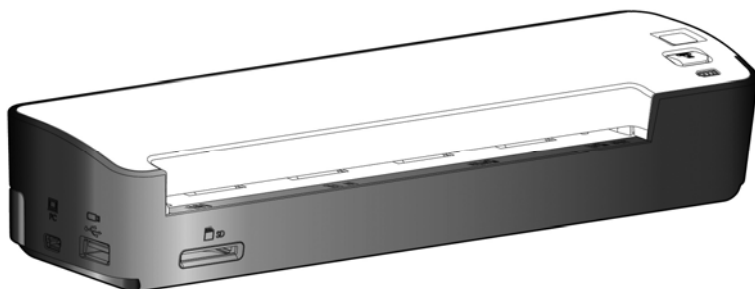


# **A4 Portable Scanner**

## **User's Guide**



**Avision Inc.**

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## **FCC Radio Frequency Interference Statement**

This product has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. The FCC Class B limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult your point of purchase or service representative for additional suggestions.



## **European Union Regulatory Notice**

Products bearing the CE marking comply with the following EU Directives:

- Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC

CE compliance of this product is valid if powered with the correct CE-marked AC adapter provided by Avison.

This product satisfies the Class B limits of EN55022, EN55024 and safety requirements of EN 60950.

## **CE Warning**

This product satisfies the Class B limits of EN55022, EN55024 and safety requirements of EN 60950.

## **Warning and cautions in using the lithium ion battery**

### **Warning:**

Danger warning to prevent the possibility of the battery from leaking, heating, explosion, please observe the following precautions:

- Don't immerse the battery in water and seawater. Please put it in cool and dry environment if no using.
- Do not discard or leave the battery near a heat source as fire or heater
- Being charged, using the battery charger specifically for that purpose
- Don't reverse the positive and negative terminals
- Don't connect the battery to an electrical outlet directly.
- Don't connect the positive and negative terminal directly with metal objects such as wire. Short terminals of battery is strictly prohibited, it may damage battery.
- Do not transport and store the battery together with metal objects such as necklaces, hairpins.
- Do not strike, throw or trample the battery.
- Do not directly solder the battery and pierce the battery with a nail or other sharp object
- Do not use lithium ion battery and others different lithium polymer battery model in mixture
- Prohibition of use of damaged cells
- Don't bend or fold sealing edge. Don't open or deform folding edge Don't fillet the end of the folding edge
- Don't fall, hit, bend battery body.
- Battery pack designing and packing Prohibition injury batteries.
- Never disassemble the cells.
- The battery replacement shall be done only by either cells supplier or device supplier and never be done by the user.
- Keep the battery away from babies.
- Any components contacting these two edges, they must be insulated.

**Caution:**

- Do not use or leave the battery at very high temperature conditions (for example, strong direct sunlight or a vehicle in extremely hot conditions). Otherwise, it can overheat or fire or its performance will be degenerate and its service life will be decreased.
- Do not use it in a location where is electrostatic and magnetic greatly, otherwise, the safety devices may be damaged, causing hidden trouble of safety.
- If the battery leaks, and the electrolyte get into the eyes. Do not wipe eyes, instead, rinse the eyes with clean running water, and immediately seek medical attention. Otherwise, eyes injury can result.
- If the battery gives off an odor, generates heat, becomes discolored or deformed, or in any way appear abnormal during use, recharging or storage, immediately remove it from the device or battery charge and stop using it.
- In case the battery terminals are dirt, clean the terminals with a dry cloth before use. Otherwise power failure or charge failure may occur due to the poor connection with the instrument.
- Be aware discharged batteries may cause fire; tape the terminals to insulate them.

## **Disposal of Waste Equipment by Users in Private Union**



This symbol on the product or on its packaging indicates that the product can not be disposed of with your other household waste. Instead it should be sent to appropriate facilities for recovery and recycling in an effort to protect human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

## **System Requirements**

- IBM compatible PC 586, Pentium or higher
- Microsoft Windows XP SP3, Windows Vista/Windows 7
- At least 100 MB of free hard disk space (500 MB is recommended)
- At least 128 MB of system memory (512 MB of RAM is recommended)
- At least 1 GB of RAM for Windows Vista/7
- USB port 2.0 (compatible with USB 1.0)

# Table of Contents

<b>1. INTRODUCTION .....</b>	<b>1-1</b>
1.1 Scanner Package .....	1-2
<b>2. SCANNER OVERVIEW.....</b>	<b>2-1</b>
2.1 Front view.....	2-1
2.2 Side view.....	2-3
2.3 Rear view .....	2-4
<b>3. INSTALLATION &amp; OPERATION FOR EASY MODE (SD/FLASH MODE) .....</b>	<b>3-1</b>
3.1 Installing the battery .....	3-2
3.2 Charging the battery from the adapter or the computer .....	3-3
3.3 Inserting a memory card or a USB flash drive ..	3-6
3.4 Turning on the scanner.....	3-7
3.5 Scanning an original .....	3-7
3.6 Scanning a photo.....	3-10
3.6.1 Using a plastic sheath.....	3-11
3.7 Turning off the scanner.....	3-13
<b>4. INSTALLATION &amp; OPERATION FOR ADVANCED SCAN .....</b>	<b>4-1</b>
4.1 Installing the Scanner Driver and Cables .....	4-1
4.1.1 Installing the Scanner Driver .....	4-2
4.1.2 Turning on the Scanner .....	4-3
4.1.3 Switching to "PC" Mode.....	4-4
4.1.4 Connecting to Computer .....	4-4
4.2 Placing Your Document .....	4-6
4.2.1 Notice on Using the ADF .....	4-6
4.2.2 Loading Paper to the Paper Feed Slot..	4-7
4.2.3 Loading A Card to the Paper Feed Slot	4-8
4.3 Verifying Your Scanner Installation.....	4-9
4.4 A Glance of the Scanner Properties Dialog Box .....	4-13
4.5 Scan from the scanner button.....	4-14



<b>5.</b>	<b>ENHANCING YOUR IMAGE QUALITY WITH THE SCANNER PROPERTIES DIALOG BOX .....</b>	<b>5-1</b>
5.1	Buttons on the Scanner Properties Dialog Box .	5-2
5.2	The Image Tab .....	5-4
5.2.1	The Image Selection Box.....	5-5
5.2.2	Other Image Options .....	5-8
5.2.3	Scanning color images .....	5-18
5.2.4	Scanning grayscale images.....	5-19
5.2.5	Scanning B&W images .....	5-19
5.2.6	Editing Profiles .....	5-20
5.3	The Compression Tab .....	5-23
5.4	The Color Dropout Tab .....	5-25
5.4.1	Color Dropout Selection .....	5-25
5.4.2	Other Color Dropout Options.....	5-27
5.5	The Paper Tab .....	5-29
5.5.1	Cropping.....	5-30
5.5.2	Other Paper Selection .....	5-32
5.6	The Multi-Feed Detection Tab.....	5-35
5.6.1	Relative to Document .....	5-42
5.7	The Preview Tab .....	5-45
5.8	The Options Tab.....	5-46
5.9	The Setting Tab .....	5-54
5.10	The Imprinter Tab .....	5-57
5.11	The Information Tab .....	5-60
<b>6.</b>	<b>USING THE BUTTONS IN PC MODE.....</b>	<b>6-1</b>
6.1	Installing Button Manager.....	6-1
6.2	Checking Button Configurations Before Scanning.....	6-1
6.3	Customizing Your Button Settings.....	6-3
6.4	Adding A New Destination Application .....	6-5
6.5	Scanning From One Touch of the Button.....	6-7
<b>7.</b>	<b>SCANNING DOCUMENTS TO YOUR IPAD OR SMARTPHONE .....</b>	<b>7-1</b>
7.1	Scanning photos to iPad .....	7-1
7.2	Scanning documents to a SmartPhone .....	7-4
7.3	Scanning documents to a Macintosh computer .	7-5

<b>8. MAINTENANCE .....</b>	<b>8-1</b>
8.1 Calibrating the Scanner.....	8-1
8.2 Cleaning the Scanner Glass .....	8-3
<b>9. TROUBLESHOOTING .....</b>	<b>9-1</b>
9.1 Questions in "Scan to SD/Flash" Mode .....	9-1
9.2 Questions in "Scan to PC" Mode .....	9-3
9.3 The System LED Light Pattern.....	9-4
<b>10. SPECIFICATIONS.....</b>	<b>10-1</b>

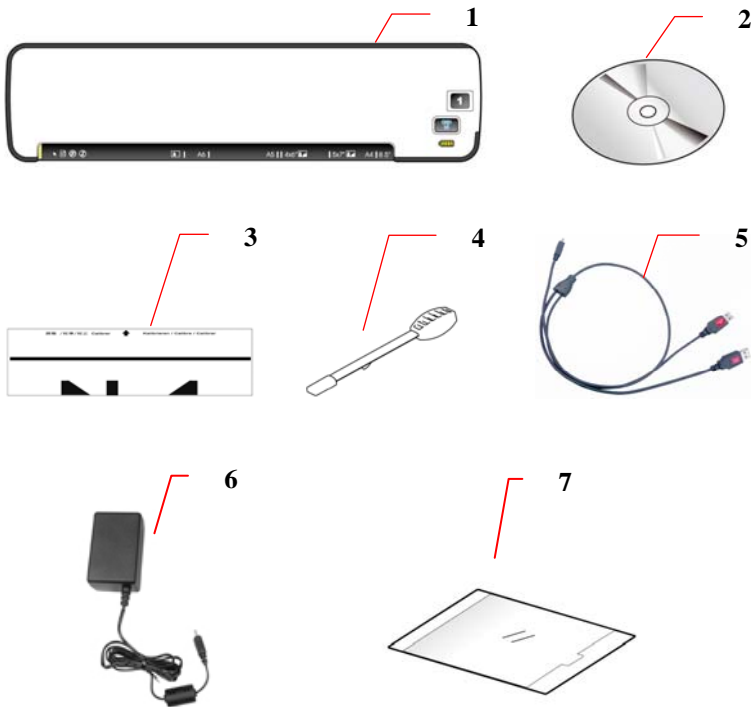
# 1. Introduction

Congratulations on your purchase of the scanner. This scanner provides you flexibility to start instant scans without connecting it to a computer or you may use like a regular scanner to start advanced scans by installing the software and connecting it to a computer.

Before you install and operate the product, please take a few minutes to read through this manual. It provides proper instructions for you to install, operate and maintain the product.

The following figure indicates the package contents. Please check all the items against your checklist. If you do not receive all the items, please contact your authorized local dealer immediately.

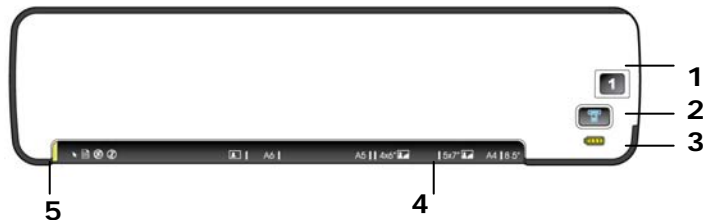
## 1.1 Scanner Package






1. Scanner main unit
2. CD (Software, User's Guide)
3. Calibration chart
4. Cleaning swab
5. USB Y cable
6. Power adapter and USB power cable
7. Plastic Sheath for Photo

## 2. Scanner Overview

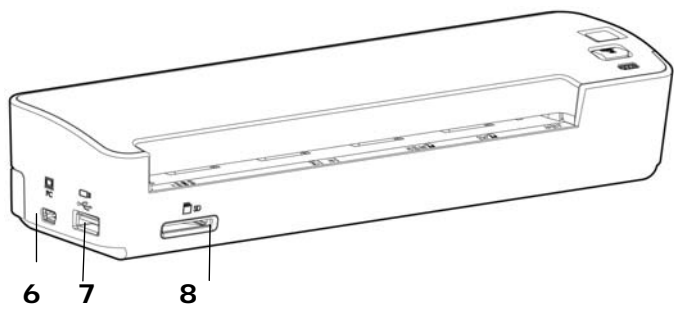
### 2.1 Front view



No.	Name	Function/ Description
1	Power LED and Knob (  )	Move the knob to “1” ~ “5” to turn on and “OFF” to turn off the scanner.
2	Scan or Custom Button (  )	<b>In “SC/Flash” Mode:</b> Press the button for 2 seconds to start calibrating the scanner. <b>In “PC” Mode:</b> Press to start a scan.
3	Battery LED (  )	Indicate the battery status. <b>Green LED:</b> Indicates the ready status. <b>Orange LED:</b> Indicates the power charging status. <b>Red LED:</b> Indicates the power capacity is in low status (about 20%).

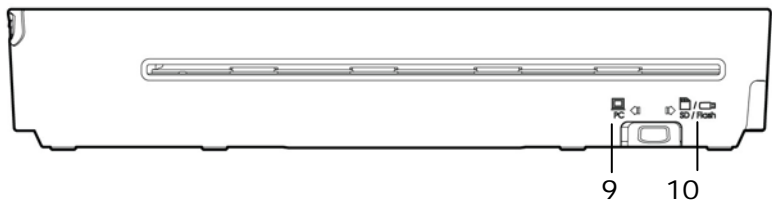
4	System LED	<p><b>Green LED:</b> Indicate the ready status.</p> <p><b>Green Blinking:</b> Indicate the scanning and saving status.</p> <p><b>Red Blinking:</b> Indicate the following status:</p> <ul style="list-style-type: none"> <li>• No SD card/Flash drive inserted</li> <li>• SD card/Flash drive Memory full</li> <li>• Wrong SD Card.</li> </ul>
5	Feeding Slot	Insert an original to start scanning.

2.2 Side view



6	Mini USB connector	Connect the scanner to a computer via a USB Y cable for data transmission and battery charge.
7	USB Flash Drive Slot	Insert a USB flash drive.
8	Memory Card Slot	Insert a memory card.

**2.3 Rear view**



9	PC Mode	Move to “PC” mode to connect the scanner to a computer via the mini USB cable and use the scanner like a regular scanner.
10	SD/Flash Mode	Move to “SD Flash” mode to start instant scan and save your scanned images to a SD card or a USB flash drive.



## 3. Installation & Operation For Easy Mode (SD/Flash Mode)

### Precautions

- Keep the product out of direct sunlight. Direct exposure to the sun or excessive heat may cause damage to the unit.
- Do not install the product in a humid or dusty place.
- Place the product securely on an even, flat surface. Tilted or uneven surfaces may cause mechanical or paper-feeding problems.
- Retain the product box and packing materials for shipping purposes.

To start instant scans from this scanner - to scan and save your images to a SD card or a USB flash drive, you need to first install and charge the battery. Follow these steps to charge the battery from your computer.

---

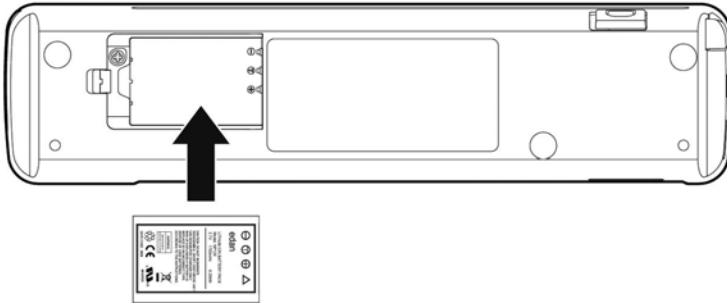
### Important:

- Allow the battery to charge for at 8 hours. The battery must be fully charged before using the scanner for the first time.
  - Do not turn on the scanner power when charging the battery.
-

### 3.1 Installing the battery

To install the battery into the scanner,

1. Open the battery cover underneath the scanner.
2. Load the battery into the battery container. Make sure the battery is loaded with the correct polarity. Note the copper strips on the battery should be touching the copper strips on the device inside the battery container.



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**Note:**

The recommended battery model is NP120 for 3.7V 1700mAh/6.29Wh.

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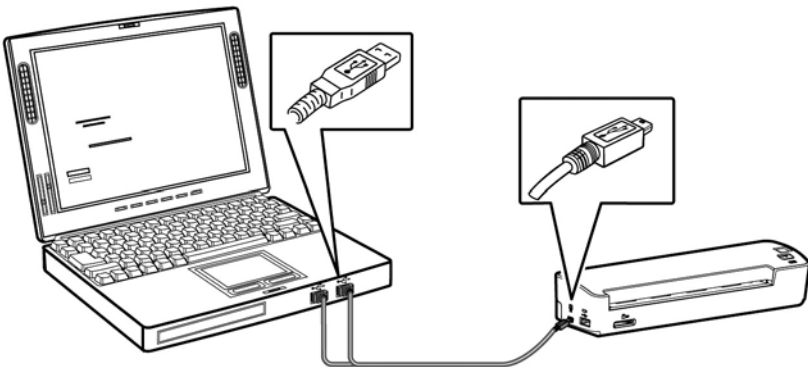
### 3.2 Charging the battery from the adapter or the computer

1. Turn off your scanner by moving the "POWER" knob to the "OFF" position.



To charge the battery from the computer, please follow these steps:

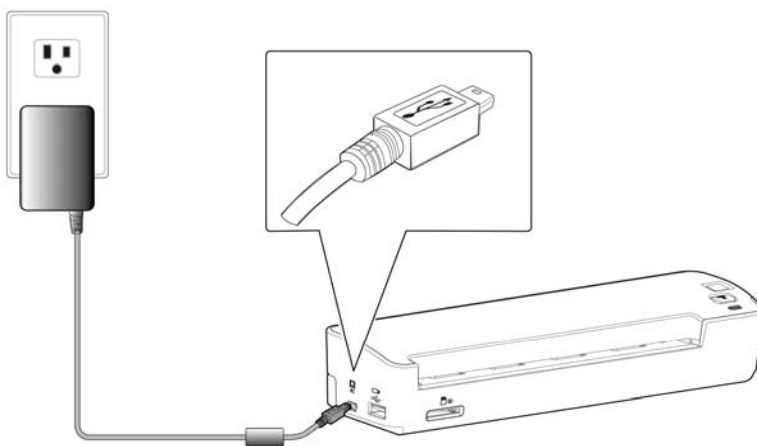
- a. Connect the mini end of the supplied USB Y cable to the mini USB connector of the scanner.
- b. Turn on your computer, and then connect the other two rectangle ends of the USB cable to two USB ports on your computer.



