

Inkjet Printer
AS-450



SAFETY PRECAUTIONS

THIS EQUIPMENT PRESENTS NO PROBLEM WHEN USED PROPERLY. OBSERVE SAFETY RULES WHEN OPERATING THE PRINTER. BEFORE USING PRINTER, READ THIS MANUAL CAREFULLY AND FOLLOW RECOMMENDED PROCEDURES, SAFETY WARNINGS, AND INSTRUCTIONS:

WARNING:

Hazardous Moving Parts. Keep Fingers and Other Body Parts Away.

- ✓ 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 machine, or performing any maintenance covered in this manual.
- ✓ Use power cord supplied with machine. Plug it into a properly grounded, easily accessible wall outlet located 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 or remove ground pin from line cord. Avoid using wall outlets that are controlled by wall switches, or shared with other equipment.
- ✓ **DO NOT** route power cord over sharp edges or trap it between furniture. 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.

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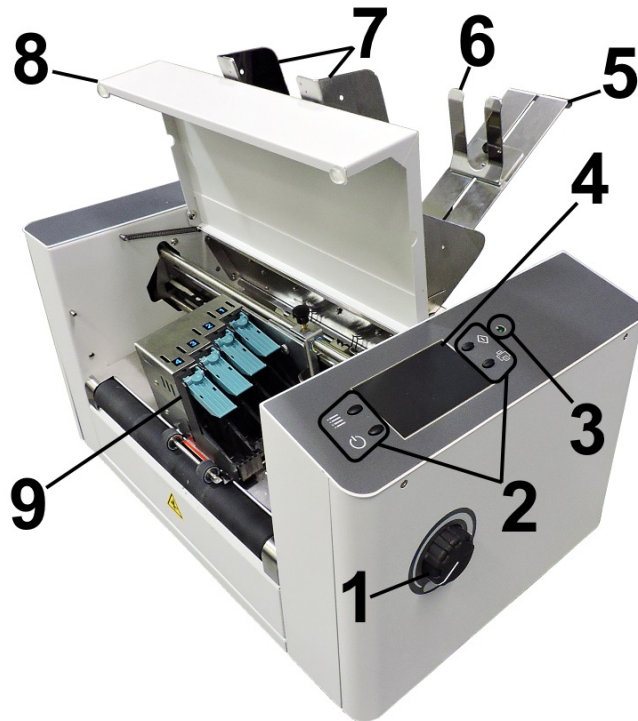
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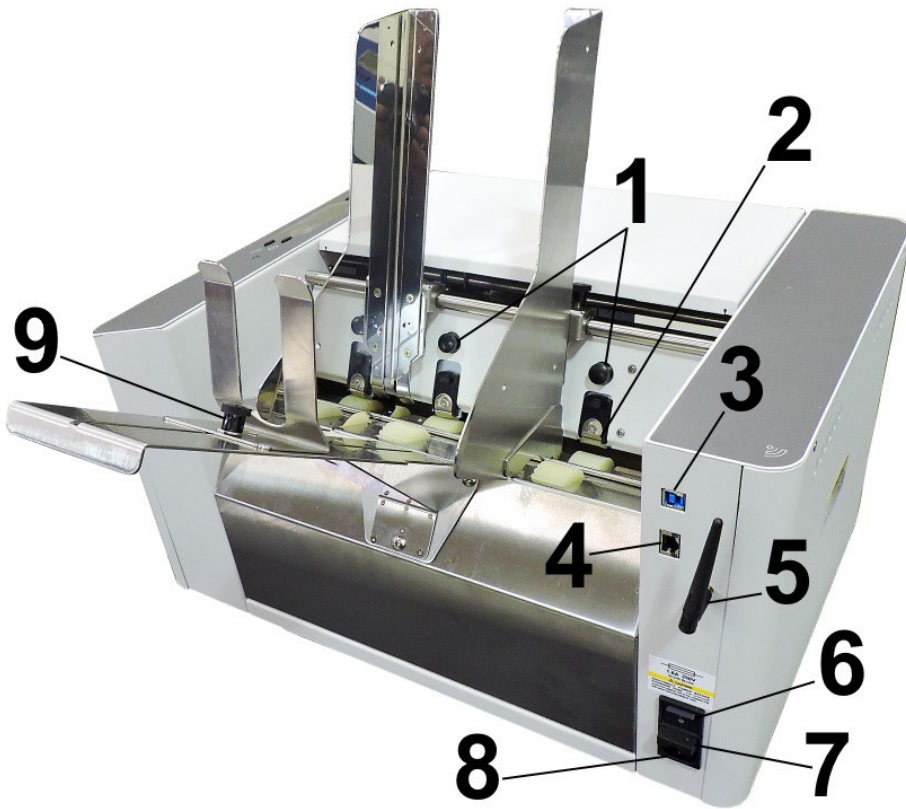
SECTION 1 – Getting Acquainted

Front View



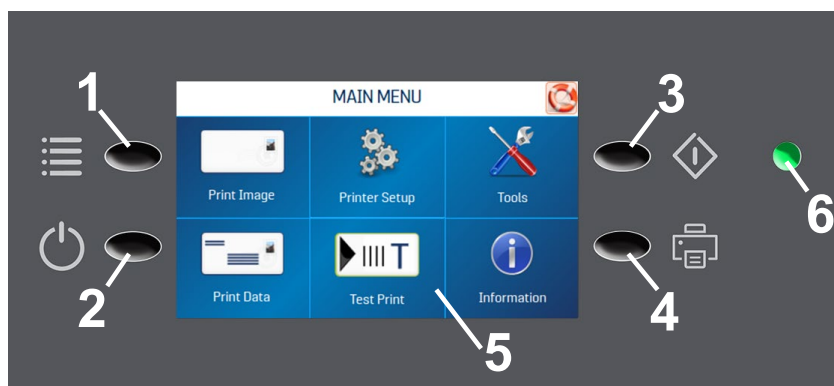
1.	MEDIA THICKNESS ADJUSTMENT KNOB – Adjusts height of Printhead Carriage to compensate for different media thicknesses.
2.	CONTROL PANEL KEYS – Used to access commonly used Printer features. Quick Menu, Shutdown/Restart Menu, Transport Control Menu, Pause/Resume Job
3.	POWER INDICATOR LIGHT – ON (illuminated) when Main Power Switch is ON.
4.	CONTROL PANEL TOUCHSCREEN – Provides access to Printer Menus and controls to setup and operate the Printer.
5.	REAR MEDIA SUPPORT – Provides the proper angle to enhance paper separation and feeding.
6.	MEDIA SUPPORT WEDGE – Allows for adjustments in stack angle, based on media type and length. Helps to force the media against the separation area.
7.	MEDIA SIDE GUIDES – Used to position and guide media into the Printer.
8.	TOP COVER – Encloses the Print Area.
9.	PRINthead CARRIAGE (PRINT UNIT) – This repositionable Print Unit can accommodate up to 4 Inkjet Cartridges (Printheads). A continuous image up to ~2 inches (~5 cm) high can be printed.

Rear View



1.	SEPARATOR LOCKING KNOB – Use to Unlock/lock Sheet Separators, when adjusting Separators for different media thicknesses.
2.	SHEET SEPARATORS – Used to separate a single piece of media from the stack. There are four sheet separators on this printer.
3.	USB 3.0 (USB 3.1 Gen 1) PORT – Connects Printer to computer. <i>(Also supports USB 2.0)</i>
4.	ETHERNET PORT – Connects Printer to a network.
5.	WIRELESS CONNECTION PORT – Connect Wireless connection antenna <i>(included)</i> to monitor or operate Printer wirelessly through your network.
6.	MAIN POWER SWITCH – Switch turns Main Power ON/OFF. IMPORTANT: To safely power-down Printer, press the Shutdown/Restart Key, located on the control panel. Then select “Shutdown”. Wait for cursor to stop blinking or disappear before turning OFF Main Power Switch.
7.	MAIN POWER FUSE – Provide over-current protection. CAUTION: Double pole/neutral fusing. For continued protection against risk of fire, replace only with same type and rating of fuse.
8.	POWER RECEPTACLE – Power cord plugs in here. WARNING: Verify that the receptacle shows the correct voltage 115V or 230V selection.
9.	MEDIA WEDGE LOCKING KNOB – Lock and unlock Media Support Wedge to fit different sizes of media.

Control Panel



1.	<p>QUICK MENU KEY – Allows quick access to often-used Printer functions without having to scroll through a number of screens. Test Feed/Reprint, Horizontal and Vertical Alignment, Printer Preferences, Purge Print, and Ink Status. Press Quick Menu key again to return to previous screen.</p>
2.	<p>SHUTDOWN/RESTART KEY – The Shutdown Printer screen opens with the following button options: Restart, Shutdown, USB Disconnect, Port Reset and Cartridge Initialize. Shutdown button safely powers-down printer electronics. IMPORTANT: Wait for cursor to stop blinking, or to disappear, before turning OFF Main Power Switch.</p>
3.	<p>PASS-THROUGH KEY – Press to access Transport Control screen. Use to run the Transport to clear media from under the Print Units.</p>
4.	<p>PAUSE/RESUME KEY – Provides a quick way to pause and resume a job at the Printer without using the Touchscreen or computer. Press to start printing. Press to pause a running job. Press key again to resume printing.</p>
5.	<p>CONTROL PANEL TOUCHSCREEN – Provides access to Printer Menus and controls to setup and operate the Printer.</p>
6.	<p>POWER INDICATOR LIGHT – ON (illuminated) when Main Power Switch is ON.</p>

NOTE: A complete description of the functions and operation of the Touchscreen can be found in *Section 3 – Operating the Printer.*

SECTION 2 – *Install Printer*

Before using Printer:

- Choose a location for Printer
- Assemble Printer
- Plug in Printer and connect it to computer
- Install Printer Driver on computer



Choose a Location

Place Printer on a sturdy worktable or cabinet at least 12" (30.5 cm) from any walls. Protect Printer from excessive heat, dust, and moisture – avoid placing it in direct sunlight.

Contents of Packaging

1.	AS-450 Printer
2.	Power Cord
3.	Wireless connection Antenna
4.	USB Flash Drive (Includes Printer Driver, User Guide)
5.	Side Guides
6.	Rear Media Support & Wedge
7.	USB 3.0 Cable
8.	Network Cable

Assemble Printer

Tools required: Standard #2 Phillips head screwdriver.

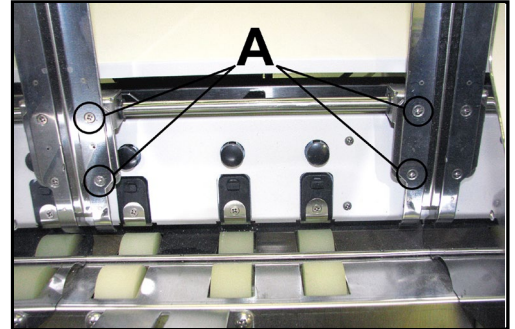
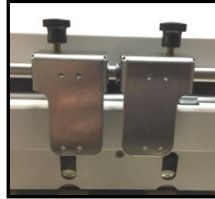
Install Side Guides

1. Remove two screws [A] from EACH Side Guide Block.

2. Align Side Guide screw holes with holes in Side Guide Blocks.

NOTE: Two sets of holes are provided in each Side Guide Block. Use Outer Holes to accommodate maximum media width 13.5" (33 cm).

Use Inner Holes to accommodate minimum media width 3" (7.62 cm).

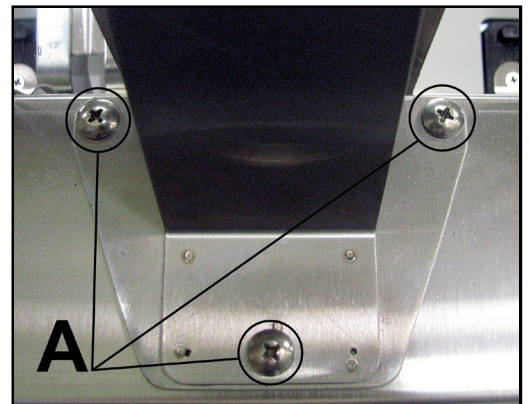


3. Insert screws [A] removed in **Step 1**. Tighten screws so Guides are firmly attached to Side Guide Blocks.

Install Rear Media Support

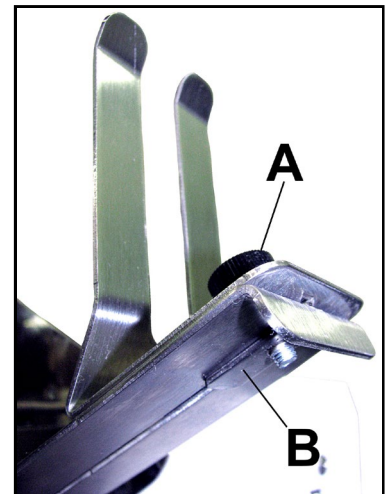
1. Install Rear Media Support using three screws [A] (included) onto the Rear Center Plate (as shown).

TIP: Additional Rear Media Support mounting holes are provided on the Rear Center Plate. They provide the ability to offset Media Support from the "normal" center position. This can be useful for applications that separate and feed better, when offset from center (possibly avoiding or touching additional separators and or feed rollers).



Install Media Support Wedge

1. Insert Adjusting Knob [A] through Media Support Wedge and Rear Media Support. Screw into rectangular washer [B].



Connect Printer

Plugging in Printer

CAUTION

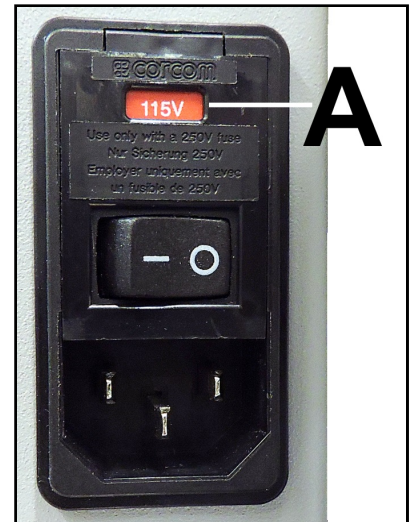
BEFORE CONNECTING THE POWER CORD, VERIFY THAT THE PRINTER IS SET FOR THE APPROPRIATE VOLTAGE SELECTION [A].

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

DO NOT USE WITH OUTLETS CONTROLLED BY WALL SWITCHES.

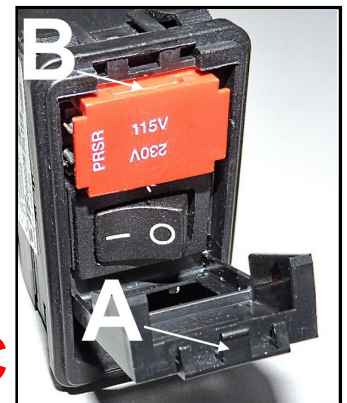
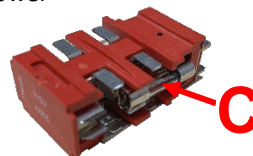
DO NOT USE WITH OUTLETS THAT SHARE THE SAME CIRCUIT WITH LARGE ELECTRICAL MACHINES OR APPLIANCES.

1. Make sure Printer's Main Power Switch is turned OFF and the Power Cord is unplugged.
2. Verify that the Printer is set for the appropriate AC voltage selection (115V or 230V) [A]. Change as needed. See section below titled "How to Change Voltage Selection (115-230)" for instructions.
3. Connect one end of the Power Cord to the Power Receptacle on the Printer.
4. Plug the other end of the Power Cord into a properly grounded, 50/60Hz, AC Power Outlet that matches the Printer's current voltage selection (115V or 230V).
The use of a high quality surge protector is strongly recommend.



How to Change Voltage Selection (115V-230V):

1. Power OFF and make sure the Power Cord is unplugged from the Printer.
2. Insert a small flat blade screwdriver into the slot at the top of the faceplate, on the Power Receptacle, to release the tab [A] and gently pry the faceplate open.
3. Insert the screwdriver blade into the slot [B] at the top of the Fuse Pack/Voltage Selector and gently pry it out of the Power Receptacle housing.
4. Verify Fuses [C] (two, 1.6A, 250V, slow-blow, 5x20mm) are properly inserted, one on each side, into the Fuse Pack/Voltage Selector; as shown.
5. Invert and re-insert the Fuse Pack/Voltage Selector, so the desired voltage (115V or 230V) is at the top. Example image shows 115V at the top.
6. Snap the Power Receptacle faceplate closed and verify that the desired voltage selection (115V or 230V) appears in the Power Receptacle window.

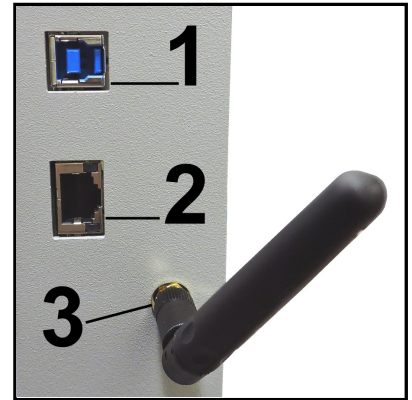


Connect to Computer or Network

USB 3.0 (USB 3.1 Gen 1) Port: Plug USB cable into connector [1]. Printer can be connected to a USB 2.0 or USB 3.0 port. Printer can accommodate a USB 2.0 or a USB 3.0 Cable. Cable used to connect Printer to computer must not exceed 6 feet long. Using a USB 3.0 Cable/Connection is preferred, because it is faster. See “How to Identify USB 3.0 Cables and Connections”, below.

Ethernet (Network) Port: Plug network Ethernet cable into Ethernet connector [2].

Wireless connection Port: Connect Wireless connection antenna (included) to this port [3] for wireless Printer monitoring or operation through your network.



How to Identify USB 3.0 Cables and Connections:

To take advantage of the higher communication speeds, that a USB 3.0 connection provides, you must:

- Use a USB 3.0 Cable (one was included with printer).
- USB 3.0 Cable must be connected to a USB 3.0 Port on the computer.

USB 3.0 Cables have a different shape, at the printer end, than USB 2.0 Cables.

USB 3.0 Ports, on the computer, will be marked with “SS”.

USB 3.0 Connectors are normally BLUE in color.

Items identified as “USB 3.1 Gen 1” are the same as “USB 3.0”.



USB 3.0 Cable



USB 3.0 Port

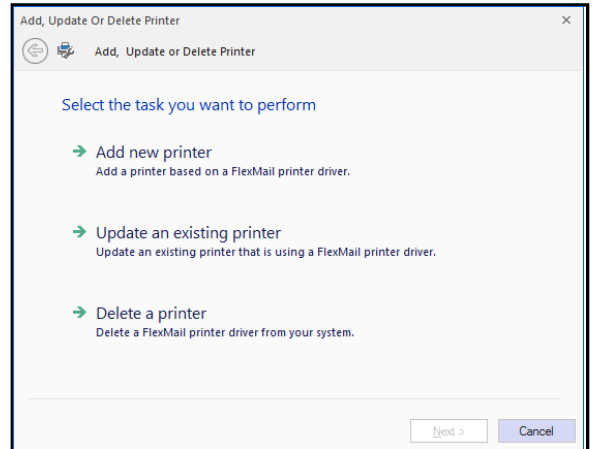
SECTION 2 INSTALLING PRINTER

Install Printer Driver

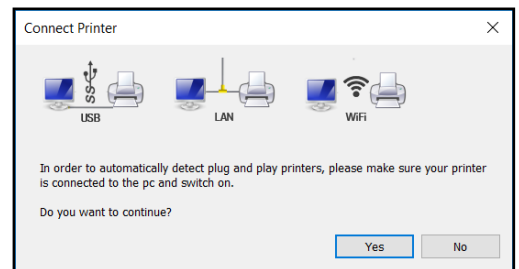
Download the latest Printer Driver from the Printer manufacturer's website. Make sure the printer is powered-up. Make sure the desired interface connections have been established between printer and computer.

- If you wish to use the wired Network (LAN, Ethernet) connection, see **“Network Settings”** to establish this connection before installing the Printer Driver.
- If you wish to use the Wireless connection, see **“WiFi Setup”** to establish this connection before installing the Printer Driver.
- The Printer can be connected to a USB 2.0 or USB 3.0 port. The USB 3.0 connection is preferred, because it is faster. See **“How to identify USB 3.0 Cables and Connections”** for more information.

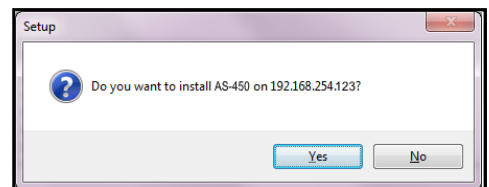
1. **Open the downloaded Printer Driver Folder:** Select and double-click **“Setup.exe”**.
2. **“Add, Update or Delete Printer”** window opens. Click **“Add New Printer”**. Click **Next>**.



3. The **“Connect Printer”** window opens. Make sure the Printer is plugged in, powered up and the desired communications cable USB, wired Network (Ethernet, LAN) or Wireless connection has been established. Click **“Yes”** to continue.

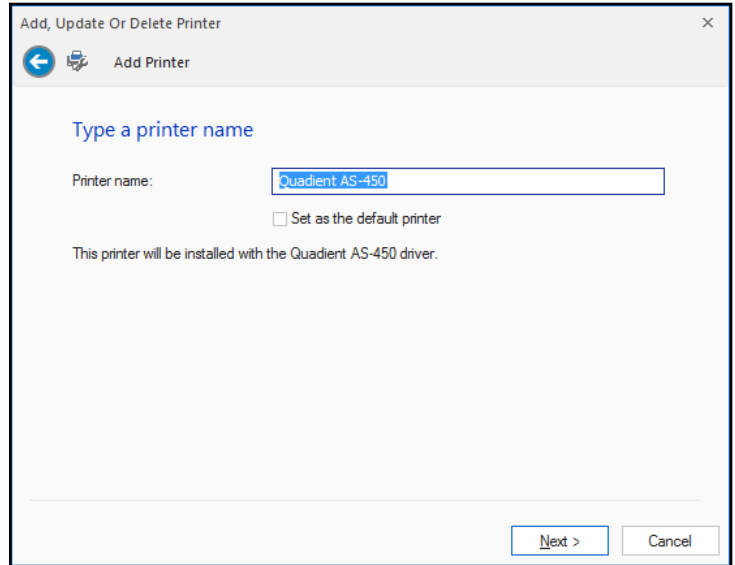


4. The Driver installer should auto-recognize established connections and present a **“Setup”** window asking **“Do you want to install AS-450 on ...”**
If more than one connection has been established, the installer will identify the fastest connection and present this choice to you first.
Click on **“Yes”** to accept this choice.
Click on **“No”** to use a different choice.



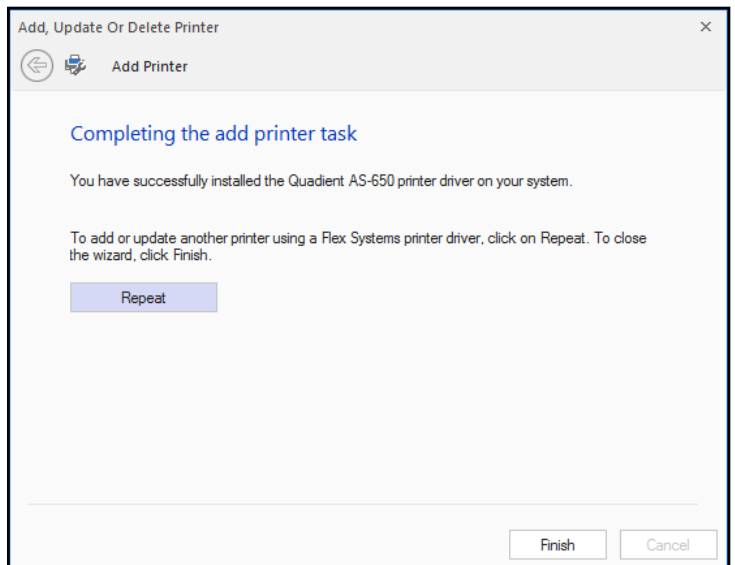
NOTE: Be sure the appropriate model, reflecting your printer, is presented/selected. If the Driver installer doesn't present the appropriate model, please contact your support representative.

- The Driver will load and the next screen allows you to **“Name Your Printer”**. Unless another printer has the same name on your system or network, ignore this step and click **Next>**.



- Click **Finish** to complete the installation.
- In **“Devices and Printers”** check that Printer is available and active.

TIP: If you plan to Print Test Page from the driver, please be sure to select the appropriate paper size. If the paper size (length in direction of feed) does not match the physical length of the media you are using, the printer may feed one or two pieces, then stop and display “Double Feed”.



