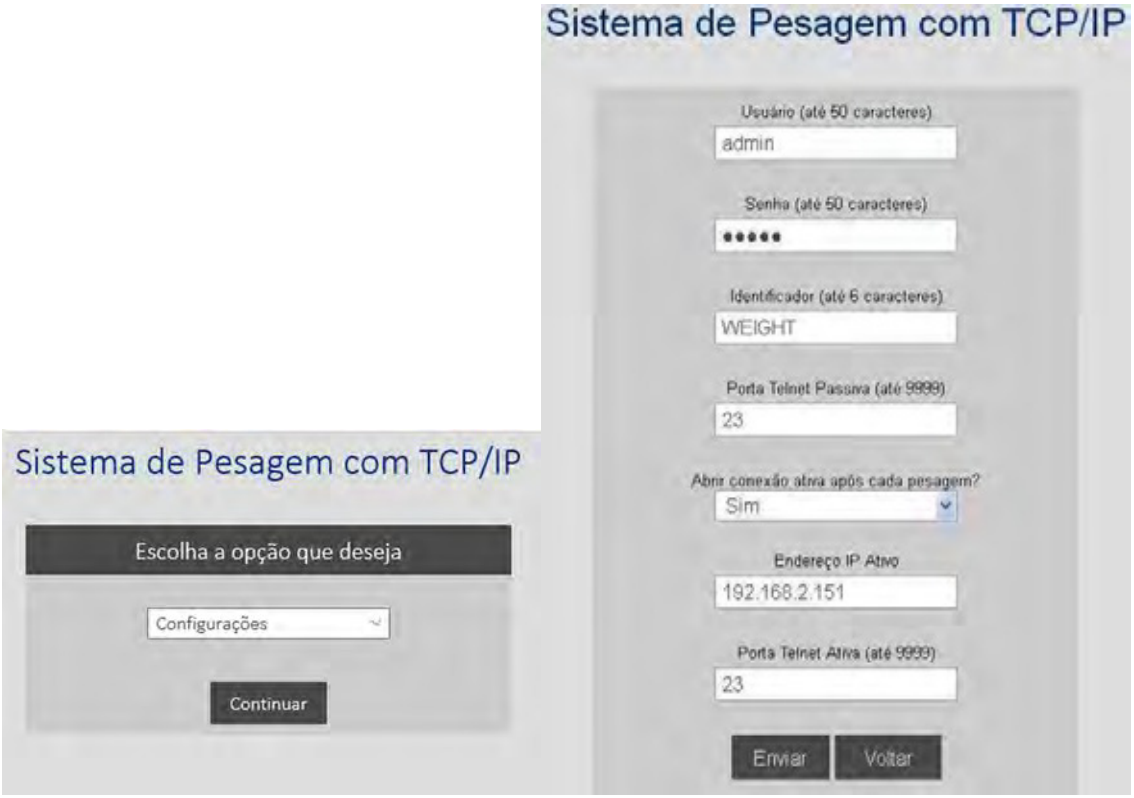
This will open a screen where the menu will allow you to access the parameters according to the desired function. Click on the arrow to the right of the word Settings:



- Select the option and click continue.

9.5.2.1 Parameters for the Settings option.

Continuing with the menu screen accessed as shown in chapter 9.5.2, select the "Settings" option and click on "Continue" to see the parameters associated with this option, as shown below:

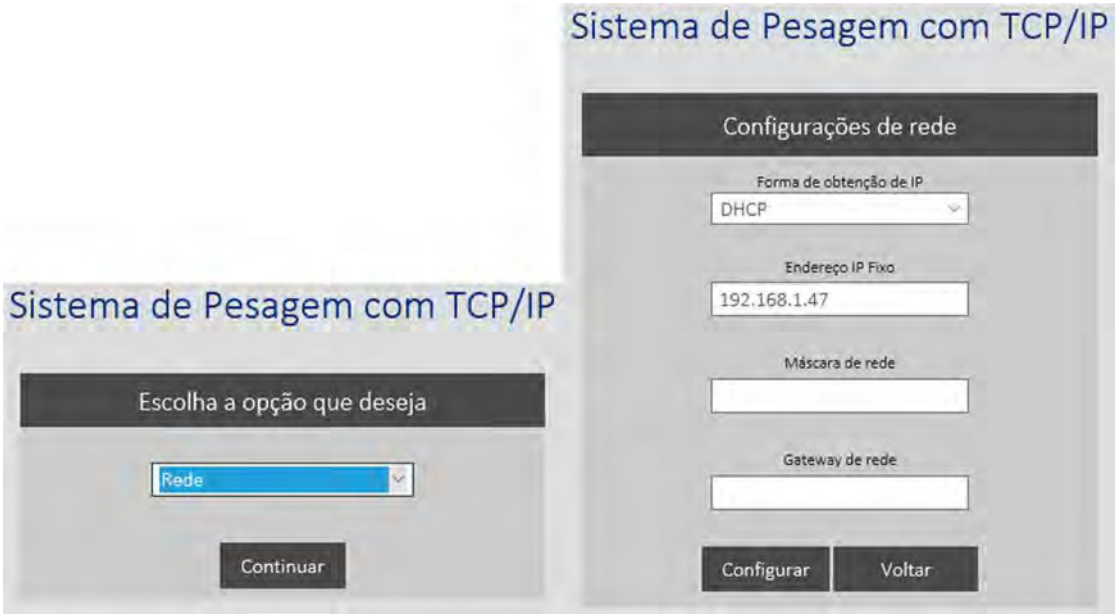


- **User:** Defines the user name with up to 50 characters, which will be used to access the web pages hosted on OP-ETHernet, as shown in chapter 9.5.2.
- **Password:** Defines the password of up to 50 characters that will be used to access the web pages hosted on OP-ETHernet, as shown in chapter 9.5.2.
- **ID:** This is the identification of the product with up to 6 characters, i.e. the legend it will use to be more easily identified.
- **Telnet port:** Telnet port used for communication.
- **Open active connection after each weighing**: Allows or disallows sending weighing information to a computer on the network.
- **Active IP address:** Address of the computer that will receive the data.
- **Active Telnet Port:** Telnet port used to send data to the computer.

After editing, press "Send" to validate edits. To return to the menu without validating the edits, press "Back" and return to the menu shown at the end of chapter 9.5.2.

9.5.2.2 Parameters for the Network option.

Continuing with the menu screen accessed as shown in chapter 9.5.2, select the "Network" option and click on "Continue", to see the parameters associated with this option, as shown below



- How the IP address will be set**:** you can select "STATIC" mode (where the IP will have a fixed number, set manually using the "Fixed IP Adress" parameter), or .DHCP (where the IP will be set automatically by the network server).
- **Fixed IP address:** Parameter that determines the IP address assumed by the device.
- **Netmask:** Parameter that determines the netmask assumed by the device.
- **Network Gateway:** Parameter that determines the network gateway assumed by the device.

After editing, press "Configure" to validate the edits made. To return to the menu without validating the edits, press "Back" and return to the menu shown at the end of chapter 9.5.2.

9.5.2.3 Parameters for the e- mail option.

The E-MAIL screen parameters allow the device to automatically send an e-mail informing you of certain occurrences, by selecting one the 4 notification options available on the product.

In this case, a network with active internet access must be used, since a test will be carried out at the end of the procedure, requiring you to be connected to the internet for the edits to be accepted. Once you have accessed the menu screen shown at the end of chapter 9.5.2, select the "E-mail" option and click on "Continue" to see the parameters associated with this option, as shown below:

- **SMTP Server Address:** SMTP address of the server that will be used to send the selected notifications.
- **SMTP Service Port:** SMTP service port used by the e-mail server of the e-mail that will be used to send the selected notifications.
- **Server Requires SSL/TLS:** Yes or No selection, referring to the need for the server to use secure (encrypted) communication between the client/server sides.
- **Sender Email:** Email that will send the selected notifications.
- **Primary Recipient Email:** Email address that will receive the notifications.
- **Secondary Recipient Email:** Another email that will receive the notifications.
- **Account User for Authentication:** This is the user name defined in the e-mail server account of the e-mail that will send the selected notifications.
- **ESMTP Server Authentication Password:** This is the password set on the e-mail server account of the e-mail that will send the selected notifications.
- **Email with each weighing completed (e-Ticket**). Sends an email with the weighing ticket.
- **Overload Email:** Selection of YES or NO, regarding the sending of an email, whenever an indication of overload occurs.
- **Fraud Email:** Selection of YES or NO, referring to the sending of an email, whenever a weight is applied to the weighing platform, without a weighing record being carried out (Example: Vehicle passing the scale, without carrying out an entry or exit procedure).
- **New Calibration Email:** Select YES or NO to send an email every time a calibration is performed.
- **Digital Cell Communication Failure Email:** Select YES or NO to send an email whenever there is a communication failure with the digital cells.

ATTENTION:
This function will only work when the system is operating with digital cells.

After editing, press "Send" to validate the edits made. You must be connected to the Internet for the e-mail to be tested and validated. A test e-mail will be sent informing you that the operation was successful.

The fields on the screen shown are just examples, do not use this data to configure your device.

To return to the menu without validating your edits, press Back and return to the menu shown at the end of chapter 9.5.2.

10 ANNEX IV - DETAILS, ASSEMBLY AND PARAMETERS OP- RODO.

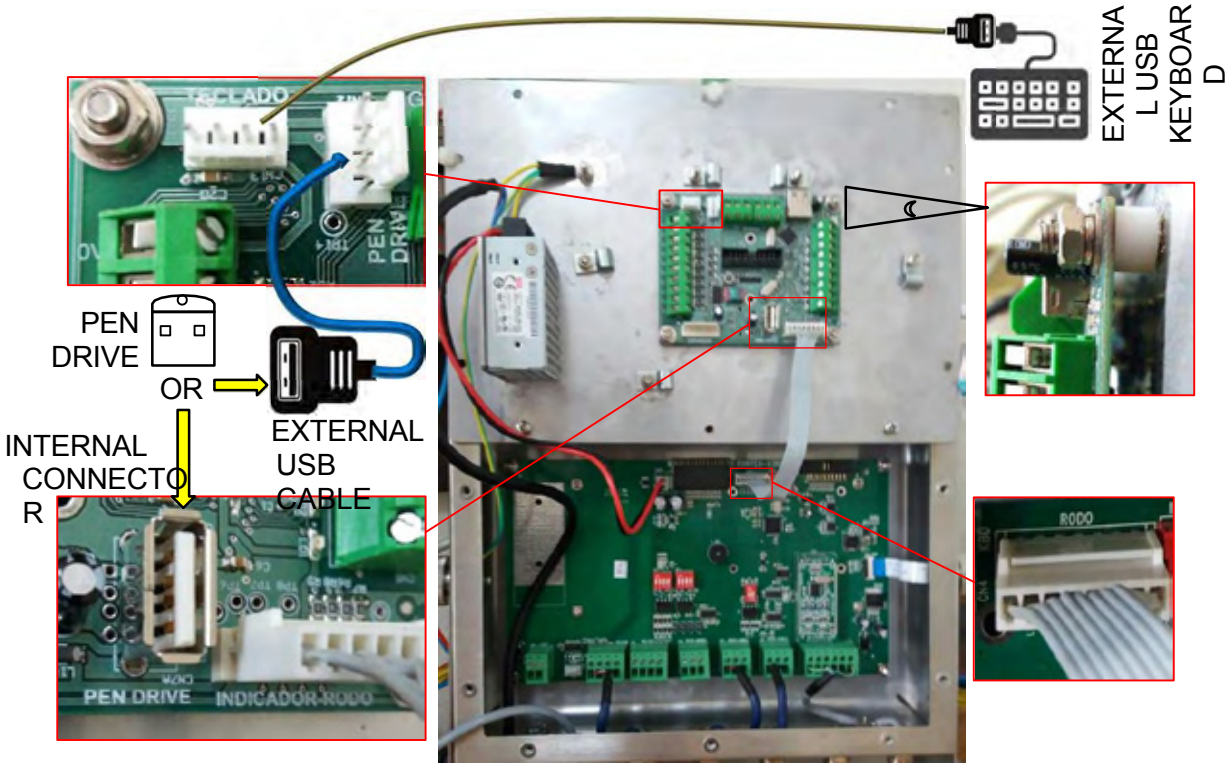
The additional OP-RODO device allows the WT27-R-Graphic weighing indicator to perform road automation with the following features:

- 2 gates to control the entry and exit of vehicles on both sides of the weighing platform, with anti-crushing sensors and a relay module for the open gate signal.
- 4 traffic lights to signal entry and exit on both sides of the weighbridge,
- 4 sensors for positioning control (checks that the vehicle is not exceeding the limits of the platform).

1 USB for PEN DRIVE and another for an external keyboard are also available.

10.1 INSTALLATION OF THE OP-RODO BOARD IN THE WT27-R- GRAPHIC.

The OP-RODO plate is held in place by 4 spindles on the inside of the back cover, supported by by spacers and fixed with 4 nuts and washers, as shown below:



- The system can only use 1 USB stick and therefore only use 1 of the connection options (internal or external).
- The spacers and cables for interconnection to the OP-RODO come with the board.
- The PEN DRIVE model must be short.
- Ground the cable mesh to the nail clips on the cover.

10.2 CONTROL PANEL FOR AUTOMATION.

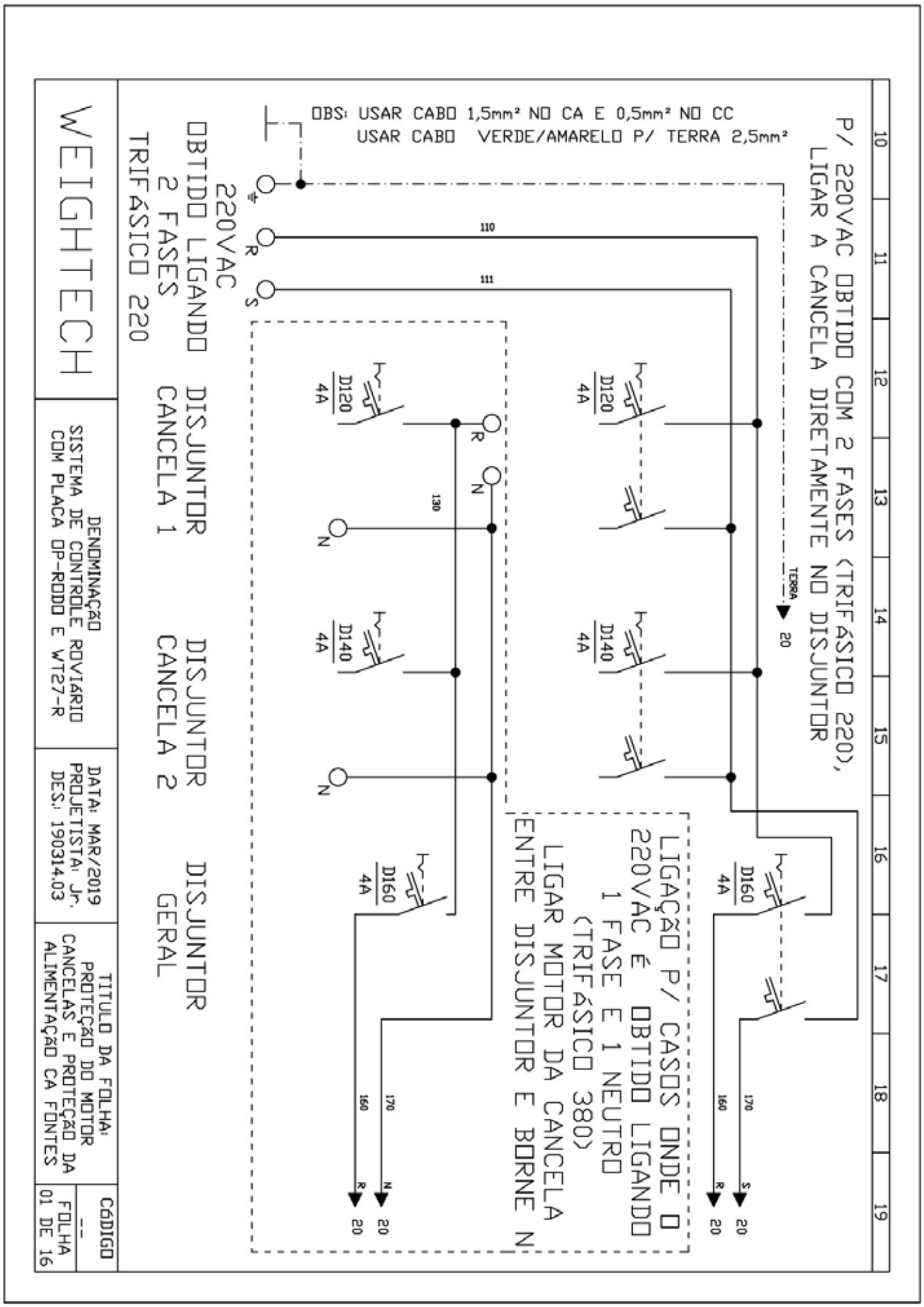
In order to be able to control the road automation devices, it is necessary to set up a control panel, which will be connected to the OP-RODO board.

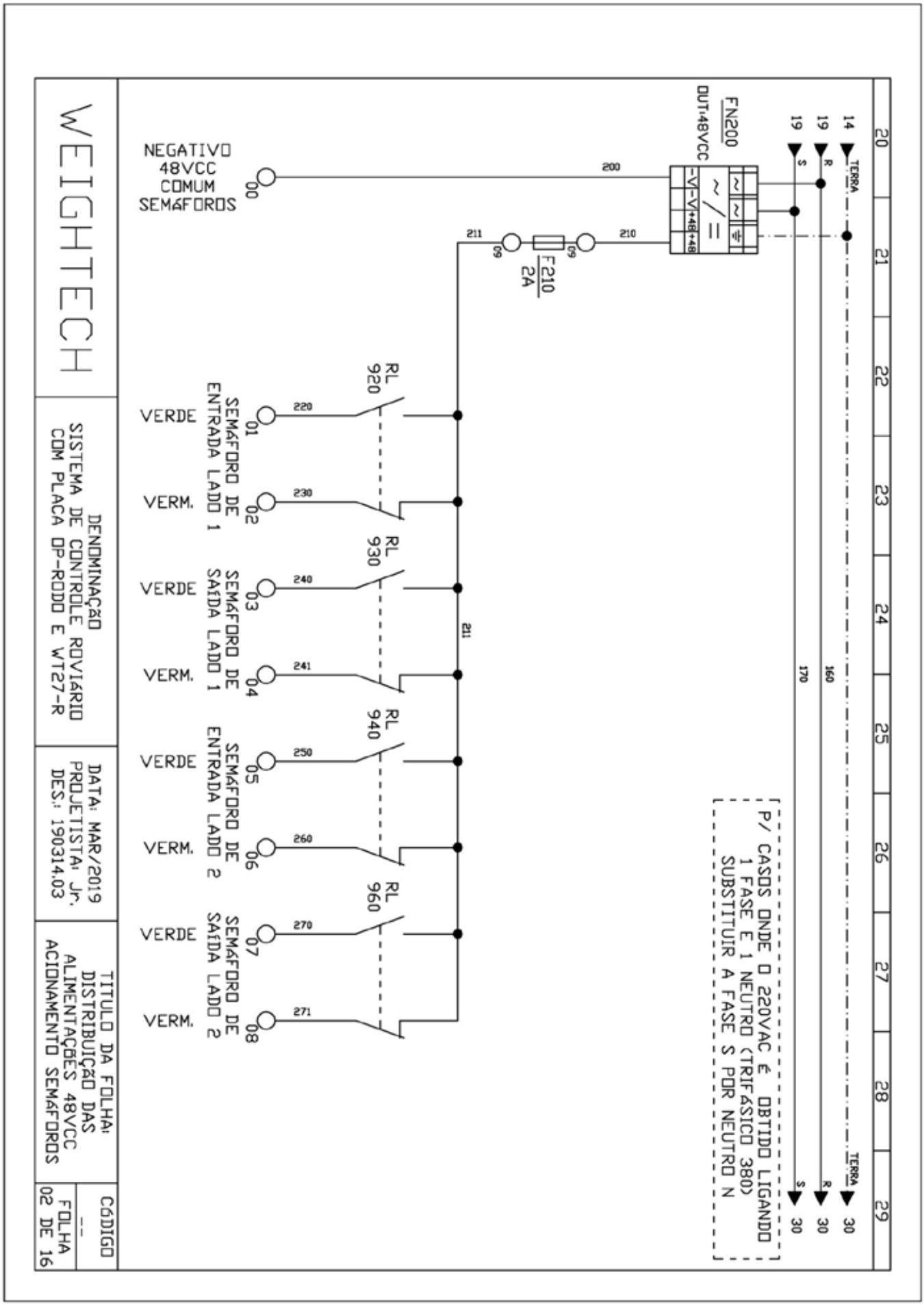
10.2.1 PARTS LIST FOR ASSEMBLY.

