LP-5000 INDICATOR & LABELLER TECHNICAL MANUAL





Ref.: 49T5000EN05

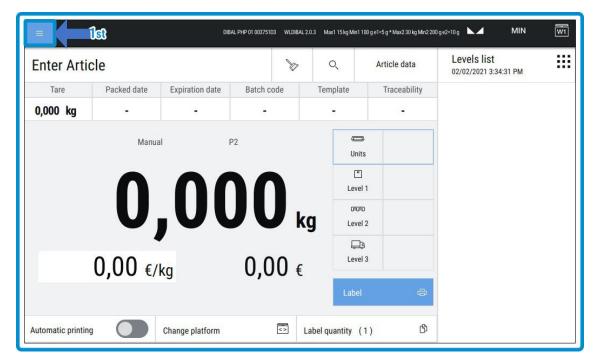
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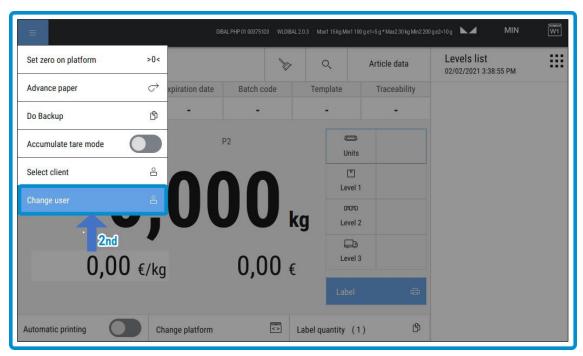
1. Test mode and settings (Technical)

In the working mode test and adjustments of the labeller (user TECH) it is possible to carry out the functional check or calibration of different elements of the labeller: adjustment of weight, calibration of the printer, verification of the different versions of software, hardware, etc.

To access from the working operating menu, click on the blue box in the upper left corner.



Click on "Change User".



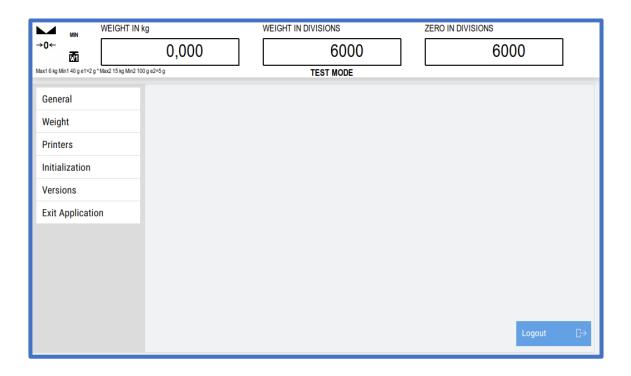
Enter the "tech" username and the "tech" password.



Click on "Login" to access the technical menu of test and settings.

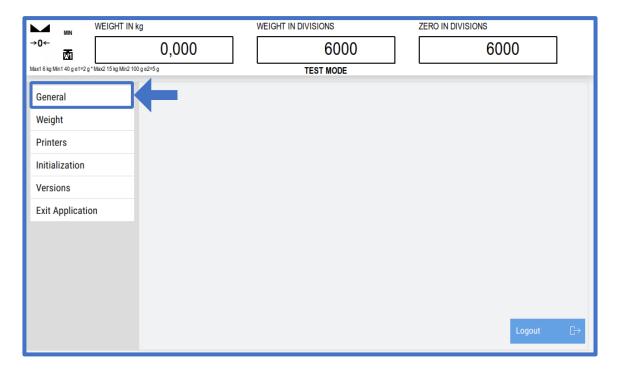


Main menu of tests and settings.

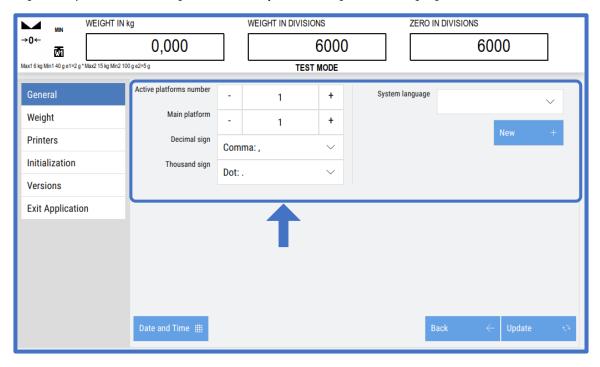


1.1 General

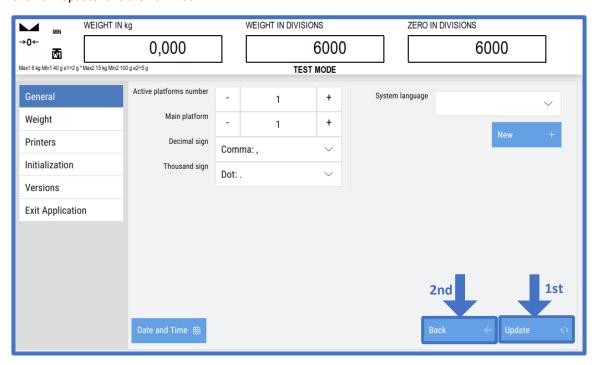
Select "General".



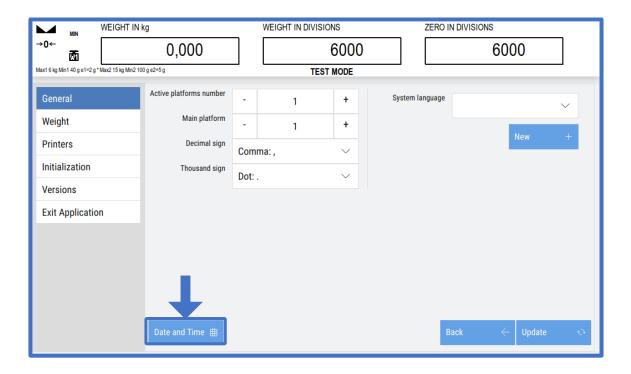
Number of active platforms, indicate number (between 0 and 2). Main platform, indicate which of the platforms will be the main one (1 or 2). Indicate the decimal sing ("Comma:," or "Dot:.") and the thousand sing ("Space: " or "Comma:," or "Dot:."). Also, you can change the system language, selecting between English or Spanish and selecting the new button you can configure a new language.



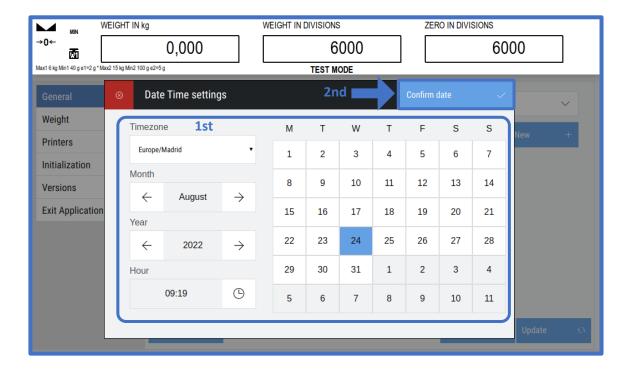
Click on "Update" and then on "Back".



You can change the date and time, from "General" by clicking on the "Date and Time" box.



Enter values for date and time and click on "Confirm date".



1.2 Platform selection 1 and 2

To enter the different adjustment and configuration options of the weight platform (number 1) installed follow the steps detailed in the following pages. In case of having installed a second platform (number 2), as in this occasion, you would have to press on "Weight 2" and follow the same steps as with Weight 1.

Select "Weight 1" or "Weight" depending on whether there is more than one weigh cell or only one.

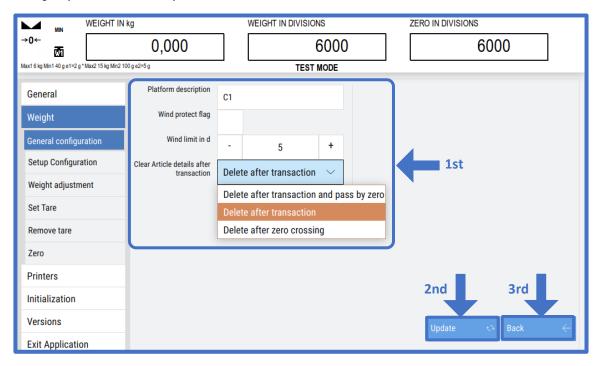


1.2.1 General configuration

Select "General configuration".

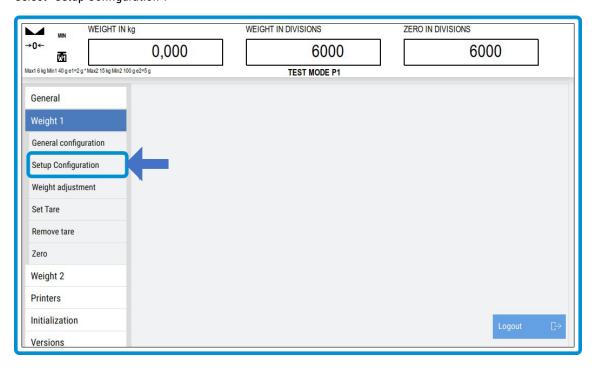


Configure parameters, click "Update" and then "Back".

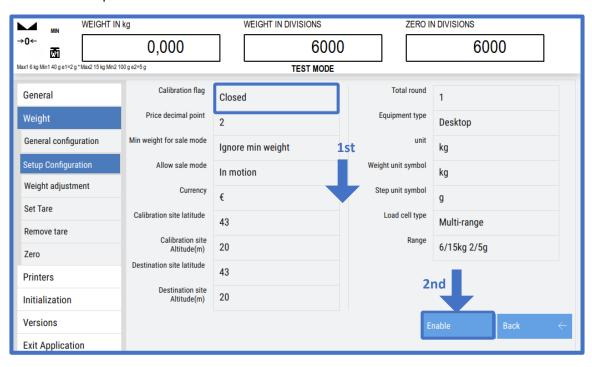


1.2.2 Setup configuration

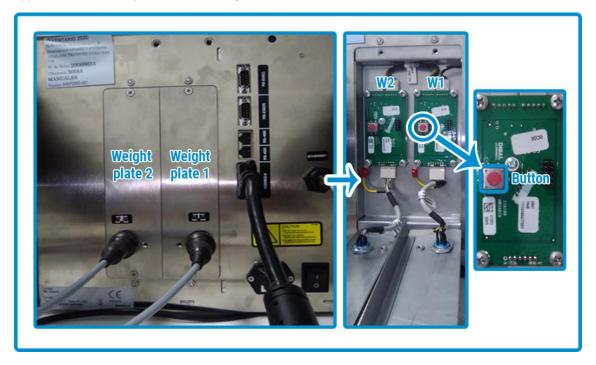
Select "Setup Configuration".