SECTION 3 – Operating Printer

Install Inkjet Cartridges (Printheads)

Printer can accommodate four Proprietary EASYInk Cartridges.

See the section titled “Supplies - Compatible Inkjet Cartridges” for a list of compatible inkjet cartridges.

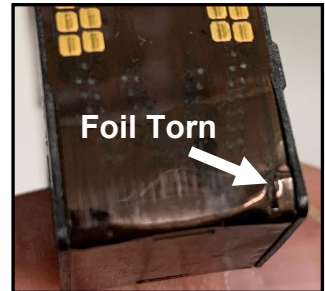
See the section titled “Solvent Ink Cartridge Use & Care” for guidelines on using Solvent Inks.

CAUTION

For continued protection against possible fire, use only authorized Ink Cartridges.
40mL max ink for each cartridge. Flashpoint shall be > 93.3C per Material Safety Data Sheet.

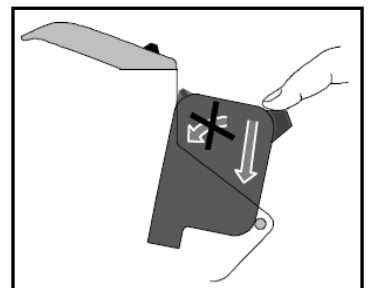
CAUTION

Damage to Ink Carriage and or electronics can occur if you insert or remove Cartridge at too steep of an angle. Cartridge foil may be damaged/tear by strong contact with pogo-pins (electrical contacts in Pen Stall) during install/removal of Cartridge.



To install Cartridges:

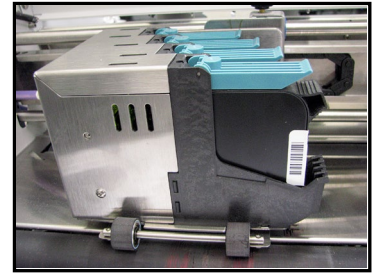
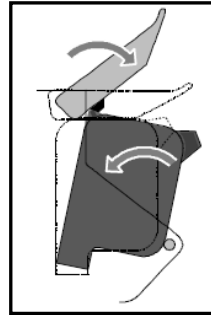
1. Wear protective gloves, for safe handling of ink cartridges.
2. Remove new Inkjet Cartridge from packaging.
Remove protective tape or clip from Cartridge Nozzle Plate.
Take care not to touch Cartridge contacts or Nozzle Plate with bare hands.
3. Clean Cartridge nozzles (Nozzle Plate) as described in the appropriate section for the type of ink (solvent or water-based) that you are using. See sections titled “Ink Cartridge Care – Water Based Ink” and “Solvent Ink Cartridge Use & Care”.
4. Open Latch Lever fully. **TIP:** You may need to move Print Unit away from sidewall of printer to allow room for Latch Lever to open fully.
5. With Cartridge Nozzle Plate pointing down, gently place Cartridge into Pen Stall with cartridge as up-right as possible.
6. Push down, gently, on Cartridge until it bottoms out in Pen Stall. Do NOT push Cartridge towards Latch.



- Carefully Close Latch Lever – to secure Cartridge. The Latch Lever is designed to swing the cartridge into proper alignment with the pogo-pins (contacts) as it is closed.
DO NOT force Latch Lever closed.

TIP: Opening and Closing Latch may fix a contact problem between pogo-pins and cartridge contacts, due to misalignment.

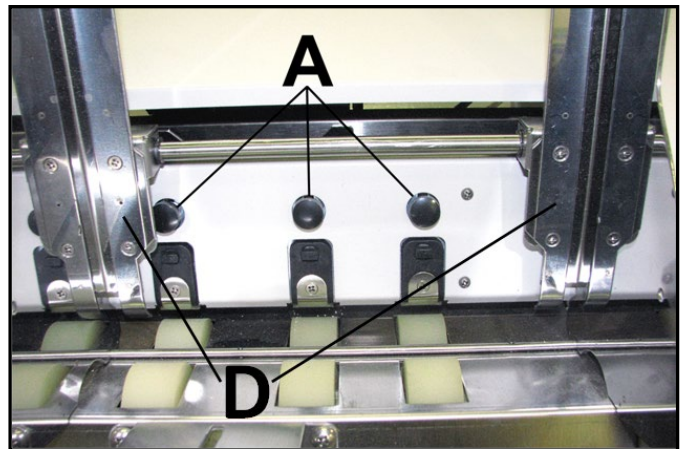
- Repeat the above Steps for remaining Cartridges.



Setting up Media Feed and Transport System

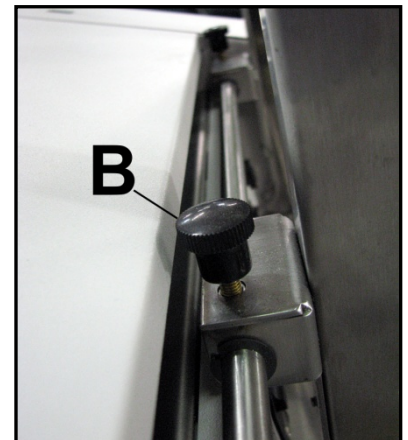
Sheet Separation & Guide Adjustments

- To access Separator Locking Knobs [A], loosen the Media Side Guide Locking Knobs [B] and move Media Side Guides [D] to their outermost positions.
- Loosen Separator Locking Knobs [A] and raise all Separators. Tighten Locking Knobs to hold Separators in raised position.
- Place one piece of Media in center of Feed Table (Feeder/Hopper) and position it under the Separators.
- Loosen Separator Locking Knobs [A] for Separators that have Media underneath them. Allow Separators to drop and rest onto Media surface.



IMPORTANT: To avoid damaging Separators and Feed Rollers, raise and lock Separators that do not have any Media under them.

- Tighten Separator Locking Knobs [A].
- Adjust Media Side Guides [D] so they are about 1/32" (0.8 mm) from sides of Media.
- Tighten Media Side Guide Locking Knobs [B] to secure Media Side Guide [D] positions.

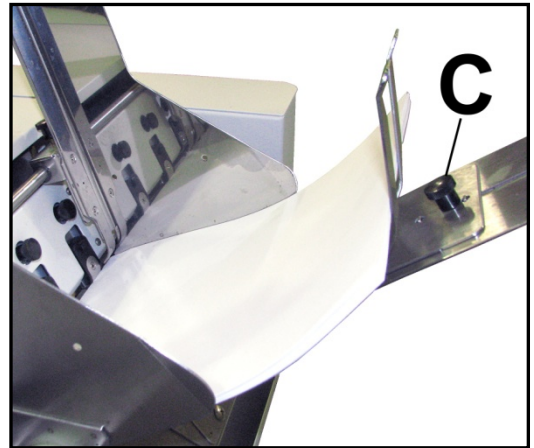


SECTION 3 OPERATING PRINTER

8. Place a stack of Media into the hopper. Make sure the stack is fanned so the bottom piece is closer to the Separators than the top pieces.

TIP: When loading an empty hopper. Place one piece of media so it is directly against the tips of the separators. Then place the fanned stack of media on top of this single piece. This will help to reduce the chance of double-feeding (overlapping media) issues when you start feeding.

9. Adjust Media Support Wedge by loosening its Locking Knob [C]. Slide Wedge so media is raised approximately 1/2" (12 mm) and rests on curve of Wedge. Then tighten Locking Knob [C].



TIP: When running heavy/stiff media, or media longer than 10" (254 mm), try positioning the Media Support Wedge so that it just touches (does not lift) the trailing edge of the Media. This should provide more Media to Feed Roller contact, which is commonly needed for this type of Media.

Finding the Sweet Spot

The amount of Media that can be stacked into the Feeder Section (Feeder/Hopper) is determined by the weight and size of the material.

- The feeder section may not feed larger and heavier media when the stack is high.
- The feeder section may not feed lighter media when the stack is low.

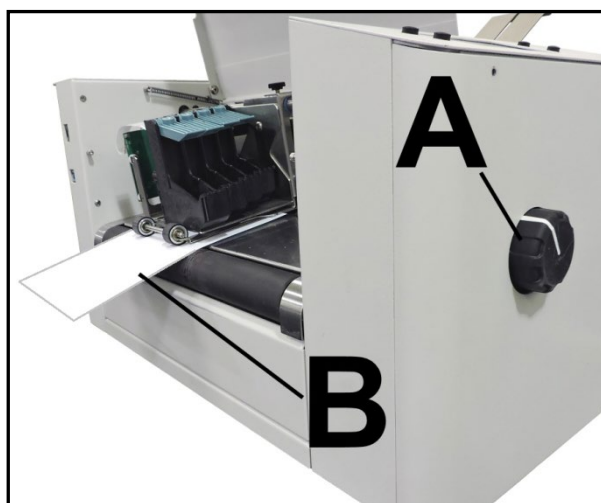
To keep the printer feeding consistently (without miss-feeds or hesitations), you may need to reduce or increase the amount of media in the stack for a given media size/weight.

Media Thickness Adjustment

1. Turn Media Thickness Knob [A] fully clockwise to raise the Printhead Carriage to its highest position.
2. Slide a piece of media [B] under Print Unit.
TIP: Be careful not to slide media in too far. You don't want the media to be positioned under the pressure rollers that are located before the entrance end of the Print Unit.

3. Adjust the Media Thickness Knob [A] counter-clockwise until the bottom of the Print Unit just touches the media. Then remove the media.
TIP: As you remove the media, you should feel drag on the media from the exit rollers. If it is difficult to remove the media, you may have the Media Thickness set too low (too tight). This may cause media to jam under the Print Unit. If this occurs, turn Media Thickness Knob clockwise a few clicks to raise the Printhead Carriage.

NOTE: These are initial settings. It may be necessary to adjust the Media Thickness Control to optimize print quality. Make a note of the knob position for future reference for that media.



4. Turn Printer ON.
5. Test feed media by pressing “Test Feed” on the Quick Menu Touchscreen.

SECTION 3 OPERATING PRINTER

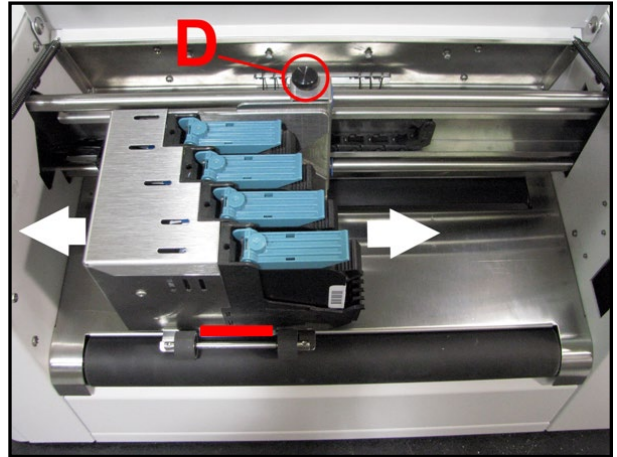
Position Print Unit

1. Loosening locking knob [D].
2. Position Print Unit as needed to achieve the desired print location on media being fed.

TIP: Raise the Print Carriage (Media Thickness) to make it easier to move the Print Unit.

3. Secure locking knob [D].

TIP: A Print Area Indicator (identified in image as heavy red line) is provided at the exit side of the Print Unit. This is useful when trying to achieve the desired print position for the Print Unit.

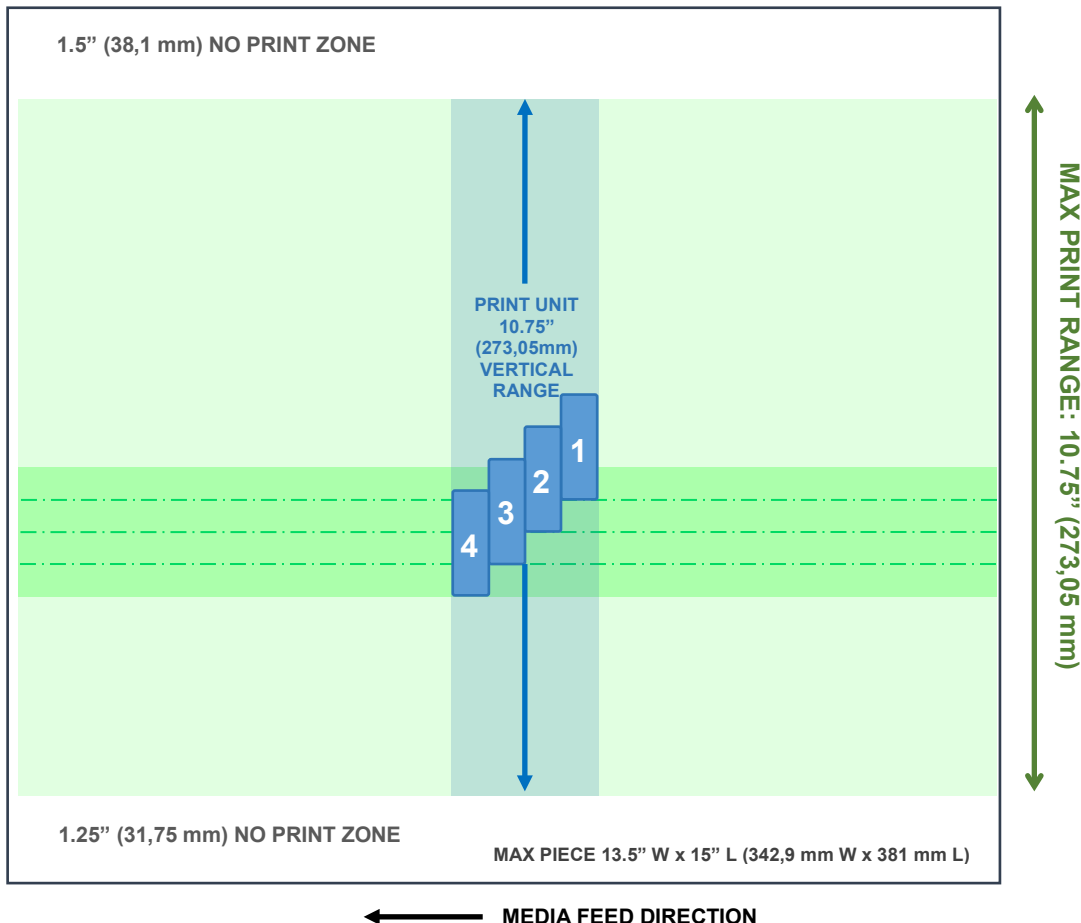


Print Range

The sketch below shows the range of Print Unit movement.

It also indicates the “No Print Zones” (unreachable print areas) when feeding the Printer’s maximum Media size of 13.5” Width x 15” Length (342,9 mm Width x 381 mm Length) (in direction of feed).

NOTE: When feeding media measuring 10.75” (273,05 mm) wide or narrower, it is possible to position the Print Unit to print anywhere within the width of the media.



Using the Touchscreen

The **Touchscreen** turns ON after the Printer's Main Power Switch is Turned ON.

NOTE: It takes about 60 seconds, after the Printer is switched ON, for the Printer to fully initialize.

By default, the Touchscreen will turn OFF (go into sleep mode) if it isn't pressed for 60 minutes.

Touch/tap the Touchscreen, or press a Printer Control Panel key, to wake the Touchscreen.

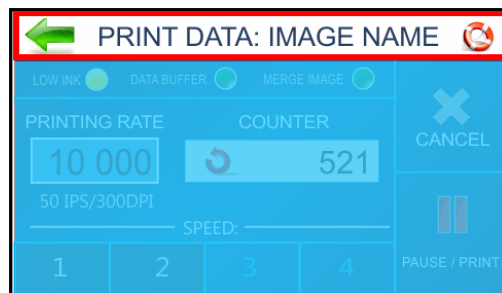
Use the Touchscreen and/or Printer Control Panel keys to access various functions that help you control or customize Printer operation.

BASIC TOUCHSCREEN INFORMATION

Green Arrow (Back): Tap or press to return to the previous screen.

Help Icon (Life Preserver): Tap or press the icon to open a short description of the features found on that screen.

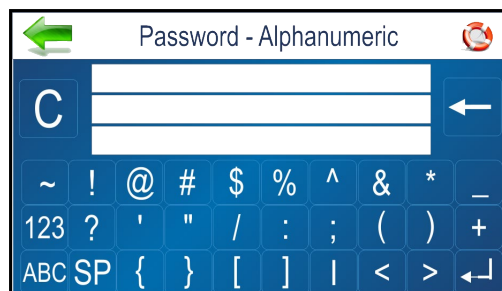
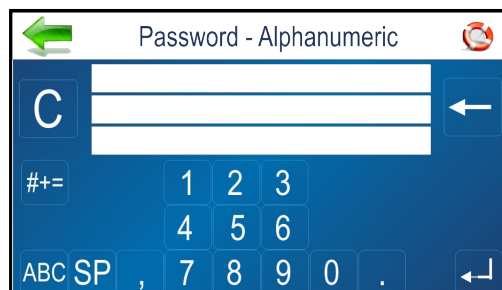
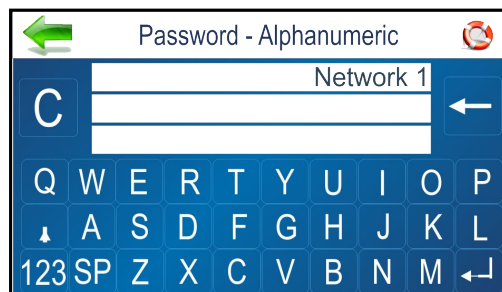
Cleaning: See "Cleaning the Touchscreen" in the **Maintenance** section.



TOUCHSCREEN KEYBOARDS

Use the **Touchscreen Keyboards** when entering or editing information in entry boxes in features such as **Network Settings**. The appropriate keyboard opens when you tap on an **Edit Box** and/or tap within a data entry box on the Touchscreen.

- **"C"** to the left of the white entry box **clears** the box.
- **"Arrow"** to the right of the white entry box **deletes** last character entered.
- Press **"Enter Arrow"** on lower right of keyboard to **save** your entry.
- Press **"Up Arrow"** to toggle between **upper and lower case letters**.
- **"SP"** is the **Space Bar**.
- **"123"** opens the **numeric keyboard**.
- **"#+="** on the numeric screen opens the **symbols keyboard**.



SECTION 3 OPERATING PRINTER

MAIN MENU

Tap or press the icons to access features built into the Printer and to customize Printer operation.

Print Image: Select, Import or Delete an image. Imported images are stored within printer. You can print stored image or Merge stored image with next job.

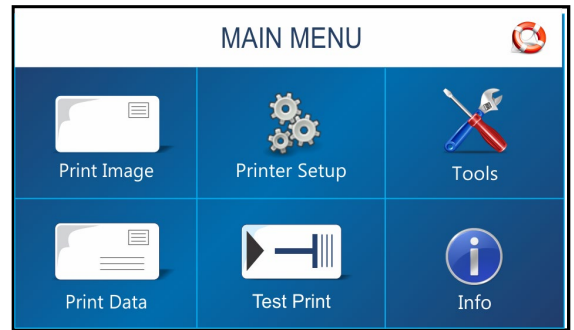
Printer Setup: Set Printer parameters to adjust the Printer to suit your needs.

Tools: Run **Ink Cost Estimator**, **Ink Status**, **Diagnostic tests**, **Network**, and **Screen Calibration**.

Print Data: Displays information about the job printing.

Test Print: Prints a test page using current adjustments and print parameters to check printing quality and Printhead alignment.

Info: Displays information about the Printer. Model Name, BIOS version, Piece Counts, Port(s) in use, etc.



NOTICE: The Main Menu is not accessible when there is job data present in the printer.

PRINT DATA Screen

Shows information about the job currently printing.

Low Ink: Indicator appears when ink is running low (5% or less).

Data Buffer: Indicator shows data buffer condition.

Red -No job data loaded. **Green** -Job data loaded.

Flashing -Job data loading.

Merge Image: Indicates Merge Image status.

OFF -No Merge Image selected/loaded.

Green -Merge Image selected/loaded. When Job is sent, each record in the Job will be printed along with the selected Merge Image. See "Print Image" for details on loading and selecting a Merge Image.

Merge Clear Button: Press to clear the Merge Image (stop image merge process) and continue printing without having to cancel the job.

Printing Rate: Shows how many pieces are printing per hour. Also displays the **Speed (ips)** and **Print Quality (dpi)** set for the print job.

NOTE: A technician can select "units of measurement" (English/Metric, Inches/Feet) within Service Mode.

Counter: Shows the number of pieces run for a particular job or accumulated jobs (continuous batch counter).

NOTE: "Continuous Batch Counter" can be enabled or disabled from Printer Preferences Menu.

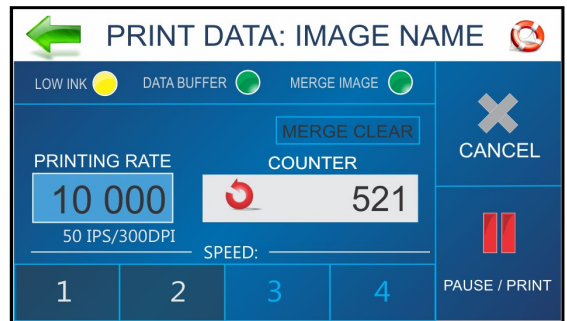
Use **Reset Button**, inside Counter box, to reset the counter to zero (0).

Speed: Shows print speeds (1-4) available for a print job. Available speed selections will vary with Print Quality. 150 DPI = Speed 1,2,3,4. 200 DPI = Speed 1,2,3. 300 DPI = Speed 1,2. 600 DPI = Speed 1

Cancel: Cancels a paused print job.

Pause/Print: Press to print a job, pause a running job, or to restart a paused job.

NOTE: You can also perform these functions using the PAUSE/RESUME KEY on the Control Panel.



INFO Screen

Displays information about the Printer.

Model Name: Printer model.

BIOS version: Current version of firmware installed.

Max. Printheads: Max number of Printhead positions.

number = printhead installed in this position

x = printhead missing or unrecognized

Firmware Notice: Displays firmware status.

Press the “CLEAR” button to remove the notice.

Clock: Displays current time (hh:mm:ss.ms)

Cartridges used (non-resettable): Total number of ink cartridges emptied by the Printer.

Jobs: Total number of jobs run on the Printer since last power-up or Restart. Does NOT include internal Images or Test Prints; except for Purge First Piece.

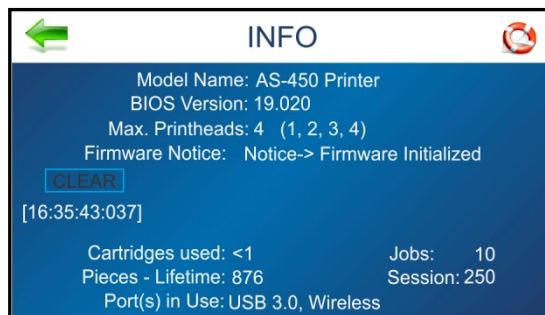
Pieces:

Lifetime (non-resettable): Total number of pieces that have been printed by the Printer. Includes internal Images, Test Prints and Test Feeds.

Session: Total number of pieces printed by the Printer since last power-up or Restart. Does NOT include internal Images or Test Prints; except for Purge First Piece.

Port(s) in Use: Displays which Printer ports are enabled (available for use). If an active wireless connection is currently established, its name will also be displayed.

NOTE: A technician can disable or enable Printer Ports from the “Service Menu”. Disabling unused Ports may speed Printer boot-up process.



SECTION 3 OPERATING PRINTER

PRINT IMAGE Menu

Pressing the **Print Image** icon on the **Main Menu** opens the **Print Image** screen. Select **Import** to store an Image. Imported images are stored within printer. You can then delete stored image, Print stored image or Merge stored image with next job.

File Info: Displays current jobs/images in the **Image Library** including printing parameters. Use the arrows to scroll through and select stored images from the **Printer Image Library**. Press the “content view” button, located at bottom left-hand corner, to simultaneously display up to four stored images.

Import: Puts the Printer in mode to accept and store an image. See “Print Image – Import” for details.

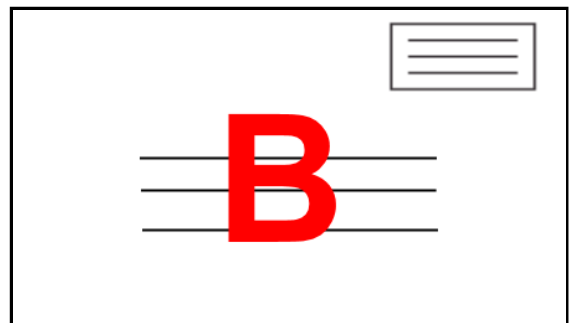
Print: Opens the Print Image Set-Up screen. See “Print Image – Set-Up” for details.

