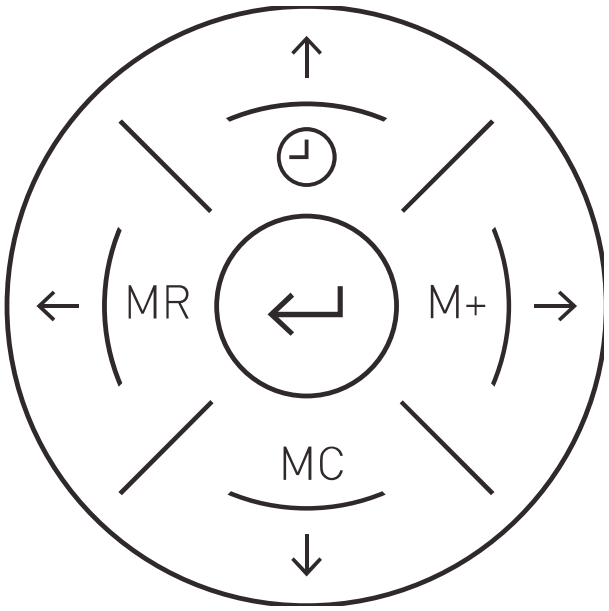
SERIE

K3 / K3P / K3i / K3i Printer
MK3 / MK3 Printer
S3/ S5i / S7i / TCamel 2T



EN

CE

USER MANUAL

ENGLISH

WARNING

- Unplug the power supply before installing or disassembling.
- Before using the device, check that the voltage printed on the features label matches the one of the electricity network that will be used. If they do not match, do not plug the device into the electrical network.
- Before using the device, make sure that the power supply cord is not obstructed or trapped. The cord must be free of any tension.
- These scales must only be used under the environmental conditions specified in this user manual.
- This device must not be used in areas where there is risk of explosion or in unstable conditions.
- Do not place the scales close to sources of heat or under direct solar radiation.
- Keep the scales away from any other sources of electromagnetic radiation. Its influence can affect the reading accuracy of the indicator.
- When the low battery indicator appears, the battery must be recharged as soon as possible. A battery that is left uncharged for long periods of time deteriorates and stops working.
- When changing the battery, make sure that the (+) and (-) terminals are connected to the corresponding ends.

FEATURES

- Backlit liquid crystal green display in selectable colour.
- Menu with activated function indicator by colour.
- Cross-shaped touchpad for intuitive use of the menu.
- 4 weight units.
- IP-67 protection against liquids and dust.
- Cell, power supply and optional watertight connectors.
- Reversible face. It can be places on a table or mounted on the wall without any other accessories (except model K3i which needs the wall mount).
- Normal tare or set tare.
- Memory of 20 numerical tares.
- Memory of 20 weight limits to control of +/-.
- Memory of 100 items for the piece-counting function.
- 3-line header printing with 4 selectable font sizes.
- 2-line ticket footer printing with 4 selectable font sizes.
- Memorization of item code to print 6 alphanumeric characters.

- Batch number to be printed on the ticket.
- Printing in Spanish, English, French and German.
- Printing of the total on the ticket (selectable).
- 10 step linear calibration and selectable gravity setting.
- High/OK/low checking function with visual indication in 3 colours and sound indication.
- Network adapter with a 3.5m cable.
- Automatic disconnection (adjustable).
- Rechargeable battery (optional in K3T Series).

OPTIONS

- RS-232 PC and printer double data outlet (optional in K3T Series).
- External tare input (pedal or switch).
- Printing out date and time on tickets (optional).

PACKAGING

- 1 indicator.
- 1 weighing platform (if the full device package is purchased)
- 1 column (optional).
- 1 network adapter 220V/9V.
- 1 user manual.
- Rechargeable battery (optional in K3T Series).

FEATURES OF THE INDICATOR

Load cell connection

Maximum input signal	±4 mV/V
Maximum input voltage	-0.3 a 5.3 V
Internal resolution	20-bit converter, 1000000 accounts (100000 external)
Measuring frequency	10 samples per second
Linearity error	≤0.01% of the measuring range
Excitation voltage	5 Vdc
Minimum impedance of the transducer	· Without relay card: 31,666 Ω (12 cells x 380 Ω) · With relay card: 47.5 Ω (8 cells x 380 Ω)
Cable length	30 m/mm^2 max. (6 wires)

User interface

Main indicator	6 LCD digits, 25.4 mm high and weight limit display Backlit with a 3-led panel back light (RGB)
Touchpad keyboard	11 keys
Sound warning	Mini intermittent sound piezoelectric tweeter (2300±300 Hz y 85 dB)

Serial communications

Tx/Rx Port: (Port 1)	Bi-directional RS-232C
Tx/Rx Port: (Port 2)	Bi-directional RS-232C
Transmission rate	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200
No. of bits and parity	8 bits, no parity, 1 bit stop

Input/output options

Relay output	Relay card (3 outputs) for external dosing/indication ("traffic light" type) used for the weight control function.
Tare pedal	Pedal used for taring
RTC board	RTC for date and time (for printer option)

Power supply

Connection to the electrical network	Through a 12V power supply; 1A
Battery	6V-5AH; Service time 25/60 hours, depending on use.

Operating conditions and mechanical data

Operating temperature range	+5ºC/+35ºC
Size (mm)	220 x 180 x 83
Weight (kg)	1.5 (including battery)
Assembly	Countertop Optional: Tilting wall/column mount
Watertightness	IP-65 (K3); IP-67 (K3i)

Relay card

Maximum voltage	24 VDC/24 VAC
Maximum intensity	10 A
Relay life	100000 operations at nominal load

Thermal printer (K3iP and MK3P)

Printer life	6000000 printed lines
Resolution	8 points/mm
Printing speed	30 mm/sec

Type of paper	Thermal paper roll (57mm wide, 30 mm ø)
Printing width	48 mm
Printing sizes	6x8 points, 8x16 points, 12x24 points

DISPLAY DESCRIPTION

TOUCHPAD DESCRIPTION

Power on/Power off. By pressing this button the indicator turns on. When the indicator is on, press this button for approximately one second to turn it off.

Weight unit change button. By pressing this button, you can change the weight unit. In menu mode, it will work as an escape button and return to normal mode (Escape). By keeping this button pressed for over one second it starts the piece-counting mode.

Gross/Net button. When the tare is used, pressing this button will show the total weight. Pressing it again will show the net weight. By keeping it pressed for over a second it automatically selects the "Weight limit" mode.

PLU button Press this button to enter the menu and to access previously stored values of weight limits, piece counters, tares and other useful functions. By keeping this button pressed for over a second, it enters the factory mode and asks for a passwords (only accessible to authorised users).

Zero button. It sets the scale to zero, correcting possible deviations. The platform must always be empty to perform this function. By pressing this button for over a second, it shows the display test, capacity, division and software version.

Tare button. Pressing this button once will subtract the weight of any container or box located on the platform, until the container or box is removed and the tare button is pressed again. Keeping this button pressed will give you access to the tare memory.

MR and left arrow. By pressing this button on the main screen, it closes and sends the accumulated ticket data if this option is set up. It shows the total accumulated weight. In menu mode, it confirms the selected adjustment value and it returns to the previous menu.

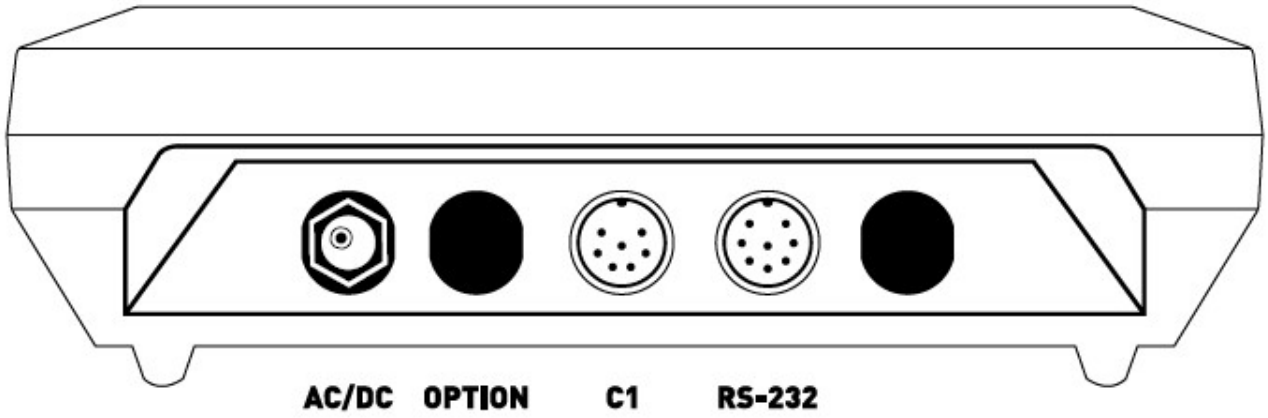
M+ and right arrow. Press this arrow to have the device memorise the value shown on the display. It starts the accumulated ticked (if it was not already started) and sends the ticket data to the printer if it is set up. For a few seconds, it also shows the accumulated total. In menu mode, it shows the next function.