Or

To charge the battery from the supplied power adapter, please follow these steps:

- a. Connect the mini USB connector of the supplied power cable to the mini USB port of the scanner.
- b. Connect the other end to a power outlet.



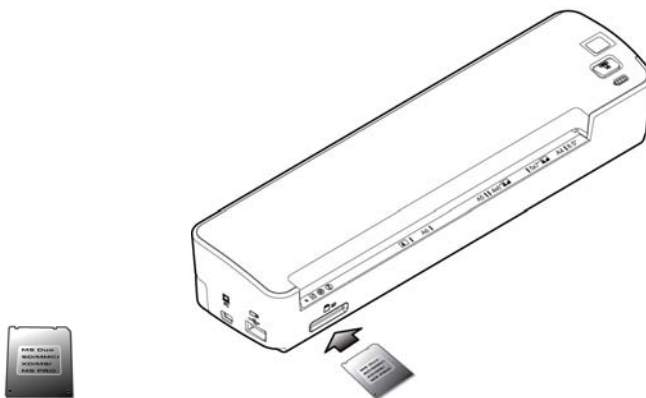
2. During the charging process, the battery LED light will be lit in orange. When the power capacity is full, the battery LED light will be lit in green.

**Note:**

- One end of the supplied USB Y cable includes two USB connectors. These two connectors (one labeled “**Power Cable**”, the other labeled “**Data Cable**”) are used to connect to your computer at the same time to increase the transferring speed. However, if only one USB port is available from your computer, please plug the connector labeled “**Power Cable**” to your computer while charging the battery and plug the connector labeled “**Data Cable**” to your computer while downloading the images.
- Use the supplied USB Y cable only to this scanner. Using this USB Y cable to other devices may cause your computer to malfunction.
- If the battery is fully charged, an A4-size page can be scanned in color for 250 times.
- If there is not enough battery power to perform a scan, the system LED will be flashing in red color.

### 3.3 Inserting a memory card or a USB flash drive

Insert a memory card with the copper strips face down in the SD slot on the back of the scanner.



**Or**

If you have a USB flash drive, you can connect it to the USB port on the back of the scanner instead of using a memory card.



### 3.4 Turning on the scanner

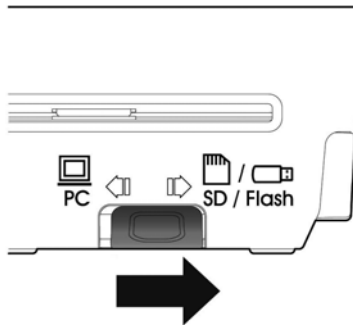
1. Move the **POWER** knob to any number between "1" and "5" to turn on the scanner.



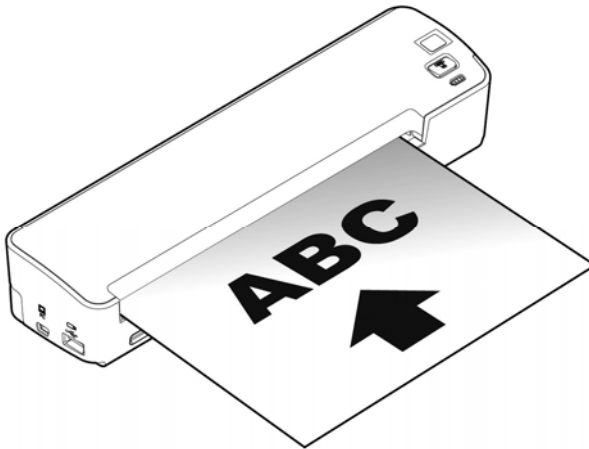
2. The System LED will be first lit in red and then lit in green steadily. This indicates the scanner is in ready status.

### 3.5 Scanning an original

1. To start easy mode to save your images to your SD card or USB flash drive, please turn the operation mode to "**SC/Flash**" at the rear of the scanner as indicated.



2. If you wish to save your images to JPEG file format, turn the **POWER** knob to "1".  
  
To save images to PDF file format, turn the POWER knob to "2".  
  
To save your images to TIFF file format, turn the POWER knob to "3".
3. Insert your document **FACE UP** into the feeding slot.
4. Align your document to the left edge of the feeding slot as indicated.



5. The scanner starts scanning the original when the paper has been fed into the feeding slot.
6. If the output file format is preset to JPEG, the scanner will automatically create a folder titled "**DCIM**" and its subfolder "**100Photo**" on your memory card or USB flash drive, which will hold the first 9999 scans. Then "**101Photo**" folder will be added for the next 9999 scans, and so on.



If the output file format is preset to PDF, the scanner will automatically create a folder titled "**DCIM**" and its subfolder "**100DOC**" on your memory card or USB flash drive, which will hold the first 9999 scans. Then "**101DOC**" folder will be created for the next 9999 scans, and so on.

(Each scanned image is given a file name with the prefix **IMG/DOC** followed by an underline and a 4-digit sequential number in the order the images are stored. For example, **IMG\_0001.jpg**, **IMG\_0002.jpg/IMG\_0001.pdf**, **IMG\_0002.pdf**, etc.)

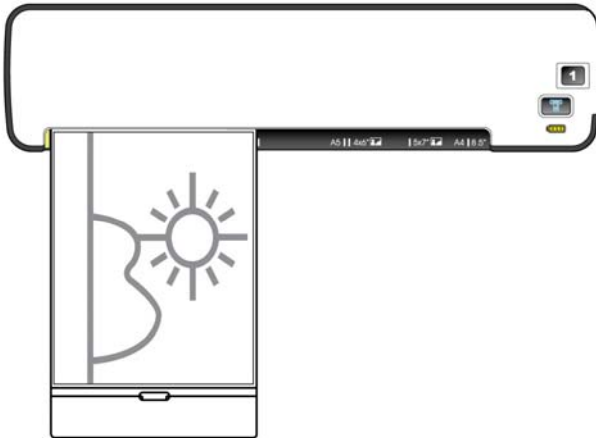
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**Note:**

- If the memory card is near full (lower than 1MB), the indicator light blinks.
  - Use another card or delete some files on it if necessary.
  - Insert only one original at a time, and insert the next original only when the previous one is done and the blinking has stopped, otherwise the scanner may malfunction.
  - Remove the things remained on the photo, such as staples, paper clips, and paper sticky notes before feeding it into the scanner due to possible damage to the scanner.
-

### 3.6 Scanning a photo

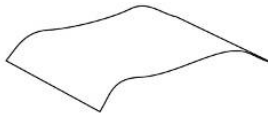
1. Insert your photo into the plastic sheath supplied with the scanner. (The detailed usage of the plastic sheath is described in the next page.)



2. With the side to be scanned facing upward and in correct orientation, place the left edge of the original against the left edge of the feeding slot.
3. Simply let go the original when it begins to feed into the slot.

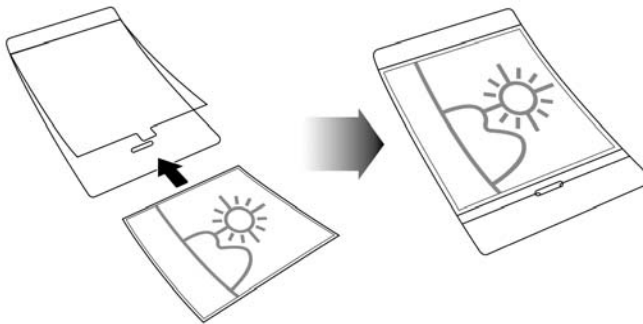
### 3.6.1 Using a plastic sheath

Always use the clear plastic sheath (*included*) when scanning photos to ensure the best scanning results. The sheath helps eliminate the possibility of de-focusing due to the uneven surface of curled photos.



Curled photo

1. Insert the photo into the plastic sheath as shown below.



2. Insert the plastic sheath, flat and level, into the scanner's feeding slot, folded side first, image facing up.

---

**Note:**

- Keeping the original flat and level when feeding prevents possible jamming.
  - Keep originals free from finger prints, oil, dirt, and dust for optimum scanned image quality.
  - Remove photos from the plastic sheath after scanning to prevent the sheath from sticking to the photos over time.
  - If the plastic sheaths are not in use, store them in a safe place and keep them protected from accumulating dust.
-

### 3.7 Turning off the scanner

After all originals are scanned, turn the **POWER** knob to "OFF". Now you can safely remove the memory card or flash card from the scanner.

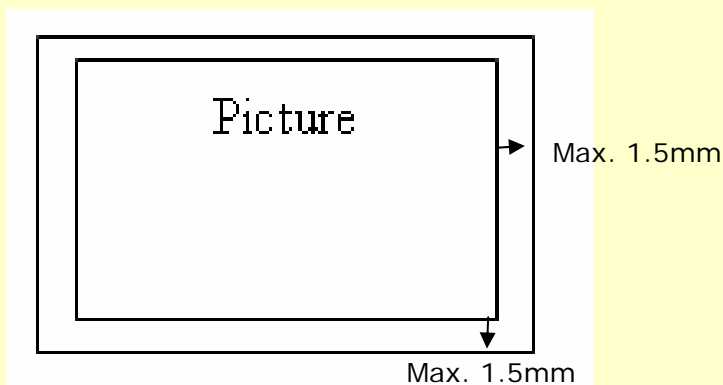


---

#### Important!

1. Insert only one page or one photo at a time, and insert the next one only when the previous one is done. Otherwise, the scanner may malfunction.
2. The paper detector is quite sensitive. Please do not push your photo or card into the feeding slot or the top of your image will be cut. Simply let go the photo (card) when it begins to feed into the slot.
3. The acceptable paper size is 2"x 2" ~ 8.5" x 11.69".
4. Do not use the following types of originals for scanning; otherwise the scanner may malfunction or cause the original to jam in the slot.
  - Originals thicker than 0.8 mm
  - Originals with either side shorter than 55mm
  - Originals with lots of black or dark colors
  - Originals with dark colors surrounding the edges
  - Transparencies(filmstrips, celluloid, etc.)
  - Printed images (pictures on newspapers, magazines, etc.)
  - Soft and thin materials (thin paper, cloth, etc.)
  - Originals that exceed the acceptable size

5. The scanner has a built-in cropping function that is capable to detect and crop the edges of an original. The max cropping size is 1.5mm per edge, as illustrated below:



## 4. Installation & Operation For Advanced Scan

By switching to the "PC" mode, installing the scanner driver and connecting the scanner to a computer, you can scan via the TWAIN user interface from your image-editing software application and enhance your image quality with various features.

### 4.1 Installing the Scanner Driver and Cables

**Note:**

1. The Windows system CD may be required when installing on some PC's.
2. To ensure your computer can identify the USB scanner, please install scanner driver first before connecting the scanner to your computer.

### 4.1.1 Installing the Scanner Driver

1. Place the supplied CD-ROM onto your CD-ROM drive.
2. The software installation graphic appears. If not, run "**setup.exe**".



#### Contents on the installation graphic:

- **Install Button Manager:** To use the buttons on the scanner, you need to install Button Manager. To ensure Button Manager works properly, please FIRST install Button Manager before installing the scanner driver.
- **Install Scanner Driver:** To communicate with your scanner, you need to install the scanner driver. After installing the Button Manager software, click **Install Scanner Driver** to install the scanner **driver on your computer**.

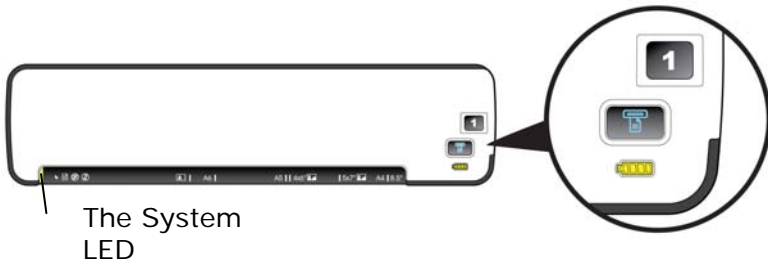


- **Install Adobe Reader:** To view the user's manuals for the scanner and Button Manager, you need to use Adobe Reader to open and view the manuals in PDF file format. If you already have Adobe Reader installed on your computer, you may disregard this item.
- **View Manual:** Click "**View Manual**" to view or print the detailed user manual for the scanner and Button Manager respectively.

3. Click **Install Button Manager** to install the Button Manager software and then click **Install Scanner Driver** to install the scanner driver on your computer.

#### 4.1.2 Turning on the Scanner

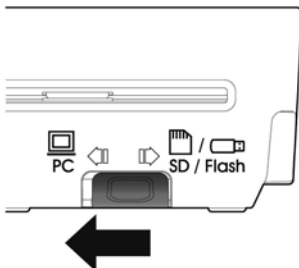
1. Move the **POWER** knob to any number between "1" and "5" to turn on the scanner.



2. The System LED will be first lit in red and then lit in green steadily. This indicates the scanner is in ready status.

### 4.1.3 Switching to “PC” Mode

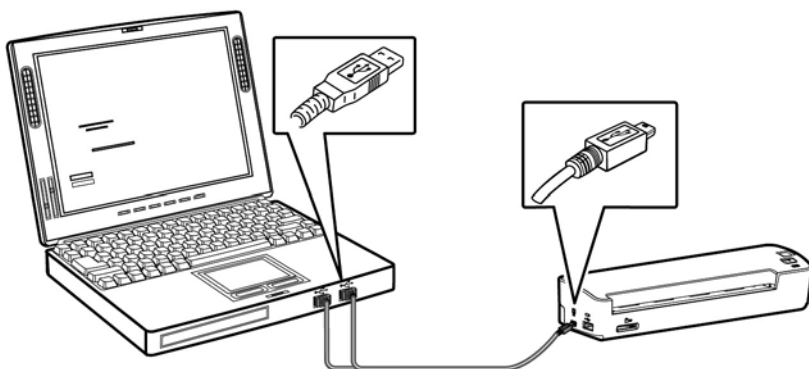
To start easy mode to save your images to your SD card or USB flash drive, please turn the operation mode to “**SC/Flash**” at the rear of the scanner as indicated.



### 4.1.4 Connecting to Computer

The scanner will get its power from the computer through the USB cable. Use the USB cable that came with the scanner to connect the scanner to the computer.

1. Connect the **square end** of the USB cable to the USB port of your scanner. Connect the **rectangle end** to the USB port of your computer.



2. The computer should detect a new USB device and prompt a **“New Hardware Found”** message.
3. In Windows 2000, confirms that the **“Search for a better driver.”** is selected and click the **“Next”** button.

In Windows XP, click the **Next** button to continue. When the XP certification screen appears, click **Continue Anyway** to complete the installation.

In Windows Vista, click the **Recommended** option, and then click **Continue** button to complete the installation.

4. When the **Finish** dialog is prompted, click the **Finish** button.
5. Click **“View Manual”** to view or print the detailed user manual for the scanner and bundled applications respectively.

## **4.2 Placing Your Document**

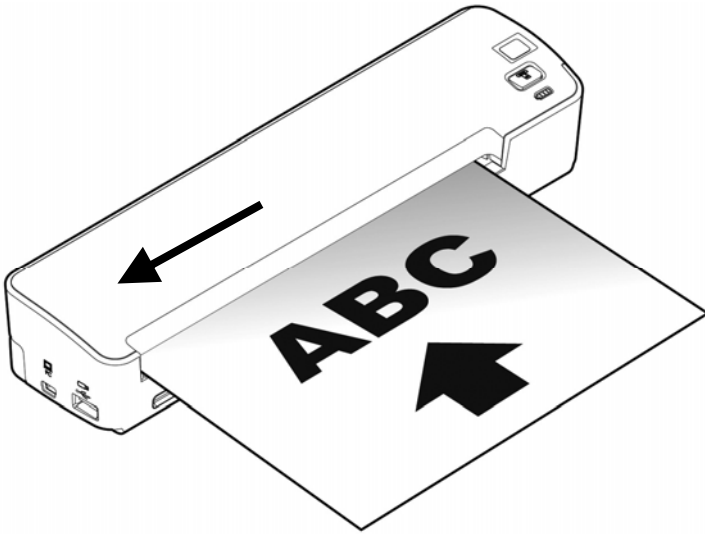
### **4.2.1 Notice on Using the ADF**

Before using the ADF, please make sure that your paper meets the following specifications:

- Document(s) can range in size from 2.9 by 2.1 inches to 8.5 by 14 inches (Legal).
- Document(s) can range in weight from 13.3 to 32 lbs (50 ~ 120 g/m<sup>2</sup>)
- Plastic ID card up to 1.25 mm thick
- Document(s) should be square or rectangular and in good condition (not fragile or worn).
- Document(s) should be free of curl, wrinkle, tears, wet ink, or punch holes.
- Document(s) should be free of staples, paper clips, paper sticky notes.

