



# AstroJet<sup>TM</sup>

## 300P/500P PRINTER



inkjet  
technology by  <sup>®</sup>  
invent

## OPERATOR MANUAL

**ASTRO MACHINE CORP.**

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## SAFETY PRECAUTIONS

THIS EQUIPMENT PRESENTS NO PROBLEM WHEN USED PROPERLY.  
OBSERVE SAFETY RULES WHEN OPERATING ASTROJET 300/500 PRINTER.

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

- ✓ Keep hands, hair, and clothing clear of rollers and other moving parts.
- ✓ Avoid touching moving parts or materials while machine is in use. Before clearing a jam, be sure machine mechanisms come to a stop.
- ✓ Always turn machine off before making adjustments, cleaning 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.
- ✓ **DO NOT** remove ground pin from line cord.
- ✓ **DO NOT** route power cord over sharp edges or trap it between furniture.
- ✓ Avoid using wall outlets that are controlled by wall switches, or shared with other equipment.
- ✓ Make sure there is no strain on power cord caused by jamming between equipment, walls or furniture.
- ✓ **DO NOT** remove covers. Covers enclose hazardous parts that should only be accessed by a qualified service representative. Report any cover damage to your service representative.
- ✓ This machine requires periodic maintenance. Contact your authorized service representative for required service schedules.
- ✓ To prevent overheating, do not cover vent openings.
- ✓ Use this equipment only for its intended purpose.

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

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

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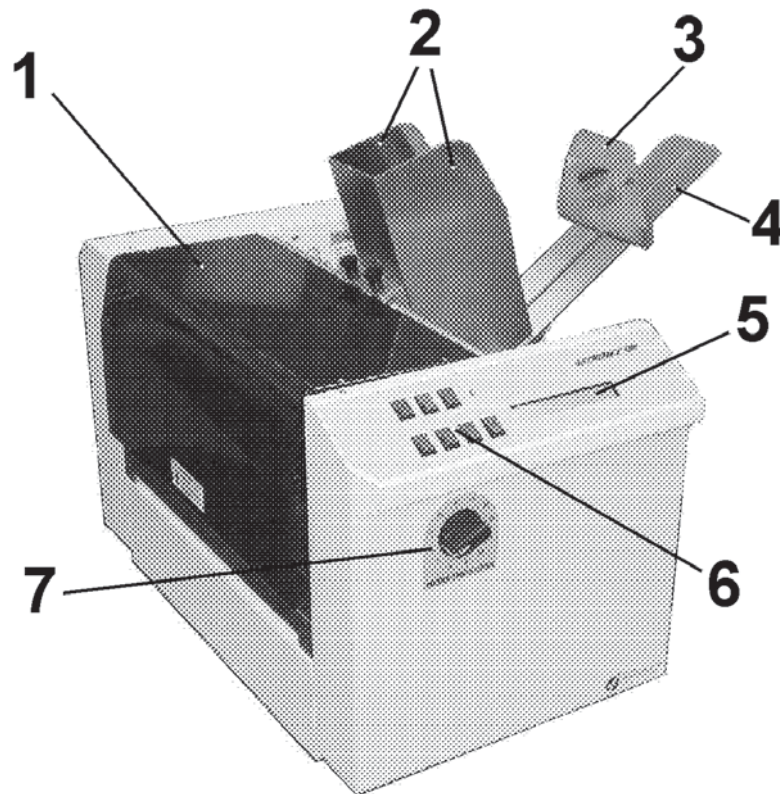
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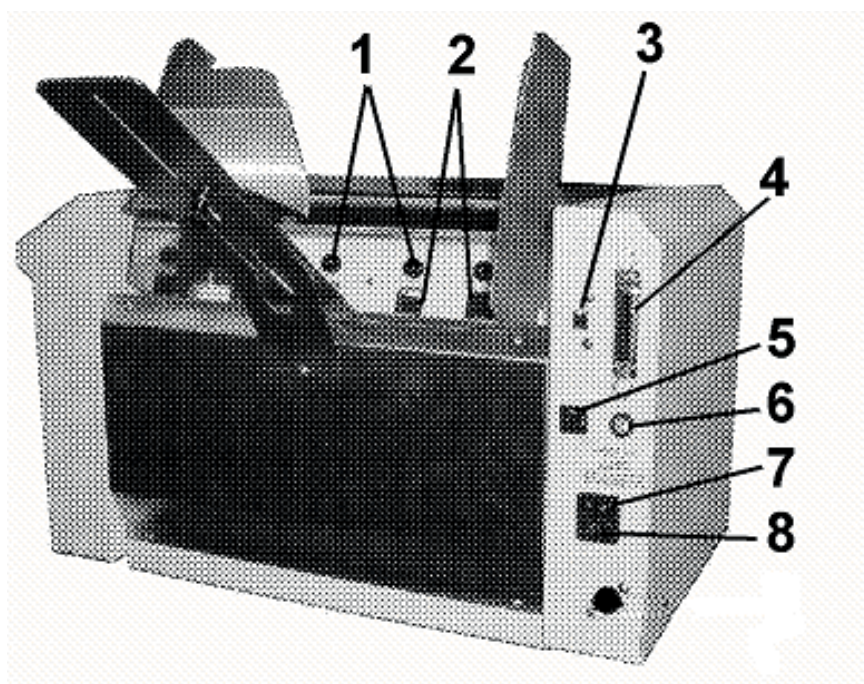
## SECTION 1 – *Getting Acquainted*

NOTE: AstroJet 300 and 500 are similar in operation. Difference is AstroJet 300 has only one print speed regardless of print resolution. AstroJet 500 has variable printing speeds based on print resolution.



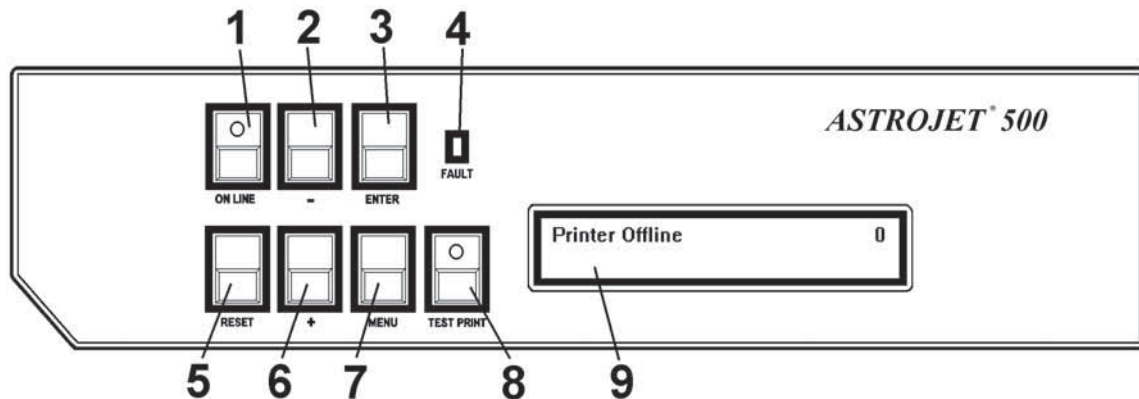
### *Operator View*

1.	<b>Safety Cover</b> – Encloses Printheads. When raised, trips a switch that interrupts feeding of media and stops Printer.
2.	<b>Media Side Guides</b> – Help guide media to Printheads.
3.	<b>Rear Media Guide</b> – Holds media against Front Plate.
4.	<b>Rear Media Support</b> – Holds longer media in position.
5.	<b>Printer LCD Display</b> – Displays information about Printer status.
6.	<b>Printer Control Panel</b> – Keys used to operate Printer.
7.	<b>Media Thickness Adjustment Knob</b> – Used to set Printheads at proper height for printing on media. <b>Always raise Printheads to their uppermost position when storing Printer.</b>



### *Rear View*

1.	<b>Separator Locking Knob</b> – Locks Separator in place after it is adjusted.
2.	<b>Sheet Separator</b> – Separates each piece of media as it is fed.
3.	<b>USB Port</b> – Connects Printer to your computer using your USB Port.
4.	<b>Parallel Port</b> – Connects Printer to Parallel Printer Port on your computer.
5.	<b>Main Power Fuse</b> – Protects all electronic circuits in Printer.
6.	<b>Motor Circuit Breaker</b> – Protects Printer's Motor from overload.
7.	<b>Main Power Switch</b> – Turns Printer ON and OFF.
8.	<b>Power Receptacle</b> – Power cord plugs in here.



