



E-mail: info@nasajet.com
www.nasajet.com



USER MANUAL

NASAJET® HANDHELD INKJET PRINTER
MODEL NJ-100 (2020)

GEOTECHTRONICS GMBH
Tutzing, GERMANY

Version: **1.0**
Date: **07.04.2020**



INTRODUCTION



JET PRINTER MODEL NJ-100 IS A NON- CONTACT JET PRINTER

The NasaJet® NJ-100 uses TIJ (thermal inkjet) technology to throw the ink drops on your products and objects (such as the price or production date). This printer is using the HP 45 cartridges which are manufactured at Hewlett Packard factories. As you may know these cartridges are presented in both solvent base and water base models. These cartridges are able to throw the ink drops up to the 4 millimeter space. The most important advantages of this device are its weight, being portable and it can print the changeable informations on your productions with moving your hand around.

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- 04** USING THE USER INTERFACE
- 05** PRINTING
- 06** SETUP THE CARTRIDGE
- 07** TROUBLESHOOTING
- 08** TECHNICAL DATA

01 NASAJET® NJ-100 PACKAGE CONTENTS



1

Printer case



2

Battery



3

Power supply / adaptor



4

USB stick 512MB



5

Touch pen



6

Spareparts



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DEVICE INPUT & OUTPUT

1. USB PORT

2. EXTERNAL POWER SUPPLY

3. POWER SWITCH

4. PHOTOCELL INTERFACE

5. INK CARTRIDGE



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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



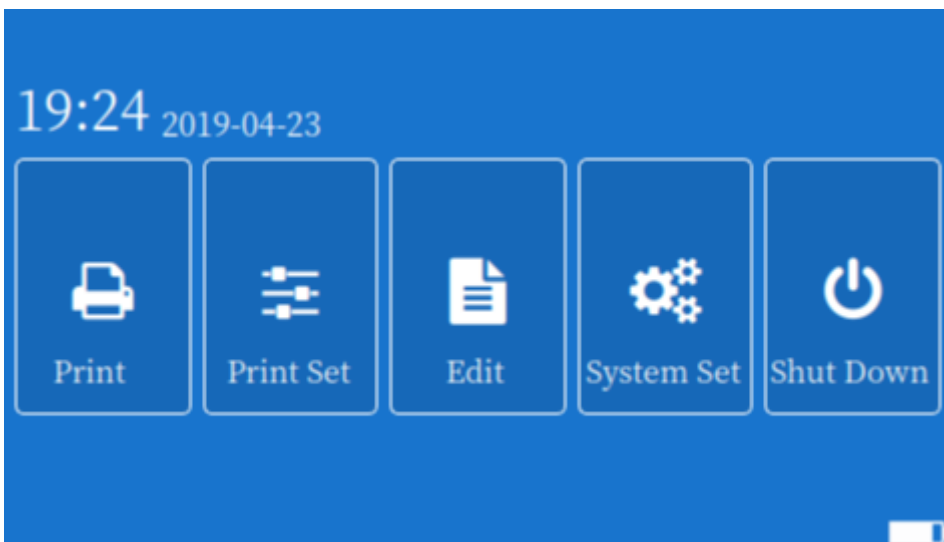
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USING THE USER INTERFACE



With the NasaJet® touch screen it is fast and easy to create your printing templates.

MAIN MENU



Print: Choose a printing template and start printing

Print Set: Edit current printing preferences (print mode, speed,...)

Edit: Create, edit, import and export printing templates

System Set: Edit the current system preferences (language, time,...)

Shut Down: Turn of the printer

EDIT MENU

To create a new or edit an existing printing template tap the menu entry '**Edit**'. The screen will show the edit toolbar to the top and the current printing template at the bottom area. Start creating a new printing template by choosing one of the available content types: **Text, Time, Count, Image, QRCode, Barcode**. Each time you enter the content editing a new element of the corresponding type is added to the printing template.

