

# VersaPass® Best Practices

- NECESSARY INFORMATION WHEN CONTACTING TECHNICAL SUPPORT
- PRINTHEAD RETURNS



*Beautiful Precision, Simplicity, and Affordability.*

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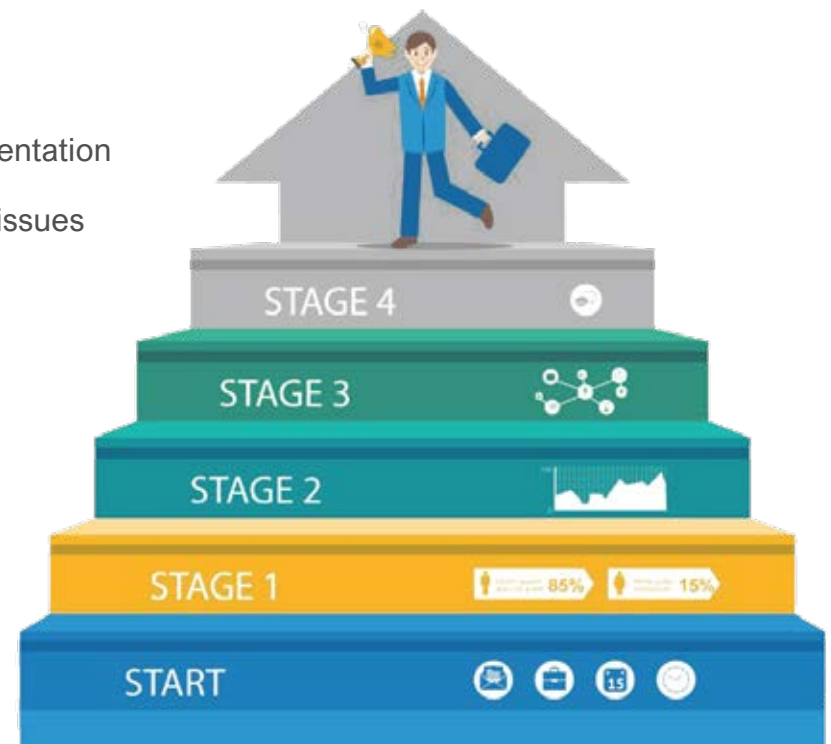
PREPARE PRINTHEAD FOR SHIPMENT

SHIP THE PRINTHEAD



## BEFORE CONTACTING TECHNICAL SUPPORT

1. Follow the troubleshooting steps per your printer's documentation
2. Explore other Memjet webinars that cover many common issues including print quality
3. If the issue is not resolved, write a good issue description
4. Collect basic information



# TROUBLESHOOTING BASICS

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## 1. What changed?

- Sometimes a problem will occur immediately following a change ... a consumable replacement, a new type of print job, settings updated, new operator, etc.

## 2. “Five Whys”

- Part of getting to the “ultimate” root cause of the issue
- Why did that happen? ... okay then, why did that happen? ... take it five levels deep

## 2. Watch for repeated failures

- Sometimes this can point to a training issue or job set-up issue

## 4. Compare a “happy day” scenario to the problem event

- For example, a side-by-side comparison of good page with bad page

## 5. Use your senses!

- Be familiar with the sights and sounds of the printer as it initializes, at print job startup, during printing, midjob servicing, etc.
- Knowing what “normal” looks and sounds like can help pinpoint “abnormal” conditions

## 6. If you have another unit available, try swapping parts to see if the issue follows the part

## WRITE A GOOD ISSUE DESCRIPTION

Before contacting technical support, you must describe the issue symptoms in detail and collect all other pertinent information.

In addition to **What** the issue is ...

- **Who** noticed it? ... operator, supervisor, end customer
- **When** did the issue start? Was it related to a change?
- **How often** ... all the time or at some other frequency?
- **Where** exactly is the issue occurring?

Include the troubleshooting steps tried and their results.

Refer to other information collected like photos of printed output.