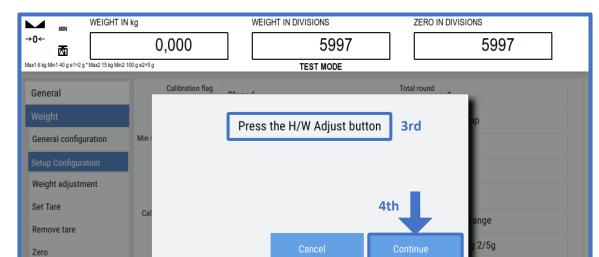


Slide the screen up and click on "Enable".



Press the physical adjustment button, located on the weight plate (back of the labeller). Loosen the lower and upper screws of the caps to access the adjustment button.





After pressing the adjustment button, press "Continue".

Destination site Altitude(m)

20

Printers

Initialization Versions

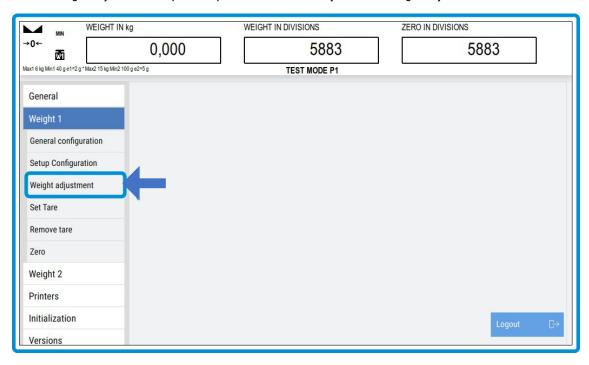
Exit Application

The option to modify some parameters (indicated in the image), enter the changes and then click on "Update" and "Back" has been enabled.

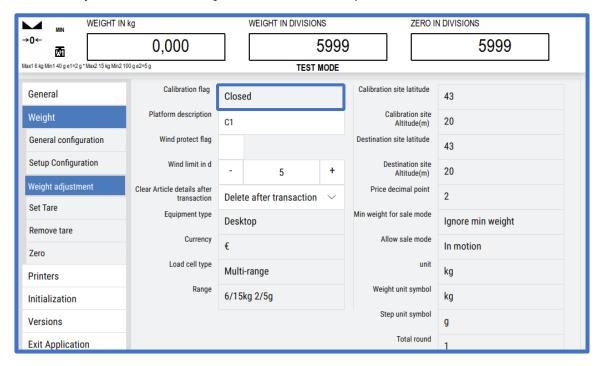


1.2.3 Weight adjustment

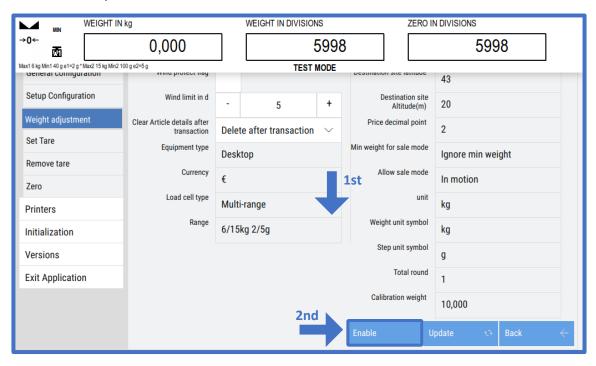
Select "Weight adjustment" to perform platform calibration by zero and weight adjustment.



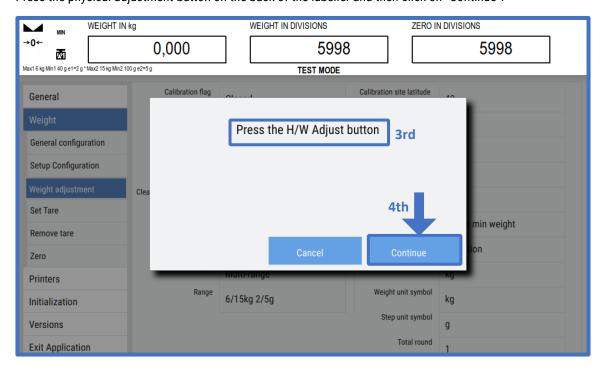
In this menu, you can check the settings and calibration status: open or closed.



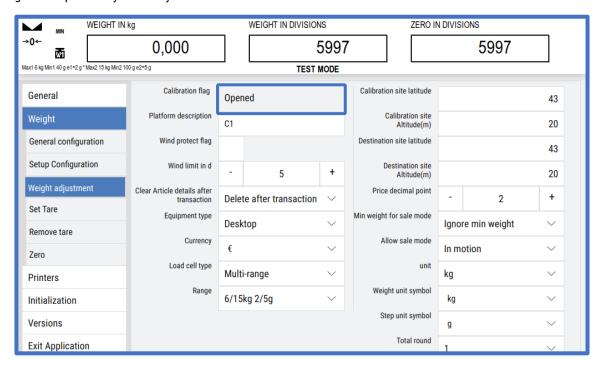
Slide the screen up and click on "Enable".



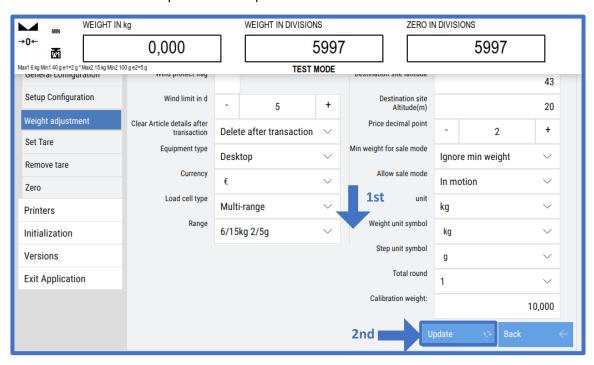
Press the physical adjustment button on the back of the labeller and then click on "Continue".



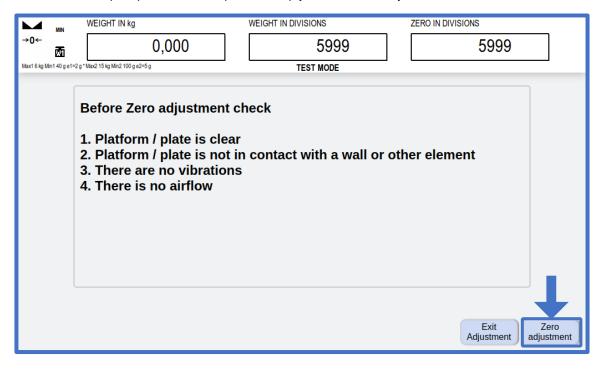
The status is opened (as can be seen in the image). In this way, the labeller is available for calibration. It also gives the possibility to modify the data of the different fields.



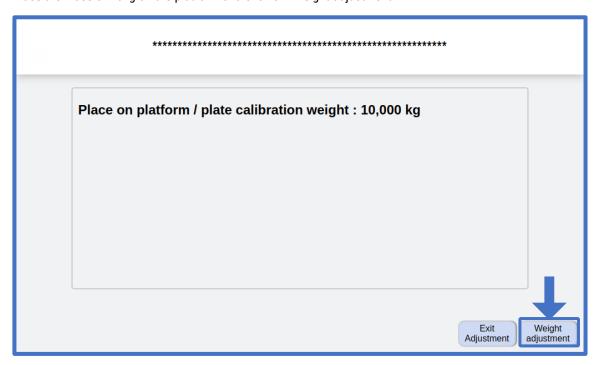
Slide the screen information up and click on "Update".



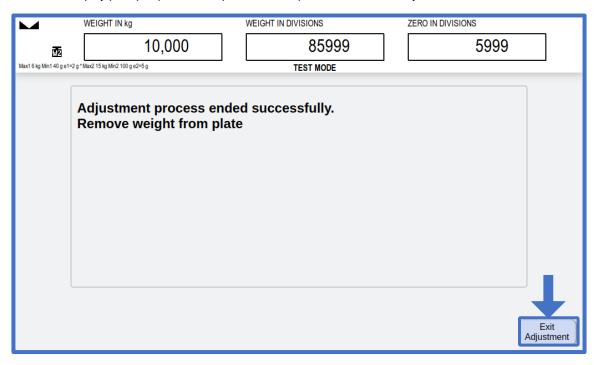
Follow the screen prompts and with the platform empty, click on "Zero adjustment".



Place the mass of 10kg on the platform and click on "Weight adjustment".

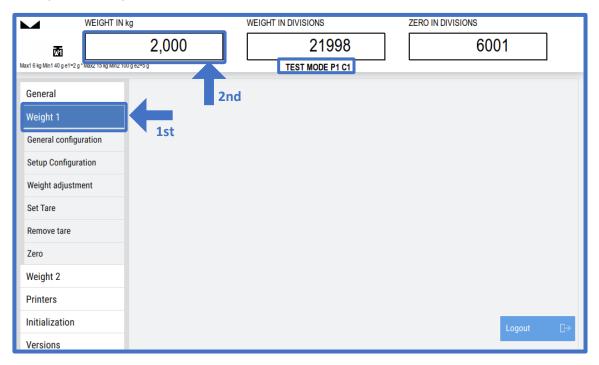


Follow the display prompts (remove the platform mass) and click on "Exit Adjustment".

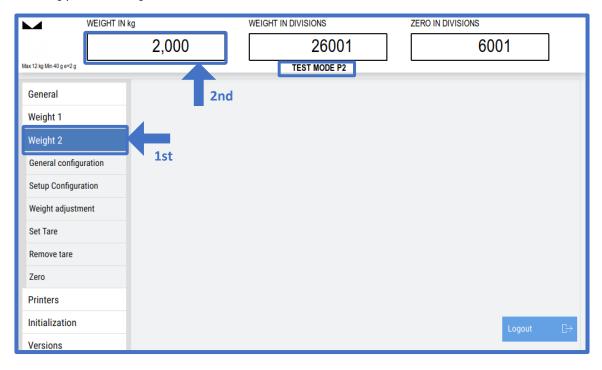


Check that the weight is correct. Place weight mass (2kg) on the platform to check.

Select platform "Weight 1".

