iVina

BulletScan™ F200

Color Document Scanner with Flatbed and Automatic Document Feeder

User's Manual

August 2010

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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.

CE Warning

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

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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. Fore 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.

Minimum 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 your processor, the better your results.

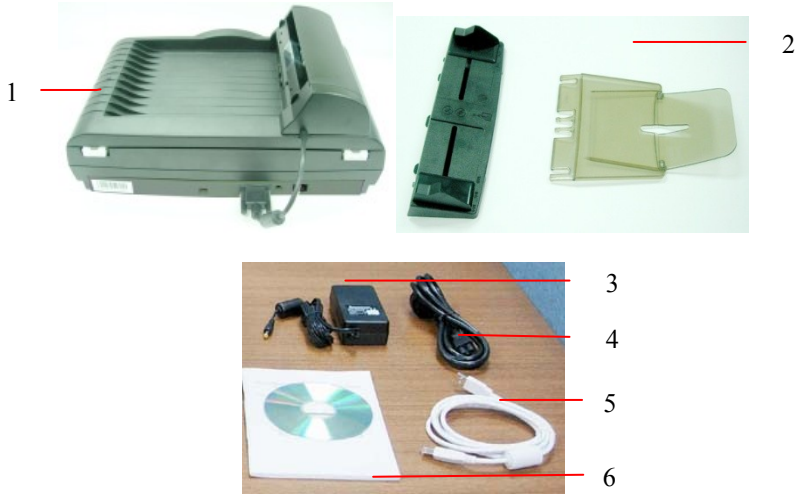
Table of Contents

1. Introduction

Congratulations on your purchase of the BulletScan F200 document scanner.

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

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. Scanner main unit
2. ADF Paper Tray/Paper Support
3. Power adapter
4. Power cord
5. USB cable
6. User's manual/CD

Note:

1. Only use **the BulletScan Type 1 AC adapter** (HEG42-240200-7L made by HiTron) included in the machine. Using other AC adapters may damage the machine and void the warranty.
2. Please unpack the packing carefully, and check the contents against the checklist. If any items are missing or damaged, please contact your dealer immediately.

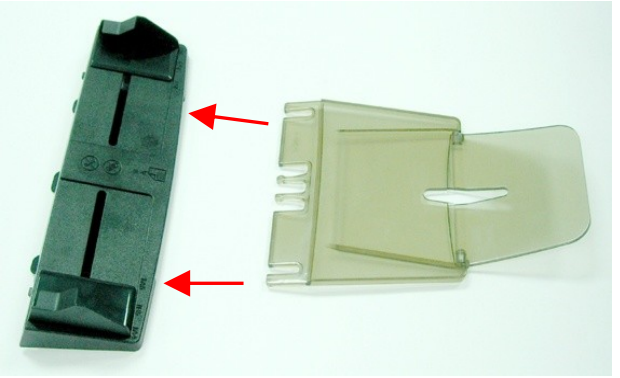
2. Scanner Installation

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.
- 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 Installing the ADF Paper Tray

1. Attach the Paper Support to the ADF Paper Tray as shown below.



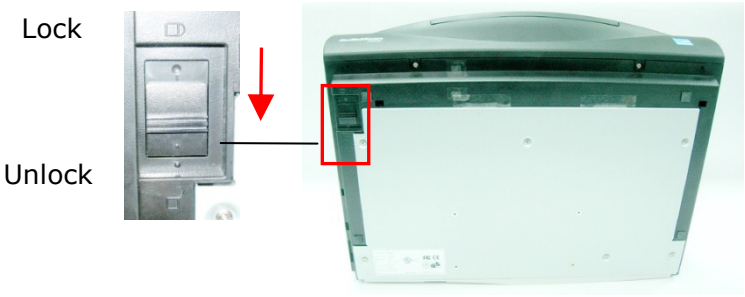
2. Insert the ADF Paper Tray to the scanner as indicated.

