RICOH Ri 1000 Operator Training

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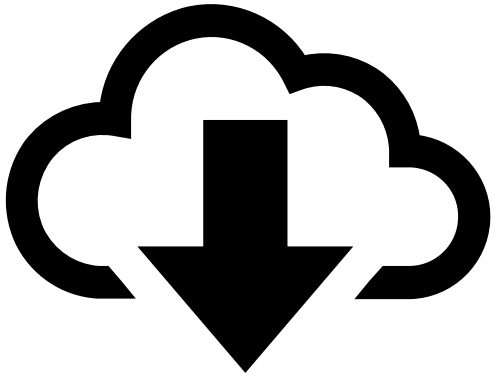
Direct to Garment Basics

- Substrate
- Environment
- Heat Press
- Pretreatment
- Printer Overview
- ColorGATE RIP Software
- Printing
- Maintenance

Technical Support



Hours: Mon-Fri 8am - 4pm PST

Telephone: **1-877-646-0999**

E-mail: **tech1@ricohdtg.com**

Downloads:

- Latest Software (Drivers, RIP)
- Graphics

Support Documents:

- Training Videos
- FAQ's (Frequently Asked Questions)
- Need to Knows

Warranty

Need to Knows

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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 (Section 8.3 User Manual).

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 (Page 18 User Manual).

Need to Knows

3. **Perform a nozzle check daily**, so you can spot and quickly address potential issues with the printer.

4. **Make sure your ink is at 5% or above** when you are done printing for the day or plan on leaving your printer idle for a few hours. While you can continue to print using cartridges with less than 5% remaining, the machine's vital automated maintenance sequences require at least 5% 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.

Need to Knows

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5. **Clean encoder strip weekly or every 30 prints** to help avoid blurry prints, double prints, and error codes. Refer to Section 8.2 of your User Manual or watch the Ri 1000 Weekly Maintenance Video.

6. **Make sure the obstacle sensor is on**. If the sensor is off, head strikes may occur and cause damage to the carriage. To check if your obstacle sensor is enabled, navigate to the OPTIONS panel. The sensor is on when the blue light is illuminated on the OBSTACLE SENSOR button.

7. **Set the table height correctly** — just below the obstruction sensor. If the table is too low, the extra space may cause misting and printer damage. If the garment is dressed on the platen, the number on the table height adjuster should be between 0-2. If not dressing the garment, the number value should be no more than 4. Refer to Section 2.2 of your User Manual.

Need to Knows

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8. **Check the downloads page** to ensure you are on the most up to date firmware.

9. **Exercise with care when adjusting table height or changing platens**. While ruggedly constructed, the RICOH Ri 1000 is a precision tool and care should be taken when adjusting the machine. Do NOT over-tighten the table-height-adjustment knob past “0” and carefully install platen without banging it against the print table.

10. **Online User Manual & keeping current on important updates**: Visit the Support page! We are always updating content to help customers including online updates to your User’s Manual.

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.

RICOH Authorized Inks

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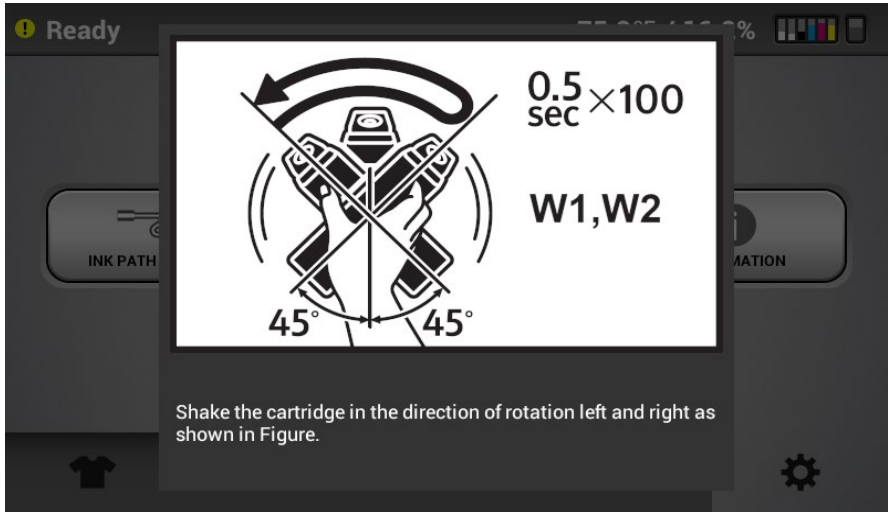
Black	$61.00	0	342516
Cyan	$61.00	0	342517
Magenta	$61.00	0	342518
Yellow	$61.00	0	342519
White 1	$61.00	0	342520
White 2	$61.00	0	342521

RICOH is proud of its commitment to the environment. We use only safe, water-based inks and treatments. SDS's are available on RICOH's website.

White Ink



- All white ink has titanium dioxide. Over time, if white ink is left sitting, the titanium dioxide will separate from the water, causing the ink to settle or separate apart.
- It's vitally important to remove your white ink cartridges **daily** and shake them around. This will mix any separation that might have happened overnight. The printer will prompt you to gently agitate the white ink cartridges every 12 hours.
- If white ink is kept in stock, rotate cartridges 2-3 times a week.
- White ink has a shelf life of 6 months. CMYK shelf life 1 year. Each cartridge has a label for its specific channel.

What happens when you don't change an empty cartridge?

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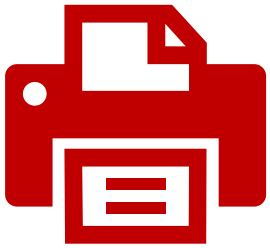

Nozzles clog and stop firing. This causes undesirable banding in your print.

Air can enter the tubes. Air in the tubes will start to dry the ink and risk clogging the head.

Permanent damage to print head. If a cartridge is left empty for too long in the printer, you risk clogging the head permanently and requiring a costly replacement.

What types of fabrics can I print on?

- **Substrate**: 100% cotton will yield the best results. Other similar natural fibers like hemp and bamboo can be used.
- **Light-Colored Polyester, Rayon and Spandex:** Print on up to 50% synthetic, light-colored fibers. Use light pretreatment for best results.
- **Dark Polyester:** Polyester and white ink do not like each other; adding heat and pressure from the heat press will dull the white ink.
  - **50% polyester / 50% cotton mixture –** can be printed with acceptable results, in some cases it may be required to use more white ink and saturate the garment with more pretreatment.

What types of fabrics can I print on? Cont.

- **Not all cotton fabrics are the same**. The quality of fabric will also impact the vividness of the image. Lower quality fabric will yield a lower saturated color or faded colors, while higher quality fabric will give you strong and vivid colors.
- **It's always recommended to test the fabric first** to see what kind of color results you get. In some cases, different fabrics will require different ink settings.
- **RICOH recommends using high quality ringspun cotton, or high-quality comb cotton**.

Environment

VERY IMPORTANT!

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- Below 32˚F (0˚C) or over 104˚F (40˚C) **The printer will not operate and request a power off.**

- If the temperature is
  32˚F (0˚C) - 50˚F (10˚C) or
  30˚C (86˚F) to 40˚C (104˚F),
  the printer will give a warning

- Temperature (inks)
  50˚F to 90˚F (10˚C to 32˚C).

- Humidity (printer)
  45% (minimum) to 80% Relative Humidity

Why do you need Humidity?

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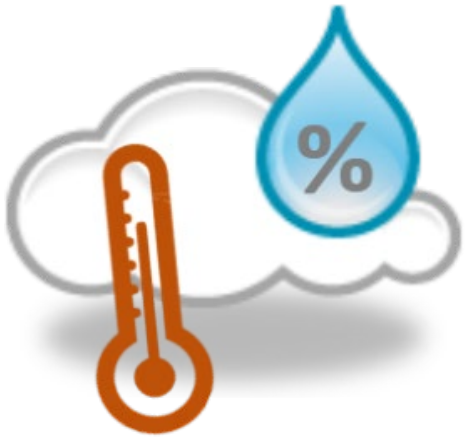
DTG machines don't like dry conditions. The ink in the head is more prone to clogs if the air is dry. If you are in a dry area with low humidity **OR**, if you plan to put the machine in a room with very dry heat in the winter, consider using a humidifier.

The ideal conditions are: 45% to 80% relative humidity, dust-free, with no airflow over the printer.

Environment

- Keep airflow away from the printer – no fans should be circulating into the machine. Keep the printer away from A/C.

- Clean air – make sure there is no dust flying around and into the printer. Do not pretreat next to or around the printer. Always pretreat in a different room or area.



Heat Press

Heat Press Equipment

All garment inks are required to reach a certain temperature and time to be properly cured. If this temperature or time is not properly adjusted on your heat press, you risk the possibility of the shirt washing out during the wash cycle. Keep Heat Press at least 10 feet away from printer.

- **Heat Press Setting:** 330˚F (165˚C) for 90 seconds.

- All prints can be run at this longer/colder setting if you are alternating from light to dark.

- **Pressure** – Pressure should be set to a Medium to Medium/High settings. If there is not enough pressure, the ink will not cure and will wash out. Use 40-50 PSI (6 boxes on the GeoKnight).

Heat Press Equipment

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- **Location –** Heat press should be set at least 10 feet away from the printer. Having the heat press too close can heat up electrical components and damage them.

- **Heat Press Protective Sheets –** Always use a heat press sheet to protect both the shirt and the heat platen. Below are some acceptable heat press sheets
  - **RICOH Soft Touch paper / Parchment paper**
  - **Stahls' Kraft Sheets**
  - **Teflon Sheets** - creates a very shiny finish to the image.

- **Good heat ensures that the ink cures into the shirt and the garment will have good washability.**

Pretreating Garments

Pretreatment

- **What Pretreatment does**
  Pretreatment is a primer/bonding agent that is ***only necessary when using white ink.***
  (SDS Ingredients list available)

- **Required tools**
  A sprayer that can spray a fine mist, A Wagner HVLP (High Volume Low Pressure) sprayer is recommended, you can also use another type of HVLP Sprayer.

- **Application Procedure**
  Apply an even coat to the point where the garment looks wet but not soaked. Be sure to squeegee in one direction to get even coverage and to flatten the fibers of the garment.

- **Drying options**
  Line dry, flash dry, conveyer dry, or heat press by hovering the heating element above the garment.

- **Storage**
  Once completely dry, shirts can be folded and stored until needed.

Pretreatment Application Procedure

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Apply Pretreatment in slow EVEN passes.

- Look for an EVEN wet sheen across the area that requires pretreatment.
- If the pretreatment begins to run, puddle, or drip you are applying more than needed.
- Even out the pretreatment and flatten the garment fibers using a card squeegee to assure EVEN coverage.

Pretreatment Tips

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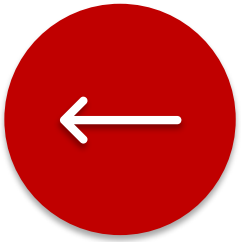
Keep the trigger pressed the entire time.



Spray in one direction, side to side or top to bottom.

When pretreating both front and back, they must be done separately. Let one side dry completely before pretreating the opposite side of the t-shirt.

Always pre-press garments before printing to flatten fibers and create a smooth print surface.

What not to do when Pretreating

When drying the pretreated garment with a heat press, be sure to hover the heating element above. If you clamp the press down, you may cause the pretreatment to glaze as shown below.

Pretreatment

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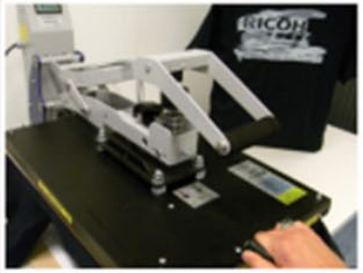
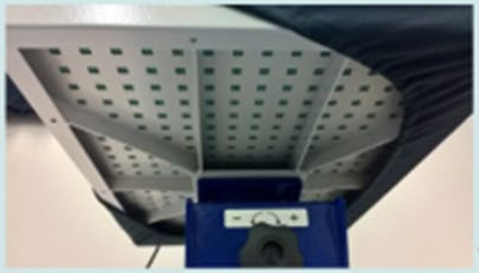
Wet shirt

Press paper



Manually press for 3 sec Release for 5 sec

3x



Solution to absorb moisture

Last step is 10 sec full pressure and result is dry without glaze……..

Caution:

- When drying the pretreated garment with a heat press, be sure to follow the steps above. If you clamp the press down, you may cause the pretreatment to glaze as shown.

Pretreatment

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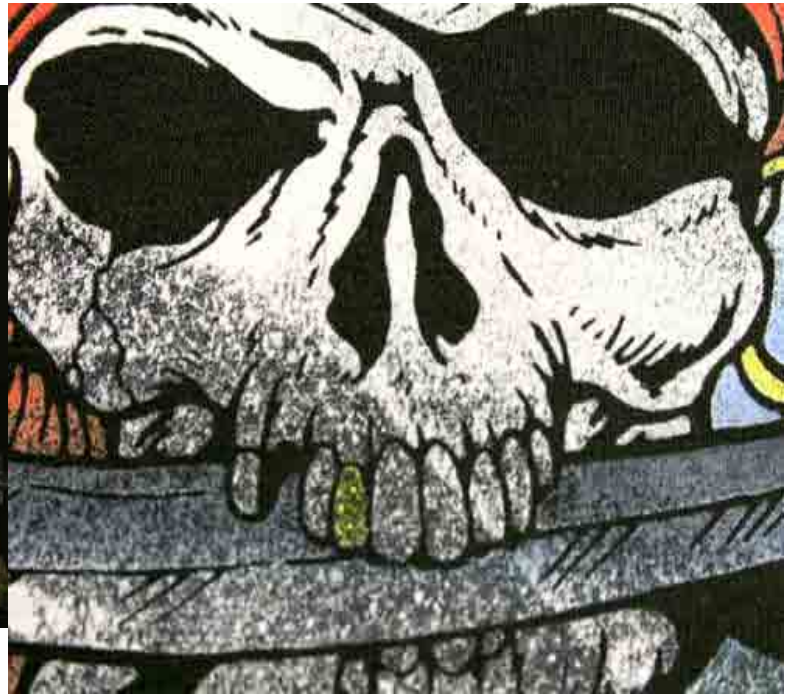
Effects of poor pretreatment:

In this case the pretreatment was applied unevenly with the lighter areas allowing the white ink to soak into the fabric causing a mottled appearance.



Pretreatment Demo

Pretreatment Demo

Getting to Know Your RICOH Ri 1000

Get to Know Your Printer (Inside)

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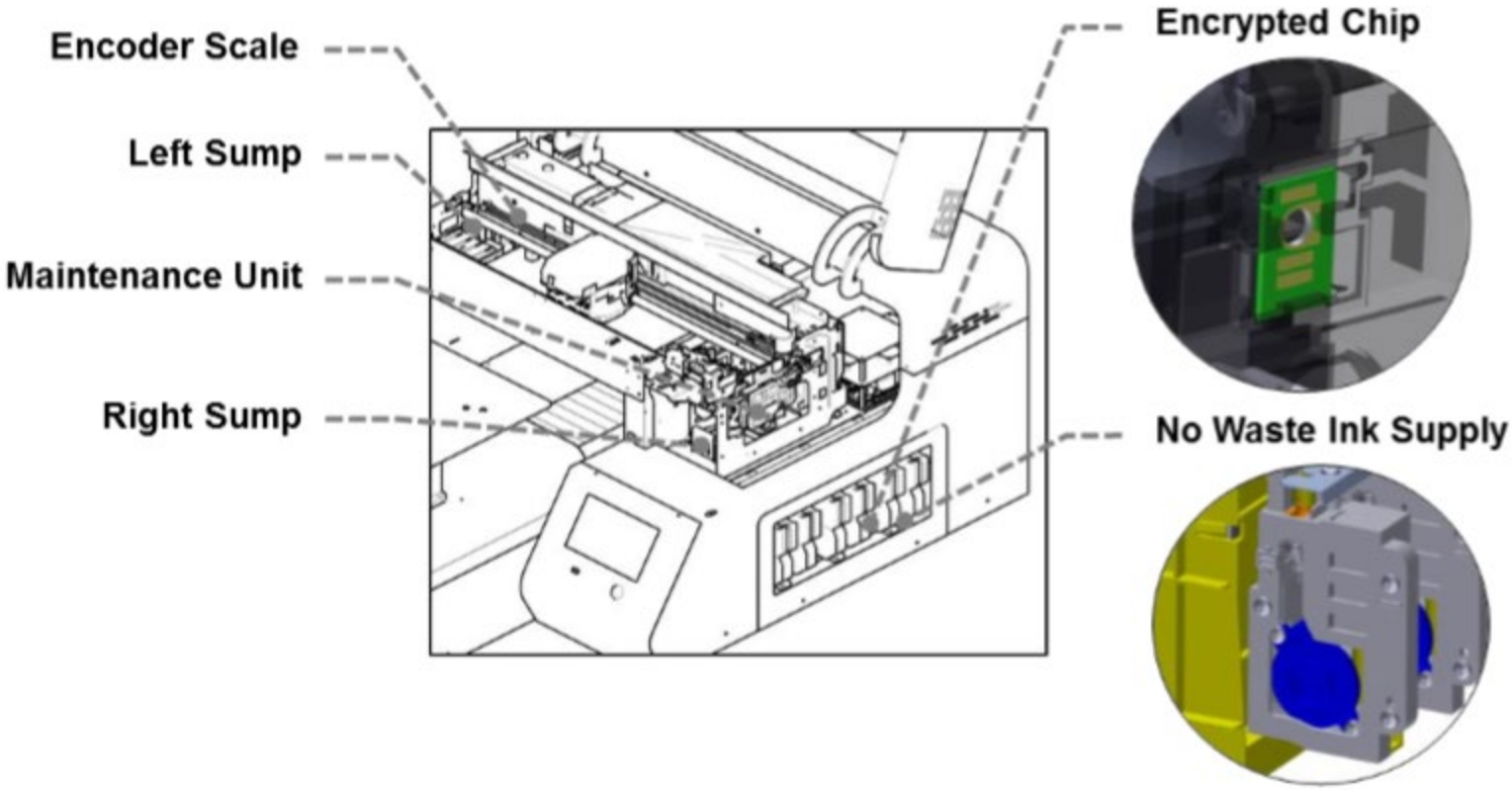
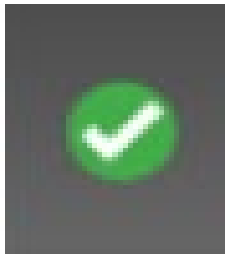
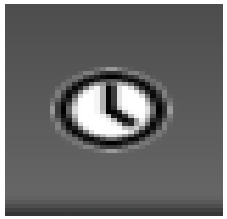


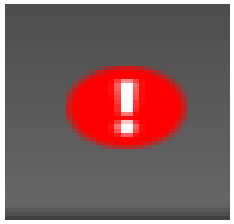
Printer Status Icons



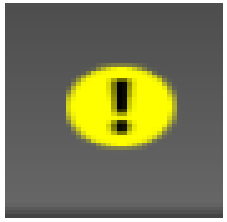
- Green: Ready



- White Clock: Machine is busy



- Red Exclamation Point: Error State/Printer Cannot Print



- Yellow Exclamation Point: Warning Ready State (Printer may still work but check error messages)

Operation Panel – Print Tab

1. Displays the printer status.
2. Status Bar- TAP/Drag down to open status screen menu (shown below)
3. Displays printer temperature, amount of ink in cartridges and waste bottle capacity level.
4. Stored Job folder- Check the recent images used for printing. Print directly from the stored folder or from jobs sent via network cable.

Operation Panel – Print Tab

5. Choose print job from USB device.
6. SET/EJECT- will move the table into the print ready position (table to the rear of the printer) or EJECT the table to allow the media to be place onto the table.
7. STOP- will stop any current movement of the table and allows cancellation of print job
8. Function Tabs

Operation Panel- Status Bar

1. Displays the printer status in detail, providing print readiness.
2. Displays current ink levels in each installed cartridge
3. Displays the status of waste ink bottle.
4. Reset counts of waste ink bottle. Press the icon to initialize the waste ink bottle once waste ink tank is manually drained/emptied

Operation Panel – Maintenance Menu

1. Prints nozzle check pattern results
2. Performs head cleaning automatically using systems components
3. Allows carriage to be released, cover can be opened to manually clean the printheads (during maintenance or troubleshooting) and the Maintenance Unit

Operation Panel – Alignment Tab

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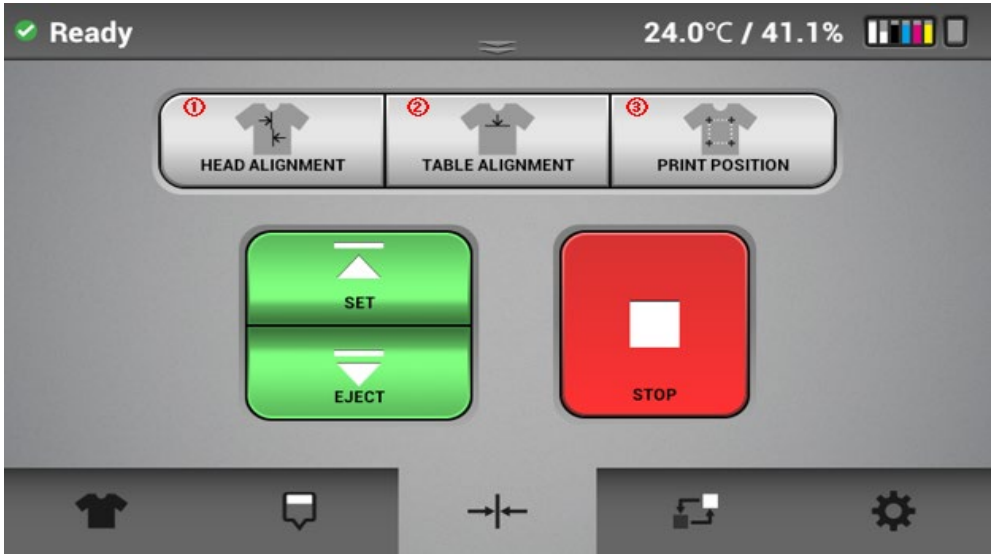
ONLY PERFORM THIS WITH A RICOH AUTHORIZED TECHNICIAN

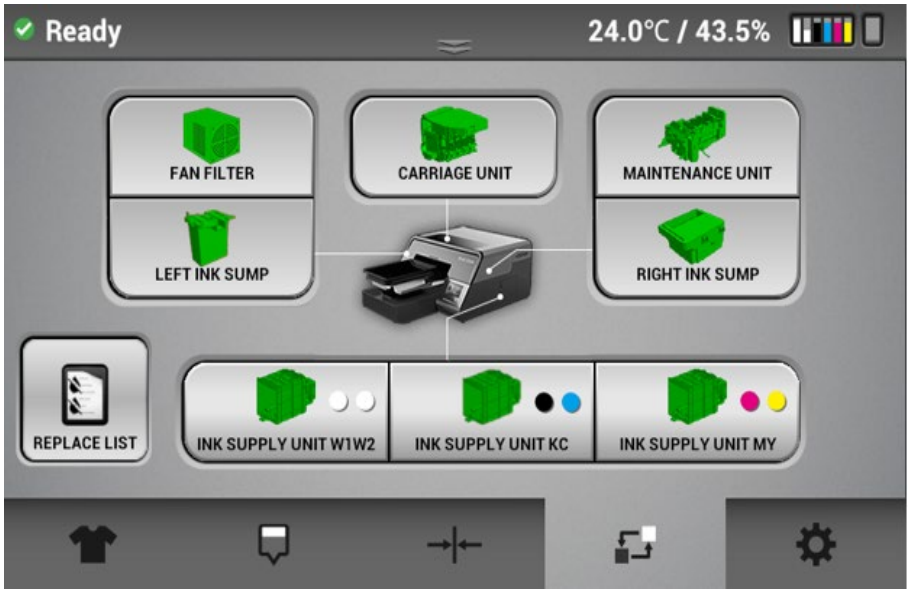
1. Prints an adjustment pattern for the print head alignment of bi-directional printing
2. Prints an adjustment pattern for table to carriage alignment
3. Prints an adjustment pattern to determine print start position or image alignment during print



Operation Panel – Service Part Status

- When a component is selected, the replacement dialogue box is displayed. It shows the count and the date last replaced.
- The color of each component will be displayed in Green or Yellow and Red.

Green is normal | Yellow replace soon. | Red requires replacement.



Operation Panel – Settings Tab

1. Perform controls of ink path.
2. Network setting, factory reset, on/off media sensor.
3. Display printer general information.

Auto 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.

Period	Perform
Every 1 hour	White ink circulation
Every 3 hours	White channel cleaning
Every 12 hours	All channel cleaning
	Alarm agitating white cartridge
Every 7days	Alarm manual cleaning

❖ WARNING! Auto maintenance will not perform if the following conditions occur:

* Ink cartridge is missing or reading 0%
* CR encoder error
* Any Service call message (see trouble shooting guide)
* 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 get clogged

Knowledge Check

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- How is the printer powered on?
- What order are the cartridges in?
- Can I switch White 1 with White 2?
- Where can you check the temperature and humidity?

Setting Up Your Printer

Installing the Waste Tube

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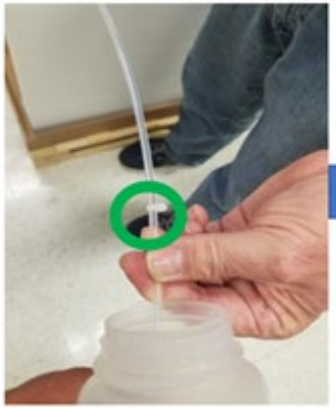
Remove tape and towel from drain connection

1

Slide drain tube through cap until it meets with the zip-tie



2

Screw Cap onto bottle

3

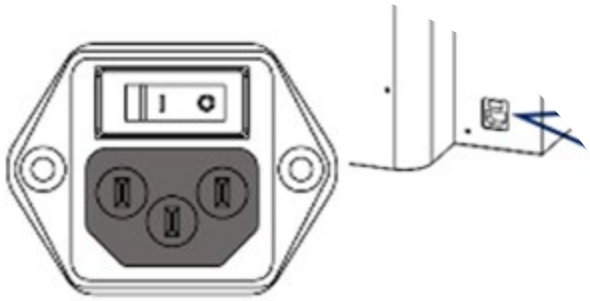
Insert opposite end of drain tube into drain connection

4

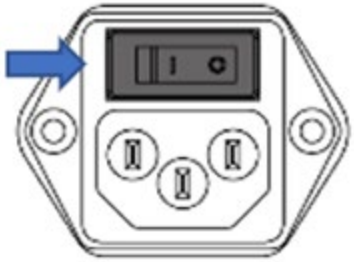
5

Secure the Waste Ink Bottle

Connecting Power



[AC Power Connector]



[AC Power Switch]

Knowledge Check

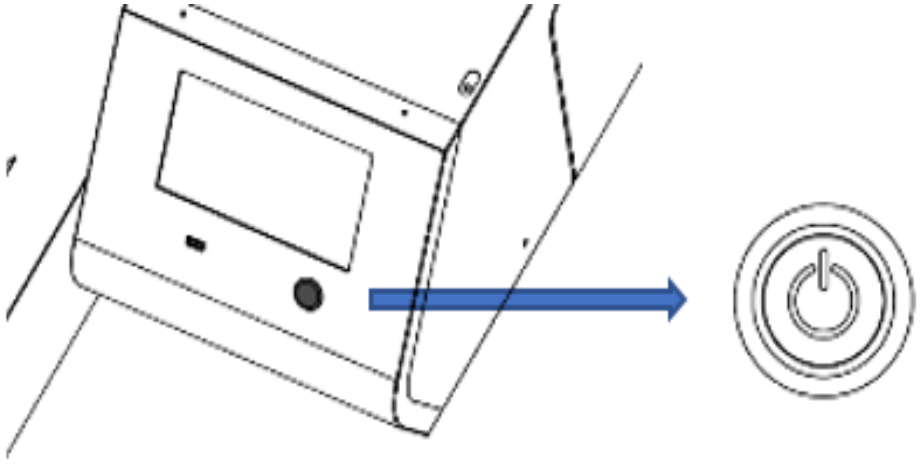
Where does the waste ink bottle connect to?

