

**Vina**  
**BulletScan™**  
**F600**

**High Speed Color Duplex  
Document Scanner with  
Flatbed**

**User's Manual**

**Aug 2010**



## **Trademarks**

Microsoft is a U.S. registered trademark of Microsoft Corporation. Windows and Windows Vista are trademarks of Microsoft Corporation.

IBM, IBM PC are registered trademarks of International Business Machines Corp.

ENERGY STAR® is a U.S. registered mark.

Other brands and product names herein are trademarks or registered trademarks of their respective holders.

## **Copyright**

All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual, or otherwise, without the prior written permission of iVina Inc.

Material scanned by this product may be protected by governmental laws and other regulations, such as copyright laws, the customer is solely responsible for complying with all such laws and regulations.

## **Warranty**

The information contained in this document is subject to change without notice.

iVina makes no warranty of any kind with regard to this material, including, but not limited to, the implied warranties of fitness for a particular purpose.

iVina shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

## **Federal Communications Commission (FCC) compliance information statement**

### **Part 15**

The product has been tested and found to comply with the limits for a Class A 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 A limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual may cause harmful interference in which case the user will be required to correct the interference at his own expense.

## **CE**

### **Warning**

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

---

## Disposal of Waste Equipment



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.



As an ENERGY STAR® Partner, iVina Inc. has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

## System Requirements

- Microsoft Windows XP/Vista/7
  - 1.2 GHz CPU or greater \*
  - 512 MB RAM for Windows XP (2+ GB RAM recommended)
  - 1 GB RAM for Windows Vista and 7 (2+ GB RAM recommended)
  - 500 MB available on the Hard Drive for complete software installation
  - USB 2.0 Port
  - CD-Rom drive
  - Display supporting full color (32 bit) at 800 x 600
- \* File conversion speeds and OCR performance are linked to CPU speed. The faster the processor, the better the results.

## Table of Contents

<b>1.</b>	<b>Introduction .....</b>	<b>1-1</b>
<b>2.</b>	<b>Installation .....</b>	<b>2-1</b>
2.1	Unlocking the Shipping switch .....	2-1
	<b>2.1.1 Unlocking the scanner .....</b>	<b>2-2</b>
	<b>2.1.2 Locking the Shipping switch .....</b>	<b>2-3</b>
2.2	ADF Paper Chute .....	2-4
2.3	ADF Output Tray .....	2-5
2.4	Connecting the Cables .....	2-6
	<b>2.4.1 Connecting to Power .....</b>	<b>2-6</b>
2.5	Installing the Software .....	2-7
2.6	Connecting to the Computer .....	2-8
<b>3.</b>	<b>Completing Your First Scan .....</b>	<b>3-1</b>
3.1	Document Loading .....	3-1
3.2	ADF Scanning .....	3-2
3.3	Verifying Your Scanner Installation .....	3-3
	<b>3.3.1 A Glance of the Scanner Properties</b>	
	<b>Dialog Box .....</b>	<b>3-7</b>
<b>4.</b>	<b>Configuring the Twain Properties .....</b>	<b>4-1</b>
4.1	Buttons on the Scanner Properties Dialog Box ..	4-2
4.2	The Image Tab .....	4-4
	<b>4.2.1 The Image Selection Box .....</b>	<b>4-5</b>
	<b>4.2.2 Other Image Options .....</b>	<b>4-8</b>
	<b>4.2.3 Scanning color images .....</b>	<b>4-18</b>
	<b>4.2.4 Scanning grayscale images .....</b>	<b>4-19</b>
	<b>4.2.5 Scanning B&amp;W images .....</b>	<b>4-19</b>
	<b>4.2.6 Editing Profiles .....</b>	<b>4-20</b>
4.3	The Compression Tab .....	4-23
4.4	The Color Dropout Tab .....	4-25
	<b>4.4.1 Color Dropout Selection .....</b>	<b>4-25</b>

---

<b>4.4.2 Other Color Dropout Options</b> .....	4-27
4.5 The Paper Tab.....	4-29
<b>4.5.1 Cropping</b> .....	4-30
<b>4.5.2 Other Paper Selection</b> .....	4-32
<b>4.5.3 Multimode cropping</b> .....	4-34
4.6 The Multi-Feed Detection Tab.....	4-38
4.7 The Preview Tab.....	4-42
4.8 The Options Tab.....	4-43
4.9 The Setting Tab .....	4-50
4.10 The Information Tab .....	4-53
<b>5. Maintenance</b> .....	<b>5-1</b>
5.1 Cleaning the ADF .....	5-1
5.2 Cleaning the Glass.....	5-3
5.3 Replacing the ADF snap-in pad module .....	5-4
5.4 Replacing the ADF Paper Feed Roller.....	5-6
<b>6. Troubleshooting</b> .....	<b>6-1</b>
6.1 Question and Answer .....	6-1
6.2 Paper Jam in the ADF .....	6-5
<b>7. Technical Service</b> .....	<b>7-1</b>
<b>8. Specifications</b> .....	<b>8-1</b>
<b>Index</b> .....	<b>a</b>

# 1. Introduction

Congratulations on your purchase of the BulletScan F600 document scanner.

Before you install and operate the scanner, please take a few minutes to read through this manual. It provides you with the proper instructions on how to unpack, install, operate and maintain the scanner.

Figure 1-1 shows how the scanner is packed. You can check all items against your "checklist", included with your scanner.

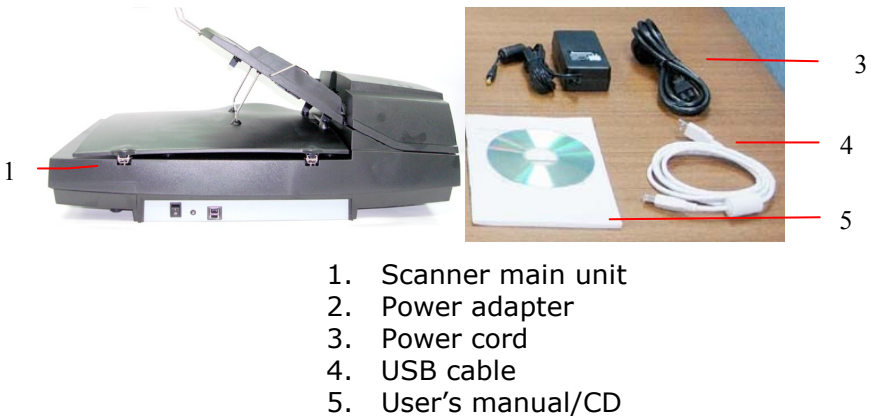


Figure 1-1 Scanner Packaging

**Note:** When you unpack the scanner, retain the packing material and shipping box in case you may transport the scanner in the future.



## 2. Installation

Please unpack the scanner carefully, and check the contents against the *checklist*. If any items are missing or damaged, please contact your authorized local dealer immediately.

### Precautions

- Keep the scanner out of direct sunlight. Direct exposure to the sun or excessive heat may cause damage to the unit.
- Do not install the scanner in a humid or dusty place.
- Use only the **BulletScan Type 2 AC adapter** (HEG42-240200-7L by Hitron) included with the machine. Using other AC adapters may damage the machine and void the warranty.
- Be sure to use a properly grounded AC power source.
- Place the scanner securely on an even, flat surface. Tilted or uneven surfaces may cause mechanical or paper-feeding problems.
- Retain the scanner box and packing materials for shipping purposes.

### 2.1 Unlocking the Shipping switch

The scanner has a shipping lock that protects the scan head for transportation purposes. This switch must be unlocked before using the scanner.

Before proceeding, turn the power off, disconnect all cables and follow the instructions below to unlock the shipping switch.

---

### 2.1.1 Unlocking the scanner

1. Carefully place the scanner in an upright position on its front.
2. Unlock the scanner by moving the lock switch beneath the scanner to the "Unlock" position (See Figure 2-1).
3. Gently place the scanner back to its normal position.

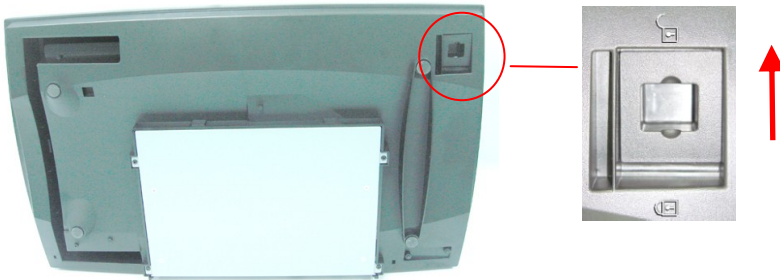


Figure 2-1 Unlock the Shipping Switch

## **2.1.2 Locking the Shipping switch**

Whenever you need to move the scanner to a new location it is advisable to lock the shipping switch to avoid causing damage to the scanners' internal mechanism. Please follow the instructions below to lock the shipping switch.

- 1). Turn off the scanner.
- 2). Lift the Document cover to reveal the flatbed glass and scanning unit.
- 3). Turn on the scanner.
- 4). The scanner lamp should move all the way to the far end of the flatbed section and pause briefly. Once the lamp is there, power off the scanner.
- 5). Place your scanner in an upright position on its front side.
- 6). Lock your scanner by moving the lock switch to the **"Locked position"**.
- 7). Set the scanner back down and resume packing for shipment.

---

## 2.2 ADF Paper Chute

1. Lift the paper chute to about 45 degrees.
2. Pull the paper-chute wire leg down to the grips on the document cover.
3. Slightly press the paper chute to snap the wire leg into the grips on the document cover.
4. Pull out the paper chute extension to the length you want.

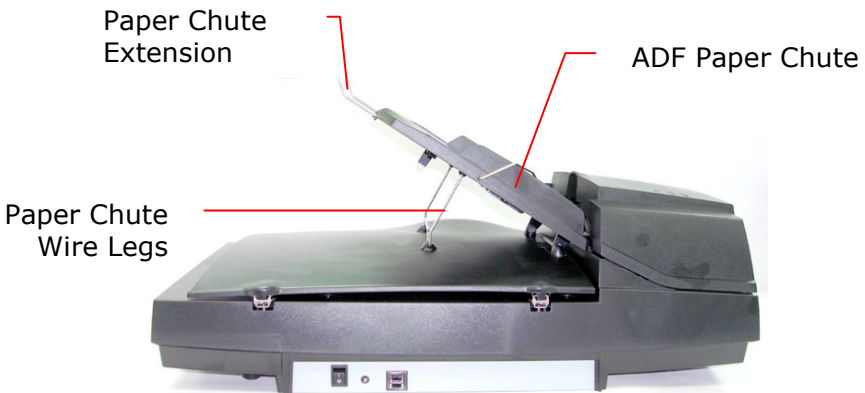


Figure 2-3 Install the ADF Unit

## 2.3 ADF Output Tray

1. Hold the output paper tray about 30 degrees up as shown in Figure 2-4.
2. Insert the three tabs on the output paper tray to the three slots on the ADF.
3. Release the paper tray gently. The paper tray should sit stably.
4. Pull out the output paper tray extension wire to the desired length.