Clock and top arrow. By pressing it, it shows the accumulated value. If you press it for over a second it shows the scheduled date and time. In menu mode, it increases the value (digit) of the display.

MC and bottom arrow. Press this arrow to erase the stored weighing memory. In menu mode, it decreases the value (digit) of the display.

Enter. Pressing this button on the main screen, it sends current weight data to the printer (simple mode) if it is set up. By pressing this button for 5 seconds, it will activate the block/unblock function of the touchpad. In menu mode, it confirms the selection/modification made.

CONNECTIONS

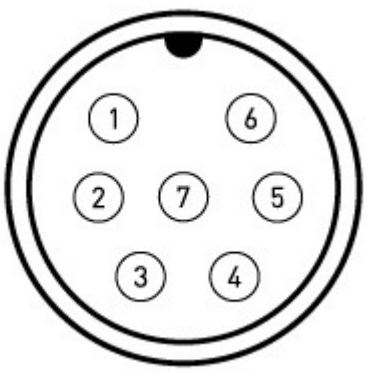


AC/DC: Power supply connector.
Option: Free for options.
RS-232: Double RS-232C data and tare output (optional for K3T).
C1: Platform 1 connection.

Platform 1 connection.

Multipin mobile connector.
Male chassis socket P700 (7-pin).

		Load Cell A	Load Cell B
PIN 1	SIG	Blue	White
PIN 2	SIG +	Brown	Green
PIN 3	SHIELD	Shield	Shield
PIN 4	EXC -	Black	Black
PIN 5	SENSE -		Blue
PIN 6	EXC +	Red	Red
PIN 7	SENSE +		Yellow



RS-232

Case 1

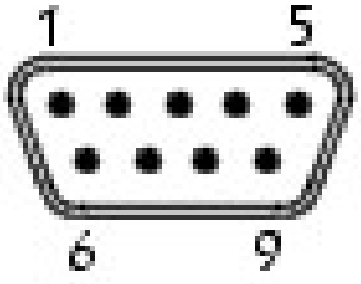
Multipin mobile connector.
Male chassis socket P700 (8-pines).

4	RxD
5	TxD
6	GND

Caso 2

DB9 male connector

2	RxD
3	TxD
5	GND



ASSEMBLY

Place the platform on a flat surface without any objects that might interfere in the weighing process.

Unblock the platform by removing or loosening the blocking screws, as indicated in the instructions of the attached unblocking guide.

Insert the cell cable through the column until it comes out of the column's top opening.

Place the column (optional) inside the column support and adjust the screws to block it and fix it.

Place the indicator on the top part of the column, making sure that the support fixing screws are in place.

Insert the power cable to connection**C1**, and the plug it into the **AC/DC** power supply connector. Do not use other cables besides the included one as it may damage the indicator's inner circuits.

Plug the power supply cable to a 110V or 220V electrical network outlet (it supports both voltage inputs).

By pressing , the indicator will start the initialization process and, once it has finished (it takes a few seconds), it will show a zero value.

The scales are now ready to be used. Please read this manual carefully before using the scales.

START-UP

Turn the scales on by pressing the button.

The display on the scales will show a moving circle for a few seconds. After this, the display will flicker and show the zero value.

If an object is now placed on the platform, the display will show the object's weight.

Press the ESC U button to select the weighing unit you want to use ("kg or g" are shown by default, depending on the device's configuration".

Place the object you wish to weight on the platform. The display will show the object's weight. This value must be read when the **"stability"** symbol is on, in the top left corner of the display.

DEVICE RESET

If the platform is empty and the display is not showing a value of zero, press TEST →0← to reset it.

USING THE TARE

Fixed tare

Place a container on the platform. The indicator will show its weight. After pressing the ↔T button, the scale will now show the **"0"** value, subtracting the container's weight. The tare indicator →T← now shows on the left side of the display.

Now, the indicator shows the net weight of the objects placed inside the container.

You can find out the total value (gross weight) by pressing H-L B/N . To see the net weight again, press the H-L B/N button again.

If you remove all the weight from the weighing platform, the indicator will show a negative tared weight.

To clear the tare value, remove all weight from the platform and press the  button.

Note: If there is a certain instability or temperature fluctuations, the indicator may not show 0. Press the  button to correct it.

Maximum tare range: The tare value cannot exceed the scale's maximum capacity. The usable available capacity of the platform, once the tare has been performed, is calculated by subtracting the current tare weight from the maximum capacity.

Usable capacity = max.cap - tare.

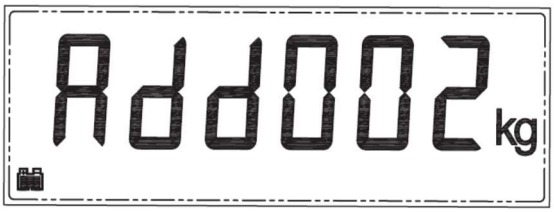
WEIGHT SUM TOTAL

This function sums up all individual weighing operations that have been accumulated and shows the total accumulated value.

To use this function, place the object you want to weigh, and when the display shows the stable weight value (stability circle must be on), press the  button. The weight value will now be added (when the printer is plugged in it will print the header as well as the first weight value, if this option is set up).

To add the weight of another object, the previous one must be removed. Make sure the display has returned to zero and the stability symbol is on. Only then can the operation be repeated.

Press the  button again and the second weighing value will also be added (it will be printed on a different ticket line if the printer is turned on and set up). For a few seconds, they display will also show the accumulated total.



More weights can be added by following this method.

To check the accumulated value without printing, press  and the display will show the accumulated total.

To get the sum total value, closing the sum accumulation of weights, press the 

button and the screen will display the total value (when the printer is connected and set up, it will print the bottom of the ticket with the footer, if it's enabled)

You can keep adding weighing values, and checking the total value. To erase the memory, press 

until the message "rESEt" appears on the display.

Internal test

This function turns on all the icons on the display to check their status. After this, it shows the capacity, the resolution and the device software version.

To perform this test, from the main screen (weighing mode), press the 

button for two seconds. Once the visualisation has finished, it will return to the regular working mode.