Where is the power connected and how is it powered on?

Charging the Printer with Ink

Power On Printer

- Flip I/O Switch
- Hold Power Button for More than 3 Seconds



Installing Ink Cartridges

Ink Fill

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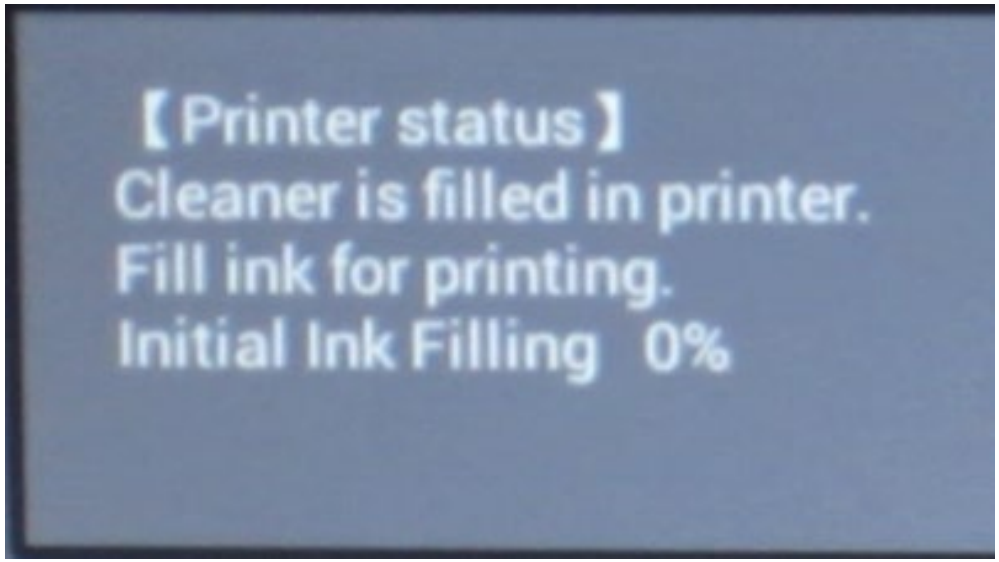
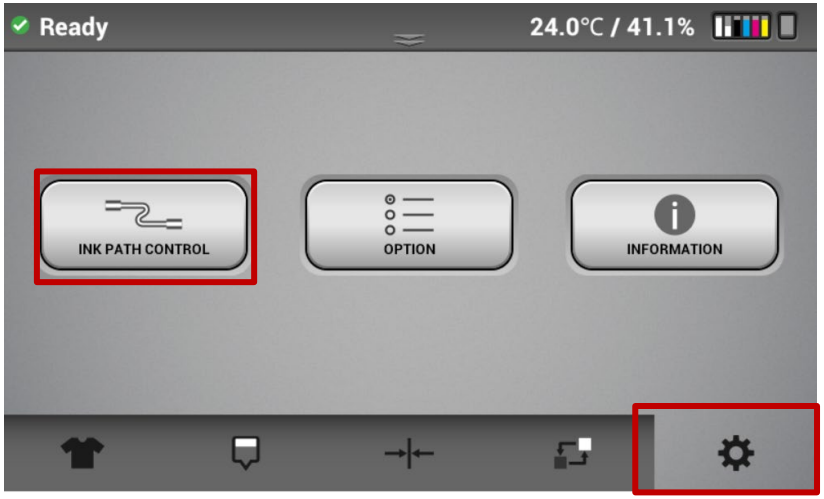
Allow Approximately 20 Minutes for Fill Procedure



User-Initiated Ink and Cleaner Charging

Cleaner Charging

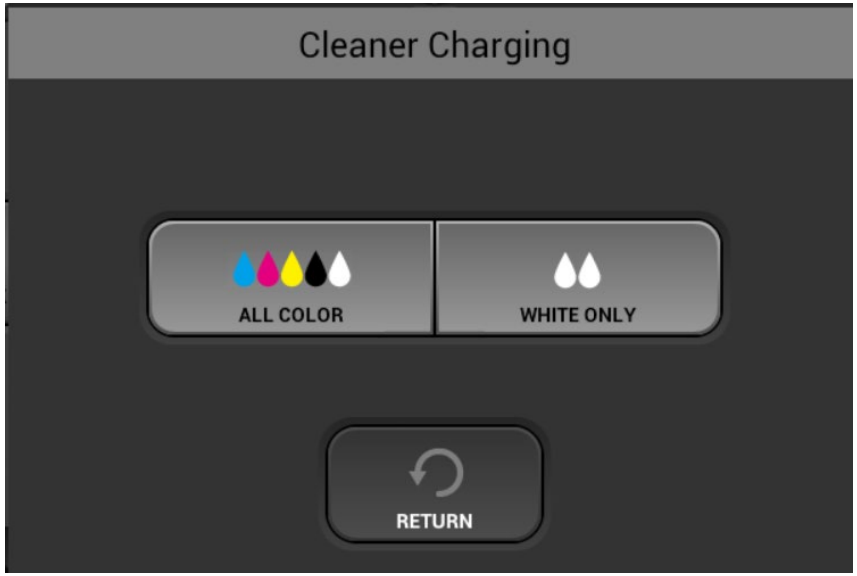


1. Insert Cleaning Cartridges in designated channels (white or all colors depending on what is being flushed)
2. Select the Settings Tab
3. Select Ink Path Control

4. Select Cleaner Charging

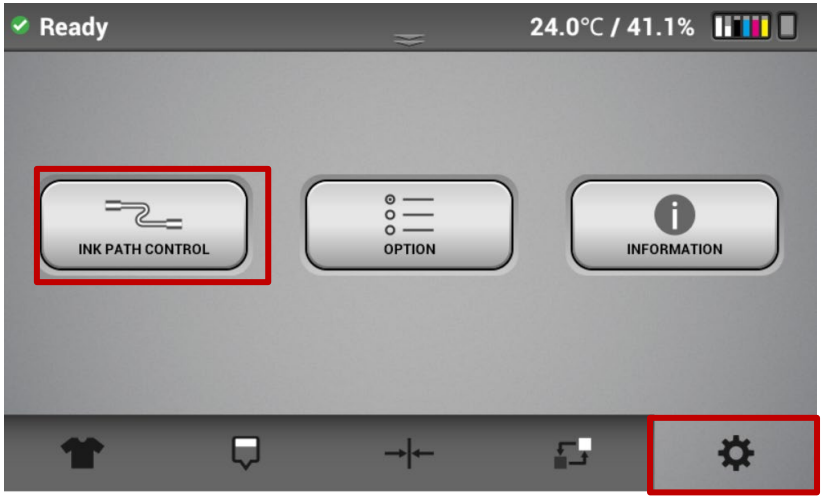
Cleaner Charging

5. Choose the desired channels to fill with cleaning fluid



Note: Select WHITE ONLY if you will not be printing dark shirts, but still wish to print light garments

Ink Charging



1. Insert Ink Cartridges in designated channels (white ink or all colors)
2. Select the Settings Tab
3. Select Ink Path Control

4. Select Ink Charging

Ink Charging

5. Choose the desired channels to fill ink.

Knowledge Check

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What order are the cartridges keyed in?

How long do you hold the power button to power on?

How long does it take to charge the printer with ink while removing the cleaning solution?

Network Settings

Adding Printer via Ethernet

If the printer is directly connected to a laptop/desktop use the provided ethernet cable.

If printer is being connected through a router, please check your router instructions for adding a network device or contact your network administrator

- **Dynamic Settings (DHCP):** Will acquire the IP address automatically from the network/router.
- **Static Settings:** Will require the IP address, Subnet Mask and the Gateway to be manually entered into the printer's network settings.

ColorGATE RIP Software

ColorGATE Requirements

ColorGATE Software

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System Requirements

Operating systems (64-Bit):

- Microsoft Windows 8.1 (Pro, Enterprise)
- Microsoft Windows 10 (Pro, Enterprise)
- Microsoft Windows Server 2012
- Microsoft Windows Server 2016
- Microsoft Windows Server 2019
- (Apple macOS with Parallels Desktop)

Minimum hardware requirements:

- CPU: Intel Core i3-2100 / Athlon II X2 340
- RAM: ≥4 GB
- Free disk space: 120 GB
- Display resolution: 1280 x 1024

Recommended for using one printer:

- CPU: Intel i5-7500 or newer / AMD Ryzen 5 1600 or newer
- RAM: ≥8 GB
- Free disk space: 120 GB SSD
- Display resolution: 1920 x 1080

Recommended for using multiple printers:

- CPU: Intel i9-9900K or newer / AMD Ryzen 7 3800X or newer
- RAM: ≥16 GB
- Free disk space: 512 GB NVME
- Display resolution: 1920 x 1080

ColorGATE Software

- ColorGATE Production Server (PSXX) RIP Software is included with your RICOH Ri 1000
- The included USB Protection Key is required to run PSXX on your PC

Software installation instructions, user manual, and additional information

Software Updates

ColorGATE Usage Tutorial Video

ColorGATE Registration

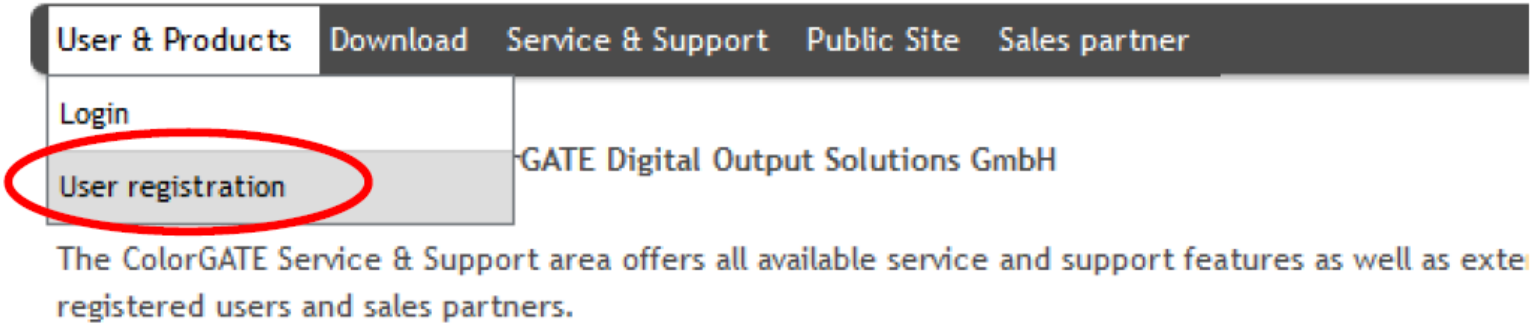
ColorGATE Account

User and Dongle registration is required to use the provided dongle past the initial 30-day usage period. Once registered and confirmed by ColorGATE, your dongle will be permanently activated.

User Registration Link

The website will guide you through the next steps to register your user account and to register your product [dongle #].

Please note This process requires a series of emails from customerservice@colorgate.com



Version: [###] Classification: Internal Owner: [Insert name]

ColorGATE Registration

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Registration Sequence

1. After user registration - a user registration activation email will be sent immediately
2. After clicking on the activation link, an email is sent immediately letting you know that your user account was successfully activated, and you can then use ColorGATE Service page to register your product
3. Login
4. Register your dongle under User & Products section
5. Use the number on your dongle to register the product. After dongle registration is complete, you will immediately receive an email stating that you have successfully registered your product and that your license will be verified.
6. You will receive a final email that gives you your license's activation. This will convert your license from a temporary license to a permanent license. The software will be accessible, within the 30-day time limit, while you wait for your final email. This email may take a 1-2 days as the ColorGATE team reviews and verifies your licenses.
7. Once license email is received, a key update process will start the next time the software is updated

Video Guide

Download and Installation

ColorGATE Installation Process

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Download

1. Go to ColorGate Support and select Version XX.
2. Go to Production Server XX
3. Download ProductionServer XX [XX.XX Build XXXX] Setup| PSXXSetupVXX.XX.XXXX.exe
4. Download the MIM package for your RICOH printer

ColorGATE Installation Process

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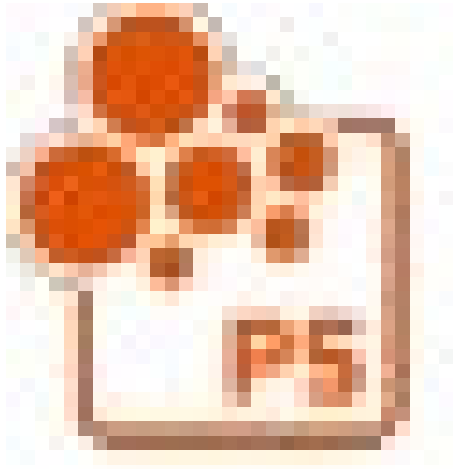
Installation

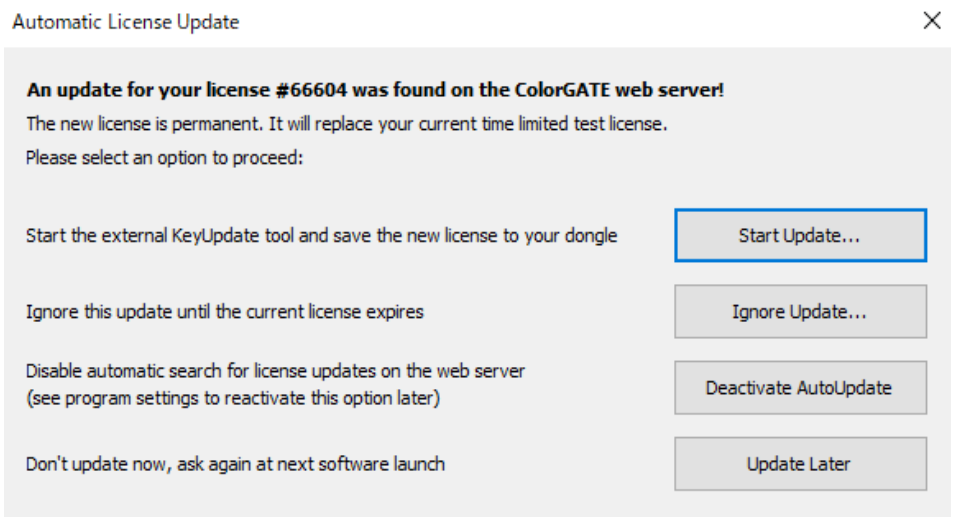
1. Run the executable file and the installation wizard will walk you through the install
2. At the end of the installation, you will be asked to restart your computer. After restart, the Production XX icon will appear on your desktop
3. Insert the USB dongle into USB port on the computer.
4. Click Windows icon on bottom left corner of the desktop.
5. Click ProductionserverXX -> ProductionserverXX



Startup

License Update

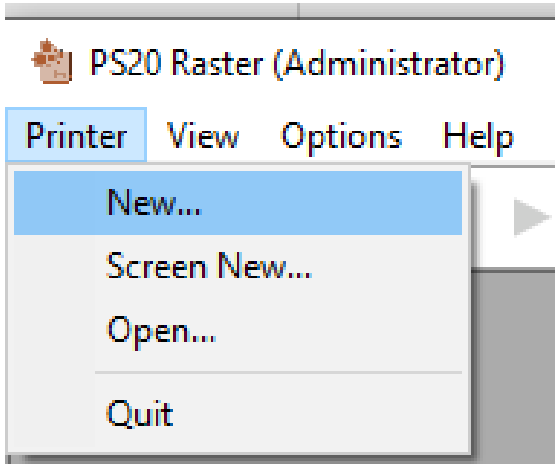
- The following dialog will open when an update is available for your license when the software is started. It will appear if you have received your final activation key after product registration (the fourth email in the user and product registration process). If you do see it select “Start Update…”



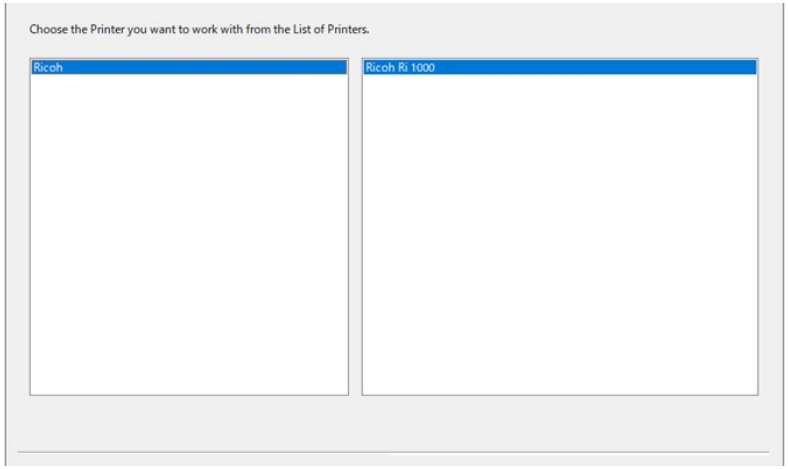
- You will then be asked if you want to update the dongle – select update dongle and the update will be compete

ColorGATE Startup

Adding New Printer



1. After Starting Production server with USB dongle installed, the software will open to a blank screen – now set up the printer. In the Menu - Printer -> "New" button



2. Select RICOH -> RICOH Ri 1000 and push "Next" button.

ColorGATE Startup

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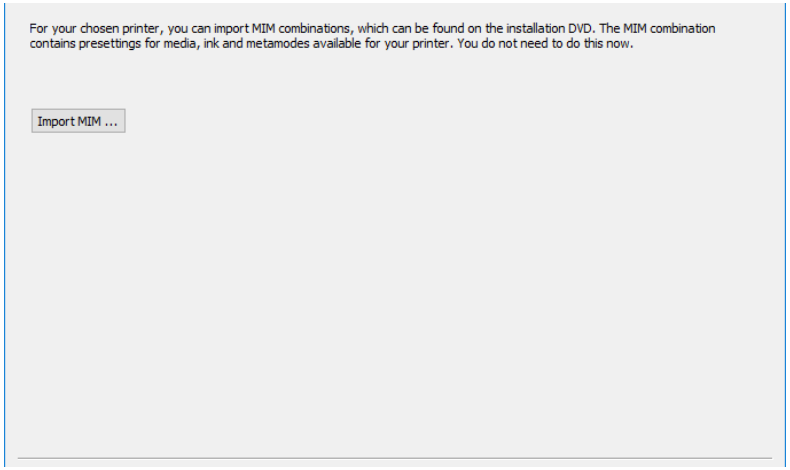
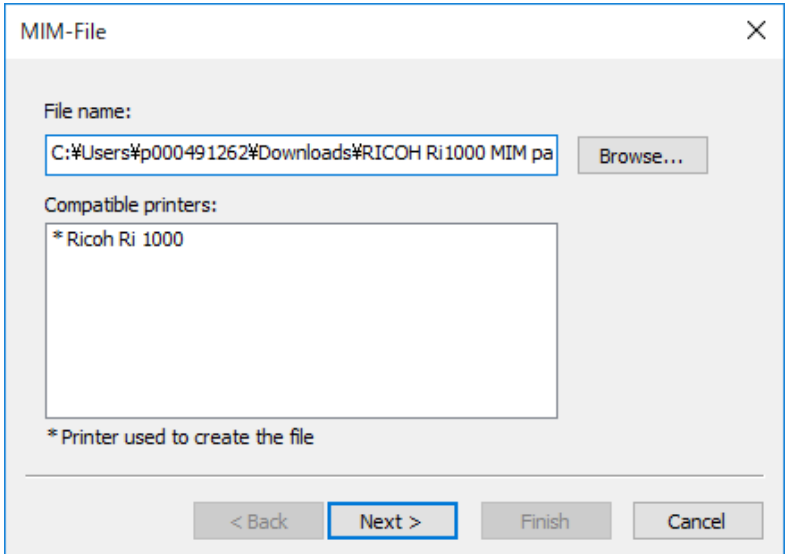
Adding New Printer



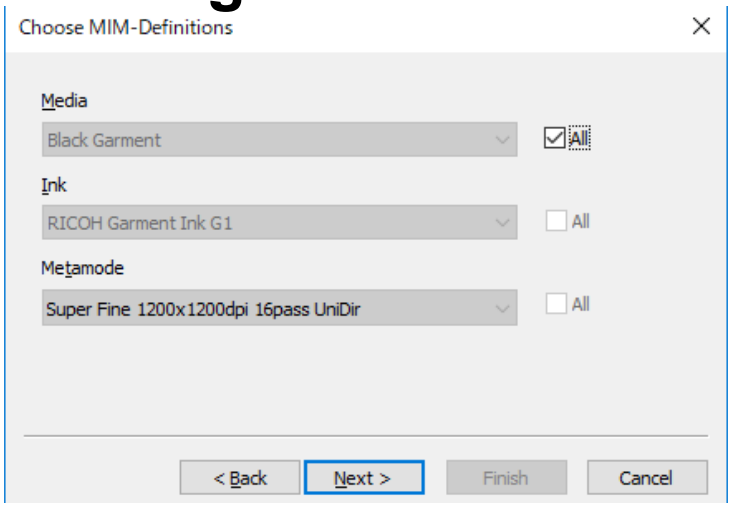
3. Push "Import MIM…" button



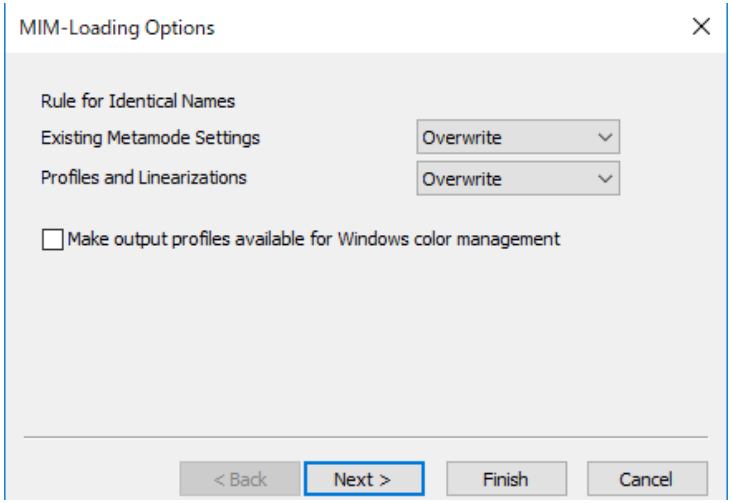
4. Select MIM file that you previously downloaded(*) and push "Next" button.

**ex. filename: PS RICOH Ri 1000 Combi-MIM.cmp **

Adding New Printer

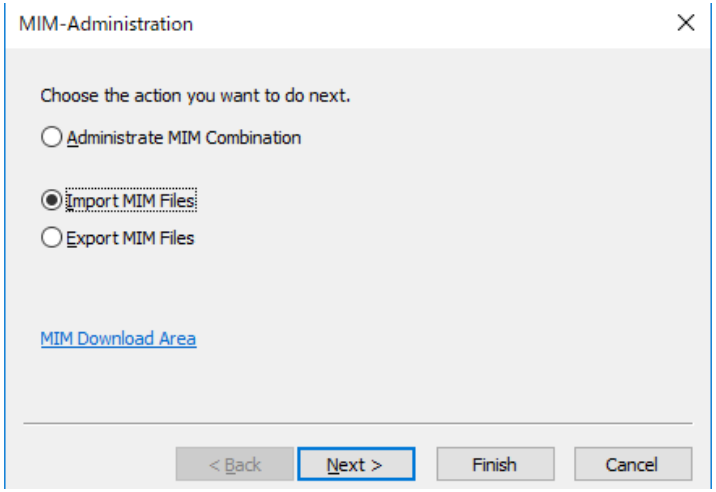


5. Check on "All" in Media and push "Next" button.

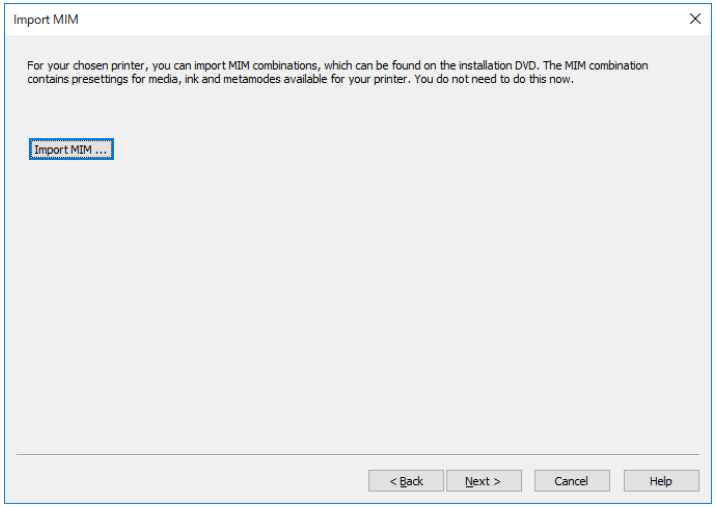


6. Push "Next" button

Adding New Printer



7. Push "Finish" button.



8. Push "Next" button

ColorGATE Startup

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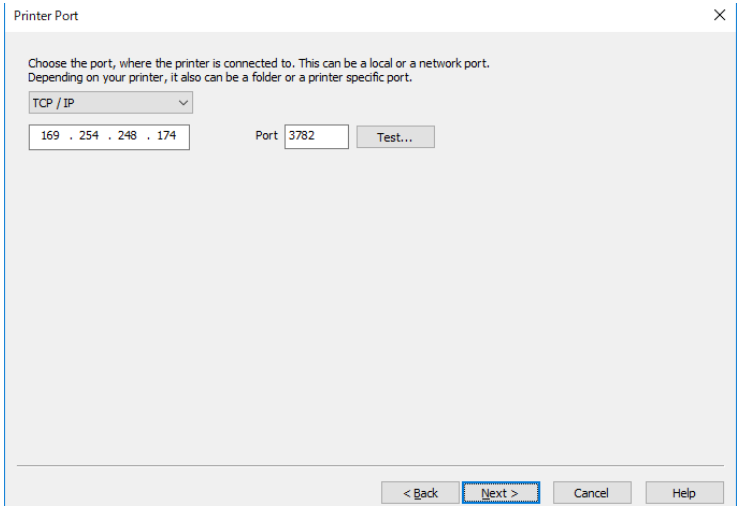
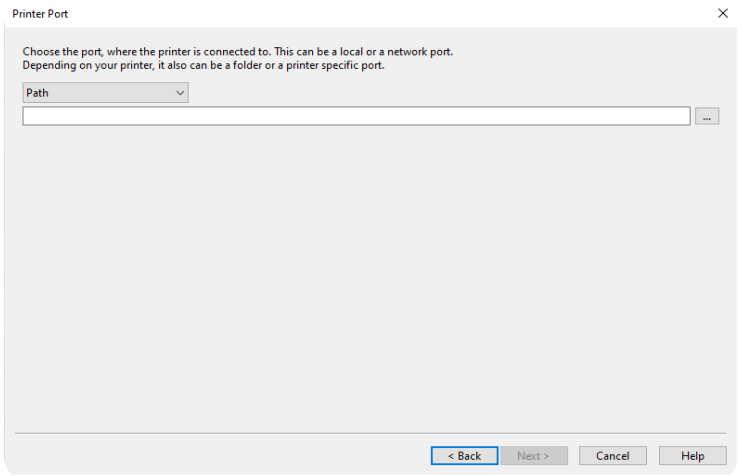
Adding New Printer





9. OPTIONS

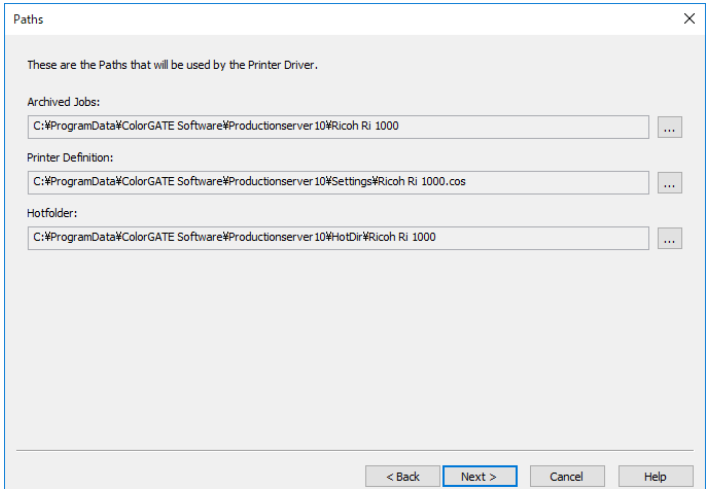
A. Put in the IP address of the printer. Selecting the Test button will check printer communication.