TEXT

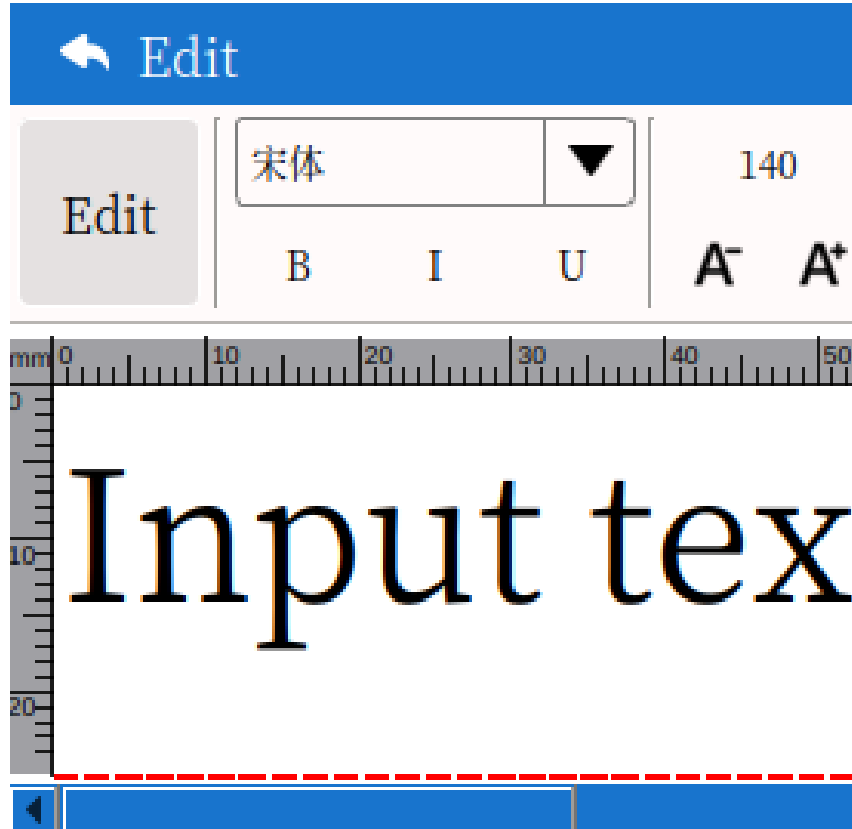
This tool is used to create a text content. To change the text press the '**Edit**' button on the left. A new screen showing the current text and an on-screen keyboard will show up. Use the keyboard to edit the text as you like and tap the '**Finish**' button to end the editing mode.

Back on the text screen you adjust text settings like the font family, the font size and other typical font characteristics.

You can even rotate the text element or adjust the letter spacing ('**Interval**').

To remove the current text element use the '**Delete**' button on the right.

When you are done editing go back by pressing the arrow symbol in the top left corner.



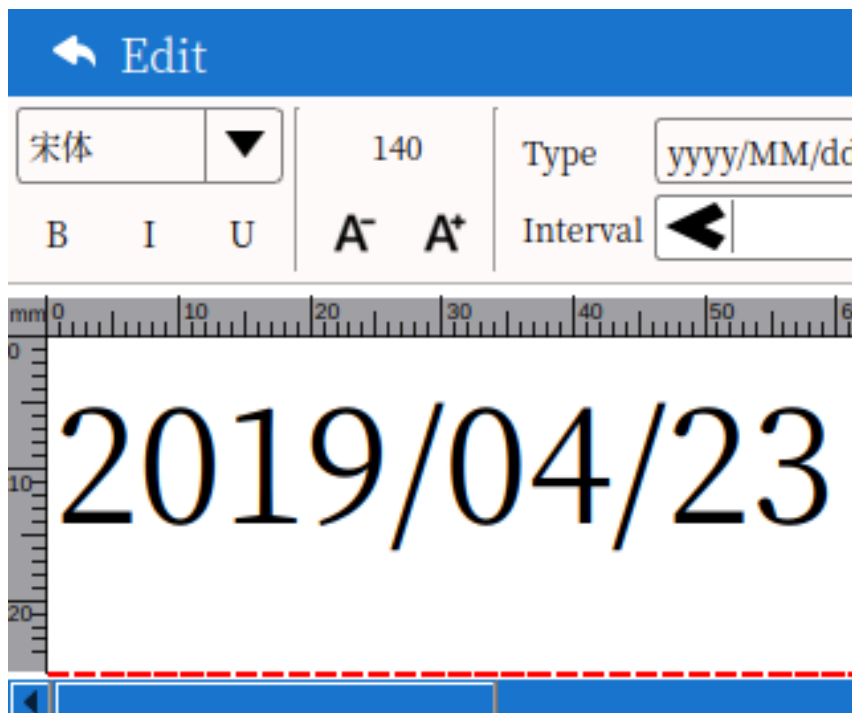
TIME

With the TIME tool you can add the current time or date to the printing template.

Use the same functions that you already know from the TEXT tool to adjust the font characteristics of the time or date object.

To remove the time object use the '**Delete**' button on the right.

When you are done editing go back by pressing the arrow symbol in the top left corner.