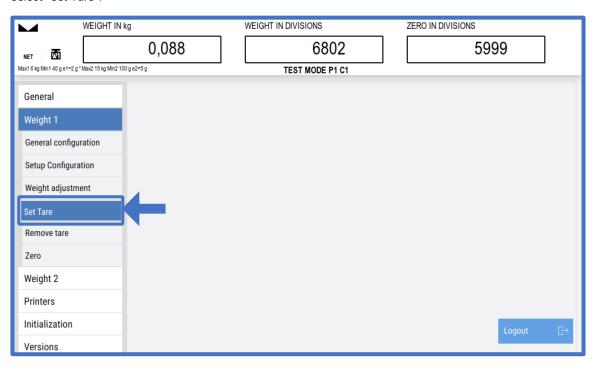


Selecting platform "Weight 2".

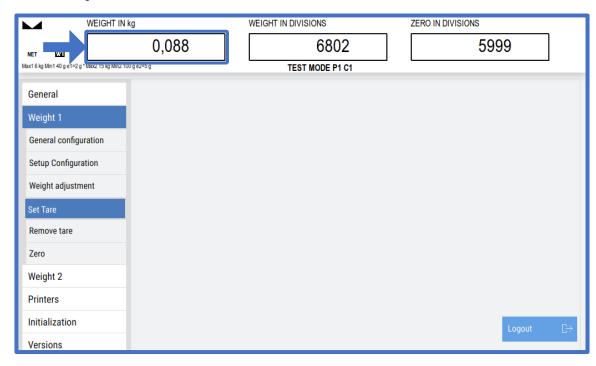


1.2.4 Set tare

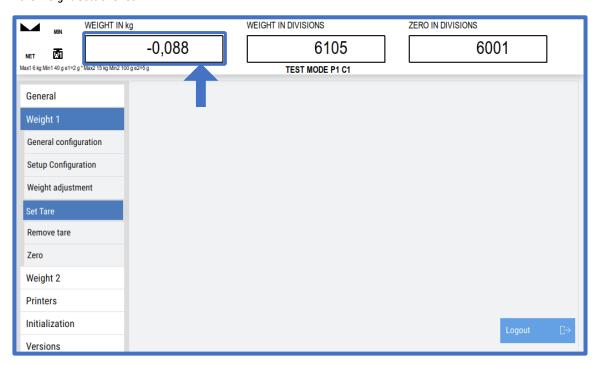
Select "Set Tare".



Place the weight for tare and click on "Set Tare".

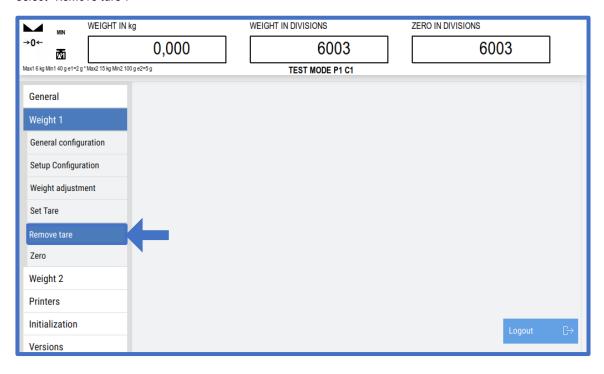


Tare weight established.

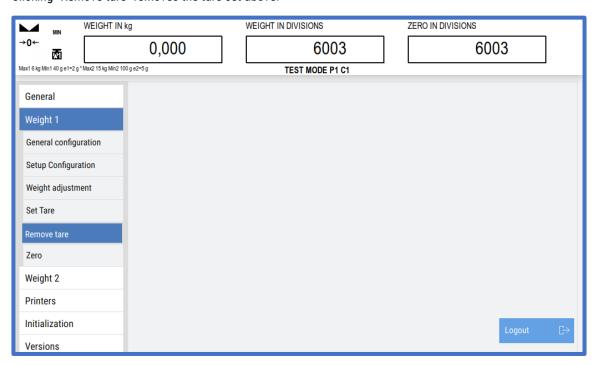


1.2.5 Remove tare

Select "Remove tare".

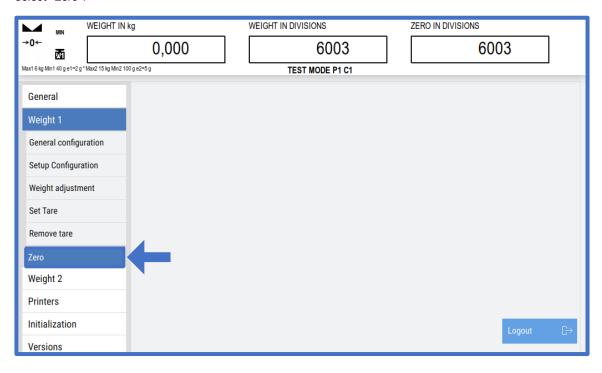


Clicking "Remove tare" removes the tare set above.



1.2.6 Zero

Select "Zero".



Set zero on the platform.



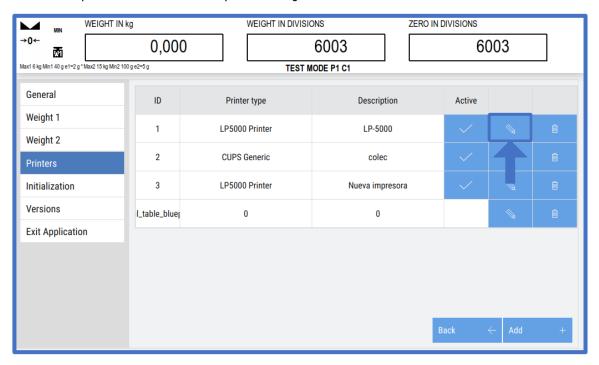
1.3 Printers

This section shows the procedure for adjusting the printing of the labeller and the recommended factory values in each of the fields. From the main menu on "printers" are all the settings and tests to leave the equipment prepared.

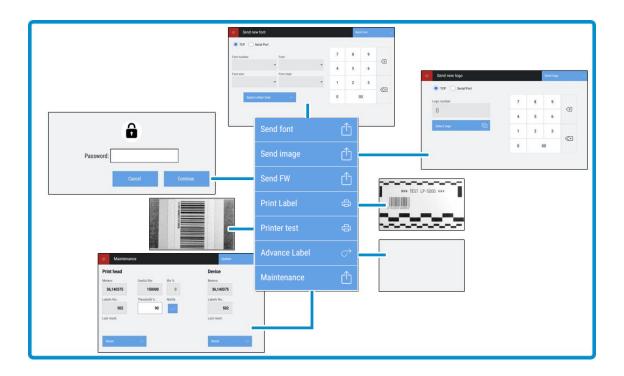
Select "Printers".



Click on "the pen" to access the LP5000 printer settings.



Explanation blue box of the menu "Printers".



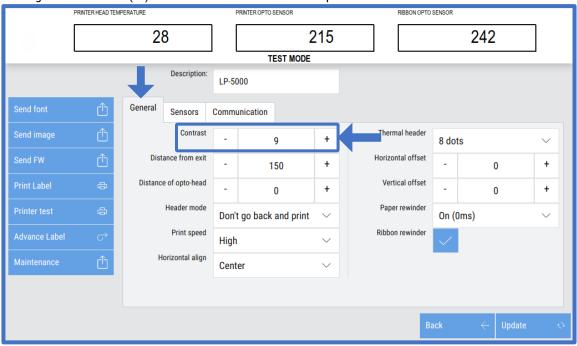
- -Send font: allows you to select font, size and style and send it.
- -Send logo: allows you to select an image saved in the Operating S. and send it.
- -Send FW: allows to send the firmware. Password required: dibalfw1985
- -Print Label: prints a label in test format.
- -Printer test: prints a label in adjustment format.
- -Advance Label: prints a blank label and therefore advances the section of paper that corresponds to it.
- <u>-Maintenance</u>: display the values of the printhead and device, you can see how many meters of roll have been spent and the number of printed labels. There is the option to reset and update the changes made.

1.3.1 General

Contrast:

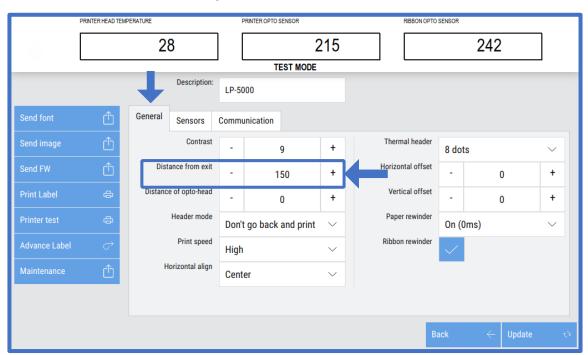
The contrast increases or decreases the label burn. It has a range from 0 to 29. From 0 to 19 the burning increases and reduces the speed, while from 20 to 29 is reduced by 10%.

-Note: The values of the different sections can be changed by clicking on "-" or "+", or by standing on the number (delete it) and writing the new value (within the established limits) for the numerical values and clicking on the "arrows" (\vee) to slide and choose the desired option in the rest of the values.



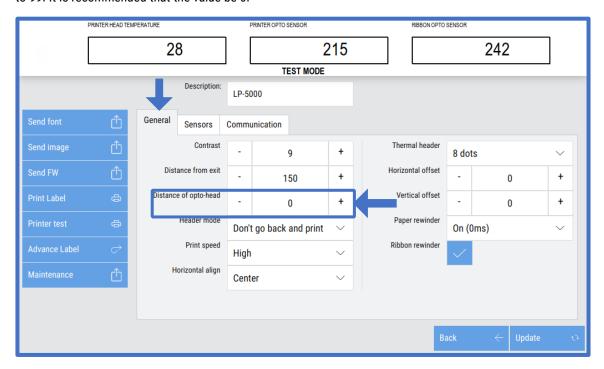
Distance from exit:

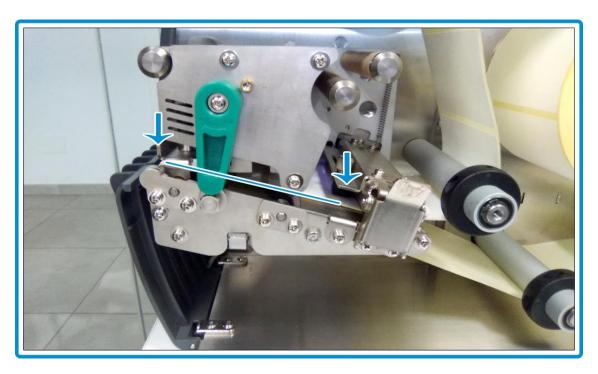
Adjusts the label output so that when printed it does not stay inside and can be easily removed. It has a range from 0 to 199. It is recommended to stay at 90.



