

# **User Manual - Jet printer Model SA805**



## **Handheld jet printer model SA805**

**Sepand Afzar Productions:**

**Industrial hand held and automatic jet printers**

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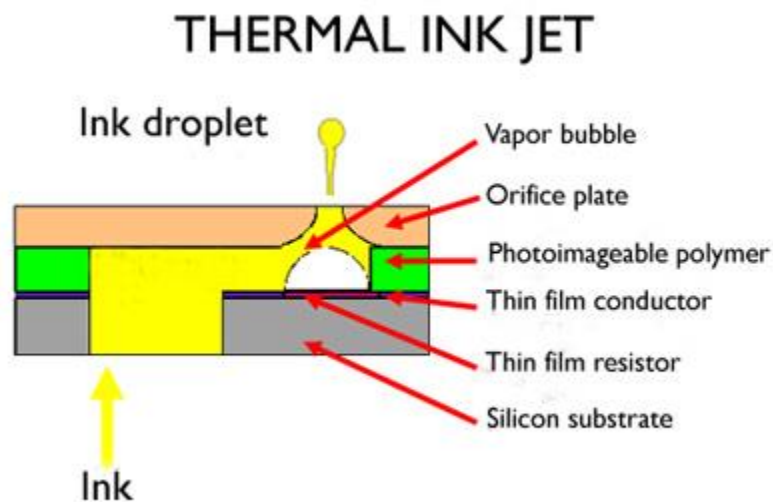
## Jet Printer SA805

### User Manual

#### Introduction:

Jet printer model SA 805 is a non-contact jet printer which uses tij technology and throws the ink drops on your productions (such as the price, produce date and.....) this printer is using the HP 45 cartridge which is manufactured in HP factory. As you know this cartridges are presented in both solvent base and water base models. These cartridges are able to throw the ink drops to the 4 millimetre space. The most important advantages of this device are its lightness and being portable and it can print the changable informations on your productions with moving your hand around.

This picture shows the way of making an ink drop in TIJ series





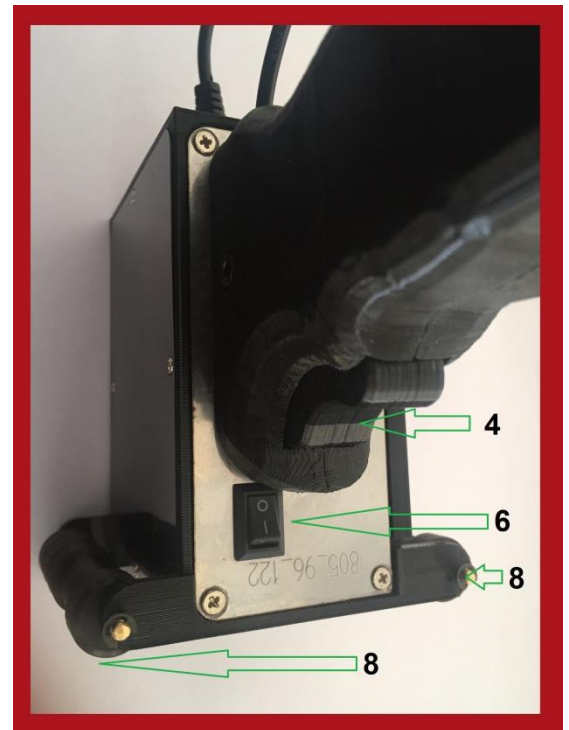
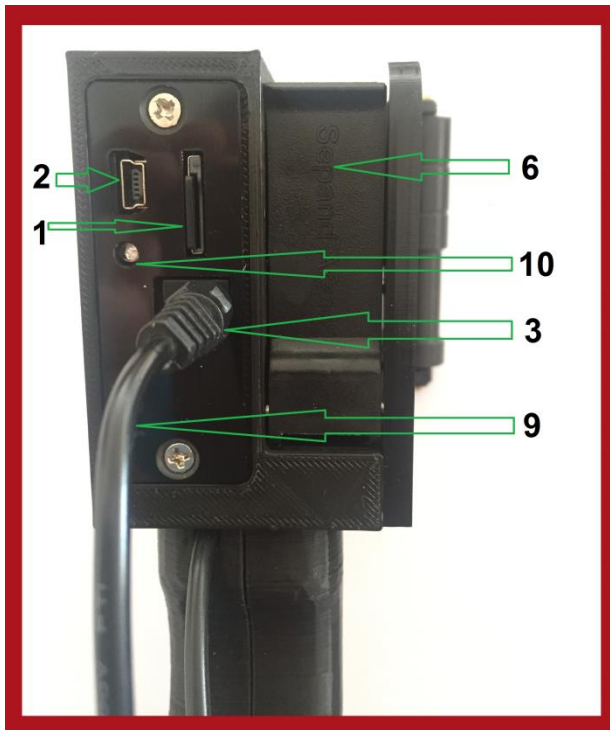
## Device Accessories

1. Battery Charger
2. Software CD
3. Dongle
4. Ram Reader
5. Micro SD
6. Interface Cable between printer and computer



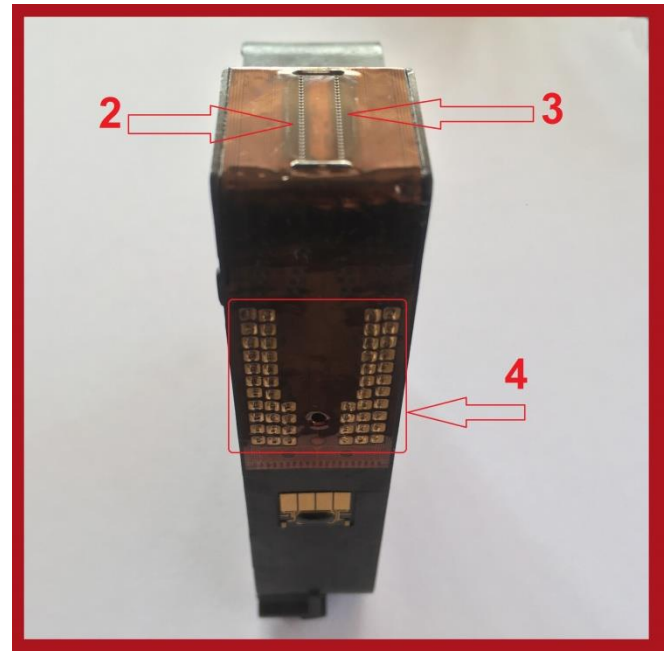
## Device Inputs and Outputs:

1. Socket of micro SD
2. Computer cable jac
3. Battery Holder
4. Command trigger
5. Power switch
- 6.The place of Cartridge
- 7.The place of hand strap
8. The printer rollick
9. The battery socket and its cable
- 10.Status indicator LED
- 11.Message select push bottom



## About the Cartridge

1. Cartridge compartment
- 2.Nozzles of the channel A
- 3 Nozzles of the channel B
4. The cartridge connection to the electronic socket
5. Frame for cartridge
6. Rubber inside the cartridge frame



**The sign of charging or discharging the printer's battery:**

**( Charger )**



**The battery needs charging = RED LED**  
**Charging the battery is good = GREEN LED**

As you will see in picture above. By connecting the battery to the corresponding LED charger, it turns on and this LED can be lit in two colors: red and green.

**Red:** means the battery needs charging (it takes about a few hours to charge)

**Green:** means the battery level is ok

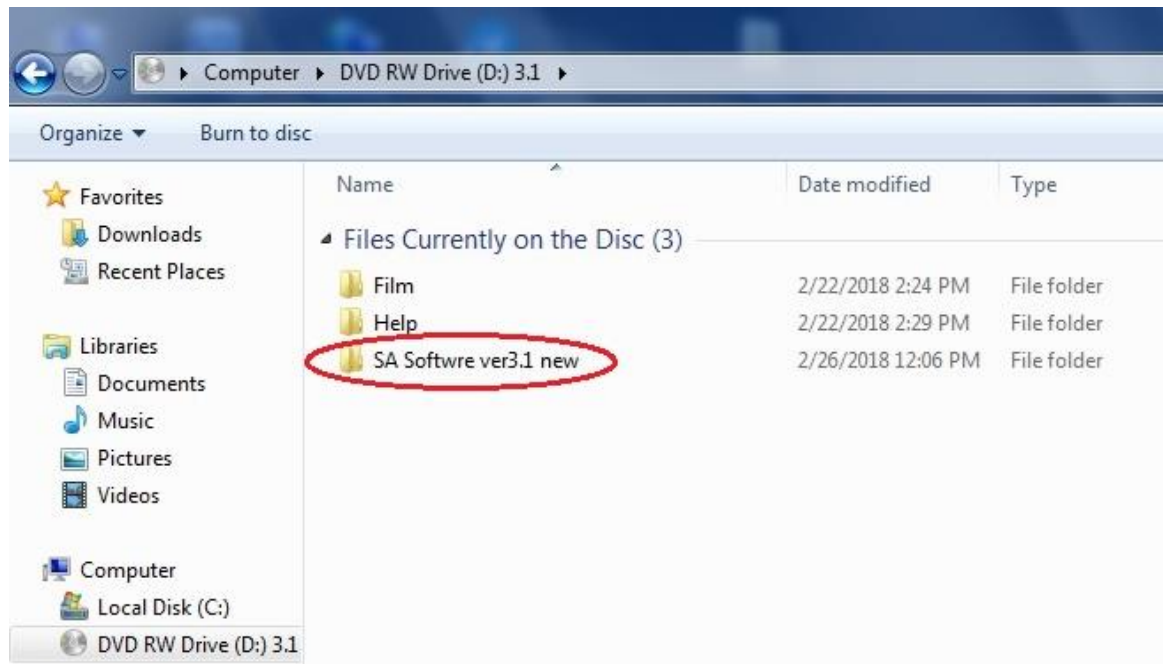
## How to install the software:

After installing the dongle, you can install the software, first insert the software CD into the CD drive

