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GTX600 NB

*We share our experience to give you the **best support***

COOKBOOK

CONTENT

This is a guide for all **GTX600 NB** users.
Be sure that you use the latest Cookbook-Version.

1 GENERAL INFORMATION

The printer should only be used by **operators** who are appropriately **trained** in its safe operation.
The printer is **not suitable** for use in places where **children** are present.
The machine uses **powerful servo motors**, inappropriate use may cause **severe injuries**.
The **security keys** of the doors have to be kept by **trained persons only**.

1.1   SOFTWARE

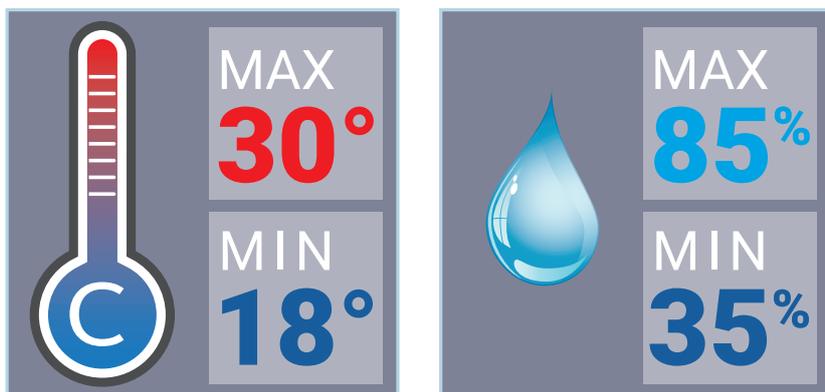Always make sure that you use the latest software for your **GTX600 NB.**

You can find the latest versions here:

https://base.brother.digital/driver-firmware/gtx600-nb/

https://base.brother.digital/software-tools/
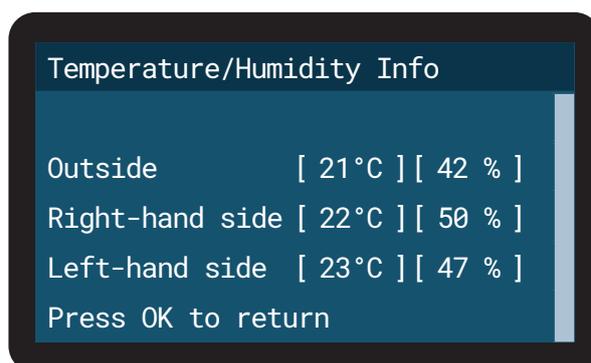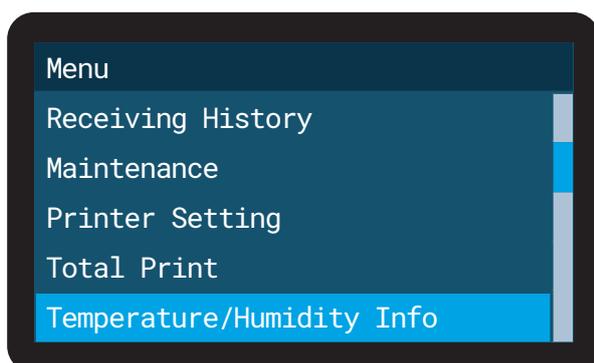
1.2   ENVIRONMENTAL CONDITIONS

Mandatory temperature and air humidity for the best print result:

The **GTX600 NB** has a humidifier installed. It should always be switched on while working with the printer. It is also recommended to turn it on 30 minutes before the production starts. There is the possibility to create a schedule for the humidification in the printers menu.
The machine also has 3 temperature and humidity sensors installed. This combination ensures that the humidity is automatically regulated. The humidifier aims for a humidification of 65 %.

You can always check the current temperature and humidification on the control panel.

```
Menu
Receiving History
Maintenance
Printer Setting
Total Print
Temperature/Humidity Info
```

```
Temperature/Humidity Info

Outside        [ 21°C ][ 42 % ]
Right-hand side [ 22°C ][ 50 % ]
Left-hand side  [ 23°C ][ 47 % ]
Press OK to return
```

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If temperature is too cold: The printer will switch automatically to "Low-Temp Mode" and reduce the speed. Raise the temperature of the printer's environment.
If temperature is too high: Please turn down the temperature of the surrounding area of the printer.

**If humidity is too low:** Please turn on the humidifier.
If humidity is too high: Please try to lower the humidity of the surrounding area of the printer.

Always keep the temperature and humidity within the required ranges, otherwise the consumption of ink and other liquids will increase, due to frequent auto-cleanings. The print results and condition of the printer could also be affected.

1.3 RULE REGARDING THE POWER SUPPLY

The **GTX600 NB** should always be left with power ON, also when it is not used.
Power is needed for the daily circulation of white ink and the operation of the humidifier. This process does not consume ink. If the **GTX600 NB** is turned OFF for a long time it might get damaged.
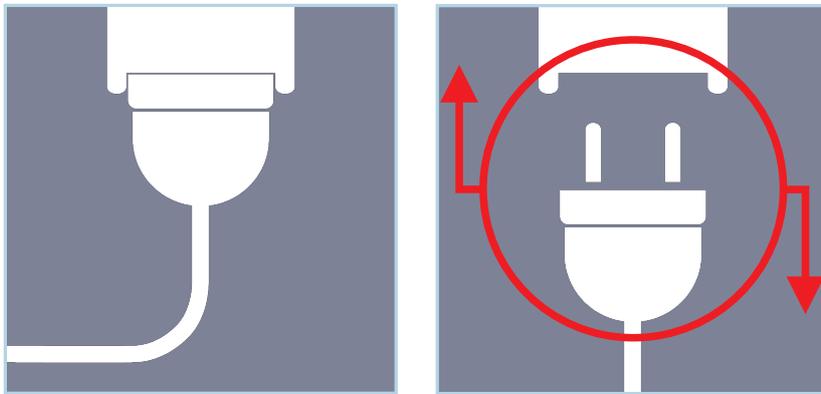
Only pull the plug in an emergency or when requested by a display message!

1.4 STORAGE OF LIQUIDS

The liquids should be stored at a temperature between minimum 0 °C and maximum 40 °C.

MAX **40°**
MIN **0°**
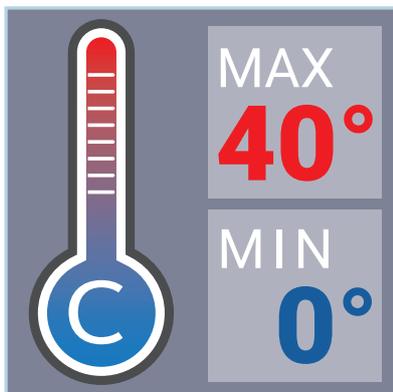
▶ Please agitate your spare white ink canisters every week.
▶ Do not use inks or liquids with a temperature below 18 °C or above 30 °C.

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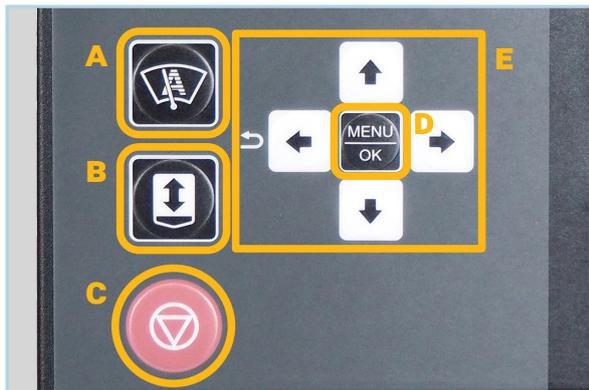
The display shows the current loaded print file with the used platen and the approximate ink consumption.

The lower left corner shows the level for ink and cleaning solution.

The left yellow frame shows the counter of prints left before the next auto-cleaning, the right frame indicates if there is any warning.

A: Freely assignable speed dial button

B: Button for platen moving

C: Cancel button

D: Opens the menu and confirms actions.

E: Cursor buttons for moving through the menus. The LEFT button is the go back button.

F: USB 3.0 port Type A to load print files from an USB-stick.

G: IC-Stick port. Will be needed for refilling the ink or cleaning solution.

2 BEFORE PRINTING

If you have not used the machine for a few minutes, the display turns off. By pressing any button, the display turns on again.

Like said, the machine should never be turned off. Should the machine, for whatever reason, be switched off completely, you can restart it by flipping the switch next to the power cable. The machine will start automatically. Depending on how long the machine was turned off, it will start with an auto cleaning, agitation of the white ink tank and a white ink circulation.