Distance of opto-head:

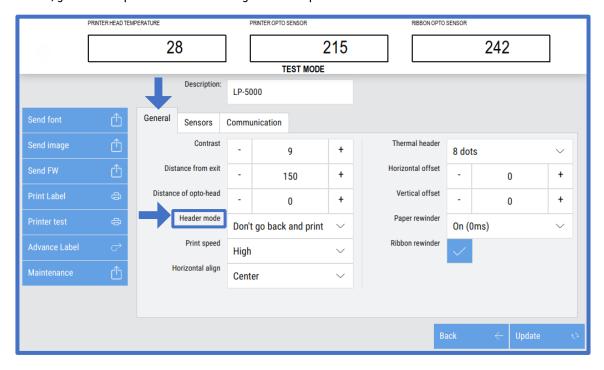
It refers to the mechanically fixed initial distance between the head and the output opto. It has a range of -99 to 99. It is recommended that the value be 0.





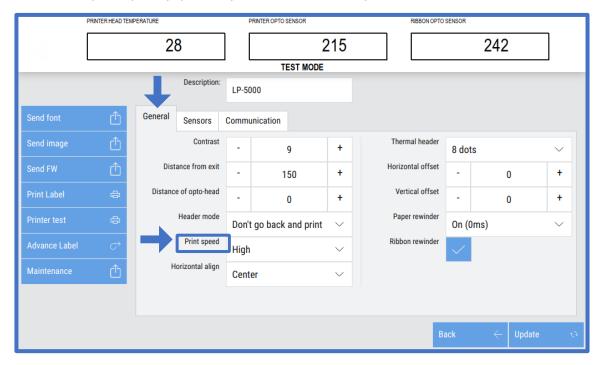
Header mode:

When the label has a header. It has four modes: Go back and don't print header, don't go back neither print header, go back and print header and don't go back and print.



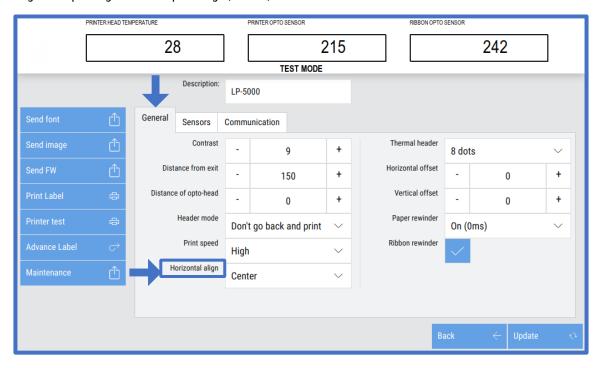
Print speed:

There are four pre-set printing speeds: regular, medium, low and high.



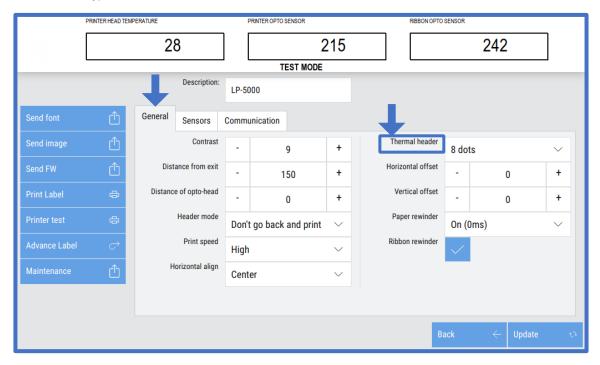
Horizontal align:

Align label printing from a midpoint: right, center, and left.



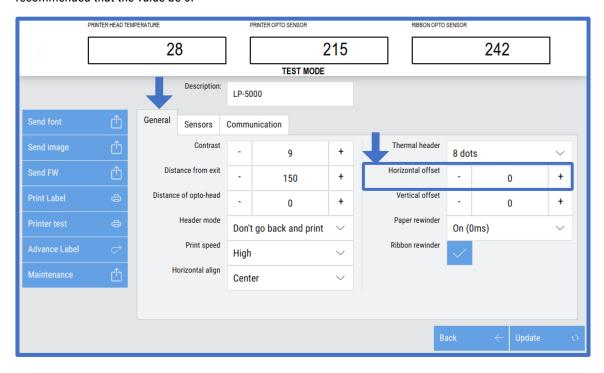
Thermal header:

Adjusts the precision of the thermal head. By default, the machine comes equipped with the 8 dots header. There are two types of thermal head, 8 and 12 dots.



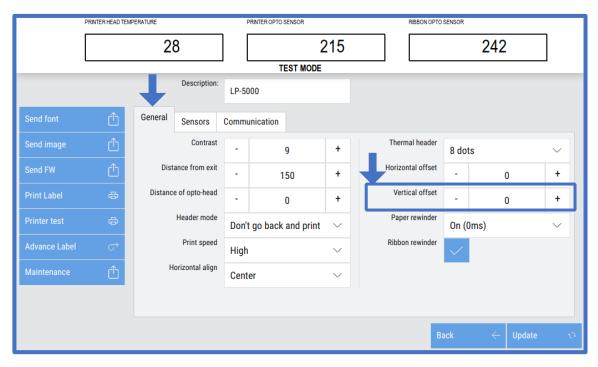
Horizontal offset:

The horizontal position of the print on the label is corrected. It has a range from -9999 to 9999 dots. It is recommended that the value be 0.



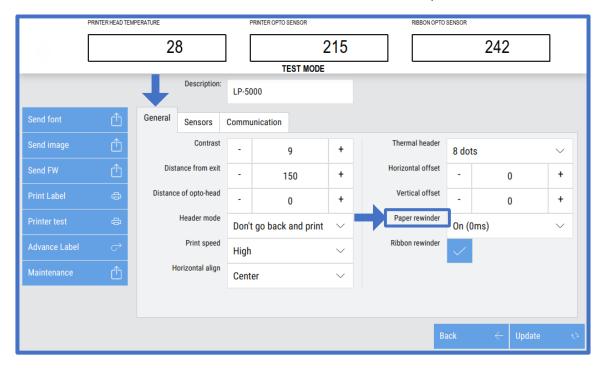
Vertical offset:

The vertical position of the print on the label is corrected. It has a range from -9999 to 9999 dots. It is recommended that the value be 0.



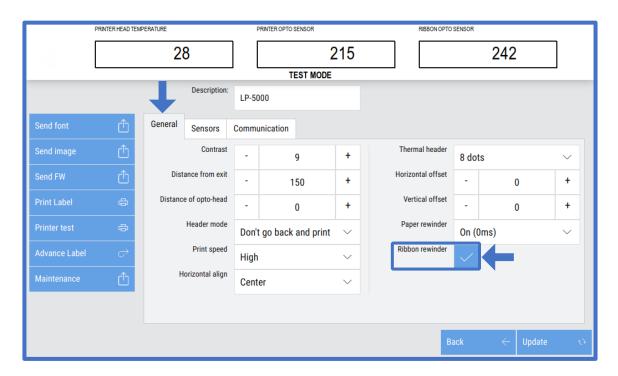
Paper rewinder:

Enables or disables the rewinder. You can also set the timeout for its activation; 0/300/2000ms.



Ribbon rewinder:

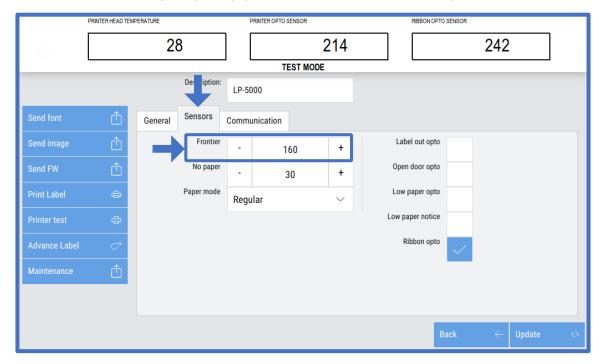
Activate or deactivate the Ribbon rewinder.



1.3.2 Sensors

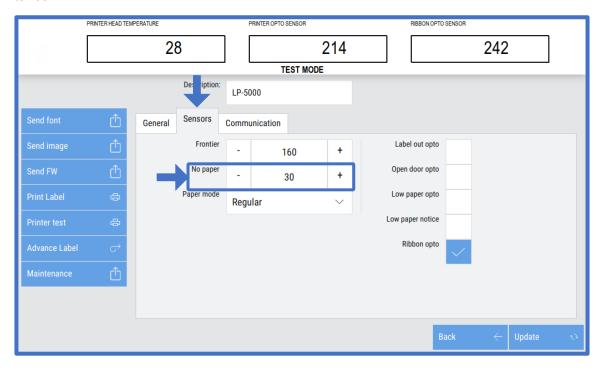
Frontier:

Mean value between reading the opto on paper holder and on the label. It has a range from 0 to 255.



No paper:

A value is entered. When the labeler makes a reading less than that value it gives error. It has a range from 0 to 255.



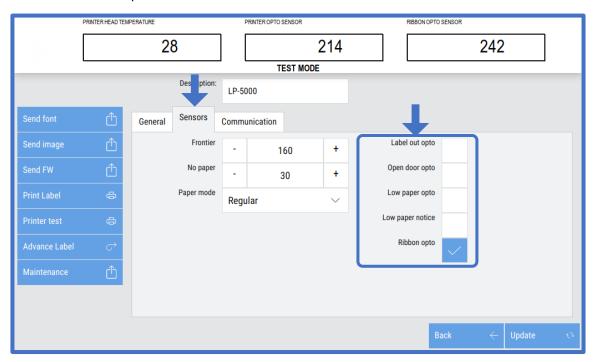
Paper mode:

It has two modes, normal (the opto detects the labeller by paper holder) and reverse (the opto detects the label by black line).



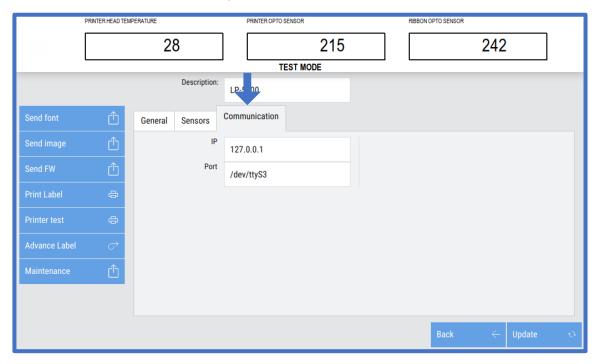
Status of the optos:

Activation o deactivation of the optos: label out opto, open door opto, low paper opto, low paper notice and the ribbon opto.



1.3.3 Communication

Select "Communication". IP address and port are indicated.



Click on "Update" and "Back" to save the changes made in the printer sections.