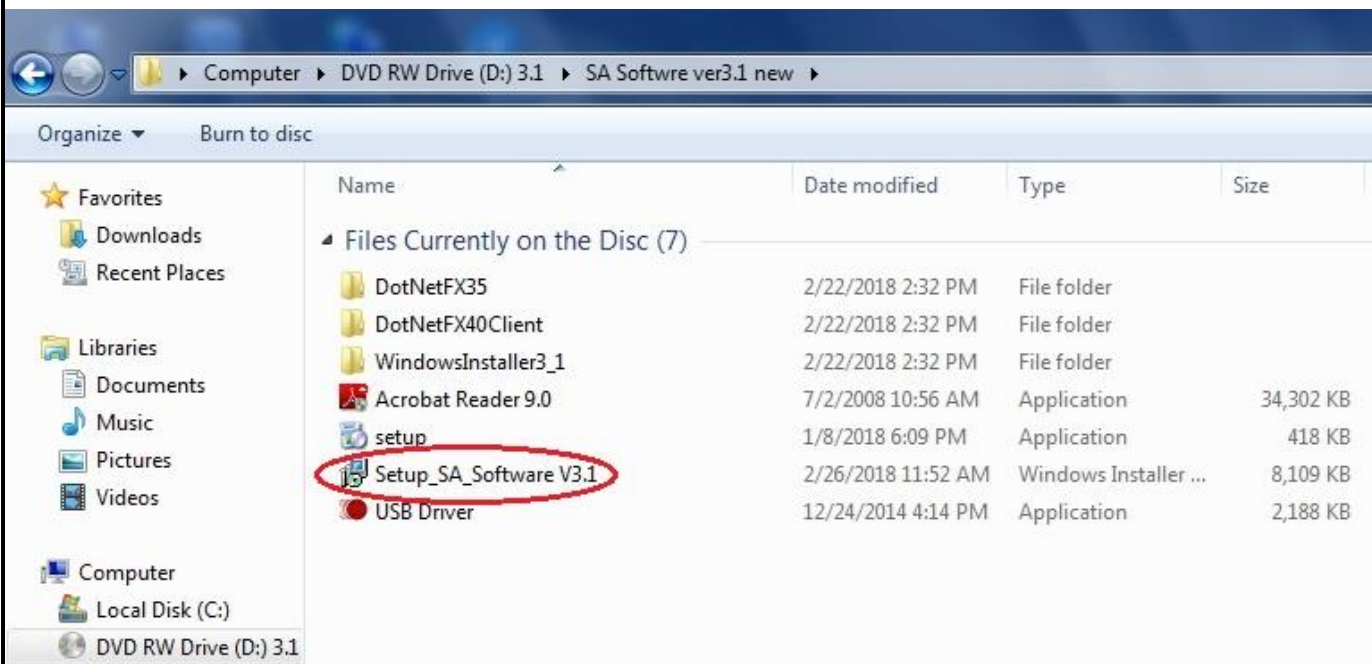


After reading the CD, the drive is shown in the following picture and as shown in the picture below, the CD consists of three parts:

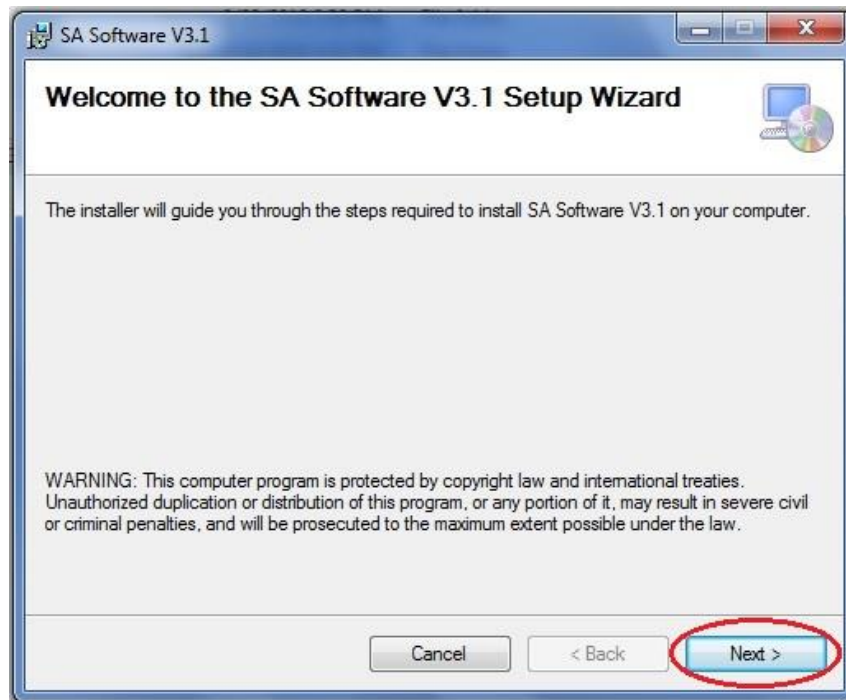
- A) Film folder: Includes all parts of the educational film
- B) Help folder
- C) SA software ver3.1new folder



By entering the software folder, the following folders are displayed in which you can run the Setup\_SA\_Software V3.1 .exe file



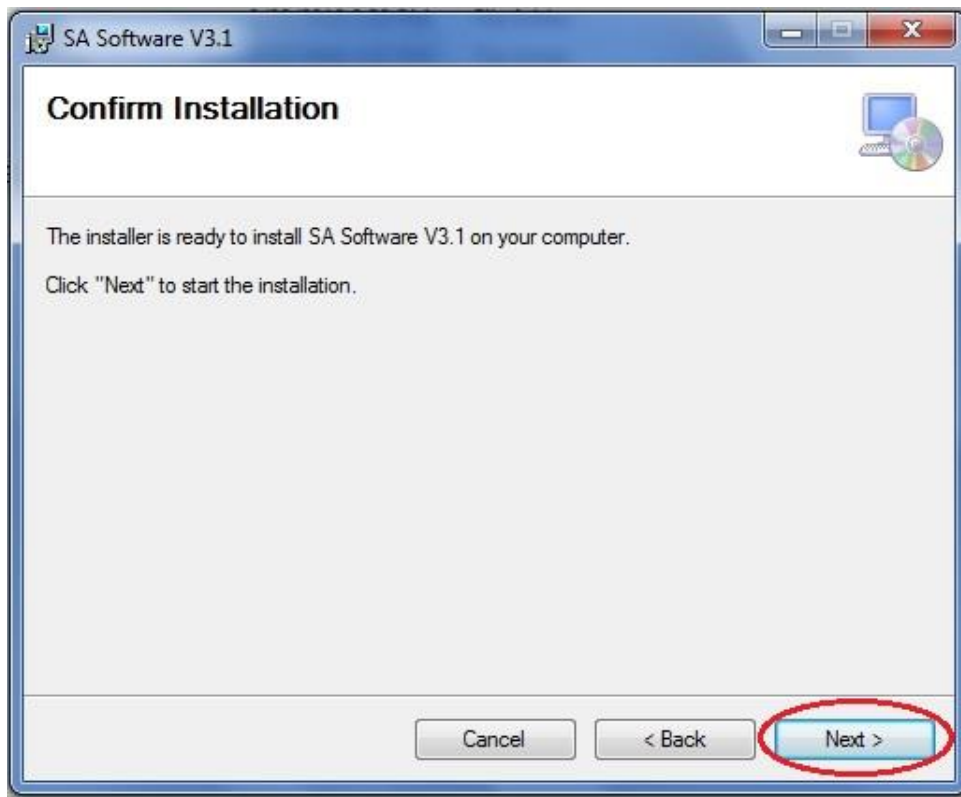
After clicking on the EXE file shown, the following screen is displayed



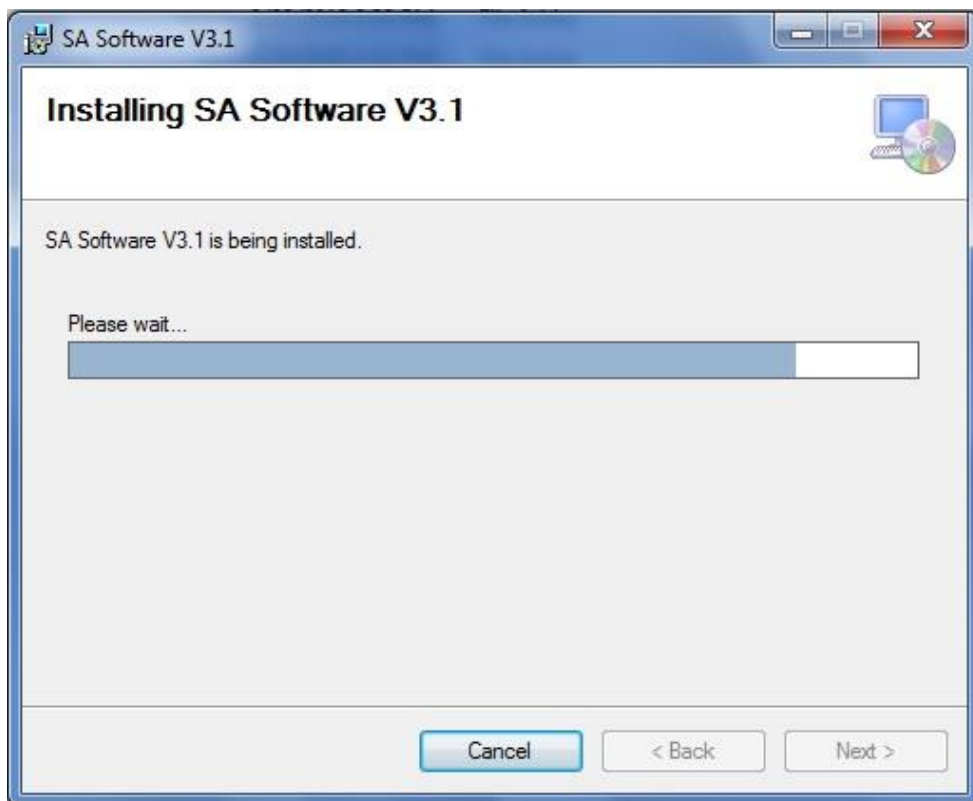
On this page, click Next to continue the installation process



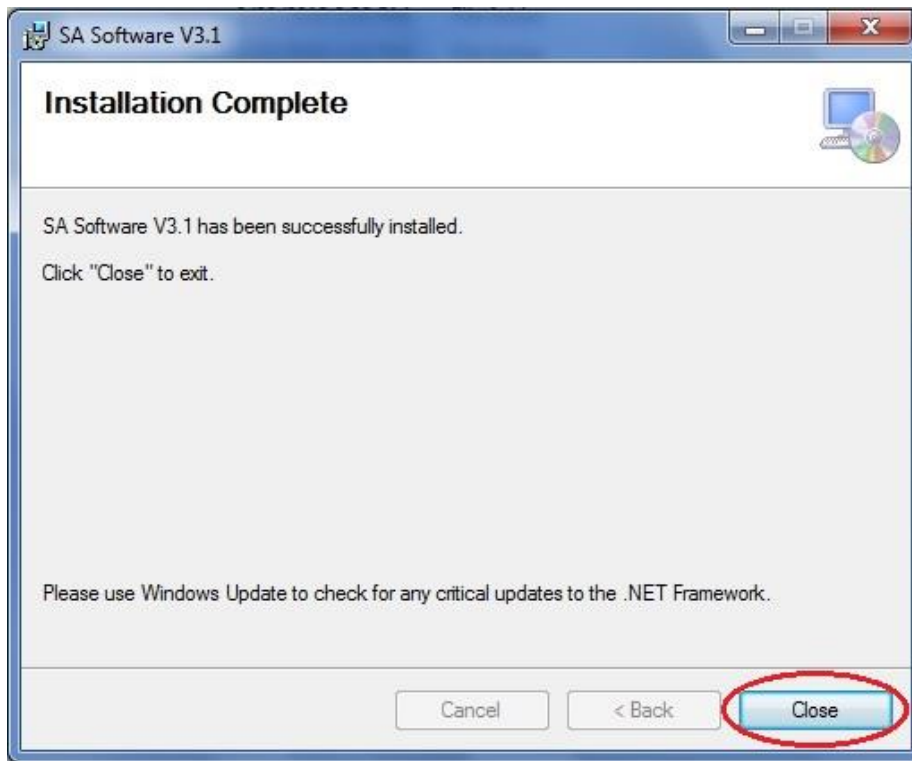
As you can see in the photo above, the default location for the software is displayed in Drive C: You will go to the next install by choosing the Next key as follows.



**Click the Next button again**



**In this case, you have to wait a little bit for the software installation process to take place as shown above.**



After the installation process is complete, the above screen will be displayed and by closing the Close key, the installation process will end and on your desktop, the icon of the software will be displayed as follows.