COUNT

With this tool it is possible to create serial numbers. The counter will increase every time you print.

Like in the other edit dialogs you can specify font family, type and size as you like. With **'Type'** you can set the number of digits your counter should display. **'Interval'** adjusts the spacing between the single digits. When you are done editing, press **'Edit'** to go back to the menu. To delete the current element use the **'Delete'** button on the right.

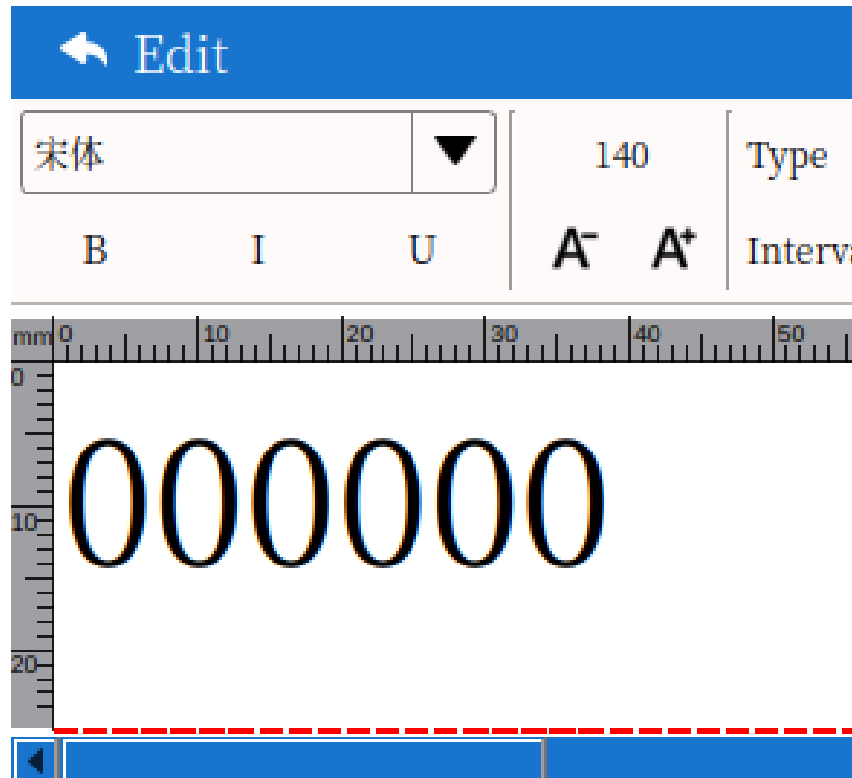
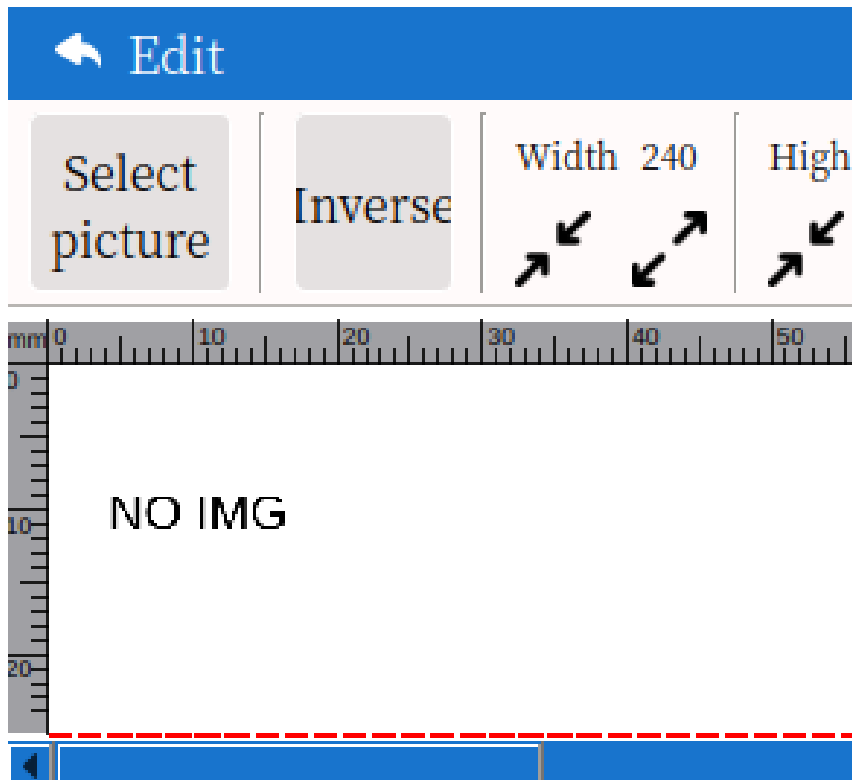


IMAGE (LOGO)

The NasaJet® printer is able to print simple graphic elements and logos. Images should be edited in advance to get best results (monochrome BMP format).