To see the result of the adjustment with a printed label, go back to the labeling screen (working operation), log out in "tech" and start with the user and password lp5000.

Once logged in, select an article and print a label, so the result will show if the adjustments made are correct.

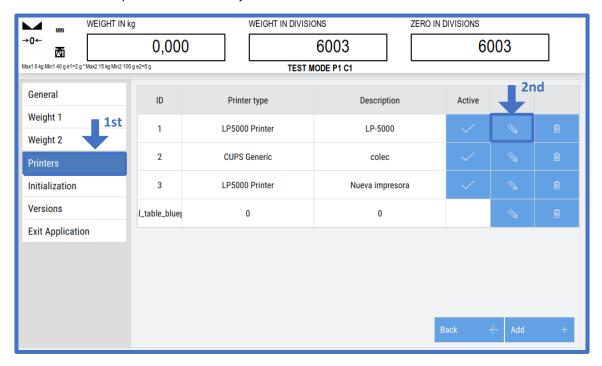
<u>-Note:</u> In the printing. Run 3 print tests beforehand (if this is the first time it is printed after turning on the equipment) until the labeller adjusts and prints the label correctly.

1.3.4 Sending of Printing Fonts

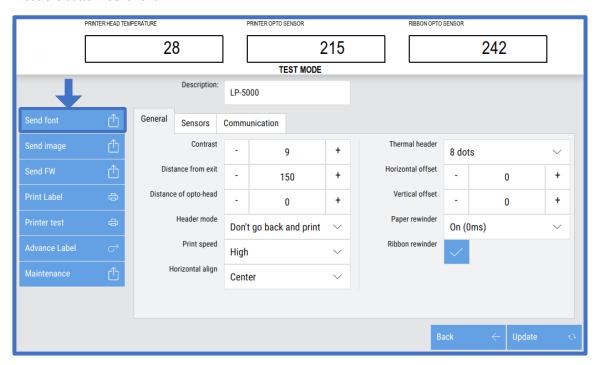
It allows the user to send a TTF font file with a unique identifier, which can then be used to print texts on label formats.

1.3.4.1 Procedure

Access the Test menu, using the "tech" username and password. Access the LP-5000 printer menu to which you want to send the fonts.

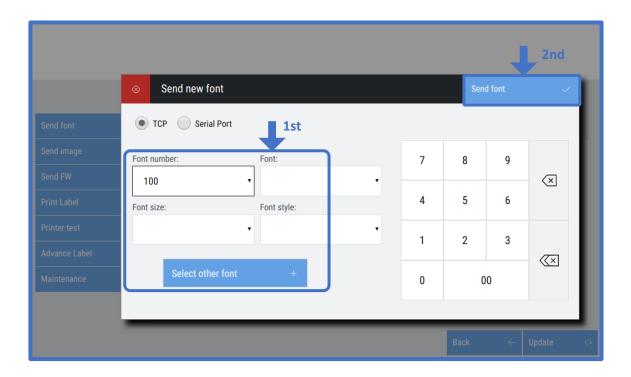


Press the button "Send font".



In the "Send New Font" window the following fields will be filled in:

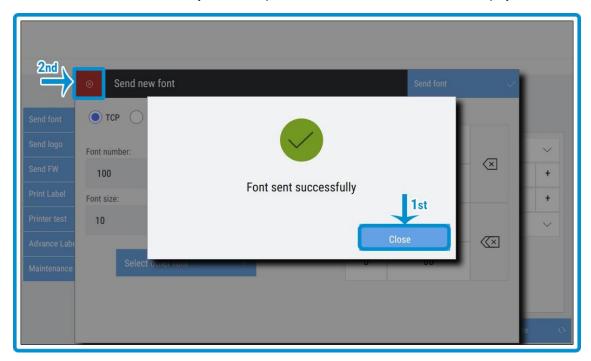
- -Font number: Font identifier so that it can be associated to the texts in the label formats.
- -<u>Font size</u>: Font size to send. The range of valid values is from 6 to 99. You can enter a manual value or select a value in the dropdown.
- -Font: Preloaded source on the device that can be sent to the printer.
- -Font style: Font style to send to the printer. Each font can have different font styles.



If the user wants, instead of selecting one of the preloaded fonts on the device, he can select a font file (.ttf) from any directory on the device or from an external storage device. In this case the operating system file explorer will open to select the desired file.

If this screen is accessed from a remote browser, the user can select the file by looking in the directories of his PC.

Once the font has been successfully sent to the printer, a notification to the user will be displayed.



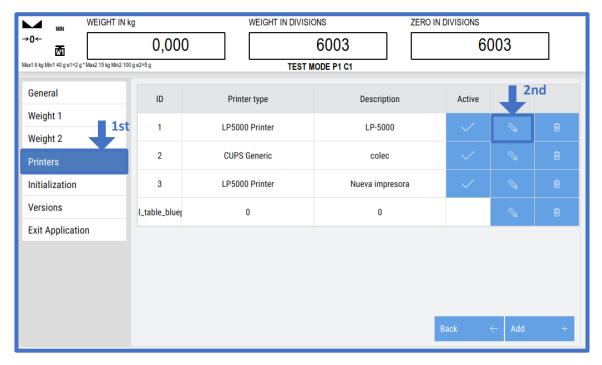
1.3.5 Sending of printing images

This functionality allows the user to send a print image with a unique identifier that can be printed in label formats.

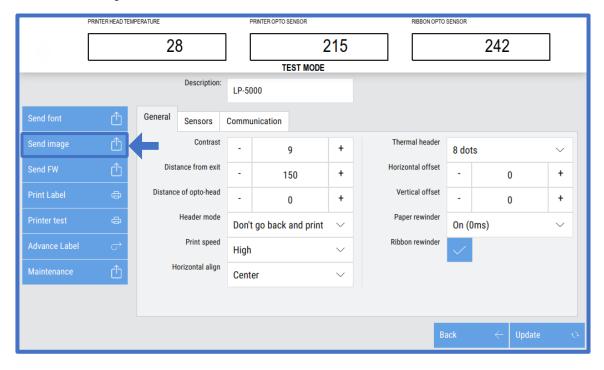
1.3.5.1 Procedure

Access the Test menu, through the user "tech".

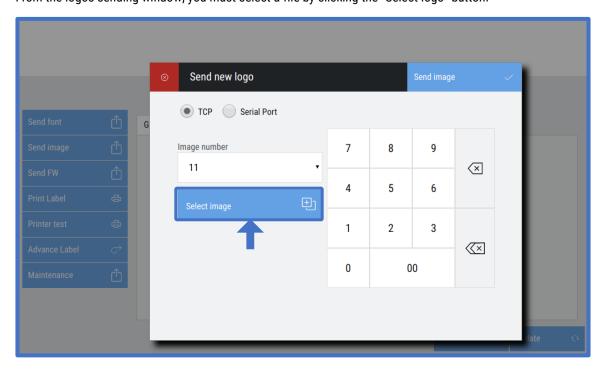
Access the menu Printer LP-5000 to which you want to send the logos.



Click on "Send image".



From the logos sending window, you must select a file by clicking the "Select logo" button.



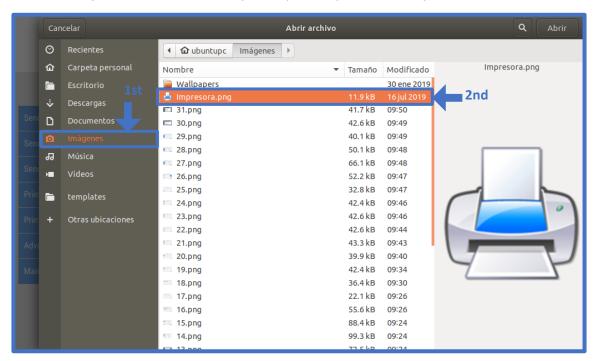
This will open the file explorer of the operating system to select the file.

Therefore, the user has access to the image files saved on the computer from which they access this window. (And, therefore, a user operating remotely, cannot select logos that are inside the balance's own storage).

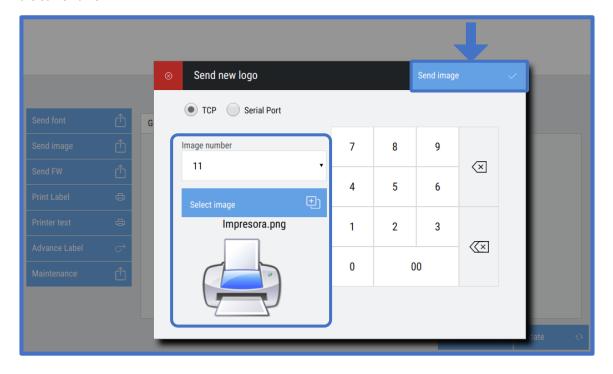
To select the image file (logo), press twice in a row on it.

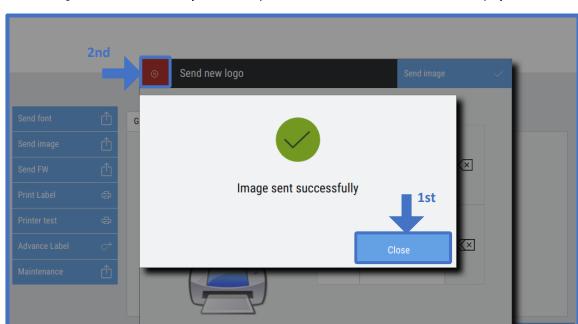
In addition to this, you must choose a unique identifier for the logo, whose value must be between 11 and 999.

NOTE: The image Will have a maximum image size up to 1200px width and height.



Once the logo is selected, the user will get a preview of it and can send the logo by clicking the button with the same name.

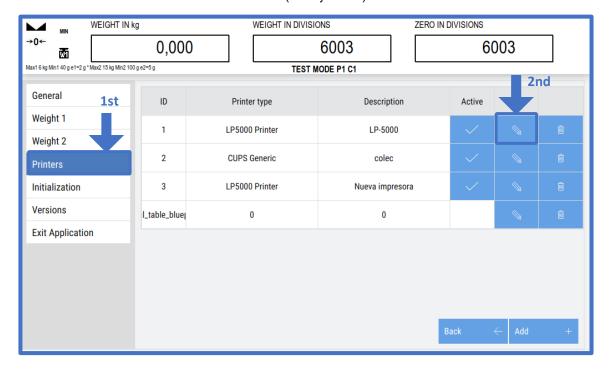




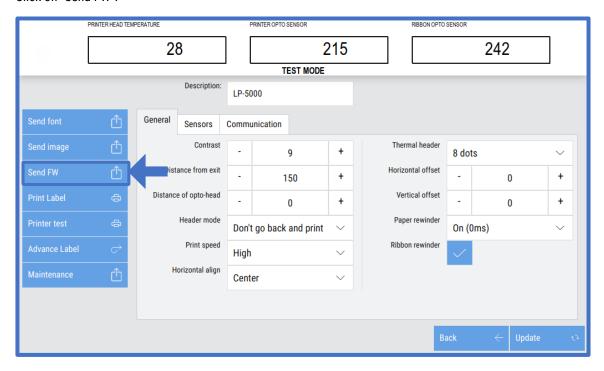
Once the logo has been successfully sent to the printer, a notification to the user will be displayed.