### How to connect the dongle to the computer:

This dongle should be connected to the USB port of the computer after installation of the software, as shown below, and if this dongle is not connected to the computer, the software is only demonstrative (DEMO) and can not transfer data to microSD and its not ready.

... (As shown below, some menus are dimmed and indicate that the menus are disabled)



The menus shown with the red box in the form below are dimmed, meaning that the dongle is not connected to the computer or not detected, and these menus are inactive. .

New	Open	Save	Save as	Copy	Paste	Send To Printer	Send To microSD	Help	Exit
Text	Dotted Text (En)	Picture	Auto Date	Auto Time	Work Shift	Barcode	Counter	Variable Digit	

Setting Edit Message Print Properties

Admin Settings	Change System SA805, SA810	Change Language English	Send via COM port Port Search COM1 : Port Selection
Send Ink Serial Number	Ok	Ok	
Set Printer Time And Date			

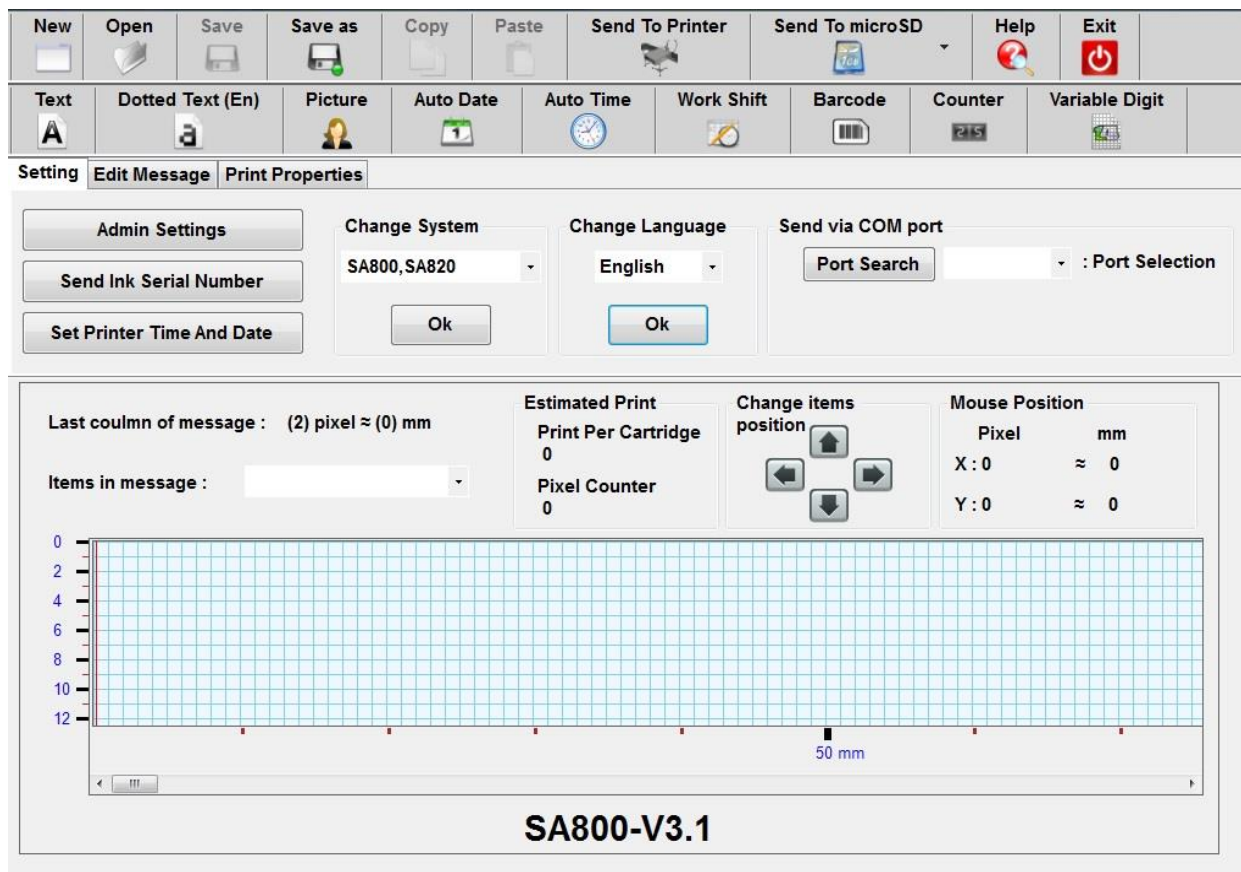
Last coulumn of message : (2) pixel $\approx$ (0) mm	Around Print Print Per Cartridge 0 Pixel Counter 0	Change items position Up, Down, Left, Right arrows	Mouse Position Pixel mm X : 752 $\approx$ 62 Y : 7 $\approx$ 0
--	--	---	---

Items in message : [Dropdown menu]

After installing the software and connecting dongle you can run the software.



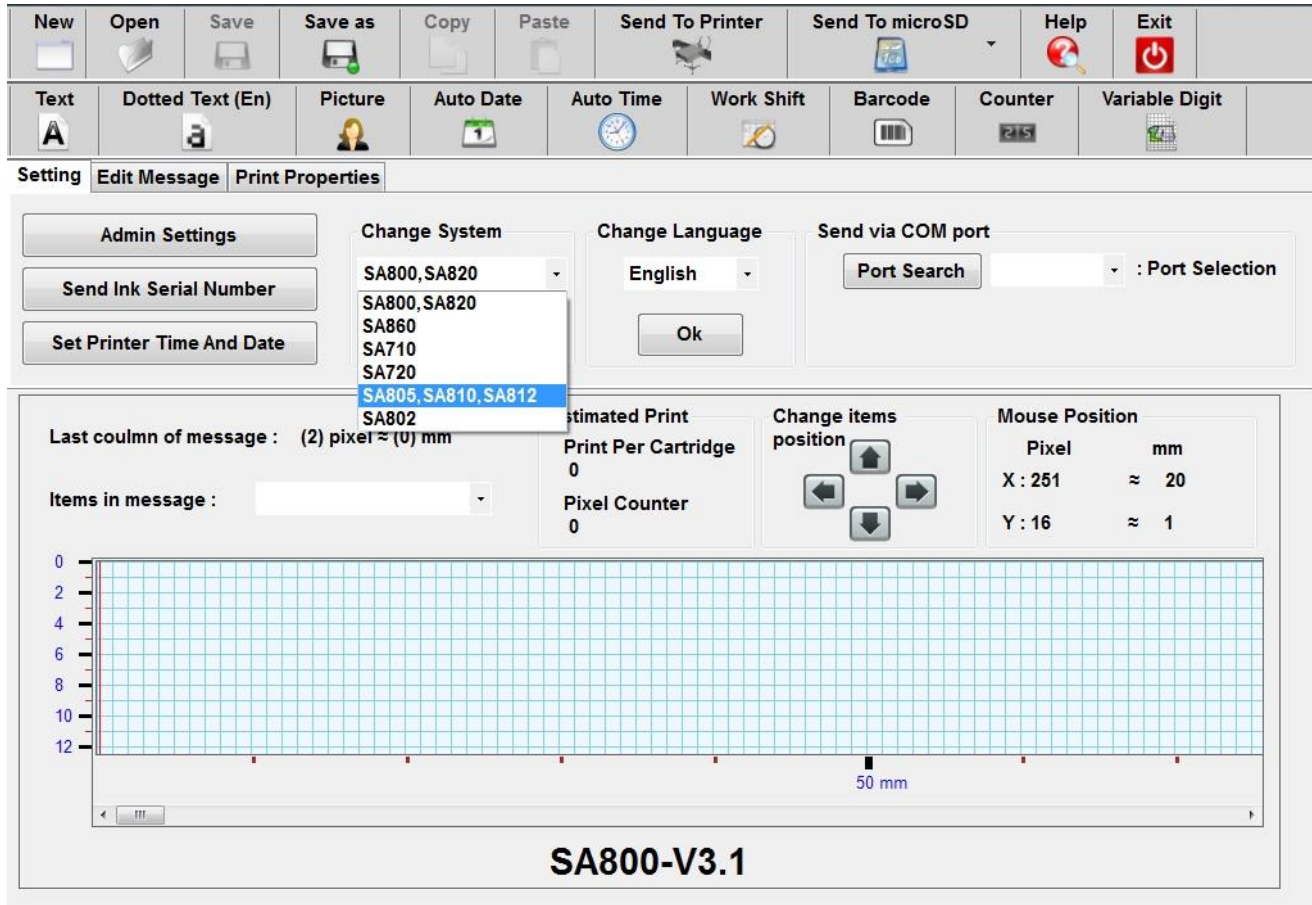
To do this, you can run the software by clicking the top icon (on the Desktop page) to display the following screen



In the above picture, all menus and toolbars are displayed, all of which will be described in the guide below.

## Modify device model:

After installing the software and the dongle, it is time to select the type of device. As you can see in the picture below, in the device change section, select the model SA805 or SA802, and then confirm that the software is directed to the settings of the selected device. Otherwise the device will be impaired and will not be able to print.



## Command Prompt Toolbar:



This section contains the following keys :

**New message:** By pressing this key a blank page will be created to create a new message

**Opening message:** By pressing this key, another screen will open to open one of the existing messages, which are already designed.

**Save :** After the message has been drafted or modified, it should be used to store it .

**Save as:** Use this option to transfer a copy of the current message to another number message

**Copy:** Copy an item to memory

**Paste:** Bring a copied item from memory to the design section

**Send to printer:** If you want to send the current message through the serial port directly to the device, use this key, which will be explained in the serial communication section

**Send to Storage:** After the message was designed, the transfer to the printer should be from a Micro SD or the same mobile RAM and using this key to send the message to the microSD