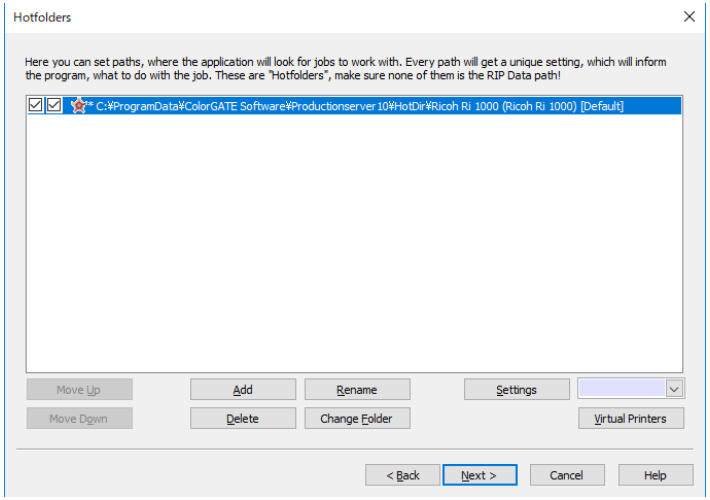
B. Click on the arrow next to TCP / IP and to change the output to Path. Input the file path where you want to store the printable ".prn" file on your computer.

Push Next when you are done.

ColorGATE Startup

Adding New Printer





10. Push “Next” button.

For reference:

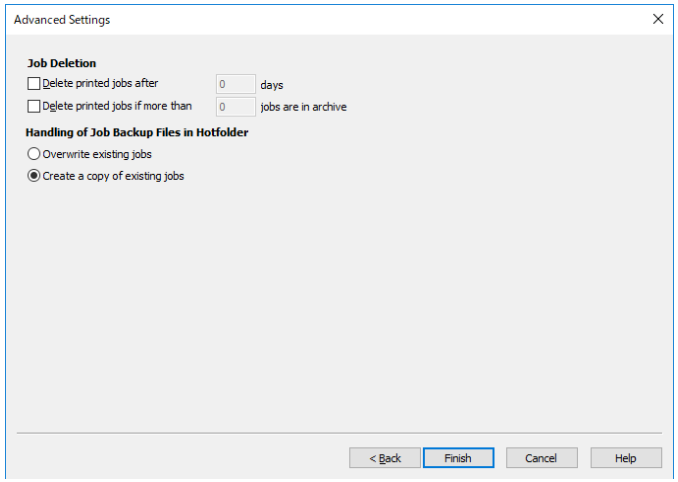
- Achieve Job: default job achieve location
- Printer Definition: designated name of printer
- Hot Folder: cache location where print job is stored

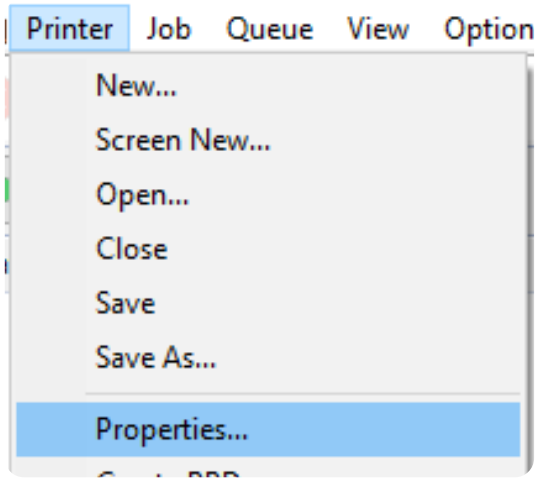
11. Push “Next” button.

- Later, you can configure the hot folder by selecting settings and then manipulate the standard settings applied to the graphic files that are RIPPED and put in the hot folder.

ColorGATE Startup

Adding New Printer





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

Using ColorGATE

ColorGATE Usage

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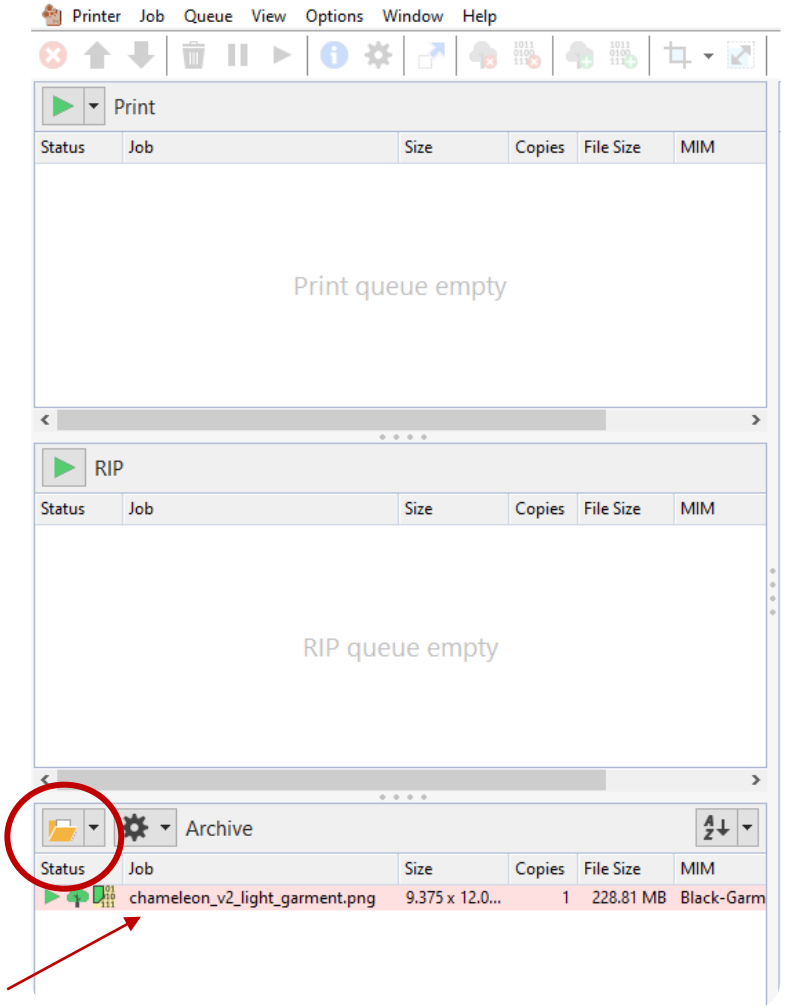
Adding an image to the printer queue



1. OPTIONS

A. Drag your job file(s) via drag & drop from Windows Explorer into the job queue (the window on the lower left of the ColorGATE RIP screen).

B. Click on the arrow next to the folder icon above that window and select RICOH Ri 1000 and then select a graphic from the file browser.

2. ColorGATE accepts .png, .tiff and .jpeg files

For more detail , refer to Help Contents (Press F1 or ?):"Loading and Printing Jobs > Load Job > Overview" in ProductionServer

ColorGATE Usage

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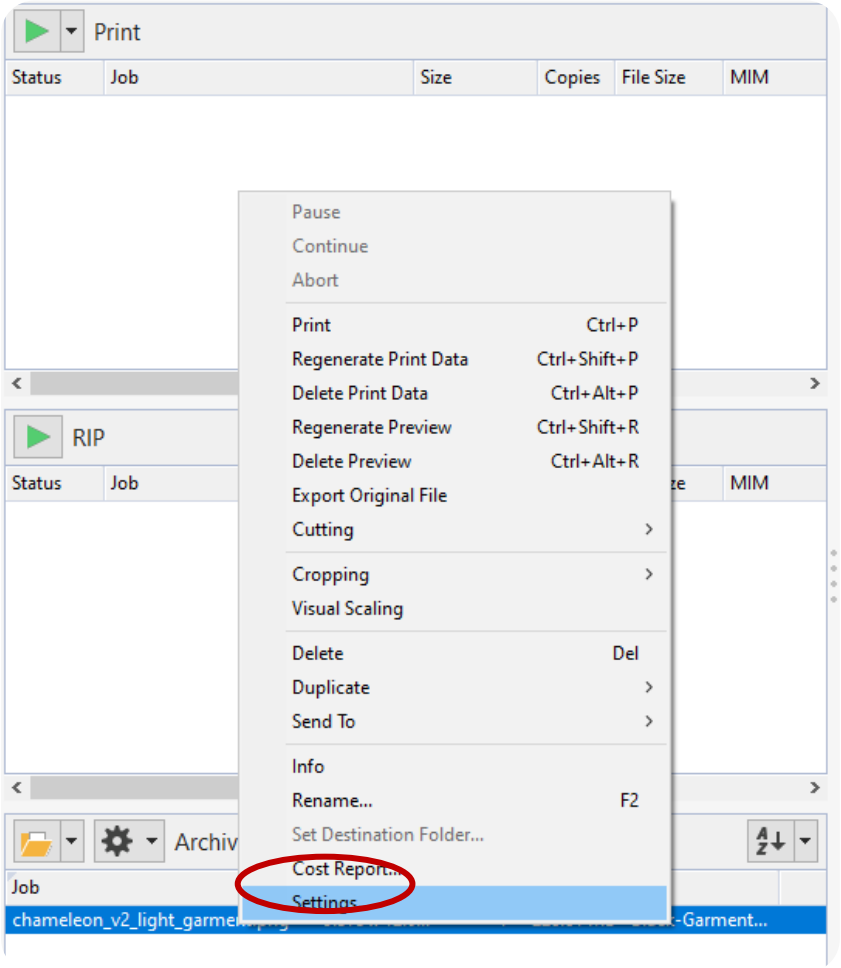
Image Settings



1. **OPTIONS**

A. Select the job and click right mouse button and select the “Settings”

B. Double click on the graphic file name in the lower left RIP queue window

ColorGATE Usage

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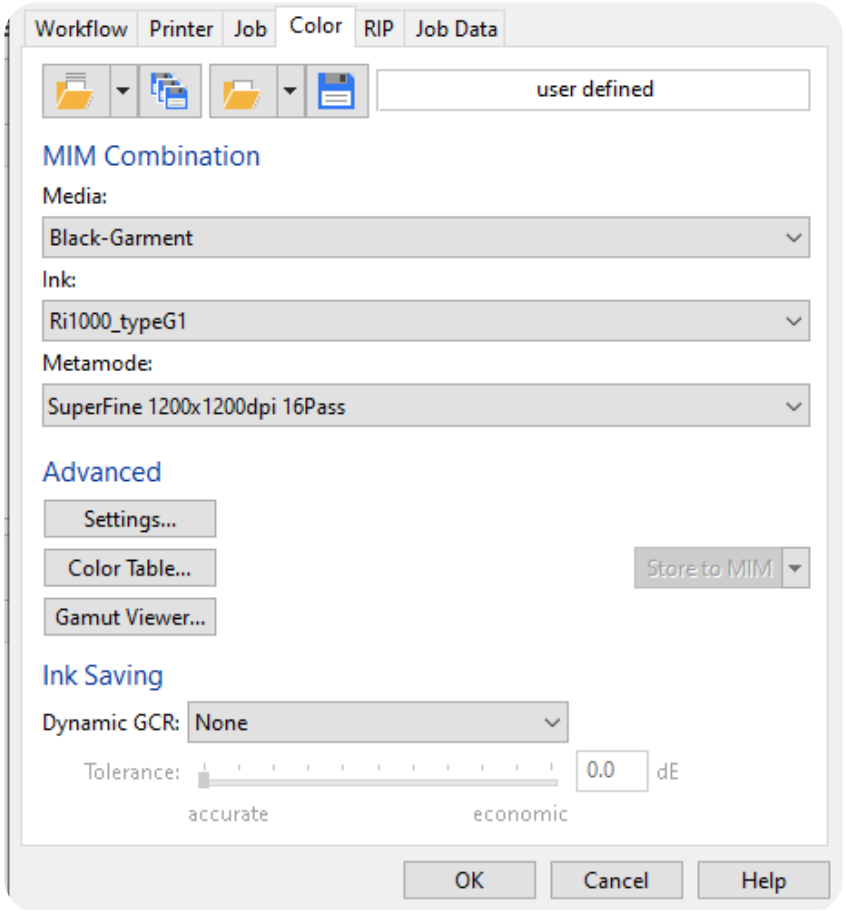
Image Settings - Color Tab



1. Select the “Color” Tab
2. Media, select from the following media types
   a. Black Garment: white under base and color layer will print
   b. White Garment: only the color layer will print.
3. Ink will always be Ri1000_typeG1
4. MetaMode, select from the following Quality Levels
   a. Speed 600x600dpi 4Pass

   some indexing lines will show in dark shirts

   a. Fine 600x600dpi 8Pass
   b. Superfine 1200x1200dpi 16Pass
5. Select OK when you are done adjusting

If you do not select OK, the changes will not take place

ColorGATE Usage

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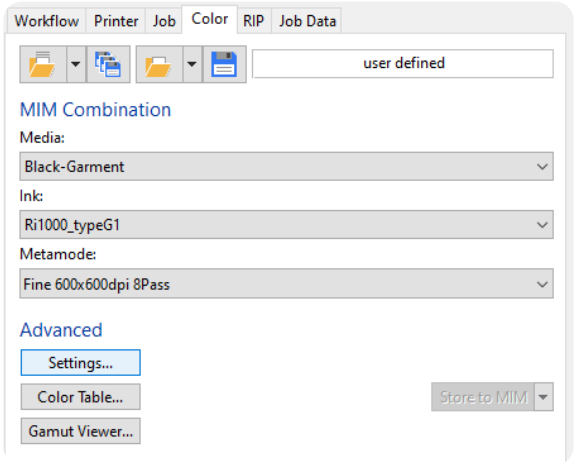
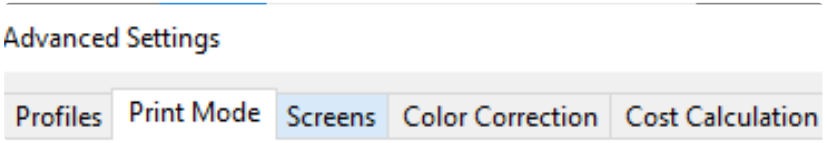
Image Settings – Color Tab – Advance Settings



1. If Black Garment is selected as the Media, press the “Settings” button
2. Press Settings (under the Advanced heading)
3. Select the Print Mode tab



ColorGATE Usage

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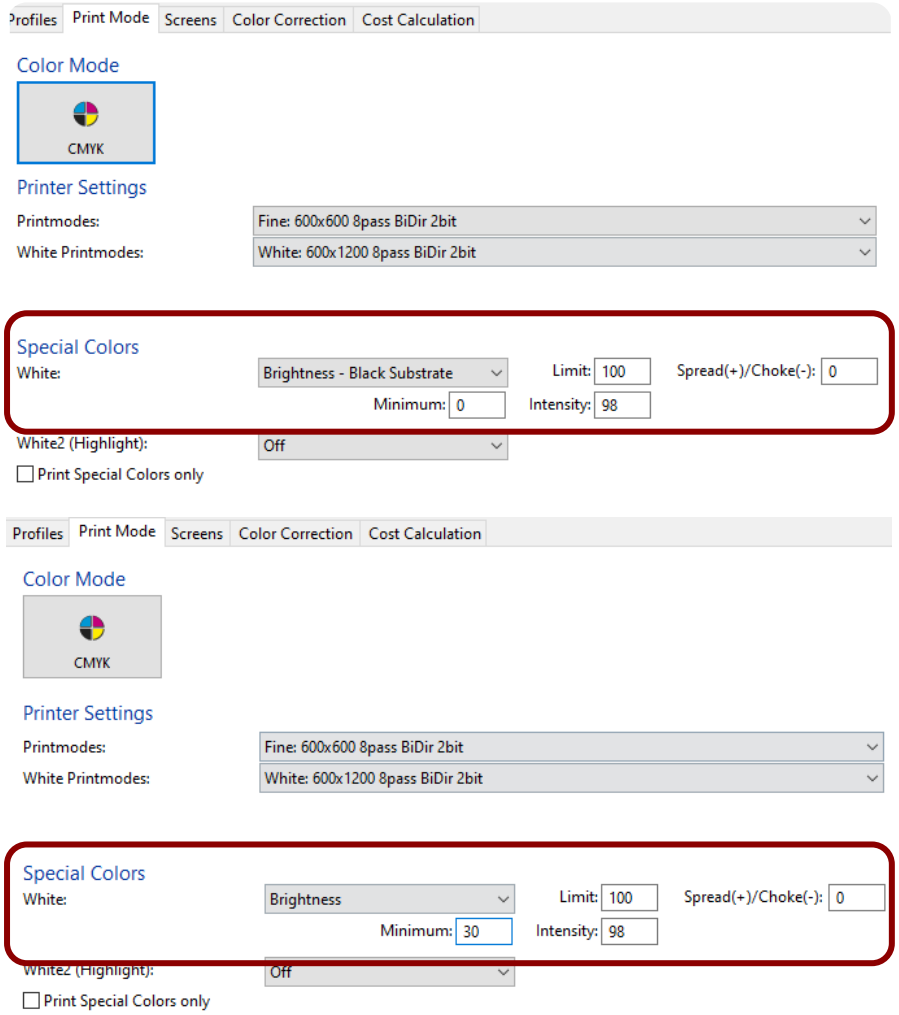
Settings –Color-Advance Settings – Print Mode - White



Under Special Colors White: OPTIONS

A. Select Brightness Black substrate if printing on a Black T-shirt

- Brightness-Black Substrate: Black ink will not print because the assumption is the shirt is black

B. Select Brightness if printing on a colored T-shirt, minimum should be set to 30

  – this will protect the color of the shirt from influencing the color of the print.

- Brightness: Black ink will print in the black sections of the graphic.

ColorGATE Usage

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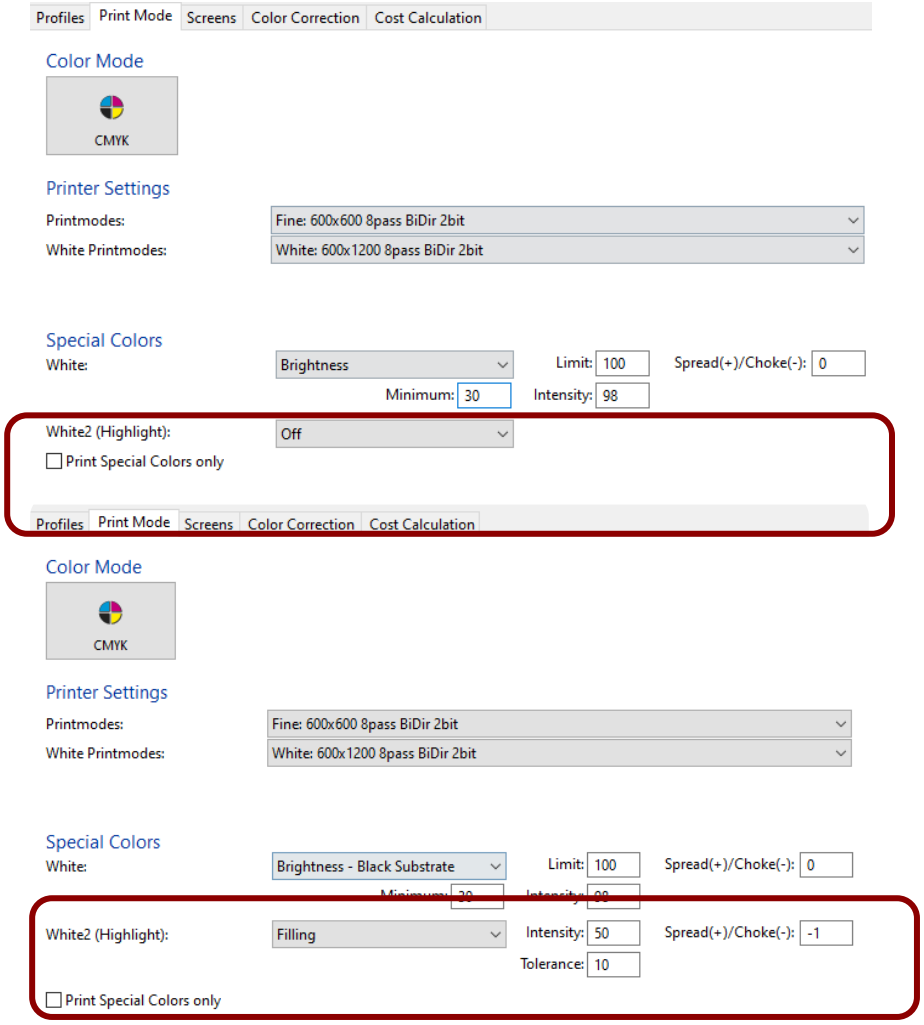
Settings–Color-Advance Settings–Print Mode–Highlight



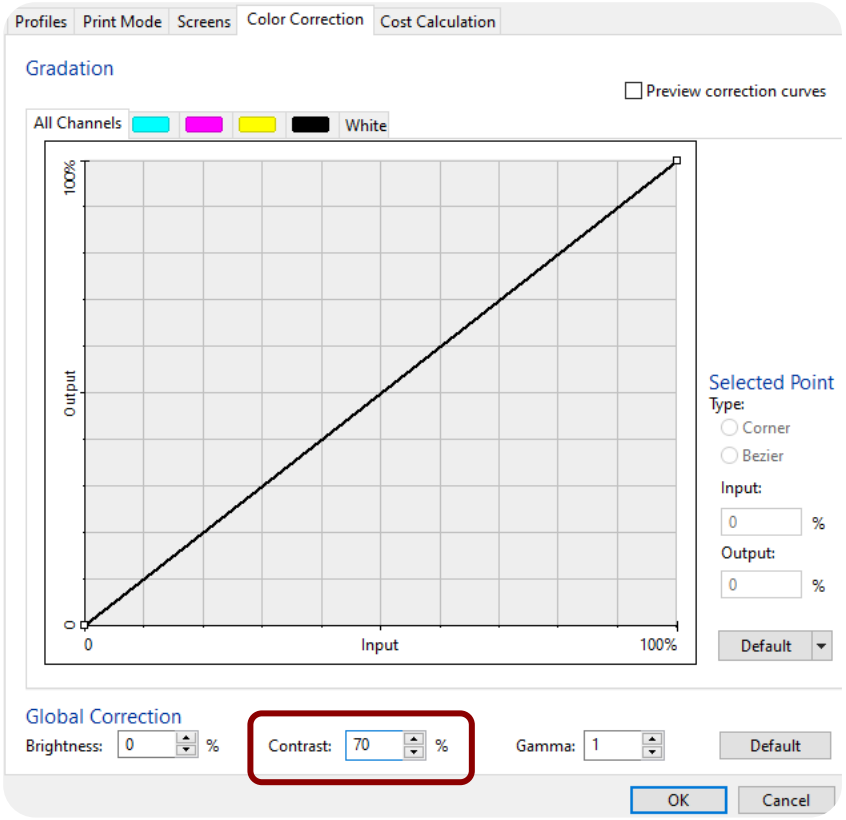
Under Special Colors White2 (Highlight):OPTIONS

A. Select Off to not apply a white highlight

B. Select Filling to apply a white highlight during the color pass, recommend intensity is 50, white an added choke of -2 ~ -1

ColorGATE Usage

Image Settings – Advance Settings – Color Correction



- If you want the color in your prints to pop a little more, select the Color Correction Tab and set the Contrast to 70. This will add vibrancy to your color layer print.