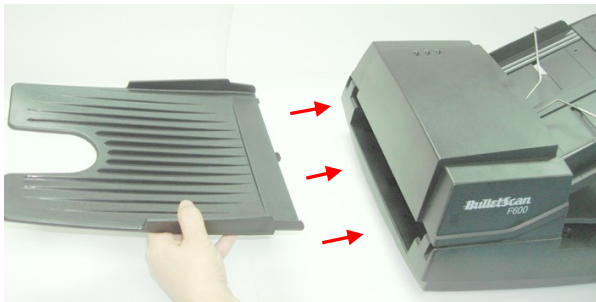


Figure 2-4 Install the ADF Output Paper Tray

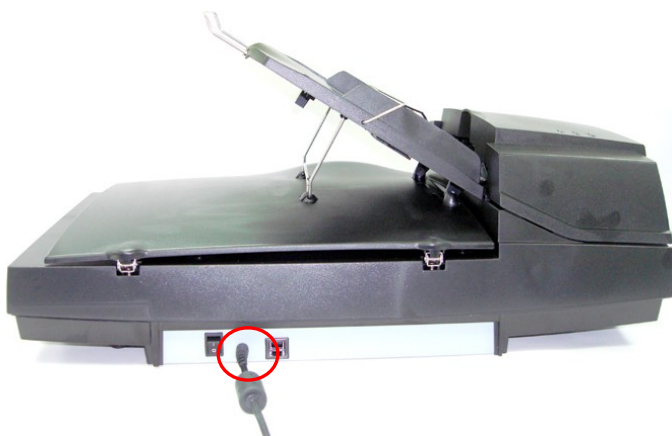
---

## 2.4 Connecting the Cables

**Make sure the power of scanner is off.**

### 2.4.1 Connecting to Power

Plug the small end of the power adaptor into the power jack of your scanner. Insert the other end to an appropriate power outlet.



## 2.5 Installing the Software

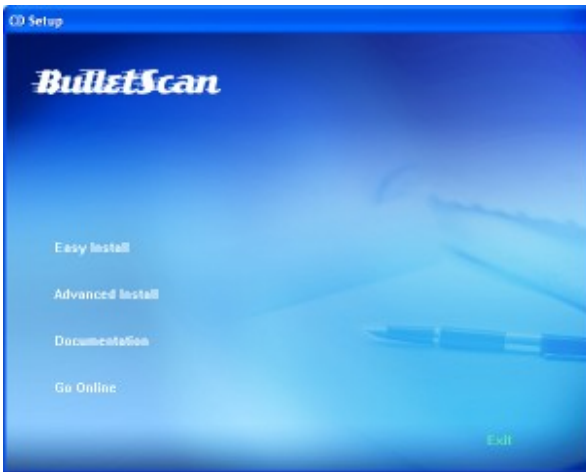
---

**Note:**

**For best results, install the software and driver from the CD before connecting the scanner.**

---

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



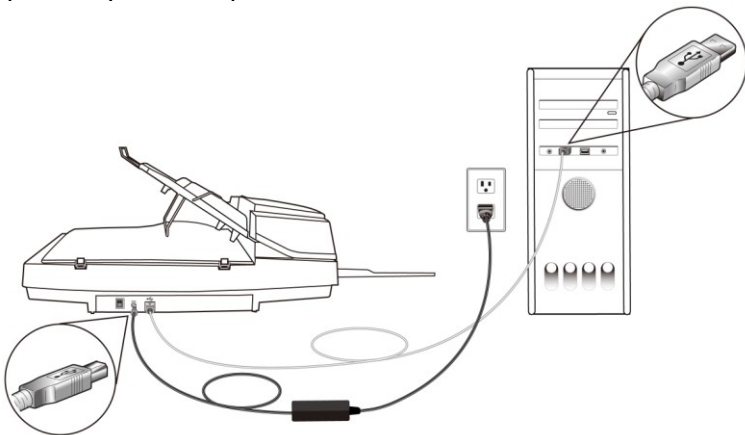
---

## Contents on the installation disc:

1. **Easy Install:** Click to install all bundled software including scanner driver, BulletScan Manager, NewSoft Presto! PageManager, and NewSoft Presto! Bizcard Reader.
2. **Advanced Install:** Choose for a selective installation.
3. **Documentation:** Click to view quick install guide, scanner manual, BulletScan Manager manual and other software manual.
4. **Go Online:** Click to go online to the [Bulletsan.com](http://Bulletsan.com) website.

## 2.6 Connecting 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 XP, installation will continue automatically. In Windows Vista and 7, click the **Finish Installing Software** option, and then click **Continue** button to complete the installation.
4. If you are prompted with a **Finish** dialog, click the **Finish** button.
5. If Windows fails to install your scanner, power off your scanner, shut down your computer, connect your scanner to a different USB port on the computer, and restart your computer. Power the scanner back on when your computer is done rebooting.

**Note:**

To uninstall the scanner driver in Windows XP leave the scanner connected to your computer during software removal.



## 3. Completing Your First Scan

### 3.1 Document Loading

#### For flatbed scanning

Documents that can not be scanned using the ADF can be placed on the flatbed for scanning. (See Figure 3-1)

1. Place the document to be scanned onto the glass face down.
2. Position the document so that the upper-right corner of the document is aligned with the reference mark in the back left corner.

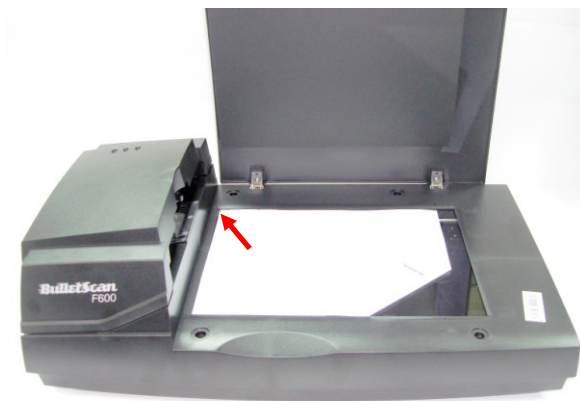


Figure 3-1 Place Document on the scanner

---

## 3.2 ADF Scanning

Multiple documents can be fed automatically using the Automatic Document Feeder (ADF). Refer to Figure 3-2.

1. To prevent occasional paper jam when automatically feeding multiple documents, fan the paper before loading.
2. Lift the balance wire.
3. Place the documents onto the ADF paper chute in either paper side (face-down, face-up), with the leading edge in the auto feeder entrance.

Let the balance wire rest on the top of the documents.

4. Adjust the left and right guides so that they are snug against the sides of the documents.

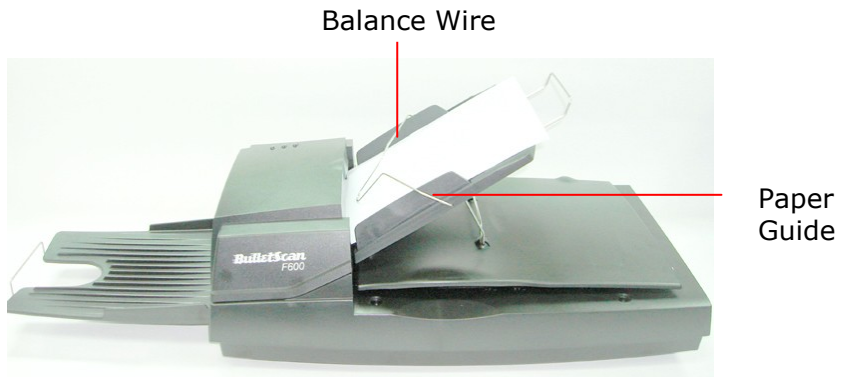


Figure 3-2 Load Multiple Document

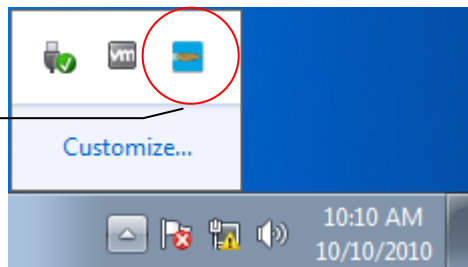
### 3.3 Verifying Your Scanner Installation

Once you've loaded your scanner, you should be able to begin scanning simply by clicking on the BulletScan icon in the system tray and clicking on the destination number.



BulletScan Manager icon on Windows XP

BulletScan Manager icon on Windows Vista/7



By default, selecting number 1 and scanning will give you a PDF in NewSoft Presto! PageManager. For more information on using the BulletScan Manager, please refer to the BulletScan Manager User Manual PDF.

If this doesn't work, you can verify if your scanner installation is correct, iVina provides you a simple image capture program called iVina Capture Tool. With this tool, you can perform simple scans to many image formats and immediately view the results. In addition, you can do use it to do speed tests and other operations

If your scanner is not responding after installation, the following procedure shows you how to verify your scanner installation. If the scanner is not working, please check both ends of the power and USB cables, verify the shipping lock is disengaged, and restart the scanner and computer.

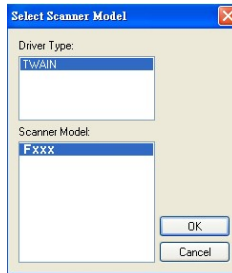
Before you begin, be sure the scanner is on.

1. Select Start>Programs>BulletScan>iVina Capture Tool. If there is nothing in the start menu labeled "BulletScan" you

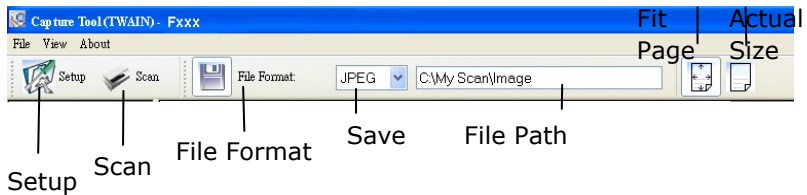
---

must install the software from the CD.

2. The Select Scanner Model dialog box will be displayed.



3. Select TWAIN (your driver type) and the F600 (scanner model) and click OK. The following iVina Capture Tool dialog box will be displayed.

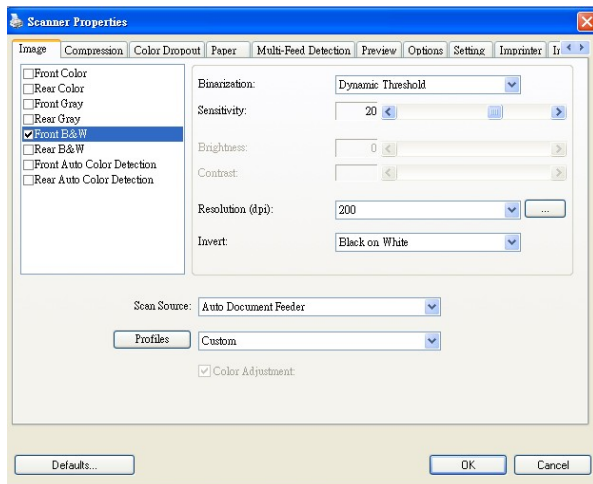


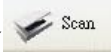
4. Choose your desired file format from the File Format drop down list box. (Default is BMP, other choice includes TIFF, GIF, and JPEG.)
5. Type your desired folder name and file name in the File Path box. (Default is C:\My Scan\Image.)