**Help:** If this button is pressed, this help file will be opened

**Exit:** Used to exit the software environment.

## Message design toolbar:



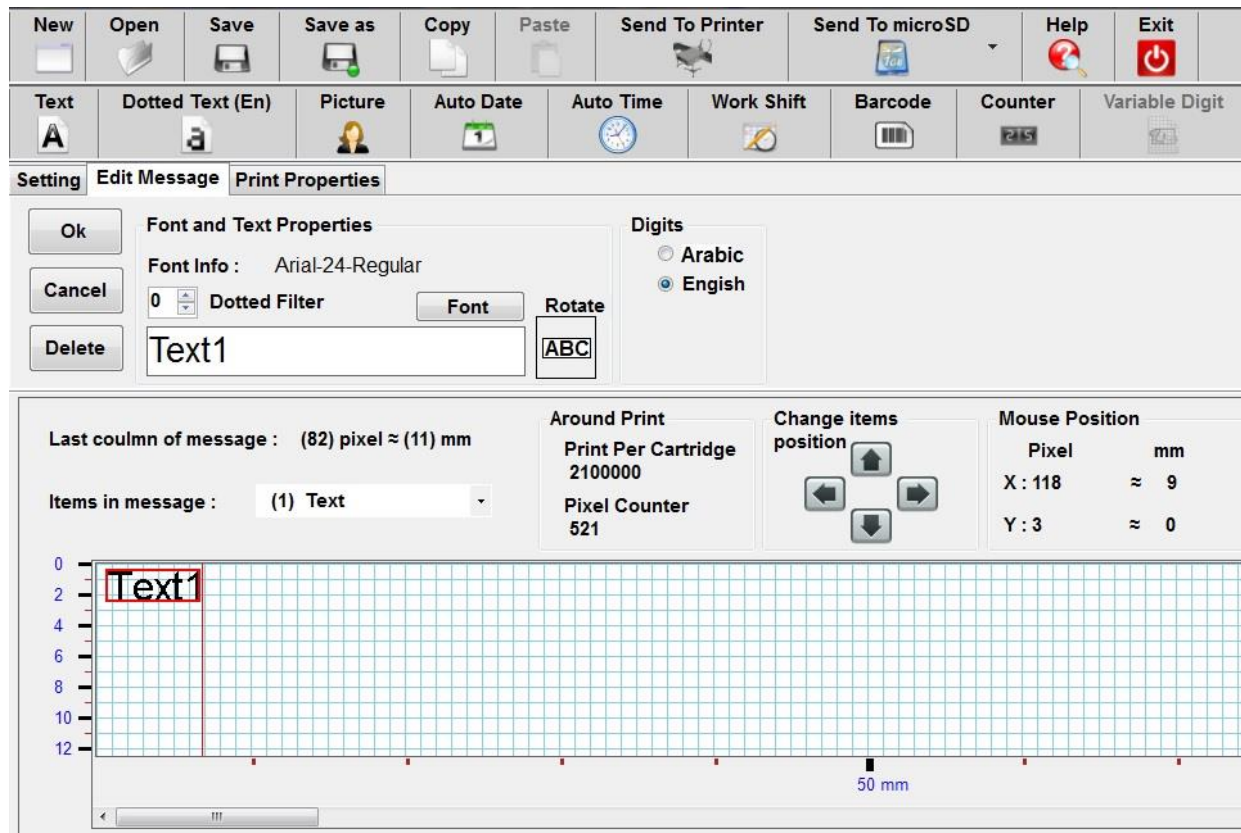
This section includes the following keys:

### TEXT:

This tool is used to create a textual text (TEXT) in the message, and the result is the typing of the text typed with the same font and size as it was in Windows. By touching this key, the sections in the message edit section will include the following: font selection, font size, rotation, display of numbers in Arabic or English, filtering the selected text (this filter will change the usage of the ink), confirmation, cancellation And delete.

The lower part of the text design is also included:

Approximate position of the selected text in millimeters and pixels, the selected item number and the type of item, the approximate number of prints (for the selected text), the number of text pixels typed, the selected text position shift charts, the approximate position of the mouse in the message design screen is in milimeter and pixels.

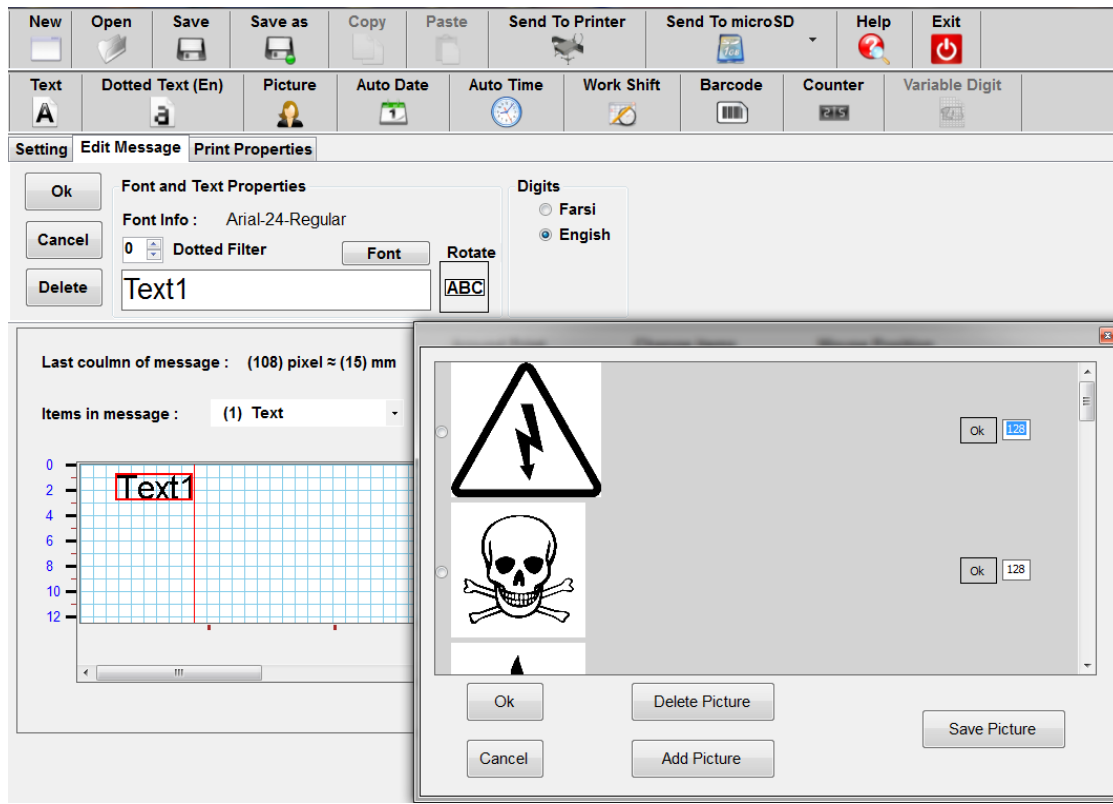


### ( Dotted Text )

This tool is used to create a dotted and unchangable English text.

Note: Variable information such as: Date, Counter, Clock, Work shift, and..... can not be in a dotted text paragraphs.

Picture:



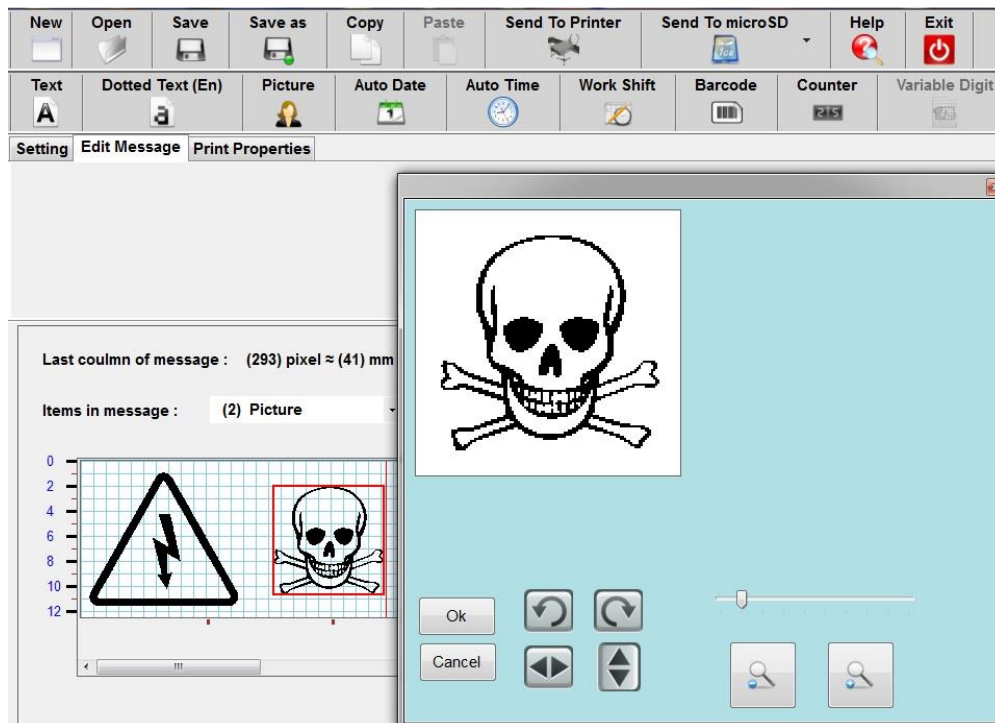
**By clicking this button the image selection opens**

**On this page, you can add or remove a desired image to the software image collection.**

**If the changes are made in the images and the button "Save existing images" is not pushed, the changes will not be saved.**

**Opposite any local image there is an option to determine the size of the image (this size is in pixels) which after confirming the size of the desired value by pressing the "OK" button, you will confirm it to the new size.**

After the image is entered into the design environment, the image can be edited by selecting the desired image. You can edit the image by moving the mouse and the left click on the desired point, turning the image in different directions, or Zoom in on the image.



#### Automatic Date:

Use this option if you want your date to be automatically changed according to the date. You can change the date as a Sun or Year, two-digit or four-digit year, and even how it is displayed, or, if necessary, delete it.

In the editing section, you will see a section called numbers, in which you can specify whether numbers are in Arabic or English, as well as the distance between numbers in the print.

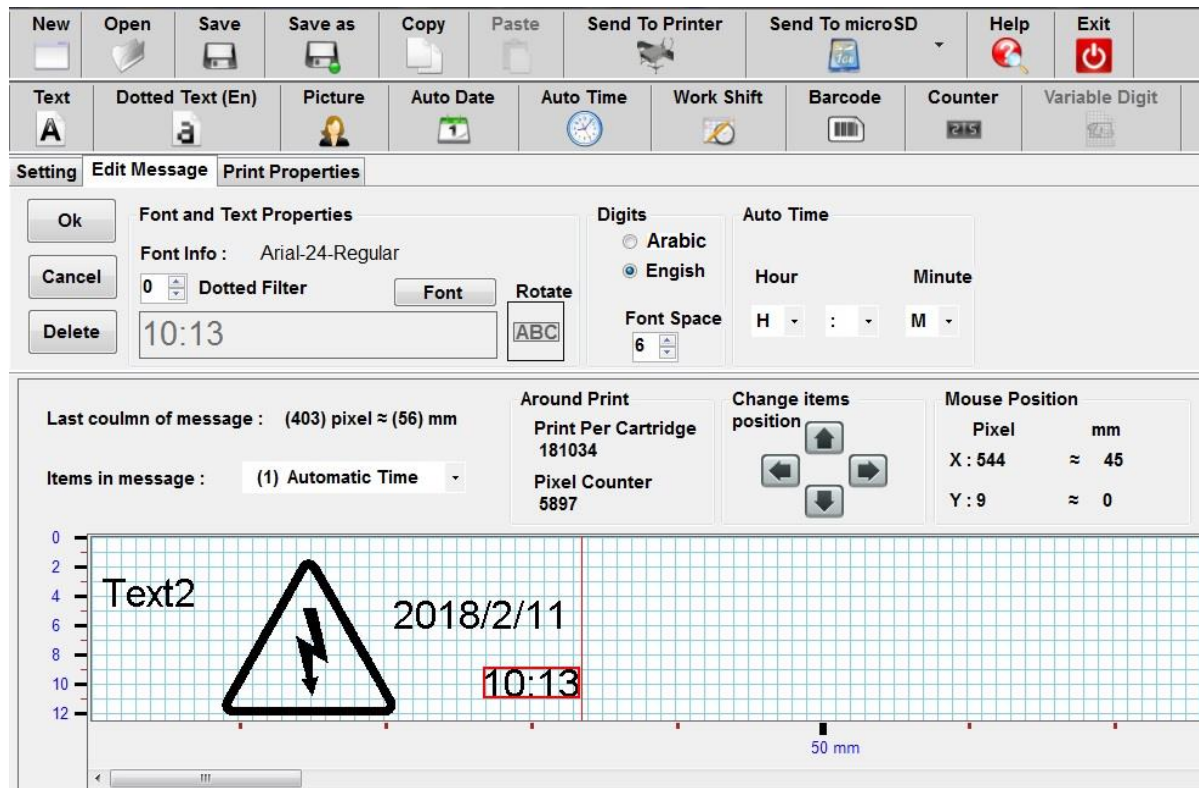
If you want the expiration date to be printed, you can enter the expiration date, for example, 365 .days in the relevant section.