### 4.2.2 Loading Paper to the Paper Feed Slot

1. Insert your document facing up to the paper feed slot.
2. Align the original to the left side of the paper feed slot.





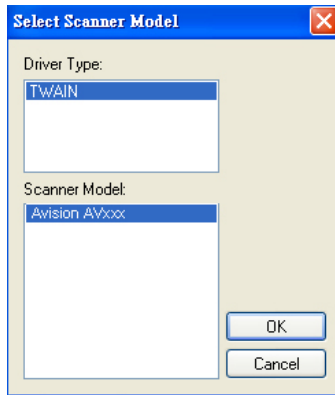
### 4.3 Verifying Your Scanner Installation

To verify if your scanner installation is correct, Avision provides you a useful test program called Avision Capture Tool. With this tool, you can perform simple scans and view the captured images. In addition, it helps you complete your scan at a rated speed.

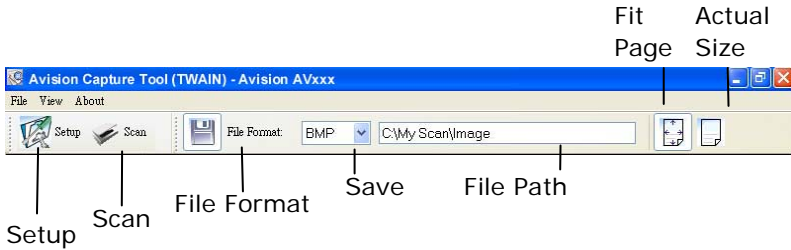
The following procedure describes how to verify your scanner installation. If the installation is not correct, please review the preceding section to check if the cable connection and scanner driver have been successfully installed.

Before you begin, be sure the scanner is on.

1. Select Start>Programs>Avision AVxxx Scanner>Avision Capture Tool.  
The Select Scanner Model dialog box will be displayed.



2. Select your driver type and scanner model and click OK.  
The following Avision Capture Tool dialog box will be displayed.



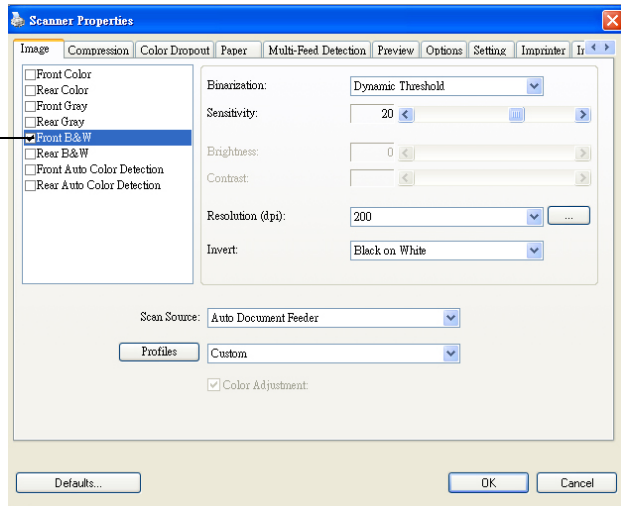
3. Choose your desired file format from the File Format drop down list box. (Default is BMP, other choice includes TIFF, GIF, and JPEG.)
4. Type your desired folder name and file name in the File Path box. (Default is C:\My Scan\Image.)

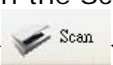
**Note:** If you do not wish to save the scanned image, deselect the Save button since default is Save Enable. In this case, the thumbnail view will be disabled. And therefore, after viewing all the scanned images, only the last one will remain on the screen.

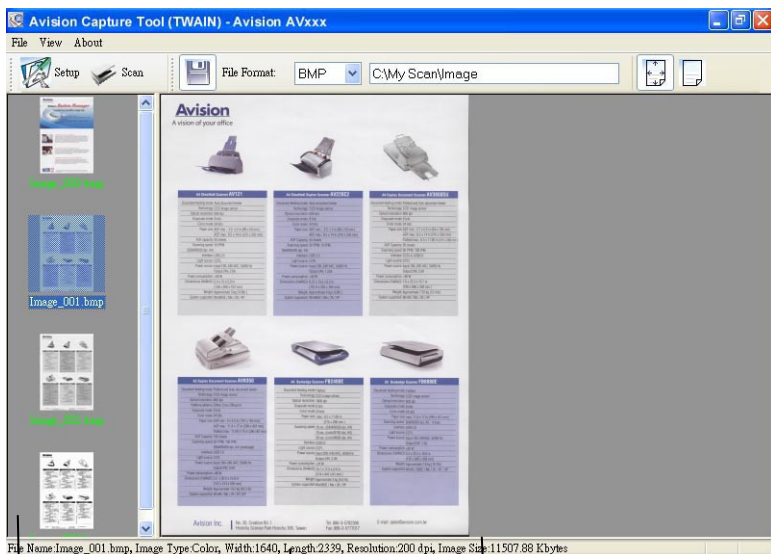
5. Click the Setup button (  ) or choose Setup from the File menu to prompt the Scanner Properties dialog box.



Image  
Selection  
Box



6. From the Image Selection Box, choose your desired image type for your scanned image. (Default is Front B&W) If you have a duplex scanner, choose Front and Rear to scan both sides of your document.
7. Click OK to quit the Scanner Properties dialog box. (To learn more details about the Scanner Properties dialog box, please see the subsequent chapter, *Using the Scanner Properties Dialog Box*.)
8. Place your document face down on the document glass or face up in the auto document feeder.
9. In the Scan Validation dialog box, click the Scan button  or choose Scan from the File menu.
10. The document will be scanned and displayed in the Scan Validation screen. After the scanned images have been displayed, your scanner installation verification is completed.




Thumbnail View

Status Bar

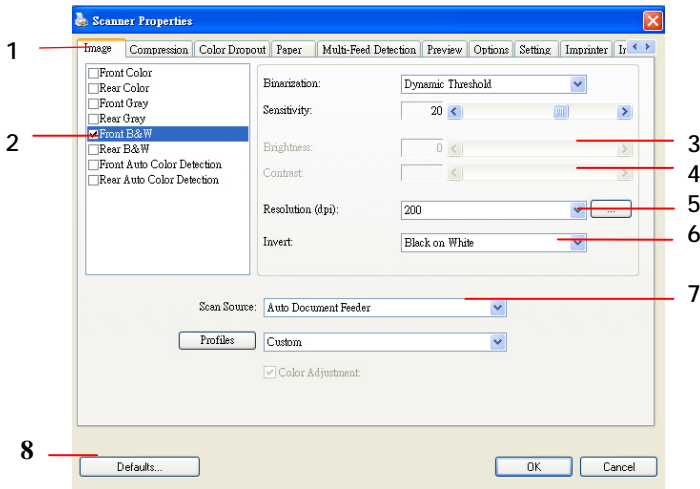
Fit Page View

11. You can view the scanned image in Fit Page View () or

Actual Size (100%) button () from the Viewing toolbars at the right side.

12. Click the Close box or Quit from the File menu to exit the Scan Validation Tool.


## 4.4 A Glance of the Scanner Properties Dialog Box



<b>1. Tab Options</b>	Choice: Image, Compression, Color Dropout, Paper, Options, Settings, Information.
<b>2. Image Selection Box</b>	Choose your image type and the side of document you wish to scan. Options vary based on type of scanner.
<b>3. Brightness</b>	Adjust the brightness level from –100 to +100.
<b>4. Contrast</b>	Adjust the contrast level from –100 to +100.
<b>5. Resolution</b>	Determine the quality of the scanned image. The industry standard is 200 dpi.
<b>6. Invert</b>	Reverse the color of your scanned image.
<b>7. Scan Source</b>	Choice: Auto Document Feeder, Flatbed, Flatbed (Book), Automatic (varies due to different scanner model)
<b>8. Defaults</b>	Reset all values on the tabs to the factory default settings.

## 4.5 Scan from the scanner button

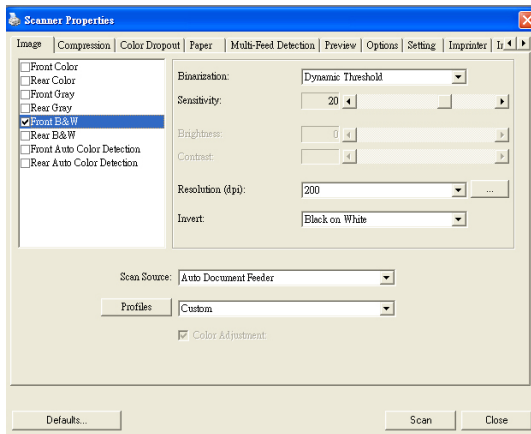
To scan using the scanner buttons, follow these steps:

1. Load the originals.
2. Press the **Scan** button () to start a scan. The Scan Progress Window will be displayed and the scanned image will be saved in a default location or a user defined location.

## 5. Enhancing Your Image Quality with the Scanner Properties Dialog Box

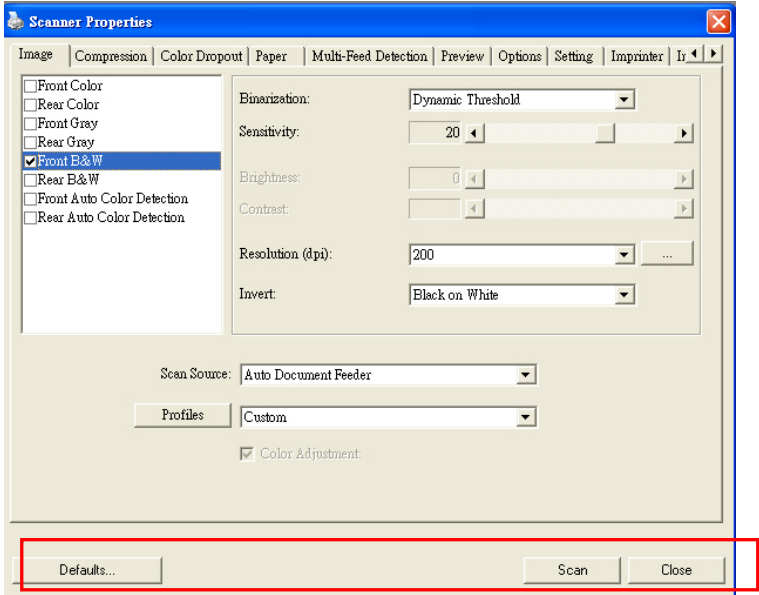
By switching to the "PC" mode, installing the scanner driver and connecting the scanner to a computer, you can scan via the TWAIN user interface (Scanner Properties dialog box) from your image-editing software application and enhance your image quality with various features.

The Scanner Properties dialog box allows you to configure the scanner's settings. It consists of several tabbed windows each of which will be described in this chapter.



**The Scanner Properties dialog box**

### 5.1 Buttons on the Scanner Properties Dialog Box



The buttons on the Scanner Properties dialog box

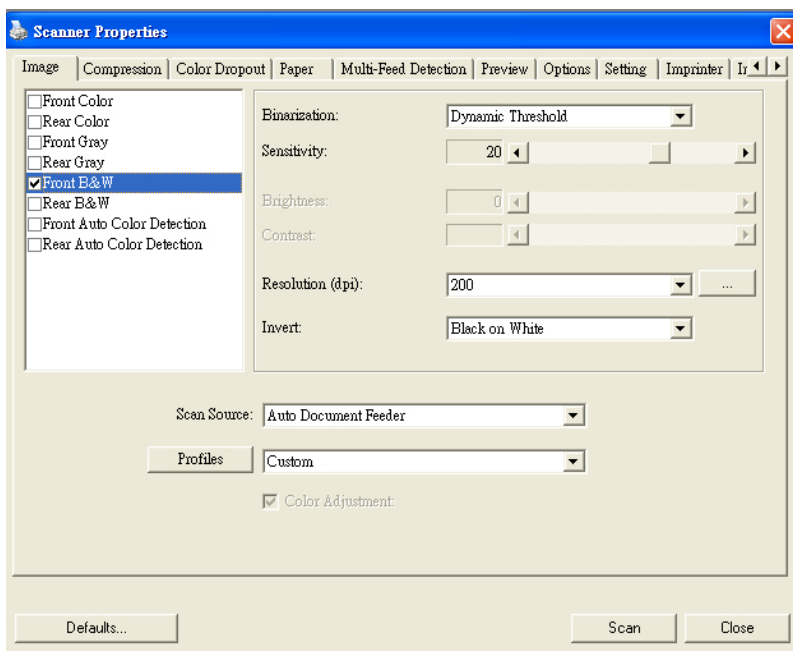
Buttons	Description
Defaults	Click the <b>Defaults</b> button, the factory default settings will be shown on each tab.
Scan	After all the scan settings are satisfactory, click the <b>Scan</b> button to start scanning your document.
Close	Click the <b>Close</b> button to leave the Scanner Properties dialog box.

The following table shows the default settings :

Tab name	Default settings
<b>Image</b>	Image : Front B&W Binarization : Dynamic Threshold Resolution : 200 dpi Invert : Blank on White Scan Source : Auto Document Feeder Threshold : None Brightness : None Contrast : None
<b>Compression</b>	None
<b>Color Dropout</b>	None
<b>Paper</b>	Cropping : Automatic Deskew : Yes Orientation : Portrait OverScan : 0.00 Multifeed Detection : None Unit : Inch
<b>Options</b>	Rotation Degrees : None Blank Page Removal : None Edge Fill : White , 0 mm Image Control Option : None
<b>Setting</b>	Enable Energy Saver : Enable, 15 minutes after last scan action Show Scanning Progress : Yes Show Warning Message : Yes Save Settings after Closing : Yes

## 5.2 The Image Tab

The Image tab allows you to choose the front side and (or) the rear side of your document, the type of image, and to set several basic scan settings. Note that except for the resolution, you can set individual scan settings for the front side and the rear side. For example, all settings in the Image tab, Compression tab, Color Dropout tab can be set individually for the front and the rear side. However, the settings in the Paper tab, the Option tab, and the Setting tab have to be set the same for the front and rear side.



**The Image tab dialog box**





## 5.2.1 The Image Selection Box

☒ Front Color  
☒ Rear Color  
☐ Front Gray  
☐ Rear Gray  
☐ Front B&W  
☐ Rear B&W  
☐ Front Auto Color Detection  
☐ Rear Auto Color Detection

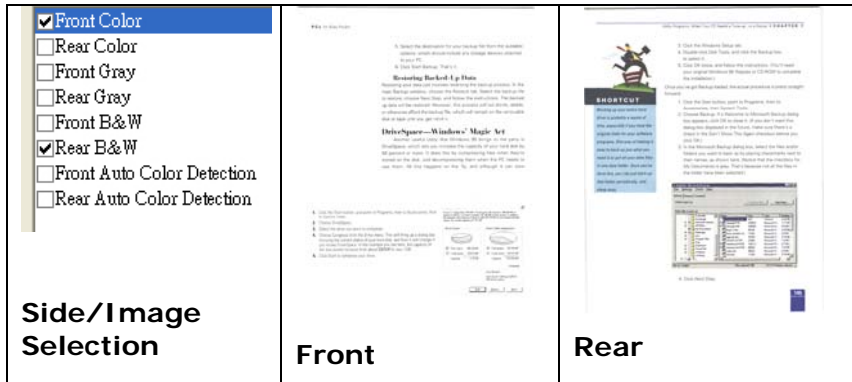
The Image Selection box includes the image type and document side option. If you wish to scan both the front side and the rear side of your color document, you can check both Front Color and Rear Color at the same time. Note the options vary based on type of scanner.

### Example 1 : Scanning a two-sided color document, both sides in color

<p> <input checked="" type="checkbox"/> Front Color  <input checked="" type="checkbox"/> Rear Color  <input type="checkbox"/> Front Gray  <input type="checkbox"/> Rear Gray  <input type="checkbox"/> Front B&amp;W  <input type="checkbox"/> Rear B&amp;W  <input type="checkbox"/> Front Auto Color Detection  <input type="checkbox"/> Rear Auto Color Detection         </p> <p><b>Side/Image Selection</b></p>	 <p><b>Front</b></p>	 <p><b>Rear</b></p>
--	---	--

1

## Example 2 : Scanning a two-sided color document, one in B&W(Drop Blue Color : Threshold : 10, Background : 79), the other in color



2

Image Type	Description
Color	Choose Color if you wish to scan a color image for your original in color.
Gray	Choose Gray image if your original contains actual shades of gray.
B&W	Choose B&W if your original contains only text pencil or ink sketch.

Notes:  
1. The software will scan the document in color, even when both sides are scanned, and save only B&W.  
2. Because the software scans the front of the document, the back of the document is not scanned.  
3. The software will scan the document in color, even when both sides are scanned, and save only B&W.

Setting a color image  
1. Select the image type of the document to be scanned.

2. Select the image type of the document to be scanned. The software will scan the document in color, even when both sides are scanned, and save only B&W.  
3. The software will scan the document in color, even when both sides are scanned, and save only B&W.

4. The software will scan the document in color, even when both sides are scanned, and save only B&W.  
5. The software will scan the document in color, even when both sides are scanned, and save only B&W.

6. The software will scan the document in color, even when both sides are scanned, and save only B&W.  
7. The software will scan the document in color, even when both sides are scanned, and save only B&W.

8. The software will scan the document in color, even when both sides are scanned, and save only B&W.  
9. The software will scan the document in color, even when both sides are scanned, and save only B&W.