Blocking the touchpad

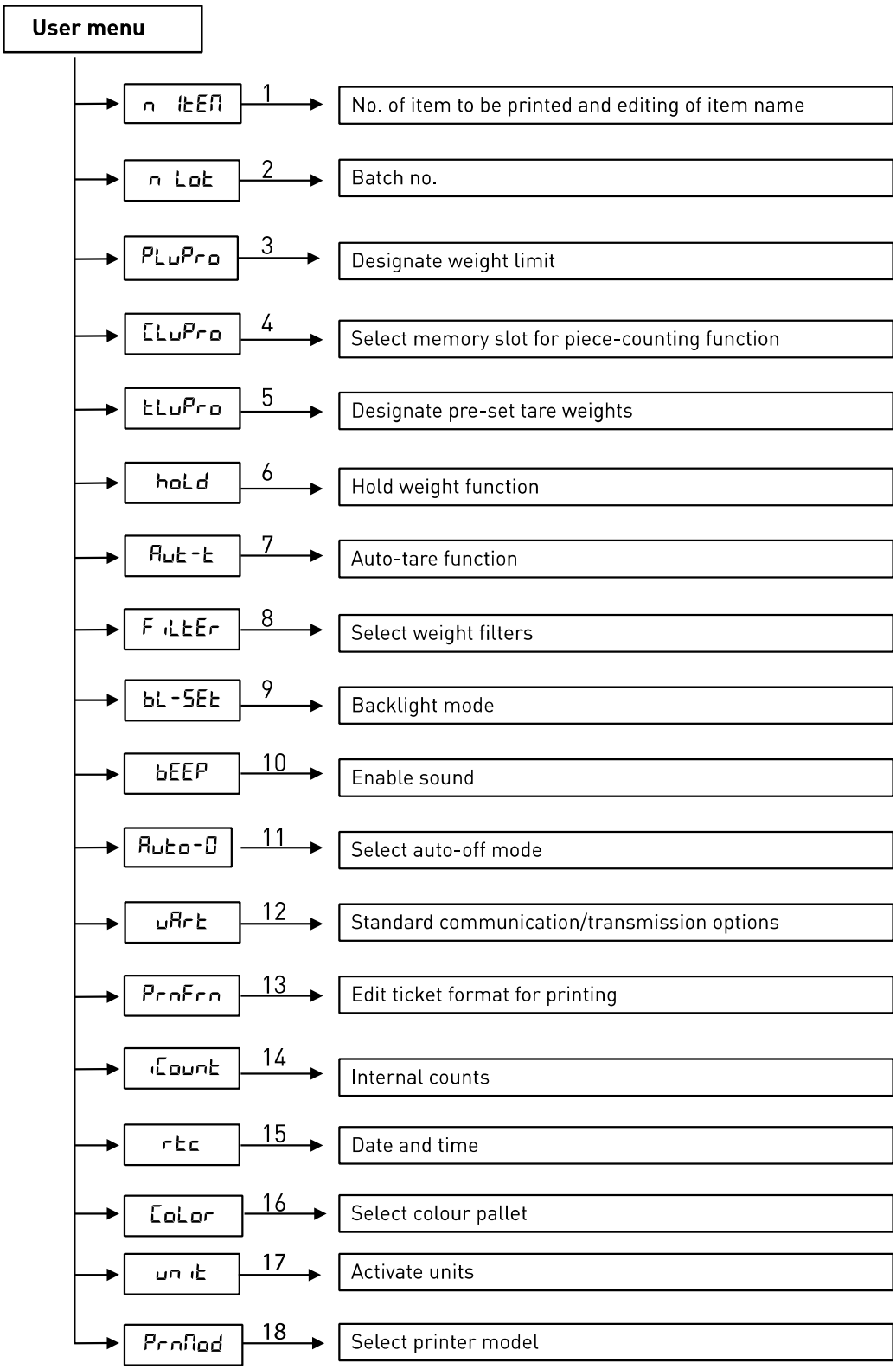
You can block all buttons, except for  , 

and  which are used regularly. This way the user doesn't have easy access to the configuration menu and cannot modify the scales' settings by accident.

To block the touchpad, press the  button for 5 seconds until the display shows the message "Loch". Now, only buttons  , 

and  will be active.

To activate the touchpad again, press the  button for 5 seconds until the display shows the "unLoch" message. Now, the touchpad is active again.



To access the functions set up menu, press the M PLU button briefly. The message "n ItEM" will appear.

This indicates that you have entered the functions set up menu. It has 18 different options that include several functions and settings of the indicator.To scroll through the menu, submenu and data editing, follow these instructions:

To scroll forward through the menu, press 

.

To scroll backwards through the menu, press 

.

To increase the value of a specific digit or option, use the  button.

To decrease the value of a specific digit or option, use the 

button.

To enter the different options or validate changes made, press  .

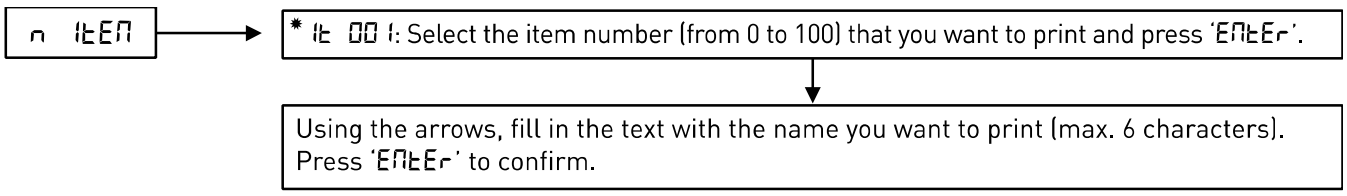
To exit the menu or different options, use the 

button.

This menu contains the following options:

n ItEM:	Item no. that will be printed and item code editing.
n Lot:	Batch number.
PLuPro:	Designation and storage of weight limits.
CLuPro:	Selection of the memory slot for piece-counting function.
tLuPro:	Designation and storage of preset tare weights.
hoLd:	Weight maintenance function on screen.
Aut-t:	Auto tare function.
F iLtEr:	Selecting different weight filters.
bL-SEt:	Selecting backlight activation.
bEEP:	Sound on / off.
Auto-O:	Auto power off of the device.
uArt:	Setting of standard communication parameters.
PrnFrn:	Editing the ticket format for printing.
iCount:	Visualisation of internal device counts.
rtc:	Setting of date and time.
CoLor:	Selecting the colour palette of the display light.
un it:	Activation / deactivation of measurement units.
PrnMod:	Printer model selection.

PRODUCT CODE - n ItEM



Manual function

This function is used to memorise a product code. It must have a maximum of 6 alphanumeric characters. There is a maximum of a 100 item codes that can be memorised.

Press the M PLU button. The display will show the "n ITEM" message. Press the ↵ button.

The three digits to the right correspond to the memory slot of each code from 1 to 100. To memorise one of them, use the ↑ and MC ↓ buttons to select each digit, and buttons ← MR and M+ → to move the cursor left or right.

This way you can select a memory slot, for example, number 1: "001".

Press the ↵ button. This will show a flashing cursor on the left.

The first character is highlighted with a flashing underscore. Using ↑ and MC ↓ you can change it for the suitable one, according to the following table and in this order:

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890,'.:-_@

You can enter lower and upper case letters, numbers and symbols. The battery symbol now indicates the letter type according to the following order:

- numbers and symbols
- lower case letters
- upper case letters

To change the letter case, press the H-L B/N button when editing (upper and lower case letters are visualised in the same way. To figure out what case it is, see the indicator in the battery bars).

To scroll left or right, use the ← MR and M+ → buttons.

Follow the instructions above to edit all characters. Then press ↵ to confirm the item code.

To exit the menu and return to the weighing mode, press ESC U .

When in regular weighing mode, we can now upload the code of any of the 100 memorised items. Press the M PLU button and

then immediately press  . Now (following the procedure above) we can choose the code of the required item and it will stay programmed. When we have, a printer connected to the data output, and the printing parameters are correctly set up, we will get a ticket with the product code that we have at the time.

Scanner function

This device allows uploading an item code (Item) through a scanner with a RS232C output, connected to the optional COM2 data output/input.

This is a simple function. Once the scanner is connected to the COM2 port, proceed to scan the bar code of the product. The indicator will now memorise the last 6 digits of the code.

The code will be printed along with the weight on the same printing line. To change, scan another code and the indicator will always memorise the last entered code.

Batch number - n Lot

This function allows you to edit the batch number that will be printed on the ticket, if this ticked option is enabled.

To access this function, when on the main screen (weighing mode), press 

band scroll through the menu by pressing  until "n Lot" shows on the display.

We enter this option by pressing  .

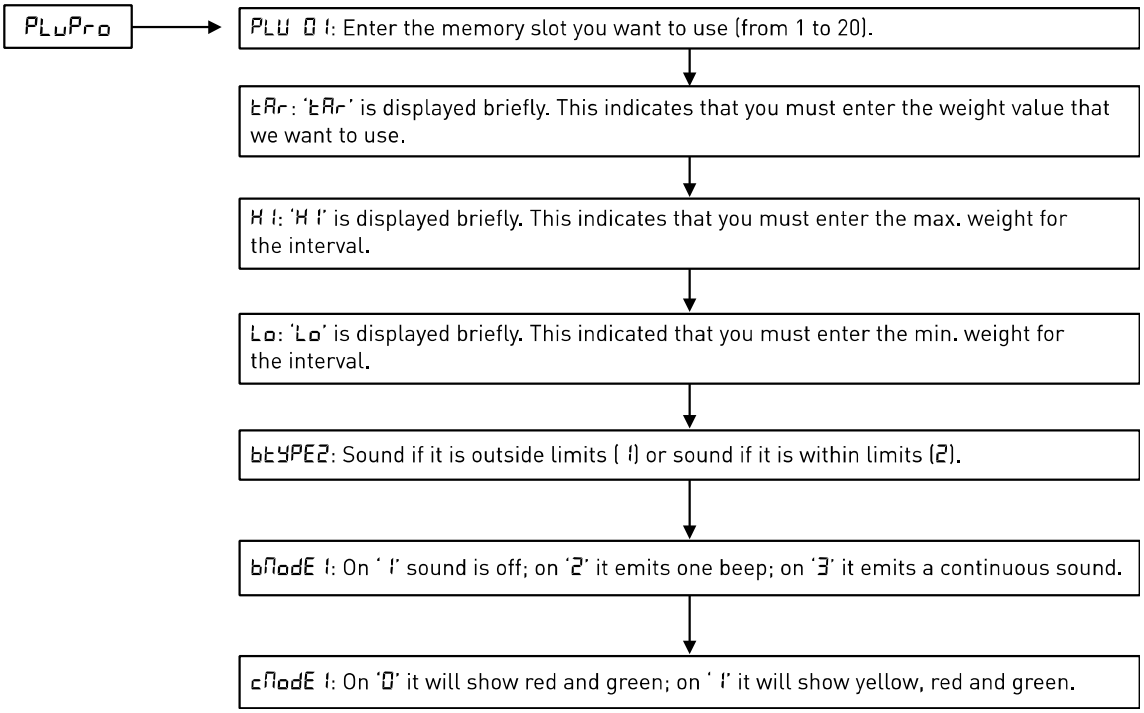
A 6-digit number will show. It can be modified to insert the desired value, which must be between 1 and 999999.