2.1 STATUS CHECK OF THE MACHINE

▶ Press the LEFT button to open an overview of the essential printer conditions. It is recommended to check this screen at the beginning of every production.
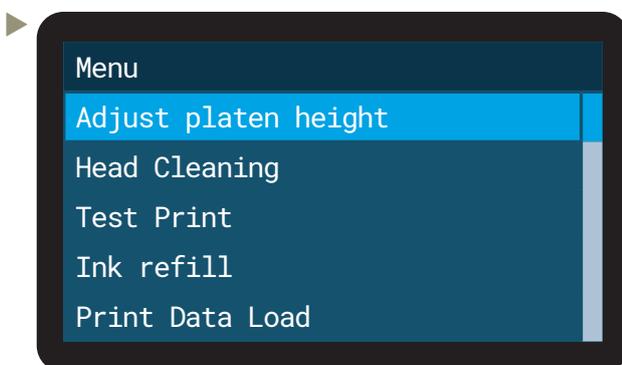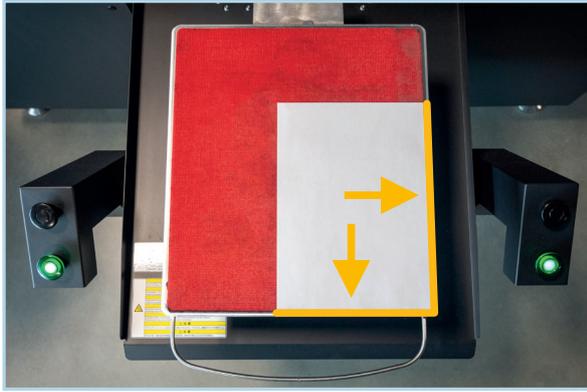
```
15/05/2023  13:53
  1200 dpi ⇄      A
% Suitable     ON        ᵕ
  👕 52/72    ⌀  ⏱ 13:55  ⬆
```
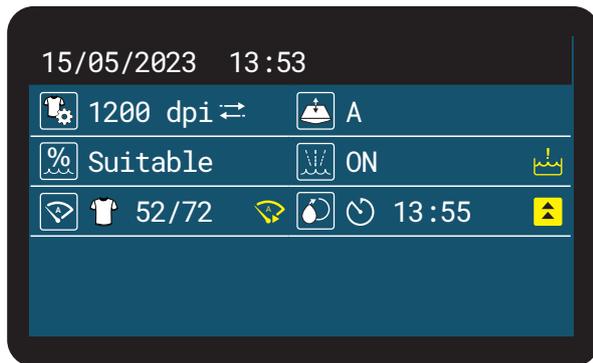
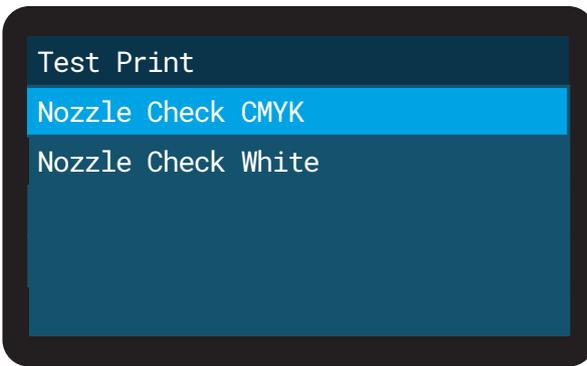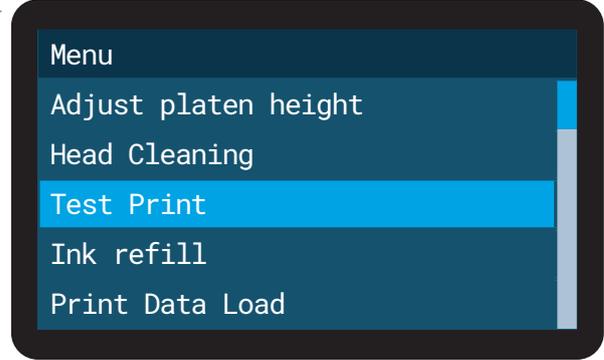| Icon	Explanation	Icon	Explanation
	The printing resolution of the loaded print file.		Indicates if the humidifier is turned on or off.
	Printing direction. Uni-directional (1 arrow) or bi-directional (2 arrows).		Shows the time when the next white ink circulation is due.
	Shows the status of the humidification. Under 65% it is low, over 65% its suitable.		Indicates that the printer performs an auto-cleaning before the next print.
	Counter for prints till the next auto-cleaning.		Will be displayed if the waste water tank is full and needs to be drained.
	The current platen height.		Anounces that the reinforced white ink circulation will be performed.

2.2 DAILY NOZZLE CHECK

You have to perform a nozzle test for CMYK and white **every morning** before starting the production. The **16x14 inch** platen has to be installed for the nozzle check.
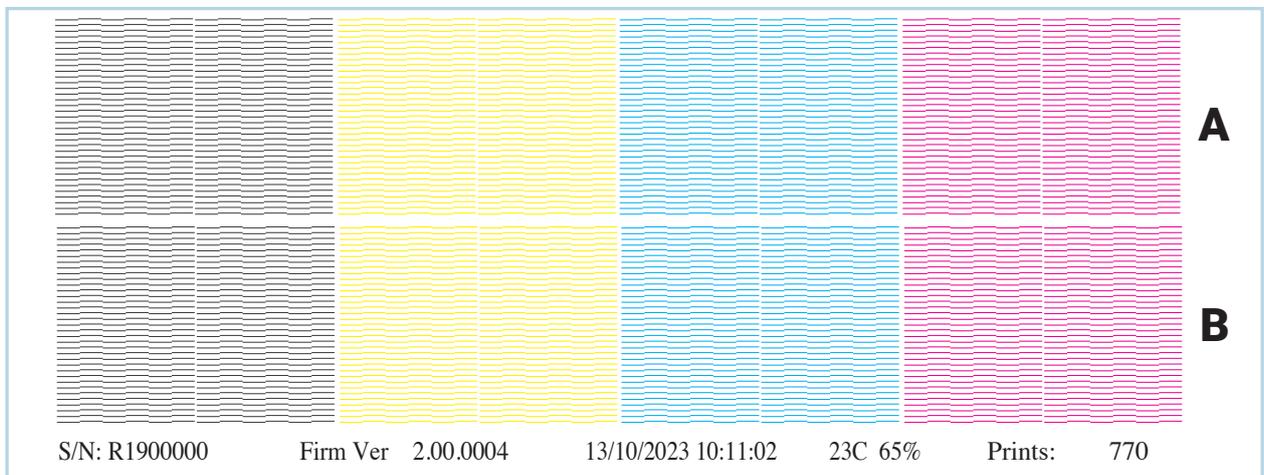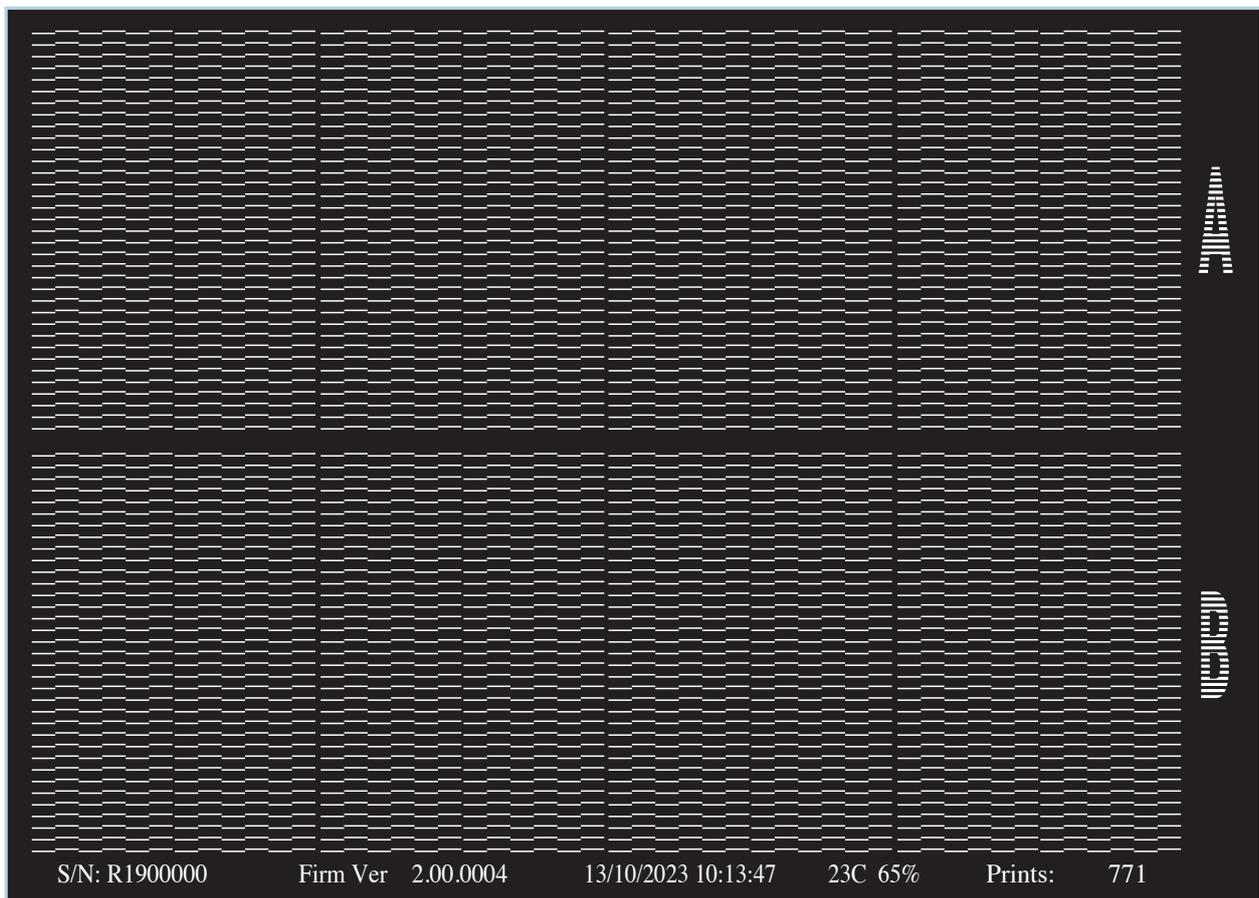
▶ The platen height has to be set to level **A**.

▶

```
Menu
Adjust platen height
Head Cleaning
Test Print
Ink refill
Print Data Load
```

▶

```
Adjust platen height
Position A
Position B
Position C
Position D
Position E
```

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▶

▶
```
Menu
Adjust platen height
Head Cleaning
Test Print
Ink refill
Print Data Load
```

Align a white paper for the CMYK nozzle check, respective a black paper for the white nozzle check in the lower right corner of the platen.