The screenshot shows a software interface for configuring a print message. At the top is a menu bar with icons for New, Open, Save, Save as, Copy, Paste, Send To Printer, Send To microSD, Help, and Exit. Below the menu bar are tabs for different message types: Text, Dotted Text (En), Picture, Auto Date, Auto Time, Work Shift, Barcode, Counter, and Variable Digit. The 'Text' tab is currently selected, displaying 'Font and Text Properties'. This section includes 'Font Info' (Arial-24-Regular), a 'Dotted Filter' set to 0, a 'Font' button, a 'Rotate' button, and a 'Font Space' set to 6. The 'Auto Date' section has radio buttons for 'Jalali' and 'Miladi' (selected), and a field for 'Expiration in day' set to 0. Below this is a 'Print Properties' section showing 'Last column of message: (435) pixel ≈ (60) mm', 'Items in message: (1) Automatic Date', 'Print Per Cartridge: 198113', and 'Pixel Counter: 5396'. To the right of this is a 'Change items position' section with four directional arrows. Further right is a 'Mouse Position' section showing 'X: 1112 ≈ 92' and 'Y: 9 ≈ 0'. The main area is a grid with a vertical line at 50 mm. On the grid, there is a warning symbol (a triangle with a lightning bolt) and the text 'Text2' and '2018/2/11'.

#### Automatic Time:

If you need to print hours and minutes, use the automatic time option

the distance between numbers can also be set -You can specify different clock related options



### Shift work:

There are four shifts in the device, each with a start and end hour as well as a characteristic mark. You can enable or disable shifts.

New	Open	Save	Save as	Copy	Paste	Send To Printer	Send To microSD	Help	Exit
Text	Dotted Text (En)	Picture	Auto Date	Auto Time	Work Shift	Barcode	Counter	Variable Digit	

Setting
Edit Message
Print Properties

Ok

Cancel

Delete

Font and Text Properties

Font Info : Arial-24-Regular

0

Dotted Filter

Font

Rotate

A

ABC

Digits

☐ Arabic
 ☒ English

Work Shift

Start Time

8

Hour

End Time

14

Hour

0

Minute

0

Minute

Special Char

A

Series

1

Enable ☒

Last coulumn of message : (445) pixel ≈ (62) mm

Items in message : (1) WorkShift

Around Print

Print Per Cartridge

175000

Pixel Counter

6057

Change items position

←

↑

→

↓

Mouse Position

Pixel	mm
X : 1044	≈ 87
Y : 1	≈ 0

0

2

4

6

8

10

12

Text2

2018/2/11

A

10:13

50 mm

**Barcode:**

By pressing this key a barcode is displayed on the design screen. This barcode has customizable properties. Including determining the barcode type from the list, displaying or not displaying barcode text as well as barcode dimensions (barcode length and width).

The screenshot shows the software interface with the 'Barcode' tab selected in the top menu. The 'Barcode' panel is open, displaying the following settings:

- Font and Text Properties:**
  - Font Info: Arial-24-Regular
  - Dotted Filter: 0
  - Font: [ABC]
  - Rotate: [ABC]
- Barcode:**
  - Height: 200
  - Width: 80
  - Barcode Type: Code 128
  - Show Text: ☐

Below the settings panel, the design screen is visible, showing a grid with the following elements:

- Last column of message:** (606) pixel  $\approx$  (84) mm
- Items in message:** (1) Barcode
- Around Print:**
  - Print Per Cartridge: 91304
  - Pixel Counter: 11585
- Change items position:** [Up, Down, Left, Right arrows]
- Mouse Position:**

Pixel	mm
X : 894	$\approx$ 74
Y : 18	$\approx$ 1

The design screen itself shows a grid with the following elements:

- Text2**
- 2018/2/11 A**
- 10:13**
- Barcode** (highlighted with a red border)
- 50 mm** (dimension line)

### Note:

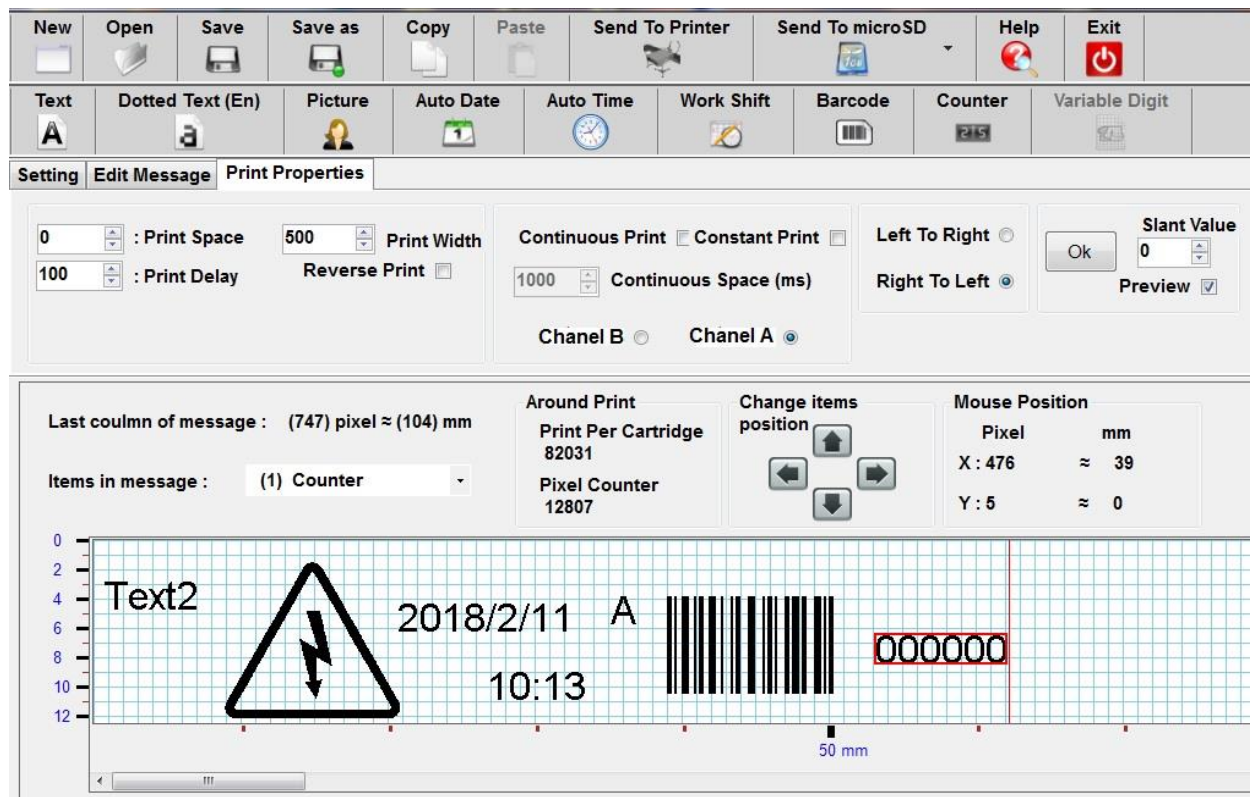
Note that to read the barcode on the desired surface in accordance with the bar code reader you want, the surface should be completely flat and even white enough.

### Counter :

By clicking this button a counter is added to the items on the design page. Options in this section include displaying or hiding the zeroes of the guide (zeros behind the numbers), the current value, the initial value, the final value, the step of counting, the number of repetitions, the ascending or descending count of the counter.

## Print specifications

To determine the print specifications, the options in this section should be determined



Most of these specifications depend on the operator's movement and speed

Print direction is the operator's hand movement from left to right or the reverse.

The printing delay, expressed in milliseconds, indicates the amount of delay that the installed trigger on the jet printer handle is pulled and printing is done (pressing the trigger sooner or later will shift the print position on the product)

The width of the print is essentially the distance between the image columns and depends on the speed of the operator's movement. The faster the movement of the hand, the smaller the number should be, so that the print is normal in terms of elongation or shrinkage; in other words, you can adjust the width of the print according to the printing location limit and the speed of the movement of the hand

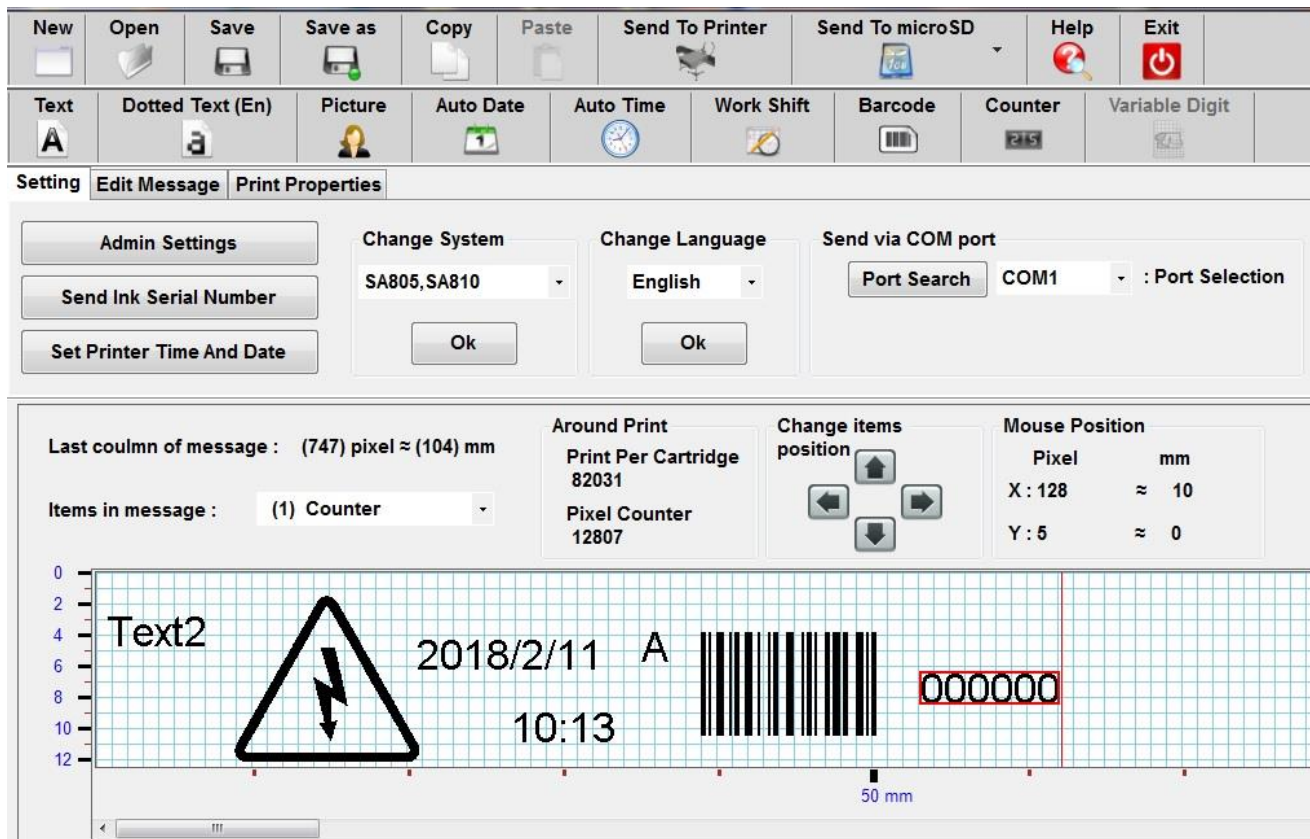
Continuous printing is used when you need it, on the product you print several identical and spaced text, in which case you can use continuous printing