1.3.6 Loading firmware printer

Select "Printers" and then click on the "Pencil" box (modify button).



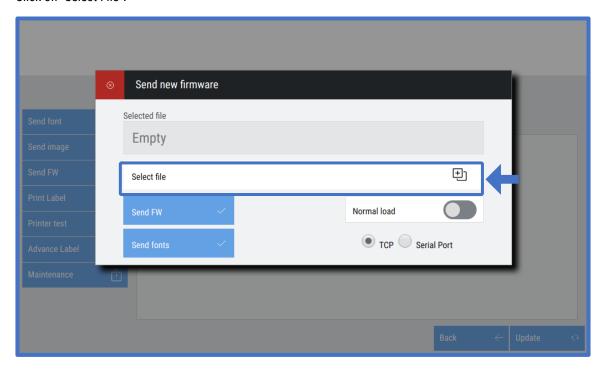
Click on "Send FW".



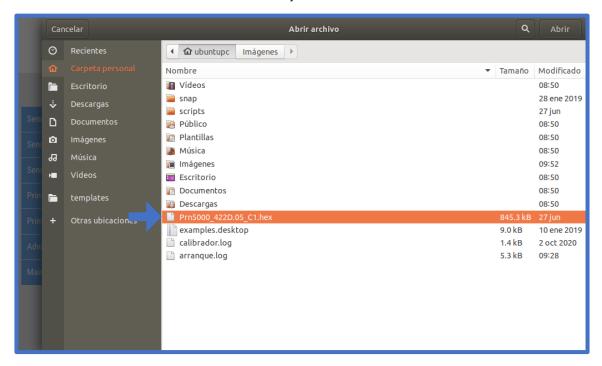
Enter password; dibalfw1985 and click on "Continue".



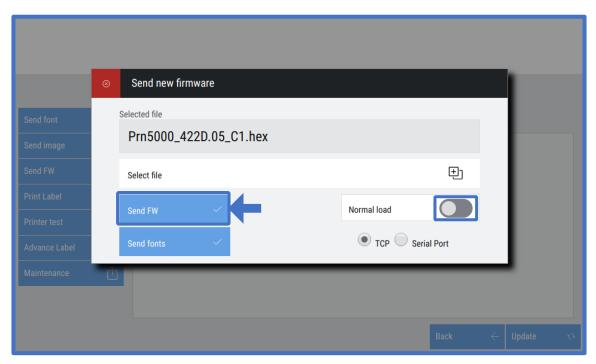
Click on "Select File".



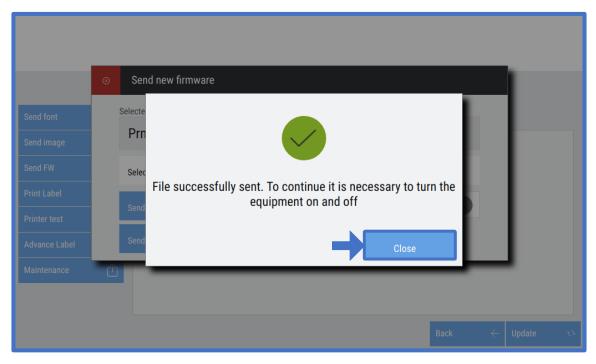
Find and select the firmware file. It should be the only file with the extension .hex. Double-click on it.



Click on "Send FW". Note: If it gives error, press the "Normal load" button, and so put the option "Recovery load".



After a wait of about 3 and a half minutes the next window will appear. Finally, press "Close" and turn off and turn on the computer.



1.3.7 Setting of Multiple Printers

1.3.7.1 Access from Technical Menu

When accessing the test and adjustment mode (User and password "tech"), a table will be displayed with the different printers configured on the LP-5000.

The table shows the following information:

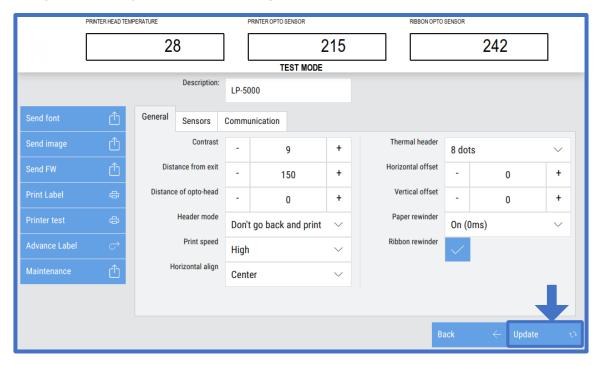
- -Unique ID.
- -Printer type: field describing the type of printer it is.
- -Description: field with an editable description by the user to be able to recognize it easily.
- -Activate (check mark): button to enable or disable a printer to display it or not in operation.
- -Edition (Pencil): Button to access the printer settings of the corresponding row.
- -Erase (Trash): Button to delete the printer from the corresponding row.

In the "Add +" button, you can access the registration of new printers.



1.3.7.2 Edition

By clicking on the "Edition" button, you can access the editing of a printer's parameters. Accessing the settings of an LP5000 printer shows the following window:



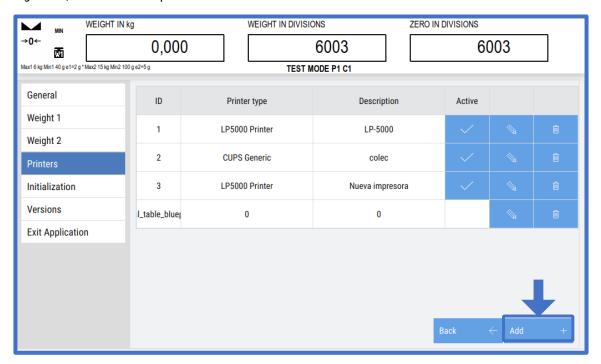
And with each type of printer is shown its corresponding type of configuration.

Important to note that until the update button is pressed, the settings are not sent to the printer and therefore have no effect on the printing tests.

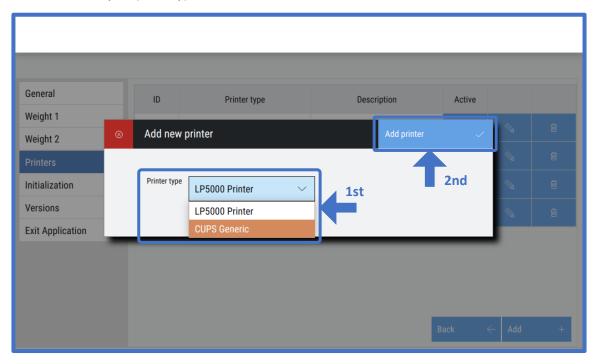
1.3.7.3 Creation

In the printer management view you can register a new printer.

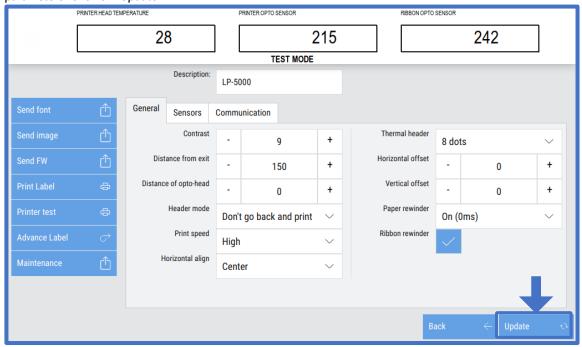
Clicking on the "Add +" button opens a new window with a drop-down list of the type of printers that can be registered, with the LP5000 printer enabled.



The list of printers that are allowed to register is found in the code. At the moment only the printer types LP5000 and CUPS can be added.

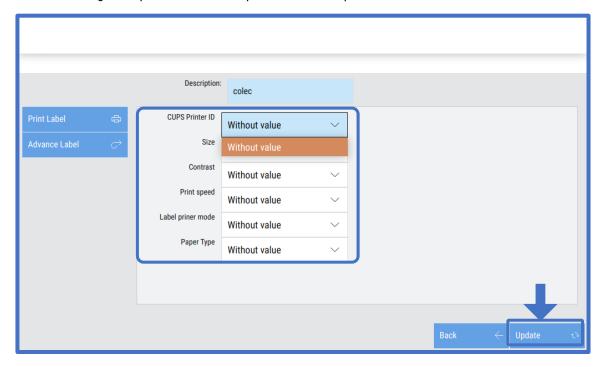


When you add a printer, you access the printer management view from which you can configure its parameters. Click on "Update".



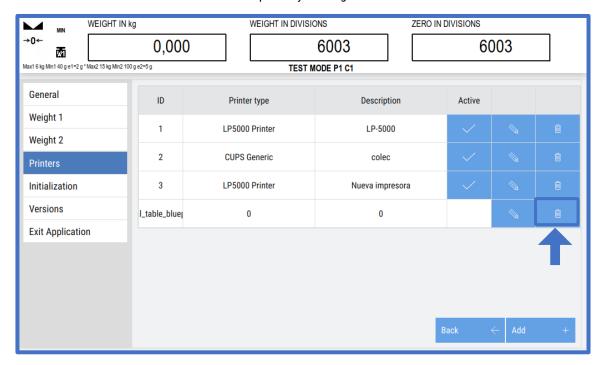
For the added CUPS printers, a selector will appear to associate the added printer with one of the printers configured in CUPS from the system.

Note: How to register a printer in CUPS is explained in the ZPL printer section.