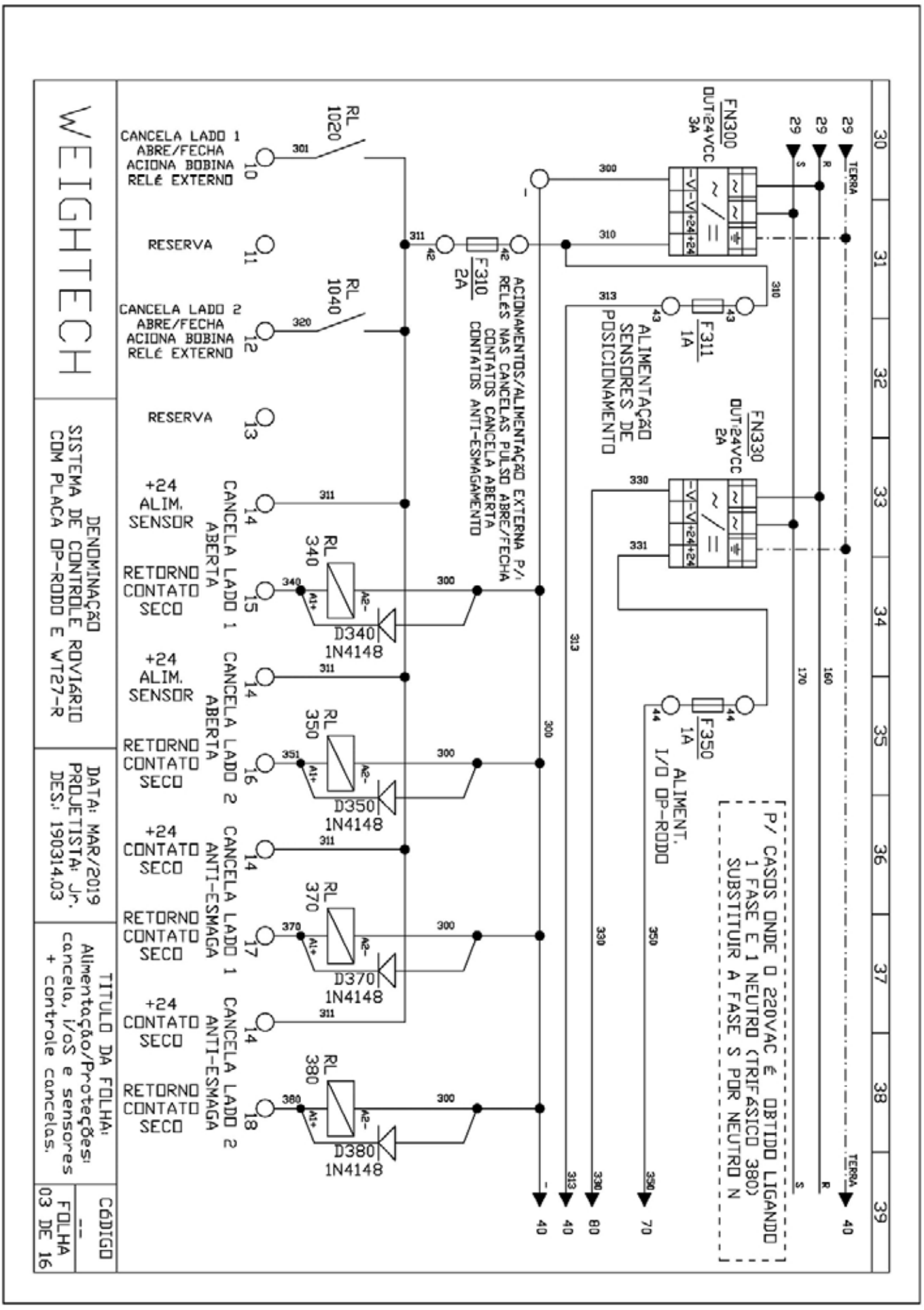
QNT.	COD. PROJ.	DESCRIPTION	COD. FABRIC.
3	D120 / D140 / D160	SIEMENS 4A CURVE-C BIPOLAR CIRCUIT BREAKER (FOR 220V AC SUPPLY IN THREE-PHASE 220).	5SX1 204-7
		SINGLE-POLE CIRCUIT BREAKER 4A CURVE-C SIEMENS (FOR 220V AC SUPPLY IN THREE-PHASE 380).	5SX1 104-7
1	FN200	48VDC POWER SUPPLY FOR TRAFFIC LIGHTS (Source supplied with the traffic lights)	-
! ATTENTION ! IT IS RECOMMENDED TO USE TRAFFIC LIGHTS POWERED BY DIRECT CURRENT, IN ORDER TO INCREASE SAFETY AGAINST ELECTRIC SHOCKS.			
1	FN300	24VDC POWER SUPPLY FOR EXTERNAL RELAYS AND SENSORS	DR-75-24 **OPTION: (WEIDMULLER 1469470000)**
1	FN330	24VDC POWER SUPPLY INTERNAL RELAYS AND EXTERNAL I/O'S OP-RODE BOARD	DR-45-24 **OPTION: (WEIDMULLER 8739140000)**
16	**RL340 RL350 RL370 RL380 RL430 RL470 RL530 RL570 RL920 RL930 RL940 RL960 RL1020 RL1040 RL1420 RL1441**	RS30LP WEIDMULLER/CONEXEL 1-CONTACT REVERSIBLE RELAY 24VDC WITH RED LED	C90110020 OR C90102620 OR C900165.2001
2	**RL1440 RL1540**	RELAY 2 REVERSIBLE CONTACTS 24VDC LED VERM. RS30B GSED WEIDMULLER/CONEXEL	C904131.2000 OR C904051.2000
18	**D340 D350 D370 D380 D440 D470 D540 D570 D920 D930 D950 D960 D1020 D1050 D1420 D1441 D1440 D1540**	DIODE TO PREVENT REVERSE CURRENT (ELECTRONIC COMPONENT)	1N4148
1		WEIDMULLER/CONEXEL MOUNTED TERMINAL BLOCK	C904138.5097

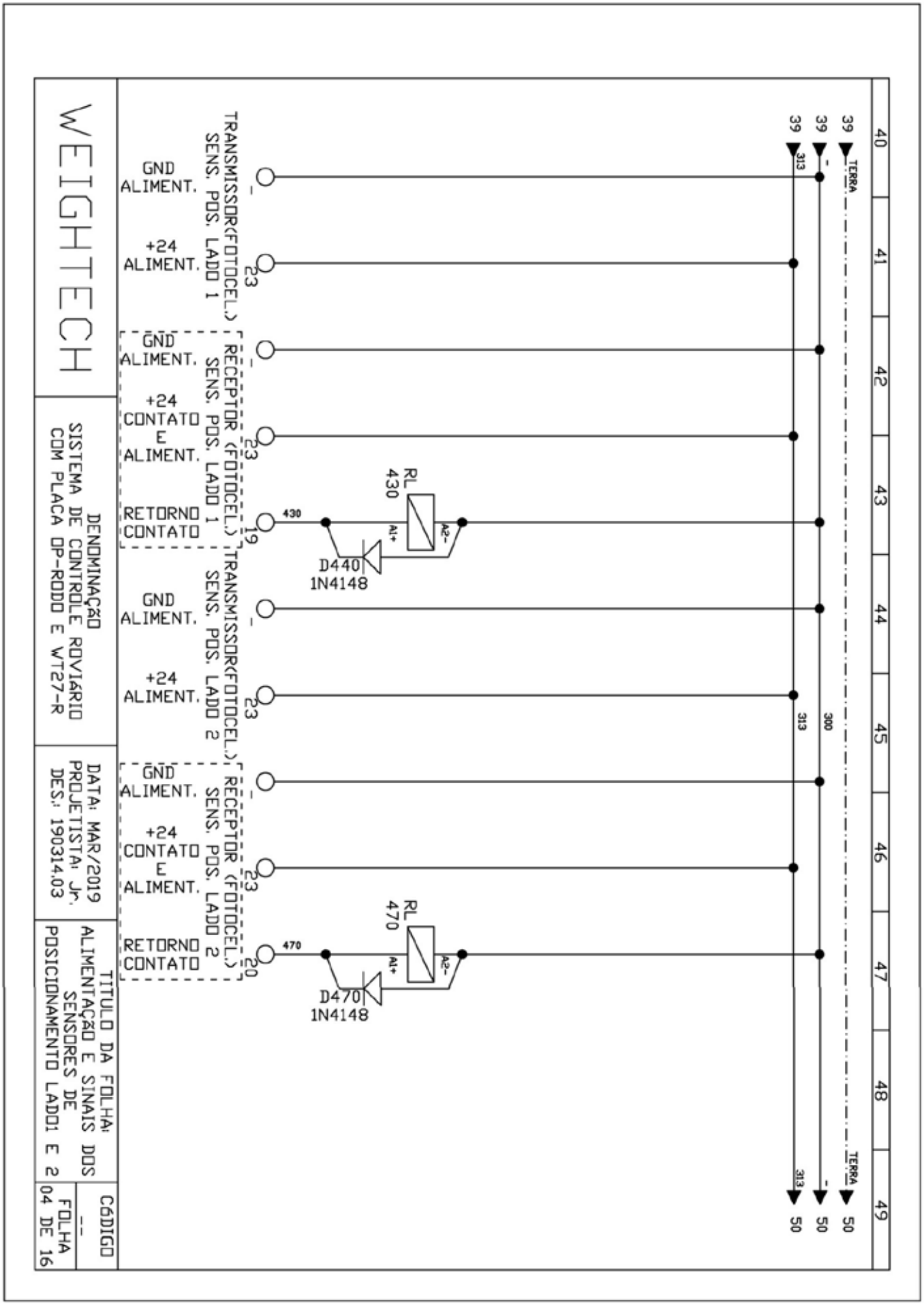
1		CEMAR LEGRAND ATLANTIC MOUNTING PANEL	506114
1		PANEL MOUNTING PLATE CEMAR LEGRAND ATLANTIC	506149
1		ROOF (PANEL COVER) CEMAR LEGRAND ATLANTIC	36554
1		CEMAR LEGRAND ATLANTIC THRESHOLD BASE	906904
4	**SR1520_ST1540 SR1561_ST1581 SR1620_ST1640 SR1660_ST1680**	ACTIVE INFRARED SENSOR 1 NORMAL OPEN CONTACT FOR POSITIONING VEHICLES	FENCE IVA 600
2	**SR1460_ST1480**	ANTI-CRASH SENSOR MANUFACTURER DECIBEL	D60-1
2		CANCEL PPA	**LINEAR BRASSO OR BRUSHLESS BARRIER**
! IMPORTANT ! • THE CHOICE OF GATE MODEL DEPENDS ON THE INTENSITY OF THE FLOW VEHICLES, CHECK WITH THE PPA SUPPLIER FOR THE IDEAL MODEL. • INCLUDE RELAY MODULE WITH REVERSIBLE CONTACT TO INDICATE OPEN GATE. • REGARDLESS OF THE GATE MODEL, THE DIGITAL INPUT FUNCTIONS **BOT** (OPEN AND CLOSE GATE) AND **FOT** (TRIGGER TO PREVENT CRUSHING VIA SENSOR) MUST BE AVAILABLE ON THE CONTROL BOARD.			
4		LED TRAFFIC LIGHTS 48VDC RED AND GREEN - MANUFACTURER VITALTECH	IND-LIBD
		DIN RAIL TS35	
		OPEN PVC CHANNEL 30X50X2000	
		CABLE 1x1,5mm² VD/AM	
		CABLE 1x1,5mm² RED	
		1x0.5MM CABLE	
		18x 24AWG CABLE WITH MESH	
		TERMINALS	
		CABLE IDENTIFICATION RINGS	
		ADHESIVE LABEL FOR COMPONENT IDENTIFICATION	
		PLASTIC STRAPS	

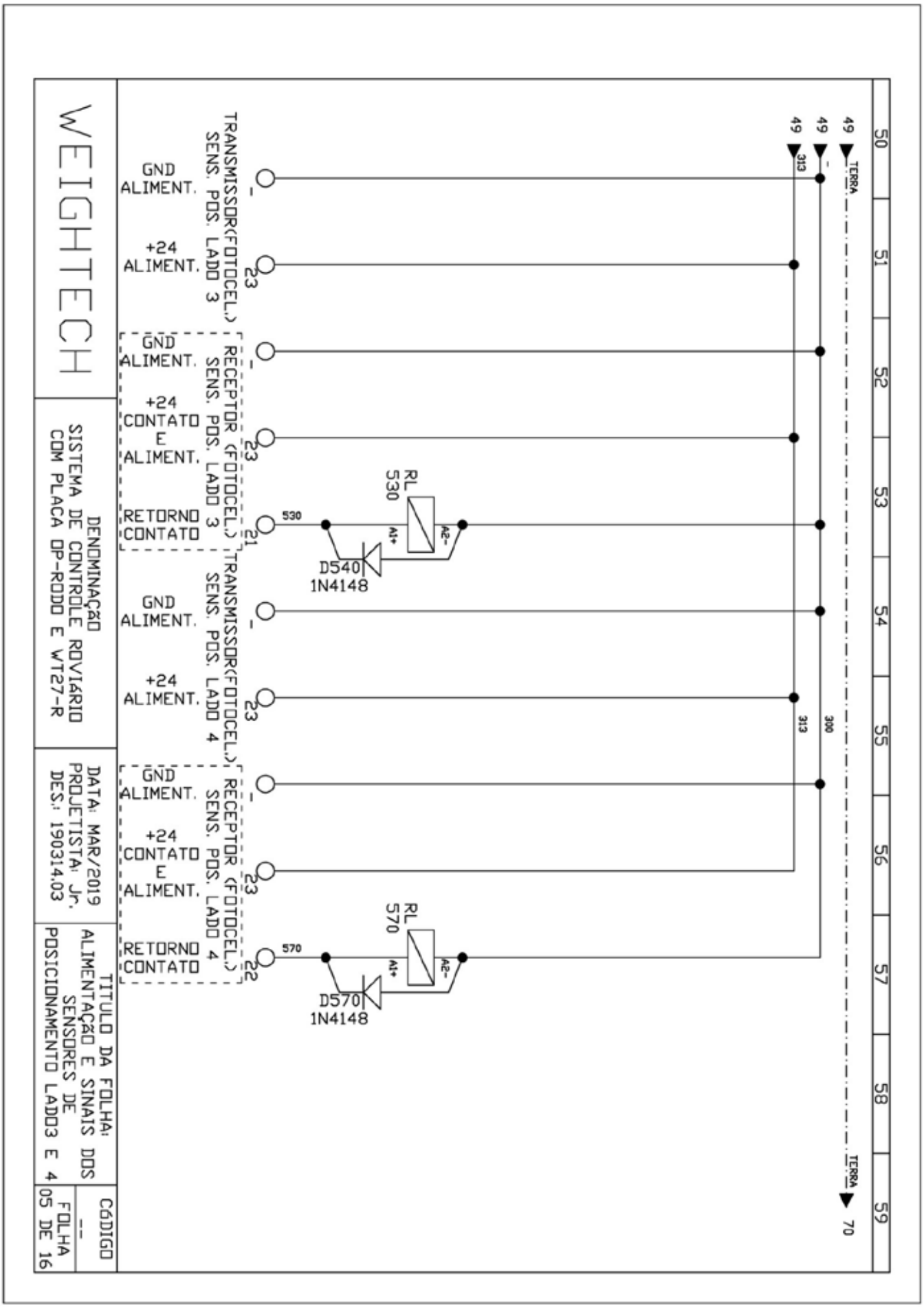
10.2.2 ELECTRICAL DESIGN OF THE CONTROL PANEL FOR AUTOMATION.

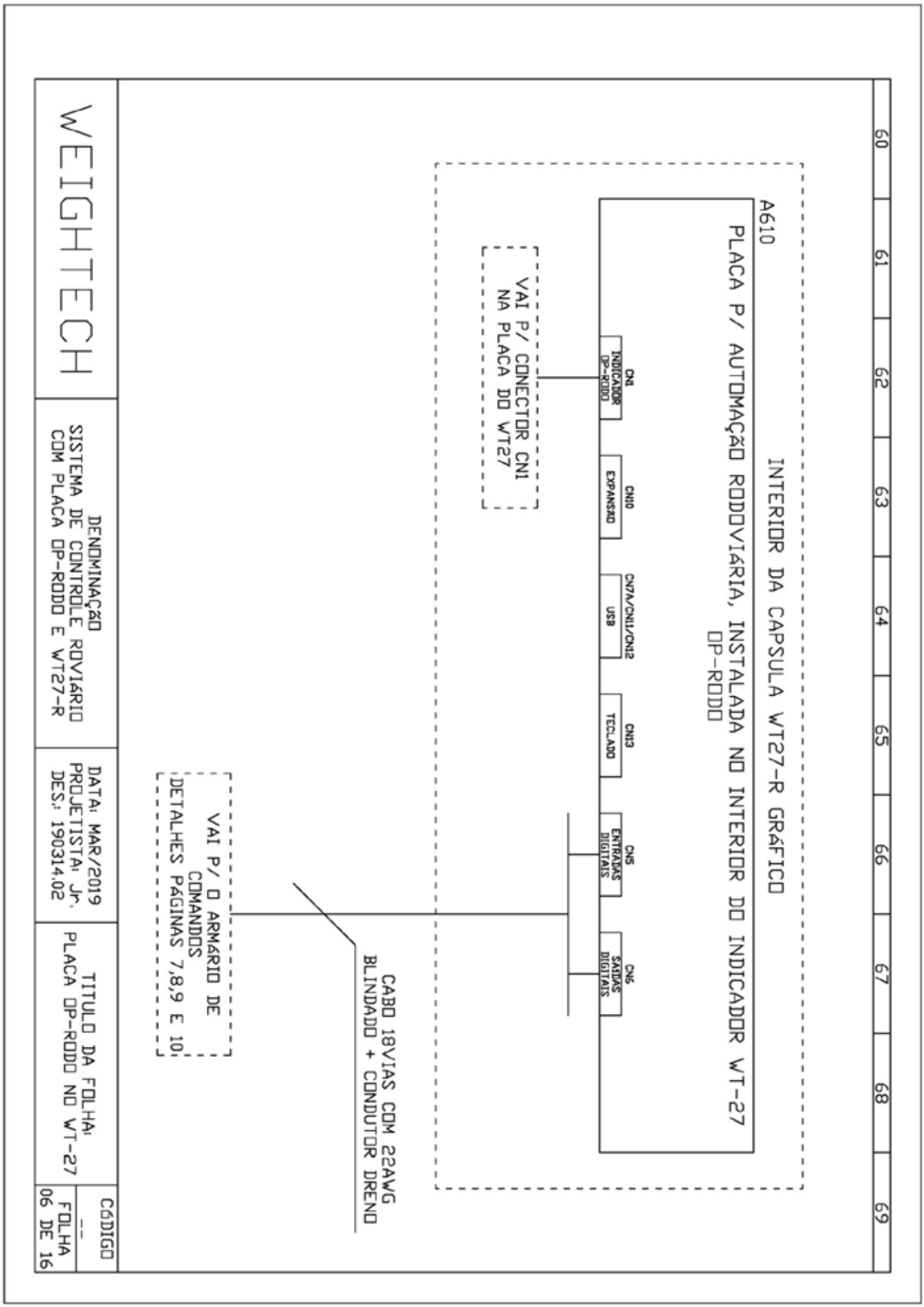

P/ 220VAC OBTIDO COM 2 FASES (TRIFÁSICO 220),
LIGAR A CANCELA DIRETAMENTE NO DISJUNTOR
OBS: USAR CABO 1,5mm² NO CA E 0,5mm² NO CC
USAR CABO VERDE/AMARELO P/ TERRA 2,5mm²
220VAC
OBTIDO LIGANDO 2 FASES
TRIFÁSICO 220
DISJUNTOR CANCELA 1
DISJUNTOR CANCELA 2
DISJUNTOR GERAL
D120 4A
D140 4A
D160 4A
TERRA
LIGAÇÃO P/ CASOS ONDE O 220VAC É OBTIDO LIGANDO 1 FASE E 1 NEUTRO (TRIFÁSICO 380)
LIGAR MOTOR DA CANCELA ENTRE DISJUNTOR E BORNE N
WEIGHTECH
DENOMINAÇÃO
SISTEMA DE CONTROLE ROVIÁRIO COM PLACA OP-RODO E WT27-R
DATA: MAR/2019
PROJETISTA: Jr.
DES.: 190314.03
TITULO DA FOLHA:
PROTEÇÃO DO MOTOR CANCELAS E PROTEÇÃO DA ALIMENTAÇÃO CA FONTES
CÓDIGO
--
FOLHA
01 DE 16