Note: In very long messages up to 3 meters in length, you can no longer use variable items that include automatic date, automatic time shift, and counters. Just click the "Fix Print" option and do your long print

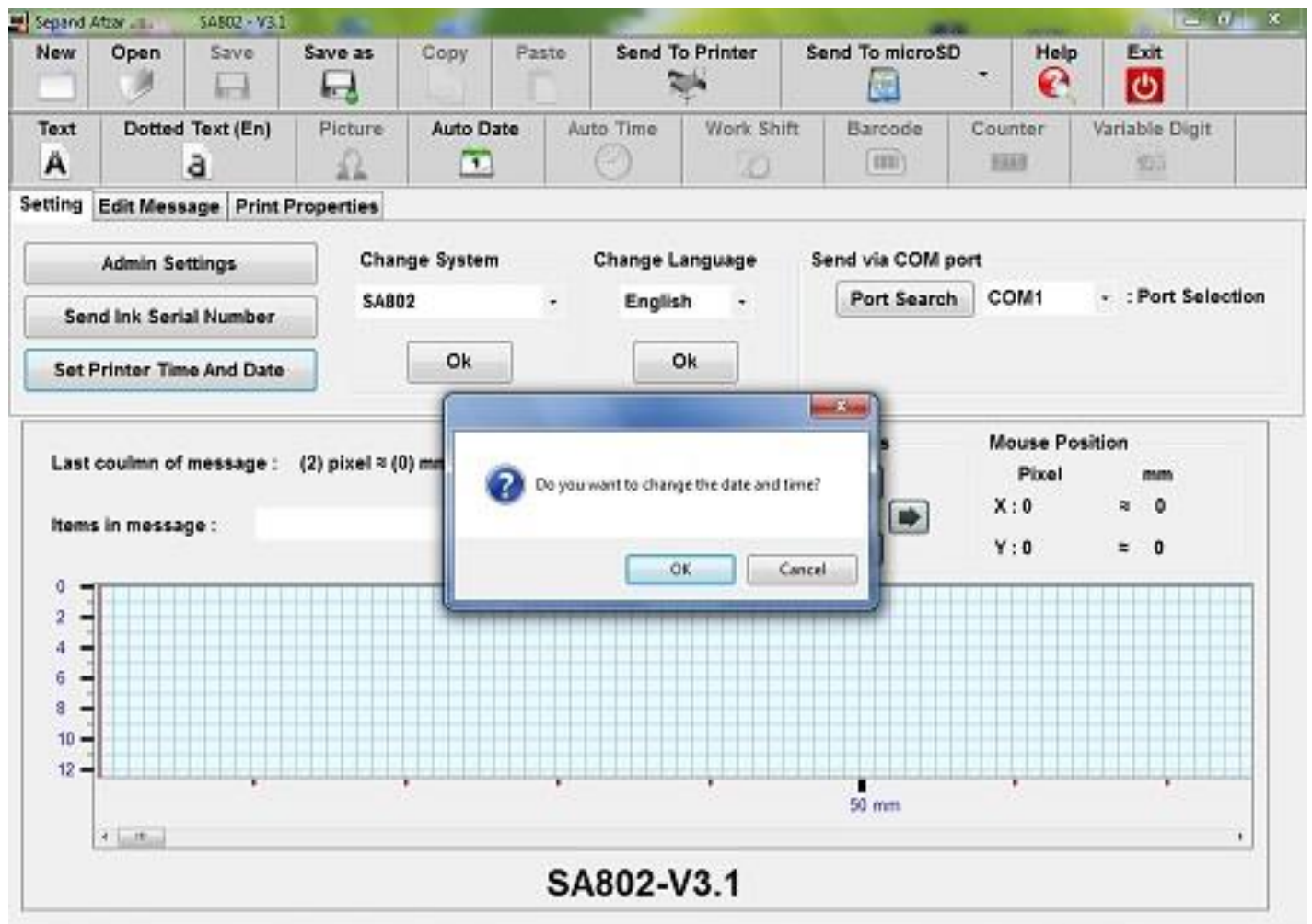
You can angle the (slant value) with this option, and in fact tilt the post

## Settings menu:

If the printer is connected to a computer through a serial port, you can do the following

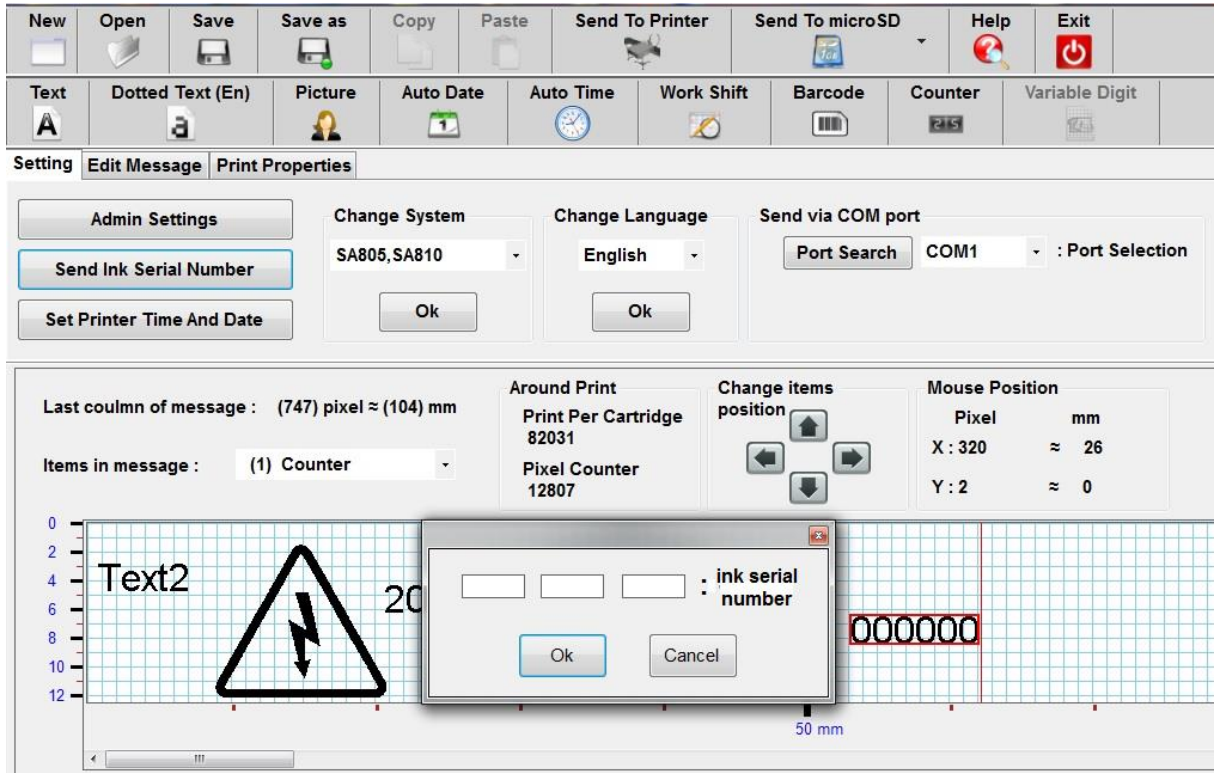


**Setting the time and date:** If this key is pressed directly, the time and date of the machine will be set to the computer.



To set the date and time, after clicking the corresponding option, the box above is displayed, asking you if you want to change the date and time of the printer? If the corresponding cable is connected, the device is turned on and the port is selected correctly, you can click the confirmation button and match the date and time of your printer with the date and time of your computer. (The message was sent successfully, it will appear on the screen)

**Send the serial number:** After clicking on the button, the serial number of the printer appears below the screen, which you can send the serial number through the USB port.



**IMPORTANT NOTICE:** Of course, to send a serial number or set the time and date, you must first install the USB device driver in order to carry out the correct transfer operation. If you have not already installed the driver, you can do the following.

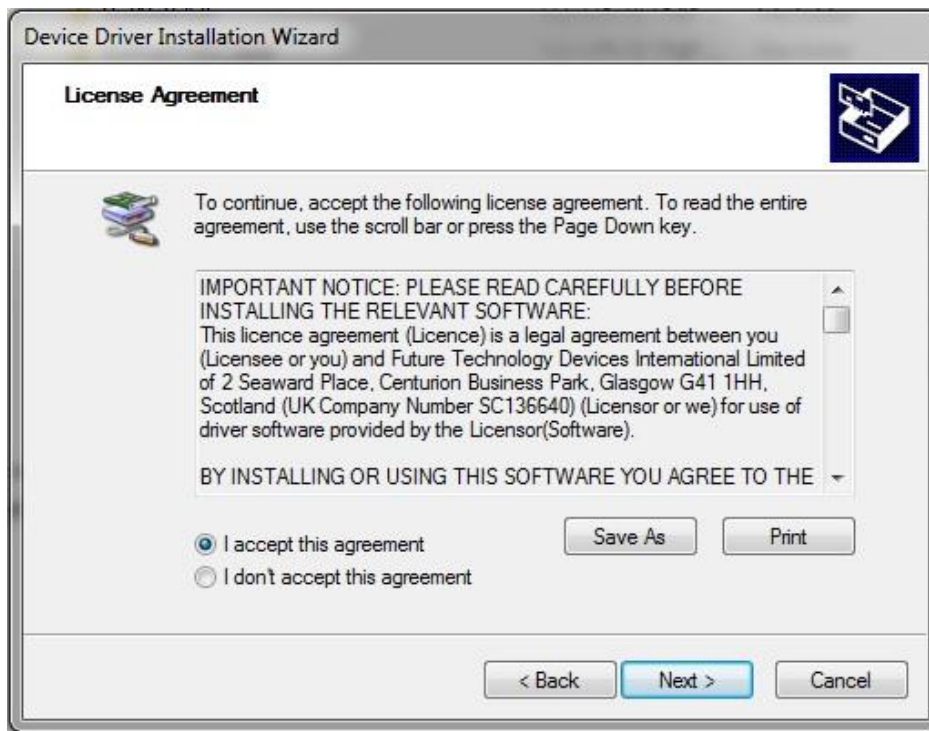
1) First, install the software driver USB port of the printer from the CD (see picture below)