10. The software will scan the document in color, even when both sides are scanned, and save only B&W.  
11. The software will scan the document in color, even when both sides are scanned, and save only B&W.

12. The software will scan the document in color, even when both sides are scanned, and save only B&W.  
13. The software will scan the document in color, even when both sides are scanned, and save only B&W.

14. The software will scan the document in color, even when both sides are scanned, and save only B&W.  
15. The software will scan the document in color, even when both sides are scanned, and save only B&W.

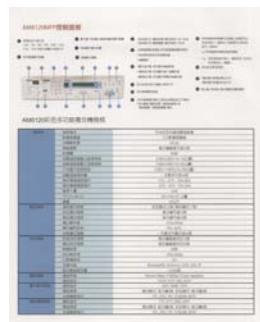
16. The software will scan the document in color, even when both sides are scanned, and save only B&W.  
17. The software will scan the document in color, even when both sides are scanned, and save only B&W.

18. The software will scan the document in color, even when both sides are scanned, and save only B&W.  
19. The software will scan the document in color, even when both sides are scanned, and save only B&W.

20. The software will scan the document in color, even when both sides are scanned, and save only B&W.  
21. The software will scan the document in color, even when both sides are scanned, and save only B&W.



Gray



Color

### **Front/Rear Auto Color Detection:**

Click to automatically detect and scan the front or the rear page of your color document in color image mode. If your document is in colors, the scanner will automatically scan the document into a color image. If your document is non-color, you can choose the output to be either B&W or Gray from the Non-Color Selection option. This option is useful when you have a mixture of color and non-color document.

Note: If you choose Front Rear Auto Color Detection, you can not specify the image mode of your rear page and vice versa.

### **Sensitivity of Auto Color Detection**

If your documents contain primarily B&W text and small amount of light or pale colors and you do not wish them to be recognized as color image to save the file size, you can reduce the sensitivity value by moving the bar to the left to let these images to be detected as B&W. The value ranges from 1 to 30. The default is 20.

## 5.2.2 Other Image Options

**Binarization** This is the process of converting a grayscale or color image to a bi-tonal image. There are several different methods of performing this conversion.  
**Options: Dynamic Threshold, Fixed Processing, Halftone 1 ~5, Error Diffusion.**

**Dynamic Threshold:** Selecting **Dynamic Threshold** allows the scanner to dynamically evaluate each document to determine the optimal threshold value to produce the highest quality image. This is used to scan mixed document containing faint text, shaded background, or color background with a single setting. If Dynamic Threshold is selected, Threshold, Brightness, and Contrast are not available.

### **Sensitivity of Dynamic Threshold**

Occasionally your scanned image may contain small dots or speckles. To remove these spots, increase the sensitivity value by moving the bar to the right. The value ranges from 1 to 30. The default is 20.

**Fixed Processing:** Used for black-and-white and other high contrast documents. A single level is set to determine the black-and-white transition. The threshold is programmable over the entire density range. **Fixed Processing** sets Contrast to 0. If **Fixed Processing** is selected, Contrast is not available.

**Halftone:** In addition to the black and white display, Halftone can present a somehow gray shade of image by using different size of dots. Halftone image looks like the picture we have seen in the newspaper. **Options include Halftone 1, Halftone 2, Halftone 3, Halftone 4, Halftone 5.**

**Error Diffusion:** Error Diffusion is a type of Halftone. Error Diffusion gives good image texture and makes text in images more readable than Halftone.



**Halftone Image**

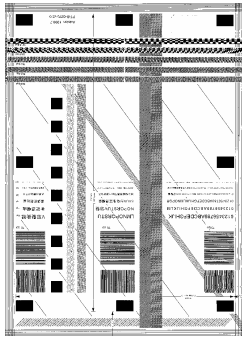


## Error Diffusion Image

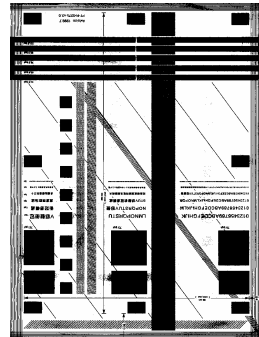
## Threshold

Used to convert a grayscale image to a bi-tonal image. The value ranges from 0 to 255. A low threshold value produces a lighter image, and can be used to subdue backgrounds and subtle, unneeded information. A high threshold value produces a darker image, and can be used to help pick up faint images.

Adjust the threshold setting by dragging the Threshold sliding bar to the left or right to achieve the desired threshold setting.



200 dpi,  
Threshold:80,  
Brightness: 0



200 dpi,  
Threshold:170,  
Brightness: 0

## Gray

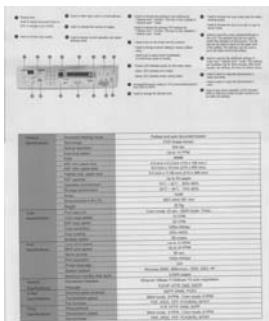
### **Document Type: Choice: Normal, Photo, Document**

Three options of document type are provided when you choose Gray as the image type for your scanned document. Choice: Normal, Photo, Document.

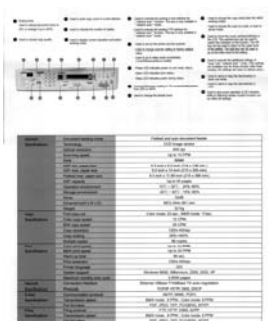
- **Document:** Choose Document if your original contains pure text or a mixture of text and graphic since it is an optimal setting for regular business document. When using Document, only Threshold can be adjusted.
- **Photo:** Choose Photo if your original contains photo to reproduce your photo in vivid grayscale image. When using Photo, no Threshold and Contrast can be adjusted.
- **Normal:** When using **Normal**, Threshold, Brightness, and Contrast can be adjusted.

**Threshold:** The value ranges from 0 to 255. The default is 230. A low threshold value produces a lighter image, and can be used to subdue backgrounds and subtle, unneeded information. A high threshold value produces a darker image, and can be used to help pick up faint images. Adjust the threshold setting by dragging the **Threshold** sliding bar to the left or right to achieve the desired threshold setting.

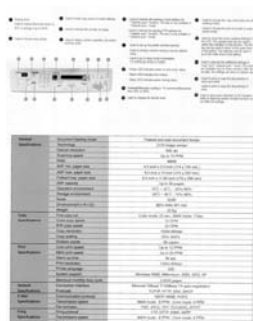




**Normal**



**Photo**



**Document  
(Threshold: 230)**



**Normal**



**Photo**

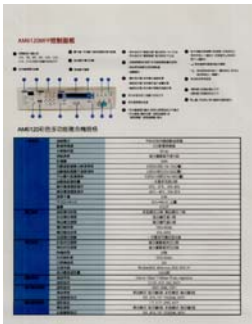


**Document  
(Threshold: 230)**

- Brightness**

Adjusts the lightness or darkness of an image. The higher the value, the brighter the image. Drag the slider to the right or left to increase or decrease the brightness. The range is from -100 to +100.
- Contrast**

Adjusts the range between the darkest and the lightest shades in the image. The higher the contrast, the bigger the different grayscale. Drag the slider to the right or left to increase or decrease the contrast. The range is from -100 to +100.



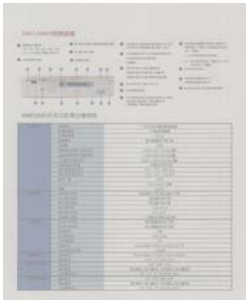
Brightness: -50



Brightness: 0  
(Normal)



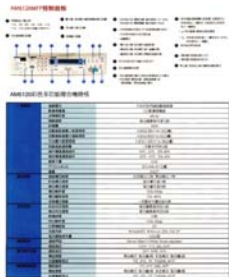
Brightness: +50



Contrast: -50



Contrast: 0  
(Normal)



Contrast: +50

## Resolution

A good control of the resolution results a good detail of an image that scans. The resolution is measured by dots per inch (dpi). Normally, the greater the dpi number, the higher the resolution and the image file size. Be aware that greater resolution takes more time to scan, and more disk space for the scanning image. For your information, an A4 size color image scanned at 300 dpi at True Color mode consumes approximately 25 MB of disk space. A higher resolution (usually means over 600 dpi) is only recommended when you need to scan a small area at True Color mode.

Choose a resolution value from the drop down list. The default value is 200 dpi. Available resolutions are 75, 100, 150, 200, 300, 400 and 600. Or you may choose your desired value by clicking the box in the right side of the drop down list and press the arrow key to select your desired value and then click the Add button to include it in the drop down list. **Note:** The resolution is up to 300 dpi if an imprinter or a MICR reader is installed or connected to the scanner.



Resolution: 75 dpi



Resolution: 150 dpi

**Invert** Reverses the brightness and the colors in the image. The default setting is Black on a White background. Reverse mode is White on a Black background. For color images, each pixel will be changed into its complementary color at the command of Invert.

**"I am not worthy to have you enter my**

that is God, I beg all my brothers - those who work manually, clerics and lay brothers  
ards being humble in all things; not to glorify  
r to become interiorly proud because of good w  
sometimes says or does in them or through t  
ord: "Do not rejoice... in the fact that the de  
: 10:20) Let us be firmly convinced of the fact

**Black on White**

**"I am not worthy to have you enter my**

that is God, I beg all my brothers - those who work manually, clerics and lay brothers  
e who work manually, clerics and lay brother  
ards being humble in all things; not to glorify  
to become interiorly proud because of good w  
sometimes says or does in them or through t  
ord: "Do not rejoice... in the fact that the de  
10:20) Let us be firmly convinced of the fact

**White on Black**

**Scan  
Source**

**Choice:**

- **Auto Document Feeder:** Used to scan multiple pages.
- **Flatbed:** Used to scan a single page. For example, pages from newspaper clipping, paper with wrinkles or curls.
- **Flatbed (book):** Used to scan several inside pages from book.
- **Automatic:** Allow the scanner automatically set its scan source. If **Automatic** is selected and there is document in both the auto document feeder (ADF) and the flatbed, then the scan source will be automatically set to ADF. If **Automatic** is selected and there is document only in flatbed, then the scan source will be set to flatbed.
- **Merge Two Sides into One Image:**  
If you have a sheet-fed duplex scanner with front input tray, you can scan an A3 size document with an innovative method. Thus, fold your A3 size document into A4, and then load the paper in the front tray. Choose Merge Two Sides from the Scan Source option and then the scanner is able to scan both sides of your document and merge two A4 images into one A3 image.

When you select Merge Two Sides into One Image, the Cropping or Multi-feed function will be disabled.

**Note the options vary based on type of scanner.**

## **Color Matching**

The purpose of Color Matching is getting the accurate color. This option uses the default parameters (ICC profile) to adjust the colors of the image.



**Normal**



**After Color Matching**

### **5.2.3 Scanning color images**

The following options are available for scanning color images.

- Brightness
- Contrast
- Resolution
- Invert

### **5.2.4 Scanning grayscale images**

The following options are available for scanning gray images.

- Brightness
- Contrast
- Resolution
- Invert

### **5.2.5 Scanning B&W images**

The following options are available for scanning B&W images.

- Binarization (Dynamic Threshold)
- Resolution
- Invert

Or

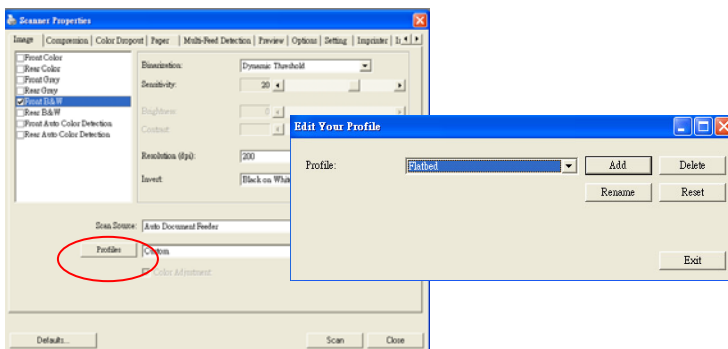
- Binarization (Fix Processing)
- Threshold
- Brightness
- Resolution
- Invert

## 5.2.6 Editing Profiles

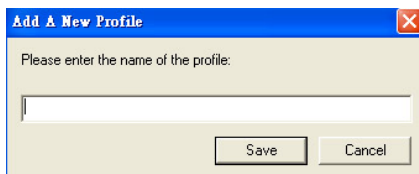
The Scanner Properties dialog box allows you to change and save your frequently used scan settings into a profile. You can edit these profiles by renaming or deleting them.

**To add a new profile,**

1. Customize your settings. (For example, change your resolution, image type, cropping method, scan size, or other scan settings.)
2. Click the Image tab and then choose "Profiles" to prompt the "Edit Your Profile" dialog box.



3. Click "Add" to enter the name of the profile and then choose "Save".

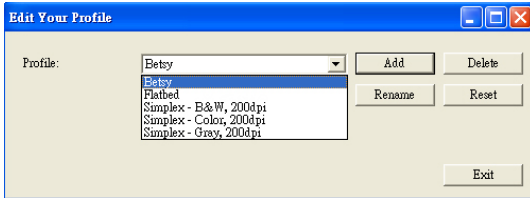


4. The new profile will be saved and shown in the "Profiles" dropdown list box.



## To load a profile,

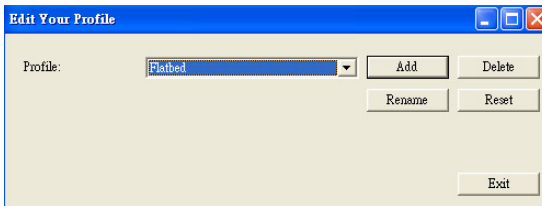
1. From the Image tab dialog box, choose your favorable profile from the "Profiles" dropdown list box.



2. Your favorable profile will be immediately loaded and displayed on Scanner Properties dialog box.

## To delete a profile,

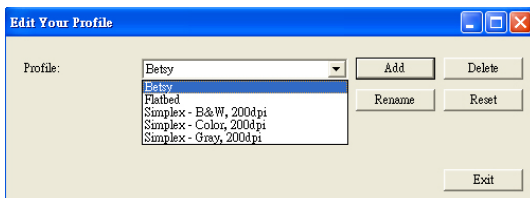
1. From the Image tab dialog box, click "Profiles" to prompt the Edit Your Profile dialog box.



2. Choose the profile you want to delete from the dropdown list box.
3. Click "Delete". A Confirm message "Are you sure you want to delete this profile?" is prompted.
4. Choose "Yes" to delete or "Cancel" to quit.

## To rename a profile,

1. From the Image tab dialog box, click “Profiles” to prompt the Edit Your Profile dialog box.



2. Choose the profile you want to rename from the dropdown list box and then click the Rename button.
3. Enter new name for the profile.



4. Choose “Save” to save the new profile or “Cancel” to quit.

### Note:

The preset default profiles include Flatbed, Simplex-B&W, 200 dpi, Simplex-Gray, 200 dpi, Simplex-Color, 200 dpi, Duplex-B&W, 200 dpi, Duplex-Gray, 200 dpi, Duplex-Color, 200 dpi. If you have a simplex or a sheetfed scanner, the duplex or the flatbed option will not be available.

### 5.3 The Compression Tab

The Compression tab allows you to compress your scanned image and choose the level of compression. Bi-tonal images are normally compressed using CCITT standard called Group 4 (G4). Color and grayscale images are often compressed using JPEG technology. Move the **JPEG Quality** slider to the right or left to increase or decrease the level of compression. Note the greater the compression level, the lower image quality. Default is 50%.

Note that the compression depends on your image editing application. If your image editing application does not support the type of compression format, then either a warning message will appear or the image quality of the compressed file will not be acceptable.

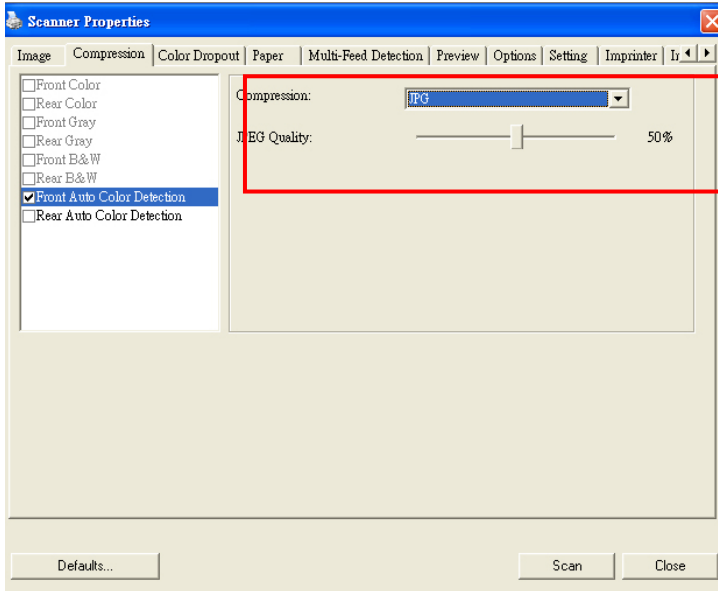
JPEG (Joint Photographic Editor Group): This group developed and lent their name to a file compression standard for color and grayscale images that is widely used by scanners, and software applications. On Microsoft Windows-based systems, a file with the extension .jpg has normally been compressed using this standard.

