



AstroJet™ M1 COLOR PAGE PRINTER



OPERATOR MANUAL

Powered by



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SAFETY PRECAUTIONS

THIS EQUIPMENT PRESENTS NO PROBLEM WHEN USED PROPERLY.
OBSERVE SAFETY RULES WHEN OPERATING M1 PRINTER.

BEFORE USING PRINTER, READ THIS MANUAL CAREFULLY AND FOLLOW
RECOMMENDED PROCEDURES, SAFETY WARNINGS, AND INSTRUCTIONS:

- ✓ Keep hands, hair, and clothing clear of rollers and other moving parts.
- ✓ Avoid touching moving parts or materials while machine is in use. Before clearing a jam, be sure machine mechanisms come to a stop.
- ✓ Always turn machine off before making adjustments, cleaning the machine, or performing any maintenance covered in this manual.
- ✓ Power cord and power supply supplied with machine. Plug it into a properly grounded, easily accessible wall outlet near machine. Failure to properly ground machine can result in severe personal injury and/or fire.
- ✓ Power cord and wall plug are primary means of disconnecting machine from power supply.
- ✓ **DO NOT** use an adapter plug on line cord or wall outlet.
- ✓ **DO NOT** remove ground pin from line cord.
- ✓ **DO NOT** route power cord over sharp edges or trap it between furniture.
- ✓ Avoid using wall outlets that are controlled by wall switches or shared with other equipment.
- ✓ Make sure there is no strain on power cord caused by jamming it between equipment, walls or furniture.
- ✓ **DO NOT** remove covers. Covers enclose hazardous parts that should only be accessed by a qualified service representative. Report any cover damage to your service representative.
- ✓ This machine requires periodic maintenance. Contact your authorized service representative for required service schedules.
- ✓ To prevent overheating, do not cover vent openings.
- ✓ Use this equipment only for its intended purpose.

In addition, follow any specific occupational safety and health standards for your workplace or area.

This manual is intended solely for the use and information of Astro Machine Corp., its designated agents, customers, and their employees. The information in this guide was obtained from several different sources that are deemed reliable by all industry standards. To the best of our knowledge, that information is accurate in all respects. However, neither Astro Machine Corp. nor any of its agents or employees shall be responsible for any inaccuracies contained herein.

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SECTION 1 – <i>Getting Acquainted</i>	1
Front View	1
Rear View	2
Print Engine View	3
Ink Tank Door View	4
Control Panel Button/LED Indicators	5
SECTION 2 – <i>Installing Printer</i>	6
Contents of Packaging	6
Choose a Location	6
Unpacking and Setup	6
Remove Service Station Transport Tab and Shipping Tape	7
Assembling Printer	8
Connecting Printer	9
Connecting to Computer	9
Install Printer Driver	10
Install Over USB Connection	10
Install Over Network Connection, Version A	12
Install Over Network Connection, Version B	15
Install Ink Tanks	17
Install Printhead Cartridge	19
Removing Head Media Guide	22
Install/Remove Envelope Attachment Spacers	23
Setting up Feed	24
SECTION 3 – <i>Operating Printer</i>	26
Setting Up a Job in MS Word	26
Printer Driver Properties	28
General Tab	28
Layout Tab	29
Color Tab	31
Import/Export Tab	31
Services Tab	32
Using Printer Toolbox	33
Updating Firmware	40
SECTION 4 – <i>Maintenance</i>	41
Replacing Ink Tanks	41
Cleaning Ink Tank Contacts	43
Cleaning/Replacing Printhead Cartridge	44
Replacing Service Station	50
Replacing Ink Waste Tray	54
Replacing Sheet Separators	54
Jams in Printer	55
Cleaning	56
Shipping or Transporting Printer	58
SECTION 5 – <i>Troubleshooting Guide</i>	61
Memjet® Printhead	61
Printer	62
Errors and Warnings	63

TABLE OF CONTENTS

Appendices	69
Appendix A – Printer Specifications	69
Appendix B – Supplies and Optional Hardware	69
Index	70
Printer Maintenance Schedule	73
Control Panel LED Sequences	75

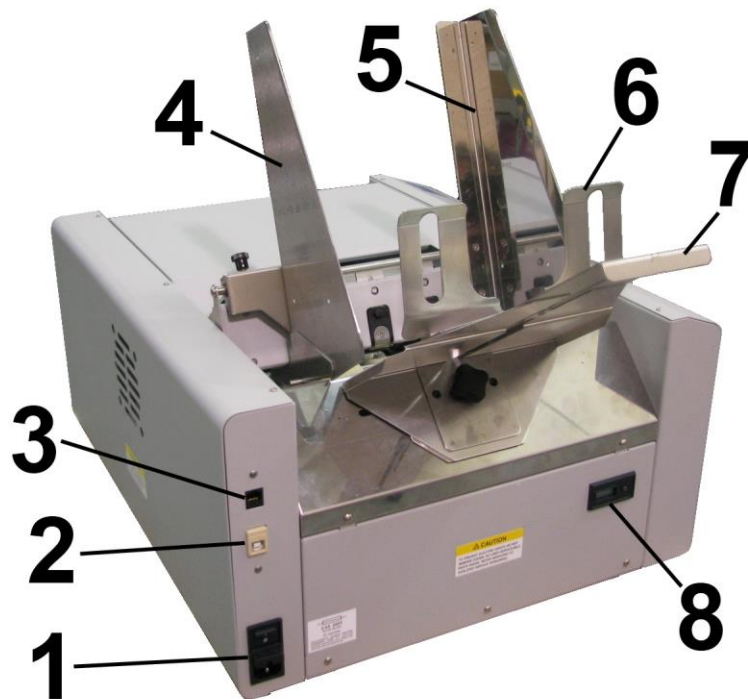
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SECTION 1 – *Getting Acquainted*



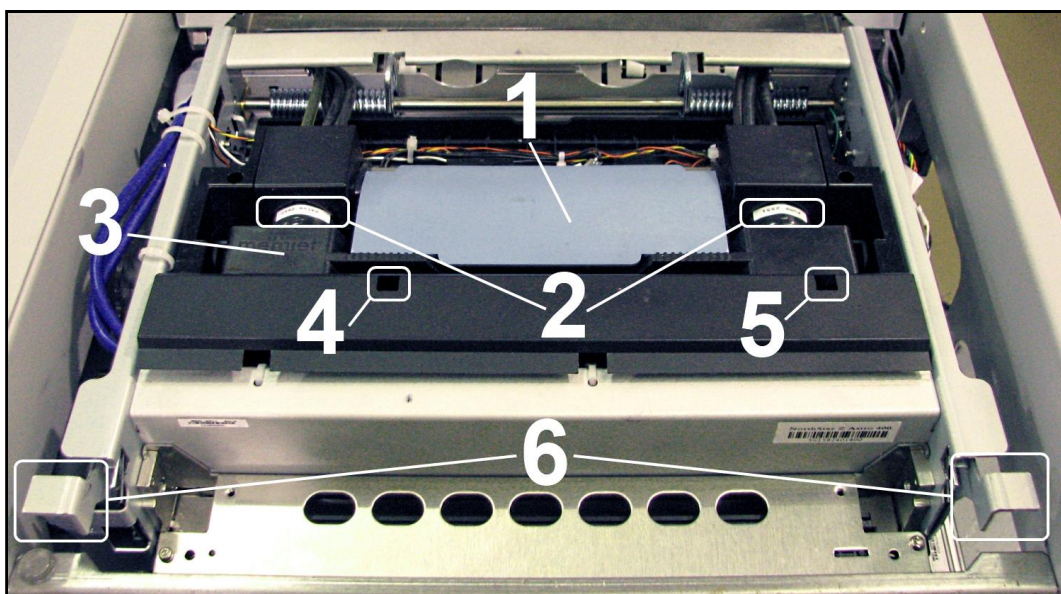
Front View

1.	Cancel LED Button – Cancels job being printed.
2.	Paper LED Button – Press to stop printing, press to restart printing. Press switch to continue printing.
3.	ON/OFF LED Button – Use to turn power ON or OFF during idle time and maintenance.
4.	Rear Guide – Holds media against Front Plate.
5.	Rear Guide Support – Supports the paper/media.
6.	Adjustable Media Guide – Adjusts to hold media against Envelope/Paper Register Guide.
7.	Envelope/Paper Media Guide – All printing is registered against this Guide. It has adjustable positions for envelopes and paper.
8.	Top Cover – Provides access to Print Engine.
9.	Front Cover – Provides access to Service Station and Ink Tanks.



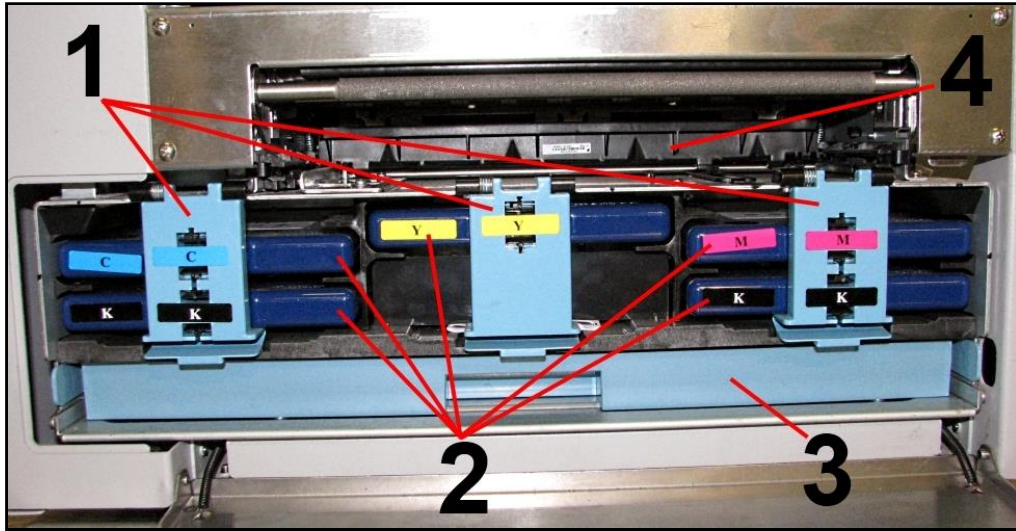
Rear View

1.	Main Power Switch, Receptacle and Fuse – Plug in power cord here. Switch turns main power ON/OFF. <i>(Use Control Panel LED Power switch to turn off machine for cleaning and maintenance).</i> Fuse protects Printer's electronic circuits.
2.	USB Port Connection –USB cable attaches to Printer here.
3.	Network Connection – Network cable plugs in here.
4.	Envelope/Paper Media Guide – All printing is registered against this Guide. It has adjustable positions for envelopes and paper.
5.	Adjustable Media Guide – Adjusts to hold paper/media against Envelope/Paper Media Guide.
6.	Rear Guide – Holds paper/media against Front Plate.
7.	Rear Guide Support – Supports paper/media.
8.	Counter – LCD displays number of pieces run on Printer during its service lifetime. Non-resettable.



Print Engine View

1.	<p>Printhead Latch – When closed, connects Ink Revolver Couplings with Printhead Cartridge. When opened, retracts Ink Couplings from Printhead Cartridge and provides access to Printhead Cartridge for cleaning and replacement.</p> <p>WARNING! Never attempt to open Printhead Latch manually, severe damage will result. Use Printhead Release button function in Toolbox on your PC or press Printhead Latch Release Button (See #4 below).</p>
2.	<p>Ink Revolver Couplings – Connect ink hoses to Printhead Cartridge. Printhead Latch extends and retracts couplings from Printhead.</p>
3.	<p>Printhead Cartridge – Memjet® Printhead produces an 8.5" wide full color print area.</p>
4.	<p>Printhead Latch Release Button* – Button inside opening will initiate a Printhead Latch release cycle. If system is primed, runs a full system deprime cycle before Latch is released. Lightly press button with a non-conductive tool.</p> <p><i>*Same function can be accessed through Printer Toolbox User Interface screen on your computer.</i></p>
5.	<p>Print Ink Channels Button* – Prints 5 bars (1 bar from each ink tank) to indicate how well Printhead Nozzles are working. Press button with a non-conductive tool.</p> <p><i>*Same function can be accessed through Printer Toolbox Diagnostics screen on your computer.</i></p>
6.	<p>Clamshell Latches – Lift both latches at same time to open top half of Print Engine. DO NOT open while Printer is operating. DO NOT lift Clamshell more than 60 degrees. DO NOT let Clamshell drop, close it gently.</p>



Ink Tank Door View

1.	Ink Tank Securing Latches – Used to hold Ink Tanks in slots. NOTE: Make sure both sides at bottom part of latch are engaged.
2.	Ink Tanks – Printer has 5 Ink Tanks: Cyan, Yellow, Magenta, Black, Black
3.	Ink Waste Tray – Catches any waste ink produced by system. Tray is filled with absorbent material. Tabs located at left and right sides of tray secure tray to print engine frame. Please be sure tabs click in to secure tray.
4.	Service Station – Cleans Printhead Cartridge of excess ink and debris, keeps Printhead hydrated and protected when not in use, captures ink used to keep nozzles clear, and acts as a base to support media during printing.

Control Panel Button/LED Indicators

Control Panel has three buttons with LED indicators.

POWER (ON/OFF) – Turns Printer power ON and OFF.
Turn off power for cleaning and maintenance

PAPER (STOP JOB/RESUME) – Stops Paper Feed or Resumes Printing.

- **Press to Stop Paper Feed Immediately.**
Printer will clear media in Printer and stop.
- **Press to Resume Printing.** Restart printing after a paper feed error
(such as a paper jam or running out of paper).



CANCEL (CANCEL JOB) – Cancels a Job.

- **Press to Cancel a Job.** Once Printer has stopped, pressing this button clears job from Printer and Print Queue in Driver. **NOTE:** Cancelled Jobs must be reloaded before printing can resume.

LED Sequence	Printer Status	Recommended Action
Flashing, simultaneously	Powering up or Shutting down	Wait for process to finish
ON, Steady	Printer powered up in Standby mode	Load Media
ON, Steady	One of the printing sensors is covered or dirty	Open Clamshell, remove media or clean sensors
Flashing SLOW	Printer Paused, (Data pending)	Press PAPER to Start/Resume printing or CANCEL to clear job
Flashing FAST	Out Of Paper (Data pending, Media not present)	Reload Media, Press PAPER to Start/Resume printing, or CANCEL to clear job
ON, Steady	Ink Supply error: Ink Out, Ink Missing, Printhead Unprimed...	Replace empty Ink Tank and press PAPER to resume, or Circulate ink
Flashing SLOW, simultaneously	Busy Signal: Performing maintenance, Loading, Ejecting media	Wait for process to finish
Flashing FAST, simultaneously	Hardware error: Door Open, Machine tilted, Service Station Error, Printhead missing...	Find and fix error
Flashing, alternating	Downloading Data, Printing	Press PAPER to Pause printing

MORE TROUBLESHOOTING GUIDES on page 61.
FOR A LARGER CHART TO MOUNT ON THE PRINTER, SEE END OF THIS MANUAL.

SECTION 2 – *Installing Printer*

Contents of Packaging

1.	M1 Printer
2.	Ink Tanks – Cyan, Magenta, Yellow, Black, Black
3.	Printhead Cartridge
4.	Media Side Guides: Registration (<i>Fixed</i>) and Adjustable – mounting screws attached to Printer
5.	Rear Media Support Guide – thumbscrew attached to Printer
6.	Media Support Wedges: Narrow and Wide – mounting hardware attached to Rear Media Support Guide
7.	Envelope Media Guides (3 Guides included: <i>Plastic Guide, Thin Metal Guide, Medium Metal Guide – Medium Metal Guide preinstalled on Printer</i>) Envelope Attachment Spacers (2 installed)
8.	AC Power Cord
9.	USB Cable
10.	Operator Manual
11.	Driver Software CD

Before using Printer:

- Choose a location for Printer
- Unpack and assemble Printer
- Remove Service Station Transport Tab and Shipping Tape
- Plug in Printer and connect it to computer
- Install Printer Driver
- Install Ink Tanks
- Install Printhead
- Set up feed on Printer

Choose a Location

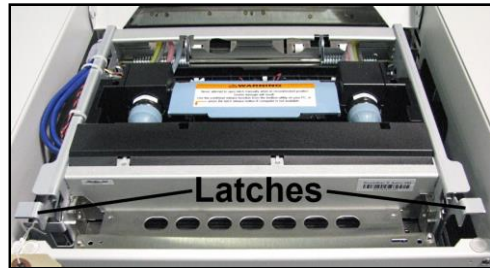
Place Printer on a sturdy level worktable or cabinet at least 9" from any walls. Use Bubble Gauge mounted on Print Engine (*or a small level*) to make sure Printer is level. Protect Printer from excessive heat, dust, and moisture. Avoid placing it in direct sunlight.

Unpacking and Setup

Remove Printer and its parts from carton. Remove all packing tape. Find screws that attach various parts of Guides to Printer are under tape in their respective mounting positions.

Remove Service Station Transport Tab and Shipping Tape

1. Open Top Cover.
2. Release two latches (*one on either side of Print Engine*). Open top half of Clamshell by lifting both levers at same time.



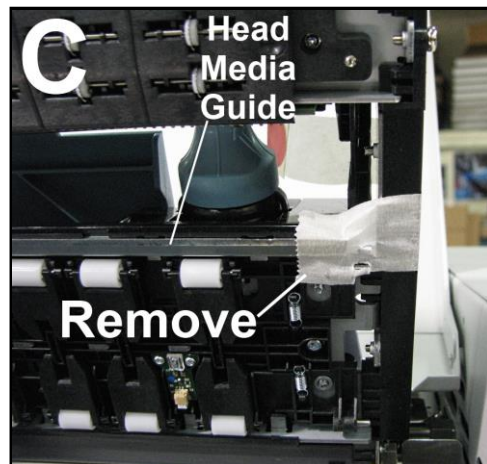
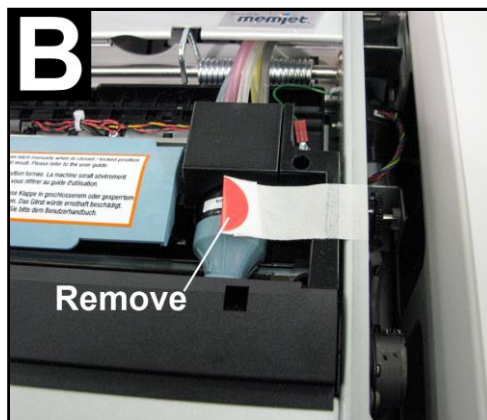
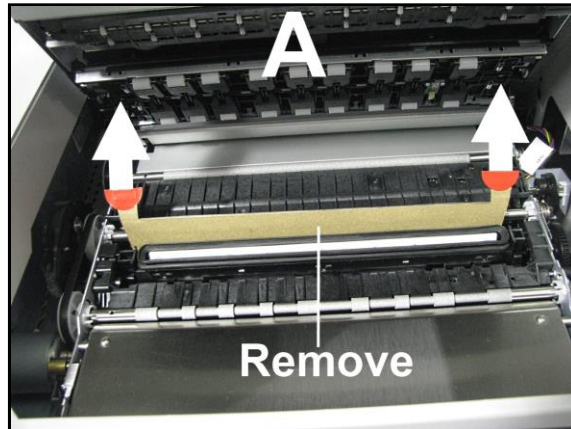
CAUTION

HOLD ONTO BOTH LATCHES WHEN OPENING AND CLOSING PRINT ENGINE CLAMSHELL TO PREVENT DAMAGE.

DO NOT ALLOW CLAMSHELL TO DROP OR SLAM CLOSED.

TO PREVENT DAMAGE TO THE INK LINES, A STOP LIMITS RAISING CLAMSHELL MORE THAN 60°.

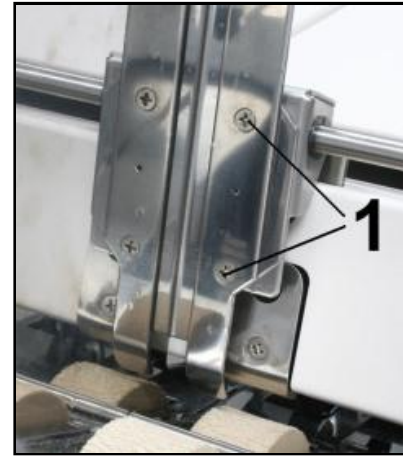
3. Remove cardboard Transport Tab [A] from Service Station.
4. Remove tape [B] securing Head Media Guide. (*If necessary, wipe tape residue off Head Media Guide surface [C].*)
5. Carefully close and latch Upper Clamshell. Close Top Cover.



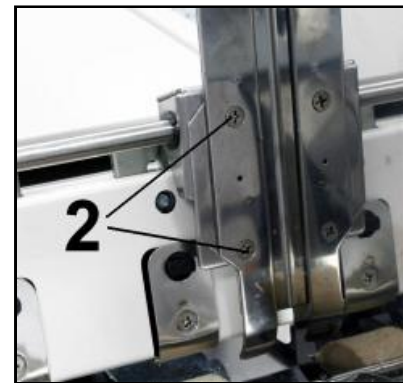
SECTION 2 INSTALLING PRINTER

Assembling Printer

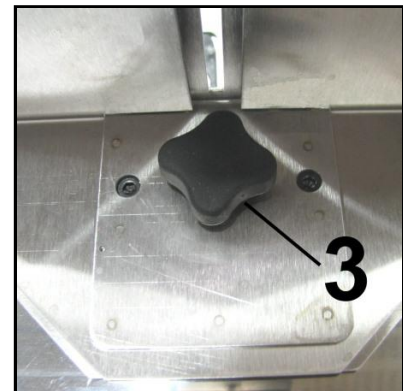
1. Install Adjustable Side Guide with two screws [1].



2. Install Envelope/Media Side Guide with two screws [2] (*included*).



3. Attach Rear Media Support using knob [3] provided.
NOTE: Two outside holes fit over socket head screws.



4. Install Rear Guide using thumbscrew and washer [4] (*included*). Washer goes between screw and Rear Media Support.



Connecting Printer

Plugging in Printer

Plug power cord into receptacle [1] at rear of Printer. Internal power supply in Printer is rated 115 to 240VAC, 50/60 Hz.

CAUTION

DO NOT USE AN ADAPTER PLUGS OR EXTENSION CORDS TO CONNECT PRINTER TO WALL RECEPTACLE.

DO NOT USE OUTLETS CONTROLLED BY WALL SWITCHES.

DO NOT USE OUTLETS THAT SHARE SAME CIRCUIT WITH LARGE ELECTRICAL MACHINES OR APPLIANCES.

Connecting to Computer

Printer connects to computer through **USB Port [2]**.

Network Port [3] for operating in a network environment.

See “**Network Connection Setup**” in “**Using Printer Toolbox**” section.

Turning Power ON and OFF

Powering Up Printer:

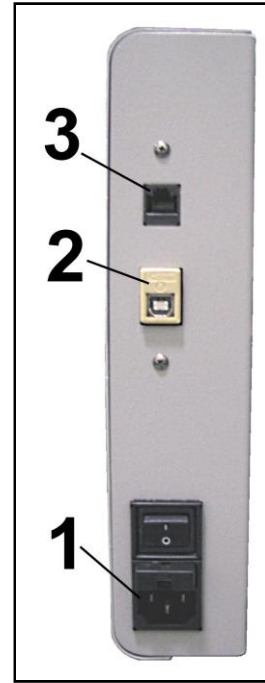
1. Press Main Power Switch on Rear Panel.
2. Press Power Button on Control Panel.

Powering Down Printer:

CAUTION

WHENEVER POWERING DOWN UNIT, ALWAYS:

1. PRESS POWER BUTTON ON CONTROL PANEL.
2. WAIT FOR PRINTER TO STOP PROCESSING.
3. THEN PRESS MAIN POWER SWITCH ON REAR PANEL.