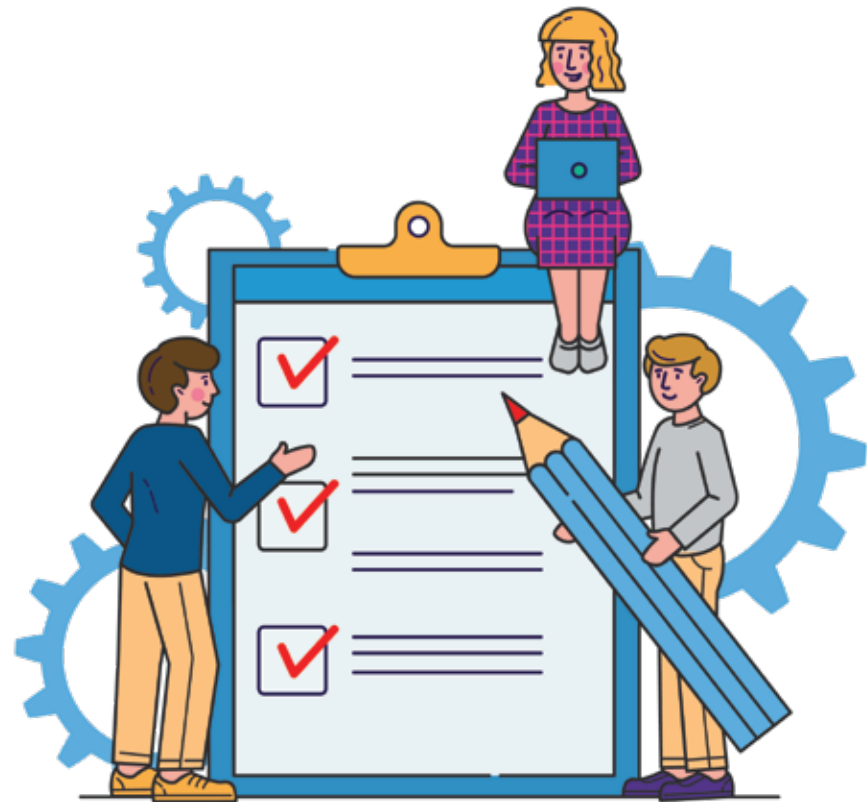
*“The prints look bad”*



*“The operator noticed some faint streaks on every page approximately 40 millimeters from the right side of the page (see attached PDF’s). There were no changes prior to noticing the streaks. After printing a diagnostic page (see attached), we could see that it is the magenta channel. We tried light and deep printhead recovery to no avail. We replaced the microfiber roller and attempted the recovery steps again. The problem wasn’t as severe, but it remained. The printhead has been installed for ~3 months and has printed 27,403 pages.”*

## INFORMATION TO COLLECT FOR ALL ISSUES

- ✓ Printer Manufacturer
- ✓ Printer Model Number
- ✓ Printer Serial Number
- ✓ Installation Date
- ✓ Printer Location (company, city)
- ✓ Detailed Description
- ✓ Troubleshooting Steps Taken & Results
- ✓ Error Messages (if any)
- ✓ Incident Rate & Repeatability  
(e.g. once, occasional, often, always)
- ✓ Clear Photos & Scans



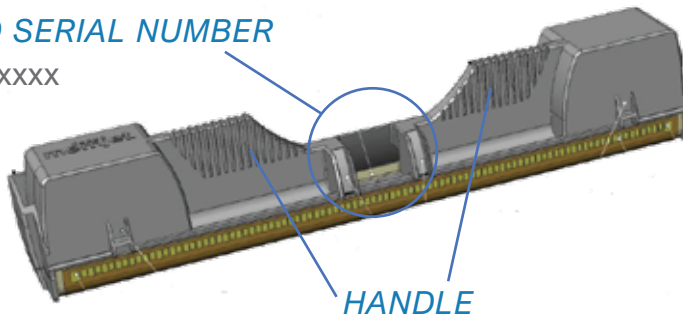
## INFORMATION TO COLLECT FOR PRINT QUALITY ISSUES

- ✓ Printhead Serial Number
- ✓ Detailed PQ Issue Description
- ✓ Printhead Usage Information
- ✓ Troubleshooting: steps taken and their results
- ✓ “What changed?”