Delete: Deletes the selected stored image from the printer and Printer Image Library. See “Print Image – Delete” for details.



PRINT IMAGE – FULL SCREEN PREVIEW

Tap or press the Image on the **Print Image**, **Print Data** or **Reprint** screens [A]. Image will fill the Touchscreen for easier viewing [B]. Tap Image again to return to normal screen view.



PRINT IMAGE – IMPORT

Printer is ready to save a new image sent from computer. Send the image from your computer to the Printer as a single-page job.

Image will be stored in the **Printer Image Library**. Image will be saved with current printing parameters (*Page Size, Print Quality*).

IMPORTANT: If you plan to Merge a stored image with a Job, you must match Page Size and Layout of Merged Image and Job. In addition, the stored image you plan to Merge must have been sent/saved at 600 DPI. The printer will NOT allow you to Merge a stored image that was sent/saved at 150, 200 or 300 DPI.



PRINT IMAGE – DELETE

Use this feature to permanently delete Stored Image(s) from the printer and **Print Image Library**.

Press **BACK** to cancel this process and return to previous screen.



PRINT IMAGE – SET-UP

Pressing the **Print** icon on the **Print Image** screen opens the **Print Image Set-up** screen.

Once an Image is loaded, the image name and dpi it was sent at are displayed at the top of the screen.

Counter: Enter the number of copies to be printed. Printer counts down from the number set on the screen. **Reset** button (*inside Counter box*) resets Counter to 1.

Speed / Print Quality: Shows **Speed** in inches per second (*ips*) and **Print Quality** (*dpi*) for the current print job.

NOTE: Print Quality is determined by the **Print Resolution** set in the image or print job.

Speed Selection: Shows the speed selections available for a particular job. (**1=Slowest; 4=Fastest**)

NOTE: Available SPEED selections are determined by the Print Resolution (print quality) of the stored Image that was selected (**150D = Speed 1,2,3,4. 200D = Speed 1,2,3. 300D = Speed 1,2. 600D = Speed 1.**)

Print: Press to print the selected stored Image.

Merge: Press to Merge selected stored Image with the next Job that is sent to the printer.

TIP: If the Merge button is grayed out, the stored image you selected was not sent/saved at 600 DPI. The printer will only Merge stored images that were sent/saved at 600 DPI.

The **Print Data** screen will open and the Merge Image indicator will turn green.

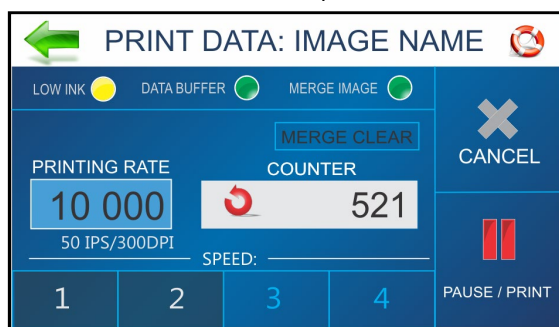
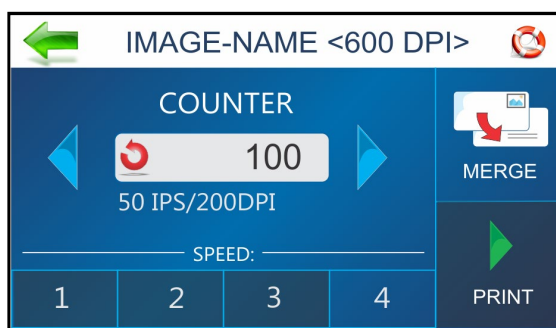
The **Print Data** screen allows you to Pause/Print/Cancel and monitor the status of the Job. See "Print Data" for details on how to use this screen.

Send the Job to the printer.

The Image you selected will be Merged and printed along with each record from the Job being printed.

NOTE: Available SPEED selections are determined by the Print Resolution (print quality) of the stored Image that was selected (**150D = Speed 1,2,3,4. 200D = Speed 1,2,3. 300D = Speed 1,2. 600D = Speed 1.**)

IMPORTANT: To merge stored Image with a Job, the stored Image must have been sent/saved at 600 dpi. Job must match Page Size and Layout of Merge Image. After job is complete, the Merge Image feature is automatically deactivated.



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PRINTER SETUP Menu

Pressing **Printer Setup** on the **Main Menu** opens the **Printer Setup** screen. Features on this screen allow you to set Printer parameters to adjust the Printer to suit your needs.

Ink Type: Displays the Ink Types loaded in each of the HEAD positions. Only authorized Ink Cartridges will display. Selecting an Ink Cartridge, in a particular HEAD position, provides access to the **Edit** option.

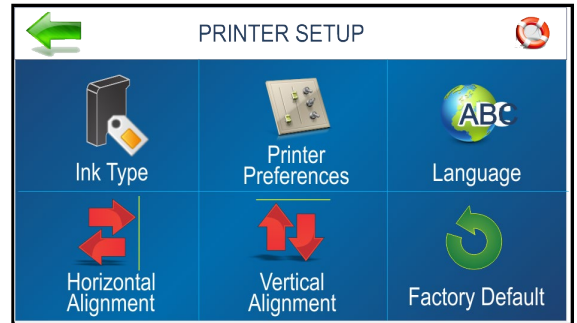
Printer Preferences: Use to select and set preferences.

Language: Select the language the Printer Touchscreen will display.

Horizontal Alignment: Use to fine-tune the horizontal (side-to-side) alignment of an image printed between adjacent Printheads.

Vertical Alignment: Use to fine-tune the nozzle/image overlap between adjacent Printheads.

Factory Default: Returns the Printer Setup to factory default settings.



INK TYPE Menu

Over time, the ink characteristics within a particular ink cartridge may change. If a particular ink cartridge isn't firing well (such as faded or fuzzy print), you can try to increase the **Boost** voltage to improve print performance. Once entered, the Printer memory will recall this information even if the individual cartridge is removed and reinstalled in this Printer at a later time or in a different HEAD position.

Pressing **Ink Type**, from the **Printer Setup** screen, opens the **"Select Ink Type"** screen.

Press **Up** or **Down Arrow** to display the Ink Types currently installed in other HEAD positions.

NOTE: Only authorized Inkjet Cartridges will be recognized by the Printer. See section titled *"Supplies – Compatible Inkjet Cartridges"*.

Tap on the desired Ink Cartridge (HEAD position) that you would like to Edit.

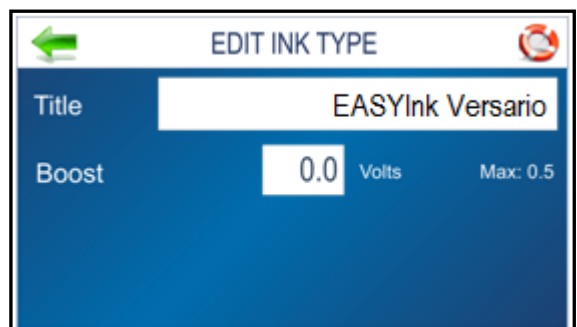


Edit Ink Type (Paper & Pencil icon): Tap to open the Edit Ink Type screen.

Tap the **Boost** entry box to open the **Numeric Keyboard** to increase the voltage on the selected Ink Cartridge.

Max: Maximum Boost voltage that can be applied to cartridge. This is based on the Ink Type.

Press **...BACK** to return to the previous screen.



PRINTER PREFERENCES Menu

This menu is also available by pressing **Quick Menu** key on the Control Panel.

Press >>> to go to **Next** screen.

Press <<< to return to the **Previous** screen.

NOTICE: Some Printer Preference features are not accessible when there is job data in the printer.

Purge First Piece: By default, this feature is ON.

When a job is received the Printer will feed and print a purge pattern, to clear inkjet nozzles. Then, after a short pause, it will start feeding and printing the job. Turn this feature OFF if you don't want a purge pattern automatically printed, before the first piece of the job is printed.

Select = Purge First Piece ON.

Deselect = Purge First Piece OFF.

Automatic Feed Start: By default, this feature is ON. When a job is received, the Printer will automatically start feeding and printing. Turn this feature OFF to use the **Print** button on Touchscreen (or **Pause/Resume Key on Control Panel**) to start feeding and printing.

Select = Auto Feed Start ON.

Deselect = Auto Feed Start OFF.

Keep Nozzles Alive: Since the nozzles used to print ascender and descender sections of characters are not fired as frequently as other areas, this may result in missing sections of some characters (examples: g, j, p, q, y). This feature can be used to help reduce dehydration of nozzles that are used to print ascender and descender sections of characters.

Select = Keep Nozzles Alive ON (spitting occurs). A sequence of dots will be printed across the media surface.

Deselect = Keep Nozzles Alive OFF (no spitting).

Pull-down List: Select the spitting frequency: **1x**, **2x**, **4x** (default), and **8x**.

The lower the selection value, the more frequently nozzles (dots) are fired (spit) onto the media in the areas identified by the printer to be possible ascender or descender positions.

Selecting **600 dpi Test** spits both rows of printhead nozzles, in sequence, creating a pattern of diagonal lines on each piece of printed media. This test pattern may be useful when troubleshooting nozzle-firing issues, but it would not be desirable to use during live printing.

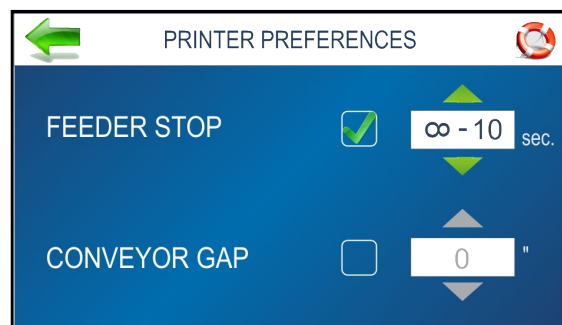
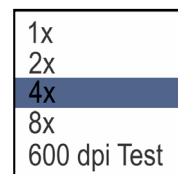
Tray Break: Set how you want printer to react when it receives a Tray Break command from the software application. **Select** "Tray Break" to use this feature.

Edit box = Select and set the **Feeder Stop** (number of seconds feeder should pause) or Select the **Conveyor Gap** (AS-850 only).

Feeder Stop: Select and set the countdown timer to pause/stop the feeder, for x number of seconds, when the printer receives a Tray Break command. Enter time in seconds (1-60).

Conveyor Gap (AS-850 only): When this feature is activated, Printer responds to the Tray Break command by sending a signal, to an "interfaced" conveyor, to momentarily speed-up. This creates an obvious gap between end of one set of pieces and beginning of the next. Enter the distance between the Media Sensor and the Conveyor. The Printer sends a delayed signal to the "interfaced" conveyor, based on the distance value set for "Conveyor Gap", and continues to print/feed.

NOTE: At the time of publication, an "interfaced" conveyor was not available.



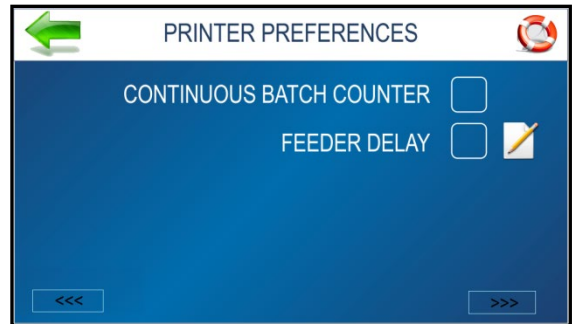
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NOTE: Use the <<< (Previous) or >>> (Next) buttons, located at the bottom of the PRINTER PREFERENCES screen, to access additional Printer Preferences features.

Continuous Batch Counter: Allows operator to select if they want the counter, on the Print Data screen, to automatically reset to zero with each new job that is received or not (add job counts together).

Unchecked = Batch Counter resets before each job.

Checked = Batch Counter will not reset before each job.



Feeder Delay: Used to lengthen the time between pieces being printed and ejected from printer.

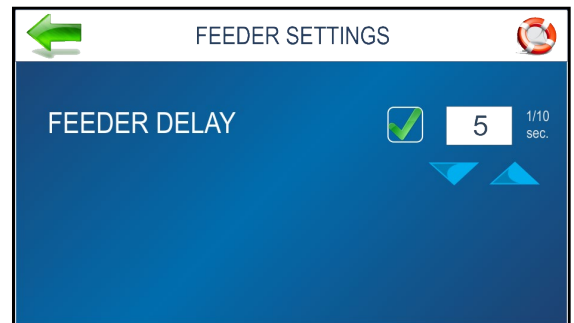
(Example: Printing multiple copies of a stored Print Image that requires longer drying time before next piece drops onto previous piece.)

NOTE: This feature applies only to internal Test Prints and Print Images within the Printer such as Test Print, Purge Print and Print Image stored in the Printer Image Library. When printing a Job from your software application, use the Printer Drivers "Feed Delay" feature.

Unchecked = No Feeder Delay.

Checked = Feeder Delay activated.

Edit Box: Set the amount of time the Feeder will pause in tenths of a second when printing internal Test Prints and Print Images.



Printer Sleep: Used to select if you do or do NOT want printer to go to "sleep" when it is not being used.

Unchecked = Printer will never enter "sleep mode".

Checked (default) = Printer will enter "sleep mode" after it has sat idle for 60 minutes (default value).

TIP: Value can be adjusted, by a technician, via the Service Menu, Sleep Timeout feature.

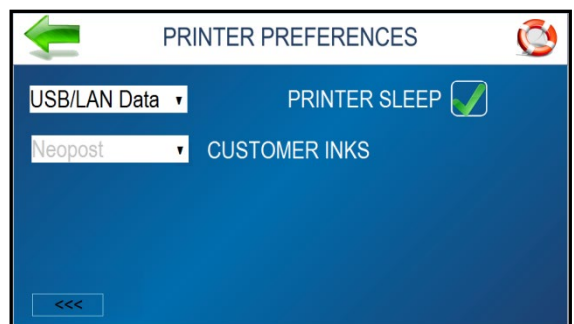
With this feature enabled, you can choose which port(s), if any, will automatically "wake" printer from "sleep mode" when data is received.

No Data = Printer will not "wake" when data is received.

USB Data = Printer will "wake" when data is received on USB port.

LAN Data = Printer will "wake" when data is received on LAN (wired or wireless) port.

USB/LAN Data (default) = Printer will "wake" when data is received on USB or LAN (wired or wireless) port.



NOTE: Use the <<< (Previous) button, located at the bottom of the PRINTER PREFERENCES screen, to access additional Printer Preferences features.

SELECT LANGUAGE Screen

Select the language that the Printer Touchscreen will display.



FACTORY DEFAULT Screen

Restores most adjustments and settings to factory settings.

Press ...**BACK** to return to Cancel and return to previous screen.

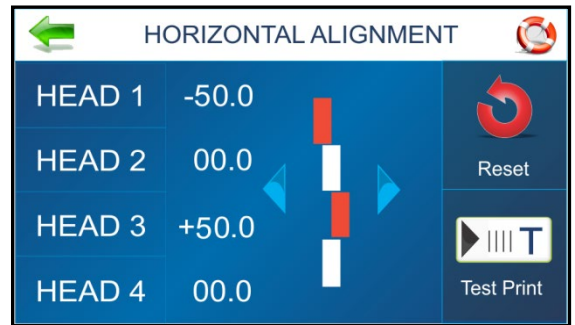


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HORIZONTAL ALIGNMENT Screen

Adjusts offsets of individual Printheads (ink cartridges) to fine tune horizontal positioning of the printout. By doing this the operator can improve the horizontal alignment of images that are split between adjacent Printheads.

TIP: Horizontal print alignment will never be perfect from media leading edge to trailing edge. Alignment characteristics will vary from piece to piece and application to application. Therefore, when possible, position data in software application (design screen, layout) to avoid splitting text/images between adjacent Printheads.



Horizontal Alignment is also accessible by pressing the **Quick Menu** key on the Control Panel.

Heads (1-4): Align individual Printheads (*side-to-side*) ± 100 . Each step is 1/1000 of an inch increment.

To use: Select the desired Printhead. Move the bar in the desired direction by pressing the directional arrows.

Reset: Horizontal alignment resets to **00.0** (*default*).

Test Print: Prints a test page using current adjustments and print parameters to check printing quality and Printhead alignment.

NOTICE: The Horizontal Alignment feature is not accessible when there is job data present in the printer.

VERTICAL ALIGNMENT Screen

By design, the Printhead (ink cartridges), within a Print Unit, are purposely overlapping by a few nozzles. This feature allows the operator to control how many of the top nozzles, for each printhead, are enabled or disabled; in order to remove any overlap or gap, in the printout, between adjacent Printheads.

Vertical Alignment is also accessible by pressing the **Quick Menu** key on the Control Panel.

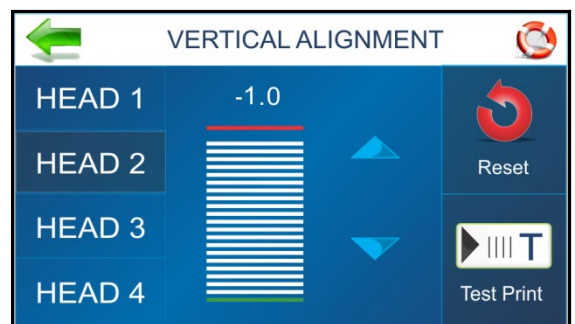
Heads (2-4): Adjust individual Printheads ± 12.0 . Each step is 1/1000 of an inch increment.

NOTE: You can NOT adjust the vertical alignment of HEAD 1, since this is the reference position.

To use: Select the desired Printhead. Move the bar in the desired direction by pressing the directional arrows.

Reset: Vertical alignment resets to **0.0** (*default*).

Test Print: Prints a test page using current adjustments and print parameters to check printing quality and Printhead alignment.



NOTICE: The Vertical Alignment feature is not accessible when there is job data present in the printer.

TOOLS Menu

NOTICE: The Tools Menu, and its menu features, are not accessible when there is job data present in the printer.

Press **Tools** icon on **Main Menu** to open the **Tools** screen.

Estimator: Select to set up an **Ink Cost Estimate** for a particular print job. The Printer runs, but does not print a preset sample number of pages (*up to 50 pages*) of the job to be printed. (*Set the number of pages in the Print Driver.*) The **Estimator** then determines the estimated ink cost for the entire print job.

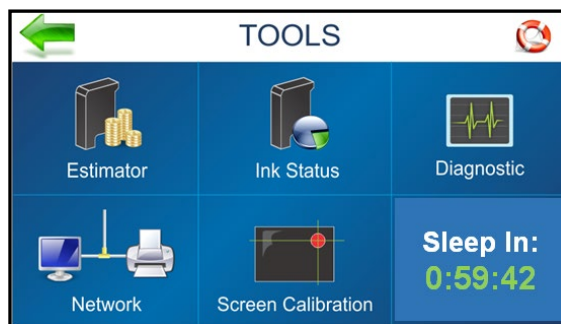
Ink Status: Select to view the percentage of ink left in the ink cartridges and the estimated number of prints remaining for each cartridge at a selected resolution, based on last page printed.

Diagnostic: Select to run diagnostic tests on key Printer systems and components.

Network: Select to set up and connect to a Network (wired, Wireless) and edit Time Server.

Screen Calibration: Set the touch pressure (*sensitivity*) desired to activate the Touchscreen.

Sleep In: Displays a countdown timer showing how much time is left before the printer enters “sleep” mode and the display goes dark. Tap to reset the countdown timer.



INK ESTIMATOR Screen

This tool estimates the total ink cost of a job, using a sampling of the print job, without feeding or printing.

NOTICE: This feature is provided for estimation purposes only. No guarantee of accuracy is expressed or implied. Actual values are likely to be different than estimated values.

Ink Cartridge Cost: Tap/press the entry box to enter the cost of a single ink cartridge.

Number of Pages: Tap the entry box to enter the total number of pages in the entire print job.

TIP: Enter total number of pages in job, not the size of the “sampling” that you will be sending.

After entering the above values, tap or press **Start Estimation Mode**. Press **Cancel** if you want to cancel this process.

Then send a “sampling” (up to 50 pages) of the job.

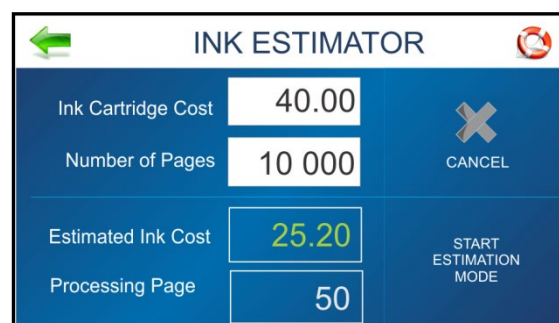
NOTE: Estimation is more accurate if you send 50 pages.

TIP: Before sending job “sampling”, it is recommended that **Purge First Piece** be turned OFF. This will use less ink and increase the accuracy of the estimate. In addition, be sure to set the desired **Print Quality** in the Printer Driver.

As the printer receives each page of the job “sampling”, it will display its progress (**Processing Page**).

After the printer finishes receiving and processing the job “sampling”, it will display the following.

Estimated Ink Cost - based on the “Ink Cartridge Cost”,



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“Number of Pages” and the job “sampling” that was sent.

INK STATUS Screen

Shows the percentage (%) of ink remaining in each Ink Cartridge (**HEAD#**) and the estimated number of prints (**LIFE**) remaining at a selected print quality (resolution).

Select a **Resolution** from the choices (150, 200, 300, 600) on the right-hand side of the screen.

NOTE: Estimation is based on the last page printed.

“-----” or “???????” = Missing or Unauthorized Cartridge

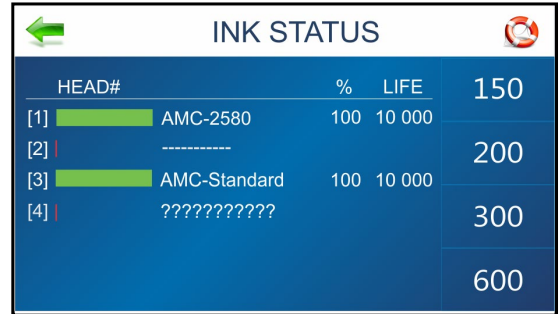
See section titled “Supplies – Compatible Inkjet Cartridge” for a list of authorized Inkjet Cartridges.

TIP: If an “authorized” Cartridge is installed, try opening and closing the Latch Lever.



If issue continues remove, clean and dry cartridge contacts. Then re-install Ink Cartridge.

If issue continues, replace Ink Cartridge. Report Ink Cartridge problems to your service representative.

Ink Status is also accessible by pressing the **Quick Menu** key on the Control Panel.



The screenshot shows the 'INK STATUS' screen with a blue background. At the top left is a green back arrow, and at the top right is a red circular icon with a white arrow. The screen displays a table with columns for HEAD#, %, LIFE, and Resolution. The Resolution column is on the right side of the table.

HEAD#	%	LIFE	Resolution
[1]  AMC-2580	100	10 000	150
[2] -----			200
[3]  AMC-Standard	100	10 000	300
[4] ????????????			600

DIAGNOSTICS Screen

Use to help troubleshoot and identify Printer issues by running tests on Printer components and systems. Use selections (1, 2, 3, 4), at bottom of screen, to control speed (1 = slowest, 4 = fastest).

CAUTION: Printer transport will run and printer will feed when TEST is activated. If media is present, it will be fed. Before pressing "TEST", please be sure that printer has been properly setup to feed the media you plan to use.

Press "TEST" to start the diagnostic cycle. Button will change to "STOP".

Press "STOP" to stop the diagnostics cycle.

Sensor (Media Sensor indicator): Use to test Media Sensor. With at least one piece of media loaded, press TEST to activate diagnostics cycle. SENSOR indicator should turn ON (green, interrupted) as media passes through media sensor and OFF (not interrupted) when no media is present at media sensor. Press "STOP" to end test.

TIP: If Sensor condition does not change as media feeds through the sensor; Stop Test. Shutdown and Power OFF the Printer and clean the Media Sensor. Then Re-test.

Encoder (count & indicator): Use to test the transport systems Encoder signal. Remove media from system. Press TEST to activate diagnostics cycle. Indicator should turn from RED to GREEN if there is any Encoder activity detected. Encoder value (count) should also increment as transport turns. If Indicator stays RED, while transport system is turning, then there is a problem with the Encoder signal. Press STOP to end Test. Contact tech support.