Choose **'Select picture'** to open the file dialog. You can now choose files in the local storage or from an attached USB stick. The file dialog also allows you to copy files between storage types or to delete them.

To adjust the width and the height of an inserted image, use the 4 buttons in the middle of the tool bar. You can also rotate an image or delete it from the current printing template.

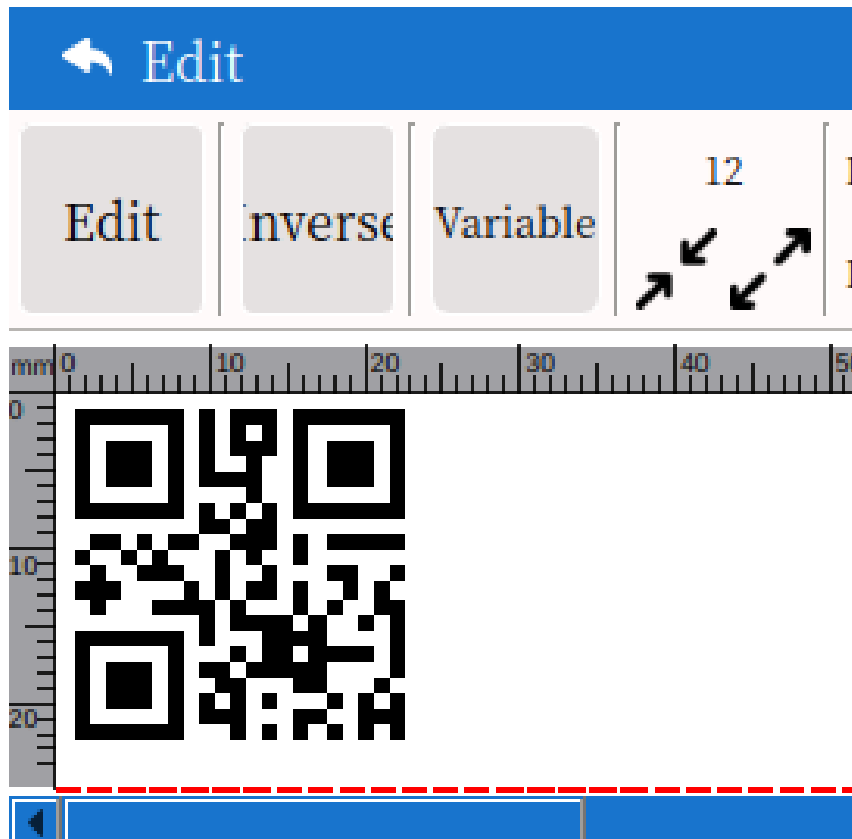


QR CODE

Use this tool to create a standard or variable QR code for your printing template

Set the level and length of the QR code first and then choose **'Edit'** to define its value. Use the arrow buttons inside the tool bar to adjust the printing size of the element.

You can also create variable QR codes by pressing the button **'Variable'**.