## PRINTHEAD SERIAL NUMBER

Format: B00xxxx



## Print Head Details

---

Unique ID	000001420085018
Serial Number	80CF47Y
Model Name	Remora
Part Number	Phi12814
Remain Count	6
Printing Count	12
Power On (p5 sec)	366
Instal Date	Thu,1970-01-01
Days Installed	18
Ink Formula	NEL
Ink Usage ut	145729
Dirty Power Up Count	16
Phi Current KVM:	1
Printed mm kus0:	0
Printed mm kus1:	67248
Printed mm kus2:	0
Printed mm kus3:	0
Printed mm kus4:	0
Printed mm kus5:	0
Printed mm kus6:	0
Printed mm kus7:	0
Printed mm kus8:	0
Printed mm kus9:	0
Printed mm kus10:	0
Printed mm kus11:	0
Number of prepb maint:	0
Number of midjob maint:	1
Number of postjob maint:	0
Number of print jobs:	36153
Total Pages Printed:	2763
FW Version:	20200225
MPCA Serial Null:	

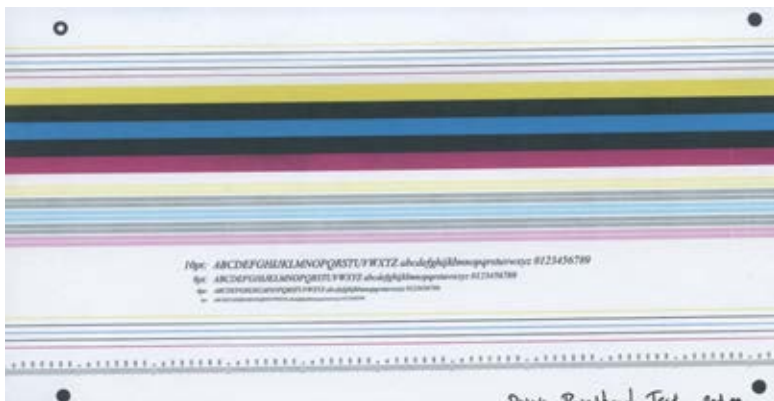
Print Quality / Printhead Issue Data Collection Form			
Company:		Contact:	
Date:			
Basic Info			
Printhead Serial Number:		(optional: 800xxxx)	
Detailed Description of Issue:			
Print Printhead Info Page: <input type="checkbox"/> <a href="#">http://www.epson.com/2/2/printhead</a>		Printhead Install Date:	
Pages Printed:	Ink Usage (ul):	Printhead Reinsertion Count:	
Persistent Interimment (ul):	Number Units Affected:	Ink Type:	
Did anything change (or paper crash, etc.) just prior to issue?			
Print Quality Troubleshooting Info			
Print Samples Showing Issue: <input type="checkbox"/>		Print Diagnostic Plots: <input type="checkbox"/>	
Printhead Recovery ... <small>(describe results, if desired below)</small>	Light: ++ + + - -	Heavy: ++ + + - -	Manual Wipe: ++ + + - -
MPRI: <input type="checkbox"/> Okay <input type="checkbox"/> Not Okay <small>(describe below)</small>	Printhead Cap: <input type="checkbox"/> Okay <input type="checkbox"/> Not Okay	Ink Tubes: <input type="checkbox"/> Okay <input type="checkbox"/> Not Okay	
New Printhead: <input type="checkbox"/> Resolves <input type="checkbox"/> Partially/Resolves <input type="checkbox"/> No Change <input type="checkbox"/> Other: <small>(describe below)</small>			
Printhead in Other Printer: <input type="checkbox"/> No Issue <input type="checkbox"/> Issue Follows PH <input type="checkbox"/> Can't Try <input type="checkbox"/> Other: <small>(describe below)</small>			
KWS Setting:	Midjob Frequency:	Temp:	Humidity:
Printhead Error Message Info			
Error Message:		Error Code:	
Collect Log Files: <input type="checkbox"/> Done	Memjet Firmware Version:		
New Printhead: <input type="checkbox"/> Resolves <input type="checkbox"/> Partially/Resolves <input type="checkbox"/> No Change <input type="checkbox"/> Other: <small>(describe below)</small>			
Printhead in Other Printer: <input type="checkbox"/> No Issue <input type="checkbox"/> Issue Follows PH <input type="checkbox"/> Can't Try <input type="checkbox"/> Other: <small>(describe below)</small>			
Additional Troubleshooting Info			
Troubleshooting Results / Additional Steps Tried			
Important Note: This form is a summary of some important info. Please refer to your printer's troubleshooting documentation for additional steps.			
Printer Model:	Serial Number:	Printer Install Date:	
Media Type/Brand:	Print Speed: 6 ips / 12 ips		
PH Stored/Nozzles-Down? Y / N	Printheads Stored Between -5°C to 45°C (23°F to 113°F)?		Y / N
Printhead exposed to any shock? Y / N			
Any other information you think might be useful?			