▶
```
Test Print
Nozzle Check CMYK
Nozzle Check White
```

▶ This is what they should look like:

S/N: R1900000   Firm Ver 2.00.0004   13/10/2023 10:11:02   23C 65%   Prints: 770

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S/N: R1900000 Firm Ver 2.00.0004 13/10/2023 10:13:47 23C 65% Prints: 771

If not all nozzles are firing, start a cleaning of the affected print head to open the clogged nozzles.

▶
```
Menu
Adjust platen height
Head Cleaning
Test Print
Ink refill
Print Data Load
```

▶
```
Head Cleaning
Normal Cleaning
Powerful Cleaning
Super Cleaning
```

▶
```
Powerful Cleaning
All Colors
All Whites
All Print Heads
```

▶
```
Powerful Cleaning
All Colors

Press OK to Start
```

▶ If still more than 10 nozzles are missing, select super cleaning.
▶ Perform a nozzle test to check the result and perform another cleaning if the nozzles still do not spray.

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The following data are starting values for production.
Based on the results, self-optimised values could be used.

The mixing ratio for the ready-to-use pretreatment is about:

1 L	**+**	**2 L**	**=**	**ready to use**
concentrated pretreatment		distilled water		

The mixing ratio might vary due to the type of garment.

Example of spray amount for a 14x16 inches (30x40 cm) surface:

T-Shirt color	Spray amount
DARK	**~ 30 g**
MEDIUM	**~ 24-27 g**
LIGHT	~ 14-17 g

Calibration of your PT-machine may be required.

Heat press settings for pretreatment drying:

~ 180 °C	~ 5-5.5 bar	**for 35 sec**
~ 360 °F	~ 75-80 PSI	

Use a greaseproof paper sheet (i.e. baking paper) to cover the pretreated garment and keep the heat press clean. Check the effective temperature of the heat press.

3 HOW TO PRINT

To print with the **GTX600 NB**, an **.arx6** file is required. You can create .arx6 files with **Graphics Lab**, which can be downloaded at Brother Base:
https://base.brother.digital/software-tools/

You can also use **.arx4** and **.arxp** files, but it is recommended to create new **.arx6** files to ensure the best possible print quality.

There is also a manual on **Brother Base** on how to use **Graphics Lab**:
https://base.brother.digital/manuals/graphics-lab/

Third-party Rip-softwares are also available for Brother printers. Please contact your local dealer for further informations.

With the **GTX600 NB** it is also possible to print **Direct-to-Film (DTF)**. If you want to print DTF you can find our **Reversal Guide** here:
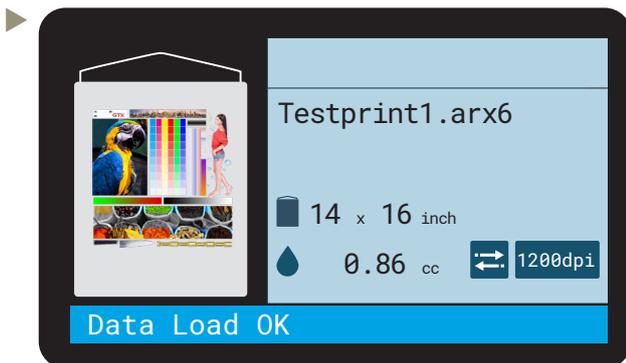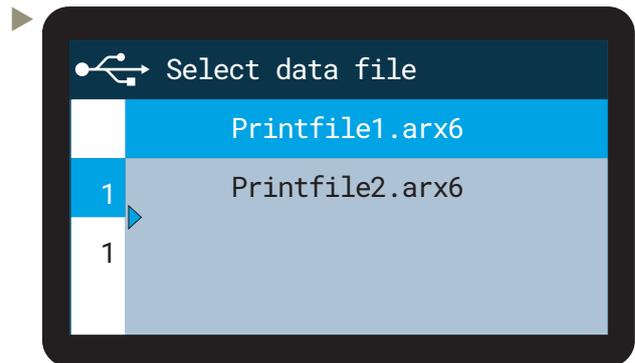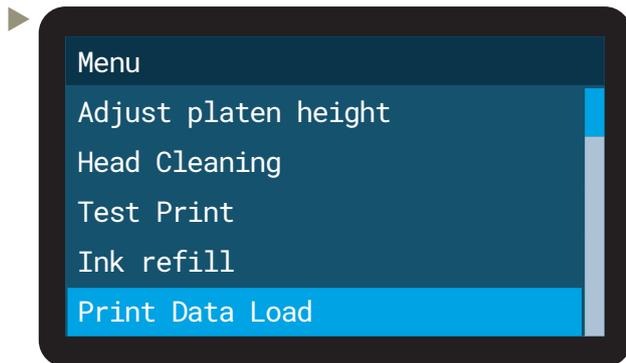https://base.brother.digital/tip-sheets/general/reversal-guide/

3.1 LOAD PRINTFILE BY PC

Make sure that the PC is connected to the printer. The latest **GTX600** driver and the latest Graphic Labs should be installed. Double click the printfile to open the GTX File Viewer. The GTX File Viewer will show a preview of the printfile and the most essential settings for the print.

By clicking on „Send to printer" the printfile will be sent to the **GTX600 NB** and will appear on the display.

3.2 LOAD PRINTFILE BY USB

▶ Insert the USB-stick with the printfile into the USB-port of the control panel.

▶
```
Menu
Adjust platen height
Head Cleaning
Test Print
Ink refill
Print Data Load
```

▶
```
⟍⟋  Select data file
        Printfile1.arx6
1       Printfile2.arx6
1
```

▶
```
Testprint1.arx6

▮ 14 x 16 inch
◖ 0.86 cc   ⇄ 1200dpi

Data Load OK
```

▶ Press OK to load the printfile on the **GTX600 NB**. The printer indicates the successful process with a beep sound. Wait till the beep sound before you remove the USB-stick.

3.3 SELECT THE CORRECT PLATEN HEIGHT

The platen height needs to be chosen accordingly to the thickness of the garment. The garment should be as near as possible to the printheads, to ensure the best print quality and to prevent ink mist. The **GTX600 NB** has an obstacle sensor installed, which prevents any contact between the garment and the printhead. The platen height has to be set in the menu.

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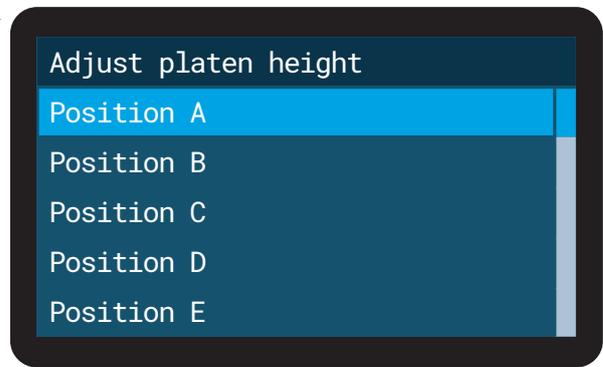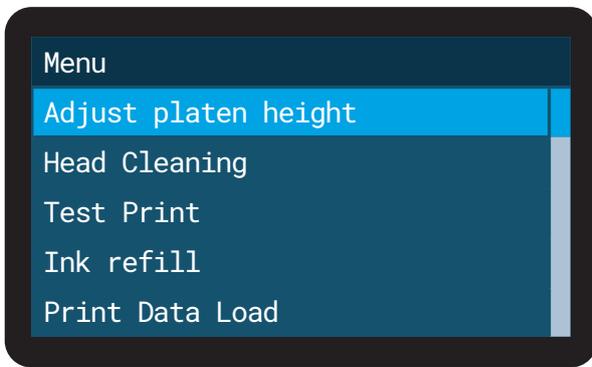
A	4.3 mm
B	4.9 mm
C	5.7 mm
D	6.7 mm
E	8.3 mm

F	9.8 mm
G	11.8 mm
H	14.3 mm
CUSTOM 1	Defined by user
CUSTOM 2	Defined by user

If the obstacle sensor detects any intereference, the platen will be lowered automatically **3 times**. If there is still any obstacle after the third time, the print will be canceled. There is also a platen too low sensor to prevent excessive ink mist.

The maximum possible setting for the platen height is 30 mm, what would result in an 34,3 mm distance between the platen surface and the printheads.

3.4   START A PRINT

When the (preatreated) garment has been mounted on the plate and the printfile has been loaded, the print is started by pressing the two green buttons simultaneously.

Press it for at least 0.5 seconds. There will be an acoustic signal for the platen run-in. Wait until the second acoustic signal, otherwise the print will get canceled. Then release the green buttons.

3.5   STOP A PRINT
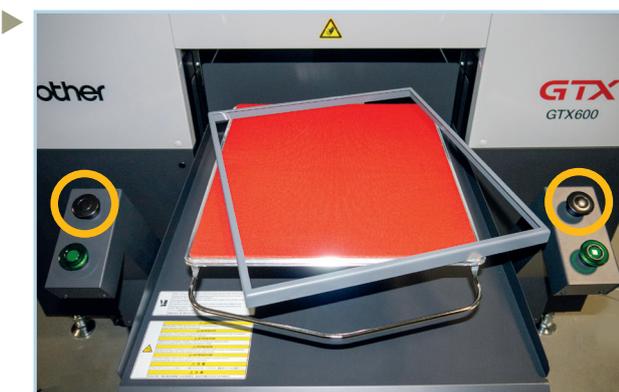
To cancel a print, press any of the black buttons. It is enough to press one of the two buttons. The printing process will stop immediately.

The platen movement will stop for safety reasons. The printhead carriage will move into capping position.