Validate by pressing the  button.

To exit the menu and return to the weighing mode, press 

.

Hi/lo Weight control – PLuPro



Weight limit function helps to indicate if a weight is within a particular range, transmitting a visual signal through the colours on the display and the bottom bars of the display with the option of also sending out a sound signal through the indicator.

The indicator shows a bar with a negative left side and a positive right side. The indication of limits through the lighting of the display can be set up in this menu, as well as the type of sound signal that will be sent out.

This function can be used with our optional relay card for the connection of external warning or control elements.

The indicator has 20 memory slots for this function.

Memorising weight limits and response mode

1. Press 

and search for the "PLuPro" option in the menu. Press the  button to confirm. The display will show 'PLU XX', where 'XX' is the memory slot for the limits function.

2. To access the required memory slot, use the  and 

cursors to increase or decrease the position until you find the desired one.

3. Confirm by pressing  .

4. It will show 'tAr' for a moment and then it will immediately show '000000' where the nominal value must be entered

by using  and  cursors to increase or decrease the position until you find the desired one, and  and  to scroll to the left or the right. Press  to confirm.

5. Now it will show '𝙷 1' for a moment and then it will immediately show '000000' where the maximum limit must be entered by using the same method as in the previous step. Confirm by pressing  .

6. Lastly, it shows '𝙻𝚘' for a moment and then it will immediately show '000000' where the minimum limit must be entered. Confirm by pressing  .

7. You can now choose the warning or indicator mode. The display will show '𝚋𝚃𝚈𝙿𝙴X', where 'X' can be:

    1. Sound warning when the weight is outside the set limits.
    2. Sound warning when the weight is inside the set limits.

    Use the  and  cursors to select the desired value and the  button to confirm.

8. The display will show 'bNodEX', where 'X' can be:

    1. No sound.
    2. One beep.
    3. Continuous beep.

    Use the  and  cursors to select the desired value and the  button to confirm.

9. Lastly, it shows '𝚌𝙽𝚘𝚍𝙴X' where you can set the colours to be used for the signalling of limits. In this case 'X' can be:

    0. Red and green are used.
    1. Yellow, red and green are used.

    Use the  and  cursors to select the desired value and the  button to confirm.

10. Exit the menu by pressing  .

Activating the Limit (+/-) function

1. Keep the 

button pressed until it shows "H ı-LoX", where 'X' indicates what mode the function is in. These can be:

   0. Disabled.
   1. Limits with sound and light indication.
   2. Limits with light indication and automatic tare.

2. Press  to confirm. The display will show "PLU XX" where XX is the memory slot.

3. Select one of the slots using  and 

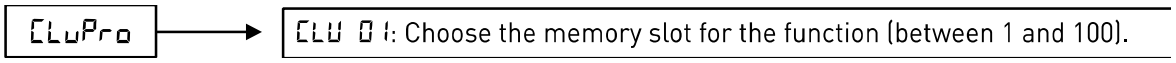
4. Confirm the selection by pressing  and press 

to exit if you wish to use the previously programmed settings. If you need to edit any of the parameters of the limit function, you can access them by pressing the  button. Once the limit function has been set up, "PLU XX" will appear on the screen once again. Press the 

button to exit the settings.

5. Place the object on the platform. The indicator will illuminate a part of the bottom bar (and the display colour will be green, yellow or red according to the selected option), depending on the weight value and the memorised limits. The (+) or (-) symbol will also appear. If the weight is within the selected limits, it will light the central bar value and the corresponding colour.

Piece-counting function – CLuPro



This mode is used to count pieces of a similar weight. After carrying out a sample weighing, the indicator will memorise the individual weight of the pieces. Then it will display the total number of pieces placed on the platform.

Sampling

To carry out the sample weighing, the scales must show the 0 value and the platform must be empty. Press and hold the ESC/U button for more than one second until the display shows " 10" or another flashing value.

This is the number of pieces you can place on the platform to do the sampling. If the pieces are small, it's recommended you put more than 10 pieces in order to increase the device's precision. To do this press the ↑ button to increase the sampling value up to 20, 30, 50 or 100. To reduce it, press the MC ↓ button.

Once the required value is selected, count the number of pieces indicated on the display, add them to the platform and press the ↵ button. The display will stop flashing and show the sampling value.

Counting

Place the pieces you want to count on the weighing platform (they should have the same individual weight as the previous sampling). You can place the pieces inside a container if its tare is already set up (check the Using the Tare section).

The screen will show the total number of pieces.

To return to weighing mode using your standard weighing unit press ESC/U.

If you want to return to the piece-counting function, and count pieces of the same weight used earlier, press the ESC/U button several times until the display shows the symbol.

Individual weight memory (Piece-counting)

There are 100 memory slots to save the different types of pieces for the piece-counting function.

To save a specific piece, we must enter the functions menu by pressing 

.

Press the 

button three times and the message "CLuPro" will appear. Press  to access this option.

The screen shows "CLU XX", where 'XX' is the memory slot of the piece-counting function that is being used. There are 100 memory slots available (from 01 to 100).

Use the  and 

cursors to select the memory slot where you wish to save the piece and confirm with the  button.

Press 

to return to the main screen.

Once you are on the main scree, press 

and hold for more than one second, until the screen shows " 10" or another flashing value.

This is the number of pieces you can place on the platform to do the sampling. If the pieces are small, it's recommended you put more than 10 pieces in order to increase the device's precision. To do this press  to increase the sampling value up to 20, 30, 50 or 100. To reduce it, press the 

button.

Once the required value is selected, count the number of pieces indicated on the display, add them to the platform and press the  button. The display will stop flashing and show the sampling value.

Now, this piece is saved in the selected memory slot. To save any other piece, follow the same process.

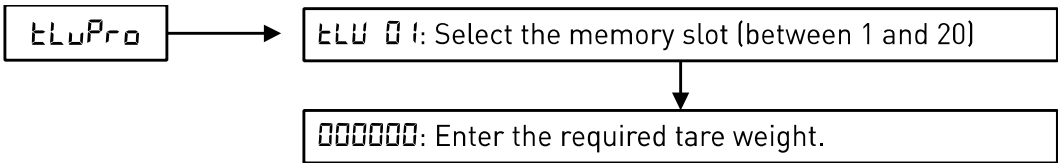
Once a piece has been saved in the memory, if you wish to use one type or another, access "CLuPro" and select the desired memory slot.

Once the desired memory slot is selected, press  to confirm.

The indicator is now programmed with the selected memory.

You can now start counting pieces by placing them on the platform or into a container. The container's tare must already be set up.

Stored TARE values – tLuPro



This device can store 20 numeric tare values.

To store them, follow this procedure:

1. Press the  button. The display will show the message "n ItEM" . Press  several times, until the display shows "tLuPro".

2. Press the  button. The display will show the last memory used (e.g. "tLU 01"). The last digits indicate the memory slot number.

3. Once the position of the memory slot you wish to store is selected, press  and a number will appear on the display.

4. To modify it and enter the tare's weight value, use the  or cursors to  select the required number.

5. To move to a digit on the right, press  . To modify it use the  and  cursors. If you need to modify a digit on the left, press  until the digit flashes. Then follow the same process that has been indicated.

6. To exit, press  and the tare weight will be memorised.

7. If you need to memorise more tares, press  once again and follow the procedure above.

8. Lastly, after confirming the last memorised tare weight, the message **"tLUPro"** will appear. Press  to exit and return to the regular weighing mode.