Piece Length: Use to check accuracy of media transport. First, verify that "Clutch w/Sensor" is selected (checked). With one piece of media loaded, press TEST to activate diagnostics cycle. After feeding one piece of media, verify that the piece length was measured accurately (+ - 2,54 mm). Press STOP to end Test.

If the piece length measured longer than the actual piece length, the media is probably slipping or hesitating as it feeds. In this case, check/adjust the Sheet Separators and Media Thickness settings.

If the media feeds through, but no piece length is displayed, check the Media Sensor and the Encoder.

TIP: An accurate Piece Length value also indicates that the Media Sensor and Encoder are performing properly.

Piece Count: Counts the number of pieces of media that have been fed during the current diagnostics test session.

TIP: If there is a problem with the Media Sensor, the Piece Count will not increment as media is fed.

Transport (speed): Use to check system transport speed. Shown as inches per second (IPS), in above image.

TIP: If there is no Encoder signal, there will be no Transport speed measurement.

Clutch (signal indicator): Displays status of the Clutch activation signal.

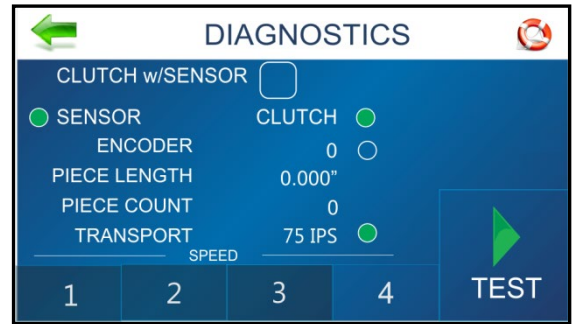
OFF = Clutch not activated. ON (green) = Clutch activated. Feed rollers should be turning.

TIP: If Clutch signal is ON (green) and transport system is turning, but feed rollers are not turning, this may indicate a problem with the Clutch, Clutch signal/connection or other Feeder components. Contact tech support.

Clutch w/Sensor (check box): Select how the Clutch is activated during Diagnostics Tests.

Unchecked – Remove media from system. Press TEST. The transport system will run and the feed roller Clutch will be activated (ON/OFF) using an automated routine. Do NOT feed media during this test.

Checked: Loaded media. Press TEST. The transport system will run and media will be fed with a short pause in-between each piece. As Media Sensor is interrupted, by the media, the Clutch will be deactivated; stopping additional pieces from feeding. Once media passes the media sensor (sensor not interrupted), the Clutch will be activated and another piece will be fed. This process will continue until you press STOP or run out of media.



SECTION 3 OPERATING PRINTER

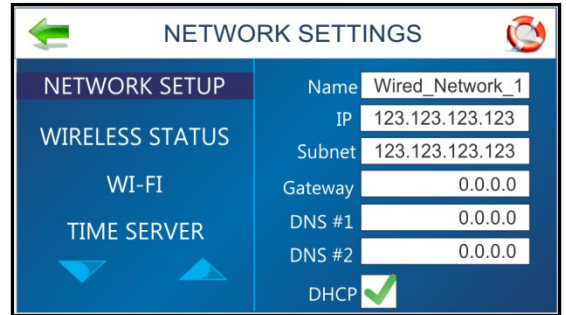
NETWORK SETTINGS Menu (NETWORK & WIRELESS CONNECTION SETUP)

Press the **Network** icon on the **Tools** screen to open the **Network Settings** screen.

NETWORK SETUP

Select **Network Setup** to enter the settings for connecting the Printer to your network. Enter the Printer Name, IP address, Subnet address, Gateway address, DNS #1 and DNS #2 and select or deselect DHCP as needed. .

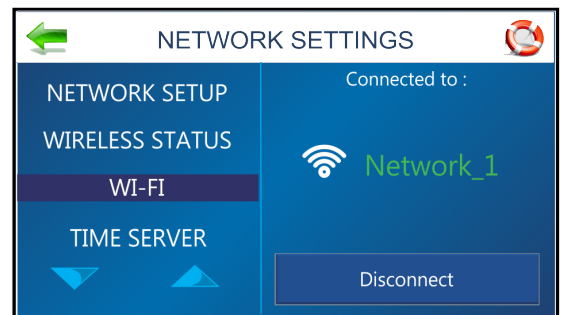
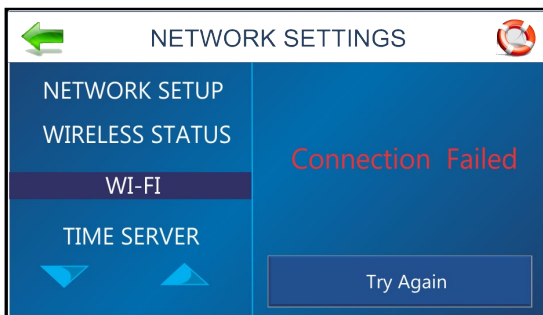
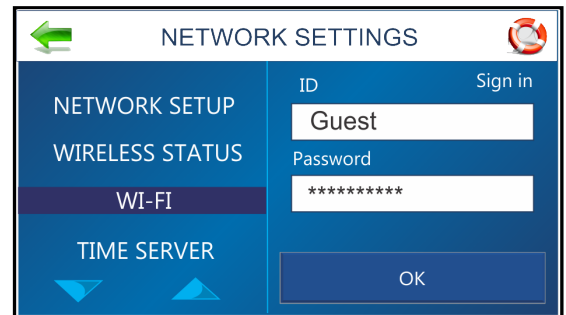
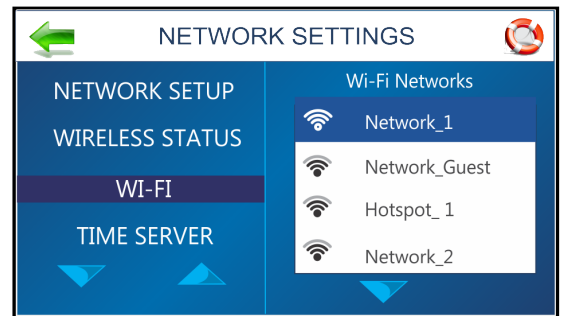
NOTE: It is strongly suggested to turn OFF (uncheck) DHCP and enter a “static” IP Address, to avoid unwanted changes to the printers IP address and loss of Printer Driver communication.



WIRELESS CONNECTION SET-UP

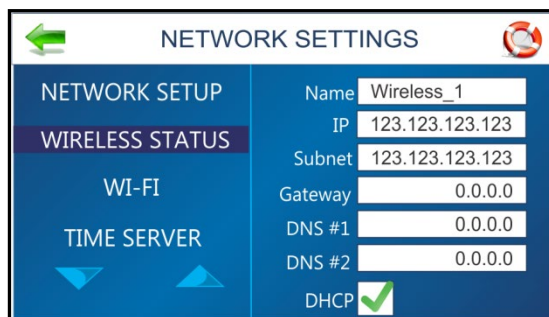
Press the **Network** icon on the **Tools** screen to open the **Network Settings** screen. Make sure the Wireless connection antenna (*included*) is connected to the Printer's Wireless connection port.

1. Select “**WI-FI**”.
2. Select the desired Network from the list of “**WiFi Networks**”.
3. Enter **User ID** and **Password**. Click **OK**.
4. Screen will show if you are connected to the Network. If connection fails, try again. Check that you are connecting to the correct Network. Check User ID and Password.
5. Click **Disconnect** to end connection.



WIRELESS STATUS

Once a **Wireless** connection has been established, this screen displays information about the wireless network connection. The information on this screen is provided for reference purposes only. It will display the values for the current **Wireless** connection. You can NOT change any of the values on this screen.

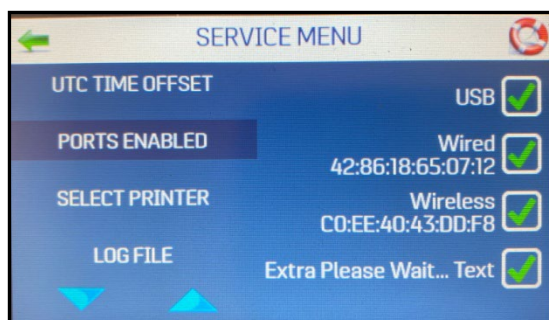


HOW TO OBTAIN MAC ADDRESS

NOTICE: Separate MAC addresses are broadcast on the Wired and Wireless ports.

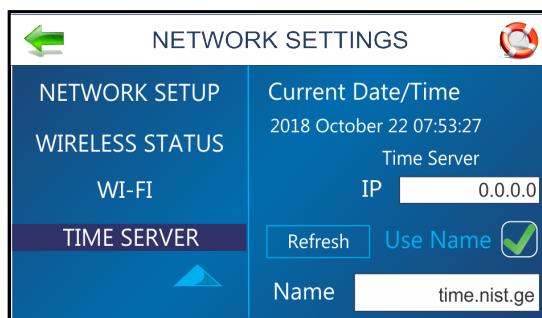
A decal, with the printer's MAC addresses (Wired and Wireless) should be attached to the printer frame, near the Ethernet port.

If this information is not present, or you want to verify that the information on the decal is correct, please contact your Service Representative. Wired and Wireless MAC addresses can be obtained from the Service Menu, "Ports Enabled" feature.



TIME SERVER (DATE AND TIME)

Displays the IP address of the Time Server being used and/or the Time Server's network name.



TOUCHSCREEN CALIBRATION

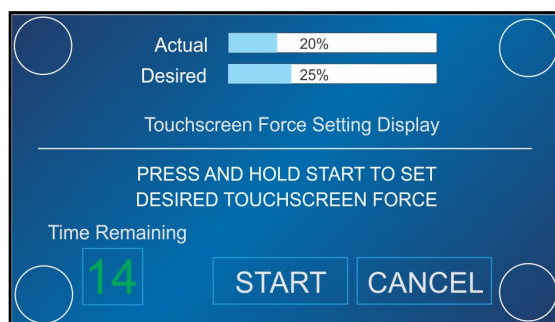
Adjust the touch pressure (*sensitivity*) needed to activate functions on the Touchscreen.

Lower percentage = less pressure, more sensitive.

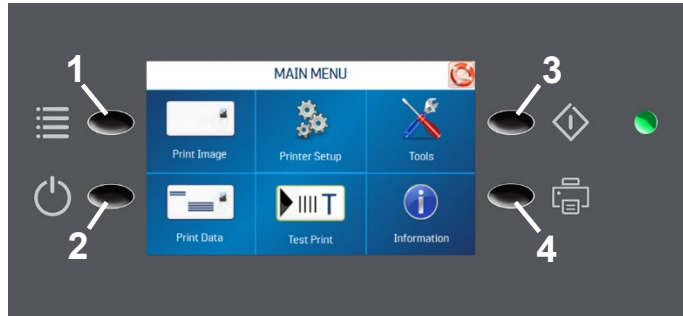
Higher percentage = more pressure, less sensitive.

Follow instructions on the screen to perform the calibration.

Time Remaining counts down the 15 seconds given to complete each step. A screen message informs you if the calibration succeeded or failed.




Control Panel Keys



1.	<p>QUICK MENU KEY – Allows quick access to often-used Printer functions without having to scroll through a number of screens. Test Feed/Reprint, Horizontal and Vertical Alignment, Printer Preferences, Purge Print, and Ink Status.</p> <p>Press Quick Menu key again to return to previous screen.</p>
2.	<p>SHUTDOWN/RESTART KEY – The Shutdown Printer screen opens with the following button options: Restart, Shutdown, USB Disconnect, Port Reset and Cartridge Initialize.</p> <p>Shutdown button safely powers-down printer electronics.</p> <p>IMPORTANT: Wait for cursor to stop blinking, or to disappear, before turning OFF Main Power Switch.</p>
3.	<p>PASS-THROUGH KEY – Press to access Transport Control screen. Use to temporarily run the Transport, to clear media from under the Printheads.</p>
4.	<p>PAUSE/RESUME KEY – Provides a quick way to pause and resume a job at the Printer without using the Touchscreen or computer. Press to start printing. Press to pause a running job. Press key again to resume printing.</p>

Quick Menu Key

Allows quick access to often-used Printer functions without having to scroll through a number of screens.

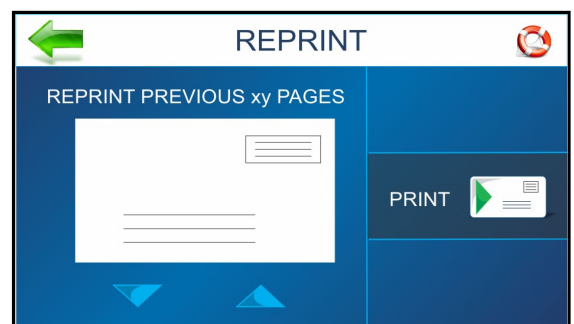
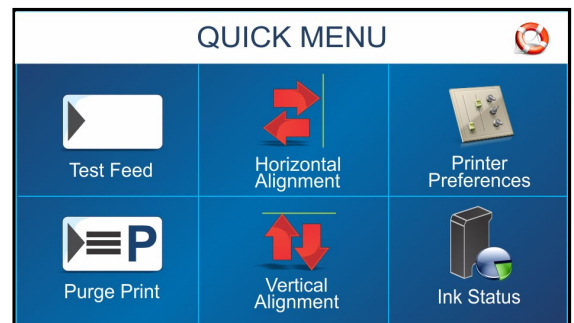
Open by pressing the **Quick Menu** key  on the Control Panel. Press **Quick Menu** key again to exit the screen.

Test Feed/Reprint

Default is **Test Feed**. If no data is present, this button allows you to test feed blank sheets of media. If you **PAUSE** the job or there is an Error (jam or double feed), the **Test Feed** button becomes **Reprint**. Recover missed or misprinted pieces by pressing **Reprint**. Use the arrows to go back to the initial misprinted piece (*or further back if desired*) to start reprinting. Press **Print**. The **Print Data** screen will appear to allow you to resume printing.

Purge Print

Prints an ink pattern at 600 dpi to clear all of the ink nozzles in all of the ink cartridges.



SECTION 3 OPERATING PRINTER

Horizontal Alignment

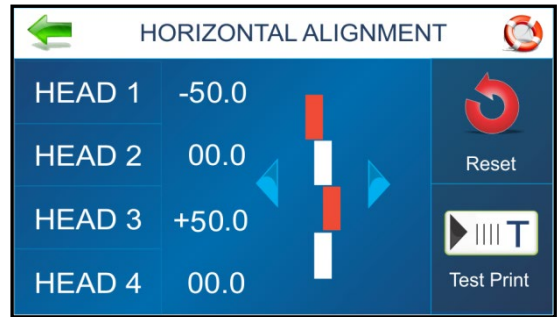
Adjust offset of individual Printheads (*side-to-side*)
Range: ± 100 (each step is 1/1000 inch).

Press “**Test Print**” to check alignment.

Press “**Reset**” to set all values back to zero.

See “HORIZONTAL ALIGNMENT”, in section titled “*Using the Touchscreen*”, for more details.

NOTICE: This feature is not accessible when there is job data in the printer.



Vertical Alignment

Use this feature to disable/enable top nozzles, in individual Printheads, to fine-adjust nozzle overlap.
Range: ± 12 (each step is 1/1000 inch).

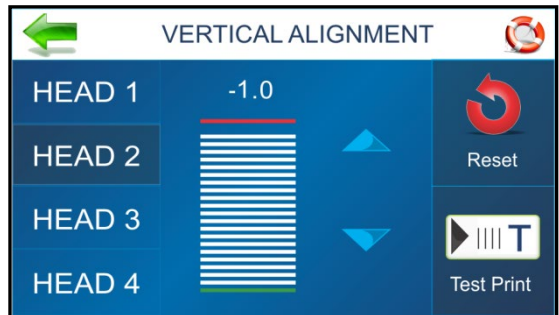
NOTE: You can NOT adjust the vertical alignment of HEAD 1, since this is the reference position.

Press “**Test Print**” to check alignment.

Press “**Reset**” to set all values back to zero.

See “VERTICAL ALIGNMENT”, in section titled “*Using the Touchscreen*”, for more details.

NOTICE: This feature is not accessible when there is job data in the printer.

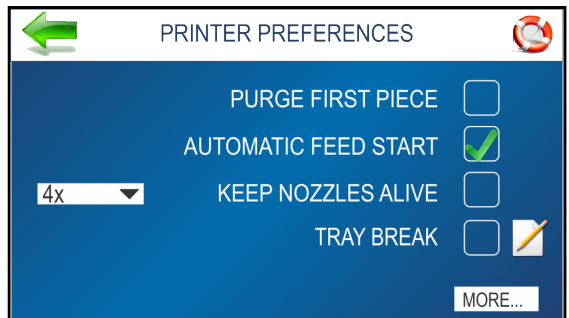


Printer Preferences

Select and set various Printer features including **Purge First Piece**, **Automatic Feed Start**, **Keep Nozzle Alive**, **Tray Break**, **Continuous Batch Counter** and **Feeder Delay**.

See “PRINTER PREFERENCES”, in section titled “*Using the Touchscreen*”, for more details.

NOTICE: Some Printer Preference features are not accessible when there is job data in the printer.



Ink Status

Shows the percentage (%) of ink remaining in each Ink Cartridge (HEAD#) and the estimated number of prints (LIFE) remaining at a selected print quality (resolution). Select a **Resolution** from the choices (150, 200, 300, 600) on the right-hand side of the screen.

NOTE: Estimation is based on the last page printed.

See “Ink Status” in section titled “*Using the Touchscreen*”, for more details.

HEAD#	%	LIFE	Resolution
[1]	100	10 000	150
[2]	-----		200
[3]	100	10 000	300
[4]	???????????		600

Shutdown/Restart Key

When the **Shutdown/Restart** key  on the Control Panel is pressed, the **Shutdown Printer** screen opens.

Functions found on this screen:

Restart

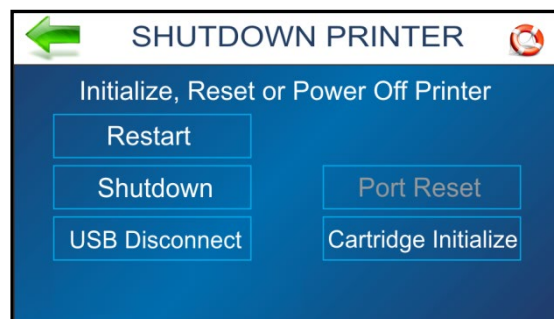
Stops and restarts the Printer's software and electronics.

See "Port Reset" if button is grayed out.

Shutdown

Safely powers-down printer by saving settings and shutting down internal applications.

See "Port Reset" if button is grayed out.



When "Shutdown" is pressed, the Display Screen will change to a black screen with a blinking cursor, at upper left-hand corner. Once cursor stops blinking, or disappears, it is safe to turn OFF the Main Power Switch.

NOTE: The time it takes for cursor to disappear or stop blinking may vary from 5 to 60 seconds.

TIP: After the printer has Shutdown, you must turn OFF the Main Power Switch before you will be able to power-up the printer again.

WARNING!

Improper Shutdown may cause loss of printer settings and data corruption, which can make the printer inoperable!

USB Disconnect

Disconnects and reconnects Printer communication with the USB Port.

Sometimes this can help to re-establish a USB connection that has been lost.

Port Reset

Clears any jobs/data being sent to the Printer.

Example: After a job is cancelled at the Printer, the remainder of the job may continue to be sent by the computer. This may cause the Printer to become "stuck" because it can no longer read the job.

Press the **Port Reset** button to fully clear the job/data.

NOTE: The Shutdown and Restart buttons will be grayed-out (unavailable) if there is still data present.

If the **Port Reset** button is active (available), press it to clear the job/data. Then you should be able to Shutdown or Restart the printer.

Cartridge Initialize

Use to attempt to reestablish communication between the inkjet cartridges and the Printer. If issue continues try properly shutting down printer and verifying that compatible inkjet cartridges are being installed.

See the section titled "Supplies - Compatible Inkjet Cartridges" for a list of compatible inkjet cartridges.

SECTION 3 OPERATING PRINTER

Pause/Resume Key


When running a job, you can use the **Pause/Resume Key**  on the Control Panel to PAUSE and RESUME the current job.

While job is printing, press this key to PAUSE the job.

Press this key again to RESUME the job.

NOTE: You can also perform these functions using the **PAUSE/PLAY** buttons from the Touchscreen (Print Data screen).

Pass-Through Key

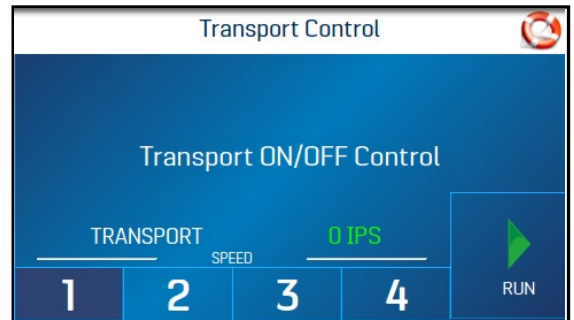
Pressing the **Pass-Through Key** , on the Control Panel, opens the **Transport Control** screen, which allows the Printers transport to operate without feeding additional media from the feeder (feed section). This can be used to eject any media under the Printheads.

Transport Speed can be adjusted using buttons **1, 2, 3, 4**.

Press **RUN** to start the printer transport system.

Press **STOP** to stop the printer transport system.

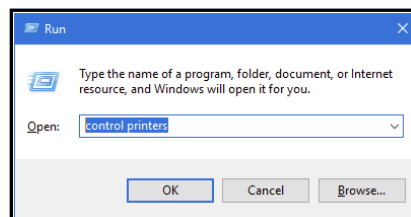
To **EXIT** the **Transport Control** screen, you must press the **Pass-Through** key on the Control Panel.



Printer Driver Properties

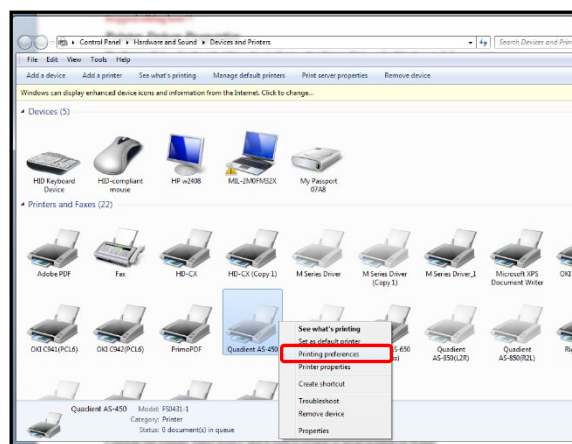
The Printer Driver for the AS-450 works similar to other Printer Drivers for Windows®. It does contain some features that are unique to this printer. The Driver properties/features are explained below. The following information is valid when using FlexSystems driver version 4.38.

TIP: To open “Devices and Printers” in Windows 10. Press Windows key + R. Run dialog window will open. Type “control printers” and then press OK.



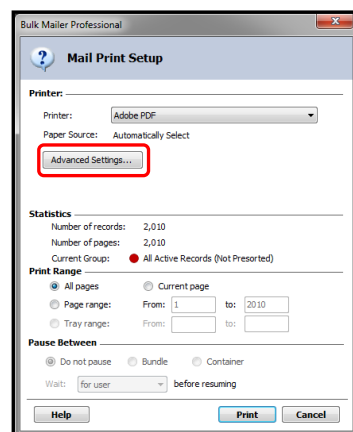
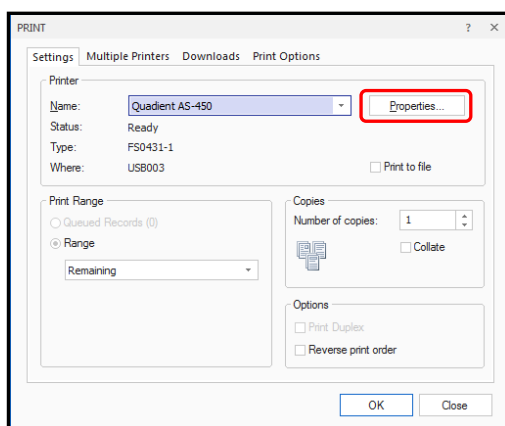
From “Devices and Printers”, right-click on the AS-450 Driver and select “Printing Preferences” to access and change “default” printing preferences.

TIP: Preferences that you change, by accessing them from the “Devices and Printers” folder, will become “default” settings. This can be useful if you want specific settings to be automatically selected when you select the AS-450 Driver from your software application. For example you commonly use the “Env #10...” Paper Size and “300 dpi” Resolution for your print jobs.