To move the platen out of the printer, press the platen movement button on the control panel.
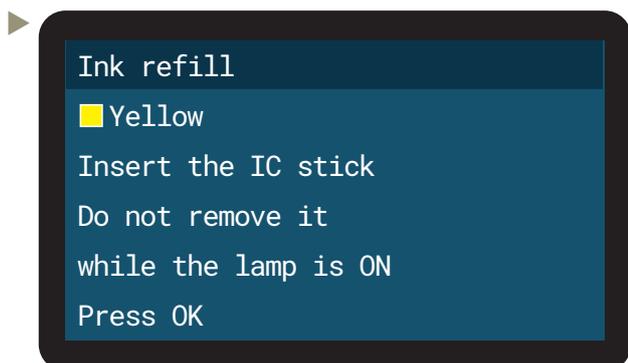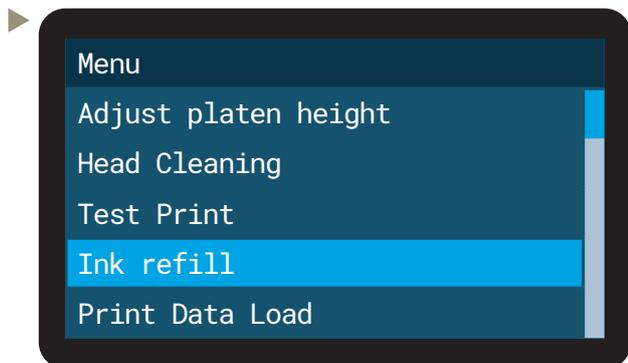
4 DURING DAILY WORK

4.1 REFILLING OF CMYK-INK AND CLEANING SOLUTION

First of all, the appropriate IC-Stick is required for the refilling of ink and cleaning solution. It is enclosed to every new refill container and should always be sticked to the respective container. The loss of the IC-Stick results to the loss of the whole ink or CS container!

Perform the following steps to refill CMYK ink or cleaning solution:

▶
```
Menu
Adjust platen height
Head Cleaning
Test Print
Ink refill
Print Data Load
```

▶
```
Ink refill
Black
Yellow
Cyan
Magenta
White
```

▶
```
Ink refill
▪Yellow
Insert the IC stick
Do not remove it
while the lamp is ON
Press OK
```

▶

Insert the IC-Stick of the liquid you want to refill and press OK.

▶

Open the lid of the respective ink container. Mount the nozzle or faucet to the refill container.

▶

Refill the ink or cleaning solution. Make sure to not exceed the line above the 6 mark.

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Close the lids. Pull out the IC-Stick and stick it back on the refill container.

▶ Press OK on the front panel to finish the ink refilling.

REFILLING OF WHITE INK

In general the chemical composition of white ink includes pigments and other substances which are not soluble. This insolubility might lead to sedimentation in white ink and has to be eleminated before the refill process starts.

If the white ink is not agitated well before refilling, the print result will not be acceptable and the refill container as well as the white ink in the **GTX600 NB** will be lost.

Tools that help to shake the white ink properly:
A: Fitness vibrating plate
B: Vibrational shaker
C: Gyroscopic mixer

Turn the container upside down and check it with a flashlight. If there is only foam, but no sedimentation left, you can start the refill process.

It is recommended to use a hydraulic scissor lift and the enclosed faucet to refill the white ink.

As mentioned before, the **GTX600 NB** has a humidifier to reach and hold the recommended humidification. The conductivity of the supplied water has to be <10 µS/cm.

If you use the **water supply method by tank**, make sure that the following conditions are met at all times:

A: Humidifier
B: Humidity sensor
C: Feed distilled water tank
D: More than 80 cm,
but not higher than
the main unit (the **GTX600 NB**)
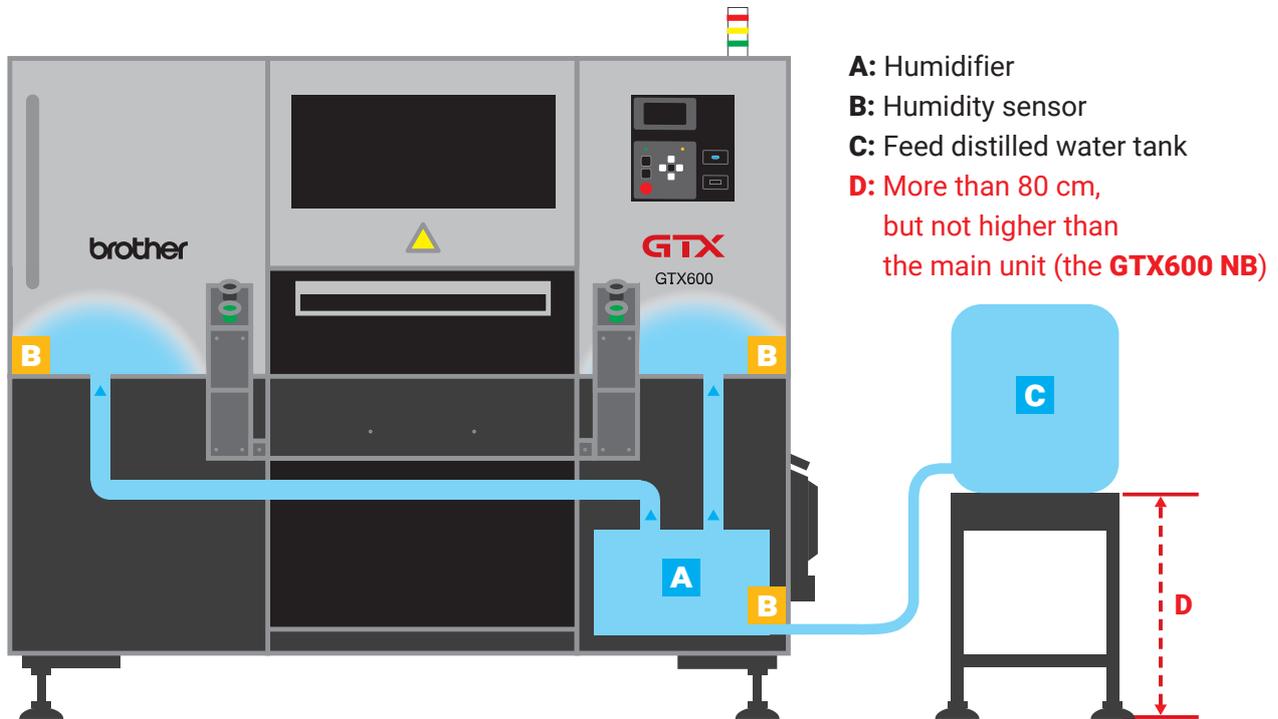
Water supply by tank requires normed distilled water:

· ASTM D 1193-06(2018) — Type 4
· ISO 3696 -1987 — Grade 3
· JIS-K0557 — A1

Do not use drinking/tap water. There should always be enough distilled water in the tank.

If you use the **water supply method by tap**, make sure to control the conductivity of your water at least once every week.

There is a conductivity meter mounted on the water filtration system. If the pointer of the display is in the green area (<10 µS/cm), everything is in order. If the value is >10 µS/cm, the de-ionyzer cartridges needs to be replaced.

Name (Pieces)	Cartridge DS150 (2pcs)
Spare Part Number	N40002074

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The **GTX600 NB** has 2 waste tanks on the left side of the machine. One tank for ink waste and one tank for water waste. The tanks stand on a scale and give a notification on the display, as soon as they need to be emptied.

Open the door on the lower left side of the printer.

Detach the tube of the tank you want to empty. Be careful to not create splashes with the waste ink tube.

Dispose the accumulated waste according to your local regulations.

Put back the emptied tanks as they were placed before. Reattach the tubes and close the door.

4.5 CHANGE PLATEN

It can be necessary to change the platen on the machine, to print on bigger garments or cloths. The platen can be changed with a few simple steps.

Turn the knob under the platen counter-clockwise.

Lift the platen straight up. Store the platen in a safe place.
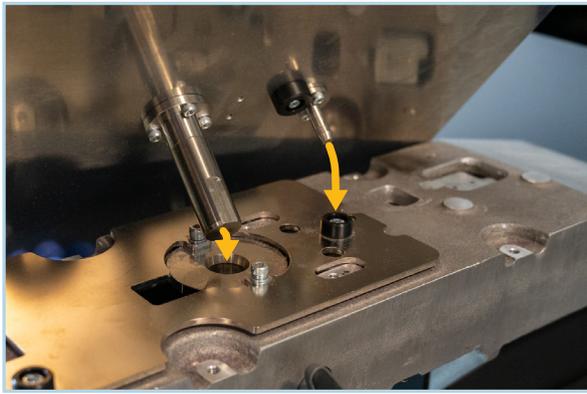
Align both stud bolts of the new platen, with the holes in the platen carriage.
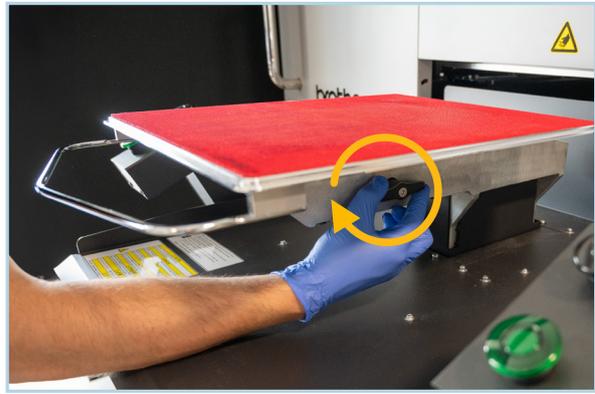
Turn the knob under the platen clockwise to lock it.