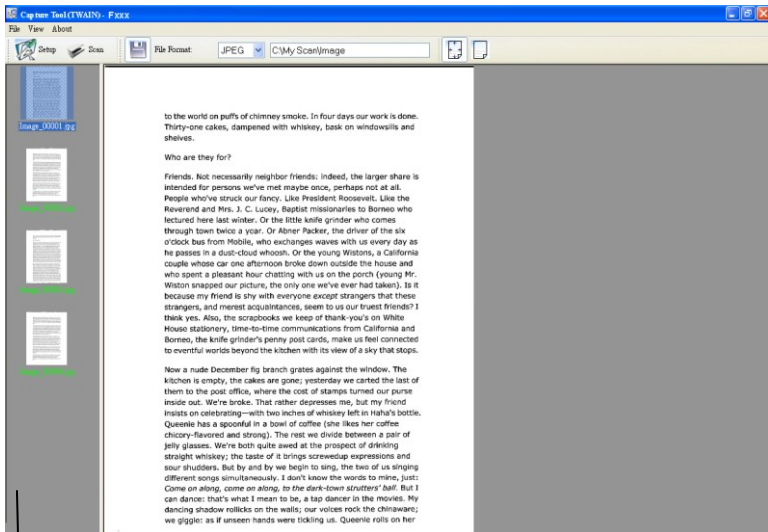
**Note:** If you do not wish to save the scanned image, click the Save button (Floppy Disk icon) as this option is enabled by default. Also, if you disable saving, the thumbnail view will be disabled and you'll only be able to view the last captured image.

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

Image  
Selection  
Box



7. 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.
8. 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*.)
9. Place your document face down on the document glass or face up in the auto document feeder.
10. In the Scan Validation dialog box, click the Scan button  or choose Scan from the File menu.
11. 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

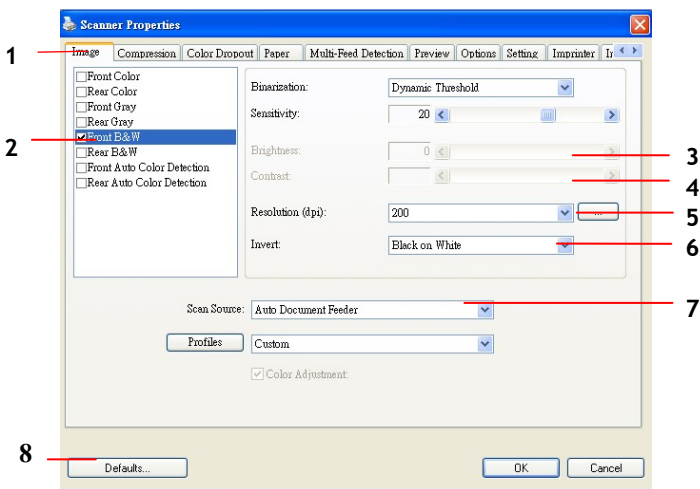
Fit Page View

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

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

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

### 3.3.1 A Glance of the Scanner Properties Dialog Box

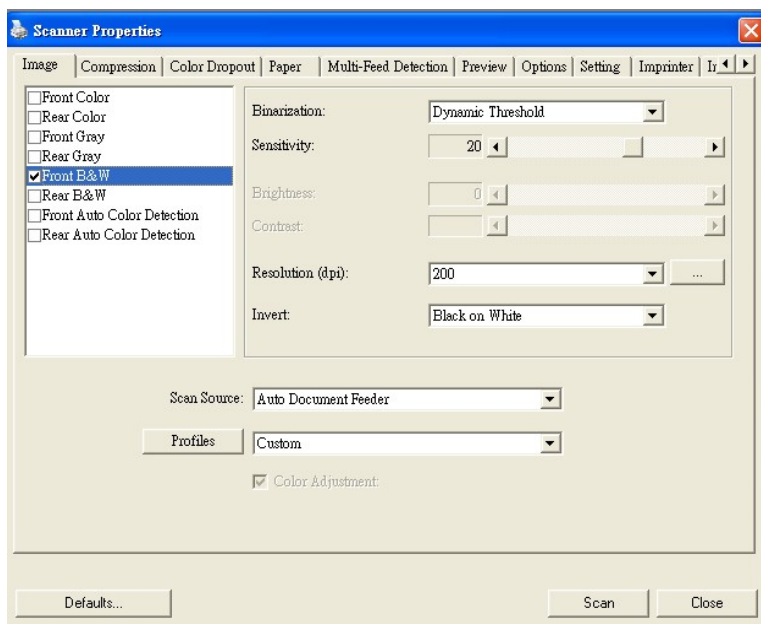


<b>1. Tab Options</b>	Choice: Image, Compression, Color Dropout, Paper, Options, Settings, Information.
<b>2. Image Selection Box</b>	Choose your image type and the side of document you wish to scan. Options vary based on type of scanner.
<b>3. Brightness:</b>	Adjust the brightness level from -100 to +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>	<b>Choice:</b> 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.



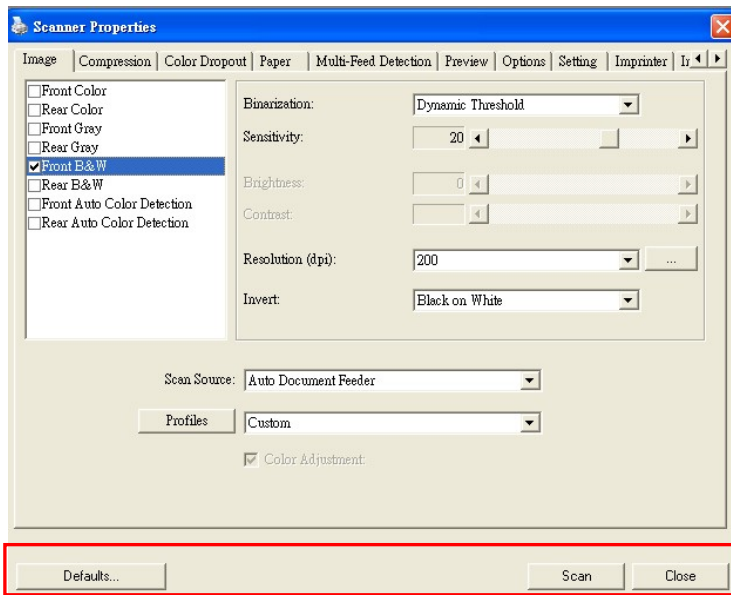
## 4. Configuring the Twain Properties

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



**The Scanner Properties dialog box**

## 4.1 Buttons on the Scanner Properties Dialog Box



**The buttons on the Scanner Properties dialog box**

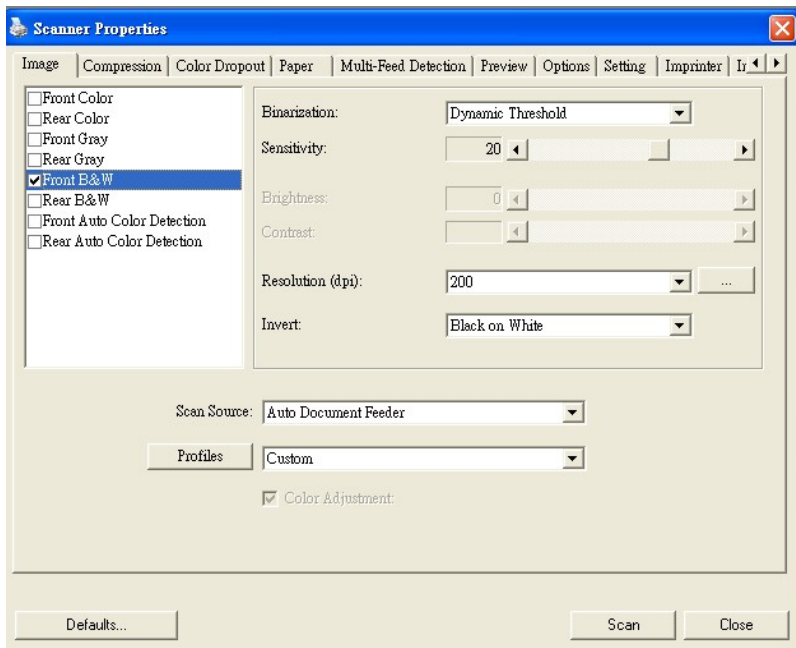
Buttons	Description
<b>Defaults</b>	Click the <b>Defaults</b> button, the factory default settings will be shown on each tab.
<b>Scan</b>	After all the scan settings are satisfactory, click the <b>Scan</b> button to start scanning your document.
<b>Close</b>	Click the <b>Close</b> button to leave the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

The following table shows the default settings :

<b>Tab name</b>	<b>Default settings</b>
<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

## 4.2 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.



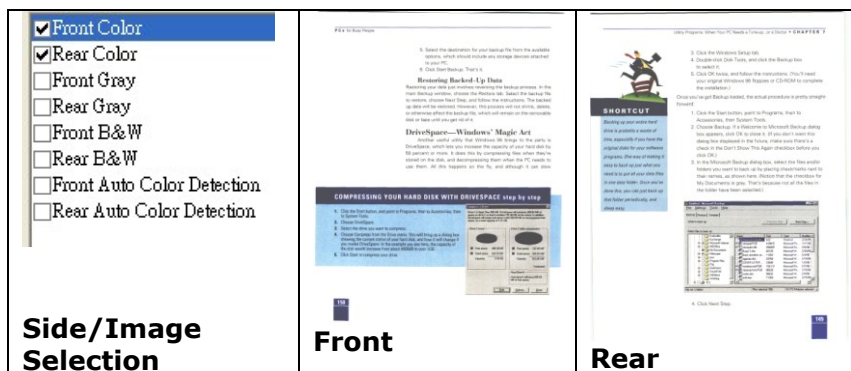
**The Image tab dialog box**

### 4.2.1 The Image Selection Box



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. You can configure the Front and Back sides independently.

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



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

**Front Color**

Rear Color

Front Gray

Rear Gray


Front B&W

**Rear B&W**

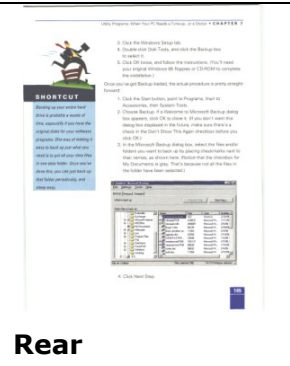
Front Auto Color Detection

Rear Auto Color Detection

**Front**



**Rear**



**Side/Image Selection**

**Front**

**Rear**

Image Type	Description
Color	<b>Choose Color if you wish to scan a color image for your original in color.</b>
Gray	<b>Choose Gray image if your original contains actual shades of gray. If you are scanning black and white photo, use this option.</b>
B&W	<b>Choose B&amp;W if your original contains only text, pencil or ink sketch.</b>

000000

1. Select a document to scan from the folder of the PDF, which has not been scanned.

2. Select the document to scan from the folder of the PDF, which has not been scanned.

3. Select the document to scan from the folder of the PDF, which has not been scanned.

4. Select the document to scan from the folder of the PDF, which has not been scanned.

5. Select the document to scan from the folder of the PDF, which has not been scanned.

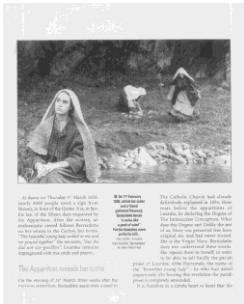
6. Select the document to scan from the folder of the PDF, which has not been scanned.