**2)Click the Next button as shown below**



**3)Follow the steps below, by choosing I accept this agreement, and then click Next**



**4)At this point, the driver installation is complete and just click the Finish button**

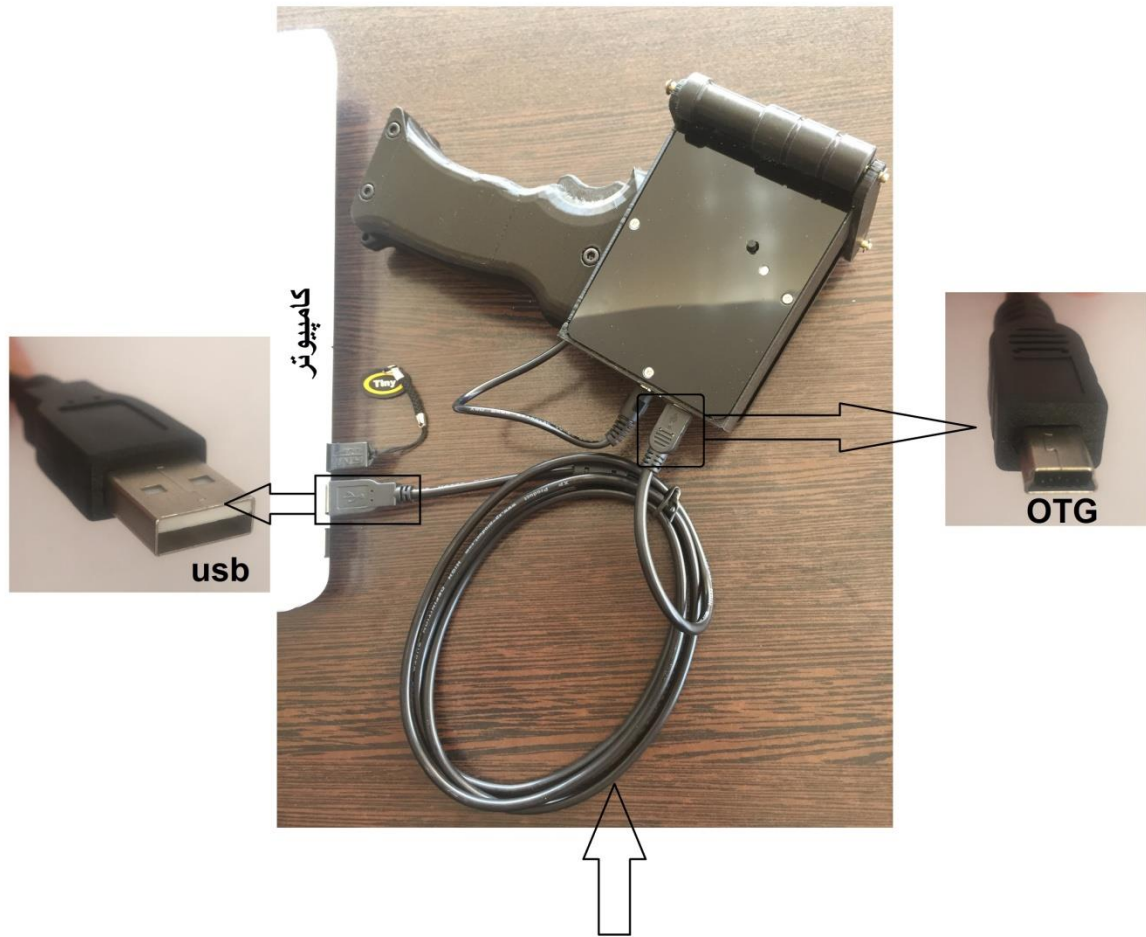


**5)After installing the driver, you can do the following.**

**A)Run the software-Software V3.1 SA**



**B) Connect the printer to your computer's usb port with your own cable and turn the printer on**



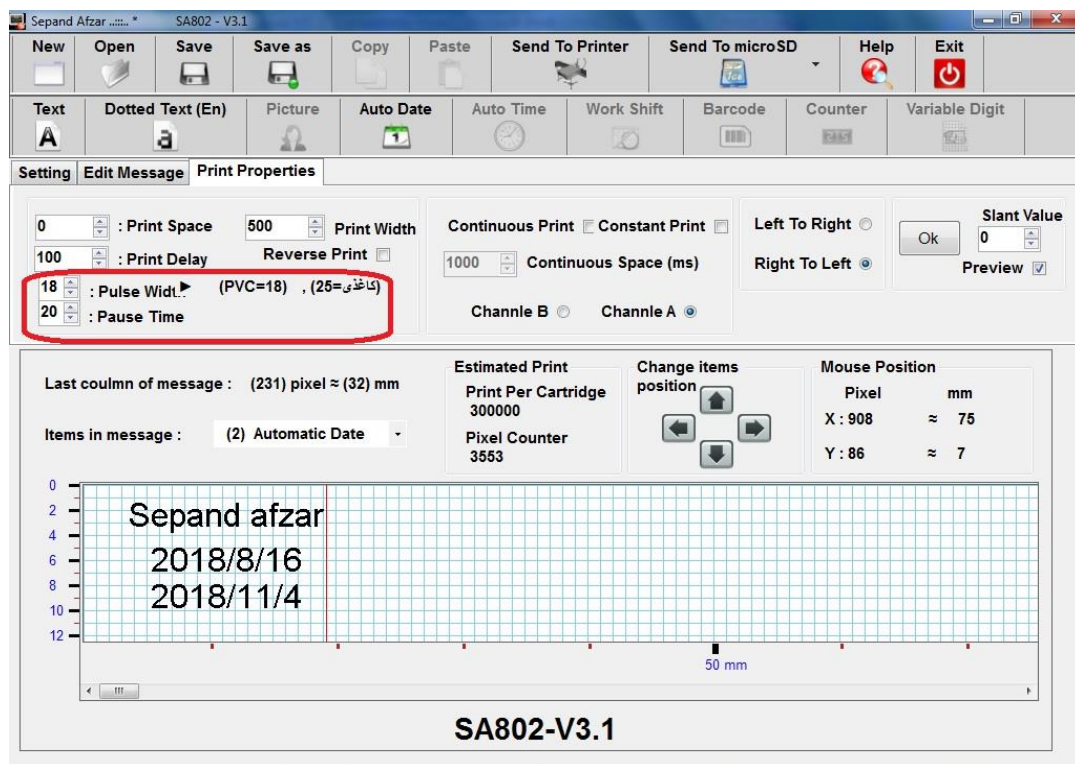
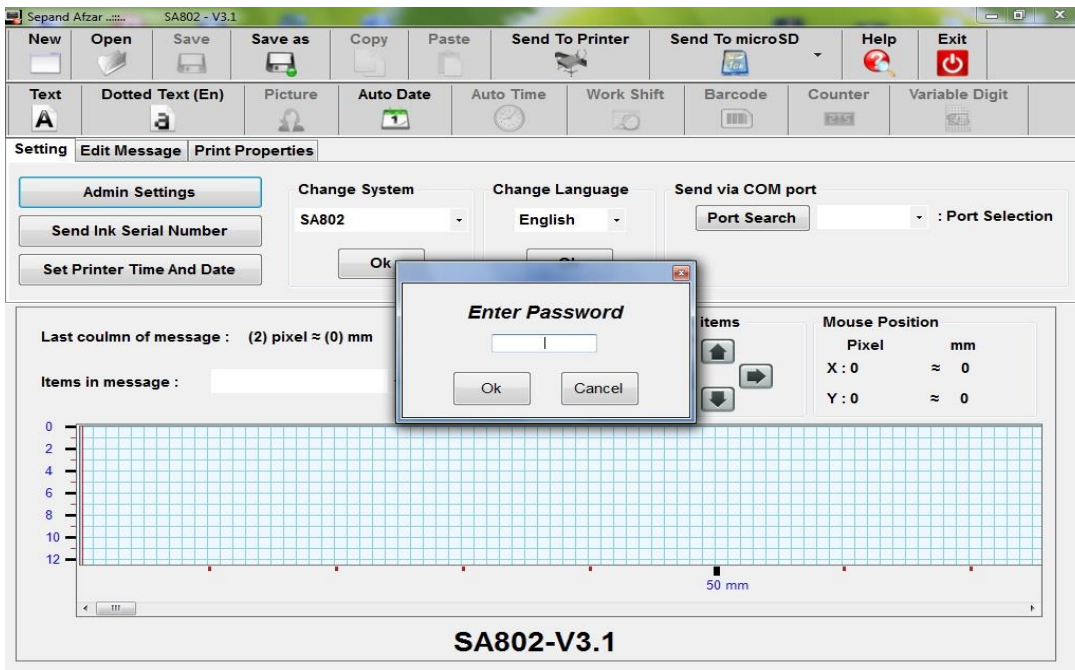
### THE CABLE FOR CONNECTING THE PRINTER TO THE COMPUTER

C) In the settings menu, click the port selection button and select the port with the number above as your final port to select the port.

D) Click the send serial number button to display the following message on the computer, and then enter the 15-digit serial number in the corresponding box (three five digits with a total of 15 digits in the three boxes) and the confirmation button. Click the ink cartridge to transfer to the printer.

**Note:** To adjust the printer's time and date with the computer, you are exactly do the same as above, and just click the date and time setting button to set the printer's time with the computer time.

**Manager Settings:** If you need the settings in this menu, you need a password that can only be done by the company's expert (with company password)



If you enter your password, you will see two options for you in the Print Properties menu. These two options are in fact the specifications and the calibration of your chosen cartridge, and in no case should the numbers be changed, as it causes damage to the cartridge and driver Wins the device.

Of course, it should be noted that this device will be able to install two types of cartridges that will describe .

A)Solvent base cartridge with the following setting specifications.

Pulse width = 18 and protective pulse = 20

B)Water base cartridge with the following setting specifications.

Pulse width = 25 and protective pulse = 20

**Important Note:** Do not use the solvent base cartridge when the device setting is set for the water base cartridge or the reverse.because their settings are different and it causes damage for the cartridges.

**Change device:** In this section you can specify your printer type.

**Change Language:** Defines the language of the software

**Number of prints:** This parameter allows you to manage the number of prints as follow:

A) Message Pixel Number: This parameter is calculated and displayed depending on the text you are printing.

B) print quantity: This parameter calculates and displays the number of prints depending on the number of print pixels, which you can actually calculate the print quantity of a cartridge, in other words, manage a print quantity.

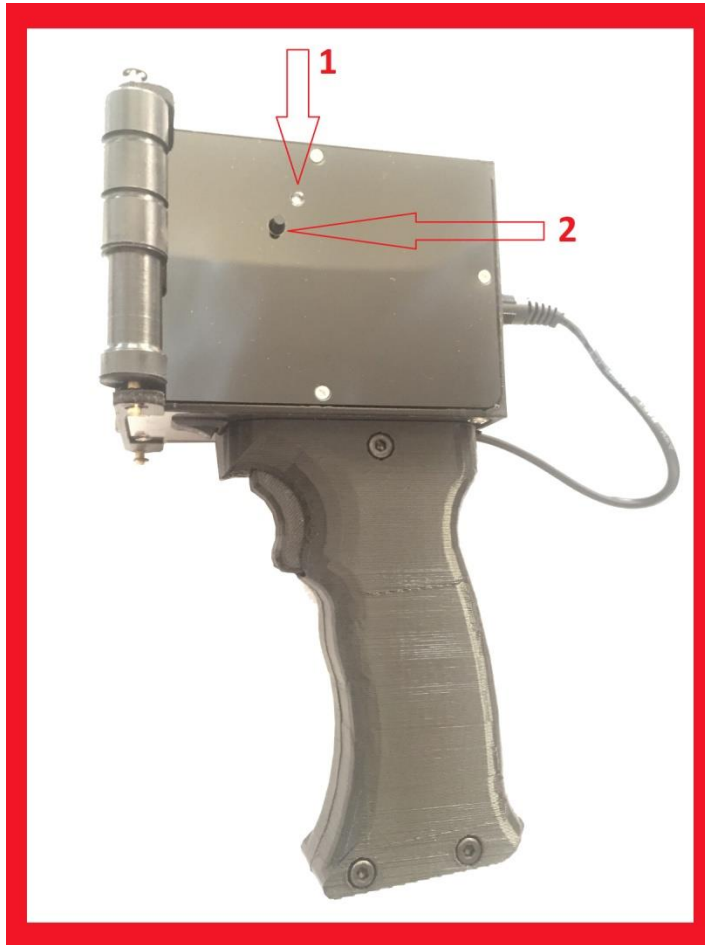
## How to send messages to the device by microSD:



As you can see in the picture above to insert the micro SD correctly it should be inserted in its own place and should be pushed till it is locked just like the picture above and also when you want to remove the microSD, you can press it at a low pressure and with the tip of the nail to release it and remove the microSD.