Install Printer Driver

For Printer software to operate properly, check that computer system meets **minimum requirements**:

- **Operating System:** Windows 8/8.1, Windows 10 (*Desktop Mode only*). Windows XP, Windows Vista, Windows 7. Supports 32 and 64 bit systems. (*You must have administrative privileges on system.*) **NOTE:** Win 8, 8.1 and Windows 10 will only work in desktop mode. No Win 8 or 10 metro apps will be supported (*applications that work in a Windows 8 or 10 only environment*).
- **Microprocessor:** Pentium II, 2 GHz minimum (*Pentium Dual Core, 2.5 GHz or better, is optimal*)
- **System memory:** 2 GB minimum; or as recommended for your operating system.
- **Free hard-disk space:** At least 10 GB.
- **Web Browser:** Firefox recommended; Chrome, Safari, and Opera also supported.
- CD/DVD drive.
- **USB port (2.0/3.0):** (*Ports will be identified as “USB” or “Enhanced” in Device Manager*)
- Microsoft .Net Framework version 3.5 (*for 32 bit systems*) or Microsoft .Net Framework version 4 (*for 64 bit systems*) must be installed. **NOTE:** Even if a higher .NET Framework version is installed; version 3.5 or 4 must also be installed, or Toolbox will not open.

IMPORTANT: Before installing Printer software (*Toolbox and Driver*), **temporarily disable all antivirus programs and firewalls**. In addition, you must be logged onto system with full administrative privileges (*admin rights*).

NOTE: If installing over USB, **do not plug in USB cable until prompted**.

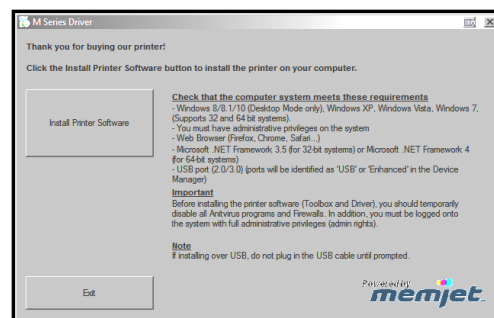
Install Over USB Connection

This is the procedure for installing the Print Driver over the USB connection. The procedures for installing the Print Driver over a network connection follow.

1. Check that Printer is plugged in and turned OFF.
Disconnect USB connection if already plugged in.
Install disk supplied with Printer in your CD drive.
When **AutoPlay** Window opens, click **“Run Setup.exe”** to start.

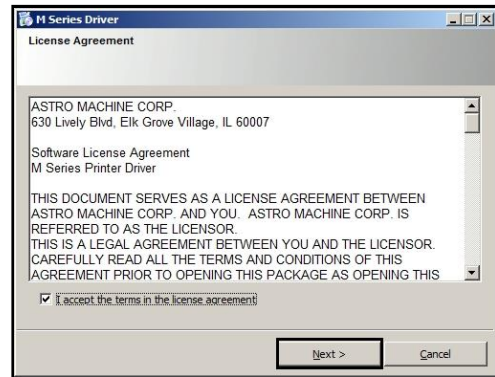


2. **Install Printer Software.** Make sure computer system meets **minimum requirements** and you followed other instructions listed on screen. Click **“Install Printer Software”**.

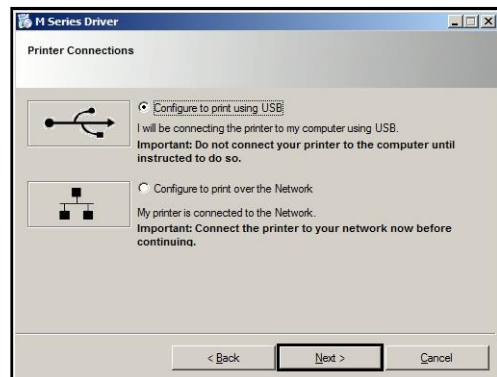


3. License Agreement.

Check “I accept...” then click “Next>”.

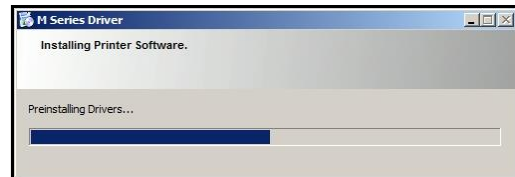


4. Printer Connections. Click “Configure to print using USB”. Then click “Next>”.



5. Installing Printer Software.

Software download begins.



6. Would You Like to Install This Device Software? Click “Install”.

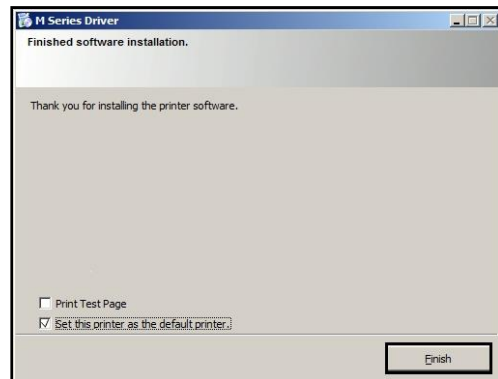


7. Connect Device Now. Turn Printer ON and connect USB cable. **Don't click on either button.** Software will finish installing.

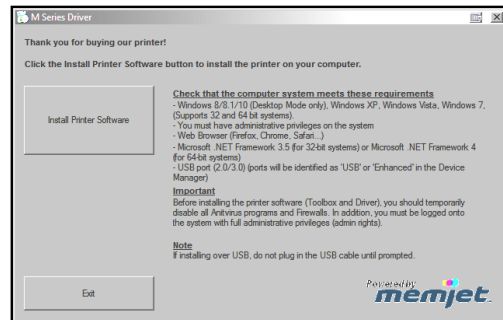


SECTION 2 INSTALLING PRINTER

8. **Finished software installation.** Do not check the **Print Test Page** as Printer is not set up yet. You can check “Set this printer as the default printer” at this time. Click “**Finish**”.



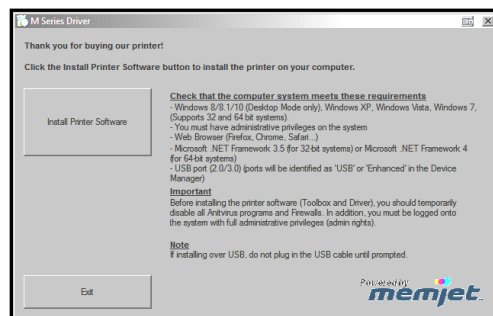
9. **Install Printer Software.**
Click “**Exit**” to close CD.
10. Restart computer to complete installation.



Install Over Network Connection, Version A

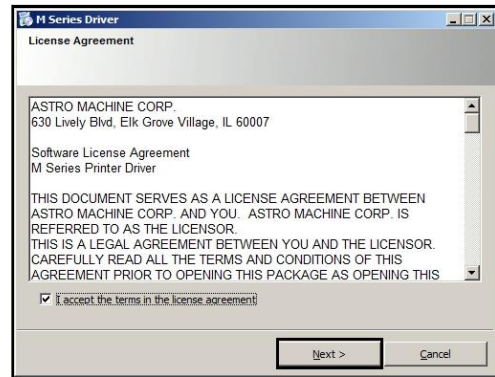
Use this procedure to install the Print Driver over the Network connection. This procedure works for almost all networks that allow automatic assignment of the IP address (*factory default*). **NOTE: Copy the 12-digit Hardware ID number listed on the Printer(s) on the label located below the Ethernet port so you can identify the Printer(s) in a later step.**

1. Check that Printer is plugged in and turned ON. **Make sure the Ethernet (network) cable is plugged into the Ethernet port on the Printer.** Install disk supplied with Printer in your CD drive. When **AutoPlay** Window opens, click “**Run Setup.exe**” to start.
2. **Install Printer Software.** Make sure computer system meets **minimum requirements** and you followed other instructions listed on screen. Click “**Install Printer Software**”.

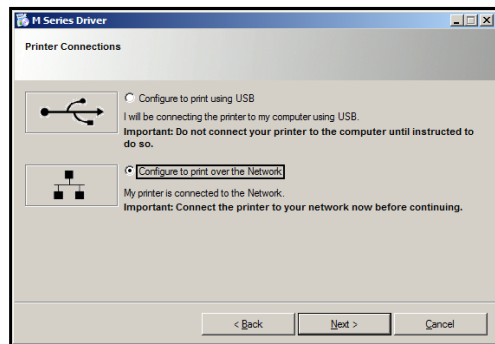


3. **License Agreement.**

Check “I accept...” then click “Next>”.

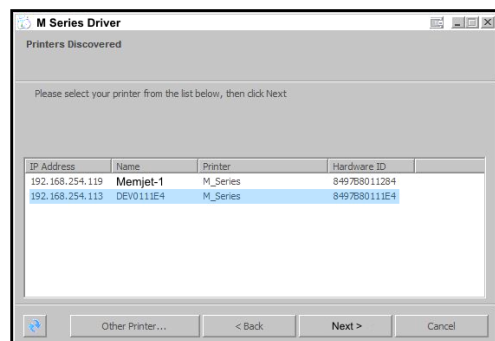


4. **Printer Connections.** Click “Configure to print using the Network”. Make sure the Printer is connected to the Network. Then click “Next>”.



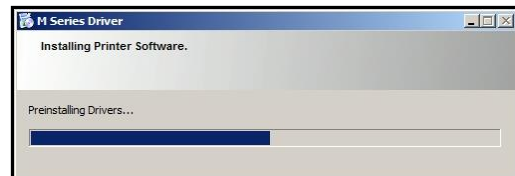
5. **Printers Discovered.** A list of available Printers opens. Check the **Printer** column to verify you have an **M-Series** printer. Check the **Hardware ID** column and match the number listed to the number you copied previously from the Printer label. Select that Printer. Click “Next>”.

NOTE: If the Printer does not appear on the list, the IP address may have to be assigned manually. See “Install Over Network Connection, Version B”.



6. **Installing Printer Software.**

Software download begins.



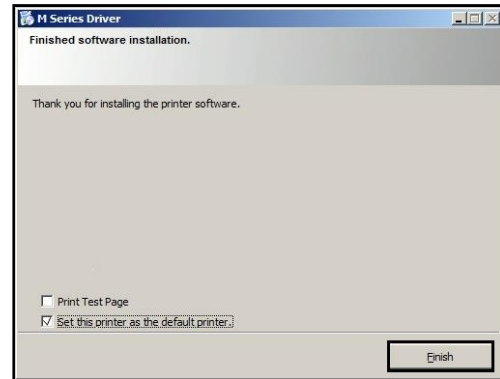
7. **Would You Like to Install This Device Software?** Click “Install”.



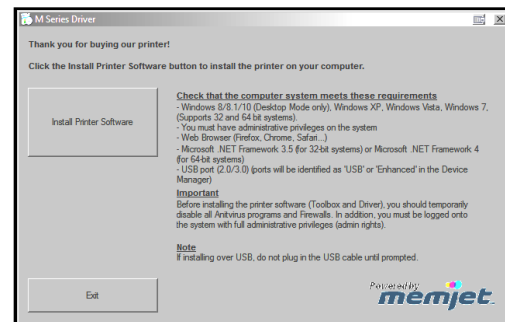
SECTION 2

INSTALLING PRINTER

8. **Finished software installation.** Do not check the **Print Test Page** as Printer is not set up yet. You can check “Set this printer as the default printer” at this time. Click “**Finish**”.



9. **Install Printer Software window.** Click “**Install Print Software**” again to install software on another Printer, or click “**Exit**” to close the CD.



Tip: To help distinguish between multiple M-Series Drivers on your system; open the “**Printers and Faxes**” (*Devices and Printers*) folder and rename the Printers. **For example**, rename a network-configured printer “**M Series (Network-1)**” and a USB-configured printer “**M Series (USB)**”.

To open the “Toolbox” utility over an Ethernet (network) connection:
Click **Start, All Programs, Memjet, M Series Driver, Toolbox**.

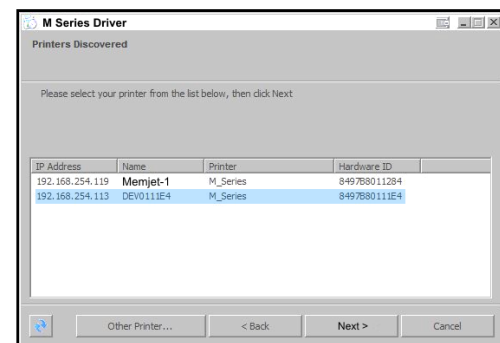
If more than one copy of the M-Series Driver is installed, you will have to choose which device you want the **Toolbox** to connect to. To help choose the proper device, you can identify the Printer(s) using the **Hardware ID** you copied earlier or you can rename the Printer(s) as outlined in the **Tip** above.

Example:

M-Series Driver configured for USB: suggested name “**M Series (USB)**”

M-Series Driver (Copy 1) configured for Network: suggested name “**M Series (Network-1)**”.

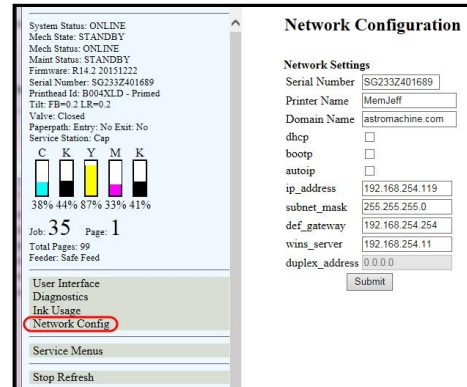
M-Series Driver (Copy 2) configured for Network: suggested name “**M Series (Network-2)**”.



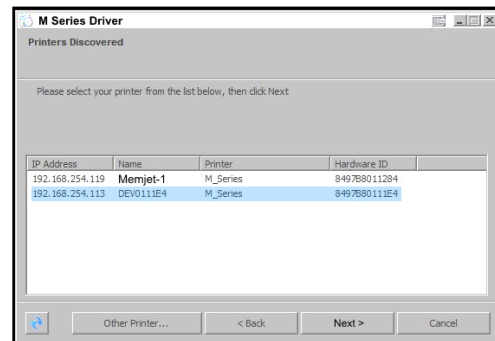
Install Over Network Connection, Version B

Use this procedure to install the Print Driver over the Network connection on **Static IP** systems requiring that an IP address is assigned manually. **NOTE: Copy the 12-digit Hardware ID number listed on the Printer(s) on the label just below Ethernet port so you can identify the Printer(s) in a later step.**

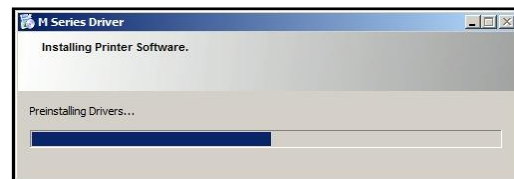
1. Install the Printer Software over a USB connection. This can be done using a nearby computer or laptop. Once the Driver and Firmware are installed on the Printer, use that same computer to open the **Printer Toolbox**.
2. Click **“Network Config”** on the **User Interface** window. The **Network Configuration** window opens. Your IT support person can fill in the necessary information (*or you can get it from them.*) Click **“Submit”**.
3. Disconnect the USB from the local computer or laptop. If not using that computer for printing, the M-Series Software can be uninstalled.



4. Connect the Ethernet cable to the Ethernet port and rerun the **“Install Over Network Connection, Version A”** procedure. The Printer should now appear on the **“Printers Discovered”** window. The Printer can still be identified by its **“Hardware ID”**, but the new IP address entered by your IT support person (*or operator*) is shown. Select the desired Printer and click **“Next>”**. Follow the remaining steps.



5. **Installing Printer Software.** Software download begins.



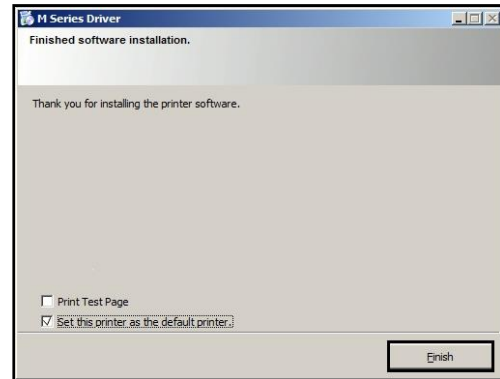
6. **Would You Like to Install This Device Software?** Click **“Install”**.



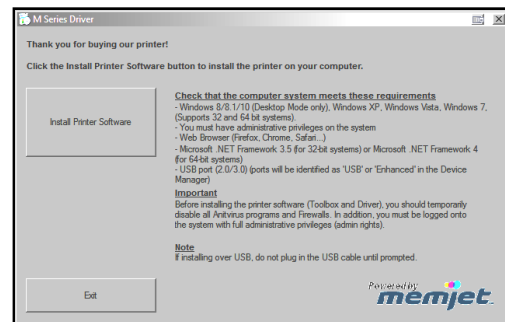
SECTION 2

INSTALLING PRINTER

7. **Finished software installation.** Do not check the **Print Test Page** as Printer is not set up yet. You can check “Set this printer as the default printer” at this time. Click “**Finish**”.



8. **Install Printer Software window.**
Click “**Exit**” to close the CD.



Tip: To help distinguish between multiple M-Series Drivers on your system; open the “**Printers and Faxes**” (*Devices and Printers*) folder and rename the Printers. **For example**, rename a network-configured printer “**M Series (Network-1)**” and a USB-configured printer “**M Series (USB)**”.

To open the “Toolbox” utility over an Ethernet (network) connection:
Click **Start, All Programs, Memjet, M Series Driver, Toolbox**.

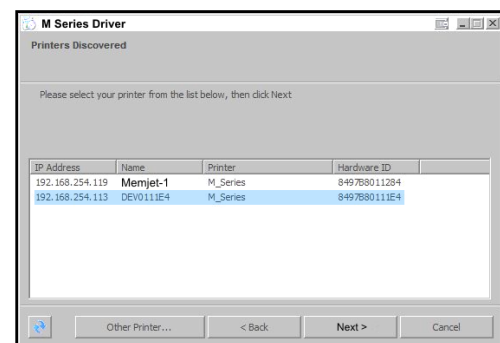
If more than one copy of the M-Series Driver is installed, you will have to choose which device you want the **Toolbox** to connect to. To help choose the proper device, you can identify the Printer(s) using the **Hardware ID** you copied earlier or you can rename the Printer(s) as outlined in the **Tip** above.

Example:

M-Series Driver configured for USB: suggested name “**M Series (USB)**”

M-Series Driver (Copy 1) configured for Network:
suggested name “**M Series (Network-1)**”

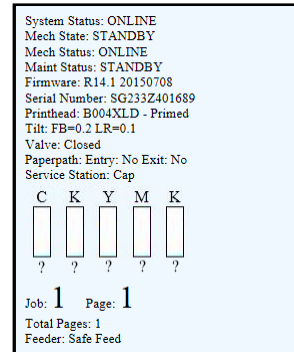
M-Series Driver (Copy 2) configured for Network:
suggested name “**M Series (Network-2)**”



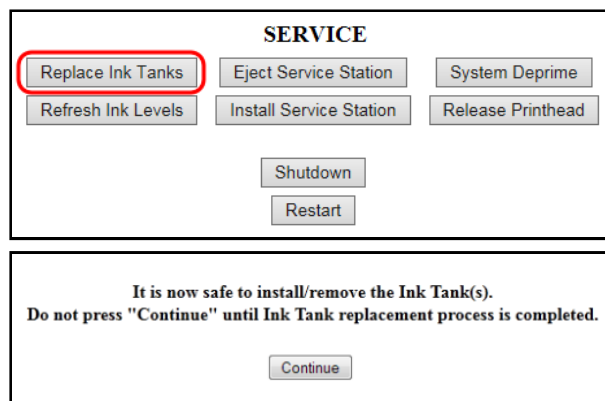
Install Ink Tanks

Printer uses one Printhead Cartridge and five Ink Tanks (two Black, one Cyan, one Magenta, and one Yellow).

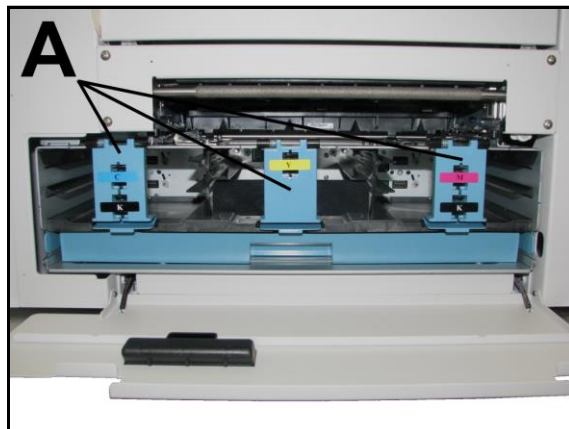
1. **Open Printer Toolbox.** Go to **Start Menu** and open **"Toolbox"**. System Status information appears in upper left corner of **User Interface** window. Note that **"CKMYK"** boxes are empty.



2. **Click "Replace Ink Tanks".** (Disconnects Printer communication with Ink Tanks and allows safe installation and replacement.) Once **"Confirm"** screen displays, it is safe to install Ink Tanks. **IMPORTANT: DO NOT press "Continue" until after installing Ink Tank(s) and closing Ink Tank Latches.**



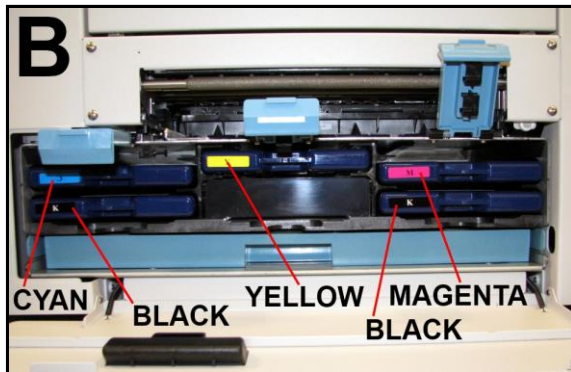
3. Open Ink Tank Door (hinged at bottom). Open three Latches [A].
4. Remove Ink Tank(s) from packaging.



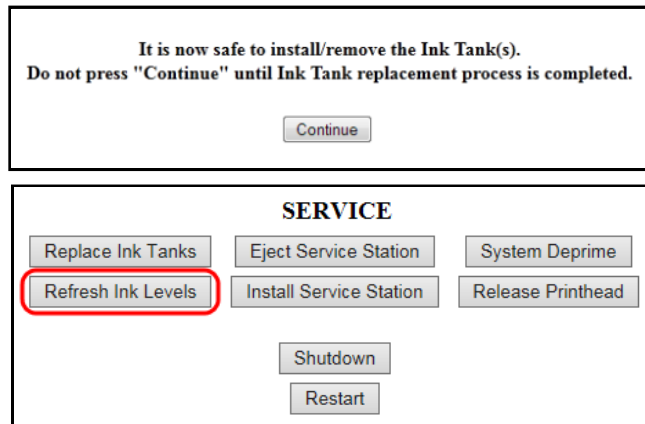
SECTION 2

INSTALLING PRINTER

5. Insert Ink Tanks (*labels up*) into appropriate color slots [B]. Close three Ink Tank Latches. **INSTALLATION TIP: Make sure Ink Tanks seat properly. Insert Ink Tank into appropriate Ink Station, then pull Ink Tank back about an inch and push forward firmly to insure that Ink Nozzles penetrate seals on Ink Tanks.**



6. Click “Continue” on Confirm screen, then “Refresh Ink Levels” on User Interface screen. Ink colors fill in as Ink Tanks are installed. If ink colors do not fill in after a few seconds, click “Replace Ink Tanks” again and reinstall Ink Tank(s).
7. Close Front Cover.



WARNING!

Ink in Ink Tanks may be harmful if swallowed. Keep new and used Ink Tanks out of reach of children. Discard empty tanks immediately.

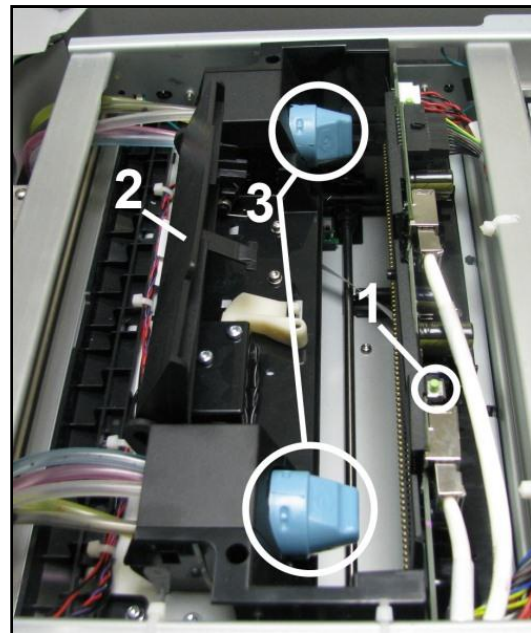
Install Printhead Cartridge

Printhead Cartridge is a delicate precision device. Handle with extreme care to avoid damage and issues that could degrade print quality.