Using the TARE memory

Remove any weight from the platform. In weighing mode, hold the button  until the **"tLU** XX**"** message appears, where 'XX' is the last **TARE** slot that was memorised or used. To access another memory slot, use the  and  cursors to navigate the tare memory until the slot that you wish to use is located.

To confirm it, press the  button. The display will show the memorised tare value with a negative sign. Now you can place product on the platform and the tare value will be deducted from the weight value (it shows the net weight).

All this operation can be carried out with the object on the platform. The display will indicate the net weight value.

To stop using this tare, remove the weight and press the  button.

Auto Hold function – hoLd

hoLd → * HoLd 0: Select 'hold' time among the following options:
0: Deactivates the function.
1: It holds the weight value until a new one is entered.
2: It holds the weight value until a button is pressed.
3: It holds the weight value until the weight is removed.

To access the functions menu, press M PLU and the display will show "n ItEM".

Press M+ → until the display shows "hoLd". Press ↵ and the display will show "hoLd X", where 'X' is the selected option. To change it, press ↑ and MC ↓, according to the following values:

0. Function off.
1. It keeps the weight value until all the weight is removed from the platform and another one is placed on it.
2. It keeps the weight value until the ↔T button is pressed.
3. It keeps the weight value on the display until all the weight is removed from the platform.

Press the ↵ button to confirm and the ESC U button to exit the menu.

Auto Tare function – AUt-t

AUt-t → * AUt-t0- On '1', an automatic tare will be carried out when the first weight is applied.
On '0', the auto-tare function is disabled.

This function automatically sets the container or box's tare weight so that it can be then filled up, with no need to press the ↔T button.

The indicator detects the first weight (container), it tares the platform and it prepares to weigh the following product inside the container or the box. When the weight is removed from the scales, the tare is automatically disabled.

Activating this function

To use this option, the **Auto tare**, function must be enabled as follows:

1. Press the M PLU button. The display will show the message "n ItEM" . Press M+ → several times, until the display shows "AUt-t".

2. Press the ↵ button. The display will show a digit in the last position, according to the following table:

   0. Function off.
   1. Function on.

   Press ↵ to confirm. Press ESC U to return to weighing mode.

Using the function

1. Place the container or box on the platform. The indicator will carry out the function. The display will show zero and the tare symbol will show on the display.

2. Place the object or objects inside the container or box. The display will show the net weight, deducting the tare or the container's weight.

3. Remove all the items from the platform. The display will cancel the tare and it will show zero again.

4. To weigh another product, repeat the process. This can be repeated as many times as required, without needing to press any of the indicator's buttons.

Stability filter – F iLtEr

F iLtEr → * FLtr 1: You can choose between 6 options (from 0 to 5). 0 is the default filter. The others (1 to 5) go in an increasing order of stability. This is, filter 5 is the more stable one and the slowest, whilst filter 1 is the less stable one but the fastest.

In adverse environmental conditions or when the indicator is used for to weight unstable objects, the scales stability can be increased by using filters.

To access the functions menu, press M PLU and the display will show "n ItEM".

Press the M+ → button until the display shows "F iLtEr". Press ↵ to confirm. A digit will appear on the right. It can be modified according to the following table:

FLtr 0 - Factory programming (for qualified personnel only)
FLtr 1 - For very stable environments (quick response)
FLtr 2 - For not so stable environments (average response)

FLtr 3 - For stable environments (not very quick)
FLtr 4 - For less stable environments (slow)
FLtr 5 - For quite unstable environments (very slow)

To change it, press  or  .

Confirm by pressing  .

To exit the menu and return to the weighing mode, press  .

Activating the display's light – bL-SEt

bL-SEt → * on: You can choose between having the backlight always activated (on), always deactivated (oFF) or that it only turns on when the device is being used (Auto).

Access the functions menu pressing the  button and press the  button several times, until it shows "bL-SEt".

Press  and using the  and  cursors select one of these options:

on - Light always on.
oFF - Light always off.
Auto - Automatic light. It turns off after the stability indicator is on for 5 seconds.

Press  to confirm the function. To exit the menu, press the  button.

Sound activation – bEEP

bEEP → * bEEP : On '1' the sound will be enabled and on '0' it will be disabled.

When pressing any key on the indicator it will emit a sound. This sound can be enabled/disabled as follows:

Press  and then  until the display shows "bEEP"

Press  to confirm. Use the  button to select the digit on the right according to the following options:

0. Sound disabled.
1. Sound enabled.

Press  to confirm the selected option. To exit the menu, press the  button.

Auto-off function – Auto-0

Auto-0 →

* oFF- 0: You can select between the following options:
  - 0: The auto-off function is off.
  - 1: It turns off after 0.7 minutes (42 seconds).
  - 2: It turns off after 1.5 minutes (1 min. 30 s.).
  - 3: It turns off after 2 minutes.
  - 4: It turns off after 3.5 minutes (3 min. 30 s.).
  - 5: It turns off after 7 minutes.

To access the functions menu, press  and the display will show "n 1tEM".

Press  until the display shows "Auto-0". Confirm by pressing  . The display will show a digit to the right, according to the following values:

oFF- 0. Auto-off function disabled.

oFF- 1. The indicator turns off after 45 seconds idle.

oFF- 2. The indicator turns off after 1.5 minutes idle.

oFF- 3. The indicator turns off after 2 minutes idle.

oFF- 4. The indicator turns off after 3.5 minutes idle.

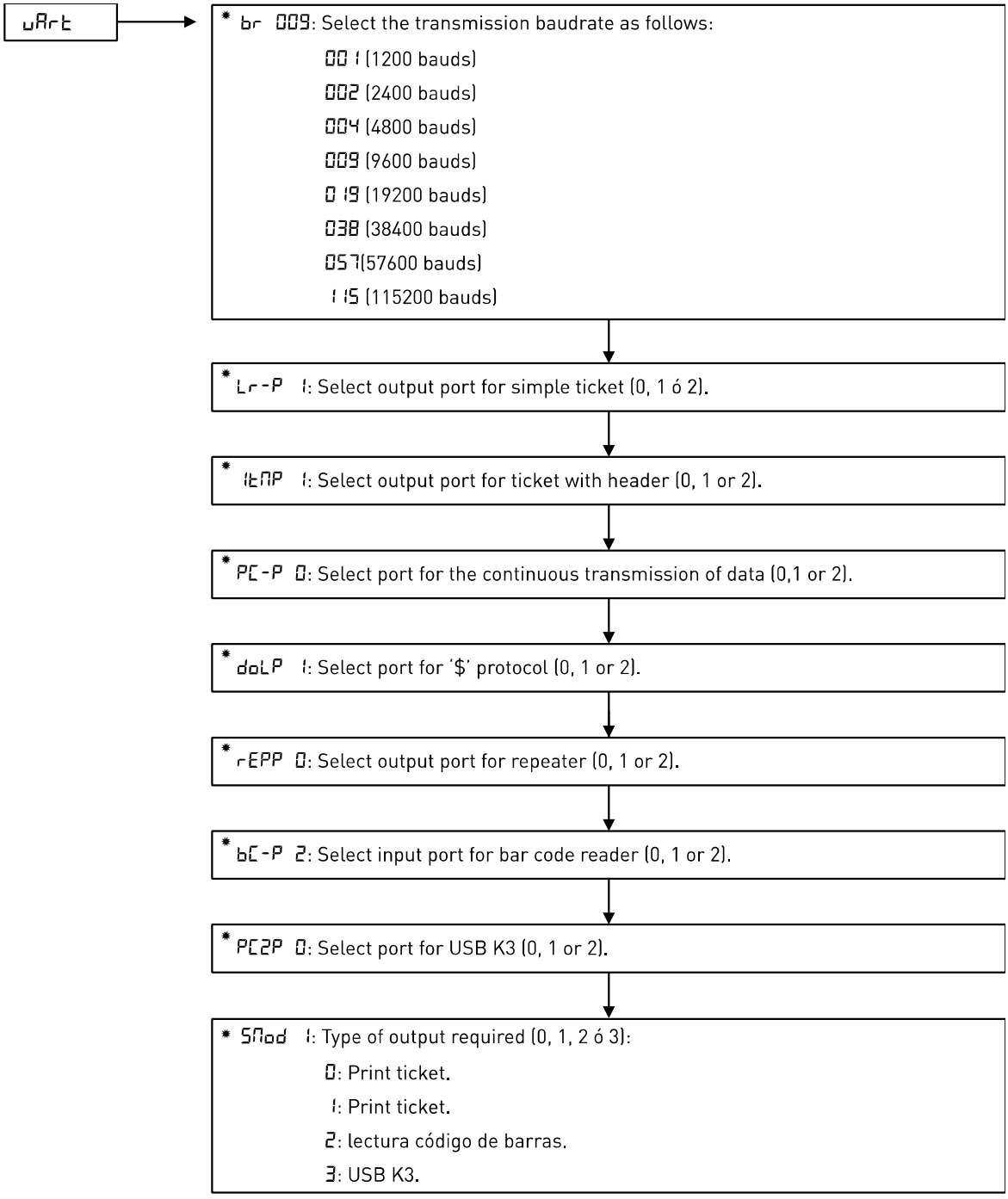
oFF- 5. The indicator turns off after 7 minutes idle.