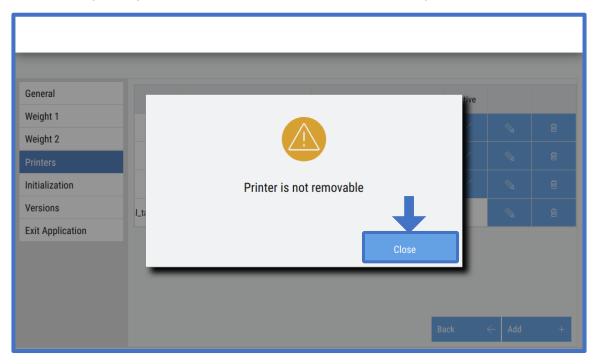


1.3.7.4 **Deletion**

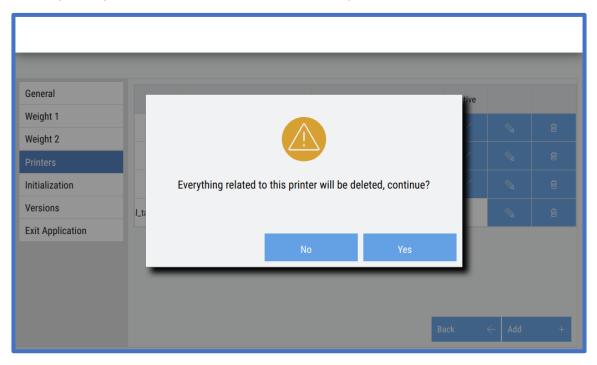
Printers can be removed from the Test and Fit panel by clicking on the "Trash" box.



The default printers configured in the labeller a parameter (removable) that prevents a user from removing them. A warning message will be shown if the user tries to delete one of these printers.

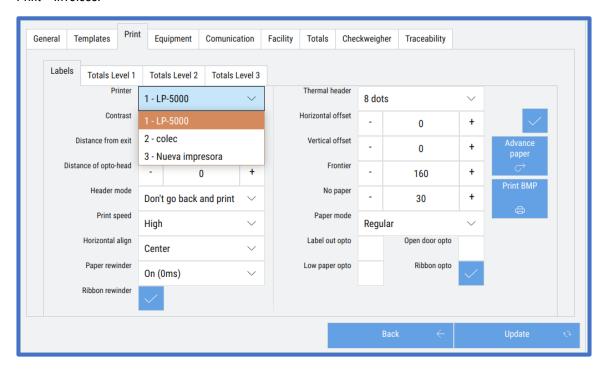


If the printer to be removed is removable, it will be removed the printer and al lof its settings and associations. A warning message will be shown to confirm the deletion of the printer.

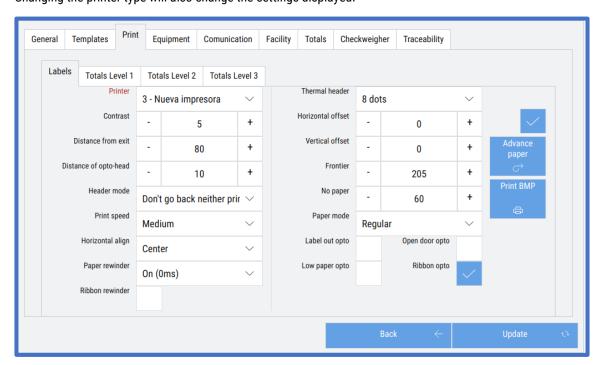


1.3.7.5 Use from Management menu

By accessing the print settings from Management, you can select which printer will be used for each type of document. Showing only those that are enabled in Test and Adjustments. Accessed from Configuration-> Print-> Invoices.

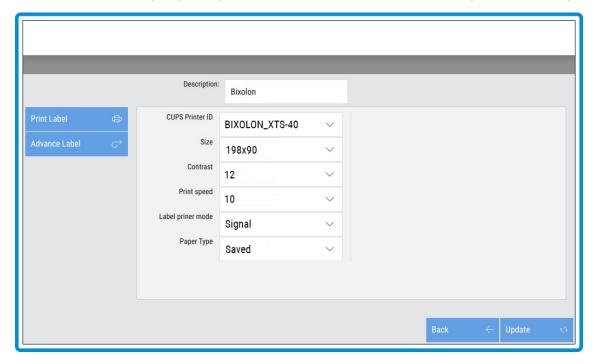


Changing the printer type will also change the settings displayed:



1.3.7.6 ZPL Printers

This is the menú for configuring CUPS printers with the ZPL driver. The available settings are the following.



NOTE: The settings saved in the application are not displayed on the CUPS website.

1.3.7.7 Creation of ZPL printer in CUPS

The only browser supported for this operation is Firefox. In Firefox you must navigate to

http://localhost:631

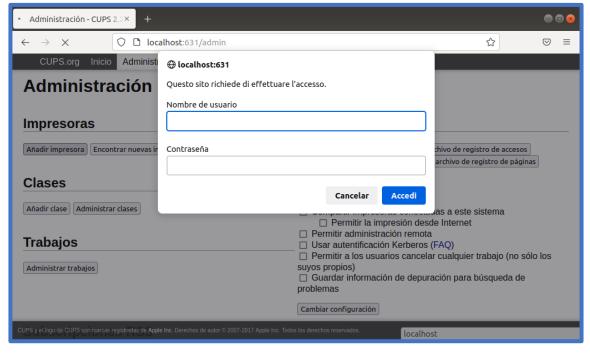
The first step is to access the administration tab



From here you access "Add printer". Firefox will request credentials to perform this action, enter the following data:

-User: ubuntupc -Password: ubuntupc



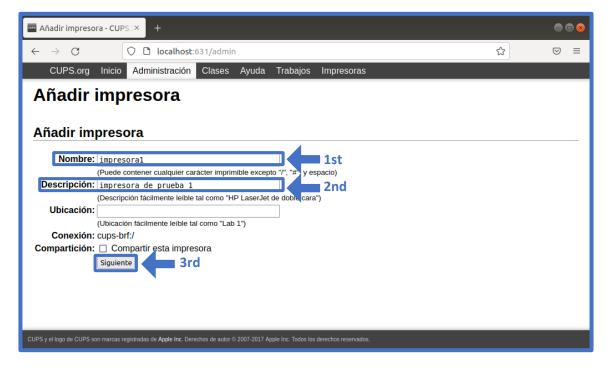


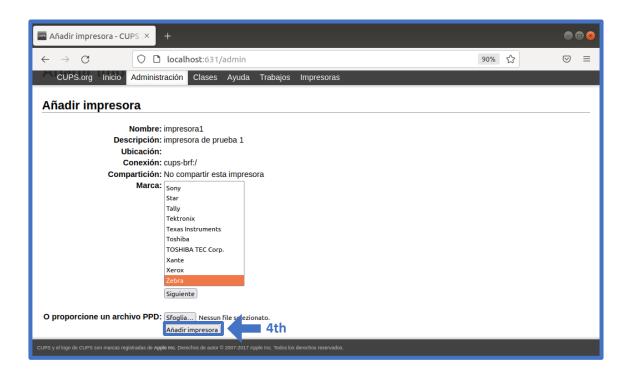
At the time of adding the printer, it can be connected in multiple ways (USB, Network, Series...) choose the right printer and protocol. (If the printer is connected by USB, it should appear in the section of local printers as seen in the example).



Then ask to add a name and description. From here only the name that is given to is relevant, because it is the ID with which CUPS will identify the printer, and the one that we will use to register the printer within the application.

The next step involves indicating the driver to be used. Choose the driver from the brand "Zebra" and as model the "Zebra ZPL Label Printer(en)". Then click on "Add Printer".

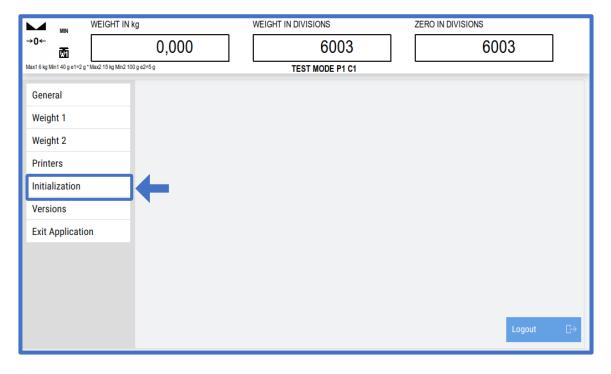




With this, the printer is registered in CUPS and can be registered in the application.

1.4 Initialization

Select "Initialization".



1.4.1 Force data initialization

Select "Force data initialization".



1.4.2 Force files initialization

Select "Force files initialization".

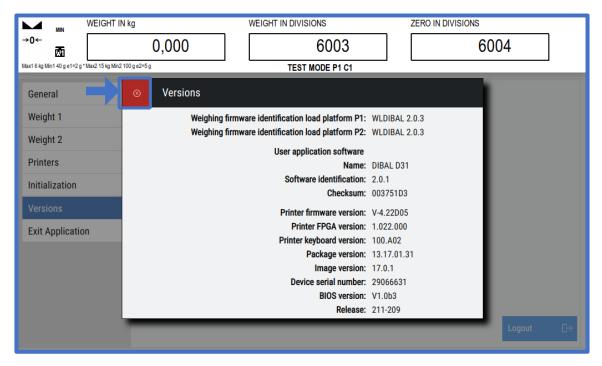


1.5 Versions

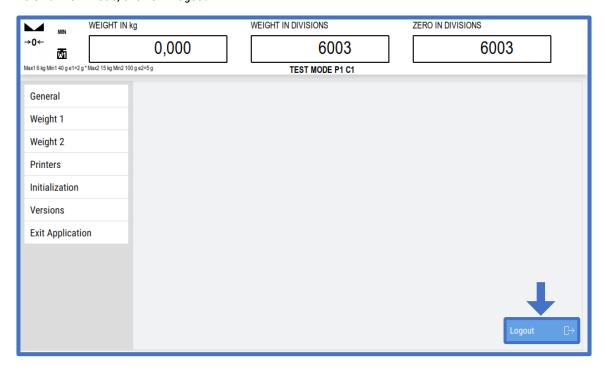
Select "Versions".



Window display. The different values/versions of the different installations of the labeller are shown. Press red box to close window and exit.

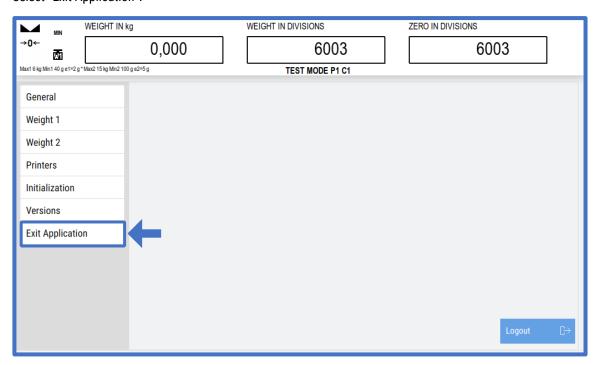


To exit TECH mode, click on "Logout".