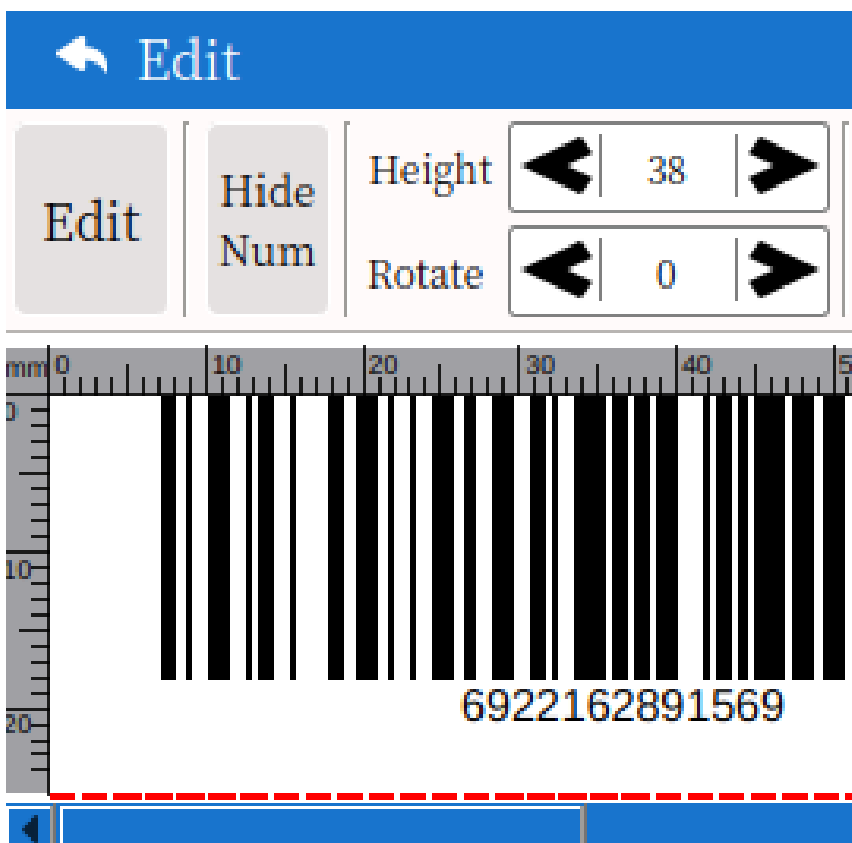
BAR CODE

Use this tool to create a standard bar code element for your printing template.

First, choose the correct **'Type'** of the bar code you want to create. Then use the "Edit" button to enter the bar code number.

The tool offers functions to modify the size and rotation of the printed bar code and you can specify to hide the code number.

The **'Delete'** Button removes the element from the current printing template.



SYSTEM SETTINGS

To adjust general settings of the printer, choose this menu item.

System Settings

Language English

Date & time 2019-04-23 19:32:42

Voltage 10.0

Pulse Width 2.0

Sound

Calibration

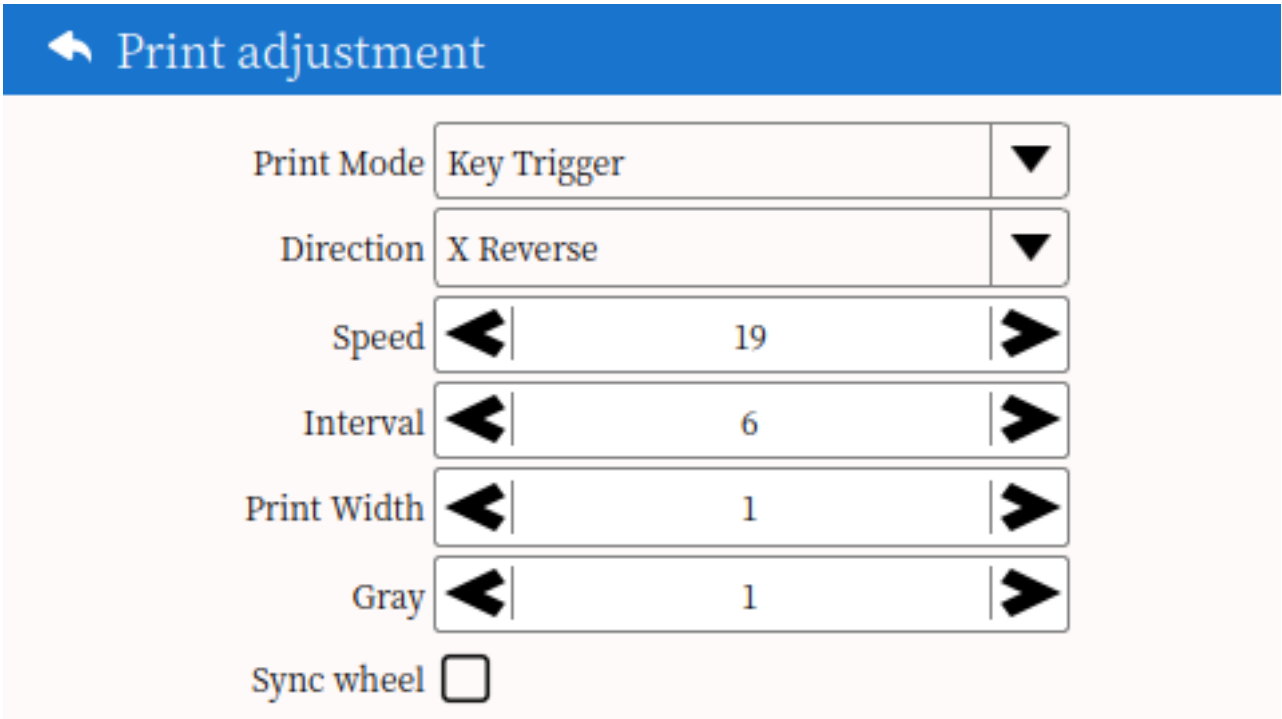
1. **Language:** Choose your language. The system will have to reboot after changing the system language.
2. **Date & time:** Set the system date and time
3. **Voltage:** Set working voltage according to the current ink type.
4. **Pulse width:** Set ink print pulse according to current ink type
5. **Sound:** If checked, then the printer will produce a short sound after printing is finished.
6. **Calibration:** If the touch screen does not respond accurately you can recalibrate it. Please do not use this function if the screen works correctly.