ColorGATE Usage

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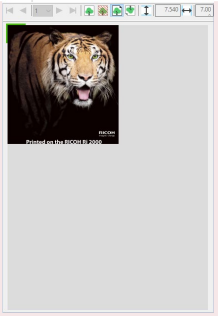
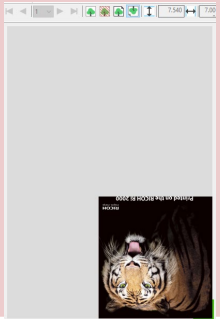
Image Preview

Item	Description	Image
Document Preview	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	

ColorGATE Usage

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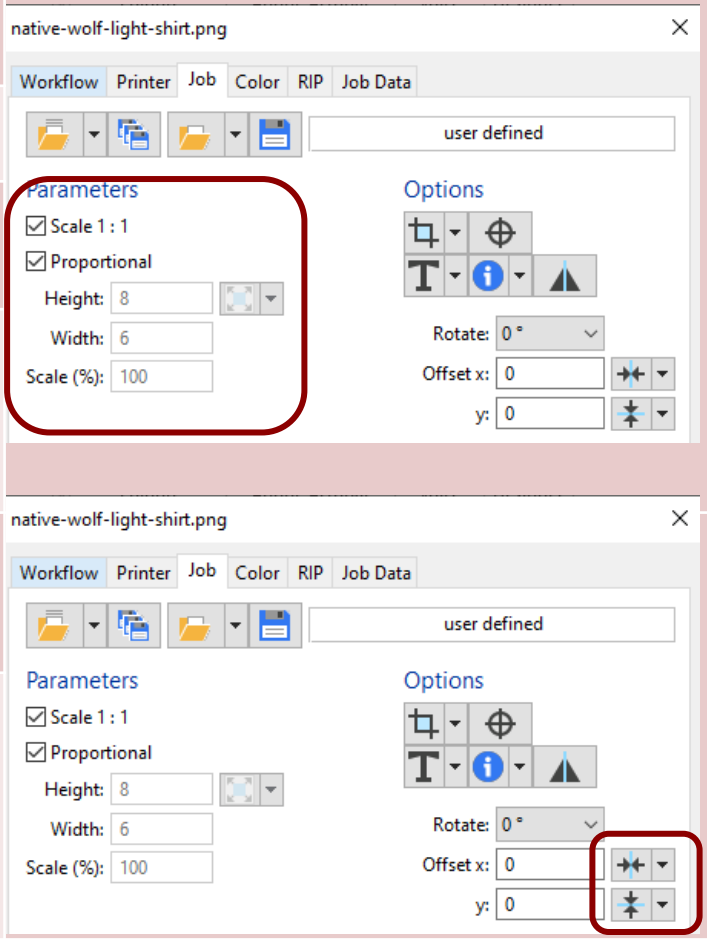
Settings-Job Tab-Image Scale, Size and Positioning

Item	Description	Image
Scale1:1	Original size – uncheck this to change the graphic size (note the graphic must fit on the platen)	
Proportional	Keeps aspect ratio and can resize the graphic once Scale 1:1 has been unchecked	
Height/Width	Specify size *If Proportional is 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	
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	

ColorGATE Usage

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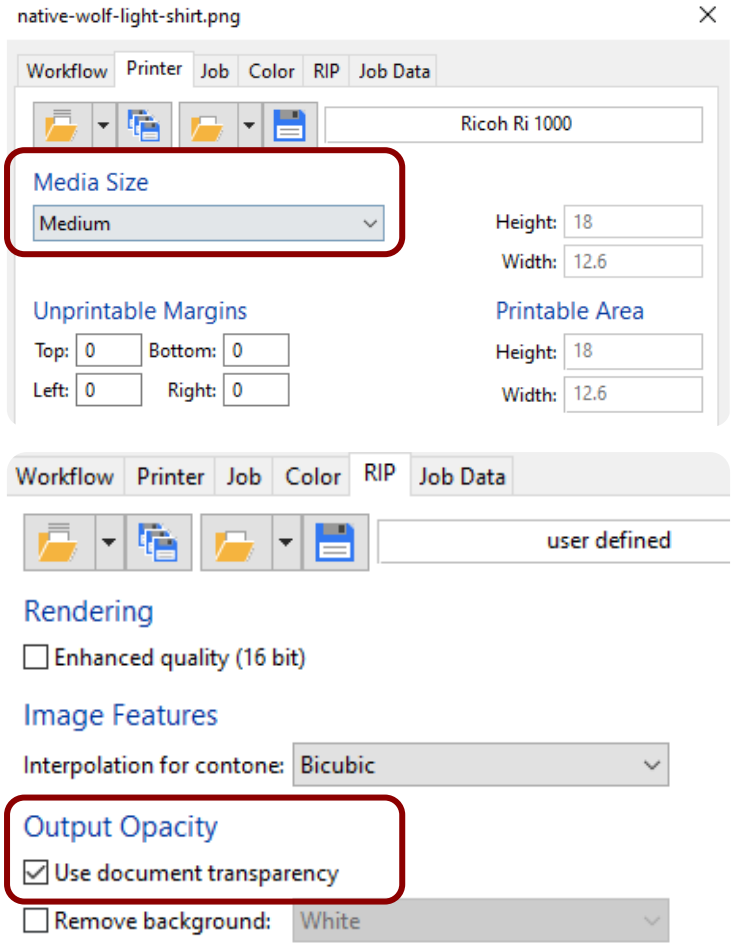
Media Size and Document Transparency



Printer tab->Media Size

- Media Size:

A. Medium (Default)
B. Small
C. Large

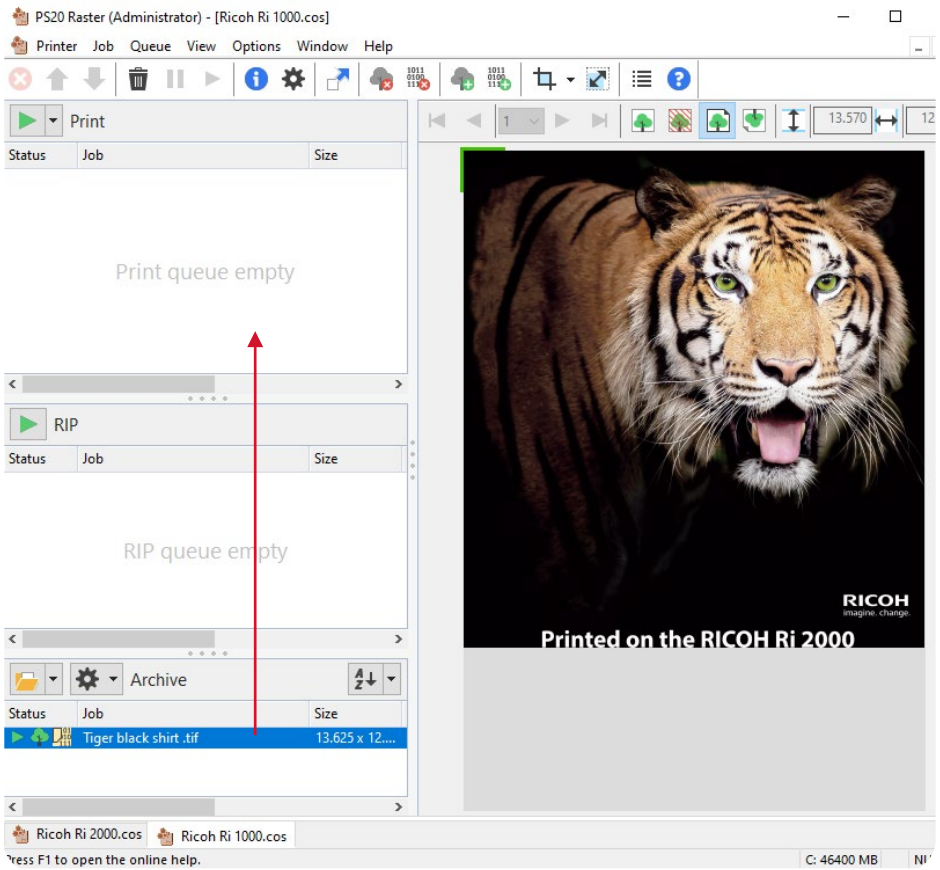
RIP Tab-> Output Opacity

- If using media Black Garment and the graphic file has a transparency layer, transparency checkbox will appear.

A. Not Checked, transparent background will print as a solid white background
B. Checked, transparent background does not print (Recommended)

ColorGATE Usage

Printing an Image



Different to ways to print

A. To print drag the job from the bottom left print que window to the top left window

B. Right click on the job and select printer

C. Left click to select the job and press Ctrl+P.

Version: [###] Classification: Internal Owner: [Insert name]

Other RIP Software

In addition to ColorGATE, RICOH DTG also offers AnaRIP software for free and Kothari Print Pro for purchase

Kothari Print Pro

- Usage Instructions Link
- Purchase Link

AnaRIP

- Download Link
- Usage Instructions

Images

What type of files can I use?

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Printing different file formats:

The printing method is to use our ColorGATE RIP software. ColorGATE RIP has a limited number of possible file types you can use. JPG, GIF, TIFF, PNG, BMP, EPS.

We recommend that you prepare your images as TIFF or PNG file types. Both support transparencies generally required for dark shirt printing.

It is also good practice to avoid saving images as JPG or GIF. These are compressed file formats originally design for internet use only.

Once a file is sent from the ColorGATE RIP, it can be printed directly from the control panel or it can be saved to a USB drive for later use.

Printing with Adobe File types such as PDF, PSD, and AI requires a paid upgrade from the basic ColorGATE license version. NOTE: **For AI and PSD files, multi-layered graphics must first be flattened.**

Graphic Design Software

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You will need a design software that can do two specific requirements:

1. Must be able to convert a graphic between CMYK and RGB.

It is recommended that images are designed in the CMYK Color Mode for most accurate printed color results. Designing in RGB mode may use colors that the CMYK printing process cannot reproduce.

2. Create the image in true size. Don't create a 2x2 image and then print it at 10x10.

For dark shirt images, you must use transparencies.

Commonly used programs that can perform these tasks:

Adobe PhotoShop, Adobe Illustrator, and Corel Draw.

Image Preparation

- **Recommended image files** - PNG, or TIFF.
- **Resolution** – for best results, should be set between **at least 300dpi**. Lower resolution images will result in choppy, pixelated images.
- **Maximum canvas size** should be no bigger than 16X19.6 inches. (size of Large platen, standard is 12.6X18 inches)
- **Acceptable files for Light T-shirts** – PNG, TIFF, high-resolution JPG.
- **Acceptable files for Dark T-shirts** – PNG, TIFF with a transparent background
- **Design in CMYK color mode** for best color accuracy using PhotoShop or other graphics program.

Version: [###] Classification: Internal Owner: [Insert name]

Printing

Table Height

- 0 – Best for Nozzle Checks
- Increase value by turning left or in the down direction to increase the gap between the printhead while lowering the table to allow for thicker substrates.
- The average is between 0-2 for dressing t-shirts
- The average is between 2-4 for laying T-shirt on top of platen

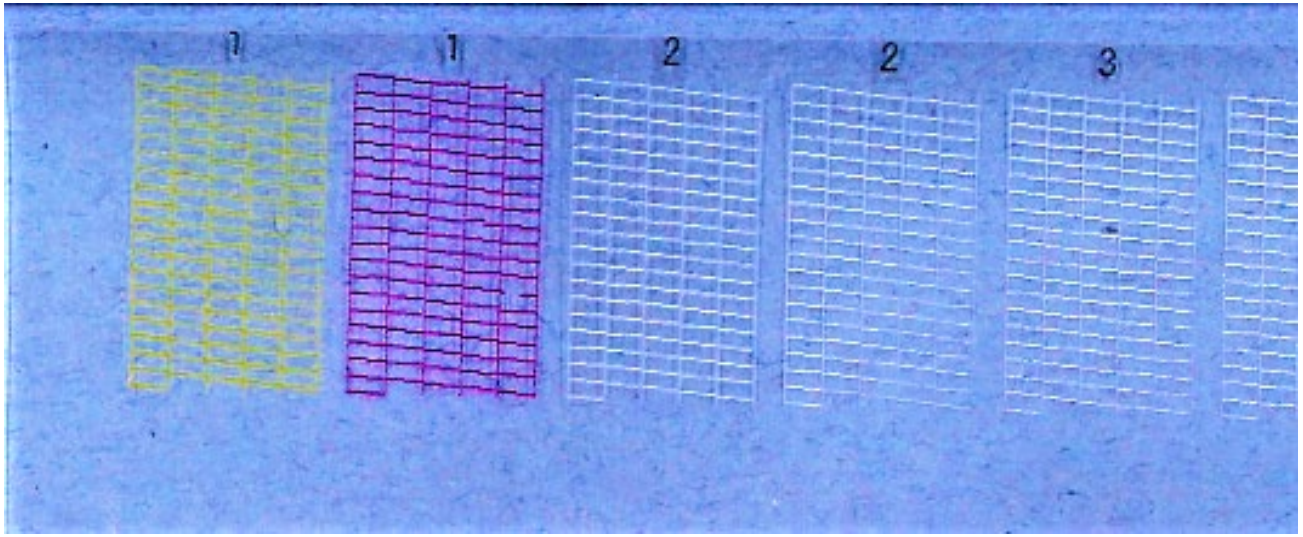
Set Your Table to Ready Position

Obstacles Detected

If an obstacle is detected, the warning box will display in orange…

…lower your table until warning box is white

Preparing the Printer for Printing



- **NOZZLE CHECK !** – before any printing can be done, we must first print the nozzle check. The nozzle check will tell us the current state of the print head and whether or not we need to do any head cleans.

* A bad nozzle check will result in poor quality prints or banding may appear as well.

Overhead Projector Transparency Sheet: How to Position On Print Table

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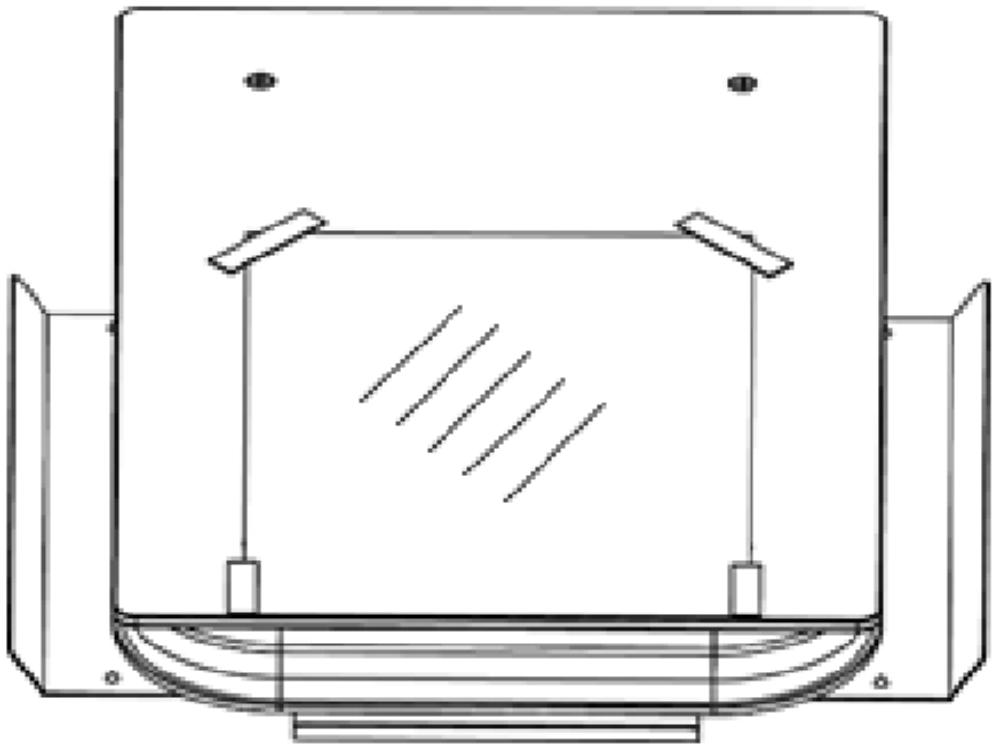
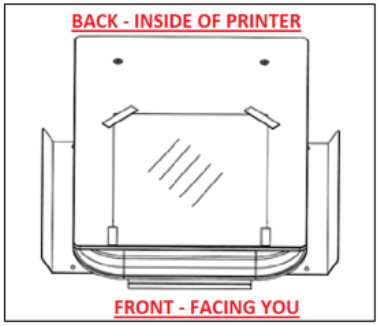
BACK - INSIDE OF PRINTER



FRONT - FACING YOU

Nozzle Check

Perform Nozzle Check



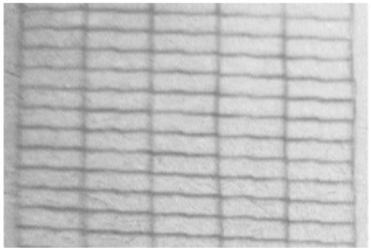
Step 1 – Place OHP Screen on table

Step 2 – Click Set

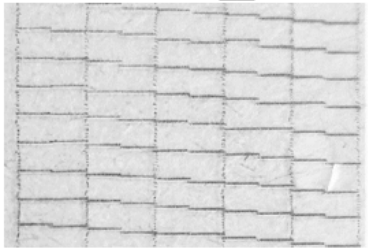
Step 3- Click Maintenance Tab

Step 4- Click Nozzle Check

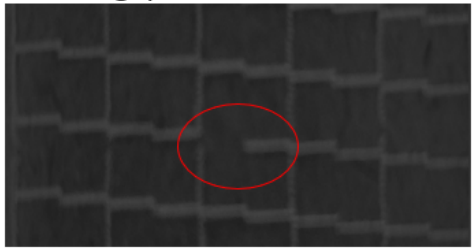
Perfect Nozzle Check



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



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

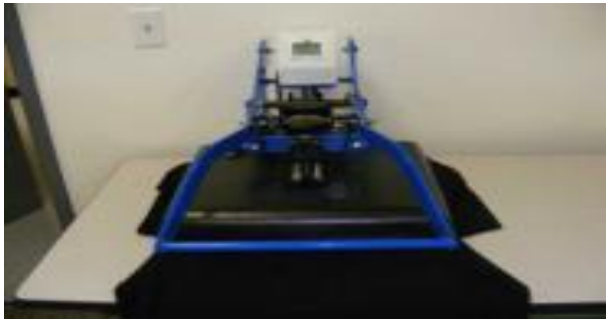


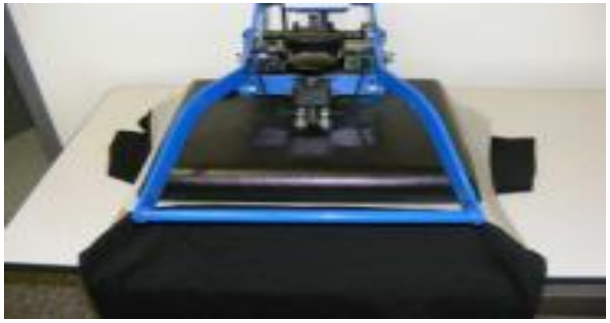
Placing Garment on Platen

RICOH
imagine. change.

Shirt on Table	Recommend Shirt to be Sleeved on to Table
Press	Be sure shirt is as flat as possible
Confirm	Before putting table hoop on, confirm shirt is evenly mounted on platen

Heat Press Settings





- Before printing on dark garments, it is necessary to first flatten the fibers of the pretreated garment by putting it in the heat press and clamping down for about 5 seconds.
- After the garment is printed, place it on the heat press and hover the heat element over the garment by approximately ½” (15mm) for about 15 seconds (This procedure allows the layers of ink to set up before applying pressure, preventing the white underbase layer from pushing up through the color layer and fading the image).
- Place the heat press sheet on the garment and clamp down the heat press with medium pressure for 90 seconds at 330˚F, 165˚C. **These heat and time settings are crucial to the washability of your graphic.**

Printing with Foils

Printing with Foils

RICOH
imagine. change.

- When printing with foils the key is image selection.
- Finding images with large areas transparency between the graphic or fine lines tend to have the best results.
- Text is also great to apply a foil application to.
- You will want to avoid solid graphics as the foil will not capture the image very well, but instead be muted by the foil.
- Foil is also a transparent sheet; you will want to color match your foil as best as possible. If your graphic has multiple colors and you wish to use Gold foil, on colors besides yellow a glimmer of gold will appear on top of the color.

Printing with Foils

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Steps:

1. Edit your graphic so you have a transparent background.

2. Print the graphic on a colored shirt.
   - Foil sticks to white ink, so this application can only be used on dark colored garment.
   - If there is any banding in your graphic, the foil will not cover it. Make sure your nozzle check is good.

3. Once printed, immediately bring the garment to the heat press.
   - Foil does require pressurized heat; a tunnel dryer will not work.
   - You will want to make sure there is adequate pressure. Foil requires more pressure than a regular image would. Depending on the type of heat press, you will either manually or automatically increase the pressure. If there is not enough pressure, a heat press mat can be used.

Printing with Foils

RICOH
imagine. change.

Steps:

4. Place the foil on the desired printed area, color side up.
   - It is not required to foil the entire image. You can cut the foil to only be placed the part of the image you want to have the metallic foil effect.
   - The foil will transfer off the sheet and onto the image.

5. Place the heat press paper on top and press the garment.
   - Standard dark shirt heat press settings are 330 F for 90 seconds.

6. Remove the garment and lay flat.
   - Lay flat for a least 2 minutes to ensure it has cooled down.
   - A tip to getting foil to stick to the ink, is to rub the foil sheet with another shirt until you see the imprint on the foil.

7. Quickly peel off the foil.

Printing with Foils Tips

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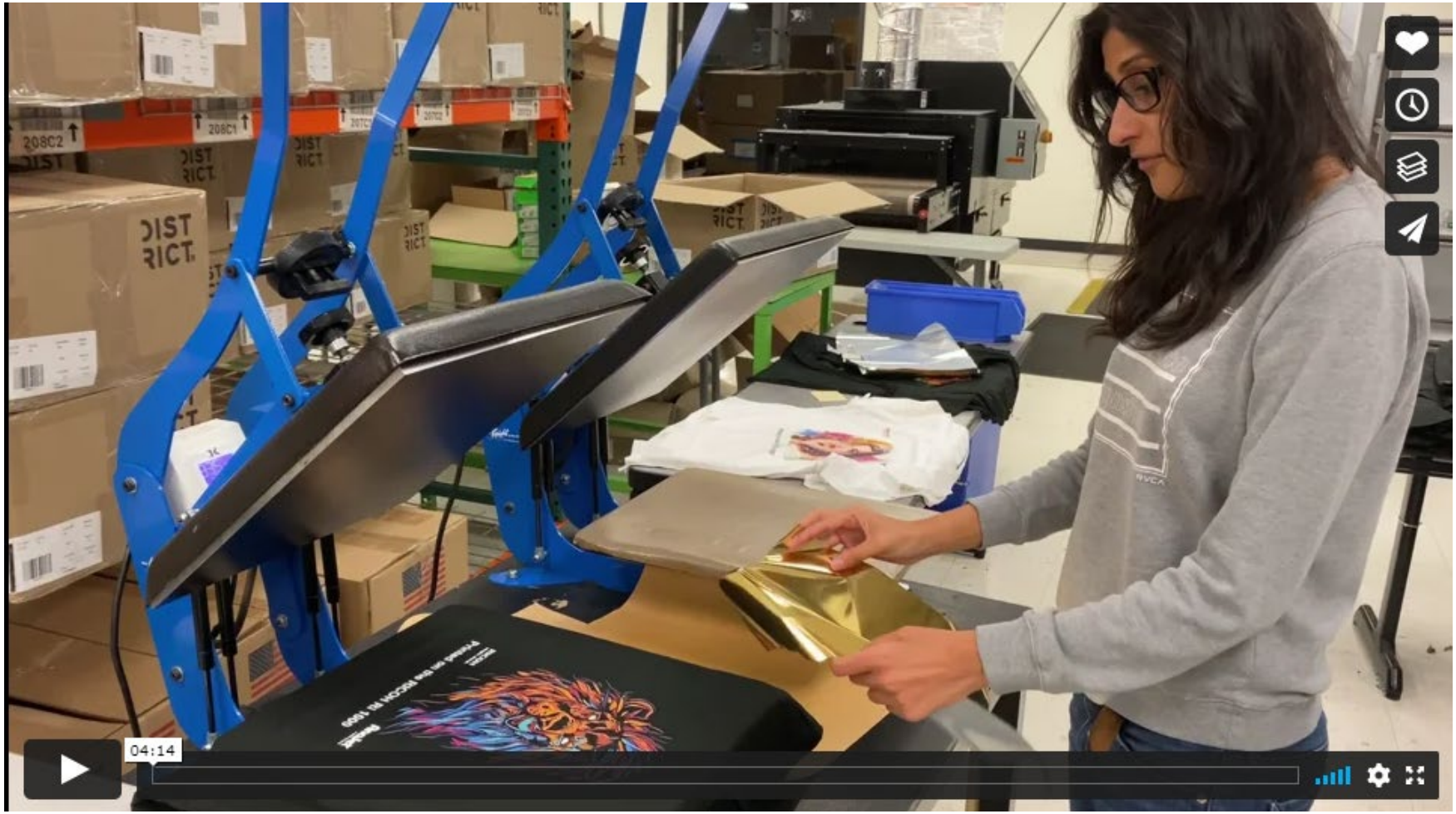
It is best to color match when using foils

High Pressure is required

A pressure mat or t-shirts may be needed to achieve higher pressure

Foil is to be placed color-side up

Printing with Foils Demo



https://vimeo.com/470842582

Knowledge Check

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What does the ORANGE square mean when checking the table height?

How is the height adjustment made?

What is the correct dial setting for T-shirts?

Auto Head Clean

Auto Head Clean

Clean level	Colors	Condition
NORMAL	ALL	A few missing nozzles in all channels
STRONG	ALL	A lot of missing nozzles in all channels
NORMAL	CMYK	A few missing nozzles in all CMYK channels
STRONG	CMYK	A lot of missing nozzles in all CMYK channels
NORMAL	W1W2	A few missing nozzles in W1 and W2
STRONG	W1W2	A lot of missing nozzles in W1 and W2

Choose Appropriate Head Clean Option

Clean All CMYKWW : Normal

A few missing nozzles in all channels

Choose Appropriate Head Clean Option

Clean All CMYKWW : Strong

A lot of missing nozzles in all channels

Choose Appropriate Head Clean Option

Clean All CMYK : Normal

A few missing nozzles in all CMYK channels

Choose Appropriate Head Clean Option

Clean All CMYK : Strong

A lot of missing nozzles in all CMYK channels

Choose Appropriate Head Clean Option

Clean W1 W2 : Normal

A few missing nozzles in W1 and W2

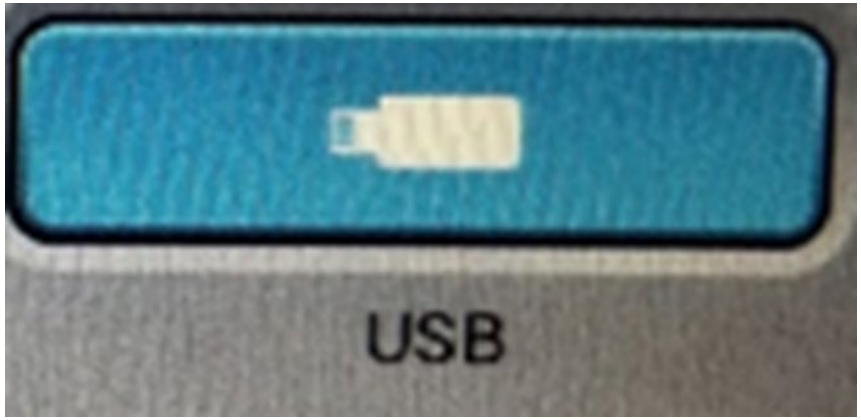
Choose Appropriate Head Clean Option

Clean W1 W2 : Strong

A lot of missing nozzles in W1 and W2

Selecting Print Job

Choose Job Location



Choose Desired Job & Select PRINT

Bad Print? Check the Following:

- Make sure table is within 1.5mm of the printhead (or as close as possible).
- Using the Obstruction Sensor, make sure your print table is as close as possible without triggering the orange "obstruction detected" warning.
- Perform a Nozzle Check and Head Clean based on the color/channel experiencing a missing nozzle.