4.6 ▷ EVENT OF POWER FAILURE

In case of an power outage, you have to perform some steps to ensure the capping of the printheads. Make sure the printer is currentless to avoid a possible restart due to an unexpected return of power.
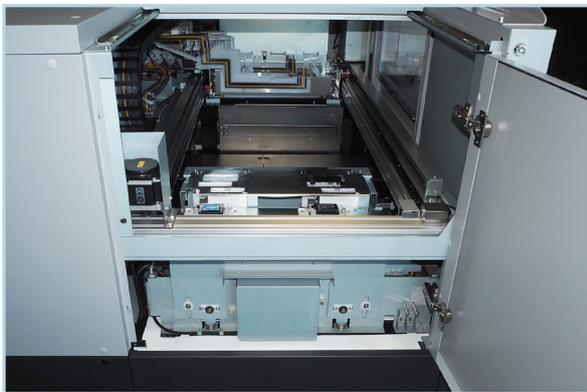
Open the upper door on on the left side of the **GTX600 NB**, with one of the enclosed keys.
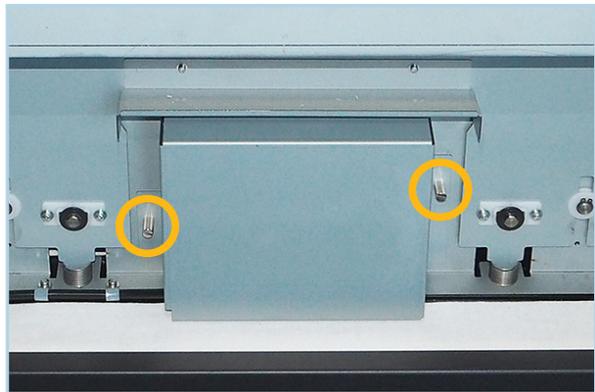
Remove the screws of the CAM cover by hand or with a flat headed screwdriver.

Remove the CAM cover by lifting it a little and then pulling it out.

Take one of the pins from the right side of the maintenance station.
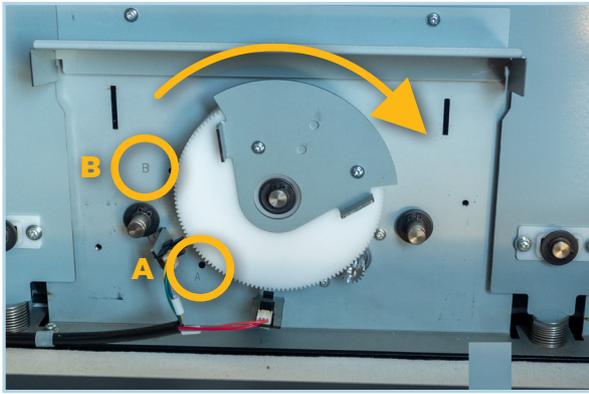
Stick the pin into hole **A** beside the gear. Then turn the gear clockwise till it hits the pin. This process lowers the maintenance station.
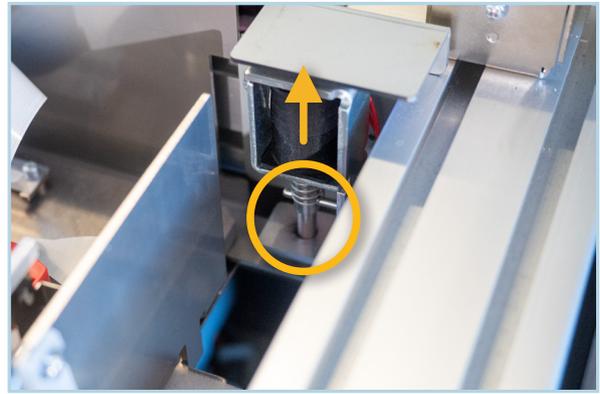
If you look at the carriage from above, you will find a fixing small pin on the right side. Lift that pin up and push the carriage a bit into the printer.
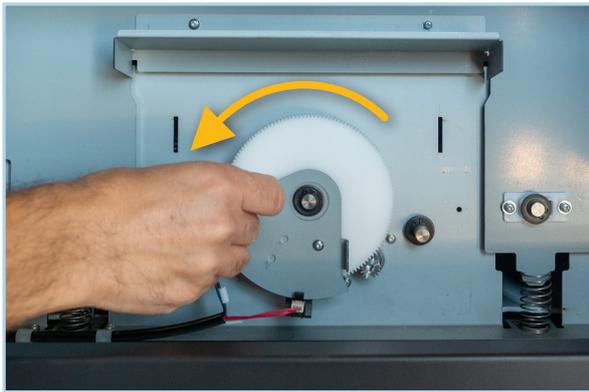
Move the carriage about 5 cm into the printer. Then move the pin from hole A into hole B. Turn the gear counter-clockwise until you hit the pin.
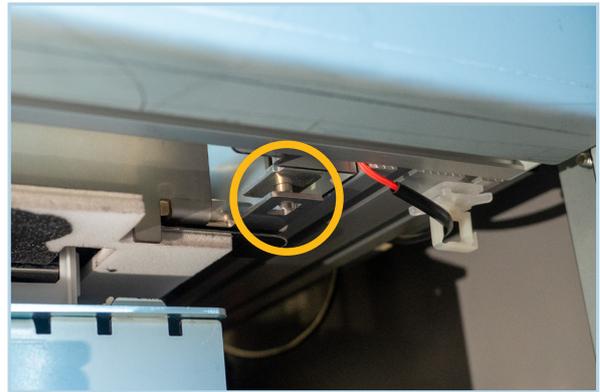
Now pull the carriage carefully to you till you hear a click. That means that the fixing pin is back in position and your printheads are capped.

5 MAINTENANCES

The **GTX600 NB** gives a display message if any cleaning or part replacement is necessary.

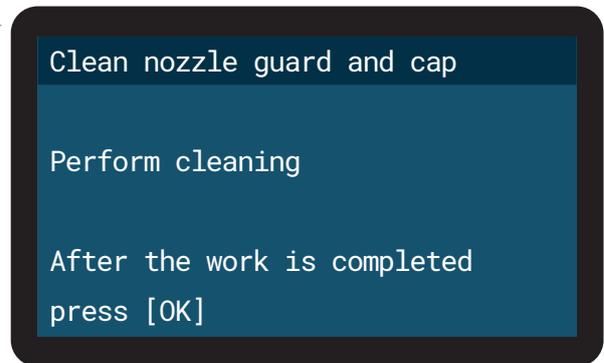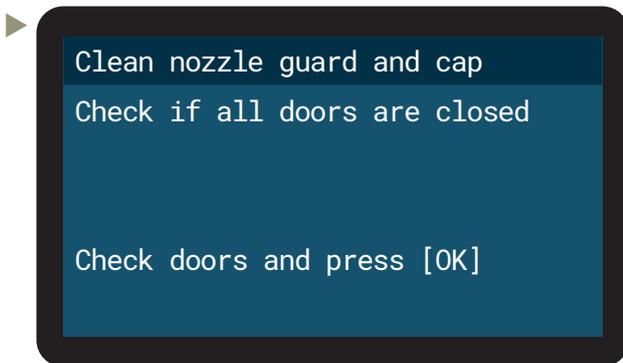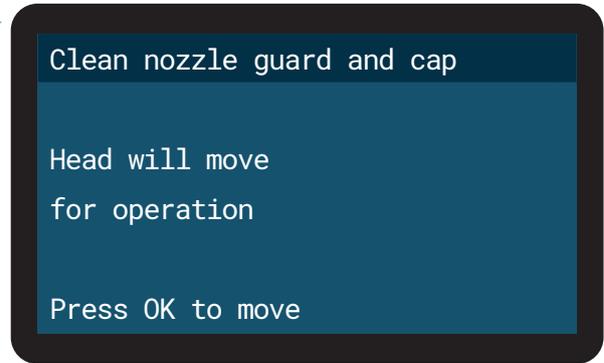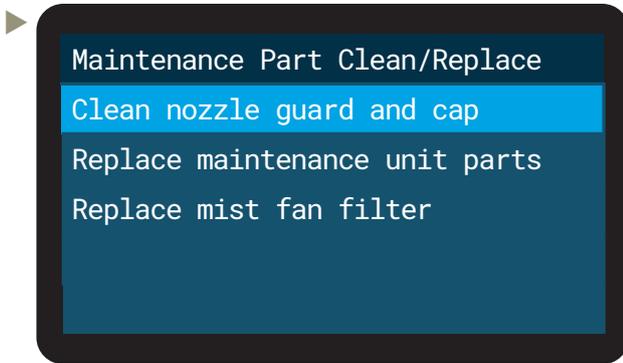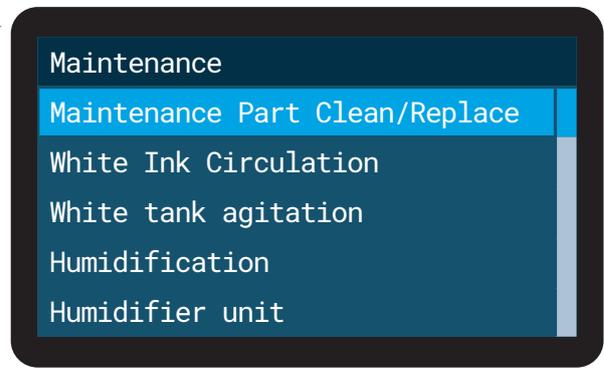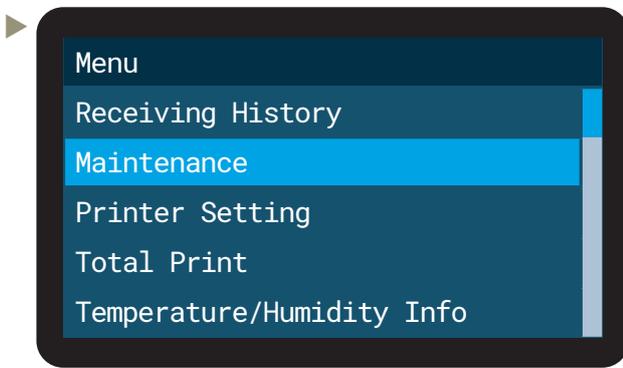## 5.1 CLEANING OF THE NOZZLE GUARDS AND CAPS

A display warning appears after 5,000 prints or 2 weeks. An error occurs after 7,500 prints or 3 weeks.