CAUTION

- Use electrostatic discharge (ESD) protection when handling.
- Hold Printhead Cartridge by handles **ONLY**.
- **DO NOT** touch ink couplings, nozzle surface or electrical contacts.
- **DO NOT** unpack Printhead Cartridge until Printer is ready for installation. Once unwrapped, delay in installing Printhead can compromise print quality due to dehydration.
- **DO NOT** place an unwrapped Printhead on any surface before installing. Protect Printhead from scratches, dust, fibers, dirt and other contaminants at all times.

1. With Printer power ON, open Top Cover. Press Printhead Latch Release Button [1]. Printer runs, then Latch pops open [2].
NOTE: Remove Cap Protectors on Ink Nozzles [3]. Be sure to open Latch fully to retract Ink Nozzles.

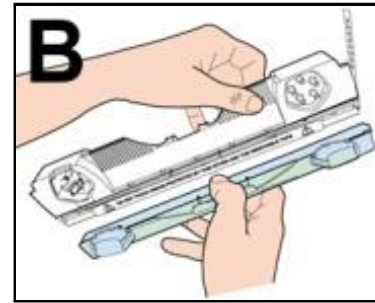
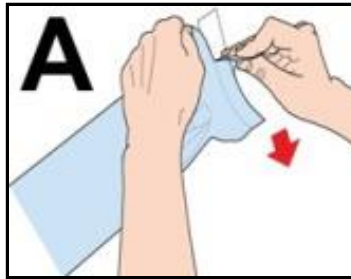


CAUTION

DO NOT PRY OR MANUALLY LIFT PRINthead LATCH OR LATCH MAY BREAK. ONLY OPEN LATCH USING RELEASE BUTTON ON PRINTER OR PRINthead RELEASE COMMAND IN PRINTER TOOLBOX.

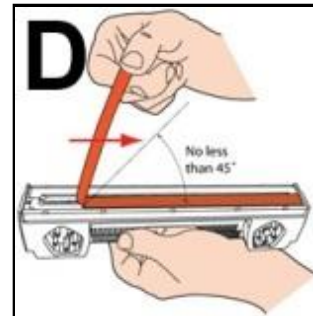
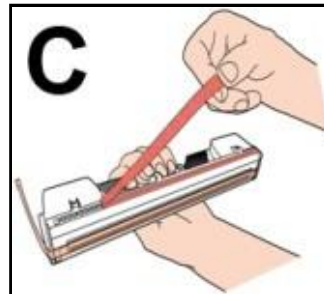
SECTION 2 INSTALLING PRINTER

2. [A] Carefully remove Printhead Cartridge from foil packaging. Tear foil at notch or cut the end with scissors.



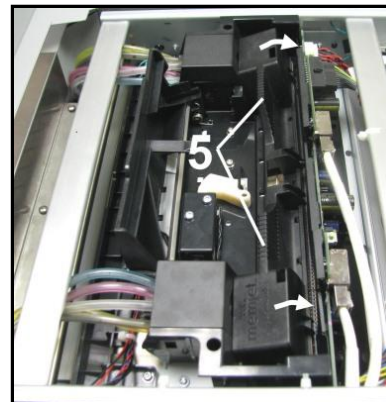
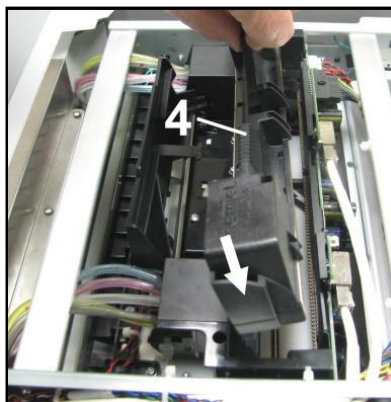
- [B] Remove protective plastic cover. Hold Printhead by handle and unclip cover from Printhead.

- [C] Remove protective strip from Printhead Electrical Contacts. Once removed, DO NOT allow strip to touch electrical contacts.



- [D] Remove protective strip from Printhead Nozzles. Hold Printhead by the handle. Pull strip tab and slowly peel strip from Printhead. DO NOT pull strip at less than a 45° angle from Printhead surface. DO NOT allow removed strip to touch Printhead Nozzles.

3. Carefully insert Cartridge into compartment at an angle [4], with Printhead surface facing down and Ink Nozzles facing Ink Hoses. Once seated, gently tilt Cartridge back until it snaps into an upright position [5]. DO NOT FORCE Cartridge into position.



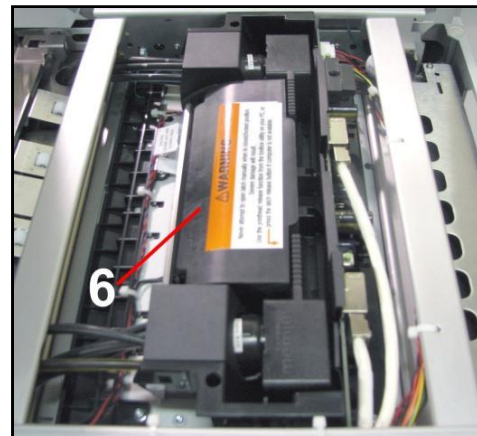
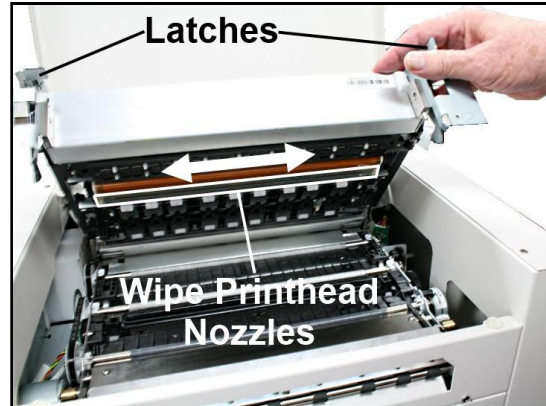
4. **Wet Printhead Surface.** (*Ensures that Printhead will prime correctly.*) Open Top Cover. Release and lift two latches **at same time** to raise Print Engine Clamshell. **Moisten Printhead nozzles** using distilled water and a damp, lint-free cloth, wiping end to end. (*Gray strip located below orange strip.*) Close and latch Print Engine Clamshell.

CAUTION

HOLD ONTO BOTH LATCHES WHEN OPENING AND CLOSING PRINT ENGINE CLAMSHELL TO PREVENT DAMAGE.

DO NOT ALLOW CLAMSHELL TO DROP OR SLAM CLOSED.

TO PREVENT DAMAGE TO INK LINES, A STOP LIMITS RAISING CLAMSHELL MORE THAN 60°.



5. **Close Printhead Latch [6].** Printer starts up and primes ink into Printhead. (*May take a few minutes.*) Make sure ink is flowing through hoses.
6. **Watch Toolbox screen.** Notice some information is in *red*. As Printer circulates ink and primes system, these fields should turn *black*.
7. When Printer stops processing and all fields in System Status are *black*, Printer is ready for use. Close Top Cover.

NOTE: Printer may take up to 12 minutes to set itself up during initial startup. This is normal.

System Status: ONLINE	
Mech State: STANDBY	
Mech Status: ONLINE	
Maint Status: STANDBY	
Firmware: R14.1 20150708	
Serial Number: SG233Z401689	
Printhead: B004XLD - Primed	
Tilt: FB=0.2 LR=0.1	
Valve: Closed	
Paperpath: Entry: No Exit: No	
Service Station: Cap	
C	K
71%	70%
Y	M
68%	67%
K	
70%	
Job: 1 Page: 1	
Total Pages: 1	
Feeder: Safe Feed	
User Interface	
Diagnostics	
Ink Usage	
Network Config	
Service Menus	
Stop Refresh	

Removing Head Media Guide

Remove Head Media Guide if primarily printing on thin, flat stock (*that is, not printing large batches of envelopes*) and are encountering print quality issues. Attachment is used to flatten envelope flap for better print consistency. Three Guides are included with the Printer to handle different types and thicknesses of media. Plastic for flat sheet media; thin metal and medium metal for thin to thick envelopes. Medium metal Media Guide is preinstalled on Printer.

1. Open Top Cover
2. Open Print Engine Clamshell.

CAUTION

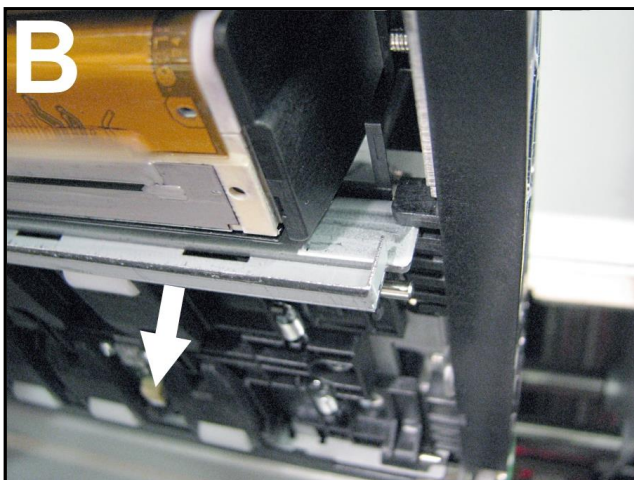
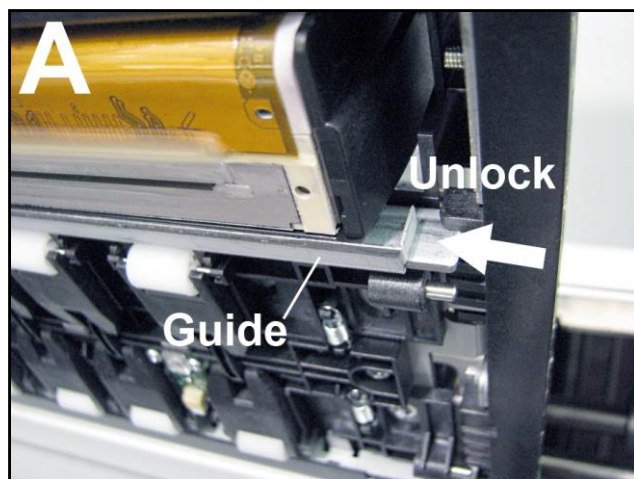
HOLD ONTO BOTH LATCHES WHEN OPENING AND CLOSING PRINT ENGINE CLAMSHELL TO PREVENT DAMAGE.

DO NOT ALLOW CLAMSHELL TO DROP OR SLAM CLOSED.

TO PREVENT DAMAGE TO INK LINES, A STOP LIMITS RAISING CLAMSHELL MORE THAN 60°.

3. [A] & [B] Slide Envelope Printing Attachment to the left and pull down on Head Media Guide to release it from metal support.

[C] Remove Guide from Printer.
Save for later use.

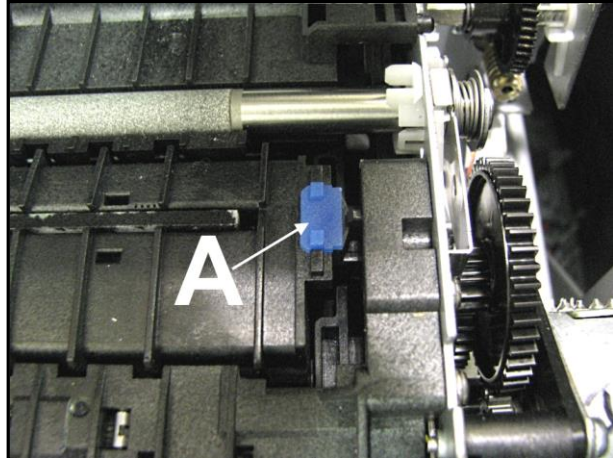


Install/Remove Envelope Attachment Spacers

Install Envelope Attachment Spacers if you are printing large volumes of envelopes.
Remove Spacers if you are primarily printing sheet stock. **NOTE: Spacers are preinstalled on Printer.**
DO NOT use spacers without Envelope Attachment (*Head Media Guide*).

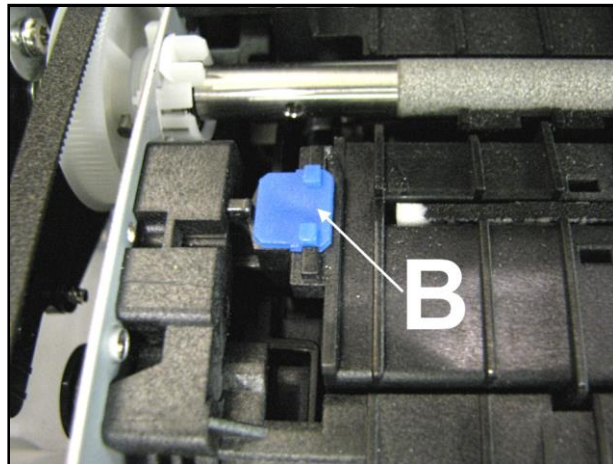
Install:

1. Insert right-hand Spacer (*smaller*) into hole in Service Station Platen [A].
2. Insert left-hand Spacer (*larger*) in hole on left end of Service Station Platen [B].
3. Wipe Printhead Nozzles end to end using distilled water and a damp lint-free cloth. Close and latch Printhead Clamshell. Close Top Cover.



Remove:

1. Carefully pull out right-hand Spacer (*smaller*) in hole in Service Station Platen [A].
2. Carefully pull out left-hand Spacer (*larger*) in hole on left end of Service Station Platen [B].
3. Wipe Printhead Nozzles end to end using distilled water and a damp lint-free cloth. Close and latch Printhead Clamshell. Close Top Cover.



NOTE: When removing Head Media Guide or servicing or replacing Service Station, DO NOT discard Spacers, remove and save or reuse.

SECTION 2

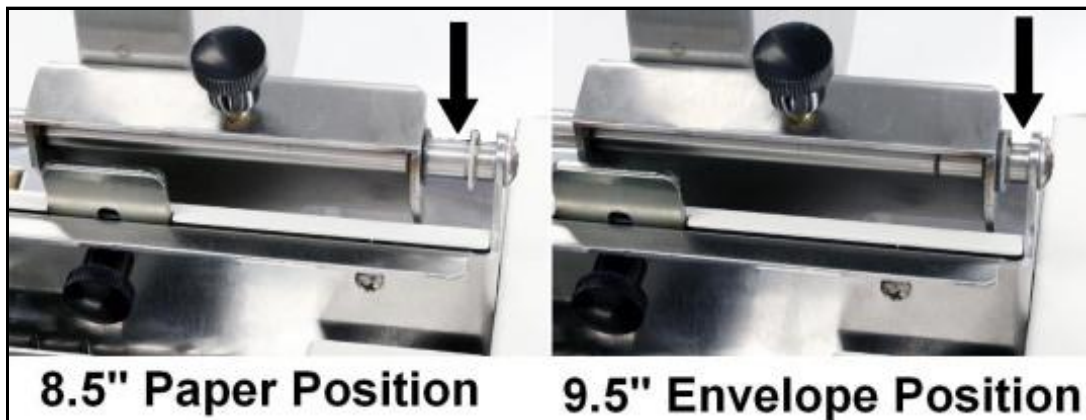
INSTALLING PRINTER

Setting up Feed

Printer is equipped with four Sheet Separators, two Side Guides and a Rear Media Guide.

Adjust Sheet Separators individually:

1. Move Left-hand Side Guide into position. Guide has two positions.
Position closest to Side Frame is for 9.5" media.
Position closest to center of Printer is for printing 8.5" wide media edge to edge.



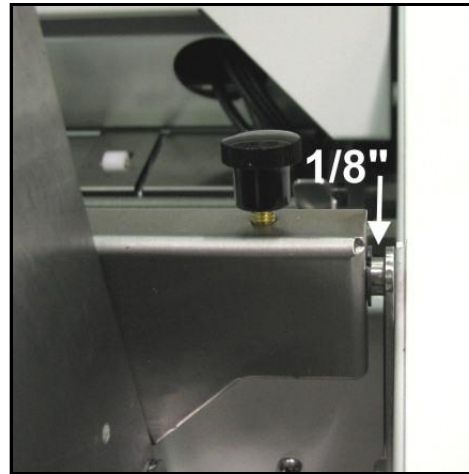
2. Loosen locking screws located behind Sheet Separators and raise Separators, then tighten locking screws to hold Separators in "Up" position.



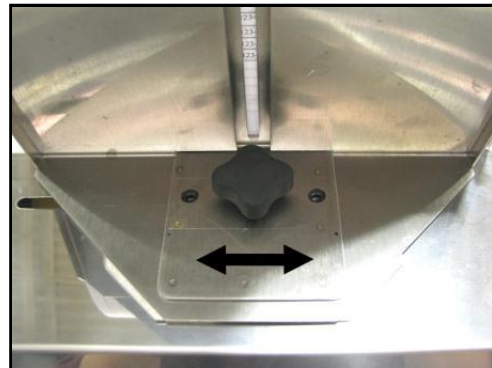
3. Place a single piece of media to be run under Separators. Always place media against Left-hand Media Guide. Loosen Separator locking screw and allow Separator to settle onto media. Then tighten locking screw. Repeat for each Separator.



4. Adjust Right-hand Side Guide so that it is about 1/32" from sides of media. Tighten locking knob on Side Guide. Place a stack of media in machine. Press and hold **Paper** key to feed one piece through Separator. **NOTE: To prevent misfeeds and tearing, keep Right-hand Side Guide at least 1/8" from Side Frame.**



5. Adjust Rear Guide Support by using knob to slide Guide right and left. If experiencing feeding problems, slide Rear Support Guide right or left to keep media aligned with Media Guides.



6. Adjust Rear Media Guide by loosening locking screw and moving Guide to raise media approximately 2" above Feed Table for paper and about 1/2" for envelopes.



NOTE: Amount of media that can be stacked on Printer is determined by weight of material. Feeder may not feed larger and heavier media when stack is full. If so, reduce amount of media in stack until Feeder functions properly.

SECTION 3 – *Operating Printer*

Once Printer Driver is installed and Printhead is primed, you are ready to start printing. Set up your job and send it to Printer. Printer will start and print.

This section is divided into two parts:

1. **How to set up a job to print from Microsoft Word.**
2. **Driver Properties and various options available when you run a job.**

Set Printer Driver installed in Section 2 as default driver. It is then accessible through your applications (*such as Microsoft Word*). Other types of applications and database management software will work in a similar manner when using this Driver. This Section further assumes that feed is set up and Printer is connected to your computer.

Setting Up a Job in MS Word

When setting up a job to print in MS Word or any other application, first determine print area of Printer and paper sizes it can handle.

Maximum print area for Printer:

8.5" wide x 17" long.

Maximum paper size Printer can feed:

9.5" wide x 17" long. (*See diagram at right.*)

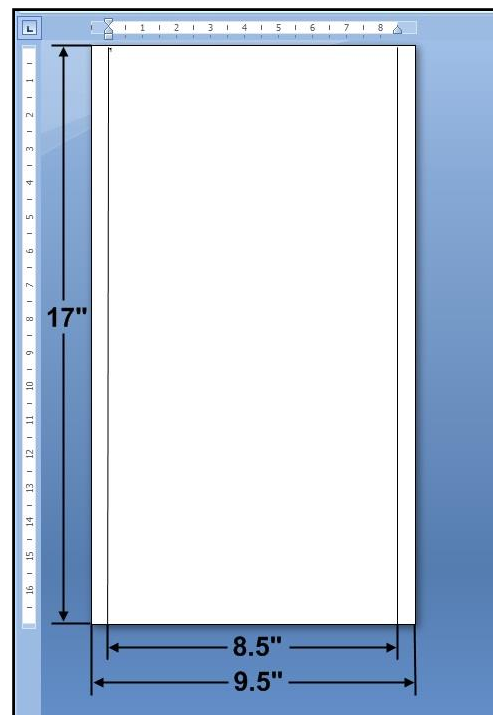
Minimum paper size Printer can feed:

3" wide x 4.2" long.

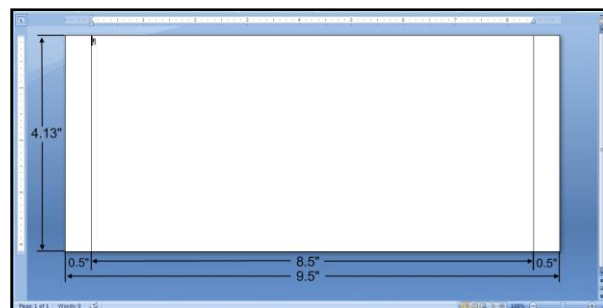
To set up maximum print area for a 9.5" x 17" document, set paper size to 9.5" wide by 17" long in **Custom Paper** setting. Set top and bottom margins to 0" (*or any margin needed*). Set right-hand and left hand margins to 0.5". You can now layout job and print maximum printing area.

For other page sizes such as 8.5" x 11" (*standard letter*) or 8.5" x 14" (*legal size*), set paper size to exact size and set margins as needed.

NOTE: Set Left-hand Side Guide to 9.5" position when running 9.5" wide media. Set Guide to 8.5" position with 8.5" or narrower media.



Envelopes: Select an envelope (*example uses a #10 envelope*) from **Page Setup** in MS Word. Feed envelope by 9.5" width, (*fastest way to run envelopes, especially if addressing them with a Mail Merge*). Set top and bottom margins to 0", left and right margins at 0.5" (*as shown*).

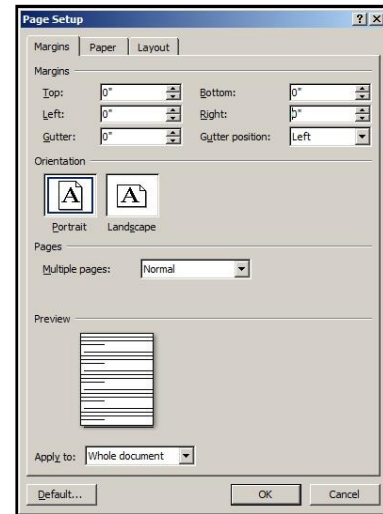


Printing a Typical Job on 8.5" x 5.5" Paper

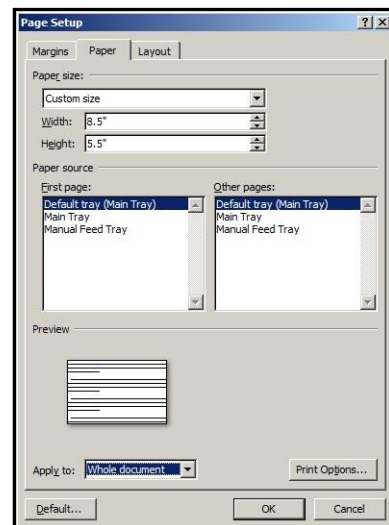
Printer can print edge-to-edge on an 8.5" x 5.5" document.

To set up a job:

1. Go to **File**, then **Page Setup** and select **0"** margins.

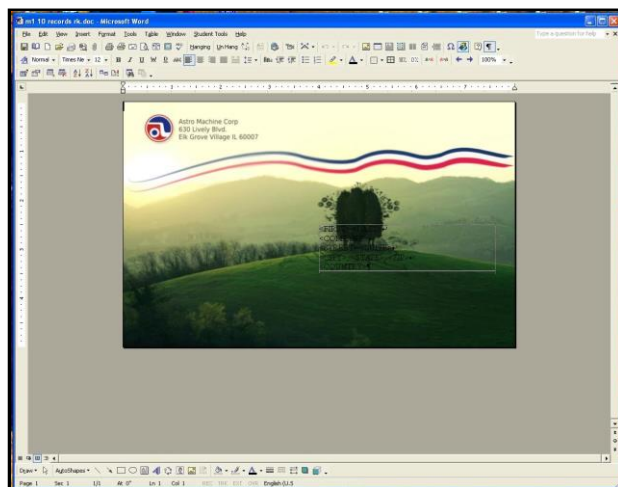


2. Select **Paper** tab, select Paper Size, "**Custom size**" then set paper Width to 8.5" and paper Height to 5.5". Click **OK**.



3. Screen at right is an example of a job to be printed. Once job is ready for printing, select "**Print**" from **File** menu and print job.