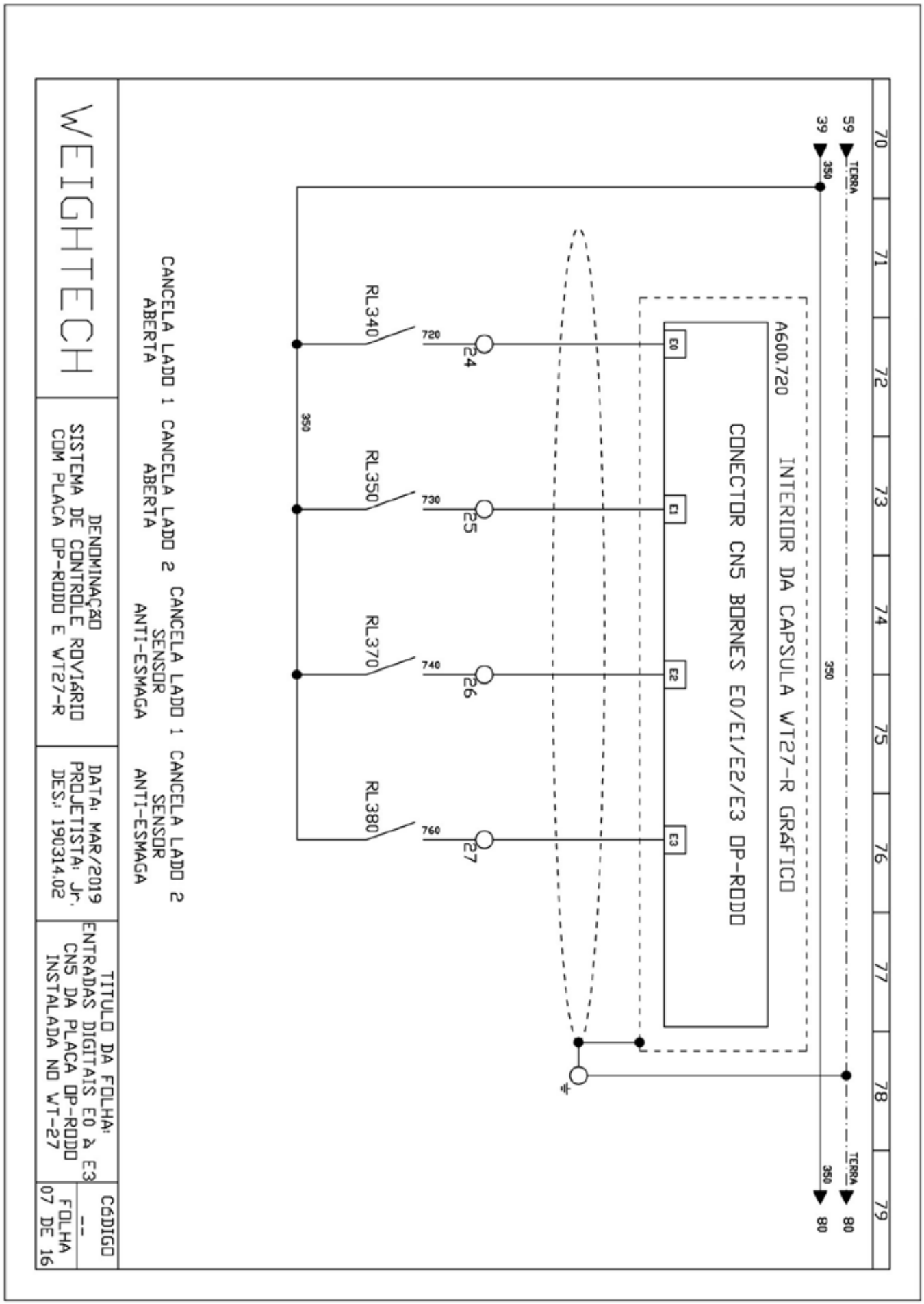

WEIGHTECH
DENOMINAÇÃO
SISTEMA DE CONTROLE RODOVIÁRIO
COM PLACA OP-RODO E WT27-R
DATA: MAR/2019
PROJETISTA: Jr.
DES.: 190314.03
TITULO DA FOLHA:
DISTRIBUIÇÃO DAS
ALIMENTAÇÕES 48VCC
ACIONAMENTO SEMÁFOROS
CÓDIGO
--
FOLHA
02 DE 16
FN200
OUT:48VCC
-V -V +48 +48
NEGATIVO
48VCC
COMUM
SEMÁFOROS
00
200
210
211
09
09
F210
2A
TERRA
14
19
R
19
S
TERRA
30
R
30
S
30
160
170
211
RL
920
RL
930
RL
940
RL
960
VERDE
01
220
SEMÁFORO DE
ENTRADA LADO 1
VERM.
02
230
VERDE
03
240
SEMÁFORO DE
SAÍDA LADO 1
VERM.
04
241
VERDE
05
250
SEMÁFORO DE
ENTRADA LADO 2
VERM.
06
260
VERDE
07
270
SEMÁFORO DE
SAÍDA LADO 2
VERM.
08
271
P/ CASOS ONDE O 220VAC É OBTIDO LIGANDO
1 FASE E 1 NEUTRO (TRIFÁSICO 380)
SUBSTITUIR A FASE S POR NEUTRO N

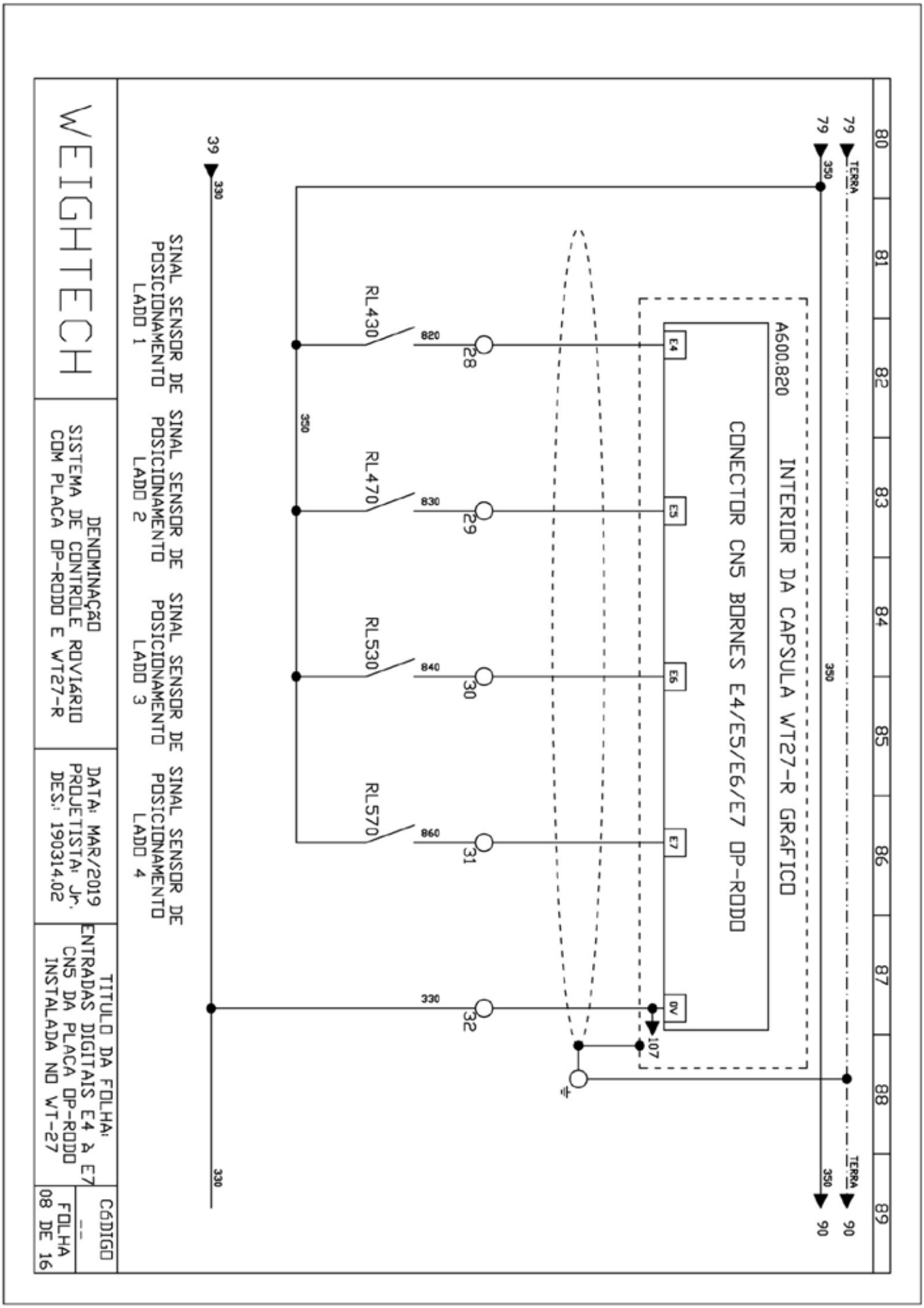

WEIGHTECH
DENOMINAÇÃO
SISTEMA DE CONTROLE ROVIÁRIO
COM PLACA OP-RODO E WT27-R
DATA: MAR/2019
PROJETISTA: Jr.
DES.: 190314.03
TITULO DA FOLHA:
Alimentação/Proteções:
cancela, I/OS e sensores
+ controle cancelas.
CÓDIGO
--
FOLHA
03 DE 16
FN300
OUT:24VCC
3A
FN330
OUT:24VCC
2A
F310
2A
F311
1A
F350
1A
RL
1020
RL
1040
RL
340
RL
350
RL
370
RL
380
D340
1N4148
D350
1N4148
D370
1N4148
D380
1N4148
CANCELA LADO 1
ABRE/FECHA
ACIONA BOBINA
RELÉ EXTERNO
RESERVA
CANCELA LADO 2
ABRE/FECHA
ACIONA BOBINA
RELÉ EXTERNO
RESERVA
+24
ALIM.
SENSOR
RETORNO
CONTATO
SECO
CANCELA LADO 1
ABERTA
+24
ALIM.
SENSOR
RETORNO
CONTATO
SECO
CANCELA LADO 2
ABERTA
+24
CONTATO
SECO
RETORNO
CONTATO
SECO
CANCELA LADO 1
ANTI-ESMAGA
+24
CONTATO
SECO
RETORNO
CONTATO
SECO
CANCELA LADO 2
ANTI-ESMAGA
ACIONAMENTOS/ALIMENTAÇÃO EXTERNA P/
RELÉS NAS CANCELAS PULSO ABRE/FECHA
CONTATOS CANCELA ABERTA
CONTATOS ANTI-ESMAGAMENTO
ALIMENTAÇÃO
SENSORES DE
POSICIONAMENTO
I/O OP-RODO
ALIMENT.
P/ CASOS ONDE O 220VAC É OBTIDO LIGANDO
1 FASE E 1 NEUTRO (TRIFÁSICO 380)
SUBSTITUIR A FASE S POR NEUTRO N
TERRA
TERRA

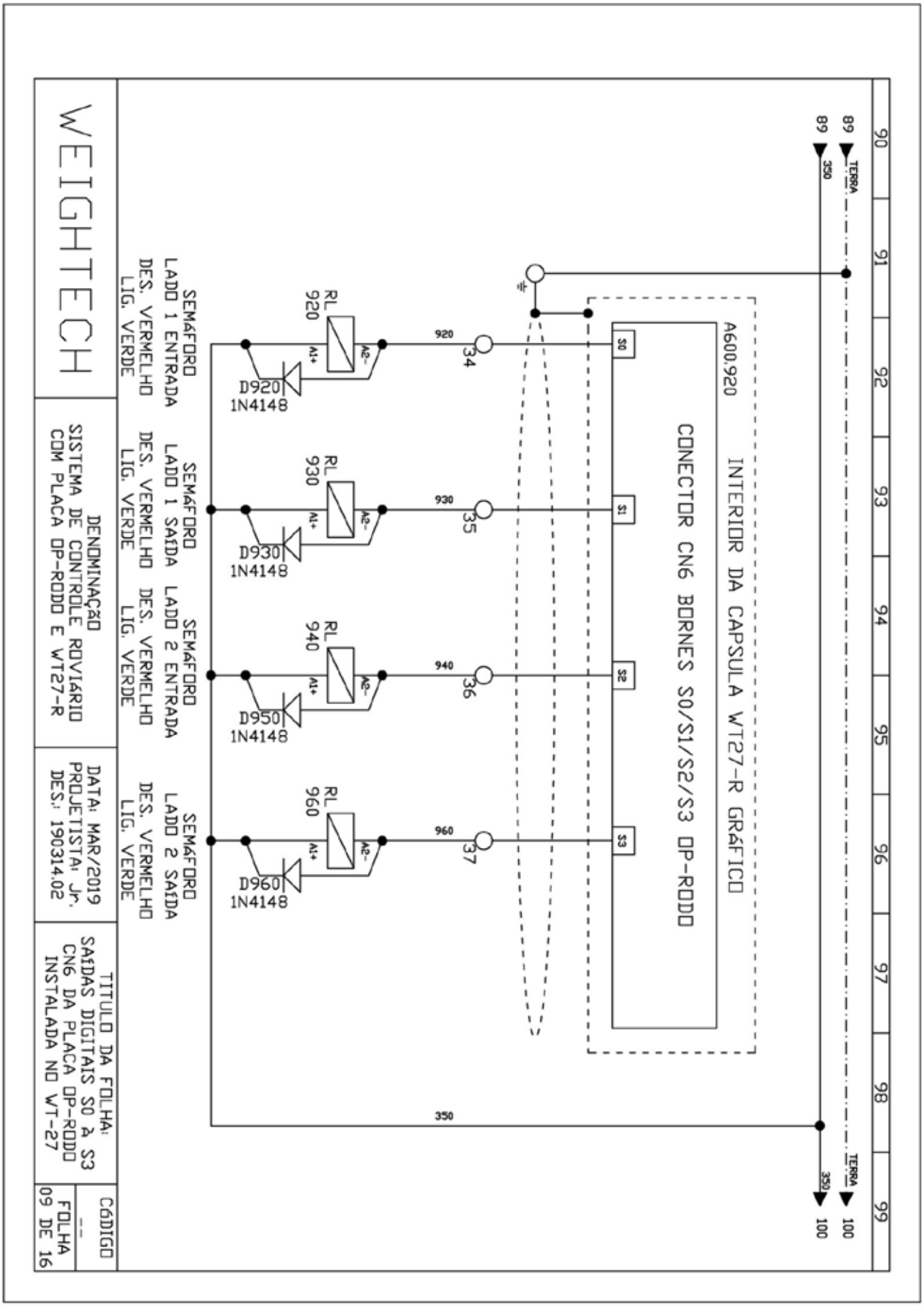

WEIGHTECH
DENOMINAÇÃO
SISTEMA DE CONTROLE ROVIÁRIO
COM PLACA OP-RODO E WT27-R
DATA: MAR/2019
PROJETISTA: JR.
DES.: 190314.03
TITULO DA FOLHA:
ALIMENTAÇÃO E SINAIS DOS
SENSORES DE
POSICIONAMENTO LADO1 E 2
CÓDIGO
--
FOLHA
04 DE 16
TRANSMISSOR(FOTOCEL.)
SENS. POS. LADO 1
GND
ALIMENT.
+24
ALIMENT.
RECEPTOR (FOTOCEL.)
SENS. POS. LADO 1
GND
ALIMENT.
+24
CONTATO
E
ALIMENT.
RETORNO
CONTATO
TRANSMISSOR(FOTOCEL.)
SENS. POS. LADO 2
GND
ALIMENT.
+24
ALIMENT.
RECEPTOR (FOTOCEL.)
SENS. POS. LADO 2
GND
ALIMENT.
+24
CONTATO
E
ALIMENT.
RETORNO
CONTATO
RL
430
A1+
A2-
D440
1N4148
RL
470
A1+
A2-
D470
1N4148
TERRA
TERRA
313
300
313
313
430
470
23
23
23
23
19
20
39
39
39
50
50
50
40
41
42
43
44
45
46
47
48
49