For scanning color or gray images, the following compressions are available:

- None
- JPEG

For scanning B&W images, the following compressions are available:

- None
- G4



**The Compression tab dialog box**

## 5.4 The Color Dropout Tab

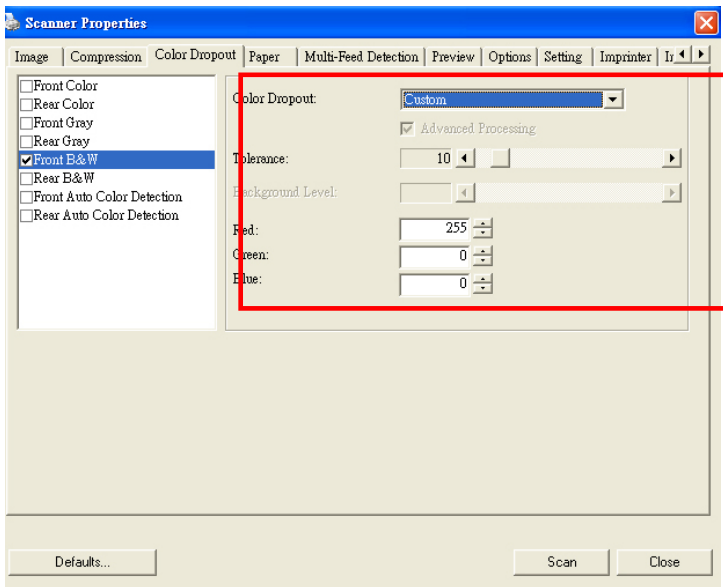
### 5.4.1 Color Dropout Selection

Color Dropout tab allows you to drop either of the red, blue, or green color in your scanned image. If your image contains red color watermark or background, choose the R (Red) channel then any red watermark or background will be removed. This feature is used to sharpen your text when using OCR (Optical Character Recognition) software.

The "Custom" option allows you to specify your desired color to be removed by entering its RGB (Red, Green, and Blue) value respectively.

Tolerance: Specify the allowable color range to be removed for the color you selected. Specified range: 1 ~ 100  
The large the numeric value, the wider the color dropout range is.

Note that this function supports only black & white and gray images. Therefore, be sure to choose any black & white or gray image type while applying this function.



**The Color Dropout dialog box**

5.4.2 Other Color Dropout Options

**Advanced Processing** provides two options that can adjust your scanned image in the best optimal result.

**Filter Threshold** This value is used to determine the color which will be dropped out. A lower value will drop more of the selected color out, while a higher value will leave more of the selected color in.

**Background Level** The pixel which is higher than the background value will be adjusted to the lightest point. Adjust the value for both the Filter Threshold and Background Level to produce the best optimal result.

**Example, slightly adjusting the background value makes your text more clear.**

AM6120彩色多功能複合機規格		
基本規格	機體形式	單面式內建自動進稿器
	影像感應器	CCD感應器規格
	影像解析度	600 dpi
	掃描速度	每分鐘最大可掃描10頁
	五倍變倍	300%
	自動進稿器最大掃描規格	4.89(5.49)×21(24.1)公分
	自動進稿器最大進稿規格	3.95(4.45)×21(24.1)公分
	可辨識文字規格	3.95(4.45)×21(24.1)公分
	自動進稿器重量	—標準型 3.5公斤
	操作速度選擇條件	50%、30%、20%、10%
	自動進稿器規格	50%、30%、20%、10%
	線路干擾	50%
	ESD (IEC 61000-4-2)	80% 4kV AIT 接觸 接觸 ESD 10kV
輸出規格	紙張大小規格	紙張規格之外，單面規格10種
	紙張厚度規格	每分鐘可達10種
	紙張顏色規格	每分鐘可達10種
	紙張重量	70~100g
	紙張溫度	20%~40%
印出規格	自動進稿器重量	—標準型 3.5公斤
	自動進稿器規格	每分鐘最大可掃描10頁
	紙張厚度規格	每分鐘可達10種
	紙張重量	70~100g
	紙張溫度	20%~40%
網路規格	支援網路	Windows 95SE, Windows 98SE, 2000, XP
	支援網路	—5.0Gbps
	支援網路	—5.0Gbps
電子印表機規格	支援網路	Ethernet, Wi-Fi, USB, FireWire, LAN, Bluetooth
	支援網路	—5.0Gbps, 1000, 2000, 3000
	支援網路	—5.0Gbps, 1000, 2000, 3000
	支援網路	—5.0Gbps, 1000, 2000, 3000
	支援網路	—5.0Gbps, 1000, 2000, 3000
網路規格	支援網路	Windows 95SE, Windows 98SE, 2000, XP
	支援網路	—5.0Gbps
	支援網路	—5.0Gbps
	支援網路	—5.0Gbps
	支援網路	—5.0Gbps

Original

AM6120彩色多功能複合機規格		
一般規格	機體形式	單體式內建自動雙面器
	主要規格	11.5英寸複合機
	光學解像力	600 dpi
	印刷速度	每分鐘複合頁數(1頁)
	11英寸	400%
	自動雙面複合(單面複合)	4.2秒(21英寸x14英寸複合)
	自動雙面複合(雙面複合)	4.2秒(21英寸x14英寸複合)
	11英寸最大複合機	3.5秒(11英寸x14英寸複合)
	自動雙面複合(雙面)	3.5秒(11英寸x14英寸複合)
	自動雙面複合(雙面)	3.5秒(11英寸x14英寸複合)
	自動雙面複合(雙面)	3.5秒(11英寸x14英寸複合)
	自動雙面複合(雙面)	3.5秒(11英寸x14英寸複合)
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	複合規格	複合規格
	複合規格	複合規格
網路規格	網路規格	網路規格
	網路規格	網路規格
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Remove Blue, Threshold: 20, Background: 255

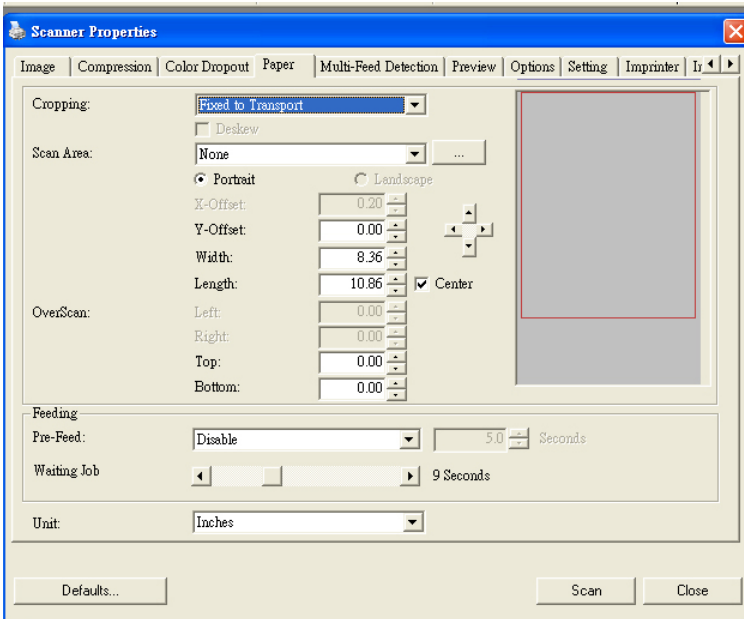
AM6120彩色多功能複合機規格		
一般規格	機體形式	單體式內建自動雙面器
	主要規格	11.5英寸複合機
	光學解像力	600 dpi
	印刷速度	每分鐘複合頁數(1頁)
	11英寸	400%
	自動雙面複合(單面複合)	4.2秒(21英寸x14英寸複合)
	自動雙面複合(雙面複合)	4.2秒(21英寸x14英寸複合)
	11英寸最大複合機	3.5秒(11英寸x14英寸複合)
	自動雙面複合(雙面)	3.5秒(11英寸x14英寸複合)
	自動雙面複合(雙面)	3.5秒(11英寸x14英寸複合)
	自動雙面複合(雙面)	3.5秒(11英寸x14英寸複合)
	自動雙面複合(雙面)	3.5秒(11英寸x14英寸複合)
	自動雙面複合(雙面)	3.5秒(11英寸x14英寸複合)
複合規格	複合規格	複合規格
	複合規格	複合規格
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Remove Blue, Threshold: 20, Background Level: 210



## 5.5 The Paper Tab

The Paper tab allows you to define values relating to image output (i.e., Auto Crop or not, Scan Area, OverScan, Multi-Feed Detection).



**The Paper tab dialog box**

### 5.5.1 Cropping

Cropping allows you to capture a portion of the document being scanned. **Choice: Automatic, Fixed to Transport, EOP (End of Page) Detection.**

Options	Description
<b>Automatic</b>	Automatic adjusts the cropping window according to different document sizes. Use this option for batches of mixed-sized documents.
<b>Fixed to Transport</b>	This feature allows you to define the area or zone to be imaged. Use for batches of same-sized documents. If you select this option, you can use the arrow keys to define the x and y offset values, width and length to redefine your scanned area. The Display window will show image placement as you change the values.
<b>EOP (End of Page) Detection</b>	This feature allows you to define the area or zone to be imaged. Use for batches of same-width but different length documents. If you select this option, you can use the arrow keys to define the x and y offset values, width and length to redefine your scanned area. The Display window will show image placement as you change the values.

<b>Automatic Multiple</b>	This option allows you to place various sized documents such as photos, ID Cards, or business cards on the flatbed (if available) and lets you create multiple individually cropped images in one scan. Note: To correctly create multiple images, please make sure there is at least 12mm (0.5") of space between each document.
---------------------------	---

The following options are only available when **Fixed to Transport** is selected.

- **X-Offset** — the distance from the left end of the scanner to the left edge of the scanning area.
- **Y-Offset** — the position from the top end of the document to the top end of the scanning area.
- **Width** — the width of the scanning area.
- **Length** — the length of the scanning area.
- **Center:** automatically calculates the x-offset for center-fed feeding based upon document size selected.



- — relocate the scan area by click the arrow key on the cross sign while retain the scan size. View the result from the Display window.

## 5.5.2 Other Paper Selection

### Deskew

Use this option to automatically deskew a document.



Note: If the skew angle is too great, some of the image may be cut off.

### Scan Area

Choose your desired paper size with the drop-down list box. Or you may select a custom paper size by clicking the **Scan Area** box and then click **Add** to include in the choice.

**Choice:** None, US Letter- 8.5"x 11", US Legal – 8.5" x 14", ISO A4 – 21 x 29.7 cm, ISO A5 – 14.8 x 21 cm, ISO A6 – 10.5 x 14.8cm, ISO A7 – 7.4 x 10/5 cm, ISO B5 – 17.6 x 25 cm, ISO B6 – 12.5 x 17.6 cm, ISO B7 – 8.8 x 12.5 cm, JIS B5 – 18.2 x 25.7 cm, JIS B6 – 12.8 x 18.2 cm, JIS B7 – 9.1 x 12.8 cm, Scanner Maximum, Long Page.

### Long Page:

When you need to scan documents whose length exceeds scanner maximum, please choose Long Page. Note if Long Page is selected, the Multi-Feed Detection will not be available. Options: Unknown Length, Enter Length (Note: This option varies due to type of scanner.)

Choose "Unknown Length" if you have a batch of long page document with unknown length. Choose "Enter Length" to enter the length and width of your documents or your desired scan size on documents. This is useful when you have a batch of documents with the same scan size or a batch of same-sized documents.

### **OverScan**

Overscan allows you to add a specific margin at top and bottom or right and left (Options vary based on the type of scanner) of the edge of the image. This is used to reduce possible corner clipping on the skewed images and often applied to a batch of skewed document to be scanned in the auto document feeder. Select a value between 0 and +5 mm. Note the overscan result will not be shown in the Display window and that the availability of the function varies based on type of scanner.

### **Pre-Feed**

Choice: Enable, Disable. If enable is selected, you can set the amount of time the scanner starts pre-feeding your paper after your documents has been loaded into the feeder. The default is disable.

### **Transport Timeout**

Set the amount of time the scanner will wait and then start auto scan after the first scan job is completed. If you have many separate documents need to be scanned at the same scan settings, this feature is especially useful. The default is 0. The value ranges from 0 to 30 seconds.

---

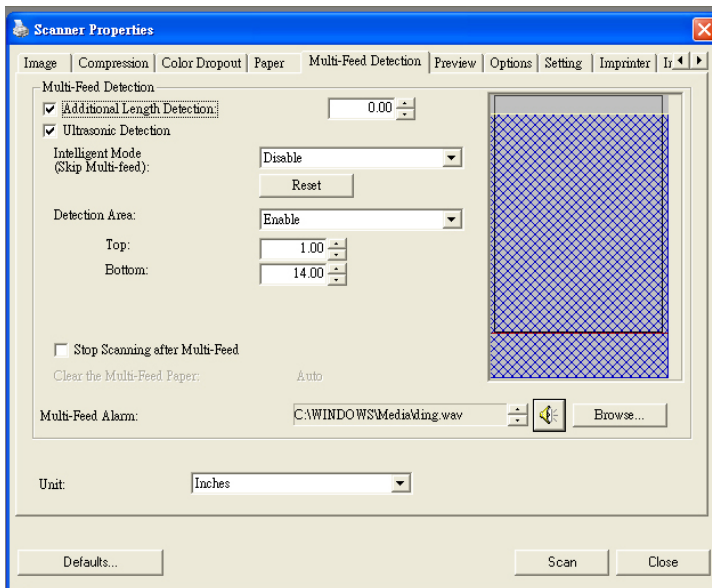
**Note:**

- 1** Within the specified timeout period, if you load your document to the feeder, the scanner starts scanning automatically.
  - 2** If your scanner has a flatbed option and you place your paper on the flatbed, after the timeout period, you need to click the Scan button on the TWAIN user interface to start scanning.
-

## 5.6 The Multi-Feed Detection Tab

### Multi-Feed Detection

Multi-Feed Detection allows you to detect overlapped document that go through the auto document feeder. Multi-Feed usually occurs due to stapled documents, adhesives on documents, or electro-statically charged document. Note : The availability of the function varies based on type of scanner.



## **Additional Length Detection**

Additional Length Detection allows you to define the length of document being multi-fed. This value indicates the additional length exceeding your scan area. The Display window will show the size of the document as you change the value. A value of 0 indicates no additional length detection. The Additional Length Detection is best used when scanning same-size documents in the auto document feeder.

## **Intelligent Mode (Skip Multi-Feed) By Ultrasonic Detection**

Some documents which are glued with a photo or a label may easily be detected as multi-feed yet you wish to bypass these multi-feed conditions. In this case, you can use the intelligent mode to let the scanner memorizes and skips these multi-feed conditions. **Choice includes Disable, By Length, By Position, By Length+Position. Note: The availability of this feature varies based on type of scanner.**

**By Length:** When a multi-feed is detected for the first time, the scanner memorizes the length of the paper attached to the document. When you perform next scanning, this pattern of multi-feed will be bypassed.

**By Position:** When a multi-feed is detected for the first time, the scanner memorizes the position of the paper attached to the document. When you perform next scanning, this pattern of multi-feed will be bypassed.



**By Length+Position:** When a multi-feed is detected for the first time, the scanner memorizes the length and position of the paper attached to the document. When you perform next scanning, this pattern of multi-feed will be bypassed.

To use the intelligent mode,

1. Choose your desired multi-feed detecting method to bypass by.
2. When multi-feed occurs during scanning, a multi-feed message appears.
3. Press the **Scan** button on the scanner. The LED indicator first turns to red color and then stays in green color.
4. Click **OK** to close the multi-feed message.
5. Open your TWAIN data source in your scanning application. The same multi-feed condition will not be recognized as multi-feed.

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**Note:**

1. You can clear the previous multi-feed conditions by clicking the **Reset** button.
  2. The scanner can memorize to bypass up to 25 multi-feed conditions.
  3. If you uninstall your scanner driver, the previous multi-feed conditions which have been set to memorize and skip will still be valid.
-

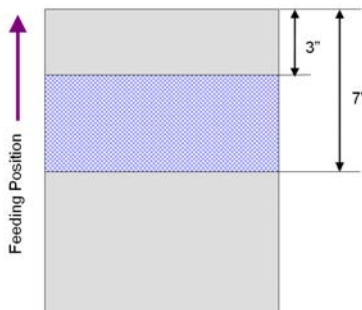
## Detection Area

This option allows you to specify a multi-feed detection area.

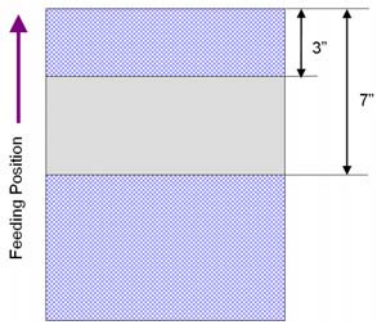
To specify a multi-feed detection area,

1. Choose **Disable** from the Intelligent Mode. The Detection Area will be enabled.
2. Choose **Inside the Range** or **Outside the Range**. The detection area will be highlighted.
3. Drag your mouse pointer on the top or the bottom of the detection area to specify your area in the display window. Or you may use the up and down arrow key of the Top and Bottom to change its size. The Top indicates the starting position of the detection range. The Bottom indicates the ending position of the detection range. Note the top value and the detection range has to be at least 1 inch.

