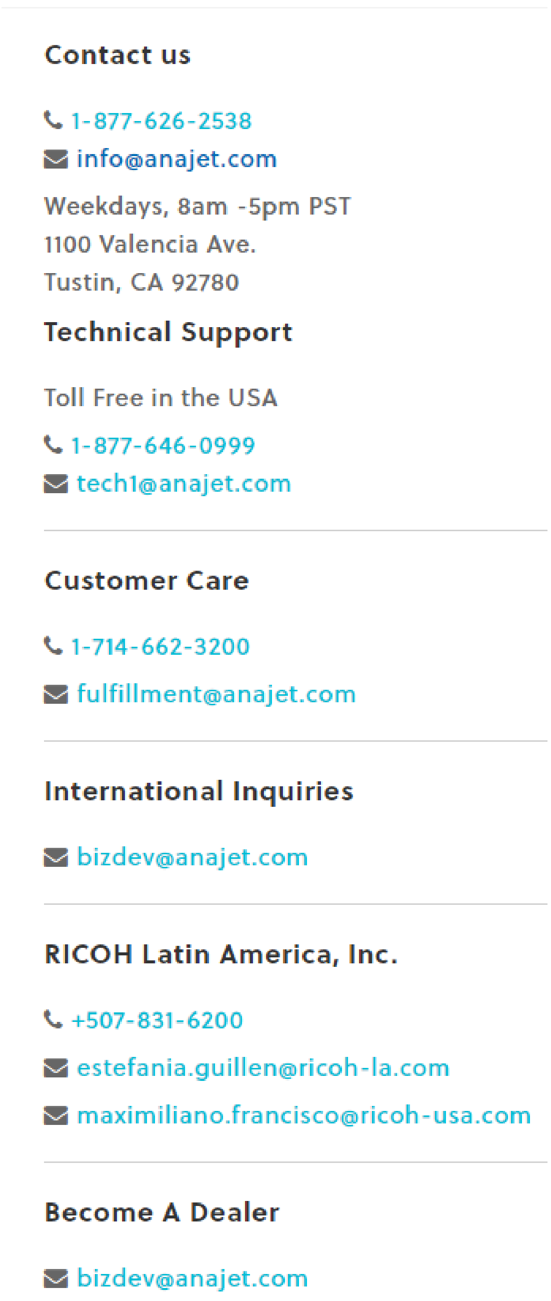
RICOH

RICOH
Ri 2000
User Manual

For safe and correct use, be sure to read the Safety Information in Safety Information and Quick Installation Guide before using the machine.

Version 1.0



Contact us

☎ 1-877-626-2538
✉ info@anajet.com

Weekdays, 8am -5pm PST
1100 Valencia Ave.
Tustin, CA 92780

Technical Support

Toll Free in the USA

☎ 1-877-646-0999
✉ tech1@anajet.com

Customer Care

☎ 1-714-662-3200
✉ fulfillment@anajet.com

International Inquiries

✉ bizdev@anajet.com

RICOH Latin America, Inc.

☎ +507-831-6200
✉ estefania.guillen@ricoh-la.com
✉ maximiliano.francisco@ricoh-usa.com

Become A Dealer

✉ bizdev@anajet.com

Rev.	Date	Author	Description	
Draft	6/16/20	Alan McManus	Initial Draft	
1.0	9-14-2020	Alan McManus	Initial release	

Contents

Ready
26.5°C 38.2%
Regular Maintenance
NOZ
ENANCE
WHITE
COLOR
CLEANING
RETURN

How to Read the Manual

Disclaimer

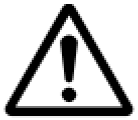
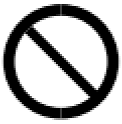
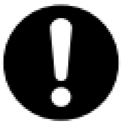
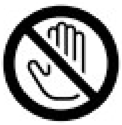
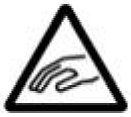
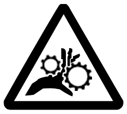
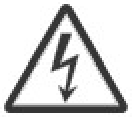
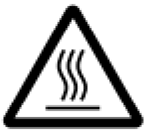
Contents of this manual are subject to change without prior notice.
To the maximum extent permitted by applicable laws, in no event will the manufacturer be liable for any damages whatsoever arising out of failures of this machine, losses of the registered data, or the use or non-use of this product and operation manuals provided with it.
Make sure that you always copy or have backups of the data registered in this machine. Documents or data might be erased due to your operational errors or malfunctions of the machine.
In no event will the manufacturer be responsible for any documents created by you using this machine or any results from the data executed by you.

Notes

Read this manual carefully before you use the product and keep it handy for future reference.
For safe and correct use, be sure to read Safety Information before using the machine.
The manufacturer shall not be responsible for any damage or expense that might result from the use of parts other than genuine parts from the manufacturer with your products.
For good output quality, the manufacturer recommends that you use genuine ink from the manufacturer.
Some illustrations in this manual might be slightly different from the machine.
Certain options might not be available in some countries. For details, please contact your local dealer. Depending on which country you are in, certain units may be optional. For details, please contact your local dealer.

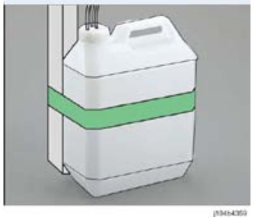
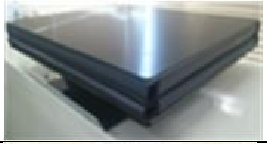
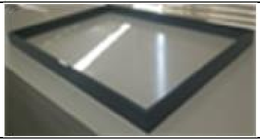
Safety Symbols for This Machine

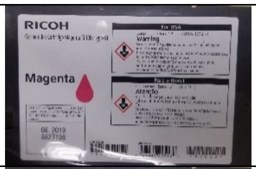
The meanings of the safety symbols for this machine are as follows:

	Caution
	Prohibition
	General mandatory action sign
	Do not touch
 	Caution, risk of having hands or arms caught
	Caution, risk of electric shock
	Caution, hot surface

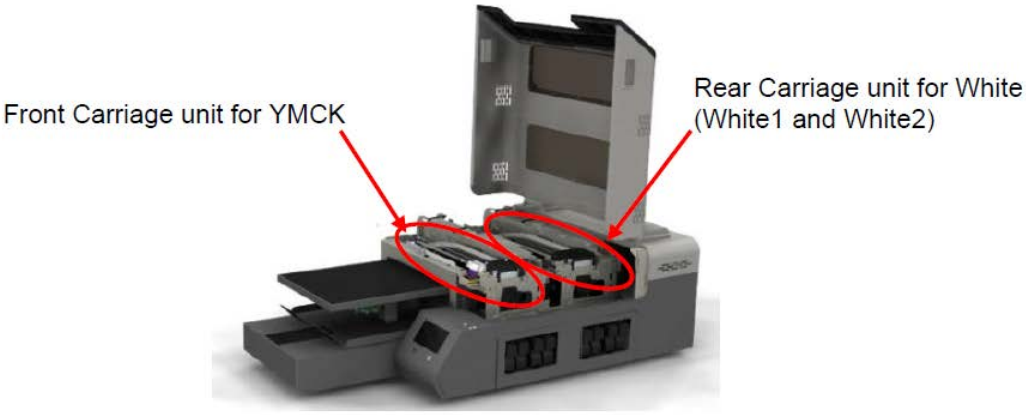
1 Before You Begin

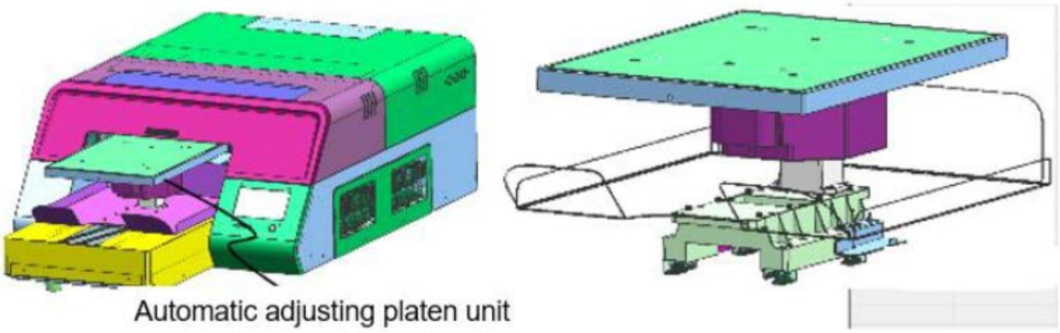
Accessory Box Contents:

No.	Description	Q'ty	Images
1	Power cord	1	
2	Ethernet cable	1	
3	Waste ink bottle	1	
4	Waste ink tubes / with cap	1 set	
5	Medium platen	1	
6	Medium frame	1	
7	CG RIP USB dongle	1	
8	Cleaning liquid	1	
9	Cleaning applicators	1	
10	Lint free wipes	1	

No.	Description	Q'ty	Images
11	Heat press paper	1	
12	Grease	1	
13	Polyethylene gloves	5	
14	Squeegee	1	
15	Head cleaning jig	1	
16	Cleaning absorber	24	
17	Head moisturizing cap	2	
18	Safety & Quick Installation Guide	1	
19	Black pretreated shirt	2	
20	Syringe Kit	1	
21	Ink Cartridges CMYK Qty 2W1 Qty 2 W2	1 set	
21	Cleaning Cartridges CMYK Qty 2W1 Qty 2 W2	1 set	
22	Pretreatment	1	Image Armor Ultra
23	User manual	1	
24	Hoop hanging clips	2	
25	Transparency sheets	10	

1.2 Part Identification


Front Carriage unit for YMCK
Rear Carriage unit for White (White1 and White2)



1.3 Important

- **DO NOT POWER OFF THE PRINTER**
  This printer periodically circulates ink internally and automatically performs head cleaning. If you do not use the printer for a long time, it will require charge/fill the printer with cleaning solution

- Perform maintenance as outlined in the maintenance schedule
  The printer will perform automatic maintenance periodically. But if you do not maintenance periodically, the ink in the cartridge could settle and/or coagulate, causing poor image quality or printer failure. A

- Some parts require periodical replacement
  This printer includes parts that require replacement due to usage.
  Parts that must be replaced by a service representative. NOTE: If a part has reached the end of its service life, as outlined in section, it will not be replaced under warranty as it is considered a consumable. Though the end of service life, if there is no symptom of failure the part can still be used and the printer will still be fully functional.

- If the printer encounters an error message, be sure to resolve the issue before continuing use as the self-maintenance functions will not work if there is a current error being experienced by the printer.

Need to know – Follow these steps as out lined below to keep your printer in optimum working condition

Warning! - failure to follow these steps could cause printer damage and possibly void the warranty

7 Essential Tips for Keeping Your RICOH Ri 2000 in Top Shape

As part of our commitment to your success, we want to make sure that you are getting optimal performance from your RICOH Ri 1000 while also minimizing any issues that easily can be prevented by following a few simple tips:

1. **Always leave your printer on** to allow the machine's automated maintenance sequences to run. This is necessary to keep the printer in optimal condition and avoid potential damage that can be prevented easily. If it is necessary to power down the machine for over 12 hours, be sure to fill your printer with cleaning fluid. Refer to Section 8.3 of your User Manual for more information.
2. **Always shake new white ink cartridges thoroughly before installing them** in your printer. Adequately shaking your new white ink cartridges helps ensure that

your prints will come out bright and vibrant. Refer to the User Manual, page 18, for more information. **Also shake the ink cartridges each day** as prompted by the printer

3. **Make sure your white ink is at 1% or above when you are done printing** for the day or plan on leaving your printer idle for a few hours. The machine's vital automated maintenance sequences require at least 1% or above in order to complete. If you do not have replacement ink available, you can fill your printer with cleaning fluid. Refer to Section 8.3 of your User Manual. Your printer will prompt you when a cartridge becomes low on ink (20% for colors and 40% for white). At this time make sure you have replacement ink available to continue operation.
4. **Perform a nozzle check daily**, so you can spot and quickly address potential issues with the printer.
5. **Perform maintenance as instructed by the printer prompts and maintenance guide -** refer to chapter 8 for detailed instructions– just a quick wipe of the white and color encoder – thorough clean of the maintenance station and jig cleaning of the print heads. Failure to perform maintenance will eventually lead to the autocleaning procedures that the printer uses to always be ready to print to not clean adequately which can lead to printer damage.
6. **Check the downloads page** to ensure you are on the most up to date firmware and ColorGATE software version.
7. **Always perform auto height when changing substrates that you are printing on –** If you are printing on a thick fabric like a sweat shirt and then switch to a regular T shirt – perform auto height to ensure the fabric is the correct distance from the print heads. Failure to do this can result in the print heads being to far away from the fabric which can lead to sub standard prints. The overspray will also increase and this can damage the printer as the exhaust fans are designed to handle the overspray when the height is set correctly

BONUS TIP: Contact our Technical Support team when you have questions or concerns about your machine. We're here to help! Technical

Support can be reached at 877-646-0999, Monday – Friday, 8:00 am – 4:00 pm PST or by email at tech1@RicohDTG.com.

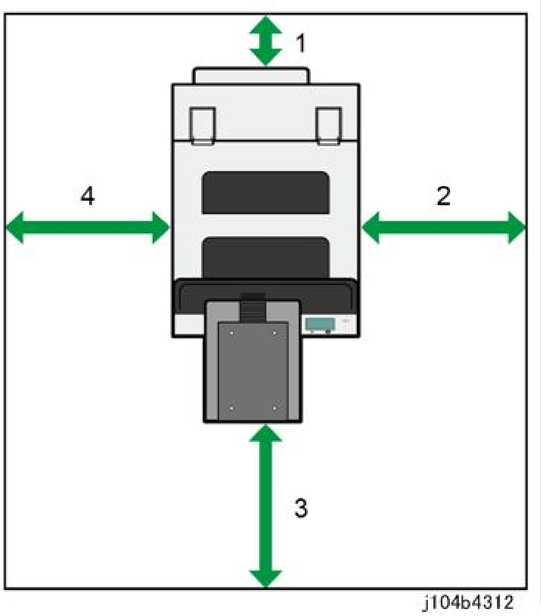
1.4 Installation

Space Needed for Printer

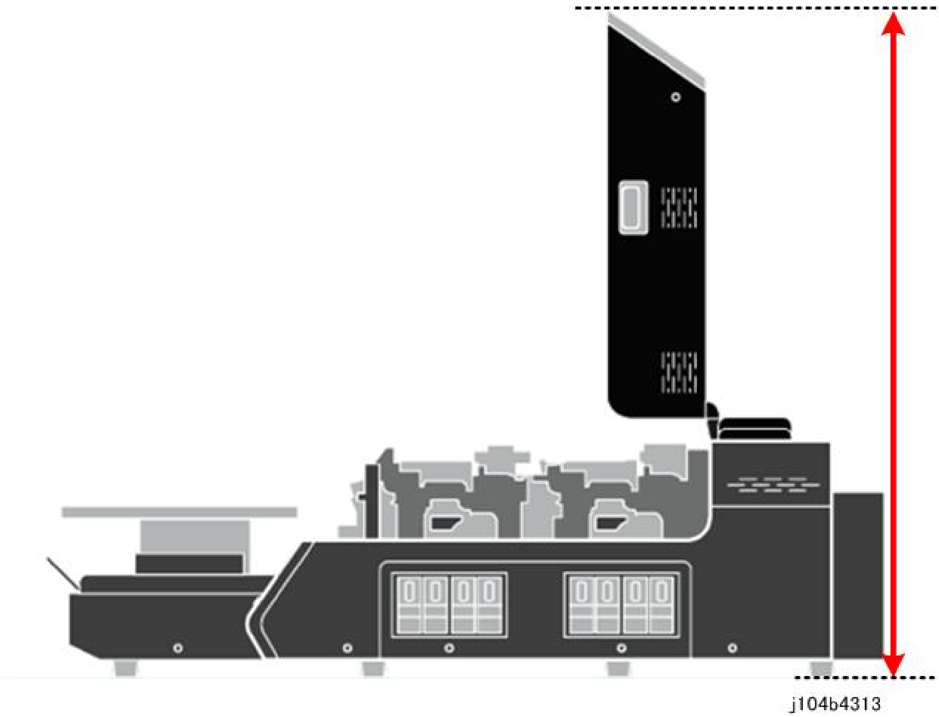
Installation Requirements and Preparation

Location. Place the machine near the power source, with the clearances shown below. The clearances are required for both efficient operation and servicing.

1. Rear: 50 mm (2.0 in.) or more
2. Right: 600 mm (23.6 in.) or more
3. Front: 600 mm (23.6 in.) or more
4. Left: 600 mm (23.6 in.) or more



5. Height: 1390 mm (54.7 in.) or more



Needs for installation:

Reliable Power source/outlet. Consider using a UPS if your area's power is unreliable.

Temperature and Humidity

- Set up an electronic thermo hygrometer near the machine to monitor ambient temperature and humidity.
- The target ranges for temperature and humidity are 15°C to 32°C (59°F to 90°F) and 45% to 80% RH (with no condensation).
- The machine will display an alert if either temperature or humidity is out of range.
- If the ambient temperature or humidity is out of range, a small sensor inside the carriage will detect this condition and shut down the machine. (This temperature/humidity sensor inside the carriage is not a service part.)

Humidity

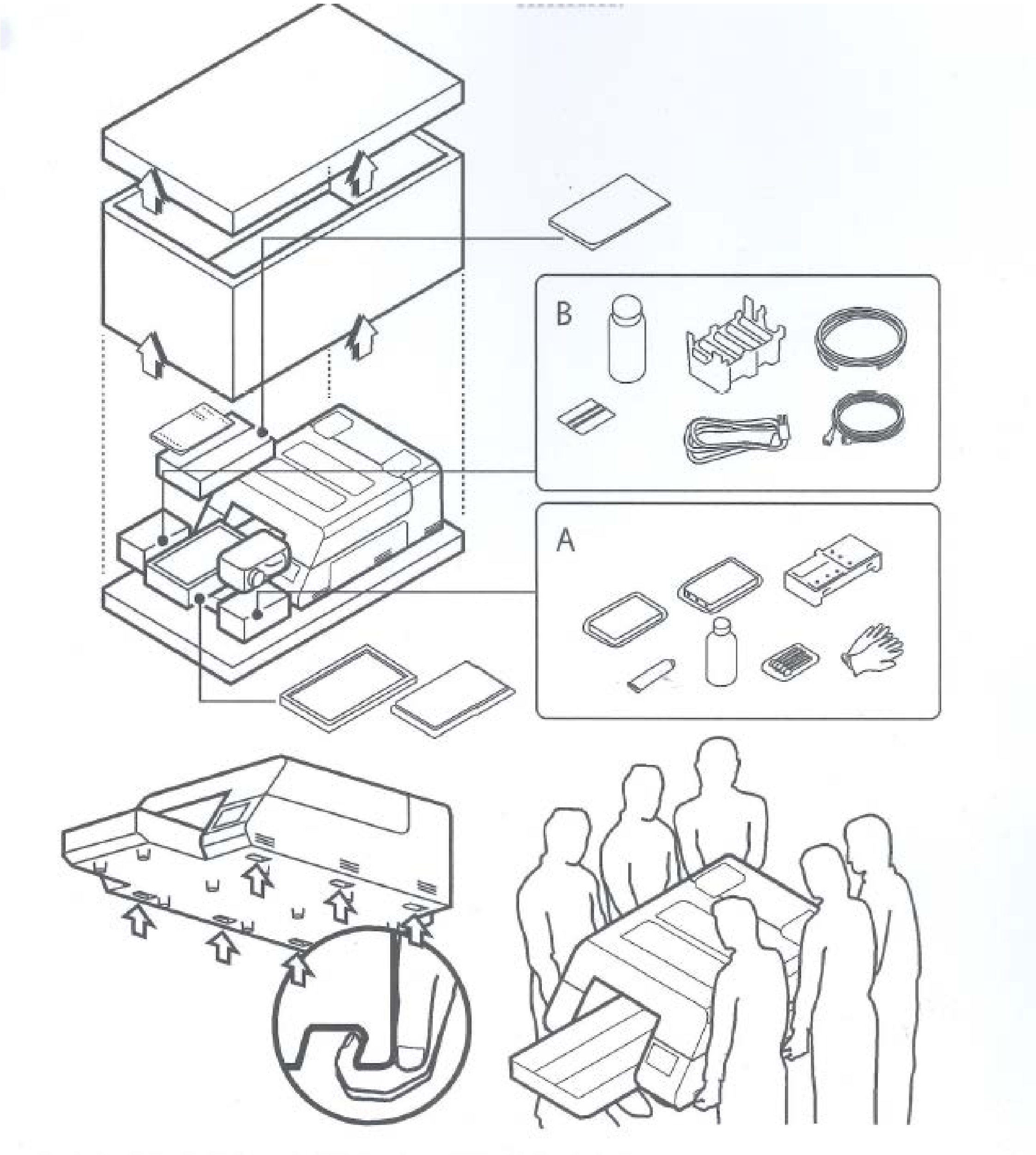
- Ambient humidity must remain more than 45% RH, regardless of temperature. If humidity falls below 45% this can cause ink to dry faster and cause ink to clog at the print heads and in the maintenance unit.
- If ambient humidity goes higher than 80% with condensation, regardless of temperature, the ink may be easily oozed (for example, because the media is damp).

Temperature

- If temperature falls lower than 15°C (59°F) this will interfere with ink ejection (due to higher viscosity) at the print heads and can lead to ink scattering due to deflection and result in poor images. The increase in viscosity at low temperature will also cause problems with ink pumping and operation of the maintenance unit. The slower flow rate of the ink, due to high viscosity, will also decrease the amount of ink that reaches the print head tanks.
- If temperature goes higher 32°C (90°F) this can also cause ink scattering and result in poor quality images. Higher temperatures can also cause electrical components like motors, solenoids, etc. to fail.

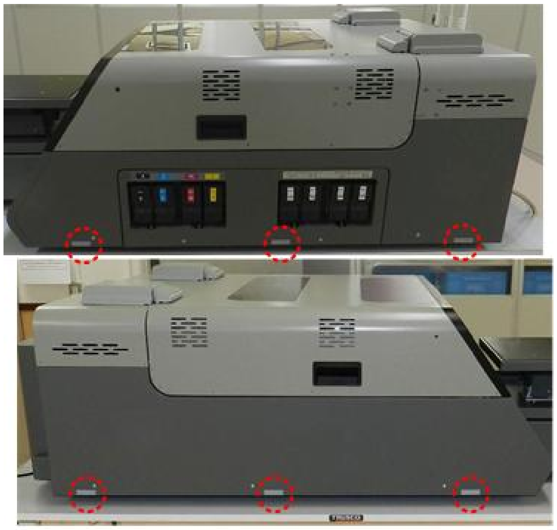
Altitude. Use at an altitude of 2,500 m or less.
Heat Press or conveyer dryer. Required to cure in after printing for heat curing the ink. A power source separate from the printer is required.
Strong table. A stable, sturdy, and level table for the machine. 140 kg (308 lb.).
Operating system. PC computer with Windows 8.1 or Windows 10 operating system.
Graphics software. Installed on the PC (Photoshop, CorelDraw, Photoshop Elements, or Illustrator)
HVLP electric sprayer. High Volume Low Pressure electric sprayer (or other type of sprayer) for pre-treatment of dark garments.

Unpacking and Installing the Printer



1. Keep the shipping box right side up.
2. Remove bubble wrap and straps.
3. Remove top lid, upper foam, and separator sleeve.

The six decals on both sides of the printer show where each person (three on each side as shown



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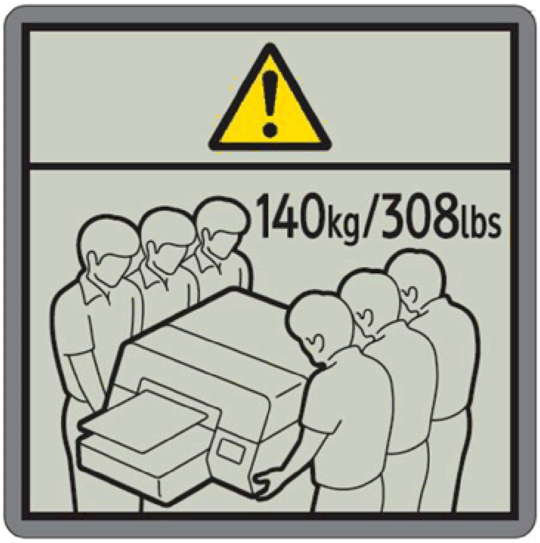
Important

- Six people are required to lift and move the printer safely. Never lift the printer by the table frame on the front of the printer.



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4. Place the printer on the table.

Setting Up Your Printer

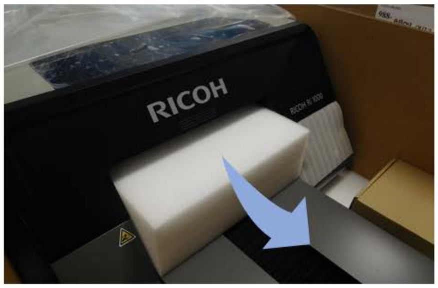
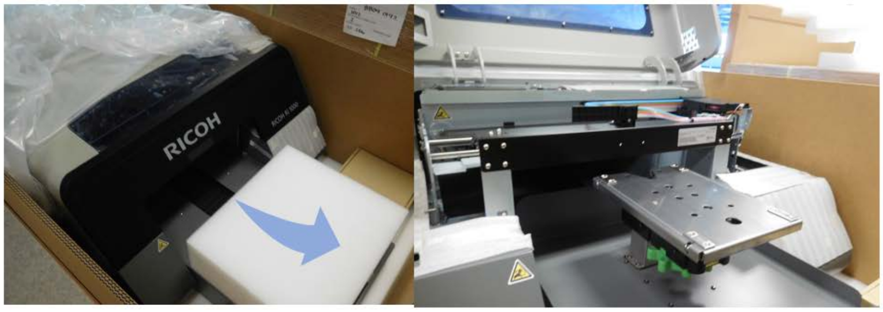


Table in printer is secured by Foam block. Please remove before startup



Hold foam block on the side and gently pull forward. With block removed, continue with set up steps as described in the **user manual.**

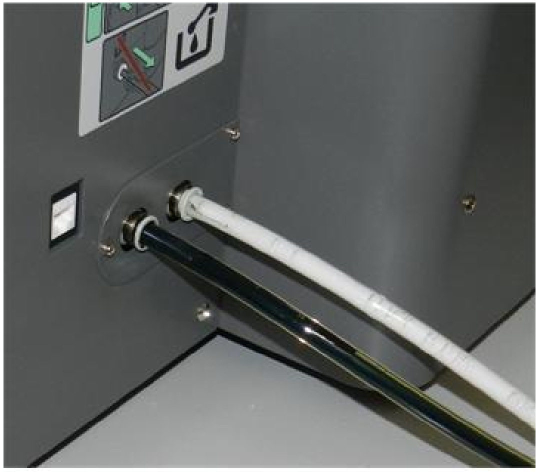
5. Your printer has a towelette taped over the waste drain valve use the following steps:
6. Remove the lid from the new waste ink bottle.
7. Attach the inner lid to the waste ink bottle with two waste in tubes attached.

Important

- Make sure that the end of each tube inside the bottle is about 2” from the bottom of the inner lid.

8.

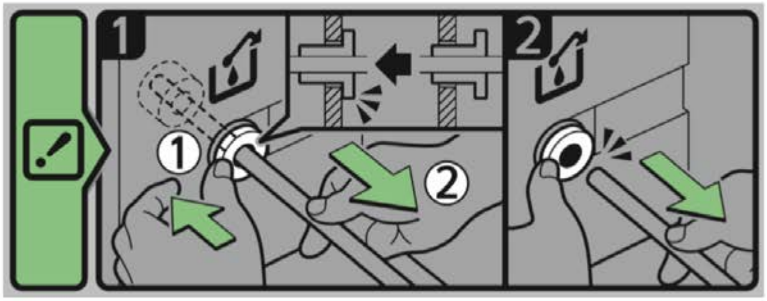
Remove the seal, and then insert the waste ink bottle tubes to the valves at the right rear corner of the printer.



Note

- Insert the tubes completely until they stop. Otherwise, the waste ink may clog, causing a malfunction.

If needing to remove drain tube, use the below instructions:

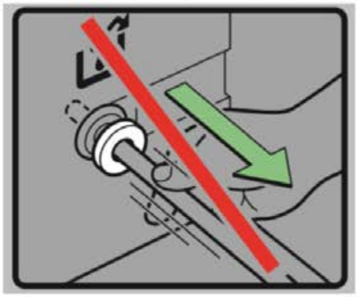


1) **GENTLY** push plastic ring in using either two fingers or small flathead screwdriver
2) **GENTLY** pull the tube away from the plastic ring, NOTE: tube should come out with *minimal* force.

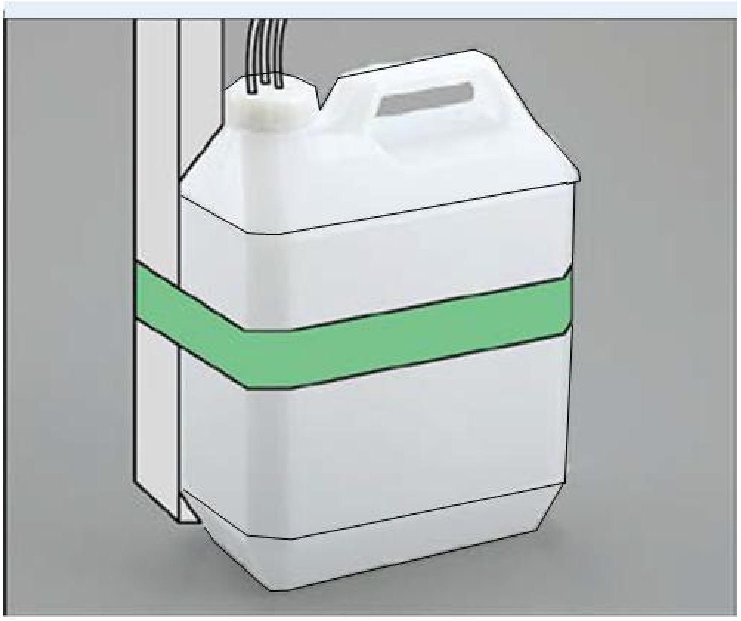
* Drain tube should not be removed unless required for movement of equipment or replacement*

** It is recommended to keep drain tube installed unless absolutely necessary**

DO NOT PULL TUBE



Fasten the waste ink bottle to the right rear leg of the table with heavy tape so it stands upright.



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Agitating the 4 New White Cartridge QTY 2 W1 and QTY 2 W2

Follow the procedure below to agitate each white cartridge before inserting it in the printer.

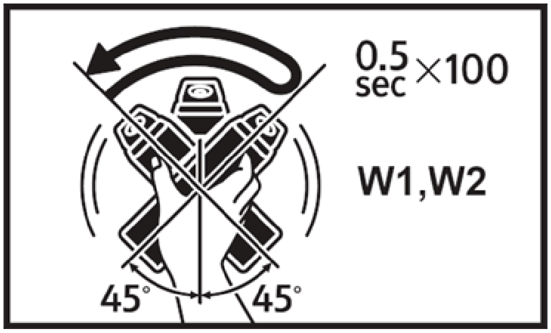
⚠WARNING

- Never agitate a white cartridge too rapidly or too vigorously.

⚠CAUTION

- Handle the cartridge carefully during agitation to avoid damage or ink leaking.
- To avoid ink leakage, agitate the cartridge smoothly and firmly with excessive shaking.
- Agitate a cartridge only as instructed below.

- Hold the cartridge as shown below. Rotate the cartridges left to right for about 50 sec.



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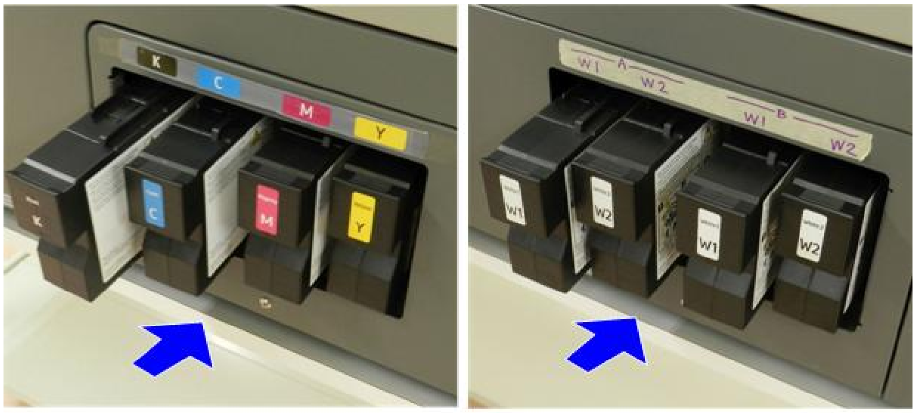
9. Insert all of the ink cartridges.
There are two ink bay banks for the ink cartridges. On the right side of the printer towards the front of the printer is the ink bay for KCMY. The first cartridge, closest to the front of the printer is the K cartridge or Black, Then C or Cyan, Then M or Magenta, Then Y or Yellow
The ink bay towards the back of the printer is for white. The 1st cartridge is W1 then W2 then again W1 then W2

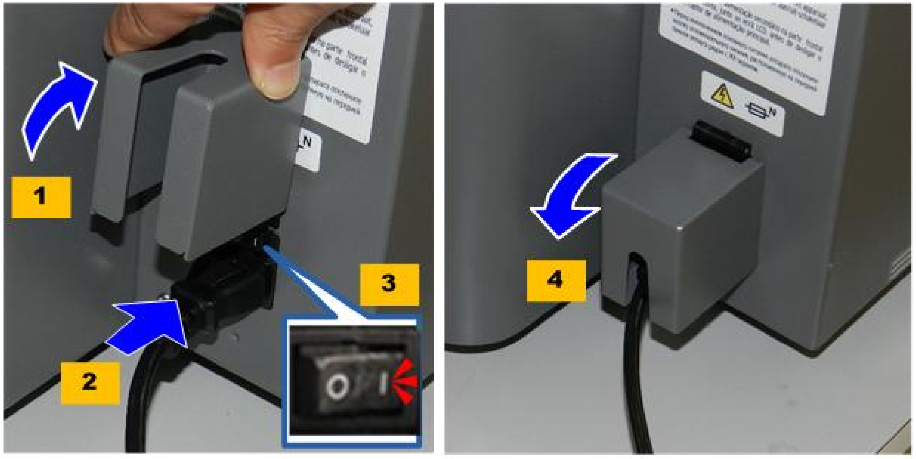
NOTE: The cartridges are physically keyed so that you can not insert the Yellow in the Magenta slot for example
Caution : Cleaning cartridges look similar to ink cartridges – for initial filling make sure they are ink cartridges. One of the main differences is that the ink cartridges have the indicator sticker on the back of the cartridge "C" for Cyan etc.. Yu can see these labels when the cartridges are inserted. If there is no sticker on the back of the cartridge then it is a cleaning cartridge and should not be inserted for initial filling



j104b1006

Turning the Power On

10. At the left rear corner of the printer, raise the cover [1], and insert the power cord [2].
11. Set the main power switch to ON (I) [3], and then lower the cover [4].



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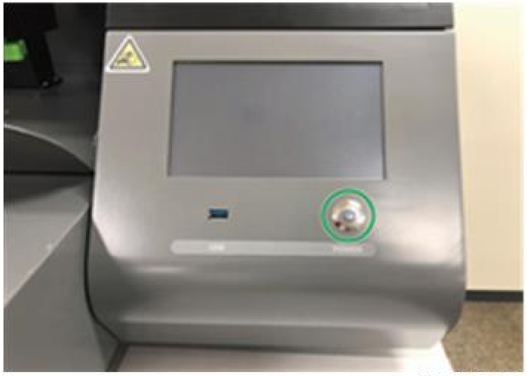
12. On the operation panel, press and hold the sub power button for more than 2 seconds.



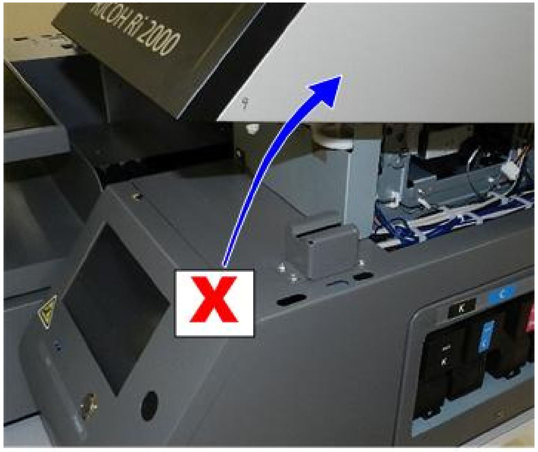
j102z5067

13. After the printer turns on, the printer will go into a initialization and boot up routine the it will begin charging with ink.

Initial charging takes about 23 minutes and the display will show a status percentage (%) until 100% is reached.

Note

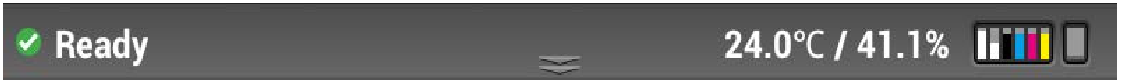
- Never open the top cover while the printer is charging.



j104b1008

- If the top cover is opened accidentally while the printer is charging, just close the cover, and then press and hold the sub power button for more than 2 sec.

14. When you see the Green "Ready" on the top left of the screen initial charging is finished and the printer is ready to use.

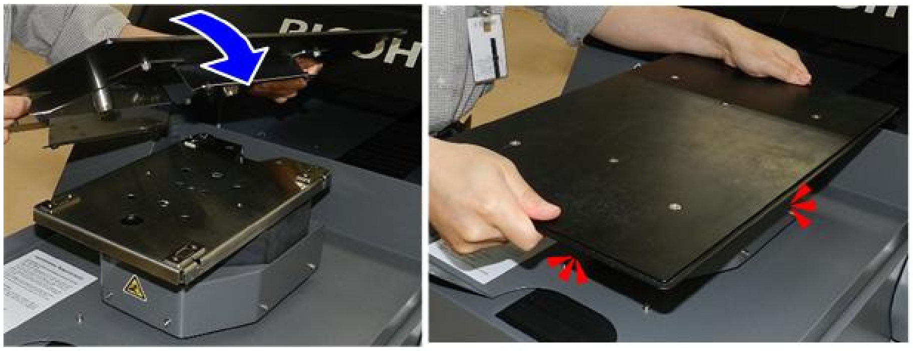


✓ Ready

24.0℃ / 41.1%

Setting the Platen

15. Set the platen on top of the table. (It is held in position securely with magnets.)



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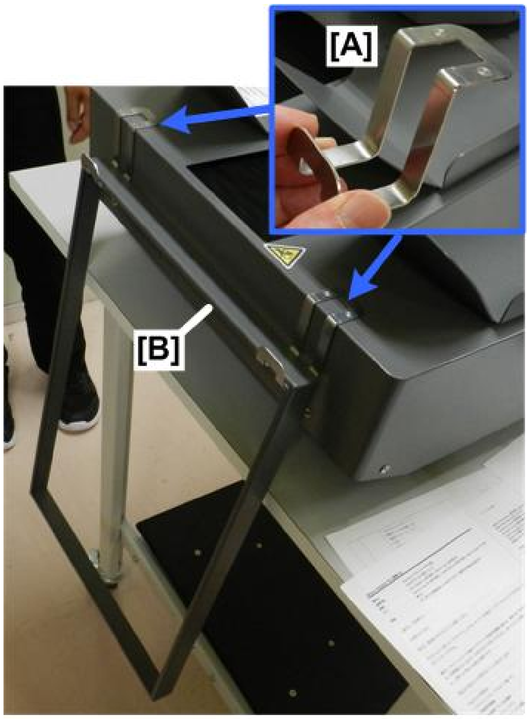
Hang the two hooks [A] on the front of the printer, and then hang the frame [B] on the hooks



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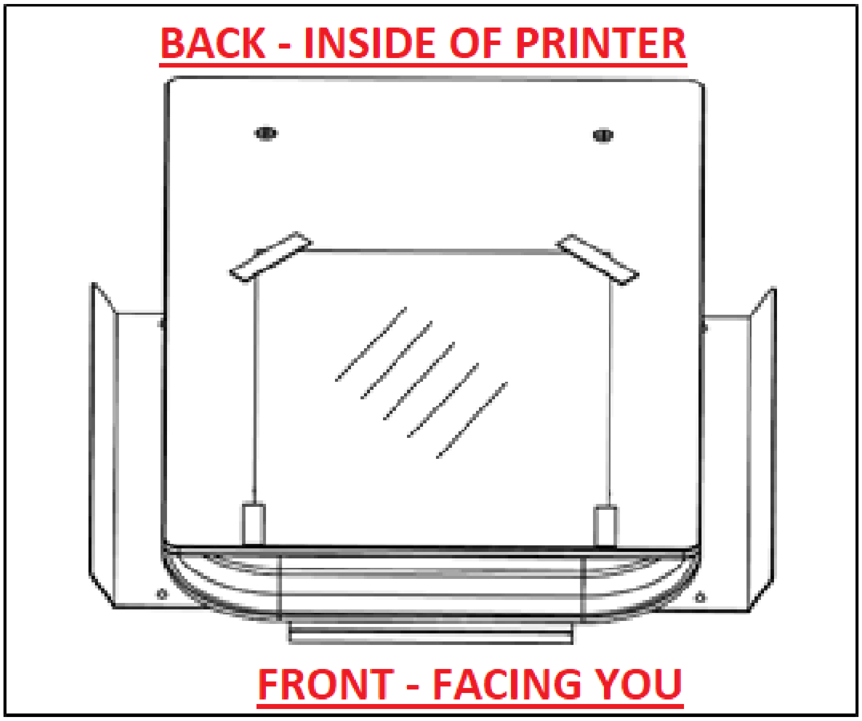
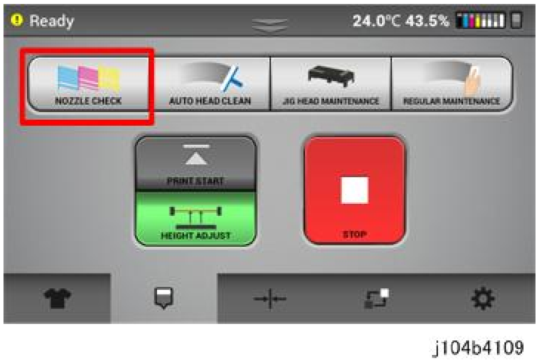
Next Perform the initial nozzle check.

1st Place a transparency sheet on the platen. Make sure the transparency is flat against the platen. The height will be adjusted incorrectly if there are any corners sticking up.

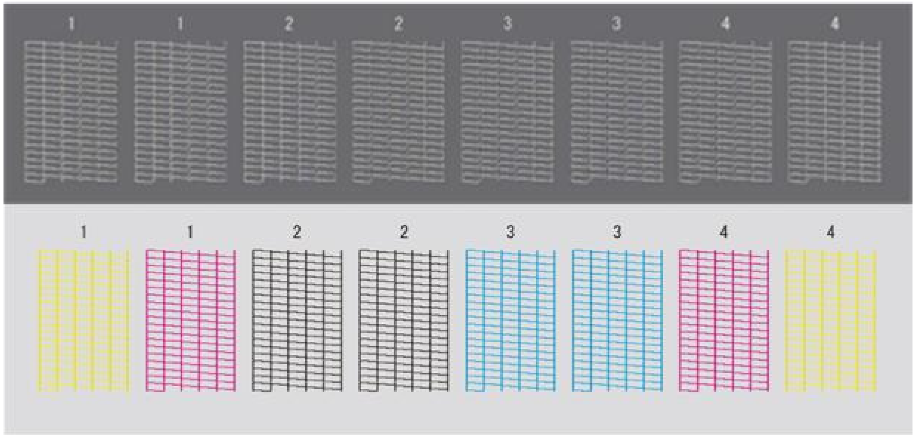


Then press the height adjust tab and the platen will be set to the correct height. Do not interfere with the table during this operation. After the height adjust is complete the platen will then be all the way inside the printer.

Then press the nozzle check button and select the white and color nozzle checks



You will then see your nozzle check pattern printed.