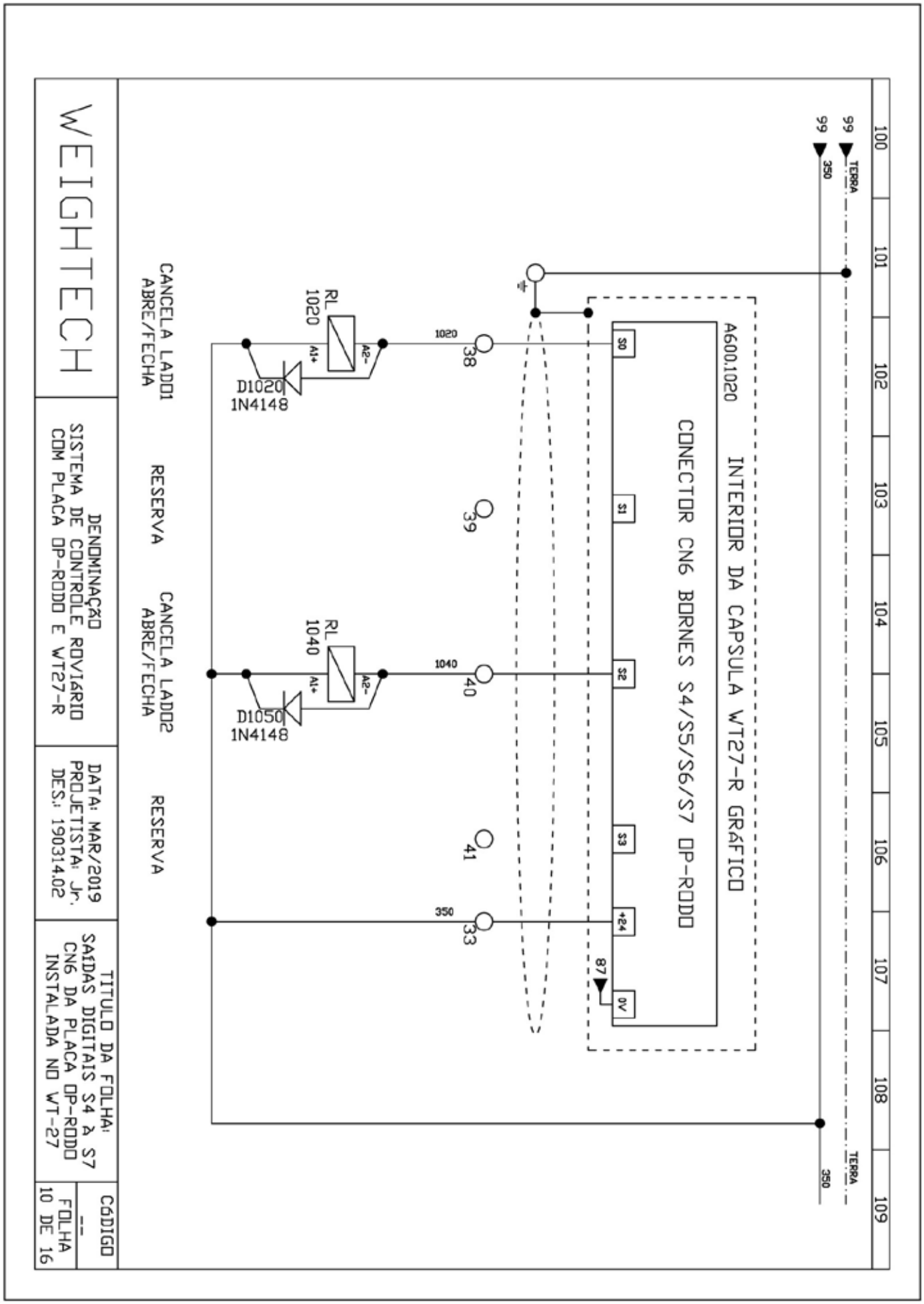

WEIGHTECH
DENOMINAÇÃO
SISTEMA DE CONTROLE ROVIÁRIO
COM PLACA OP-RODO E WT27-R
DATA: MAR/2019
PROJETISTA: Jr.
DES.: 190314.03
TITULO DA FOLHA:
ALIMENTAÇÃO E SINAIS DOS
SENSORES DE
POSICIONAMENTO LADO3 E 4
CÓDIGO
--
FOLHA
05 DE 16
50 51 52 53 54 55 56 57 58 59
TERRA
49
313
300
70
TRANSMISSOR(FOTOCEL.) SENS. POS. LADO 3
GND ALIMENT.
+24 ALIMENT.
RECEPTOR (FOTOCEL.) SENS. POS. LADO 3
GND ALIMENT.
+24 CONTATO E ALIMENT.
RETORNO CONTATO
TRANSMISSOR(FOTOCEL.) SENS. POS. LADO 4
GND ALIMENT.
+24 ALIMENT.
RECEPTOR (FOTOCEL.) SENS. POS. LADO 4
GND ALIMENT.
+24 CONTATO E ALIMENT.
RETORNO CONTATO
RL 530
RL 570
D540 1N4148
D570 1N4148
530
570
A1+
A2-
21
22
23

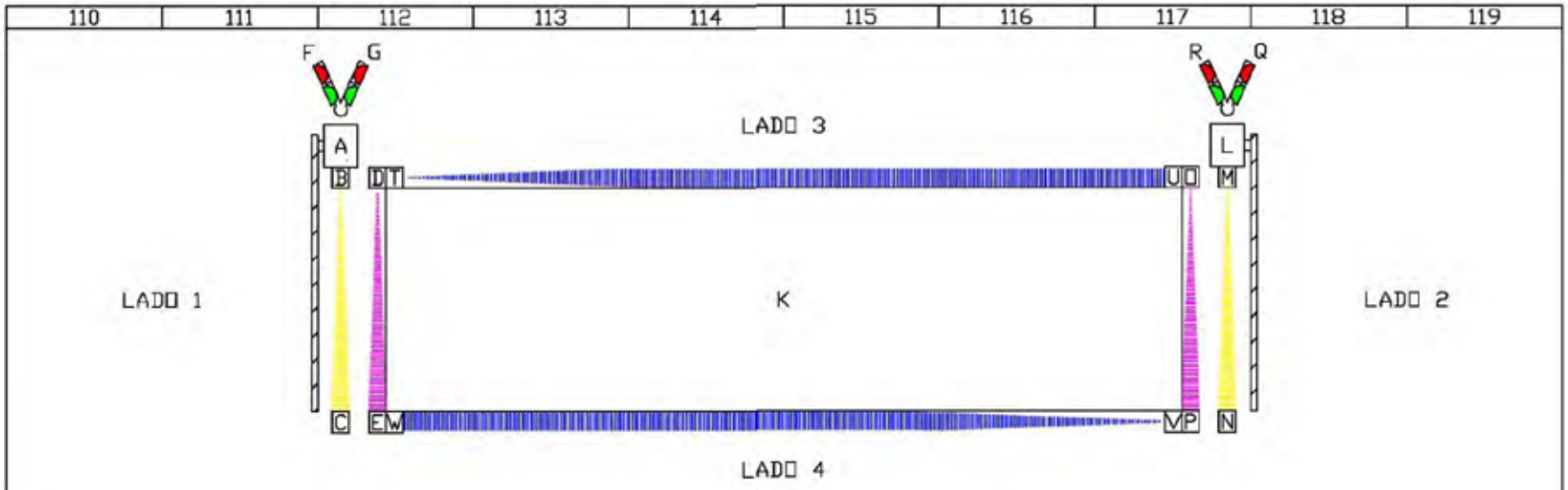

60
61
62
63
64
65
66
67
68
69
A610
INTERIOR DA CAPSULA WT27-R GRÁFICO
PLACA P/ AUTOMAÇÃO RODOVIÁRIA, INSTALADA NO INTERIOR DO INDICADOR WT-27
OP-RODO
CN1
INDICADOR OP-RODO
CN10
EXPANSÃO
CN7A/CN11/CN12
USB
CN13
TECLADO
CN5
ENTRADAS DIGITAIS
CN6
SAIDAS DIGITAIS
VAI P/ CONECTOR CN1
NA PLACA DO WT27
CABO 18VIAS COM 22AWG
BLINDADO + CONDUTOR DRENO
VAI P/ O ARMÁRIO DE
COMANDOS
DETALHES PÁGINAS 7,8,9 E 10;
WEIGHTECH
DENOMINAÇÃO
SISTEMA DE CONTROLE RODVIÁRIO
COM PLACA OP-RODO E WT27-R
DATA: MAR/2019
PROJETISTA: Jr.
DES.: 190314.02
TITULO DA FOLHA:
PLACA OP-RODO NO WT-27
CÓDIGO
--
FOLHA
06 DE 16


70
71
72
73
74
75
76
77
78
79
59
39
TERRA
350
A600.720
INTERIOR DA CAPSULA WT27-R GRÁFICO
CONECTOR CN5 BORNES E0/E1/E2/E3 OP-RODO
E0
E1
E2
E3
RL340
RL350
RL370
RL380
720
730
740
760
24
25
26
27
80
CANCELA LADO 1
ABERTA
CANCELA LADO 2
ABERTA
CANCELA LADO 2
SENSOR
ANTI-ESMAGA
CANCELA LADO 1
SENSOR
ANTI-ESMAGA
WEIGHTECH
DENOMINAÇÃO
SISTEMA DE CONTROLE RODVIÁRIO
COM PLACA OP-RODO E WT27-R
DATA: MAR/2019
PROJETISTA: Jr.
DES.: 190314.02
TITULO DA FOLHA:
ENTRADAS DIGITAIS E0 à E3
CN5 DA PLACA OP-RODO
INSTALADA NO WT-27
CÓDIGO
--
FOLHA
07 DE 16


80
81
82
83
84
85
86
87
88
89
79
TERRA
350
90
A600.820 INTERIOR DA CAPSULA WT27-R GRÁFICO
CONECTOR CN5 BORNES E4/E5/E6/E7 OP-RODO
E4
E5
E6
E7
0V
107
RL430
RL470
RL530
RL570
820
830
840
860
28
29
30
31
32
330
39
SINAL SENSOR DE POSICIONAMENTO LADO 1
SINAL SENSOR DE POSICIONAMENTO LADO 2
SINAL SENSOR DE POSICIONAMENTO LADO 3
SINAL SENSOR DE POSICIONAMENTO LADO 4
WEIGHTECH
DENOMINAÇÃO
SISTEMA DE CONTROLE ROVIÁRIO
COM PLACA OP-RODO E WT27-R
DATA: MAR/2019
PROJETISTA: JR.
DES.: 190314.02
TITULO DA FOLHA:
ENTRADAS DIGITAIS E4 à E7
CN5 DA PLACA OP-RODO
INSTALADA NO WT-27
CÓDIGO
--
FOLHA
08 DE 16

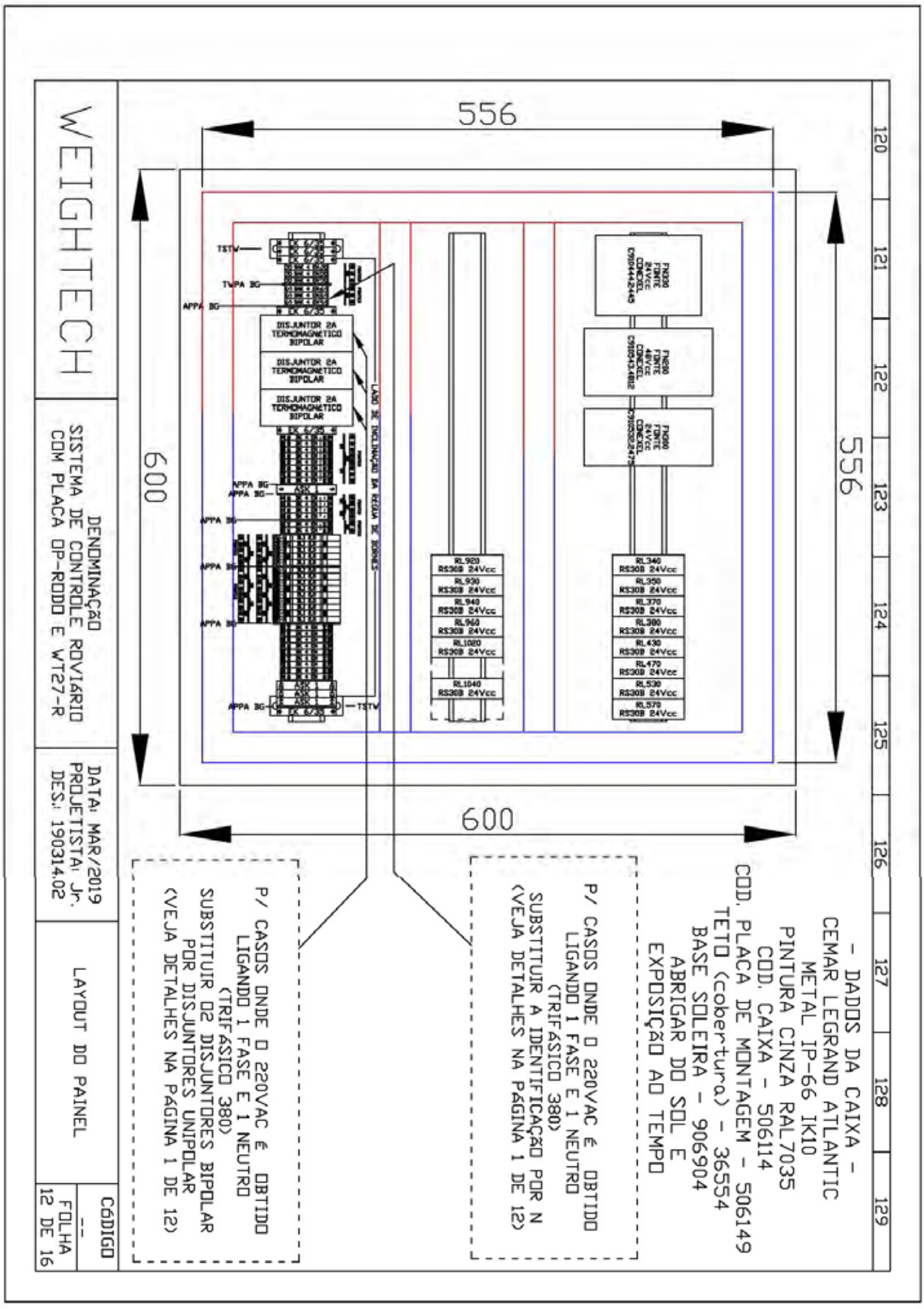

90
91
92
93
94
95
96
97
98
99
89
TERRA
350
100
A600.920 INTERIOR DA CAPSULA WT27-R GRÁFICO
CONECTOR CN6 BORNES S0/S1/S2/S3 OP-RODO
S0
S1
S2
S3
RL 920
RL 930
RL 940
RL 960
A1+
A2-
D920 1N4148
D930 1N4148
D950 1N4148
D960 1N4148
920
930
940
960
34
35
36
37
SEMÁFORO LADO 1 ENTRADA
DES. VERMELHO
LIG. VERDE
SEMÁFORO LADO 1 SAÍDA
DES. VERMELHO
LIG. VERDE
SEMÁFORO LADO 2 ENTRADA
DES. VERMELHO
LIG. VERDE
SEMÁFORO LADO 2 SAÍDA
DES. VERMELHO
LIG. VERDE
WEIGHTECH
DENOMINAÇÃO
SISTEMA DE CONTROLE RODVIÁRIO
COM PLACA OP-RODO E WT27-R
DATA: MAR/2019
PROJETISTA: Jr.
DES.: 190314.02
TITULO DA FOLHA:
SAÍDAS DIGITAIS S0 à S3
CN6 DA PLACA OP-RODO
INSTALADA NO WT-27
CÓDIGO
FOLHA
09 DE 16

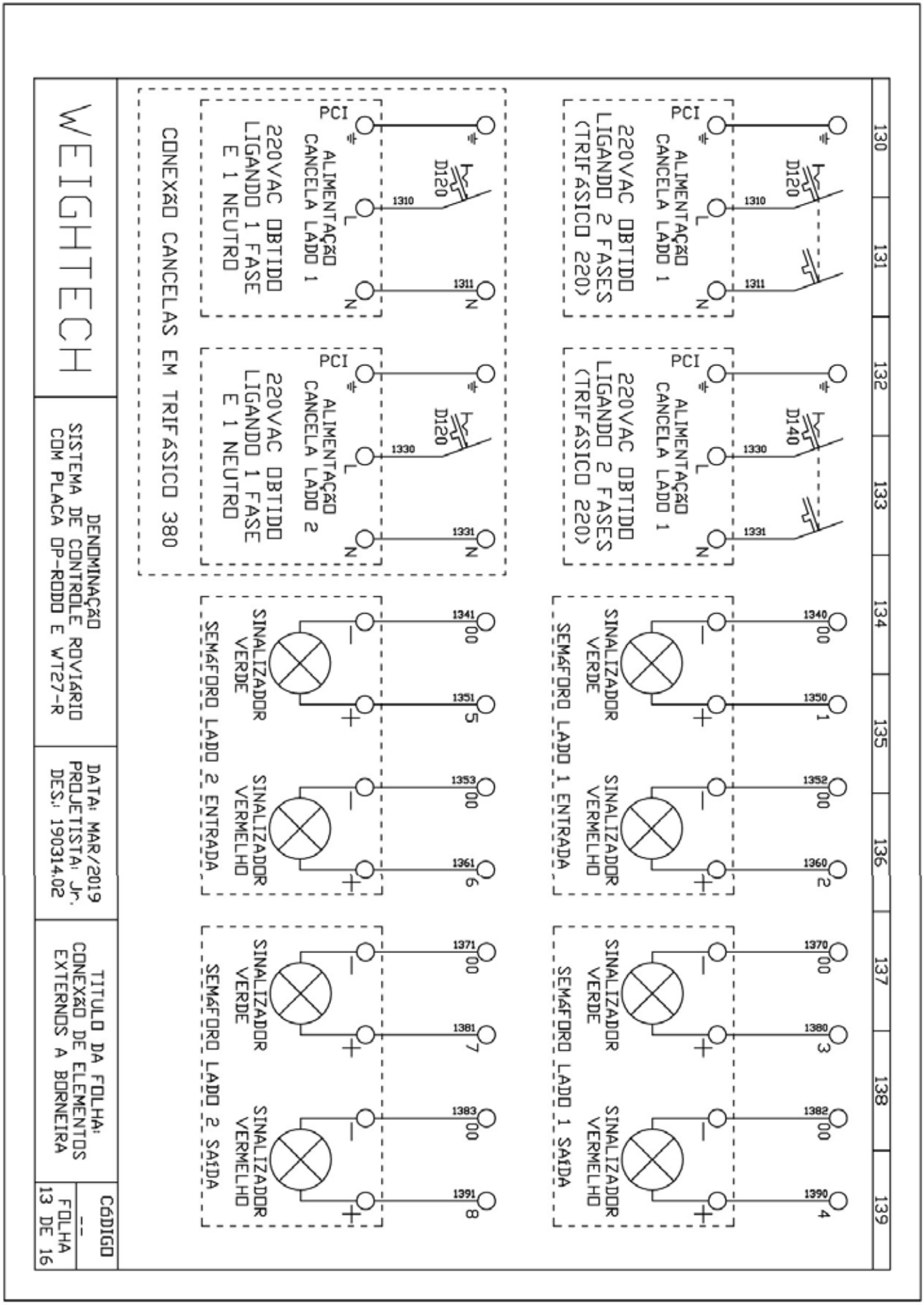

100
101
102
103
104
105
106
107
108
109
99
TERRA
99
350
A600.1020
INTERIOR DA CAPSULA WT27-R GRÁFICO
CONECTOR CN6 BORNES S4/S5/S6/S7 OP-RODO
S0
S1
S2
S3
+24
0V
87
RL
1020
A1+
A2-
D1020
1N4148
1020
38
CANCELA LADO1
ABRE/FECHA
39
RESERVA
RL
1040
A1+
A2-
D1050
1N4148
1040
40
CANCELA LADO2
ABRE/FECHA
41
RESERVA
350
33
350
TERRA
WEIGHTECH
DENOMINAÇÃO
SISTEMA DE CONTROLE RDV16RID
COM PLACA OP-RODO E WT27-R
DATA: MAR/2019
PROJETISTA: JR.
DES.: 190314.02
TITULO DA FOLHA:
SAIDAS DIGITAIS S4 À S7
CN6 DA PLACA OP-RODO
INSTALADA NO WT-27
CÓDIGO
--
FOLHA
10 DE 16