It's best to place the printhead in its orange protective cover when not installed in the printer to protect it from damage and for a short time, can help prevent it from drying out.



# INFORMATION TO COLLECT FOR PRINT QUALITY ISSUES

- ✓ Sample prints and diagnostic plots
- ✓ Media information:
  - New?
  - Media type
  - Manufacturer and product name
  - Color profile selections
- ✓ Environmental info: temperature and humidity





# INFORMATION TO COLLECT FOR PRINT QUALITY ISSUES

✓ **Describe the condition and provide photos of certain Memjet parts**

- Microfiber Roller, Printhead Cap
- Ink tubes
- Cartridge Locator Revolver Seals

## CARTRIDGE LOCATOR REVOLVER SEALS

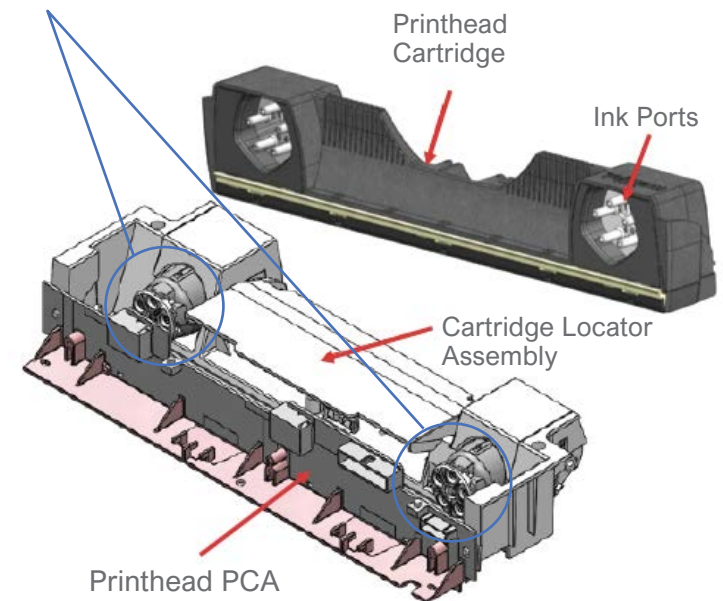
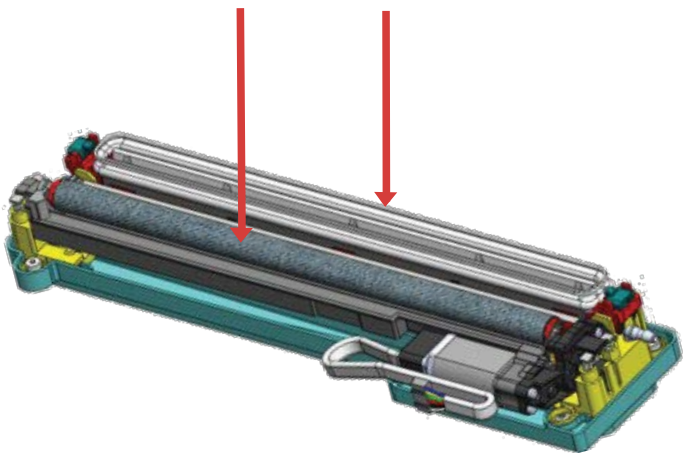