2.2 Connecting the ADF Cable

Connect the ADF cable to the ADF port at the rear panel as below.

2.3 Removing the shipping lock

1. Locate the lock switch beneath the scanner.
2. Unlock the scanner by moving the lock switch to the "Unlock" position.

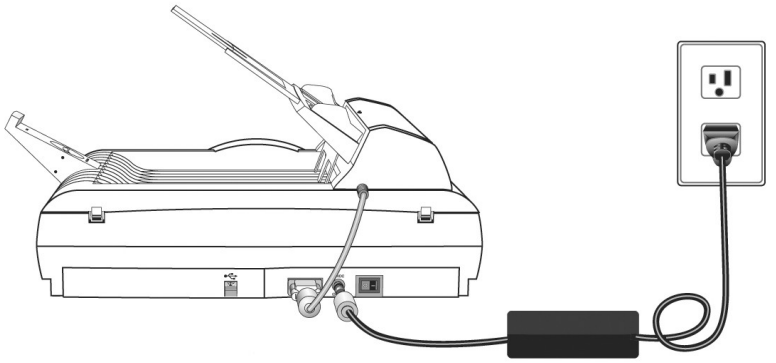


2.4 Installing the Scanner Driver and Cables

Note:
To ensure your computer can identify the USB scanner, please install scanner driver first before connecting the scanner to your computer.

2.4.1 Connecting to Power

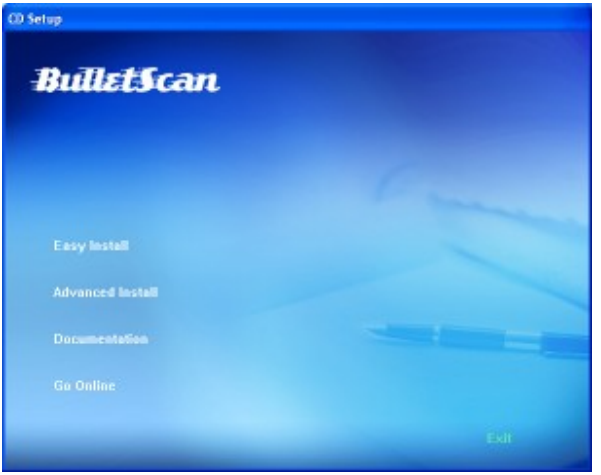
1. Plug the small end of the power adaptor into the power jack of your scanner. Insert the other end to an appropriate power outlet.



2. Press the power switch to the "I" position to turn on the scanner. To turn off the scanner, please press the power switch to the "O" position.