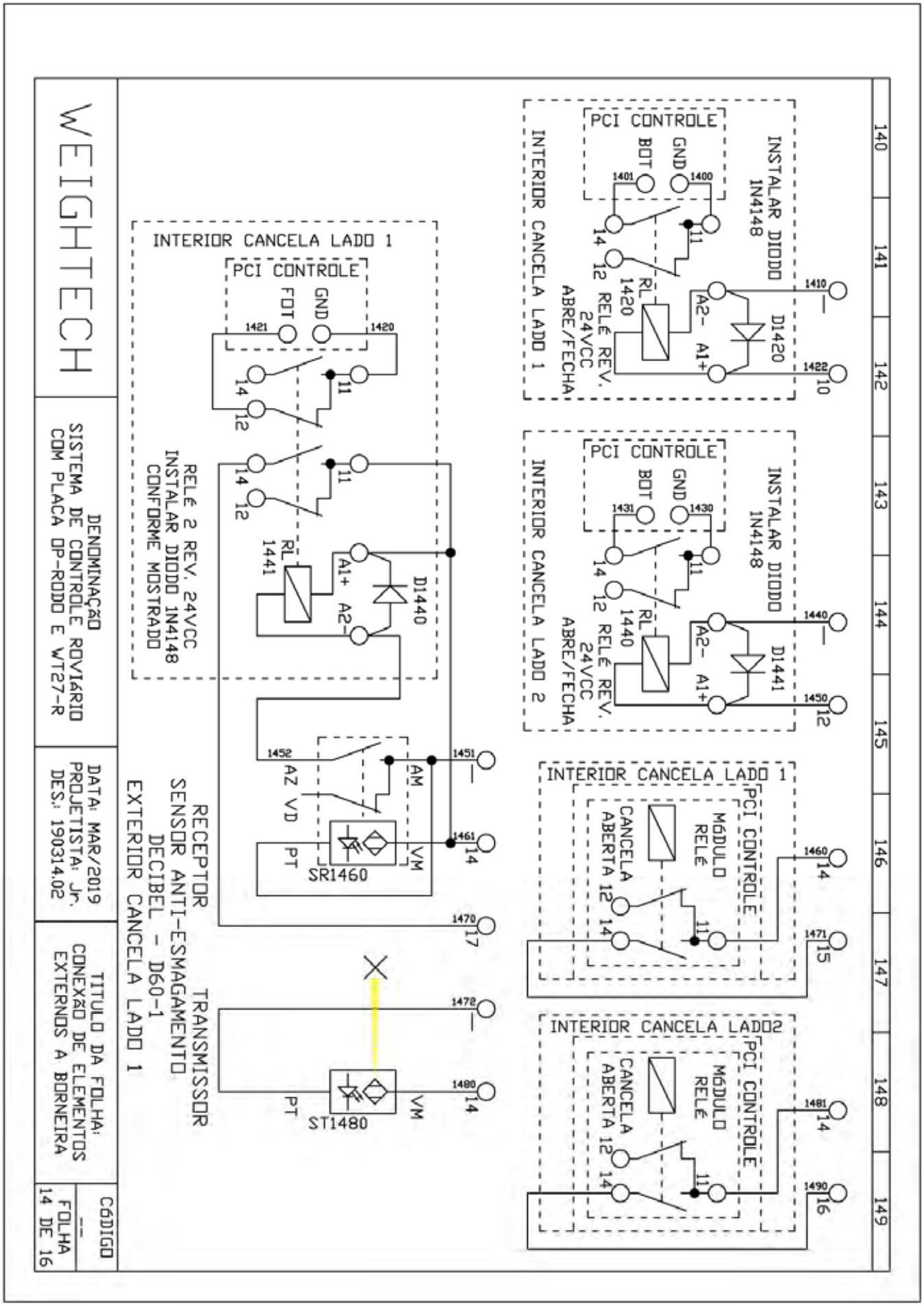


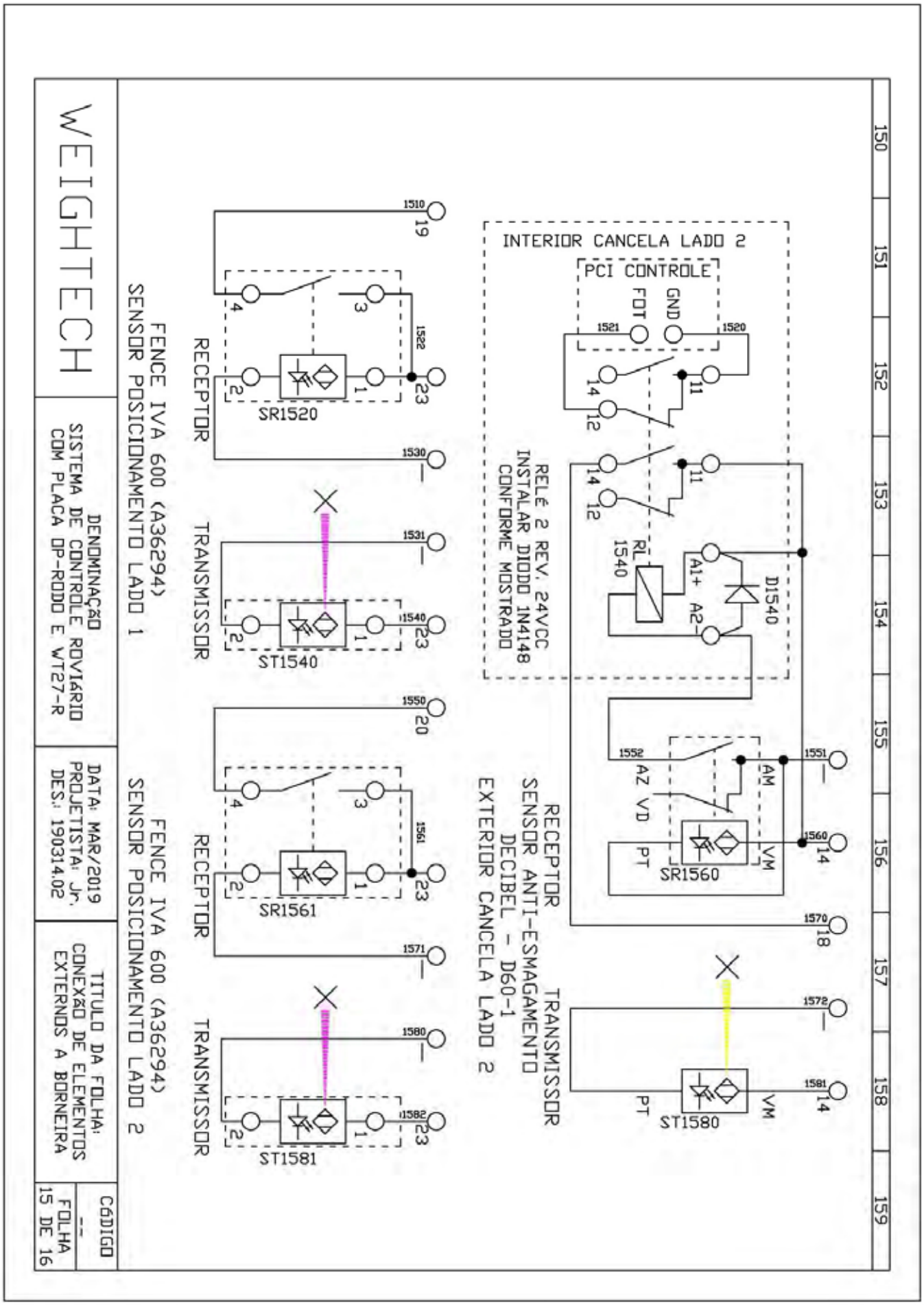
A-CANCELA LADO 1
B-TRANSMISSOR DO SENSOR ANTI-ESMAGAMENTO CANCELA LADO 1
C-RECEPTOR DO SENSOR ANTI-ESMAGAMENTO CANCELA LADO 1
D-TRANSMISSOR DO SENSOR DE POSICIONAMENTO LADO 1
E-RECEPTOR DO SENSOR DE POSICIONAMENTO LADO 1
F-SEMÁFORO ENTRADA LADO 1
G-SEMÁFORO SAÍDA LADO 1
K-BALANÇA
L-CANCELA LADO 2
M-TRANSMISSOR DO SENSOR DE PRESENÇA NA CANCELA LADO 2
N-RECEPTOR DO SENSOR DE PRESENÇA NA CANCELA LADO 2
O-TRANSMISSOR DO SENSOR DE POSICIONAMENTO LADO 2
P-RECEPTOR DO SENSOR DE POSICIONAMENTO LADO 2
Q-SEMÁFORO ENTRADA LADO 2
R-SEMÁFORO SAÍDA LADO 2
T-TRANSMISSOR DO SENSOR DE POSICIONAMENTO LADO 3
U-RECEPTOR DO SENSOR DE POSICIONAMENTO LADO 3
V-TRANSMISSOR DO SENSOR DE POSICIONAMENTO LADO 4
W-RECEPTOR DO SENSOR DE POSICIONAMENTO LADO 4

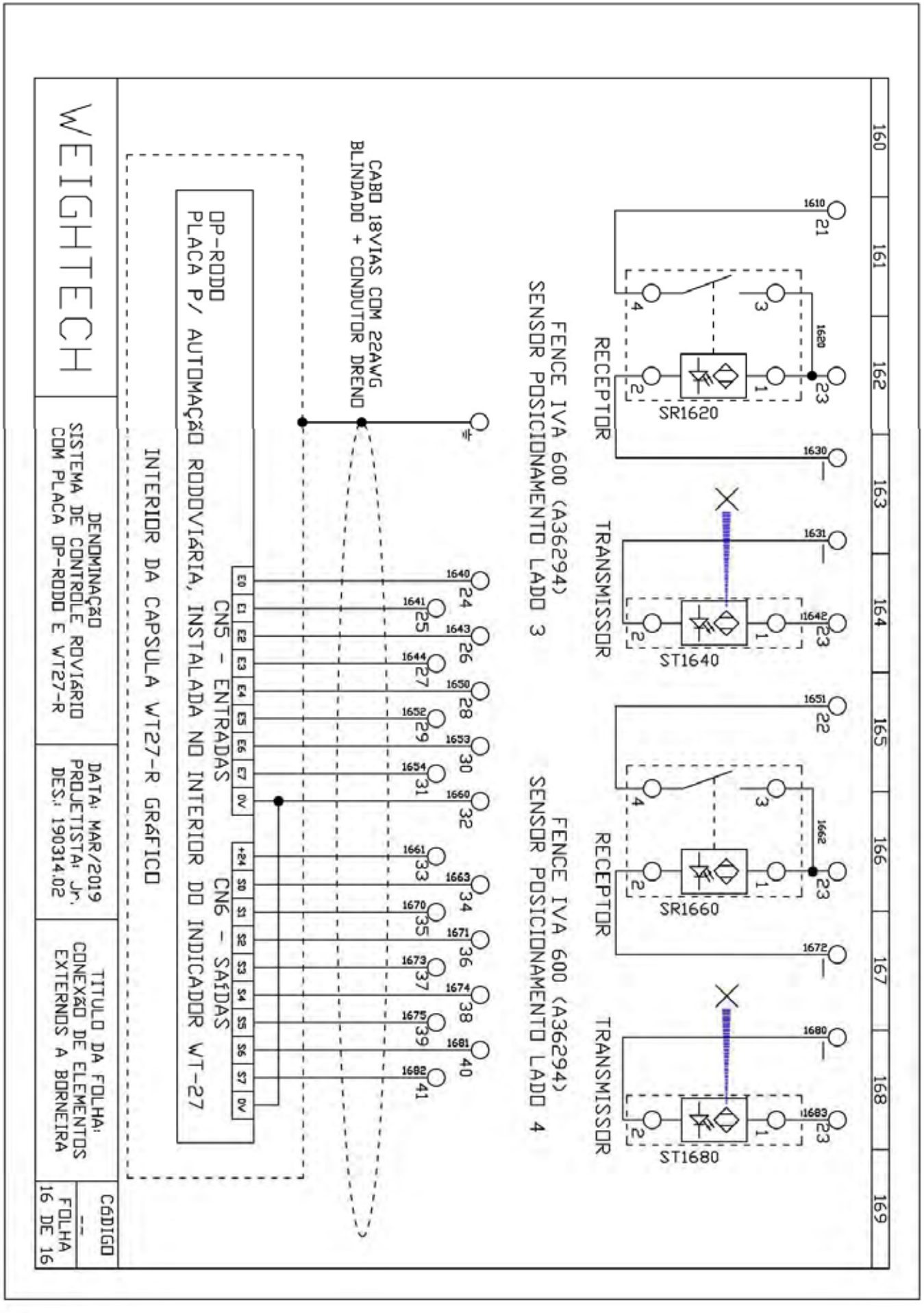
WEIGHTECH	DENOMINAÇÃO SISTEMA DE CONTROLE ROVIÁRIO COM PLACA OP-RODO E WT27-R	DATA: MAR/2019 PROJETISTA: Jr. DES.: 190314.02	LAY-OUT DOS DISPOSITIVOS NA PLATAFORMA	CÓDIGO -- FOLHA 11 DE 16


WEIGHTECH
DENOMINAÇÃO
SISTEMA DE CONTROLE RODOVIÁRIO
COM PLACA OP-RODO E WT27-R
DATA: MAR/2019
PROJETISTA: Jr.
DES.: 190314.02
LAYOUT DO PAINEL
CÓDIGO
--
FOLHA
12 DE 16
556
600
556
600
- DADOS DA CAIXA -
CEMAR LEGRAND ATLANTIC
METAL IP-66 IK10
PINTURA CINZA RAL7035
COD. CAIXA - 506114
COD. PLACA DE MONTAGEM - 506149
TETO (cobertura) - 36554
BASE SOLEIRA - 906904
ABRIGAR DO SOL E
EXPOSIÇÃO AO TEMPO
P/ CASOS ONDE O 220VAC É OBTIDO
LIGANDO 1 FASE E 1 NEUTRO
(TRIFÁSICO 380)
SUBSTITUIR A IDENTIFICAÇÃO POR N
(VEJA DETALHES NA PÁGINA 1 DE 12)
P/ CASOS ONDE O 220VAC É OBTIDO
LIGANDO 1 FASE E 1 NEUTRO
(TRIFÁSICO 380)
SUBSTITUIR OS DISJUNTORES BIPOLAR
POR DISJUNTORES UNIPOLAR
(VEJA DETALHES NA PÁGINA 1 DE 12)
DISJUNTOR 2A TERMOMAGNETICO BIPOLAR
DISJUNTOR 2A TERMOMAGNETICO BIPOLAR
DISJUNTOR 2A TERMOMAGNETICO BIPOLAR
FONTE 24VCC CONEXEL
FONTE 48VCC CONEXEL
FONTE 24VCC CONEXEL
RL920 RS30B 24Vcc
RL930 RS30B 24Vcc
RL940 RS30B 24Vcc
RL960 RS30B 24Vcc
RL1020 RS30B 24Vcc
RL1040 RS30B 24Vcc
RL340 RS30B 24Vcc
RL350 RS30B 24Vcc
RL370 RS30B 24Vcc
RL390 RS30B 24Vcc
RL430 RS30B 24Vcc
RL470 RS30B 24Vcc
RL530 RS30B 24Vcc
RL570 RS30B 24Vcc
TSTV
TVPA BG
APPA BG
TSTV

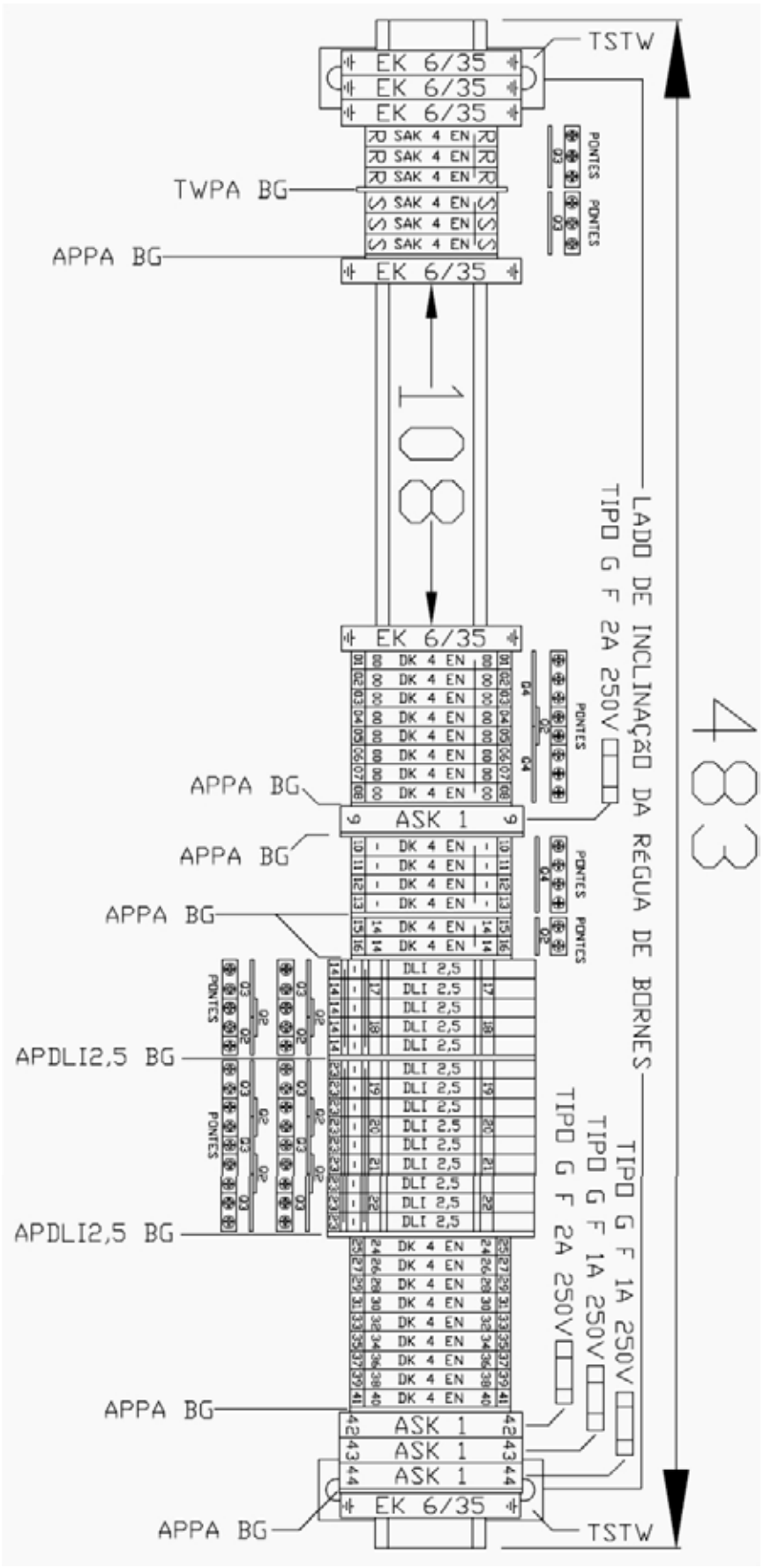

130
131
132
133
134
135
136
137
138
139
PCI
ALIMENTAÇÃO CANCELA LADO 1
D120
1310
1311
220VAC OBTIDO LIGANDO 2 FASES (TRIFÁSICO 220)
PCI
ALIMENTAÇÃO CANCELA LADO 1
D140
1330
1331
220VAC OBTIDO LIGANDO 2 FASES (TRIFÁSICO 220)
SEMÁFORO LADO 1 ENTRADA
SINALIZADOR VERDE
1340
1350
SINALIZADOR VERMELHO
1352
1360
SEMÁFORO LADO 1 SAÍDA
SINALIZADOR VERDE
1370
1380
SINALIZADOR VERMELHO
1382
1390
PCI
ALIMENTAÇÃO CANCELA LADO 1
D120
1310
1311
220VAC OBTIDO LIGANDO 1 FASE E 1 NEUTRO
PCI
ALIMENTAÇÃO CANCELA LADO 2
D120
1330
1331
220VAC OBTIDO LIGANDO 1 FASE E 1 NEUTRO
CONEXÃO CANCELAS EM TRIFÁSICO 380
SEMÁFORO LADO 2 ENTRADA
SINALIZADOR VERDE
1341
1351
SINALIZADOR VERMELHO
1353
1361
SEMÁFORO LADO 2 SAÍDA
SINALIZADOR VERDE
1371
1381
SINALIZADOR VERMELHO
1383
1391
WEIGHTECH
DENOMINAÇÃO
SISTEMA DE CONTROLE ROVIÁRIO COM PLACA OP-RODO E WT27-R
DATA: MAR/2019
PROJETISTA: Jr.
DES.: 190314.02
TITULO DA FOLHA:
CONEXÃO DE ELEMENTOS EXTERNOS A BORNEIRA
CÓDIGO
--
FOLHA
13 DE 16