Deformed seal

## INK TUBES



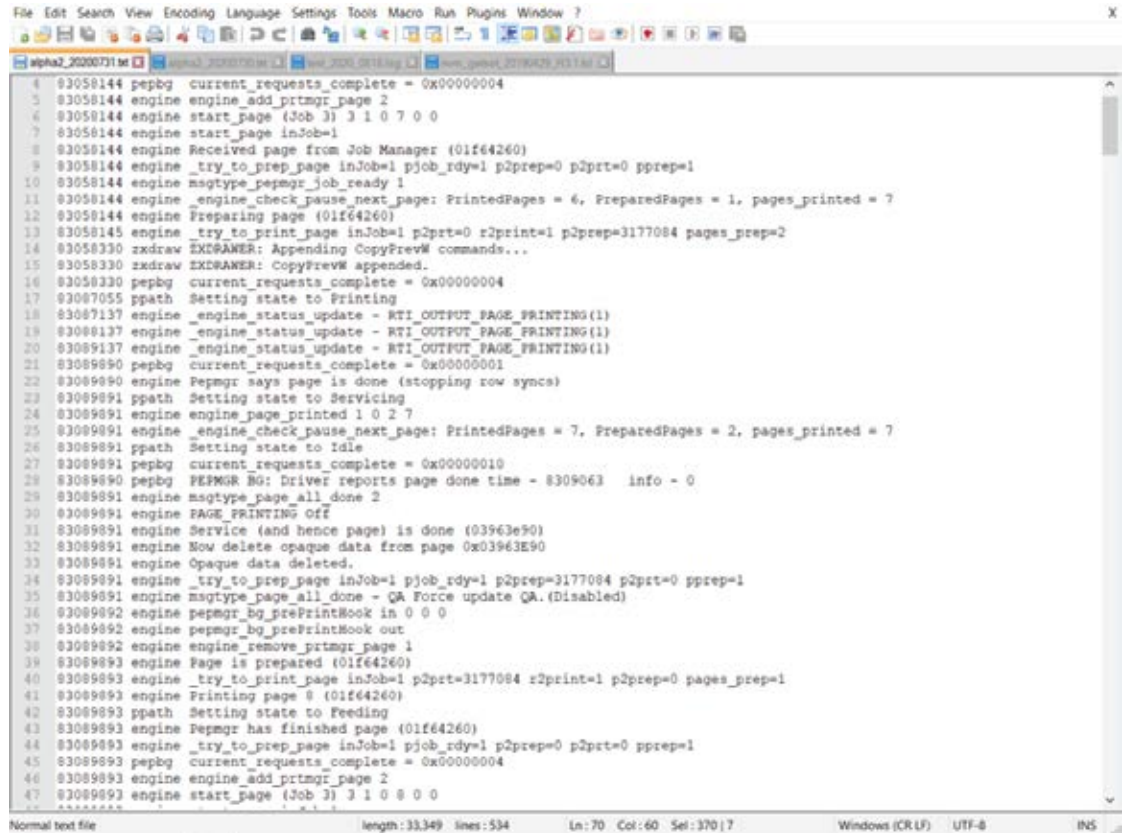
## MICROFIBER ROLLER, PRINthead CAP



# INFORMATION TO COLLECT FOR ERROR MESSAGES

- ✓ Error message
- ✓ Serial debug logs
- ✓ Description of any abnormal paper path behavior
- ✓ Troubleshooting: steps taken and their results