To change it, press  or  . Then confirm by pressing  .

To exit, press the 

button.

RS-232 Data output configuration – uArt



The device has a standard data output and an optional one.

To access the configuration settings of these data outputs, press 

and then press 

until you see the "uArt" message.

Press  to confirm. You will see the following options for data transmission speed:

br 001 – 1200 bauds
br 002 – 2400 bauds
br 004 – 4800 bauds
br 009 – 9600 bauds
br 019 – 19200 bauds
br 038 – 38400 bauds
br 057 – 56800 bauds
br 115 – 115000 bauds

By using  and 

choose the required option and confirm with  .

The message "Lr-P X" will appear ('X' is the number for the port redirection to simple ticket; 0 = deactivated, 1 = send through Port 1 (standard), 2 = send through Port 2).

By using  and 

choose the required option and confirm with  .

The message "tEMP X" will appear ('X' is the number for the port redirection to accumulated ticket; 0 = deactivated, 1 = send through Port 1 (standard), 2 = send through Port 2).

By using  and 

choose the required option and confirm with  .

The message "PC-P X" * will appear ('X' is the number for the port redirection to send continuous transmission (used for virtual key); 0 = deactivated, 1 = send through Port 1 (standard), 2 = send through Port 2).

By using  and 

choose the required option and confirm with  .

The message "doLP X" 2 will appear ('X' is the number for the selection of the port for dollar protocol $ transmission; 0 = deactivated, 1 = send through Port 1 (standard), 2 = send through Port 2).

By using  and 

choose the required option and confirm with  .

The message "rEPP X" will appear ('X' is the number of the port for the redirection from the repeating remote port ; 0 = deactivated, 1 = send through Port 1 (standard), 2 = send through Port 2).

By using  and  choose the required option and confirm with  .

The message "bC-P X" will appear ('X' is the number of the port for the barcode reader ; 0 = deactivated, 1 = connected to Port 1 (not recommended), 2 = connected to Port 2 (standard)).

By using  and  choose the required option and confirm with  .

The message "PC2P X" will appear ('X' is the number of the port for "USB K3"; 0 = deactivated, 1 = Connected to Port 1, 2 = Connected to Port 2).

The message "SMod X" will appear, where 'X' is the number where the type of output/input must be selected, from the different options:

- 0: Print ticket.
- 1: Print ticket.
- 2: Bar code reading.
- 3: USB K3.

To exit the menu and return to the weighing mode, press  .

* The transmission protocol followed to send a continuous frame, when using the dollar protocol, or when the PC-P option is activated, is the following:

Protocol: 8 bits, no parity, 1 bit stop.

The indicator sends the following byte frame (always 14 bytes long).

0	1	2	3	4	5	6	7	8	9	10	11	12	13
02h	**49h**	**20h**	**20h**	**20h**	**30h**	**2Eh**	**30h**	**30h**	**30h**	**6Bh**	**67h**	**0Dh**	**03h**
STX		spc	spc	spc	0	.	0	0	0	k	g	CR	ETX

0 Beginning of text
1 Status (zero, net, stable, unstable, etc.)
2..9 Numeric values (ASCII)
10 K unit or space (ASCII)
11 G unit (ASCII)
12 Carriage return
13 End of text

When the indicator transmits this byte frame, the printer must show a label with the received weight.

Status byte explanation (Byte 1)

GROSS WEIGHT (POIDS BRUT)

```
if ( status AND 01h ) = 01h
        Gross = true
else
        Gross = false
```

NET WEIGHT(POIDS NET)

if (status **AND** 02h) = 02h
    Net = true
else
    Net = false

STABLE WEIGHT(POIDS STABLE)

if (status **AND** 04h) = 04h
    Stable = true
else
    Stable = false

ZERO (ZÉRO)

if (status **AND** 08h) = 08h
    Zero = true
else
    Zero = false

Numeric values explanation (Bytes 2..9)

Depending on the decimal point there are six possible combinations:

2	3	4	5	6	7	8	9
Space	9	.	9	9	9	9	9
Space	9	9	.	9	9	9	9
Space	9	9	9	.	9	9	9
Space	9	9	9	9	.	9	9
Space	9	9	9	9	9	.	9
Space	9	9	9	9	9	9	Space

Printing format – PrNFrN

PrnFrn →

* PrFN 1: Select simple ticket format among the following options:
  1 : Prints ticket number, date and time, net weight and tare weight.
  2 : Prints ticket number, date and time, net weight, tare weight and gross weight.
  3 : Prints ticket number, date and time, weight units, tare weight, gross weight, net weight and the number of pieces.
  4 : Prints ticket number, date and time, weight units, gross weight, net weight and the number of pieces.
  5 : Prints the ticket number, date and time, required weight, real weight and deviation.

↓

* LFn 10: Enter the number of blank lines after ending the ticket (between 0 and 99).

↓

* LAn 1: Select language among the following ones:
  0: English
  1: Spanish
  2: French
  3: German

↓

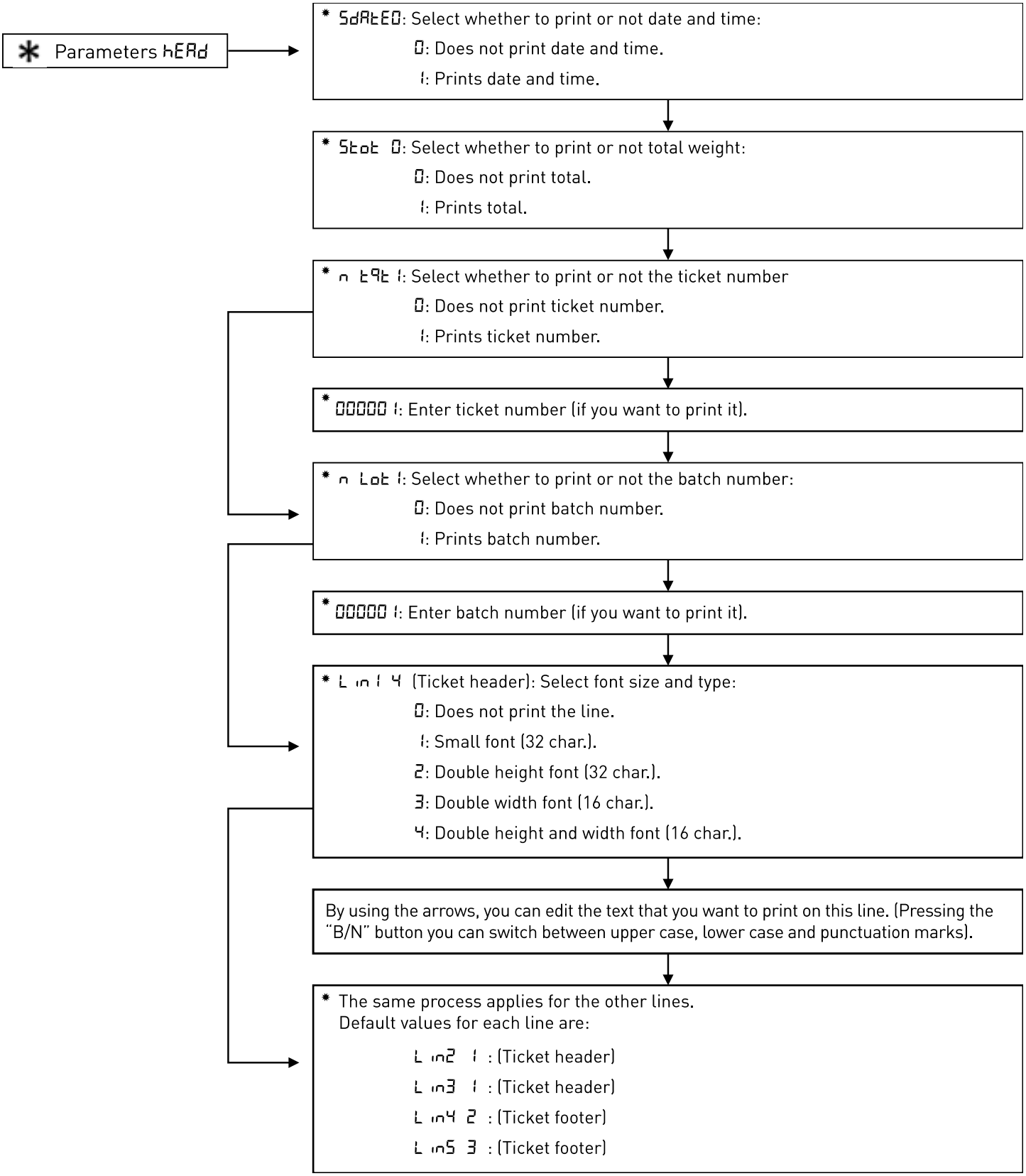
* tPrn 0: Select the ticket printing method:
  0: Prints ticket when pressing 'ENTER'
  1: Prints ticket when weight is stable.