WEIGHTECH
DENOMINAÇÃO
SISTEMA DE CONTROLE ROVIÁRIO
COM PLACA OP-RODO E WT27-R
DATA: MAR/2019
PROJETISTA: JP.
DES.: 190314.02
TITULO DA FOLHA:
CONEXÃO DE ELEMENTOS
EXTERNOS A BORNEIRA
CÓDIGO
--
FOLHA
14 DE 16
INSTALAR DIODO
1N4148
PCI CONTROLE
BOT
GND
1401
1400
14
12
11
RL
1420
A2-
A1+
D1420
1410
1422
10
RELÉ REV.
24VCC
ABRE/FECHA
INTERIOR CANCELA LADO 1
INSTALAR DIODO
1N4148
PCI CONTROLE
BOT
GND
1431
1430
RL
1440
A2-
A1+
D1441
1440
1450
12
RELÉ REV.
24VCC
ABRE/FECHA
INTERIOR CANCELA LADO 2
INTERIOR CANCELA LADO 1
PCI CONTROLE
MÓDULO
RELÉ
CANCELA
ABERTA 12
14
11
1460
14
1471
15
INTERIOR CANCELA LADO2
PCI CONTROLE
MÓDULO
RELÉ
CANCELA
ABERTA 12
14
11
1481
14
1490
16
INTERIOR CANCELA LADO 1
PCI CONTROLE
FOT
GND
1421
1420
14
12
11
RELÉ 2 REV. 24VCC
INSTALAR DIODO 1N4148
CONFORME MOSTRADO
RL
1441
A1+
A2-
D1440
1452
AZ
VD
PT
AM
VM
SR1460
1451
1461
14
1470
17
RECEPTOR
SENSOR ANTI-ESMAGAMENTO
DECIBEL - D60-1
EXTERIOR CANCELA LADO 1
TRANSMISSOR
1472
PT
VM
ST1480
1480
14
140
141
142
143
144
145
146
147
148
149

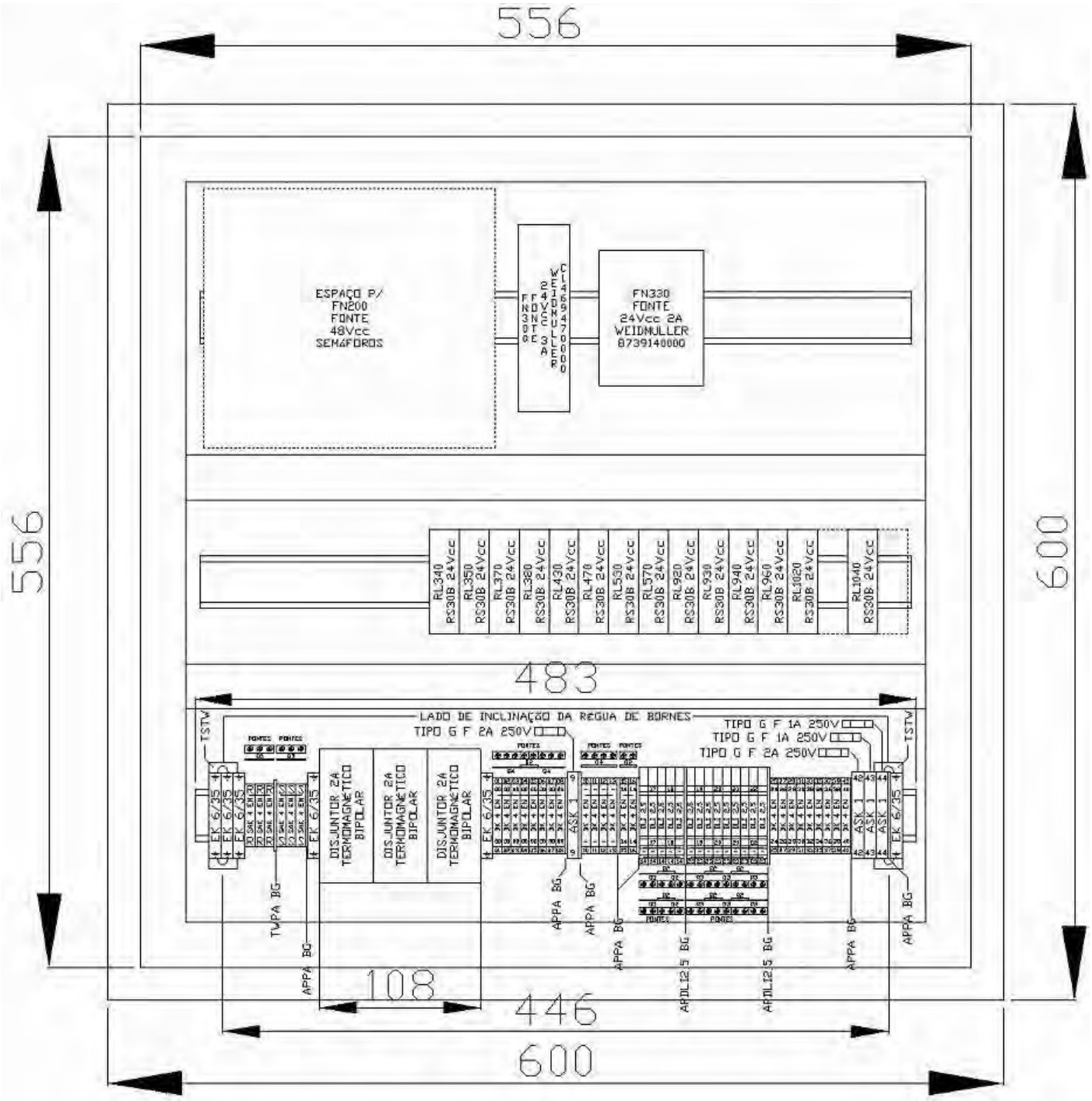

150
151
152
153
154
155
156
157
158
159
INTERIOR CANCELA LADO 2
PCI CONTROLE
FOT
GND
1521
1520
14
12
11
RELÉ 2 REV. 24VCC
INSTALAR DIODO 1N4148
CONFORME MOSTRADO
RL
1540
A1+
A2
D1540
1552
AZ
VD
AM
PT
VM
1551
1560
SR1560
RECEPTOR
SENSOR ANTI-ESMAGAMENTO
DECIBEL - D60-1
EXTERIOR CANCELA LADO 2
1570
18
TRANSMISSOR
1578
1581
ST1580
1510
19
4
3
2
1
1522
23
SR1520
RECEPTOR
1530
1531
1540
ST1540
TRANSMISSOR
1550
20
1561
SR1561
RECEPTOR
1571
1580
1582
ST1581
TRANSMISSOR
FENCE IVA 600 (A36294)
SENSOR POSICIONAMENTO LADO 1
FENCE IVA 600 (A36294)
SENSOR POSICIONAMENTO LADO 2
WEIGHTECH
DENOMINAÇÃO:
SISTEMA DE CONTROLE RODOVIÁRIO
COM PLACA OP-RODO E WT27-R
DATA: MAR/2019
PROJETISTA: Jr.
DES.: 190314.02
TITULO DA FOLHA:
CONEXÃO DE ELEMENTOS
EXTERNOS A BORNEIRA
CÓDIGO
--
FOLHA
15 DE 16


160
161
162
163
164
165
166
167
168
169
1610
21
1620
23
SR1620
RECEPTOR
1630
1631
1642
ST1640
TRANSMISSOR
FENCE IVA 600 (A36294)
SENSOR POSICIONAMENTO LADO 3
1651
22
1662
SR1660
RECEPTOR
1672
1680
1683
ST1680
TRANSMISSOR
FENCE IVA 600 (A36294)
SENSOR POSICIONAMENTO LADO 4
CABO 18VIAS COM 22AWG
BLINDADO + CONDUTOR DRENO
1640
1641
1643
1644
1650
1652
1653
1654
1660
1661
1663
1670
1671
1673
1674
1675
1681
1682
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
E0 E1 E2 E3 E4 E5 E6 E7 0V
CN5 - ENTRADAS
+24 S0 S1 S2 S3 S4 S5 S6 S7 0V
CN6 - SAÍDAS
OP-RODO
PLACA P/ AUTOMAÇÃO RODOVIÁRIA, INSTALADA NO INTERIOR DO INDICADOR WT-27
INTERIOR DA CAPSULA WT27-R GRÁFICO
WEIGHTECH
DENOMINAÇÃO
SISTEMA DE CONTROLE RODOVIÁRIO
COM PLACA OP-RODO E WT27-R
DATA: MAR/2019
PROJETISTA: JR.
DES.: 190314.02
TITULO DA FOLHA:
CONEXÃO DE ELEMENTOS
EXTERNOS A BORNEIRA
CÓDIGO
--
FOLHA
16 DE 16

10.2.2.1 Zoom terminal block (weidmüller mounted terminal block: C904138.5097).



10.2.2.2 Zoom in on the control panel (suggested layout at project).



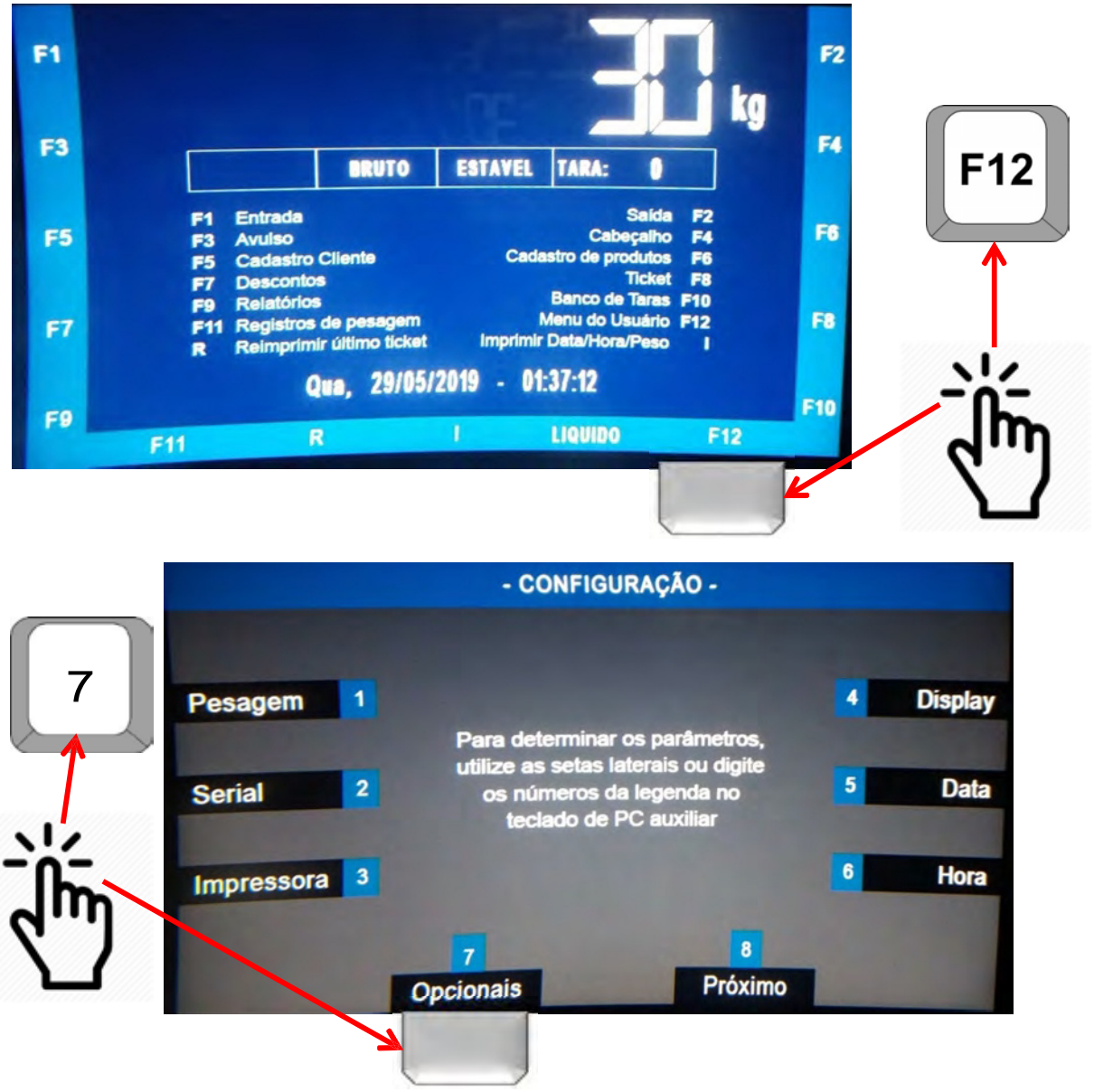
When 220VAC is obtained from the supply by connecting 1 phase and 1 neutral (three-phase 380), carry out the following procedure:

- Replace the 3 circuit breakers with single-pole models, as shown on page 1 of 16 of the wiring diagram.
- Replace the "S" identifiers on the terminal strip with "N".

10.3 PARAMETERS AND USE OF AUTOMATION AT INDICATOR.

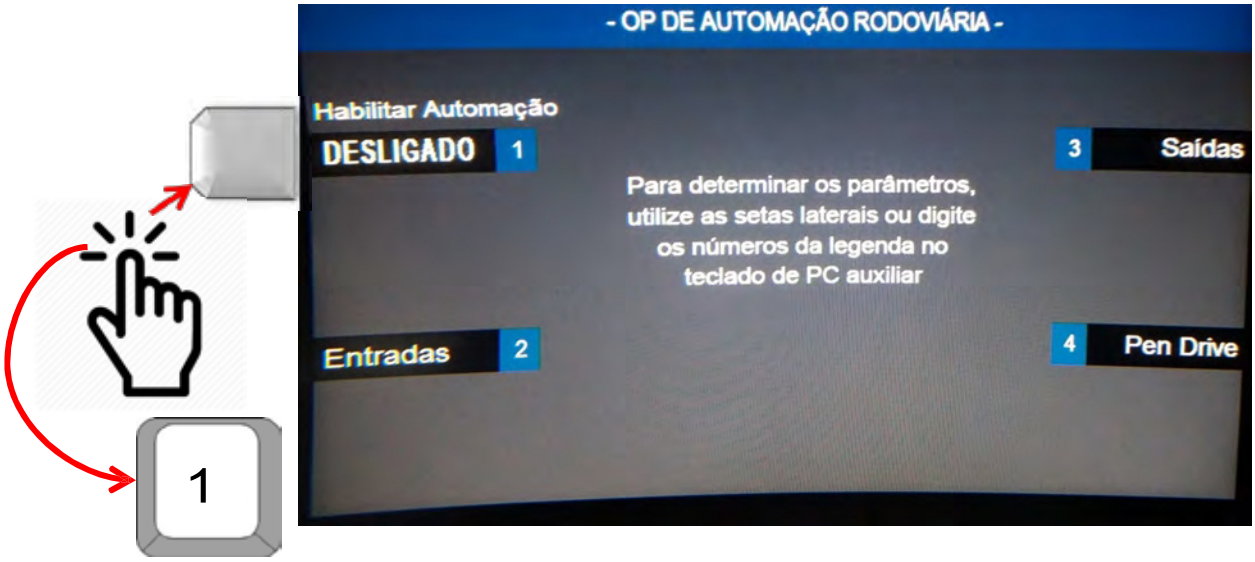
Once the automation board has been installed and interconnected according to the wiring diagram, activate the automation function and parameterize the I/Os, according to the instructions below.

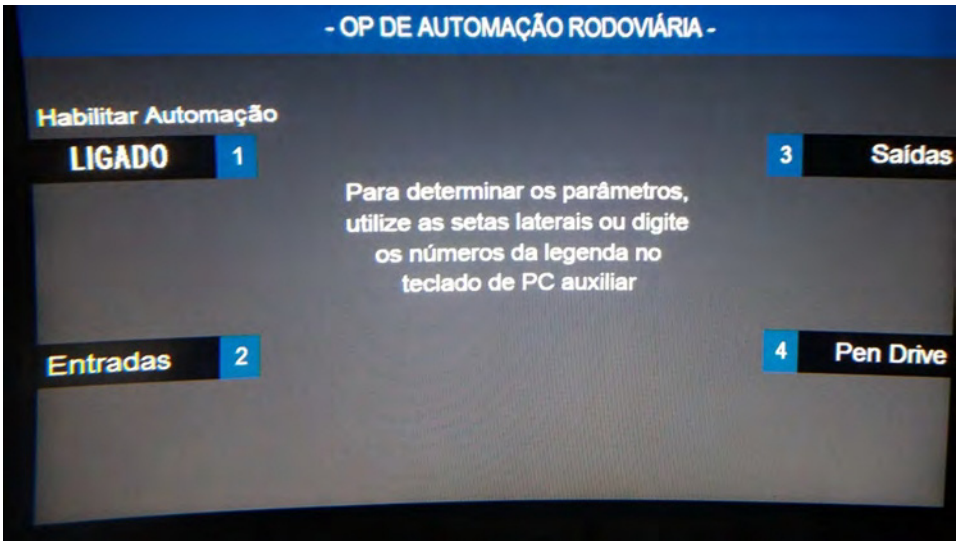
10.3.1 ACTIVATING THE AUTOMATION FUNCTION ROAD.



- The message waiting for detection will be displayed and you will continue to the next screen.
- If there are any problems with detection, an error message will be displayed and the system will return to the previous screen. In this case, check the connections to the OP-RODO board as shown in 10.1 and try again
- Continued on next page.

- Continued from previous page.