### Control Panel

1.	<b>ON LINE key</b> – Indicator lights when data is sent to Printer and printing is ready to begin. Also turns Printer offline to access <b>Menu</b> mode.
2.	<b>- key</b> – In <b>Menu</b> mode, use this key to scroll to <b>previous</b> selection.
3.	<b>ENTER key</b> – Starts and stops printing.
4.	<b>FAULT Indicator</b> – Lights when there is a problem with printing process.
5.	<b>RESET key</b> – Resets Printer to “standby” state.
6.	<b>+ key</b> – In <b>Menu</b> mode, use this key to scroll to <b>next</b> selection.
7.	<b>MENU key</b> – Puts Printer in <b>Menu</b> mode to access operator functions.
8.	<b>TEST PRINT key</b> – Puts Printer in <b>Test</b> mode and prints a sample copy to check Printer’s output.
9.	<b>OPERATOR DISPLAY</b> – Indicates Printer status including menus, error messages.

**NOTE: A complete description of functions and operation of Printer Keys is found in SECTION 3 – Operating Printer.**





## SECTION 2 – *Installing Printer*

### Before using Printer:

- Choose a location for Printer
- Plug in Printer and connect it to computer
- Install Inkjet Cartridges
- Set up feed on Printer
- Install Printer Driver (*depending on model*)

### *Choose a Location*

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

### *Connecting Printer*

#### Plugging in Printer

Make sure Main Power Switch is turned OFF.

1. Connect one end of power cord to rear receptacle on Printer.
2. Plug other end into 115-220 Volt AC, 50/60 Hz. grounded outlet.

#### **CAUTION**

**DO NOT USE ADAPTER PLUGS OR EXTENSION CORDS TO CONNECT PRINTER TO WALL OUTLET.**  
**DO NOT USE ON OUTLETS CONTROLLED BY WALL SWITCHES.**  
**DO NOT USE ON OUTLETS THAT SHARE THE SAME CIRCUIT WITH LARGE ELECTRICAL MACHINES OR APPLIANCES.**

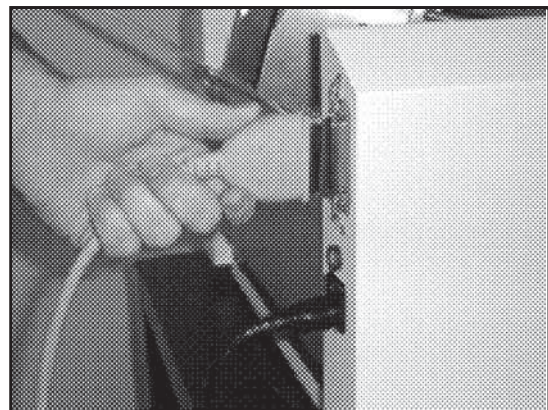


### *Connecting to Computer*

**Parallel Port:** Plug Parallel Printer Cable from computer into rear port on Printer. Latch two locking clips.

**USB Port:** Plug cable into USB connector (*located next to Parallel Port*). Cable connecting Printer to computer must not exceed 6 feet long.

**NOTE:** Parallel Port may be used for all versions of Windows. USB Port is used only for Windows ME, 2000, XP, and later versions.



## SECTION 2

### INSTALLING PRINTER

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#### *Install Inkjet Cartridges*

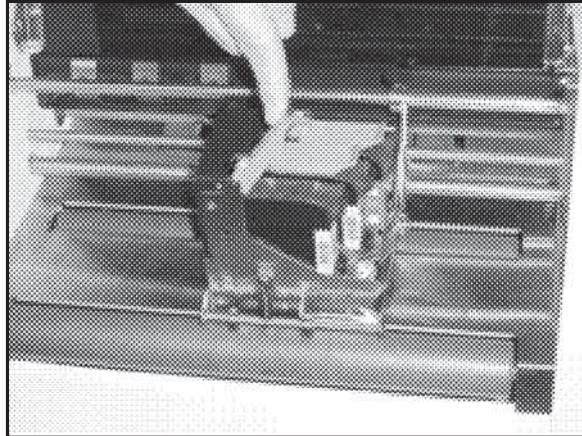
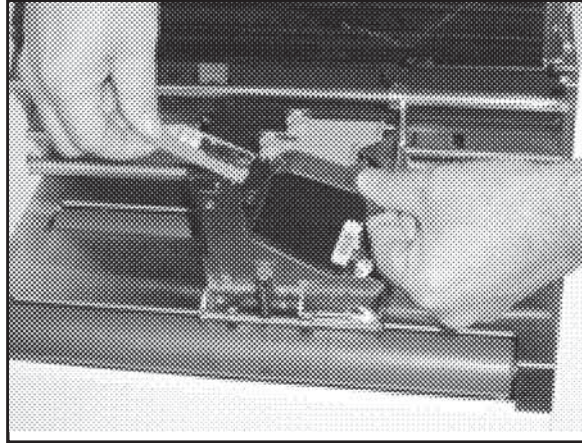
Printer has 3 Inkjet Cartridges.

##### **To install cartridges:**

1. Remove Inkjet Cartridge from packaging. Take care not to touch copper contacts, metal plate, or gold printhead. Remove protective tape from Printhead.
2. Open Latch Lever holding Inkjet Cartridge in place.
3. With Cartridge's Printhead pointing down, slide Cartridge into Holder and push down and toward contacts in Holder.
4. Make sure Cartridge is seated in Holder. Close Latch Lever to secure Cartridge. **DO NOT** force Lever into place. (See diagram.)
5. Repeat **Steps 1-4** above for remaining Inkjet Cartridges.



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

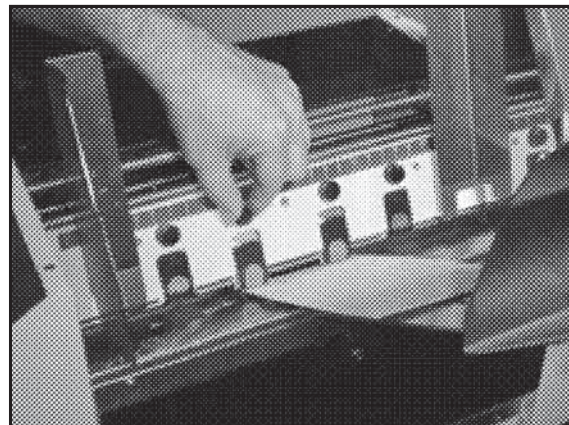


#### *Setting up Feed*

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

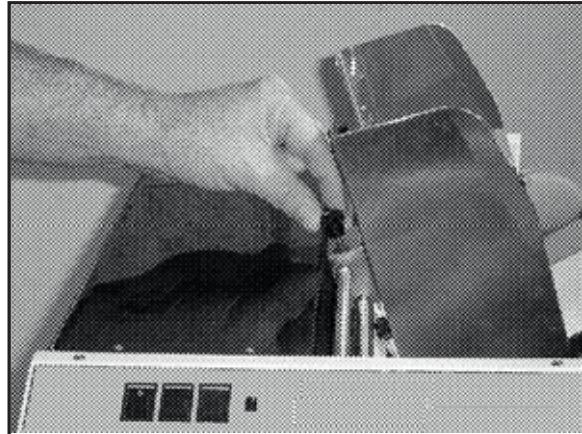
##### **Adjust Sheet Separators individually:**

1. Move Side Guides so locking screws are accessible.
2. Loosen locking screw (*as shown*) and raise Separator. Tighten locking screw to hold Separator in place.
3. Place media under Separators in center position on Table.
4. Loosen Separator locking screw. Place Separator on media and tighten locking screw. Repeat for each Separator that has media under it.



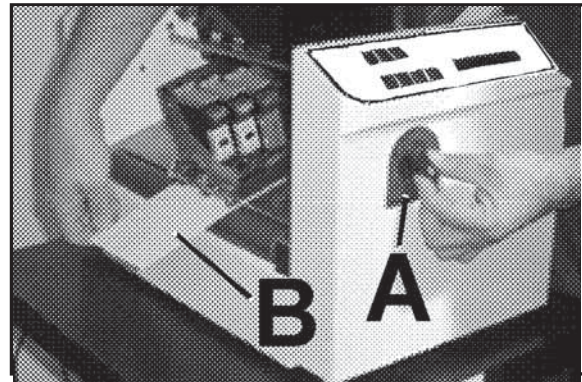


5. Adjust Side Guides to within 1/32" from sides of media. Tighten locking screws on Side Guides.



6. Adjust Rear Guide by loosening locking screw, then position Guide so media is raised approximately 1/2" above Feed Table.

7. Turn Media Thickness Knob [A] fully counterclockwise.  
Place a piece of media [B] under Printhead Carriage.  
Adjust Media Thickness Knob clockwise until Printhead Carriage just touches media.  
Turn Media Thickness Knob counterclockwise until media [B] can be pulled from under Print Carriage with a slight pull.



8. Test feed media by pressing **ON LINE** key, then **ENTER** key.  
Press **ENTER** to stop feeding, then press **ON LINE** key to stop Printer.