Obtaining this information can shed light into the underlying issue. The method for collecting varies by printer model so check your printer's documentation.



```

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
alpha2_20200731.txt
4 83058144 pepbg current_requests_complete = 0x00000004
5 83058144 engine engine_add_ptmgr_page 2
6 83058144 engine start_page (Job 3) 3 1 0 7 0 0
7 83058144 engine start_page inJob=1
8 83058144 engine Received page from Job Manager (01f64260)
9 83058144 engine _try_to_prep_page inJob=1 pjob_rdy=1 p2prep=0 p2prt=0 pprep=1
10 83058144 engine msgtype_ppmgr_job_ready 1
11 83058144 engine _engine_check_pause_next_page: PrintedPages = 6, PreparedPages = 1, pages_printed = 7
12 83058144 engine Preparing page (01f64260)
13 83058145 engine _try_to_print_page inJob=1 p2prt=0 r2print=1 p2prep=3177084 pages_prep=2
14 83058330 zxdraw EXDRAWER: Appending CopyPrevW commands...
15 83058330 zxdraw EXDRAWER: CopyPrevW appended.
16 83058330 pepbg current_requests_complete = 0x00000004
17 83087055 ppath Setting state to Printing
18 83087137 engine _engine_status update - RTI OUTPUT_PAGE_PRINTING(1)
19 83088137 engine _engine_status update - RTI OUTPUT_PAGE_PRINTING(1)
20 83089137 engine _engine_status update - RTI OUTPUT_PAGE_PRINTING(1)
21 83089890 pepbg current_requests complete = 0x00000001
22 83089890 engine Ppmgr says page is done (stopping row syncs)
23 83089891 ppath Setting state to Servicing
24 83089891 engine engine_page_printed 1 0 2 7
25 83089891 engine _engine_check_pause_next_page: PrintedPages = 7, PreparedPages = 2, pages_printed = 7
26 83089891 ppath Setting state to Idle
27 83089891 pepbg current_requests complete = 0x00000010
28 83089890 pepbg PPMGR BG: Driver reports page done time = 8309063 info = 0
29 83089891 engine msgtype_page_all_done 2
30 83089891 engine PAGE_PRINTING Off
31 83089891 engine Service (and hence page) is done (03963e90)
32 83089891 engine Now delete opaque data from page 0x03963e90
33 83089891 engine Opaque data deleted.
34 83089891 engine _try_to_prep_page inJob=1 pjob_rdy=1 p2prep=3177084 p2prt=0 pprep=1
35 83089891 engine msgtype_page_all_done - QA Force update QA.(Disabled)
36 83089892 engine ppmgr_bg_prePrintHook in 0 0 0
37 83089892 engine ppmgr_bg_prePrintHook out
38 83089892 engine engine_remove_ptmgr_page 1
39 83089893 engine Page is prepared (01f64260)
40 83089893 engine _try_to_print_page inJob=1 p2prt=3177084 r2print=1 p2prep=0 pages_prep=1
41 83089893 engine Printing page 8 (01f64260)
42 83089893 ppath Setting state to Feeding
43 83089893 engine Ppmgr has finished page (01f64260)
44 83089893 engine _try_to_prep_page inJob=1 pjob_rdy=1 p2prep=0 p2prt=0 pprep=1
45 83089893 pepbg current_requests complete = 0x00000004
46 83089893 engine engine_add_ptmgr_page 2
47 83089893 engine start_page (Job 3) 3 1 0 8 0 0
  
```

Normal text file length: 33,349 lines: 534 In: 70 Col: 60 Sel: 370 | 7 Windows (CR LF) UTF-8 IN5

## INFORMATION TO COLLECT FOR SUSPECTED PART FAILURES

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- ✓ Error message, if applicable
- ✓ Serial Number of the suspected failed part
- ✓ Troubleshooting: steps taken and their results