2.4.2 Installing the Scanner Driver

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

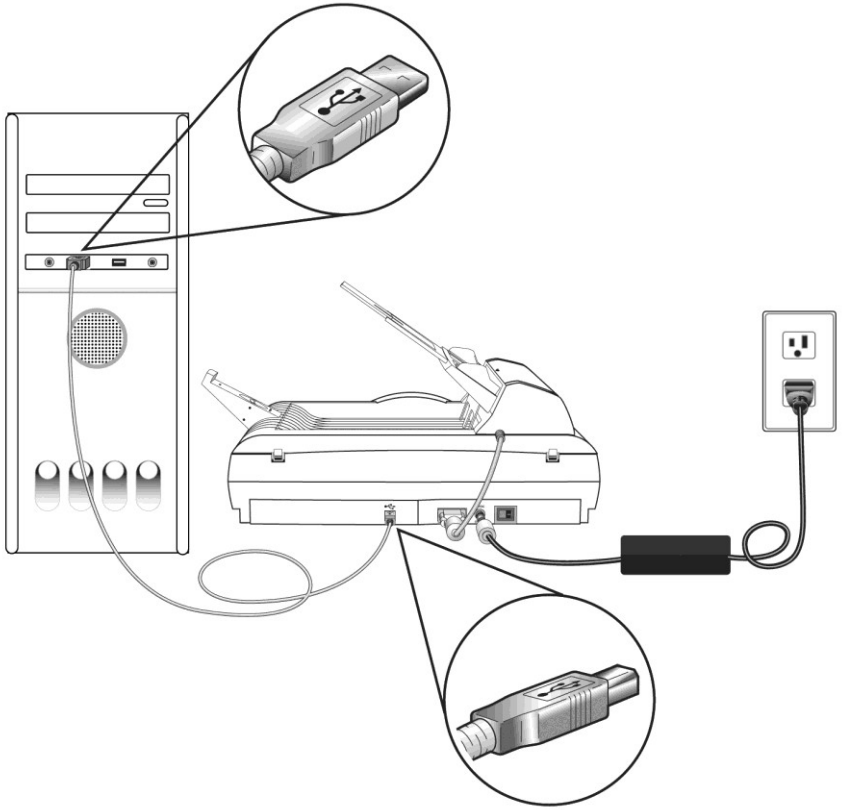


Contents on the installation disc:

- **Easy Install**: Click to install all bundled software including scanner driver, BulletScan Manager, NewSoft Presto! PageManager, and NewSoft Presto! Bizcard Reader.
- **Advanced Install:** Choose for a selective installation.
- **Documentation:** Click to view quick install guide, scanner manual, BulletScan Manager manual and other software manual.
- **Go Online:** Click to go online to the Bulletscan.com website.

2.4.3 Connecting to 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.

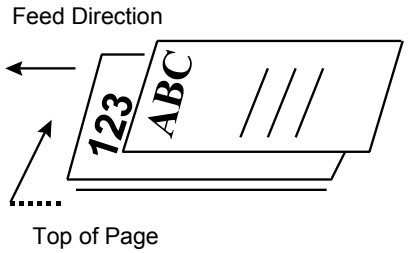
   In Windows Vista and 7, click the **Finish Installing Software** option, and then click **Continue** button to complete the installation.
4. If you are prompted with a **Finish** dialog, click the **Finish** button.
5. If Windows fails to install your scanner, power off your scanner, shut down your computer, 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 Loading Paper in the ADF

Place your document with the text facing up and top end going in first, as shown below.



3.2 Placing paper on the glass

Place your document with the text facing down on the glass and align your document to the reference mark, as indicated

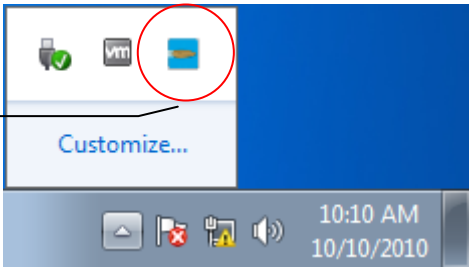
Reference mark

3.3 Verifying Your Scanner Installation

Before you begin, be sure the scanner is on.

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.

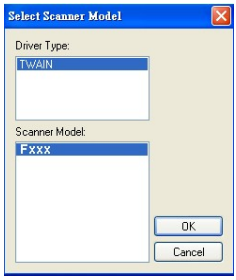
If this doesn't work, you can verify if your scanner installation is correct, iVina provides you a simple image capture program called iVina Capture Tool. With this tool, you can perform simple scans to many image formats and immediately view the results. In addition, you can do use it to do speed tests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

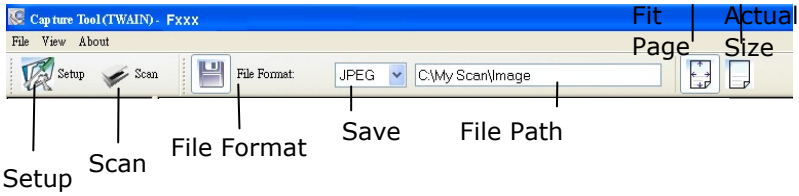
1. Select Start>Programs>BulletScan>iVina Capture Tool. If

there is nothing in the start menu labeled "BulletScan" you must install the scanner driver from the CD.