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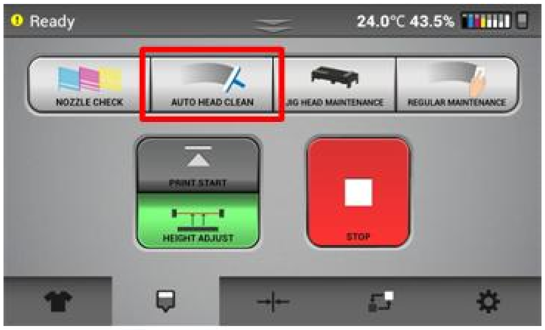
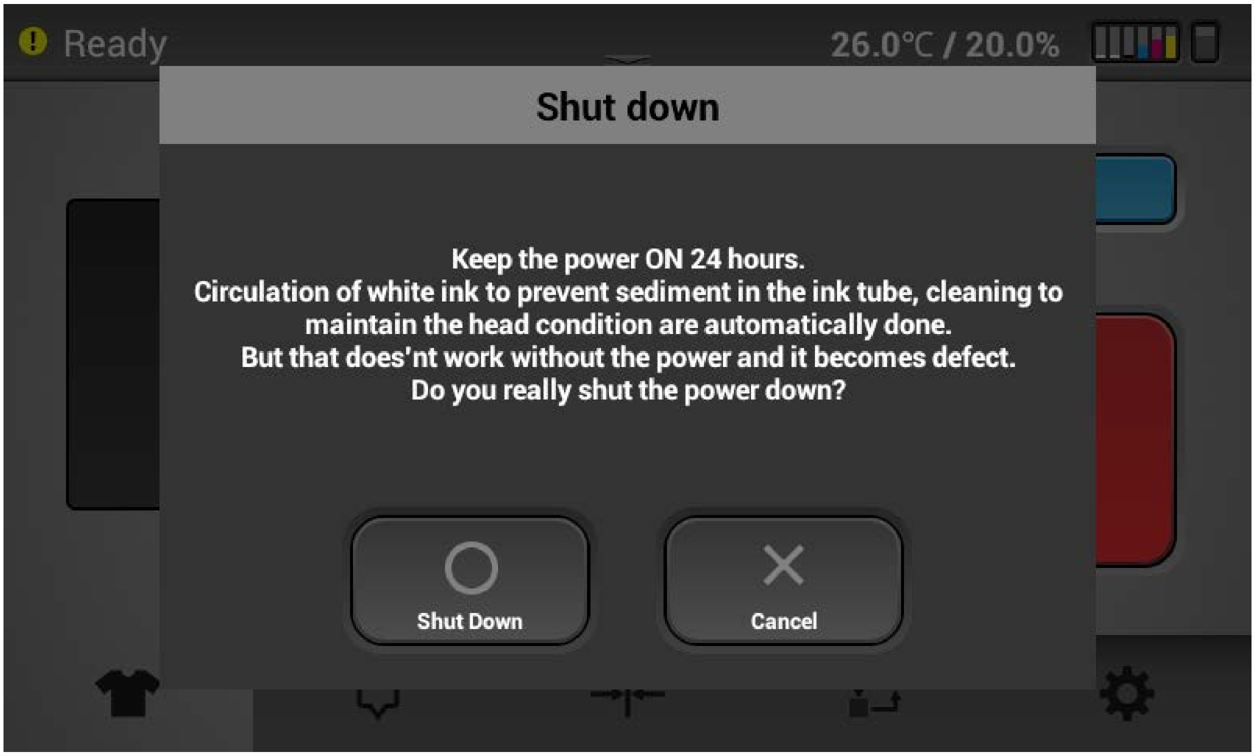
If there are nozzles missing, then Touch AUTO HEAD CLEAN button and clean the heads corresponding to the numbers on the nozzle chart where the nozzles are missing. (More details on this later). After the head clean is complete. Check the nozzle again to confirm that the nozzles are all present. Once all the nozzles are present – you are ready to begin printing.



j104b4073

- ***NOTE: To power off, hold down the power button on the front near the LCD screen, for more than 3 seconds and return the I/O switch to O (off)***

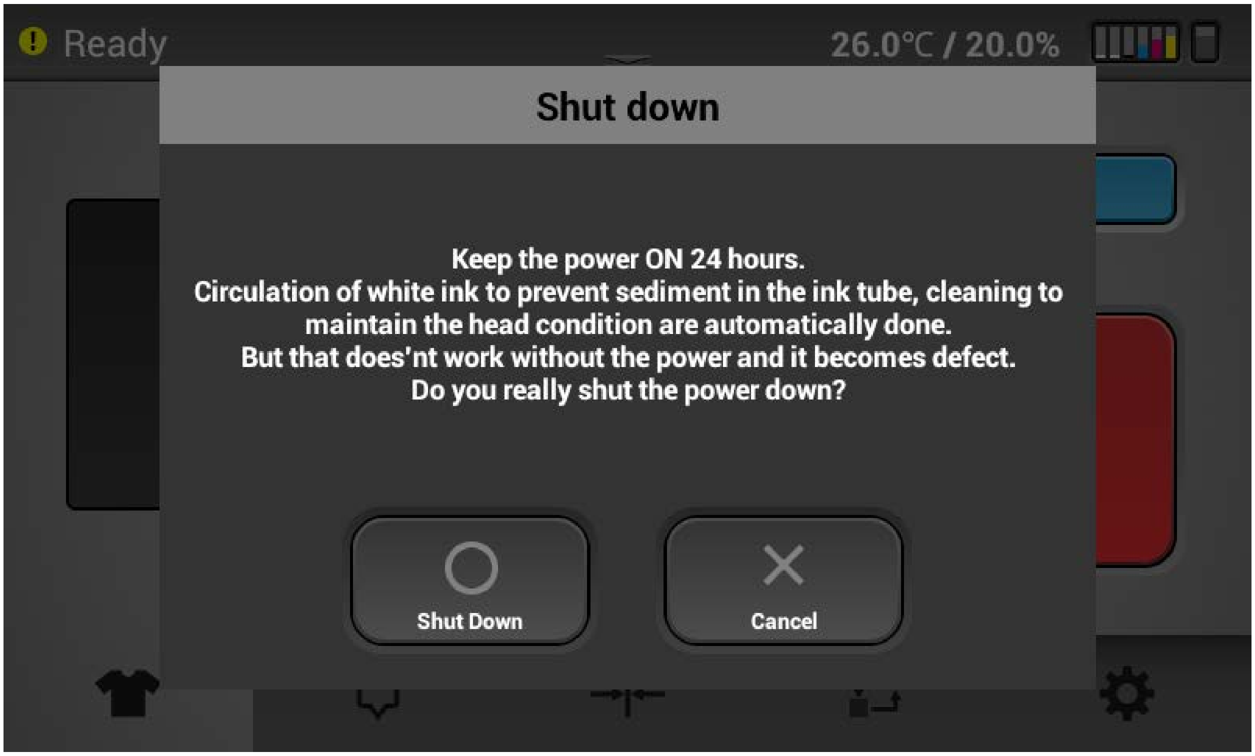
The following screens will appear screen warnings will appear.



Keep the power ON 24 hours.
Circulation of white ink to prevent sediment in the ink tube, cleaning to maintain the head condition are automatically done.
But that does'nt work without the power and it becomes defect.
Do you really shut the power down?

Powering off for more than 12 hrs can start to clog the heads because the auto maintenance routines are not being performed. So, if powering off is required for more than 12 hours then the printer should be flushed with cleaning fluid per section.

After selecting the shutdown button the following additional Warning will appear:

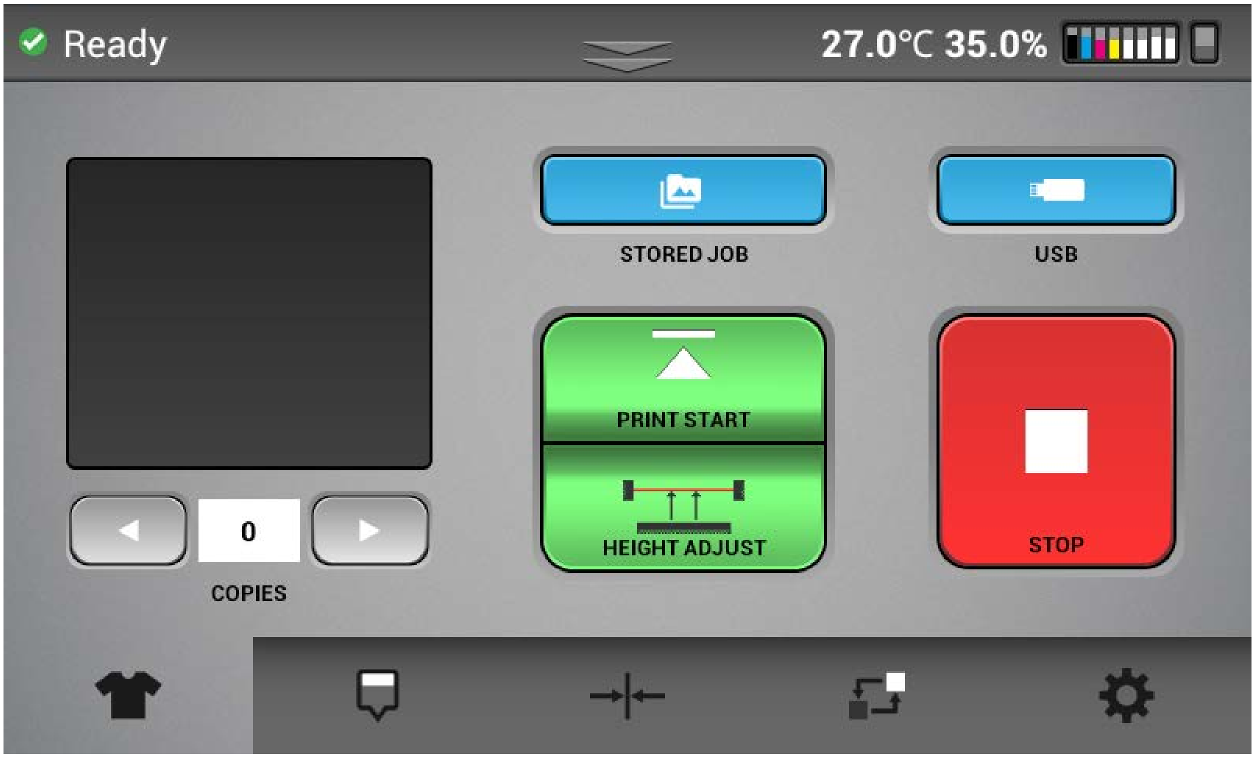


Shut down

Keep the power ON 24 hours.
Circulation of white ink to prevent sediment in the ink tube, cleaning to maintain the head condition are automatically done.
But that does'nt work without the power and it becomes defect.
Do you really shut the power down?

1.5 Control Panel Functions

[Print Tab] - Print Screen



① Left top of Screen Status - Displays the printer status. There are 4 possible colors (Green – printer fully functional and ready to print, Yellow – printer fully functional and ready to print but there is some warning which can be seen in the status screen (shown below). Red – the printer is in an error state – the print is not functional – auto maintenance is not being performed which could lead to damage to the printer. White - the printer is busy with some function such as printing or maintenance.

② Middle top of Screen - Down arrows - Status Bar- TAP/Drag down to open status screen menu (shown below)

③ Right top of screen - Displays printer temperature and humidity, amount of ink in ink cartridges and waste bottle capacity level.

④ Stored Job button - Check the recent images used for printing. Print directly from the stored folder or from jobs sent via network cable

⑤ USB button - Choose print job from USB device

⑥ Print Start button – Will move the table into the back of the printer and start the print job if one is ready in the preview window.

⑦ Preview window – displays a preview of the job that is ready to print. Will show the image and the file name. The number underneath represents the number of copies to be printed. The arrow to the right of the number increases the number of copies. The arrow to the left reduces the number of copies. When a job is first loaded the number of copies will be set to 1.

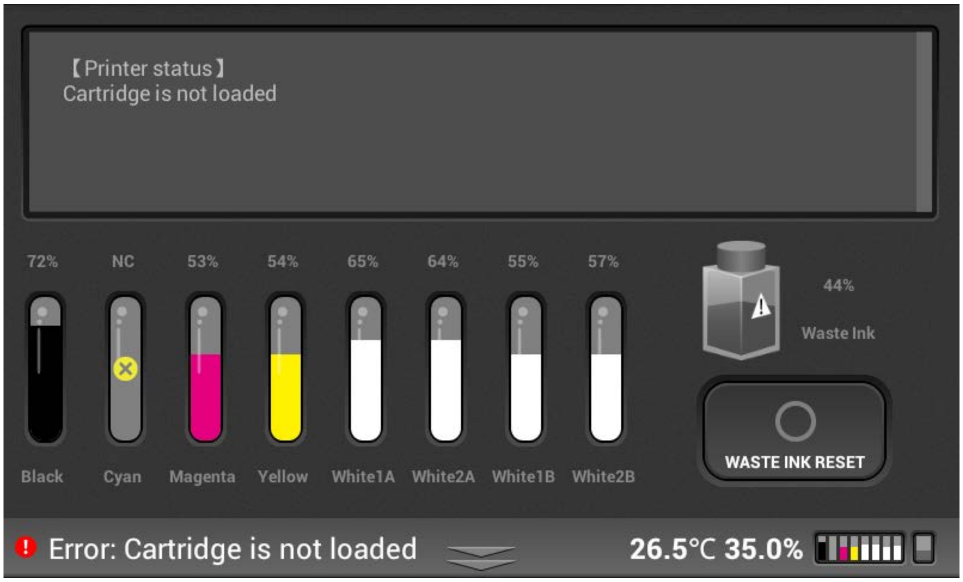
⑧ Adjust Height button- The table will be scanned by the media sensor and the table height will be adjusted for optimal printing. You need to perform the adjust height function when the printer is 1st turned on and when changing the type of material you are printing on. For example – T shirt to sweatshirt. This operation will adjust for the material thickness. Printer will require this is done after start up and daily before printing is enabled.

⑨ STOP- will stop any current movement of the table and allows to cancel print job

⑩ Function Tabs at the bottom of the screen allow you to move to different screen with different functions and buttons

[Status Panel]

When the down arrows described in 2 above are taped - this screen will show



【Printer status】
Cartridge is not loaded

Error: Cartridge is not loaded

① Displays the printer status in detail, shows any warnings or errors

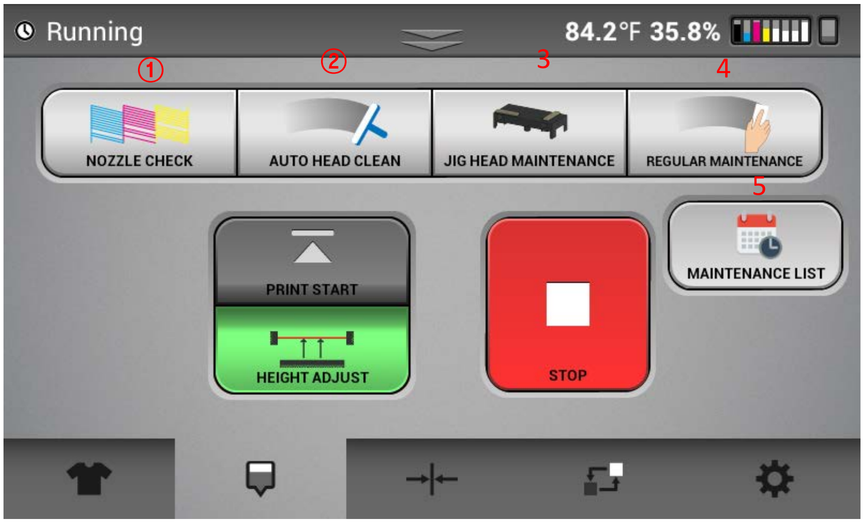
② Displays current ink levels in % for each installed cartridge - ink will appear as colors – cleaner cartridges will display as clear – if no cartridge is installed X and NC will appear

③ Displays the status and fill % of waste ink bottle.

④ Reset counts of waste ink bottle. Press the icon will set the % back to 0% for the waste ink bottle once waste ink tank is manually drained/emptied NOTE: There resetting the waste ink with out actually emptying the waste ink bottle will result in ink overflowing from the waste ink bottle. Also NOTE: IF the waste ink bottle is full (100%) then the machine will be in an error state and damage may occur due to auto maintenance not being performed.

Hitting the down arrow at the bottom of the screen will bring the Print Screen back

[Maintenance]



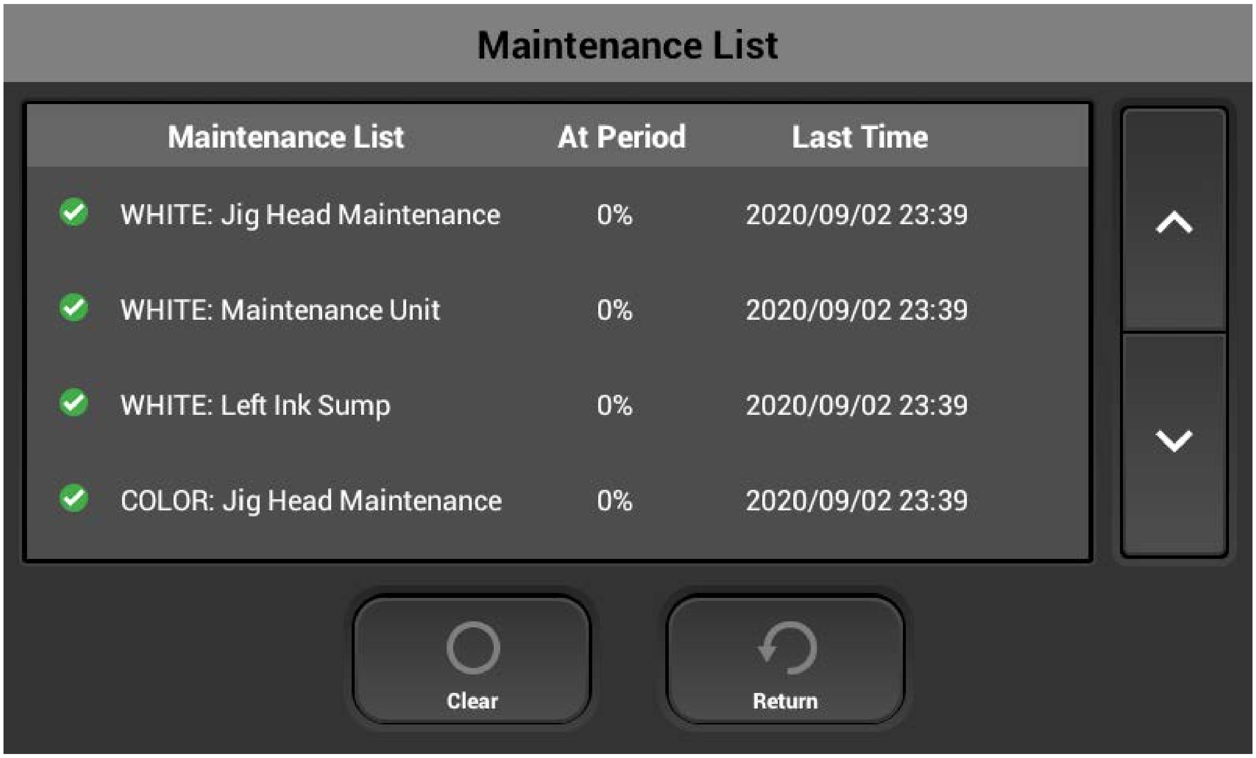
① NOZZLE CHECK - Prints a nozzle check pattern result – recommended that this is performed daily to monitor printer. Have the options of printing the white carriage nozzle check, the color carriage nozzle check, or both

② AUTO HEAD CLEAN _-Performs head cleaning automatically using systems components - can select which heads to clean – the option of normal (if a few nozzle missing in nozzle check) or strong (many nozzles missing in nozzle check)

③ JIG HEAD MAINTENANCE - using the supplied head cleaning jig and cleaning pads – this operation will automatically clean the white carriage or the color carriage. After this button is selected – a screen will pop up allowing you to select which carriage you want to clean. The printer will prompt for the Jig head clean on the white carriage every 3 days and the color carriage every 10 days

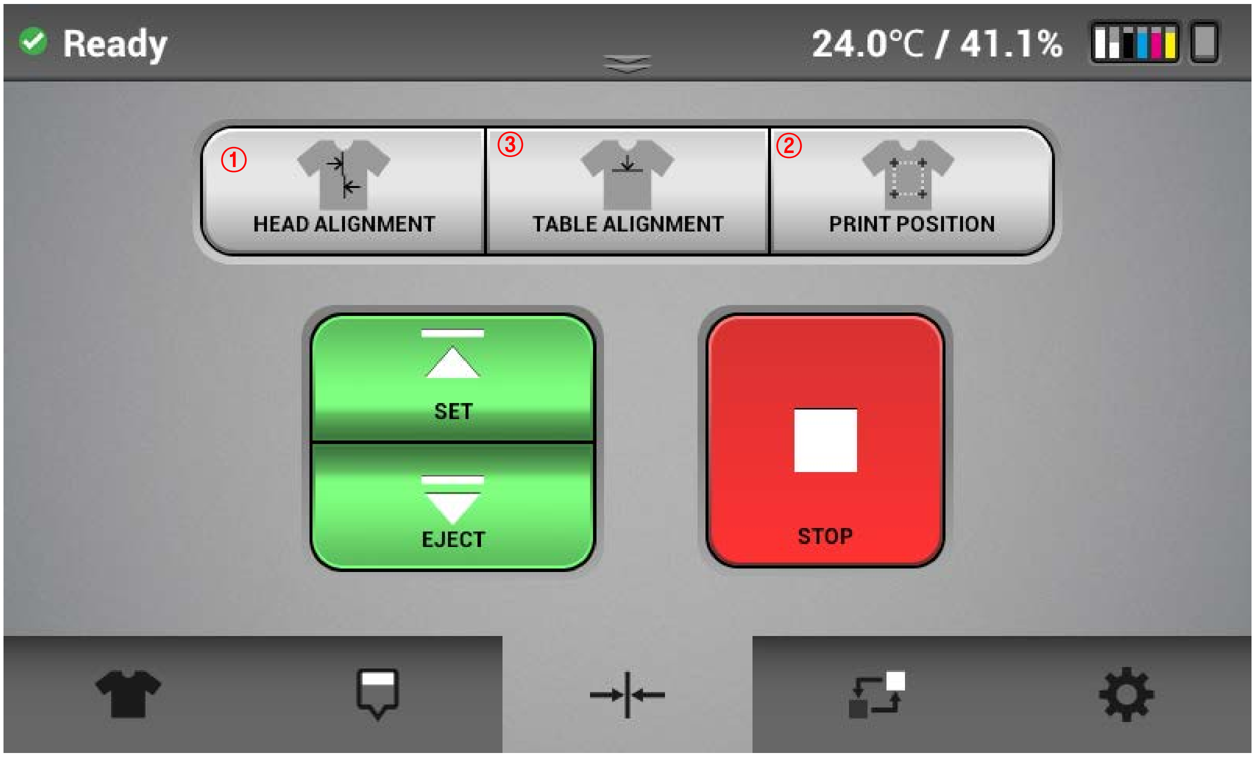
④ REGULAR MAINTENANCE _ Allows carriage to be released, cover can be opened (during maintenance or troubleshooting) allowing the cleaning of the maintenance station. After this button is selected – a screen will pop up allowing you to select which maintenance station you want to clean the white or the color. Printer will prompt for this cleaning every 3 days for white and every 10 days for color

⑤ MAINTENANCE LIST - hitting this button will show will shows when Jig Head maintenance, Regular maintenance, and Monthly Maintenance (rod cleaning) was last performed and the % of the time interval between cleaning for each the white and the color systems. (For example if white jig head maintenance is at 50% then it is half when in time between the last time maintenance was performed and the next time it will need to be performed – a pop up alert will appear). Once maintenance is performed highlight the line and hit the clear button to reset to the % 0 and enter the date and time for that maintenance.



Maintenance List	At Period	Last Time
✓ WHITE: Jig Head Maintenance	0%	2020/09/02 23:39
✓ WHITE: Maintenance Unit	0%	2020/09/02 23:39
✓ WHITE: Left Ink Sump	0%	2020/09/02 23:39
✓ COLOR: Jig Head Maintenance	0%	2020/09/02 23:39

[Alignment]



① Prints an adjustment pattern for the print head alignment so that print heads can be aligned to each other – there are separate alignments for the white and the color carriage

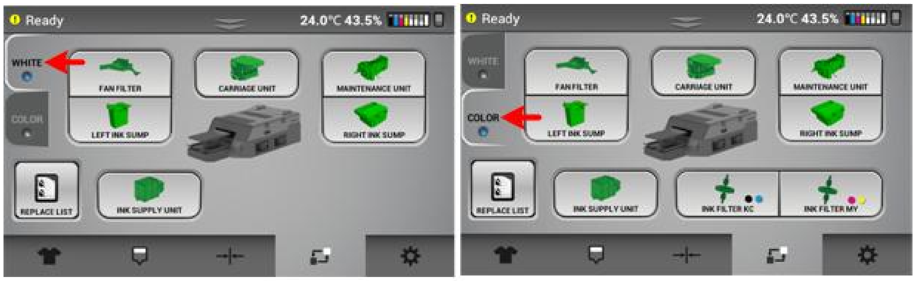
② Prints an adjustment pattern to table to check and tune table indexing

③ Prints an adjustment pattern to determine print start position - there are separate start position adjustments for the white and the color carriage

NOTE: Do not try to perform these on your own consult Technical Support – these should only need to be performed after a part replacement.

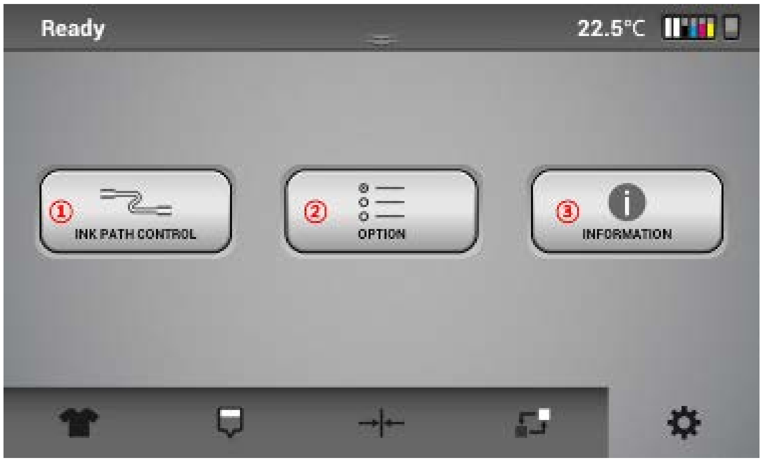
[Service Part Status]

- Displays the current usage or status (Green, Yellow, Red) of certain parts depending on how much they have been used, You can check the part replacement history by pressing the "REPLACE LIST" button. There are two pages – one for the white carriage and one for the color carriage



j104b6011

[Settings]



① Perform controls of ink path. From this menu, you can flush the printer - refer to section 8.5

② **Options page 1 - IP address** (set print IP address), **Drying time** (set time between white layer printing and CMYK printing), **Height Settings** (Can set the tolerance for how much variation is allowed on the printing surface before the height sensor rejects the print attempt, Default is set at .3mm and should be used for most fabrics), **temperature (C/F**) (Can display temperature in Celsius or Fahrenheit) **High speed mode** on/off (Can set white layer to high speed mode – not recommended though because of the ink mist) **white clean frequency** allows you to set how often the white heads are cleaned based on printing activity.

Page 2 - **Language s**elect the display language, **stored jobs options** (if selected, jobs in internal memory will be deleted after a selected # of days, the default is this is tuned off so jobs are not deleted), **factory reset** (Set Head. Table and print alignment to original settings), **Volume –** allows you to change the volume of the audible beep that occurs when the printer has finished a print. The default is set to 20

③ Display printer general information. Serial #, Control panel firmware ver. Engine (CTL) firmware version, Sub control board firmware version.

1.6 Installing the data collector

The data collector will upload valuable information from your machine and email you reminder for maintenance and allow you to use the user dashboard that shows print activity, Ink levels and maintenance alerts.

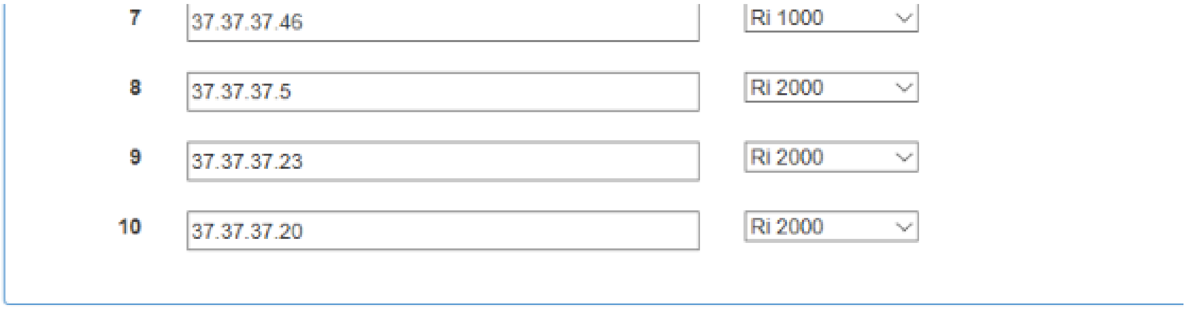
Download the data collector from our website

Run the installation package.

Open the data collector icon:

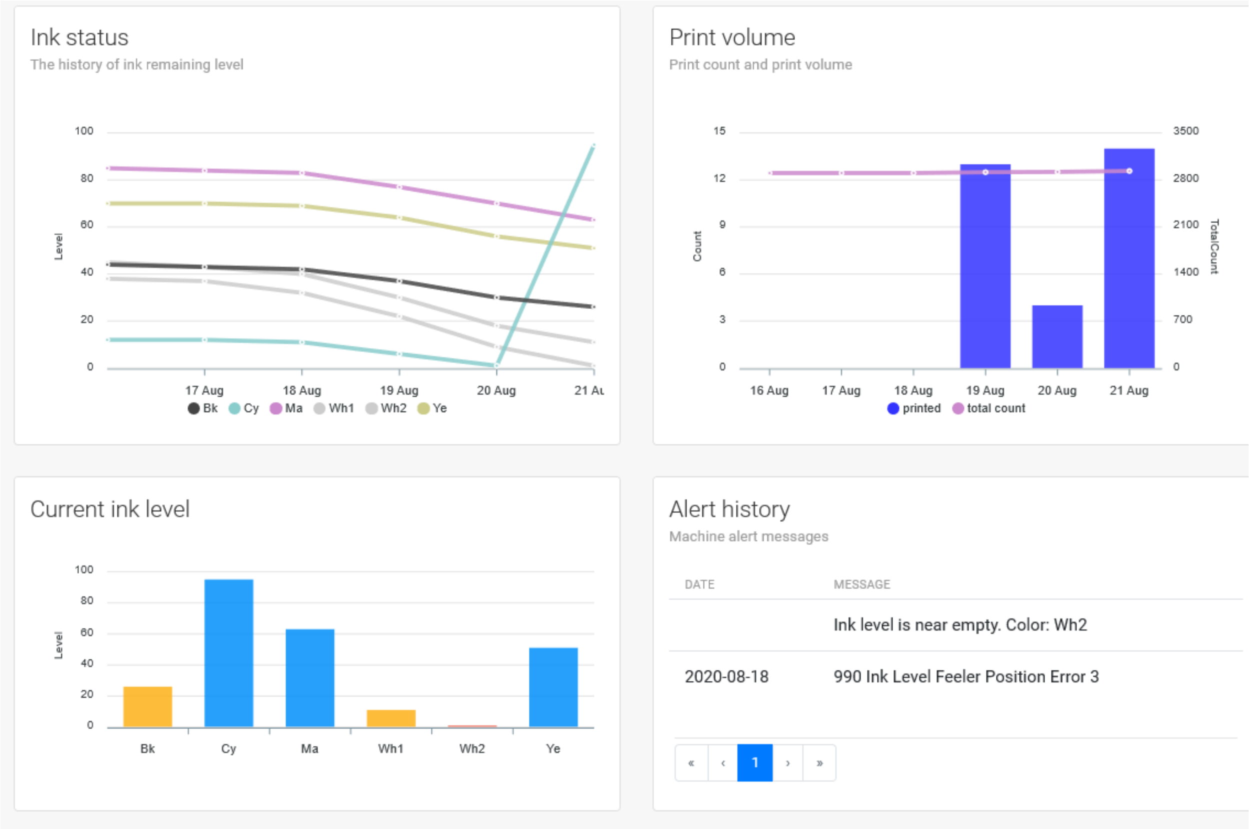
Select basic settings

Scroll down to General Device Address settings - input the IP address of your printers and on the drop down list on the left, select Ri 2000.



7	37.37.37.46	Ri 1000
8	37.37.37.5	Ri 2000
9	37.37.37.23	Ri 2000
10	37.37.37.20	Ri 2000

Keep scrolling down and input your email address and then save. You will now be sent and email that gives you a link to the user dashboard where you can check the status of your printers.



DATE	MESSAGE
	Ink level is near empty. Color: Wh2
2020-08-18	990 Ink Level Feeler Position Error 3

Maintenance alerts will also be sent to this email address.

1.7 ColorGATE RIP software

To prepare printable files for the Ri 2000 printer, the ColorGATE RIP software translates graphic data into printable .prn files.

Get Started With ColorGATE Productionserver 10 (PS10) RIP Software!

ColorGATE Productionserver 10 (PS10) RIP Software is included for free with your RICOH Ri 1000 and can be used to convert images into printable files.

The included USB Protection Key is required to run PS10 on your desktop or laptop computer. Your actual PS10 RIP Software must be installed separately.

For software download, installation instructions, user manual, and additional information, please visit: https://anajet.com/colorgate.

For assistance, please contact Technical Support at 1-877-646-0999 or at tech1@anajet.com

1st step is to set up the printer for communication with ColorGATE RIP software

Printer Setup

Setting the IP address for the printer.

The setting method of IP address for Printer are two patterns.

Case1: For connecting directly to the printer from a PC that is not parts of a network.

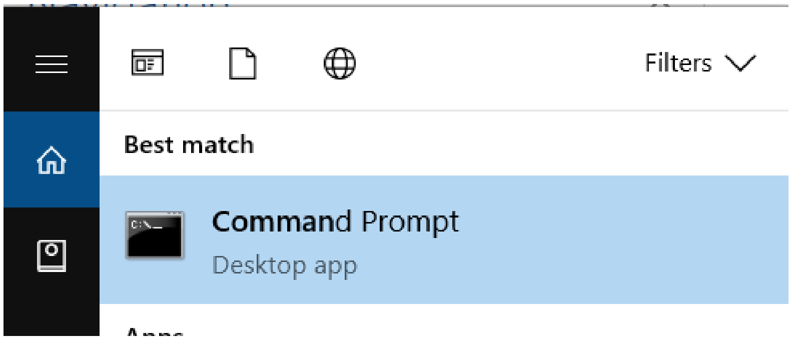
Case2: For a DYNAMIC setup - where the printer is with in a network

For either case connect the printer to the PC (case 1) or router (case 2) with an Ethernet cable to the port located in the back right of the printer

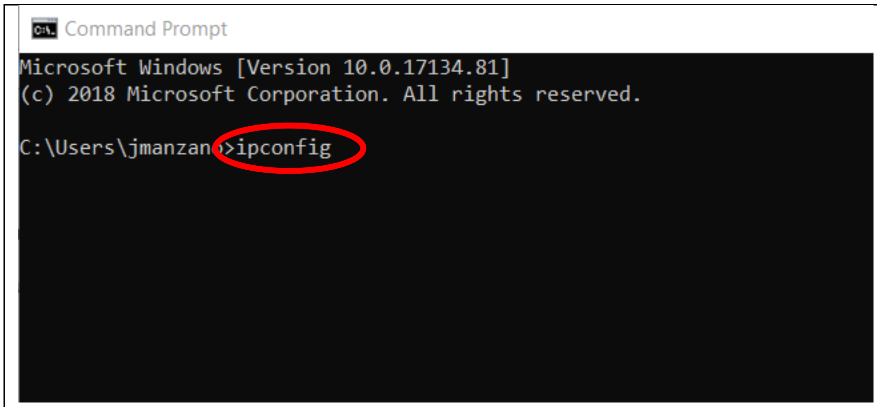
Case1: For connecting directly to the printer from a PC that is not parts of a network.

[Confirm IP address of your PC]

1. Open the command prompt dialogue box on your PC.

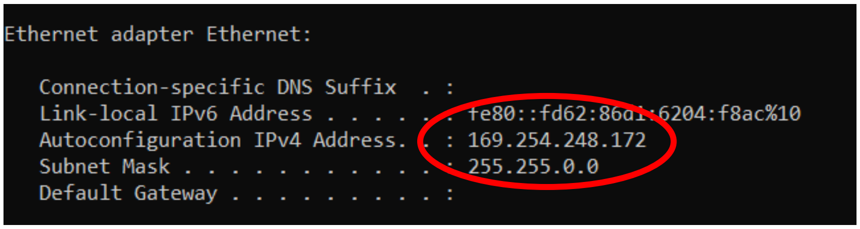


2. Type IPCONFIG in the first line in the command prompt



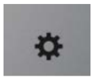
```
Microsoft Windows [Version 10.0.17134.81]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\jmanzan>ipconfig
```

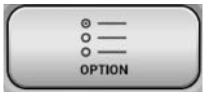
3. In the Ethernet Adapter Ethernet section, use the IP address but change the last 3 digits to a number that will be unique to the printer and the Subnet Mask. In the example below, we took the 169.254.248.172 and will assign 169.254.248.174 to the printer

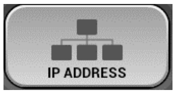


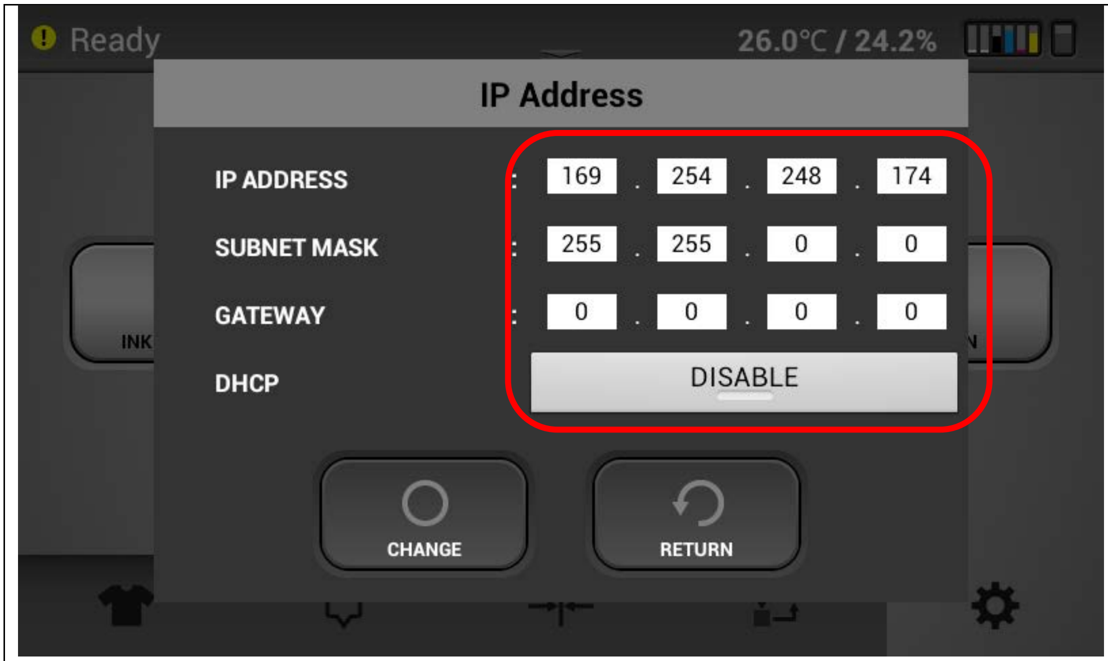
```
Ethernet adapter Ethernet:

   Connection-specific DNS Suffix  . :
   Link-local IPv6 Address . . . . . : fe80::fd62:86d1:6204:f8ac%10
   Autoconfiguration IPv4 Address. . : 169.254.248.172
   Subnet Mask . . . . . . . . . . . : 255.255.0.0
   Default Gateway . . . . . . . . . :
```

4. Enter the new IP address and the subnet mask into the printer by going to the settings tab, options IP Address (DHCP must be disable)

A. Go to the settings config on the Ri 1000 

B. Select the OPTION under the settings tab 

C. Select the IP ADDRESS option in the menu dialogue box 



IP Address

IP ADDRESS : 169 . 254 . 248 . 174
SUBNET MASK : 255 . 255 . 0 . 0
GATEWAY : 0 . 0 . 0 . 0
DHCP DISABLE

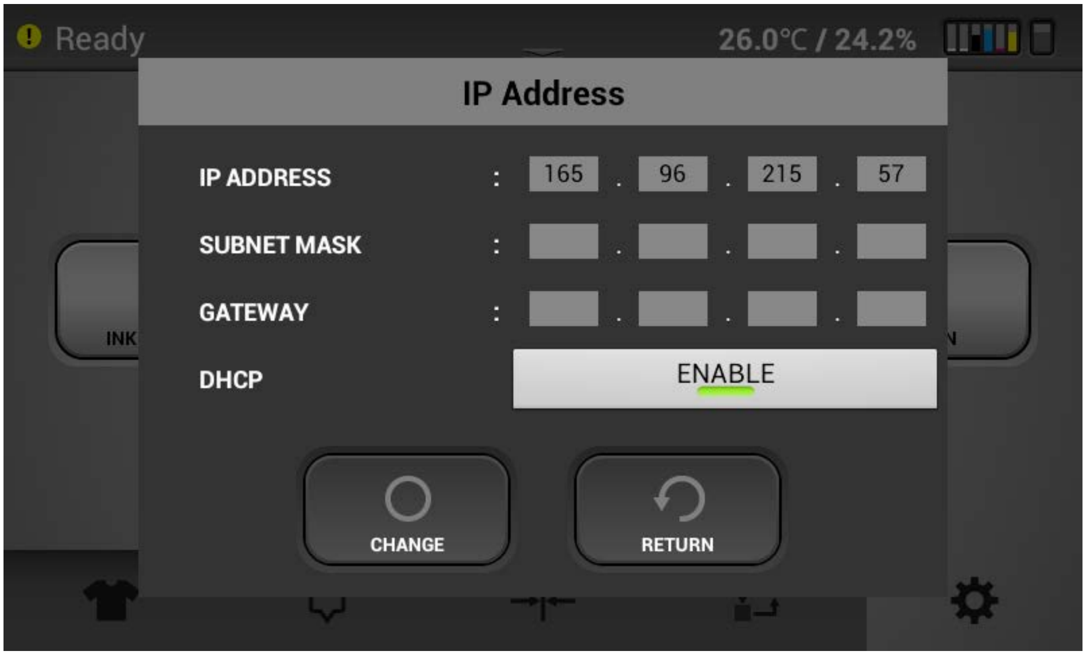
Select change when all has been entered

In the command prompt - type ping and then the printer IP address that you have entered to confirm communication is set between the PC and the printer.

Case2: For a DYNAMIC setup

1. Enable the DHCP as shown below to add the printer to an existing network.

And Check the assigned **IP ADDRESS**.



IP Address

IP ADDRESS : 165 . 96 . 215 . 57
SUBNET MASK : . . .
GATEWAY : . . .
DHCP ENABLE

Next we need to register and install the ColorGATE software on a PC

Go to the URL listed on the shipping insert

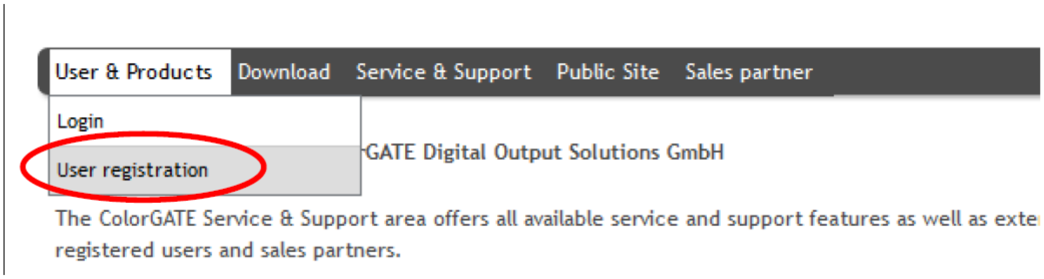
https://anajet.com/colorgate.

On this site

Click on the link

https://support.colorgate.com - this will take you to the colorGATE website so you can register as a user.

On this website click on User & Products and select User registration from the pull down. You will then be asked to fill in an email address and password and you can enter personal information such as company name address, etc.



The ColorGATE Service & Support area offers all available service and support features as well as exte registered users and sales partners.

1. The web site will guide you through the next steps to register your user account and to register your product which is your dongle #. Please note. This process requires a series of emails from customerservice@colorgate.com. Depending on your mail server settings these emails may go to the Spam or Junk folder so make sure to check there. The email sequence is:
   a) After user registration - a user registration activation email will be sent immediately
   b) After clicking on the activation link an email is sent immediately letting you know that your user account was successfully activated and you can use the ColorGATE web service which allows you to register your product
   c) You then can go back to the ColorGATE website and login using your email address and password - under User & Products you will select product registration. Use the number on your dongle to register the product. After registering your product (dongle #) you will immediately receive an email letting you know that you have successfully register your product and that your license will be verified.
   d) You will receive a final email that gives you your licenses activation which will convert your licenses from a temporary licenses to a permanent license. This email may take a day or two as the ColorGATE team reviews and verifies your licenses. You can use the software while you wait with a 30 day time limit. Just select "activate later" on the pop up screen at start up. When you receive this email - when you reopen the software the Key update screen will appear

Here is a helpful video that guides you through this process
https://www.youtube.com/watch?v=q4DRYkaJ434&feature=youtu.be

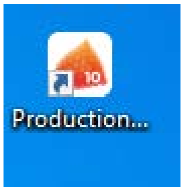
Download software of ColorGate RIP and MIM files.

2. Go to the RicohDTG website again https://anajet.com/colorgate.

Download the MIM package (.cmp file extension) for the Ri 2000 (the site will also have a package for the Ri 1000 but this will not work for the Ri 1000).

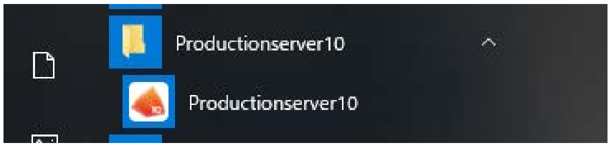
Place this file in a location on your PC that you can retrieve it when you 1st set up the software

3. Then you will need to get the installation executable file – go to https://anajet.com/colorgate.
4. Download the file PS10Setup.33.XXXX
5. Run the executable file and the installation wizard will walk you through the install
6. At the end of the installation you will be asked to restart your computer and after restart the Production 10 icon will appear on your desktop



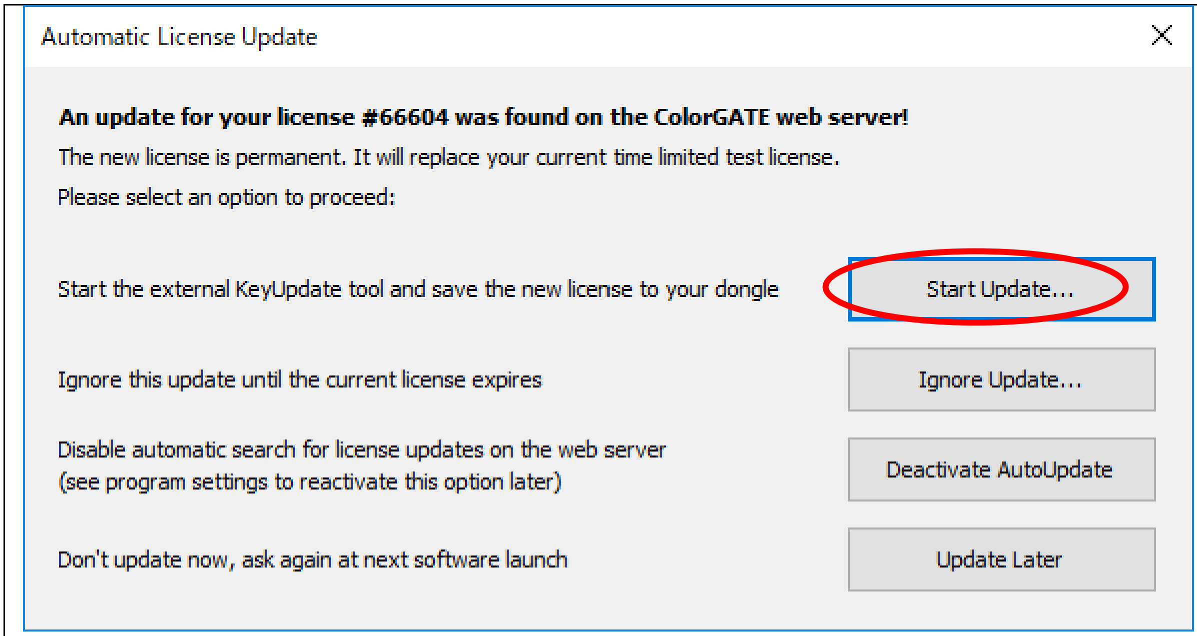
Start RIP Software

1. Insert the USB dongle to an USB port on the computer.
2. Click Windows mark on left bottom on your pc.
3. Click Productionserver10 -> Productionserver10 .