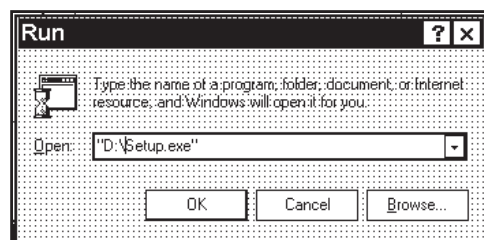
**NOTE:** When Printer is not in use always raise Printheads to their maximum up position.

## ***Installing Printer Driver***

**Printer Driver** (*included*) must be installed on your computer before you install AstroPrint Software.

**NOTE:** Driver for Printer should start when installed. If it does not, then use steps below:

1. Close any applications running on your computer.  
Restart computer before installing Driver.
2. Install CD in CD drive and click **START**.  
Click **RUN**, then type the following:  
D:\Setup.exe (where D is the CD drive). Click **OK**.
3. "**Add Printer Wizard (n.nn)**" window opens.  
Click **Next>**.
4. Type in your Name and Company. Click **Next>**.



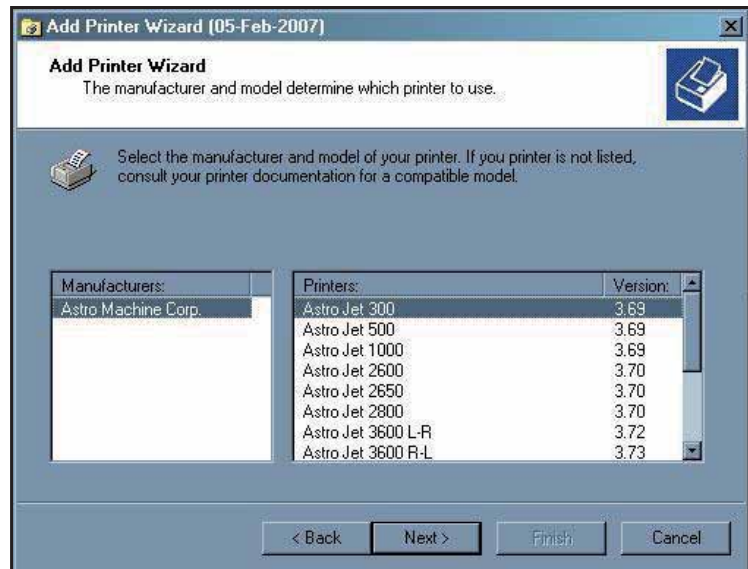
## SECTION 2 INSTALLING PRINTER

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5. Select Printer Port **LPT1**. Then click **Next>**. “*Add Printer Wizard*” appears.  
Select your printer from table below, then click **Next>**

Printer	Driver
AJ 300P	AstroJet 300
AJ 500P	AstroJet 500

6. 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>**.
7. Click **Finish** to complete installation.



## SECTION 3 – *Operating Printer*

Once Printer Driver is installed, you are ready to start printing. This section is divided into three parts. The first describes function of **Printer Control Panel**. The second section describes **Driver Properties** and various options available when you run a job. The third section describes how to **Set Up a Job to Print from Microsoft Word**.

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

### *Printer Operation*

When Printer is first turned ON, **ON LINE** key light blinks. Display shows ***“Printer Offline / Enter for Paper Feed”***. **TEST** key light is OFF. In this mode, pressing **ENTER** starts paper feeding, but no printing takes place.

To print, Printer must be on line. Once on line, display changes to ***“Printer Online / Waiting for Data”***. In this mode, when a job is sent, Printer will be ready to print when **ENTER** is pressed.

The following describes operation of Printer’s various menu options to customize Printer operation. Printer Control-Panel Keys are used to access various functions that help operator control Printer.

#### **TEST key**

Pressing **TEST** key places Printer in **Test Print** mode. ***“Working”*** appears in lower half of display, after a short time, display changes to ***“Enter to feed”***. Pressing **ENTER** starts printing process and prints **Test Print**. To stop feeding, press **ENTER** again.

**NOTE: If Printer is set to start automatically, (see “MENU key” below) Printer starts printing Test Print once it is loaded without pressing ENTER. In this case, pressing ENTER stops paper feed.**

To exit **Test Print** mode, press **TEST** key again and Printer returns to its ready state.

Press and hold **TEST** to make Printer enter ***“Service Menu”*** where various Printer functions can be tested. To exit ***“Service Menu”***, press **TEST** a second time. ***“Service Menu”*** is primarily used by service personnel to diagnose problems should they occur. Use “+” or “-” keys to scroll through menu. Pressing **ENTER** tests the function.

To check Ink Cartridge ink levels when you enter ***“Service Menu”***, press “-” key and amount of ink remaining appears as a percentage in lower half of display window.

#### **MENU key**

Used to access special features built into Printer and to customize Printer operation. Basic features are accessed by pressing **MENU**. Use “+” or “-” keys to access features.

**Features available under this mode are as follows:**

**NOTE: If ON LINE key is ON you cannot enter Menu mode.**

**Take Printer offline by pressing ON LINE key.**

*Media Thickness Setup* – First item to appear in display is ***“Media Thickness Setup”***, (if Printer is equipped with an *Automatic Media Thickness Control*). Use this feature to preset Printhead height for various media thicknesses.

## SECTION 3

### OPERATING PRINTER

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**Press Enter to Purge** – Purging function is useful for clearing Printhead Nozzles when Printer has been idle for a time. To activate **Purge**, press **ENTER** to feed one piece of media. To purge Printheads additional times, press **ENTER** for each additional purge.

**NOTE: Printer only purges one piece each time you press ENTER. For additional purges, press ENTER again for each subsequent purge.**

**Clear Batch Counter** – Pressing **ENTER** clears number in upper right hand corner of display. Resetting Counter is usually performed at start of each job. Turning Printer OFF does not reset this Counter.

**Purge First Piece** – Turning feature ON causes Printer to send one purge pattern on first piece. After Purge is completed, next piece will be first record of your database. Once this is turned ON, it remains ON, even if Printer is turned OFF.

**Address Recovery** – In event of a Printer jam, recover up to 10 pieces by pressing **MENU**, then stepping to “**Address Recovery**”. Then press **ENTER**. “**Enter: Recover 1 Piece**” appears. Use “+” key to select number of pieces to reprint (1-10), then press **ENTER** again to start printing process. Once pieces are printed, press **ONLINE** key, then **ENTER** to resume printing job.

**Print Enhancement** – Pressing “+” or “-” keys brings up this message. **Print Enhancement** feature is used when printing to ensure that Printhead Nozzles stay open and prevent loss of descenders on letters such as “y” or “q” and accent marks that do not appear in every address. Pressing **ENTER** turns this function ON or OFF. Function remains as changed until operator changes it again. Turning Printer ON and OFF does not affect setting.

**NOTE: Print Enhancement feature times out after 100 seconds if no media is going through Printer. Once media starts printing, it will restart.**

**Automatic Feed** – Turning feature ON causes Printer to start feeding once job is sent. If **ON LINE** key is ON, Printer starts feeding and printing automatically. To press **ENTER** to start printing process, turn this feature OFF. Turning Printer ON or OFF does not affect your selection.

**Pause Type:** – This feature allows Printer to respond to a “break mark” set in the database used in a given job. The “break mark” marks the end of a series within the database. For example, addresses with same postal code or after a set number of entries. There are two “**Pause Type:**” selections:

**Feed Stop** – Setting is for standalone desktop units not used in line with other mailing equipment. Printer stops feeding media for a set amount of time after it “sees” a “break mark”. This allows time for operator to pack or separate that set of printed pieces before next set starts. Use “+” or “-” keys to access this feature. Press **ENTER** to turn this function ON or OFF.

**Conveyor Speed Up** – Used when Printer is used in line with other mailing equipment (*conveyors, tabbers, etc.*) When feature is activated, Printer responds to “break mark” by sending a signal to conveyor to speed up momentarily. This creates an obvious gap between end of one set of pieces and beginning of next. Use “+” or “-” keys to access this feature. Press **ENTER** to turn this function ON or OFF.

**Installing New Printheads** – Printer can tell you when a Printhead is running low on ink. To use this feature, press **MENU**. Then use “+” or “-” keys to highlight “**Enter when head (n) is filled**”. Press **ENTER** and install a new Cartridge. Repeat for each Cartridge you install. When **ENTER** is pressed, display changes to “**Head (n) has a new cartridge**”. To check Cartridge ink levels, press and hold **TEST PRINT** until “**Service Menu**” appears. Use “+” or “-” keys to scroll to “**Service Menu: Ink Levels, 100%100%100%**”. This shows how much ink remains in Cartridge.