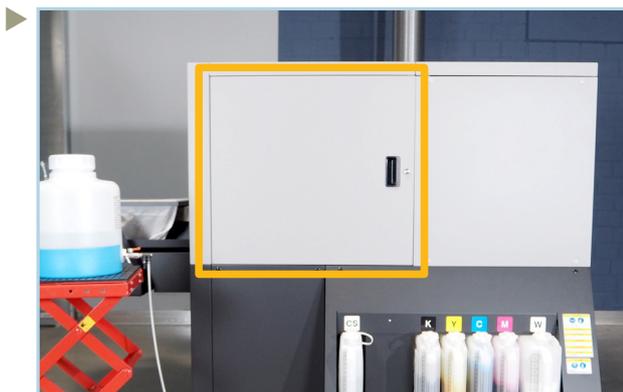The following parts are required for the cleaning of the nozzle guards and caps:
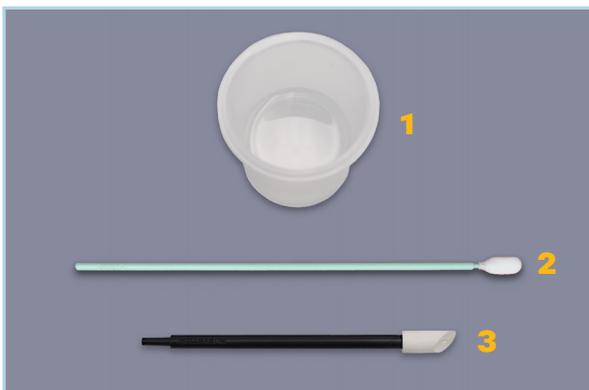
#	Name/Spare Part No.	Qty
1	Cleaning Cup SB6925001	2
2	Cleaning Stick T N40001601 (100 pcs)	4
3	Cleaning Stick R SB7008001 (50pcs)	4
-	Cleaning Solution GCX-6E18L	-

```
Menu
Receiving History
Maintenance
Printer Setting
Total Print
Temperature/Humidity Info
```

```
Maintenance
Maintenance Part Clean/Replace
White Ink Circulation
White tank agitation
Humidification
Humidifier unit
```

```
Maintenance Part Clean/Replace
Clean nozzle guard and cap
Replace maintenance unit parts
Replace mist fan filter
```

```
Clean nozzle guard and cap

Head will move
for operation


Press OK to move
```

```
Clean nozzle guard and cap
Check if all doors are closed



Check doors and press [OK]
```

```
Clean nozzle guard and cap

Perform cleaning

After the work is completed
press [OK]
```

► From this point, you have a **25 minutes time frame** to perform the following actions.

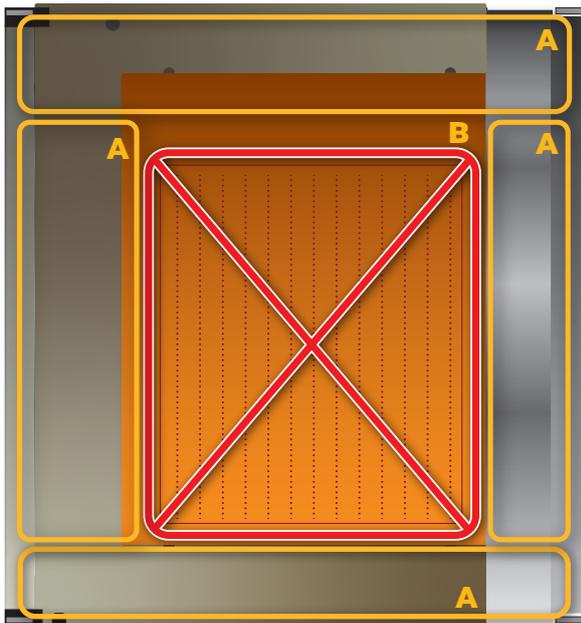Unlock the door on the right side of the printer with the keys, and open it.

First remove coarse ink lumps. Only use your hands with gloves and cleaning sticks! Never touch the nozzle areas of the printheads.

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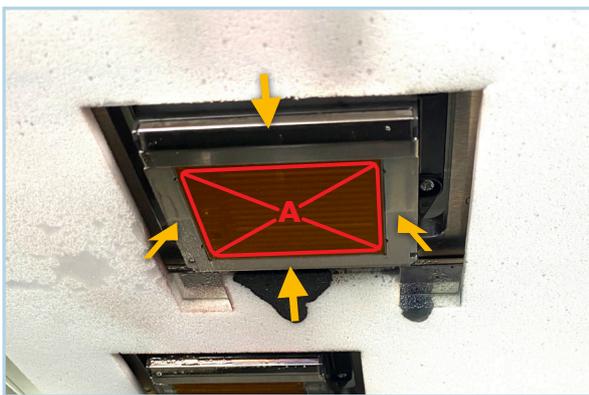Fill two Cleaning Cups with 10 - 20 ml of Cleaning Solution. Prepare 4 Cleaning Sticks R.

A: These are the areas that needs to be cleaned.

**B**: Never touch the nozzle area under any circumstances! Touching the nozzle area will cause malfunctions.

Use one Cleaning Cup for the CMYK printheads only. Use the other Cleaning Cup for the white ink printheads only. Do not mix them!

Use (at least) one Cleaning Stick per printhead.

Do not re-use Cleaning Sticks or Cleaning Solution. Dispose the used Cleaning Solution into the waste ink tank.
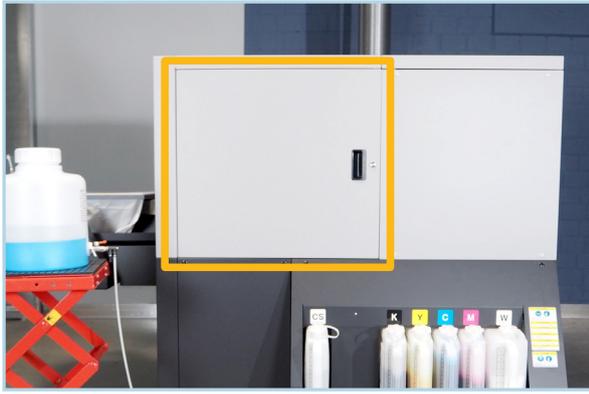

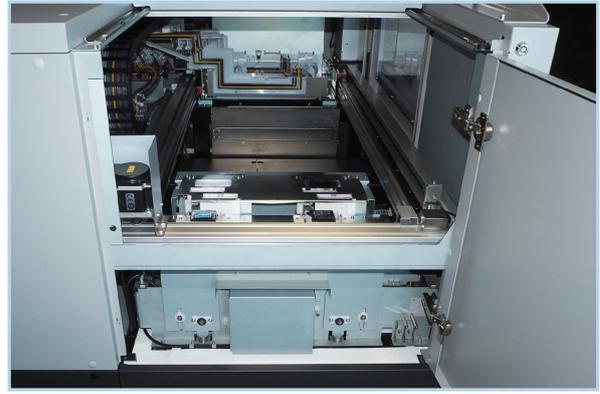Clean the nozzle guards from the shown sides with the Cleaning Sticks R. Do not touch the nozzle area **A**!
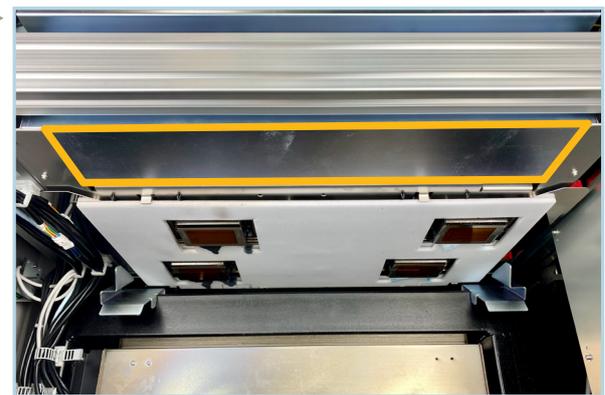
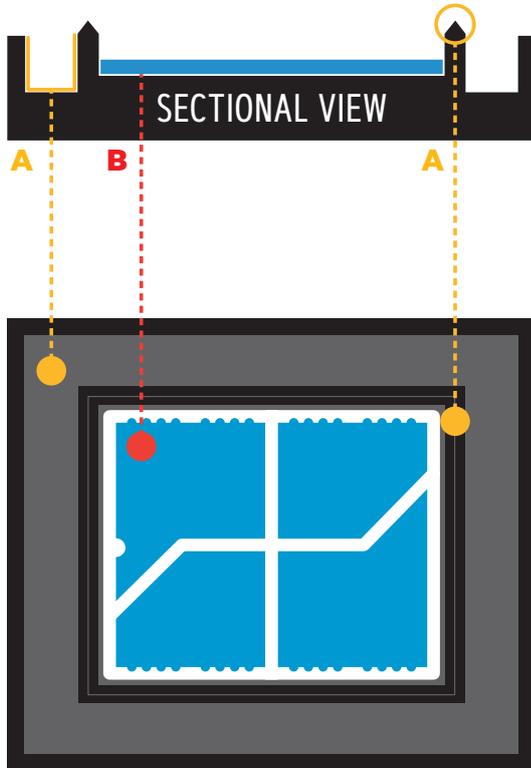Clean this area with a waste cloth.

brother

Close the door and lock it.

Open the left upper door and the door on top. You also need a GTX6 key for that.

Fill two Cleaning Cups with 10 - 20 ml of fresh Cleaning Solution. Prepare 4 Cleaning Sticks T.

**A**: These are the areas that needs to be cleaned. Clean it all around.

B: Do not clean the foam area or the foam frame.