License Update

4. The following dialog will open when an update is available for your license when the software is started. It will appear if you have received your final activation key after product registration (the fourth email in the user and product registration process). If you do see it select “Start Update…” .


Automatic License Update

An update for your license #66604 was found on the ColorGATE web server!

The new license is permanent. It will replace your current time limited test license.

Please select an option to proceed:

Start the external KeyUpdate tool and save the new license to your dongle

Ignore this update until the current license expires

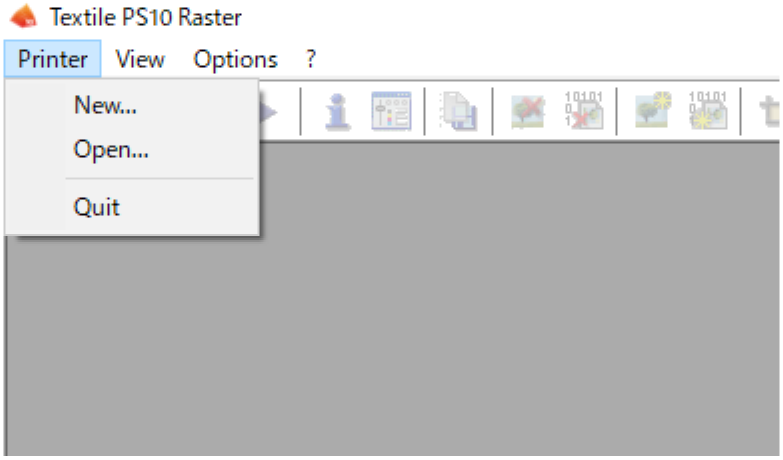
Disable automatic search for license updates on the web server
(see program settings to reactivate this option later)

Don't update now, ask again at next software launch

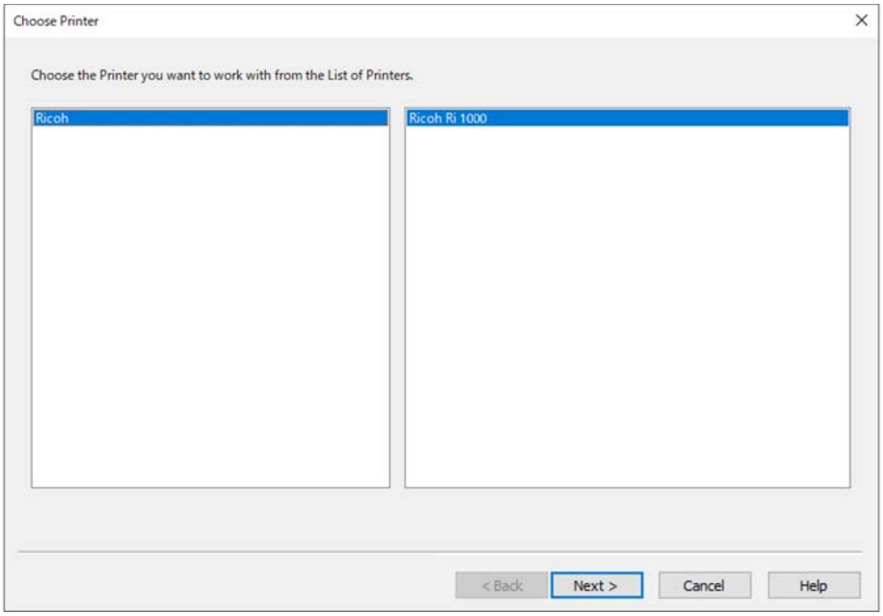
You will then be asked if you want to update the dongle – select update dongle and the update will be compete

Clicking on the PS10 icon on the desk top will start the ColorGATE software. Make sure the security dongle is installed.

1 The software will open to a blank screen – now set up the printer. In the Menu - Printer -> "New" button:

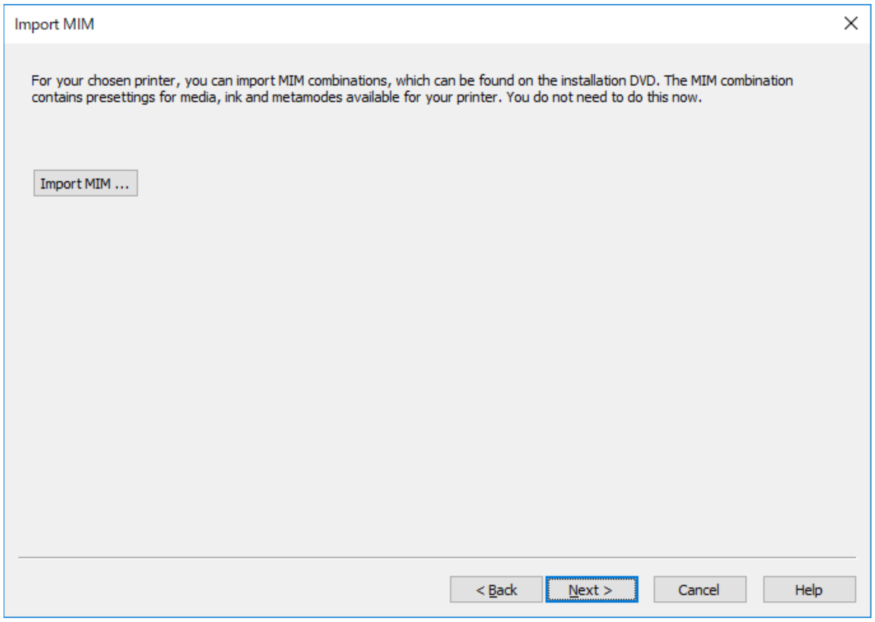


2 Select Ricoh -> Ricoh Ri 2000 and push "Next" button.



Choose the Printer you want to work with from the List of Printers.

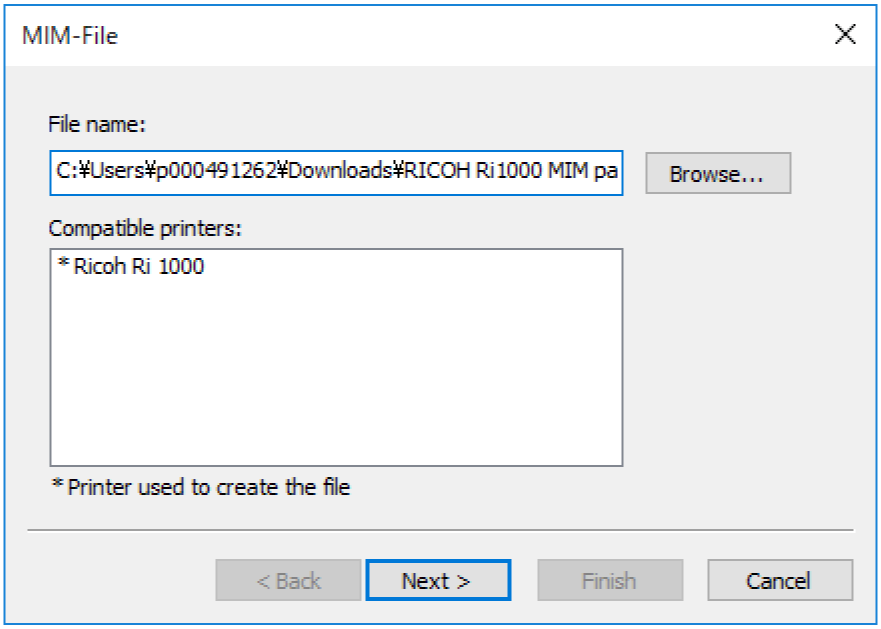
3 Push "Import MIM…" button



For your chosen printer, you can import MIM combinations, which can be found on the installation DVD. The MIM combination contains presettings for media, ink and metamodes available for your printer. You do not need to do this now.

4 Select MIM file that you previously downloaded(*) and push "Next" button.

*ex. filename: PS Ricoh Ri 2000 Combi-MIM.cmp

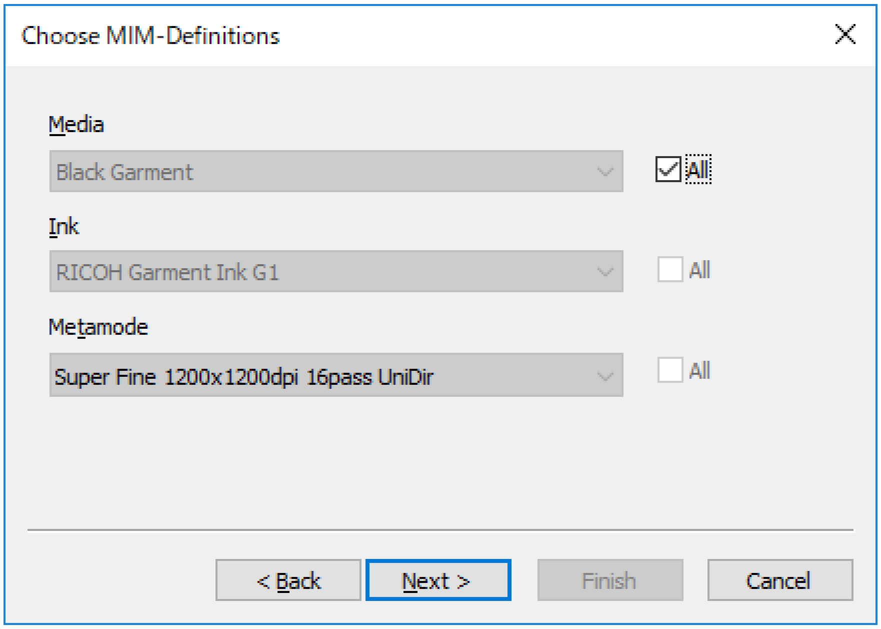


File name: C:¥Users¥p000491262¥Downloads¥RICOH Ri1000 MIM pa

Compatible printers:
* Ricoh Ri 1000

* Printer used to create the file

5 Check on "All" in Media and push "Next" button.

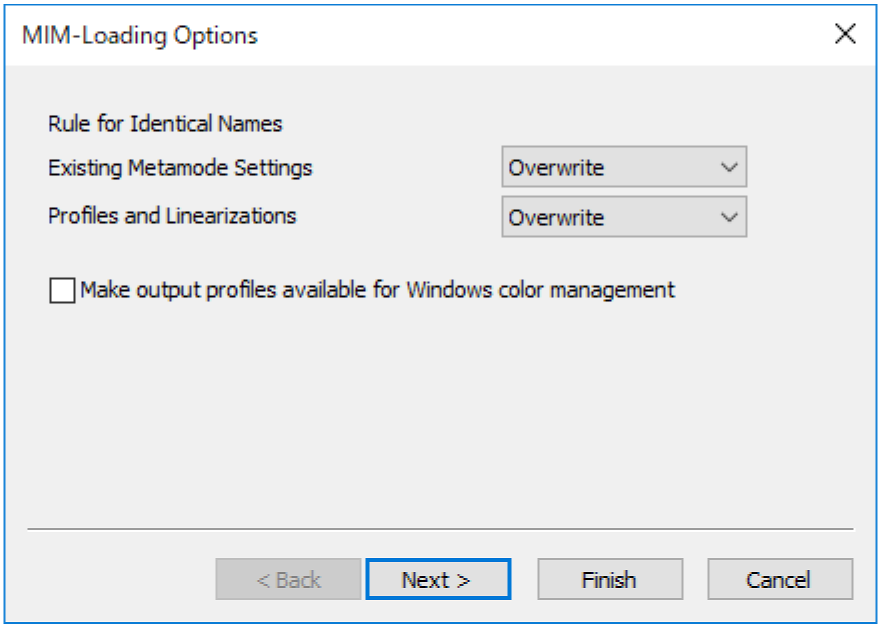


Media: Black Garment ☑ All

Ink: RICOH Garment Ink G1 ☐ All

Metamode: Super Fine 1200x1200dpi 16pass UniDir ☐ All

6 Push "Next" button.



MIM-Loading Options

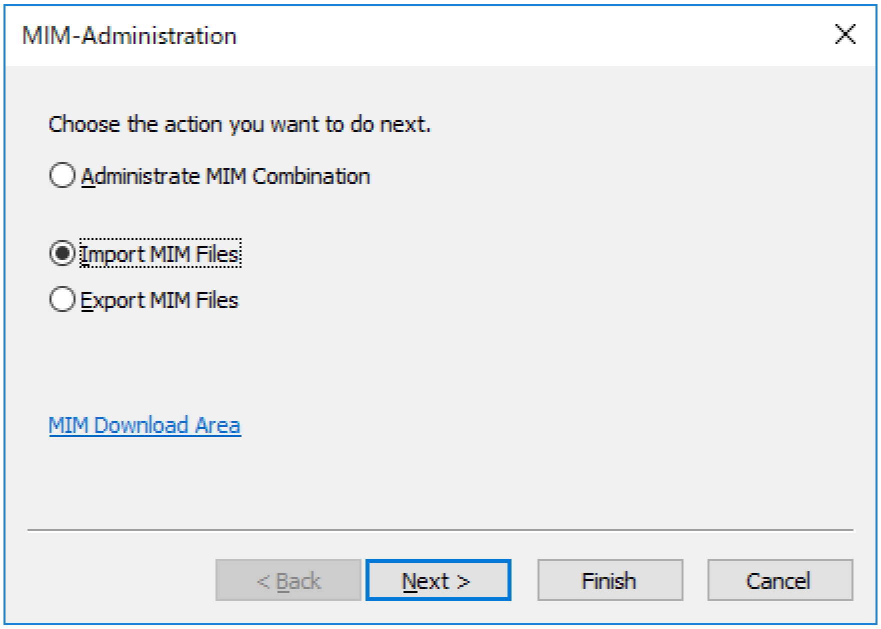
Rule for Identical Names

Existing Metamode Settings: Overwrite

Profiles and Linearizations: Overwrite

☐ Make output profiles available for Windows color management

7 Push "Finish" button.



MIM-Administration

Choose the action you want to do next.

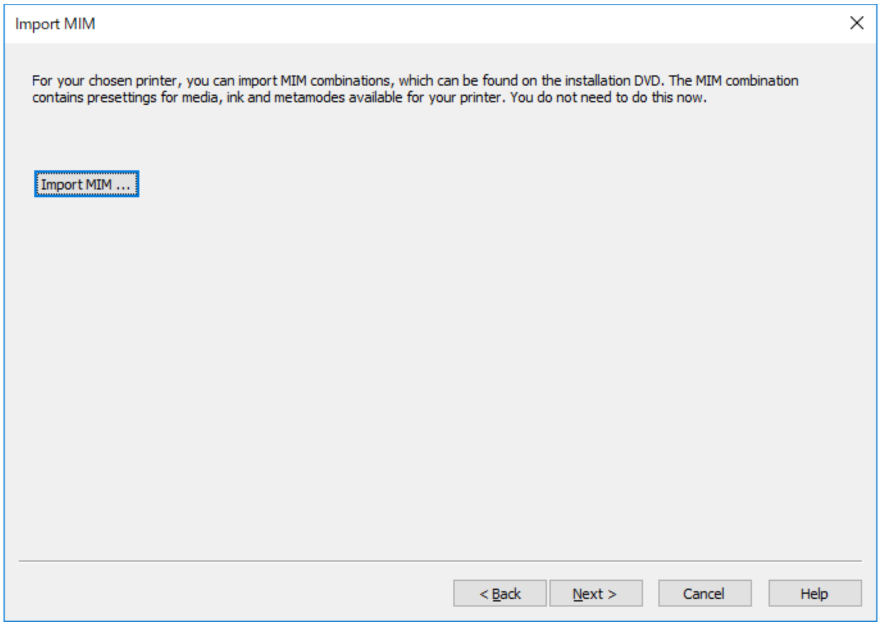
○ Administrate MIM Combination

● Import MIM Files

○ Export MIM Files

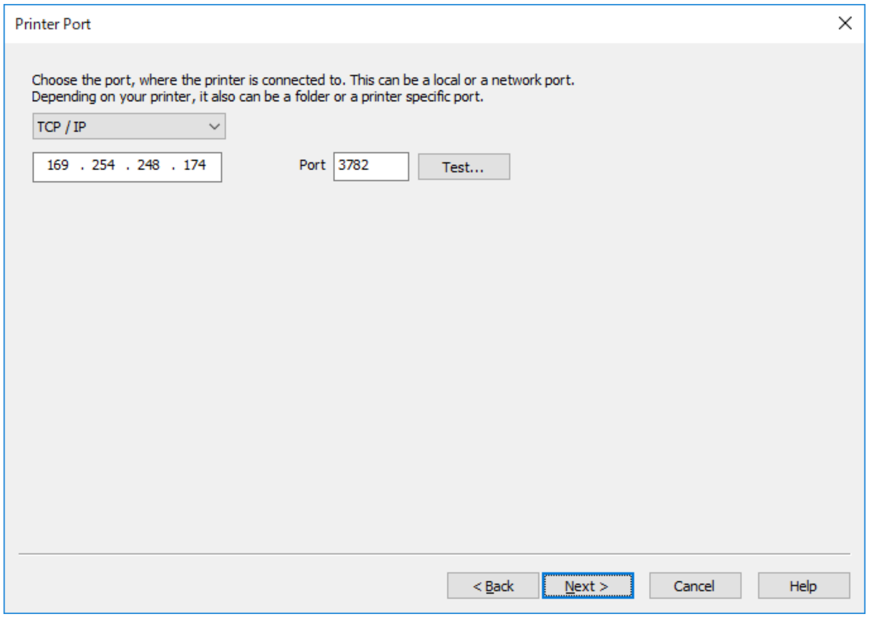
MIM Download Area

8 Push "Next" button



For your chosen printer, you can import MIM combinations, which can be found on the installation DVD. The MIM combination contains presettings for media, ink and metamodes available for your printer. You do not need to do this now.

9 Next you will be asked to input the printer port – put in the IP address of the printer. Selecting the Test button will confirm communication with the printer. You can also click on the arrow next to TCP / IP and you can change the output to Path. You can then input the file path where you want the printable .prn files to go in your computer. Push Next when you are done



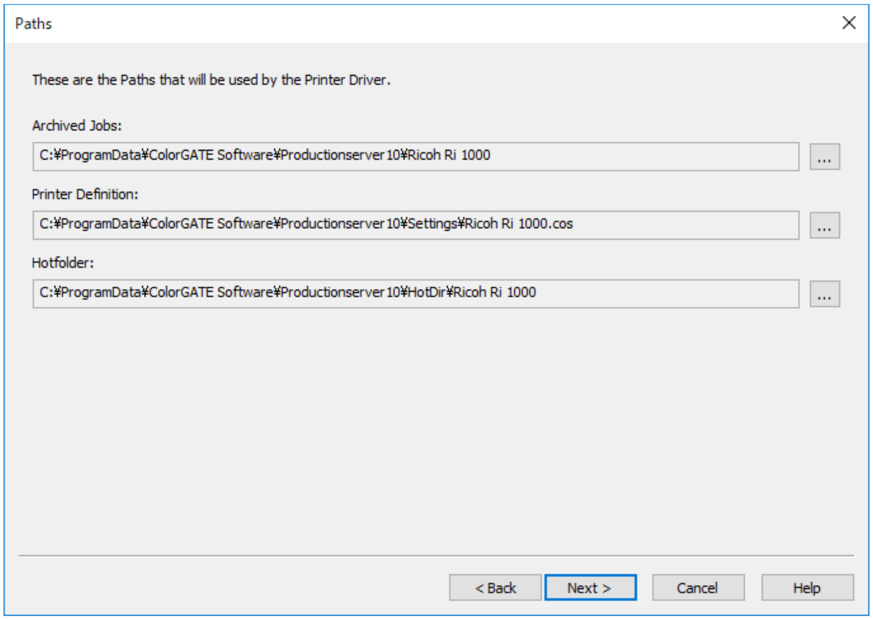
Choose the port, where the printer is connected to. This can be a local or a network port.
Depending on your printer, it also can be a folder or a printer specific port.

TCP / IP

169 . 254 . 248 . 174

Port 3782

10 Push “Next” button.



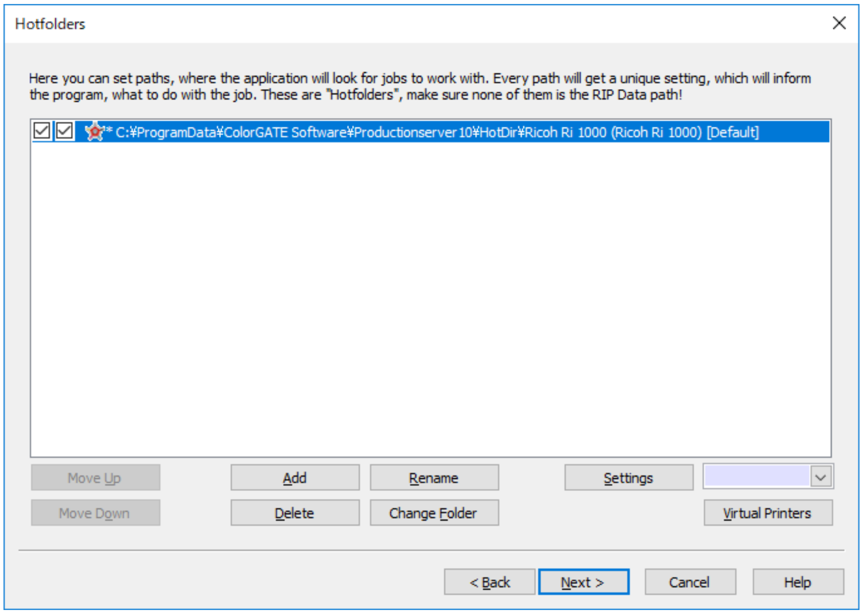
These are the Paths that will be used by the Printer Driver.

Archived Jobs:
C:¥ProgramData¥ColorGATE Software¥Productionserver10¥Ricoh Ri 1000

Printer Definition:
C:¥ProgramData¥ColorGATE Software¥Productionserver10¥Settings¥Ricoh Ri 1000.cos

Hotfolder:
C:¥ProgramData¥ColorGATE Software¥Productionserver10¥HotDir¥Ricoh Ri 1000

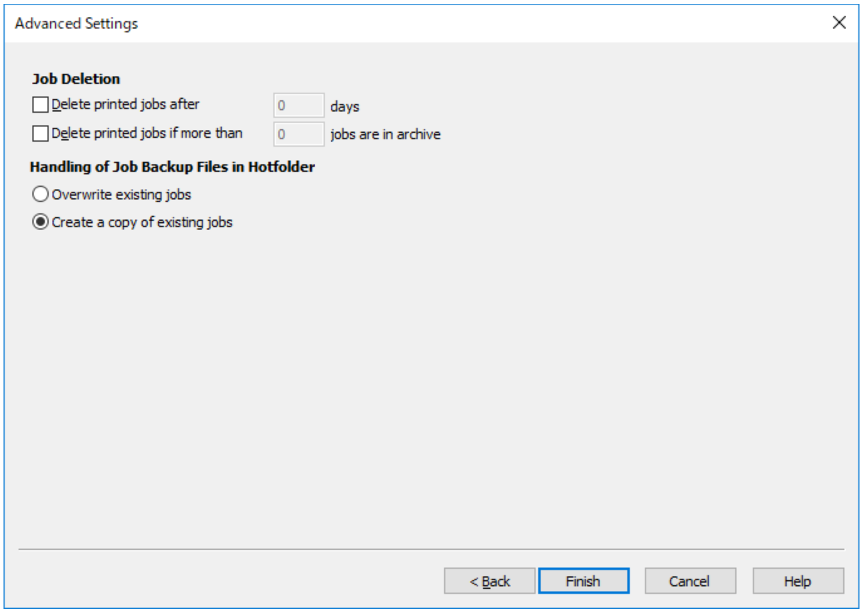
11 Push “Next” button. Later you can configure the hot folder by selecting settings and then configuring how you want graphic files put in the hot folder RIPed.



Here you can set paths, where the application will look for jobs to work with. Every path will get a unique setting, which will inform the program, what to do with the job. These are "Hotfolders", make sure none of them is the RIP Data path!

☑ ☑ * C:¥ProgramData¥ColorGATE Software¥Productionserver10¥HotDir¥Ricoh Ri 1000 (Ricoh Ri 1000) [Default]

12 Push "Finish” Button. If you want to make changes like change the printer IP address or switch to print to file then in the top menu bar select Printer – Properties – then select the Printer Port tab and make the changes



Job Deletion

☐ Delete printed jobs after 0 days

☐ Delete printed jobs if more than 0 jobs are in archive

Handling of Job Backup Files in Hotfolder

○ Overwrite existing jobs

● Create a copy of existing jobs

ColorGATE Use:

Here is a basic description of how to use the software and prepare printable files

Print method

1. Drag your job (the file/s) via drag & drop from Windows Explorer into the job queue which is the window on the lower left of the ColorGATE software screen. You can also click on the arrow next to the file cabinet icon above that window and select Ricoh Ri 1000 and then select a graphic from the file browser.
2. ColorGATE excepts .png, .tiff and .jpeg files

For more detail, refer to "Loading and Printing Jobs > Load Job > Overview" in ProductionSever -> ? -> Help Contents.

Change of print mode

1. Select the job and click right mouse button and select the "Settings" or double click on the graphic file name in the lower left RIP que window

2. Move the following screen ("Color" Tab
3. For Media - You can select Black Garment or White Garment – IF Black garment is selected then a white under base will print, If White Garment is selected the no white ink will print.
4. Ink will always be Tex 1
5. For MetaMode you can select from the following Quality Levels

   SuperSpeed – 1 pass - Works for white shirts - some indexing lines will show in dark shirts

   Speed – 2 pass – some indexing lines show in some cases on dark shirts

   Fine – 4 pass

   Superfine - 8 pass 1200 X 1200 dpi

   Superfine Color burst – 8 pass 1200 X 1200 dpi for more vivid colors

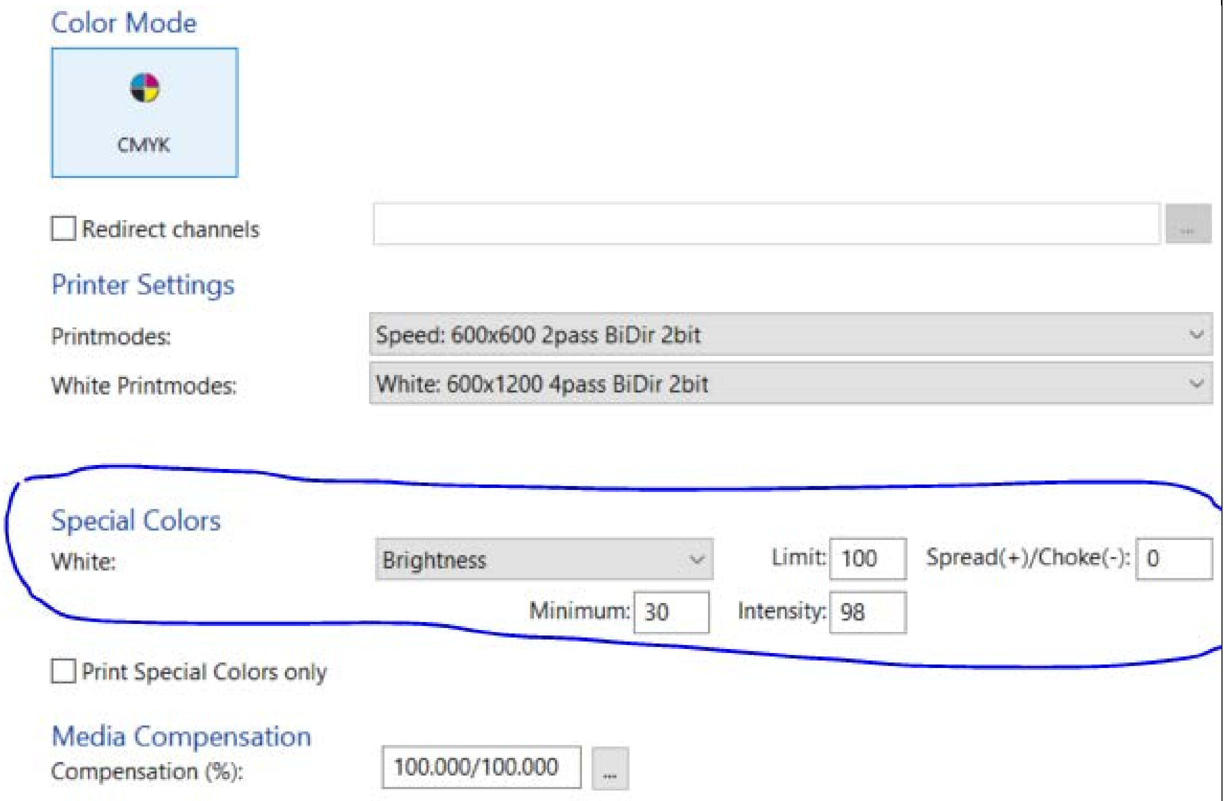
6. Select OK when you are done adjusting – **if you do not select OK the changes will not take place.**

Additional Tips:

If Black Garment is selected as the Media - Move to the color tab > Settings (under the Advanced heading) > Print Mode tab

Under Special Colors White: Select Brightness Black substrate if printing on a Black T-shirt

Select Brightness if printing on a colored T-shirt – set the minimum to 30 – this will protect the color of the shirt from influencing the color of the print.



☐ Redirect channels

Printmodes: Speed: 600x600 2pass BiDir 2bit

White Printmodes: White: 600x1200 4pass BiDir 2bit

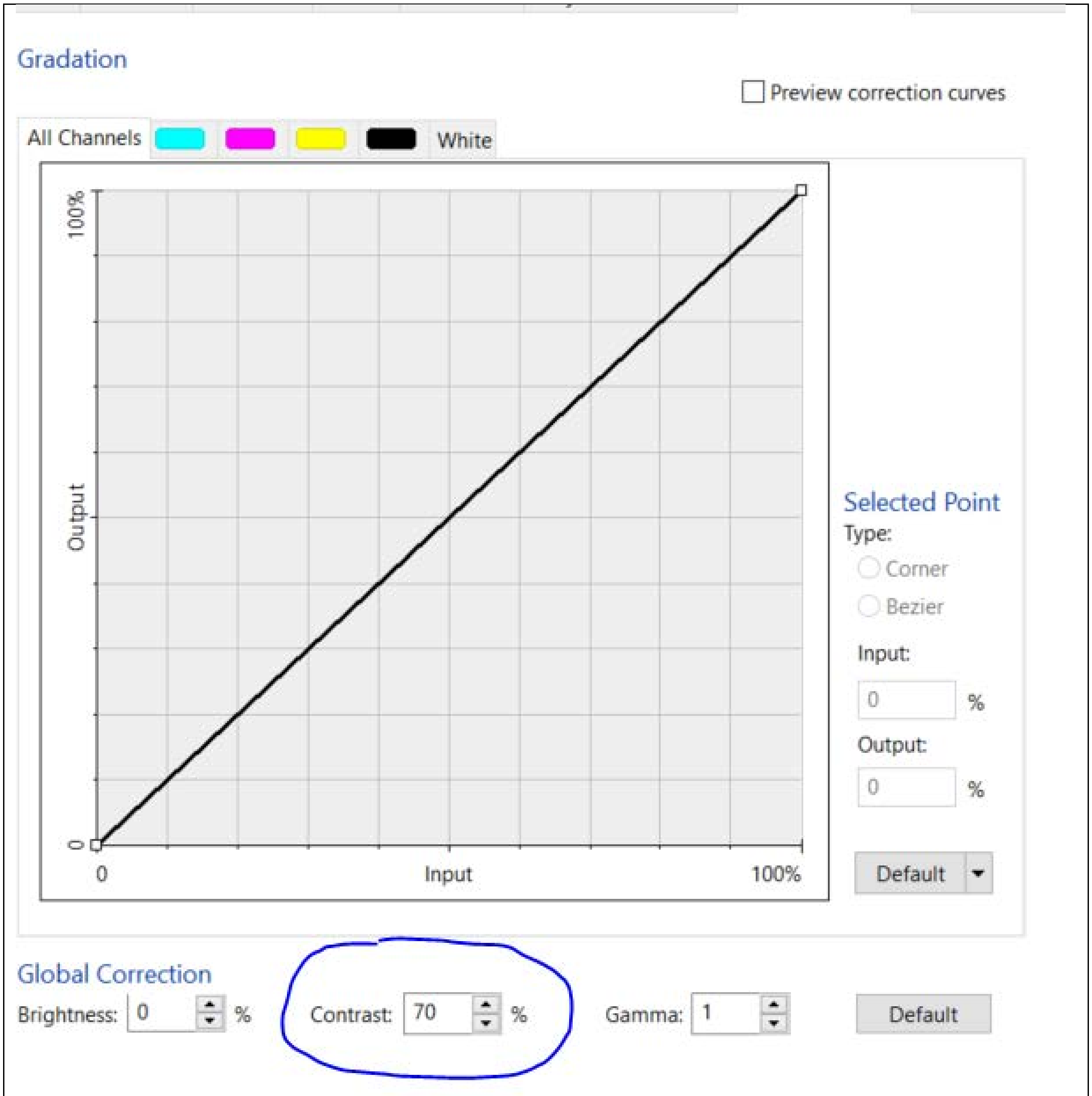
White: Brightness
Limit: 100
Spread(+)/Choke(-): 0
Minimum: 30
Intensity: 98

☐ Print Special Colors only

Compensation (%): 100.000/100.000

When selecting Brightness - black ink will also print in the black sections of the graphic. In the default of the of Brightness Black substrate black ink will not print because the assumption is the shirt is black.

You can also move to the Color Correction Tab – You can set the Contrast to 70 if you want the prints to POP a little more.



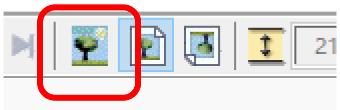
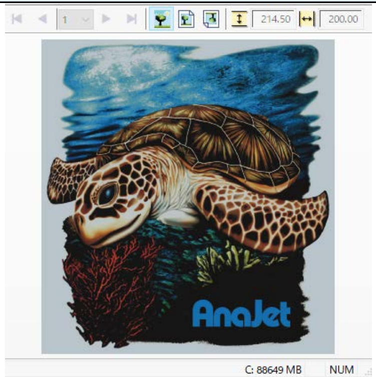
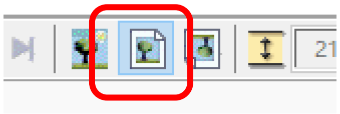
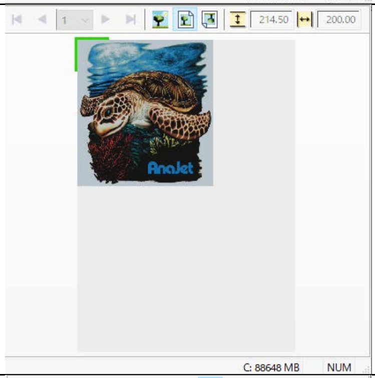
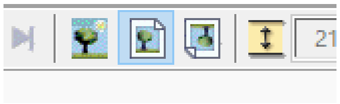
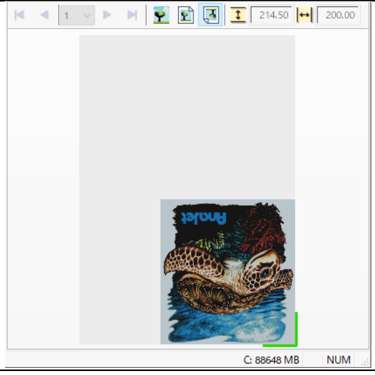
Brightness: 0 %

Contrast: 70 %

Gamma: 1

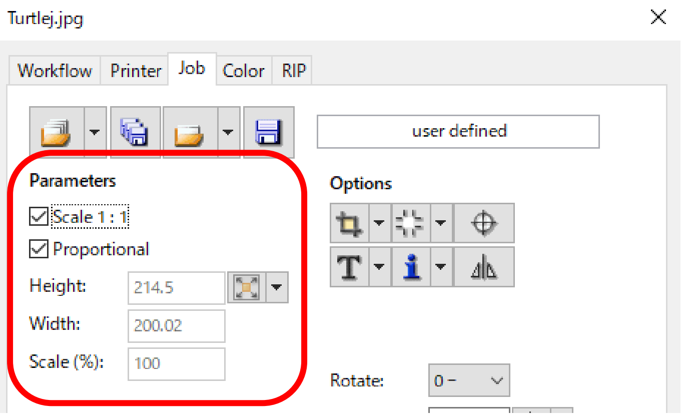
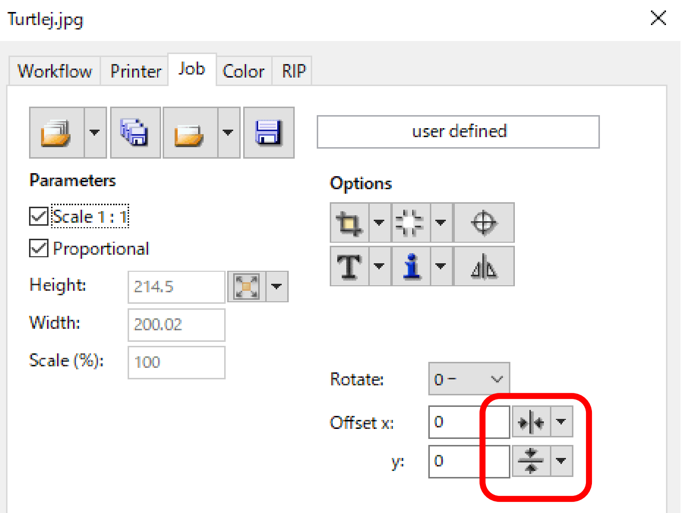
Again select OK when you are done making changes – **If you do not hit OK then the changes will not take place**

How to change view to platen or media view under View

Item	Description	Image
DocumentPreview 	Image Preview You can also select by going to “View” in the top menu bar– Preview – Document preview	
Media Preview  **Standard operation**	Preview the position and size on the platen to be printed – You can also select by going to “View” in the top menu bar– Preview – Media preview – this will show how the image positions on the printer platen	
Printer Output 	Preview the printing result. You can also select by going to “View” in the top menu bar– Preview – Printer output – this will show how the image will look as you look at the front of the printer	

How to scale, size and position graphics on the platen

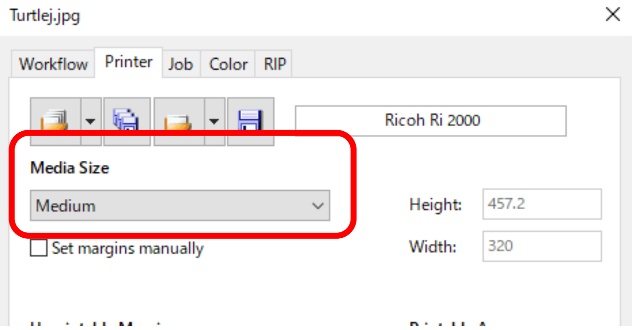
[Job]->[Settings...]->[Job]tab

Item	Description	Image
Scale1:1	Original size – uncheck this to change the graphic size (note the graphic must fit on the plate)	 Turtlej.jpg user defined Parameters ☑ Scale 1 : 1 ☑ Proportional Height: 214.5 Width: 200.02 Scale (%): 100 Rotate: 0 –
Proportional	Keep aspect ratio and can resize the graphic once Scale 1:1 has been unchecked	
Height/Width	Specify size *If proportional is still checked - if the Height of Width is changed the other will change automatically	
Scale (%)	Image scaling – unchecking the Scale 1:1 box allows you to adjust the size either by the Height and width or by changing the Scale % Unchecking the Proportional box allows you to change the height and width independently	
Offset x	Left/Right/Center on the media horizontally – Where the graphic will start printing on the platen from right to left *Or enter value in text box	 Turtlej.jpg user defined Parameters ☑ Scale 1 : 1 ☑ Proportional Height: 214.5 Width: 200.02 Scale (%): 100 Rotate: 0 – Offset x: 0 y: 0
Offset y	Top/Bottom/Center on the media vertically – where the graphic will start printing from top to bottom *Or enter value in text box	

Again you must select OK to make the sizing and position changes happen - **if not the changes will not take affect –** Once you select OK you will see the changes take affect on the preview.

How to change the platen size "Media size"

Printertab->Media Size
Select media size (platen size) from pulldown. Default is Medium - you can select small or large as well – make sure this matches the platen that is on the printer



Ricoh Ri 2000

Media Size: Medium

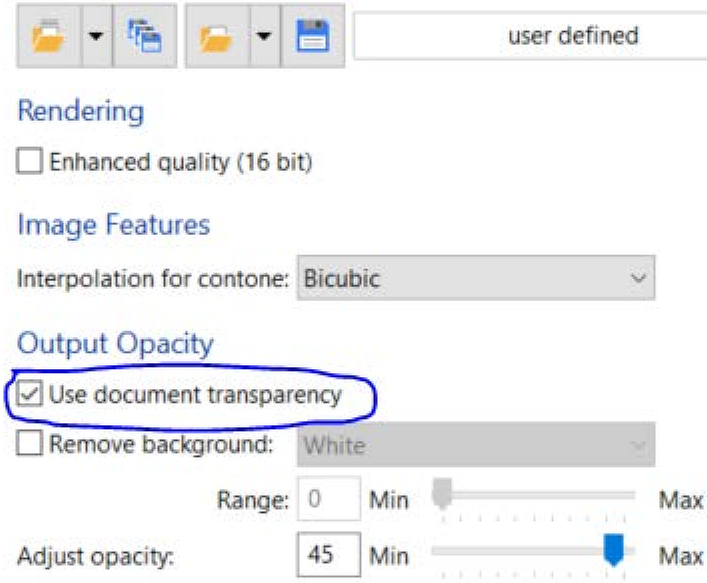
Height: 457.2

Width: 320

☐ Set margins manually

If the document has a transparency –

- If you are printing on a dark shirt and the graphic file has a transparency layer – this will print as a solid white background unless you check Use document transparency.
- To do this go to the RIP tab and check the Use document transparency box under the Output Opacity heading



user defined

Rendering

☐ Enhanced quality (16 bit)

Image Features

Interpolation for contone: Bicubic

Output Opacity

☑ Use document transparency

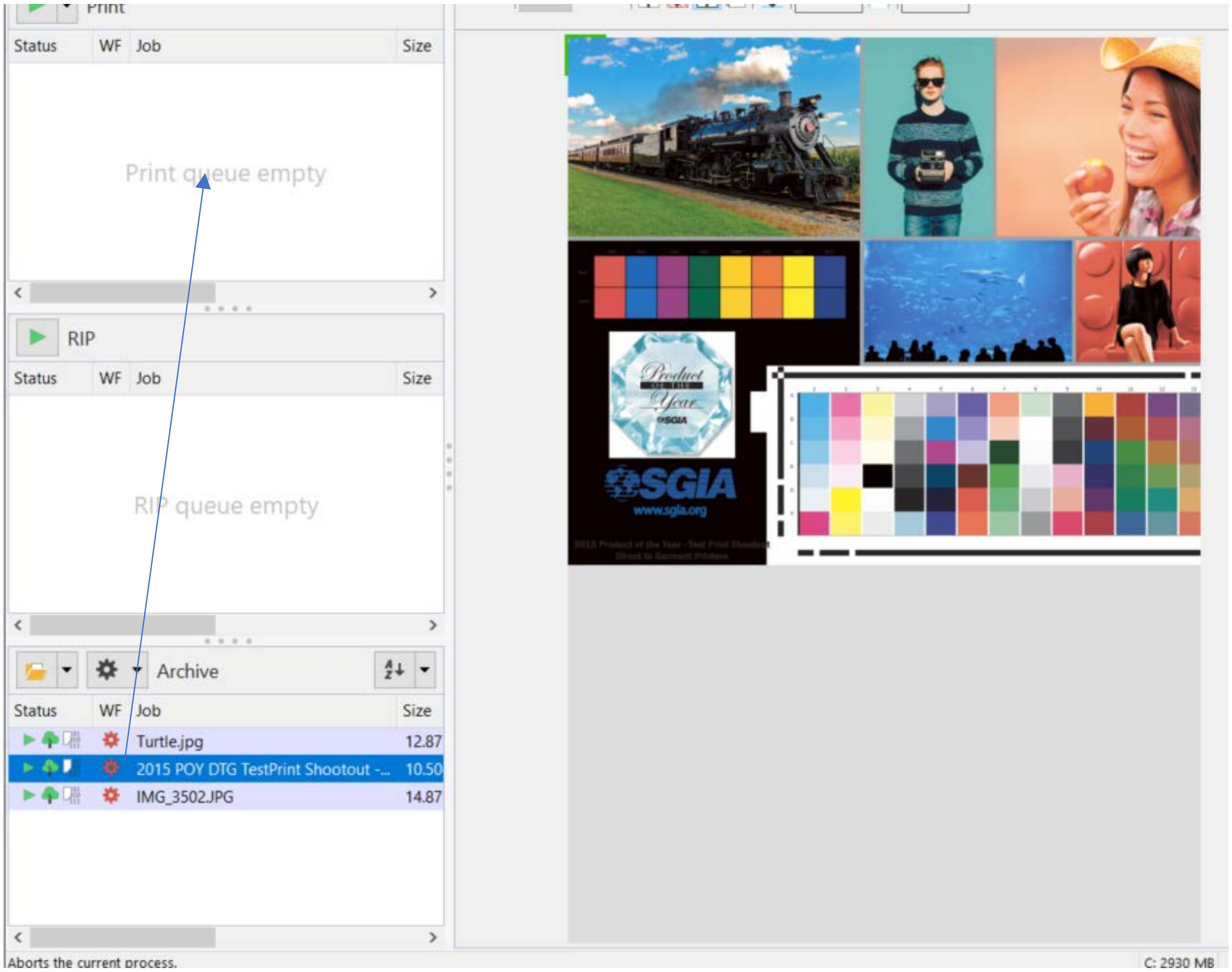
☐ Remove background: White

Range: 0 Min Max

Adjust opacity: 45 Min Max

Printing a file:

To print drag the job from the bottom left Print que window to the top left window or Right click on the job and select print.



Status	WF	Job	Size
		Turtle.jpg	12.87
		2015 POY DTG TestPrint Shootout -...	10.50
		IMG_3502.JPG	14.87

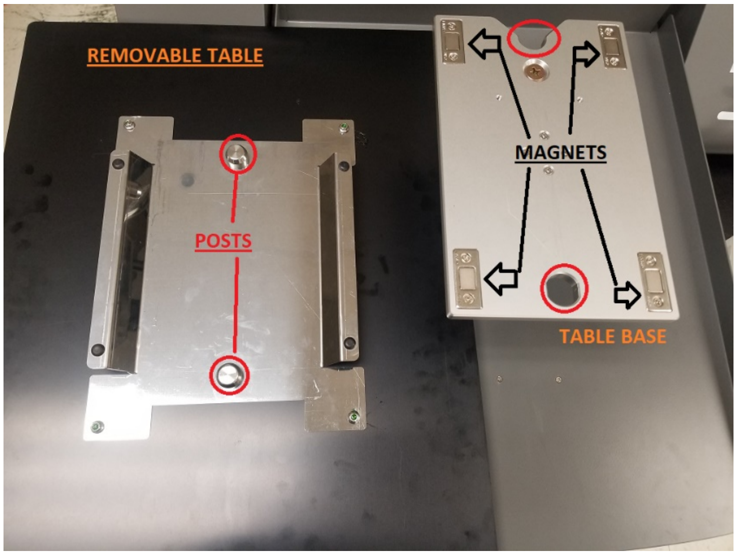
Aborts the current process.