**NOTE: Feature only works if Cartridges remain in original Head where they were installed. If you swap Cartridges from one Head to another, levels will not be accurate.**

A second set of menus is available in display. To activate, press and hold **MENU** until “**Setup Menu**” appears. Step through these items with “+” or “-” keys.

**Total Count** – Displays total number of prints that passed through Printer. Non-resettable.

**BIOS Version** – Press “+” key to display current BIOS version.

**Bulk Ink** – Not used on this model printer. No provisions are made to install larger cartridges.

#### **+ / - key**

In various **Menu** modes these keys are used to step through options.

#### **ON LINE key**

If **ON LINE** key is ON, display shows “**Printer Online / Waiting for Data**” and light is lit. This means Printer is ready to print job when it is sent. To have Printer start printing immediately when job is sent, **Automatic Feed** feature must be turned ON. If **ON LINE** key is OFF, display shows, “**Printer Offline / ENTER for Paper Feed**”. In this condition Printer can feed paper. Useful for setting up Feeder.

**NOTE: If Printer is off line and a job is sent, display shows “Printer Offline / Data Ready to Print”. To print, press ON LINE key to put Printer on line. If data is sent and Printer is NOT set up to start feeding automatically and ON LINE key is lit, display shows “Printer Online / ENTER to Start Feed”.**

#### **ENTER key**

Starts Printer printing when it is on line and **Automatic Feed** is turned OFF. Also, when Printer is in any **Menu** modes, **ENTER** is used to choose available options.

#### **RESET key**

Used to clear Printer Memory and return it to “Standby” state. Key only functions if Printer is offline.

### ***Purge While Printing***

**To activate Purge in the middle of a job:**

Press **ONLINE** key to pause current job.

Press **MENU**, then step to “**Press Enter to Purge**”.

Press **ENTER** to start purge and press **ENTER** again to stop purge.

Press **ONLINE** key, then **ENTER** to get back to normal printing.

**NOTE: If a paper jam occurs during Purge; once purge is finished, use Address Recovery to get back to normal printing. Otherwise you will lose records.**

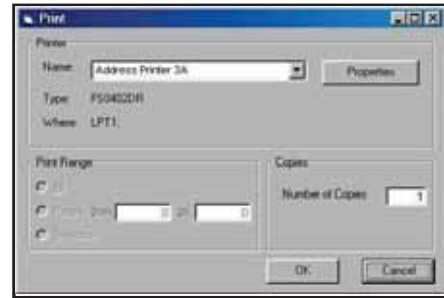
### ***Printer Driver Properties***

**Printer Driver** describes to Printer how to print your job. It controls Printer operation and allows you to send fixed and variable text and graphics to Printer. Within your data management software is a “**Print**” function. In that “**Print**” function is a **Properties** button. It is through **Properties** that you control your Printer output. The following describes **Properties Windows** for Printer and how to use them to customize Printer’s output.

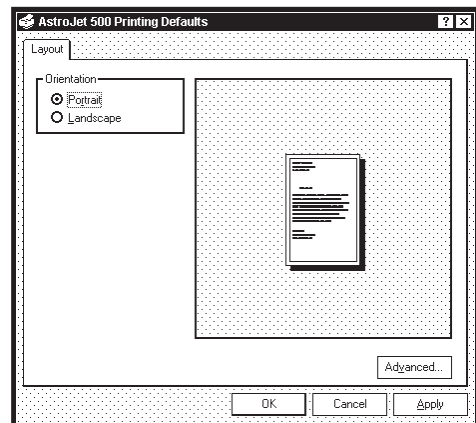


## SECTION 3 OPERATING PRINTER

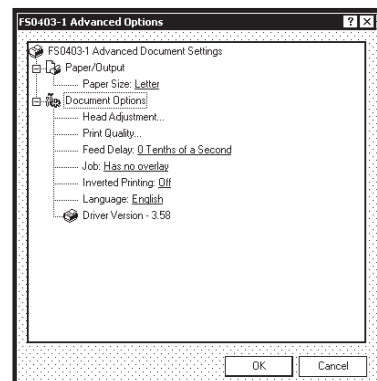
To start printing, click **F**ile, then **P**rint. **Print** window opens. To print the job, click **OK**. To use special features built into AstroJet Printer Drivers, clicking **P**roperties button opens **Properties Window** in Windows 98, NT, or ME.



If using Windows 2000 or XP, window at right opens. Clicking **Advanced** opens “**Options**” window. In the following illustrations windows for Windows 98, NT, and ME will be on the left. Windows for Windows 2000 and XP will be on the right.



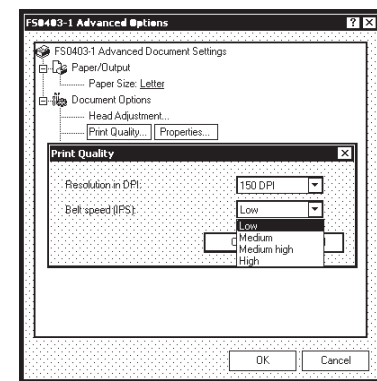
When **Properties Window** opens, you are presented with several tabs in Windows 98. The following are standard Windows Printer Driver functions and should be left at their defaults: **Graphics**, **Fonts**, and **Device Options**. **Features** and **Print Heads** tabs are used to set up, change, and adjust the Printer.



### Features Tab

**Features Tab/Advanced Options**, (*depending on operating system*), is used to change speed and resolution of Printer, to add a delay to the feed to provide separation between pieces, and to print an overlay with the job.

**Print Quality has two settings:** (1) for **Resolution** of print quality and (2) for appropriate **Speed**. Changing **resolution** to a higher number (*e.g. 200 DPI to 600 DPI*) increases the image quality. When **resolution** is changed, **Belt speed (IPS)** is automatically changed to optimum speed for resolution selected.





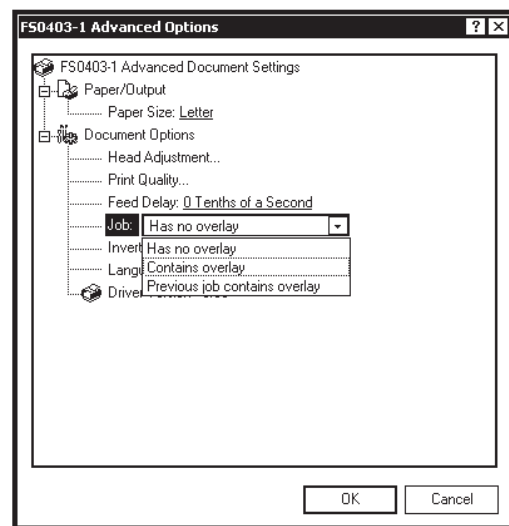
**Change speeds to a lower speed as follows:**

AstroJet 300	
Resolution	Speeds available
150 DPI	Low
200 DPI	Low
300 DPI	Low
600 DPI	Low

AstroJet 500	
Resolution	Speeds available
150 DPI	Low, Medium, Medium High, and High
200 DPI	Low, Medium, and Medium High
300 DPI	Low, and Medium
600 DPI	Low

**Feed Delay** is used to add more space between pieces as they are being printed. This allows first piece printed more time to dry before next piece is printed. Adjustment range is in 0.1-second increments. Feature works at all speeds.

**Overlay** is used to save time printing when combining a database with fixed information or graphics. Default is “No overlay”.



**To use the Overlay feature:** first create a layout in an application such as Microsoft Word. Place all fixed information and graphics on this layout. Open layout and go to **Print** in **File** menu. Click **Features**, then click **Overlay**. Select “Contains overlay” from box, then click **Apply** and **OK**.

Click **OK** in “Print” window. Overlay downloads.

Open job that contains the variable data. Use **File**, then **Print** from dropdown menu to open “Print” window for application. Click **Properties**, then **Features** tab. Click on dropdown menu under “Overlay” and click “Previous job contains overlay”. Click **Apply**, then **OK**. When “Print” window reappears, click **OK** to send job to Printer. To start printing, press **ENTER**.

To print a second job using same Overlay, open that job and send it to Printer. If next job does not contain an Overlay, then click **Properties** in “Print” window, select **Overlay**, then **No overlay**. Click **Apply**, then **OK**. To print next job with a different Overlay, repeat process for first Overlay.