7. Select the document to scan from the folder of the PDF, which has not been scanned.

8. Select the document to scan from the folder of the PDF, which has not been scanned.

9. Select the document to scan from the folder of the PDF, which has not been scanned.

10. Select the document to scan from the folder of the PDF, which has not been scanned.



**Gray**

**TABLE**

Item	Value
1	100
2	200
3	300
4	400
5	500
6	600
7	700
8	800
9	900
10	1000

**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 color, 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 typically used when you have a mixture of color and non-color document.

Note: If you enable Auto Color Detection for either side, it will be enabled for both sides if you are scanning in duplex.

### **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.

---

## 4.2.2 Other Image Options

**Binarization** This is the process of converting a grayscale or color image to a bi-tonal or Black and White 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**



H  
F. Michelangelo  
Architecture  
this huge work  
sculpture, painting,  
photographs, ceiling with a  
illus. (120 in c  
10 3/4" x 14"

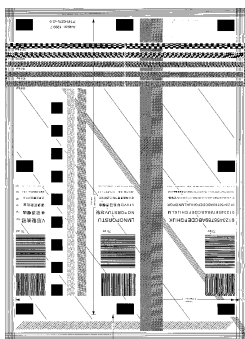
G. NEW Botticelli  
Renaissance  
unprecedented  
first lifesize  
enormous new

### Error Diffusion Image

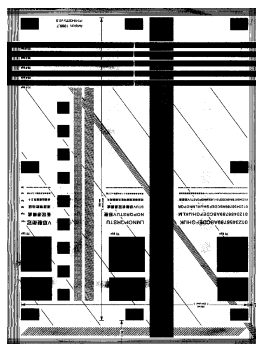
## **Threshold**

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**

---

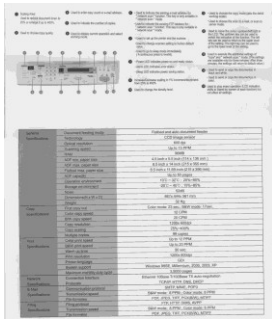
## Gray

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

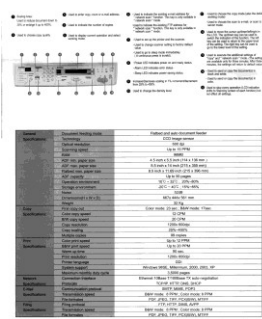
Three options of document type are provided when you choose Gray as the image type for your scanned document: Normal, Photo, Document.

- **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 is a photo or similar to reproduce your photo in vivid grayscale image. When using Photo, Threshold and Contrast are locked.
- **Normal:** When using **Normal**, Threshold, Brightness, and Contrast can be manually adjusted.

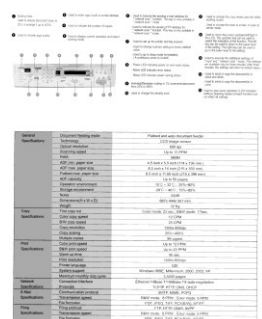
**Threshold:** The value ranges from 0 to 255. The default is 230. A low threshold value produces a lighter image, and can be used to subdue backgrounds and subtle, unneeded information. A high threshold value produces a darker image, and can be used to help pick up faint images. Adjust the threshold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



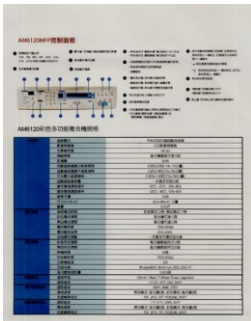
Document  
(Threshold: 230)

## Brightness

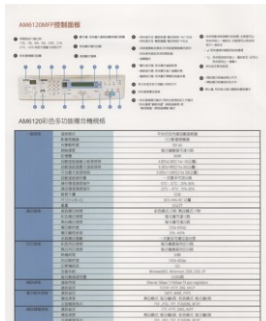
Adjusts the lightness or darkness of an image. The higher the value, the brighter the image. Drag the slider to the right or left to increase or decrease the brightness. The range is from -100 to +100.

## Contrast

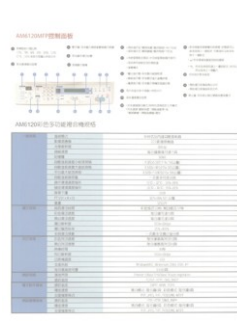
Adjusts the range between the darkest and the lightest shades in the image. The higher the contrast, the bigger the different grayscale. Drag the slider to the right or left to increase or decrease the contrast. The range is from -100 to +100.



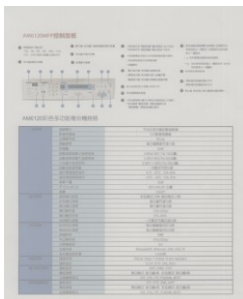
**Brightness: -50**



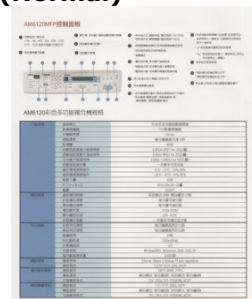
**Brightness: 0  
(Normal)**



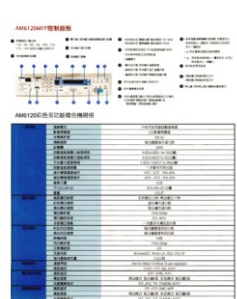
**Brightness: +50**



**Contrast: -50**



**Contrast: 0  
(Normal)**



**Contrast: +50**

## **Resolution**

Resolution is the value that controls how much information is captured when the scan is performed. A higher resolution will capture more information and increase the file size, trading off performance for quality. Most business documents are best saved in 200 or 300 DPI (Dots Per Inch) depending on the size and quality of the text. For reference, an letter size color image scanned at 300 dpi at in color consumes about 25 MB of disk space when uncompressed. A higher resolution (over 400 dpi) is only recommended when you need to scan a very small area.

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 manually set the resolution by clicking the button labeled [...] next to the drop down list and enter your desired value, pressing the Add button to include it in the drop down list.



**Resolution: 75 dpi**



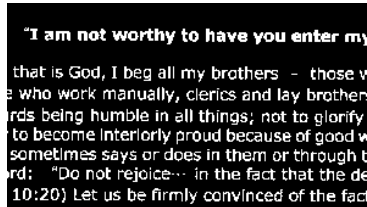
**Resolution: 150 dpi**

---

**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 w  
e who work manually, clerics and lay brother  
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 fac

**Black on White**



**"I am not worthy to have you enter my**  
that is God, I beg all my brothers - those w  
e who work manually, clerics and lay brother  
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 fac

**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.
- **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.

---

## **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 Adjustment**

### **4.2.3 Scanning color images**

The following options are available for scanning color images.

- Brightness
- Contrast
- Resolution
- Invert

#### **4.2.4 Scanning grayscale images**

The following options are available for scanning gray images.

- Brightness
- Contrast
- Resolution
- Invert

#### **4.2.5 Scanning B&W images**

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

- Binarization (Dynamic Threshold)
- Resolution
- Invert

Or

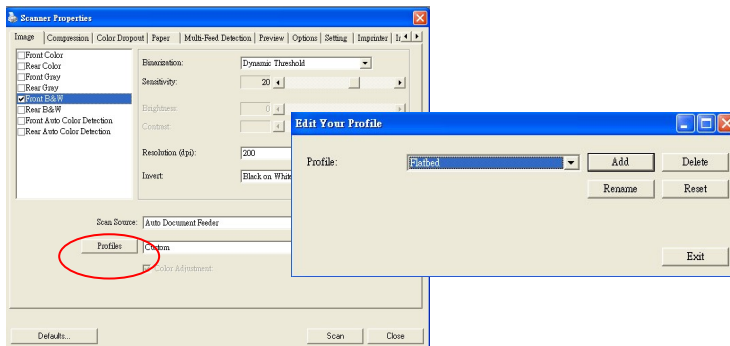
- Binarization (Fix Processing)
- Threshold
- Brightness
- Resolution
- Invert

## 4.2.6 Editing Profiles

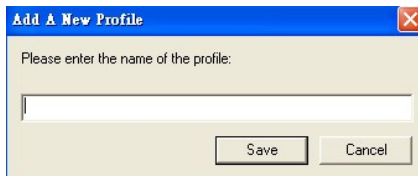
The Scanner Properties dialog box allows you to change and save your frequently used scan settings into a profile. You can edit these profiles by renaming or deleting them.

### 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.



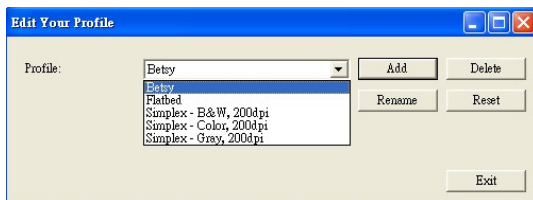
3. Click "Add" to enter the name of the profile and then choose "Save".



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

## To load a profile,

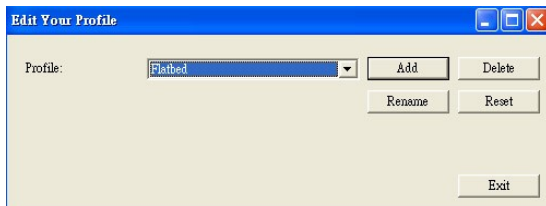
1. From the Image tab dialog box, choose your favorable profile from the "Profiles" dropdown list box.



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.

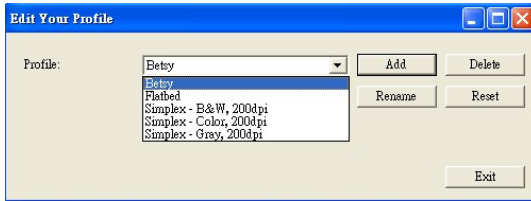


2. Choose the profile you want to delete from the dropdown list box.
3. Click "Delete". A Confirm message "Are you sure you want to delete this profile?" is prompted.
4. Choose "Yes" to delete or "Cancel" to quit.

---

## 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.

### **4.3 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 when scanning from certain applications, not all compression modes are supported. If the application does not support the type of compression format, typically you will see an error or a black image.