More types and review of colorgate will be shown in the Printing your image section

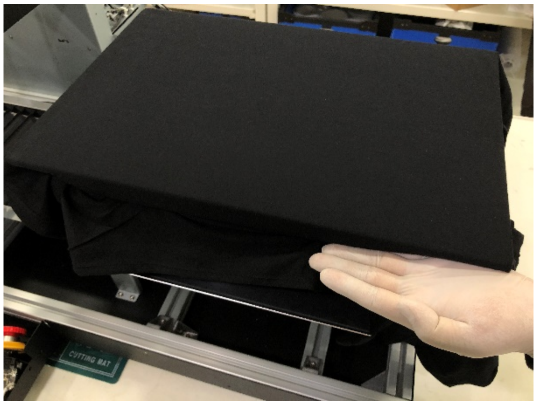
2.0 Preparing Media for Printing

2.1 Mounting Print Table onto Printer

- The Table is mounted on the table base using magnets shown below in black

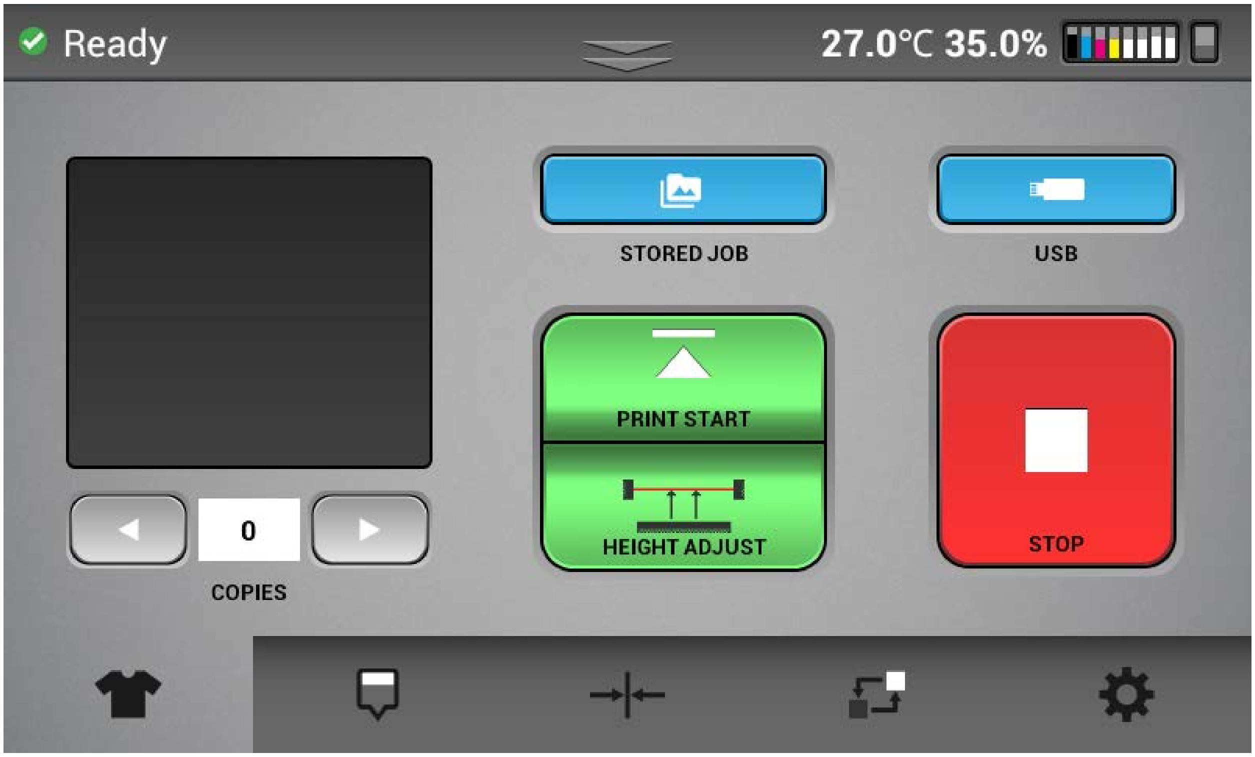


Place the medium platen on the table base

- Place the substrate on top of the table then place the table hoop back over the substrate and table
  - ❖ ***Sleeve or dress the shirt on to the table so that only one piece of the garment is laying flat on top of the table, pull garment from the sides, front and back to ensure no wrinkles are present, Wrinkles may cause head strikes to occur (pre-press shirts prior to printing to allow for a flatter surface)***
  - ❖ *Note: Table hoop may not fit around thicker garments*
  - ❖ 

Recommend Heat pressing the shirt for aprox. 10 Sec prior to printing to eliminate any wrinkles or fibers sticking up. It is important to eliminate any wrinkles as this will affect print quality and also the auto height function will always adjust to the highest point on the platen.

Now hit the Height Adjust button



The Table will then automatically scan using the media sensor and adjust to the optimum height. The Platen will be all the way inside the printer ready to print when this operation is complete.

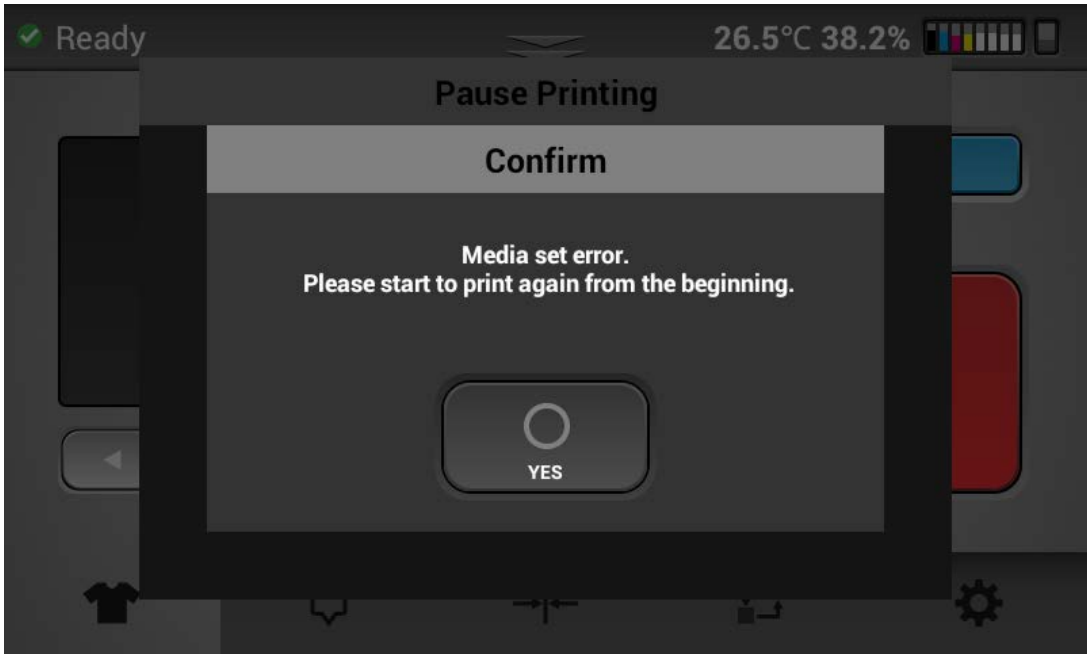
If you want the table to move back out of the machine into the shirt loading and unloading position again - press the STOP button.

NOTE: When first starting the printer, the Print Start button will be Greyed out and be inoperable until Height Adjust is performed. This will also happen after any maintenance.

Height Adjust will place the printing surface 2mm from the print heads for optimal quality and minimal ink mist.

- NOTE – if changing the types of material that is being printed on, for example form a sweat shirt to a T-shirt, always perform Height adjust – that way the printing surface will always be the optimal 2mm from the print heads when printing for best quality. Failure to do this may result in poor print quality and can lead to printer damage due to ink mist.

Once Height Adjust has been performed it does not need to be performed again if printing on the same type of material. The media sensor will automatically make minor adjustments each time the platen is scanned into the printer at the beginning of each print. If there is a wrinkle that is too large - then printing will be aborted and the following message will appear.



Media set error.
Please start to print again from the beginning.

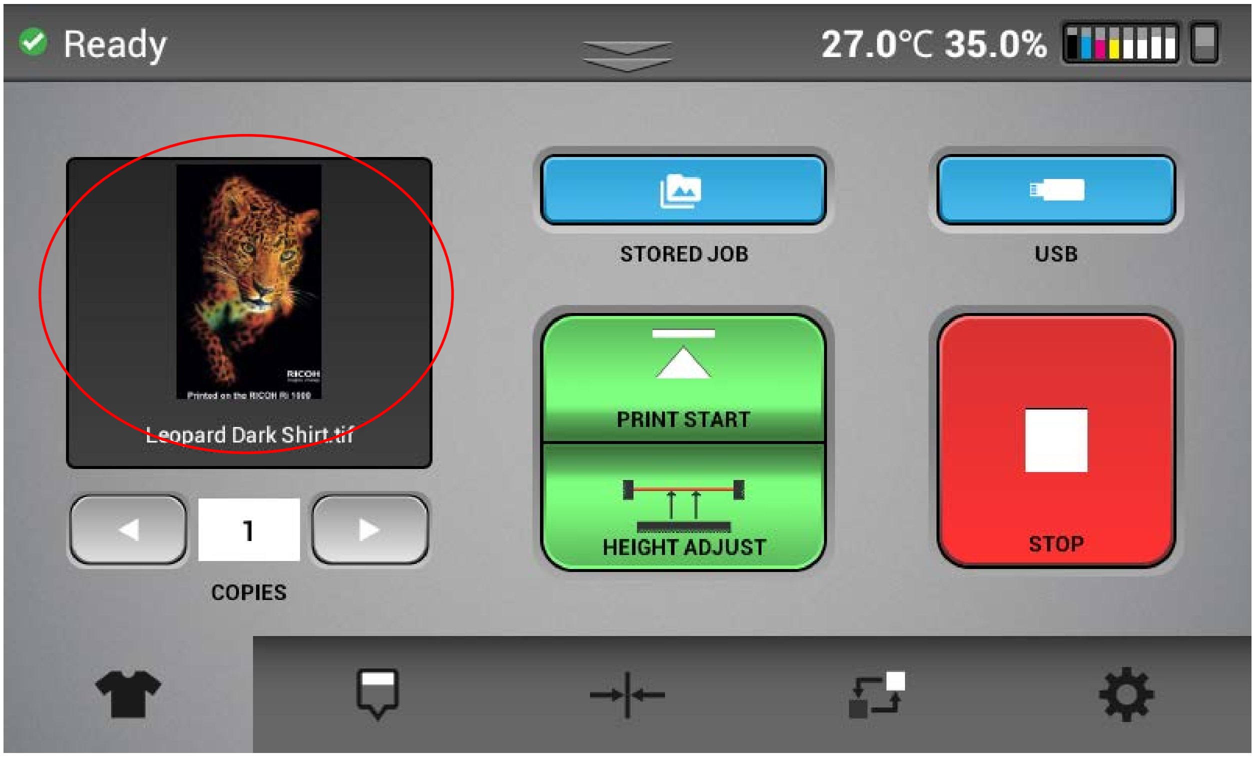
Simply flatten out the wrinkle and select print.

3 Printing your image

Always perform a nozzle before starting a print job if you have not yet printed that day.

You can print in three ways

1) Send the printable file from the PC through the ethernet port. This is done if the printer port in ColorGATE is configured to the printers IP address as described in section 1.6. Once the Job is moved from the print que in ColorGATE (the bottom left hand window) to the print window (the top left hand window in ColorGATE). The job will then RIP and be sent to the printer and be displayed in the preview window of the control panel



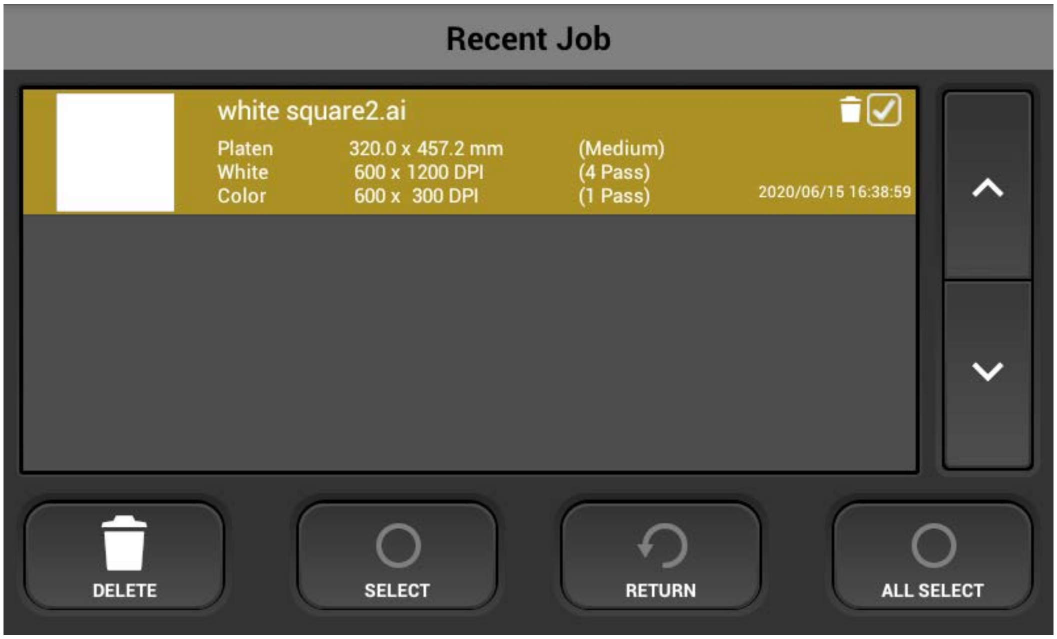
Pressing the Print Start button will commence printing.

Note: Once a job is loaded, you can select the number of copies you want to print. The right arrow increases the amount and the left arrow decreases the amount. After printing the number decreases by one and then you can print the next copy by pressing Set.

2) Select the printable file from internal storage. These will be jobs that previously printed on the printer.

Tap the stored job icon

Then select the file that you want to print



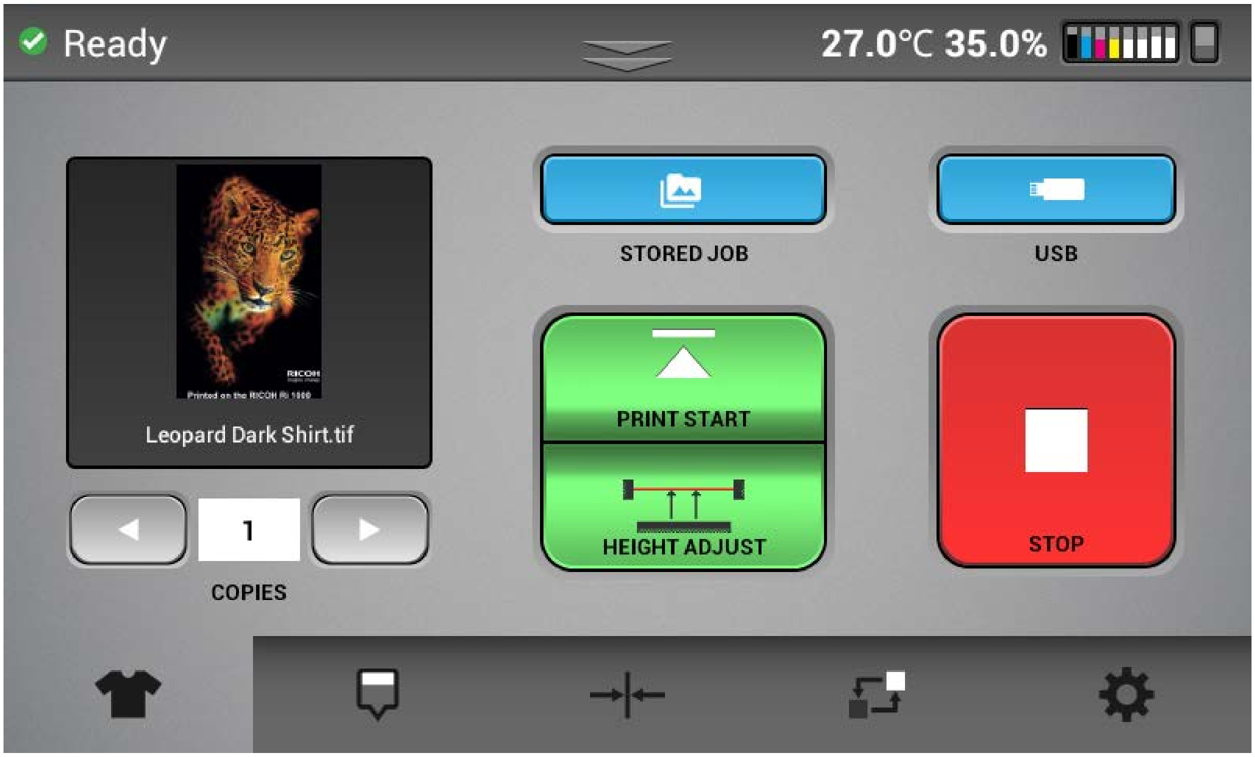
Recent Job

white square2.ai

Platen	320.0 x 457.2 mm	(Medium)
White	600 x 1200 DPI	(4 Pass)
Color	600 x 300 DPI	(1 Pass)

2020/06/15 16:38:59

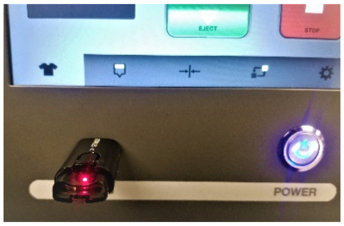
Pressing select on the highlighted job will then load the file for printing and the job will show in the preview window



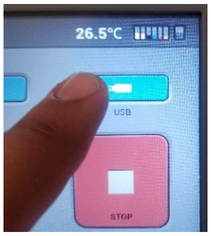
Note: Once a job is loaded, you can select the number of copies you want to print. The right arrow increases the amount and the left arrow decreases the amount. After printing the number decreases by one and then you can print the next copy by pressing Set.

3) Selecting a job from the USB flash drive. If your printer port selected in ColorGATE is Path and not the IP address of the printer, then, when the Job is RIPed in ColorGATE the output .prn file is sent to a file location on the PC. The .prn file can be copied to a flash drive.

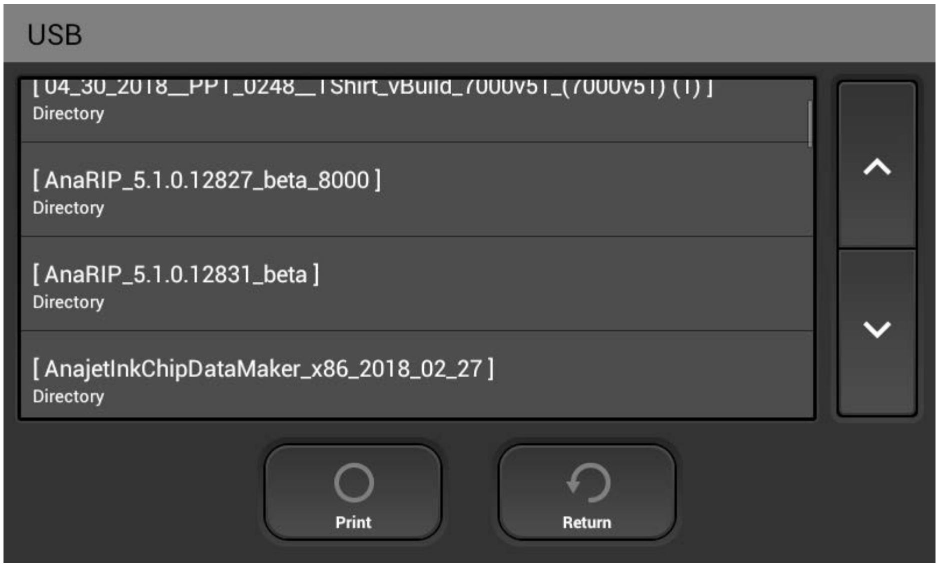
Insert USB Drive into front USB port



Tap the USB icon



Tap the desired file to print then select the PRINT icon



USB

[04_30_2018__PPT_0248__TShirt_vBuild_7000v51_(7000v51) (1)]
Directory

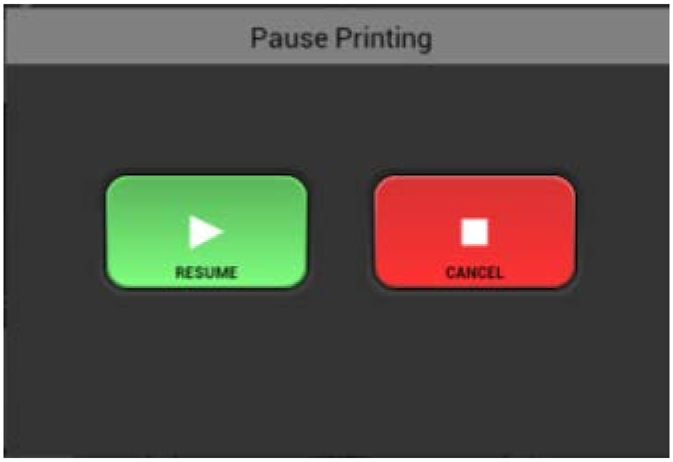
[AnaRIP_5.1.0.12827_beta_8000]
Directory

[AnaRIP_5.1.0.12831_beta]
Directory

[AnajetInkChipDataMaker_x86_2018_02_27]
Directory

The selected print will be displayed in the thumbnail preview

To CANCEL a print job press the ■ Stop button during the print, the following dialogue box will appear



Then select the CANCEL button to stop the current print job.

Preparing Graphics to RIP

- For optimum results below are the suggested image file settings:
    - Minimum 300 DPI
    - Canvas size 16 x 20 (maximum/Large Platen)
    - Recommended file types for LIGHT shirt printing are; .PNG, TIFF, JPEG
    - Recommended file types for DARK shirt printing are; .PNG and TIFF as they support transparency features and allow for a much more commercially acceptable print

2.1 Removing Garments from the Print Table

After printing has completed, remove the hoop from the table. Do not touch the image as the ink is still wet at this point. Remove the garment from the table being sure that the printed image is facing you when it is removed. Do not let the shirt fold or touch itself as this could cause ink transfer to other parts of the garment. Take the garment to your heat press or conveyer dryer fix the ink to the garment.

⚠CAUTION

- When removing the fabric, be careful so that your hand or any other part of your body does not come in contact with ink. If your skin comes in contact with ink, wash the affected area thoroughly with soap and water. If your clothing comes into contact with ink, wash the stained area with cold water.

2.3 Set the Image with Heat

User's Notes

• For information about how to use the heat press device, see the manual.

In order to cure the ink so that your images will be color-fast when washing, it is necessary to heat treat the image so that the image bonds with the garment.

- If you are using a heat press place the garment on the heat press platen with the printed side up. Pull by the edges to ensure proper placement and that it is flat on the heat press, minding not to touch the wet ink. Cover the garment with a sheet of SoftTouch heat press paper, for Ricoh authorized ink. Close the press and heat the printed garment for 90 seconds at 330ºF or 165C. The pressure applied by the heat press when close should be in the medium range. When the time is completed open the heat press and remove the heat press paper immediately. SoftTouch heat press paper can be reused several times. Note: If the pressure on the heat press is too low, the wash fastness of the garment can be reduced, and prints will fade quicker with washing.

- Instead of SoftTouch, a Teflon sheet or Kraft Paper Cover Sheet can be used. When reusing the SoftTouch Paper, make sure there are no wrinkles as these will transfer to the garment. If this is the case use a new sheet. The printed garment is now completed. If you are also printing dark shirt images you need to reduce the heat press temperature and increase the time. Settings for dark garments of 330ºF or 165ºC for 90 seconds will also work for light garments.

- Note – for best results – you can also press the shirt for 10 -15 sec prior to printing. This will ensure that the fibers are flattened which is optimal for DTG printing

- If you are using a textile oven or conveyor dryer, please test the temperature of the printed image when it exits the dryer to assure that it has reached 330˚F or 165˚C. Also, please do a wash test of your first attempts to be sure that the inks have cured properly and wash ability has been attained.

Ricoh Authorized Ink	**Temperature**	**Time**
Light and Dark Shirt with Heat Press	330°F or 165°C	90 seconds
Light and Dark Shirt with Conveyer Dryer	Printed image must reach 330°F or 165°C	Varies

Heat Curing Temperature and Time Variations for Light Garments

2.4

Pretreating Substrates (light and dark)

⚠CAUTION

- When swallowing or inhaling ink, cleaning solution or pretreatment liquid, or when getting them in the eye, follow the guidance in the appropriate safety data sheet (SDS). Download the SDS from the AnaJet website at http://anajet.com/technical-documentation

⚠CAUTION

- Place ink, cleaning solution, and pretreatment liquid in a cool, well-ventilated place out of the reach of children.

- Keep waste ink, containers for ink, cleaning solution and pretreatment liquid, and components that have been in contact with ink out of the reach of children.

- When handling ink, cleaning solution or pretreatment liquid, avoid getting anything on your clothing. If you do, wash the stained area with cold water.

Pre-treatment Liquid is to be used with care. Do not let it contact your eyes. Do not breathe in the vapor or mist. Thoroughly wash your hands after handling it. If your clothing gets contaminated, wash it before reuse. If an accident happens please follow the Caution and First Aid instructions on the Pre-treatment Liquid bottle label.

Due to the corrosive nature of the pre-treatment solution, we recommend that all users apply pre-treatment using gloves and a dust mask. Follow the instructions on the label. For dark substrate printing, the most critical process is proper application of Pre-treatment Solution onto the substrates. Spotty or improper application of the Pre-treatment or improper drying will result in white ink not bonding properly with the substrate fabric. This in turn will cause poor image quality and premature wash out of the image.

For additional information, please refer to the SDS sheets located on the website at http://anajet.com/technical-documentation

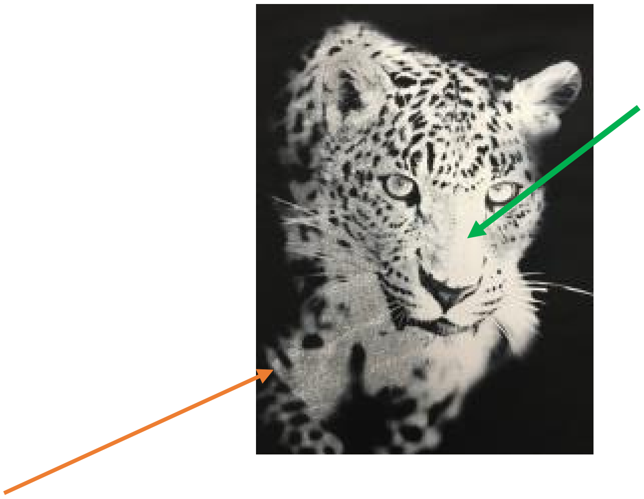
[Pre- treatment Application Procedure]

- A well-ventilated room. Good ventilation is essential for worker comfort and health. Application of Pre- treatment Liquid outdoors is not recommended on windy days as it can cause uneven application. It is recommended that a room away from the printer be dedicated to the application of pre-treatment so that the spray will not affect your printer.

- Our recommended process for applying the Pre-treatment Liquid is to use a High-Volume Low Pressure (HVLP) spray gun. These spray guns are commonly used for applying paints and are available from paint supply stores or home improvement stores. The Wagner Control Spray Gun, available for US customers **ONLY** and Campbell Hausfeld Paint Sprayer, found in local hardware stores are both good choices.

- Fill the sprayer reservoir with the mixture.
- Lay the substrate on a flat spray table. Make the substrate even and flat.
- Apply the pre-treatment mix with the sprayer adequately and an even amount, achieving an even wet sheen. Remember you only need to apply the pre-treatment to the areas that will be printed on**.**
- Squeegee the pretreatment in one direction to help spread the pre-treatment evenly after spraying. This also flattens any fabric fibers that may have risen due to the application of the wet pre-treatment.
- Dry the substrate. You can achieve an excellent result by letting the substrates air dry or you can use a heat press in the hover position (This means the heat press is not closed but has a ½-inch to 1-inch gap to allow the steam to escape) or a heat tunnel. You can also heat press dry shirts with parchment paper in between the press and the pretreated shirt. Press with full pressure for 20 sec. Release and flip the parchment paper over and press for 20 sec again. Do not dry your substrates in a tumble dryer. These dryers are full of lint and since the pre-treatment is wet and somewhat sticky you will end up with lint stuck to the pre-treatment.

- Once the substrate is dry to the touch, its able to be printed on. If you plan on storing the substrates for later use, be sure that they are completely dry beforehand to prevent mildew.
- When first attempting the pre-treatment process test with a few shirts to determine how much to spray. Too much pre-treatment can leave dark areas on the substrates. Too little pre-treatment can make the prints look dull. **The performance of white ink is highly dependent on proper application of pre-treatment.**

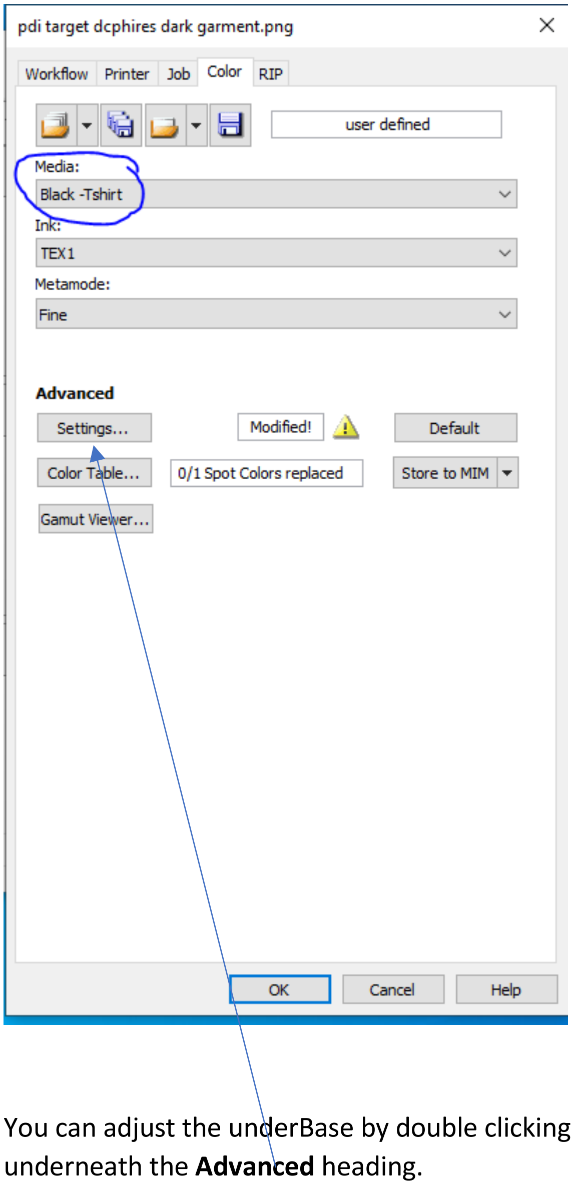


Poor Pre-Treatment Can Be Seen on the Left Side of this Image and is shown to be muddled, gray and not as solid as the nose of the leopard (green arrow)

We recommend image armor ultra as pretreatment. Using image armor ultra will allow you to fully utilize the speed of the Ri 2000 as it will "Crash" the white ink fast enough to be receptive to the color ink as the Ri 2000 prints white and color ink in one pass. Other pretreats or too much pretreat may cause the white ink to pool which will then require a wait time in- between the white and color layers. (How to add a wait time is explained in "options")

2.5 Underbase

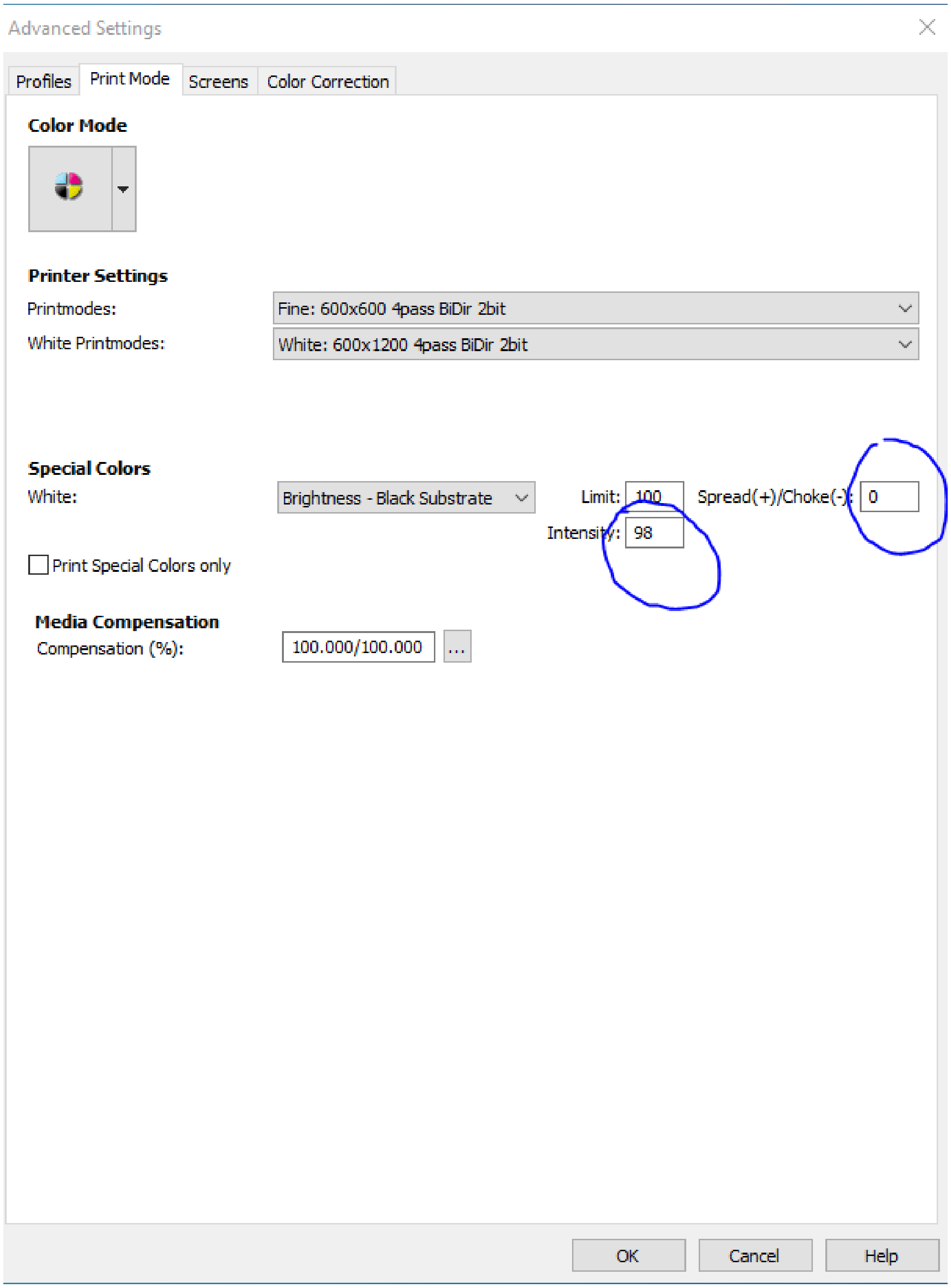
When you select in colorGate the Media “Black-Tshirt.”, when the file is created it will call for a white underBase



You can adjust the underBase by double clicking on the Settings button on the Color Tab located underneath the **Advanced** heading.

2.6 Underbase Settings

In the PrintMode Tab under the heading special colors you can adjust the intensity and add choke if needed by adding a – number in the Spread(+)/Choke (-) box.



Advanced Settings

Color Mode

Printer Settings

Printmodes: Fine: 600x600 4pass BiDir 2bit

White Printmodes: White: 600x1200 4pass BiDir 2bit

Special Colors

White: Brightness - Black Substrate

Limit: 100

Intensity: 98

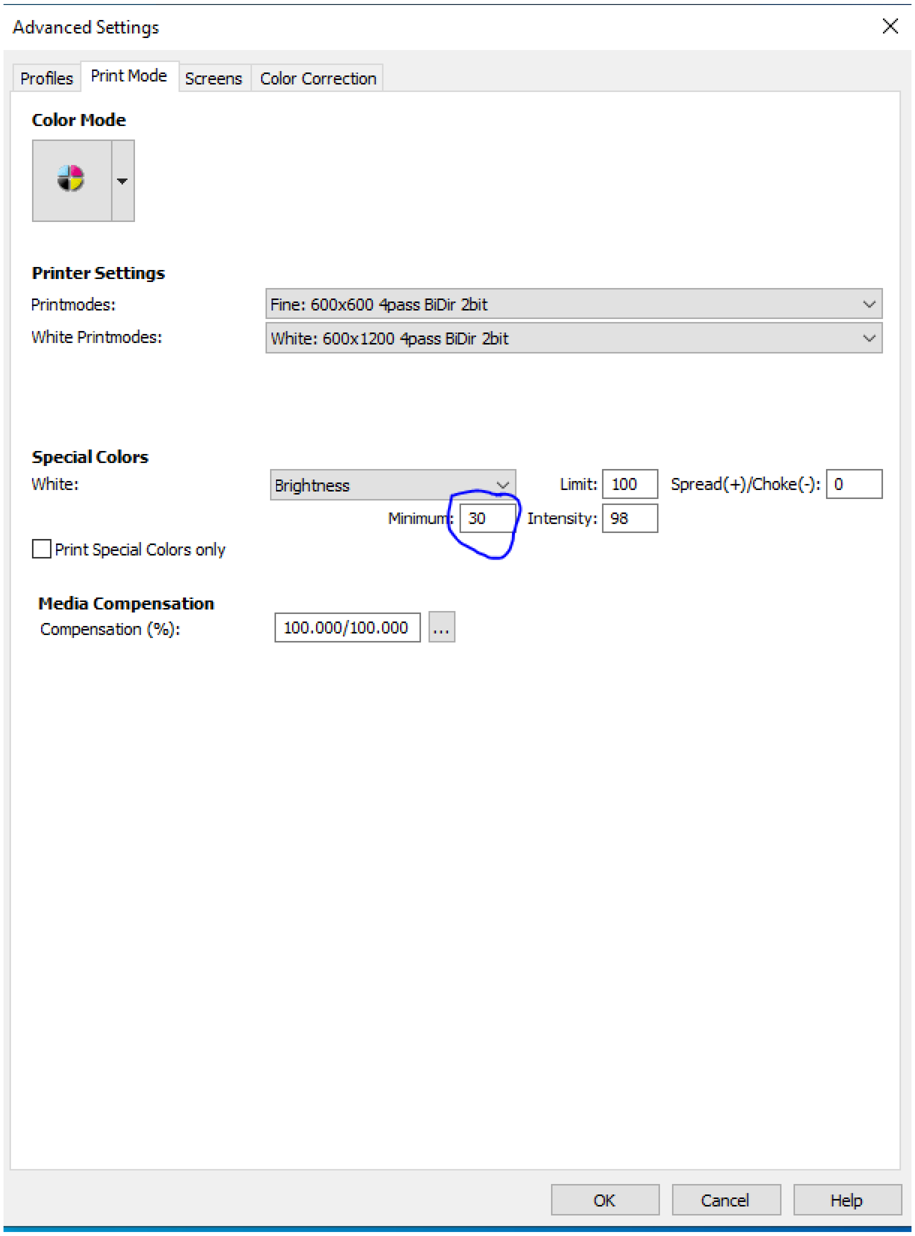
Spread(+)/Choke(-): 0

☐ Print Special Colors only

Media Compensation

Compensation (%): 100.000/100.000

Under Special colors - Brightness-Black Substrate is selected – this assumes that the shirt you are printing on is black and will not print black colors but will simply use the shirt color. This saves white ink, however, if you are printing on a colored shirt but still require black to be printed, you should change this selection to Brightness – you then can set a minimum amount of white ink that will be printed in the underbase. Setting this to 30 will prevent the color of the shirt from influencing colors on your graphic.



Color Mode

Printer Settings

Printmodes: Fine: 600x600 4pass BiDir 2bit

White Printmodes: White: 600x1200 4pass BiDir 2bit

Special Colors

White: Brightness

Limit: 100

Spread(+)/Choke(-): 0

Minimum: 30

Intensity: 98

☐ Print Special Colors only

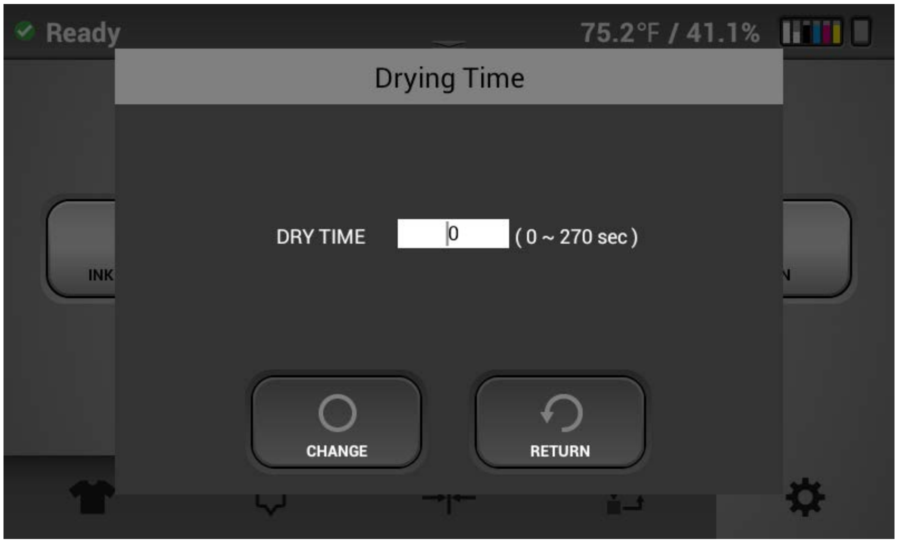
Media Compensation

Compensation (%): 100.000/100.000

Selecting OK will save the changes

Note: The underbase always prints in 4 Pass mode

- **Printing solid white underbase**
  By setting the minimum for the Brightness setting to 100 the underbase will print at 100% under all colors
  - *Note: with the underbase set this way it is recommended to also add a color layer wait time/dry time in between the white underbase and the color layer*
  - **In the printer** ⚙ **tab**
  - **Tap the** OPTION **icon**
  - **Tap** DRYING TIME **icon**
  - **Insert a numeric value in seconds based on how saturated the white under base is**



DRY TIME 0 (0 ~ 270 sec)

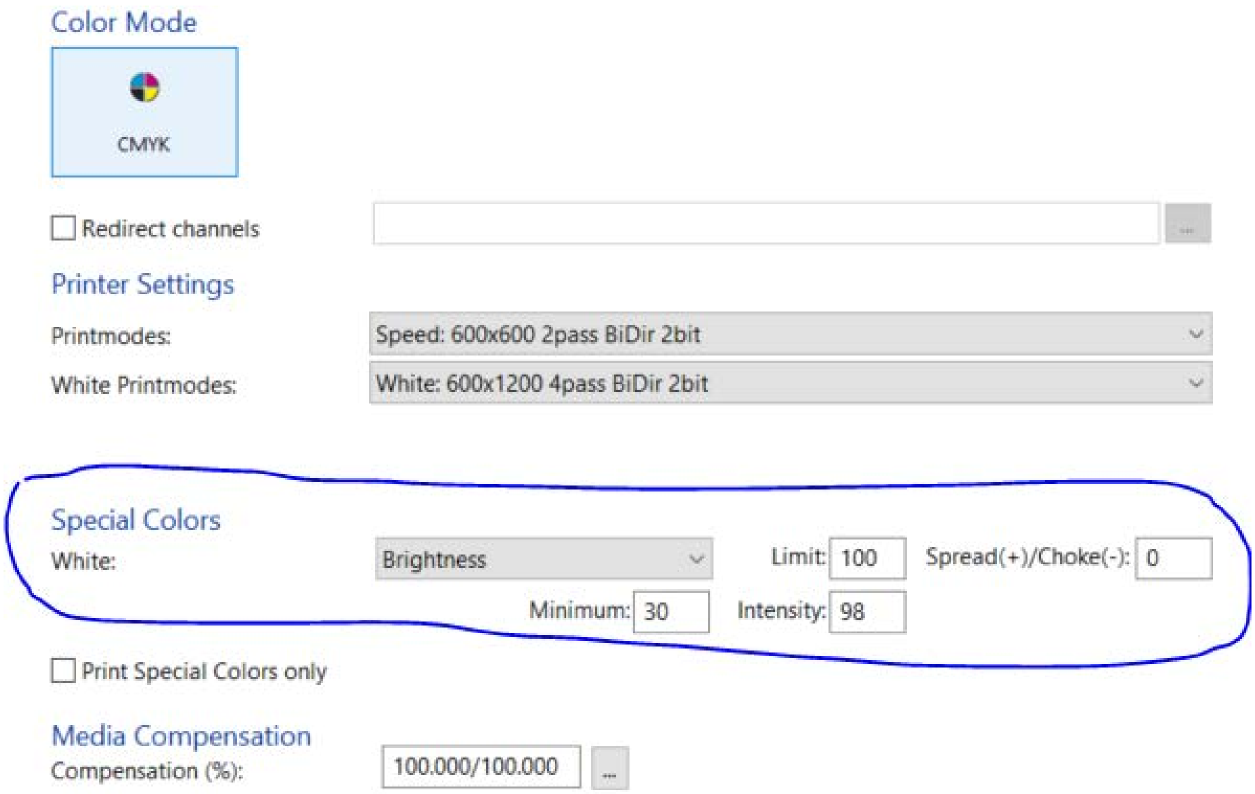
2.6 Choke

Combats the phenomena that when printing the White ink Underbase onto a garment the garment will expand and swell. This is the same for any type of garment printing including screen printing. The Choke setting slightly reduces the outside dimensions of the Underbase so that white ink does not appear outside the prints edges of the final color pass. If you see any white around the edges of your final print you will want to increase the choke value by putting a Negative value in the choke box.

Choke Needed

If you are printing an image that is only white you will need to set the Choke to 0 to prevent parts from dropping out completely.

To set the choke value put a negative number in the Spread(+)/Choke(-) box. The value must be negative to reduce the number of pixels. If a positive value is given the white under base will print larger.