**NOTE:** Turning Printer OFF, then ON clears Overlay and job.

## SECTION 3 OPERATING PRINTER

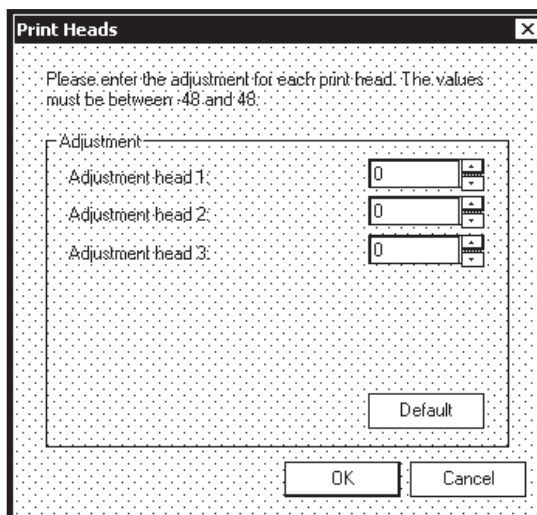
### Print Heads Tab

Permits slight (0.001") adjustments to position of Printheads in relation to each other. Adjustment is used to precisely align three Printheads when printing graphics or type that extends beyond width of one Printhead. Each Head can be moved +/- 0.048" in 0.001" increments.

To move Printhead **toward** lead edge of your layout, move it in “-” direction.

To move Printhead **away** from lead edge, move it in “+” direction.

When Printer is turned OFF, changes made in this manner go back to original settings.



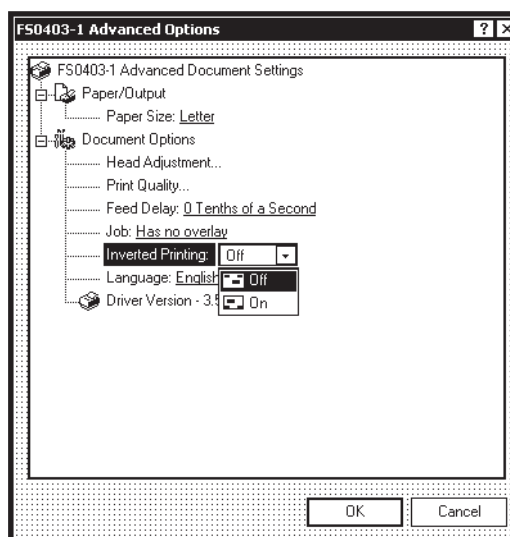
### Inverse Printing

**Paper tab** contains one element that is used to reverse or invert printing on Printer.

In normal operation printing is read from operator side of Printer. It is sometimes necessary to turn printing direction 180 degrees from normal direction. This occurs when, due to layout or method of binding, media must be fed in reverse direction.

Clicking **Paper tab**, then **Paper Source** permits you to reverse printing direction 180 degrees.

Remaining settings on this tab should be left as they are. **Paper size** is always “**Max Print Area**” and **Orientation** is always “**Portrait**”. **Do not change them.**

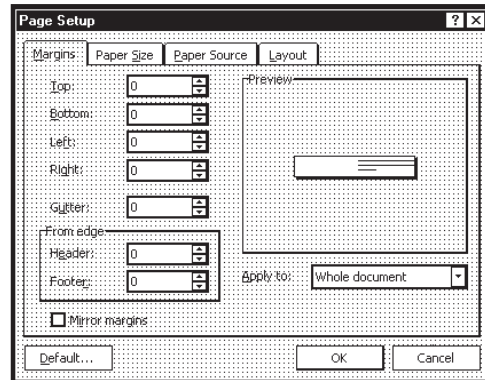


## Printing from Microsoft Word

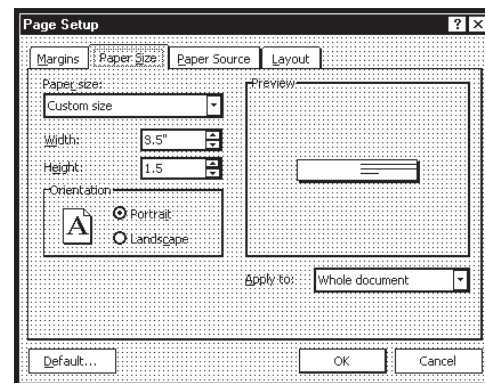
If not using a specific program designed for mailing applications, it is possible to print your mail pieces using Microsoft Word. This section covers how to lay out a piece and to print from Microsoft Word.

To begin, open a new page and turn on **Mail Merge toolbar**. Under **"Print"**, select **Address Printer 3** or **3A** as default printer. Go to **Page Setup** in **File** menu. Set all margins to **"0"**.

**NOTE: Select Printer before you do set up so setting is registered.**

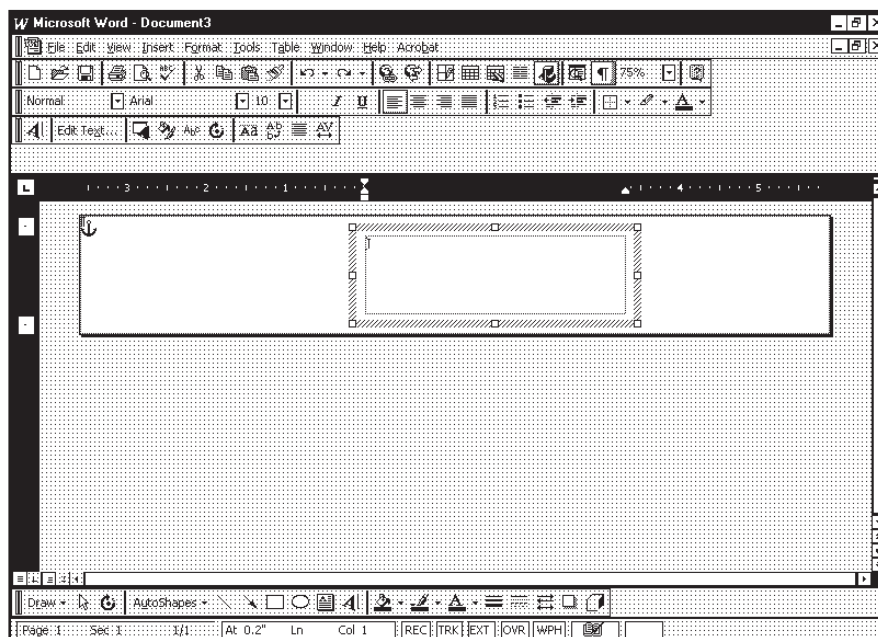


Next select **Page Size** tab and **Custom Page**. Size of layout should be 1.5" high by the length of the piece you intend to print on. (*This example uses width of a #10 envelope, 9.5".*) Orientation of the piece is always **Portrait**. Effective printing area is **1.5" x 14"**. Click **OK** once this step is completed.



Next, create a text box so you can position the address the proper distance from the lead edge of the piece. Once page layout is set, you can save it as a template for use later.

**When steps above are complete, layout should look like the one below:**

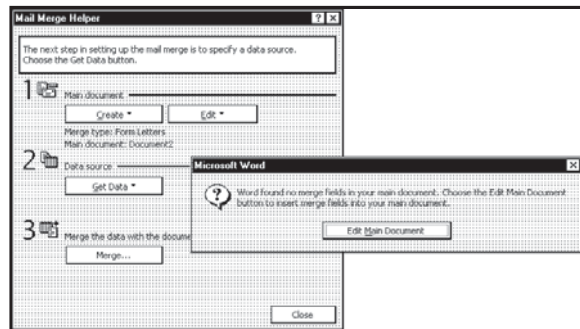


## SECTION 3 OPERATING PRINTER

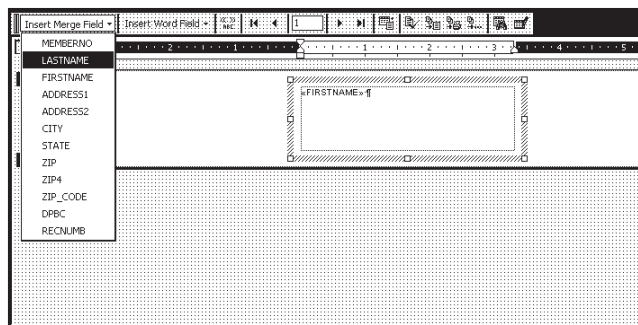
Click **T**ools, then **M**ail Merge. “Mail Merge Helper” window opens. Click **C**reate, then **E**nvelopes. “Microsoft Word” window opens. Click **A**ctive Window button, then click **G**et Data button. Click **O**pen data source. Locate data file you intend to use. (This example uses a Microsoft Excel file.) Select file and “Microsoft Excel” window opens.

Select entire spreadsheet and click **OK**.

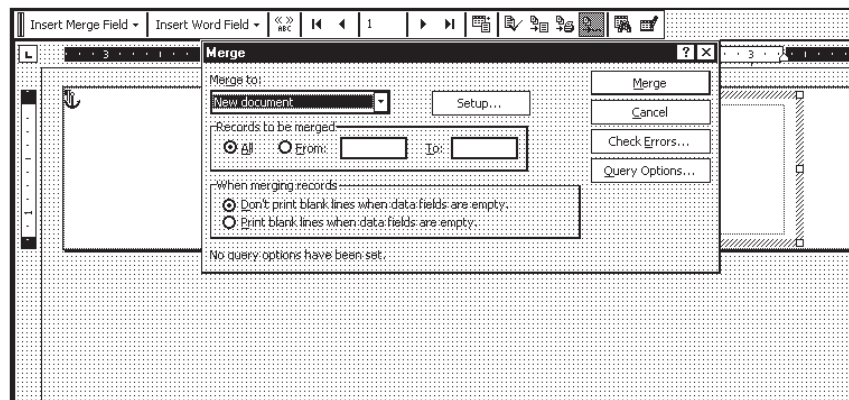
Next click **E**dit **M**ain Document. Click **C**lose.