↓

* dot 0: Select the format of the transmission to USB K3:
  0: Sends comma (",")
  1: Sends period (".").

↓

* hEAd 1: Select between simple ticket or ticket with header:
  0: Does not print header and exits submenu.
  1: Prints header and enters the hEAd parameters.



The printer data output can be set up with 5 different printing formats, according to the following versions:

Format 1

```
- - - - - - - - - - - - - - - - - - - - - - - - -
Weight no.:                            #00010
Net W.:                                0.500 kg
Tare:                                  0.000 kg
```

Format 2

```
- - - - - - - - - - - - - - - - - - - - - - - - -
Weight no.:                            #00011
Net W.:                                0.500 kg
Tare:                                  0.000 kg
Gross W.:                              0.500 kg
```

Format 3

```
- - - - - - - - - - - - - - - - - - - - - - - - -
Weight no.:                            #00012
Unit weight:                           0.008 kg
Tare:                                  0.000 kg
Gross W.:                              0.500 kg
Net W.:                                0.500 kg
Quantity:                                65 u
```

Format 4

```
- - - - - - - - - - - - - - - - - - - - - - - - -
Weight no.:                            #00013
Unit weight:                           0.008 kg
Gross W.:                              0.500 kg
Net W.:                                0.500 kg
Quantity:                                65 u
```

Format 5

```
- - - - - - - - - - - - - - - - - - - - - - - - -
Weight no.:                            #00014
Weight limit:                          1.000 kg
Standard weight:                       0.500 kg
Deviation:                           - 0.500 kg
```

NOTE: In all cases, the date and time are printed if the clock board is present and if it is set up for printing. The header and the ticket footer are also printed.

With the scales in weighing mode, to select the required format press 

and then press 

until the display shows "PrnFrn".

Press  to access this option.

The message "PrFN X" will appear, where 'X' is the printing format number, from 1 to 5, according to the examples shown above. To use any of them, select the number using buttons  and 

.

Press  to confirm the function. The display will show the **"LFn"** message followed by two digits. This options allows you to select the number of empty lines that must be printed after the ticket has been finished. If you set it to 1 or 0, the printer won't leave any space between the data blocks. If you choose a higher value (for example 10), the printer will leave 10 lines after printing.

Select the required value using the  and 

buttons, and 

and 

to modify the adjacent digit . Confirm the final value with the  button.

The message "LAn" will appear, followed by a number. Here you can select the printing language. This digit must be selected according to the following table:

0. English
1. Spanish
2. French
3. German

Press  and 

to select the language and memorise it with the  button.

The message "tPrn X" will appear. By modifying 'X' we can choose when the printing will be carried out. (0 = when the button is pressed  , 1 = when the scales are stable).

By using  and 

choose the required option and confirm with  .

The message "dot X" will appear. By modifying 'X' we can choose the transmission format to "USB K3". (0 = sends a comma (","), 1 = sends a period (".")).

By using  and 

choose the required option and confirm with  .

The message "hEAd X" will appear ('X' is the number where the printing of the header and footer of the ticket are chosen. 0 = Does not print ticket header or footer, 1 = Prints ticket header and footer).

By using  and  choose the required option and confirm with  .

If you do not want to print the header and, therefore, you have selected "hEAd 0", the ticket configuration process will have finished. You can now go directly to the **printing operation** section.

If the "hEAd 1" option has been selected, the message "SdAtE X" will appear ('X' is the number where the ticket date and time printing are selected; 0 = Do not show, 1 = Show).

By using  and  choose the required option and confirm with  .

The message "StotX" appears ('X' is the number where the printing of the subtotal of the ticket is selected; 0= Do not show, 1= Show).

By using  and  choose the required option and confirm with  .

The message "n tAtX" appears ('X' is the number where the printing of the ticket number is selected; 0= Do not show, 1= Show).

By using  and  choose the required option and confirm with  .

If '1' has been selected, the initial ticket number will appear. It will start increasing from this number. Press  and  to modify each digit, and buttons  and  to change the other digits until the initial number of the required ticket appears. Confirm by pressing  .

The message "n LotX" appears ('X' is the number where the printing of the batch number is selected; 0= Do not show, 1= Show).

By using  and  choose the required option. Confirm with  .

If '1' has been selected, enter the batch number following the instructions of the previous section. Confirm with  .

The message "L in1 X" will appear ('X' is the number where the line 1 printing is selected 1; 0= do not print, 1 = small font size, 2 = double height font size, 3 = double width font size, 4 = double height and width font size).

Note: The simple width font sizes (options 1 and 2) will print 32 characters. The double width font sizes (options 3 and 4) will only print 16 characters, even when more have been entered. To centre the characters, white spaces must be left if necessary.

By using  and 

choose the required option and confirm with  .

If an option other than '0' has been selected, the line will appear with the default characters (it prints the manufacturer's name by default). This can be changed for the desired characters as follows:

The first character is highlighted with a flashing underscore. Using  and 

you can change it for the suitable one, according to the following table and in this order:

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890,'.:-_@

You can enter lower and upper case letters, numbers and symbols. The battery symbol now indicates the letter type according to the following order:


numbers and symbols
lower case letters
upper case letters

To change these fonts, press 

during the editing and the font type will change (upper and lower case letters always appear the same. To know which type they belong to, check the number of batter bars).

If you wish to delete all characters of the line that you are editing, press and hold 

until they disappear.

To scroll left or right, use the 

and 

buttons. Follow the instructions above to edit all characters. Then press  to confirm the line.

The message "L in2 X" will appear ('X' is the number where the line 2 printing is selected 1; 0= do not print, 1 = small font size, 2 = double height font size, 3 = double width font size, 4 = double height and width font size).

Follow the previous instructions to edit the second line of the ticket header. Once this has been done, confirm with the  button.

The message "L in3 X" will appear ('X' is the number where the line 3 printing is selected 1; 0= do not print, 1 = small font size, 2 = double height font size, 3 = double width font size, 4 = double height and width font size).

Follow the previous instructions to edit the third line of the ticket header. Once this has been done, confirm with the  button.

Note: The first three lines will be printed as the ticket's header, before the rest of the data. Lines 4 and 5 will be printed as the ticket's footer at the bottom.

The message "L n4 X" will appear ('X' is the number where the line 4 printing is selected 1; 0= do not print, 1 = small font size, 2 = double height font size, 3 = double width font size, 4 = double height and width font size).

Follow the previous instructions to edit the first line of the ticket footer. Once this has been done, confirm with the ↵ button.

The message "L n5 X" will appear ('X' is the number where the line 5 printing is selected 1; 0= do not print, 1 = small font size, 2 = double height font size, 3 = double width font size, 4 = double height and width font size).

Follow the previous instructions to edit the second line of the ticket footer. Once this has been done, confirm with the ↵ button. Press the ESC / U button to exit the menu.

Printing operation

In weighing mode, by pressing the key M+ → the indicator will send the weighing value to the printer for accumulated printing in the indicated print format. The first time it will also send the header with the enabled data (ticket number, date and time, batch number) if tit has been selected. If we have also defined the "item" number, it will print this code to the left of the product's weight.

In subsequent weighings, when pressing M+ → the indicator will send the values of the new weighings to the printer, provided that between each weighing the indicator returns to "0". If they do not return to '0', the weight will not be accumulated.To end the ticket, press ← MR and it will print the footer and the Subtotal if they have been enabled.