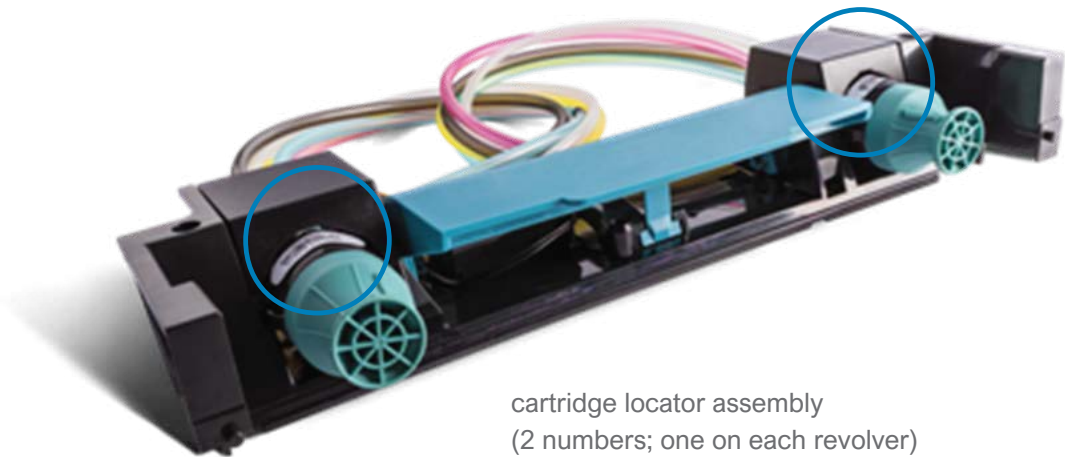
## LOCATING SERIAL NUMBER INFO ON MEMJET PARTS



peristaltic pump



dual pinch valve



cartridge locator assembly  
(2 numbers; one on each revolver)

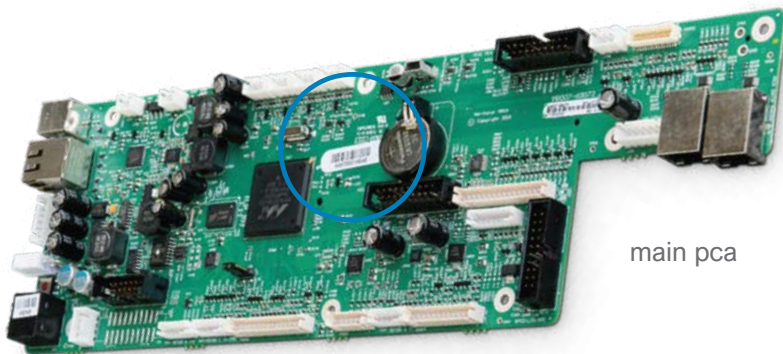
## LOCATING SERIAL NUMBER INFO ON MEMJET PARTS



maintenance module



driver pca



main pca



printhead pca



## CONTACT TECHNICAL SUPPORT

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Now that a detailed issue description has been written and all the relevant information has been collected, you can contact technical support.

This process may seem overwhelming, but the more information the investigator has to work with, typically the quicker and more accurate the analysis will be.

Only if requested, should parts be removed and sent back for failure analysis. If a printhead return is requested, it is critical to follow the appropriate process.



## PRINthead RETURN PROCESS

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If your technical support representative determines that the printhead needs to be returned, please follow these important steps:

1. Gather Items for Printhead Cleaning
2. Remove and Clean the Printhead
3. Prepare Printhead for Shipment
4. Ship the Printhead

It is recommended that these steps are done at the same time to avoid damaging the printhead and to best maintain its condition for analysis.

Do not delay! Ship the printhead out as soon as possible for best results – the accuracy of the failure analysis will be jeopardized with each passing day.