Use “Mail Merge” toolbar and click **I**nsert **M**erge **F**ield and begin to build layout by inserting address fields.



Once layout set-up is complete, click **M**ail **M**erge icon on toolbar and “Merge” window opens.



In **M**erge **t**o menu are several choices for where how data is exported. See “**N**ew **D**ocument” and “**P**rinter”. If choosing “**N**ew **D**ocument”, merge is created in your word application with a separate record for each address. If choosing “**P**rinter”, merge is sent directly to Printer and each record is printed.

Next selection is “**R**ecords to be merged”. Select **A**ll or **F**rom:

Last selection is “**W**hen merging records”. Default is “**D**on’t print blank lines when data fields are empty.” This should be left checked.

Clicking **M**erge starts merging documents.

If you chose to send merge directly to Printer (and Printer is connected to computer and turned ON), Printer will start. Pressing **ENTER** key starts printing process.

If a graphic or fixed text is to be printed with the data, refer to section on **O**verlays.

## *Printing from DeskTop Mailer®*

### **Preparation**

#### **Install Barcode Font**

To be able to print Postal Barcodes on AstroJet™ Printers when using DeskTop Mailer®, first install **BarCode USPS** font supplied on driver disk that accompanied Printer.

#### **To install Barcode font:**

1. Click **START**, then **S**ettings, then open **C**ontrol Panel.
2. Double click **FONTS** folder. When Fonts folder window opens, click **F**ile, then **I**nstall New Font.
3. “Add Fonts” window opens. Find “**BCUSPS.ttf**” file on CD and select it.
4. Click **OK** and font will be installed in Fonts folder.
5. Close **FONTS** window and **CONTROL PANEL** window.

#### **Set Print Method**

Disable Label Toolbox before printing Printer using DeskTop Mailer®. To do this, click **T**ools. When “Options” window opens, click “**Printing Method**”. Under “**Printing Engine**” activate “**Disable Label Toolbox**” option. Then click **OK**. Next click **C**lose.

## **Using Barcodes with DeskTop Mailer®**

### **Edit Form**

It is necessary to set up layout form to match Printer you are using.

1. Click **P**rint, then in this example, **N**on-presorted Labels, then **P**age/**F**orm Setup.
2. When “Select Form” window opens, click **E**dit.
3. “Edit Form” window opens.
4. **Fill in the information as follows:**
  - a. **Labels Across Page** = 1
  - b. **Width of label** = any number up to maximum print length of Printer you are using.
  - c. **Form Left & Right Margins** = depends on size of form and width of printing area required.
  - d. **Width between labels** = 0.
  - e. **Form Width** = length of piece you are printing on.
  - f. **Labels down page** = 1
  - g. **Height of label** = equal to number of Printheads on model of AstroJet Printer you are using times 1/2". This example uses a 3-head printer, therefore height is 1-1/2".
  - h. **Form Top & Bottom Margins** = should be set at 0.100 to insure no data is lost.
  - i. **Height between labels** = 0.000.
  - j. **Form Height** = height of Printhead area or slightly larger.
5. Name form in **Form name** box and click **OK**.

1	Labels Across Page	1	Labels down page
3.500	Width of label	1.500	Height of label
2.000	Form Left & Right Margins	0.100	Form Top & Bottom Margins
0.000	Width between labels	0.000	Height between labels
9.000	Form Width	2.000	Form Height

Form name: C:\Festlog\Postalsoft\Forms\Astrojet 500.frm [Browse...]

Description:

[Save] [Cancel] [Options...]

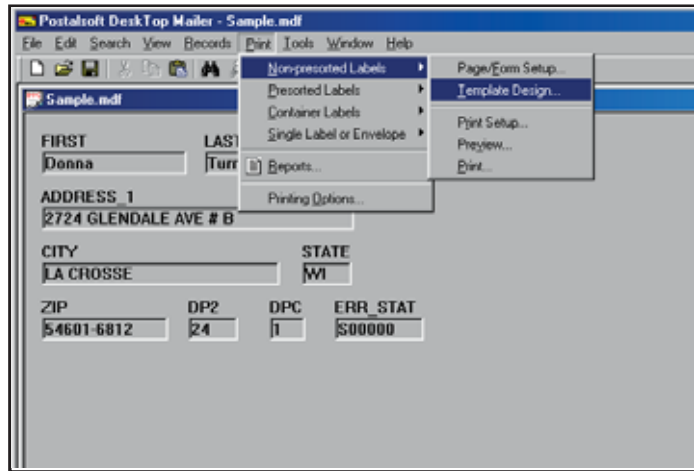
## SECTION 3 OPERATING PRINTER

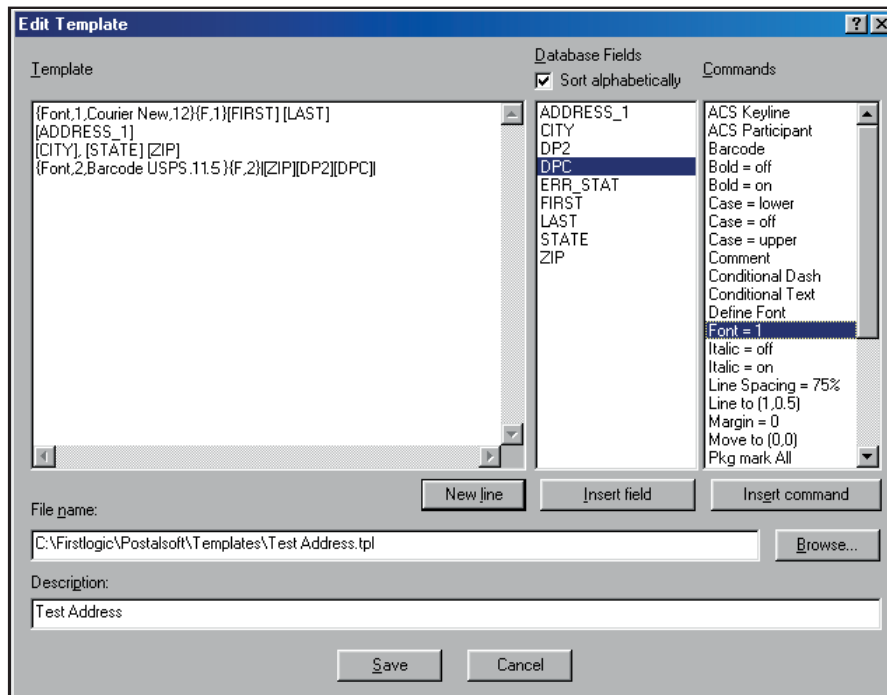
---

### Create Layout

Once Barcode font supplied with AstroJet™ Driver Disk is installed on computer and form is set up, create layout in DeskTop Mailer®.

1. Open DeskTop Mailer® application, then open Data file.
2. Click **Print** and open **Template Design**. (In example used, Non-presorted Labels. This same step holds true for Presorted Labels).
3. Click **Template Design** and “Choose Template for Printing” window opens. Select template to use from list, then click **Edit**. “Edit Template” window opens. Or select **New...** to create a new template.
4. In this example, we are creating a new template and placing the Barcode below the address lines. When creating a new template, first highlight “**Define Font**” command and click **Insert command**. “Font Selection” window opens. Select **Font** style, **Size**, and assign a **Font Number**. Then click **OK**.
5. Highlight “**Font = 1**” command and click **Insert command**. Highlight **FIRST** in **Database Fields** list and click **Insert field**. Repeat this for next field, and press **ENTER** to go to next line. Once address fields are entered on **Template**, next step is to add Barcode.
6. **Barcode will become Font 2**. Begin by highlighting “**Define Font**” command, then click **Insert command**. “Font Selection” window opens. Select **Barcode USPS** font, **Size 11 - 12**, (choose correct size for your application, you may use fractional numbers such as 11.5) and assign **Font Number 2** to it. Then click **OK**.
7. Highlight “**Font = 1**” command and click on **Insert command**. Then change 1 in {F,1} to 2.
8. Click **Save**. Insert a “|” line (bar) next and then build the barcode data. In example, it is ZIP, DP2, DPC. Finish this up with another “|”.
9. Now save your template by typing in a unique name in **File name** box and click **Save**.