From the “Print dialog box” of most software application, clicking on the “Properties” button or “Advanced Settings” button will give you access to “Printing Preferences”.

This is how you will access and change preferences for a particular job, at the time you are ready to print the job.

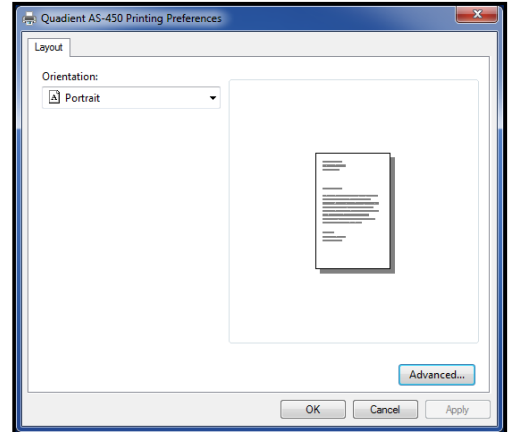


SECTION 3 OPERATING PRINTER

Layout Tab

Lets you select **Portrait** or **Landscape** orientation.

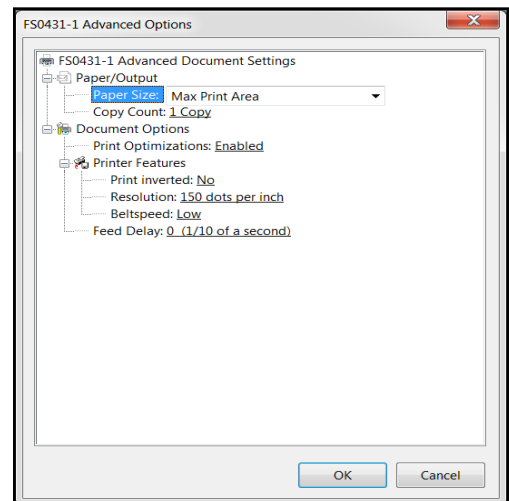
NOTE: In most cases, **Orientation** should be set to **“Portrait”**.



Clicking **Advanced** opens **“Advanced Options”** window.

Advanced Options

When **Advanced Options window** opens, there are **Paper/Output** and **Document Options** to set up, change, and adjust Printer.



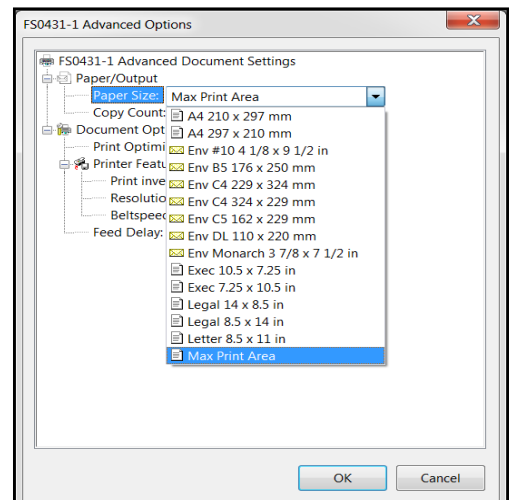
Paper/Output

Paper Size:

Lets you select the size of media to be used.

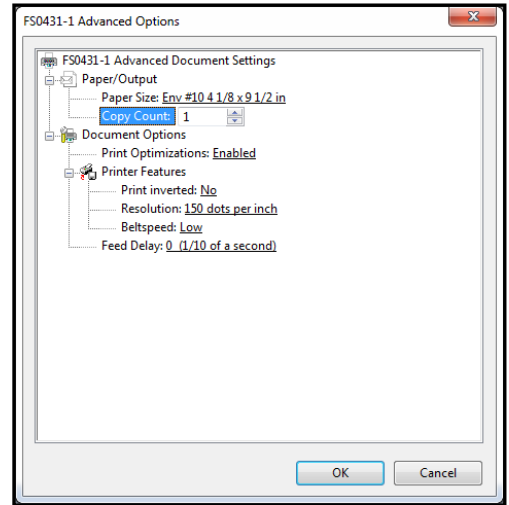
TIP: If your paper size is not available in the pull-down-list, see section titled **“Adding New Form Size (Paper Size)”** for details on adding a new paper size.

IMPORTANT: The Paper Size (length in direction of feed), selected in the Driver, must match the physical length of the media you plan to feed. If not, the printer may feed one or two pieces and then display **“Double Feed”**.



Copy Count:

Use to select the number of copies to print.



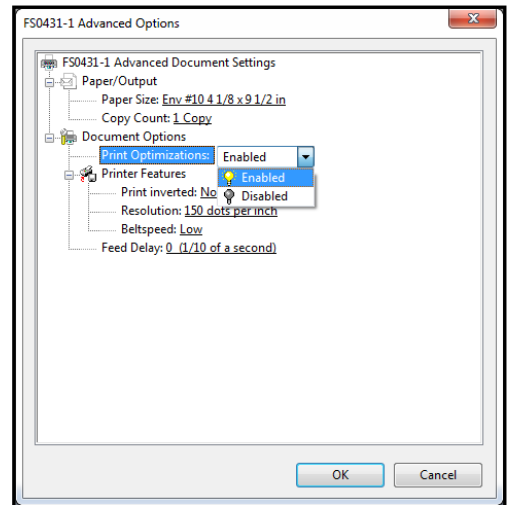
Document Options

Print Optimizations:

Please be sure that **Enabled** is selected.

Enabled – All fonts are downloaded to the printer, as bitmap soft fonts, once during print job.

Disabled – Each character is sent as a graphic, every time it is used. This will greatly increase the volume of data being sent, which will likely make printing slower.

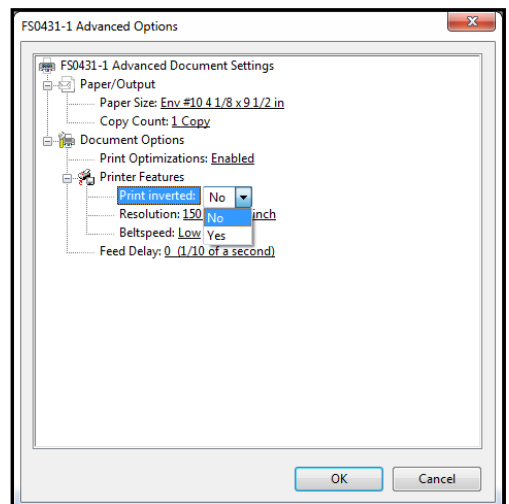


Printer Features

Set print Resolution (print quality) and Printer speed (Beltspeed). Add a Feed Delay to provide more dry-time between printed pieces.

Print inverted:

Set print orientation. **No** (normal), **Yes** (180 degree rotation)



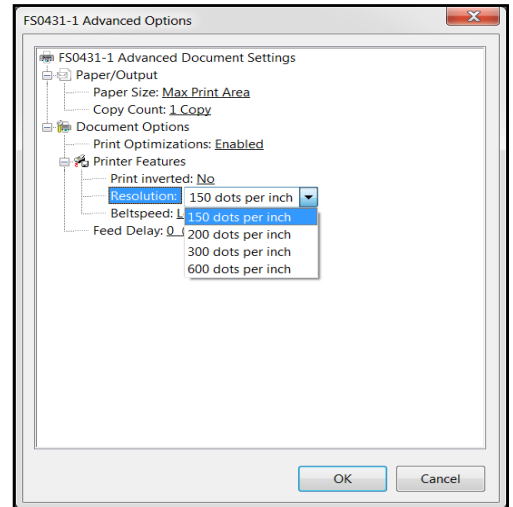
SECTION 3 OPERATING PRINTER

Resolution:

Sets **resolution** of print quality. Changing **resolution** to a higher number (e.g. 200 DPI to 600 DPI) increases image quality.

NOTE: Higher resolutions reduce **Belt Speed** options.

Print Quality (Resolution)	Compatible Belt Speeds (Print Speed)
150 DPI (150 x 600)	Low (1), Medium (2), Medium High (3), High (4)
200 DPI (200 x 600)	Low (1), Medium (2), Medium High (3)
300 DPI (300 x 600)	Low (1), Medium (2)
600 DPI (600 x 600)	Low (1)

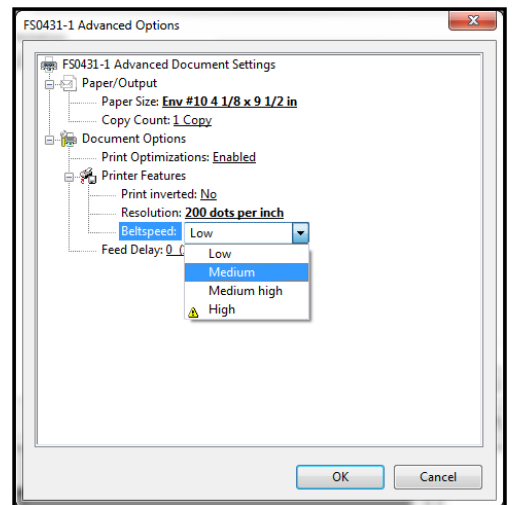


Belt Speed (Beltspeed):

Sets **Print Speed** for a print job.

NOTE: Belt Speed selections are limited by the current **Resolution** selection. Do NOT select choices marked with **CAUTION** symbol.

Print Quality (Resolution)	Compatible Belt Speeds (Print Speed)
150 DPI (150 x 600)	Low (1), Medium (2), Medium High (3), High (4)
200 DPI (200 x 600)	Low (1), Medium (2), Medium High (3)
300 DPI (300 x 600)	Low (1), Medium (2)
600 DPI (600 x 600)	Low (1)



TIP: Print Speed (belt speed) can also be changed, after sending the job, using the Touchscreen of the printer.

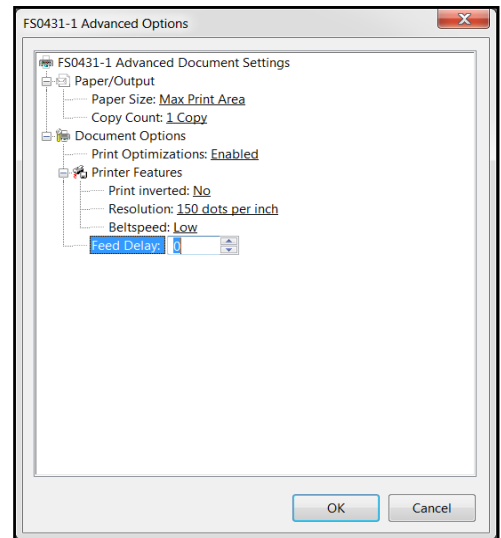
Feed Delay

Use to add a pause between printed pieces.

Adding a Feed Delay, to provide more dry time, may help to reduce “offset” (ink transfer, image smudging) between pieces.

Adjustment is made in 1/10 of a second (0.1-second) increments.

10 = 1 second



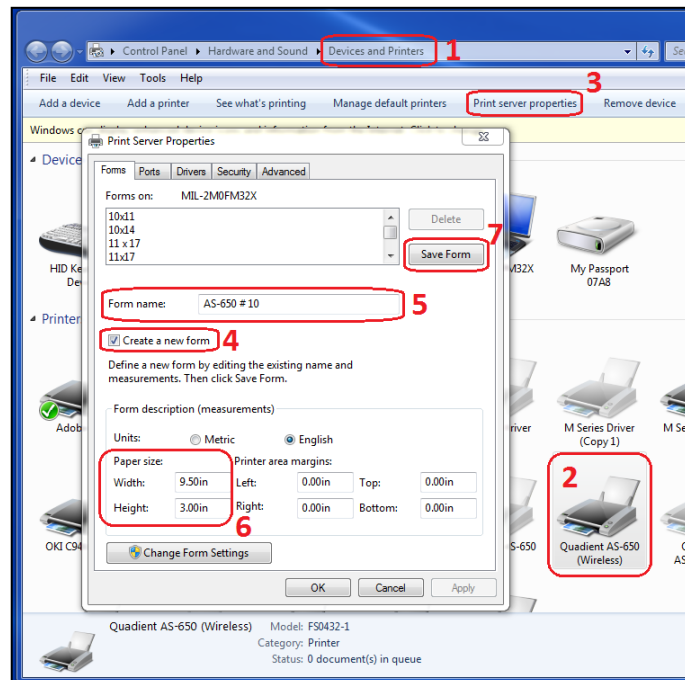
Adding New Form Size (Paper Size)

NOTE: The AS-450/650/850 Printer Drivers do NOT provide a feature for adding a “custom” page size. Therefore you may need to add a New "Form size" using Windows "Print Server Properties".

See details below. Once added, this new Form size should be available as a “Page Size” choice in the Printer Driver.

Add a New Form Size (Paper Size)

1. Open **Devices and Printers**
2. Select (single click on) your printer driver.
3. Click on “**Print server properties**”, located near top of view. The “Printer Server Properties” window will open.
TIP: This feature will not appear unless you have selected one of the printers in the folder.
4. Select “**Create a new form**”
TIP: If you are not able to create a new form (feature grayed out) or the new form size you save does not appear in the driver, you may not be logged into the computer with full administrative rights.
5. Type a name for your new form, into the box labeled “**Form name:**”
6. Enter the **Page size**
“**Width**” (length in direction of feed) and “**Height**”. Leave all margins at zero.



TIP: When creating a new form, it is best to set the page “Height” to a value that does not exceed the printer's maximum print height.

Max Print Height: AS-450 = 2" (50,8 mm), AS-650 = 3" (76,2 mm), AS-850 = 4" (101,6 mm)

This will prevent the operator from positioning data outside the printers physical print height.

SECTION 3 OPERATING PRINTER

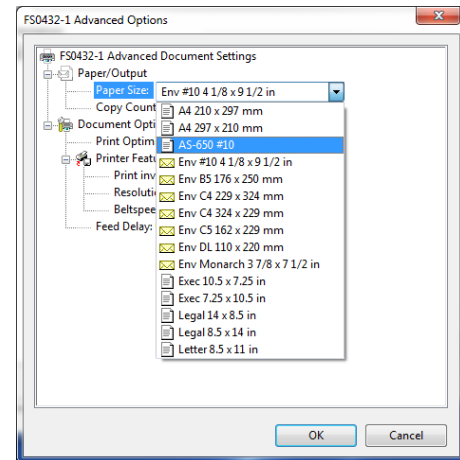
For example when feeding #10 envelopes, short edge first, in an AS-450, you would create the following
Page size: Width = 9.5" (241,3 mm) Height = 2" (50,8 mm)

7. Click on "Save Form". Then Click on OK to close the window.

Verify that the new Form Size is available in your Printer Driver.

After adding a new "Form size", you should see the new form size listed in the driver's "Paper Size:" pull-down list; as shown here.

NOTE: You may need to Close and Open driver/software, or reboot the computer, after adding a new Form size, to make this new "Paper size" available in driver properties.



Printing from Bulk Mailer

This section describes the process for opening a mailing list, designing a Template (Layout) and printing to the AS-450 printer model. This section does not provide information on using other Bulk Mailer functions, such as Address Quality, Mail Sort and other features. Please contact BCC Software (www.bccsoftware.com) for help with Bulk Mailer features/functions that are not outlined in the following procedure.

Known Printer Driver/Bulk Mailer Limitations: For operators who may be accustomed to changing printing features such as “Orientation”, “Print Quality”, “Belt Speed” and “Feed Delay” from the Bulk Mailer Designer screen; please note that this is not currently possible. This is due to the fact that BCC Software has not developed an AS-450 Printer Driver, for use with Bulk Mailer. Because of this there is no integration between the current AS-450 Printer Driver (developed by FlexSystems) and the Bulk Mailer Software. Therefore you must access “Advanced Settings”, in the Print Dialog box, to make changes to these features. This process will be explained in the following steps.

1. **Open Bulk Mailer.**
2. From the “**Home**” tab, select and open (double-click on) the mailing list of your choice.
3. From the “**Print Mail**” tab, select and open the “**Print Mail Wizard**”, which will guide you through the envelope design and Layout process. Click **NEXT** to continue.

Please be sure to make the following selections within the “wizard”.

- a. From the “**Print Mail Template Type**” window, select “**Envelopes – Graphical Output**” as the Template Type.

Click **NEXT** to continue.

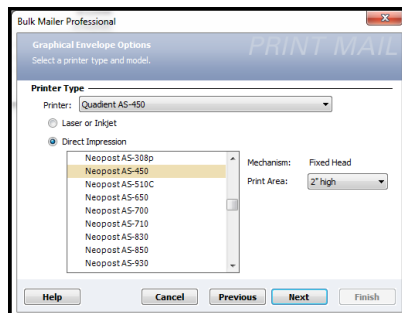
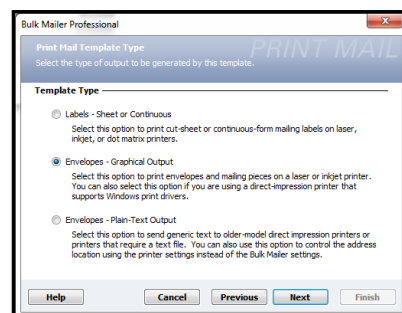
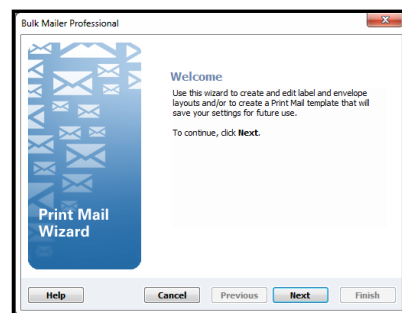
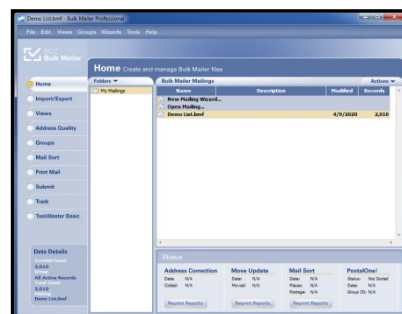
- b. From the “**Graphical Envelope Options**” window select the appropriate choices for your “**Printer Type:**”

Printer: Printer Driver selection. Select the **AS-450** Driver

Select “**Direct Impression**”.

Locate and select the **AS-450** choice from the list. .

Click **NEXT** to continue.



SECTION 3 OPERATING PRINTER

- c. From the “Envelope Options” window select the desired media size (Name/Width) from “Envelope/Letter Layout” list.

NOTE: Width = length of media in direction of travel.

TIP: If your desired media size is not present, select and open the “New Envelope/Letter Layout”, located at top of list.

You will be presented with a window that allows you to create a “custom” media size and save it as a new name.

Layout Name: Type desired name for new media choice.

Page width: Enter length (inches) of media, in direction of travel. Press **OK** to Save and close this window.

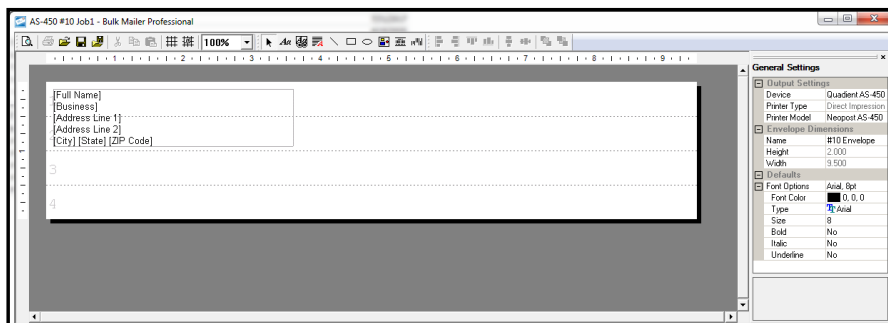
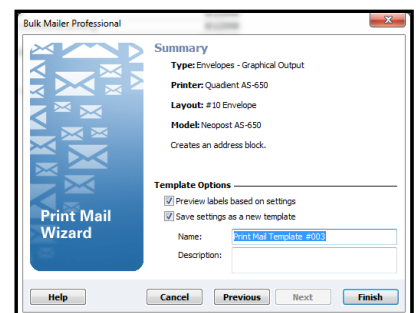
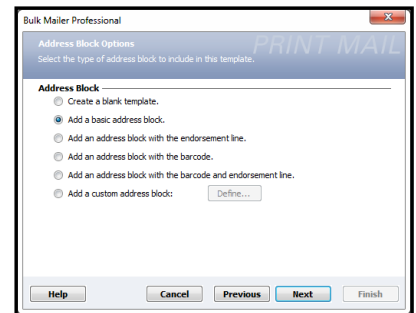
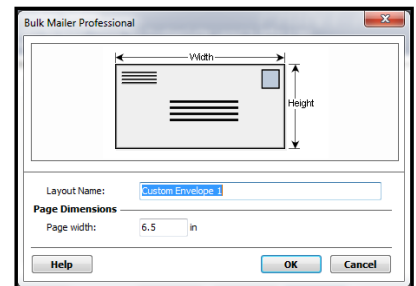
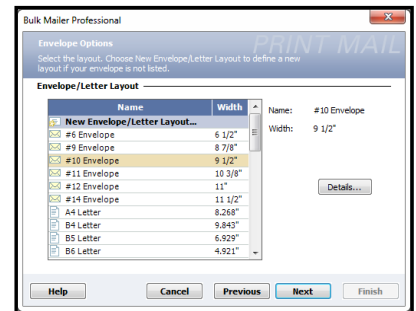
Click **NEXT** to continue.

- d. From the “Address Block Options” window select the desired “Address Block” elements that you would like the “wizard” to automatically add to the Template (Layout).

- e. From the “Summary” window...
 Select “Preview labels based on settings”.
 Select “Save settings as a new template”.
 Type the desired “Name” for the Template being created.
 Add a “Description” for the Template. (optional)

Click on “Finish” to Save and close the “Print Mail Wizard”.

Your “Template” (Layout) will open, in the “designer” view.

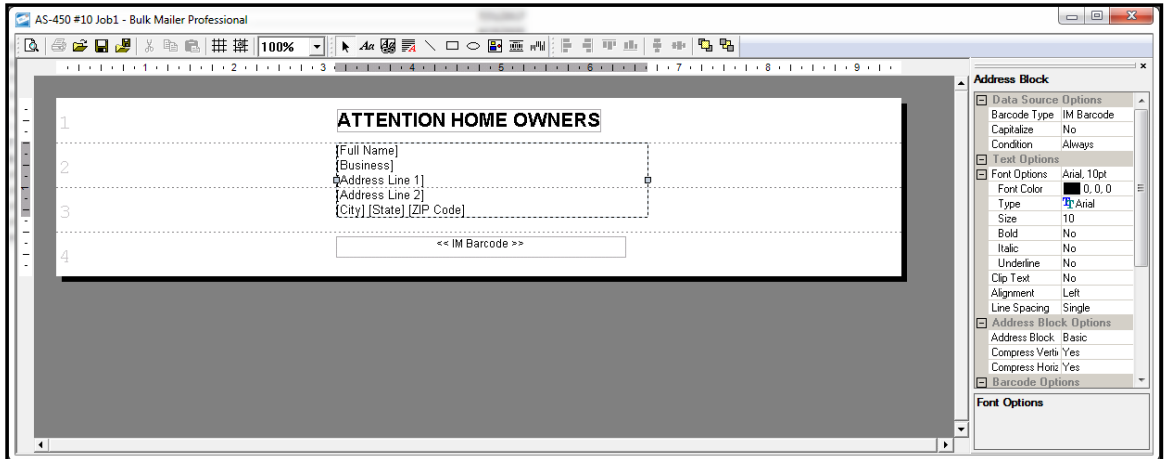


4. From the designer view of your “Template”, you can add, change and position elements in the Layout.

The following Layout example was designed for an AS-450.

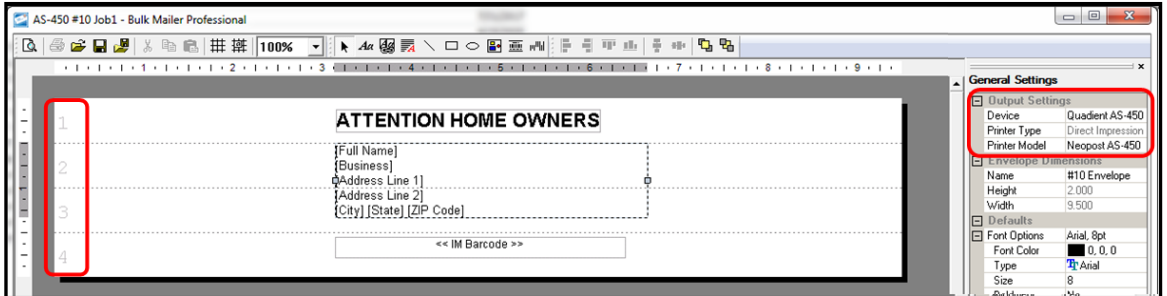
It shows a media width of 9.5” (241,3 mm), with a “Static Text” element (Attention Home Owners) positioned on Head 1, an “Address Block” element positioned on Heads 2 & 3 and an “IMB Barcode” element positioned on Head 4.