Detection Area: Inside the Range, Box, Top: 3", Bottom: 7"



Detection Area: Outside the Range, Box, Top: 3", Bottom: 7"



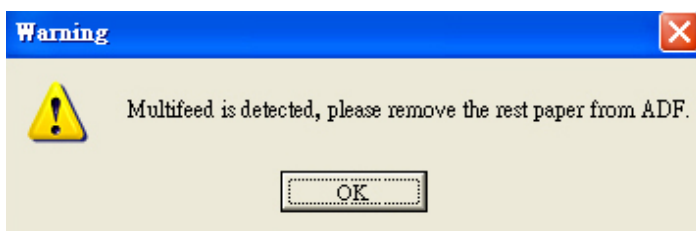
## Ultrasonic Detection

Ultrasonic Detection allows you to set overlapped document by detecting paper thickness between documents. **Note :**  
**The availability of the function varies based on type of scanner.**

There are two options available if Multi-Feed is detected.

- **Stop Scanning after Multi-Feed**

If this is selected, the scanner will stop the feeder and display the following Warning dialog box if multi-feed is detected.



Action:

1. Follow the instruction on the Warning dialog box to remove the rest pages on the feeder.
2. Click OK to close the Warning dialog box.
3. Scan the rest pages.

- **Multi-Feed Alarm**

If a wave file is added, the scanner will make a sound alarm if multi-feed is detected yet no Warning dialog box will be displayed.

If “Stop Scanning after Multi-Feed” is selected, the scanner will stop the feeder.

If “Stop Scanning after Multi-Feed” has not been selected, the scanner will continue to scan till the end of your document.

Action:

1. If “Stop Scanning after Multi-Feed” is selected, follow the action described in the preceding section “Stop Scanning after Multi-Feed” on the previous page to complete your job.
2. If “Stop Scanning after Multi-Feed” has not been selected, rescan the pages where multi-feed is detected.

## **How to add the sound alarm :**

1. Click the Browse button on the right side of the speaker icon. The Open dialog box appears.
2. Choose your wave file.
3. Click the Open button. The wave file is added.

## **Units**

Defines the primary measurement system. **Inches**, **Millimeters**, and **Pixels** are available.

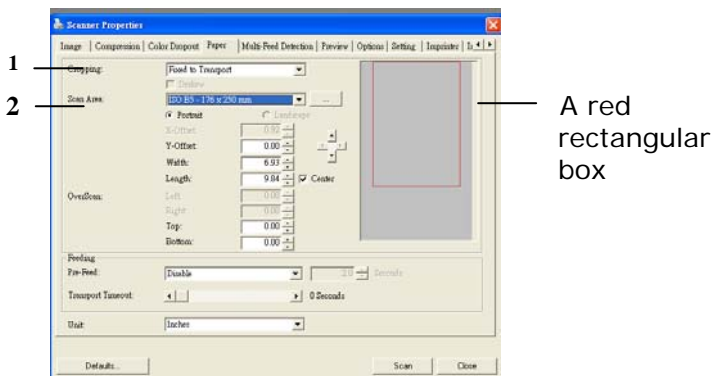
### 5.6.1 Relative to Document

**Relative to Document:** (used for batches of same-sized documents)

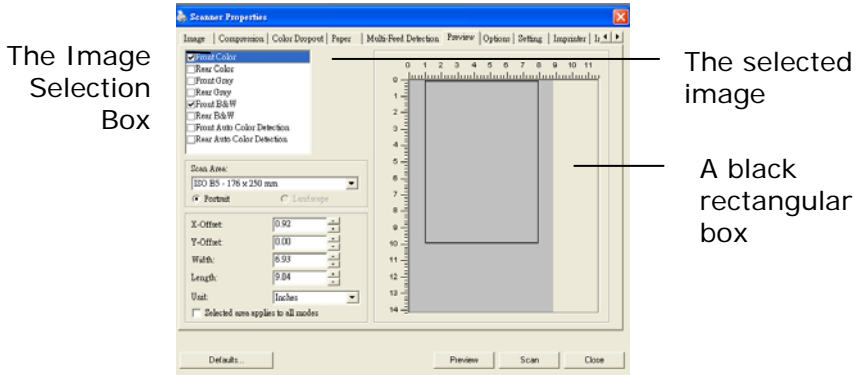
This option allows you to crop different areas on your documents and deliver these images in B&W, Gray, or Color separately. For example, there are applications which require you to store the entire document in B&W and a part of the document in color to save storage space. This is useful for documents where a photograph or signature appears in a consistent area on the document such as resumes, and so on.

The following procedure describes how to reproduce the entire document in B&W and a portion of document (picture) in color.

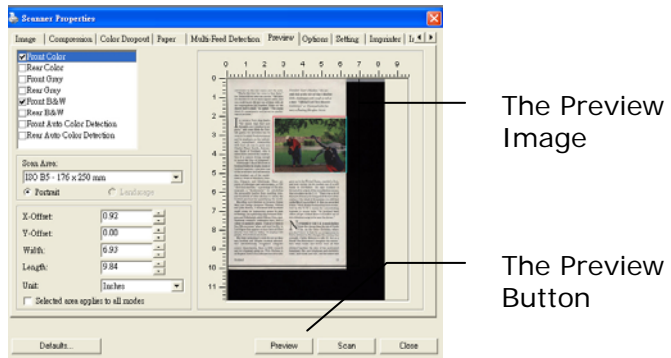
1. On the Paper tab, choose “Relative to Document” or “Fixed to Transport” from the Cropping option.
2. Choose your scan size from the Scan Area option. The selected scan size will be displayed in a red rectangular box. This is also the scan size of your entire document. (For example, ISO B5. If you have not chosen a scan area and leave the selection as None, then the default area will be the scanner’s maximum.)



3. Click the Preview tab to display the Preview window. A black rectangular box appears to indicate the max. scan size you have just selected.

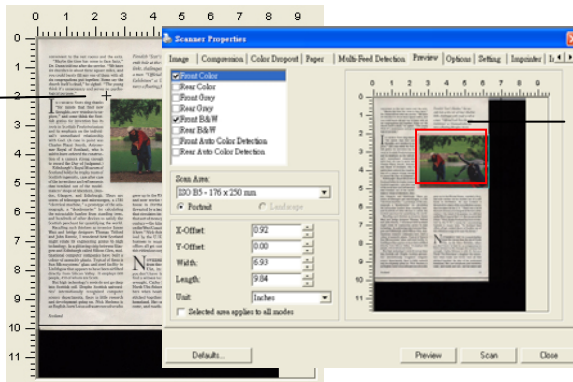


4. Click the Preview button to view the entire image in low resolution to correctly crop your relative scan area.



5. Select image type from the Image Selection box. The selected image will appear in highlighted color. (For example, Front Color)
6. Place your cursor on the Preview window and click your left mouse button. A cross sign will appear as illustrated. Create your relative scan size diagonally by dragging the left mouse button to your preferable size. The selected area will appear in a red box as illustrated.

A Cross  
Sign



The  
Relative  
Area

7. Check the B&W image from the Image Selection box to scan the entire document.
8. Click the Scan button to start scanning the document in two image types and sizes. (See the result in below.)

convenient to the rest rooms and the stalls. "Maybe the time has come to fix facts," Dr. Davis told me after the service. "We have six churches in about three square miles, and you could hardly find any one of them with all six congregations put together. Some say the church itself is dead," he sighed. "The young think it's unnecessary and serves no psychological purpose."

*Friedrich "Son's Maiden," the seventh hole at the site of Lady's Machine links, challenges with rough as well as a ramp. "Official Look New Member Exhibition" at Drumnaochair features a floating Morgan's Nestie.*

**I**f someone Scots sing thinks "for minds that find new thoughts, new wonders to explore," and some think the Scottish granite for invention has its roots in Scottish Presbyterianism and its emphasis on the individual's "uninterrupted" relationship with God, (a case in point was Charles Pagan Smith, Astronomer Royal of Scotland, who is said to have ordered the construction of a camera strong enough to resist the Day of Judgment.) Edinburgh's Royal Museum of Scotland holds the registry room of Scottish invention, case after case of the inventions and refinements that tumbled out of the model-makers' shops of Aberdeen, Dundee, Glasgow, and Edinburgh. There are scores of telescopes and microscopes, a 1780 "chemical machine," a prototype of the anemograph, a "deadendite" for calculating the extricable lunar from varying tides, and hundreds of other devices to satisfy the Scottish penchant for quantifying the world. Reading such diaries as *James Watt and his Inventions*, Thomas Telford and John Bann, I wondered how Scotland might enter its engineering golden to high technology. In a glittering trip between Glasgow and Edinburgh's office Hilton Club, multinational computer companies have built a colony of assembly plants. Tradition of them is *Sun Microsystems'* glass-and-steel facility in Loughborough that appears to have been affixed directly from Silicon Valley. It employs 600 people, 470 of whom are Scots.

But high technology's roots do not go deep into Scottish soil. Despite Scottish universities' internationally recognized computer science departments, there is little research and development going on. Nick Shute is an English-born computer science executive who



grew up in the United States, married a Scot, and now works via his modern out of a mill house in Perthshire. He says Scotland is threatened by a lack of the entrepreneurial money that declines in the U.S. "There was a lot of that sort of money in Glasgow at the turn of the century—the kind of investment you still find on the West Coast of the U.S. But since we've had them," Nick thinks Scotland has been victimized by the U.K.'s mania for concentrating business in major hubs. "In Scotland, local offices all got sucked down to London out of this inclination to be near the throne."

**N**OWHERE IN THE U.K. is much further from the throne than the hills of North Tyneside, in the County of Tyne and Wear, where you don't have to look for an octopus in a field a witness to the changes this century has wrought. Cathy Johnson is only 34, but as a North Tyneside Librarian's daughter she remembers when boats and ferries were all that glided together the face of her performed homeland. She saw telephones and electricity come, and roads and cars, and hot water and



The entire document in B&W

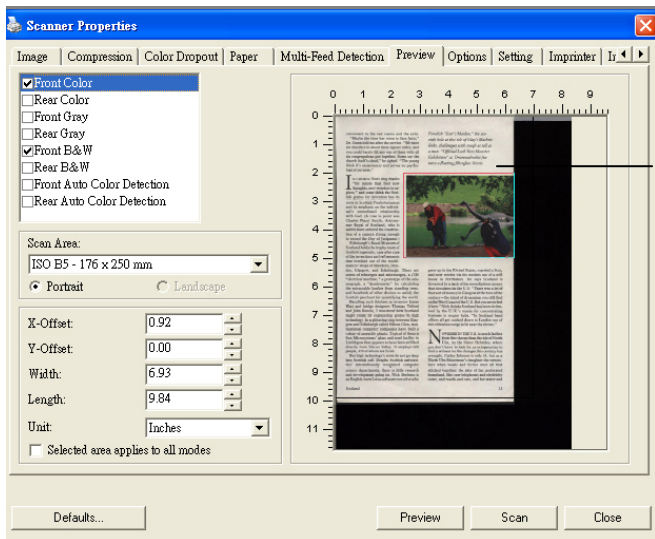
The relative area in color



## 5.7 The Preview Tab

The Preview tab allows you to preview (a low-resolution scan) your image before final scan. This preview image lets you allocate your scan area. You can choose your scan area by the “Scan Area” drop down list box or placing your cursor on the Display window and dragging it diagonally on the Display window. Then, a red rectangle box will appear to indicate the selected area.

Note: If you choose “Automatic Cropping” on the “Paper Tab”, then to select a scan area on the Preview tab is not allowed.

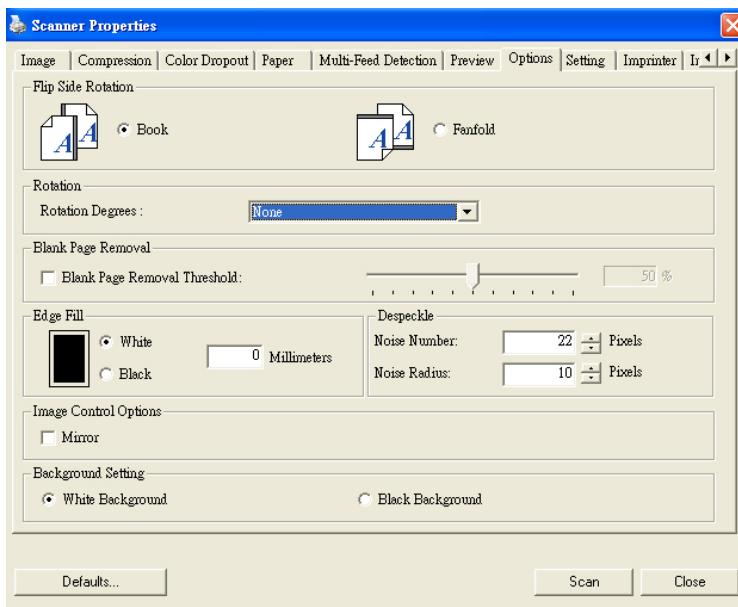


The Display Window

## The Preview Tab

## 5.8 The Options Tab

The Options tab allows you to set following additional image processing settings.



**The Option tab dialog box**

Flip Side  
Rotation

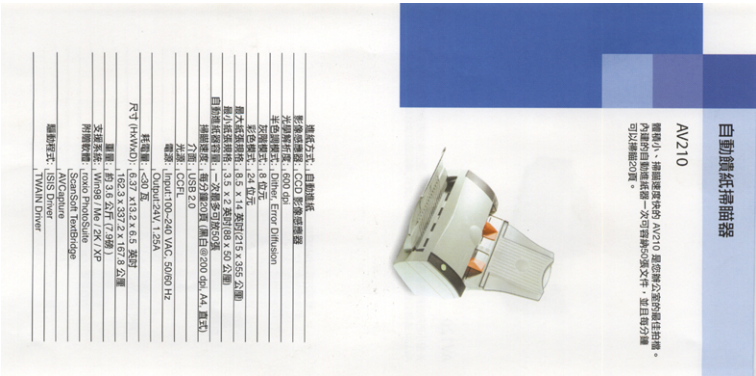
Select “fanfold” to rotate the image of the reverse side to 180 degrees.

This is applied to double-sided document which are viewed in portrait are sometime fed into the scanner in landscape or vice versa.

Choice: Book, Fanfold.

If “Book” is selected, the image of the reverse side will not be rotated.

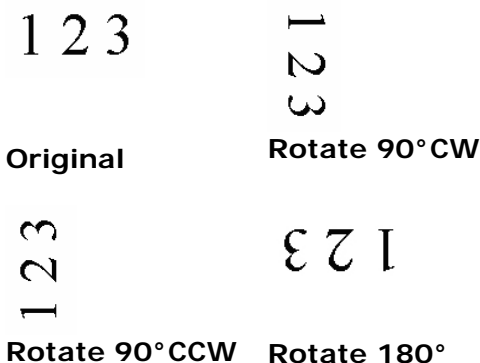
The following illustration shows the documents which should be viewed in portrait are fed into the scanner in landscape



## Rotate Image

Choose the rotation angle from the drop down list if you wish to rotate your scanned image.

**Choice: None, 90° CW(clockwise), 90° CCW(counter clockwise), 180°, Auto based on contents, Auto rotate every even page.**



**Auto based on contents:** When **Auto based on contents** is selected, images can be rotated to their proper orientations based on their contents.

### **Auto rotate every even page:**

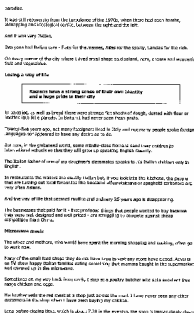
Automatically rotate 180° on every even page. This is especially useful when you scan the inside pages from a book. As a result, if you choose "Flatbed (book)" from the "Scan Source" option, "auto rotate every even page" will be selected as default.

**Note: Option varies based on type of scanner.**

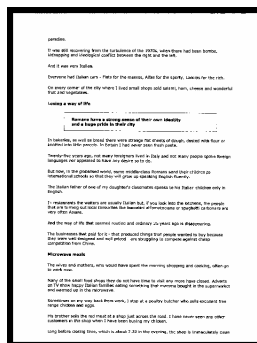
## Edge Fill

Check if you wish to remove the blank page  
and move the slider to the left or right to your  
desired threshold.

Check White or Black if you wish to add white or black edge on the border of your scanned image. Enter the value from 0 to 5 mm. Default value is 0.



## Original



**Edge Fill: 5mm (Black)**

**Image  
Control  
Option**

Check the Mirror box if you wish to reverse the right and left side of your image.



**Original**

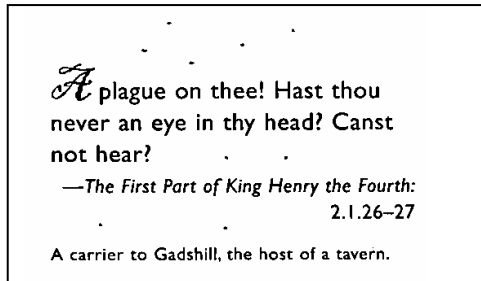


**The Mirror Effect**

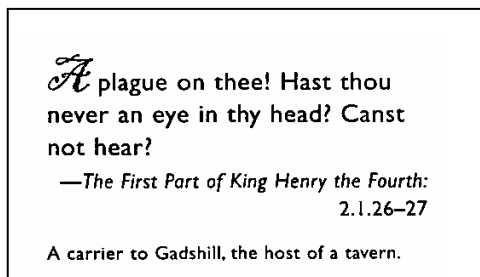
## Despeckle

Occasionally small dots or specks appear in the background of a scanned image. Remove unwanted speckles provides a cleaner image for OCR (Optical Character Recognition) processing, and also helps to reduce compressed file size.

Define the speckles (also known as image noise) you wish to remove by specifying its number (size) and radius (range). The measuring unit is pixel. The higher the number, the more speckles will be removed.