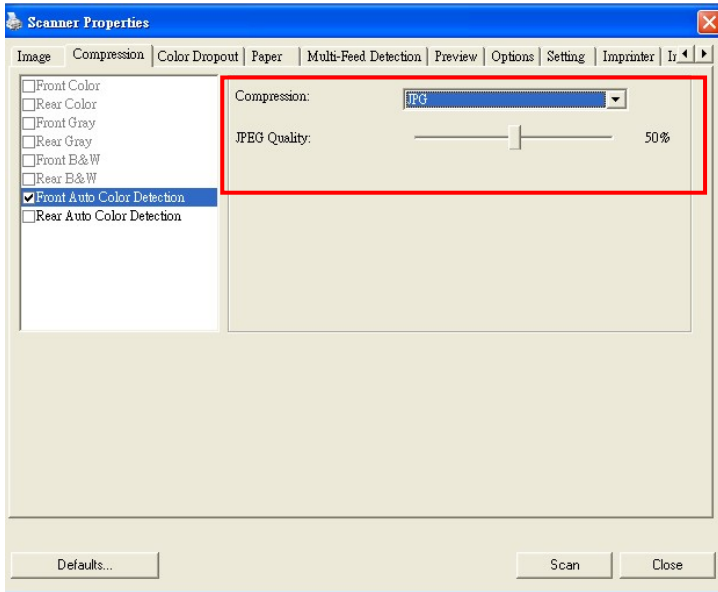
JPEG (Joint Photographic Editor Group). This group developed and lent their name to a file compression standard for color and grayscale images that is widely used by scanners, and software applications. On Microsoft Windows-based systems, a file with the extension .jpg has normally been compressed using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

## **4.4 The Color Dropout Tab**

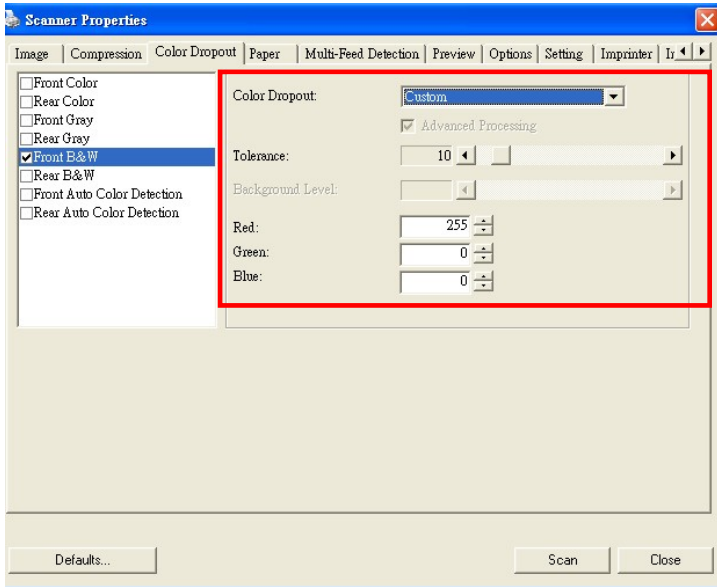
### **4.4.1 Color Dropout Selection**

Color Dropout is a special type of image processing designed to improve OCR results by removing specific types of background color content. Typically this is used in conjunction with specially designed forms that have colored boxes or checkboxes that people fill in. Using dropout allows you to remove these specially colored boxes from the image and provides you with better OCR results. It can also be used to remove a specific background color if it is causing a lot of noisy speckling.

From the dropdown menu, you can select any of the standard RGB color channels to be removed, or Custom to allow 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 larger the numeric value, the wider the color dropout range is.

Note that this function is only for outputting black & white or gray images.



**The Color Dropout dialog box**

## 4.4.2 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

一般規格	機身構造	平板式彩色複合機
	外觀材質	CC金屬機身
	網路支援	支援
	網路支援	雙分線模式支援
	支援語言	國語
	支援通訊協定/網路規格	4埠RJ45/10/100/1000
	支援通訊協定/網路規格	4埠RJ45/10/100/1000
	支援通訊協定/網路規格	8埠RJ45/10/100/1000
	支援通訊協定/網路規格	支援多可選設備
	操作溫度範圍	5°C ~ 35°C, 95%RH
	儲存溫度範圍	0°C ~ 40°C, 95%RH
	操作濕度範圍	20% ~ 80%
	儲存濕度範圍	5% ~ 95%
	電源供應	AC 100V/200V 自動
	電源消耗	500W
輸出規格	紙張輸出速度	彩色/黑白/雙面/厚紙
	彩色輸出速度	每分鐘35張/頁
	黑白輸出速度	每分鐘35張/頁
	厚紙輸出速度	100張/分鐘
	雙面輸出速度	20% ~ 40%
	支援紙張大小	支援標準及非標準紙張
紙張規格	A4彩色輸出速度	每分鐘35張/頁/分鐘
	A4黑白輸出速度	每分鐘35張/頁/分鐘
	厚紙輸出速度	100張/分鐘
	支援紙張大小	支援
	支援紙張大小	100x80mm
	支援紙張大小	支援
	支援紙張大小	Windows®、Macintosh、UNIX、Linux、XP
網路規格	網路輸出速度	10/100Mbps
	網路輸出速度	Ethernet、SMB、FTP、SMB、SMB、SMB
	網路輸出速度	FTP、FTP、SMB、SMB
	網路輸出速度	FTP、FTP、SMB、SMB
雙分線支援規格	支援紙張大小	雙分線模式、雙分線模式、雙分線模式
	支援紙張大小	雙分線模式、雙分線模式、雙分線模式
網路支援規格	支援紙張大小	雙分線模式、雙分線模式、雙分線模式
	支援紙張大小	雙分線模式、雙分線模式、雙分線模式
	支援紙張大小	雙分線模式、雙分線模式、雙分線模式
	支援紙張大小	雙分線模式、雙分線模式、雙分線模式

**Original**

AM6120彩色多功能複合機規格

一般規格	連續模式	單頁式印字機自動進稿器
	紙張容量	100張標準紙
	月平均印量	800頁
	標準紙張	每分鐘標準A4紙1頁
	印字機	800dpi
	自動進稿器最大紙張規格	4.91x35.1114x115.62公分
	自動進稿器最大紙張規格	8.52x44.9127x155.5公分
	可印最大紙張規格	8.52x41.18827x136.5公分
	自動進稿器紙張	連續進稿器
	標準進稿速度每分	10°C - 32°C, 20% - 80%
	標準進稿速度每分	20°C - 40°C, 10% - 80%
	每頁字數	3,300
	A4紙每頁A4頁	887x444.391公分
複印規格	複印	30頁/分
	原稿放大縮小	彩色模式: 25% - 放大1倍
	彩色放大縮小	每分鐘可達1.2頁
	原稿縮小	每分鐘可達1.2頁
	複印紙張	100x400pp
	複印速度	20% - 40%
列印規格	彩色列印速度	每分鐘最高可達1.2頁
	彩色打印速度	每分鐘最高可達1.2頁
	標準紙張	800dpi
	打印速度	100x400pp
	打印紙張	100
	打印速度	Windows®: Minimum: 2000, 2000, XP Linux®
網路規格	網路介面	Ethernet 10/100Base T4 auto negotiation
	網路速度	10/100/1000
電子印件規格	掃描器	30ppm, 4000, 600pp
	掃描速度	MP, MP2, MP3
	掃描格式	PDF, PDF/A, PDF/E, PDF/UA, PDF/X
網路設備規格	網路連接	USB, IEEE 1394, FireWire, AirPrint
	網路連接	無線LAN, 藍牙, 網路, 藍牙, 藍牙, 藍牙
	網路連接	USB, IEEE 1394, FireWire, AirPrint
	網路連接	無線LAN, 藍牙, 網路, 藍牙, 藍牙, 藍牙

**Remove Blue, Threshold: 20, Background: 255**

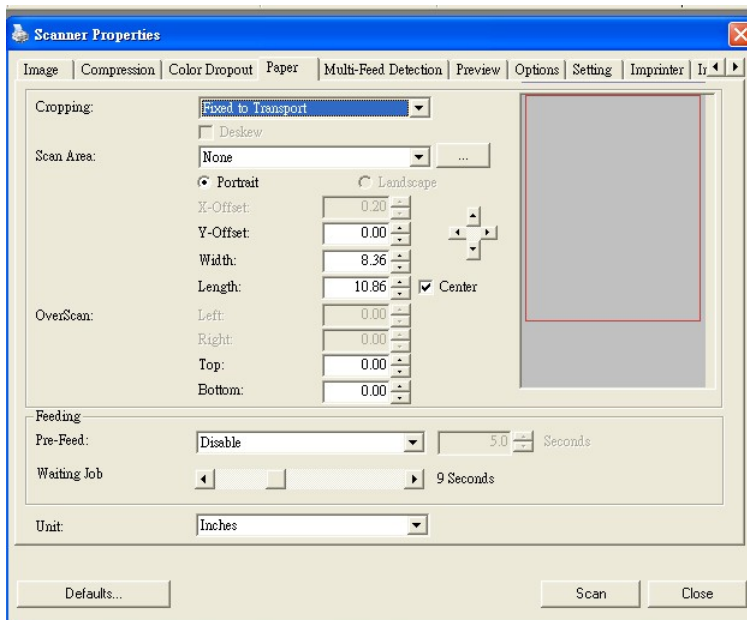
AM6120彩色多功能複合機規格

一般規格	連續模式	單頁式印字機自動進稿器
	紙張容量	100張標準紙
	月平均印量	800頁
	標準紙張	每分鐘標準A4紙1頁
	印字機	800dpi
	自動進稿器最大紙張規格	4.91x35.1114x115.62公分
	自動進稿器最大紙張規格	8.52x44.9127x155.5公分
	可印最大紙張規格	8.52x41.18827x136.5公分
	自動進稿器紙張	連續進稿器
	標準進稿速度每分	10°C - 32°C, 20% - 80%
	標準進稿速度每分	20°C - 40°C, 10% - 80%
	每頁字數	3,300
	A4紙每頁A4頁	887x444.391公分
複印規格	複印	30頁/分
	原稿放大縮小	彩色模式: 25% - 放大1倍
	彩色放大縮小	每分鐘可達1.2頁
	原稿縮小	每分鐘可達1.2頁
	複印紙張	100x400pp
	複印速度	20% - 40%
列印規格	彩色列印速度	每分鐘最高可達1.2頁
	彩色打印速度	每分鐘最高可達1.2頁
	標準紙張	800dpi
	打印速度	100x400pp
	打印紙張	100
	打印速度	Windows®: Minimum: 2000, 2000, XP Linux®
網路規格	網路介面	Ethernet 10/100Base T4 auto negotiation
	網路速度	10/100/1000
電子印件規格	掃描器	30ppm, 4000, 600pp
	掃描速度	MP, MP2, MP3
	掃描格式	PDF, PDF/A, PDF/E, PDF/UA, PDF/X
網路設備規格	網路連接	USB, IEEE 1394, FireWire, AirPrint
	網路連接	無線LAN, 藍牙, 網路, 藍牙, 藍牙, 藍牙
	網路連接	USB, IEEE 1394, FireWire, AirPrint
	網路連接	無線LAN, 藍牙, 網路, 藍牙, 藍牙, 藍牙

**Remove Blue, Threshold: 20, Background Level: 210**

## 4.5 The Paper Tab

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



**The Paper tab dialog box**

---

### 4.5.1 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. This option is only available when Flatbed is selected as the source.
---------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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.

---

## 4.5.2 Other Paper Selection

### Deskew

Use this option to automatically deskew a document.



Note: If the document feeds at too much of an angle, 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. Long page is only available from the ADF. Note if Long Page is selected, length based Multi-Feed Detection will not be available. Options: Unknown Length, Enter Length (up to 118 inches.)