- a. Click and drag elements, such as the Address Block or Barcode, to the desired print location in the Layout.
- b. Click on an element, such as the Address Block, to access and change Font Options for this element. Font Options and other features for the selected element can be accessed at the right-side of the designer screen.



SECTION 3 OPERATING PRINTER

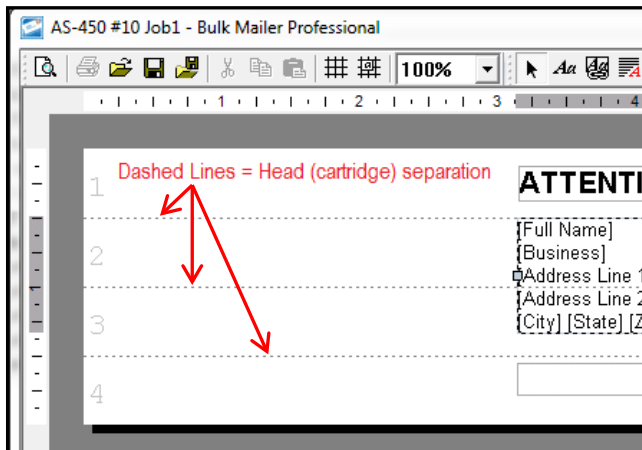
- c. The numbers, along the left-side of the Layout, accurately represent the “Head” (cartridge) numbers on the AS-450 when using the following Bulk Mailer choices and Printer Driver setting.
- **Device:** AS-450 (physical printer model)
 - **Printer Type:** Direct Impression
 - **Printer Model:** AS-450 (the “Direct Impression” choice in Bulk Mailer)
 - **Print inverted = No** in the AS-450 Driver (“normal” print orientation).




NOTICE: Head numbers are not displayed correctly, in the Layout, when using “inverted” print (**Print inverted** in the AS-450 Driver set to **Yes**). For example; when using “inverted” print on an AS-450, Head #1 should be at the bottom and Head #4 should be at the top of the Layout. This is not the case.

Print Inverted: Yes = “inverted” - prints up-side-down to operator
Print Inverted: No = “normal” - prints right-side-up to operator

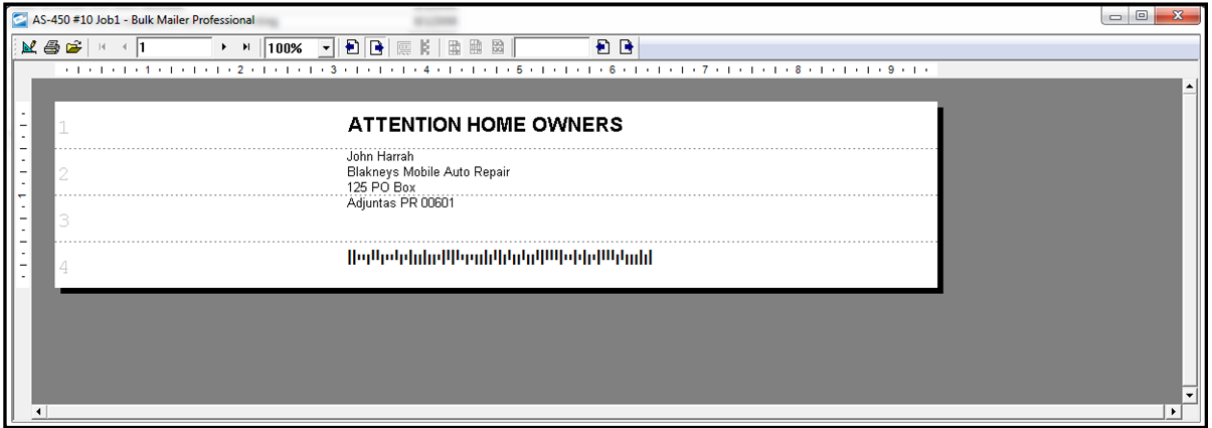
- d. The “Dashed Lines”, in the Layout, represent the approximate separation points between Heads (cartridges).



TIP: For best print results, try to position elements so text and graphics are not split between Heads or Print Units. If you split text/graphics between Heads or Print Units some misalignment, between the upper and lower sections of the text/graphic, is likely to occur.


5. Click on the "Go to Preview Mode" icon , located in the upper left-hand corner of the Bulk Mailer "designer" screen. The "print preview" screen will open.

You can use the arrow buttons, located at the top of the "print preview" screen, to toggle through the records in the mailing list and see how they are displayed.



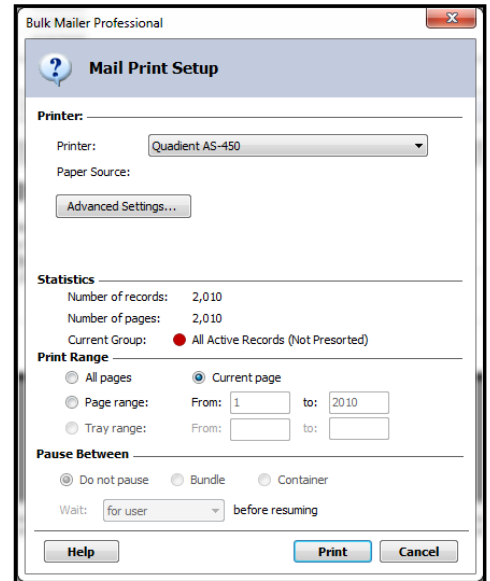
TIP: Click on the "Go to Designer Mode" icon , to return to the "designer" screen.

SECTION 3 OPERATING PRINTER

6. Click on the “**Print Records**” icon , located in the upper left-hand corner of the Bulk Mailer "print preview" screen.

The “**Mail Print Setup**” window (Print dialog) box will open.

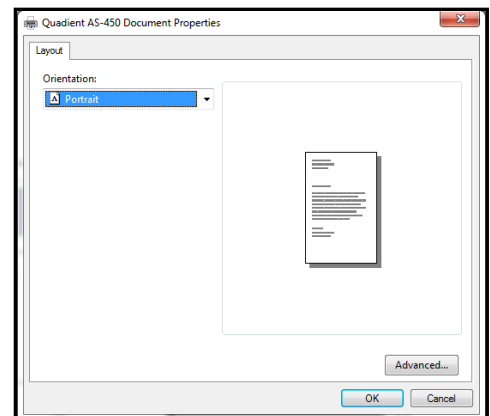
- Make sure the corresponding Printer Driver is selected as your “**Printer**”.
- Use the features under “**Print Range**” to select the range of records you want to send to the printer.



7. Click on the “**Advanced Settings**” button.
The “**Document Properties**” window will open.

- Make sure “**Portrait**” is selected for the “**Orientation**”.

Orientation: Portrait, Landscape
Provides 90 degree image rotation.



8. Click on the “**Advanced**” button.
The “**Advanced Options**” window will open.

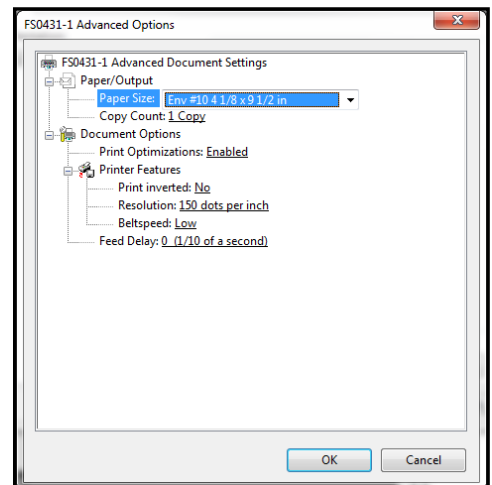
- Select your desired Paper/Output settings.

Paper Size: Select size from pull-down list.

IMPORTANT: Select a “**Page Size**” (length) that matches the “**Page Width**” specified in your “**Template**” (Layout).
Page Width = Length in direction of travel.

NOTE: If your Page Size is not available, please refer to the section titled “*Adding New Form Size (Paper Size)*”.

Copy Count: How many copies of each record you would like printed.



b. Select your desired Document Options and Printer Features.

Print Optimizations: Enabled, Disabled
Make sure Enabled is selected.

Print inverted: No, Yes
No = normal – right-side-up to operator
Yes = inverted (rotate 180°)

NOTE: If you select “Yes” to print “inverted”, the “Head” numbers, in your “Template” (Layout), will not be displayed correctly. In this case Head #4 should be identified as the head at the top of the Layout and Head # 1 should be identified as the head at the bottom of the Layout.

Resolution: 150, 200, 300, 600 DPI (print quality)
Belt Speed: Low, Medium, Medium High, High

NOTE: Belt Speed selections are limited by the current Resolution selection.
Do NOT select choices marked with **CAUTION** symbol.

Resolution	Compatible Belt Sped Selections
150	Low, Medium and Medium High, High
200	Low, Medium and Medium High
300	Low, Medium
600	Low

TIP: Compatible Belt Speeds can also be selected at the printer, after sending the job. Pause printer before selecting a new Belt Speed.

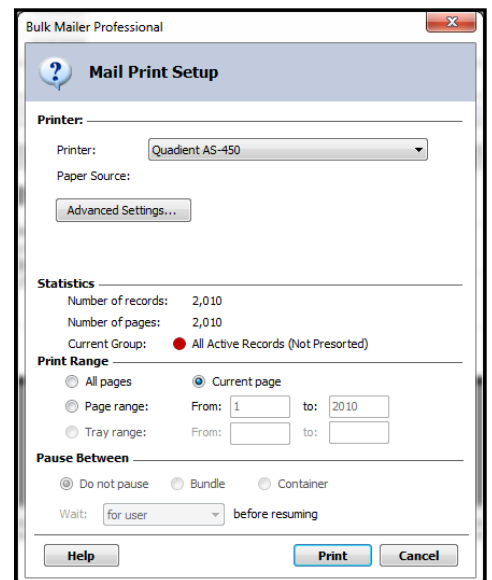
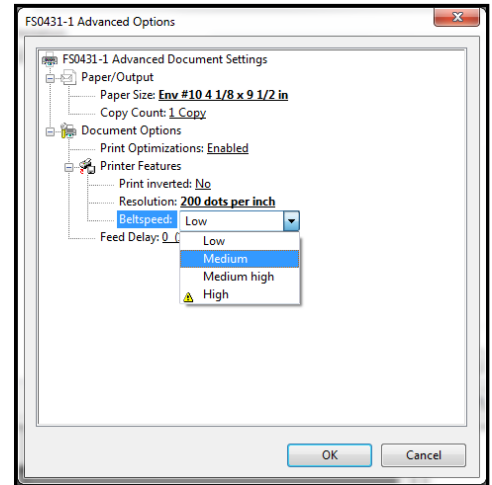
Feed Delay: Feeder pause time (1/10 of a second). 10 = 1 second.
Printer will pause feeder, for set value, between each piece of media that is fed/printed. Use to provide more dry-time between pieces.

Click on **OK** to close the above windows.

9. Click on “**Print**” to send job to the printer.

NOTE: Make sure the printer is powered up and ready, before clicking on the “**Print**” button.

TIP: Start by choosing “**Current Page**” to print a single piece, to check print locations.



SECTION 3 OPERATING PRINTER

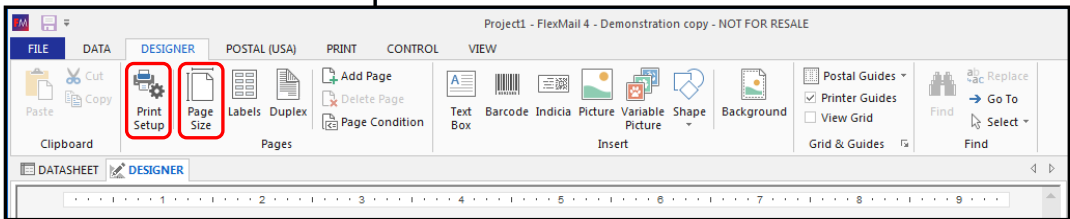
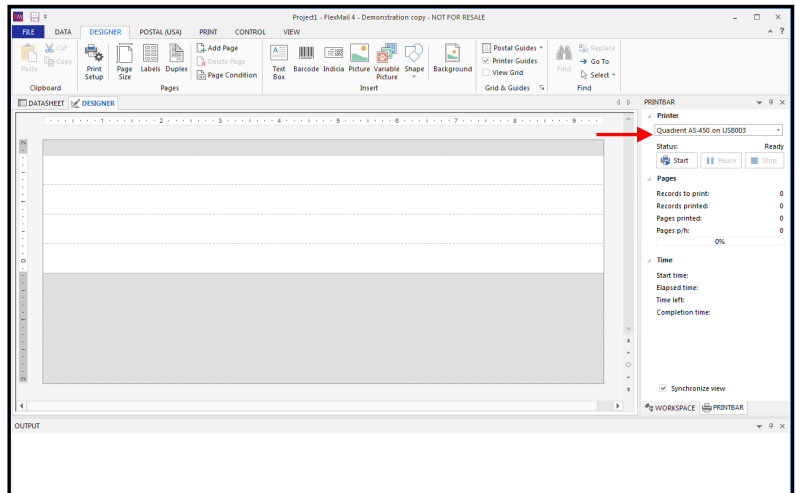
Printing from FlexMail 4.3

This section describes the process of designing a Template (Layout) and printing to the AS-450 printer model. This section does not provide information on using other FlexMail functions, such as Importing a Mailing List, Validating/Cleaning records or other FlexMail features. Please contact FlexSystems (www.flex-systems.com) for help with FlexMail features/functions that are not outlined in the following procedure.

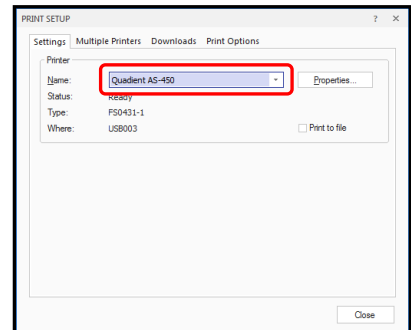
1. Open FlexMail

A new “Project” window will open in the “Designer” view, displaying a Layout representing the current “default” Printer and “default” page size.

TIP: If you want FlexMail to open with a Layout representing the AS-450 printer and a specific page size; right-click on the AS-450, in the “Devices and Printers” folder, and choose “Set as default printer”. Also be sure to select and apply your desired Printing Preferences in the driver.



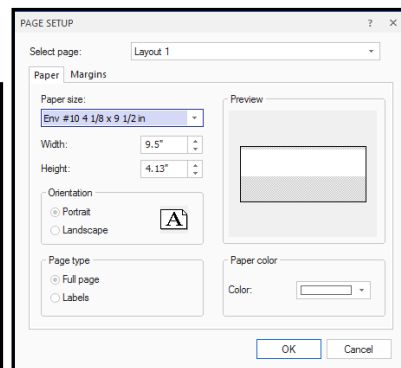
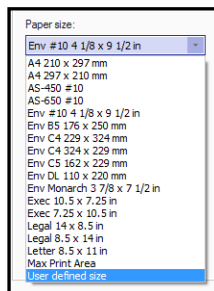
2. If the AS-450 is not the selected model, click on “Print Setup” button and select the AS-450 from the list.



- Click on “**Page Size**” button, to change the page size.
If your desired page size is not available in the pull-down list, select “**User defined size**” from the list. Then type the “**Width**” (length in direction of feed) and “**Height**” of the page size you want to use for this Project and Layout.

TIP: As an alternative to creating a “**User defined size**”, please see section titled “*Adding New Form Size (Paper Size)*”.

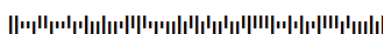
IMPORTANT: The page “**Width**” value must match the media length (in direction of feed) that you plan to feed and print onto.



- Click on the “**DATA**” Tab to link a data file to the Project.
Click on “?” symbol, located at top corner of FlexMail window, for help linking “**Datasources**”.

- Click on the “**DESIGNER**” Tab to add
Once the Layout is setup to represent your desired Page Size, you are ready to such as Text (including data fields), the Layout.

IMMEDIATE ATTENTION REQUESTED



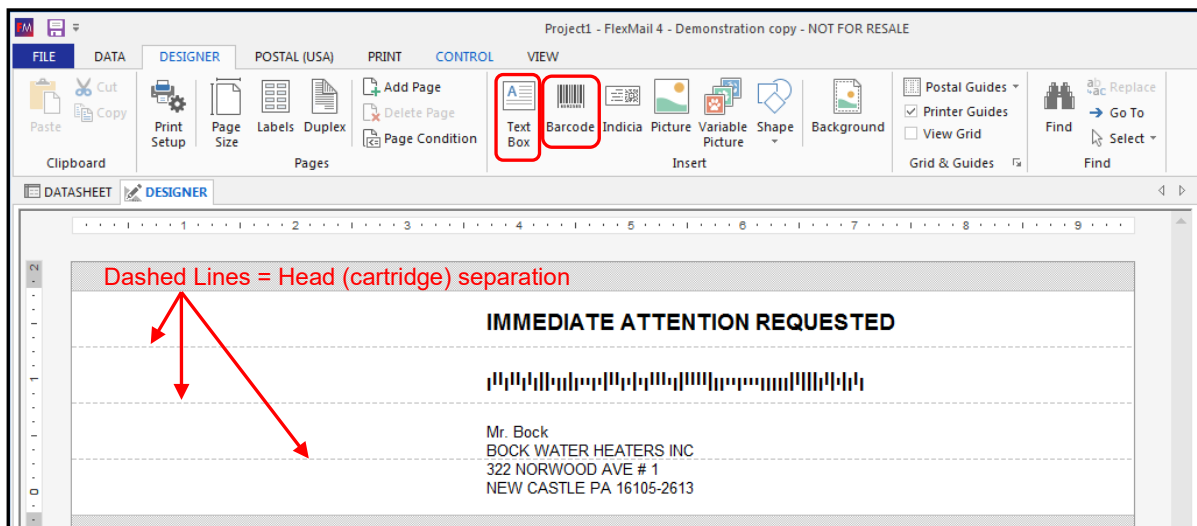
MR. STAN COUCH
STAN'S FURNITURE DELIVERY
1234 JUSTICE AVENUE
NEW CITY, PA 16660-1234

elements to the Layout.
the AS-450 printer and start adding elements, Barcodes and Pictures, to

The following Layout example was
It shows a page Width of 241,3 mm

designed for an AS-450.
(9.5”), with a “Text Box”

(Immediate Attention Requested) element positioned on the top Head, a “Barcode Box” (Intelligent Mail



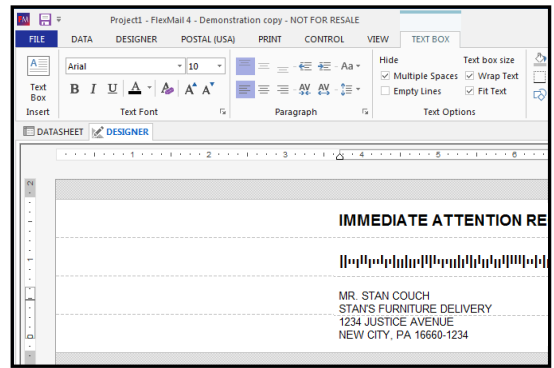
Barcode) element positioned on the second Head from the top and a “Text Box” (Address Block) element positioned on the lower two Heads.

- The “Dashed Lines”, in the Layout, represent the approximate separation points between Heads (cartridges).
TIP: For best print results, try to position elements so text and graphics are not split between Heads. If you split text/graphics between Heads some misalignment, between the upper and lower sections of the text/graphic, is likely to occur.
- Click and drag elements, such as the “Text Box” or “Barcode Box”, to the desired print location in the Layout.

SECTION 3 OPERATING PRINTER

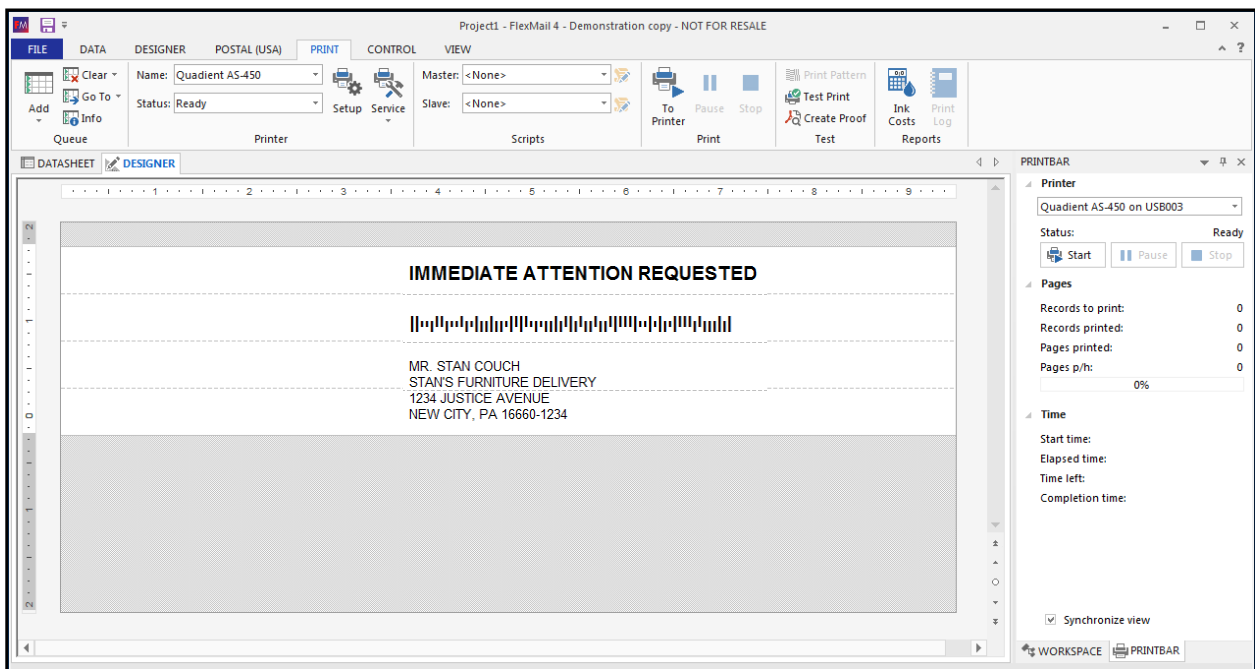
- Click on an element, such as a “Text Box”, to access and change Font Options for this element. Font Options and other features for the selected element can be accessed at the top of the screen.

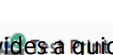
NOTICE: FlexMail does not provide Head number references in the FlexMail Layout. This eliminates the need to show a different Head numbering order, in Layout, when selecting between “Normal” and “Inverted” print orientations.



- To **Save** your Project and Layout, click on the “**FILE**” button and then click on “**Save**”. Type a name for your Project and then click on the **Save** button.
TIP: You can also save the Project as a “FlexMail Template” that can be used to format future Projects.
- Click on the “**PRINT**” Tab to access printing features.

TIP: You can use the radio buttons (arrows), located at the bottom-right side of the Layout, to toggle through the records in the linked data file, to see how they will be displayed/printed.

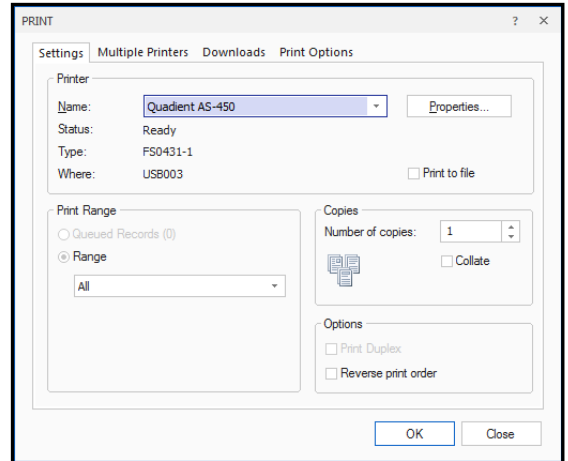


- Click on  (**Test Print**) button to immediately send the current record, in the Layout, to the Printer. This provides a quick test to verify that the Project and Layout were setup properly and will print as you expect.