## Printing

To make Printer the default printer for this application, click **Print**, then select **Printing Options**. When “**Printing Options**” window opens, select **Printers** tab and highlight “**Labels: Non-Presorted Labels**” or “**Labels: Presorted Labels**”, then click **Change Printer** button. Select AstroJet Printer from printer menu. Click **OK**. You are now ready to print the job.

1. If not already done, select **Print**, **Non-presorted Labels**, **Template Design** and select template you created. Click **Select**
2. Then select **Print**, **Non-Presorted Labels**, **Print** and click **OK**. If AstroJet Printer is not selected, select it and click **OK** to print job.

## NOTES

[illegible]



## 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*

Inkjet Cartridges must be replaced when out of ink, when print quality is poor, or when purging and cleaning have not helped image quality. **Approximate life of HP 45 Inkjet cartridges, (based on three lines of 20 characters at 10-point size per address), is:**

<b>High Quality</b>	<b>50,000 addresses</b>
<b>Standard Quality</b>	<b>100,000 addresses</b>
<b>Letter Quality</b>	<b>150,000 addresses</b>
<b>Draft Quality</b>	<b>200,000 addresses</b>

**NOTE:** These figures can vary depending on font selected.

### **To Replace Inkjet Cartridge**

1. Open Latch Lever to release Cartridge, then pull Cartridge up and out of Holder.
2. Remove new Inkjet Cartridge from packaging, taking care not to touch copper contacts, metal plate, or gold printhead. Remove protective tape from Printhead.
3. With Cartridge's Printhead pointing down, slide Cartridge into Holder and push down and toward contacts in Holder.
4. Make sure Cartridge is seated in Holder, then close Latch Lever to secure Cartridge. **DO NOT** force Latch Lever into place.
5. Repeat **Steps 1-4** for remaining Cartridges.

### **CAUTION**

**NEVER SHAKE, DROP, OR HIT CARTRIDGE AGAINST PALM OF YOUR HAND OR ANY OTHER HARD SURFACE. SHAKING PRINT CARTRIDGE DOES NOT "MIX" INK AND HITTING CARTRIDGE AGAINST A HARD SURFACE DOES NOT CLEAR NOZZLES.**

**BOTH OF THESE ACTIONS HURT PRINT QUALITY BECAUSE THEY ALLOW BUBBLES TO FORM NEAR INK FIRING CHAMBERS. THESE BUBBLES PREVENT NOZZLES FROM FIRING, CAUSING WHITE STREAKS IN PRINT IMAGE.**

## SECTION 4 MAINTENANCE

---

### Storage

#### **Short-term Storage** (*less than 2 days or less than 1 day in a hot and dry environment*)

Leave Cartridge in Printer for short periods of time, 1 day or less.

The next time that Printer is used, Printhead may have to be cleaned and purged.

#### **Long-term Storage** (*more than 2 days or more than 1 day in a hot and dry environment*)

Keep Printhead in an area that is relatively free of dust and paper particles that is not too dry.

Place Cartridges in a sealable plastic container with a damp sponge or towel to maintain humidity and prevent Printhead from drying out.

When Cartridges are ready to be used again, Printhead will need to be cleaned.

### Disposal

Cartridges may be disposed of in a normal manner.

In case of an ink spill, use soap and water to clean up any problem areas. Abrasive soap usually removes ink off of hands.

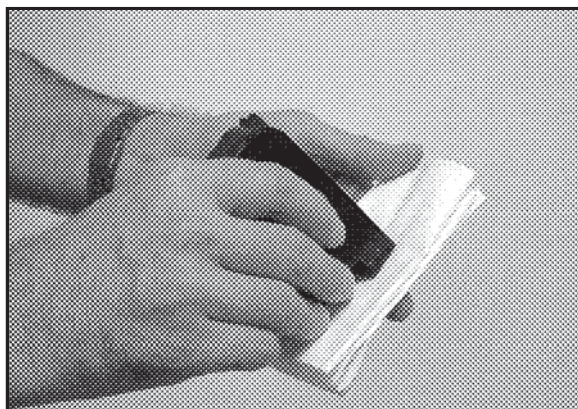


### *Cleaning Printhead*

Maintain good print quality by keeping Printheads clean. During printing process, ink spray, paper fibers, and dust build up on Printheads. This build-up eventually degrades print quality. If you notice problems with print quality, or to just prevent a build-up from occurring, wipe Printhead with a wet fiberless cloth.

<b><i>Cloth should be:</i></b>	<b><i>Cloth should not be:</i></b>
<ul style="list-style-type: none"><li>✓ Soft</li><li>✓ Fiberless</li><li>✓ Moistened with water (<i>Distilled is best but tap water works</i>)</li></ul>	<ul style="list-style-type: none"><li>✗ Abrasive</li><li>✗ Made of small fibers</li><li>✗ Dry or contain chemical additives</li></ul>

Wipe slowly across the long-axis with Printhead facing down (*as shown*). **DO NOT** apply excessive force, as this could scratch Nozzle area.



## ***Purging Nozzles***

If Printhead sits inactive for a period of time, ink may dry in the Nozzles. Printing may not remove these “ink plugs” from the Nozzles. White streaks appear in the printed text or graphic. In order to obtain better print quality, these ink plugs need to be forced out or purged. A **Purge** routine is built into Printer. It is accessed from Display Panel on Printer from **MENU** key.

**If this does not solve problem:**

1. Wipe Printhead with a wet cloth as described in “*Cleaning Printhead*” above.
2. Perform **Purge** routine from Printer by pressing **MENU**, then “+” key. Load media and press **ENTER** to purge. Repeat if necessary.
3. Wipe Printhead again with a moist cloth.

**NOTE:** For more information, see **Troubleshooting Printheads** in *Section 5 – Troubleshooting Guide*.

## ***Jams in Printer***

If a jam occurs, **STOP the Printer**. Recover up to 10 missed addresses at Printer Control Panel. (See *Section 3 – Operating Astrojet 300/500* “Print Recovery After Jam”.)

**Some possible reasons for jamming are:**

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

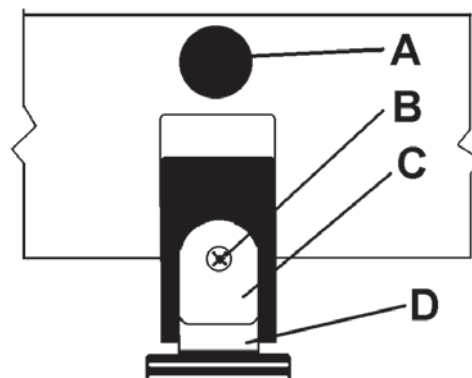
## **Removing Jammed Media**

1. It may be necessary to move one or more Printheads to gain access to jammed media. Take care in removing jammed media to prevent damage to Printheads. All pieces of jammed media must be removed from feed path.
2. Follow instructions, *Section 3 – Operating Printer* “Print Recovery After Jam”.

## ***Replacing Sheet Separators***

Sheet Separators insure separation of media as it is fed into Printer. Separators wear and must be replaced periodically. If you experience double sheet feeding and cannot adjust Separators to prevent it, replace them. **Replacing Sheet Separators is not difficult:**

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 Holder.
5. Install a new Separator and reinstall Separator Support and screw.



## *Cleaning*

### **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 to remove accumulated paper dust and ink. Depending on type of media run, paper dust may accumulate within Printer and on Transport. To properly clean Printer, unplug it from power receptacle and remove covers.

- **Internal Areas:** Best cleaned using a vacuum with a soft brush attachment to help loosen dust particles. Take care not to damage PC Boards or electrical wiring.
- **External Areas:** May be cleaned with any non-abrasive standard 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**

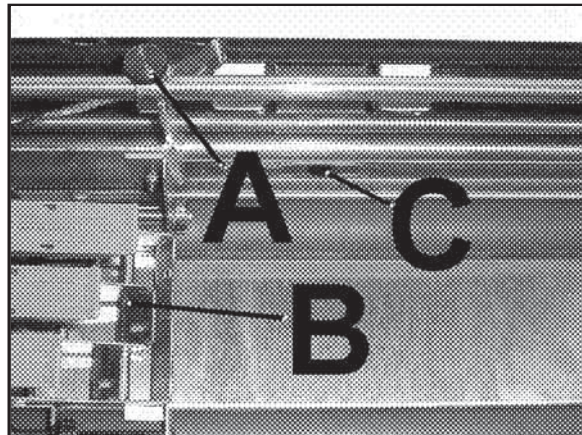
Feed and Forwarding Rollers can become glazed with paper lint and ink from media. Clean regularly with a mild abrasive household cleaner on a damp cloth.

Avoid using solvents on Rubber Rollers.