Typical ink type parameters

Ink type	Print pulse (μ s)	Voltage (V)
Black color	88/1.8	23/9.6
White color	88/1.8	22/9.6
Yellow color	88/1.8	23/9.6
Blue color	88/1.8	23/9.6
Red color	88/1.8	23/9.6
Green color	88/1.8	23/9.6

PRINT SETTINGS

To adjust general print settings use this option.



1. **Print mode:** There are 4 modes you can set.
 - ① Key trigger: Print by pressing the print button.
 - ② Internal eye: The internal sensor will be used.
 - ③ External eye: An external sensor will be used.
 - ④ Automatic print: No need for any trig condition. Printer will print automatically.
2. **Speed:** When you use the printer in online printing, adjust the speed to fit conveyor speed. '0' means fastest. When machine speed is too fast, characters will be too narrow. Then need to make speed value bigger. When machine speed is too low, characters will be too wide. Then you will need to make the speed value smaller.
3. **Interval:** The interval is between receiving the print signal and printing start.
4. **Print width:** Adjust the width of printed characters with this value.
5. **Gray:** Raise or lower the amount of used ink. Default value 1.
6. **Sync wheel:** if you use the machine by hand, you need to check this. If you use the machine for online printing the item is unchecked.

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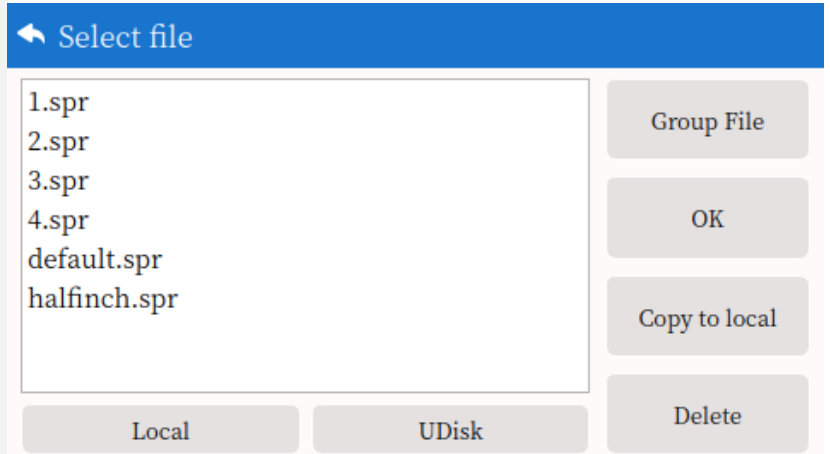
PRINTING

SELECT FILE

After you entered the print dialog with the main menu option '**Print**' you have to select the print file if not already done (the printer keeps the last selected file in memory).

Press '**Select file**' to open the file dialog and choose if you want to open a print file from the internal memory or an attached USB device.

Select the file you want to open and press '**OK**' to go back to the print dialog.