Color Layer Wait Time

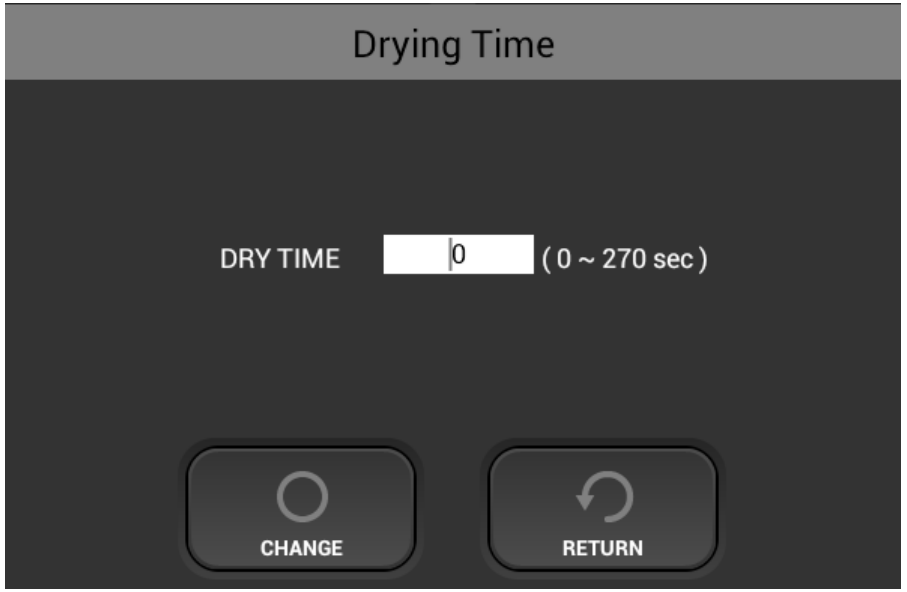
Setting Dry Time

The printer will first print the white layer. Once completed, the printer will print the color layer.

If the white underbase layer is not dry enough to receive the color layer, there is an adjustment in the printer's job window to set a wait time before the color layer is printed. By default it is set to 0.

Go to Settings Tab

Select Drying Time Icon



Auto System Maintenance

Auto System Maintenace

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- 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	White ink circulation
Every 3 hours	White channel cleaning
Every 12 hours	All channel cleaning
	Alarm agitating white cartridge
Every 7days	Alarm manual cleaning

Auto System Maintenance

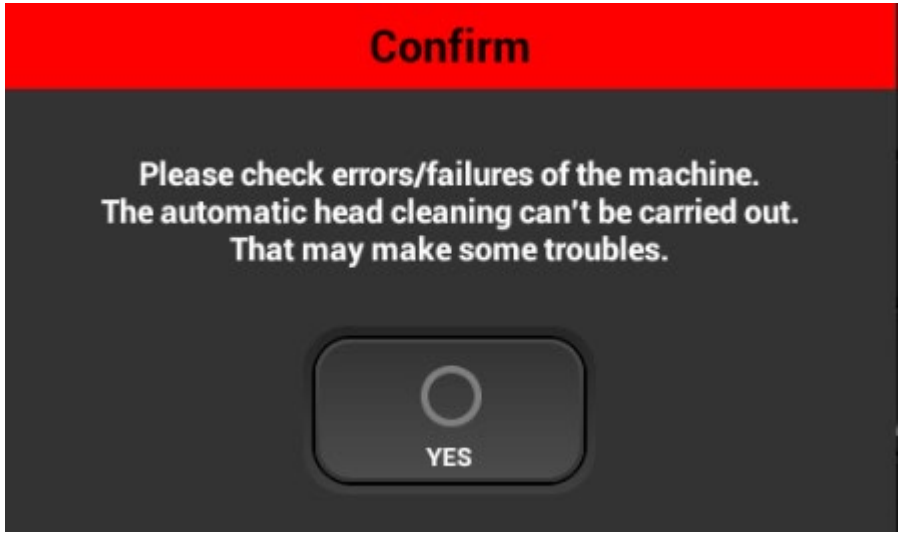
ATTENTION! Auto maintenance will be not be performed if the following conditions occur. Failure to perform Auto maintenance can result in a clogged print head. These conditions need to be cleared ASAP for auto maintenance to be performed.

- Printer is powered off. (Always keep the printer powered on)
- 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)
- 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 become clogged!

Auto System Maintenance

- If Auto maintenance is prevented from occurring for any reason the following message will appear

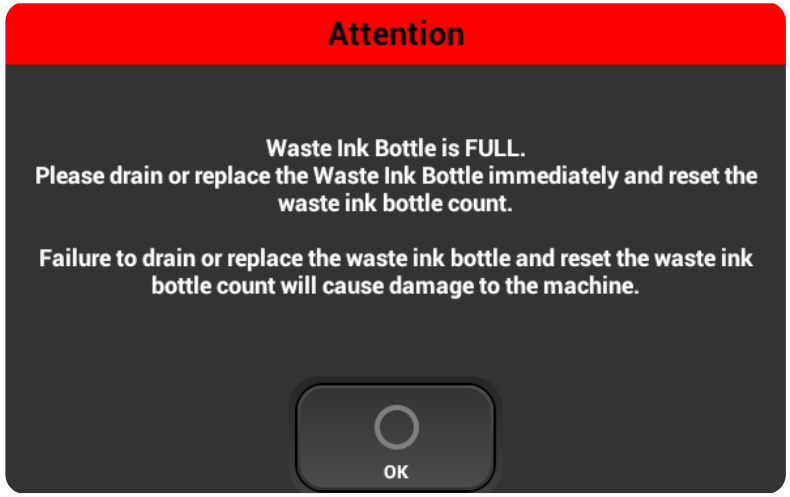


When acknowledged by pressing YES – the message will reopen in 5 minutes if the condition that prevented auto maintenance is not cleared (empty cartridge, full waste tank, etc.)

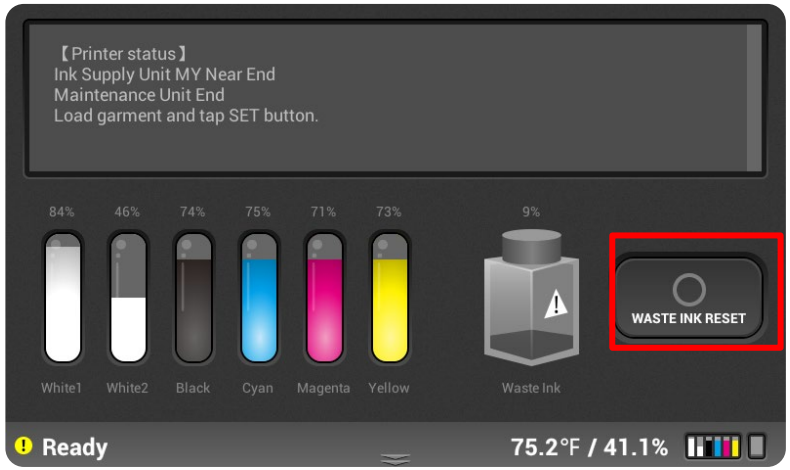
- **Failure to address the underlying condition that is preventing auto maintenance in a timely manner will result in head clogging so if you do not know how to clear the condition, contact technical support immediately for assistance.**

Printer Hardware

Waste Ink Bottle



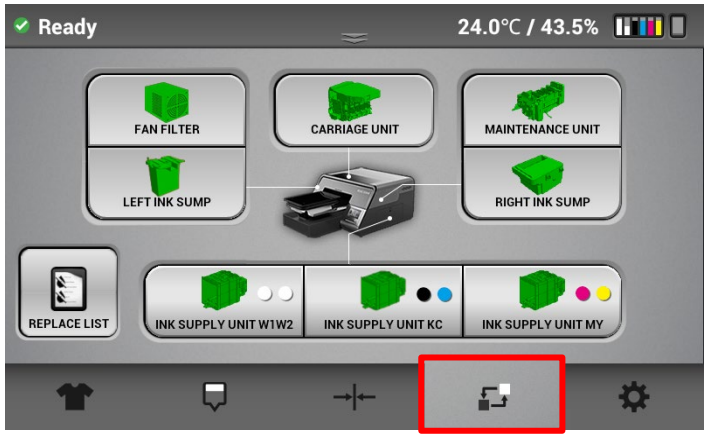
- Once the waste ink bottle is full, auto maintenance will not occur, and head clogging can occur.
- Pressing OK will clear the message and it will reappear in 12 hours if the waste ink bottle is not emptied and reset on the control panel.



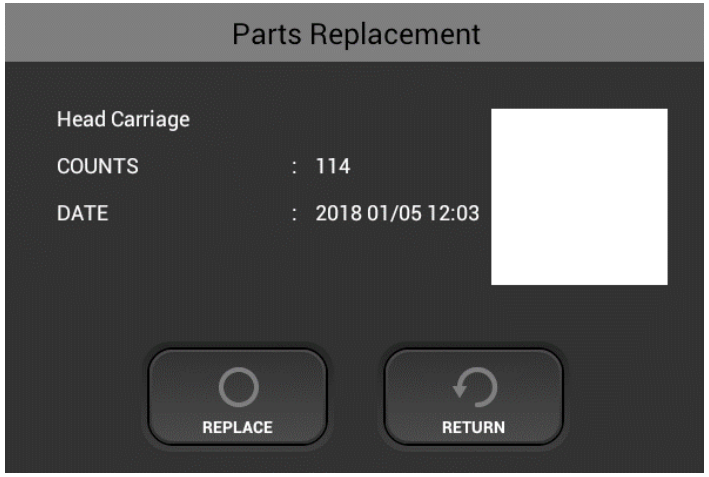
To Reset Waste Ink:

1. Empty Waste Ink Bottle
2. Slide the status bar down to expand the printer status information
3. Select WASTE INK RESET

Printer Hardware

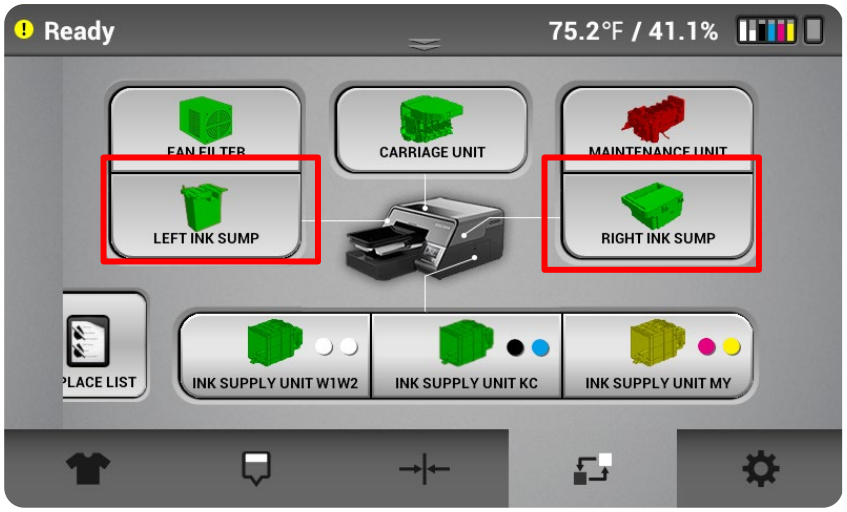


- Displays the current usage or status (Green, Yellow, Red), You can check the part replacement history by pressing the "REPLACE LIST" button
- Each icon will provide the status of each service part



- Green: Normal
- Yellow: Near End.
- Red: End of average service life

Printer Hardware



- The left and right ink sump **will stop printer operation and auto maintenance** when the service life count has been reached.
- The additional parts such as the fan filters, maintenance station, carriage unit and ink supply units **will not stop printer operation**.
- 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 to be considered out of warranty.**

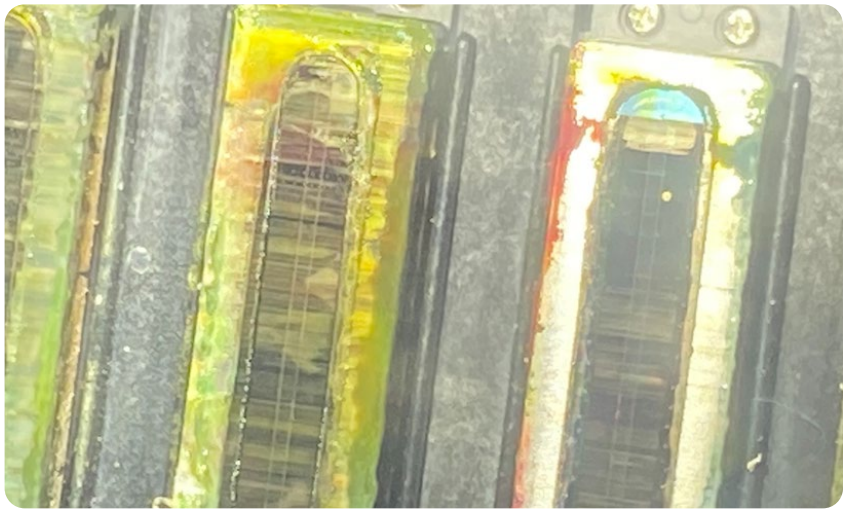
Maintenance

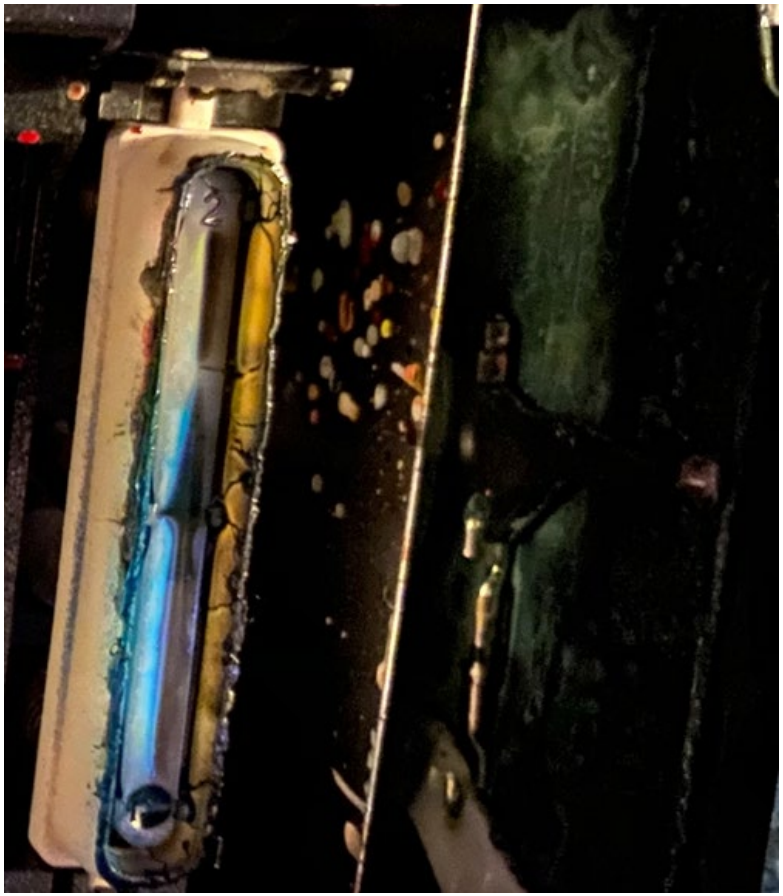
Safety Symbols

- Safety Symbols:

	Caution
	Prohibition
	General mandatory action sign
	Do not touch
	Caution, risk of having hands or arms caught
	Caution, risk of electric shock
	Printer Lifting Hand Position Indicator

Importance of Doing Maintenance



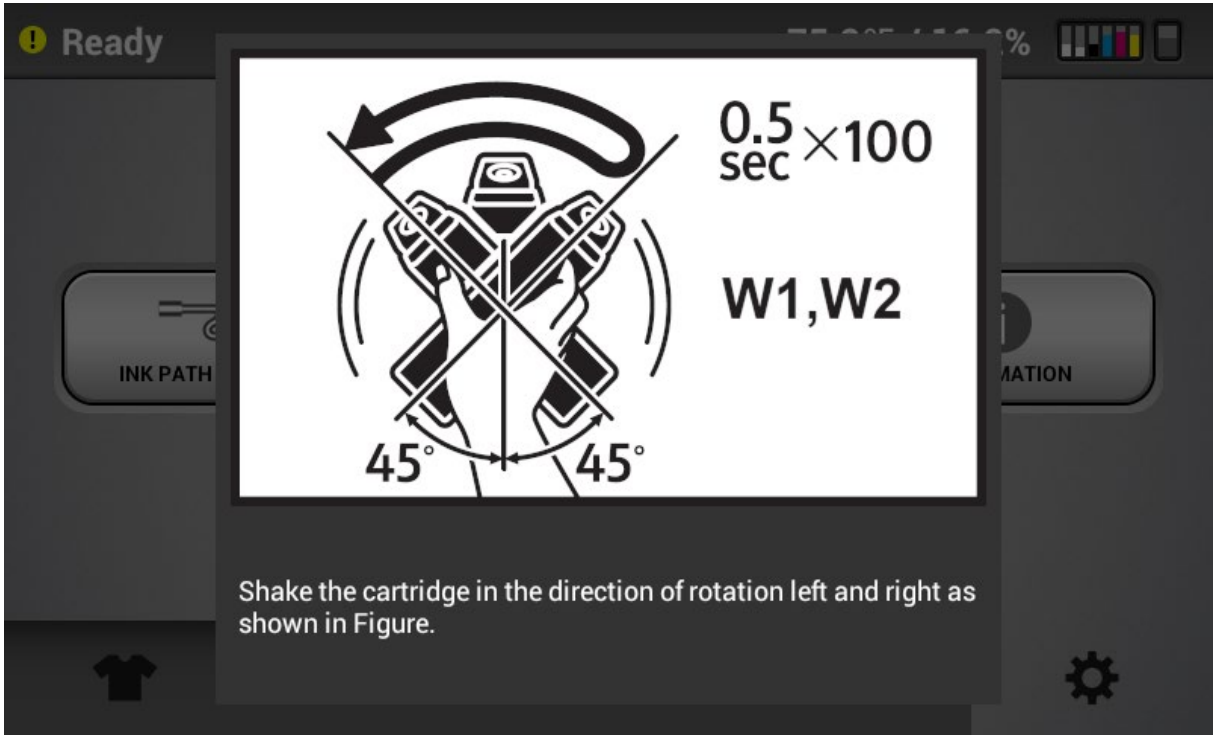


IMPORTANT:
NOT MAINTAINING YOUR PRINTER CAN LEAD TO DRY INK BUILD UP ON THE PRINT HEADS AND MAINTENANCE UNIT, RESULTING IN CLOGGED HEADS. **FAILURE TO PERFORM MAINTENANCE CAN VOID YOUR WARRANTY.**

Daily Maintenance

Daily Maintenance

Agitate White Ink



Agitate White ink cartridges (message will occur every 12 hours)

See Section 8.2 in the user manual

Daily Maintenance

Nozzle Check

1. Perform NOZZLE CHECK,

Then perform Steps 2 - 5 as needed

2. Select AUTO HEAD CLEANING

Version: [###] Classification: Internal Owner: [Insert name]

Daily Maintenance

Nozzle Check

3. Choose the color channels and level of cleaning (Normal or Strong) based on the nozzles missing in the nozzle check. Press CLEANING

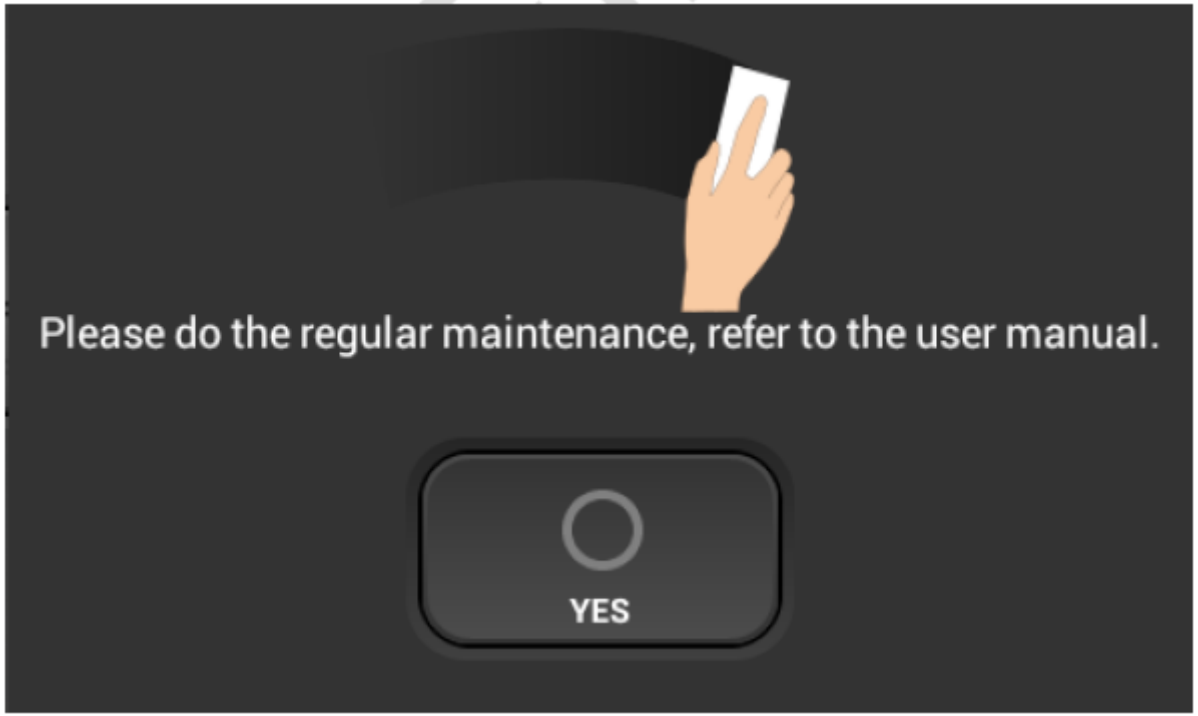
4. Perform NOZZLE CHECK
5. Repeat steps until nozzle check is full

Daily Maintenance Video

Daily Maintenance

Weekly Maintenance

Weekly Maintenance

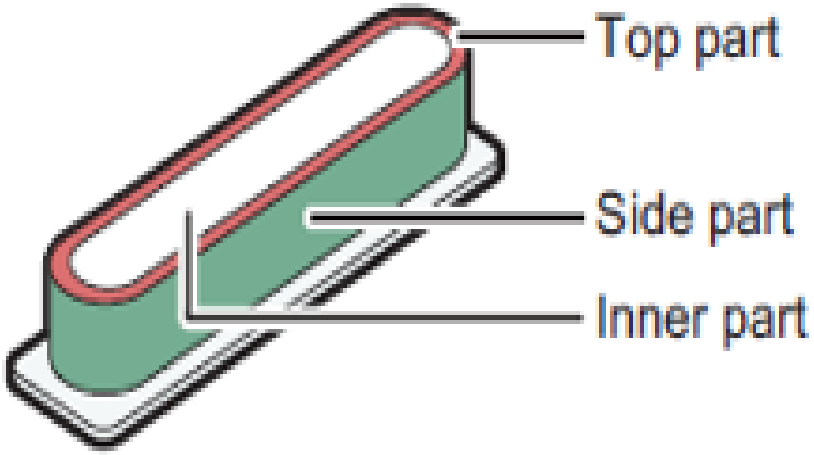


This Message will appear every **7 Days**

Weekly Maintenance

RICOH
imagine. change.

Clean the Maintenance Unit



Clean the Maintenance Unit as detailed in the user manual (Section 8.2, Weekly in user manual)

Weekly Maintenance

Clean the Maintenance Unit

Required supplies:

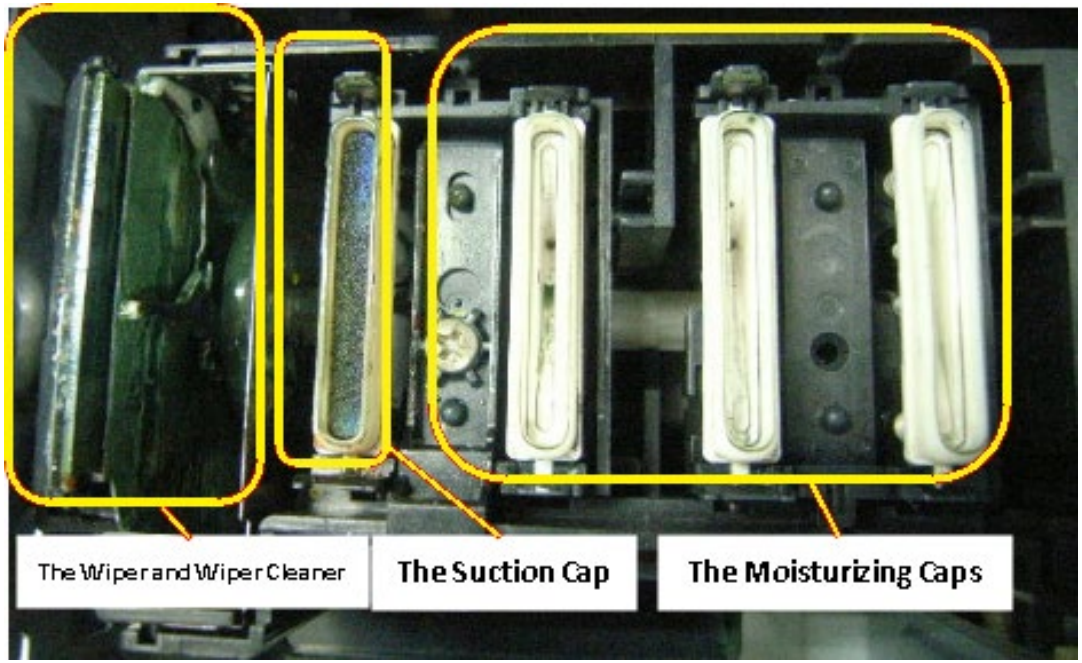
- Gloves
- Protective glasses or goggles
- Cleaning Applicator (515894) or (342043)
- RICOH CLEANING LIQUID TYPE 1(257058)

Weekly Maintenance

Clean the Maintenance Unit

The Maintenance Unit Cleaning procedure involves cleaning 3 distinct areas

1. Wiper and Wiper cleaner
2. Suction Cap
3. Moisturizing Caps



Version: [###] Classification: Internal Owner: [Insert name]

Weekly Maintenance

Clean the Maintenance Unit

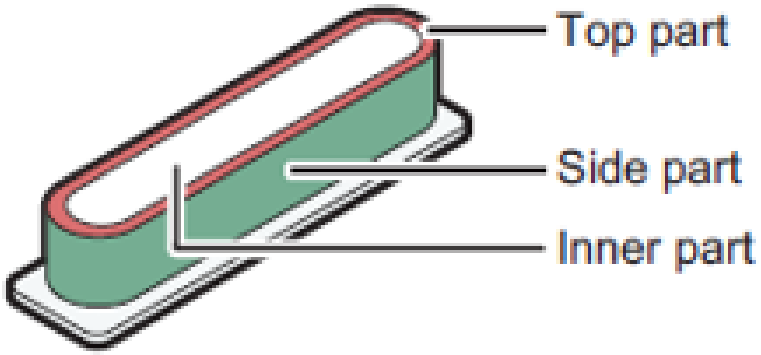
1. Go to the Nozzle Maintenance Tab

2. Select MANUAL HEAD CLEAN

Weekly Maintenance

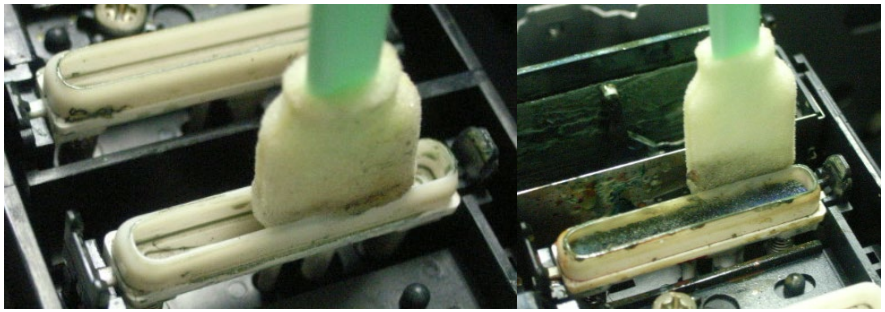
RICOH
imagine. change.