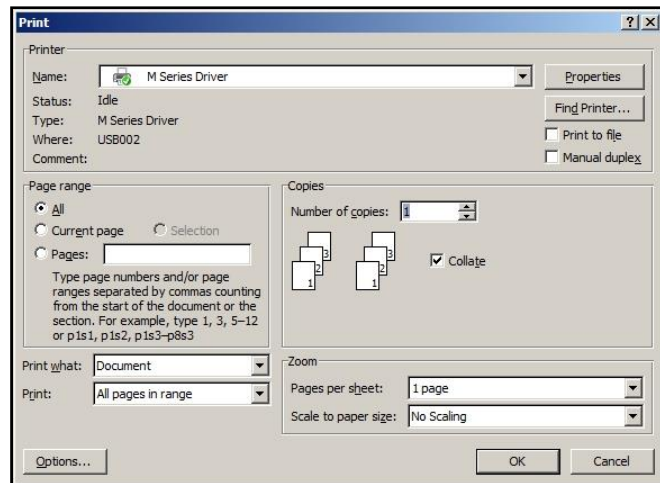
For more information about changes that can be made in **Driver**, see **Printer Driver** section.



Printer Driver Properties

Printer Driver works the same as any other Printer Driver for Windows. It does have some enhancements to help maximize Printer's ability to print variable addressed pieces quickly and efficiently.

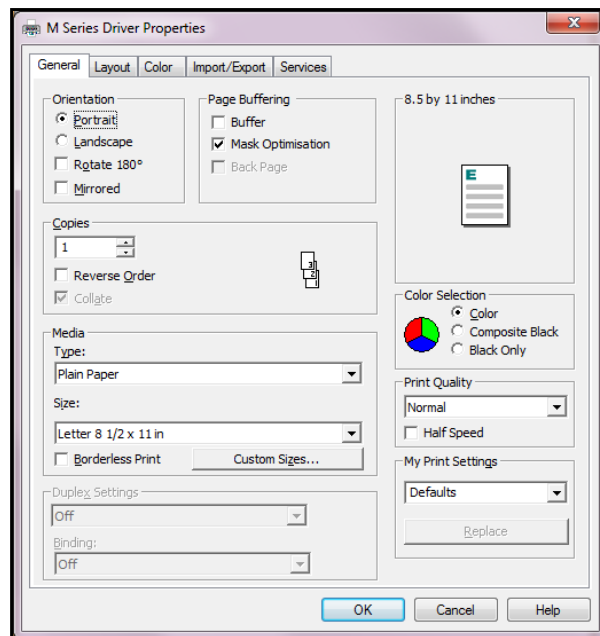
Windows XP, Vista, Windows 7, Windows 8, Windows 10: Once job is set up, click **File**, then **Print**. Window at right opens. Make sure **M Series Driver** is selected Printer. Clicking **Properties** opens “**Properties**” window.



General Tab

General tab lets you select:

- **Orientation** – Portrait (*default*), Landscape, Rotate 180° and Mirrored.
- **Page Buffering** – Loads entire print job before printing starts.
Mask Optimization (*checked is default*) optimizes images for printing in most applications.
NOTE: Some applications (*like FlexMail*) may display image boundaries when printed, unchecking **Mask Optimization** box eliminates these lines. (*Remember to check box when changing applications.*)
Back Page – Unavailable unless Printer is attached to M1DX Duplex Printer.
- **Copies** – Enter the number of copies to be printed.
NOTE: Default setting (Reverse Order unchecked) prints job starting with first page. Printing starts as soon as first page loads.
Reverse Order allows job to start printing from last page. Since entire job has to load into Printer before printing starts, large jobs may take longer to load.



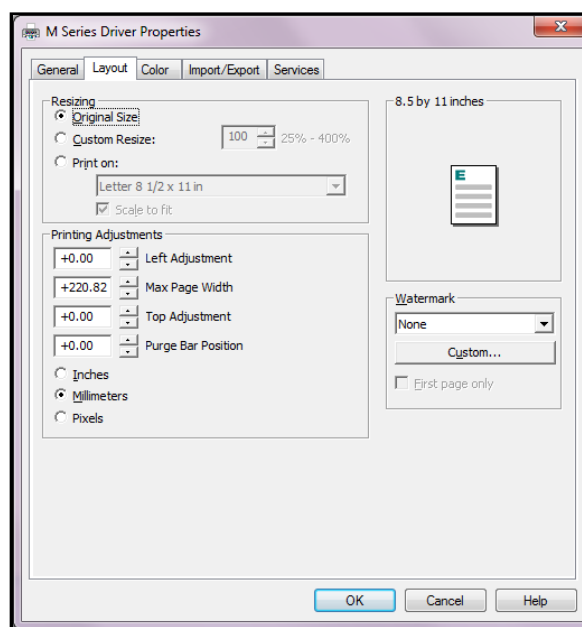
- **Media** – Choose a type of media or different size media than document was originally designed for.
Type: Chart at right lists media profiles associated with type of media chosen. **Sizes:** 21 sizes are available. Document is automatically resized to fit new media. Also create and save a **Custom Size** to suit your needs.
NOTE: Do not exceed maximum paper size for Printer.
- **Duplex Settings** – Unavailable unless Printer is attached to the **Duplex Printer**.
- **Color Selection** – Set Printing for Color, Composite Black (*uses all colors to print Black*), or Black Only (*uses only Black ink*).
- **Print Quality** – Select **Normal** or **Best**.
Normal is 1600 x 800 dpi, checking “**Half Speed**” box slows printing for higher quality on glossy stock. **Best** setting is 1600 x 1600 dpi, for use when high quality images are required.
- **My Print Settings** – Access your saved custom print settings for various jobs.

MEDIA PROFILE	MEDIA TYPE
Plain Paper	Plain Paper Bright White Paper
Matte Paper	Presentation Paper Postcards Matte Brochure Matte Labels Matte Other Inkjet Paper Matte
Premium Matte Coated Paper	Premium Inkjet Paper Premium Photo Paper Matte
Glossy Paper	Photo Paper Semi-gloss Photo Paper Glossy Labels Glossy Postcards Glossy Brochure Glossy
Premium Glossy Paper	Premium Photo Paper Glossy

Layout Tab

Layout allows you change how document prints without changing original document.

- **Resizing** – Specify **Original Size** or **Custom Resize:** Resizes original as a % of normal size. Printer prints document in size you selected regardless of paper size selected.
Print on: Specify particular size of paper to print on regardless of size of original document. Checking “**Scale to Fit**” automatically resizes document to fit on new page size.
- **Printing Adjustments** – Make minor positioning changes to print area in relation to media if needed. Also set measurements to be in Inches, Millimeters or Pixels.
NOTE: Printing Adjustments only works when Print Area is less than full print width (less than 8.5"/215.9mm wide). See “Using Layout Tab Printing Adjustments” on next page.



Using Layout Tab Printing Adjustments

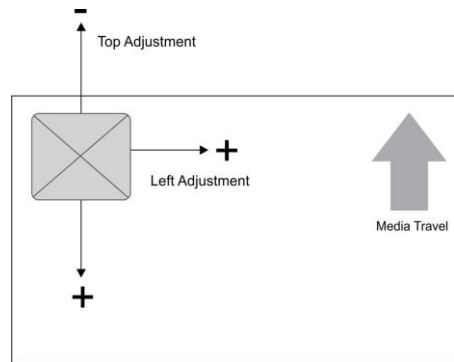
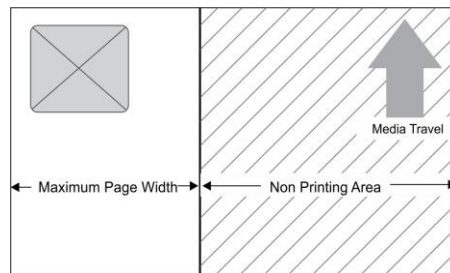


Image Position

Printing Adjustments	
10	Left Adjustment (0.1mm)
2208	Max Page Width (0.1mm)
-10	Top Adjustment(0.1mm)
0	Purge Bar Position (0.1mm)

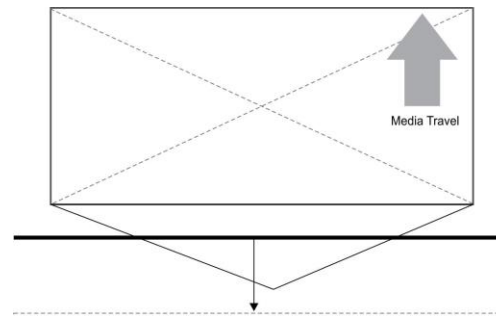
Image Position – Left Adjustment moves image area away (-3mm left to +200mm right) from left edge of media. **Top Adjustment** moves image up or down (-5mm up to +200mm down) from top left corner of media used. (0.1mm increments)



Maximum Printing Area

Printing Adjustments	
10	Left Adjustment (0.1mm)
800	Max Page Width (0.1mm)
-10	Top Adjustment(0.1mm)
0	Purge Bar Position (0.1mm)

Max Page Width – Sets width of actual print area. (0.1mm increments) This shuts off nozzles in non-printing area (*not used for printing*) and saves ink. **NOTE: Can be no larger than maximum print width for Printer (8.5"/215.9mm).**



Purge Bar Position

Printing Adjustments	
10	Left Adjustment (0.1mm)
2208	Max Page Width (0.1mm)
-10	Top Adjustment(0.1mm)
500	Purge Bar Position (0.1mm)

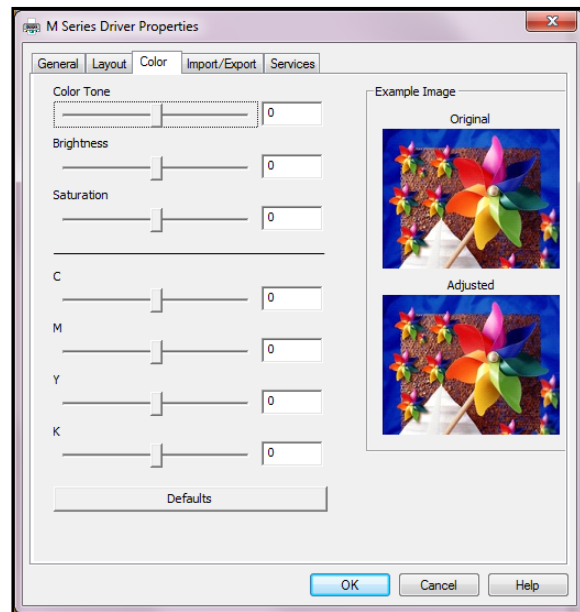
Purge Bar Position* – In operation, Printhead spits a small amount of ink in gap between pieces to keep nozzles refreshed. For irregular-shaped pieces (*like an envelope flap*), Sensor may “read” lower end as the edge and spray on the tip of the flap instead of actual gap between pieces. This feature allows you to manually set gap (in 0.1mm increments) to account for extra length needed to reach actual gap.

* See also “**Purge Bar Position**” in **Printer Toolbox** section.

- **Watermark** – Prints a light background watermark in paper while printing original document. When this option is selected, “**First page only**” option prints watermark on first page, but not subsequent pages, unchecking prints watermark on all pages. **Custom** button lets you create a new watermark or edit an existing watermark, including font selection, color, size and printing angle.

Color Tab

Color is used to adjust the color output of the Printer. Use the sliders to adjust **Color Tone**, **Brightness** and **Saturation**. The **C, M, Y, K** sliders adjust individual colors. Use **Defaults** to reset to **0** settings.



Import/Export Tab

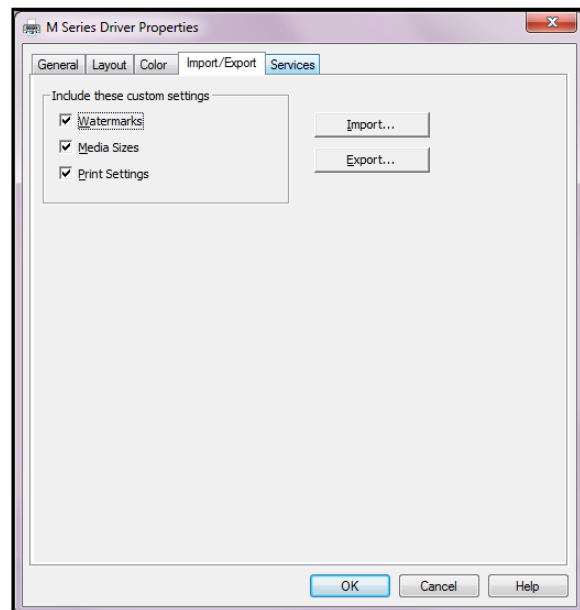
Import/Export is used to preserve any custom Media Sizes, Watermarks and/or Print Settings you may have developed and saved for various jobs when you update Printer firmware.

- **Export** – Send custom settings to a holding file before downloading new firmware.
- **Import** – Return custom settings after firmware installation is complete.

This tab is also used to import custom media size packages or watermarks from your dealer if they are available.

IMPORTANT!

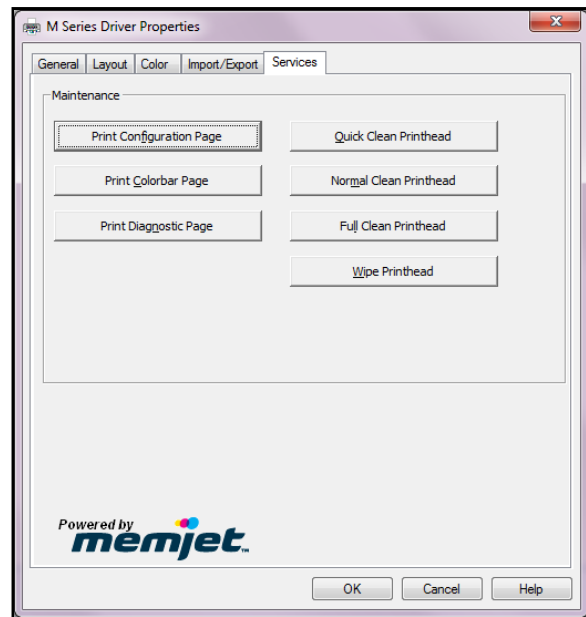
BEFORE UPDATING ANY PRINTER FIRMWARE, REMEMBER TO FIRST EXPORT ANY CUSTOM MEDIA SIZES, WATERMARKS OR PRINT SETTINGS YOU HAVE ADDED TO AN OUTSIDE HOLDING FILE. THIS PREVENTS THE LOSS OF YOUR CUSTOM SETTINGS.



Services Tab

Services allows you to:

- **Print Configuration Page** – Prints out current configuration of Printer including current Firmware Version, Network Connection, Printer Serial Number and more.
 - **Print Colorbar Page** – Prints type and color bands to check print quality.
 - **Print Diagnostic Page** – Displays basic Printer information, memory, Network Settings, Event Log and RAM partitions.
 - **Clean Printhead Buttons:** Provide 3 levels of cleaning for Printhead Cartridge.
 - Quick Clean Printhead** – Circulates ink, wipes and cleans Printhead Cartridge.
 - Normal Clean Printhead** – Runs cleaning and wiping routine twice for better flushing and cleaning.
 - Full Clean Printhead** – Runs cleaning routine multiple times for the most thorough flushing and cleaning of Printhead.
- NOTE: If Printer is connected to a network and Driver buttons fail to activate cleaning process, perform same functions from Toolbox User Interface.**
- **Wipe Printhead** – Wipes and cleans excess ink from Printhead Cartridge.

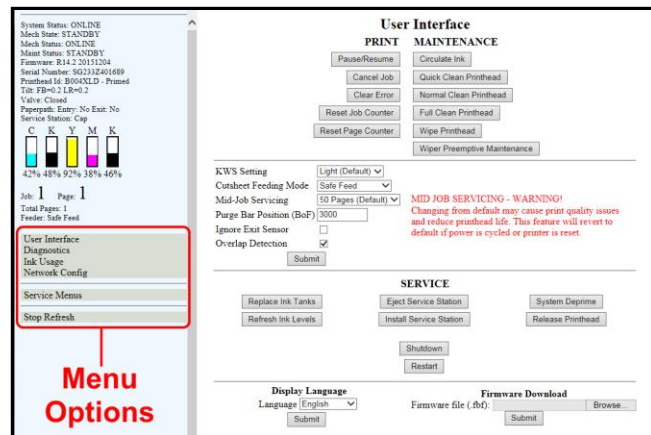
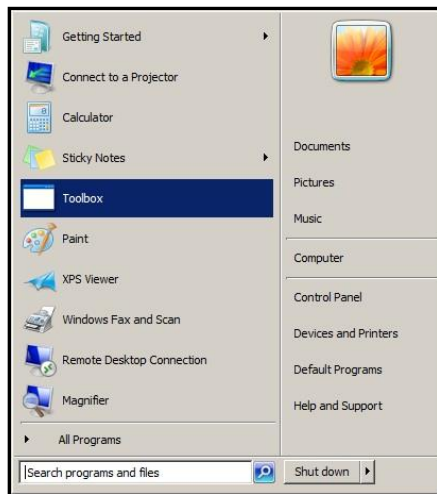


Using Printer Toolbox

Once Printer Driver is installed, you can access Printer Toolbox. You can check Printer status, monitor ink usage, perform diagnostic checks, print reports and run maintenance tasks on Printer from your computer.

To open Toolbox:

Open **Start Menu**, then click on **Toolbox**. When **User Interface** window opens, find a series of Menu Options (at lower left of screen). Check Printer Status in upper left part of screen.



User Interface

[A] **Screen Buttons:** Perform maintenance and operating tasks.

PRINT buttons:

Pause/Resume, Cancel a Job, Clear Errors, Reset Job Counter, and Reset Page Counter.

MAINTENANCE buttons:

Circulate Ink – Purges air from lines and primes system after replacing Ink Tanks or Printhead Cartridge.

Quick Clean Printhead – Circulates ink; wipes and cleans Printhead Cartridge.

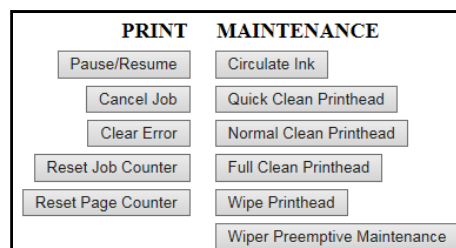
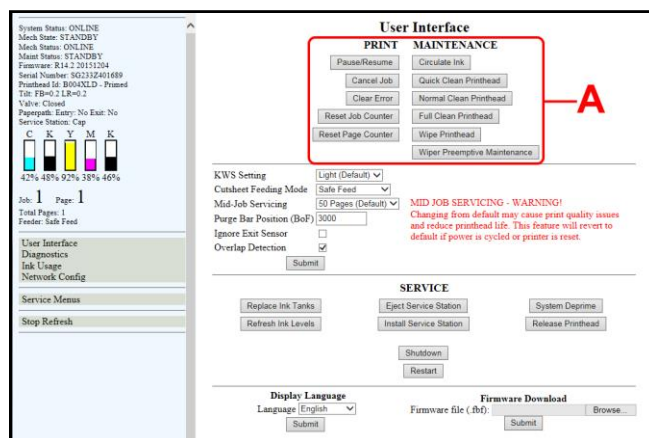
Normal Clean Printhead – Runs cleaning and wiping routine twice for better flushing and cleaning.

Full Clean Printhead – Runs cleaning routine multiple times for the most thorough flushing and cleaning of Printhead.

Wipe Printhead – Activates Service Station to wipe Printhead.

Wiper Preemptive Maintenance –

Re-saturates Wiper with ink to remove dried residue if Printer is inactive for long periods of time.



SECTION 3

OPERATING PRINTER

[B] SETUP Settings – Adjust automated service and cleaning intervals, adjust feeder speed for a job, manually set gap between pieces and adjust Printer for pre-printed media.

KWS Setting – (*Keep Wet Spitting*) Keeps Printhead hydrated while running a job.

Select from 3 settings: None, Light (default), Heavy, to determine how much ink will “spit” from Printhead Nozzles. Set in conjunction with **“Mid-Job Servicing”** which determines frequency of Printer stopping for self-servicing during a job.

Cutsheet Feeding Mode – Change how Printer feeds media depending on type of job you are running:

Safe Feed – Leaves a larger gap between pieces to reduce overprinting onto next piece. This setting is useful for more intricate printing jobs or jobs requiring the best print quality.

Max_Throughput – Allows fastest printing speed. Printer works like a stream feeder. This setting is useful for simple printing jobs. **NOTE:** A few extra blank pieces may run through at end of job.

NOTE: These two settings can be changed without stopping job. **Example:** While running a job in “**Max-Throughput**” you find that media is jamming excessively due to speed. Open **Toolbox**, check “**Safe Feed**” and click “**Submit**”. Printer automatically adjusts without having to pause or stop job.

Mid-Job Servicing – Sets frequency of automatic maintenance cycles run during a job after a set amount of media is run. Settings are: **50 Pages*** (Default), **100 Pages**, **250 Pages**, **500 Pages**, **1000 Pages** and **2500 Pages**. **NOTE: Changing setting from “Default” may cause print quality issues and reduce Printhead life.**

***Use 50 Pages (Default) setting only with media at least letter-sized or A4 length or longer.**

Purge Bar Position – In operation, Printhead spits a small amount of ink in gap between pieces to keep nozzles refreshed. For irregular-shaped pieces (*like an envelope flap*), Sensor may “read” lower end as the edge and spray on the tip of flap instead of actual gap between pieces. This feature allows you to manually set gap (*1 micron increments*) to account for extra length needed to reach actual gap.

Ignore Exit Sensor – Checking this box turns Exit Sensor OFF. Sensor may not detect trailing edge of a piece of pre-printed media if back of that media is dark or black. (**Example:** adding addresses to a pre-printed postcard.) This may cause Sensor to react as if a jam has occurred. Turning Sensor OFF prevents these “false jams” from stopping job.

Overlap Detection – Detects differences in media thickness and stops the Printer if two or more single sheets pass through the sensor stacked on top of each other. Default is not activated (*box not checked*). If running envelopes or media with varying thickness (*such as folded*), turn this feature OFF (*uncheck box*). **NOTE:** Remember to turn feature back ON if running single sheets again.

Click **“Submit”** to apply settings.

The screenshot shows the HP Color LaserJet 2600 control panel. The 'PRINT' tab is selected, displaying various settings. A red box highlights the 'Mid-Job Servicing' setting, which is set to '50 Pages (Default)'. A red arrow points from the text 'MID JOB SERVICING - WARNING!' to this setting. The 'MAINTENANCE' tab is also visible, showing options for cleaning the printhead and wiper. The 'SERVICE' tab shows options for replacing ink tanks, inspecting the service station, and releasing the printhead. The 'Display Language' is set to English, and the 'Firmware Download' section shows the file name 'Firmware file (.dlt)'.

[C] **SERVICE buttons** control functions that require machine to be out of service for extended periods of time while they are being performed.

Replace Ink Tanks – Disconnects Printer communication with Ink Tank Sensor. Allows safe removal of Ink Tanks for replacement.

Refresh Ink Levels – Updates or confirms ink levels (*shown at left of screen*).

Eject Service Station – Releases Service Station for removal for cleaning, repair or replacement.

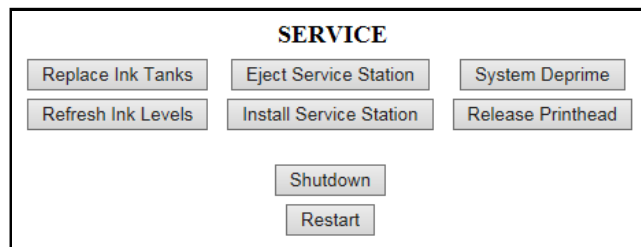
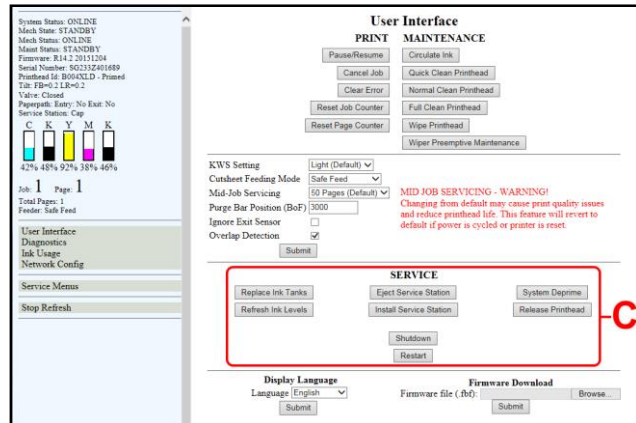
Install Service Station – Pulls Service Station back into place after cleaning, repair or replacement.