☐ Redirect channels

Printmodes: Speed: 600x600 2pass BiDir 2bit
White Printmodes: White: 600x1200 4pass BiDir 2bit

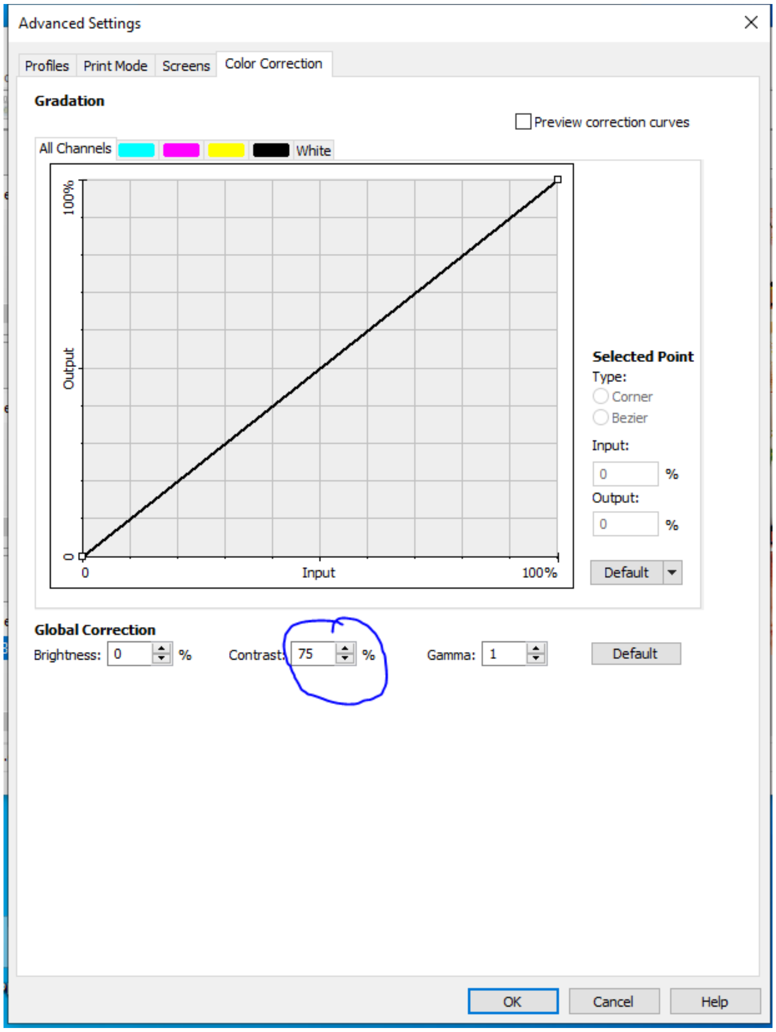
White: Brightness
Limit: 100
Spread(+)/Choke(-): 0
Minimum: 30
Intensity: 98

☐ Print Special Colors only

Compensation (%): 100.000/100.000

Other enhancements

Under the Color Tab then double clicking on the settings button- this going to the Color Corrections tab – you can adjust the Contrast – setting this at 70 to 75 will increase the difference between the light and dark areas of the print and make the print POP more.



Gradation

☐ Preview correction curves

Input: 0 %

Output: 0 %

Global Correction

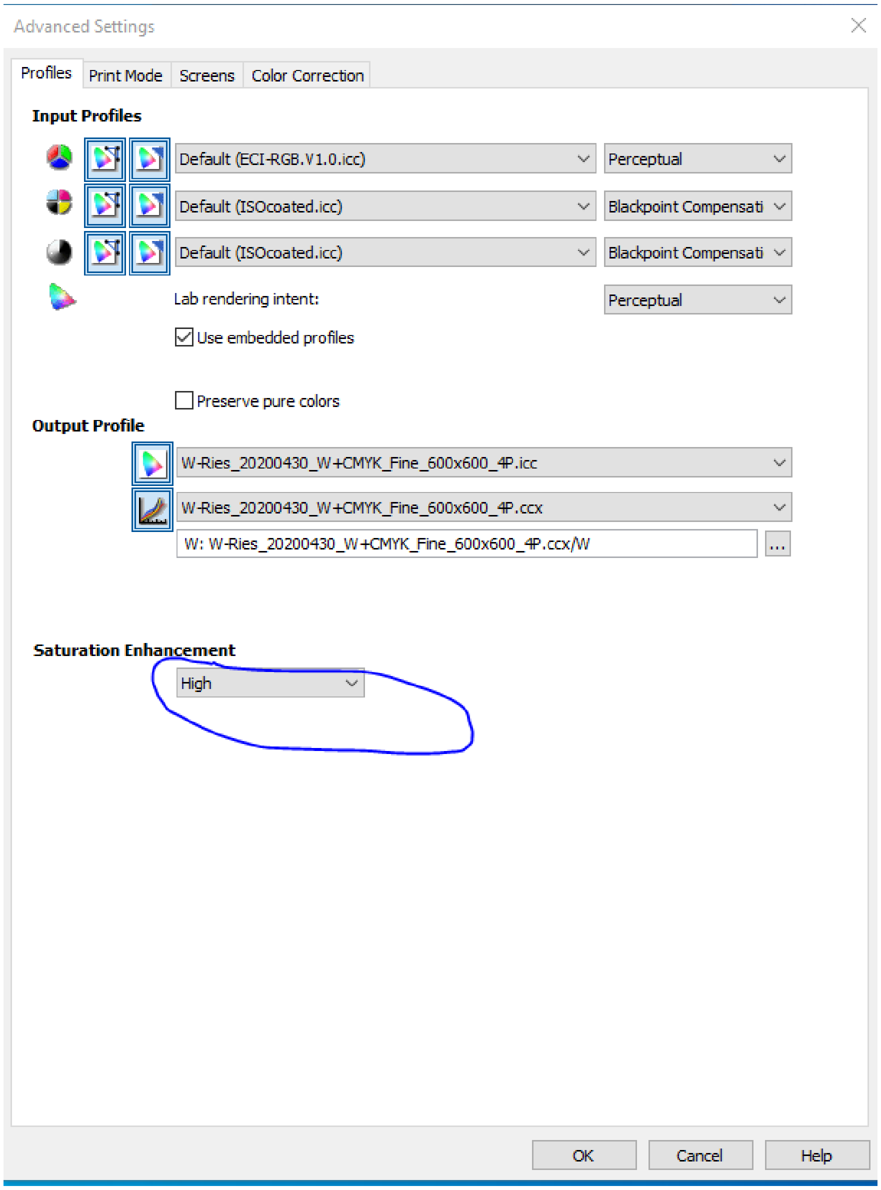
Brightness: 0 %

Contrast: 75 %

Gamma: 1

Default

You can also select the Profiles tab and adjust saturation enhancement – the default is, None, but the dropdown selection box allows you to increase saturation to Low, Medium, High, and Extreme. This will increase the brightness of the colors but may also distort them away from the graphic and can lead to loss of detail but in some cases like with bright solid colors it may be desirable.



Input Profiles

Default (ECI-RGB.V1.0.icc) — Perceptual

Default (ISOcoated.icc) — Blackpoint Compensati

Default (ISOcoated.icc) — Blackpoint Compensati

Lab rendering intent: Perceptual

☑ Use embedded profiles

☐ Preserve pure colors

Output Profile

W-Ries_20200430_W+CMYK_Fine_600x600_4P.icc

W-Ries_20200430_W+CMYK_Fine_600x600_4P.ccx

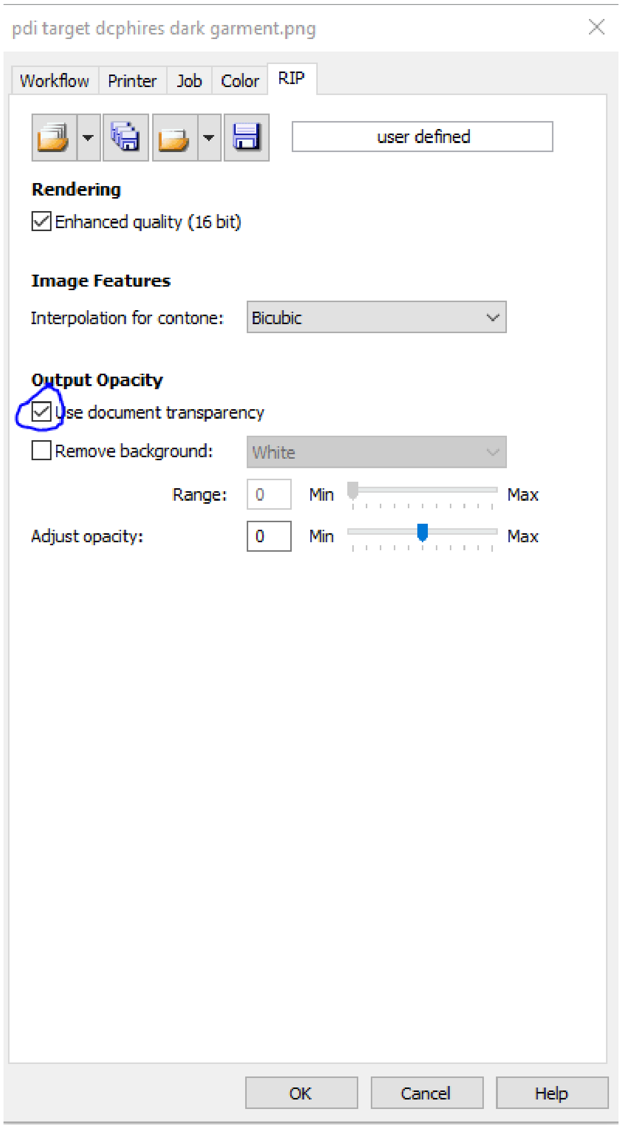
W: W-Ries_20200430_W+CMYK_Fine_600x600_4P.ccx/W

Saturation Enhancement

High

Using the document transparency

In order to avoid printing a solid white background make sure the Use Document Transparency box is checked in the RIP tab.



pdi target dcphires dark garment.png

user defined

Rendering

☑ Enhanced quality (16 bit)

Image Features

Interpolation for contone: Bicubic

Output Opacity

☑ Use document transparency

☐ Remove background: White

Range: 0 Min Max

Adjust opacity: 0 Min Max

3 Maintenance

Your printer performs automatic maintenance routines based on time and use. Because of this your machine is almost always ready to print when you need it. However, it is also a best practice to perform a nozzle check prior to printing.

Below is a list of maintenance procedures and frequency for those that are time based.

Period	Perform
Every 1 hour	Automatic White ink circulation
Every 3 hours	Automatic White channel cleaning
Every 12 hours	Automatic All channel cleaning Alarm agitating white cartridge
Every 3 days	Alarm White jig clean, Alarm manual maintenance, clean white maintenance unit manually
Every 10 days	Alarm Color jig clean, Alarm manual maintenance. clean color maintenance unit
Once a month	Manually clean and lubricate the guide rods for white and color carriage units – inspect and quick wipe of the white and color encoder.

ATTENTION! Auto maintenance will be not be perform if the following conditions occur. Failure to perform Auto maintenance can result in a clogged print head. These conditions need to be cleared ASAP so auto maintenance can be performed.

Printer is powered off. (Always keep the printer powered on unless it has been flushed with cleaning fluid)

Ink cartridge is missing or reading 0%

Waste tank is full

CR encoder error and other errors

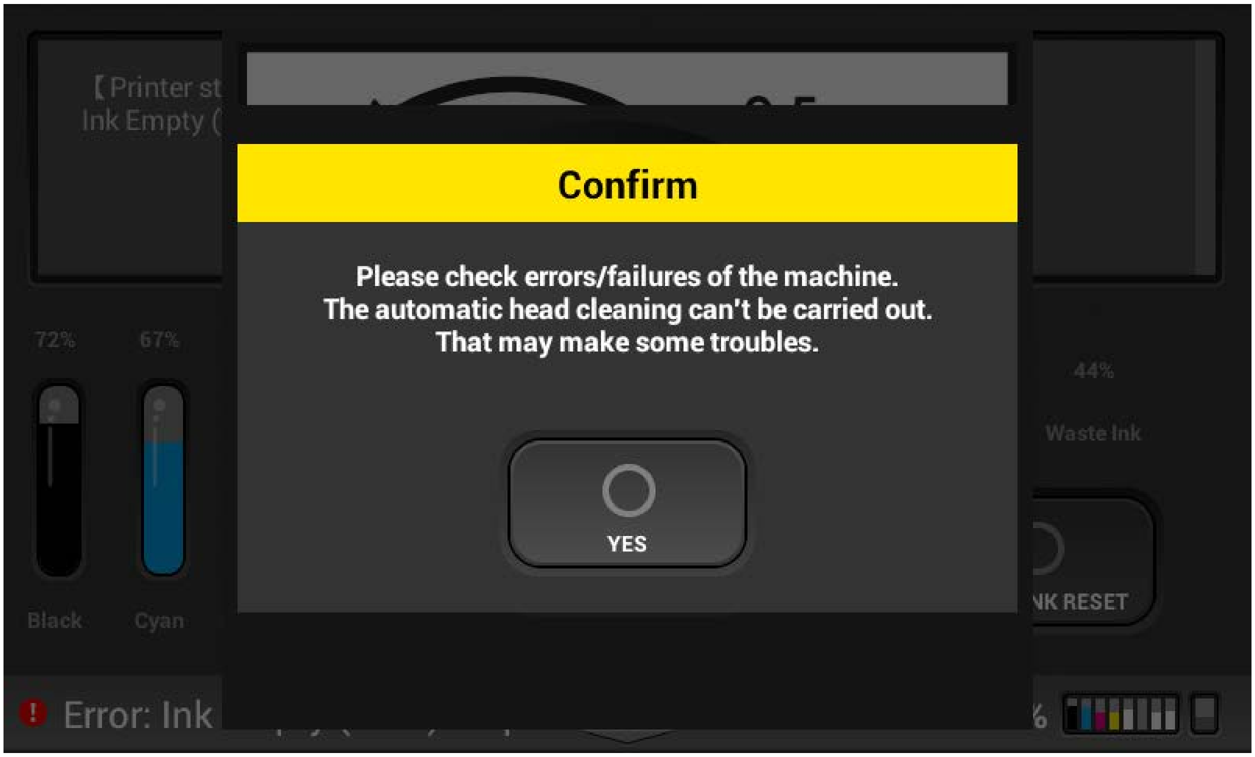
Any Service call message (see trouble shooting guide) - message bar at the top of the screen will be red

Front cover is open

The ink bay has been opened for maintenance

If the auto maintenance is not being performed, then the print heads can be clogged.

IF Auto maintenance is prevented from happening for any reason the following message will appear



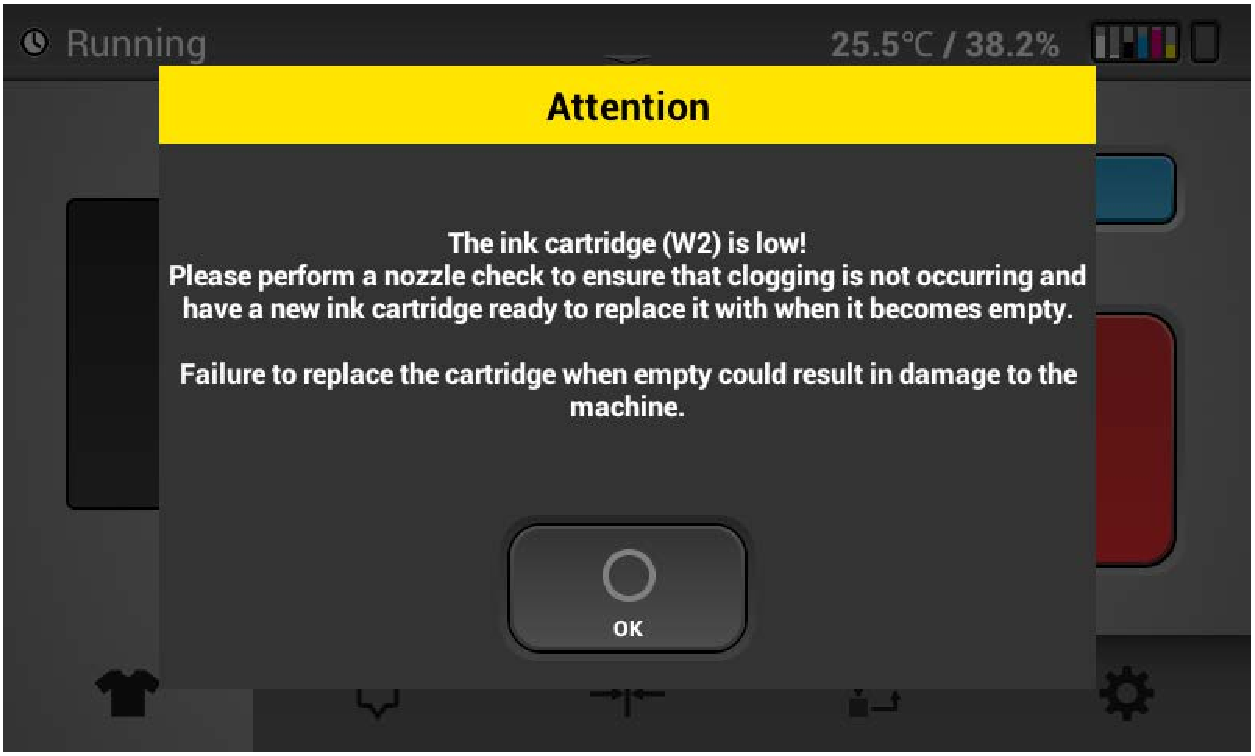
Please check errors/failures of the machine.
The automatic head cleaning can't be carried out.
That may make some troubles.

When acknowledged by pressing yes – the message will reopen in 5 minutes if the condition that prevented auto maintenance is not cleared (empty cartridge, full waste tank etc.)

Failure to address the underlying condition that is preventing auto maintenance in a timely manner will result in head clogging so if you do not know how to clear the condition, contact technical support immediately for assistance.

There are several warning messages that pop up to alert you of conditions that need to be addressed or need to be addressed soon.

Low ink:



Attention

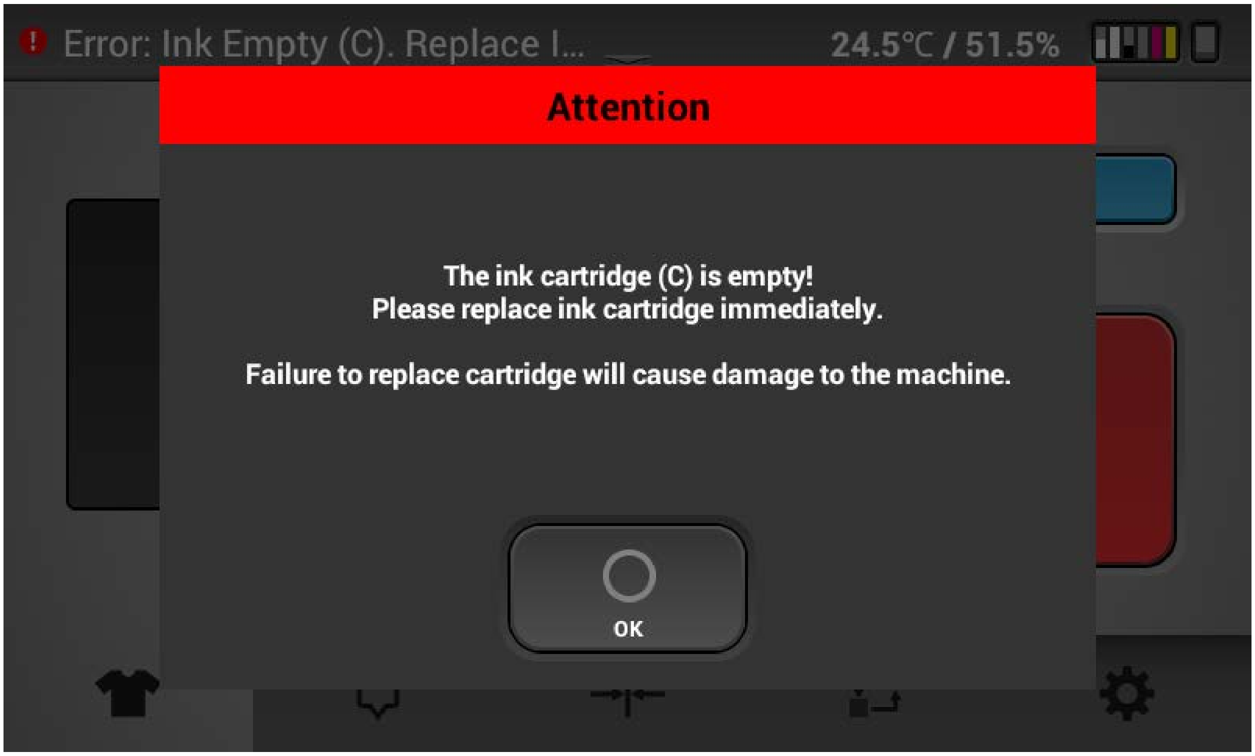
The ink cartridge (W2) is low!
Please perform a nozzle check to ensure that clogging is not occurring and have a new ink cartridge ready to replace it with when it becomes empty.

Failure to replace the cartridge when empty could result in damage to the machine.

ATTENTION: For white ink – you should change the ink cartridges when they have gone below 5%. This is because, if the ink cartridges have not been shaken every day as instructed then the last bit of white ink in the cartridges will be vary thick and can clog the heads quickly.

Selecting OK will remove the message - it will reappear in 12 hours if the condition is the same.

Ink empty



Error: Ink Empty (C). Replace I...

24.5°C / 51.5%

Attention

The ink cartridge (C) is empty!
Please replace ink cartridge immediately.

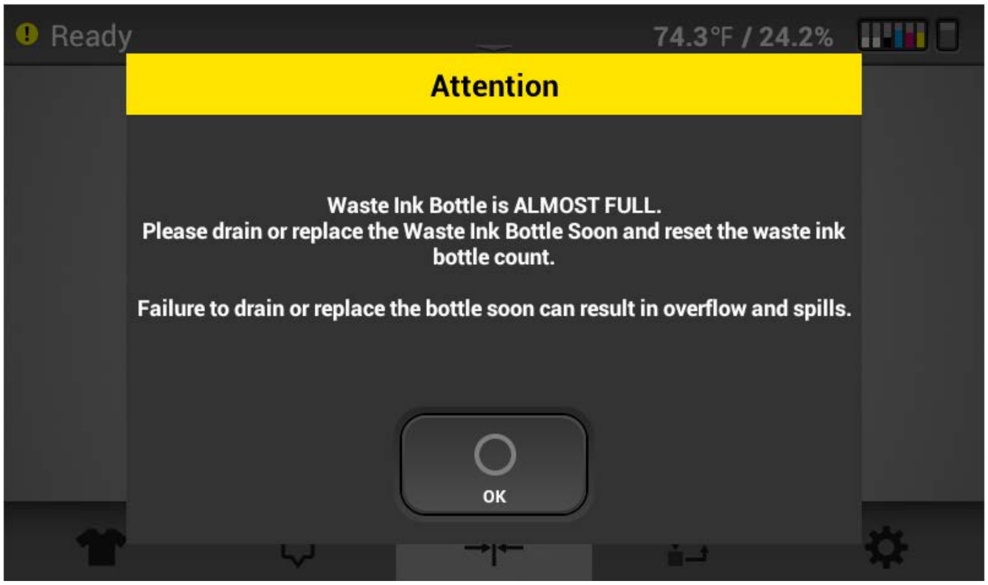
Failure to replace cartridge will cause damage to the machine.

Once a ink cartridge is empty, auto maintenance will not occur and head clogging can occur printing will not be permitted.

Note: This message will appear for white cartridges when they reach one percent

Pressing OK will clear the message and it will reappear in 12 hrs if the cartridge is not replaced.

Waste ink bottle almost full



Ready

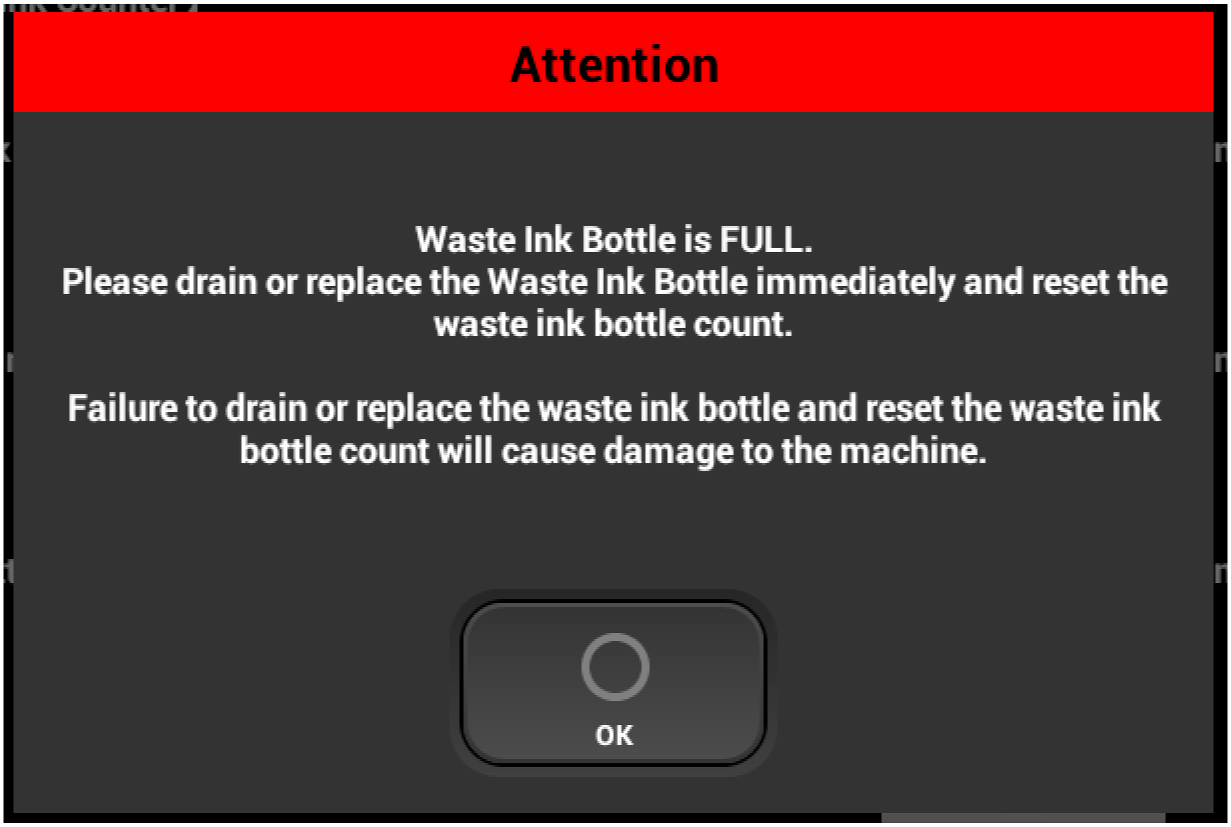
74.3°F / 24.2%

Attention

Waste Ink Bottle is ALMOST FULL.
Please drain or replace the Waste Ink Bottle Soon and reset the waste ink bottle count.

Failure to drain or replace the bottle soon can result in overflow and spills.

Waste ink bottle full



Attention

Waste Ink Bottle is FULL.
Please drain or replace the Waste Ink Bottle immediately and reset the waste ink bottle count.

Failure to drain or replace the waste ink bottle and reset the waste ink bottle count will cause damage to the machine.

Once the waste ink bottle is full, auto maintenance will not occur, and head clogging can occur.

Pressing OK will clear the message and it will reappear in 12 hrs if the waste ink bottle is not emptied and reset on the control panel.

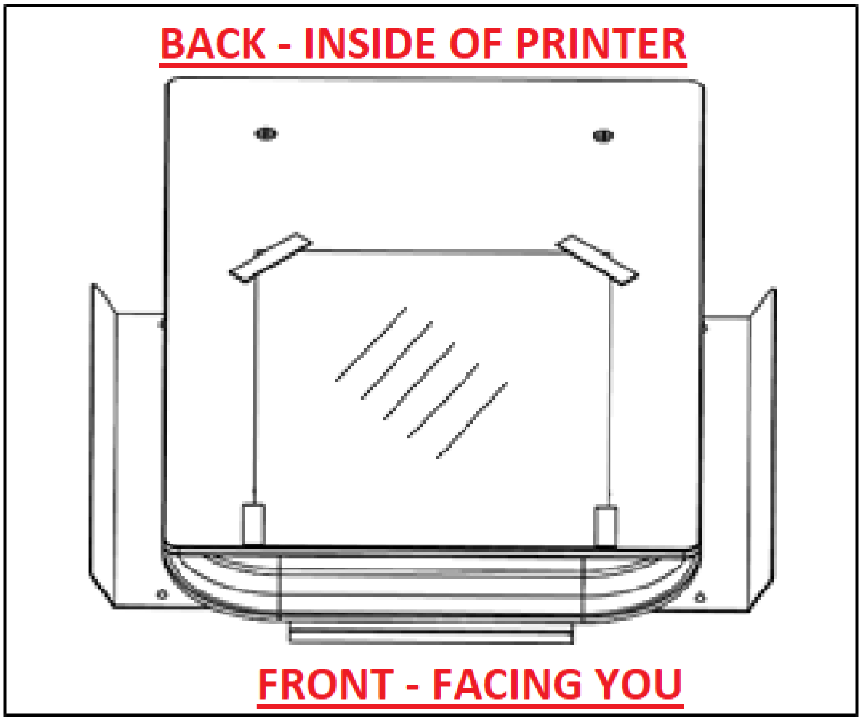
Parts with service life warnings:

Similar messages will appear for the parts listed in the parts replacement screen. Warning when the life of the part is near the end. And Attention when the part has reached the end.

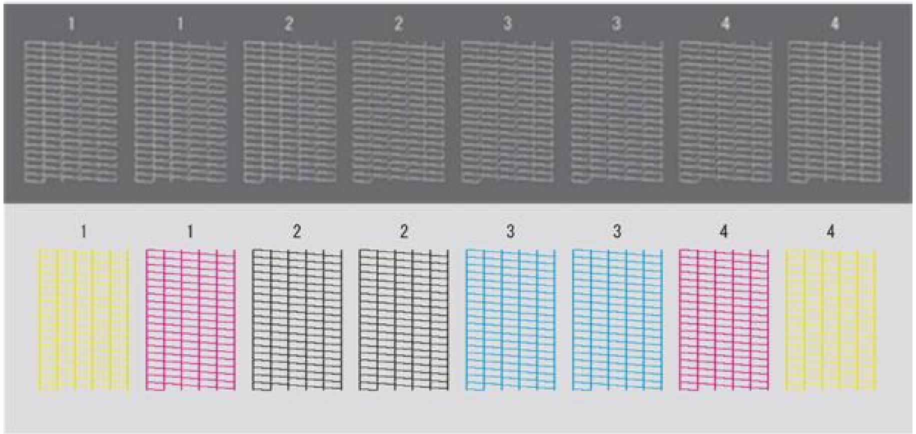
Note: Only the left ink sump and right ink sump will stop printer operation and auto maintenance when the service life count has been reached. Not the other parts such as the fan filters, maintenance station, carriage unit and ink supply units. Printer operation and auto maintenance will continue when the service life is reached for these parts. A part that has reached its service life count is considered to be out of warranty.

3.1. Nozzle check

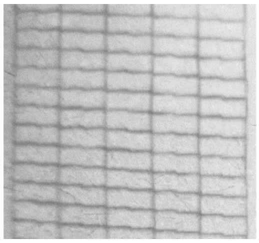
- Make sure to perform a nozzle check before printing. If there is a nozzle clogged, perform head cleaning until the clog is removed and reflected on the nozzle check.
- You should also perform a nozzle check daily as this is a good indicator of the printing conditions and will allow any clogging issues to be address while they are minor and easily resolved.
- Nozzle checks must be performed on transparent overhead projector film
- If any part of the transparent overhead projector film is curled, tape it down to avoid an obstruction detection
- The MEDIUM sized platen (included with the printer, optional small and large tables available) must be used to perform the nozzle check



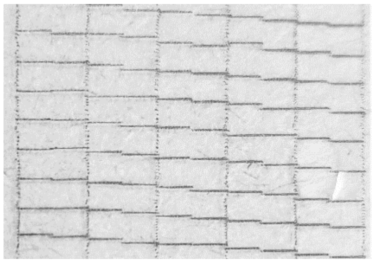
- Press SET to move the table to the print position
- Press NOZZLE CHECK button located in the tab
- Check the results of the printed nozzle check pattern



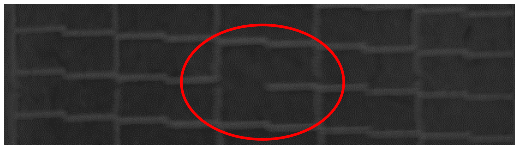
j104b4350 In your nozzle check please check for the following and take the appropriate steps:



Perfect Nozzle Check



Nozzle Deflection: When horizontal lines are uneven ---__

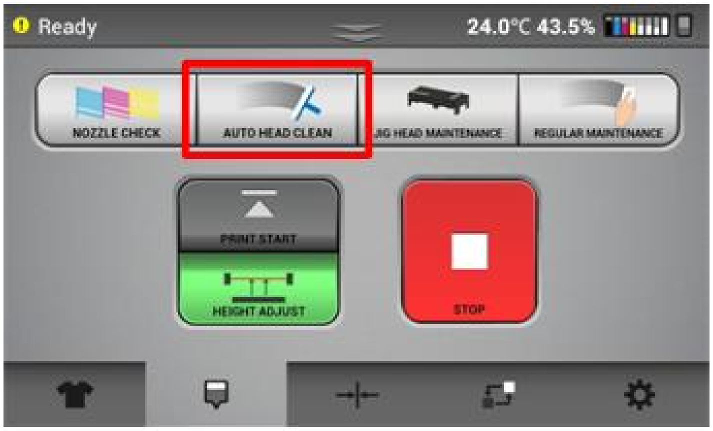


Clogged Nozzle: When the horizontal lines have small or minor gaps -- --

As a general rule: A missing nozzle in the CMYK channels may show in some prints while a few missing nozzles in the white channels will not affect the prints.

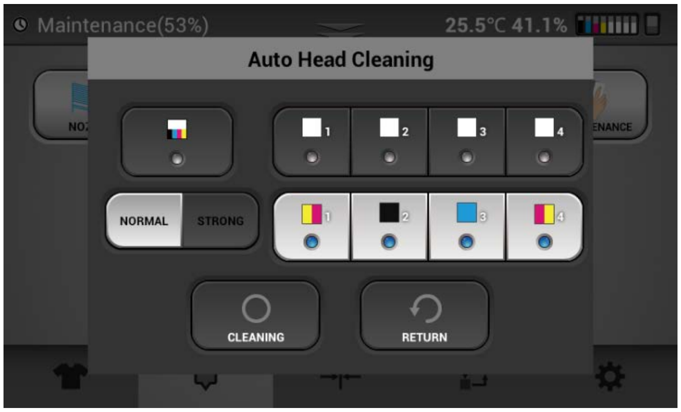
In order to recover from either a missing nozzle or nozzle deflection automatic head cleaning should be performed.

3.2. Automatic Head Cleaning



j104b4073

- Press AUTO HEAD CLEAN button to perform automatic head cleaning.

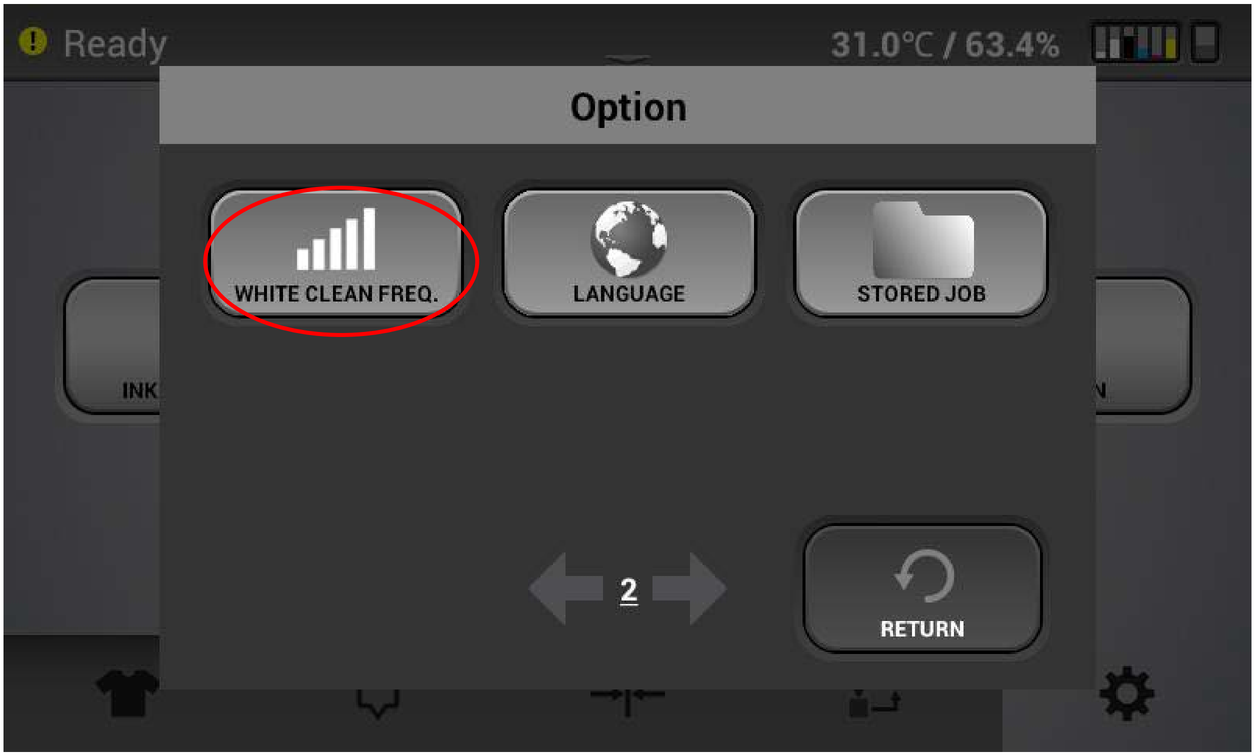


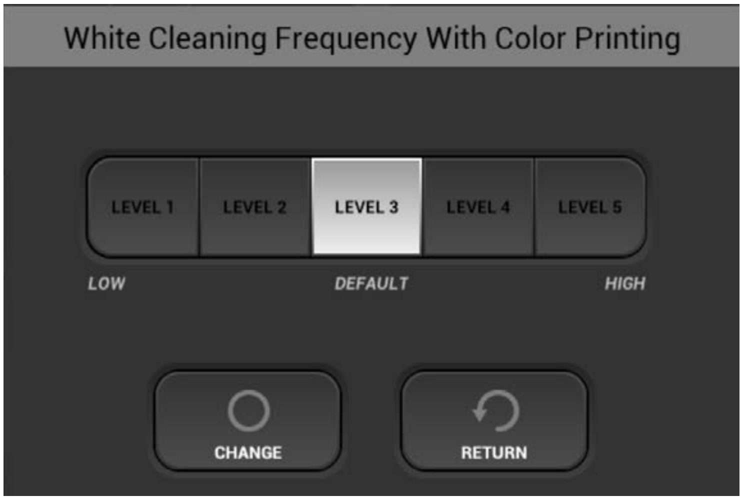
- Now you can select the specific head where the nozzle is missing. The number for each head corresponds to the number on the nozzle print. In this case - all the color heads have been selected for cleaning at normal strength.
- Use Normal strength to correct just a few nozzles missing in the nozzle check.
- Use STRONG when there are large missing nozzles (over 10 in any per head) in the nozzle check
- If after performing the normal cleaning, nozzle condition is not recovered proceed to using the STRONG clean option
- Strong cleans are the best to resolve deflection.
- As a rule most missing nozzle issues can be resolved by normal cleans
- Since there is so much redundancy in the white head, even if a few nozzles are missing the print quality will still be good. For color heads, you should try to keep all nozzles open.
- Nozzles tend to drop out more in dryer environments. That’s why it is best to keep the humidity levels at 45% or above.

Warning
STRONG head cleans will use more ink than the NORMAL cleans, use only as needed

White Clean Freq.

You can control in options the automatic cleaning frequency of the white heads



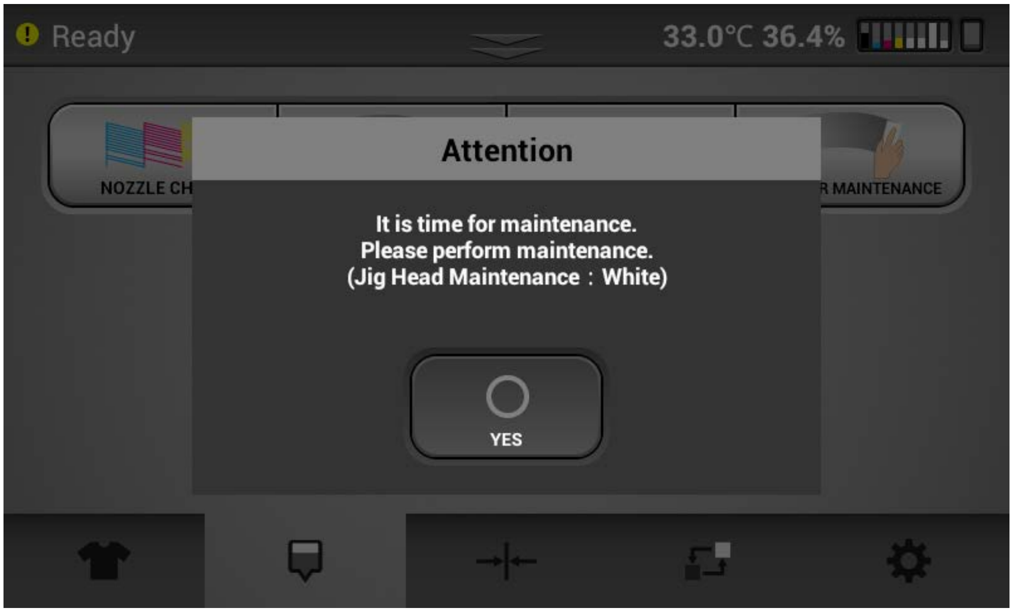


White Clean Frequency can be found on page 2 of the options

- This option determines how often a automatic white head clean will occur while printing. Below is a description of the clean levels.
  (LOW) L1 After 20 CMYK only Prints or after approximately 10 (varies depending on size) CMYK and White prints a white head Clean will occur
  L2 After 15 CMYK Prints or 7 to 8 CMYK and white a white head clean will occur
  (Default)L3 After 10 CMYK Prints or 5 CMYK and White a white head clean will occur.
  L4 After 5 CMYK Prints or 2 to 3 CMYK and White prints a white head clean will occur.
  (HIGH) L5 After 1 CMYK or CMYK and white print a white head clean will occur.

3.3 Jig Head Maintenance

The printer will prompt you when it is time for Jig Head Maintenance:



Attention

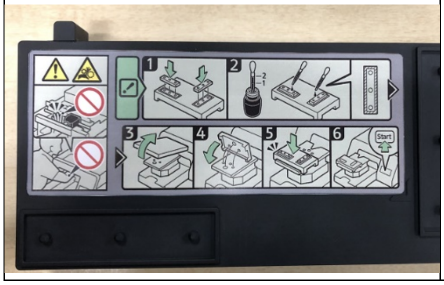
It is time for maintenance.
Please perform maintenance.
(Jig Head Maintenance : White)

Frequency

Every 3 days for the white printing carriage

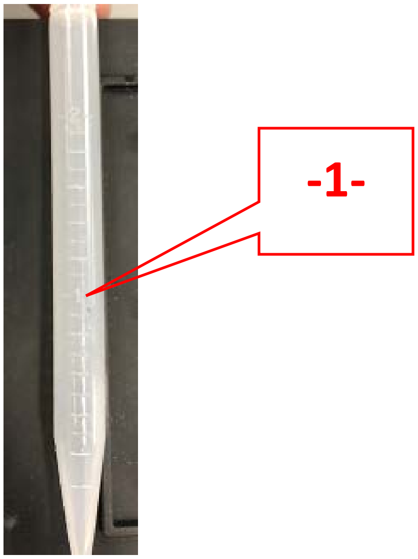
Every 10 days for the color printing carriage

When this occurs prepare the Head cleaning Jig with the following materials:

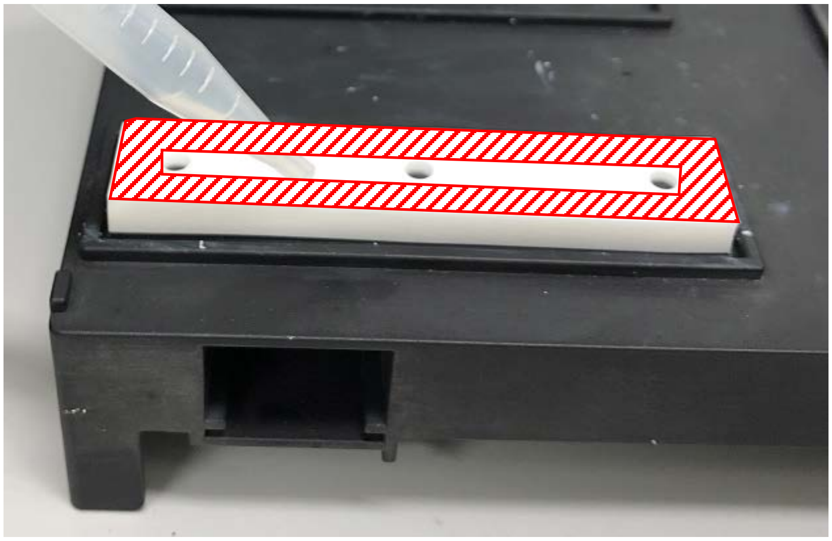
Head cleaning Jig	Cleaning pad	Cleaning liquid (MBT-2)	Dropper
			

Place the cleaning pads in their locations on the Head cleaning Jig. Press them down to ensure they are seated flat.

Load the dropper with the Ricoh cleaning liquid type 1 to the 1 position.