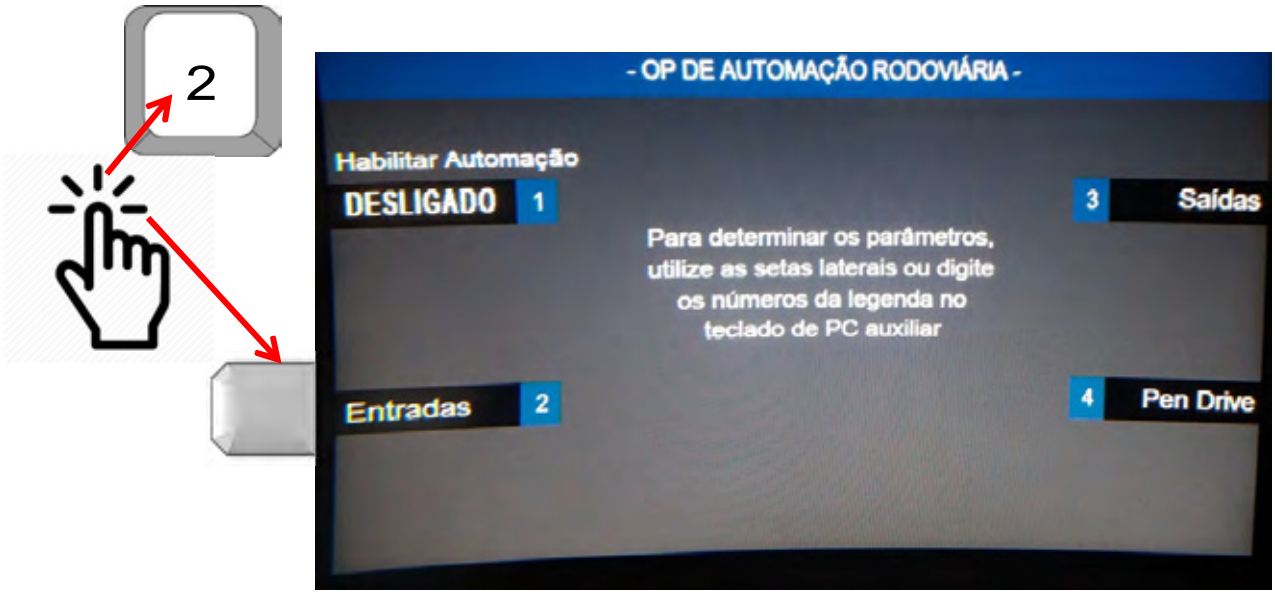


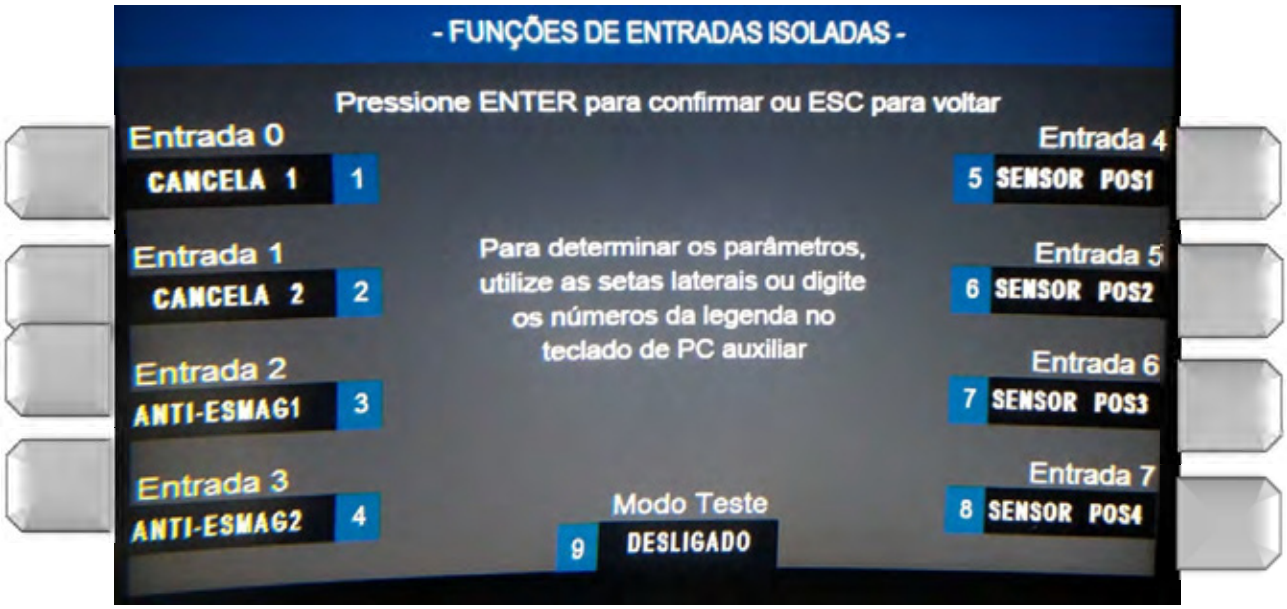


- Press esc to return to the start screen with the automation system ON.

10.3.2 PARAMETERIZATION OF THE DIGITAL INPUTS, ACCORDING TO THE ELECTRICAL DIAGRAM.

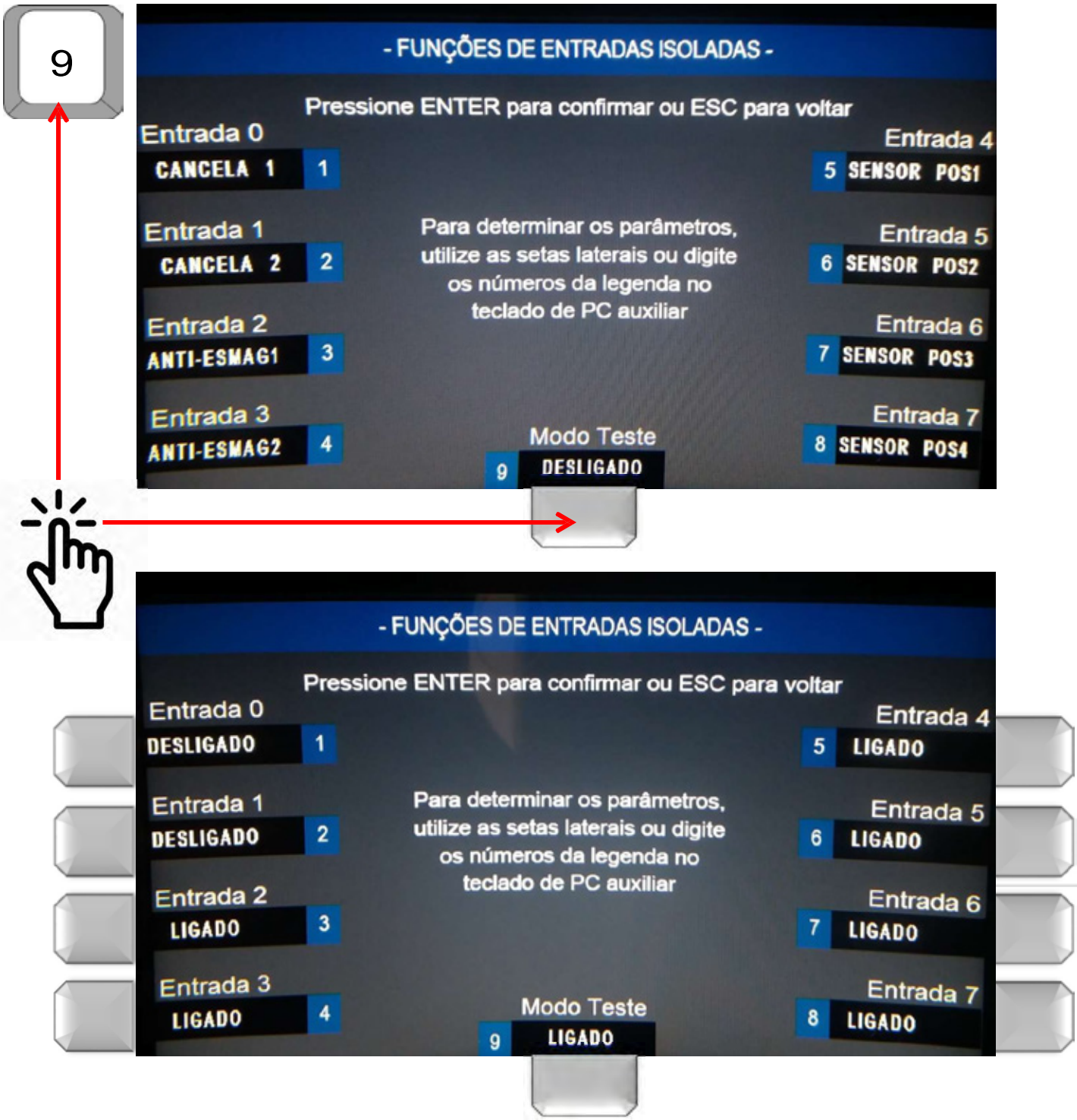
- See 10.3.1, to access the screen - ROAD AUTOMATION OP -





- For the automation system to work according to the Electrical Schematic suggested in 10.2.2, the inputs must follow the above configuration.
- Change the parameters by pressing the key corresponding to the entry, until the desired function appears in the field below the corresponding entry.
- You must press ENTER to validate the change you have made.
- Press ESC to exit without saving.

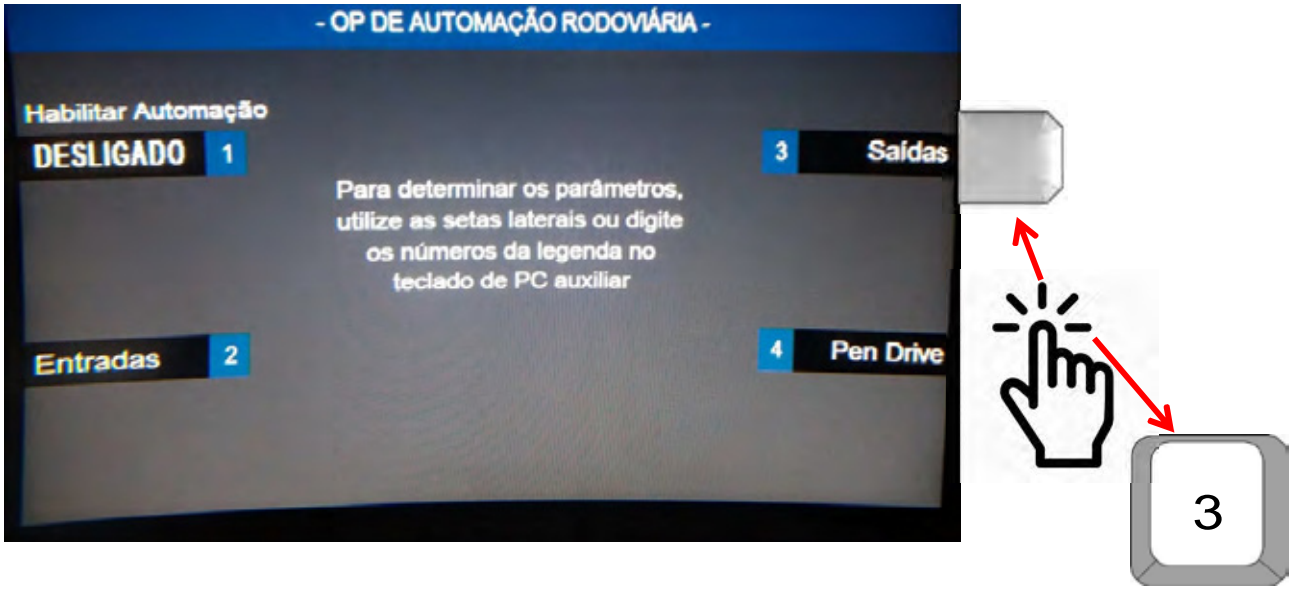
10.3.2.1 Input test mode digital.

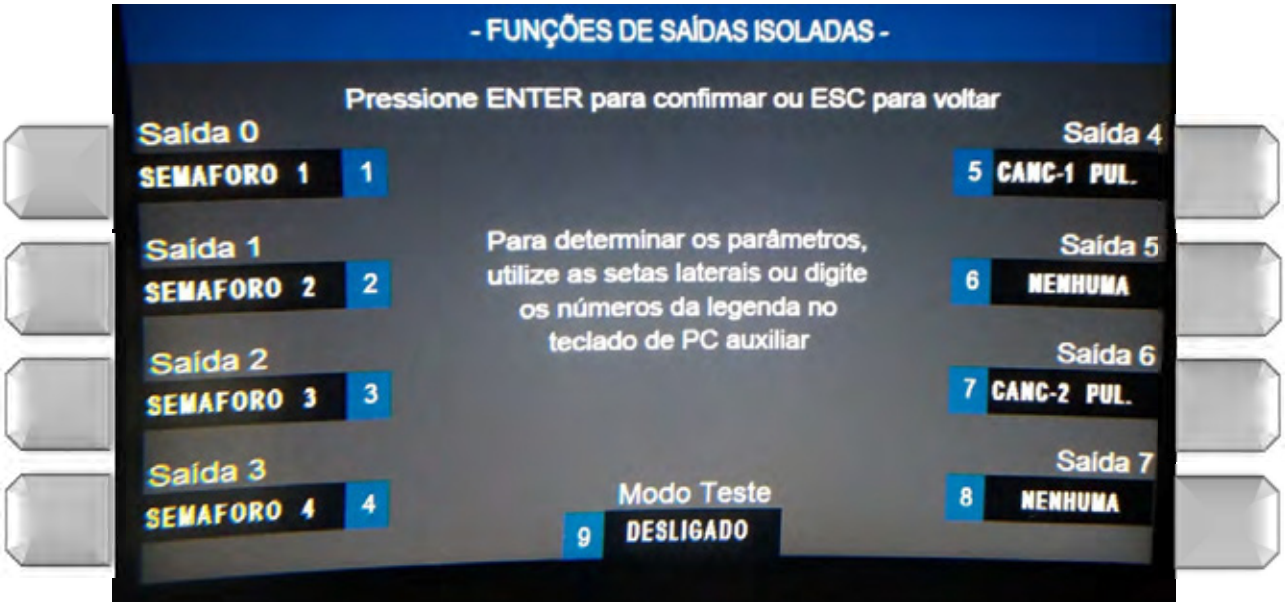


- When the test mode is activated, the function link for each input replaced by the words OFF or ON, representing the status of each digital input.
- Turn off test mode to return to the function links of the inputs.

10.3.3 PARAMETERIZATION OF THE DIGITAL OUTPUTS, ACCORDING TO THE ELECTRICAL DIAGRAM.

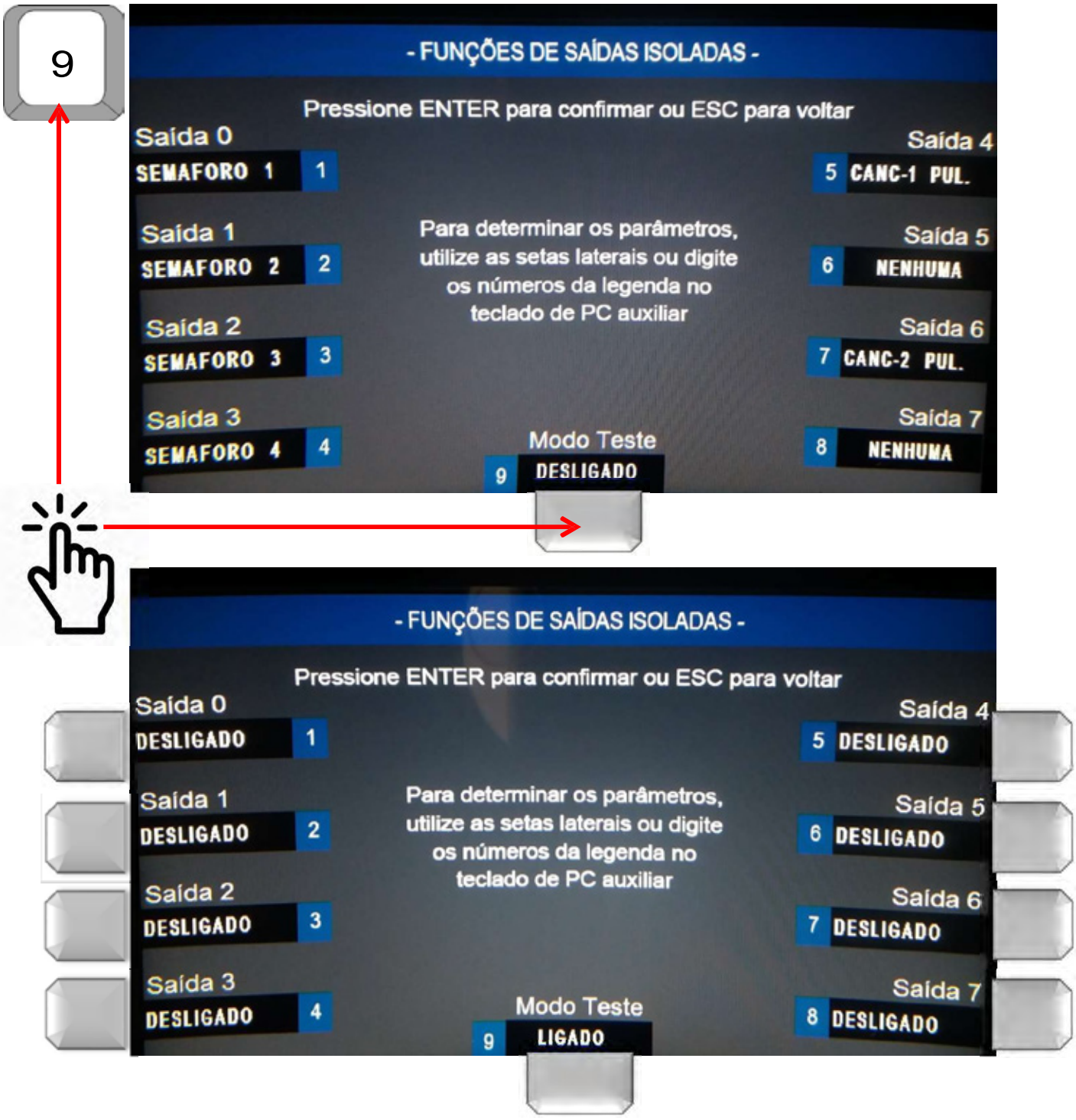
- See 10.3.1, for access to the screen - ROAD AUTOMATION OP -





- For the automation system to work according to the Electrical Schematic suggested in 10.2.2, the outputs must follow the above configuration.
- Change the parameters by pressing the corresponding output key until the desired function appears in the field below the corresponding input.
- You must press ENTER to validate the change you have made.
- CANC-1 and 2 **PUL** functions are used for gates that are triggered by a pulse on a single input (as per EE in 10.2.2).
- FOR gates that have 1 input for opening and another for closing, you must use 2 outputs for each gate, linking 2 of them to the CANC-1 functions.
  N.A and CANC-1 N.F and 2 others with CANC-2 N.A and CANC-2 .F functions
- Press ESC to exit without saving

10.3.3.1 Test mode for digital outputs.



- When test mode is activated, the function link to each output is replaced by the words OFF or ON, representing the forced state applied to each of the digital outputs.
- To switch between the OFF and ON states, press the keys corresponding to each output (buttons on the sides or the corresponding number on the external keypad).
- Switch off test mode to return to the output function links.

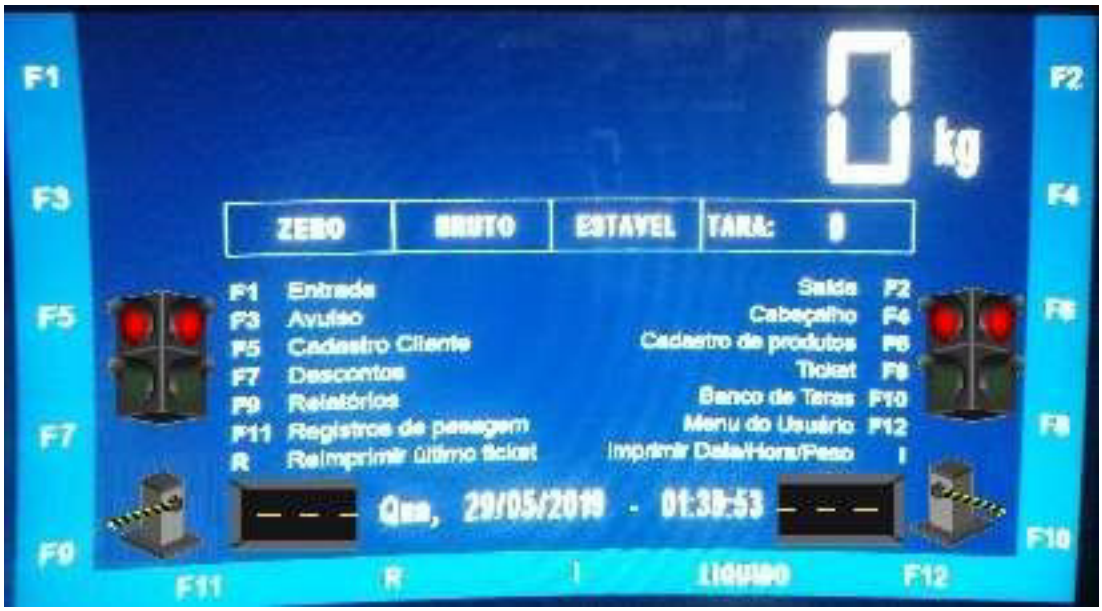
10.3.4 OPERATION DURING WEIGHING OPERATIONS.