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:**

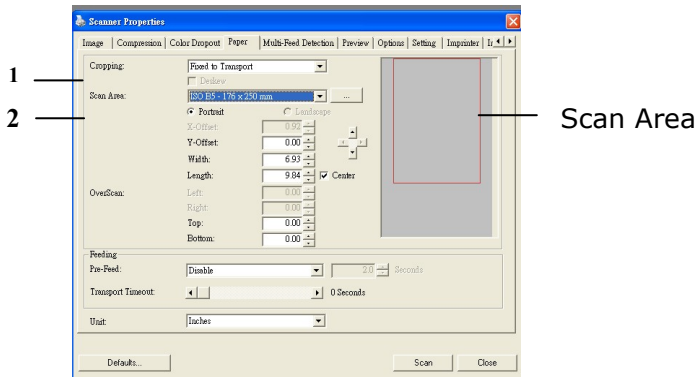
- 1 Within the specified timeout period, if you load your document to the feeder, the scanner starts scanning automatically.
  - 2 If your scanner has a flatbed option and you place your paper on the flatbed, after the timeout period, you need to click the Scan button on the TWAIN user interface to start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

### 4.5.3 Multimode cropping

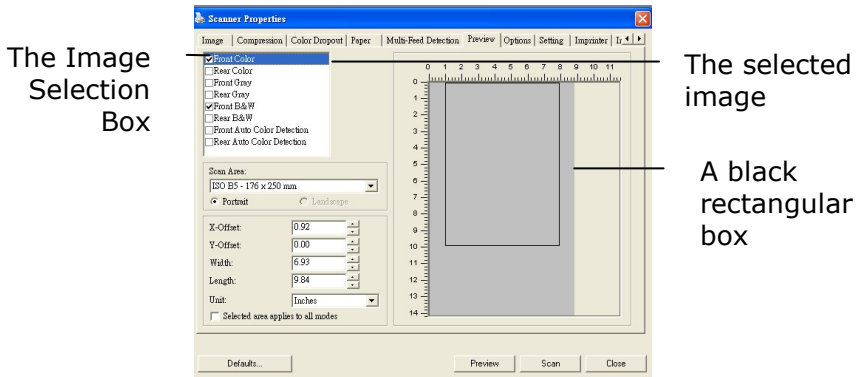
This feature provides flexibility if you are performing a scan that outputs in a more than one mode (B&W, Gray, or Color); you can assign different crop areas on your documents for each color mode. For example, there are applications which require you to store the entire form in B&W and a part of the 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 directions describes how to scan the entire document in B&W and keep a small portion of the document (picture) in color.

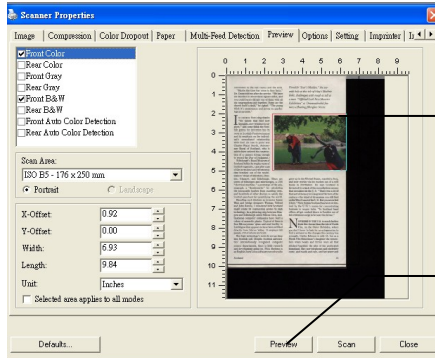
1. On the Paper tab, choose "Relative to Document" or "Fixed to Transport" from the Cropping option.
2. Choose your scan size from the Scan Area option. The selected scan size will be displayed in a red rectangular box. This is also the scan size of your entire document. (If you have not chosen a scan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



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



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

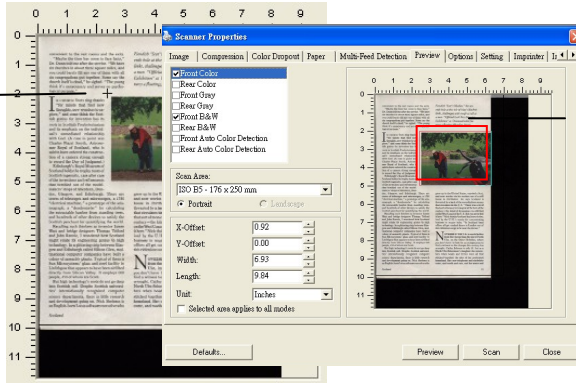


The Preview Image

The Preview Button

5. Select the 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 exits. "Maybe the time has come to fore-facts. Do. There will be after the service. "We have six churches in about three square miles, and you could hardly fill up one of them with all six congregations put together. Some say the church itself is dead," he sighed. "The wrong thing it's unnecessary and serves no psychological purpose."

**I**n common Scots sing thanks "for the minds that find new Douglas, new wonder-creations," and some think the Scottish genius for invention lies in its roots in Scottish Presbyterianism and its emphasis on the individual's unmediated relationship with God. A sign in quiet was Charles Piazzi Smith, Astronomer Royal of Scotland, who is said to have ordered the construction of a camera street enough to record the Day of Judgment. Edinburgh's Royal Museum of Scotland holds the trophy room of Scotland's ingenuity, even after case of the inventions and refinements that lunched out of the world-makers' shops of Aberdeen, Dundee, Glasgow, and Edinburgh. There are scores of telescopes and microscopes, a 1700 "astronomical machine," a prototype of the automobile, a "differential" for calculating the extrinsic function from standing, trees, and hundreds of other devices to satisfy the Scottish penchant for quantifying the world.

Recalling such thinkers as inventor James Watt and bridge designer Thomas Telford and John Roebuck, I wondered how Scotland might relate its engineering genius to high technology: is a glittering city between Glasgow and Edinburgh called Silicon Glen, multinational computer companies have built a colony of assembly plants. Typical of them is Sun Microsystems' glass-and-steel facility in Lishlague that appears to have been sited directly from Silicon Valley. It employs 600 people, 450 of whom are Scots.

But high technology's roots do not go deep into Scottish soil. Despite Scotland's international reputation as a computer software development center, there is little research and development going on. Nick Shuttleworth is an English-born founder here who works with

Finland's "Joni's Maiden," the seventh hole at the site of Lady's Meadow links, challenges with rough as tall as a man. "Official Loch Ness Monster Exhibition" at Drumadrochda features a floating life-rafts Nessie.



grew up in the United States, married a Scot, and now works via his modem out of a mill house in Perthshire. He says Scotland is threatened by a lack of the seventeenth-century money that drove him to the U.S. "There was a lot of that sort of money for Glasgow at the time of the century—the kind of dynamism you still find on the West Coast of the U.S. But you overtook it here." Nick thinks Scotland has been victimized by the U.K.'s mania for concentrating business in major hubs. "If Scotland had offices all get sucked down to London out of this ridiculous urge to be near the throne."

**N**OWHERE IN THE U.K. is much farther from the throne than the hills of North Fife, in the Outer Hebrides, where you don't have to look for an octopus in a fish as witness to the danger this country has wrought. Cathy Johnson is only 35, but as a North Fife fisherman's daughter she remembers when boats and ferries were all that stretched together the bits of her performed homeland. She saw telephones and electricity come, and roads and cars, and her water and



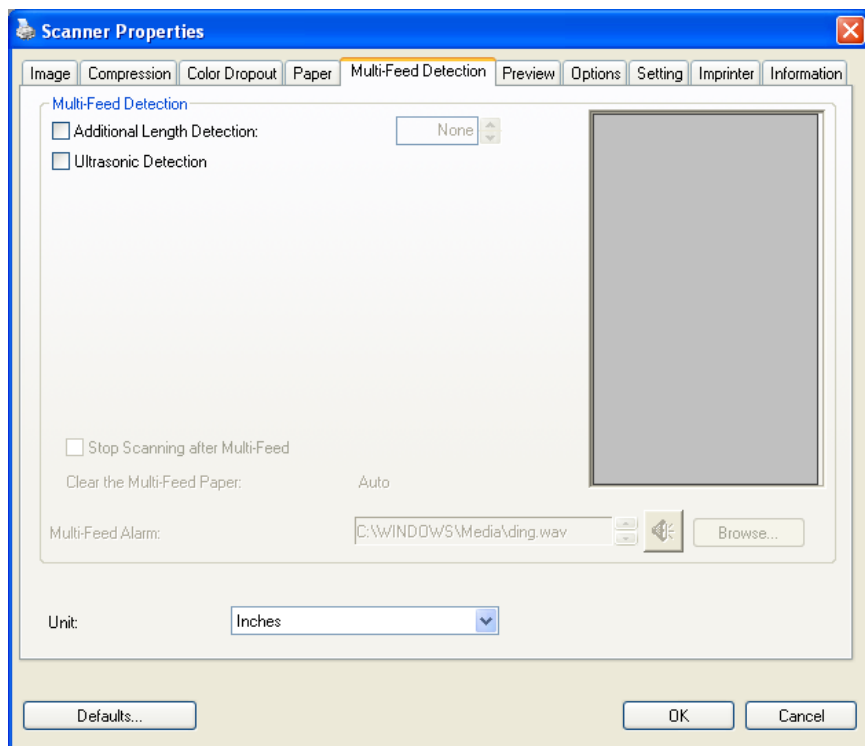
The entire document in B&W

The relative area in color

## 4.6 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.



## 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.

## Ultrasonic Detection

Ultrasonic Detection allows you to set overlapped document by detecting air gaps between pages that are stuck together.

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 of the pages in the feeder.
2. Click OK to close the Warning dialog box.
3. Scan the rest of the pages.

---

## **Clear the Multi-Fed Paper:**

Choice: Auto

If Auto is selected, once multi-feed is detected and scanning operation is stopped, the scanner will automatically clear the transport of the multi-fed paper. Manual is not an option for this model.

### ● **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.

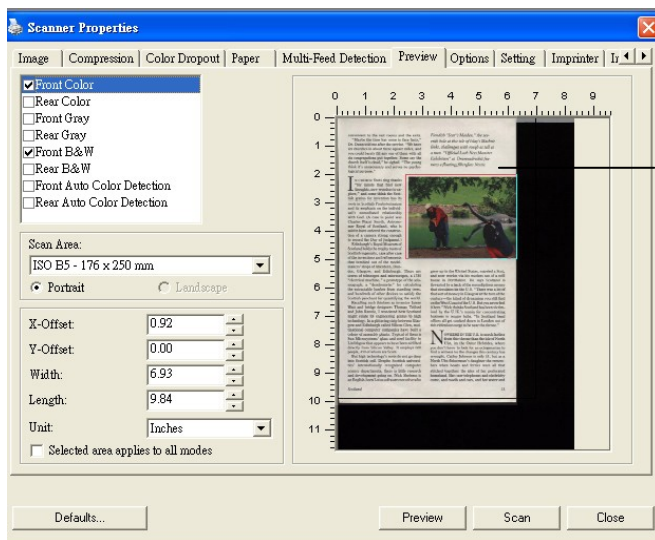
### **Units**

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

## 4.7 The Preview Tab

The Preview tab allows you to preview (a low-resolution scan) your image before the actual scan. This preview image lets you manually set your scan area. You can choose your scan area from 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 selecting a scan area on the Preview tab is disabled.