**The method of selecting the message by the pressure the key and LED (LED) related to it:**



**1)Message lock LED**

**2)Message select push button**

If you have transmitted, for example, three messages (messages 1, 2 and 3) to microSD, select the message or messages you want according to the following steps:

**A) With each pushing the trigger, the jet printer will print the messages in sequence: 1, 2, and 3, and by pushing the fourth it will return to number one, and so on.**

**B) If you want to select the message number 2 and print the same message by pushing the trigger in sequence whenever you reached to the message 2 and if you want to print this message continuously you can push and hold the message select key for 3 seconds until locked and the LED lights on. and if you want to unlock it do the same action and hold the key until the LED is off and also the printer starts to print the messages one after another again.**

**D) If you only have one message on the microSD, you can print the same message without locking it, and in fact this message lock only works when you have multiple messages in the microSD.**

## How to set up the cartridge:

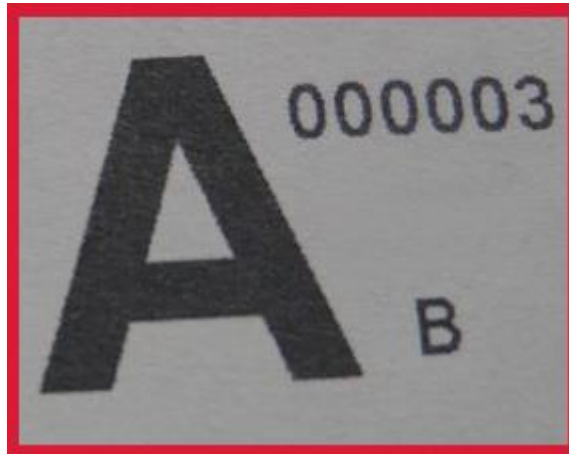
1.Remove the cartridge from the cartridge case (by pushing the end of the case tab)



As you can see in the picture below, after removing the cartridge from the plastic case, by slowly pulling the cartridge onto a tissue, you can clean the cartridge and get ready for it



If your print cartridge was read in the form shown below, and there was no line in the print, it indicates that the cartridge is healthy and properly kept and that all 300 nozzles are healthy and have not been damaged or damaged


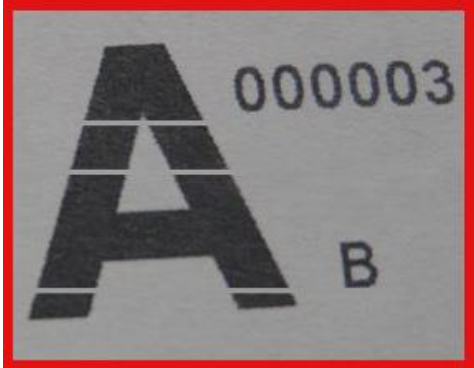


### **Important Notes on Storing and Using Cartridges:**

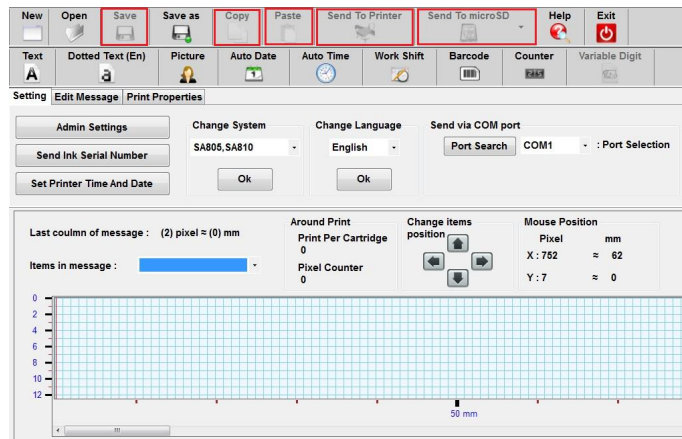
- 1.Immediately after using the cartridge in the machine, place it in its own enclosure to prevent its drying
- 2.Never turn the cartridge into or out of the machine when it is turned on (when the cartridge is jammed or removed, it should be turned off)
- 3.Store the cartridge at 10 to 20 degrees Celsius
- 4.The maximum use time of a cartridge is 6 months, and after that, the percentage of nozzles is dry
- 5.The tip of the cartridge, where the nozzles are located, should not be cleaned with a rough scarf, in which case cartridge nozzles will be damaged
- 6.When cartridges are inserted, carefully insert the cartridge in place and refrain from inserting cartridges that are physically damaged
- 7.Avoid using non-standard cartridges because it damages the printer (unknown or non-standard ink due to different specifications of the voltage and current and its non-compliance with the printer will cause the printer driver to be damaged and the device Get out of warranty)
- 8.Do not use any cartridge that is damaged or immersed in the bottom of it (the place where the cartridge is plugged in with an electronic socket)

## Troubleshooting:

How to solve the problem	Problem type	Row
<p>There are four types of errors in this case that the type of errors will be printed on the machine:</p> <p>Memory Sticky has problems and should be formatted and copy the message on it again.</p> <p>1-Memory Stick does not contain any messages</p> <p>2- Data transfer to the storage device is not well done and the corresponding microSD must be formatted and the information sent back to it</p> <p>3- The memory stick should be Class 4 to 6, so the printer can read the message (if your Micro SD class is high, the device can not read the information and you must replace the microSD)</p>	<p>The LED on the back of the printer blinks continuously and the printer prints one of these two types of errors</p>	1
<p>In this case, your device is subject to electrical shock and its internal memory is completely cleared and should be sent to Sepandafzar company to programme.</p> <p>Note: If your printer is contacted on static plastic surfaces, the device should be wired to one side to allow the static electricity to be discharged to the device and not damage the device.</p>	<p>The LED behind the printer blinks continuously and prints the following error in the printer's print error:</p>	2
<p>Test the hardware lock and connect it to the computer.</p> <p>1- Hardware lock is defective</p>	<p>Unable to send messages to the memory stick</p>	3
<p>2- The Ram reader connected to the computer is out of order.</p> <p>3-The memory stick (MicroSD) is defective</p>	<p>4- Format the memory card and transfer the message to it again.</p> <p>5- The cable connected to the printer to send data is damaged.</p>	4

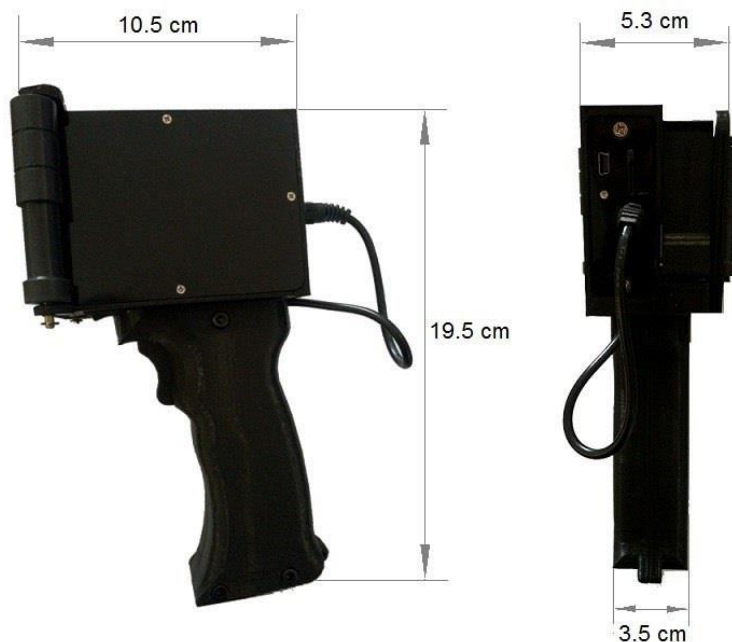
 <p>1. First, make sure there are no dirt or adhesion in front of nozzles</p> <p>2. Clean the cartridge again by pulling the tip of the cartridge onto a clean and dry cloth like the picture above</p> <p>3. You can use the other channel to replace the cartridges and re-check the new channel</p> <p>(Channel A and Channel B)</p> <p>4. If there is an open print on white lines, then the cartridge must be dry or damaged in that area and you must use other parts of it. You can refer to the software for this, and move the texts related to the message to the design page. Fit and use healthy areas of the cartridge.</p> <p>5. The bottom flat cable of the cartridge is damaged or inhaled</p> <p>6. The printer cartridge is empty and a new cartridge must be installed on the device.</p>	 <p>The printing, as shown above, has white lines at different points indicating nozzle block or drying nozzles in that area</p>	5
<p>The printer's battery is empty and should be charged</p>	<p>LEDs do not blink when the printer is turned on</p>	6
<p>1- The micro switch located behind the printer's trigger is faulty.</p> <p>2- The printer's electronic board is faulty.</p>	<p>The printer does not print at all, and all other parameters are Ok</p>	7

- 1.The dongle is not connected
2. The dongle has problem and should be replaced
3. The USB port of the computer is having trouble, or the computer is unable to identify the port where the lock(dongle) is connected



The software menus that are marked with the red box in the picture above are disabled

Hand held jet printer 805 weigh without the cartridge :555 grams



**Device dimensions**

<b>Model: hand-held ink-jet printer SA805</b>	
<b>Maximum Print speed</b>	<b>30 m/min</b>
<b>Minimum &amp; Maximum print height</b>	<b>2- 13 mmm</b>
<b>Category</b>	<b>Ink jet printer</b>
<b>Print direction</b>	<b>bidirectional printing</b>
<b>Machine size</b>	<b>10.5*19.5*5.3 cm</b>
<b>Machine weight</b>	<b>net weight=555 gr</b>
<b>Machine weight with cartridge</b>	<b>including cartridge 670 g</b>
<b>Jet print font</b>	<b>fully synchronous PC computer</b>
<b>Save information</b>	<b>10 message</b>
<b>resolution</b>	<b>300dpi</b>
<b>Power supply</b>	<b>16.8 V dc</b>
<b>Automatic printing</b>	<b>Date,time, counting, batch number, serial number</b>
<b>Use environment</b>	<b>temperature 0-40°C, humidity 10%-70%</b>
<b>External interface</b>	<b>Micro SD &amp; interface cabel</b>
• <b>Package Weight</b>	
• <b>Package Size</b>	