## REQUIRED ITEMS TO CLEAN THE PRINTHEAD



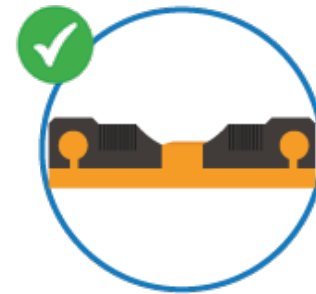
Distilled or  
Deionized Water



Protective  
Gloves



Several Clean, Unused  
Lint-free Microfiber Cloths



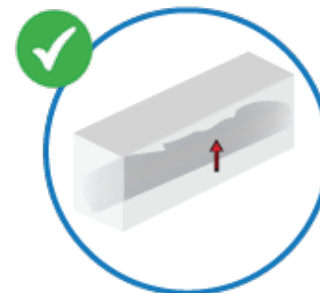
Printhead  
Cover



Large, resealable plastic bag  
large enough for the printhead



Marker



Cardboard  
printhead carton

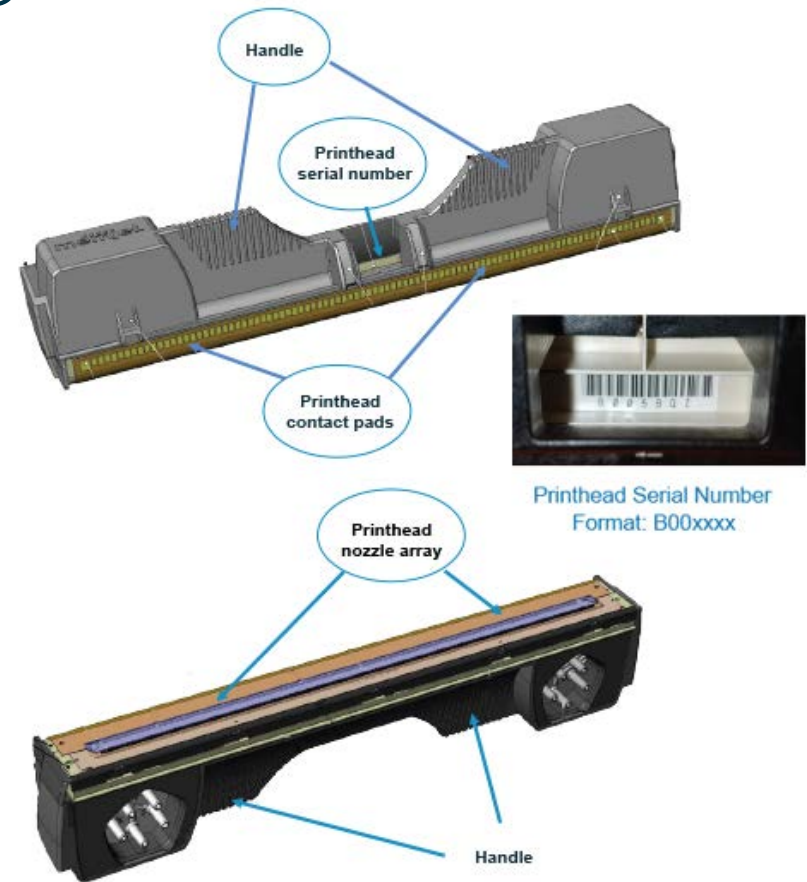


**DO NOT USE: Tissue paper or paper towels OR Wipes containing cleaning fluids, oils, chemicals**

## REMOVE & CLEAN THE PRINTHEAD

After assembling the required items and putting on protective gloves ...

1. Fold and moisten 3 clean, lint-free microfiber cloths with the DI water.
2. Gently clean the orange protective printhead cover. Discard cloth.
3. Remove the printhead from the printer following the standard documented procedure holding the printhead by the handle and careful to not touch the printhead contacts or nozzle array. Do not set it down; proceed to next step.
4. Holding the printhead by the handle, apply a flat face of a moistened cloth to one end of the printhead nozzle array.
5. Using light steady pressure, slowly wipe the nozzle array until you reach the opposite end. Discard cloth.
6. In similar fashion, slowly wipe the printhead contact pads. Discard cloth.
7. Immediately insert the printhead into the protective cover and close the three tabs.



## PREPARE PRINthead FOR SHIPMENT

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1. Write the printhead serial number onto the cardboard printhead carton.
2. Fold and moisten one clean, unused, lint-free microfiber cloth with DI water and insert into the plastic bag.
3. Insert the covered printhead into the plastic bag.
4. Seal the bag and squeeze out as much air as possible.
5. Insert the printhead into the carton keeping printhead nozzles face down.
6. Maintain the carton just like a new printhead with nozzles facing down and in a cool environment away from direct sunlight.



## SHIP THE PRINthead

1. Place the printhead carton into outer shipping box always
  - Use plenty of clean, non-conductive packing material
  - Ensure the printhead cannot shift around during transport
  - Keep printhead nozzles face down
2. Add sample prints and diagnostic plots
  - Place inside a sealable plastic bag
  - Label the bag with printhead serial number
3. Seal the box and label it to ensure proper orientation
4. Ship to the address specified by your printer support team
  - Minimize delay!
  - Wait for authorization if necessary
  - Update case with tracking number





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OR TO PROVIDE FEEDBACK ON THIS RESOURCE:*

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