Use one Cleaning Cup for the CMYK capping only. Use the other Cleaning Cup for the white ink capping only. Do not mix them!
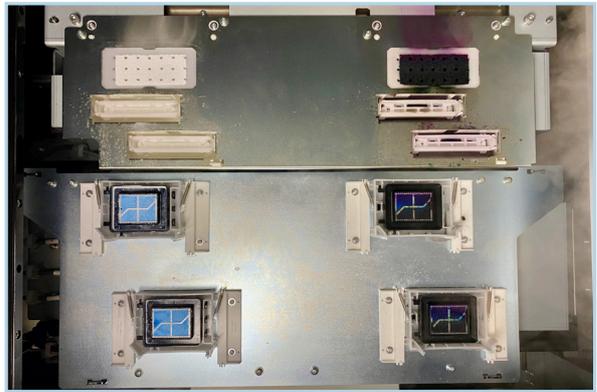
Use (at least) one Cleaning Stick per capping.

Do not re-use Cleaning Sticks or Cleaning Solution. Dispose the used Cleaning Solution into the waste ink tank.

brother
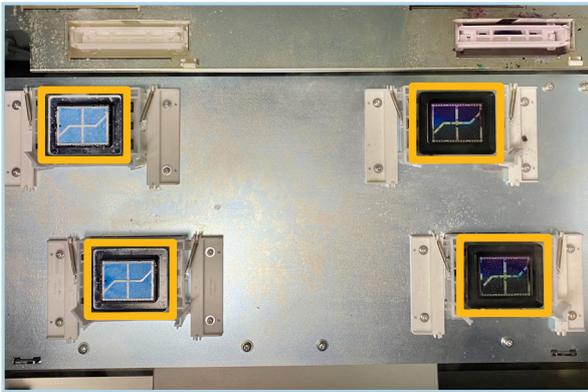
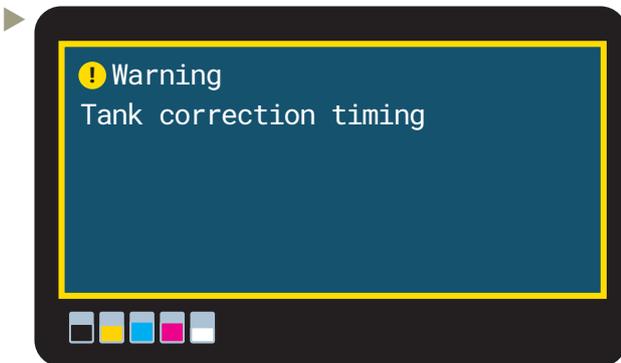Clean the cappings on the maintenance station.

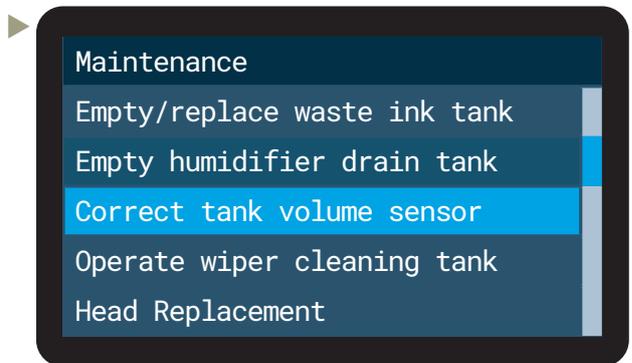Clean the metal surfaces around the cappings, wiper and flushing pads with a waste cloth.

▶ Clean the Cleaning Cups. They are re-usable.

| 5.2 | INK LEVEL CALIBRATION |

If needed, the **GTX600 NB** requests a manual ink level calibration.
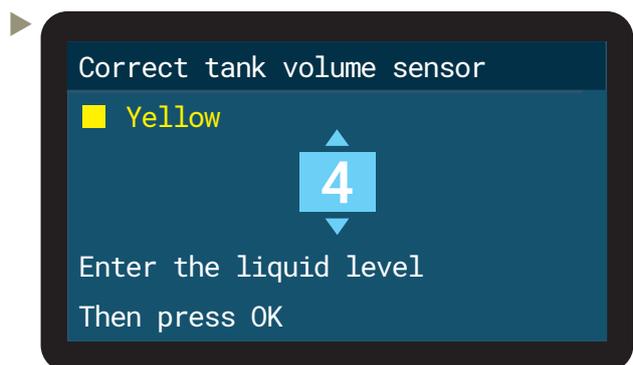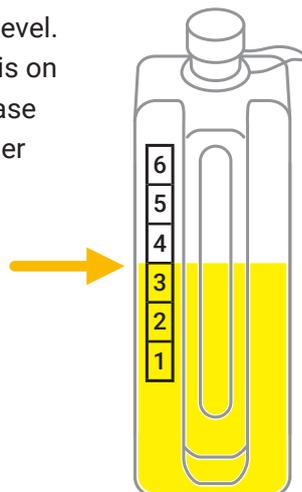
▶

If this warning is displayed, ink tank calibration must be performed.

▶

Select **Correct tank volume sensor**.

▶ Check the ink level. If the ink level is on the border please select the higher number.

▶

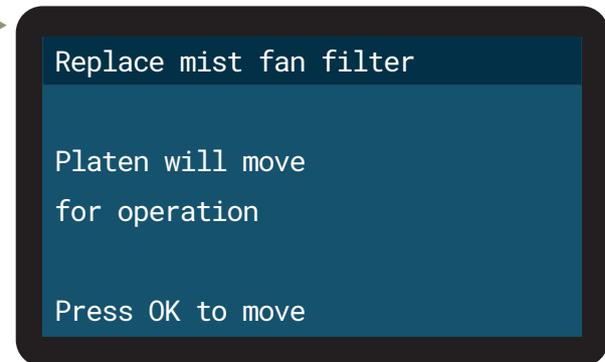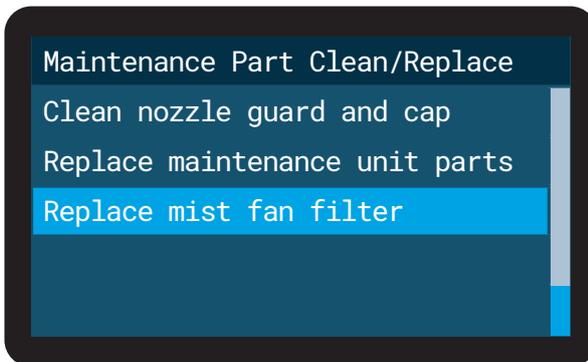A flashlight is helpful to check the ink level of the white tank.

5.3 MIST FAN FILTER REPLACEMENT

The display warning appears after 5,000 prints or 2 weeks. An error occurs after 7,500 prints or 3 weeks.

The following parts are required for the replacement of the Mist Fan Filters.

#	Name/Spare Part No.	Qty
-	Mist Fan Filter Set SC5066001 (2pcs)	1

▶
```
Menu
Receiving History
Maintenance
Printer Setting
Total Print
Temperature/Humidity Info
```

▶
```
Maintenance
Maintenance Part Clean/Replace
White Ink Circulation
White tank agitation
Humidification
Change humidifier water
```

▶
```
Maintenance Part Clean/Replace
Clean nozzle guard and cap
Replace maintenance unit parts
Replace mist fan filter
```

▶
```
Replace mist fan filter


Platen will move

for operation


Press OK to move
```

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▶
```
Replace mist fan filter
Check if all doors are closed



Check doors and press [OK]
```

▶
```
Replace mist fan filter


Keep Hands away
Platen is moving
```

▶
```
Replace mist fan filter



Perform replacement
```
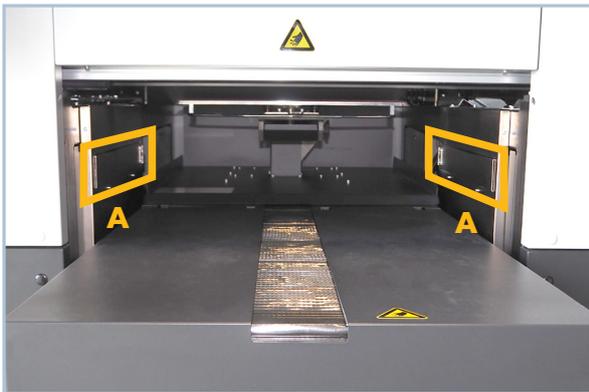
▶ Clean all areas around the Mist Fan Filter with vacuum cleaner and Cleaning Sticks to remove all dust clumps. Replace the Mist Fan Filter. Do not use Cleaning Solution.

A: Position of the Mist Fan Filter
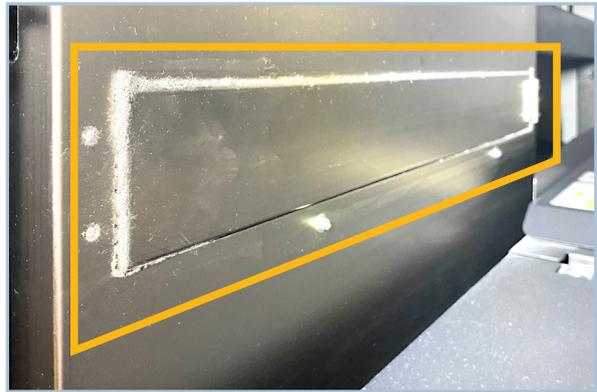
Clean the doors of the Mist Fan Filter and the surrounding area
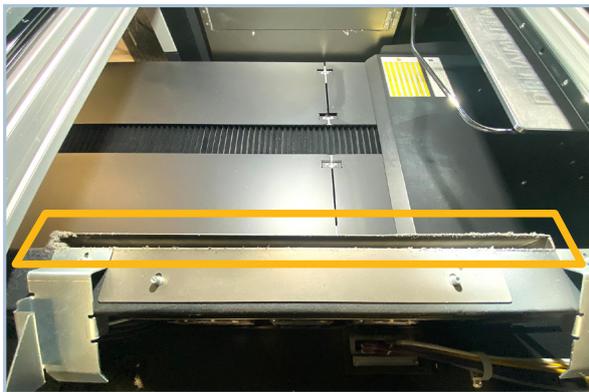
Open cover on right and left side of the **GTX600 NB** for cleaning cavities above the Mist Fan Filter.