System Deprime – Pumps ink back into Ink Tanks prior to replacing Printhead Cartridge or transporting Printer.

Release Printhead – Pumps ink back into Ink Tanks and opens Printhead Latch to remove or install Printhead Cartridge. **NOTE: Function can also be performed by pressing Printhead Release button on Print Engine (Control Panel Side).**

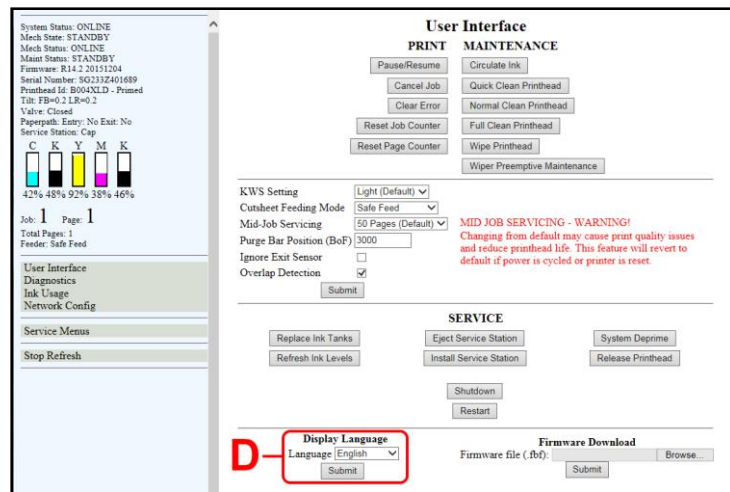
Shutdown – Turns Printer OFF. For best system performance, it is recommended to keep Print Engine powered-up (*ON/OFF light illuminated*) at all times. If turning Printer off, first power-down Print Engine using “**Shutdown**” button in **Toolbox** or ON/OFF button on Control Panel. Wait until all Control Panel buttons go out before turning off Main Power Switch.

Restart – Restart Printer without having to perform the startup routine (*purging ink tanks, priming, etc.*)



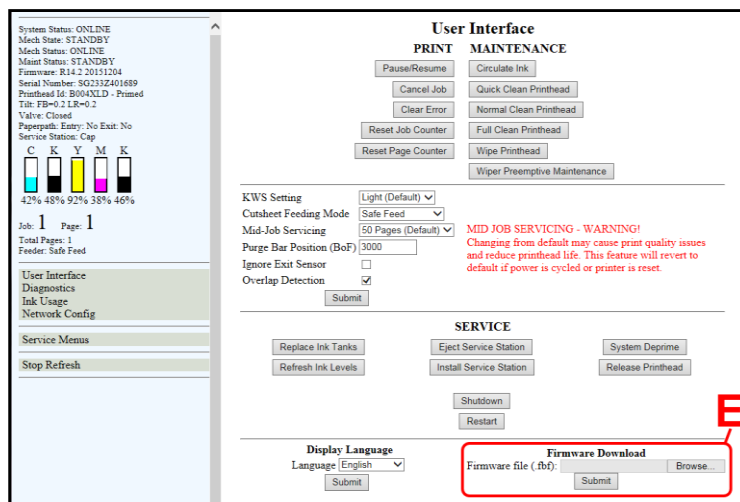
SECTION 3 OPERATING PRINTER

[D] Display Language – Selects language EWS (*Toolbox*) will display. Click “Submit” after selecting language.



[E] Firmware Download – Get latest version of firmware for your Printer. **NOTE: This is an alternative method for downloading firmware. See “Updating Firmware” for recommended procedure.**

WARNING: This procedure should only be performed by qualified service personnel. In some cases firmware must be loaded using “Firmware Migration Tool”. If this process is not performed properly, Printer is rendered inoperable.



Diagnostics

From this screen you can see current status of your Printer. **You can also:**

Print Setup Page – Prints a printing pattern used for positioning image on the page. (***Duplex Printer:** the same page is printed on both units to help align top and bottom Printers*).

Print Printhead Test – Prints color bands, text and patterns to check condition of Printhead's ink nozzles. **NOTE:** Uses less ink than **Print Ink Channels** or **Print Color Bars**.

Print Configuration Page – Prints current Printer configuration including Firmware Version, Network Connection, Printer Serial Number and more.

Print Ink Channels – Prints 5 bars (*1 bar from each ink tank*) to indicate how well Printhead Nozzles are working. **NOTE:** Function can also be accessed by pressing “**Print Ink Channels**” button on right side of **Print Engine**.

Print Diagnostics Page – Prints basic Printer information, memory, Network Settings, Event Log and RAM partitions.

Print Color Bars Page – Prints a series of 7 color bars to indicate how well Printhead is mixing colors and printing.

Upload Debug Log – Download and save a log of the Printer status to send to a technician to help diagnose a problem. Clicking this button creates a snapshot log showing everything going on with the Printer during the undiagnosed problem. (*See Sample Log at right*).

Other Information on Diagnostics window:

Event Log – Displays significant events occurring on the Printer (*such as firmware updates, errors, power off, etc.*) Useful in troubleshooting Printer problems.

NVM Settings – Displays Printer's current NVM (*Non-Volatile Memory*) settings. (*Once settings are saved, they remain even when Printer is turned off, until they are manually changed.*)

VARS Settings – Displays Printer's current VARS (*Variable*) settings. (*Settings that are set for a particular job that automatically revert to default settings when Printer is turned off or rebooted.*)

The screenshot shows the 'Diagnostics' window of a printer. On the left, there's a sidebar with 'User Interface' (Diagnostics, Ink Usage, Network Config) and 'Service Menus' (Stop Refresh). The main area displays system status (ONLINE), ink levels (C: 54%, M: 58%, Y: 45%, K: 57%), and job information (Job: 0, Page: 0). On the right, there's a 'Diagnostics' section with system name, serial number, firmware version, internal memory, total pages, and tilt. Below this are network settings (connected, MAC address, printer name, domain, DHCP, BOOTP, AutoIP, DHCP lease time). At the bottom, there are buttons for 'Print Setup Page', 'Print Configuration', 'Print Diagnostics', 'Print Ink Channels', 'Print Color Bars', and 'Upload Debug Log'. A 'NVM Settings' section shows mpcarev, nomencl, pp_tof, media_gap, pages_per, and pp_scale. A 'VARS Settings' section shows recovery_mode, tof_adjustment, bof_adjustment, bof_allowance, and pp_mungap_adjustment.

```
File Edit Format View Help
0 INIT INIT memory size=134217728
0 rom NVM version 20 -> 21
109 DEFAULT Default: TCL commands have been executed for UserIfc
118 DEFAULT Default: TCL commands have been executed for SDK
121 INIT Version=20150925 ID=R14.1pre41-AMC1
121 DNIT Astro Model: R1
129 DEFAULT Default: TCL commands have been executed for mech
8781 cm ECID Sig: b1efef1f f745164f 9b61a0e3 980e9770 d5954891
8781 cm SMS version: R113.25.3, QALIS-P version: 1-10.0026
8781 cm schema sub-license number = 20, version = 0.2
8911 DEFAULT Default: TCL commands have been executed for maint
8913 maint rtc 01/23/2015 01:43:57
9287 maint maint_enable 0->1
13154 qa enable qa.update 5000 msec polling
13287 status maint status: ONLINE -> MAINTENANCE_BUSY
13287 engine status: ONLINE -> MAINTENANCE_BUSY
13747 astro Network Up
23428 mech Mech is at standby. System Memory: 124452 kbytes
23504 status maint status: MAINTENANCE_BUSY -> ONLINE
23867 engine status: MAINTENANCE_BUSY -> ONLINE
623817 maint <standby_pinch>
1224213 maint <standby_pinch>
1224213 maint <standby_pinch>
1224433 maint <standby_pinch>

System Name: M-Series
Serial Number: SG2332401689
Firmware Version: 20150925
Firmware Version: R14.1pre41-AMC1
Internal Memory (MB): 128
Total Pages 1600x800: 19
Total Pages 1600x800: 10882
Tilt: FB=0.4 LR=0.1
Printhead ID: B004XLD
Printed Ink (uL): 185281
Cyan: 54% (S1414702171432)
Black 2: 58% (S1414114040517)
Yellow: 45% (S1434209130286)
Magenta: 51% (S1434609060014)
Black 1: 57% (S1414114040518)
Network Status: connected
MAC Address: 84-97-b8-01-12-84
Printer Name: MemJeff
Domain Name: astromachine.com
DHCP: Disabled
BOOTP: Disabled
AutoIP: Disabled
DHCP Lease Time (s): 0
IP Address: 192.168.254.119
Subnet Mask: 255.255.255.0
Default Gateway: 192.168.254.254
WINS Server: 192.168.254.11
```

SECTION 3 OPERATING PRINTER

Ink Usage

Allows you to monitor estimated amount of ink left in each Ink Tank. Monitor ink use and consumption and schedule Tank changes (*saving down-time during a print run.*)

NOTE: Ink Usage only works when you install a new Ink Tank and leave it in Printer.

Ink Estimation Mode – Lets you predetermine how much ink a given job may use prior to printing a job. This is useful for determining per piece costs. Job is sent to Printer and loads, but does not print. Once job is loaded, click “**Refresh**” to show amount of ink (*by color*) that job will use.

Mode selection:

Off – Feature is disabled.

Continuous – Ink Estimation Mode continues running (*Printer will not print*), until feature is turned “**OFF**”.

Single Pass – Ink Estimation Mode runs once, then turns off. Printer will then be ready to print.

Click “**Submit**” to activate Mode setting selected.

NOTE: Estimating process takes as long as job would take to print (i.e., if job would take 1 hour to print, estimate will take 1 hour to display. Track progress on the Counter located under the Ink boxes).

Job Cost Settings – Enter your ink cost and printhead cost and media size preference (*inches or mm*). Set a minimum of at least 100 pcs. to ensure a large enough sample size. Click “**Submit**”. In **Ink Estimation Mode**, this feature estimates per page cost and job cost without printing job. With **Ink Estimation Mode** disabled, Printer still tracks estimated per page cost and estimated job cost as job is being printed. Once costs are entered, they will remain until changed again, even if Printer is turned OFF.

NOTE: This is only an estimate and does not include other factors such as Printer maintenance routines, (printhead wiping and cleaning, power up/down, etc.) that may affect overall result.

Printed Ink (uL)					Job	Pages Printed	Quality	Media Type	Media Size (mm)	Estimated Page Cost	Estimated Job Cost
Cyan	Black 2	Yellow	Magenta	Black 1	1: Printhead Test	1	Best	Default	221 x 115	0.013	0.013

Ink Estimation Mode
Mode: Off
Submit

Job Cost Settings
Tank Cost: 100
Printhead Cost: 100
Media Size: mm
Submit

Enabling Ink Estimation Mode will inhibit printing!

Refresh

Ink Estimation Mode
Mode: Off
Continuous
Single Pass

System Status: ONLINE
Mech Status: STANDBY
Mech Status: ONLINE
Maint Status: STANDBY
Firmware: R14.1 20130708
Serial Number: SG233Z401689
Printhead: B004XLD - Printed
Tilt: FB=0.2 LR=0.1
Valve: Closed
Paperpath: Entry: No Exit: No
Service Station: Cap

C K Y M K
71% 70% 68% 67% 70%

Job: 1 Page: 1
Total Pages: 1
Recent: Size Feed

Job Cost Settings
Tank Cost: 100
Printhead Cost: 100
Media Size: mm
Submit

Network Configuration

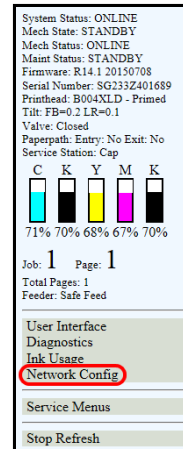
Permits you to view, enter or change settings to connect Printer to your network.

Network Connection Set Up:

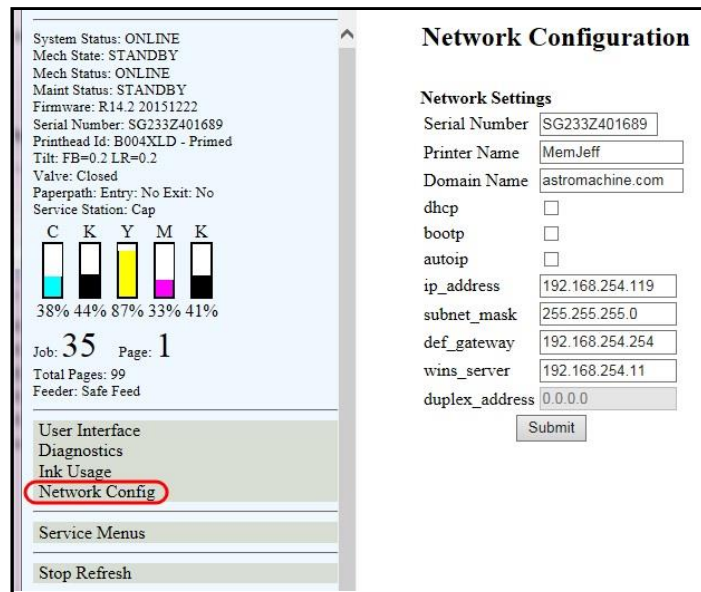
1. Printer is still connected to computer via USB cable.

To connect Printer to a network,
open Toolbox.

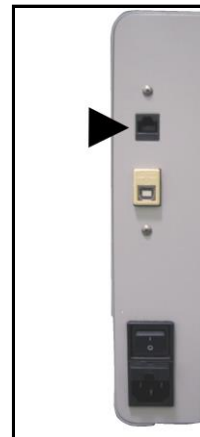
On **User Interface** page, click
“**Network Config.**”



2. “**Network Configuration**” page opens. Use **Network Settings** to enter correct settings for your network.



3. Connect Ethernet cable to Network Port on Rear Panel of Printer.



SECTION 3 OPERATING PRINTER

Service Menu

For authorized personnel only.
Provides access to more advanced Printer control and maintenance menus.

System Status: ONLINE
Mech State: STANDBY
Mech Status: ONLINE
Maint Status: STANDBY
Firmware: R14.1 20150708
Serial Number: SG233Z401689
Printhead: B004XLD - Primed
Tilt: FB=0.1 LR=0.1
Valve: Closed
Paperpath: Entry: No Exit: No
Service Station: Cap

C K Y M K
71% 70% 67% 67% 70%

Job: 2 Page: 24
Total Pages: 26
Feeder: Safe Feed

User Interface
Diagnostics
Ink Usage
Network Config

Service Menus
Stop Refresh

Service Menus
Password
Submit

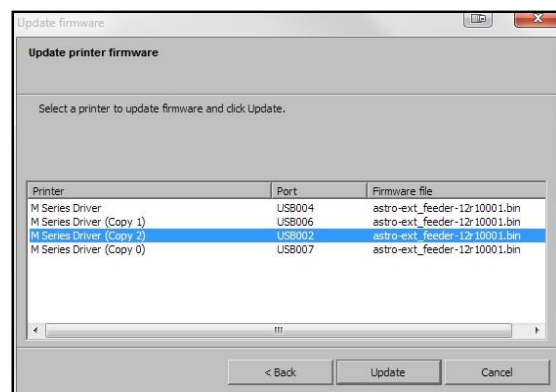
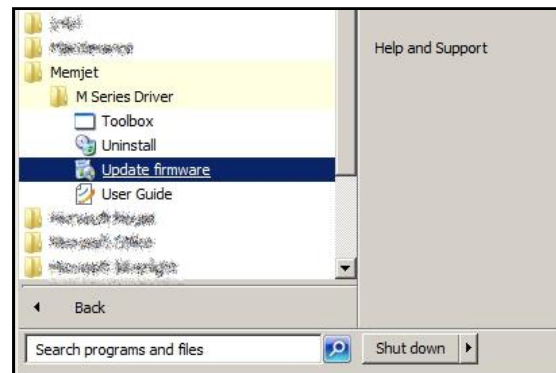
Updating Firmware

Get latest version of firmware for your Printer.

NOTE: Use this procedure to update firmware AFTER you have updated Printer Driver. Printer Driver update procedure is included with an “Update Package” which includes both updated Printer Drivers and firmware updates.

How to download new firmware:

1. When you are notified that new firmware is available for your Printer, download “*.bin” file and save it to your desktop.
2. From **Start Menu**, open **All Programs**. Open “**Memjet**” folder, then “**M Series Driver**”. Click “**Update Firmware**”.
3. Click “**Browse**” button. Find and select file just saved to your desktop. Click “**Open**”.
4. When “**Update printer firmware**” window opens, select M-Series Printer you want to update. **NOTE: You can only update one Printer at a time.**
5. Click “**Update**”. **DO NOT touch Printer until firmware is loaded!** A message appears on screen warning you not to unplug or shut off Printer.
6. Once firmware finishes loading (*about 5-10 minutes*), Control Panel lights and Printer shuts OFF, then restarts automatically to complete installation.



SECTION 4 – Maintenance

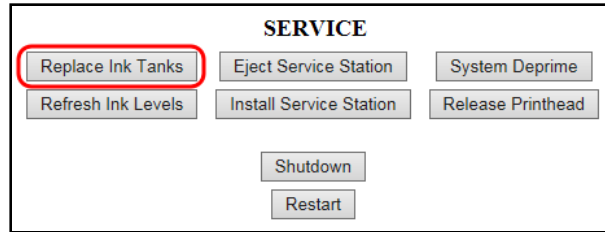
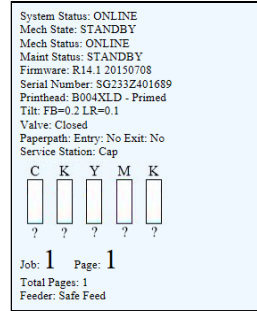
General, periodic maintenance is needed to keep Printer in good working order. This section covers how to care for Ink Tanks, Printhead Cartridge, Service Station, and clear paper jams.

Replacing Ink Tanks

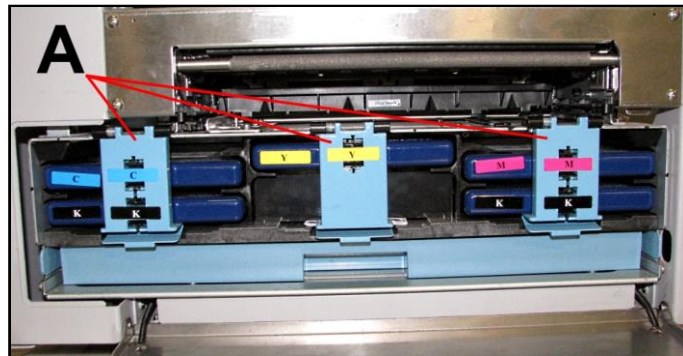
Replace Ink Tanks when ink runs out.

1. **Open Printer Toolbox.** Go to **Start Menu** and open **“Toolbox”**. System Status information appears in upper left corner of **User Interface** window. Note that some or all of **“CKMYK”** boxes may be low or empty.
2. **Click “Replace Ink Tanks”.** (Disconnects Printer communication with Ink Tanks and allows safe installation and replacement.) Once **“Confirm”** screen displays, it is safe to remove Ink Tanks.

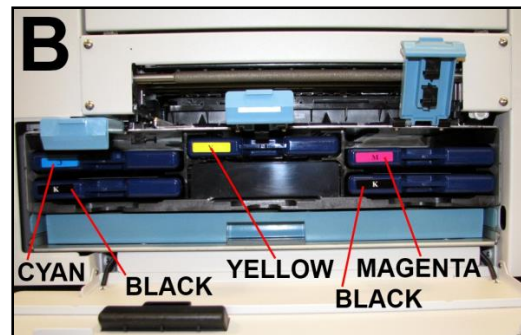
IMPORTANT: DO NOT press **“Continue”** until after you have removed and replaced Ink Tank(s) and closed Ink Tank Latches.



3. Open Front Cover (hinged at bottom). Open three Latches [A] and pull Ink Tank(s) out of Printer.
4. Remove new Ink Tank(s) from packaging.



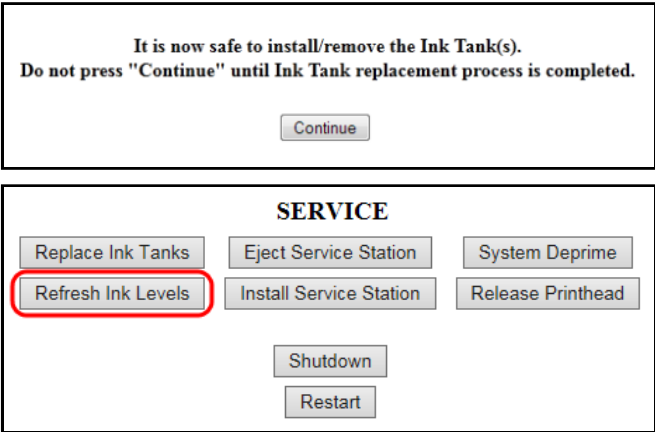
5. Slide new Ink Tanks (labels up) into appropriate color slots [B]. Close three Ink Tank Latches.
- INSTALLATION TIP:**
Make sure Ink Tanks seat properly. Insert Ink Tank into appropriate Ink Station, then pull Ink Tank back about an inch and push forward firmly to insure that Ink Nozzles penetrate seals on Ink Tanks.



SECTION 4
MAINTENANCE

6. Click “Continue” on Confirm screen, then “Refresh Ink Levels” on User Interface screen. Ink colors fill in as Ink Tanks are installed. If ink colors do not fill in after a few seconds, click “Replace Ink Tanks” again and reinstall Ink Tank(s).

NOTE: If Ink Tank is installed, but Ink Tank indicator still does not refresh, see “Cleaning Ink Tank Contacts” below.



7. When Printer stops processing and all fields in System Status are *black*, Printer is ready for use.
8. Close Front Cover.

WARNING!

Ink in Ink Tanks may be harmful if swallowed. Keep new and used Ink Tanks out of reach of children. Discard empty Ink Tanks immediately.

System Status: ONLINE
Mech State: STANDBY
Mech Status: ONLINE
Maint Status: STANDBY
Firmware: R14.1 20150708
Serial Number: SG233Z401689
Printhead: B004XLD - Primed
Tilt: FB=0.2 LR=0.1
Valve: Closed
Paperpath: Entry: No Exit: No
Service Station: Cap

C	K	Y	M	K
71%	70%	68%	67%	70%

Job: 1 Page: 1
Total Pages: 1
Feeder: Safe Feed

User Interface
Diagnostics
Ink Usage
Network Config

Service Menus

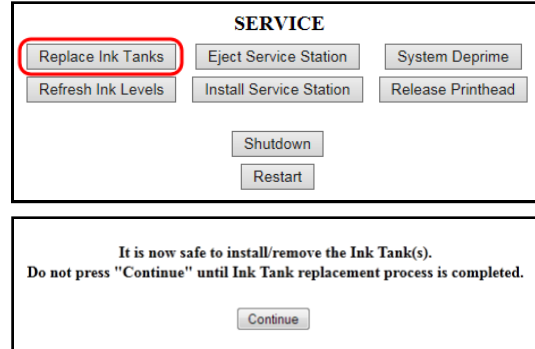
Stop Refresh

Cleaning Ink Tank Contacts

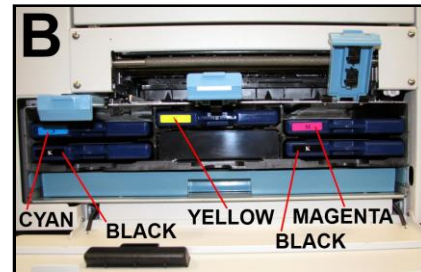
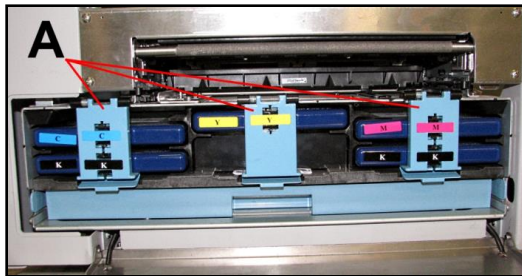
When reinstalling or replacing Ink Tanks, Ink Level indicator in Toolbox may not refresh. This may be due to a dirty Ink Tank Level Prism and/or QA Chip contacts on that Ink Tank(s).