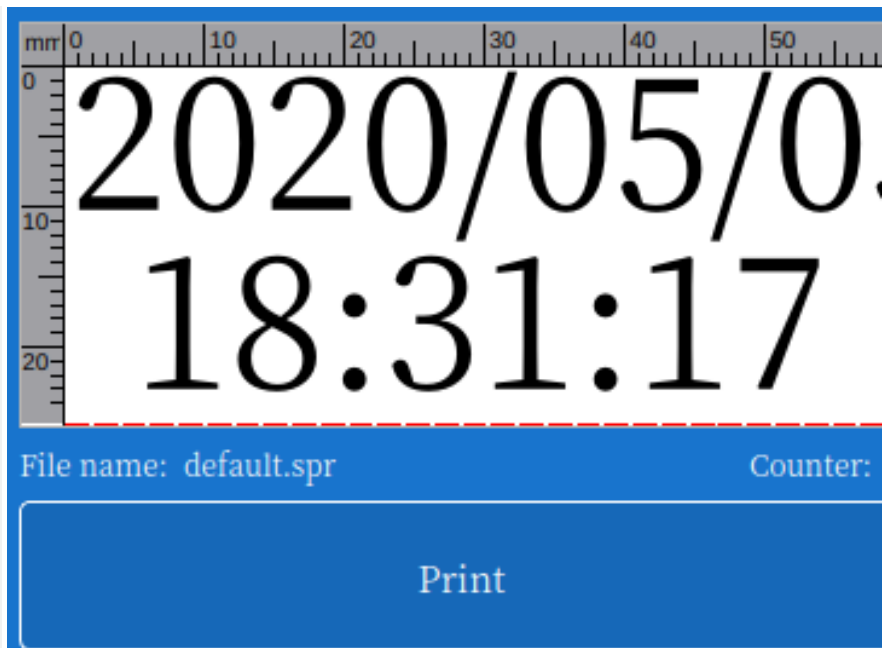
PRINTING

The preview window will show the currently active template. To start the printing mode simply press the '**Print**' button and it will turn to a **red color** to show that printing mode is now active.

Based on your set print mode (see Print settings) you can now start printing. Usually (default setting), you position the printer on the object you want to print on, press the red trigger button and move the printer from left to right.

To turn of the printing mode, press the button '**Printing**' and it will turn blue again.

To go back to the main menu, use the '**Return**' button on the right.



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SETUP THE CARTRIDGE

HEWLETT PACKARD HP 45 INK CARTRIDGE



01

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

02

As you can see in the picture, 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.

03

If your print cartridge was read in the form shown 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

01 PREVENT DRYING

Immediately after using the cartridge in the machine, place it in its own enclosure to prevent its drying

02 TURN OFF PRINTER BEFORE REMOVING

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)

03 TEMPERATURE

Store the cartridge at 10 to 20 degrees Celsius.

04 DURABILITY

The maximum use time of a cartridge is 6 months, and after that, the percentage of nozzles is dry.

05 CLEANING

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.

06 INSERTING CARTRIDGE INTO PRINTER

When cartridges are inserted, carefully insert the cartridge in place and refrain from inserting cartridges that are physically damaged.

07 USE STANDARDIZED INK

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).

08 DAMAGED CARTRIDGES

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).

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TROUBLESHOOTING



Here you can find some quick and easy solutions for

common problems. Still need help? [info@](mailto:info@nasajet.com)



PRINTER IS READY BUT DOES NOT PRINT

POSSIBLE SOLUTION

1. Check if the printer is currently in printing mode and a printing template is loaded.
2. Check if the ink cartridge is inserted correctly and fixed.
3. Check if the ink cartridge contains ink or if the nozzles need cleaning.

THE PRINTER IS NOT STARTING WHEN THE RED BUTTON IS TURNED ON.

1. Make sure, that the battery is not empty and inserted correctly into the device.
2. Try to load the printer battery about 10 minutes with the supplied power cable. Then try again to turn on the printer.

THE PRINTER CAN NOT READ DATA FROM AN INSERTED USB DEVICE.

1. Make sure the USB storage is inserted correctly and not write protected.
2. Try if you can access your data on a different device (e.g. laptop).

THE TOUCH SCREEN OF THE PRINTER DOES NOT REACT CORRECTLY

THE PRINTING HAS WHITE LINES AT DIFFERENT POINTS INDICATING NOZZLE BLOCK OR DRYING NOZZLES IN THAT AREA

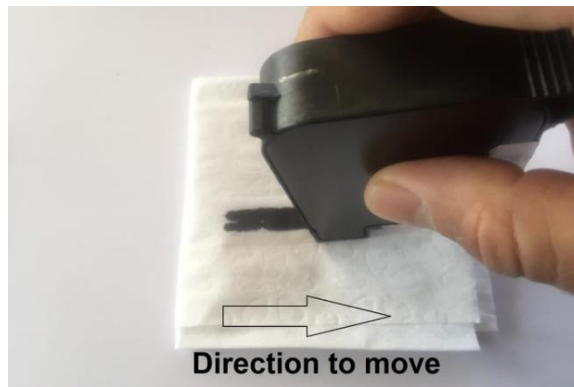


POSSIBLE SOLUTION

1. Use the calibration function in the printer settings menu to recalibrate the touch screen.
2. Use a touch screen pen which makes it easier to click smaller elements.