GRAM PRECISION
Travessia Industrial, 11
08907 Hospitalet Llobregat (BCN)

Fecha: 21/05/15 Hora: 15:15
Lote: 123456 Tiquet: 2

TUERCA	2.50 kg
BOBINA	6.15 kg
EJE	1.30 kg
TACOS	4.10 kg
RUEDAS	12.15 kg
TAPAS	3.2 kg
TOTAL:	37.90 kg

Gracias por su visita
www.gram.es

Lastly, if you want to print a simple ticket, with any of the formats previously selected, you must use the button  . The header and footer will be printed if enabled.

Verification function of the ADC – iCount

This utility shows the reading of the Analog/Digital converter (ADC), to verify the correct operation of the indicator in conjunction with the connected weighing cell or cells.

It is useful to carry out weighing verifications and to identify possible faults without having to send the indicator to our technical support service.

To see the converter's reading, press 

, and then press 

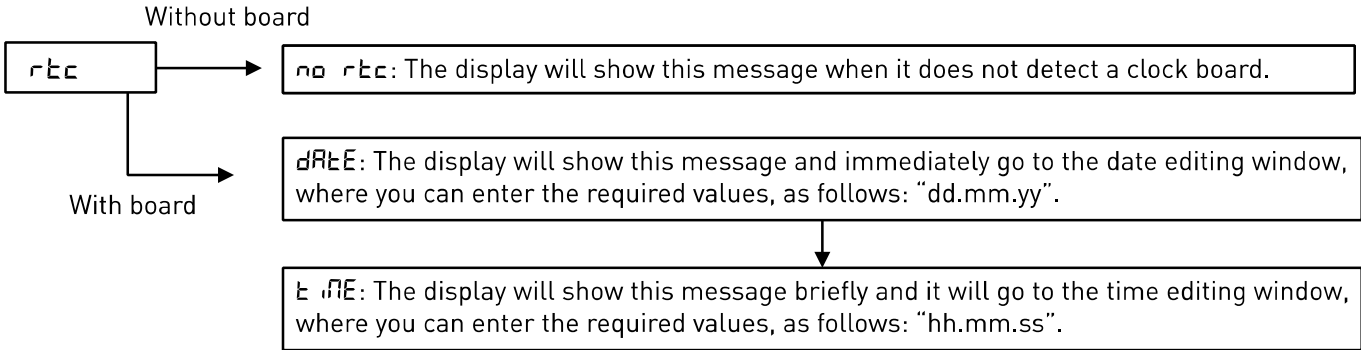
until "iCount" appears. Press  to confirm.

The display will show a 6-digit number that will normally change continuously. This value indicates the internal counts of the indicator.

To exit this function press  and then press the 

button.

Date and time set up – rtc



This function allows you to set the date and time if the device has our clock board.

To enter this option, press the 

button and then repeatedly press 

until "rtc" is shown.

Press  to confirm.

The word "dAtE" briefly appears on the display. Then, it shows 6 digits with the date (dd.mm.yy) which can be modified by using  and 

to increase or decrease the value of the digit that is flashing, and using 

and

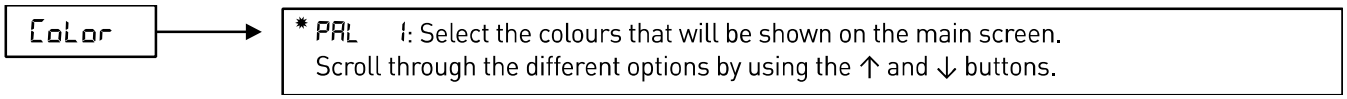
 to move to the left or right digit. Once the date has been set up, press the  button to confirm.

The word "t iME" briefly appears on the display. Then, it shows 6 digits with the time (hh.mm.ss) which can be modified by using  and  to increase or decrease the value of the digit that is flashing, and using  and  to move to the left or right digit. Once the date has been set up, press the  button to confirm.

To exit the menu and return to the weighing mode, press  .

Note: If the device does not have the clock board installed, the message "no rtc" will appear when you try to enter this menu option.

<u>Display colour set up</u> – CoLor



This function allows you to modify the colour of the display. There are four options.

To enter this option, press the  button and then repeatedly press  until "CoLor" is shown.

Press  to confirm.

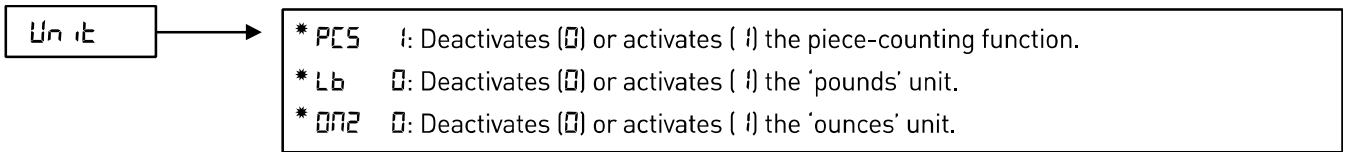
The display will show "PAL X", where X is the colour option that is active. Using buttons  and  , we can select from the following options:

- PAL 1: Light blue.
- PAL 2: Green
- PAL 3: Turquoise
- PAL 4: Violet.

Press  to confirm.

Press  to return to weighing mode if you do not want to change any other value within the functions menu.

Activate auxiliary units – un it



This function can be used to enable or disable the lb, oz and PCS units.

To enter this option, press the M PLU button and then repeatedly press M+ → until "un it" is shown. Press the ↵ button.

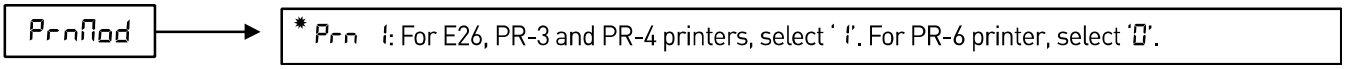
The display will show "PCS" (which corresponds with the piece-counting function), followed by 0 or 1, which indicates if the unit is disabled or enabled, respectively. Press the ↑ button to modify the value and then press ↵ to confirm.

The display will show "Lb" (which corresponds with pounds), followed by 0 or 1, which indicates if the unit is disabled or enabled, respectively. Press the ↑ button to modify the value and then press ↵ to confirm.

The unit "0n2" will appear (which corresponds to ounces). Perform the same procedure described above to enable or disable it. When you have finished, press the ↵ button. To exit the menu and return to the weighing mode, press the ESC U button.

If you repeatedly press ESC U, it will only alternate between the enabled units.

Select a printer – PrnMod



This feature allows you to configure the GRAM printer model connected to the unit.

To enter this option, press the 

button and then repeatedly press 

until "PrnMod" is shown. Press  to confirm.

The display will show "Prn X", where 'X' is the option that is enabled. It can be changed by using  and 

to choose from the following options:

Prn 0 : For the PR-6 printer.

Prn 1 : For E26, PR-3 and PR-4 printers.

Prn 2 : For Q2 label printer.

To exit the menu and return to the weighing mode, press 

.

This unit's warranty covers any factory and hardware defects. The warranty is valid for a period of 1 year from the date of delivery.

Within the warranty period, **GRAM PRECISION, SL,** will be responsible for the repair cost of the scales.

The warranty does not apply to damage incurred due to improper unit use or unit overload.

The warranty does not cover shipping costs derived from sending the scales to our repair centre.

DESCARGA ESTE MANUAL EN TU IDIOMA
DOWNLOAD THIS MANUAL IN YOUR LANGUAGE
LADEN SIE DIESES HANDBUCH IN IHRER SPRACHE HERUNTER
TÉLÉCHARGER CE MANUEL DANS VOTRE LANGUE
BAIXAR ESTE MANUAL EM SEU IDIOMA

EN

http://gram-group.com/wp-content/uploads/2016/12/MANUAL_K3_2017_ENG.pdf

ES

http://gram-group.com/wp-content/uploads/2016/12/MANUAL_K3_2017_ESP.pdf

DE

http://gram-group.com/wp-content/uploads/2016/12/MANUAL_K3_2017_DEU.pdf

FR

http://gram-group.com/wp-content/uploads/2016/12/MANUAL_K3_2017_FRA.pdf

PT

http://gram-group.com/wp-content/uploads/2016/12/MANUAL_K3_2017_PRT.pdf

006/14122016

Gram Precision S.L.
Travesía Industrial, 11 · 08907 Hospitalet de Llobregat · Barcelona (Spain)
Tel. +34 902 208 000 · +34 93 300 33 32
Fax +34 93 300 66 98
comercial@gram.es
www.gram-group.com