Clean the Maintenance Unit – Moisturizing Cap



3.

- The Moisturizing & Suction Caps:
- Gently wipe off the top part, the side part, and the inner part of the cap



CAUTION:

- **DO NOT deform or scratch caps. Deformation and scratches may cause troubles.**
- **<u>Wipe the top part gently and very carefully.</u>**

Weekly Maintenance

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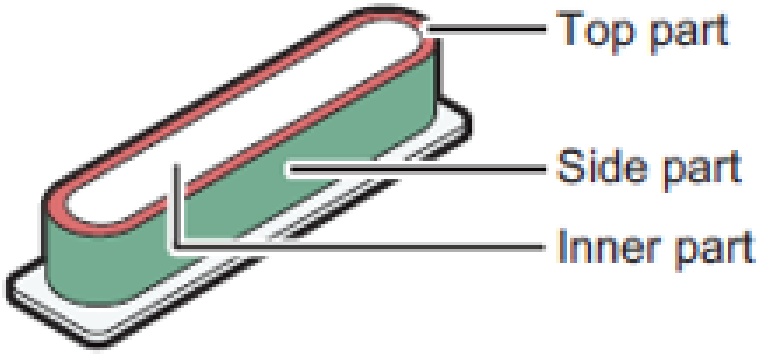
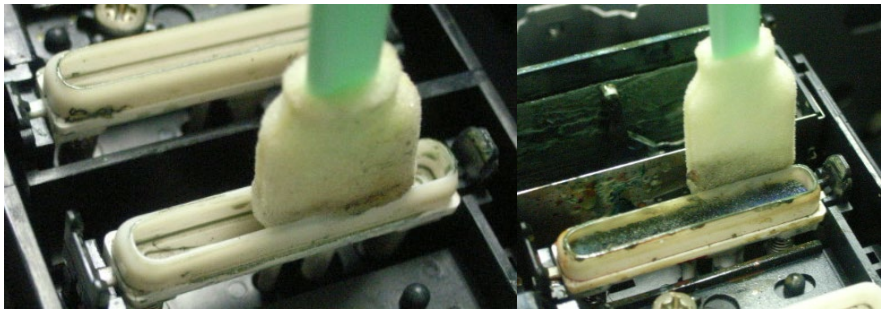
imagine. change.

Clean the Maintenance Unit – Suction Cup



4.

- There is an inset in the vacuum 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.**
- 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.

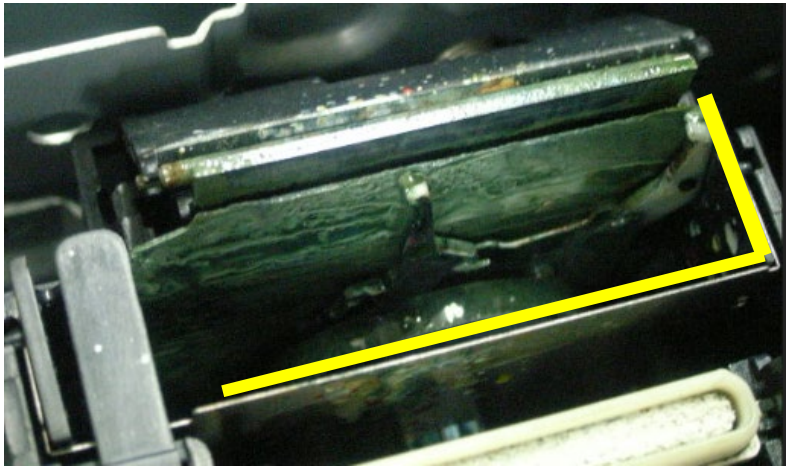


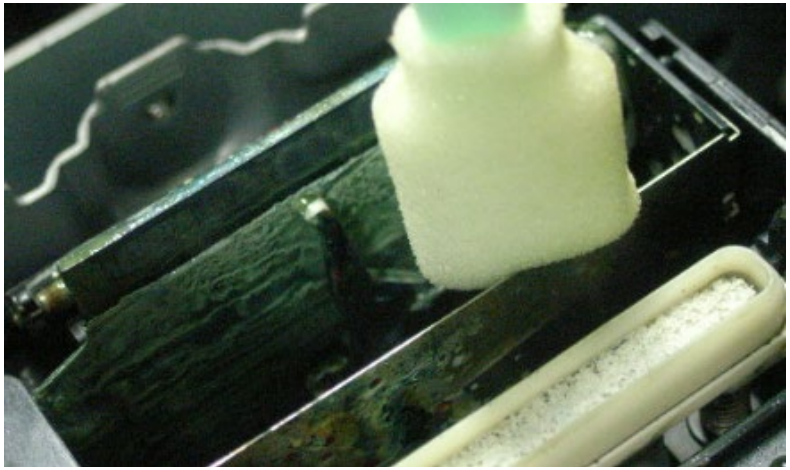
CAUTION:

- **DO NOT to deform or scratch caps. Deformation and scratches may cause troubles**
- **Especially wipe the top part gently and carefully.**

Weekly Maintenance

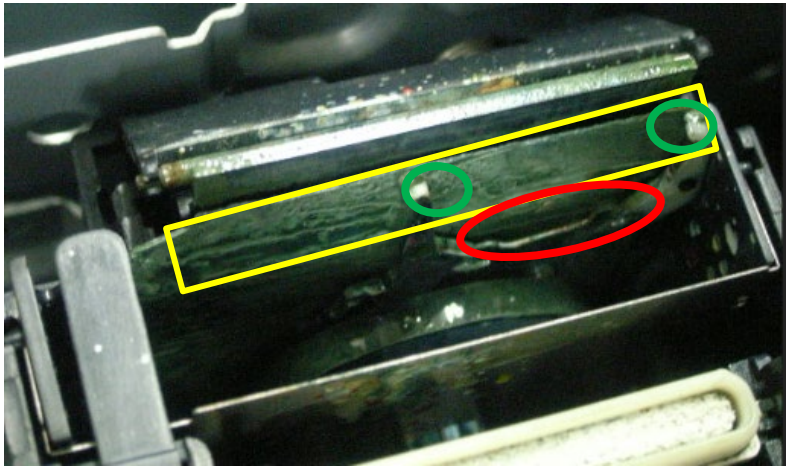
Clean the Maintenance Unit – Frame Wiper Cleaner

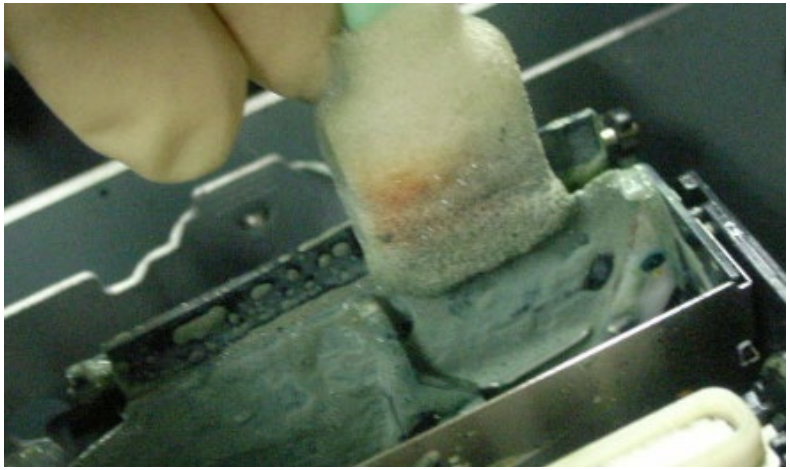




5. Clean the area along the yellow line

Clean the Maintenance Unit – Inside Cleaner





6. Clean the area indicated by the yellow frame and the surface of the lever indicated by the green frame.

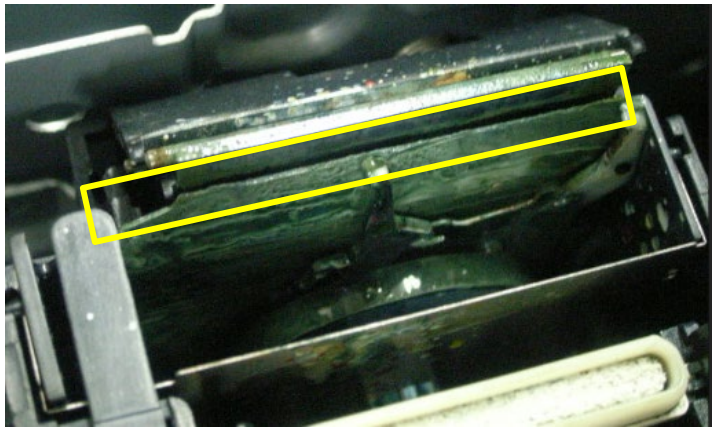
- Be careful as the lever is thin, easily deformed, broken, and detached.
- Clean the lever to the surface of the green frame and wipe it gently.

ATTENTION:

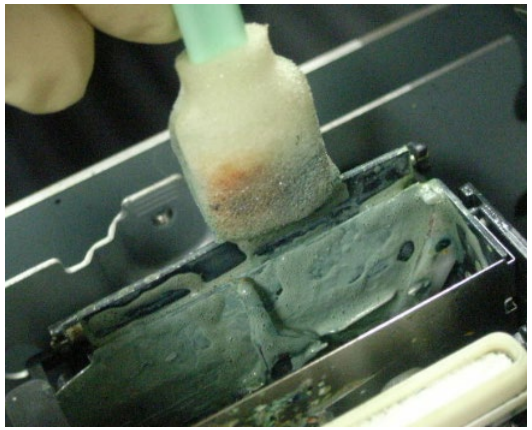
- **DO NOT touch the bottom side of the lever or the lower side of the range of the red frame.**
- **DO NOT use force when cleaning the lever. It may easily deform, break, or detach.**

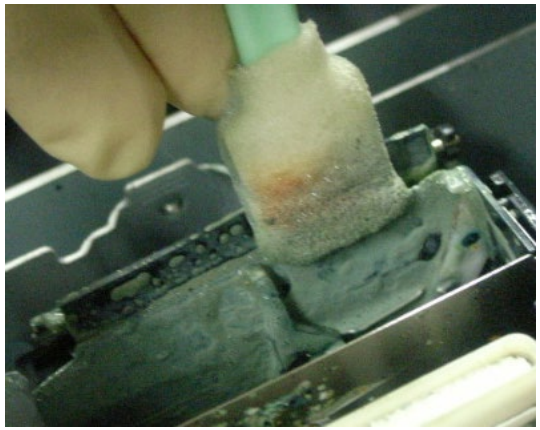
Weekly Maintenance

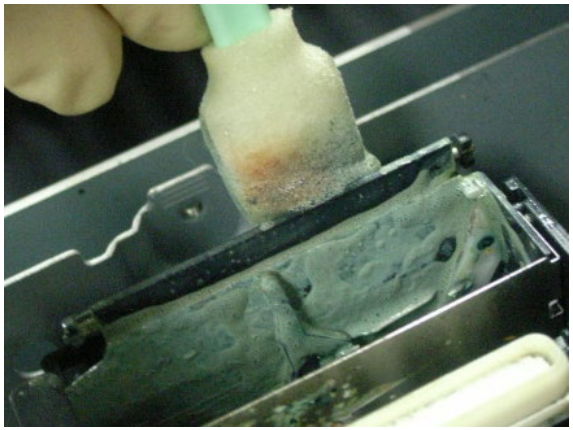
Clean the Maintenance Unit –Wiper



7. Clean the front and back surfaces and the upper surface of the Wiper (rubber plate surrounded by the yellow frame)







Weekly Maintenance

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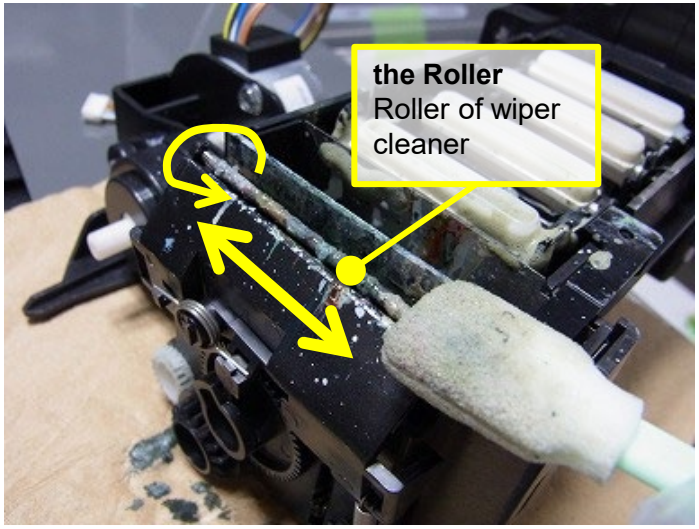
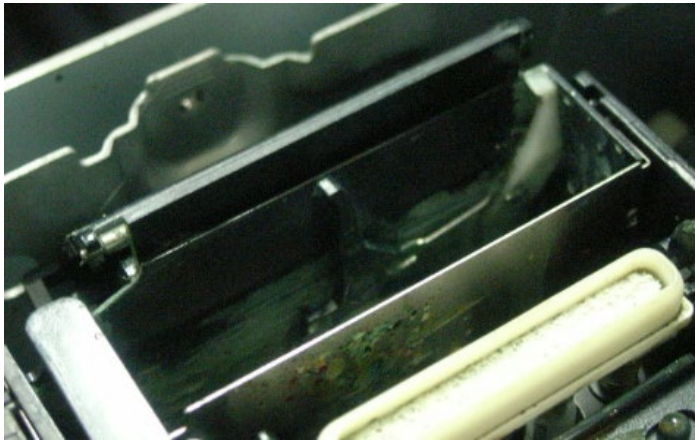
Clean the Maintenance Unit – Roller

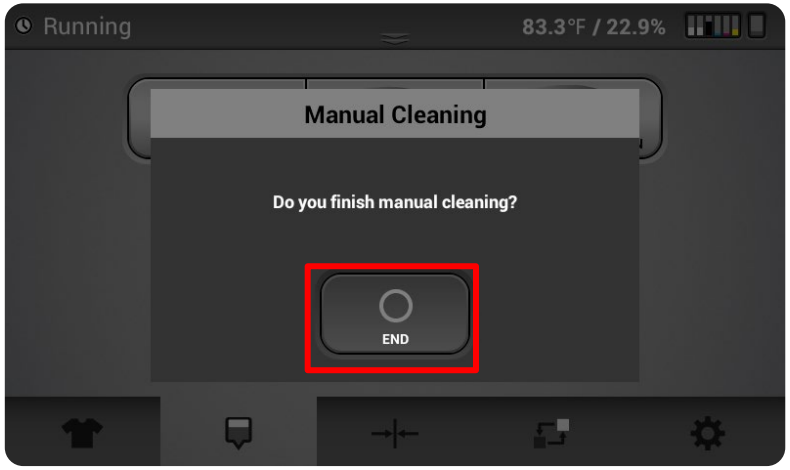


8. Rotate the roller, move the Cleaning Applicator back and forth, and wipe the entire circumference

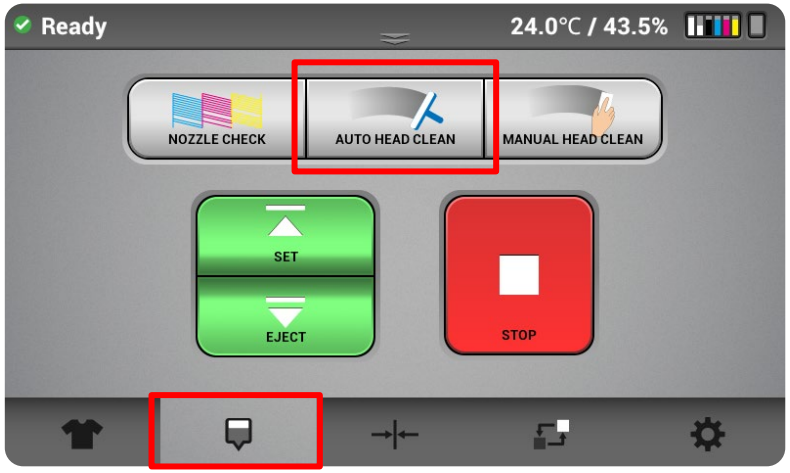


Weekly Maintenance

Clean the Maintenance Unit



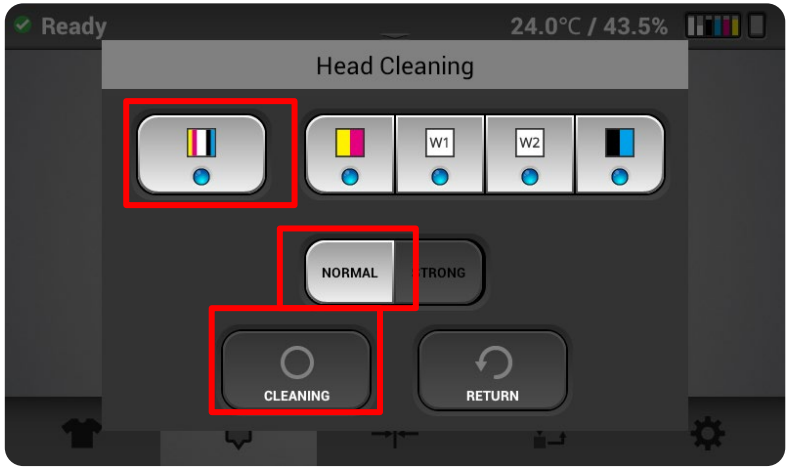
9. Press End Button



10. Select AUTO HEAD CLEANING

Weekly Maintenance

Clean the Maintenance Unit

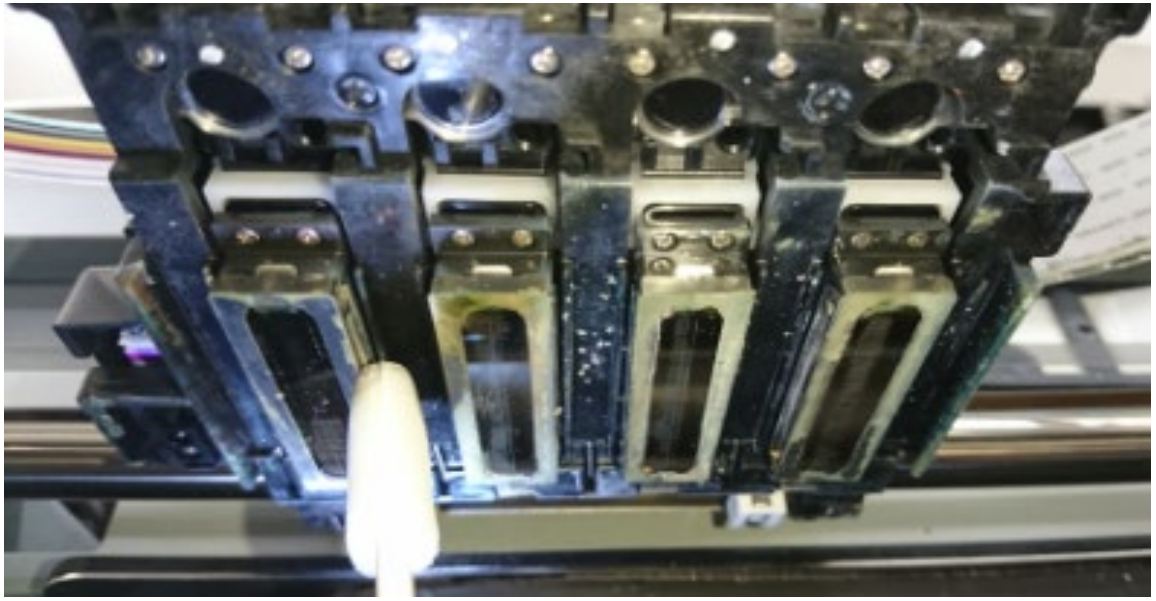


11. Press All Heads, NORMAL, and CLEANING

12. Perform NOZZLE CHECK

Weekly Maintenance

Clean the Nozzle Cover



Clean the nozzle cover as detailed in the user manual (Section 8.2, Weekly)

Weekly Maintenance

Clean the Nozzle Cover

Required supplies:

- Lint Free Wipes (342043)
- Mirror or camera to see heads while cleaning
- Towel or tray to catch ink and debris

Weekly Maintenance

Clean the Nozzle Cover

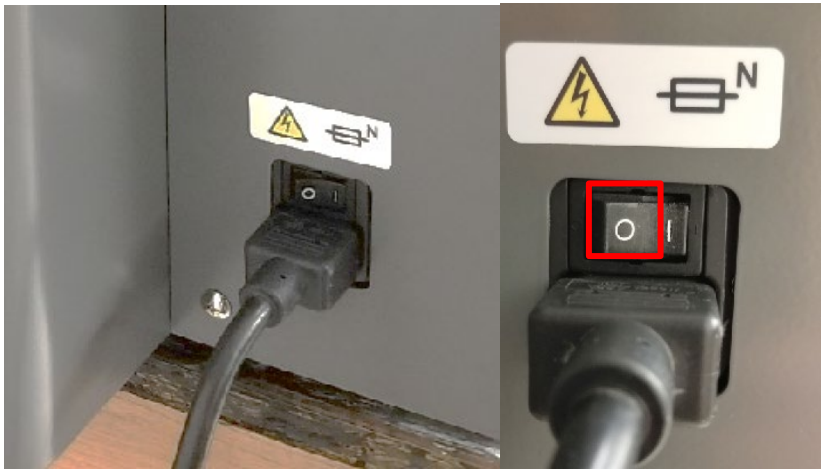
1. Go to the Nozzle Maintenance Tab

2. Select MANUAL HEAD CLEAN

Weekly Maintenance

Clean the Nozzle Cover

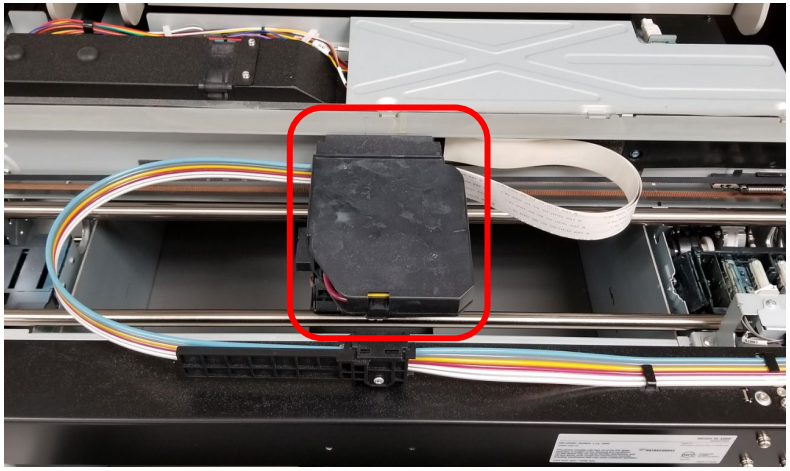
3. Select YES



4. Turn off the printer and flip the power switch to the off position

Weekly Maintenance

Clean the Nozzle Cover



5. Open the lid of the printer

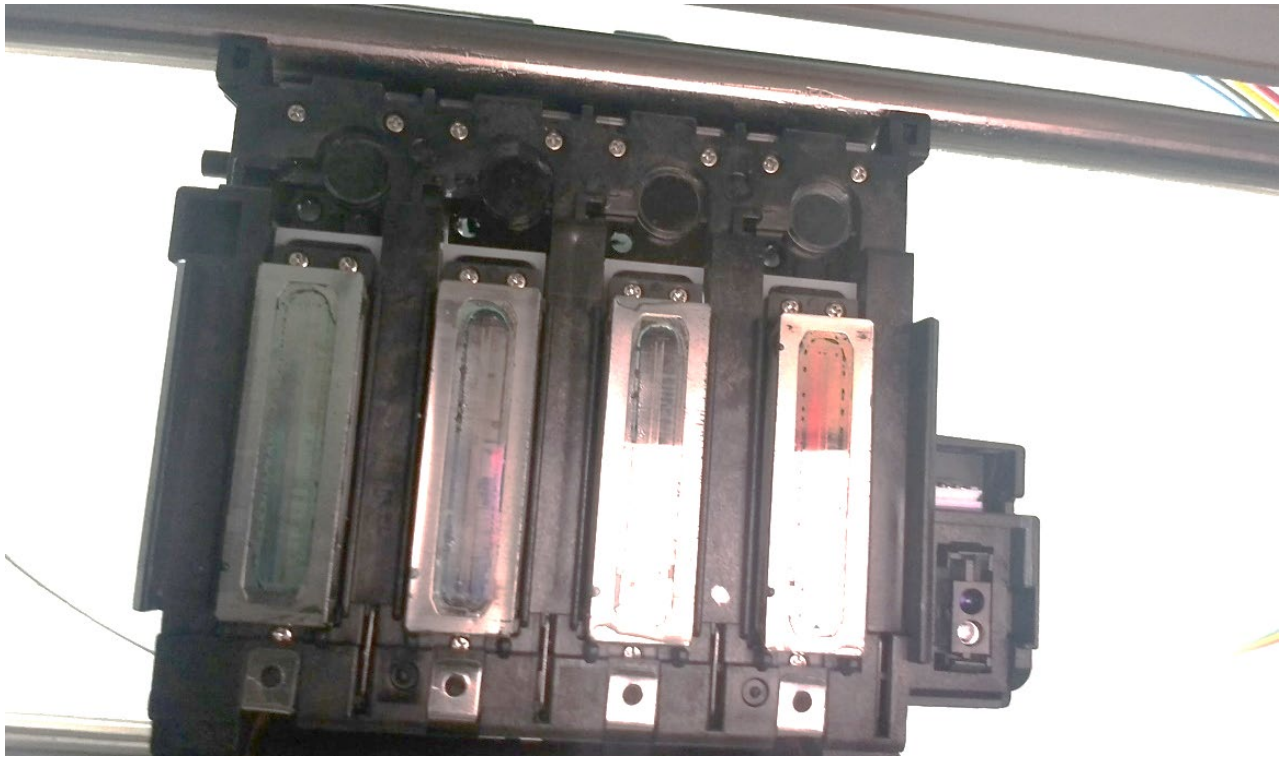
6. Place a tray or paper towel under the head to prevents solid ink, lint, and cleaning liquid from entering the unit during cleaning.