Clean contacts as follows:

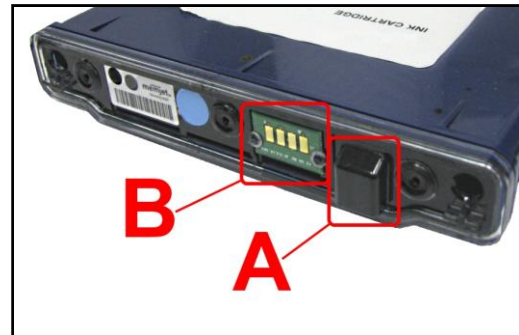
1. **Remove Ink Tank(s).** Open Toolbox. Click **“Replace Ink Tanks”**. Once **“Confirm”** window opens, it is safe to remove Ink Tanks. **IMPORTANT: DO NOT press “Continue” until after removing and replacing Ink Tank(s) and closing Ink Tank Latches.**



2. Open Front Cover. Release Ink Tank Latch(es) [A]. Remove Ink Tank(s) [B] that did not refresh.



3. Clean Ink Level Prism [A] and QA Chip contacts [B] with a clean, dry, lint-free cloth. **NOTE: Dampen cloth with distilled water to wipe Prism, but DO NOT get QA Chip contacts wet.**



4. Reinstall Ink Tank(s) (*labels up*), close Ink Tank Latch(es). Click **“Continue”** on **Confirm** screen, then **“Refresh Ink Levels”** on **User Interface** screen.



5. Close Front Cover.



Storage

New Ink Tanks should be stored in original packaging and kept away from heat.

Opened Ink Tanks should remain in Printer.

Nominal Ink expiration date: 24 months following date of manufacture (*ink fill date*).

Disposal

Safely dispose of Ink and Ink Tanks in accordance with local/national regulations.

Clean up spills with soap and water. Abrasive soap is effective in cleaning ink off your hands.

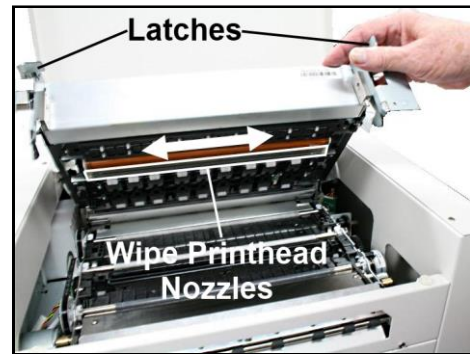
Cleaning/Replacing Printhead Cartridge

Cleaning

Printhead is cleaned automatically each time Printer is turned on or when “**Quick Clean Printhead**” routine is performed. This can be found under **Service Tab**, “**Quick Clean Printhead**” in **Printer Driver** or **User Interface** in **Printer Toolbox**. “**Normal Clean Printhead**” and “**Full Clean Printhead**” can be used to more thoroughly clean or clear Printhead.

If running automated Cleaning Levels doesn’t help improve print quality, Printhead Cartridge can be cleaned manually.

1. Open Top Cover.
2. Release and lift two latches (*at same time*) to raise Print Engine Clamshell.
3. Moisten Printhead nozzles using deionized/distilled water (*reference ASTM D5127-90 Type E-II Electronic Grade Water*) and a damp, lint-free cloth, wiping end to end. (*Gray strip located below orange strip.*) **Take care not to damage copper contacts, metal plate, or gold Printhead surface.**
4. Close and latch Print Engine Clamshell.



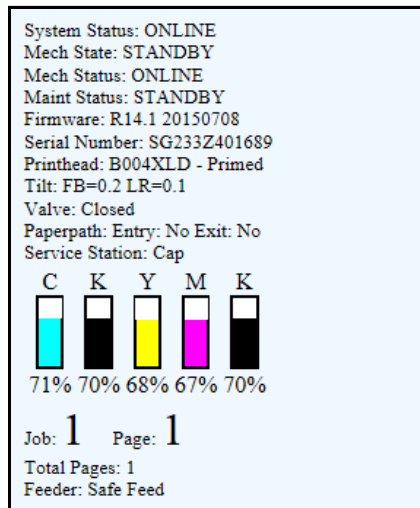
Generally, when ink supply is adequate and print quality remains poor, or when automated cleaning processes or manually cleaning Printhead does not help image quality, replace Printhead.

CAUTION

- **Use electrostatic discharge (ESD) protection when handling.**
- **Hold Printhead Cartridge by handles ONLY.**
- **DO NOT touch ink couplings, nozzle surface or electrical contacts.**
- **DO NOT unpack Printhead Cartridge until Printer is ready for installation. Once unwrapped, delay in installing Printhead can compromise print quality due to dehydration.**
- **DO NOT place an unwrapped Printhead on any surface before installing. Protect Printhead from scratches, dust, fibers, dirt and other contaminants at all times.**

Replacing Printhead Cartridge

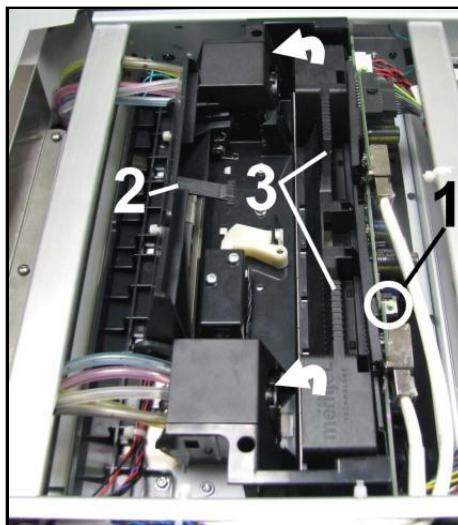
1. **Open Toolbox.** On **User Interface** screen, System Status information appears in upper left corner.



2. **Open Top Cover.** Press Printhead Latch Release button [1]. Printer pumps any ink in system back into Tanks. Then Printhead Latch pops open [2].
NOTE: Perform this same function from your computer by clicking “Printhead Release” on User Interface screen in Printer Toolbox.

CAUTION

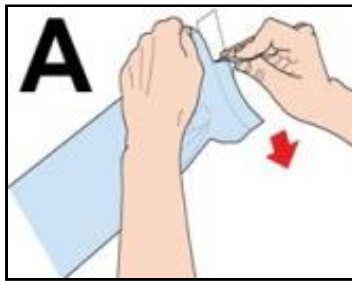
DO NOT PRY OR MANUALLY LIFT PRINTHEAD LATCH OR LATCH MAY BREAK. ONLY OPEN LATCH USING PRINTER'S RELEASE BUTTON OR PRINTHEAD RELEASE COMMAND IN PRINTER TOOLBOX.



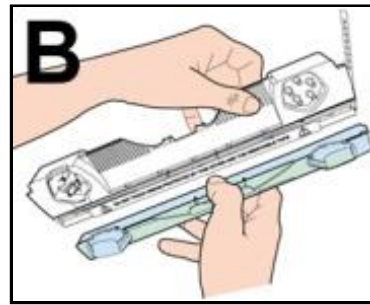
3. Make sure Printhead Latch is fully opened to retract ink lines. Remove used Printhead Cartridge by tilting it toward ink lines [3], then carefully lifting it out of Printhead Compartment.

SECTION 4 MAINTENANCE

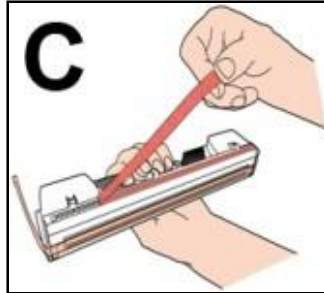
4. [A] Carefully remove Printhead Cartridge from foil packaging. Tear foil at notch or cut the end with scissors.



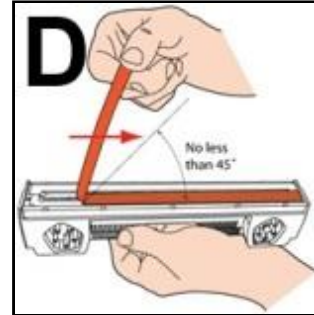
[B] Remove protective plastic cover. Hold Printhead by handle and unclip cover from Printhead.



[C] Remove protective strip from Printhead electrical contacts. Once removed, DO NOT allow strip to touch electrical contacts.

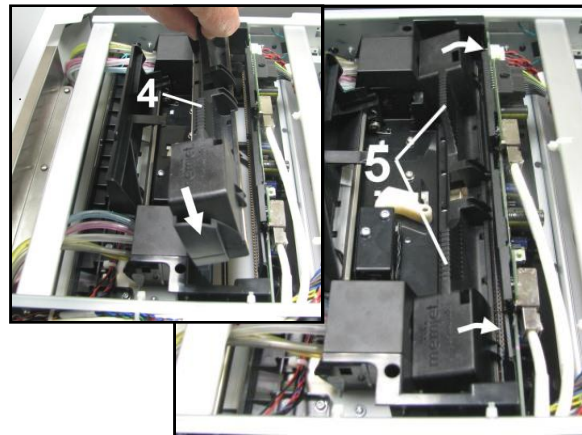


[D] Remove protective strip from Printhead Nozzles. Hold Printhead by handle. Pull strip tab and slowly peel strip from Printhead. DO NOT pull strip at less than a 45° angle from Printhead surface. DO NOT allow removed strip to touch Printhead Nozzles.



NOTE: Keep foil packaging to store/dispose of old Printhead Cartridge.

5. Carefully insert Cartridge into compartment at an angle [4], with Printhead surface facing down and Ink Nozzles facing Ink Hoses. Once seated, gently tilt Cartridge back until it snaps into an upright position [5]. **DO NOT FORCE Cartridge into position.**



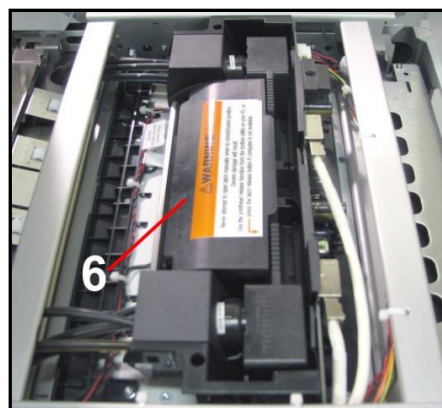
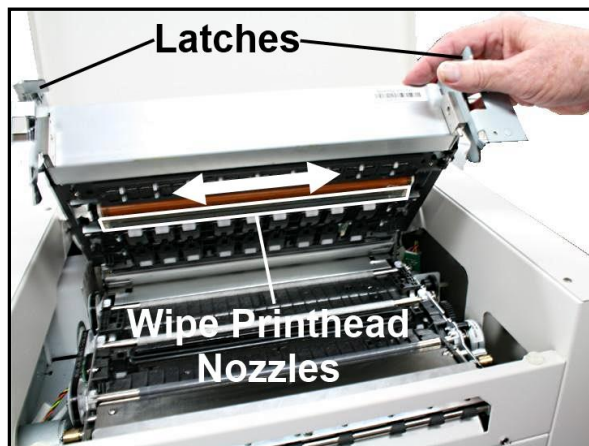
7. **Wet Printhead Surface.** (*Ensures that Printhead will prime correctly.*) Open Top Cover. Release and lift two latches **at same time** to raise Print Engine Clamshell. Moisten Printhead nozzles using distilled water and a damp, lint-free cloth, wiping end to end. (*Gray strip located below orange strip.*) Close and latch Print Engine Clamshell.

CAUTION

HOLD ONTO BOTH LATCHES WHEN OPENING AND CLOSING PRINT ENGINE CLAMSHELL TO PREVENT DAMAGE.

DO NOT ALLOW CLAMSHELL TO DROP OR SLAM CLOSED.

TO PREVENT DAMAGE TO INK LINES, A STOP LIMITS RAISING CLAMSHELL MORE THAN 60°.



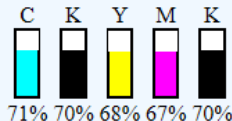
8. **Close Printhead Latch [6].** Printer starts up and primes ink into Printhead. (*This may take a few minutes.*) Make sure ink is flowing through hoses. If air bubbles appear, you may have to tap lines or click “**Circulate Ink**” in Printer Toolbox to clear them.
9. **Watch Toolbox screen again.** Notice that some information is in *red*. As Printer circulates ink and primes system these fields should all turn *black*.
10. When Printer stops processing and all fields in System Status are *black*, Printer is ready for use. Close Top Cover.

IMPORTANT!

CHECK INK TANKS. PRINTER MAY NOT FULLY REPRIME IF TANKS ARE LESS THAN 1/3 FULL.

NOTE: Printer may take up to 12 minutes to set itself up during initial startup. This is normal.

System Status: ONLINE
Mech State: STANDBY
Mech Status: ONLINE
Maint Status: STANDBY
Firmware: R14.1 20150708
Serial Number: SG233Z401689
Printhead: B004XLD - Primed
Tilt: FB=0.2 LR=0.1
Valve: Closed
Paperpath: Entry: No Exit: No
Service Station: Cap



Job: **1** Page: **1**

Total Pages: 1
Feeder: Safe Feed

User Interface
Diagnostics
Ink Usage
Network Config

Service Menus

Stop Refresh

Printhead Storage

Store and transport cartridge as indicated by “**this side up**” arrow symbol on packaging.

Cartridge and ink supply must be within operating temperature range before attempting to prime cartridge with ink and starting to print. When stored at temperatures below operating range, it may take up to 3 hours for a cartridge in its packaging to reach operating temperature. **NOTE: Additional packaging will increase time needed to reach operating temperature.**



Storage Life: 12 months from date of manufacture (*printed on shipping box*).

Storage Temperature Range:	Long Term: 14° F to 86° F (-10° C to 30° C) Short Term: -11° F to 140° F (-25° C to 60° C) NOTE: Cumulative storage duration above 86° F (30° C) must not exceed 72 hours.
Humidity Range:	5% to 95% Relative Humidity, non-condensing
Atmospheric Pressure Range:	70 kPa to 106 kPa
Electrostatic Discharge:	8 kV air discharges or 4 kV contact discharges* *When tested in accordance with IEC 61000-4-2

Printhead Service Life

Projected: 50,000,000 ejections per nozzle. Printhead has a total of 70,400 nozzles (*14,080 per color channel*.) Since printing does not use the entire length of Printhead, some nozzles do not fire as often. The most often used Nozzles will degrade more quickly. Noticing effects of failing nozzles depends partly on the relative position of those nozzles to each other. In simple terms, number of images printed and amount of ink that will pass through printhead prior to printhead degradation will depend on make-up of the images printed, operating environment, servicing, media characteristics (*including cleanliness*) and other factors.

M-Series Printhead Return Policy

Return Policy and Return Procedure for Memjet Printheads for M-Series Printers:

Limited Printhead Replacement Policy: M-Series Printheads are manufactured to be free from defects in materials and workmanship. However, should an M-Series Printhead display an obvious defect or exhibit a significant degradation of print quality prematurely, Printhead may be returned for replacement.

Returns for these conditions can be made:

- Up to 12 months after shipping date from Astro Machine Corp. *and*
- Printhead's “**Total pages printed**” = 40,000 or fewer pages (*at 15% page coverage*), whichever comes first.

This return policy excludes damage due to mishandling, tampering or misuse, improper storage or transport, or material incompatibility*.

***See “Printhead Installation” and “Replacement” sections of this manual.**

Return Procedure:

1. **Verify eligibility for return.** Check page count printed by this Printhead, if page total is more than 40,000 pages, replacement policy does not apply.

NOTE: This is NOT the Printer page count.

Make sure Printer is powered up and connected via USB or network.

To check **Printhead Page** count, enter one of following addresses in your URL search line (*depending on how Printer is connected*):

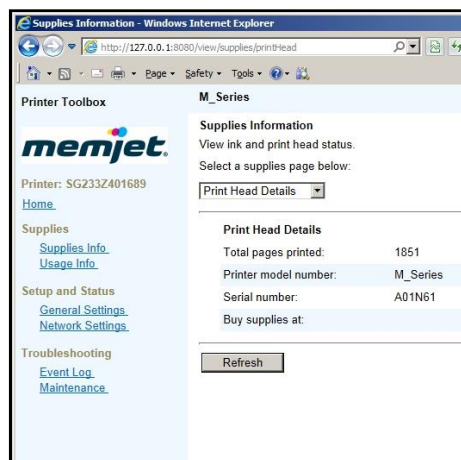
[A] For printers connected via USB:

http://127.0.0.1:8080/view/supplies/printHead

[B] For printers connected via network:

http://type your IP address here/view/supplies/printHead

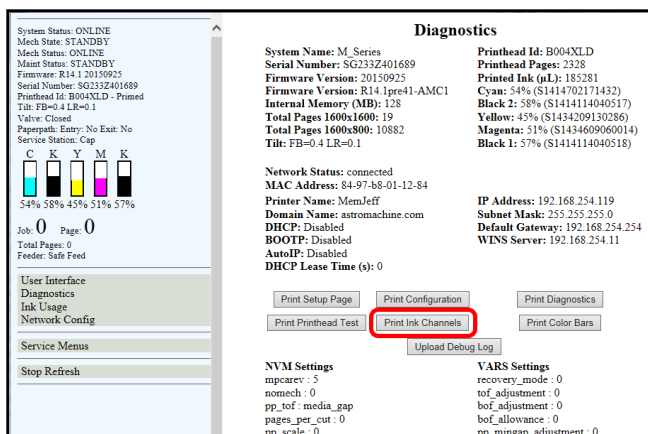
Print page to include with your return.



2. **Open Printer Toolbox.** Open **Diagnostics** page and click **Print Ink Channels** button.



Ink Channels Printout



3. Remove Printhead Cartridge from Printer per replacement instructions found in Operator's Manual.
4. Snap Printhead back into orange plastic protective cover it was shipped in. **IMPORTANT! Make sure all foam pads that came with protective cover are installed and in place (two versions shown in images at right).**
5. Reseal Printhead and Cover in a plastic bag (*reuse and reseal original packaging if possible*).
6. Place Printhead, Printhead Page Count printout and Ink Channels printout in a shipping box. Remember to include your company name, contact information and return address as well.
7. Return to your Astro Machine distributor.



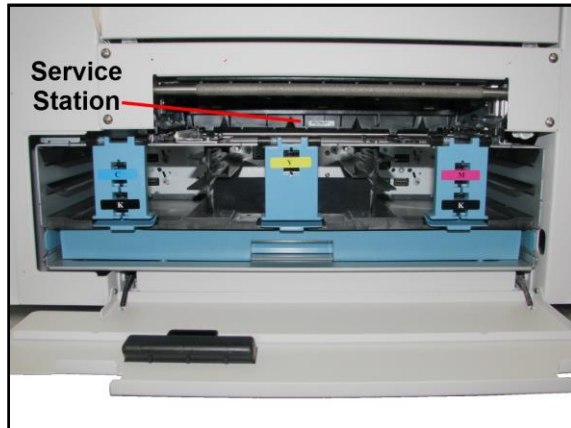
Replacing Service Station

Service Station (*located above Ink Tank Station*) cleans Printhead Cartridge of excess ink and debris, keeps Printhead hydrated and protected when not in use, captures ink used to keep nozzles clear, and acts as a base to support media during printing. It is designed to provide a long service life.

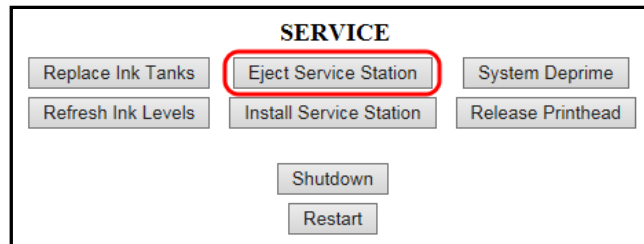
To remove Service Station for cleaning, servicing or replacement:

1. **Open Front Cover (*hinged at bottom*).**
Open Top Cover.

Release two latches and open Print Engine Clamshell. Service Station will not fully eject with Clamshell closed.



2. **Open Printer Toolbox.** Click “Eject Service Station” button.
Once Printer pushes Service Station out, turn Printer OFF.



TURN PRINTER POWER OFF.

CAUTION

WHENEVER POWERING DOWN UNIT, ALWAYS:

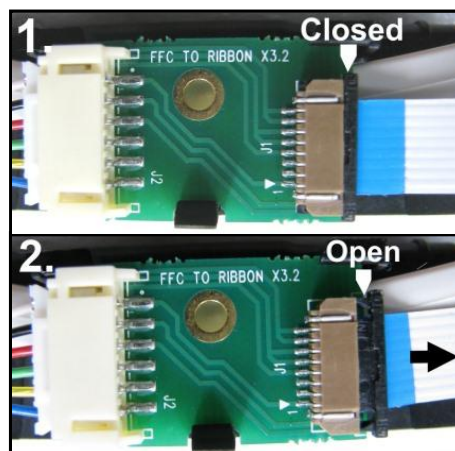
1. **PRESS POWER BUTTON ON CONTROL PANEL.**
2. **WAIT FOR PRINTER TO STOP PROCESSING.**
3. **THEN PRESS MAIN POWER SWITCH ON REAR PANEL.**

3. Carefully slide Service Station out of Service Station port. **NOTE: DO NOT pull Service Station all the way out until you disconnect Ribbon Cable.**

USEFUL TIP: Place an absorbent towel under Service Station before you remove it to catch any drips or leaks.



4. **Disconnect Ribbon Cable.** Slide Latch open on Service Station Circuit Board to release Ribbon Cable. **Remove Service Station.**



5. Carefully unwrap new Service Station. **NOTE: Loose parts may fall out. Keep roller side facing up when removing packaging.**

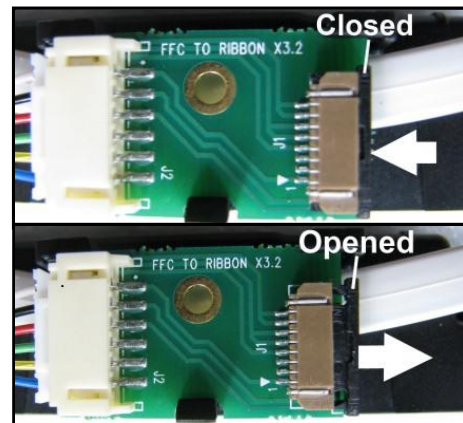
CAUTION

MAKE SURE LATCHES ON THE WIPER ROLLER ARE FULLY LOCKED BEFORE INSTALLING SERVICE STATION.

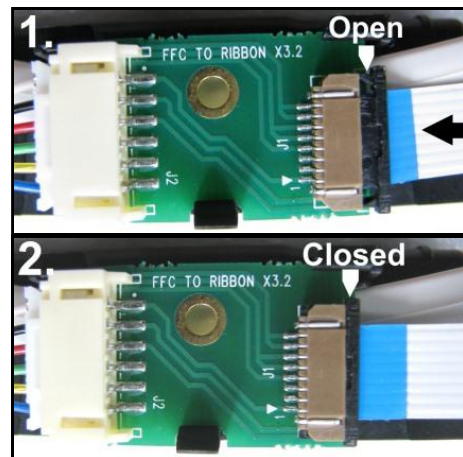


SECTION 4 MAINTENANCE

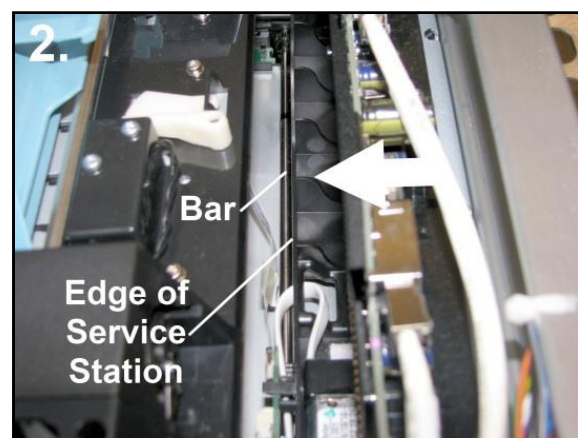
6. Slide Latch open on Service Station Circuit Board.