Before Despeckle  
(noise number:0, noise radius:1)



After Despeckle  
(noise number:22, noise radius:10)

---

**Note:**

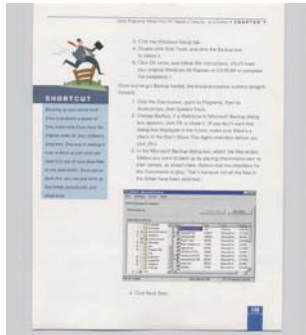
- The function is currently available for Black and White image only.
  - To scan at rated speed, it is recommended to set the noise radius up to 10 pixels.
-



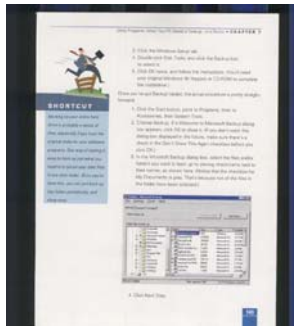
## Background Setting

This option allows you to set your scan background.

**Choice: White Background, Black Background.**



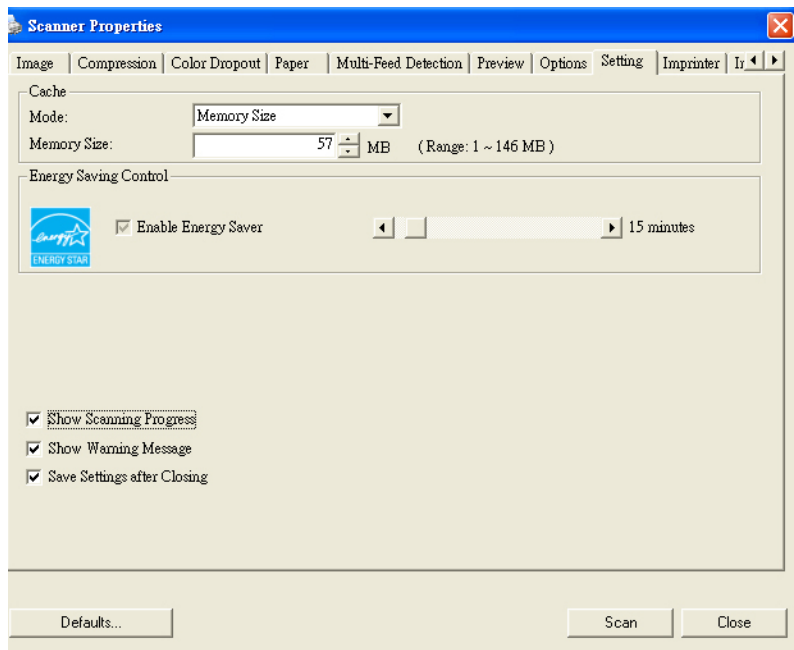
White Background



Black Background

## 5.9 The Setting Tab

The Setting tab allows you to set the following settings:



The Setting tab dialog box

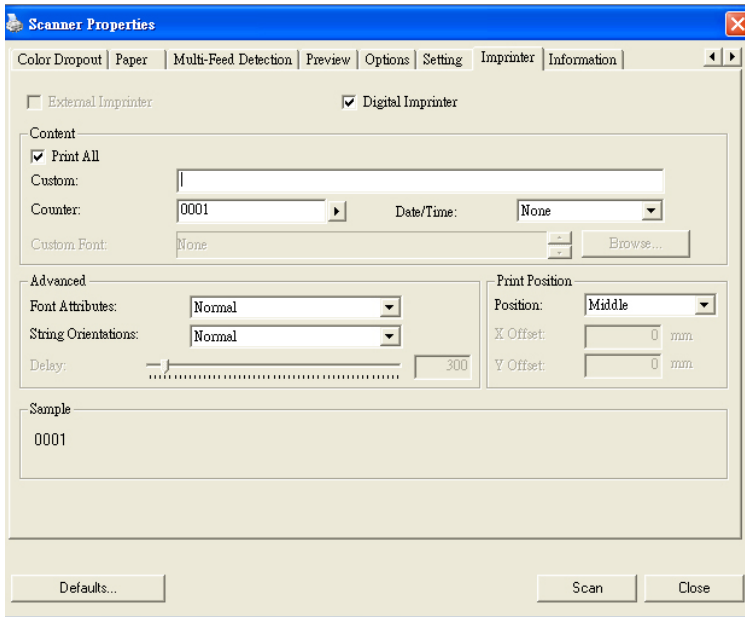
<b>Energy Saving Control</b>	Check the <b>Enable Energy Saver</b> box and move the slider to the right to set the amount of time to start the energy saver after your last action. The range is from 1 to 240 minutes. The default is 15 minutes.
------------------------------	--

<b>Cache</b>	<p><b>Mode: None, Page Number, Memory Size.</b></p> <p>This option allows you to assign a specified memory size from the available RAM to process the image data. By specifying a smaller memory size, you can free more memory for other applications you are running. By specifying a larger memory size, you can have more memory to process the image data especially when you have a large amount of documents needed to be scanned.</p> <p>You can also specify your memory size by the page number. For your information, an A4 color document scanning at 300 dpi consumes approximates 24MB.</p> <p><b>Image Count</b></p> <p>When the selected cache mode is “none”, the image count option allows you to assign number of pages you need to scan. For example, if you wish to scan the first two pages, simply move the page slider to 2, and the scan action will be stopped when the scanning of the first two pages have been completed.</p>
<b>Show Scanning Progress</b>	<p>Check and the scanning progress bar will be shown during scanning.</p>

<b>Show Warning Message</b>	Check to show the warning messages such as "ADF pad count exceeds 50,000 scans (the number varies based on type of scanner). Please replace the ADF pad and reset the pad count."
<b>Save Settings after Closing</b>	Check to save your scanner properties settings after leaving the dialog box. Next time when you open the Scanner Properties dialog box, the previously saved settings will be shown.

## 5.10 The Imprinter Tab

The Imprinter tab allows you to print alphanumeric characters, date, time, document count and custom message on your scanned image if digital imprinter is selected or at the back of your document if external imprinter is selected.



**Choice: External Imprinter, Digital Imprinter.** If you have installed an external imprinter, choose external imprinter. If you do not have an imprinter, choose digital imprinter. Note External Imprinter provides a vertical and rear-side print capability while digital printer provides a horizontal and front-side print capability.

## Contents

<b>Print All</b>	Check <b>Print All</b> to automatically print the text at all pages of your documents. Uncheck <b>Print All</b> to print the text for the first page of your documents only.
<b>Custom</b>	Enter your custom text to be included in your print string.
<b>Counter</b>	Show the document count for the scan session. This value is increased sequentially by the scanner.

<b>Date/Time</b>	Choose if you wish to include the date and time in your print string. Format: YYYYMMDDHHSS For example, 20090402170645-check0001 indicates year, month, date, hour, seconds, your custom text and the counter.
<b>Custom Font</b>	Click the <b>Browse</b> button to insert your desired font. This option is available only if you have installed an external imprinter.

## Advanced

<b>Font Attributes</b>	Choose your font attributes. <b>Choice: Normal, Underline, Double, and Bold.</b>
------------------------	--

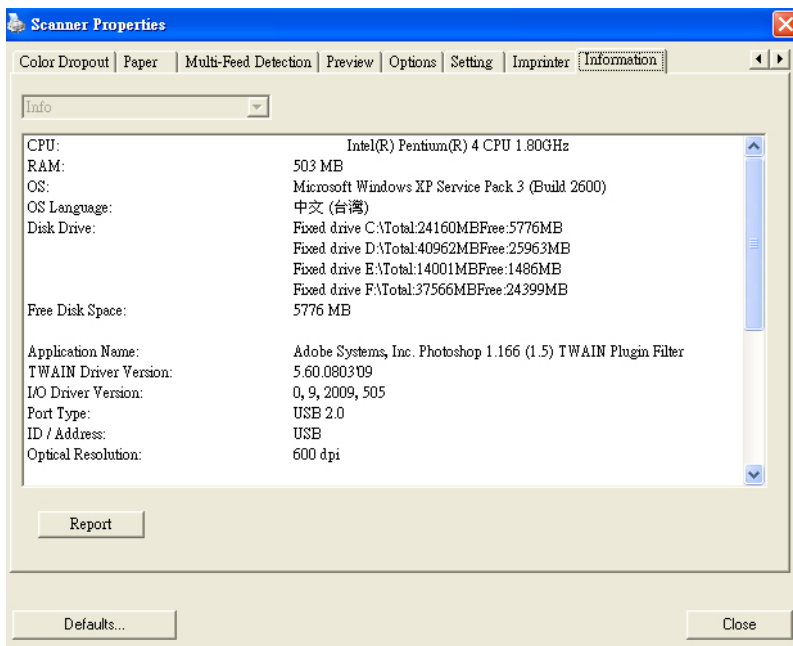
<b>String Orientation</b>	<b>Choice: Normal, Rotated (180 degrees)</b>
<b>Delay</b>	Choose the position of the print string. Move the slider from 1 to 5000. Default: 300. This feature is available only if an external imprinter is installed.

### **Print Position**

Choose the position of your printed string. **Choice: Top, Middle, Bottom, Custom.** If Custom is selected, enter the X and Y offset value to specify the position.

## 5.11 The Information Tab

The Information tab displays the following system and scanner information.



**The Information tab dialog box**

### **The “Report” button :**

If you encounter any error message while using the scanner, click the Report button. A report.txt file (C:\AVxxx) will be generated. Please send this file to the nearest service center for trouble shooting.



### **The “Reset Pad Count” button :**

After scanning approximately 50,000 pages (the number varies based on type of scanner) through the Auto Document Feeder (ADF), the ADF pad may be worn out and you may experience problems with document feeding. In this case, it is highly recommended to replace the ADF pad with a new one. (Please refer to the manual for proper replacing procedure.) For ordering the ADF pad, please consult your nearest dealer. After replacing the ADF pad, click the **“Reset Pad Count”** button to reset the pad count.

### **The “Reset Roller Count” button :**

After scanning approximately 200,000 pages (the number varies based on type of scanner) through the ADF, the ADF roller may be worn out and you may experience problems with document feeding. In this case, it is highly recommended to replace the ADF roller with a new one. (Note the replacement of the ADF roller has to be performed only by authorized service center. Therefore, please return your scanner for roller replacement.) After replacing the ADF roller, click the **“Reset Roller Count”** button to reset the roller count.

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#### **Note :**

The lifetime and the replacing procedure vary based on type of scanner. Please consult your nearest dealer for more details.

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## 6. Using the Buttons in PC Mode

To use the buttons on the scanner, you need to install the Button Manager. To ensure the Button Manager work properly, please FIRST install Button Manager before installing the scanner driver.

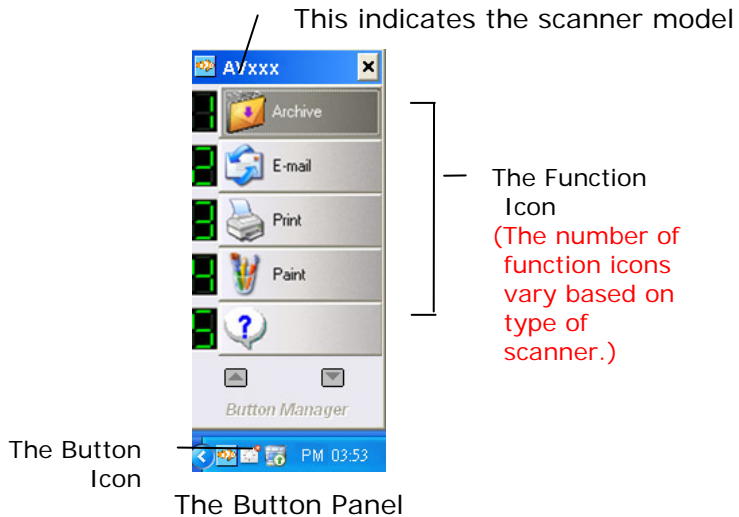
### 6.1 Installing Button Manager

Installing the Button Manager is easy. Insert the supplied CD to your CD-ROM drive and follow the instructions on the screen to complete the installation of the Button Manager.

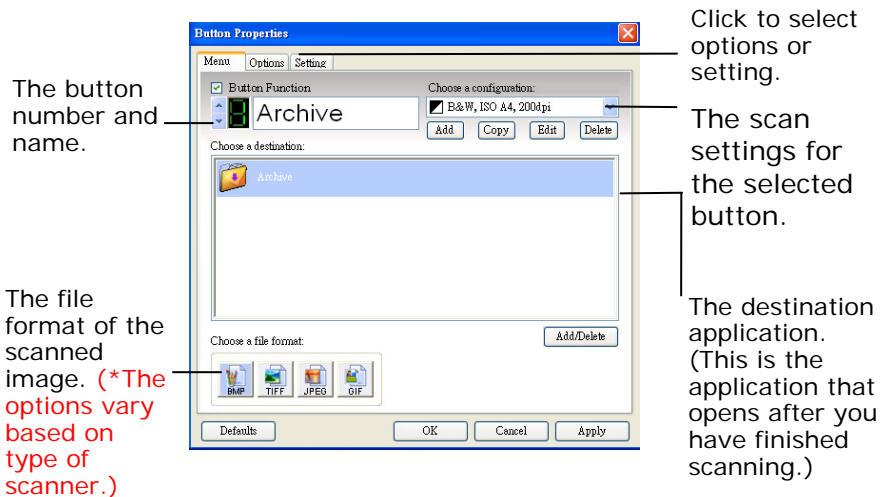
Button Manager provides you an easy way to scan your document and then link the scanned image to your designated software application. All this can be done by a simple touch of the button on the scanner. Yet, before you scan, it is recommended to check the button configurations first to ensure a proper file format and a destination application.

### 6.2 Checking Button Configurations Before Scanning

1. Click the Scan button on the scanner.
2. The Button Panel is displayed in the Windows System Tray at the bottom right corner of your computer screen. The default button destination is indicated in highlighted color.



3. The Button Panel shows the first five scanning buttons. Right-click the button (function) you wish to check. The Button Properties window appears.




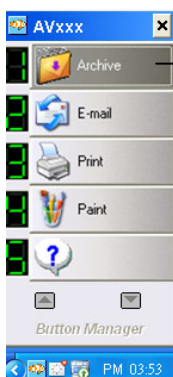
The default setting is indicated in highlighted color. If you wish to change the setting, use this window to reset the setting for the file format, destination application, or other scan settings. See “Configuring the Button” in the subsequent section to reset the settings.

4. Click the OK button to leave the window.

### 6.3 Customizing Your Button Settings

The default button name is “Archive” (to save the scanned image to a predefined folder), if you wish to change the button settings including the file format, or the specified destination, please follow these steps:

1. Click the Button icon (  ) in the system tray at the bottom right corner of the screen, the following Button Panel will appear.



The default button name is indicated in a highlighted color.

2. Choose any function icon, and right-click the button to prompt the following Button Properties window.

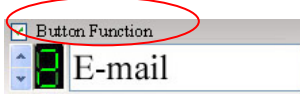


3. Use the Up or Down Arrow key to select your desired button name and function.

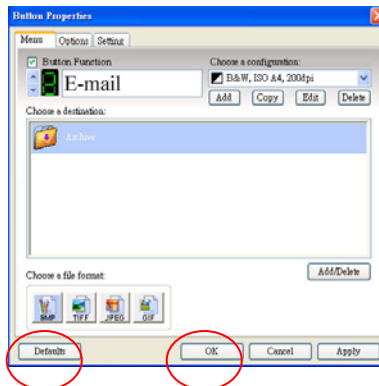
The Up and Down  
Arrow Key



4. Check the "Button Function" box.



5. Click the "Apply" and then the "OK" button to complete and leave the Button Properties dialog box.

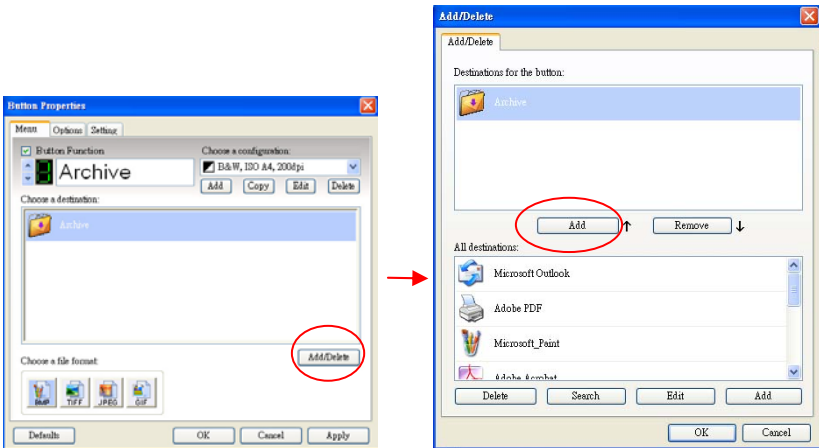


## 6.4 Adding A New Destination Application

The Button Manager allows you to add your own software applications as a destination for your scanned image.