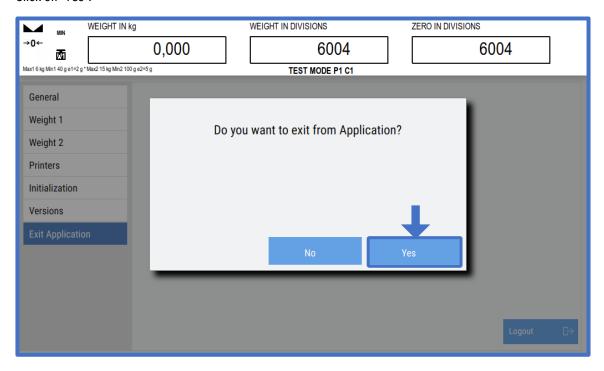


1.6 Exit application

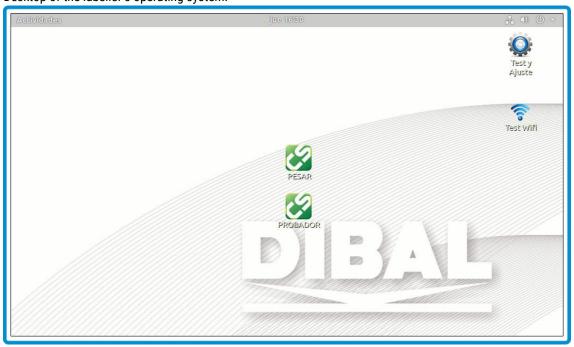
Select "Exit Application".



Click on "Yes".



Desktop of the labeller's operating system.



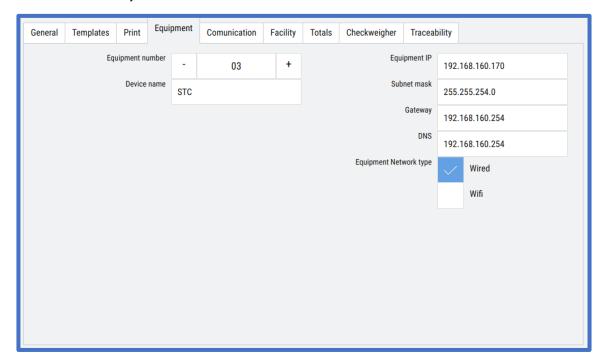
2. LP-5000 Update

2.1 Software update

2.1.1 Change of IP address of LP-5000

In order to be able to update the balance, the IP address will first be checked.

To do this, use the user "gestion", with its password, "gestion". Click on Configuration and go to the Scale tab to view and modify the IP address of the scale.



2.1.2 File transfer

Download the program MobaXterm

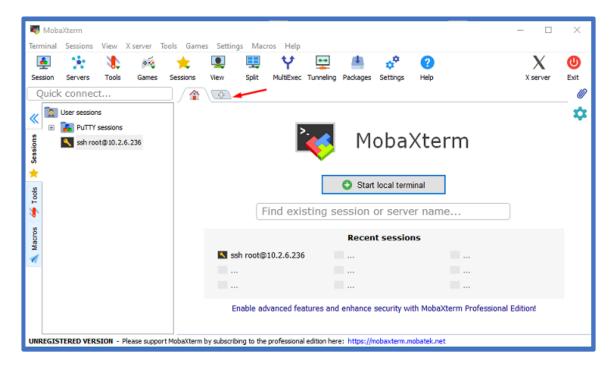
 $\frac{https://mobaxterm.mobatek.net/download-home-edition.html}{WinSCP}$

To carry out the transfer of files

1.- Open MobaXterm

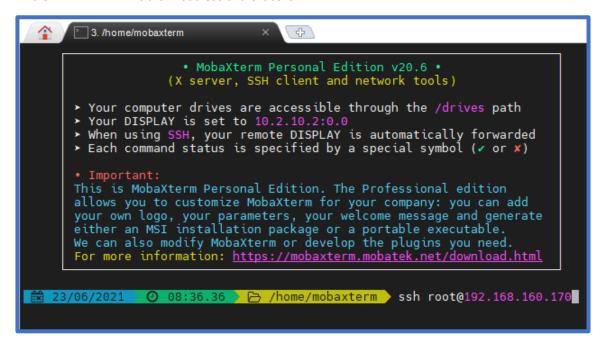


2.- Select Start Local Terminal



3.- Type the command **ssh** <u>root@xxx.xxx.xxx</u>

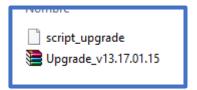
Where xxx.xxx.xxx.xxx is the IP address of the labeller

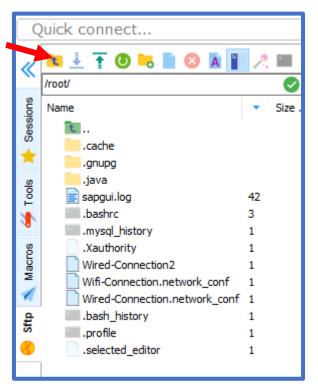


Then, enter the password: dibal

4.- Copy the files with the new version of the software to: cd /home/ubuntupc/Descargas The files are called:

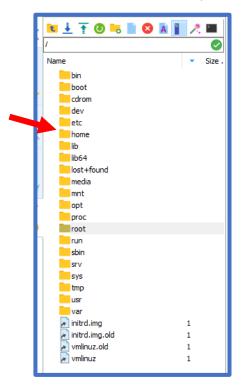
Upgrade X.X.X.X (where X corresponds to the version, ej: 13.17.01.15 script_upgrade

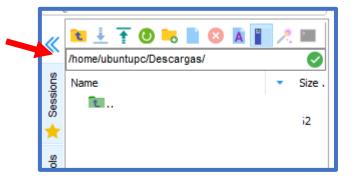




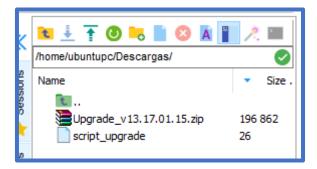
Press Parent directory to move to the top folders.

Click on the selected folder to open it, first home, then ubuntupc and finally Descargas





Drag the files from the local folder of the local PC and drop them in the folder.



2.1.3 Update

1.- Execute the script upgrade - bash ./script_upgrade

root@LP5000L-U:~# bash /home/ubuntupc/Descargas/script_upgrade ■

A message will appear on the screen and the computer will restart.



2.2 UPLOAD PRINTER FIRMWARE

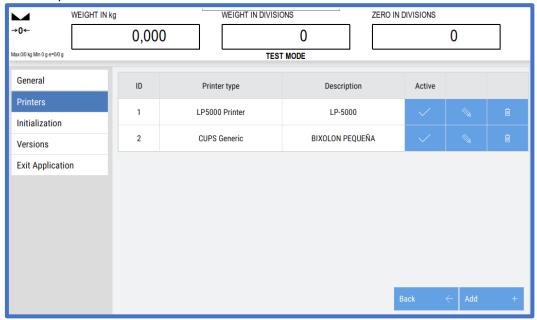
2.2.1 File transfer

Transfer the file .hex a /home/ubuntupc/Descargas Following the same procedure as described for the labeller software.

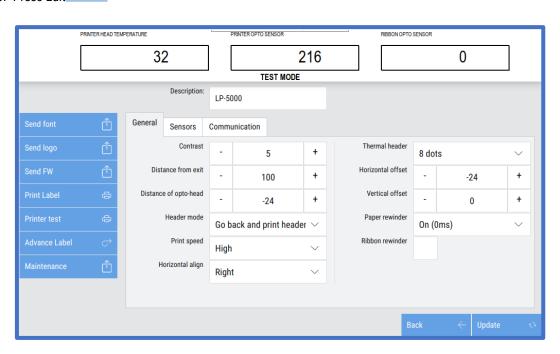
2.2.2 Update in LP-5000

1.- On the LP-5000 access Test and Settings via user tech, password tech.

2.- Select the printer tab



3.- Press Edit

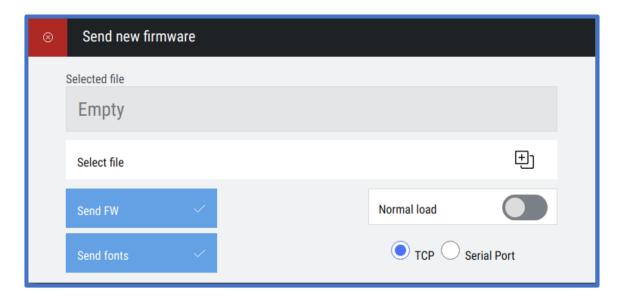


4.- Select Send FW

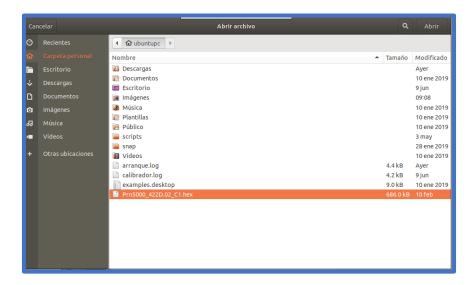
Enter the password: "dibalfw1985".



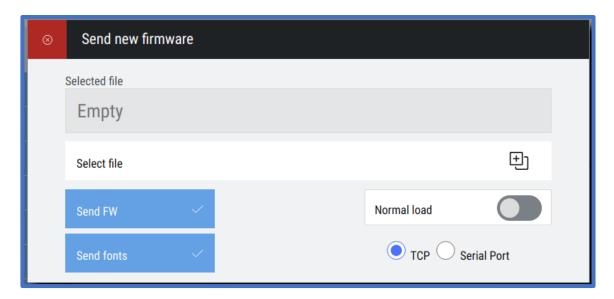
5.- Click on "Select file".



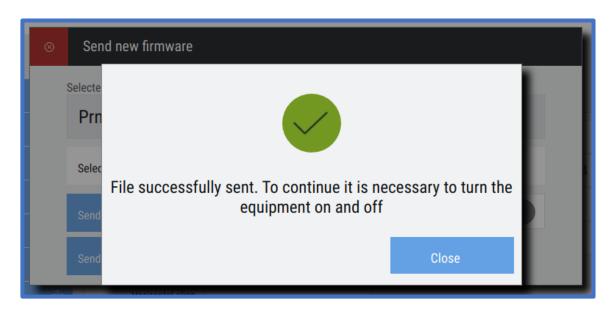
Choosing the firmware file on the LP-5000 It has to be the only file with the extension **.hex**



6.- Finally press the "Send FW" button



After waiting for about 3.5 minutes, a window like the one below will appear:



7.- Switching the labeller off and on.

Polígono Industrial Neinver Astintze, 26 - 48160 - Derio (Vizcaya), Spain. Tel: (+34) 944 521 510 Fax: (+34) 944 523 658