1. First, make sure there are no dirt or adhesion in front of nozzles.

2. Clean the cartridge again by pulling the tip of the cartridge onto a clean and dry cloth.



3. You can use the other channel to replace the cartridges and re-check the new channel (Channel A and Channel B).

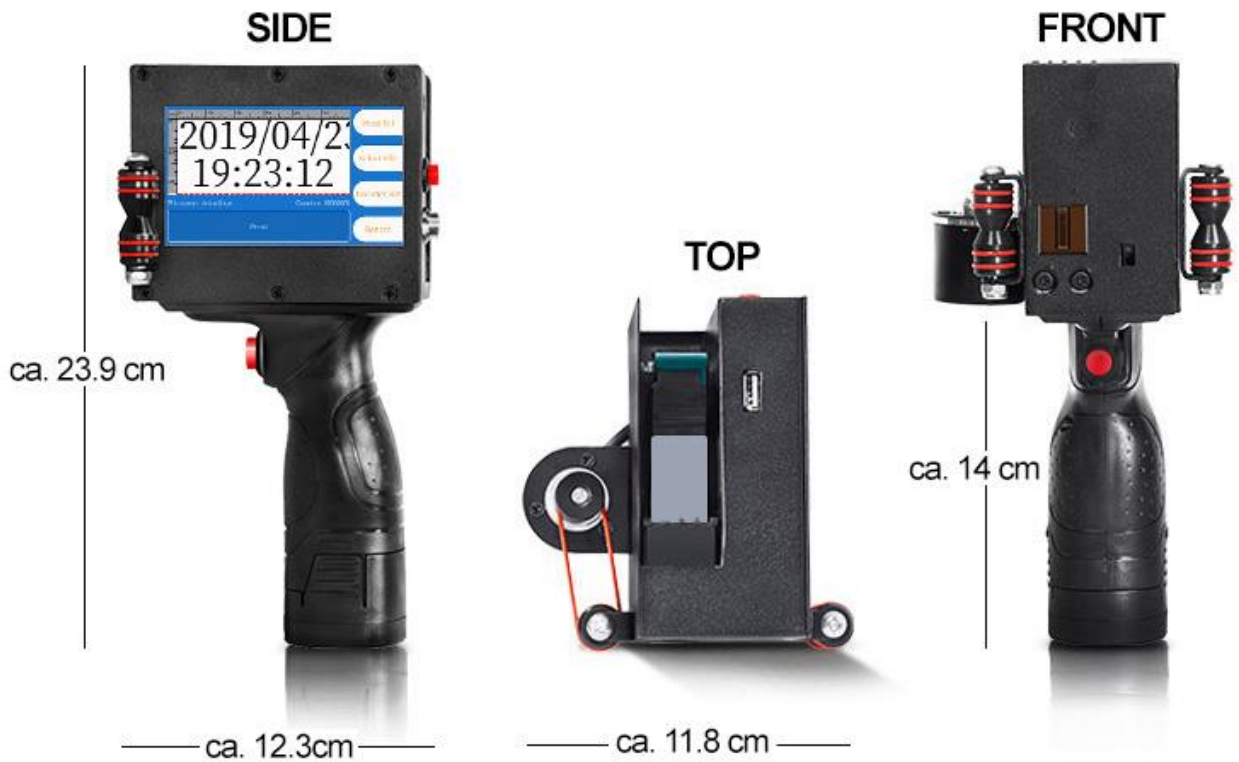
4. If there is an open print on white lines, then the cartridge must be dry or damaged in that area and you must use other parts of it. You can refer to the software for this, and move the texts related to the message to the design page. Fit and use healthy areas of the cartridge.

5. The bottom flat cable of the cartridge is damaged or inhaled.

6. The printer cartridge is empty and a new cartridge must be installed on the device.

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TECHNICAL DATA



Technical specifications: NasaJet® NJ-100

Nozzle	TIJ Thermal Inkjet Nozzle
System	Linux
CPU	Quad 1.4GHz
Screen	4.3 inches
Operation	Touch screen
Interface	USB
Languages	Chinese, English, German
Printing height	Minimum 2mm, maximum 12mm
Resolution	300dpi
Printing distance	2-5mm
Ink type and volume	Water based 42ml, Solvent based 42ml
Ink color	Black, white, red, blue, green, yellow
Printing material	Carton, pipe, plastic, woven bag, cable, stone, board, wood, metal,...
Printing content	Text, number, symbol, QR code, Bar code, image, date, variable date, variable QR code
Battery	14.8V DC, 2.600mAh
Printer material	Metal + ABS
Adapter	AC100-240V input, DC16.8V/2A output
Dimension	23.9x12.3x11.8cm (measuring maximum size)
Weight	1.12KG (including battery and ink cartridge)
Working environment	Temperature 0-45°C, Humidity 40-60% RH

**THANK
YOU**



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