Weekly Maintenance

RICOH
imagine. change.

Clean the Nozzle Cover

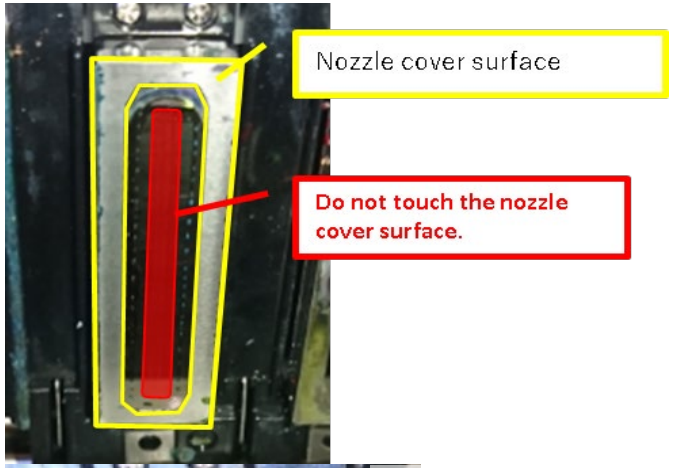
7. Look at the bottom of the Head and clean the Nozzle Cover periphery. Clean according to the following instructions:



Weekly Maintenance

RICOH
imagine. change.

8. Clean the surface of the specified area of the Nozzle Cover with the Lint-Free Wipe



Clean along the arrow direction as shown

Do not clean the nozzle side cover with a wet lint-free wipe. <u>ONLY</u> use a dry lint free wipe.

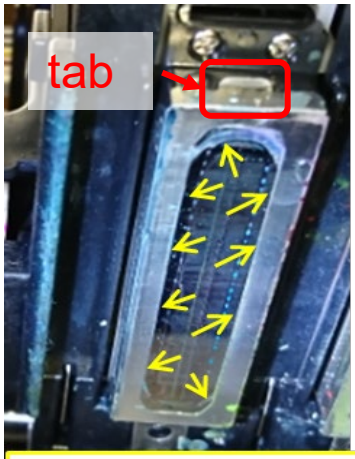
Caution: Usage of lint-free wipes help ensure the integrity of the print head. Failure to use lint-free wipes may result in damage to the print head and prevent printer functionality

- **CAUTION:**
- **Be careful** not to touch the Nozzle (center area) with the Lint-Free Wipe.
- **Be careful** not to adhere the wiped solid ink or lint to the Nozzle.
- **Be careful** to keep the nozzle area dry **<u>(no cleaning fluid)</u>** while cleaning the side of the print head.
- **All of these can cause nozzle damage.**

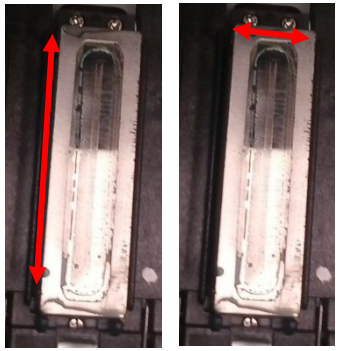
Weekly Maintenance

RICOH
imagine. change.

Clean the Nozzle Cover



The step portion between the nozzle surface and the nozzle cover.



9. Wipe off any dirt stuck to the stepped portion of the Nozzle surface and the Nozzle Cover.
10. Clean the side of the Nozzle Cover with a dry, lint free wipe that **<u>does not</u>** contain the Cleaning Liquid.
    1. When cleaning the side of the Nozzle Cover, scrape the dirt along the direction of the arrows to clean it.

CAUTION:

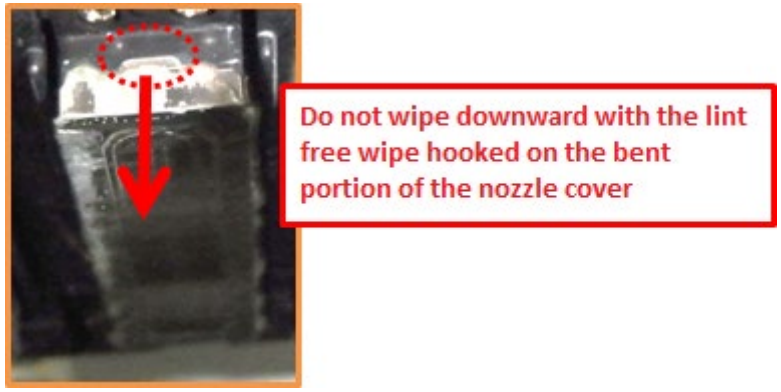
- **<u>Do not</u> clean the Nozzle Cover side with a lint free wipe containing the Cleaning Liquid.**
- **If bubbles and liquid adhere to the side of the Print Head, it may cause a failure.**
- **<u>Do not</u> wipe the tab of the Nozzle Cover downward as shown on next page**

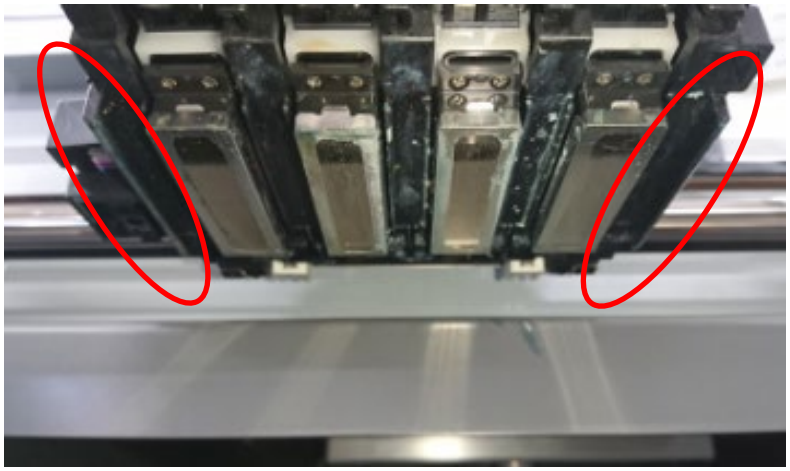
Caution: Usage of lint free wipes help ensure the integrity of the print head. Failure to use lint free wipes may result in damage to the print head and prevent proper printer functionality.

Weekly Maintenance

RICOH
imagine. change.

Clean the Nozzle Cover





<u>Do not</u> wipe the tab of the Nozzle Cover downward as shown in the photo.

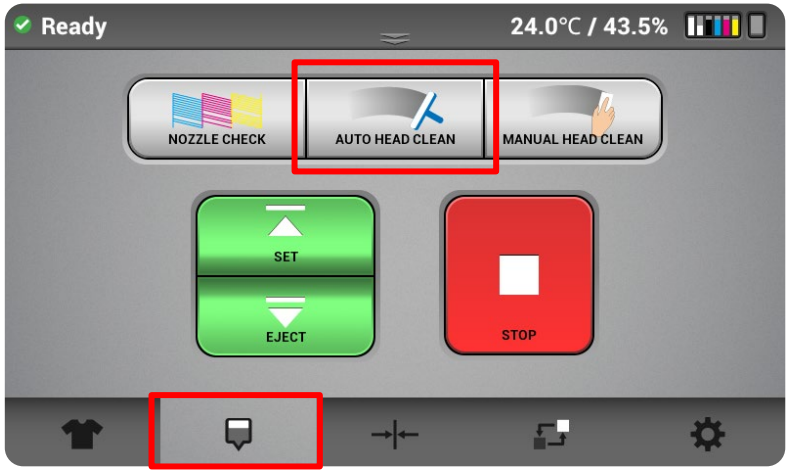
11. Clean the left and right ribs on both ends of the carriage
12. After cleaning the Nozzle Cover, remove the tray or paper towel placed under the Head.

Caution: Usage of lint free wipes help ensure the integrity of the print head. Failure to use lint free wipes may result in damage to the print head and prevent printer functionality

Weekly Maintenance

Clean the Nozzle Cover

13. Flip the power switch to the "on" position and turn on the printer
14. Close the lid of the printer

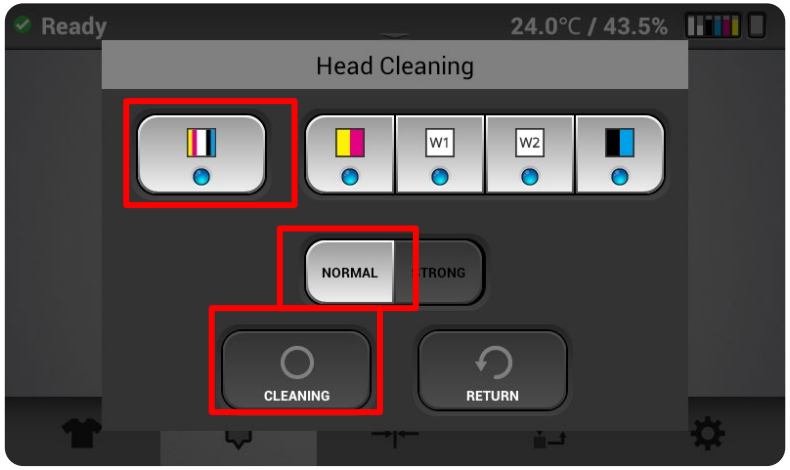


15. Select AUTO HEAD CLEANING

Version: [###] Classification: Internal Owner: [Insert name]

Weekly Maintenance

Clean the Nozzle Cover



16. Press All Heads, NORMAL, and CLEANING

17. Perform NOZZLE CHECK

Weekly Maintenance Video

Weekly Maintenance

Monthly Maintenance

Monthly Maintenance

Cleaning the Guide Rods and Encoder can be found in the user manual (Section 8.2, Monthly)

Monthly Maintenance

Clean and Reapply Grease to the Guide Rods

Required supplies:

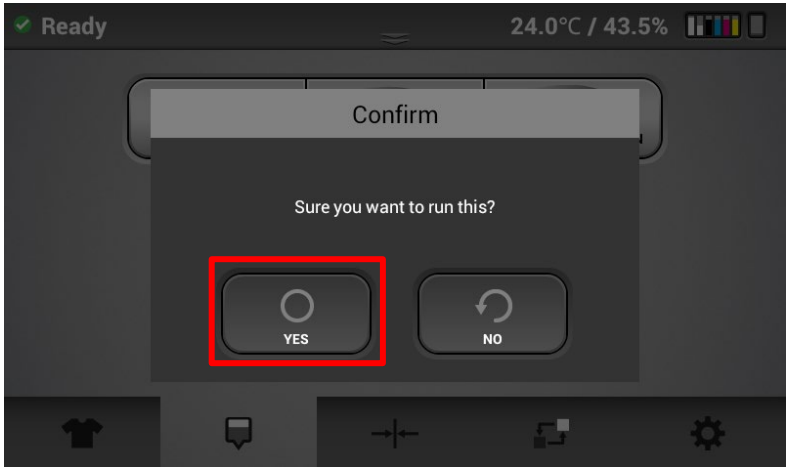
- Gloves
- Protective glasses or goggles
- Cleaning Applicator (515894)
- Lint Free Wipes (342043)
- Grease RICOH Type 1 (342531)
- Isopropyl Alcohol

Monthly Maintenance

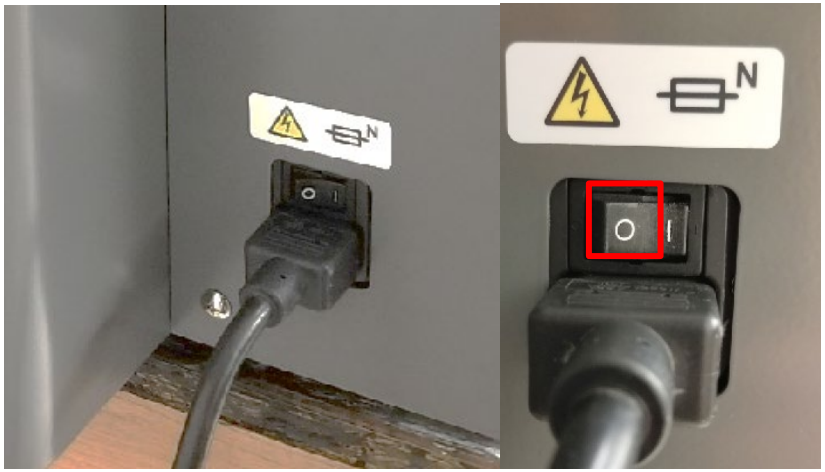
1. Go to the Nozzle Maintenance Tab

2. Select MANUAL HEAD CLEAN

Monthly Maintenance



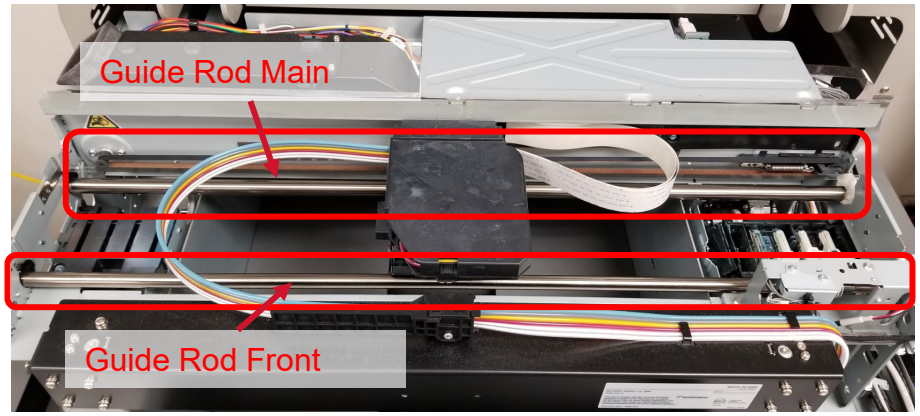
3. Select YES



4. Turn off the printer and flip the power switch to the "off" position

Monthly Maintenance

Clean and Re-apply Grease to the Guide Rods



5. Open the lid of the printer

6. Wipe off the old grease and lint stuck on the guide rod with a cleaning applicator.
   - There are two guide rods "guide rod: front" and "guide rod: main".
   - Clean both

Caution:
When cleaning the guide rods, try to avoid touching the encoder or the carriage belt. The printer may not operate properly.

Be sure to use the cleaning applicator provided by RICOH. Applicators are designated for this printer. 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

Monthly Maintenance

RICOH
imagine. change.

Clean and Re-apply Grease to the Guide Rods

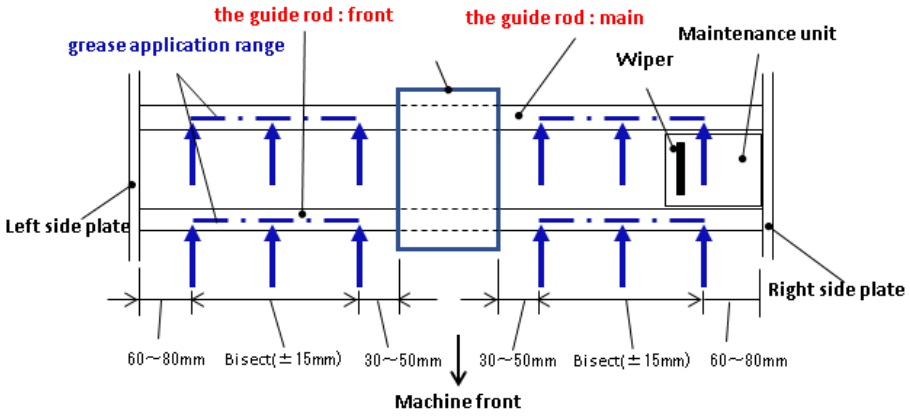
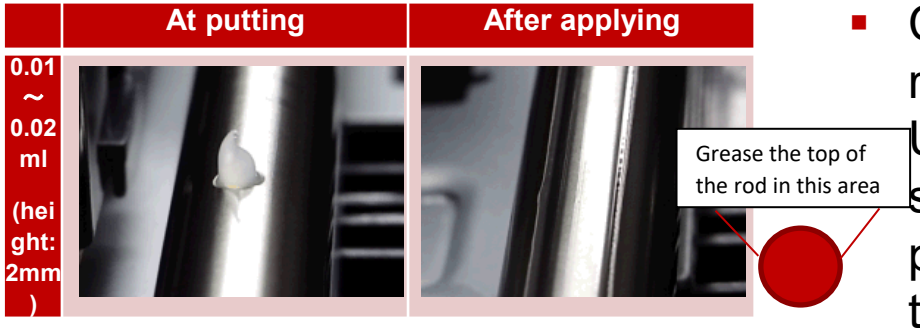


Fig. 1: Grease coverage



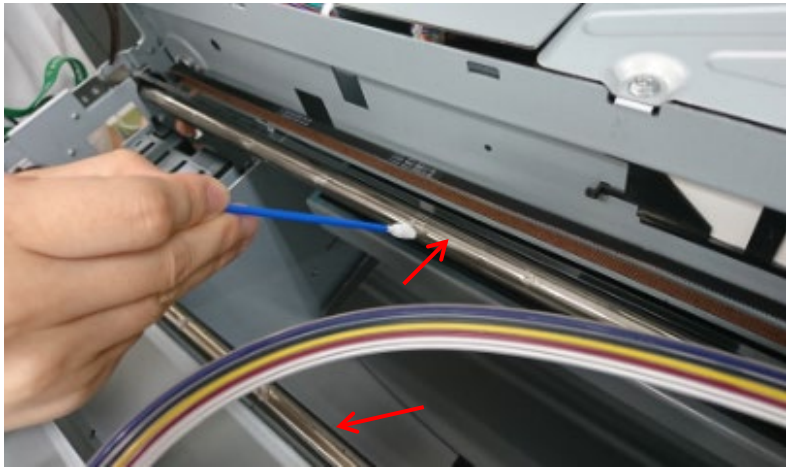
7.

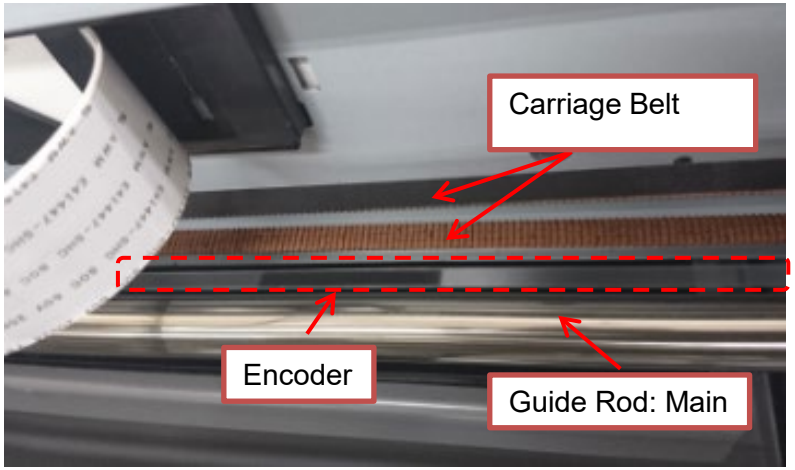
- Guide Rod Main: Apply approximately 0.01 ml of grease to each of the six peripheral parts of the arrow.
- Guide Rod Front: The six peripheral parts of the arrow.
- After putting grease, apply it to the full range of the dot-dash line and adjust it.
- Circumferential grease application range
  Use a 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.)

- **Be sure to use the cleaning applicator and grease provided by RICOH**. RICOH Type 1 grease and applicators are designated for this this printer. 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.

Monthly Maintenance

Clean and Re-apply Grease to the Guide Rods



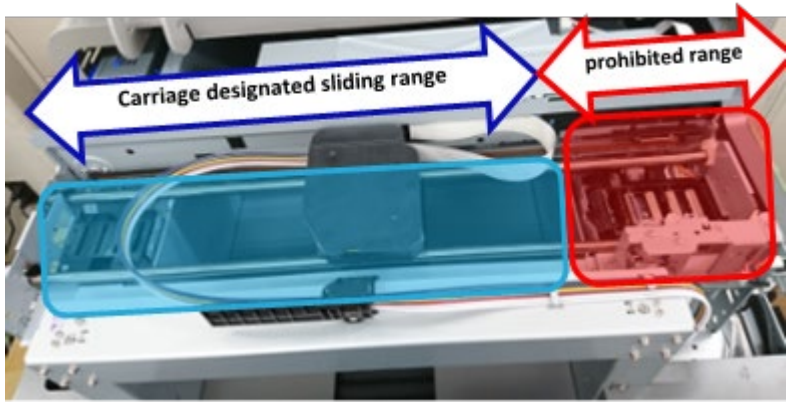


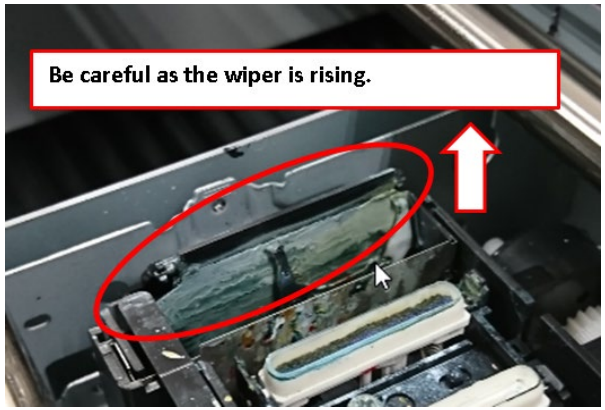
CAUTION:

- **Do not** allow grease to adhere to the encoder
- **Do not** allow grease to adhere to the carriage belt.
- **Do not** allow grease to adhere to the carriage

Monthly Maintenance

Clean and Re-apply Grease to the Guide Rods





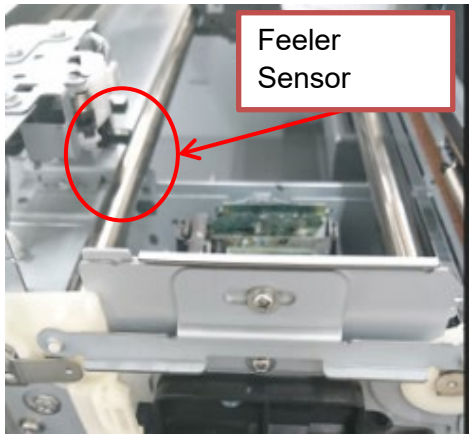
CAUTION:

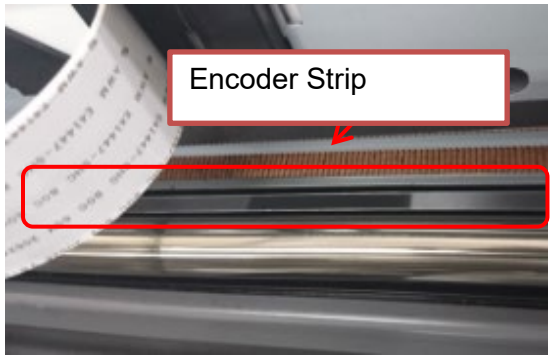
- **Do not** move the carriage to the prohibited range which is outside the designated sliding range.
- Since the Wiper of the Maintenance Unit is raised to the Wiper cleaning position, when the carriage is moved to above the Maintenance Unit, the Wiper interferes with the Head, it may **cause damage to** the Print Head.

Monthly Maintenance

RICOH
imagine. change.

Clean and Re-apply Grease to the Guide Rods



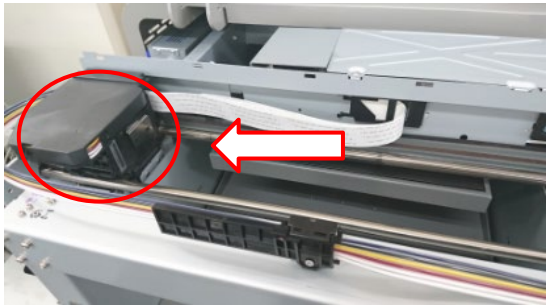


8. Confirm that grease is not attached to the Feeler Sensor.

9. **Clean the Encoder Strip** after applying grease to the Guide Rod.

- Note: For plastic encoder strips, you may need to clean the encoder more than once a week if you are printing often (clean about every 30 to 50 prints or daily if necessary, to avoid bad prints or encoder errors). Metal encoder strips should be checked for dust and grease and cleaned with a dry lint free wipe, only as needed.

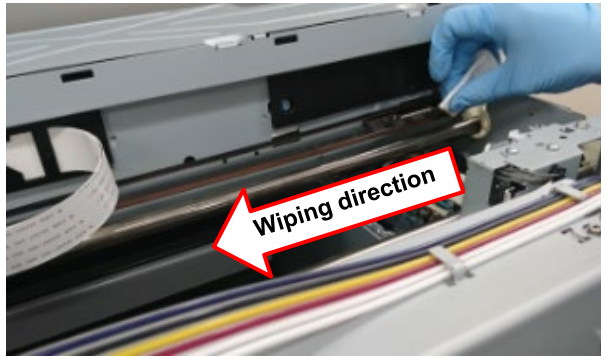
10. Move the carriage to the left end by hand.