## **Cleaning Media Sensor**

Periodically check Media Sensor [C] (*located in Print Carriage area of Printer*). Access Sensor by loosening Print Carriage locking screw [A] and sliding Print Carriage [B] toward rear of Printer.

Sensor should be clean and free of accumulated paper dust. Use a vacuum with a soft brush attachment or dry compressed air to remove dust.



## SECTION 5 – *Troubleshooting Guide*

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

### *HP Inkjet Print Cartridges*


CONDITION	PROBLEM	SOLUTION
<b>Black streaks in text</b> <del>This is a sample of text showing black streaks in the copy.</del>	Lint or paper dust on Printhead.	Clean Cartridge Nozzles with a clean lint-free cloth moistened with distilled water.
<b>Cartridge will not print</b>	Sheet is blank even after passing under Cartridge(s).	Check to make sure protective tape is removed from Printhead. Remove and reinsert Cartridge into Carriage Holder. Install new Print Cartridge.
<b>White streaks in text or graphics</b> Michael Jones Astro Machine Corp. 630 Lively Blvd. Elk Grove Village, IL 60007-1234	Lint or dust blocking Printhead holes.  Poor contact between Printhead and Printhead Holder.	Clean Cartridge Nozzles with a clean lint-free cloth moistened with distilled water.  Clean Interconnects. Remove and reinsert Cartridge into Holder. Insert new Print Cartridge.

### **WARNING!**

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

## SECTION 5 TROUBLESHOOTING

### Printer

CONDITION	PROBLEM	SOLUTION
<b>Extra lines; losing data</b>	Database problem	Check data in database program
<b>Improper output</b> <i>(address information out of order, mis-feeding, etc.)</i>	Wrong Interface settings  Static electricity  Dirty Media Sensor	Check software or database on PC. Close AstroJet Control Panel software, then turn Printer OFF and ON. Clean Media Sensor.
<b>Media jams</b>	Double feeding  Media is curled or bent Media is too thin	Adjust Sheet Separators on Feeder. Uncurl media. Media must be at least 0.008".
<b>No communication</b>	Improper cabling / connector Unit not receiving power	Use proper cable (see <i>Operator Manual</i> ). Check plug connections, ON/OFF Switch and Fuse on Back Panel (see <i>Operator Manual</i> ).
<b>Not printing on media</b>	Media not positioned properly	Adjust Printhead vertically. Adjust margin setting in layout software.
<b>Print too light or missing character dots</b>	Clogged or dirty Printheads Running out of ink	Purge or clean Cartridges. Replace Inkjet Cartridges.
<b>Blurry address</b> 	Image is not sharp	Printhead gap too high. Adjust Printhead closer to media.
<b>Split line of type</b> Astro Machine Corp. 630 Lively Blvd. Elk Grove Village, IL 60007	Line of type is placed across two Printheads	Reposition text in layout so it does not print across two Printheads. Adjust the positioning of two Printheads in relationship to each other using Head Alignment Tool in <b>Properties</b> window of PCL Driver.
<b>Uneven split line of type</b> Astro Machine Corp. 630 Lively Blvd. Elk Grove Village, IL 60007	Some, but not all, of a line of type across two Printheads matches up.	Reposition text in layout so it does not print across two Printheads. Check Sheet Separator adjustment. Separators should just touch media. Check that Printhead is set at proper height. Printhead set too high causes media to slip as it passes under Heads.

## APPENDIX A – *Specifications*

<b>PRINT TECHNOLOGY</b>	Inkjet, Three HP 45 High Capacity Inkjet Cartridges
<b>ADDRESS SPEED</b>	<b>AstroJet 300:</b> Up to 7,200/hr - #10 Envelopes <b>AstroJet 500:</b> Up to 22,000/hr - #10 Envelopes
<b>PRINT QUALITY</b> (Dots Per Inch)	<b>High Quality</b> 600 x 600 DPI <b>Standard Quality</b> 600 x 300 DPI <b>Letter Quality</b> 600 x 200 DPI <b>Draft Quality</b> 600 x 150 DPI
<b>IMAGE AREA</b>	1-1/2" x 14"
<b>PRINT ORIENTATION</b>	Normal and Reverse
<b>INK MONITOR</b>	Via Display
<b>FONTS</b>	All TrueType fonts available on PC
<b>GRAPHICS, LOGOS, AND BARCODES</b>	Allows printing of graphics, logos, and barcodes
<b>MATERIAL SIZE</b>	<b>Length:</b> 5" to 14" <b>Width:</b> 3" to 14"
<b>MATERIAL THICKNESS</b>	Up to 1/8"
<b>FEEDER CAPACITY</b>	Up to 300 #10 envelopes
<b>MEMORY</b>	12 MB
<b>PRINT COLORS</b>	Versatile Black and General Black, Red, Blue, Green, and Yellow
<b>INK</b>	Water-based, may require drying assistance for coated stock
<b>SOFTWARE</b>	Windows™ Printer Drivers for Windows™ 98, 2000, NT, ME, and XP
<b>DIAGNOSTICS</b>	Built into firmware
<b>FIRMWARE UPDATE</b>	Via PC interface in flash PROMS.
<b>PC INTERFACE</b>	Parallel and USB
<b>COUNTERS</b>	One operator resettable job counter, one permanent lifetime counter
<b>DUTY CYCLE</b>	<b>AstroJet 300:</b> 18 million addresses total or 300,000 per month over a 5-year life cycle. <b>AstroJet 500:</b> 45 million addresses total or 750,000 per month over a 5 year life cycle.
<b>DIMENSIONS</b>	19" H x 21" L x 20.5" W (482.6 mm H x 533.4 mm L x 520.7 mm W)
<b>WEIGHT</b>	53 lbs. (24.1 kg.)
<b>ELECTRICAL</b>	115VAC or 240VAC 50/60 Hz
<b>OPTIONS</b>	HP Red, Green, Blue or Yellow, or Versatile Black plus General Black, Conveyor/Stacker, Drop Tray

**All Specifications Subject To Change Without Notice**



## **APPENDIX B – *Supplies and Optional Hardware***

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

### ***Supplies***

<b>Red Inkjet Cartridge</b>	HPC6168A
<b>Green Inkjet Cartridge</b>	HPC6169A
<b>Blue Inkjet Cartridge</b>	HPC6170A
<b>Yellow Inkjet Cartridge</b>	HPC6173A
<b>Versatile Black</b>	HPC8842A
<b>General Black</b> ( <i>works on high gloss media when used with dryer</i> )	IQ2392

### ***Optional Hardware***

<b>Conveyor /Stacker Available</b>	
<b>Drop Tray</b>	



- Key	3	<b>Install</b>	
+ Key	3	Inkjet Cartridges	6
+/- Keys	11	Printer	5
<b>A</b>		Printer Driver	7
Adjustment Knob, Media Thickness	1	Inverse Printing	14
<b>C</b>		<b>J</b>	
Choose Location	5	<b>Jams</b>	
Circuit Breaker, Motor	2	Printer	23
<b>Cleaning</b>		Removing	23
Feed & Forwarding Rollers	24	<b>L</b>	
Media Sensor	24	LCD Display	1, 3
Printer	24	<b>M</b>	
Printhead	22	<b>Maintenance</b>	21
Computer Connection	5	Cleaning	24
<b>Connecting</b>		Inkjet Cartridges	21
Computer	5	Media Sensor	24
Printer	5	Media Side Guides	1
<b>Control Panel</b>	1	MENU Key	3, 9
- Key	3	Microsoft Word, Printing	15
+ Key	3	<b>N</b>	
+/- Keys	11	Nozzles, Purging	23
ENTER Key	3, 11	<b>O</b>	
Fault Indicator	3	ON LINE Key	3, 11
LCD Display	1, 3	Operating Printer	9
MENU Key	3, 9	<b>P</b>	
ON LINE Key	3, 11	Paper Tab	14
RESET key	3	Parallel Port	2
RESET Key	11	Power Receptacle	2
TEST Key	9	Power Switch, Main	2
TEST PRINT Key	3	Print Heads Tab	14
<b>D</b>		<b>Printer</b>	
DeskTop Mailer, Printing	17	Circuit Breaker, Motor	2
Disposal, Inkjet Cartridges	22	Cleaning	24
<b>E</b>		Connecting	5
ENTER Key	3, 11	Control Panel	1
<b>F</b>		DeskTop Mailer	17
FAULT Indicator	3	Feed Set-up	6
Features Tab	12	Fuse, Main Power	2
Feed Rollers	24	Inkjet Cartridges	6
Feed Set-up	6	Install	5
Forwarding Rollers	24	Jams	23
Fuse, Main Power	2	Maintenance	21
<b>H</b>		Media Sensor	24
Hardware, Optional	28	Media Side Guides	1
<b>I</b>		Media Thickness Adj. Knob	1
<b>Inkjet Cartridges</b>		Microsoft Word	15
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