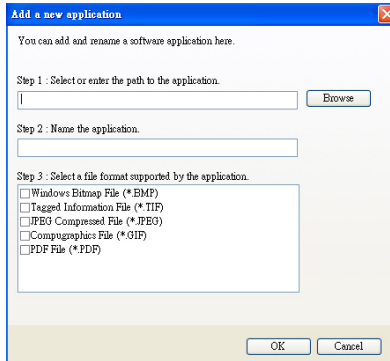
To add a new destination application,

1. From the Button Properties window, click Add/Delete. The Application Manager window appears.



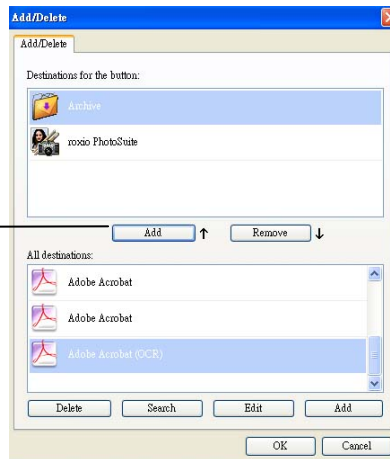
2. Choose Add in the Application Manager window to prompt the Add A New Application window.
3. From the Add A New Application window, follow these steps.

- Step 1: Enter or select the path to the new application.
- Step 2: Name the application. The name will be shown in the Choose a Destination area.
- Step 3: Select at least one file format supported by the application and click OK to complete.



4. The new application will then be shown in List of All Applications in the Application Manager window.
5. Choose the new software application and click Add to include it to List of Applications for the Button #.

Click Add to include the new application to the specific button.

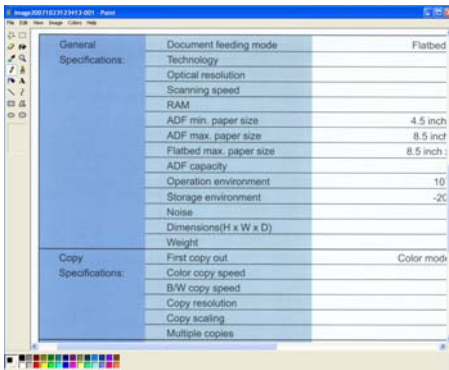


6. Click OK to return to the Button Properties window.
7. Choose the new application as your destination application in the Button Properties window and click OK or Apply. Then this new application will be the new destination application for the specific button number.



## 6.5 Scanning From One Touch of the Button

1. Insert document to the scanner.
2. Choose the button on the Button Panel to send the scanned image to your specified destination. The selected button will be highlighted. (For example, if you want to scan with button #4, which open Microsoft Paint and display the scanned image in the main window of Microsoft Paint, button #4 on the screen will be highlighted.)
3. Press the **Scan** button on scanner.
4. After the scanning is finished, the Microsoft Paint software will be launched and the scanned image appears in the main window of Microsoft Paint as below.



### Note:

To accurately use the default settings, you need to install the necessary software application such as E-mail software or Adobe Reader before installing the Button Manager. Or you may install these applications and add these applications to the Button Manager. For details information on how to use the Button Manager, please refer to the user's manual in the supplied CD.

## 7. Scanning Documents to Your iPad or SmartPhone

### 7.1 Scanning photos to iPad

With this scanner, you can scan your documents and import the scanned images to your iPad.

To scan photos to your iPad,

#### Important!

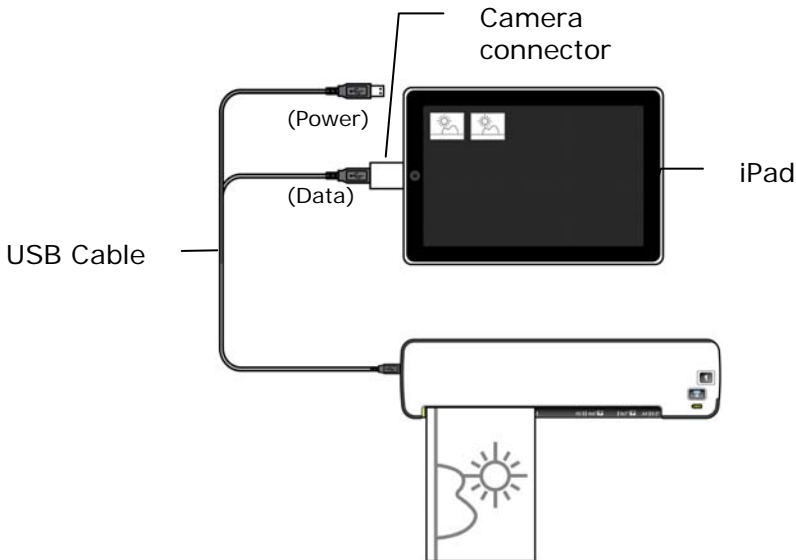
Since the scanner is a USB device, please first make sure you have an iPad camera connector which is included in the iPad Camera Connection Kit. The iPad camera connector offers a USB adapter that plugs into the dock connector.

1. Insert a memory card and the supplied lion battery to your scanner.
2. Turn the **POWER** knob to "1" ~ "5" to turn on the scanner.



3. Plug the iPad camera connector into the dock connector port on your iPad.

4. Connect the mini USB connector of the supplied mini USB Y cable to the mini USB port at the scanner and the other end to the camera connector.



5. Turn on your iPad.
6. Insert your documents to the feeding slot of the scanner. The scanner begins scanning.
7. The thumbnail of the scanned images will be displayed in the Camera tab in the Photo application of your iPad.

8. Choose “**Import**” to import and organize the scanned images into the albums of your iPad.

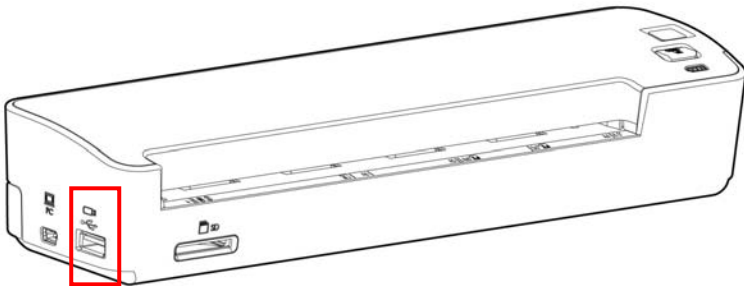
---

**Notes:**

- If the scanned images have not been displayed in your iPad, try to turn off and on your iPad to try again.
  - The product also supports a variety of Android pads in the market. This means you can scan your documents directly to any pad that run Google’s operating system, Android. The operating steps are similar with “**Scanning Photo to iPad**” described in this section.
-

## 7.2 Scanning documents to a SmartPhone

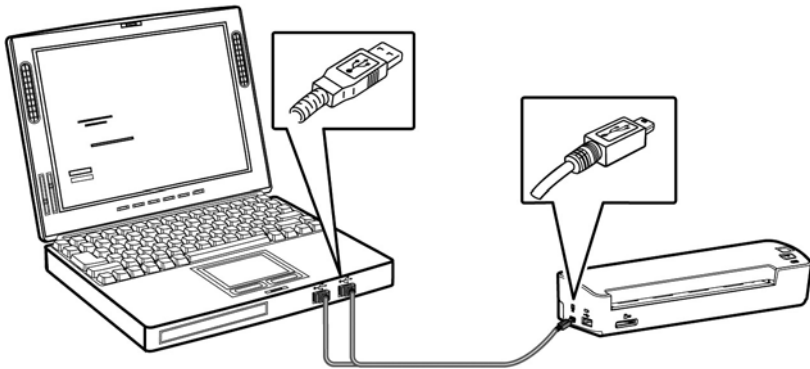
1. Unplug a memory card to your scanner and turn on your scanner by turning the **POWER** knob to "1" ~ "5".
2. Connect one end of the USB cable to the USB Flash Drive port marked with a USB icon on your scanner and connect the other end to your SmartPhone.



3. On the screen of your SmartPhone, an enquiring of your connection type will be prompted.
4. Choose "mass storage device" on your SmartPhone.
5. Insert your documents to the feeding slot of the scanner. The scanner begins scanning. The scanned images are stored in the folder of "DCIM\100PHOTO" or "DCIM\100DOC" according to your file format.

### 7.3 Scanning documents to a Macintosh computer

1. Insert a memory card to your scanner.
2. Turn the POWER knob to "1" ~ "5" to turn on your scanner.
3. Connect the mini USB connector of the supplied USB Y cable to the mini USB port at the back of the scanner. Connect the other end to the USB port on your Macintosh computer.



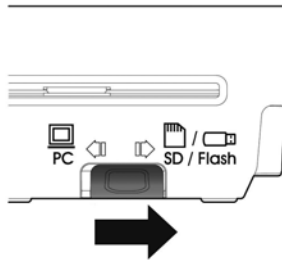
4. Insert your documents to the feeding slot of the scanner. The scanner begins scanning and save the images to the memory card.
5. Choose the name of your memory card on your desktop. The scanned images are stored in folder of **DCIM\100Photo** or **DCIM\100DOC** depending on your file format.

## 8. Maintenance

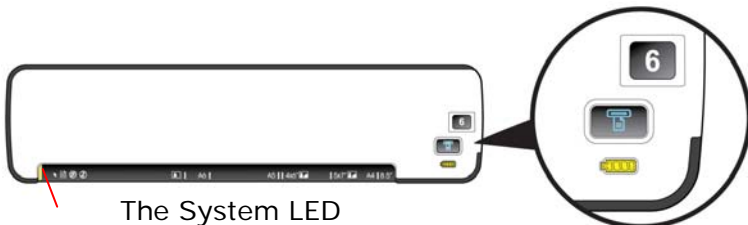
### 8.1 Calibrating the scanner

If the scanned image looks fuzzy or there are strange stripes on it, the scanner may need calibrating in order for the sensor to resume its original precision. To calibrate the scanner:

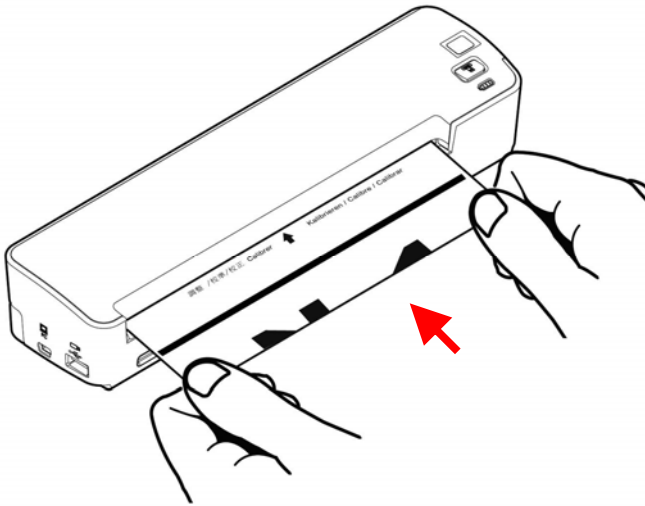
1. Make sure your SC card or USB flash drive is inserted in the scanner.
2. Move the operation mode to the "SD/Flash" mode as indicated.



3. Press the **POWER** knob to "6". The System LED blinks in green color in a few seconds.



4. Insert the supplied calibration chart to the feeding slot in 5 seconds, as shown below: Note: Please hold only the bottom-right and bottom-left corner of the calibration chart with two hands as illustrated. Do not touch the rest areas.



5. The scanner starts calibrating. After calibration is finished, the system LED will be lit in green solidly.
6. Turn off and then turn on your scanner to reset the scanner.

---

**Note:**

Keep the calibration chart clean. Any dirt may make the calibration chart invalid or impact the calibration result.

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## 8.2 Cleaning the scanner glass

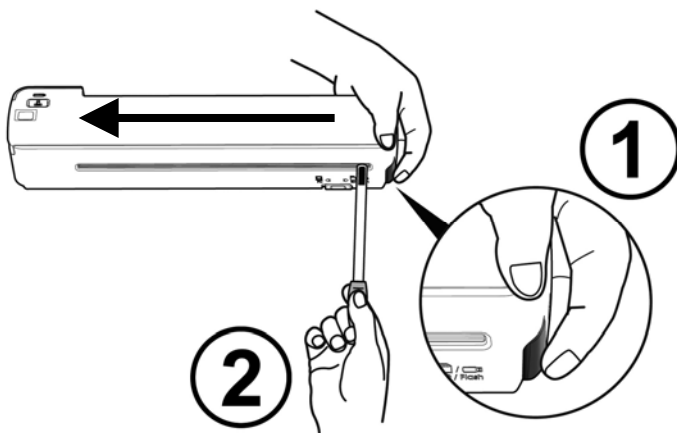
The glass in the scanner should be cleaned periodically. If debris is present, the scanned image may have streaks or scratches.

To clean the scanner glass,

1. Turn the scanner off by turning the **POWER** knob to "OFF".



2. Turn the scanner to its back side.
3. Wet the supplied cleaning swab with some isopropyl alcohol (95%).
4. Release the glass by pressing the button on the right side with your right hand. At the same time, use your left hand to insert the cleaning swab into the right end of the glass and then slide the cleaning swab to the left end as indicated.



5. Remove the cleaning swab from the scanner.
6. Repeat step 3 and step 4 for five or six times consecutively.
7. Remove the supplied cleaning swab, store it in a safe place and protect it from dust.

## 9. Troubleshooting

If you have problems with the operation of the product, please check the following troubleshooting hints.

### 9.1 Questions in "Scan to SD/Flash" Mode

**Question:** There are strange lines on the scanned image, or the image is not clear.

**Answer:** Check the following:

- Are there scratches on the original, or is the original clean? Remove any stains or dust from the original before scanning.
- Has the scanner been used for a long period of time without cleaning and calibration? Follow the instructions for "Cleaning the Scanner" and "Calibrating the Scanner", and then try again.

**Question:** The original gets stuck halfway in the feeding slot.

**Answer:** Press the **Function** button. The scanner will back out the original so you can remove the jammed original from the output slot.

**Question:** The System LED blinks rapidly and no scan is possible.

**Answer:** Check the following:

- Is the memory card inserted properly into the memory card slot? Re-insert the card and try again.
- Is the SD card locked (set to write-protect)? Unlock the card.
- Is the memory card full? The indicator blinks when the free space on the memory card is below 1MB. Use another card if necessary.
- Make sure the memory cards are in FAT or FAT32 file formats only, not NTFS or any other file format.
- Did you insert the next original before the scanning process of the previous one was completed? Power the scanner off and back on and try again. Make sure that you scan the next original only after the scanning process of the previous one has completed. Does the length of the original exceed the maximum acceptable size?

**Question:** The scanner feels warm to the touch.

**Answer:** It is normal for the scanner to emit a small amount of heat (around 30-45 Celsius) after prolonged use. However, if there are strange odors coming from the scanner or the scanner feels hot to the touch, disconnect the scanner immediately from the power supply or the computer.

## 9.2 Questions in "Scan to PC" Mode

**Question:** The scanned image always comes out to be too dark.

**Answer:** 1) Use your application to modify the Gamma setting to 2.2 and 1.8 for your printer and monitor respectively.  
2) Adjust Brightness setting from the TWAIN interface to get a brighter image.

**Question:** The scanner works well except for the line art, the lines of which seem much thicker than the original.

**Answer:** Increase the Brightness or adjust the Threshold setting to adjust the line art image.

**Question:** When I choose resolution to be 600 dpi, the "auto crop" and "deskew" functions will be disabled.

**Answer:** Since to perform auto crop and deskew consumes great deal of system memory, it is suggested if you wish to perform "auto crop" and "deskew" functions, please choose your optical resolution to be smaller than 600 dpi to prevent a error message.

### 9.3 The System LED light pattern

In the “SD/Flash” mode, the System LED light patterns represent the following status:

Light	Description
<b>Steadily on in green color</b>	The scanner is ready for use.
<b>Blinks in red color continuously</b>	<ul style="list-style-type: none"><li>■ Initializing system and memory card. Please wait until the initialization process is complete before using the scanner.</li><li>■ Busy scanning and storing image files. Please wait until the process is complete before scanning another original.</li><li>■ Sensor cleaning in progress. Please wait until the process is complete before performing any operations.</li></ul>
<b>2 Blinks in red color</b>	Paper jam. Remove the paper gently from the feeding slot.
<b>3 Blinks in red color</b>	<ul style="list-style-type: none"><li>■ No SD card or USB flash drive in “Scan to SD/Flash” mode.</li><li>■ Wrong SD card.</li><li>■ No USB cable in “Scan to PC” mode.</li></ul>
<b>4 Blinks in red color</b>	Calibration failed. Error indication only.
<b>6 Blinks in red color</b>	Battery power is too low to perform a scan.
<b>No light</b>	The scanner is powered off.

## 10. Specifications

**All specifications are subject to change without notice.**

Specification		
Scanning Technology		CIS (Contact Image Sensor)
Acceptable paper size		2"x 2" ~ 8.5" x 11.69"
Output image formats		JPEG, PDF, TIFF
Memory	Flash	512KB
	Internal	64MB (DDR1)
Resolution	Scanned image	300 dpi (dots per inch)
Color	Scan color depth	Color – 48 bit
	Output format	Color – 24 bit
Interfaces	Memory Cards	SD/SDHC/Flash Disc
	USB	Mini USB port compatible with the USB 2.0 / 1.1 Device specification
USB Mass Storage Supported		Windows XP/Vista/7, Mac OS 10.5.x
Power	Input	100-240W
	Output	5Vdc, 1.0A

Battery Durability	300 pages (A4, color)
Weight	700 g
Dimensions (WxDxH)	290 x 68 x 51 mm (11.4 x 2.7 x 2.0 in)
Paper Thickness	Up to 0.8 mm
Recommended Operating Environment	5°C ~ 35°C; 20% RH ~ 85% RH