The entire automation operation will take place automatically during weighing operations (entry, exit or one-off), with the operator simply pressing the desired operation (F1, F2 or F3 keys) and waiting for the vehicle to be positioned to confirm the weighing.

On the main screen, the system will display a synoptic indicating the condition of the gates, traffic lights and weighbridge sensors, enabling rapid detection of any malfunctions that could cause problems for the start of operations.

- The system will not allow any of the operations to start if the conditions of the controlled devices and sensors are not correct.

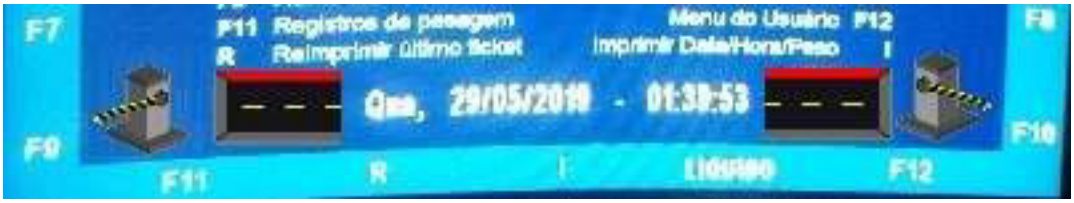
Below is an example of the initial screen, where the conditions of the controlled elements and sensors are ok for weighing operations to begin:



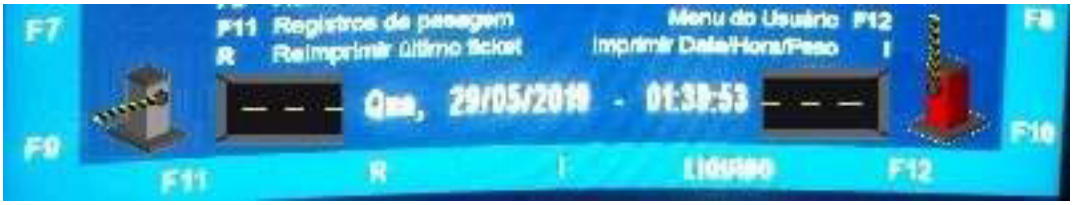
- If a weighing operation is started without the conditions being correct, the system will report the incorrect conditions on a warning screen and return to the start screen.

10.3.4.1 An example of some of the conditions indicated on the start screen that prevent weighing operations from starting.

- Signal from gate sensor **side1*** (input) signaling gate open.



- Signal from positioning sensor side 3*, signaling barrier interrupted.

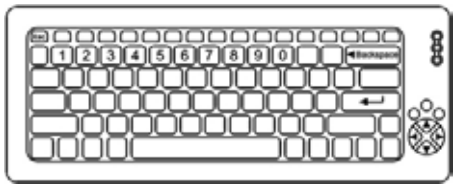


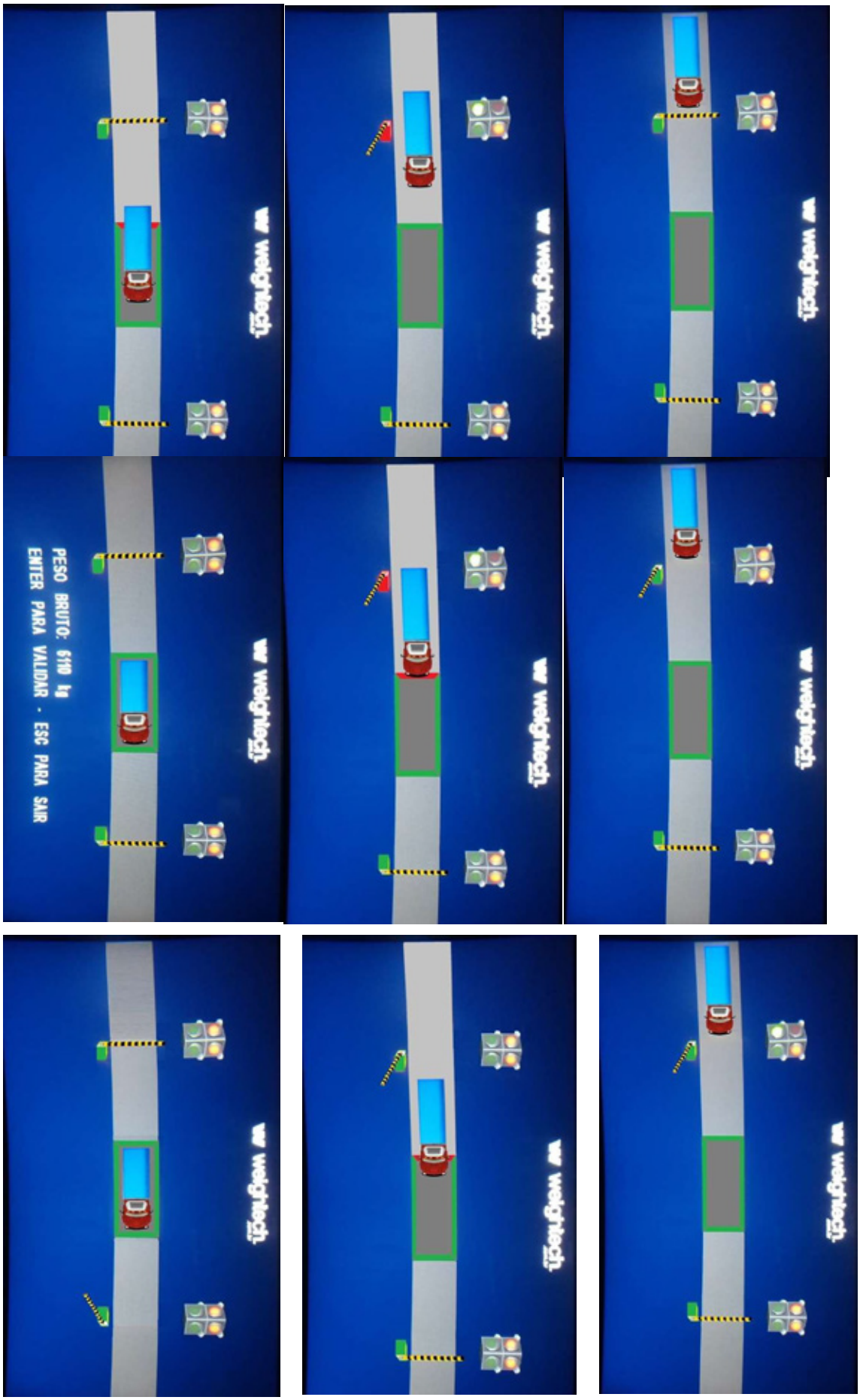
- Anti-smashing sensor for side 2* gate, signaling barrier interrupted.
- Signal from gate sensor side **2*** (output), signaling gate open.

- Signal from positioning sensor side 4*, signaling barrier interrupted.

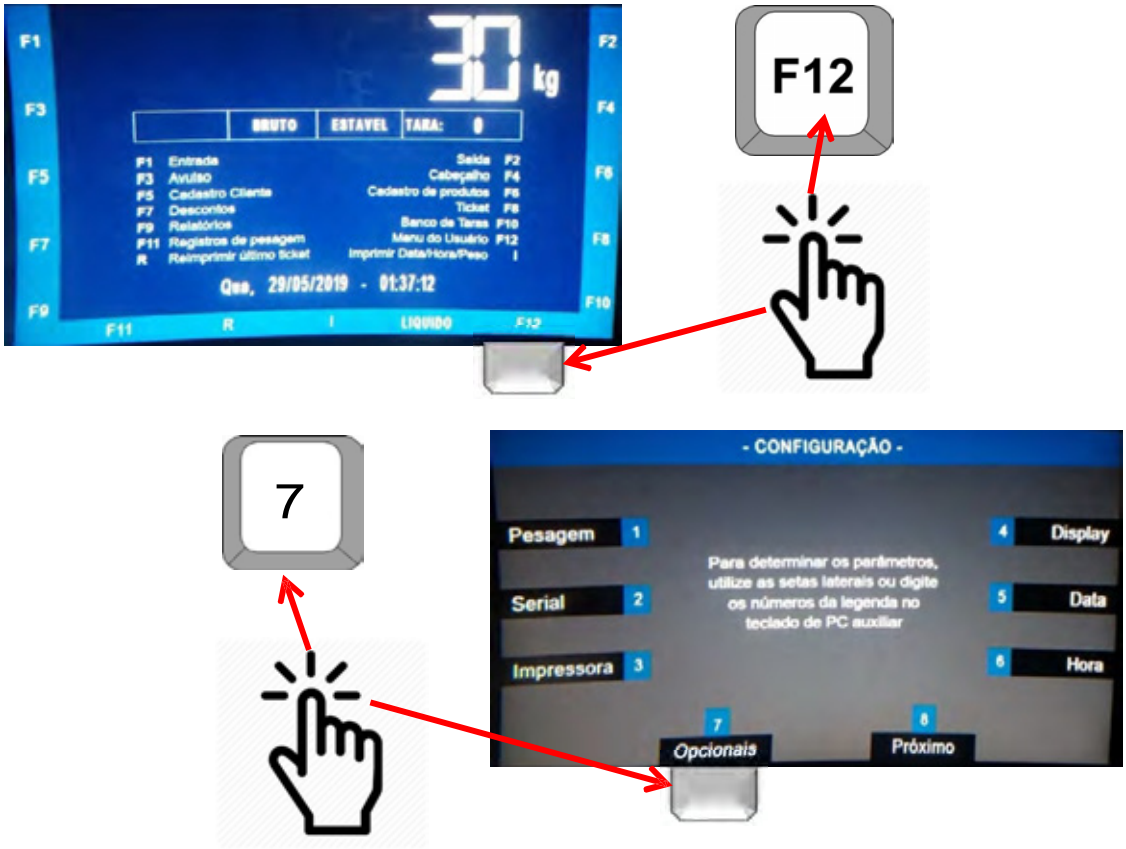
* References according to page 11/16 of the wiring diagram, page 171 of the manual.

10.3.4.2 Sequence dynamics of the automated road operation, using a vehicle entry (F1 key) as an example.

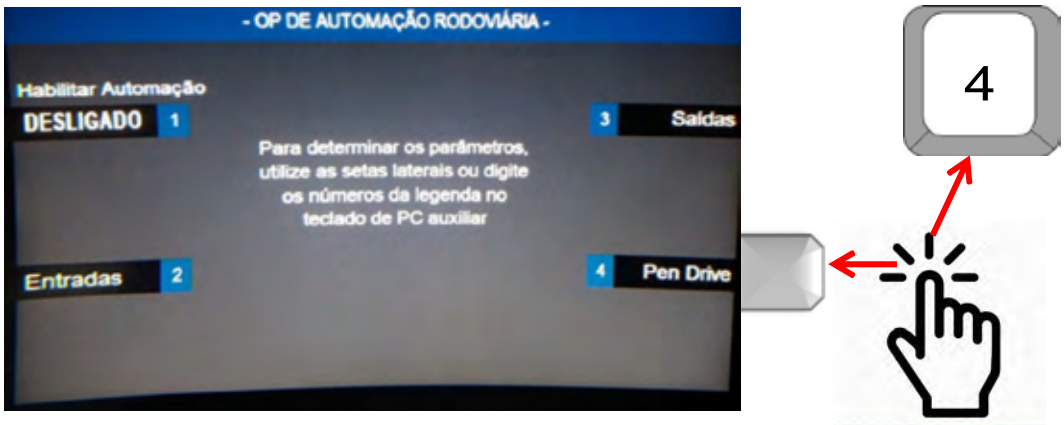



PESO BRUTO: 6110 kg
ENTER PARA VALIDAR - ESC PARA SAIR

10.3.5 ACCESS THE SCREEN TO EXPORT OR IMPORT DATA USING PEN DRIVE.



- The message waiting for detection will be displayed, and you will continue to the next screen.
- If there are any problems with detection, an error message will be displayed and the system will return to the previous screen. In this case, check the connections to the OP-RODO board as shown in 10.1 and try again

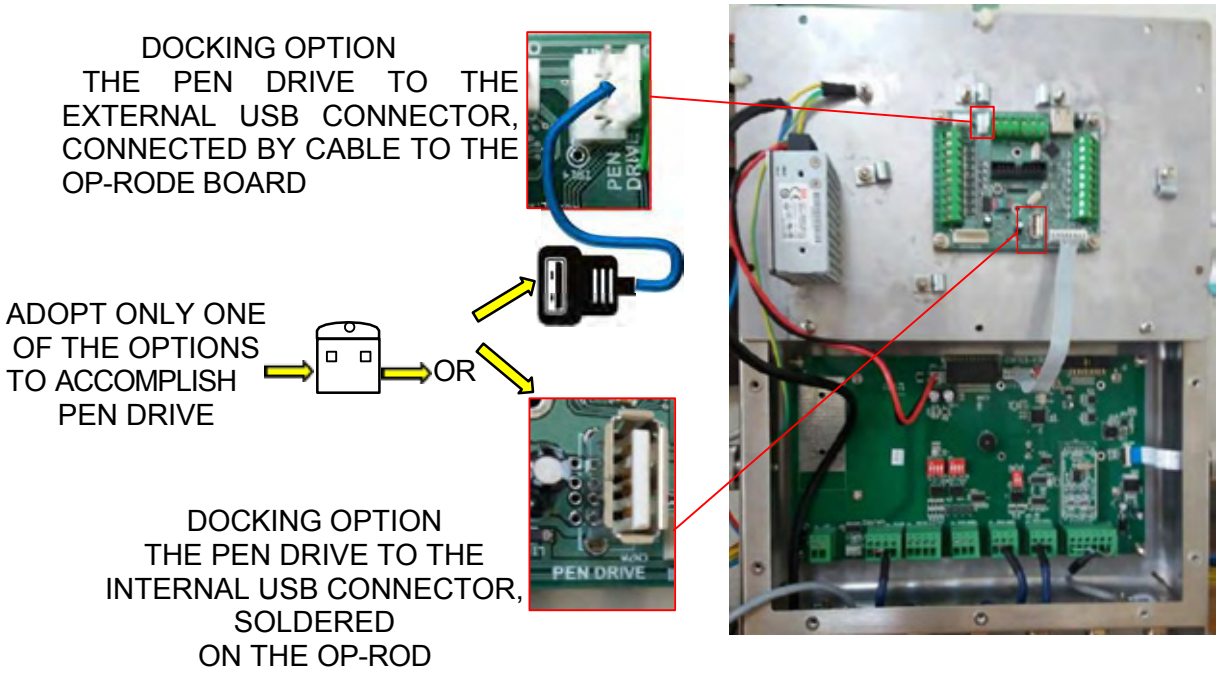


- Press esc to return, or do one of the above.

- Continued from previous page.

- Press esc to return without doing the above.

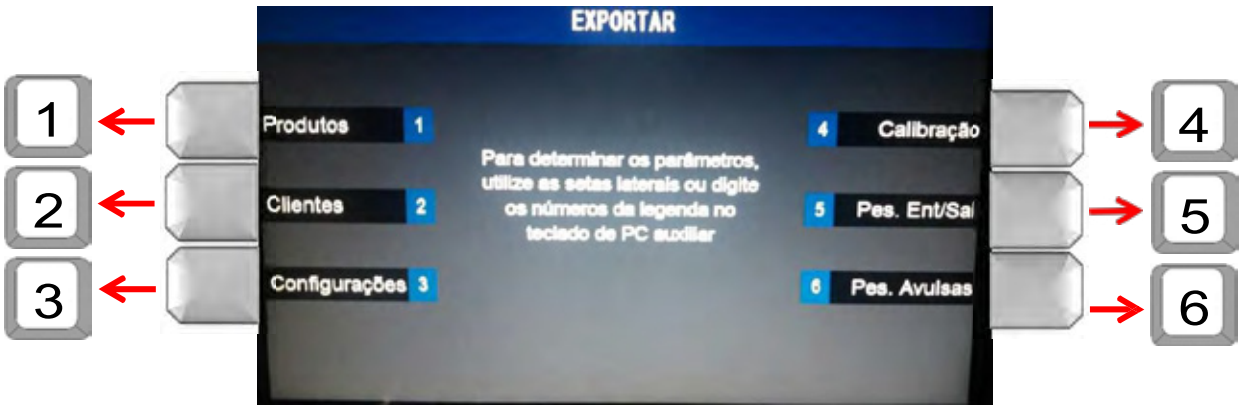
10.3.5.1 Coupling the PEN DRIVE to the OP- RODO board.



- ATTENTION - 1 USB STICK MUST BE CONNECTED TO THE SYSTEM,

10.3.5.2 Exporting data to PENDRIVE (option EXPORT).

The purpose of storing data on PEN DRIVE is to keep a back-up of the information, so that WT27-R devices compatible with the OP-RODO board can recover this data in the event of a replacement. The frequency with which the export is carried out and the care taken with the PEN DRIVE used are extremely important so that the data is complete and up-to-date when using the functionality.



With the PEN DRIVE attached (see 10.3.5.1) and on the export screen, simply click on the side buttons corresponding to the data you want to export, or click on the corresponding key on the external keyboard. After the trigger, the system will display the following information in sequence, while you wait for the process to finish:

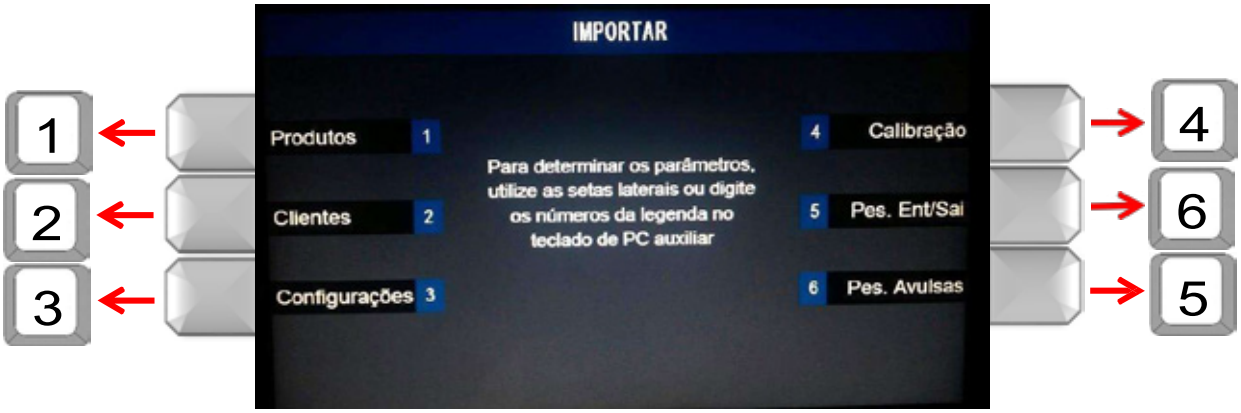
- PERFORMING THE REQUESTED OPERATION, PLEASE WAIT.
- SAVING THE INFORMATION, PLEASE WAIT.
- DATA HAS BEEN SAVED SUCCESSFULLY.

After that, the system returns to the EXPORT screen.

10.3.5.3 Importing data from the PENDRIVE (option IMPORT).

The IMPORT function is used to transfer data stored on a PEN DRIVE to a WT27, which was previously recorded (on the same device or on another WT27) using the EXPORT function.

The frequency with which data is exported and the care taken with the PEN DRIVE used are extremely important if the data is to be complete and up-to-date when the IMPORT operation is carried out.



With the PEN DRIVE attached (see 10.3.5.1) and on the import screen, simply click on the side buttons corresponding to the data you want to import, or click on the corresponding key on the external keyboard. Once you have clicked, the system will display the following information in sequence, while you wait for the process to finish:

- PERFORMING THE REQUESTED OPERATION, PLEASE WAIT.
- SAVING THE INFORMATION, PLEASE WAIT.
- DATA HAS BEEN SAVED SUCCESSFULLY.

After that, the system returns to the IMPORT screen.