B: Push and release
C: Open the cover

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Remove the Filter and clean the compartment.

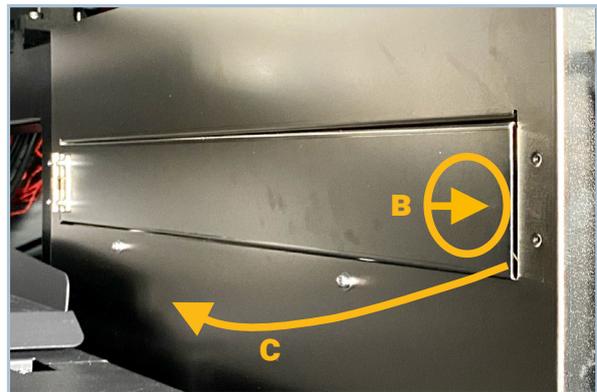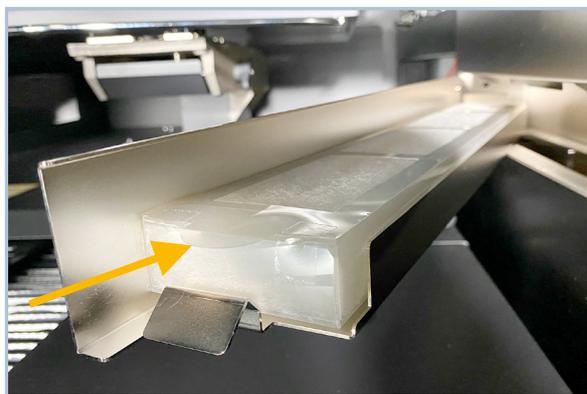Insert the new Filter and close the compartment.


```
Replace mist fan filter



Perform replacement


Press [OK]
```

5.4 25k MAINTENANCE

The 25k maintenance needs to be performed every 25,000 prints after a bigger maintenance. That means at 25k, 75k, 125k, 175k prints and so on. **The 50k, 100k and 200k maintenances must be performed by the responsible dealer.**

The 25k maintenance contains general cleaning and the replacement of Wiper Blades, Cappings, Flushing Foams and the Carriage Foam.

A TIP-Sheet how to perform the 25k maintenance can be found on Brother BASE:

Go to https://base.brother.digital > TIP-Sheets > GTX600 NB > Maintenances
or
https://base.brother.digital/tip-sheets/gtx600-nb/maintenances/

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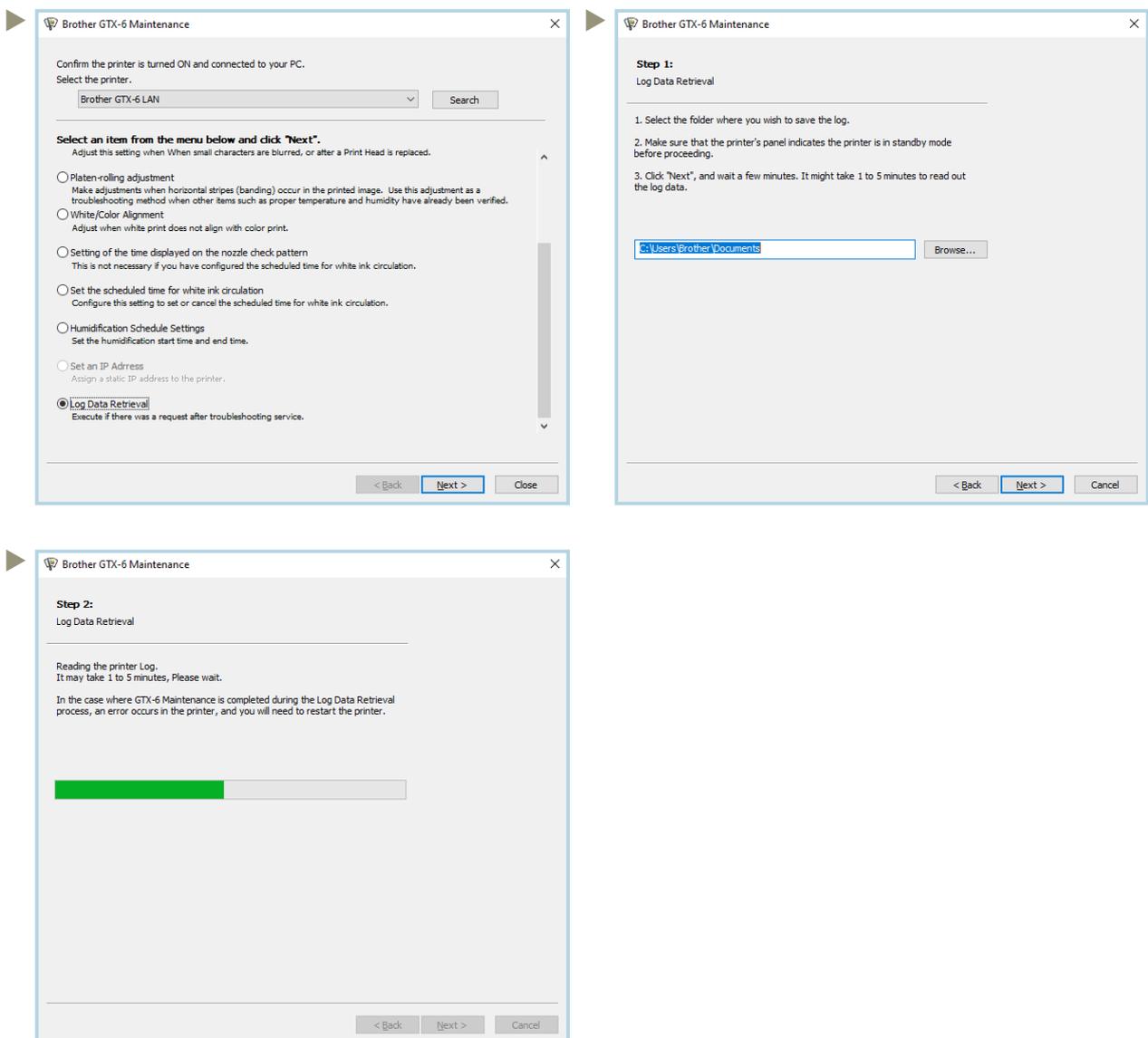If you need technical support, the technician can ask you for a log file of the printer, which is necessary to solve the problem.

Insert a USB stick in the front slot of the **GTX600 NB** to be able to copy the logfile. Then use the menu:

It is also possible to create a logfile with the Maintenance Tool from your PC:

6 ORDER LISTS

Inks

Name	Quantity	Order Number
C CYAN Ink (9 L)	1	BGCX60C009L0132
M MAGENTA Ink (9 L)	1	BGCX60M009L0132
Y YELLOW Ink (9 L)	1	BGCX60Y009L0132
K BLACK Ink (9 L)	1	BGCX60K009L0132
W WHITE Ink (18 L)	1	BGCX60W018L0032

Liquids

Name	Quantity	Order Number
CS Cleaning Solution (9 L)	1	BGCX60E009L0032
CS Cleaning Solution (18 L)	1	BGCX60E018L0032
PT PreTreatment (5 kg)	1	BGCX40P005K0042
PT PreTreatment (20 kg)	1	BGCX40P020K0032
PT PreTreatment (200 kg)	1	BGCX40P02HK032
PT Vivid Bright (4 L)	1	N40001910
PT Vivid Bright (10 L)	1	N40002470
PT Polyester Pretreatment (2 L)	1	N40000224

Platen

Name	Quantity	Order Number
XS Platen 7 x 8 in (17,8 x 20,3 cm)	1	N40002043
S Platen 10 x 12 in (24,4 x 30,5 cm)	1	N40002039
M Platen 14 x 16 in (35,6 x 40,6 cm)	1	N40002038
L Platen 16 x 18 in (40,6 x 45,7 cm)	1	N40002040
XL Platen 18 x 22 in (46,3 x 56,5 cm)	1	N40002041
XXL Platen 24 x 24 in (60,9 x 60,9 cm)	1	N40002042
DTF Platen 14 x 16 in (35,6 x 40,6 cm)	1	N40002514

Contact your responsible dealer if you are interested in any kind of custom platen.

DTF Sheets

Name (Pieces)	Quantity	Order Number
Schulze DTF Sheet A3 (100)	1	N40002302
Schulze DTF Sheet 40x50 cm (100)	1	N40002303
ITEX DTF Sheet A3 (250)	1	N40002094
ITEX DTF Sheet 32x45 cm (500)	1	N40002374

DTF Powder

Name	Quantity	Order Number
Schulze DTF Powder (1.5 kg)	1	N40002096
Schulze DTF Powder (5 kg)	1	N40002095
Schulze DTF Powder (20 kg)	1	N40002094
ITEX DTF Powder (2 kg)	1	N40002374
ITEX DTF Powder (20 kg)	1	N40002373

Spare Parts (mentioned above)

Name (Pieces)	Quantity	Order Number
Cleaning Stick R (50)	1	SB7008001
Cleaning Stick T 100)	1	N40001601
Cleaning Cup (1)	1	SB6925001
Mist Fan Filter Set (2)	1	SC5066001

Brother BASE - Your download area

If Firmware Updates, Graphics Lab or Cookbooks, at **Brother BASE** you can find all the knowledge and tools you need for a convenient experience with your industrial printer from **Brother**. You will also find driver, apps, third-party manuals, TIP-Sheets, certificates and more.

https://base.brother.digital

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