Monthly Maintenance

Clean the Encoder Strip (Plastic Encoder Strip Only)

11. Wet a Lint Free Wipe with isopropyl alcohol
12. Using the saturated lint free wipe, remove grease, lint and ink adhering to the Encoder Strip.
13. Move the carriage to clean the entire Encoder Strip



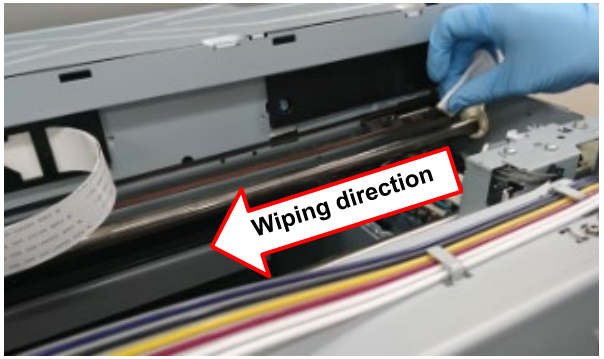
CAUTION:

- Using lint free wipes helps 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 strip with hands.
- **Do not** bend the encoder strip.
- **Do not** allow the alcohol to adhere to the timing belt.
- **Do not** allow the Lint Free Wipes to come into contact with the Guide Rod.

All of these can cause a CR encoder error and the encoder will have to be cleaned again.

Clean the Encoder Strip (Metal and Plastic Encoders)

14. Using a dry lint free wipe, remove any remaining liquid adhering to the Encoder Strip.
15. Move the carriage to clean the entire Encoder Strip



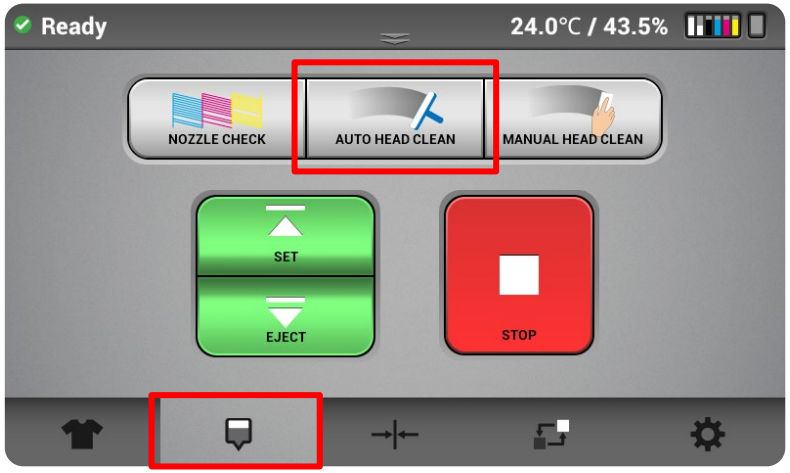
CAUTION:

- Using lint free wipes helps 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 strip with hands.
- **Do not** bend the encoder strip.
- **Do not** allow the alcohol to adhere to the timing belt.
- **Do not** allow the Lint Free Wipes to come into contact with the Guide Rod.

All of these can cause a CR encoder error and the encoder will have to be cleaned again.

Monthly Maintenance

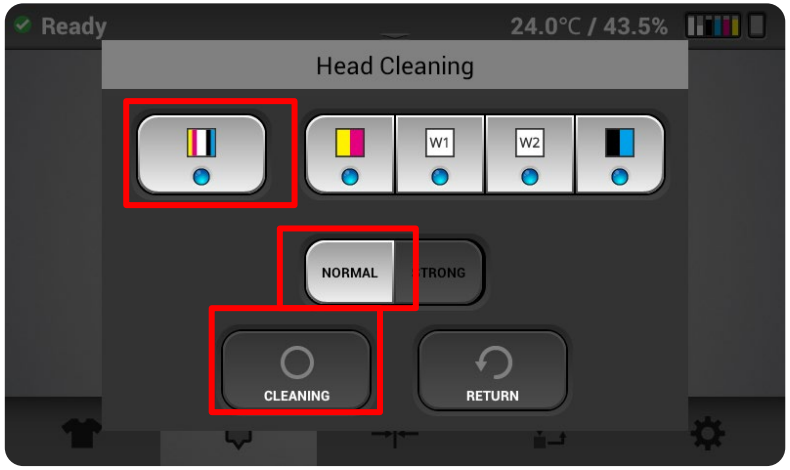
16. Flip the power switch to the "on" position and turn on the printer
17. Close the lid of the printer



18. Select AUTO HEAD CLEANING

Version: [###] Classification: Internal Owner: [Insert name]

Monthly Maintenance



19. Press All Heads, NORMAL, and CLEANING

20. Perform NOZZLE CHECK

Monthly Maintenance

RICOH
imagine. change.

Encoder Strip and Encoder Sensor Cleaning (Plastic Encoder Strip)

Required supplies:

Method 1 (Plastic Encoder Strip)

1. Lint Free Wipes (342043)
2. Cleaning Fluid Type 1 (257058)
3. Preferred Distilled Water
4. isopropyl (isopropyl Alcohol) for Encoder Sensor
5. Narrow Applicator (342042 or 342041)

Method 2 (Plastic Encoder Strip)

1. isopropyl (isopropyl Alcohol)
2. Lint Free Wipes (342043)
3. Narrow Applicator (342042 or 342041)

Monthly Maintenance

Encoder Strip and Encoder Sensor Cleaning (Plastic Encoder Strip)

1. Go to the Nozzle Maintenance Tab

2. Select MANUAL HEAD CLEAN

Monthly Maintenance

Encoder Strip and Encoder Sensor Cleaning (Plastic Encoder Strip)

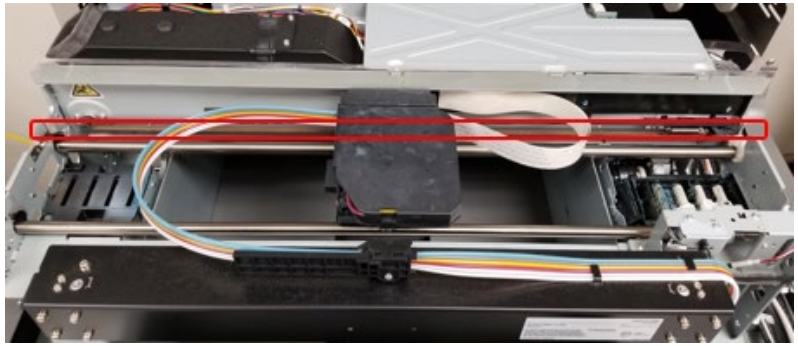
3. Select YES

Monthly Maintenance

RICOH
imagine. change.

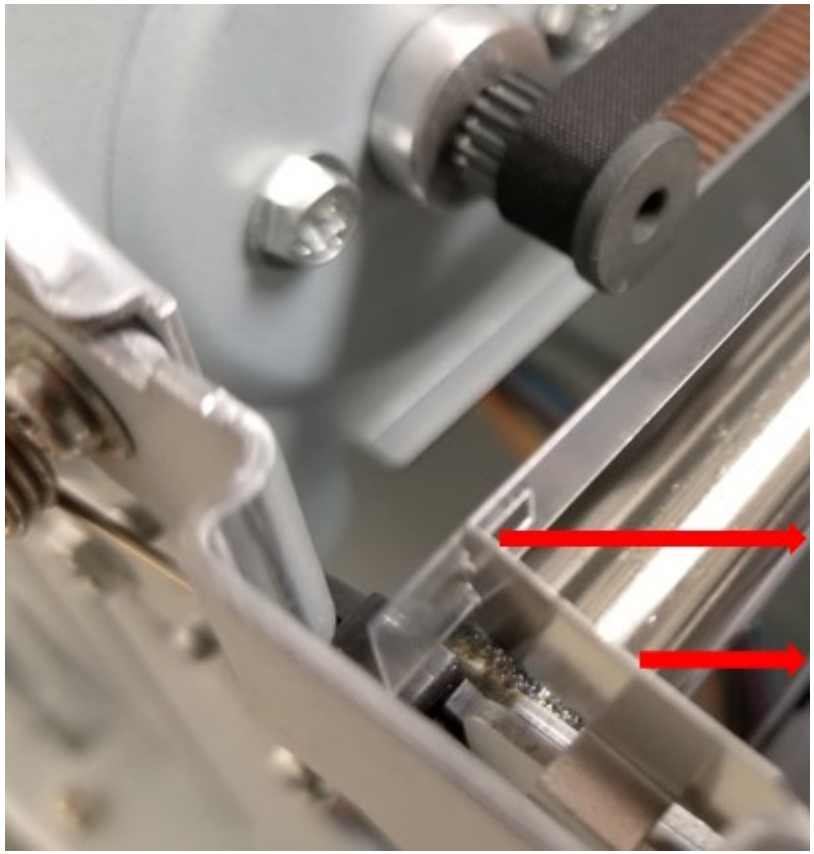
Encoder Strip and Encoder Sensor Cleaning (Plastic Encoder Strip)

4. Turn off the printer and flip the power switch to the off position



5. Open the lid of the printer

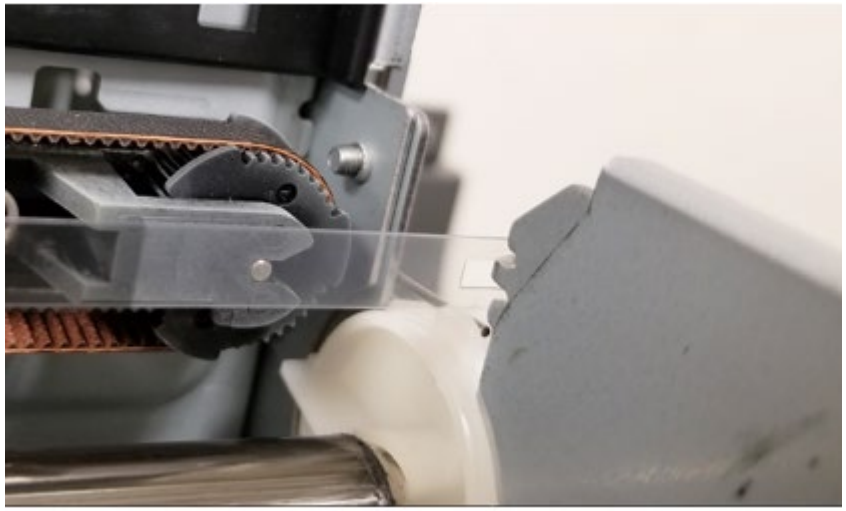
Encoder Strip and Encoder Sensor Cleaning (Plastic Encoder Strip)



6. On the left side of the printer push the metal spring holding the Encoder Strip to the right.

7. Release the Encoder Strip from the spring.

Encoder Strip and Encoder Sensor Cleaning (Plastic Encoder Strip)



8. Pull the Encoder Strip through the Print Head.
9. Release the Encoder Strip from the hook on the right side of the printer.
10. Clean the Encoder Strip Using either the Cleaning Fluid or isopropyl Method.

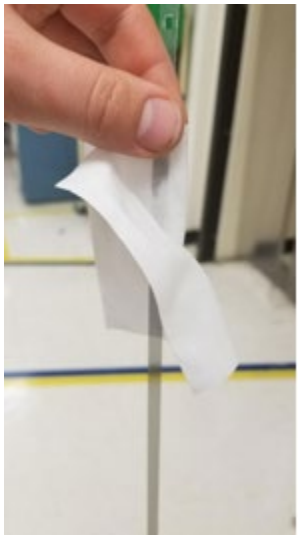
Monthly Maintenance

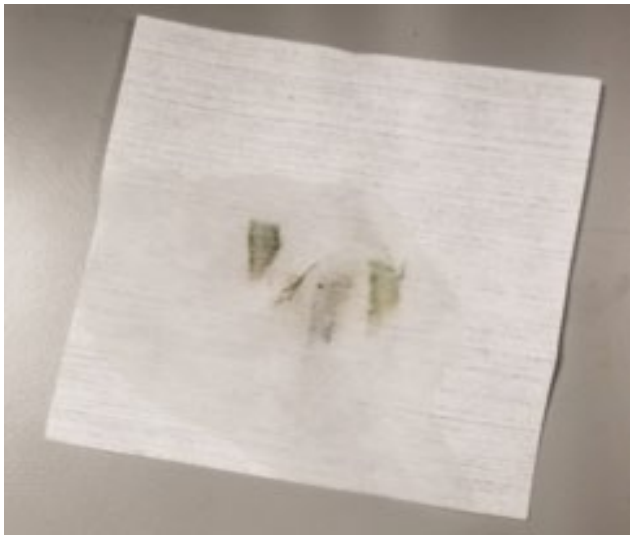
Clean Encoder Strip w/ Cleaning Fluid & Distilled Water

Method 1 (Plastic Encoder Strip)

1) Saturate a lint free wipe with Cleaning Fluid Type 1 and wipe down the Encoder Strip; ensure the Encoder Strip is clean and ink no longer rubs off onto the lint free wipe.

2) Saturate a lint free wipe with distilled water and wipe down the Encoder Strip.

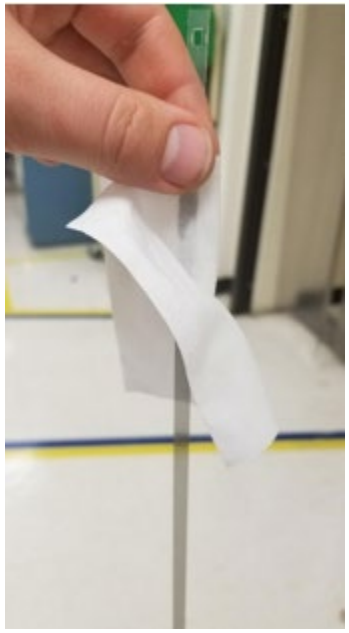


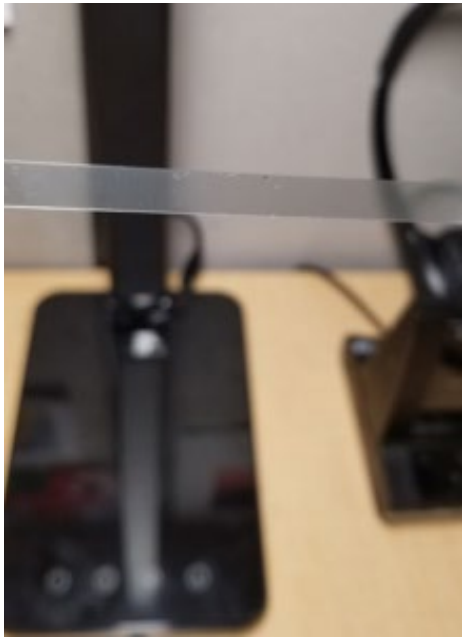


RICOH
imagine. change.

Clean Encoder Strip w/ Cleaning Fluid & Distilled Water

Method 1 (Plastic Encoder Strip)



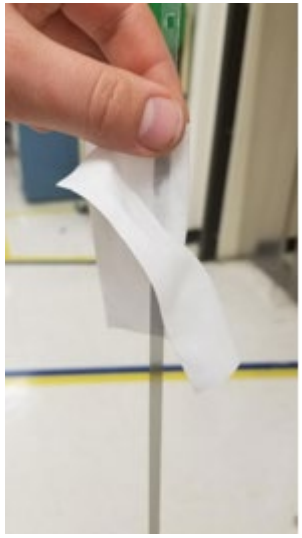


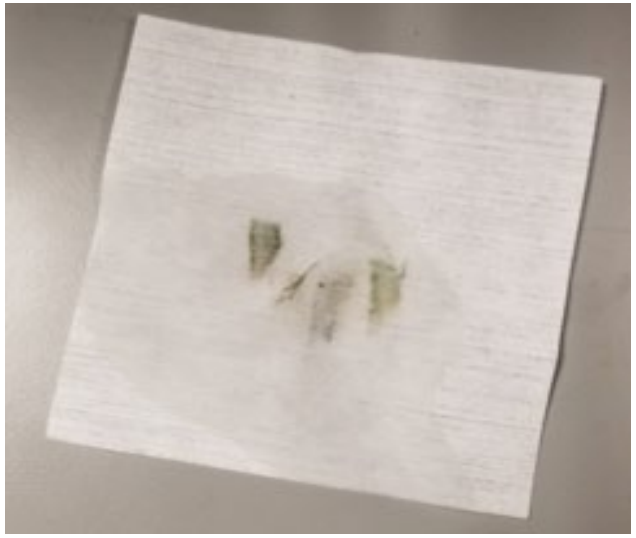
3) With a dry lint free wipe, wipe off the encoder strip; repeat until dry.

4) Once dry, check the encoder strip for scratches and stains while looking at the strip under a light.

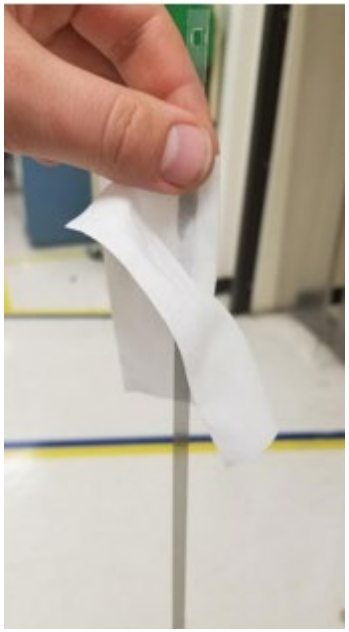
Clean Encoder Strip w/ isopropyl Method 2 (Plastic Encoder Strip)

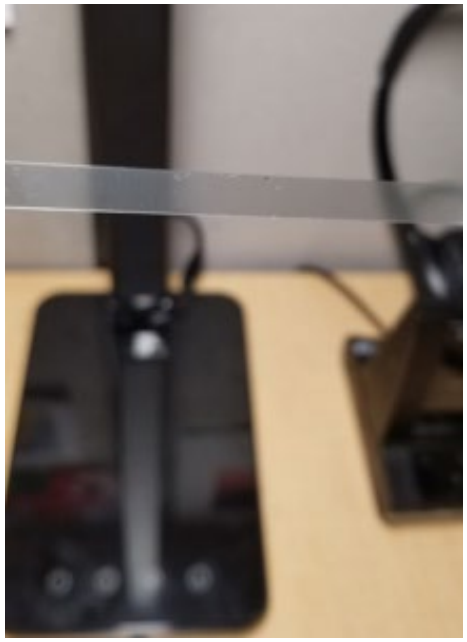
1) Saturate a lint free wipe with isopropyl and wipe Encoder Strip. Ensure the Encoder Strip is clean, and ink no longer rubs off onto the lint free wipe.





Clean Encoder Strip w/ isopropyl Method 2 (Plastic Encoder Strip)





2) With a dry lint free wipe, wipe off the Encoder Strip; repeat until dry.

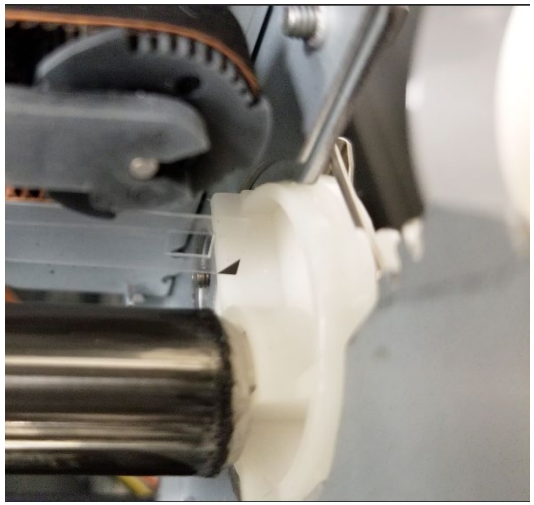
3) Once dry, check the Encoder Strip for scratches and stains while looking at the strip under a light.

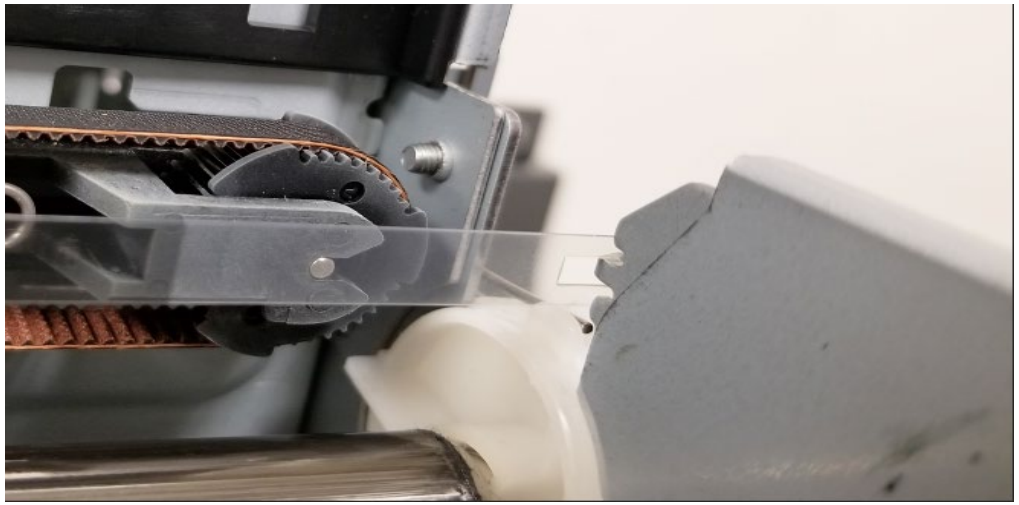
Encoder Sensor Cleaning

11. With a narrow applicator, dampened in isopropyl, wipe the inside of the encoder reader in the carriage unit. Ensure the encoder reader is clean and cleaning the ink no longer rubs off onto the narrow applicator.

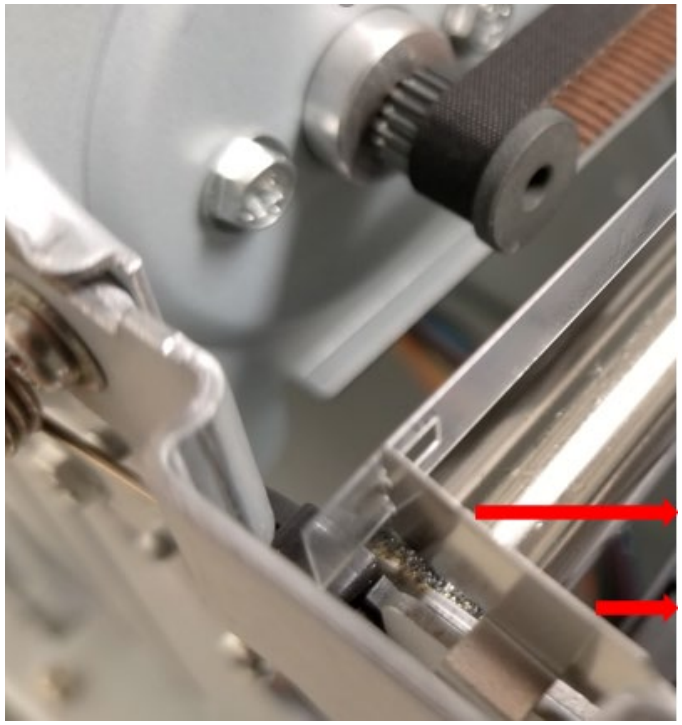
Encoder Strip Cleaning (Plastic Encoder Strip)

12. Secure the encoder strip from the hook on the right side of the printer.





Encoder Strip Cleaning (Plastic Encoder Strip)



13. On left side of the printer push the metal spring that holds the encoder strip to the right.

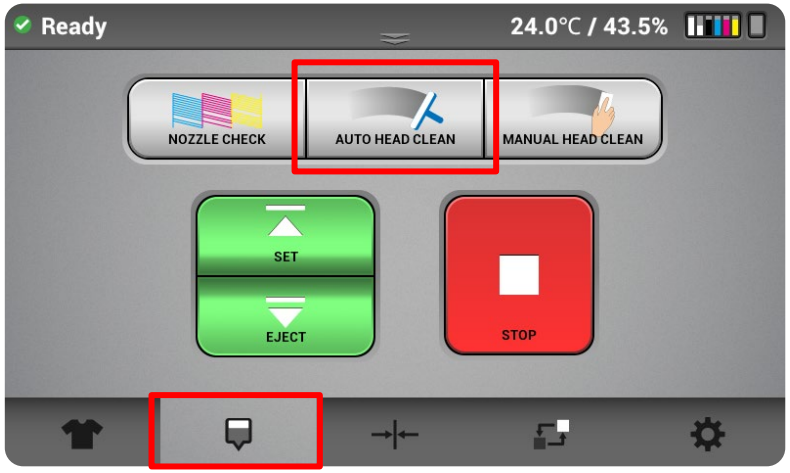
14. Attach the encoder strip to the spring.

Monthly Maintenance

Encoder Strip Cleaning

17. Flip the power switch to the on position and turn on the printer.

18. Close the lid of the printer

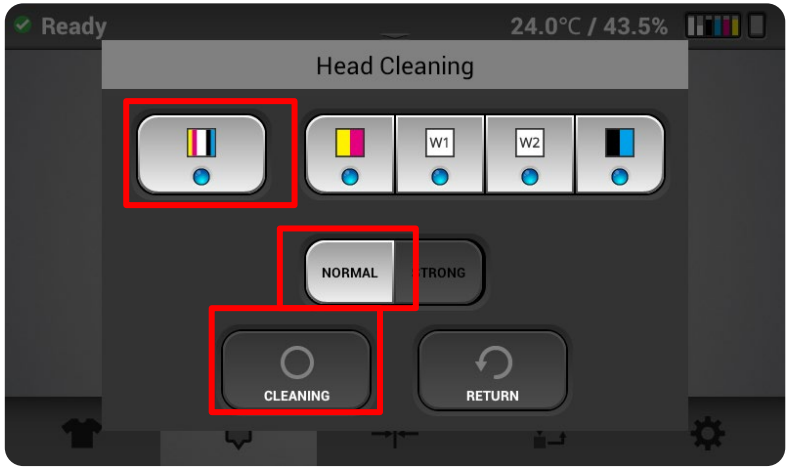


19. Select AUTO HEAD CLEANING

Version: [###] Classification: Internal Owner: [Insert name]

Monthly Maintenance

Encoder Strip Cleaning



20. Press All Heads, NORMAL, and CLEANING

21. Perform NOZZLE CHECK

Monthly Maintenance Video

Monthly Maintenance

Maintenance Videos

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- Daily
- Weekly
- Monthly

Technical Support

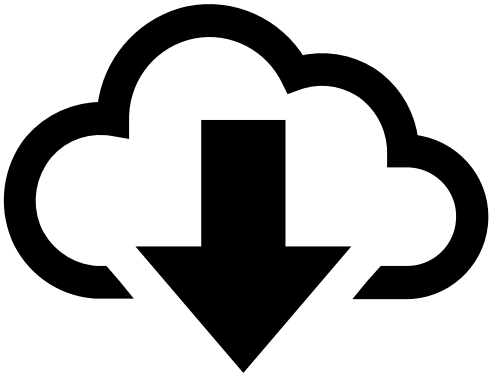
Hours: Mon-Fri 8am - 4pm PST

Telephone: **1-877-646-0999**

E-mail: **tech1@ricohdtg.com**

Downloads:

- Latest Software (Drivers, RIP)
- Graphics



Support Documents:

- Training Videos
- FAQ's (Frequently Asked Questions)
- Need to Knows

Warranty

Additional Resources

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- RICOH Ri 1000 Support Page
- Software Support
- Ask Marica

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