9. Click on **To Printer** (**To Printer**) button to open the **“PRINT”** dialog box.

From the **“PRINT”** dialog box you can access **“Settings”**, **“Downloads”** and other FlexMail features that will not be covered in this document.

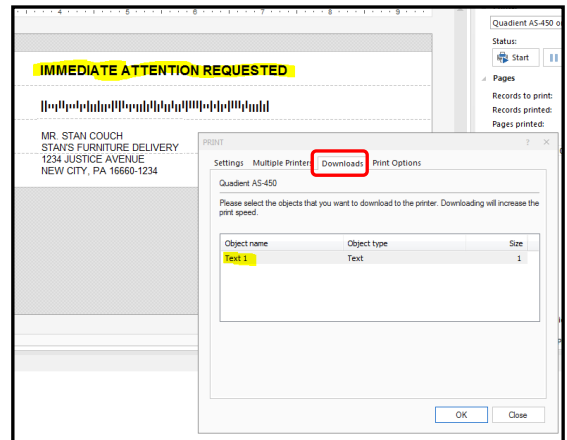


SECTION 3 OPERATING PRINTER

- Click on the “Downloads” Tab and select any “objects” (elements) that you want FlexMail to download to the printer. Hold down the Control (Ctrl) key and click to select multiple “objects”.

In this example, “Text 1” was selected. It will now be downloaded to the printer once and recalled with each record, instead of being resent with each record.

TIP: Downloading objects (elements) can significantly reduce the amount of data being sent per record. In some cases this can help to avoid possible pauses created by printer waiting for data and processing data. This may improve throughput (print speed).



- Click on the “Settings” Tab and make sure the AS-450 printer is selected.

You can also select the following features from this window.

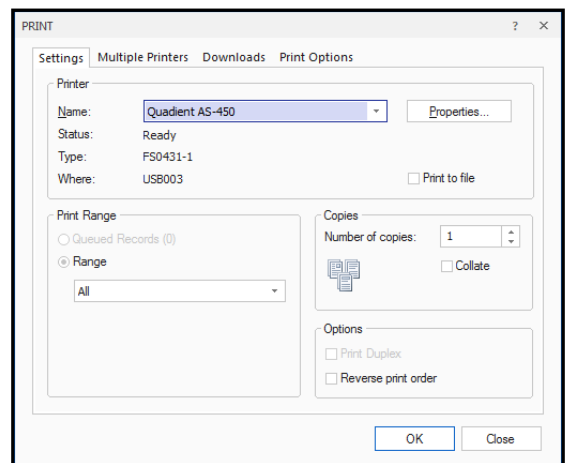
Print Range – The range of records you would like to print.

Number of Copies – How many copies of each record you would like printed.

Reverse print order – When selected the last record will print first.

Properties – Click button to access and adjust Printer Preferences such as Print inverted, Resolution (print quality), Beltspeed and Feed Delay.

TIP: Clicking **OK** will send job to printer.

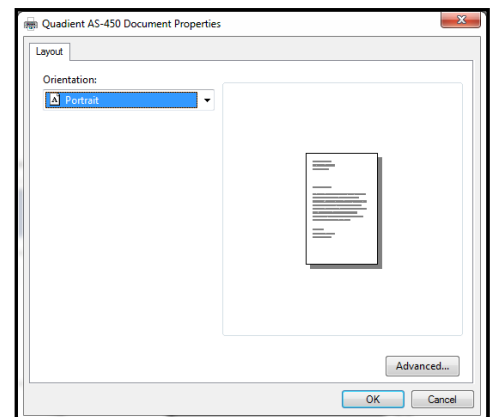


- Click on the “Properties” button to access and adjust Printer Preferences.

Make sure “Portrait” is selected for the “Orientation”.

Orientation: Portrait, Landscape
Provides 90 degree image rotation

TIP: Clicking **OK** will send job to printer.



- Click on the “Advanced” button to open the “Advanced Options” window.

14. From the “Advanced Options” window you can access and adjust the following Printer Preferences.

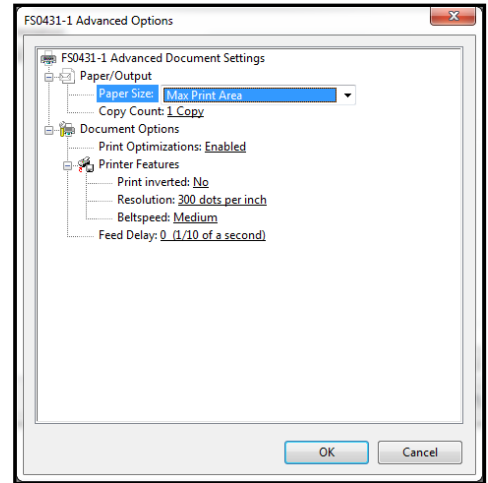
- a. Select your desired Paper/Output settings.

Paper Size: Do **NOT** change. FlexMail will automatically select a matching Paper Size, to what was selected for the Project (Layout).

“Max Print Area” may be shown when a “User defined size” was created for the Project (Layout). This is normal.

Copy Count: How many copies of each record you would like printed.

TIP: Copies can be set in the “Settings” Tab as well.



- b. Select your desired Document Options and Printer Features.

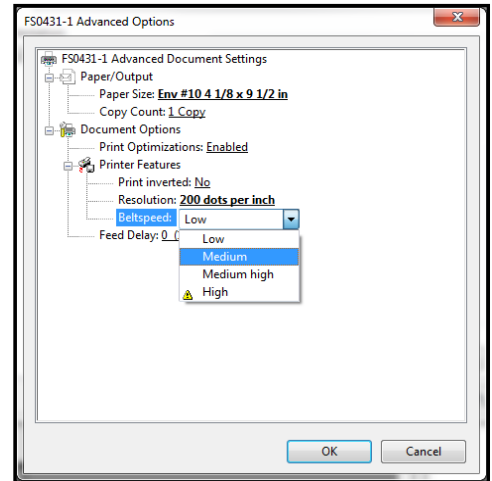
Print Optimizations: Enabled, Disabled
Make sure Enabled is selected.

Print inverted: No, Yes
No = normal – right-side-up to operator
Yes = inverted (rotate 180°)

Resolution: 150, 200, 300, 600 DPI (print quality)

Belt Speed: Low, Medium, Medium High, High

NOTE: Belt Speed selections are limited by the current Resolution selection. Do **NOT** select choices marked with **CAUTION** symbol.



Resolution	Compatible Belt Sped Selections
150	Low, Medium and Medium High, High
200	Low, Medium and Medium High
300	Low, Medium
600	Low

TIP: Compatible Belt Speeds can also be selected at the printer, after sending the job. Pause printer before selecting a new Belt Speed.

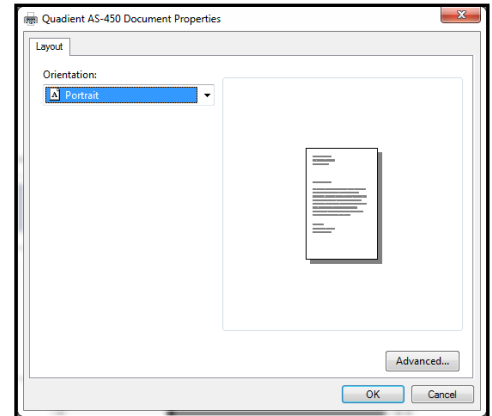
Feed Delay: Feeder pause time (1/10 of a second). 10 = 1 second.

Printer will pause feeder, for set value, between each piece of media that is fed/printed. Use to provide more dry-time between pieces.

- 15. Click on “OK” to Close the “Advanced Options” window.

SECTION 3 OPERATING PRINTER

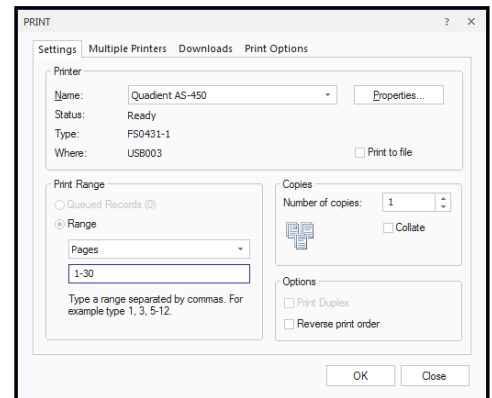
16. Click on “OK” to Close the “Document Properties” window.



17. Click on “OK” to send records to the printer.

NOTE: Make sure the printer is powered up and ready, before sending job/records to printer.

TIP: If you want to “test print” a single record, or a few records, using the current Printer Preferences; select “Pages”, as the “Range” choice. Then you can type 1, to print a single page, or type the Range of Pages that you would like to print, such as 1-30.



Please contact FlexSystems (support@flex-systems.com) or visit their web site (www.flex-systems.com) for additional help on using FlexMail.

Printing from MS-Office Applications

We do not have solutions for printing from current MS-Office® applications.

Although we have seen some success printing from MS-Word 2007, we have not been successful at printing from newer versions of MS-Word®.

The limitation appears to be caused by the fact that MS-Word changes page size and orientation automatically. Because of this you will find that the page size and or orientation, that MS-Word automatically selects, will not match the page size and orientation in the Printer Driver and the physical page size (length) that you are feeding.

This causes print orientation issues, print positioning issues, media feeding blank (no print) and "Double Feed" messages.

NOTE: We have also attempted to use tools, such as printing to PDF, to create PDF pages from the MS-Word pages. Unfortunately the same issues remain in the PDF pages that are created from the MS-Word file.

SECTION 4 - Maintenance

This section covers how to care for Ink Cartridges, clear paper jams, replace Sheet Separators, and perform routine maintenance on Printer.

Inkjet Cartridge (Printhead)

Inkjet Cartridges must be replaced when out of ink or when purging and cleaning have not helped the image quality.

Approximate life of HP 45 style Inkjet cartridges, based on three lines of 20 characters at 10-point size per address, is:

600 x 600 DPI	50,000 addresses
300 x 600 DPI	100,000 addresses
200 x 600 DPI	150,000 addresses
150 x 600 DPI	200,000 addresses

NOTE: The above figures can vary greatly, depending on font selected and size of “addresses”.

CAUTION

For continued protection against possible fire, use only authorized Ink Cartridges. 40mL max ink for each cartridge. Flashpoint shall be > 93.3C per Material Safety Data Sheet.



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

CAUTION

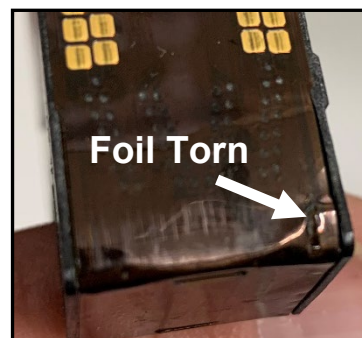
Never shake, drop or hit Cartridge against the palm of your hand or any other hard surface. Shaking the Print Cartridge does not “mix” ink and hitting Cartridge against a hard surface does not clear Nozzles. These actions hurt print quality because they allow bubbles to form near the ink firing chambers. These bubbles prevent the nozzles from firing, causing white streaks in print image.

Replace Inkjet Cartridge (Printhead):

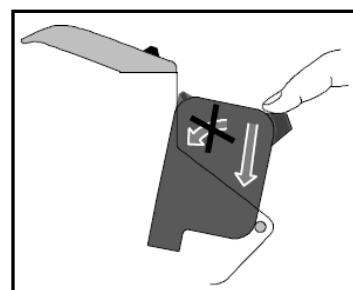
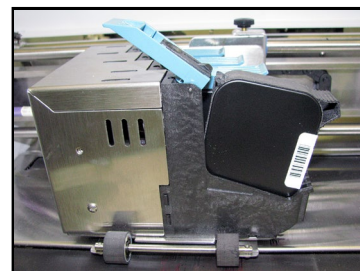
CAUTION

Damage to Ink Carriage and or electronics can occur if you insert or remove Cartridge at too steep of an angle. Cartridge foil may be damaged/torn by strong contact with pogo-pins (electrical contacts in Pen Stall) during install/removal of Cartridge.

CAUTION! Be sure the contact area of the cartridge is dry, before installing it into the printer or damage to printer's electronics will result.

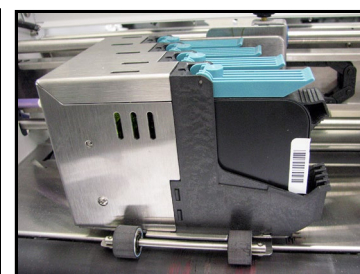
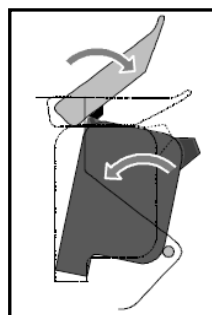


1. Open Latch Lever fully.
2. Pull top of Cartridge away from Latch, just enough to clear Latch.
3. Pull Cartridge straight up and out of Pen Stall.
Try NOT to angle Cartridge as it is being removed.
4. Remove new Inkjet Cartridge from packaging.
Take care not to touch contacts or Nozzle Plate.
Remove protective tape or clip from Cartridge Nozzle Plate.
5. With Cartridge Nozzle Plate pointing down, gently place Cartridge into Pen Stall with cartridge as up-right as possible.
6. Push down on Cartridge until it bottoms out in Pen Stall.
Do NOT push Cartridge towards Latch.



7. Carefully Close Latch Lever to secure Cartridge.
The Latch Lever is designed to swing the cartridge into proper alignment with the pogo-pins (contacts) as it is closed.
DO NOT force Latch Lever closed.

TIP: Opening and Closing Latch may fix a contact problem between pogo-pins and cartridge contacts, due to misalignment.



8. Repeat the above steps for remaining Cartridges.

Ink Cartridge (Printhead) Disposal

Dispose of product in accordance with local/regional/national/international regulations.



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

Ink Cartridge (Printhead) Care

CAUTION: Ink Cartridge Care instructions are different for Water-Based and Solvent Inks, please be sure to follow the appropriate instructions. In addition, Solvent inks have limited parameters for use. Please be sure to follow the instructions for “Solvent Ink Cartridge Use & Care”, when using Solvent Inks.

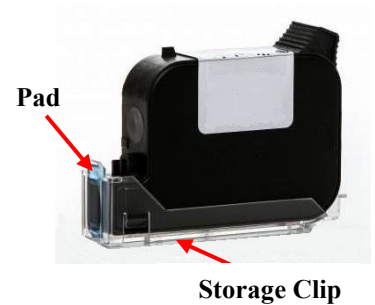
Water-Based Ink Cartridge Care

Valid for the following inkjet cartridges:

EASYInk Versario, EASYInk Coated Plus, EASYInk Aqueous High Performance, EASYInk Fast Black, EASYInk Blue, EASYInk Red, EASYInk Green, EASYInk Invisible. Contact your supplier for references.

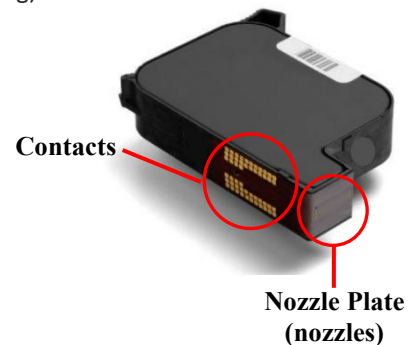
Before Installing Cartridges into Printer

1. Remove Ink Cartridge from Storage Clip.
TIP: To avoid mixing Storage Clips used with Water-Based and Solvent inks, mark Water-Based Storage Clips with “W” and Solvent Storage Clips with “S”.
2. Clean Pad, in the Storage Clip, as described on next page.
3. Clean Ink Cartridge nozzles, as described on next page.
4. Install Ink Cartridge into printer, as described in section titled “Install Ink Cartridges (Printheads)”.



During Printing as Needed (If you experience clogged nozzles during printing)

1. PAUSE printer.
2. Remove Ink Cartridge from printer.
3. Clean Ink Cartridge nozzles as described on next page.
4. Install Ink Cartridge into printer as described in section titled “Install Ink Cartridges (Printheads)”.
5. Press RESUME to continue printing.



When Ink Cartridges are Not In Use:

Ink Cartridges must be properly cleaned and stored when not in use.

1. Remove Ink Cartridge from printer.
2. Verify that Pad, in the Storage Clip, is clean. If not clean as described on next page.
3. Clean Ink Cartridge nozzles, as described on next page.
4. Install Ink Cartridge into clean Storage Clip.
NOTE: Storage Clips from Water-Based Ink Cartridges should not be used with Solvent Ink Cartridges and vice-versa.
5. Place sealed Cartridge, with contacts facing down, into a tightly sealed storage container.
6. Store in a cool, dry and well-ventilated place.

Cleaning Storage Clip Pad – Water-Based Inks

Before installing an Ink Cartridge into its “Storage Clip”, please be sure to clean the “Pad” within the Cartridge Storage Clip. If not, Cartridge nozzles may be clogged/damaged by ink/debris on Pad. When using Water-Based Ink Cartridges, “Pad” should be cleaned using Distilled Water and a lint-free cloth.

NOTE: Storage Clips from Solvent Ink Cartridges should not be used with Water-Based Ink Cartridges or vice-versa. It is best to clean the Pad at the time the cartridge is removed from the Storage Clip.



Cleaning Cartridge Nozzles - Water-Based Inks

During idle-time, nozzles can dehydrate and clog. During printing process ink spray, paper fibers, and dust can build up on the Nozzle Plate. Nozzle dehydration and particle build-up will eventually block nozzles and degrade print quality. Maintain good print quality by keeping Printheads clean.

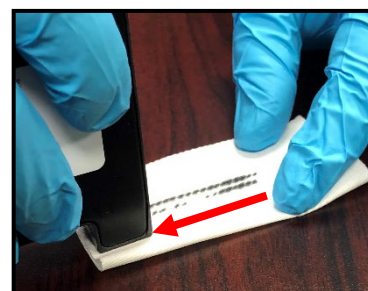
CAUTION: Wear nitrile protective gloves when cleaning ink cartridges.

1. Use a lint-free cloth, dampened with distilled water, to clean Water Based Ink Cartridge nozzles.

Cloth should be:	Cloth should NOT be:
<ul style="list-style-type: none"> ✓ Soft ✓ Lint-Free (Fiberless) ✓ Moistened with Distilled Water 	<ul style="list-style-type: none"> ✗ Abrasive ✗ Made of small fibers ✗ Contain chemical additives

2. Wipe slowly across the long-axis of the nozzles, with Nozzle Plate facing down (*as shown*). Wipe in one direction only.
DO NOT apply excessive force, as this could scratch nozzle area causing misdirected nozzle firing and fuzzy print.
3. Repeat as needed.

WARNING: Do NOT use liquids (other than Distilled Water) to clean Water-Based Ink Cartridge nozzles. Never shake or bang Inkjet Cartridges. This can cause air bubbles and or foam to form, within cartridge bladder, which can result in poor print quality and or Ink Cartridge damage.



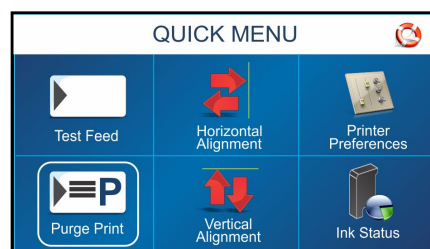
Purging Nozzles - Water-Based Inks

If the Printheads (ink cartridges) sit inactive, in the printer, ink may dry in the nozzles, causing white streaks (voids) in printout. Normal printing may not remove these “ink plugs” from the nozzles. In order to obtain better print quality, these ink plugs need to be forced out or purged.

A **Purge Print** routine is built into Printer.

Access this feature by using the **Quick Menu** key on the Control Panel.

1. Load Media.
2. Press the **Quick Menu** key, on the Control Panel.
3. Locate and press “**Purge Print**” button.
4. Select the number of “**COPIES**”. In general, one “purge” print is sufficient to clear nozzles. If desired, a higher number can be selected to print multiple, sequential, purge patterns.
5. Press “**Print**” button to activate the purge.
Media will feed and a 600 dpi “purge” pattern will print on the media.



NOTE: If print quality is still unacceptable, after you have cleaned and purged nozzles, you may need to replace Ink Cartridge(s). For more information, see Troubleshooting Printheads in *Section 5 – Troubleshooting*.

Ink Cartridge Storage - Water-Based Inks

Short-term Cartridge Storage (Less than 8 hours or less than 2 hours in hot/dry environments.)

- The cartridge can be left in the Printer, for short periods of time.
- The next time that the Printer is used, the cartridge nozzles may need to be cleaned and purged.

Note: Decap Time (time it takes for unsealed cartridge nozzles to become clogged) will vary greatly. Ink type, environment, prior cartridge maintenance, and cartridge condition can affect decap time.

Long-term Cartridge Storage (More than 8 hours or more than 2 hours in hot/dry environments.)

- Use a lint-free cloth, dampened with distilled water, to clean the cartridge nozzles.
- Snap the cartridge into a Cartridge Storage Clip.
IMPORTANT: If pad was not cleaned when cartridge was removed from clip then it must be cleaned before inserting cartridge into storage clip.
- Place sealed Cartridge, with contacts facing down, into a tightly sealed storage container.
- When the cartridges are ready to be used again, the cartridge nozzles will need to be cleaned and purged.
- Clean pad in Storage Clip using a lint-free cloth dampened with distilled water.

CAUTION! Be sure the contact area of the cartridge is dry, before installing it into the printer or damage to printer's electronics will result.

Solvent Ink Cartridge Use & Care

Valid for EASYInk UltraUV and EASYInk UltraSolv Ink Cartridges. Contact your supplier for references.

CAUTION

Solvent Inks are Toxic and Flammable

- Avoid contact with skin, eyes and clothing. Wear personal protective equipment.
- Avoid breathing vapors or mists of this product. Use with adequate ventilation.
- Keep away from heat, sparks and flame. No smoking.
- Keep out of the reach of children.
- Keep storage containers tightly closed in a dry, cool and well-ventilated place.
- Dispose of product in accordance with local/regional/national/international regulations.
- Please refer to the Safety Data Sheets, available from our website, for additional safety information.

Ink Cartridge Use – Solvent Inks

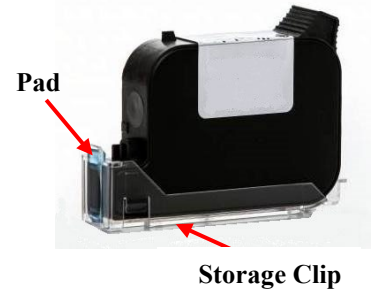
NOTE: Solvent inks have limited parameters for use. Please be sure to read and follow the instructions, provided below, when using Solvent Ink Cartridges.

1. A Conveyor is required when printing with Solvent Inks.
Printed image must be dry before anything makes contact with it.
2. Never use a Dryer when printing with “Solvent Inks”.
CAUTION! Solvent Inks (EASYInk UltraUV & EASYInk UltraSolv) are flammable.
3. Make sure printer’s “Purge First Piece” feature is disabled (turned off).
Printing with this feature enabled can damage or shorten the life of the Solvent Ink cartridge(s).
NOTICE: The “Purge First Piece” feature will commonly be enabled (turned on) when you receive a new printer, since this is the printer’s “default” setting.
You must disable this feature before attempting to print with Solvent Inks.
To access the “Purge First Piece” feature, select “Printer Setup” from the “Main Menu”. Then select “Printer Preferences”. Located and disable (un-check) the “Purge First Piece” feature.
4. The printer’s “Purge Print” feature should NOT be used more than once a day.
More frequent use of “Purge Print” can damage or shorten the life of the Solvent Ink cartridge(s).
5. Printer’s Transport Speed (Belt Speed) must be set to 1 (Low speed).
Do NOT use/select Speeds 2 (Medium), 3 (Medium High) or 4 (High) with Solvent Inks.
Damage to the Solvent Ink cartridge(s) may result.
6. Do NOT set Print Quality (resolution) higher than 300 DPI when using Solvent Inks.
A Print Quality (resolution) of 150 or 200 DPI is recommended.
The 600 DPI selection should NEVER be used with Solvent Inks.
Damage to the Solvent Ink cartridge(s) may result.