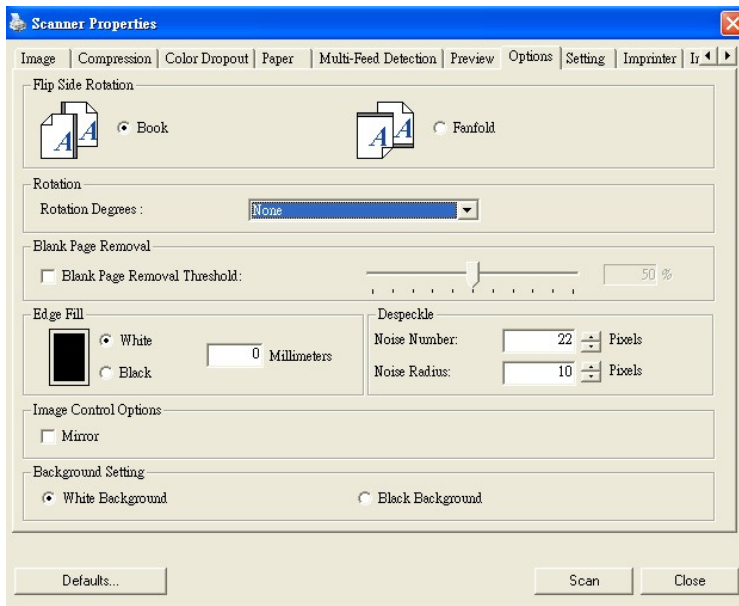


The Display Window

## The Preview Tab

## 4.8 The Options Tab

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



**The Option tab dialog box**

## Flip Side Rotation

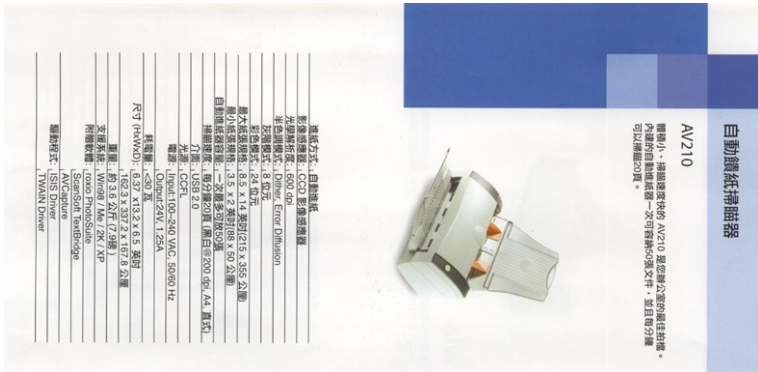
Select "fanfold" to rotate the image of the reverse side to 180 degrees.

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.**

1 2 3

**Original**

1  
2  
3

**Rotate 90°CW**

1  
2  
3

**Rotate 90°CCW**

3 2 1

**Rotate 180°**

**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.



**Image  
Control  
Option**

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



**Original**



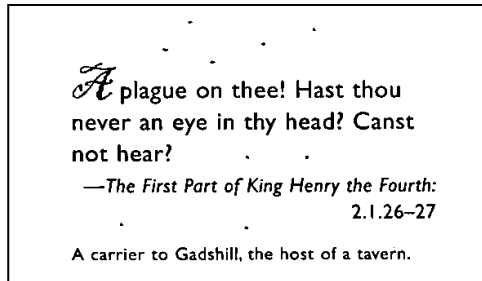
**The Mirror Effect**

---

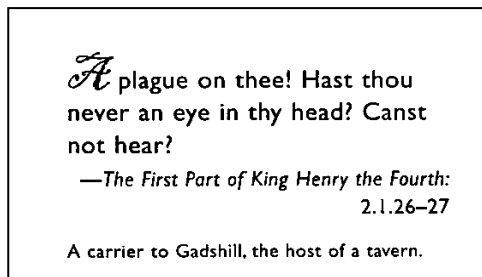
## Despeckle

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)

---

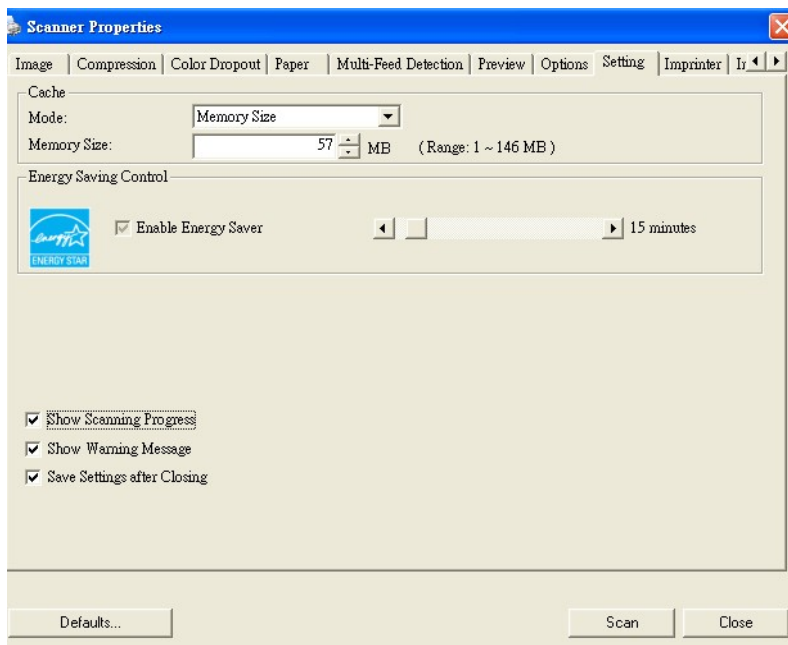
### Note:

- The function is for Black and White images only.
-



## 4.9 The Setting Tab

The Setting tab allows you to set the following settings:



**The Setting tab dialog box**

### **Energy Saving Control**

Check the **Enable Energy Saver** 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.

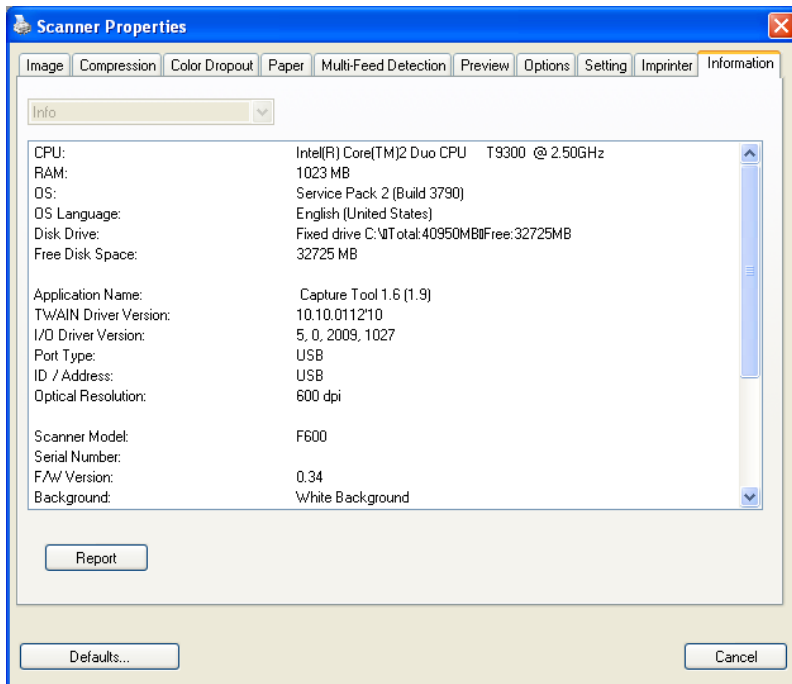
<p><b>Cache</b></p>	<p><b>Mode: None, Page Number, Memory Size.</b>          This option allows you to assign a specified memory size from the available RAM to process the image data. By specifying a smaller memory size, you can free more memory for other applications you are running. By specifying a 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>          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>
<p><b>Barcode Detection</b></p>	<p>Check this option to enable detecting and recognizing barcode in your document. After the detecting process, an avbarcode.ini file will be generated and stored in your system drive, for example, Windows\avbarcode.ini.</p>

---

<b>Show Scanning Progress</b>	Check and the scanning progress bar will be shown during scanning.
<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.

## 4.10 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:\F600) will be generated. Please send this file to the nearest service center for trouble shooting.

---

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

After scanning approximately 20,000 pages (the number varies based on type of scanner, type of paper and size of batches) 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 replacement 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 100,000 pages (the number varies based on type of documents scanned) 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.

## **5. Maintenance**

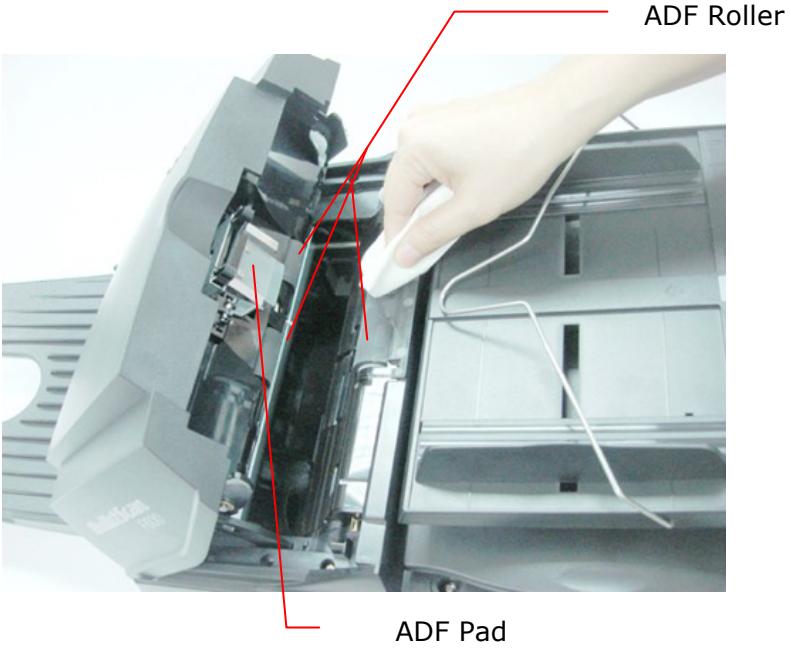
### **5.1 Cleaning the ADF**

The scanner is designed to be maintenance free. However, it still needs to be cleaned occasionally to ensure optimum image quality and performance.

From time to time the pad assembly and feeding rollers may become contaminated with ink, toner particles or paper dust. In this case the scanner may not feed documents smoothly or several documents may feed at once. If this occurs please follow the cleaning procedures to return your scanner to its original state.

The cleaning procedures

1. Moisten a clean lintless cloth with isopropyl alcohol (95%).
2. Carefully open the ADF to the left. Wipe the feeding rollers. Rotate the rollers forward with your finger and repeat the above cleaning procedures until the rollers are clean. Be careful not to snag or damage the pick springs.
3. Wipe the pad in the direction from top to bottom. Be careful not to hook the pick springs.
4. Close the ADF unit. Your scanner is now ready for use.



## 5.2 Cleaning the Glass

### The procedures:

5. Moisten a clean lintless cloth with isopropyl alcohol (95%).
6. Open the ADF unit and document cover as shown in Figure 6-2. Wipe the glass of flatbed and the glass in the ADF unit.
7. Close the ADF unit and document cover. Your scanner is now ready for use.

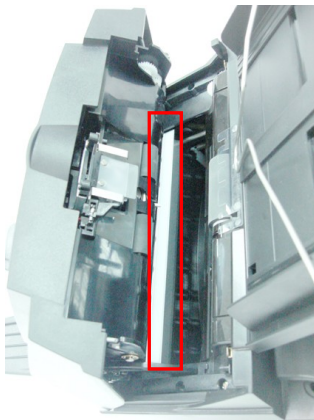


Figure 6-2 The Cleaning Area

---

### 5.3 Replacing the ADF snap-in pad module

After scanning approximately 20,000 pages through the ADF, the separation pad may be worn out and you may experience problems with document feeding. In this case, it is highly recommended to replace the pad module with a new one. For ordering the pad module, please consult your nearest dealer and follow the procedure below to replace it.

#### Removal Procedure

1. Open the ADF cover.
2. Remove the ADF snap-in pad module by pulling out the upper part of the pad clamp as shown in Figure 6-3.