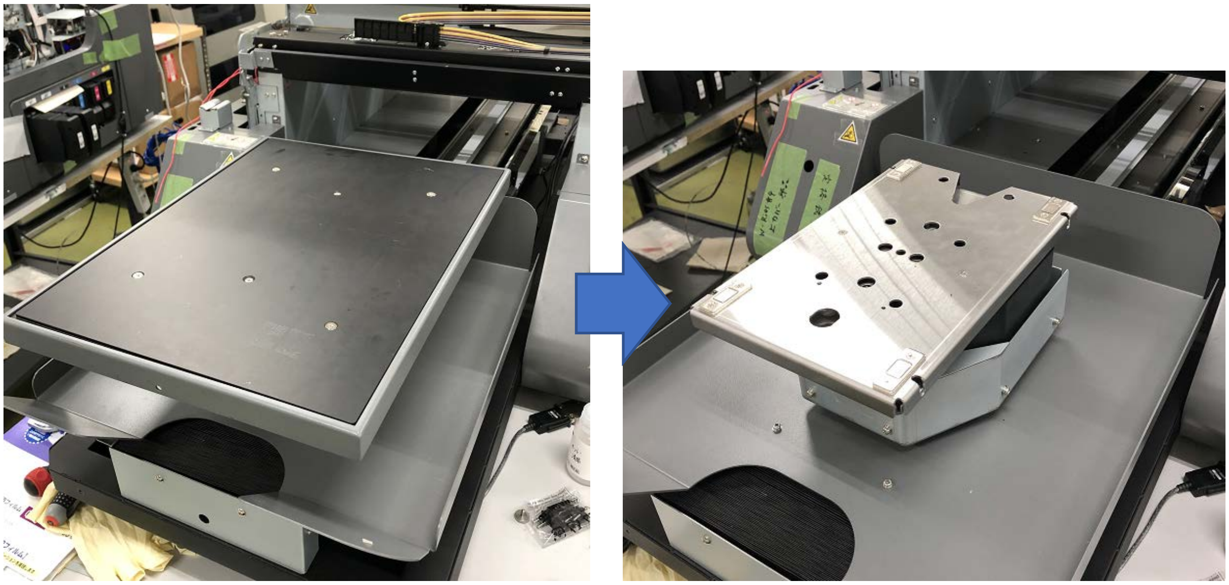


Apply the liquid to the cleaning pad in the area shown as this is the area that will contact the edge of the print heads to clean.

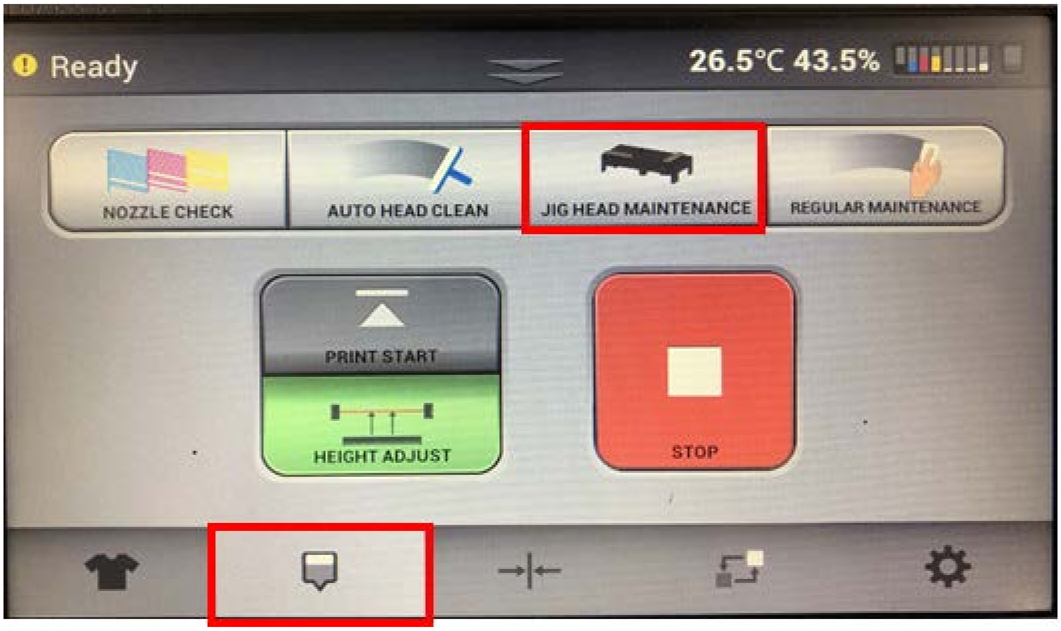


Repeat for the other cleaning pad.

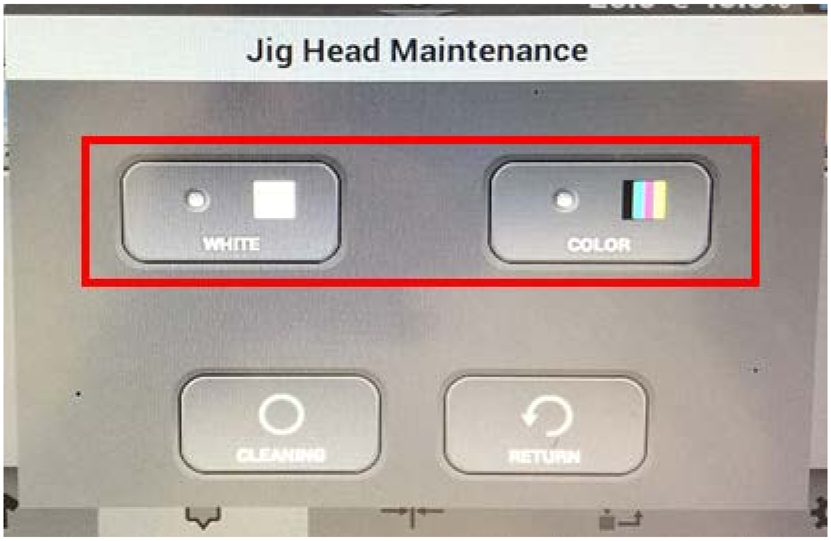
Remove the paten from the base of the print table.



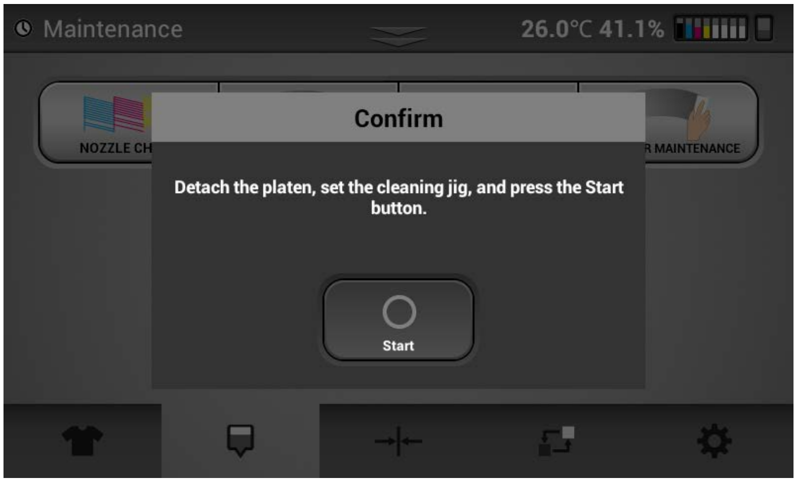
In the maintenance tab - press the Jig head maintenance button



Select the color of the carriage that you will be cleaning which should correspond to the notice given by the printer. Then press cleaning.

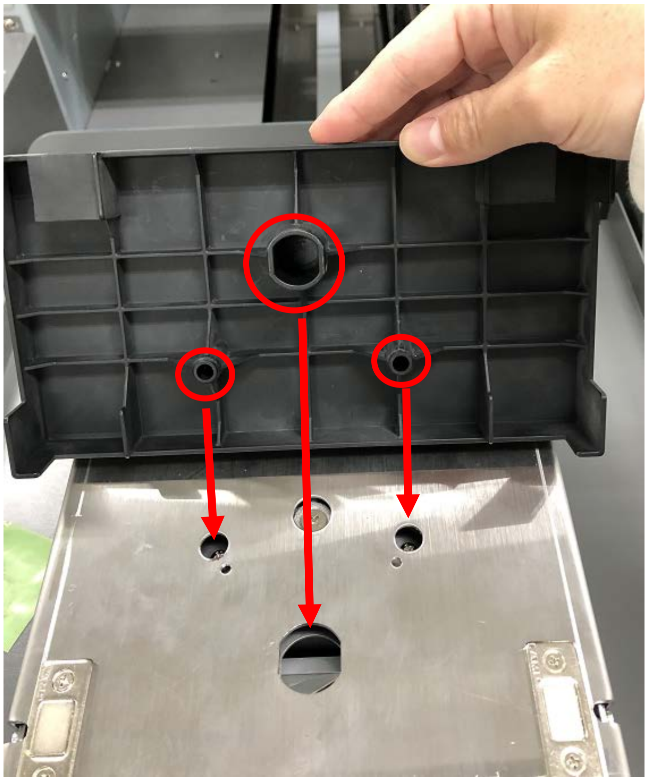


The table base will then move down into the jig loading position. When the table has stopped moving down you will receive this message:



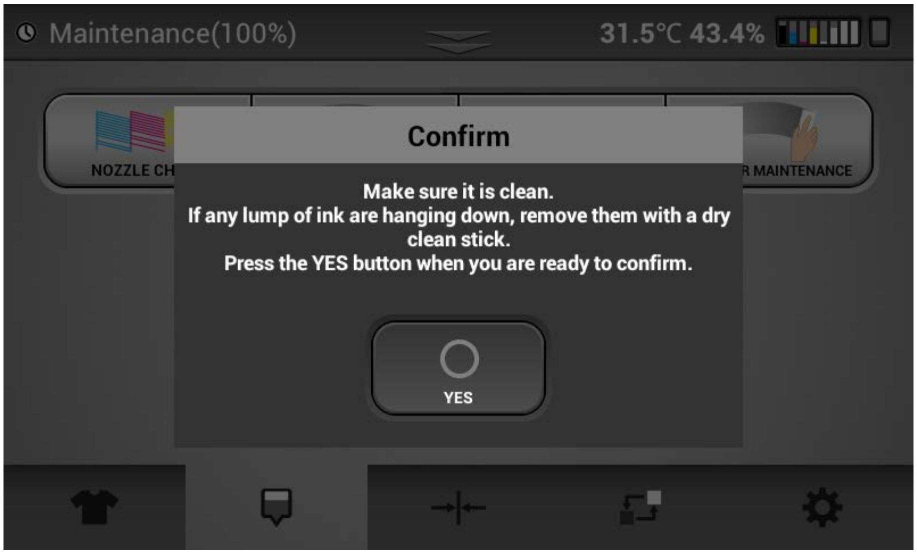
Detach the platen, set the cleaning jig, and press the Start button.

Place the cleaning jig on the front of the table base as shown. Press all the way down so it is sitting flat.



Now press the Start button on the screen and the Jig maintenance sequence begins automatically cleaning the edges of the heads. This automatic process takes about 7 min.

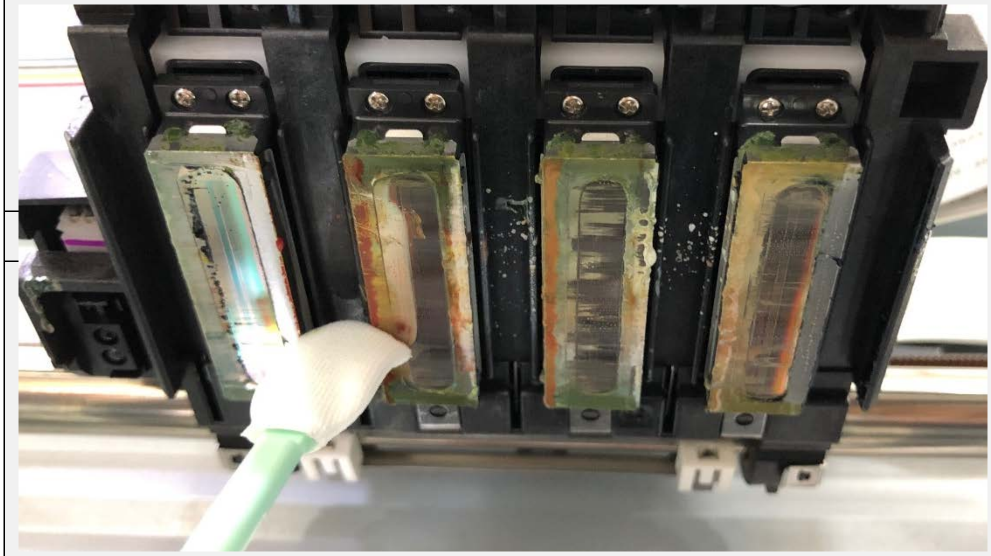
After cleaning is complete the table will move back out and a message will appear asking you to confirm that the heads are clean. The carriage that has been cleaned will be in the middle of the printer for inspection. Open the lid and look at the print heads on the carriage that has been cleaned and confirm that they have been cleaned adequately. (Note the heads do not have to be spotless)



Make sure it is clean.
If any lump of ink are hanging down, remove them with a dry clean stick.
Press the YES button when you are ready to confirm.

If there still remains some large deposits of ink - you can use a **DRY** cleaning applicator or lint free wipe to remove them.

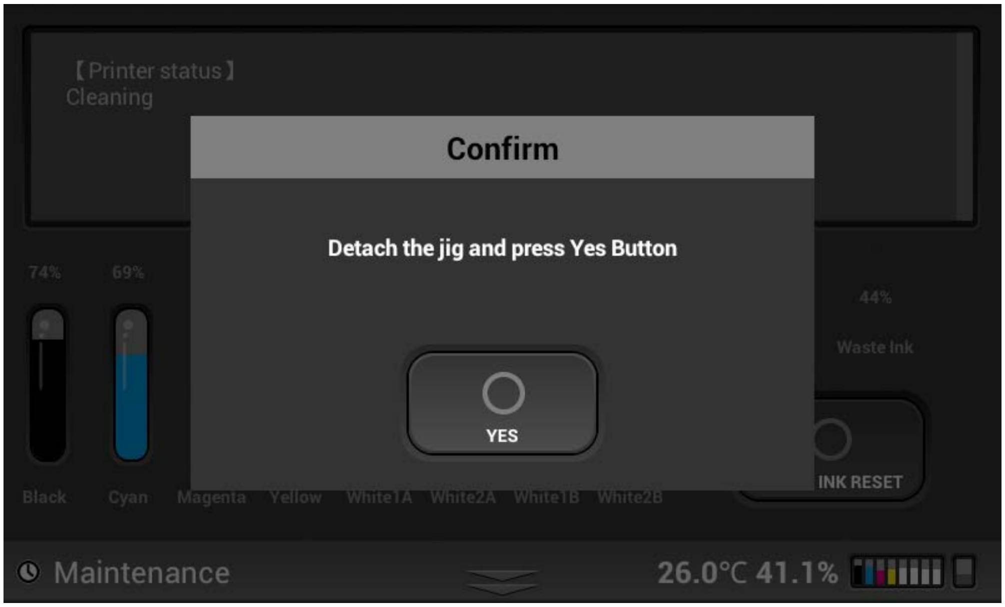
Note: You should not have to do this if you follow the schedule for jig head cleaning.



Use dry swabs only - liquid can damage the head

After inspecting the heads close the lid and hit OK.

Next this message will appear



Detach the jig and press Yes Button

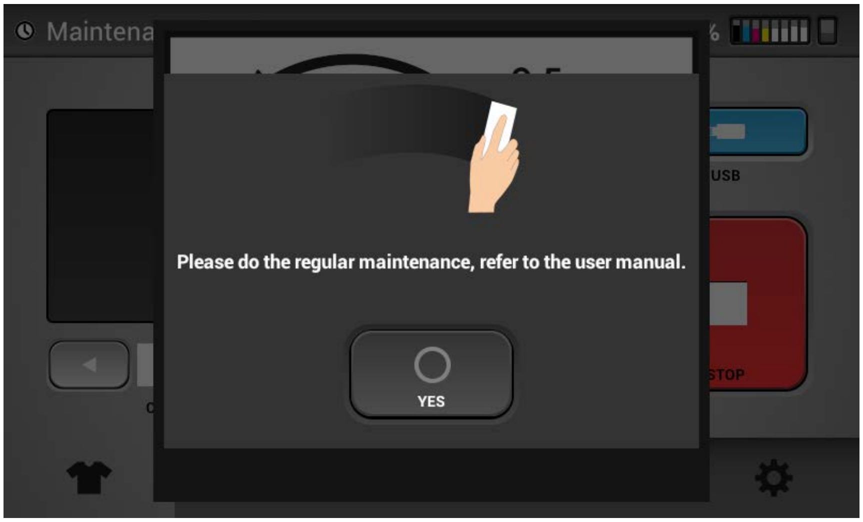
Remove the Jig and press Yes to complete the cleaning,

Note: You can flip the cleaning pads over and use the other side for the next jig clean.

Note: **The print button will now be greyed out on the print screen. You will not be able print until you perform Adjust Height.** Replace the platen on the table platform.

3.4 Regular Maintenance

The printer will prompt you to perform regular maintenance



Please do the regular maintenance, refer to the user manual.

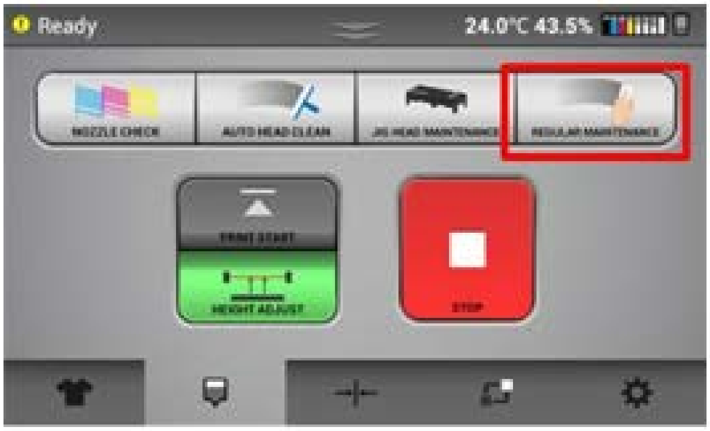
Frequency:

White regular maintenance – every 3 days

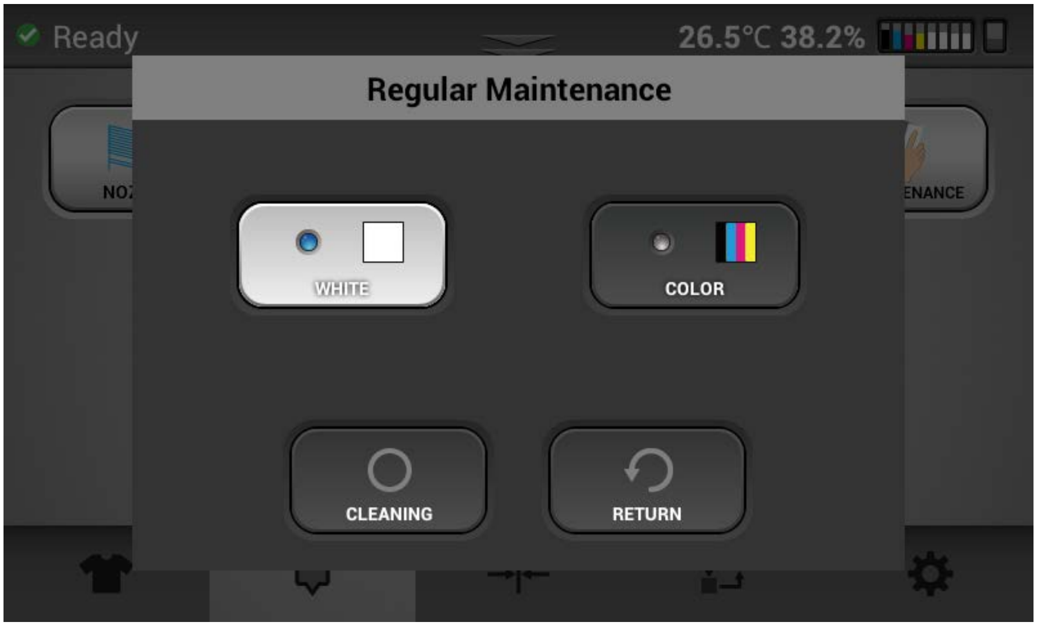
Color regular maintenance – every 10 days

It is necessary to clean the maintenance unit in this frequency

In the maintenance tab - press the regular maintenance button.

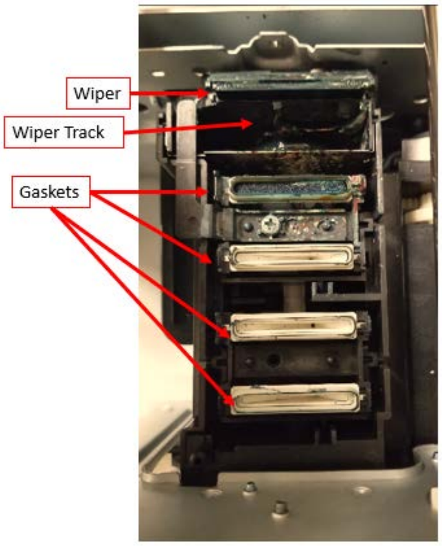


Select which maintenance unit you will be cleaning based on the frequency



Hit cleaning and the carriage of the color selected will move to the center of the printer.

- clean the gaskets and wiper mechanism. Use only Ricoh cleaning applicators and Ricoh type 1 cleaning solution. All fluid should be removed with a dry Ricoh cleaning applicator to complete cleaning.



Details

<Cleaning the Moisturizing Cap>

The Moisturizing Caps (three pieces) in Fig. 1 gently wipes off the top part, the side part, and the inner part of the cap schematic diagram shown in Fig. 2.

CAUTION:

DO NOT to deform or scratch caps. Deformation and scratches may cause troubles.

Especially wipe the top part gently and carefully.

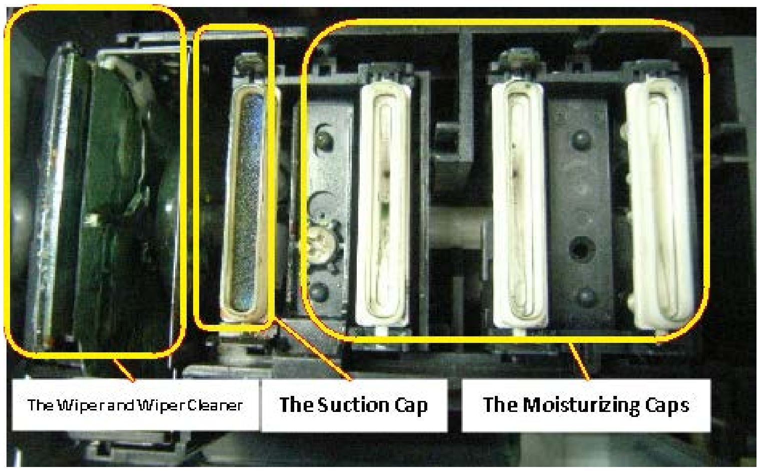


Fig. 1

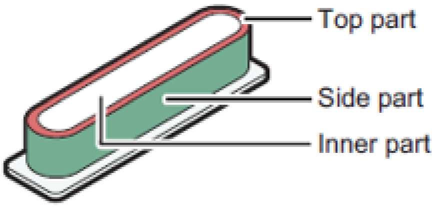


Fig. 2

Fig. 3 shows an example of how to apply the Cleaning Applicator. Lightly moisten the cleaning applicator with only Ricoh cleaning liquid type 1 if necessary.

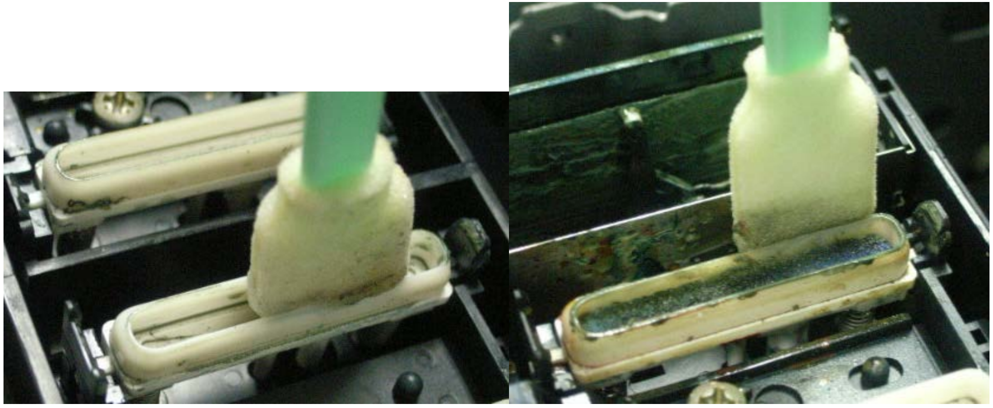


Fig. 3

Fig. 4 shows an example before cleaning, and Fig. 5 shows an example after cleaning.
Dirt to the level of the example after cleaning.

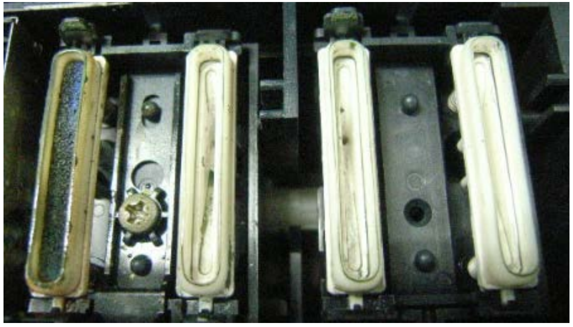


Fig. 4 Before

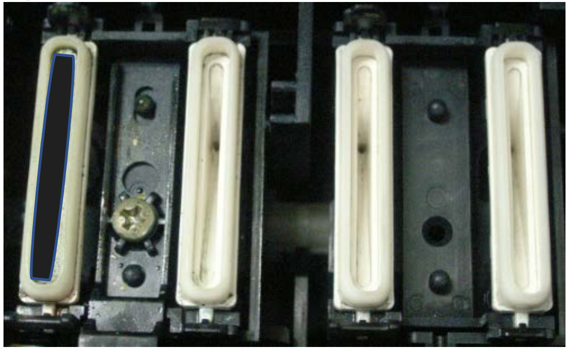


Fig. 5 After

<Cleaning the Suction Cap>

The method of cleaning the Suction Cap is the same as Step 3 the cleaning method of the Moisturizing Caps.

However, there is a vacuum cap inset in the cap, clean it carefully so as not to shift or detach this part. Be sure to return the parts when the parts in the cap are displaced or removed. Press down until the spring bottoms out.

If not returned properly, it may cause nozzle out.

See Fig. 4 and Fig. 5 for the figures before and after cleaning. Wipe off any excess cleaning liquid with a dry applicator if necessary.

For parts inside the Suction Cap, it is sufficient that the solid ink or the stuck ink is removed.

<Cleaning the Wiper and Wiper Cleaner>

1. Cleaning the frame top of the Wiper Cleaner

Clean of the frame top surface indicated by the yellow line in FIG. 6.

An example of how to apply the Cleaning Applicator is shown in Fig. 7.

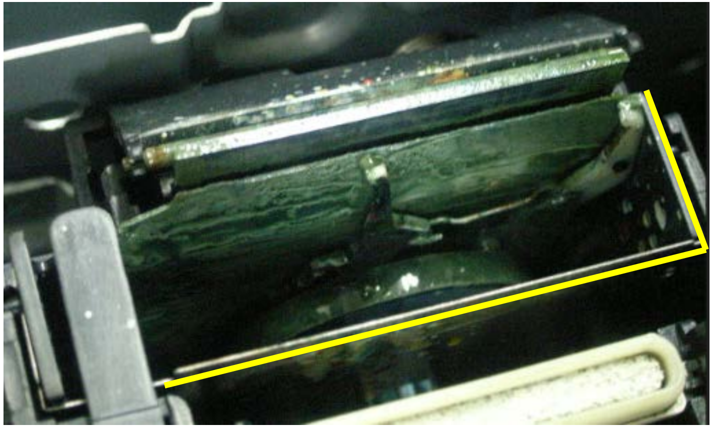


Fig. 6

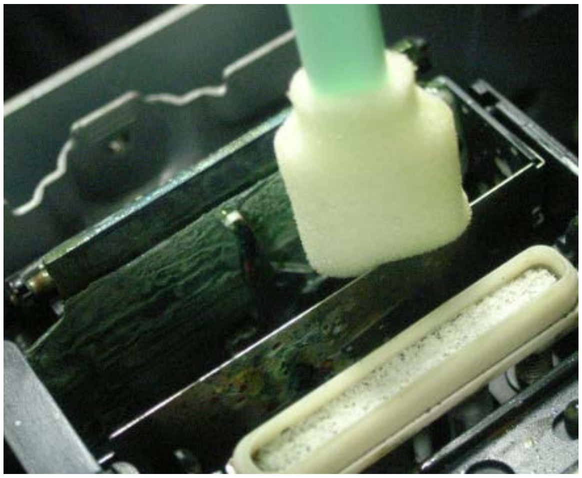


Fig. 7

2. Cleaning the surface and the inside parts of the Wiper Cleaner

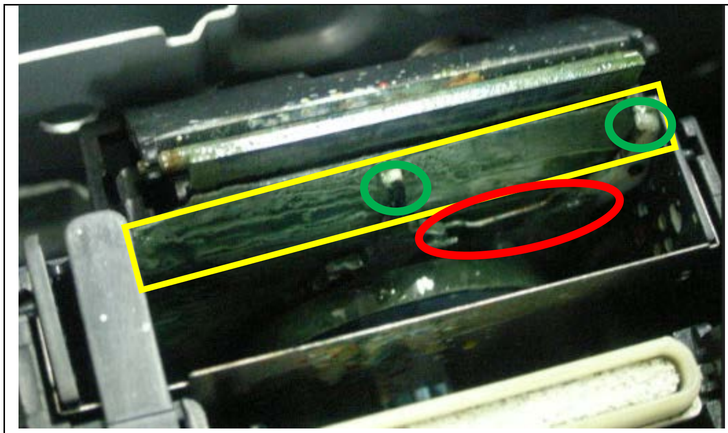


Fig. 8

Clean the area indicated by the yellow frame and the surface of the Lever indicated by the green frame in Figure 8.

- Be careful as the lever is thin, easily deformed, broken, and detached.
- Clean the lever to the surface of the green frame and wipe it gently.

ATTENSION:

- **DO NOT touch the bottom side of the lever or the lower side of the range of The red frame.**
- **DO NOT use force cleaning the lever. It may easily deformed, broken, and detached.**

For example, in Fig. 9, the Cleaning Applicator is put too deeply and it is NG.
An example of work is shown in FIG. 10.

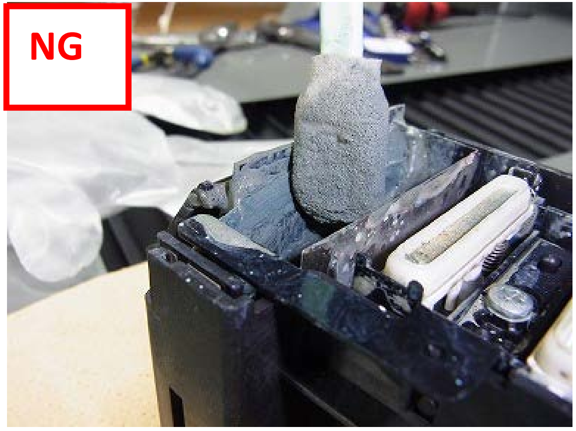


Fig. 9

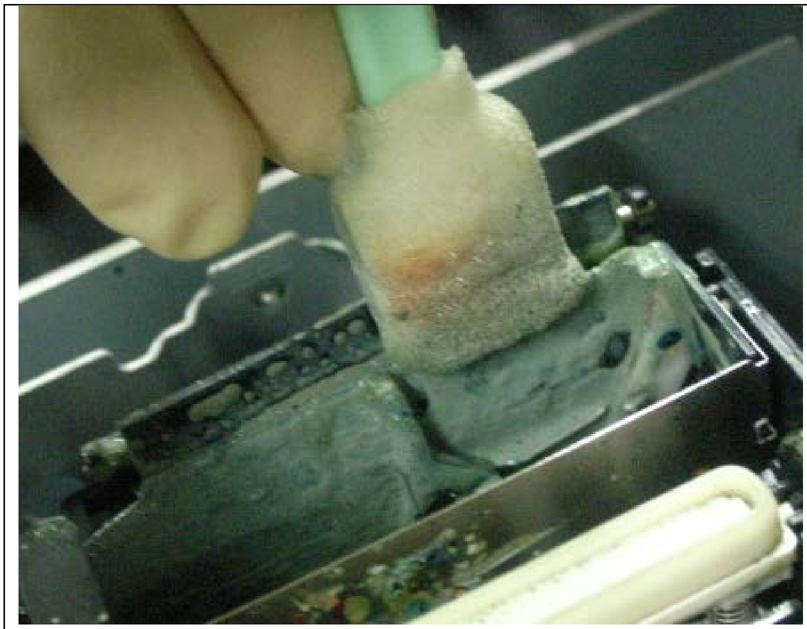


Fig. 10

3. Cleaning of the Wiper

As shown in Fig. 12, Fig. 13, and Fig. 14, clean the front and back surfaces and the upper surface of the Wiper (rubber plate part surrounded by the yellow frame in Figure 11).

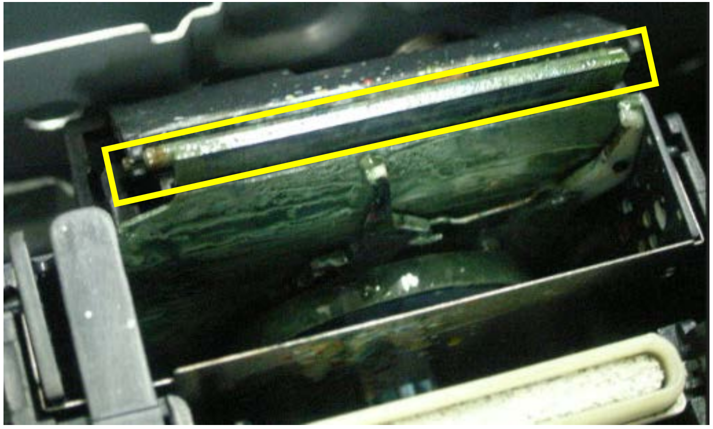


Fig. 11

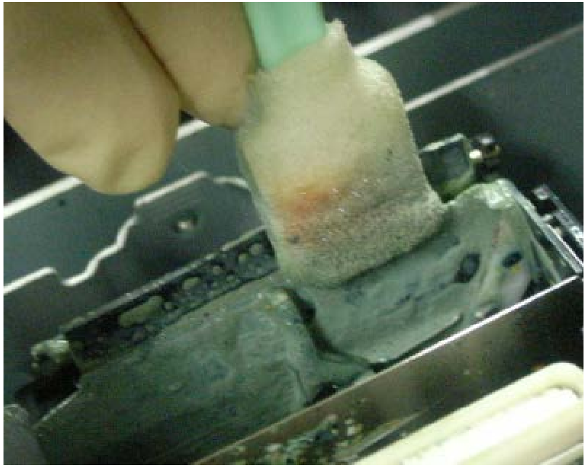


Fig. 12

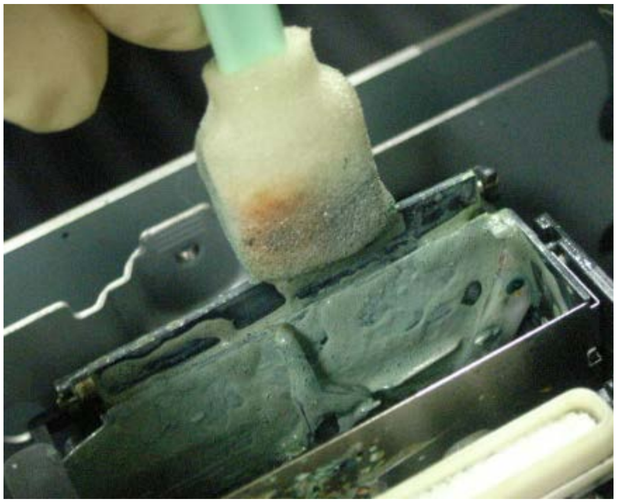


Fig. 13

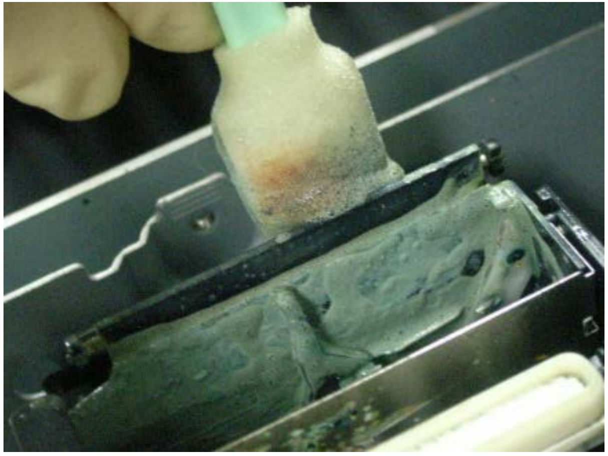


Fig. 14

4. Cleaning up the Roller

As shown in Fig. 15, rotate the roller, move the Cleaning Applicator back and forth, and wipe the entire circumference.

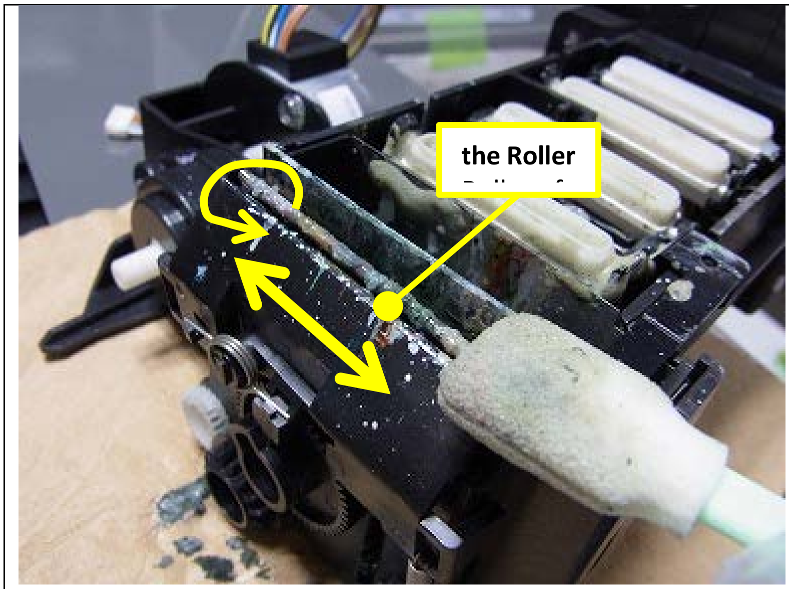


Fig. 15

Fig. 16 and 17 show the state after cleaning of the Wiper and the Wiper Cleaner described above. To remove dirt to this level.

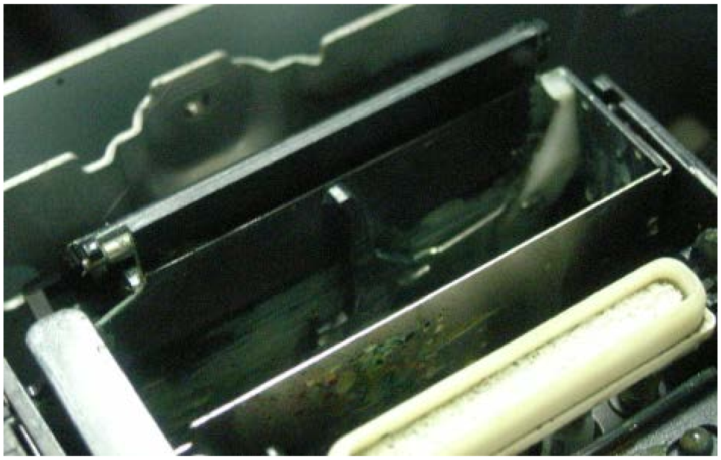


Fig. 16 After cleaning

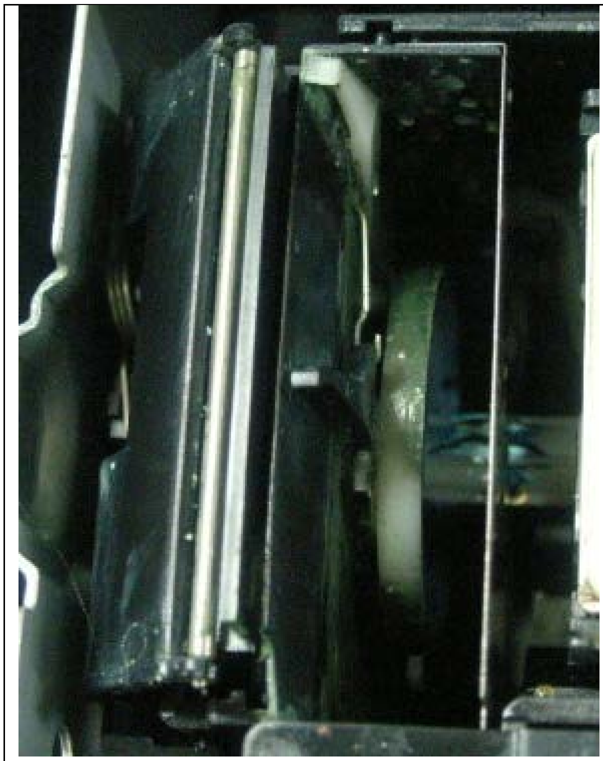


Fig. 17 After cleaning

<Cleaning the Flushing box>

If the top of the Flushing box or left ink sump is dirty with ink, clean it with a cleaning applicator as shown in Fig. 18.

- After wiping off, do not leave ink on the top of the Flushing box.
- The part indicated by the red circle in Fig. 18 is fragile, so wipe gently.

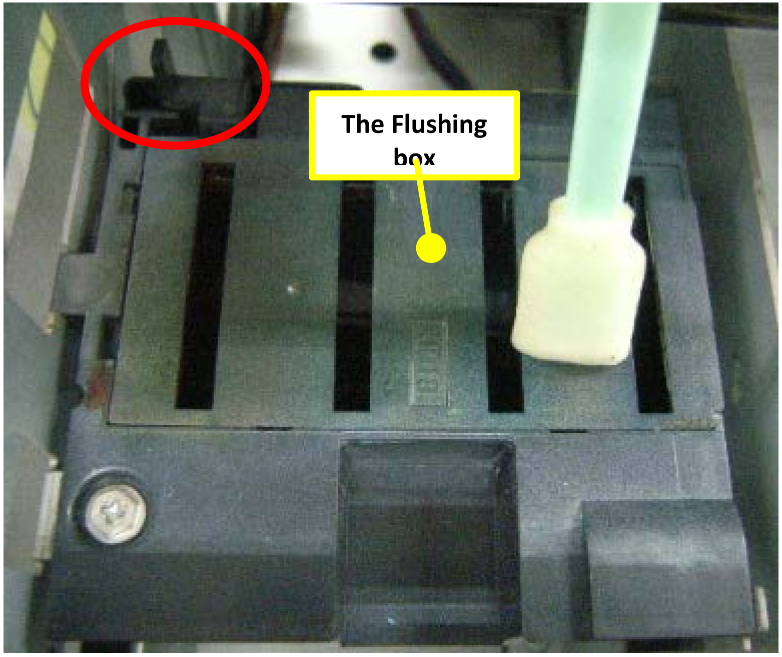
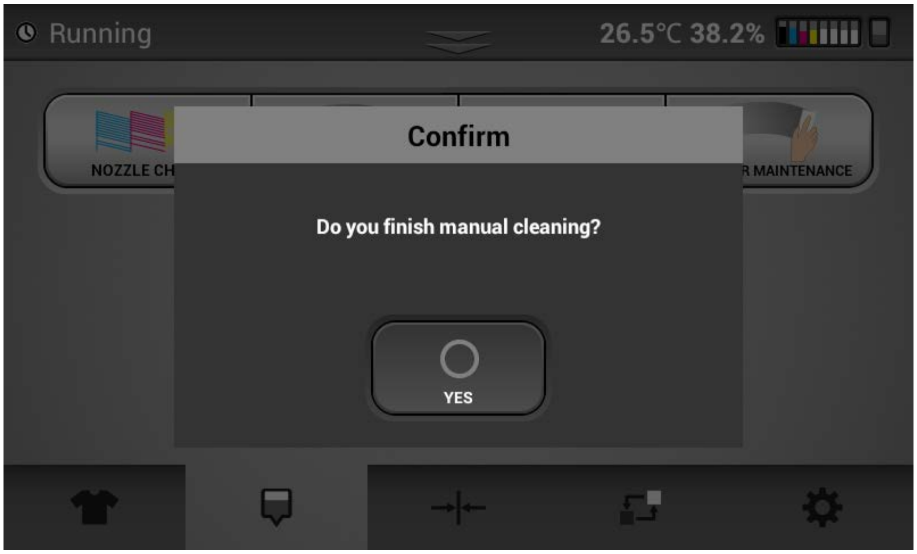


Fig. 18

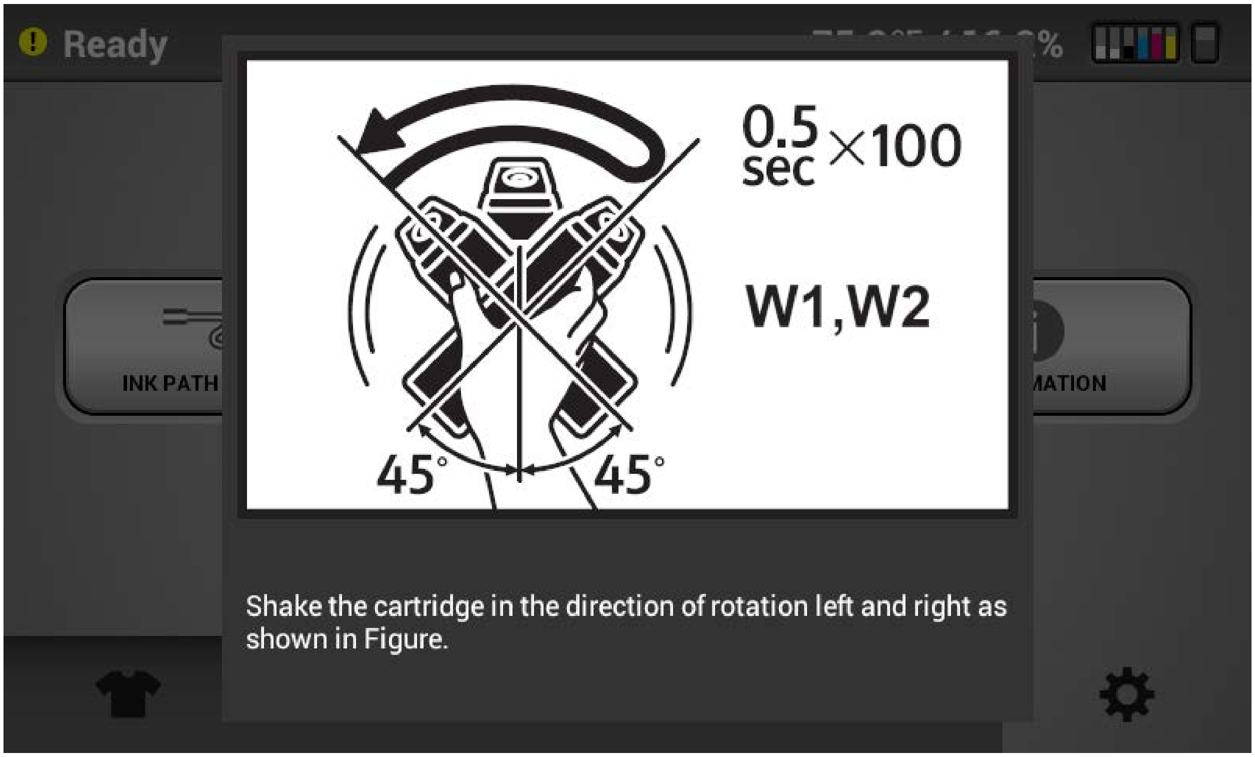
When completed close the lid and hit Yes to this message.