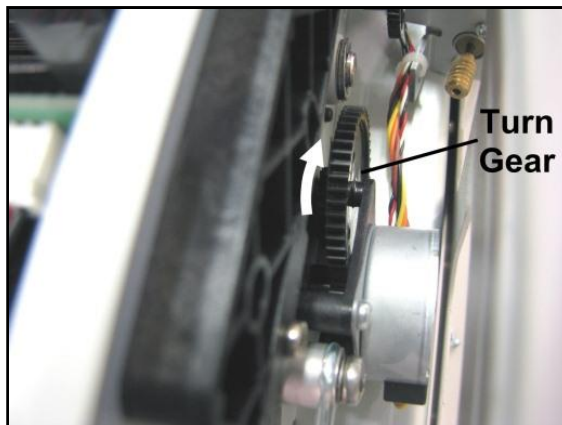
7. [1] Plug Ribbon Connector (*blue side up*) into space under Latch.
[2] Close Latch.



8. [1] Slide Service Station into Service Station port until it touches bar.
Align with tracks along sides and Guide on Service Station dock floor.
[2] Look down through Top Cover to make sure Service Station is aligned with bar.
IMPORTANT! Service Station must be perfectly aligned with bar to prevent misalignment and operating problems.



9. **GENTLY** push Service Station while turning large Gear on right side of Print Engine clockwise. Gear should engage gear on Service Station Roller and pull it in. Once Service Station starts moving, stop turning gear.



10. Power up unit, then click “**Install Service Station**” in Printer Toolbox to pull Service Station in.

NOTE: Make sure wick hanging below Service Station is inside plastic trough (*inside Ink Tank Station*) to prevent ink seepage.

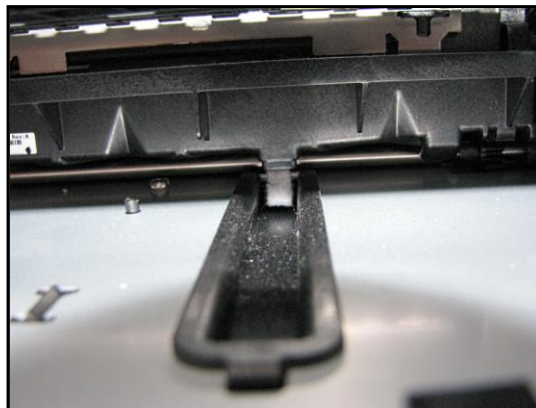
NOTE: Service Station should operate smoothly. If it binds, chatters or grinds, reinstall Service Station. Lubricate Side Tracks and Guide if necessary.



11. **Close Clamshell Cover.**
Close Front Cover.

CAUTION

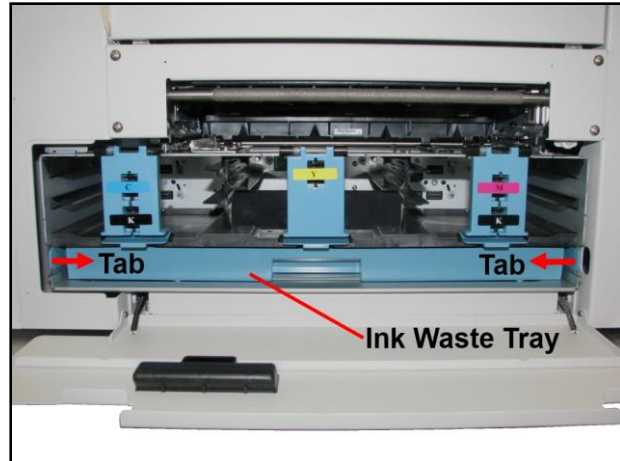
HOLD ONTO BOTH LATCHES WHEN OPENING AND CLOSING CLAMSHELL TO PREVENT DAMAGE. DO NOT ALLOW CLAMSHELL TO DROP OR SLAM CLOSED.



Replacing Ink Waste Tray

Ink Waste Tray soaks up any excess ink that may drip from Print Engine during operation. After a period of time it may become saturated and need replacement.

1. Open Ink Tank Door.
2. Push in on Tabs to release Ink Waste Tray and remove it from unit.
3. Replace with a new Ink Waste Tray.

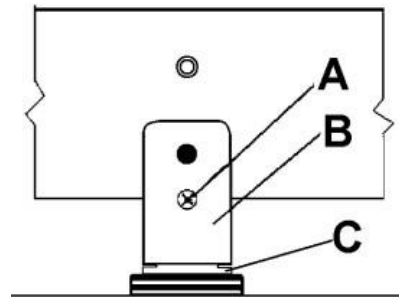


Replacing Sheet Separators

Sheet Separators ensure separation of pieces as they are being fed. If experiencing double sheet feeding and cannot adjust Separators to prevent it, replace Separators.

Replacing Sheet Separators is not difficult:

1. Turn Printer OFF and unplug it from power source.
2. Release Separator by loosening Locking Knob and moving Media Side Guides to maximum opened position.
3. Lower Separators so they touch Feed Roller.
4. Remove screw [A] and Separator Cover [B]. Remove Separator [C] by prying it out of Holder.
5. Install a new Separator and reinstall Separator Support and screw.
DO NOT overtighten screw to prevent distorting or damaging Separator.



Jams in Printer

If a jam occurs, **STOP the Printer**. Some possible causes for jamming are:

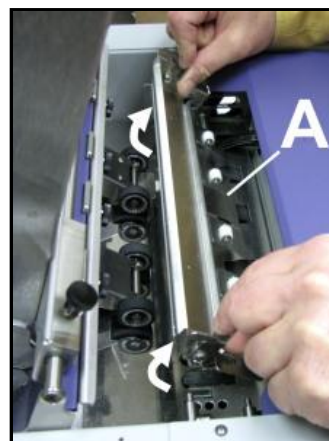
1. Feeding more than one piece of media (*double-feeding*).
2. Damaged media, such as dog-eared (*turned down corners*).
3. Media that is not stiff enough may not be usable. Media that meets Postal stiffness requirements for automated feeding is acceptable in Printer
4. Envelopes caught under flap of another envelope or stick to one another.

Removing Jammed Media

Clearing a jam depends on where jam occurred.

Feed Section: Clear by pulling media out of Separators.

Antistatic Brush Assembly: If necessary, remove Antistatic Brush Assembly [A] to access jammed material. Unlatch two latches (*one on either side of Assembly*) and lift Assembly off four mounting pins (*as shown*). **Do not bend brushes!** Clear jam, then carefully reinstall Brush Assembly.

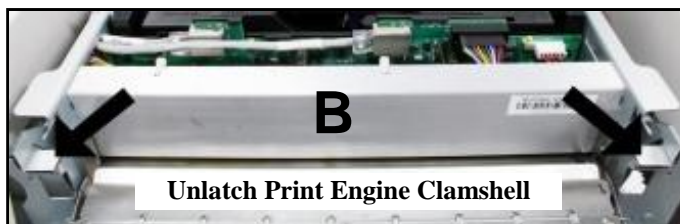


CAUTION

DO NOT BEND, PINCH OR CUT INK LINES LOCATED DIRECTLY IN FRONT OF BRUSH ASSEMBLY.

NOTE: Make sure Brush Assembly is correctly reinstalled and aligned before starting to print. Assembly should sit flat on transport area surface.

Print Engine Area: Open Top Cover. Release and lift two latches [B] (*one on each side of Print Engine Clamshell*) at **same time** to raise Clamshell [C]. Clear jam, then carefully lower and relatch Clamshell. Close Top Cover.



Unlatch Print Engine Clamshell

CAUTION

HOLD ONTO BOTH LATCHES WHEN OPENING AND CLOSING PRINT ENGINE CLAMSHELL TO PREVENT DAMAGE.

DO NOT ALLOW CLAMSHELL TO DROP OR SLAM CLOSED.

TO PREVENT DAMAGE TO INK LINES, A STOP LIMITS RAISING CLAMSHELL MORE THAN 60°.



Raise Print Engine Clamshell

Misfeeds

Misfeeds can be corrected by readjusting Sheet Separators to media or replacing them. See **“Replacing Sheet Separators”** on previous page.

Cleaning

WARNING!

PRINTER IS A PRECISION MACHINE. CLEAN REGULARLY TO INSURE MANY YEARS OF SERVICE. BEFORE PERFORMING ANY MAINTENANCE, DISCONNECT MACHINE FROM ITS POWER SOURCE!

DO NOT REMOVE SIDE COVERS! HIGH VOLTAGES PRESENT.

Clean Printer regularly to remove accumulated paper dust and ink. Depending on types of media run, paper dust may accumulate inside Printer and on Transport.

1. Turn Printer OFF and unplug it from power receptacle. Then open or remove Covers.
2. **Interior:** Use a vacuum with a soft brush attachment or a can of compressed air to help loosen dust particles. **NOTE: Be careful around ink tray and capping station** in Print Engine area as accumulated ink may splash onto other parts of Printer. Take care not to damage PC Boards or electrical wiring.
3. **Exterior:** Wipe clean with a lint-free cloth using any standard nonabrasive household cleaner that does not contain plastic-harming solvents.

CAUTION

NEVER SPRAY OR POUR CLEANERS DIRECTLY ON OR INTO PRINTER. EXCESS LIQUID COULD HARM ELECTRONIC PARTS. DAMPEN A LINT-FREE CLOTH WITH THE CLEANER AND APPLY IT TO PARTS TO BE CLEANED.

Feed Rollers and Forwarding Rollers

Feed and Forwarding Rollers can become glazed with paper lint and ink from media. Clean regularly with a mild abrasive household cleaner on a damp lint-free cloth.

NOTE: Avoid using solvents on Rubber Rollers.

Encoder Wheel

If your machine has this type of Encoder Wheel in Print Engine Area (*see picture at right*), excess ink spray or splashes may accumulate on disk. This may disable Printer and issue a **“DATA_PATH_UNDERRUN”** error in Toolbox. It is necessary to wipe off any excess ink spray or splashes to continue optimum performance.

Clean with distilled water on a damp, lint-free cloth by grasping wheel lightly with cloth and turning shaft.

Take care not to damage Encoder Wheel.



Print Engine

Areas in Print Engine can become glazed with a buildup of dust, paper lint and accumulated ink and have to be cleaned regularly. Open Top Cover. Open Clamshell Assembly by releasing two latches. Use a vacuum to pick up any loose debris.

NOTE: Be careful around Ink Tray and Capping Station in Print Engine area as accumulated ink may splash onto other parts of Printer. Take care not to damage PC Boards or electrical wiring.

CAUTION

USE ONLY DEIONIZED/DISTILLED WATER TO CLEAN PRINT ENGINE COMPONENTS. AVOID CONTAMINATING PRINthead WITH CLEANERS, LUBRICANTS OR OTHER CHEMICALS.

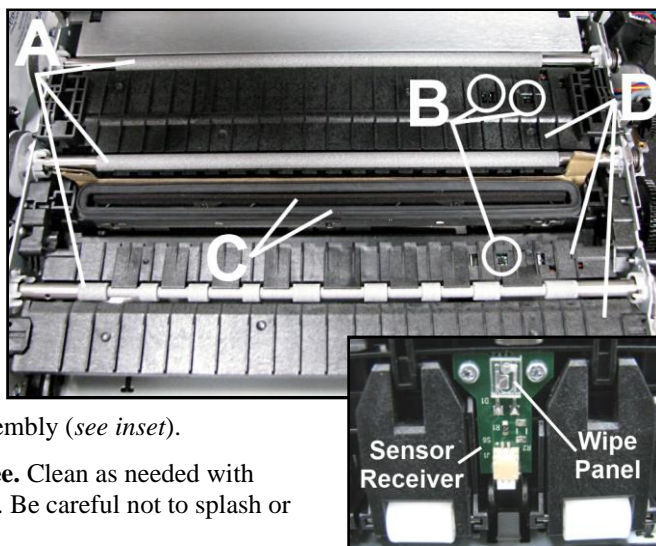
[A] Grit Rollers: Clean as needed by moistening a small hard-bristled brush or toothbrush with distilled water.

DO NOT use anything other than distilled water to clean Rollers.

[B] Media Sensors: Paper lint and dust may build up on Media Sensors. Use a can of compressed air or a damp (*not wet*) foam or lint-free cotton swab to gently swab Sensors. Take care not to drip water into Circuit Boards. Use a clean, dry swab to dab surfaces dry. Remember to wipe clear panel over Sensor Receiver in upper Printhead Assembly (*see inset*).

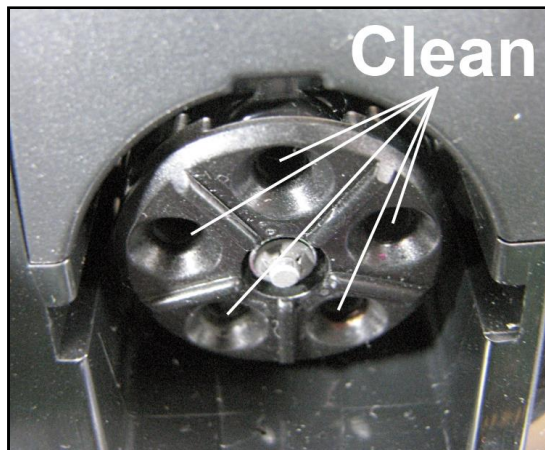
[C] Capping Station Seal and Squeegee. Clean as needed with distilled water on a damp, lint-free cloth. Be careful not to splash or drip ink on other parts of Printer.

[D] Printing Platen. Wipe with distilled water on a damp, lint-free cloth. Pat dry with a lint-free cloth.



Cleaning Ink Revolver Couplings

1. First Depressure system and remove Printhead Cartridge.
2. Moisten a foam swab in distilled water.
3. Insert swab into one of ink channels and rotate swab to clean chamber.
4. Use a new swab for each of remaining ink channels until all 10 openings are clean. (*5 on each side.*)

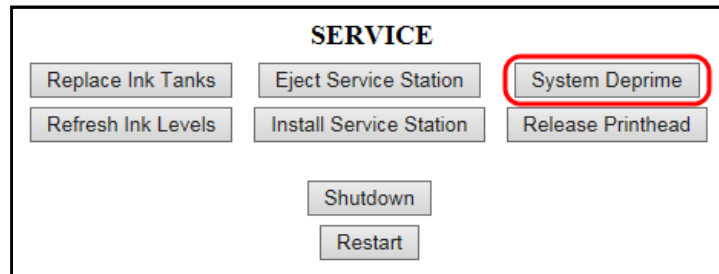


Shipping or Transporting Printer

If you have to ship or transport Printer for any reason, unit will have to be prepared. Once Printer is prepared, carefully package Printer, Printhead Cartridge, Service Station and Ink Tanks in original packaging.

Deprime System

1. Open Toolbox **User Interface** screen and click **“System Deprime”**. Depriming forces all ink to return to Ink Tanks.



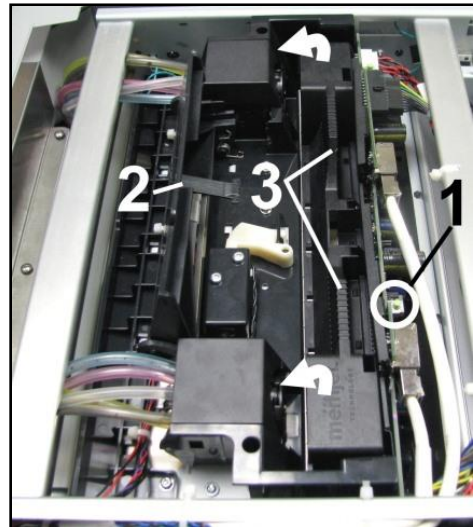
Remove Printhead Cartridge

1. **Open Top Cover.** Press Printhead Latch Release Button [1]. Printer pumps any ink in system back into Tanks. Then Printhead Latch pops open [2]. **NOTE: Perform this same function from your computer by clicking “Printhead Release” on User Interface screen in Printer Toolbox.**

CAUTION

DO NOT PRY OR MANUALLY LIFT PRINthead LATCH OR LATCH MAY BREAK. ONLY OPEN LATCH USING PRINTER'S RELEASE BUTTON OR PRINthead RELEASE COMMAND IN PRINTER TOOLBOX.

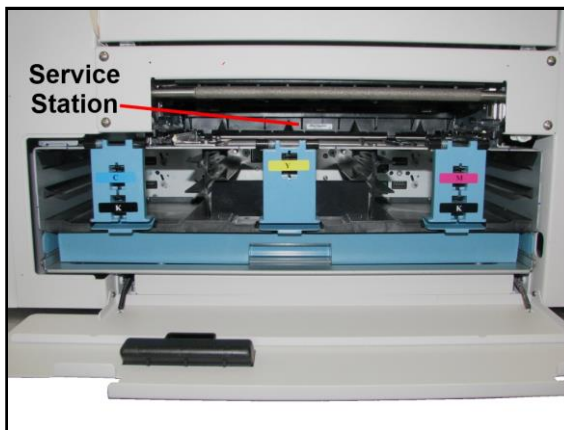
2. Make sure Printhead Latch is fully opened to retract ink lines. Remove Printhead Cartridge by tilting it toward ink lines [3], then carefully lift it out of Printhead Compartment.
3. Pack Printhead Cartridge area with absorbent towels to catch any ink drips or spills. Carefully pack Cartridge using original packaging.



Remove Service Station

1. **Open Front Cover (hinged at bottom).**
Open Top Cover.

Release two latches and open Print Engine Clamshell. Service Station will not fully eject with Clamshell closed.



2. Open Printer Toolbox. Click **“Eject Service Station”**. Once Printer pushes Service Station out, turn Printer OFF.



TURN PRINTER POWER OFF.

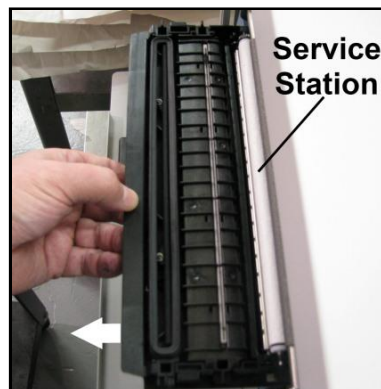
CAUTION

WHENEVER POWERING DOWN UNIT, ALWAYS:

1. PRESS POWER BUTTON ON CONTROL PANEL.
2. WAIT FOR PRINTER TO STOP PROCESSING.
3. THEN PRESS MAIN POWER SWITCH ON REAR PANEL.

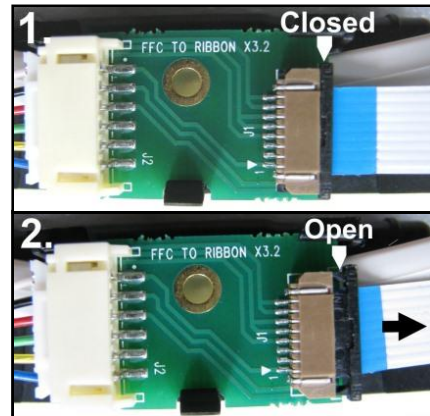
3. Carefully slide Service Station out of Service Station port.
NOTE: Do not pull Service Station all the way out until you disconnect Ribbon Cable.

NOTE: Place an absorbent towel under Service Station before removing it to catch any drips or leaks.



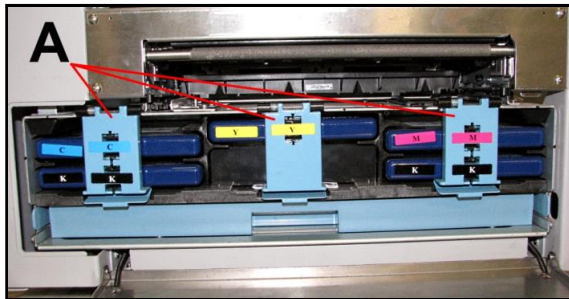
SECTION 4 MAINTENANCE

4. **Disconnect Ribbon Cable.**
Slide Latch open on Service Station Circuit Board to release Ribbon Cable. **Remove Service Station.**



Remove Ink Tanks

1. Open Front Cover (*hinged at bottom*).
Unlatch three Locks [A] and pull Ink Tank(s) out of Printer.
2. Carefully package Ink Tanks in original packaging.
IMPORTANT: Make sure ink seals on Ink Tanks face up to prevent leakage.



3. Pack Ink Tank bays with absorbent towels to catch any ink drips or spills.

SECTION 5 – *Troubleshooting Guide*

Troubleshooting Guides are provided to assist in solving any problems that might occur with Printer. We tried to make them as complete as possible. The best advice we can offer is to make sure that system is set up properly, plugged in, and has an adequate supply of ink before attempting to troubleshoot any problem.

Memjet® Printhead

CONDITION	PROBLEM	SOLUTION
Missing parts of letters or text.	Air and bubbles blocking Nozzles.	Clean Printhead using recirculation, priming or cycles of depriming and priming found in Driver or Toolbox . Rehydrate Printhead using distilled water and a wet, clean, lint-free cloth. Bubbles often disappear with Printer use.
Print shows regularly missing or misdirected nozzles or ink color mixing.	Debris on Printhead.	Perform startup routine. Clean Printhead using Cleaning Levels in Driver or Toolbox . Wipe Printhead manually with distilled water and a wet, clean, lint-free cloth. Replace Printhead.
Ink mixing – Mixed or muddy colors.	Causes: Ink flooding, air in Printhead or a dirty Printhead.	Clean Printhead using Cleaning Levels in Driver or Toolbox . Wipe Printhead manually with distilled water and a wet, clean, lint-free cloth.
No print or crisp blocks of missing drops.	Electrical failure or poor electrical connection.	Reseat Printhead. Replace Printhead.
System will not reprime ink after replacing Printhead Cartridge	Printhead nozzles dry. Ink Tanks may be 1/3 full or less.	Wipe Printhead manually with distilled water and a wet, clean, lint-free cloth. Replace Ink Tanks.

WARNING!

**DO NOT REMOVE SIDE COVERS OF PRINTER!
HIGH VOLTAGES PRESENT BEHIND COVERS!**

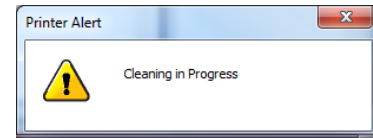
Printer

CONDITION	PROBLEM	SOLUTION
Ink Tank installed, no Ink Level indication in Toolbox	Ink Tank contacts dirty, preventing Printer/Ink Tank communication.	Remove Ink Tank(s). Clean prism and QA Chip contacts, see Maintenance , <i>Cleaning Ink Tank Contacts</i> .
Extra lines; losing data	Database problem.	Check data in database program.
Improper output (address information out of order, misfeeding, etc.)	Wrong interface settings. Static electricity. Dirty Media Sensor.	Check software or database on PC. Close software, then turn Printer OFF and ON. Clean Media Sensor.
Media jams	Double feeding. Media is curled or bent. Media is too thin.	Adjust Sheet Separators on Feeder. Uncurl media. Minimum thickness for media is 0.004".
No communication	Improper cabling / connector. Unit not receiving power.	Use proper USB cable (see <i>Operator Manual</i>). Check plug connections, ON/OFF button and fuse on back panel.
Print too light or missing character dots	Clogged or dirty Printhead. Running out of ink.	Check Printhead. Check Ink Tanks.
Blurry address 	Image is not sharp.	Clean Printhead using Cleaning Levels in Driver or Toolbox . Clean Printhead manually using distilled water and a wet, clean, lint-free cloth.
Feeding problems	Double sheets. Misfeeds.	Adjust Sheet Separators.
Job is sent to print but does not print.	Printer not turned ON. Printer not connected to computer. Media Sensor is covered in Print Engine.	Check that Printer is ON. Connect printer cable to computer and resend job. Open Print Engine and remove media.

Errors and Warnings

Printer Alert Window Messages

Messages sent from Driver and displayed on PC screen in a small popup window.