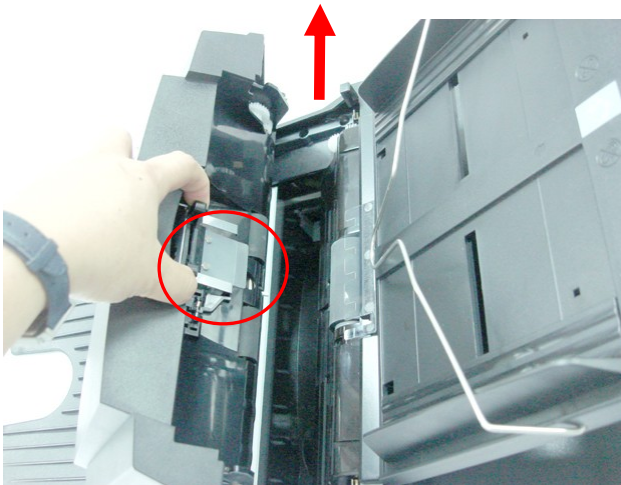


Figure 6-3 Remove the ADF Pad

## **Insertion Procedure**

1. Take out the ADF pad module from the box.
2. Hold the upper part of the pad clamp and place it gently to the pad holder as shown in Figure 6-4.

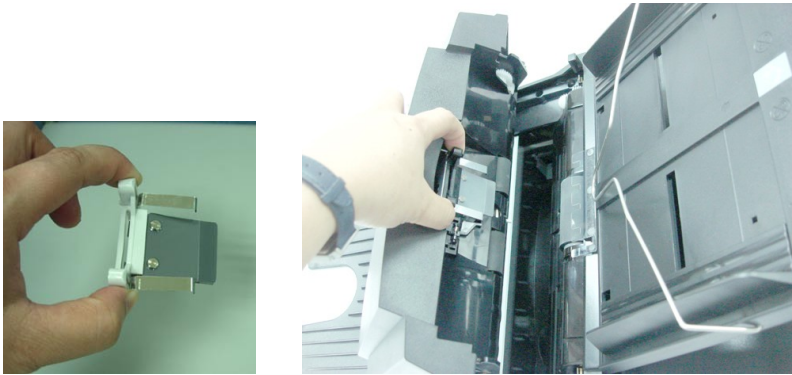


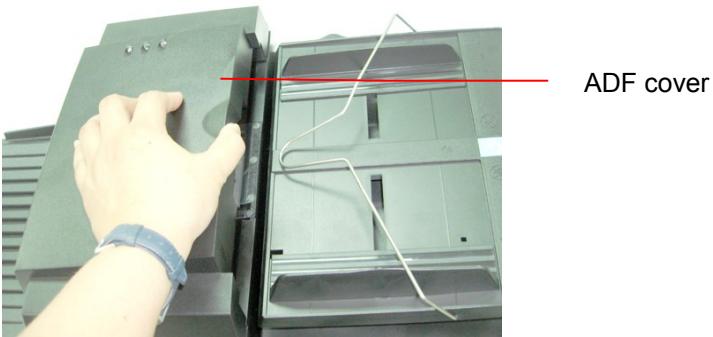
Figure 6-4 Install the ADF Pad

---

## 5.4 Replacing the ADF Paper Feed Roller

After scanning approximately 200,000 pages through the ADF roller, the roller may be worn out and you may experience problems with document feeding. In this case, it is highly recommended to replace the roller with a new one.

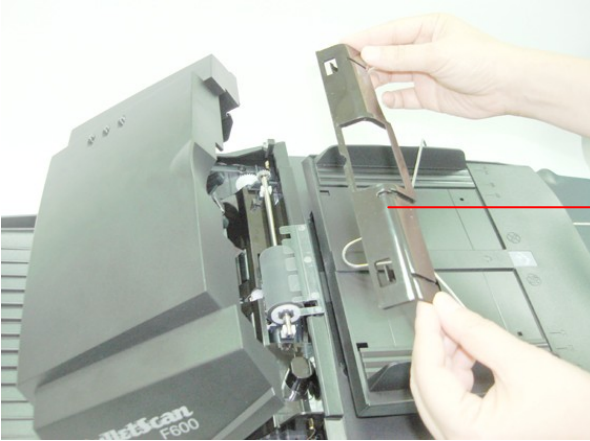
1. Open the ADF cover.



2. Lift the tabs.



3. Remove the paper feed roller cover.



ADF roller cover

4. Remove the paper feed roller.



ADF paper feed roller

- 
5. Insert the new paper feed roller by aligning the tabs into the slots and pressing the roller into place.



Slot

6. Reinsert the paper feed roller cover and snap it into place.



7. Close the ADF cover.

## 6. Troubleshooting

The scanner will automatically perform a simple self-test each time it is turned on. This will help spot major system errors in the scanner itself.

When the test is initiated, the READY LED is flashing. When the test is completed, if no error occurs, the READY LED is steadily on.

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

### 6.1 Question and Answer

**Question:** The LED indicates that the scanner is ready, but the scanner does not respond to the scan command from the host computer.

**Answer:** a) Please check if the signal cable is firmly seated, and invoke the scan command again. If there is still no response, please reset the scanner by turning it off and then on again, and reboot your host computer as well.

b) Check if the driver is correctly installed.

---

**Question:** Paper becomes jammed during scanning.

**Answer:** a) Open the ADF unit.  
b) Pull out the jammed paper carefully.  
c) Close the ADF unit.

**Question:** More than one sheet of paper were fed into the scanner.

**Answer:** a) Open ADF unit.  
b) Remove the multi-fed sheets of paper.  
c) Close the ADF unit.  
d) Flatten the corners and edges; loosen the paper before reloading it in the paper guide.  
e) Check the feeding roller condition and do the cleaning if necessary.

**Question:** Paper becomes skewed in the scanner.

**Answer:** a) Check the feeding roller condition; do the cleaning if necessary.  
b) Use the paper guide when feeding the paper.

**Question:** When I power on the scanner, it makes noises and will not stand ready.

**Answer:** There are two possibilities:

- a) You forgot to remove the shipping switch from the scanner. Please remove the shipping retainer first.
- b) You did not place the scanner on a flat desktop surface. This may cause the scanner to function improperly.

**Question:** When I power on the scanner, the lamp does not light.

**Answer:** The possibilities are as follows:

- a) The lamp is out of order. In that case, contact your authorized local dealer to change the lamp. The life time of the lamp is about 5000 hours.
- b) Check whether the power LED on ADF cover steadily lights or not.

If it flashes, the power adapter malfunctions or the main board is short-circuited.

Contact your authorized local dealer to replace the power adapter or main board.

---

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

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

**Question:** The scanner works well otherwise, but for the line art, the lines scanned seem much thicker than those of the original.

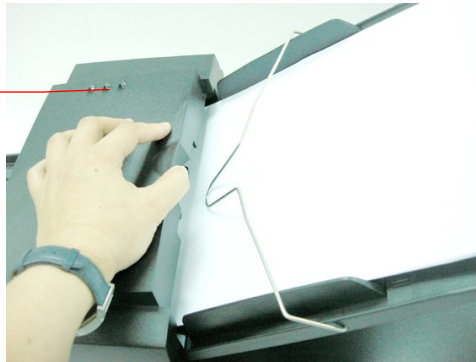
**Answer:** Use the Brightness or Threshold setting to adjust the line art image.

## **6.2 Paper Jam in the ADF**

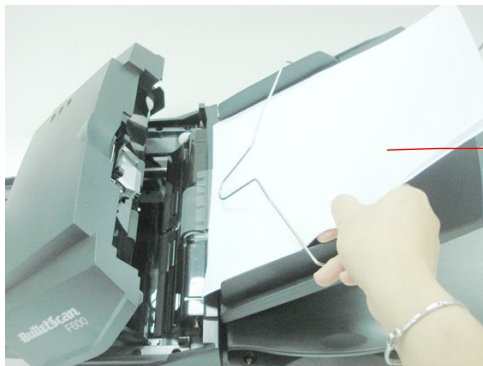
In the event of paper jam, please follow the procedures below.

- i). Open the ADF cover.
- ii). Pull the paper out of the ADF unit carefully.

ADF Unit



Document





## **7. Technical Service**

Before contacting iVina, please prepare the following information.

- Scanner serial & revision number (located on the bottom of the scanner)
- Hardware configuration (e.g., your host CPU type, RAM size, free disk space, display card, interface card, etc.)
- The name and version of your software application
- The version of your scanner driver.

For the latest information, visit us online at:

**[www.bulletscan.com](http://www.bulletscan.com)**



## 8. Specifications

Model Number	BulletScan F600
Scanning Mode	B&W Gray Color
Optical Resolution	600 x 600 dpi
Light Source	Cold Cathode fluorescent lamp
ADF Capacity	50 sheets
Scan Area	Flatbed: up to European A4 (8.5" x 11.69") ADF: 3.7" x 5.5"(Min) ADF: 8.5" x 14"(Max)
Interface	USB 2.0
Power Requirement	24Vdc/2A
Power Consumption	< 48 watts (operation) < 7 watts (power saving)
Operation Temperature	10°C to 35°C
Dimension	567 x 350 x 199 mm
Weight	7.2 kg (15.87 lbs)



# Index

## A

**Additional Length**  
Detection, 4-39  
**ADF cover**, 2-5, 6-5  
**ADF Scanning**, 3-2  
**Auto Color Detection**  
sensitivity, 4-7

## B

**B&W**, 4-6  
**Background Level**, 4-27  
**Background Setting**, 4-54  
**balance wire**, 3-2  
**Barcode**, 4-50  
**Binarization**  
Dynamic Threshold, Fixed  
Processing, 4-8  
**Blank Page Removal**, 4-46  
**Brightness**, 4-14

## C

**Cache**  
None, Page Number,  
Memory Size, 4-50  
**Cleaning the Glass**, 5-3  
**Color**, 4-6  
**Color Dropout**  
Remove Red, Remove  
Green, Remove Blue,  
Custom, 4-25  
**Color Matching**, 4-18  
**Contrast**, 4-14

## Cropping

Automatic, Fix to  
Transport, EOP  
Detection, 4-30

## D

default settings, 4-3  
**Deskew**, 4-32  
**Despeckle**, 4-52  
Noise Number, Noise  
Radius, 4-48  
**Document cover**, 2-5, 6-5  
**Document Loading**, 3-1  
**Document Type**  
Normal, Photo, Document,  
4-12  
**Dynamic Threshold**  
sensitivity, 4-8

## E

**Edge Fill**, 4-46  
**Energy Saving**, 4-50

## F

**Filter Threshold**, 4-27  
**Flip Side Rotation**, 4-44  
**Font Attributes**  
Normal, Underline,  
Double, Bold, 4-54

## G

**G4**, 4-23

---

**Gray, 4-6, 4-12**

**I**

**Invert, 4-16**

**J**

**JPEG, 4-23**

**M**

**Mirror, 4-47**

**Multi-Feed Detection, 4-38**

**O**

**output paper tray, 2-6**

**output paper tray  
extension, 2-6**

**OverScan, 4-33**

**P**

**paper jam, 3-2, 6-5**

**Print All, 4-54**

**protrusions, 2-6**

**R**

**reference mark, 3-1**

**Reset Pad Count, 4-57**

**Reset Roller Count, 4-57**

**Resolution, 4-15**

**Rotate Image, 4-45**

**S**

**Scan Area, 4-29 to 4-31**

**Scanner Lock, 2-1**

**String Orientation**

**Normal, Rotated, 4-55**

**T**

**Transport Timeout, 4-33**

**U**

**Ultrasonic Detection, 4-39**