Ink Cartridge Care – Solvent Inks

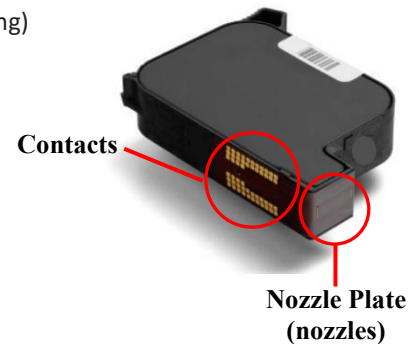
Before Installing Cartridges into Printer

1. Remove Ink Cartridge from Storage Clip.
TIP: To avoid mixing Storage Clips used with Water-Based and Solvent inks, mark Water-Based Storage Clips with “W” and Solvent Storage Clips with “S”.
2. Clean Pad, in the Storage Clip, as described on next page.
3. Clean Ink Cartridge nozzles, as described on next page
4. Install Ink Cartridge into printer as described in section titled “Install Ink Cartridges (Printheads)”.



During Printing as Needed (If you experience clogged nozzles during printing)

1. PAUSE printer.
2. Remove Ink Cartridge from printer.
3. Clean Ink Cartridge nozzles as described on next page.
4. Install Ink Cartridge into printer as described in section titled “Install Ink Cartridges (Printheads)”.
5. Press RESUME to continue printing.



When Ink Cartridges are Not In Use:

Ink Cartridges must be properly cleaned and stored when not in use.

1. Remove Ink Cartridge from printer.
2. Verify that Pad, in the Storage Clip, is clean. If not, clean as described on next page.
3. Clean Ink Cartridge nozzles, as described on next page.
4. Install Ink Cartridge into clean Storage Clip.
NOTE: Storage Clips from Water-Based Ink Cartridges should not be used with Solvent Ink Cartridges and vice-versa.
5. Place sealed Cartridge, with contacts facing down, into a tightly sealed storage container.
6. Store in a cool, dry and well-ventilated place.

Cleaning Cartridge Nozzles - Solvent Inks

During idle-time nozzles can dehydrate and clog. During printing process ink spray, paper fibers, and dust can build up on the Nozzle Plate. Nozzle dehydration and particle build-up will eventually block nozzles and degrade print quality. Maintain good print quality by keeping Printheads clean.

CAUTION: Wear nitrile protective gloves when cleaning ink cartridges.

1. Use a DRY, lint free, cloth to clean Solvent Ink cartridge nozzles.

Cloth should be:	Cloth should NOT be:
✓ Soft	✗ Abrasive
✓ Lint-Free (Fiberless)	✗ Made of small fibers
✓ Dry	✗ Dampened with water

2. Wipe slowly across the long-axis of the nozzles, with Nozzle Plate facing down (*as shown*).

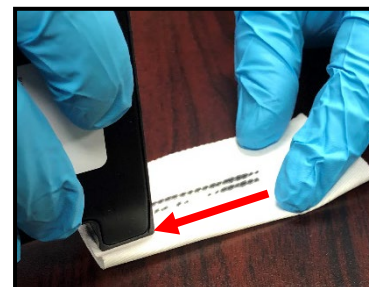
Wipe in one direction only.

DO NOT apply excessive force, as this could scratch nozzle area causing misdirected nozzle firing and fuzzy print.

3. Repeat as needed.

TIP: If cleaning using a dry, lint free, cloth does not improve print quality, you can attempt to clean Solvent Ink cartridge nozzles using Isopropyl Alcohol (70% or higher) on a lint-free cloth. This should only be done as a last resort, on rare occasions. Do NOT use liquids (other than Isopropyl Alcohol) to clean Solvent Ink cartridge nozzles.

WARNING: Never Shake or Bang Inkjet Cartridges. This can cause air bubbles and or foam to form, within cartridge bladder, which can result in poor print quality and or Ink Cartridge damage.

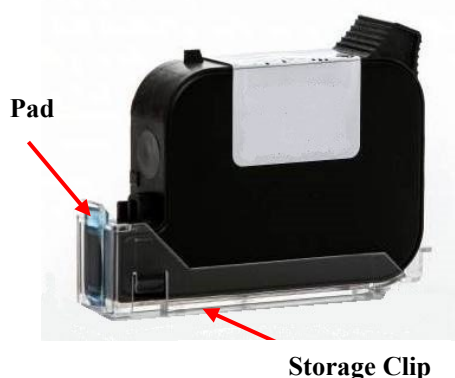


Cleaning Storage Clip Pad – Solvent Inks

Before installing an Ink Cartridge into its “Storage Clip”, please be sure to clean the “Pad” within the Cartridge Storage Clip. If not, Cartridge nozzles may be clogged/damaged by ink/debris on Pad.

When using Solvent Ink Cartridges, “Pad” should be cleaned using Isopropyl Alcohol (70% or higher) and a lint-free cloth.

NOTE: It is best to clean the Pad at the time the cartridge is removed from the Storage Clip.



SECTION 4 MAINTENANCE

Purging Nozzles – Solvent Inks

If the Printheads (ink cartridges) sit inactive, in the printer, ink may dry in the nozzles, causing white streaks (voids) in printout. Normal printing may not remove these “ink plugs” from the nozzles.

CAUTION: Solvent Ink Cartridges should NOT be Purged more than once a day. More frequent Purging can cause reduced cartridge life and or damage to the ink cartridge.

First, try cleaning cartridge nozzles using a dry, lint-free cloth.

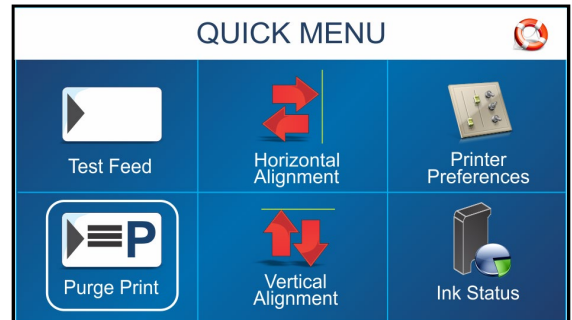
If issue remains, you can try cleaning cartridge nozzles using Isopropyl Alcohol (70% or higher).

If issue remains, you can attempt to clear nozzles by performing a single “Purge Print”, as described below.

A **Purge Print** routine is built into Printer.

Access this feature by using the **Quick Menu** key on the Control Panel.

1. Load media.
2. Press the **Quick Menu** key.
3. Locate and press “**Purge Print**” button.
4. Make sure “**COPIES**” is set to 1.
5. Press “**Print**” button to activate the purge.
A single piece of media will feed and a 600 dpi “purge” pattern will print on the media.



NOTE: If print quality is still unacceptable, after you have cleaned and purged nozzles, you may need to replace Ink Cartridge(s). For more information, see Troubleshooting Printheads in *Section 5 – Troubleshooting*.

Ink Cartridge Storage - Solvent Inks

Short-term Cartridge Storage (Less than 1 hour)

- Solvent ink cartridges should only be left in the Printer, for short periods of time.
- The next time that the Printer is used, the cartridge nozzles may need to be cleaned and purged.

Note: Decap Time (time it takes for unsealed cartridge nozzles to become clogged) will vary greatly. Ink type, environment, prior cartridge maintenance, and cartridge condition can affect decap time.

Long-term Cartridge Storage (More than 1 hour)

- Use a DRY, lint-free cloth to clean the solvent ink cartridge nozzles.
- Clean pad, in Storage Clip, using a lint-free cloth dampened with Isopropyl Alcohol (70% or higher).
- Snap the cartridge into a Cartridge Storage Clip.
- Place sealed Cartridge, with contacts facing down, into a tightly sealed storage container.
- When solvent ink cartridges are ready to be used again, the cartridge nozzles will need to be cleaned with a DRY, lint-free cloth.

CAUTION! Be sure the contact area of the cartridge is dry, before installing it into the printer or damage to printer’s electronics will result.

Jams in Printer

If a jam occurs and the printer does not stop automatically, press **PAUSE** to **STOP** the Printer.

Some possible reasons for jamming are:

- Media size (length in direction of feed) does not match Driver/Software setting.
- Double Feeding Media (More than one piece of media is fed under separators and into printer at a time). Commonly caused by improper Sheet Separation adjustment or poor media stacking.
- Damaged media, such as dog-eared (*turned down corners*).
- Media that is not stiff enough may not be usable. Media that meets Postal stiffness requirements for automated feeding is acceptable in the Printer.
- Nested Envelopes (envelope caught under the flap of another) or stuck to one another.
- Media hesitating or slipping as it travels through the printer. Commonly caused by improper Media Thickness adjustment.

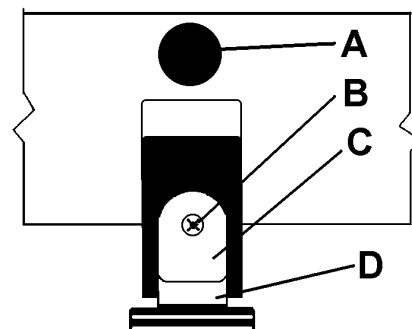
Removing Jammed Media

1. If necessary, raise the Printhead Carriage using the “Media Thickness Knob”.
2. If necessary, move Print Unit(s) to gain access to jammed media.
3. Take care when removing jammed media to avoid damaging machine. All pieces of jammed media must be removed from the feed path.
4. Return Media Thickness Adjustment and Print Unit to desired positions.
5. Reprint lost record(s). Follow instructions, *Section 3 – Operating Printer, Quick Menu, “Reprint”*.

Replace Sheet Separators

Sheet Separators ensure separation of pieces as they are fed. They wear and must be replaced periodically. If you experience double sheet feeding and cannot adjust Separators to prevent it, replace them.

1. Turn OFF and unplug Printer.
2. Release Separator by loosening knob **[A]** and move Media Side Guides to maximum opened position.
3. Lower Separators so they touch Feed Roller.
4. Remove screw **[B]** and Separator Support **[C]**. Then remove Separator **[D]** by prying it out of the Holder.
5. Install a new Separator and reinstall Separator Support and screw.



Cleaning Printer

WARNING!

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

Printer must be cleaned regularly of accumulated paper dust and ink. Depending on types of media that are run, paper dust may accumulate within Printer and on Transport. Unplug from power source before cleaning.

- **Internal Areas:** Best cleaned using a vacuum with a soft brush attachment to help loosen and remove dust particles. Metal surfaces may be cleaned using a soft, damp cloth. Lightly dampen cloth with water or any standard non-abrasive household cleaner that does not contain plastic-harming solvents.
- **Exterior Areas:** May be cleaned with any standard non-abrasive household cleaner that does not contain plastic-harming solvents.

CAUTION

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

Feed Rollers and Forwarding Rollers

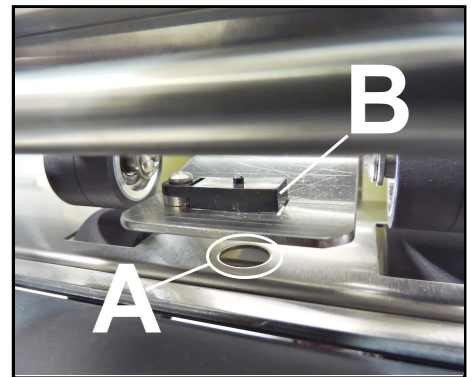
Feed and Forwarding Rollers can become glazed with paper lint and ink from media. They should be regularly cleaned with a mild abrasive household cleaner on a damp cloth. Avoid using solvents on Rubber Rollers.

Cleaning Media Sensor

Periodically check Media Sensor for dust and debris, (*located under Media Hold-down Wheel Assembly*).

1. Use the Media Thickness Knob to raise the Printhead Carriage Assembly to its highest setting.
2. Use canned or compressed air into the Media Sensor port **[A]** and under the Media Sensor Reflector **[B]** to remove dust and debris.

NOTE: If necessary, wipe the Reflector surface (*under the mounting plate*) with a clean, lint-free cloth.



CAUTION: Compressed Air propellant can be flammable. Let printer sit, to ventilate for a few minutes, before reconnecting power cord and switching Main Power Switch ON.

Cleaning Touchscreen

Carefully clean the Touchscreen by wiping with a lint-free cloth and a non-abrasive cleaner made for touchscreens on computers and cell phones.

DO NOT spray cleaner directly on screen, spray on cloth, then clean screen.



SECTION 5 – Troubleshooting Guide

Troubleshooting Guides are provided to assist you in solving any problems that might occur with Printer or its software. We tried to make them as complete as possible. The best advice we can offer is to make sure that the system is setup properly, plugged in and has ink cartridges installed before attempting to troubleshoot any problem.

WARNING!

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

Inkjet Cartridge (Printhead)



CONDITION	PROBLEM	SOLUTION
Black streaks in text This is a sample of text showing black streaks in the copy.	Lint or paper dust on Printhead.	Clean and Purge the Cartridge Nozzles, as described in section titled " <i>Ink Cartridge (Printhead) Care</i> ".
White streaks in text or graphics Smith Company 123 Main St. Anytown, USA 12345 1234	Clogged/Damaged Nozzle(s). Lint or dust blocking nozzles. Poor contact between Printhead and Printhead Pen Stall.	Clean and Purge the Cartridge Nozzles, as described in section titled " <i>Ink Cartridge (Printhead) Care</i> ". Remove and reinsert Ink Cartridge into Pen Stall. Remove, clean and dry cartridge contacts. Swap positions with known-good cartridge. If problem follows cartridge then this is a cartridge issue. Insert new Print Cartridge. If problem does NOT move with cartridge contact technical support.
Some Cartridges will not print (problem follows cartridge)	Cartridge is blocked or clogged. Cartridge issue or out of ink Incompatible Ink Cartridge.	Check to make sure protective tape is removed from Printhead. Clean and Purge the Cartridge Nozzles, as described in section titled " <i>Ink Cartridge (Printhead) Care</i> ". Install new Ink Cartridge. Use "Ink Status" feature, in "Quick Start" menu, to verify that printer is recognizing ink cartridge as a valid supply item.

Printer

CONDITION	PROBLEM	SOLUTION
Touchscreen is Black and Power Indicator Light is ON	Printer is in Sleep mode Printer was Shutdown, but Main Power was never turned off.	To wake printer, press any of the four mechanical keys or tap the Touchscreen. Try to wake printer as described above. If no response, turn OFF Main Power Switch. Wait 20 seconds and power ON.
Touchscreen is Black and Power Indicator Light is OFF	Main Power Switch is OFF. Printer has no power.	Verify Power Cord is connected to printer and a working (live) outlet. Turn Main Power Switch ON. If Power Indicator does not light up when the Main Power Switch is turned ON, then turn OFF Main Power Switch, disconnect power cord and check Fuse(s). If problem persists contact technical support.
Touchscreen is White or showing product brand splash screen	Printer is powering up. Improper Shutdown may have created a power-up issue. IMPORTANT: Use Shutdown feature to safely power-down printer. Wait for cursor on screen to disappear or stop flashing before turning OFF Main Power Switch.	Wait for 60 seconds. If white screen is displayed for more than 60 seconds, turn OFF Main Power Switch, disconnect communications (USB, Network) cable(s), wait 20 seconds and Power ON again. If problem persists contact technical support.
No communication	Improper settings or connection	Check interface settings and connections. Remove and reload Printer Driver.
Improper output (garbage characters, missing data, etc.)	Wrong Interface settings or poor connection. Software issue. Possible Static discharge issue.	Check interface settings and connections. Check software or database on PC. Pause printing. Select records to Reprint. Resume printing.
One or more Cartridges stop printing during print job.	Cartridge issue or empty. Possible Static discharge issue.	Check/clean/replace ink cartridge. Pause printing. Select records to Reprint. Resume printing.
One or more Cartridges NOT printing, starting with first piece in print job.	Cartridge issue or empty. Cartridge recognition issue may have occurred during ‘wake’ process.	Check/clean/replace ink cartridge. Pause Job. Open/Close Latch Lever. If cartridge is recognized, Reprint records. Resume printing. If issue continues swap cartridge positions. If problem follows cartridge, replace cartridge. Wake printer before sending jobs.

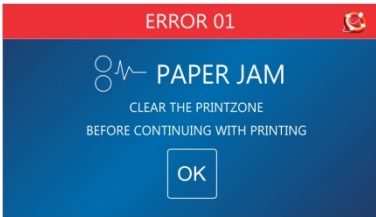
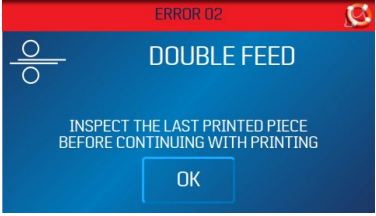
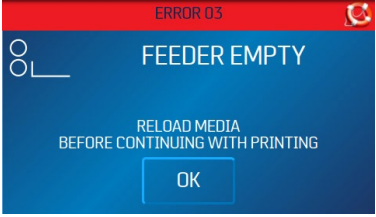
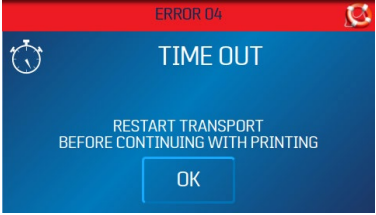
**SECTION 5
TROUBLESHOOTING**

Printer (continued)

CONDITION	PROBLEM	SOLUTION
Paper Jam	Printer has detected a Paper jam.	See Touchscreen Messages
Double Feed	Printer has detected a double-feed or wrong Paper Size selected in driver.	See Touchscreen Messages
Not printing on Media and printer does NOT count pieces being fed.	Media not passing through Media Sensor. Media Sensor dirty.	Adjust media feed position (side guides) so media is centered in printer. Clean Media Sensor
Not printing on Media but printer counts pieces being fed.	Ink Cartridges not installed. Ink Cartridges clogged. Ink Cartridges not being recognized. Incompatible Ink Cartridges Media not running under Printheads. Improper Software settings	Install Ink Cartridges. Clean/replace Ink Cartridges Use "Ink Status" feature, in "Quick Start" menu, to verify that printer is recognizing ink cartridges. Install compatible Ink Cartridges Adjust Print Unit(s) position. Select correct paper size, Adjust margin settings and position of data in software layout. Properly Shutdown and Restart Printer.
Blurry address 	Image is not sharp.	Media Thickness adjustment set too high. Adjust Printhead closer to the media. Install new Ink Cartridge.
Split line of type Smith Company 123 Main St. Anytown, USA 12345-1234	Line of type is placed across two Printheads.	Reposition text in layout so that it does not print across Printheads. Adjust positioning of Printheads in relation to each other using Head Alignment in Quick Menu on the Control Panel.
Characters/lines ghosting and shifting 	Media slipping/hesitating.	Check Sheet Separator adjustment. Separators should just touch media. Check Media Thickness. Carriage set too high will cause media to slip as it passes under Heads.

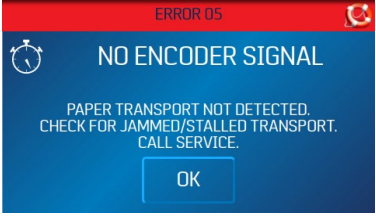
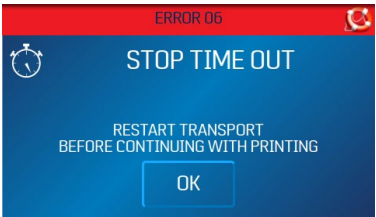
Touchscreen Messages

The Touchscreen will display messages to alert you to problems or to indicate a process is finished.

SCREEN MESSAGE	PROBLEM	SOLUTION
<p>PAPER JAM (ERROR 01)</p> 	<p>Paper jam. Media is curled or bent. Media is too thin or too thick.</p> <p>Media sticking together or overlapping.</p>	<p>Clear media from feeder and/or print transport area. Minimum: 0.008" (0.2 mm) Maximum: 0.25" (6.35 mm) Adjust Sheet Separators. Check/adjust Media Thickness. Clear media from printer transport area. Press OK to continue. Use Reprint (on Quick Menu screen) to retrieve/restore any missing or misprinted pages in the print job.</p>
<p>DOUBLE FEED (ERROR 02)</p> 	<p>Wrong Paper Size selected in driver. Media sticking together or overlapping.</p>	<p>Check/set correct Paper Size in driver Adjust Sheet Separators. Check/adjust Media Thickness. Clear media from printer transport area. Press OK to continue. Use Reprint (on Quick Menu screen) to retrieve/restore any missing or misprinted pages in the print job.</p>
<p>FEEDER EMPTY (ERROR 03)</p> 	<p>No media in Feeder/Hopper or hesitation in media feed.</p>	<p>Check adjust Sheet Separators, Side Guides and Rear Wedge. Reload media. Press OK to continue.</p>
<p>TIME OUT (ERROR 04)</p> 	<p>Printer operation has timed out or Printer was paused too long.</p>	<p>Check Printer. Press OK to continue.</p>

Touchscreen Messages (continued)

The Touchscreen will display messages to alert you to problems or to indicate a process is finished.

<p>NO ENCODER SIGNAL (ERROR 05)</p>  <p>NO ENCODER SIGNAL</p> <p>PAPER TRANSPORT NOT DETECTED. CHECK FOR JAMMED/STALLED TRANSPORT. CALL SERVICE.</p> <p>OK</p>	<p>Printer Motor has stopped.</p> <p>Wire Harness connection is loose or broken.</p> <p>Encoder Belt worn or broken.</p> <p>Encoder Sensor not working.</p>	<p>Check/clear possible Jam.</p> <p>Press OK to continue.</p> <p>Properly shutdown and cycle printer power.</p> <p>If problem persists contact Service Support.</p>
<p>STOP TIME OUT (ERROR 06)</p>  <p>STOP TIME OUT</p> <p>RESTART TRANSPORT BEFORE CONTINUING WITH PRINTING</p> <p>OK</p>	<p>Printer Transport was left running and automatic 5-minute timeout has started.</p>	<p>Press OK to restart transport before continuing to print.</p>

APPENDIX A – Printer Specifications

PRINT TECHNOLOGY	Hewlett Packard Thermal Inkjet, 45-Style, High Capacity Cartridges	
COMPATIBLE INK SUPPLIES	EASYInk - proprietary supplies designed for performance. Genuine HP Original Cartridges, not refills or knock-offs, filled with proprietary ink formulas.	
ADDRESS SPEED (approximate maximum)	<u>4" x 6" (10,16 cm x 15,24 cm) Postcards</u> 30,000 /hour at 150 dpi 25,000 /hour at 200 dpi 20,000 /hour at 300 dpi 11,500 /hour at 600 dpi	<u>#10 Envelopes</u> 22,000 /hour at 150 dpi 19,000 /hour at 200 dpi 15,000 /hour at 300 dpi 7,200 /hour at 600 dpi
PRINT QUALITY (resolution v x h) & SPEED SELECTIONS	150D (600 x 150 DPI) / SPEED 1, 2, 3, 4 (highest speed) 200D (600 x 200 DPI) / SPEED 1, 2, 3 300D (600 x 300 DPI) / SPEED 1, 2 600D (600 x 600 DPI) / SPEED 1 (lowest speed)	
IMAGE AREA (maximum)	~2" x 15" (~50.8 mm x 381 mm)	
PRINT UNIT CONFIGURATION	4 Pen Stitched Design in a single Print Unit	
MEDIA SIZE (minimum to maximum)	Length: 5" to 15" (127 mm to 381 mm) Width: 3" to 13.5" (76.2 mm to 342.9 mm)	
MEDIA THICKNESS	Minimum: 0.008" (0.2 mm) Maximum: 0.25" (6.35 mm)	
MEMORY	1 GB of DDR3-1600Mhz SDRAM 16 GB microSD. Not externally accessible	
FONTS	All TrueType fonts available on PC	
INK MONITOR	Visible on display	
FEEDER CAPACITY	Up to 500 #10 envelopes	
SOFTWARE	Printer Drivers for Windows™ 7/8/8.1/10	
PC INTERFACE	Ethernet Port (10/100/1000Mhz) USB 3.0 (USB 3.1 Gen 1) Port (<i>also supports USB 2.0</i>) Wireless connection	
DIAGNOSTICS	Resident in firmware	
FEED DIRECTION	Right-to-Left	
PROCESSOR	600 MHz Dual-core ARM Cortex-A9 MPCore	
FIRMWARE UPDATE	Via USB or replaceable MicroSD	
DIMENSIONS	21" H x 14.5" L (23" w/Rear Guide) x 22.75" W (55.3 cm H x 36.8 cm (58.4 cm w/Rear Guide) L x 57.8 cm W)	
WEIGHT	27.3 kg. (60 lbs.)	
ELECTRICAL	Voltage: 115VAC or 230VAC (switchable) Amperage: 1.6A @ 115V, 1A @ 230V Frequency: 50/60 Hz Fuse: 2x 1.6A, 250V, Slow-Blow (5x20mm)	
COUNTERS	Lifetime Piece Counter, Session Counter, Jobs Counter	
OPTIONS	Conveyor/Stacker, IR Dryer	

All Specifications are Subject To Change Without Notice

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