Do you finish manual cleaning?

3.5 Agitating White Cartridge

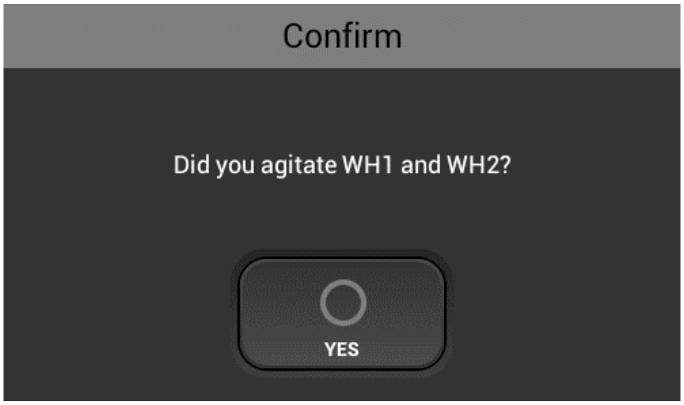
The printer will prompt you every 12 hrs with the following message:



Shake the cartridge in the direction of rotation left and right as shown in Figure.

Agitate as directed all 4 white cartridges

Failure to shake the cartridges as instructed will lead to duller looking prints and can cause head clogging when the ink level of the cartridge is low.



Did you agitate WH1 and WH2?

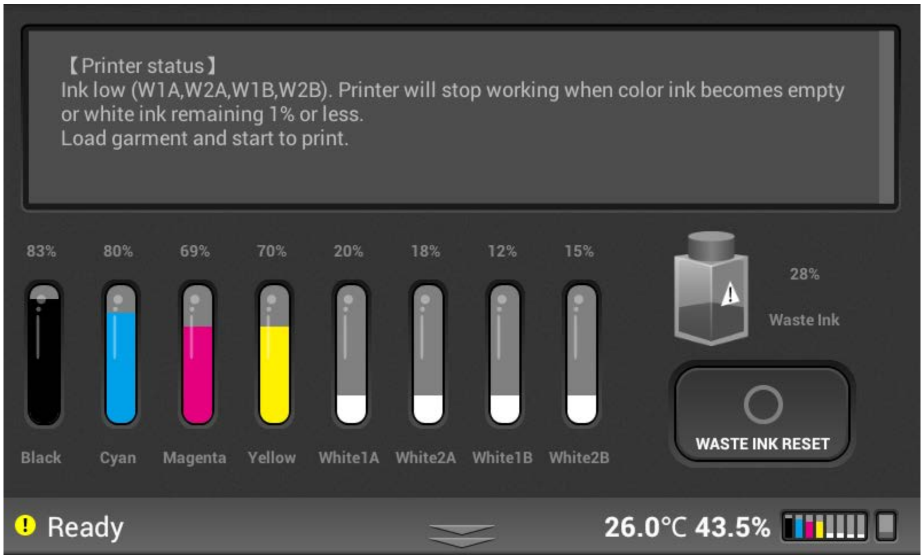
- After agitating cartridges, insert the cartridges and hit Yes

3.6 Circulation

- This printer has the function of white ink circulation that moves the white ink in the system from the ink bay to the printhead and back. This is used to avoid the white ink settling within the lines and provides quality white ink prints. This will occur every hour

3.7. Empty the Waste Ink Bottle

- The printer comes with a 3 L waste ink bottle that the two waste tubes drain into that you set below the printer when it was installed. One tube comes from the white maintenance station. One tube comes from the color maintenance station.
- You can check the amount of waste ink on the [Status Panel] and reset the waste ink counter.
- When the waste tank becomes nearly full you will receive a warning. When it is full the machine will be in error and no printing or auto maintenance can happen
- To reset the waste ink counter, after the waste ink tank has been emptied, press [WASTE INK RESET] button.



【Printer status】
Ink low (W1A,W2A,W1B,W2B). Printer will stop working when color ink becomes empty or white ink remaining 1% or less.
Load garment and start to print.

Attention! Once the waste ink bottle is full, auto maintenance will not occur, and head clogging can occur.

Attention

- **Do not reset the waste ink tank warning WITHOUT emptying the waste ink tank, this will avoid any spilling or other potential hazards**

3.7 Monthly Maintenance

How to Clean the and Grease Guide Rods

Timing of Cleaning: Once a month – **or**

If CR encoder error occurs or SC 996 or SC 997 or prints are double printing

An accumulation of ink mist lint etc. on the guide rods or in rare cases on the linear encoder for each carriage can cause these errors. In that case the, errors can be cleared with these cleaning procedure.

Cleaning content：Clean and re-grease the guide rods for the white and color carriage

Remove old dirty grease from the guide rods

Apply new grease to the guide rods

Wipe the linear encoder with a lint free wipe and remove any grease from the encoder that may have accidentally got on the encoder during the greasing

Use only Ricoh Grease Type G1

Cleaning time: Half an hour

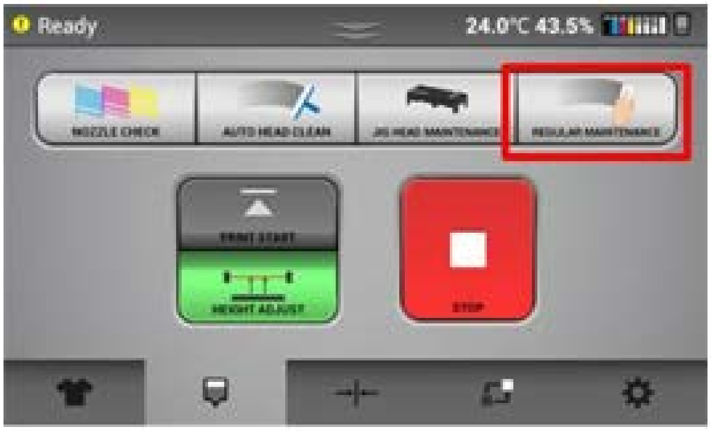
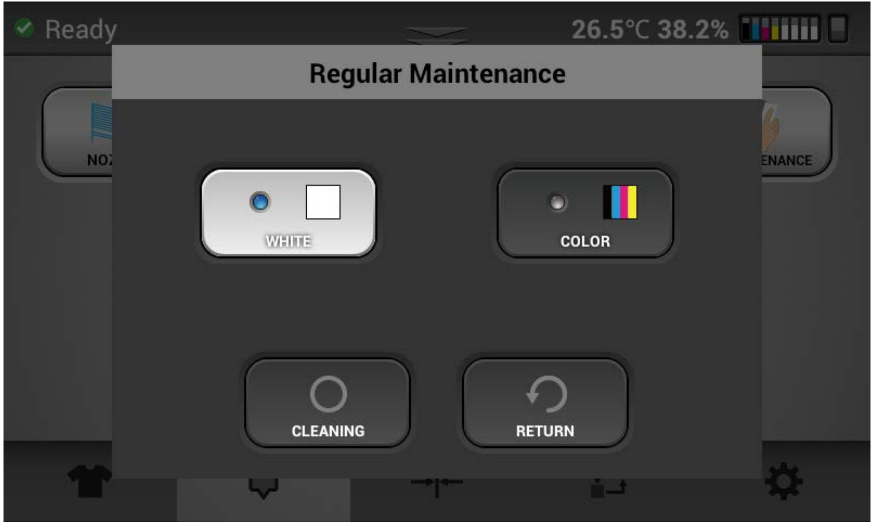
Things to prepare: Cleaning Applicator that comes with the printer

Ricoh Grease Type GQ

Lint Free Wipe

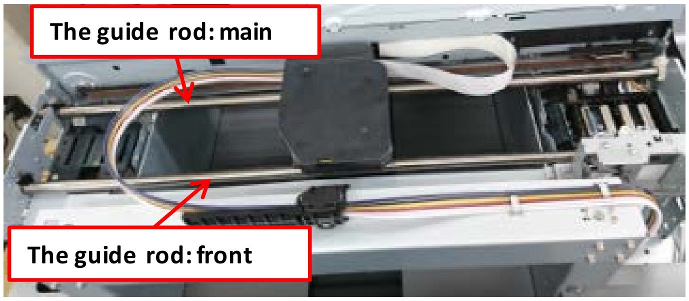
Ricoh Cleaning liquid Type 1

<Cleaning procedure>

	Contents
Step 1	Remove the platen In the maintenance tab - press the regular maintenance button.  Ready 24.0°C 43.5% NOZZLE CHECK AUTO HEAD CLEAN JIG HEAD MAINTENANCE REGULAR MAINTENANCE PRINT START HEIGHT ADJUST STOP Select white or Color depending on which rods you will be cleaning/greasing – we recommend that you do one at a time even if you are cleaning/greasing both in one maintenance session. The procedure is the same for White and color  Ready 26.5°C 38.2% Regular Maintenance NOZ ENANCE WHITE COLOR CLEANING RETURN Hit cleaning and the carriage will move to the middle of the printer.

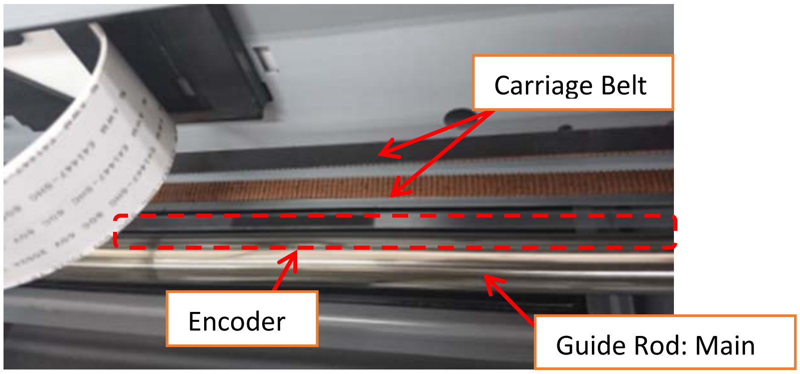
<table>
<tr>
<td>Step 2</td>
<td>Open the Front Cover.

</td>
</tr>
<tr>
<td>Step 3</td>
<td>Wipe off the old grease and lint stuck on the guide rod with a cleaning applicator for areas where the grease has collected and a lint free wipe for the rest of the rods. There are two guide rods "guide rod: front" and "guide rod: main". To clean both two.

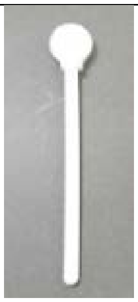
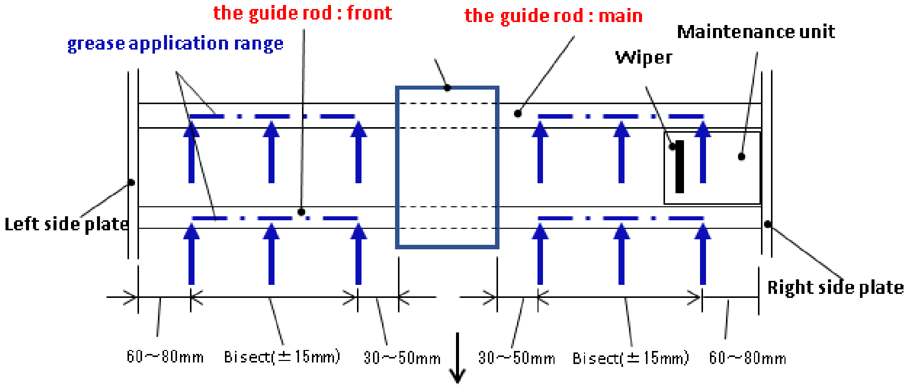


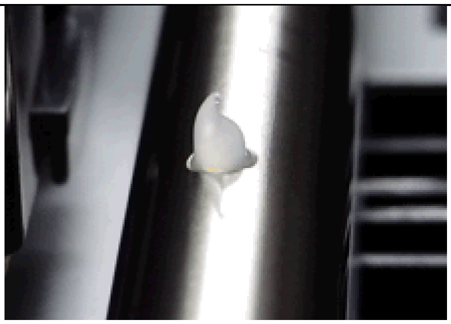
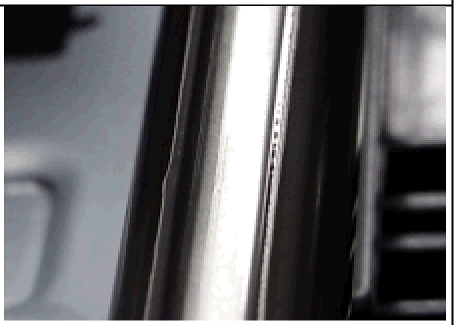
Cleaning applicator

(Caution)
When cleaning the guide rods, try to avoid touching the encoder or the carriage belt.
This can cause CR encoder error or other errors



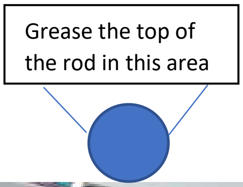
</td>
</tr>
<tr>
<td>Step 5</td>
<td>Apply Ricoh Grease Type G1 to the guide rods
Use new Cleaning Applicator(large) for application.</td>
</tr>
</table>

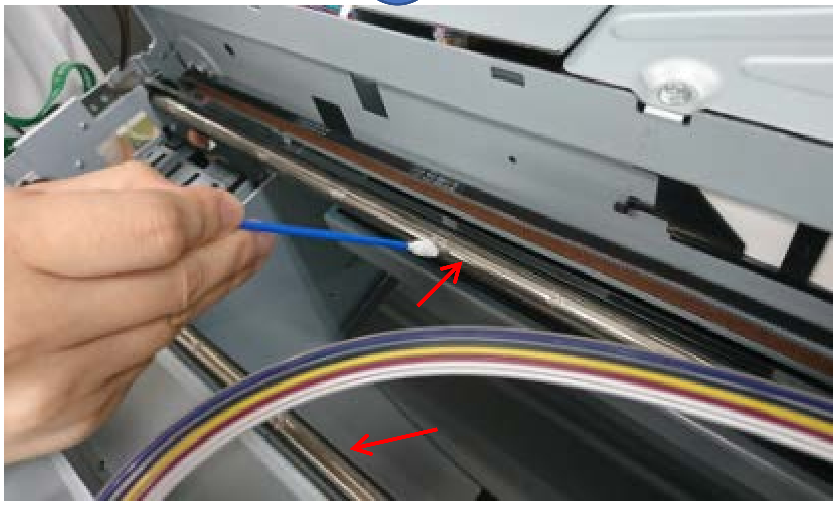
	 **CAUTION:** **Be sure to use the Cleaning Applicator that come with the printer or can be ordered from Ricoh and the Ricoh Grease type G1** This grease is designed for this purpose and the applicators are lint free – use of incorrect grease and the accumulation of lint can cause the carriage to malfunction and need to be replaced if the guide rods are not cleaned and greased correctly
Step 7	As shown in Fig. 1, **<The Guide Rod: main>** Apply approximately 0.01 ml (small dab) of grease to each of the six peripheral parts of the arrow. **<The Guide Rod: front>** The six peripheral parts of the arrow. After putting grease, apply it to the full range of the dot-dash line and adjust it. Refer to Fig. 2 and Fig. 3 for the circumferential grease application range of the Guide Rod.  the guide rod : front the guide rod : main grease application range Maintenance unit Wiper Left side plate Right side plate 60~80mm Bisect(±15mm) 30~50mm 30~50mm Bisect(±15mm) 60~80mm Machine front Fig. 1: Grease coverage **<Sample amount of grease to be applied to six places each rod>**

	At putting	After applying
0.01～0.02ml (height: 2mm)		

<Circumferential grease application range >

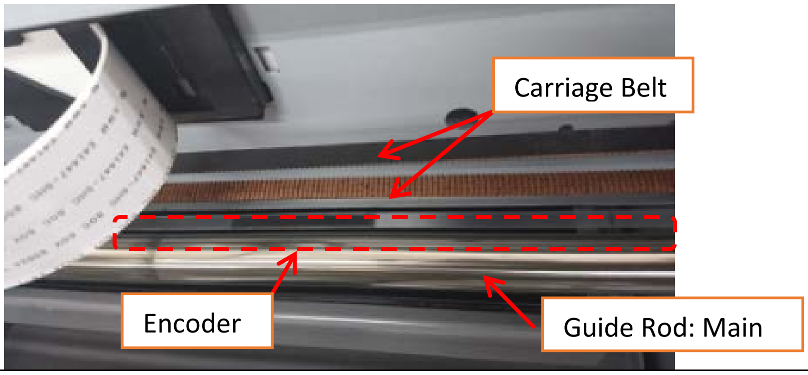
Use a dedicated Cleaning Applicator to spread the grease smoothly on the top portion of the rod (cover about the top third of the circumference of the rod.)



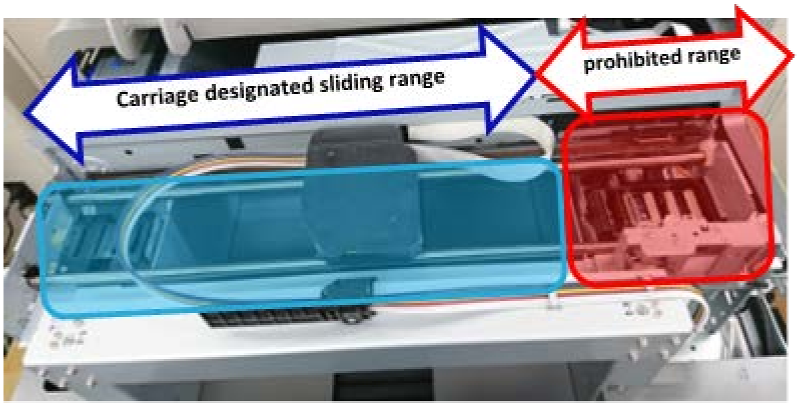
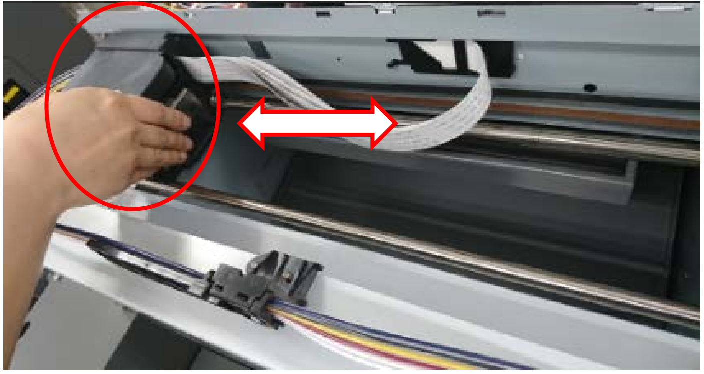
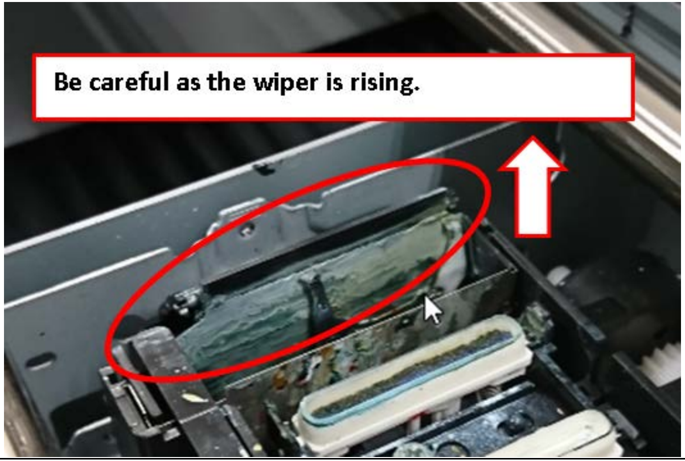


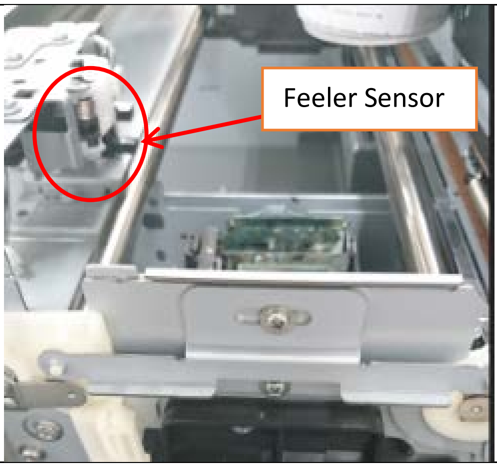
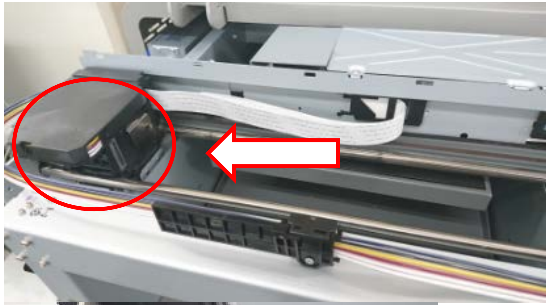
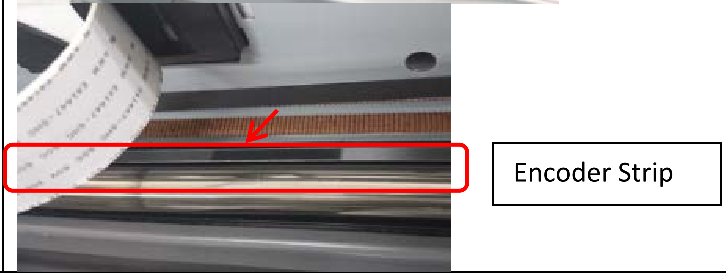
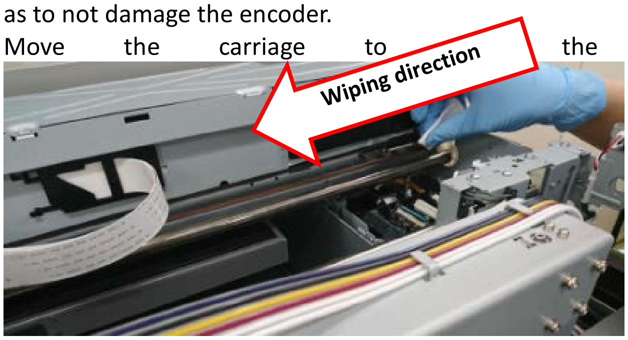
CAUTION:

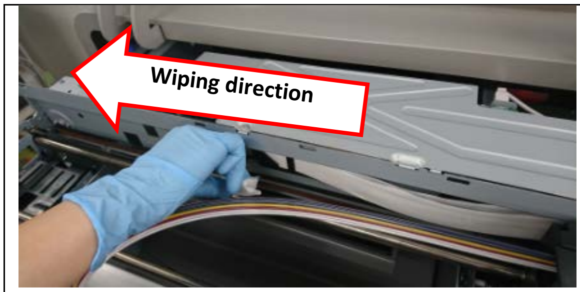
- **Do not allow grease to adhere to the Encoder**
- **Do not allow grease to adhere to the carriage Belt.**



Upper side

	・Do not allow grease to adhere to the carriage •
Step 8	Move the carriage to the left and right by hand, to smooth the grease. Move the carriage slowly over 2 seconds within the designated sliding range, and move it more than two round trips.   **CAUTION:** **Do not move the carriage to the sliding prohibited range which is outside the designated sliding range.** **Since the wiper of the Maintenance Unit is raised to the Wiper cleaning position, when the carriage is moved to above the Maintenance Unit, the Wiper interferes with the Head, it may damage the Head.** 
Step 9	Wipe away grease that protrudes far beyond the coverage of Fig. 1, 2 and 3. Also, confirm that grease is not attached to the Filler Sensor.

	
Step 10	Clean the Encoder Sheet after applying grease to the Guide Rod. Move the carriage to the left end side by hand.  
Using a dry Lint Free Wipe , remove lint and ink or grease adhering to the Encoder Sheet. Fold the ling free wipe over the encoder so that both sides of the encoder are touched by the lint free wipe and **gently** pinch the between the lint free wipe. Only apply light pressure as to not damage the encoder. Move the carriage to the entire Encoder Sheet. 	



CAUTION:

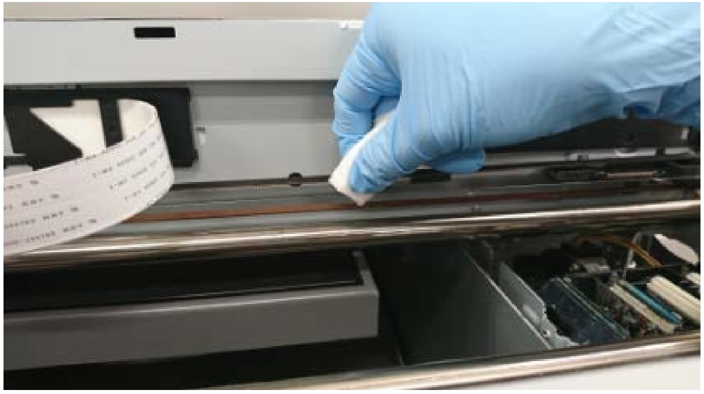
·Usage of lint free wipes help ensure the integrity of the encoder strip. Failure to use lint free wipes may result in damage to the encoder strip and prevent printer functionality

· Be sure to clean in the direction of the arrow in the figure.

· Do not directly touch the encoder seat with hands.

· Do not bend the encoder seat.

· Do not allow the Lint Free Wipes to come into contact with the Guide Rod as it will get dirty with grease



All of these can cause a CR encoder error and the encoder will have to be recleaned or if damaged replaced

4 Preparing a printer for moving storage or printing CMYK only

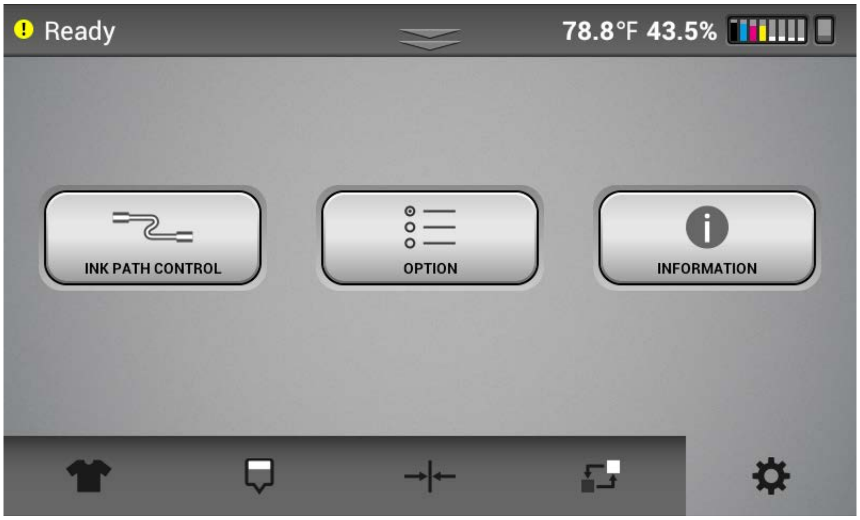
Caution: If at any point the printers are maneuvered through a standard doorway without following these instructions, they will spill ink inside their printer and possibly harm the electronics.

Please contact technical support if you have any questions

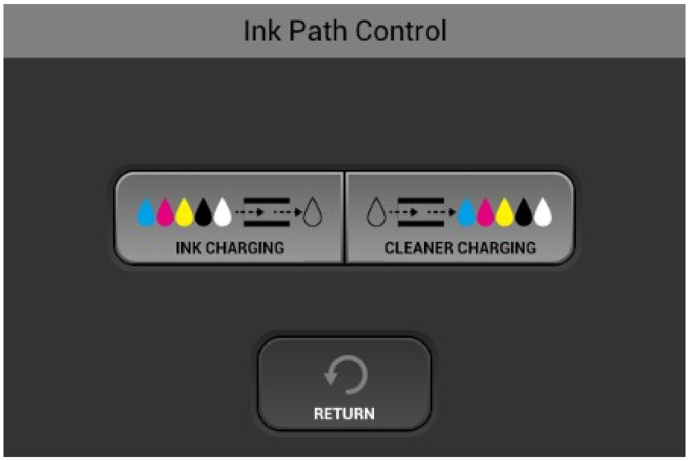
Note: Please have cleaning cartridges available for all channels

We recommend that you fill the lines with cleaning fluid if you are going to leave the printer unattended for more than 5 days.

- Remove Ink Cartridges
- Insert Cleaning Cartridges
- Go to ⚙ tab

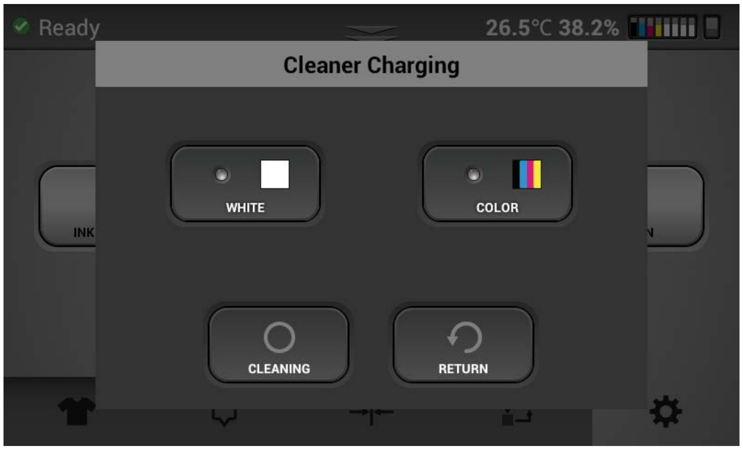


Select INK PATH COTROL



Select cleaner charging

You now have the choice of which carriage to fill with cleaning fluid.



If you know that you are going to printing just CMYK prints for more than a week you can flush the white carriage.

If you run out of a particular ink cartridge, you should flush the carriage with cleaning fluid.

You will need:

One each of the CMYK cleaning cartridges for the color carriage

QTY 2 W1 cleaning cartridges and QTY 2 W2 cleaning cartridges for the white carriage

Once cleaning is pressed then it will take approximately 43 minutes to purge the ink from the system and replace it with cleaning fluid.

You can now power down the printer by pushing the power button next to the touch screen. Then select the shutdown button on the two subsequent warning messages. When the power button stops blinking and the screen powers off you can then flip the switch in the back of the printer and unplug the printer.

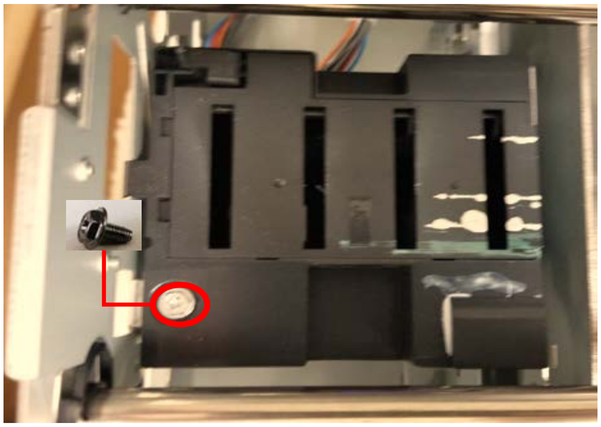
The printer is now ready to be stored.

If you are moving the printer where you will have to maneuver the printer through a door where you can not keep the printer in it’s standard printing orientation but must tilt in some way. You will need to Drain the ink sumps.

Failure to follow these instructions, will spill ink inside their printer and possibly harm the electronics.

Draining the left ink sump

Remove the left ink sump from for both the white and color carriages

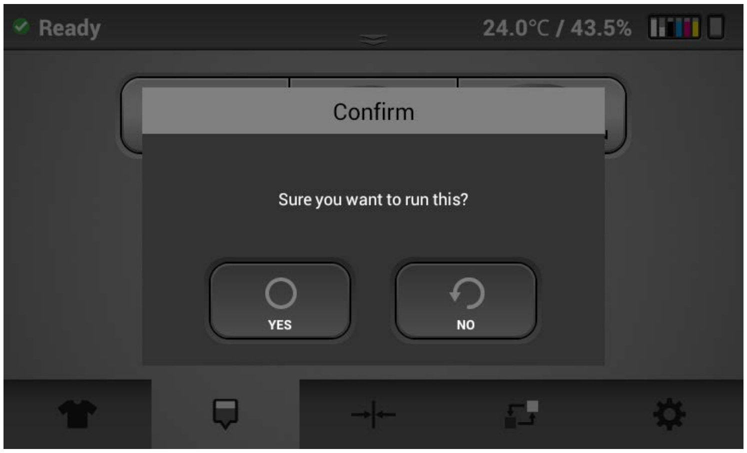


Empty and clean the ink sumps

Re install the ink sumps making sure the hook on the left of the ink sump will is seated completely down in its slot or CR encoder error can occur.

Empty the Right ink sumps

- Go to maintenance tab
- Select REGUAR MAINTENANCE for the white and color carriages
- Confirm by selecting [YES] to initiate manual clean

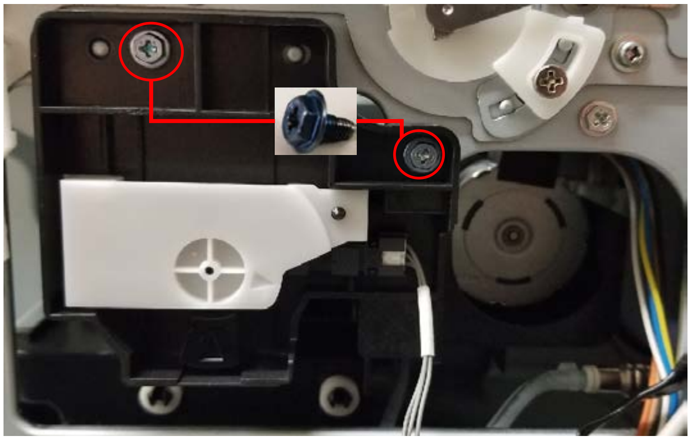


Ready 24.0°C / 43.5%

Confirm

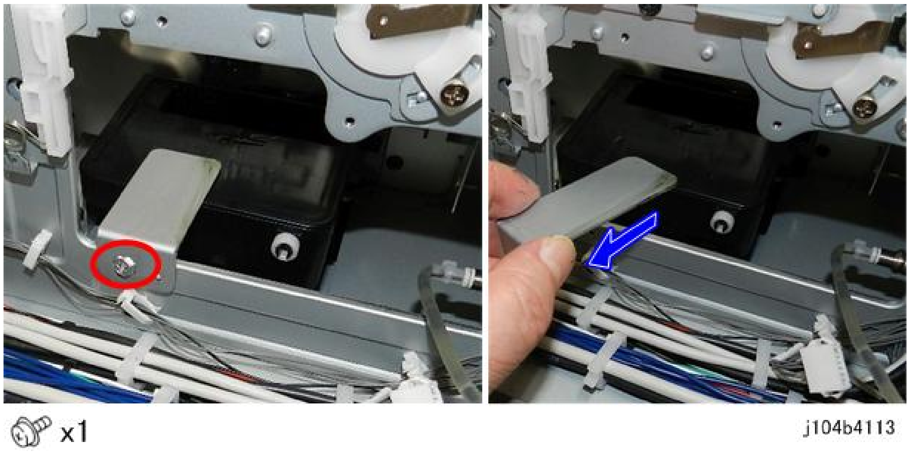
Sure you want to run this?

- **Turn off the printer and flip the power switch to the off position**
- **Remove the maintenance unit**



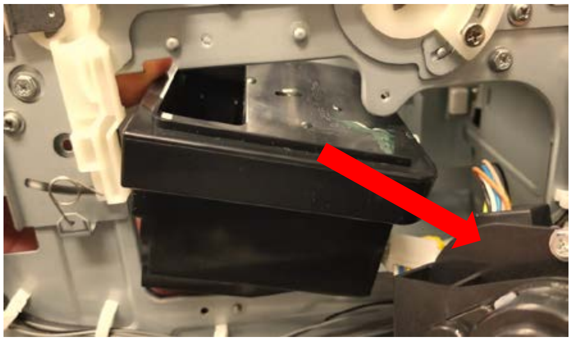
Remove rinse and drain the right ink sumps for white and color

Remove the bracket



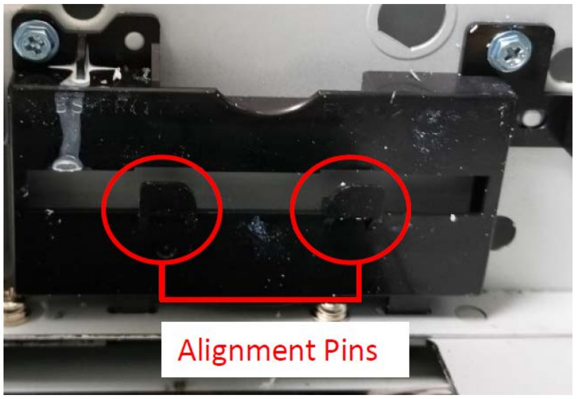
Note: For the white right sump – you will need to remove the two screws that hold the bracket that holds ribbon cables and push this bracket down out of the way so you can get at the screw that hold s the sump hold down bracket.

Rotate the sump 90 deg counterclockwise and remove the right ink sump



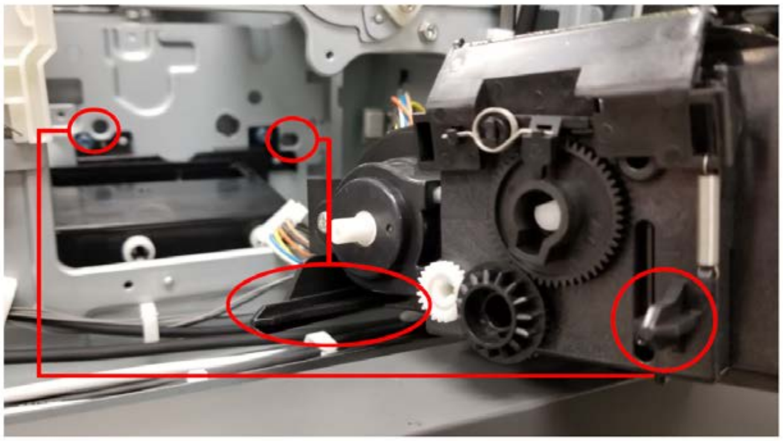
Drain and clean the sumps

Install the right sump after draining by moving it in and rotating clockwise this time 90 degrees so that the V grooves in the back of the sump slide onto the Alignment pins on the holding bracket.

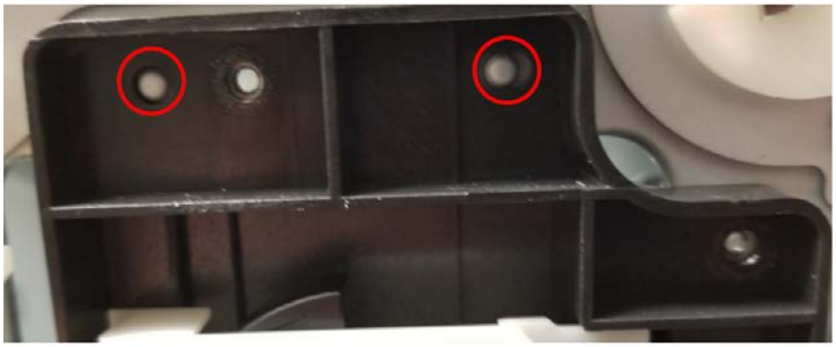


Make sure the sump is installed correctly and is not crooked as this can cause nozzle problems. Now install the maintenance unit.

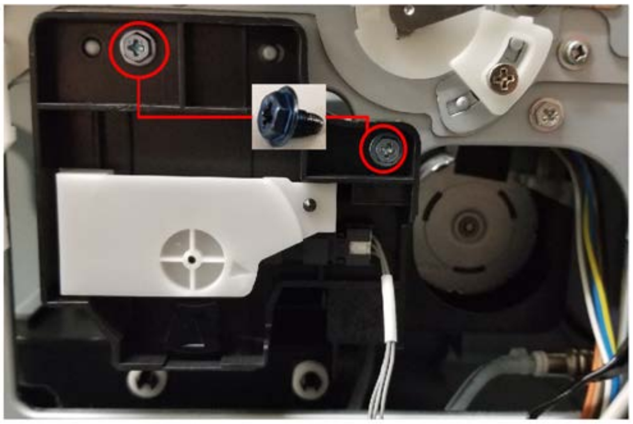
The two pins in the back of the unit will fit in the corresponding holes in the printer frame.



The two holes in the front of the maintenance station now fit into the small bumps on the frame to line up the screw holes.



Now you can install the two screws to secure the maintenance station.



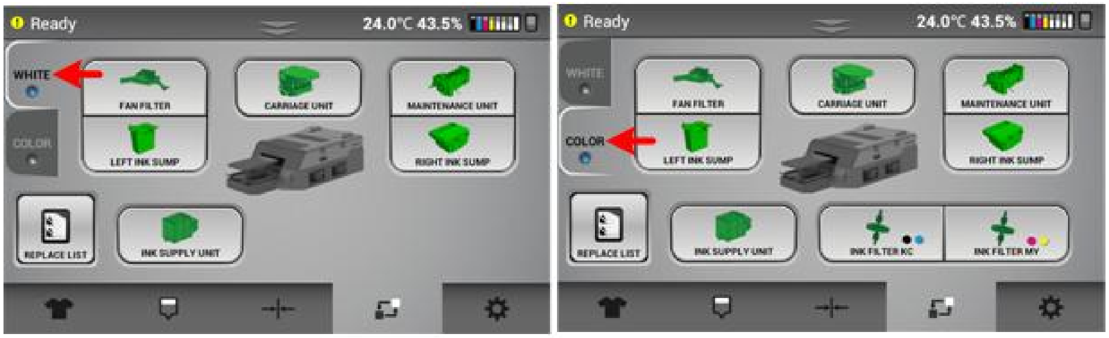
You can now power on the printer and the carriages will dock on the maintenance station.

You can reset the count for the sumps in the Part replacement menu now that the sumps are drained. The next section on part replacement will show this procedure.

Now you can box and ship the printer or move it to another location safely with out the chance of ink spilling inside the printer.

5 Replacing Service Parts

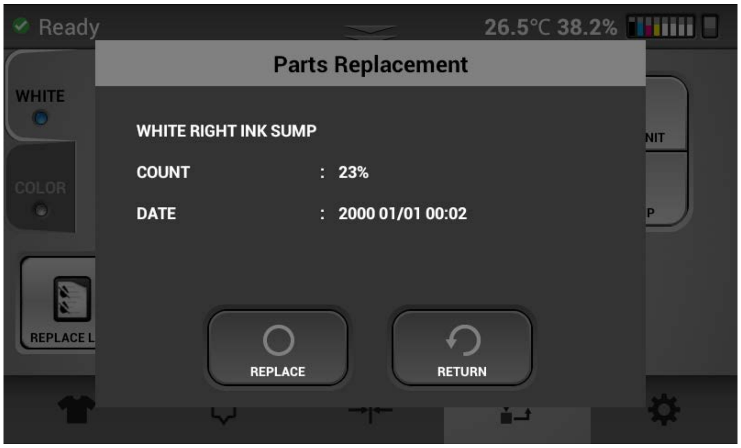
The printer monitors the service life of various parts and filters in the printer and gives you warnings when they are nearing their service life end and alarms when they have exceeded their service life end.



j104b6011

There are two pages – one for White parts and one for Color parts.

When the part icon appears yellow – then it is near time to replace the part. Pressing on the part icon will show what % the part has been used.



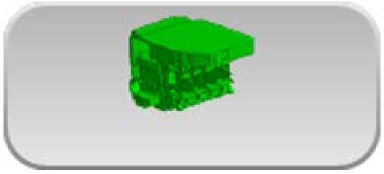
Parts Replacement

WHITE RIGHT INK SUMP

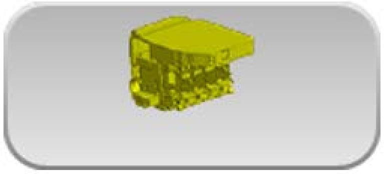
COUNT : 23%

DATE : 2000 01/01 00:02

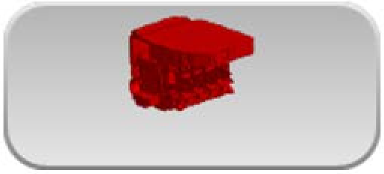
Typically, when the count reaches 80% the part will appear yellow on the screen. When it reaches 100% it will appear red. When the part has been replaced (or emptied in the case of the sumps) press the Replace button and the count will reset to 0%.



Green is normal



Yellow near end.

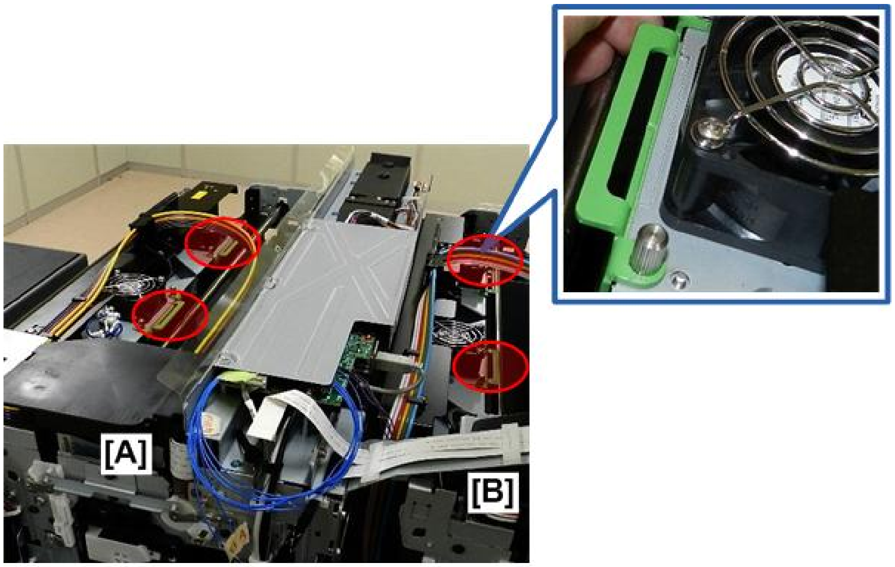


Red end of average service life

Note: The printer will still function even after parts have exceeded their service life although it is highly suggested that the part be replaced as the part may fail soon which may lead to other part failures – This is true EXCEPT for the INK sumps - the ink Sumps must be drained when they have reached 100% as the machine will not be able to print or conduct auto maintenance.