MESSAGE	SOLUTION
Cleaning in Progress	Wait until message disappears. Printer will start printing your job once cleaning process is complete.
Excessive Tilt Error	See details under “ Toolbox System Status Messages ” section.
Incompatible Printhead	Remove and reinsert your Printhead Cartridge. Replace Printhead. Printhead Cartridges must be purchased from authorized supplier for this printer model.
Incorrect ... Ink Tank	Replace Ink Tank. Ink Tanks must be purchased from authorized supplier for this printer model.
.... Ink Low Example: Black Ink Low	Reorder Ink.
.... Out of Ink Example: Cyan Ink Out	Replace empty Ink Tank.
Load Paper	Out of Paper. Load media into Printer and press PAPER button to resume printing.
Mechanical Jam	Check for and remove obstruction, then press PAPER button to resume printing. Check/Clean Sensors. If problem persists, contact technical support.
Missing Printhead	Remove Printhead Cartridge. Check/clean electrical contacts. Reinsert Printhead. Replace Printhead. If problem persists, contact technical support.
Multiple Inks Low	Reorder Ink.
Multiple Ink Tanks Out	Replace empty Ink Tanks.
Multiple Ink Tanks are missing	Insert missing Ink Tanks. Clean electrical contacts and reseal Ink Tanks.
Multiple Unauthorized Ink Tanks	Remove and reinsert Ink Tank. Replace Ink Tank. Ink Tanks must be purchased from authorized supplier for this printer model.
Paper Jam	Remove jammed media. Check for proper feed setup then press PAPER button to resume printing. Check/Clean Sensors. If problem persists, contact technical support.
Printhead Latch Open	Ensure that Printhead Cartridge is inserted properly, then close Printhead Latch so it locks.
Print Zone Assembly (Clamshell) Open	Check to be sure Clamshell is completely closed and latched. Make sure Print Engine Latches are secure.
The ... Ink Tank is missing	Insert missing Ink Tank. Clean electrical contacts and reseal Ink Tank.
Unauthorized ... Ink Tank Installed	Ink Tanks must be purchased from authorized supplier for this printer model.
Unauthorized Printhead	Printhead Cartridges must be purchased from authorized supplier for this printer model.

SECTION 5 TROUBLESHOOTING

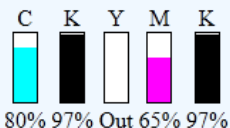
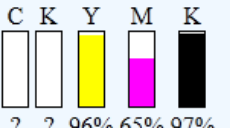
Toolbox System Status Messages

Displayed in **red** in M Series Toolbox utility.

(Valid for printers with firmware version 20130820 or higher installed.)

SYSTEM STATUS	SOURCE	SOLUTION
System Status: PAPERPATH_FEED_TIMEOUT Mech State: PRINTING Mech Status: PAPERPATH_FEED_TIMEOUT Maint Status: PRINTING	Out of Paper Media is not reaching Print Engine. Hesitation in media feed.	Load media into Printer and press PAPER button to resume printing. If media is present; check/adjust Guides and Separators.
System Status: PAPERPATH_FEED_TIMEOUT Mech State: STANDBY Mech Status: PAPERPATH_FEED_TIMEOUT Maint Status: MAINT Reason: Uncapped printhead or clamshell open	Paper Jam When “ Out of Paper ” error is shown in combination with “ Uncapped Printhead ” or “ Clamshell open ” error, a paper jam is indicated.	See below
System Status: PAPERPATH_PAPERJAM Mech State: STANDBY Mech Status: PAPERPATH_PAPERJAM Maint Status: MAINT Reason: Uncapped printhead or clamshell open Firmware: 20130820 Serial Number: MY275MR01388 Printhead: A01NRU - Primed Tilt: FB=0.1 LR=0.0 Valve: OpenInk Paperpath: Entry: Yes Exit: Yes	Paper/Media jam detected. Printer has detected that one (or both) Media Sensors are blocked (<i>interrupted</i>).	Carefully remove jammed media from Printer and close Print Engine. System Status message in red should go away. Toolbox “ Paperpath ” line should change to: Paperpath: Entry: No Exit: No After jam is cleared, you can: Press PAPER to resume printing. Press CANCEL to cancel job then manually clear t job from computer’s print queue.
System Status: PAPERPATH_PAGE_SEQUENCE Mech State: STANDBY Mech Status: PAPERPATH_PAGE_SEQUENCE Maint Status: STANDBY Firmware: R14.1 20150819	Media thickness problem detected. Indicates one or more single sheets stuck together and fed through Printer.	Remove stuck together media from Printer. Press PAPER to resume printing.
System Status: DOOROPEN_FRONT Mech State: STANDBY Mech Status: ONLINE Maint Status: MAINT Reason: Uncapped printhead or clamshell open	Indicates that “Clamshell” is open. Sensor cable unplugged P202.	Verify that Clamshell is closed and securely latched on both sides. Make sure that Clamshell switch (<i>located on opposite side</i>) is activated by Clamshell Lever. Use Scan Sensors in Toolbox to check that Clamshell switch is functioning.
DATA_PATH_UNDERRUN	Media is not moving from Entry Sensor to Exit Sensor within a specified time. Possible issue with format or orientation of job being sent. Dirty Encoder Wheel.	Check/clean Transport Rollers. Check/clean Sensors. Try changing orientation setting in software/driver or setting a different media size. Check/clean Encoder Wheel. If problem persists contact technical support.

Toolbox System Status Messages (*Continued*)

SYSTEM STATUS	SOURCE	SOLUTION
INK_LOW	X = Color. One or more Ink Tanks are low on ink.	Ink Tank replacement will be necessary soon. Reorder Ink.
System Status: INK_OUT_YELLOW Mech State: STANDBY Mech Status: ONLINE Maint Status: MAINT Reason: Ink error 	X = Color. One or more Ink Tanks are out of ink.	Replace empty Ink Tank(s), using “Replace Ink Tanks” command from EWS. Verify that Ink Tanks are seated firmly and latches are fully closed. Clear error using “Refresh Ink Levels” command in Toolbox or just press PAPER to refresh ink levels and continue printing.
System Status: MAINTENANCE_BUSY Mech State: STANDBY Mech Status: ONLINE Maint Status: MAINT Reason: None	Machine is performing a maintenance procedure.	No action required.
System Status: CARTRIDGE_MISSING_MULT Mech State: STANDBY Mech Status: ONLINE Maint Status: MAINT Reason: Ink error 	Ink Tank is missing or not recognized (<i>obtained from an unauthorized reseller</i>). If correct ink, check contacts.	Insert missing Ink Tank or pop Ink Tank in and out to improve connection. Clear error using “Refresh Ink Levels” command in Toolbox or just press PAPER to refresh ink levels and continue printing.
System Status: TILT_ERROR Mech State: STANDBY Mech Status: ONLINE Maint Status: STANDBY Firmware: 20130820 Serial Number: SG11RZ301363 Printhead: B001JD1 - Primed Tilt: FB=2.7 LR=0.4	Printer is not level*. Printer's electronics have detected that Print Engine is too far out of level. Tilt Sensor needs to be recalibrated. P2005 unplugged. *NOTE: Tilt should be less than ±2 degrees. If Tilt warning indicates more than ±2 degrees FB or LR, (even if Printer continues to run) Printer must be leveled again to prevent damage or print issues.	Make sure that Printer is placed on level surface. Failure to do so may result in severe ink mixing and cause an inaccurate ink level reading in Ink Tanks. If just powered on, wait a few minutes; error may clear by itself. Once Tilt Level drops to 1.99 or less, clear error using “Clear Error” feature in Toolbox. Make sure Printer is placed on a sturdy, level worktable. DO NOT move Printer while power is on. If Tilt Level is 1.99 or less, you can clear this error using “Clear Error” feature in M Series Toolbox. Contact technical support person to have them check level and possibly “Zero” Tilt Sensor.

SECTION 5 TROUBLESHOOTING

Toolbox System Status Messages (*Continued*)


SYSTEM STATUS	SOURCE	SOLUTION
<p>System Status: MECH_FAIL_PERMANENT Mech State: STANDBY Mech Status: MECH_FAIL_PERMANENT Maint Status: MAINT Reason: Sled lift failed</p> <p>System Status: MECH_FAIL_PERMANENT Mech State: STANDBY Mech Status: MECH_FAIL_PERMANENT Maint Status: MAINT Reason: Ink valve failed Firmware: 20130820 Serial Number: SG11RZ301363 Printhead: B001JD1 - Primed Tilt: FB=0.2 LR=0.4 Valve: Unknown</p>	<p>Mechanical error One of Printer's mechanical components was not properly registered at expected position.</p> <p>Mechanical failure or Sensor failure.</p>	<p>Visually inspect component stated as a "Reason" for failure.</p> <p>Using Scan Sensors page in Toolbox, perform toggle test on Sensor responsible for registration of failed mechanical component position.</p> <p>Lifter Arm Sensor is dirty or damaged, Lifter Motor Cable is unplugged, operator's side Lifting Arm is damaged, or Lifting Arm mechanism is stuck.</p> <p>Dual Pinch Valve problem: Check Sensor board connector and flag/sensors alignment. Check Valve motor connector. Check P2005 cable on MPCA.</p> <p>At this point, this error may represent an Ink Pump error, since there is no return signal from pump and therefore, a separate message describing an Ink Pump error.</p>
<p>System Status: [Crit 63 03-phead offline cancelpage restart] Mech State: STANDBY Mech Status: [Crit 63 03-phead offline cancelpage restart] Maint Status: MAINT Reason: Uncapped printhead or clamshell open</p>	<p>Data Cables unplugged, dirty Printhead contacts, dirty PPCA contacts.</p>	<p>Check data cables (P250, P260), clean Printhead contacts, and/or clean PPCA contacts.</p>
<p>System Status: ONLINE Mech State: STANDBY Mech Status: ONLINE Maint Status: MAINT Reason: Uncapped printhead or clamshell open</p>	<p>Service Station is ejected, Service Station position sensors are damaged or malfunctioning.</p>	<p>Check Service Station position. Using Scan Sensors page in Toolbox, perform toggle test on two Sensors responsible for registration of Service Station position.</p>
<p>System Status: PRINTHEAD_MISSINGQA Mech State: STANDBY Mech Status: ONLINE Maint Status: STANDBY Firmware: 20130820 Serial Number: MY275MR01388 Printhead: - Unprimed</p>	<p>Printhead missing and one or more of Ink Tanks are missing, When this error occurs, Multiple EWS monitoring is disabled.</p>	<p>Install Printhead. Install Ink Tanks.</p>

Toolbox System Status Messages (Continued)

SYSTEM STATUS	SOURCE	SOLUTION
<p>System Status: PRINthead_MISSINGQA Mech State: STANDBY Mech Status: ONLINE Maint Status: MAINT Reason: Printhead error Firmware: 20130820 Serial Number: MY32LMR01665 Printhead: 0 * pwm - 1008 set load [expr {[fmult -6 - Unprimed Tilt: FB=-1.0 LR=0.2 Valve: Unknown Paperpath: Entry: No Exit: No Service Station: Cap</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">C</div> <div style="text-align: center;">K</div> <div style="text-align: center;">Y</div> <div style="text-align: center;">M</div> <div style="text-align: center;">K</div> </div> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; width: 20px; height: 40px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 40px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 40px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 40px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 40px; margin: 0 auto;"></div> </div> <div style="display: flex; justify-content: space-around; align-items: center;"> ????? </div>	<p>Printhead missing and one or more of Ink Tanks are missing. When this error occurs, Multiple EWS monitoring is disabled.</p>	<p>Install Printhead. Install Ink Tanks.</p>
<p>System Status: PRINthead_MISSING Mech State: STANDBY Mech Status: ONLINE Maint Status: MAINT Reason: Uncapped printhead or clamshell open</p> <p>System Status: PRINthead_MISSING Mech State: STANDBY Mech Status: ONLINE Maint Status: MAINT Reason: Printhead error</p>	<p>No Printhead installed or Printhead not making proper connections. J2001 cable unplugged. Printhead Latch is open.</p>	<p>If Printer was just powered on, wait a minute; error may clear by itself. Install Printhead Cartridge. Remove and reinstall Printhead. Replace Printhead. Refer to appropriate sections in this manual for removing and installing Printhead Cartridge.</p>
<p>PRINthead_UNPRIMED</p>	<p>Printhead priming process has failed.</p>	<p>If Printer was just powered on, wait a minute; error may clear by itself. Remove Printhead Cartridge, wet print nozzles using deionized or distilled water and reinstall Printhead Cartridge. Refer to appropriate sections in this manual for removing and installing Printhead Cartridge. If you continue to have trouble priming Printhead; check for kinked or pinched color tubes.</p>
<p>MECH_CANCELPAGE</p>	<p>Job was cancelled by user pressing CANCEL button. Job was interrupted by "Clamshell" being momentarily opened.</p>	<p>Wait until print job has cleared from Printer. Then manually clear job from computer's print queue. Then send new print job. Check to be sure "Clamshell" is securely latched, then press "Clear Error" button to continue. If problem persists, contact service support.</p>

SECTION 5 TROUBLESHOOTING

Toolbox System Status Messages (*Continued*)

SYSTEM STATUS	SOURCE	SOLUTION
<p>WIPER OVERTEMP</p> <p>System Status: ONLINE Mech State: PRINTING Mech Status: ONLINE Maint Status: READY Firmware: R14.3 20160819 Serial Number: MY275MR01388 Printhead Id: A01NS3 - Primed Tilt: FB=-1.1 LR=0.4 Valve: OpenInk Paperpath: Entry: No Exit: No Service Station: Cap</p> <p>C K Y M K  35% 52% 66% 64% 50%</p> <p>Job: 2 Page: 316 Total Pages: 1319 Extreme Digital - Career Transition for Dancers - A10.pdf Feeder: Safe Feed Service: 0 of 50 Wiper Xfer: 1 Wiper Overtemp PAUSED</p>	<p>Wiper Motor is overheated due to performing a Wiper Transfer (<i>removing excess ink off Service Station Wiper</i>) too often or for multiple or extended periods. Printer will continue maintenance after Wiper Motor cools down. Message will disappear once the temperature returns to operating range.</p>	<p>Wait for Wiper Motor to cool down, Printer will automatically resume operation. NOTE: If running a number of short jobs or jobs on smaller media, reset Mid-Job Servicing interval to a higher number of pages.</p>

Appendix A – Printer Specifications

PRINT RESOLUTION	Best: 1600 x 1600 DPI Normal: 1600 x 800 DPI
SPEED (color or mono)	Up to 3600 letter size pages or 9000 envelopes per hour
MEDIA SIZE	Minimum: 3" x 4.2" (76 mm x 107 mm) Maximum: 9.5" x 17" (241 mm x 431 mm)
PRINT AREA	8.5" x 30" (215 mm x 762 mm)
MEDIA THICKNESS	Minimum: 0.004" (0.102 mm) Maximum: 0.020" (0.5 mm)
DUTY CYCLE	350,000 #10 Envelopes per month
INK	Water-based ink. 5 individual 250 ml ink tanks (CMYKK)
PRINT CARTRIDGE	Memjet® Replaceable Printhead
INTERFACE	USB 2.0 and Ethernet
ELECTRICAL	115-240 VAC, 50/60 Hz
DIMENSIONS	20" W x 24" L x 17-1/4" H (50.8 cm x 61 cm x 44.0 cm)
WEIGHT	75 lbs. (34 kg)

All Specifications Subject To Change Without Notice

Appendix B – Supplies and Optional Hardware

The following supply items and optional hardware are available from your Astro Machine Distributor:

SUPPLIES	
Black Ink Tank	123-2412
Cyan Ink Tank	123-2413
Magenta Ink Tank	123-2414
Yellow Ink Tank	123-2415
OPTIONAL HARDWARE	
Conveyor /Stacker Conveyor Leg Kit Conveyor Drop Tray	CD-700 57E-600-10 DTM-255
Drop Tray (Printer)	DT-420
Duplex Printer Upgrade	M1DX

INDEX

#10 Envelope Setup.....	26
9.5" x 17" Paper Setup.....	26

A

Adjustable Media Guide.....	1, 2, 8
Assembling Printer	8

C

Cancel Button	1
Cartridge, Printhead.....	3
Choose Location.....	6
Clamshell Latches	3
Cleaning	
Encoder Wheel.....	56
Ink Revolvers.....	57
Ink Tank Contacts.....	43
Print Engine	57
Printer	56
Printhead.....	44
Rollers.....	56
Color Tab, Printer Driver	31

Connection

Computer	9
Network	2, 9
Printer	9
USB	2, 9, 11

Control Panel

Cancel Button	1
LED Chart Cutout.....	75
Paper Button	1
Power Button	1
Control Panel Button Functions	5
Counter, LCD	2

D

Diagnostics, Toolbox.....	37
Disposal, Ink Tanks	44

E

Encoder Wheel, Cleaning.....	56
Envelope Attachment Spacers	23
Envelope Printing Attachment.....	22
Envelope/Paper Media Guide.....	1, 2
Envelope/Paper Side Guide.....	8
Error Messages	63

F

Feed Setup	24
Firmware Download.....	36
Firmware, Updating.....	40
Front Cover.....	1
Fuse	2

G

General Tab	28
-------------------	----

H

Head Media Guide.....	22
-----------------------	----

I

Import/Export Tab, Printer Driver	31
Indicators, Control Panel Button	5
Ink Revolver Couplings.....	3
Ink Revolvers.....	57
Ink Tanks	4
Cleaning Contacts	43
Disposal	44
Installing	17
Latches.....	4
Remove/Replace	41, 60
Storage	44
Ink Usage, Toolbox	38
Ink Waste Tray	4, 54
Installing	
Envelope Attachment Spacers	23
Ink Tanks	17
Printer Driver	10
Printer Driver Over USB	10
Printer Driver, Network Version A.....	12
Printer Driver, Network Version B	15
Printhead	19

J

Jams in Printer	55
Job Setup in MS Word.....	26

L

Latches

Clamshell	3
Ink Tanks	4
Printhead	3
Layout Tab.....	29
Location, Choose	6

M

Main Power Switch	2
Maintenance	41
Maintenance Schedule	73
Media Profiles Chart.....	29
Minimum Requirements, System	10
Misfeeds	55
MS Word	26

N

Network Configuration, Toolbox	39
Network Connection	2, 9

O

Operating Printer	26
Optional Hardware	69

INDEX

P

Package Contents	6
Paper Button	1
Power Button	1
Power Connection	2

Print Engine

Cleaning.....	57
Ink Revolvers.....	57
Print Ink Channels	3
Printhead Release Button.....	3
Service Station.....	4

Printer

Assembly	8
Cleaning.....	56
Connection.....	9
Control Panel LED Cutout.....	75
Fuse, Main	2
Jams	55
Main Power Switch.....	2
Maintenance.....	41
Media Profiles Chart.....	29
Operating	26
Optional Hardware.....	69
Receptacle, Power.....	2
Service Station Transport Tab	7
Setup	6
Shipping/Transporting	58
Specifications.....	69
Supplies	69
Troubleshooting.....	62
Unpacking.....	6
Updating Firmware.....	40

Printer Driver

Color Tab.....	31
General Tab	28
Import/Export Tab	31
Installing	10
Layout Tab.....	29
Network Install, Version A.....	12
Network Install, Version B.....	15
Properties	28
Services Tab	32
USB Install	10

Printer Toolbox

Diagnostics	37
Ink Usage	38
Network Configuration	39
Service Menu	40
User Interface.....	33
Using.....	33

Printhead

Cleaning.....	44
Installing	19
Latch	3
Remove/Replace	44, 58
Return Policy	48
Return Procedure	49
Service Life.....	48
Storage	48
Troubleshooting.....	61

R

Rear Guide.....	1, 2, 8
Rear Guide Support	1, 2, 25
Rear Paper Support.....	8
Receptacle, Power	2
Remove/Replace	
Envelope Attachment.....	22
Envelope Attachment Spacers	23
Head Media Guide	22
Ink Tanks	41, 60
Printer Jams.....	55
Printhead	44, 58
Service Station	50, 59
Service Station Tab.....	7
Sheet Separators.....	54
Shipping Tape	7
Rollers, Cleaning	56

S

Schedule, Maintenance	73
Service Life	
Printhead	48
Service Menu, Toolbox	40
Service Station	4
Remove/Replace	50, 59
Transport Tab.....	7
Services Tab	32
Setup	
#10 Envelope	26
9.5" x 17" Paper Setup	26
Feed.....	24
MS Word	26
Network Configuration	39
Printer	6
Sheet Separators	
Adjusting.....	24
Remove/Replace	54
Shipping Tape, Remove	7
Shipping/Transporting Printer	58
Spacers, Envelope Attachment	23
Specifications, Printer.....	69

INDEX

Storage

Ink Tanks	44
Printhead	48
Supplies, Printer	69
System Requirements, Minimum	10

T

Top Cover	1
Troubleshooting	61
Errors and Warnings	63
Printer	62
Printhead	61

U

Unpacking	6
USB Port	2, 9, 11
User Interface, Toolbox	33
Using Printer Toolbox	33

W

Warning Messages	63
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PRINTER MAINTENANCE SCHEDULE

General, periodic maintenance is needed to keep Printer in good working order. Many tasks can be performed by operators with basic supplies, no special tools needed. Other tasks should only be performed by trained service personnel. **NOTE:** High volume usage may require more frequent maintenance.

Maintenance Supplies & Equipment: Flashlight, small telescoping mirror, hard-bristled toothbrush or equivalent, powder-free nitrile gloves, protective clothing and eyewear, small flathead screwdriver, tweezers, vacuum with wand, deionized distilled water, Super Lube 21030 synthetic grease (*or equivalent*), Loctite 38650 copper anti-seize (*or equivalent*), can of compressed air, foam or lint-free cotton swabs, lint-free wipes, disposable shop towels.

COMPONENTS/TASKS	MAINTENANCE TYPE				
	DAILY	BI-WEEKLY	MONTHLY	YEARLY	AS NEEDED
PERFORMED BY OPERATOR					
Printhead (Manual Wiping)					WIPE
Ink Revolver Couplings and Connections: Inspection/Cleaning					EVERY PRINTHEAD REMOVAL
Residue and Debris Removal	CLEAN	CLEAN	CLEAN	CLEAN	CLEAN
Optical Sensors (Media Path)		CLEAN	CLEAN	CLEAN	
Wiper Assembly: Inspection		INSPECT	INSPECT	INSPECT	
Grit Rollers (Media Path)			INSPECT	CLEAN	
Ink Tank Latches/Ink Bay				INSPECT	
Ink Tubing, Couplings, Components			INSPECT	INSPECT	
Ink Waste Tray			INSPECT	INSPECT	REPLACE
Lift Motor Gear			INSPECT	INSPECT	
PERFORMED BY SERVICE TECHNICIAN					
Lubrication				APPLY	
Pen Driver PCA Contacts: Cleaning					EVERY PRINTHEAD REMOVAL
Moving Parts/Motor				TEST	
Service Station Sled Assembly				CLEAN	
Wiper Assembly: Cleaning				CLEAN	

WARNING!




ALWAYS POWER DOWN PRINTER BEFORE CONNECTING OR DISCONNECTING ANY WIRING HARNESSES OR CABLE CONNECTIONS TO AVOID SERIOUS SHOCK OR INJURY.

CAUTION

- ALWAYS USE APPROPRIATE PERSONAL PROTECTION EQUIPMENT (PPE).
- USE ELECTROSTATIC DISCHARGE (ESD) PROTECTION WHEN MAINTAINING EQUIPMENT.
- DISPOSE OF ALL MAINTENANCE WASTE IN ACCORDANCE WITH LOCAL REGULATIONS.

Control Panel LED Sequences

Print and cut out this chart to mount on Printer if desired. **Suggested location:** Top Cover.

LED Sequence	Printer Status	Recommended Action
 <p>Flashing, simultaneously</p>	Powering up or Shutting down	Wait for process to finish
 <p>ON, Steady</p>	Printer powered up in Standby mode	Load Media
 <p>ON, Steady</p>	One of the printing sensors is covered or dirty	Open Clamshell, remove media or clean sensors
 <p>Flashing SLOW</p>	Printer Paused, (Data pending)	Press PAPER to Start/Resume printing or CANCEL to clear job
 <p>Flashing FAST</p>	Out Of Paper (Data pending, Media not present)	Reload Media, Press PAPER to Start/Resume printing, or CANCEL to clear job
 <p>ON, Steady</p>	<i>Ink Supply error:</i> Ink Out, Ink Missing, Printhead Unprimed...	Replace empty Ink Tank and press PAPER to resume, or Circulate ink
 <p>Flashing SLOW, simultaneously</p>	<i>Busy Signal:</i> Performing maintenance, Loading, Ejecting media	Wait for process to finish
 <p>Flashing FAST, simultaneously</p>	<i>Hardware error:</i> Door Open, Machine tilted, Service Station Error, Printhead missing...	Find and fix error
 <p>Flashing, alternating</p>	Downloading Data, Printing	Press PAPER to Pause printing

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Elk Grove Village, IL 60007

09/19/2016

Part Number: 200-M1, Rev. W