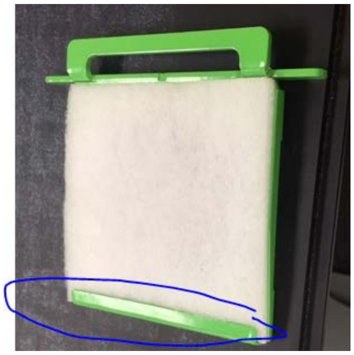
5.1 Fan filter replacement

There are 4 fan filters in the printer - two for the white carriage and two for the color carriage. They are located as shown.



j104b4074

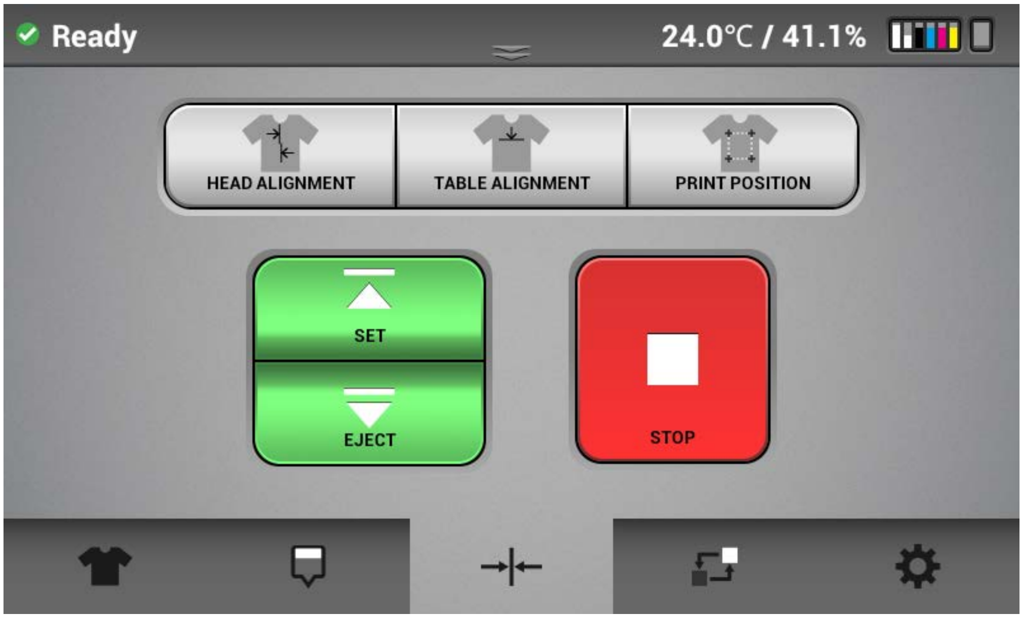
Pull out the holder by pulling the green handle – there are no screws to loosen. Remove the old filter and install the new filter by sliding the filter under the green hook on the end opposite the green handle.



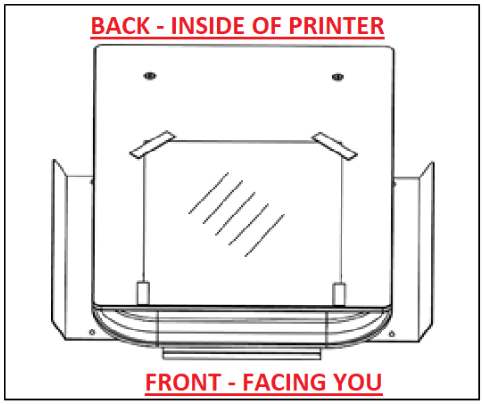
Make Sure when putting the filter and holder back in the printer the square opening is pointing up towards the top of the printer (nod the round opening in the holder). This will make the orientation of the green handle towards the top of the printer. If it is installed in the reverse (round opening pointing up) then the handle will be too low and the carriage will hit in causing and error and possible damage to the printer.

5.2 Alignment adjustments after part replacement

- This section describes alignment adjustments that may be necessary after replacing parts (carriage, CTL – or control board, sub control board)
- These functions can be performed on the →|← tab.



- You can print the basic adjustment pattern. Also it's better to print it on the transparent A4 media (such as OHP films).
- And it is recommended using medium-sized platen.

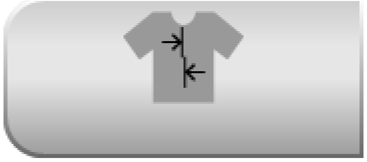


- If a part of the media is raised, use tape to fix the four corners of the media.

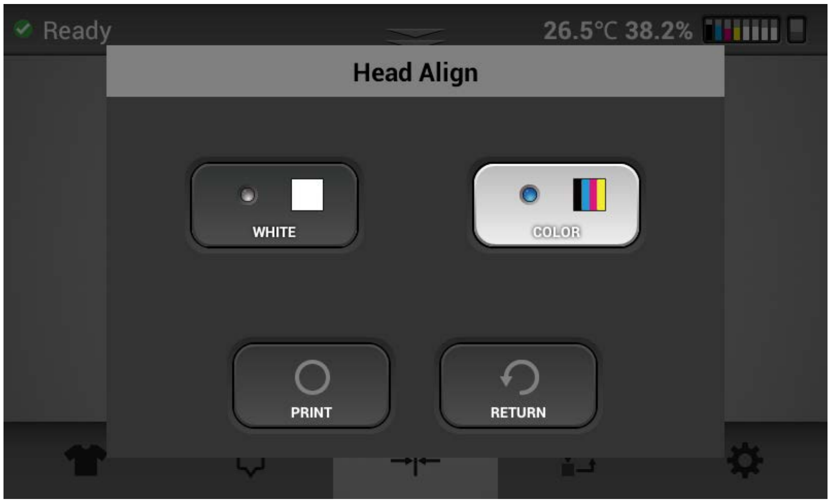
5.3 Adjusting Head

Typically this adjustment will only be necessary after a part replacement such as a carriage or CTL replacement.

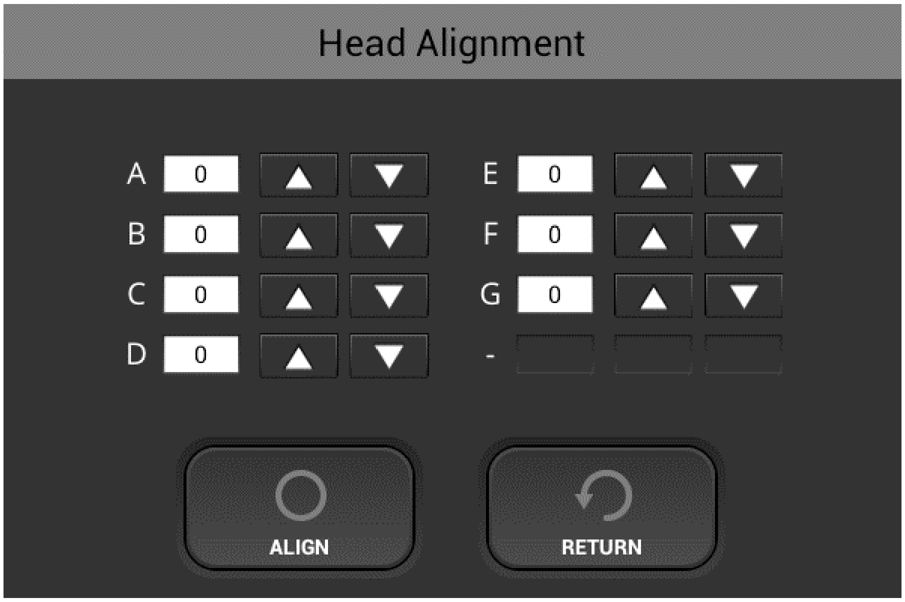
- This function adjusts the print head alignment position. When the print result is not clear (for example, vertical lines are misaligned, or color is not clear. Print is fuzzy) this adjustment may improve the result. NOTE: Always check the table height 1st. The reading on the dial should be close 0 in most cases. If the printing surface is too far away from the head the prints will be fuzzy and the lines may not appear straight



- Press the button, and you will have the choice of the white or color carriage alignment



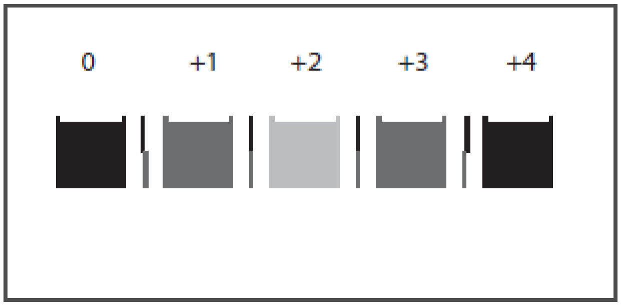
Selecting Print will print the head alignment pattern and after printing this screen will appear



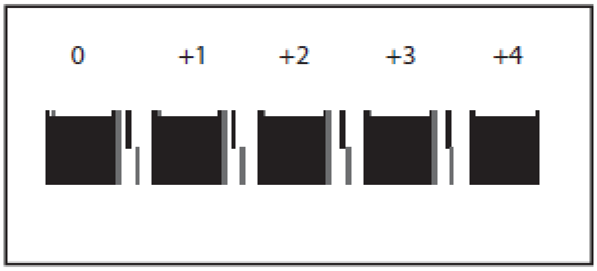
Head Alignment

A 0
B 0
C 0
D 0
E 0
F 0
G 0

- After find an appropriate adjustment value form the print result of adjustment pattern.



- Find a pattern with vertical lines on both sides are the straightest (or closest to this condition) aligned in row A
- Note the value indicated over the pattern indicates an appropriate adjustment value.
- An appropriate adjustment value is "+2". In this example
- Enter this value in the box for ROW A (up arrows make the value go up, down arrows make the value go down)
- Repeat this for the other rows in the test pattern (B, C, etc)



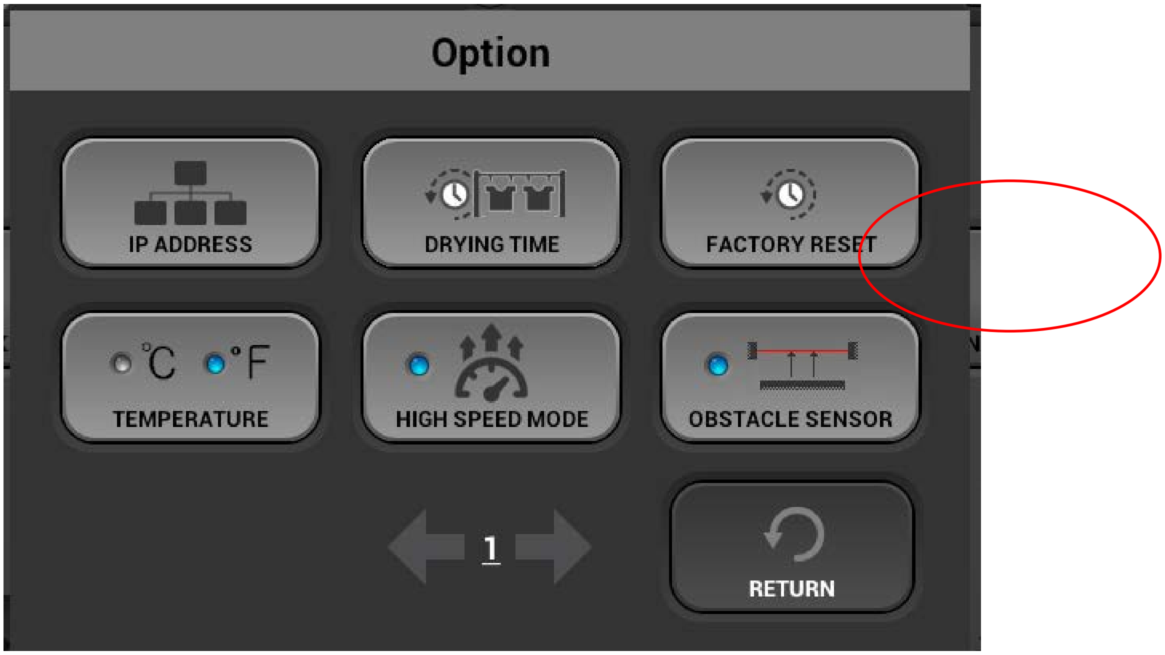
- When there are no straight vertical side lines, like upper illustration, check the last square out of the sequence of squares with the closest to a straight line
- As upper illustration, the value is "+4".

After you have entered a value for all the rows, press the ALIGN button which sets the new values.

Reprint the pattern and repeat the above process

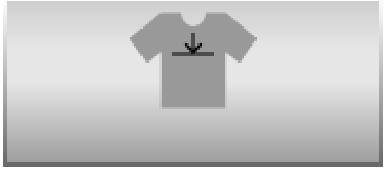
Repeat the process until all rows (A,B,C etc.) show the 0 column or close to the 0 column shown as the best value

You can always reset to the original settings by entering the factory reset button by going to the settings tab and select OPTION

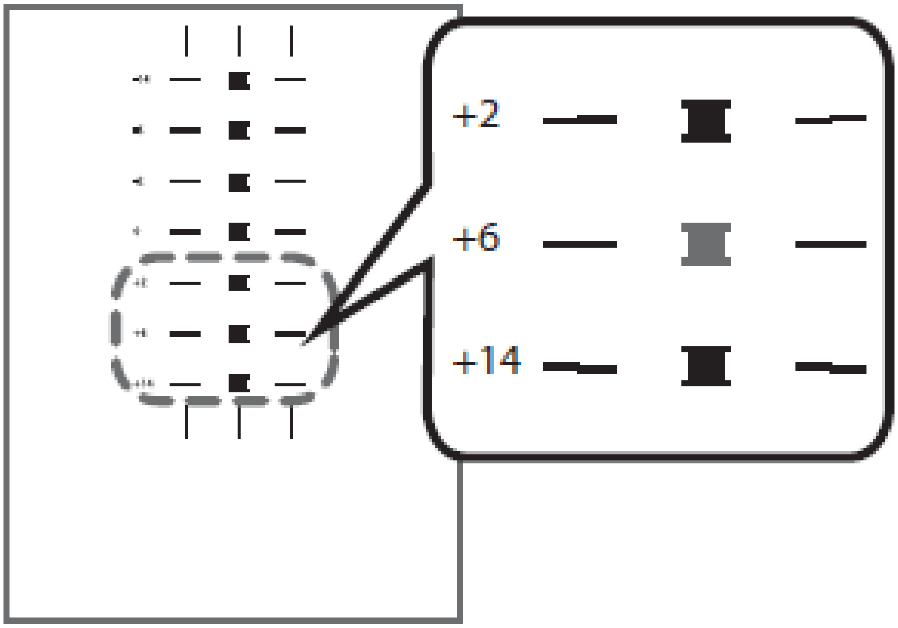


5.4 Adjusting Table

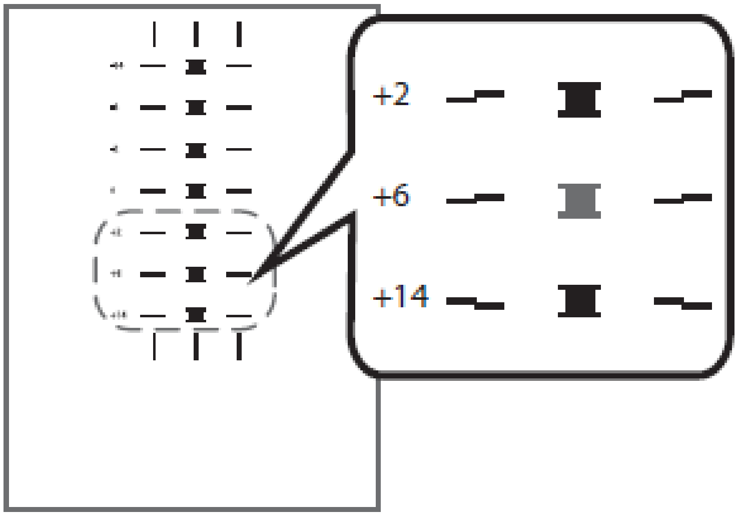
- The printing indexing of the table can be adjusted. Typically you would not need to do this unless a component was replaced such as the sub control board or the CTL board.
- If the print result shows horizontal lines and the nozzle check is perfect (no missing nozzles and no nozzle deflection and the table height is correct), you need to do this function.
- Press the button of print position.



- Find an appropriate adjustment value from the print result of adjustment patterns.



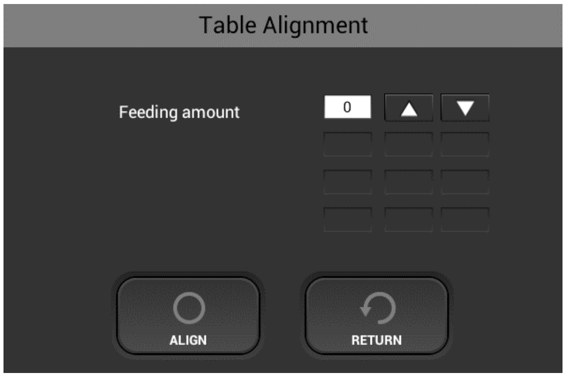
- Find a pattern with a square in the lightest color and horizontal lines on both sides aligned.
- A value on the upper of the pattern indicates an appropriate adjustment value.
- An appropriate adjustment value is “+6”.



- In some cases, an adjustment value is an in-between value of patterns
- When a square is in the lightest color, but horizontal lines on both sides are misaligned.
- In the upper illustration, a square in the lightest color is for “+6”, but horizontal lines on both sides are misaligned. In this case check horizontal lines for one pattern above and one pattern below of the square.
- The horizontal lines for “+2” and “+6” are misaligned in the same direction, but the horizontal lines for “+14” are misaligned in the opposite direction.
  - In this case, a value that horizontal lines align exists somewhere in between “+6” and “+14”. After passing the value, the horizontal lines begin to be misaligned in the opposite direction as getting closer to “+14”
  - By referring to the alignment of the lines, decide a value between “+6” and “+14” as an appropriate adjustment value.

After entering the value press the ALIGN button and reprint the pattern

Repeat the process until the pattern print shows 0 or close to 0 as the best result as described above.



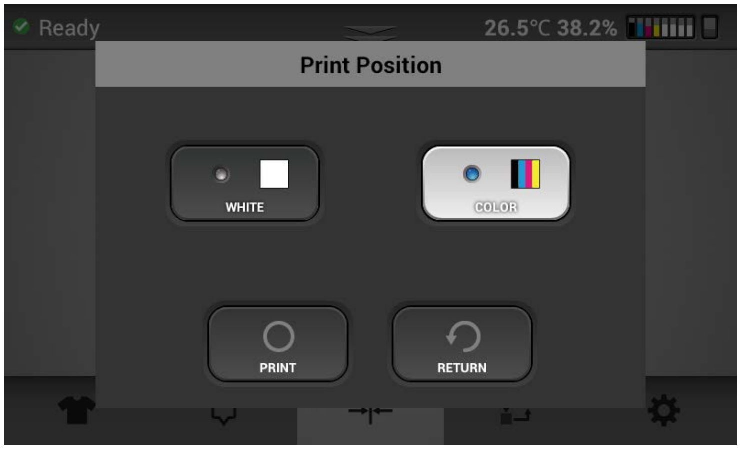
Feeding amount 0

5.6 Adjusting the print position

- The printing start position can be adjusted accurately within the range of ±4mm. Use this if appears that the print is not centered. This typically will only need to be adjusted if a component such as the Z-axis or CTL was replaced.
- Call technical support and they will send you a special alignment print file. Then print this file with no paper or media on the platen and the height set to 0. This file will print directly on the platen. Then you can press the alignment button below.
- Note: There are two carriages so there are two print start positions – these must be adjusted so that the layers align. There is a separate file for color alignment and for white alignment. After any alignment is done the carriage to carriage must be checked by – 1st printing the white alignment file – and then the color alignment file. This is to confirm that the carriages are aligned to each other. The color alignment file should print directly on top of the white

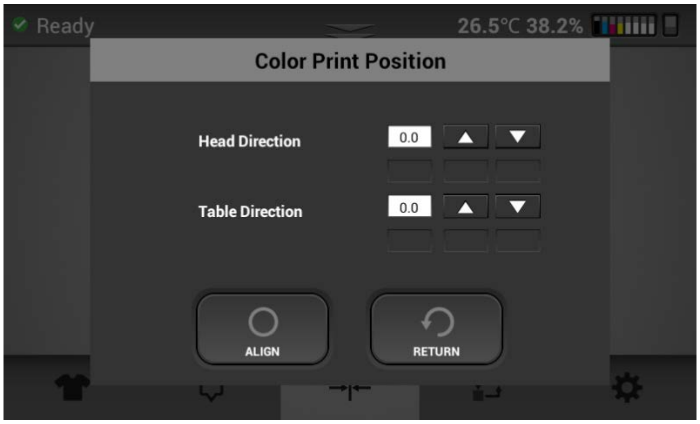
alignment file. If there is an offset, then the print position for one of the carriages must be adjusted.

- The button is for adjusting the printing position.

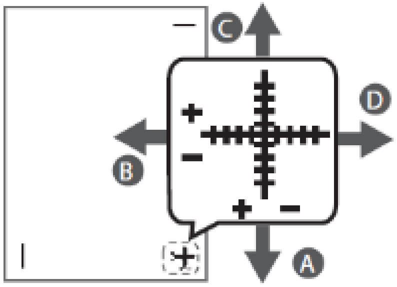


- The screen will pop up asking which carriage to adjust the print position (color selected in this case). After hitting print the adjustment screen will be displayed and you can make adjustments based on what the alignment file shows on the medium platen

- After printing the pattern for the print position adjustment, you have to find appropriate value based on the alignment files alignment the to the 4 screws on the platen.



Head Direction 0.0
Table Direction 0.0



- Values can be selected between "-4.0" ~ "+4.0" in increments of 0.1mm.

- To move the print position to the "A" direction, input a value between "-1" and "-4" in the Table input area
- To move the print position to the "B" direction input a value between "+1" and "+4". In the head input area
- To move the print position to the "C" direction input a value between "+1" and "+4". IN the table input area
- To move the print position to the "D" direction input a value between "-1" and "-4". IN the Head input area

After entering the values - press the align button to set the values

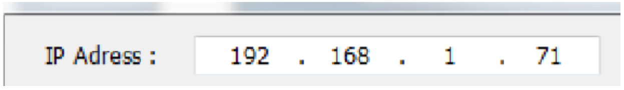
Wash off the previous print on the platen and then reprint the alignment file given by technical support to verify that print is now centered. Repeat the process if necessary.

6 Updating Firmware & Obtaining Print Logs

WARNING: Do not perform a firmware update unless the printer is in Ready Status

6.1 Updating Firmware

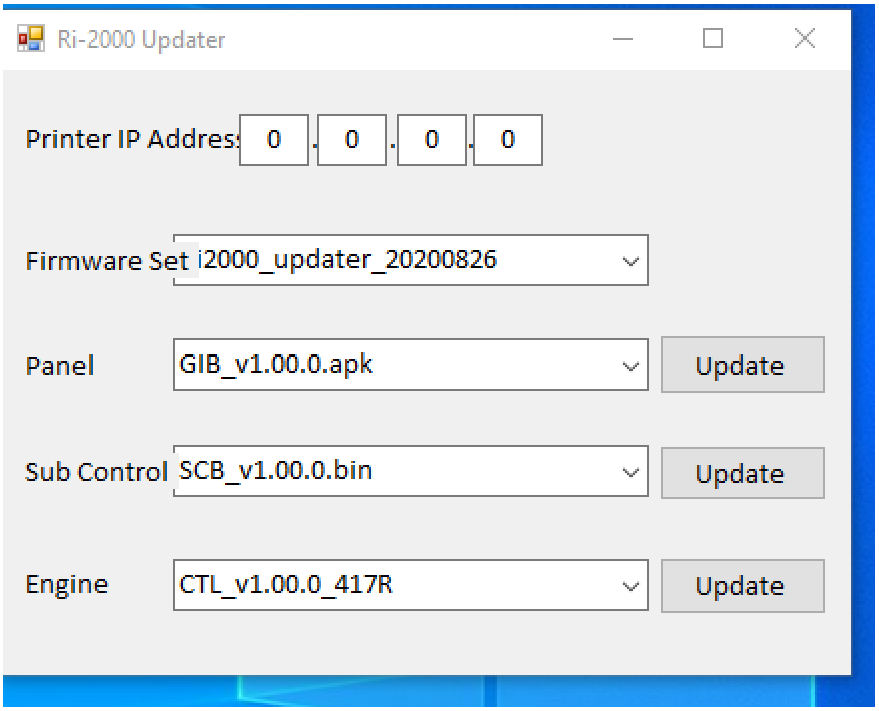
1. Download the application from www.anajet.com/downloads - the zip package will include the GManger executable file which is the installer, GIB folder for the GIB firmware, CTL folder for the CTL firmware and SCB folder for the SCB firmware.
2. Open the Printer Manager Application
3. Enter the printer IP address for the printer needing to be updated



IP Adress : 192 . 168 . 1 . 71

4. Select the version to use for the update

5. Click the GIB F/W Update button
*Note: always update GIB or control panel firmware first prior to any firmware updates. After the GIB then update the CTL. After the CTL then update the SCB*



Ri-2000 Updater

Printer IP Addres: 0 . 0 . 0 . 0

Firmware Set i2000_updater_20200826

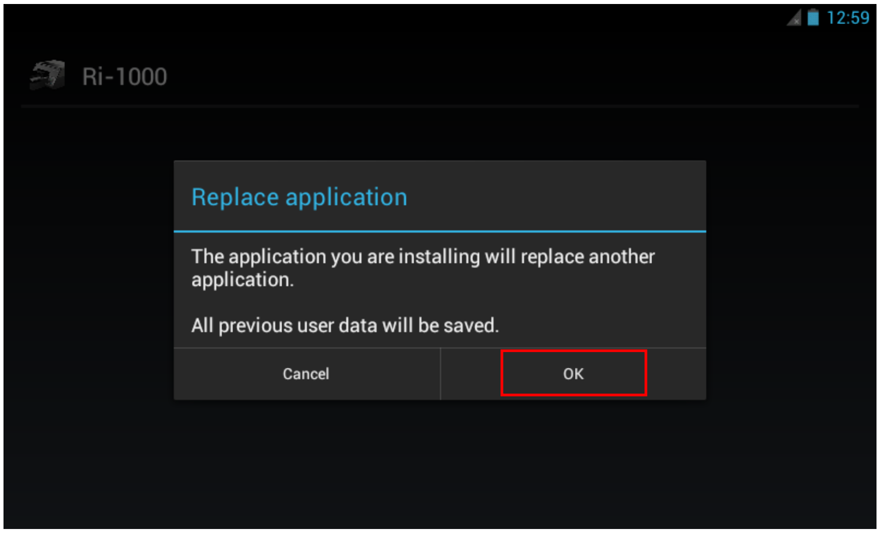
Panel GIB_v1.00.0.apk

Sub Control SCB_v1.00.0.bin

Engine CTL_v1.00.0_417R

6. Wait for the printer to react to the update

7. Click **OK** - the select the START UPDATE button for the GIB. The screen on the printer will then show the image below

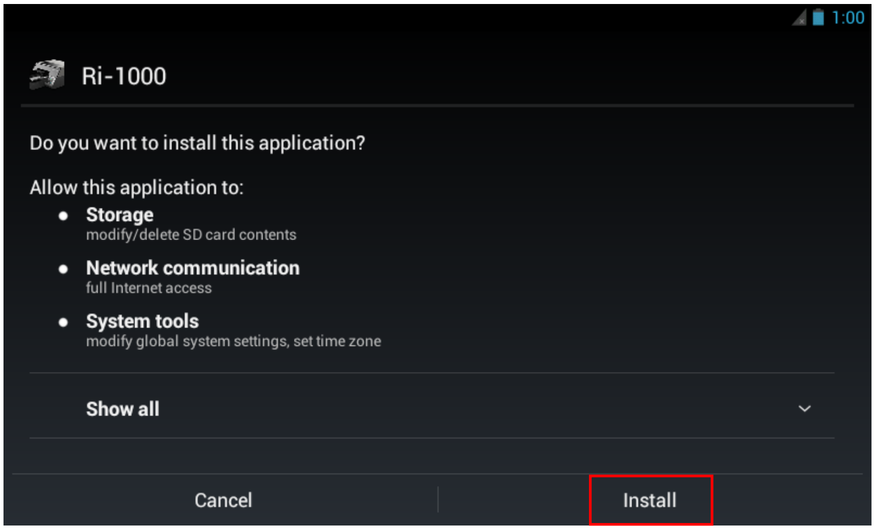


Replace application

The application you are installing will replace another application.

All previous user data will be saved.

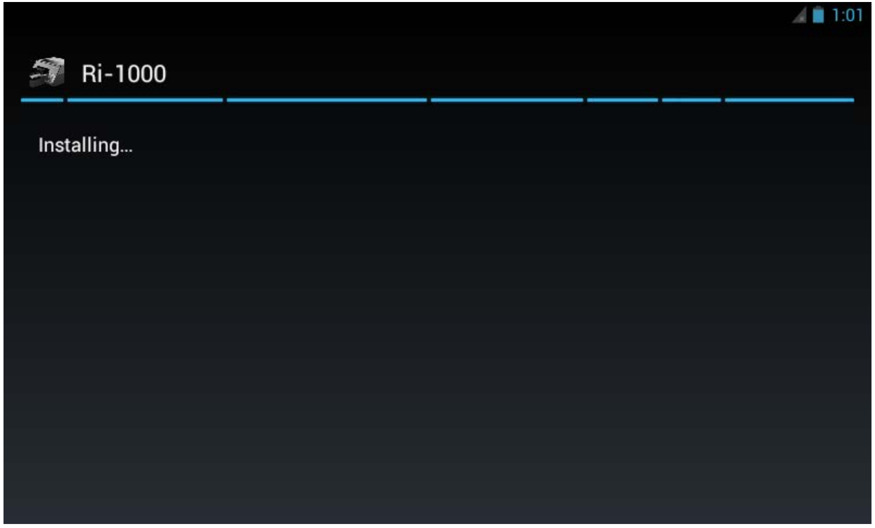
8. Click the **install** option on the screen to continue



Do you want to install this application?

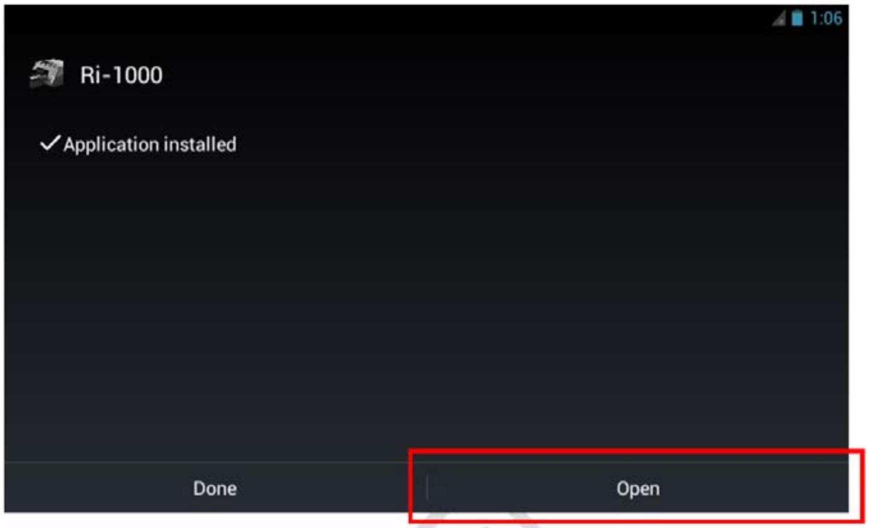
Allow this application to:

- **Storage**
  modify/delete SD card contents
- **Network communication**
  full Internet access
- **System tools**
  modify global system settings, set time zone



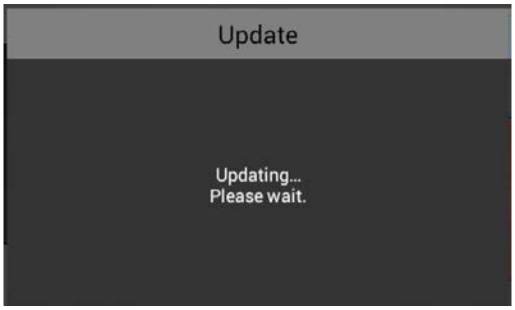
Installing...

9. Then select **open**



✓Application installed

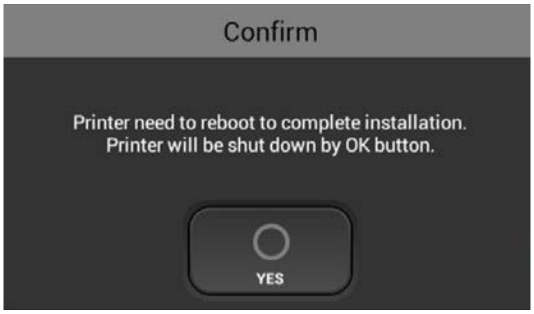
10. Then update the CTL firmware in the same manner. 1st press the CTL F/W Update button on the GManager. After the update complete message shows up select OK then START UPDATE and the screen below will show up while the printer is updating. Wait for the message to disappear before proceeding.



Update

Updating...
Please wait.

11. Then update the SCB firmware in the same manner. 1st press the SCB F/W Update button on the GManager. After the update complete message shows up select OK then START UPDATE and the screen below will show up.

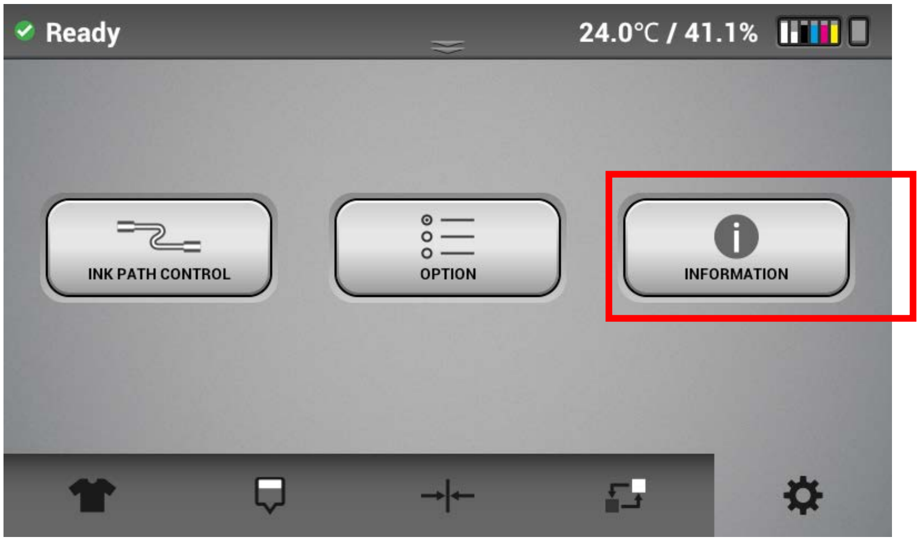


Confirm

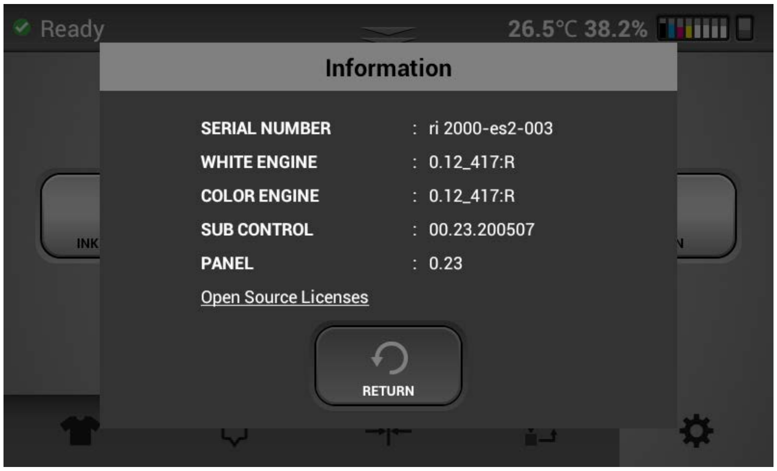
Printer need to reboot to complete installation.
Printer will be shut down by OK button.

12. Select Yes and the printer will restart to complete the update.

- To verify that the update was successful go to the information section in the settings tab



- Verify the Firmware version matches the one installed

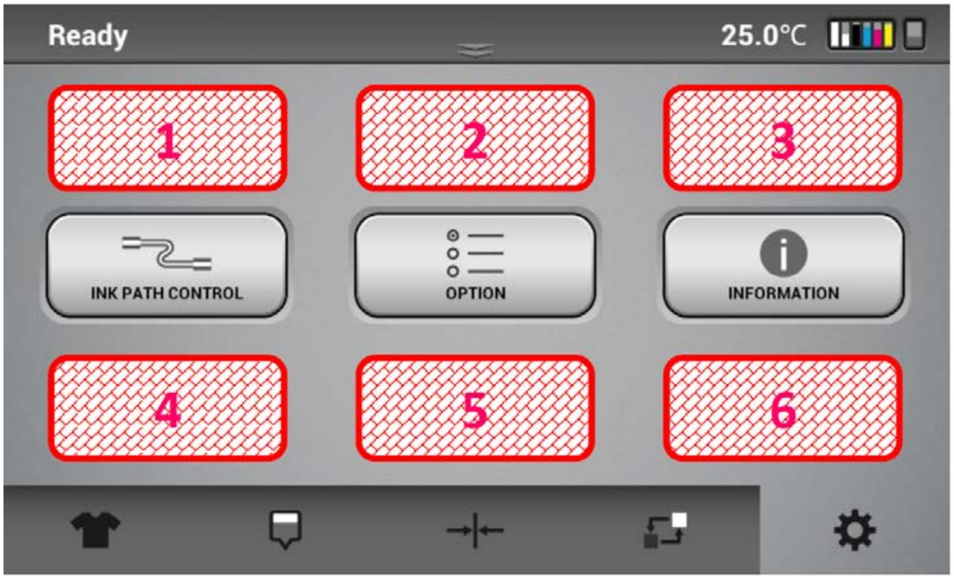


Information

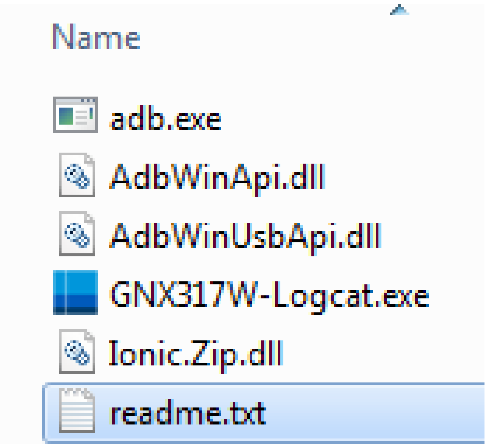
SERIAL NUMBER : ri 2000-es2-003
WHITE ENGINE : 0.12_417:R
COLOR ENGINE : 0.12_417:R
SUB CONTROL : 00.23.200507
PANEL : 0.23
Open Source Licenses

6.2 Collecting Log Files from Printer

Enter the service menu by tapping the 1 position then the 2 positions twice then the 3 position on the options page [1] – [2][2] – [3]



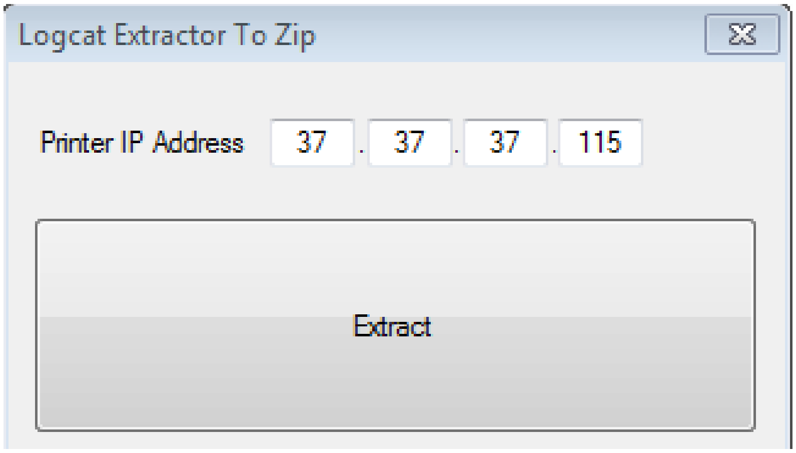
- Unzip the logcat package
- Run the GNX317W-logcat.exe software



Name

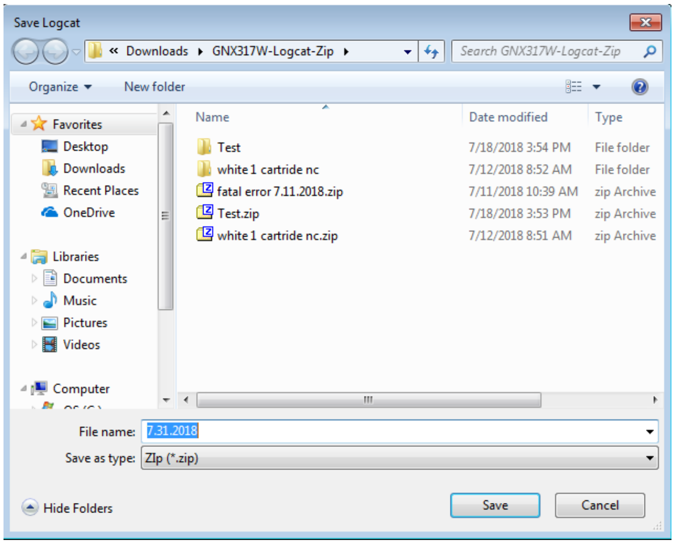
adb.exe
AdbWinApi.dll
AdbWinUsbApi.dll
GNX317W-Logcat.exe
Ionic.Zip.dll
readme.txt

- Enter the printer’s designated IP address and press extract



Printer IP Address 37 . 37 . 37 . 115

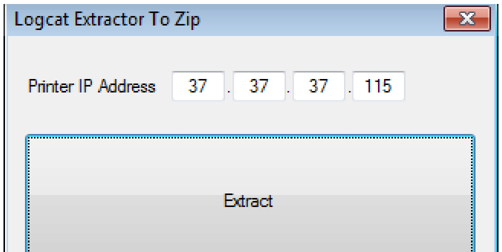
- Select where you would like to save the logs and the desired name of the zip package to be created



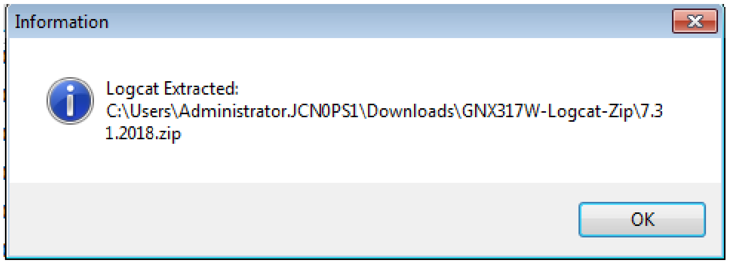
Name	Date modified	Type
Test	7/18/2018 3:54 PM	File folder
white 1 cartride nc	7/12/2018 8:52 AM	File folder
fatal error 7.11.2018.zip	7/11/2018 10:39 AM	zip Archive
Test.zip	7/18/2018 3:53 PM	zip Archive
white 1 cartride nc.zip	7/12/2018 8:51 AM	zip Archive

File name: 7.31.2018
Save as type: ZIp (*.zip)

- Once the logs have been downloaded press OK



Printer IP Address 37 . 37 . 37 . 115



Logcat Extracted:
C:\Users\Administrator.JCN0PS1\Downloads\GNX317W-Logcat-Zip\7.3
1.2018.zip

6.3 About Open Source Software License

ZLib

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2. Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software.
3. This notice may not be removed or altered from any source distribution.

Jean-loup Gailly Mark Adler
gzip@prep.ai.mit.edu madler@alumni.caltech.edu

7 Troubleshooting Guide

Issue/ Error	**Possible reason**	**Countermeasure**
1) Fuzzy blurry prints	Table height is to low	Perform adjust height with the shirt or other garment you are printing on the platen – if you were printing on a thick fabric and move to a thinner fabric then the thinner fabric will be to far away from the print head if you do not perform adjust height.
	Too much ink (oversaturated) causing bleeding (mostly for white or light shirts without pretreat	Check the settings in the RIP -
	Nozzle check shows all nozzles but some areas show deflection.	perform head clean or cleans and recheck nozzle to see if the deflection is gone
	For dark shirt with a white under base- poor pretreat - Not enough pretreat can make the white can CMYK areas of print to appear dull or fuzzy. Especially if a section of the print appears sharp and another section appears dull or fuzzy	See under base settings
	Head alignment is off	Perform head alignment procedure
2) Horizontal banding - thin horizontal lines across the entire shirt	Nozzles missing - if nozzle check shows some nozzle missing	Perform head cleans until the CMYK nozzles are 100%
	Nozzles all there but some showing minor deflection	Check table height – Perform adjust Hieght
		Perform head cleans until the deflection is reduced
	Nozzles 100% and little to no deflection	Perform table alignment procedure
3) Horizontal banding - thick horizontal lines across the entire shirt	Nozzles 100% - appears in solid colors of dark or gray - bi directional banding - has to do with the colors laying down in different sequence depending on which direction the carriage is traveling	Select unidirectional printing in the RIP

	Nozzles 100% - appears in solid colors - the color is inconsistent in the scanning direction of the carriage. This is caused by the different drops of CMYK not combining consistently	This can show in Speed Quality mode for CMYK - Print in Fine Quality mode for CMYK - if still persists - print in 1200 X 1200 dpi Superfine mode
4) Several nozzles out – improves not at all or just a little with head normal and strong head cleans	During an initial ink fill - air has been introduce to the head or after a head clean cleaning fluid or air was inadvertently pushed into the head by the cleaning applicator	Let the printer sit overnight which will give the air a chance to settle – after the nozzle should be good
5) Dark shirt prints look dull	White nozzles 100 % or near 100%. - In adequate amount of pretreat on shirt - this can cause the white ink to mostly sink into the shirt	Increase the amount of pretreat being sprayed on the shirt
	White nozzles 100 % or near 100% but look dull. - White ink has settled	If the white cartridges have not been agitated per instructions - will need to agitate the white ink cartridges for 2 minutes. Then perform 3 to 4 strong head cleans - this will replace most of the settled ink
	Missing many nozzles on one or both white heads	Perform head cleans to recover the nozzle to 100% or near 100%
6) Light shirt looks too dull	Nozzle is 100% -	Adjust RIP settings – add contrast or saturation enhancement
7) Cartridge reads 0% but was just at a high % (example 65%) at the previous operation. (before printing or before cleaning)	Temporary loss of Comm caused cartridge reading error	Pull out the cartridge that reads 0%. The status should change to NC and the cartridges not loaded message will appear in the status bar. Put the cartridge back in and the % reading should go back to normal. If the % still reads 0 after reinserting the cartridge then turn the printer off and turn it back on and the cartridge will read correctly