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



3. Select TWAIN (your driver type) and the F200 (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.)

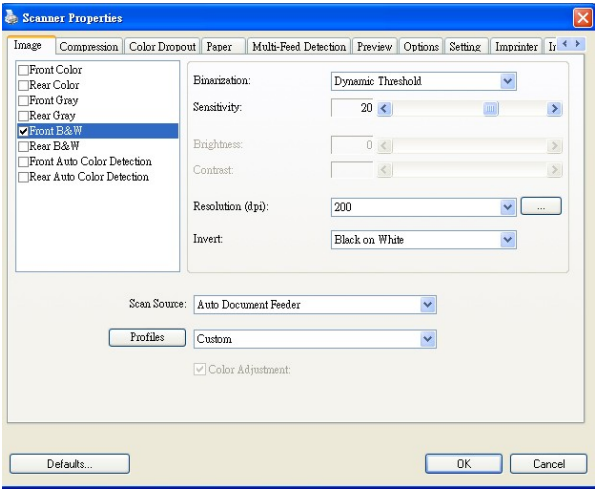
5. Type your desired folder name and file name in the File Path box. (Default is C:\My Scan\Image.)

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 (

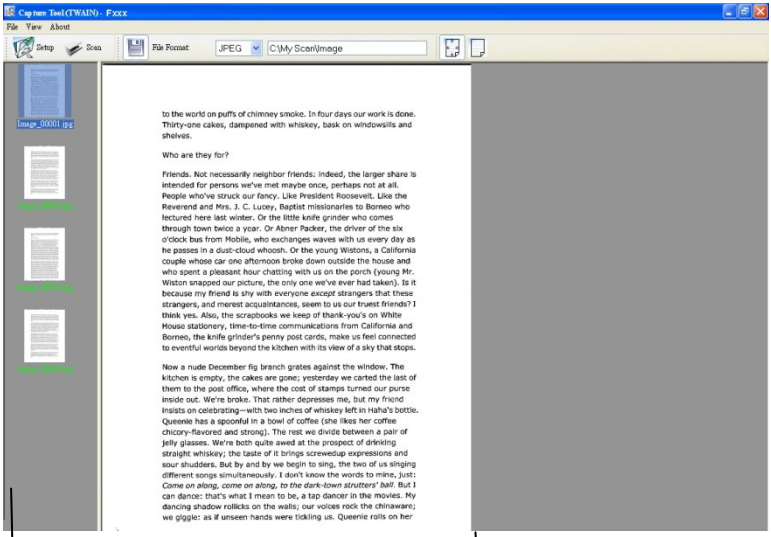
) or choose Setup from the File menu to prompt the Scanner Properties dialog box.

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.

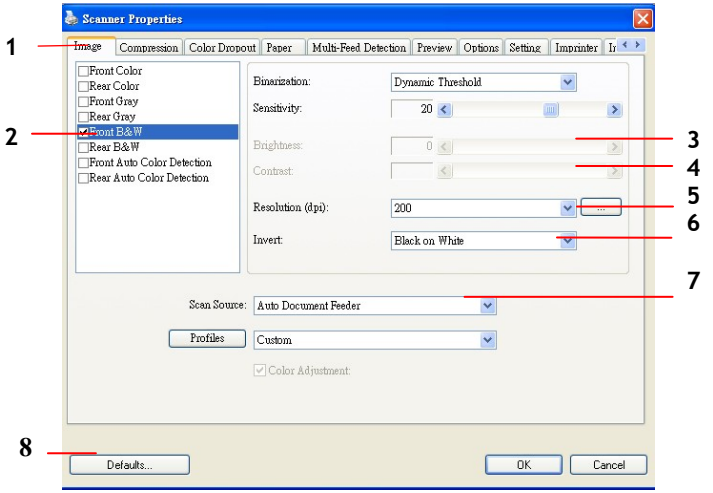


Thumbnail View

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.

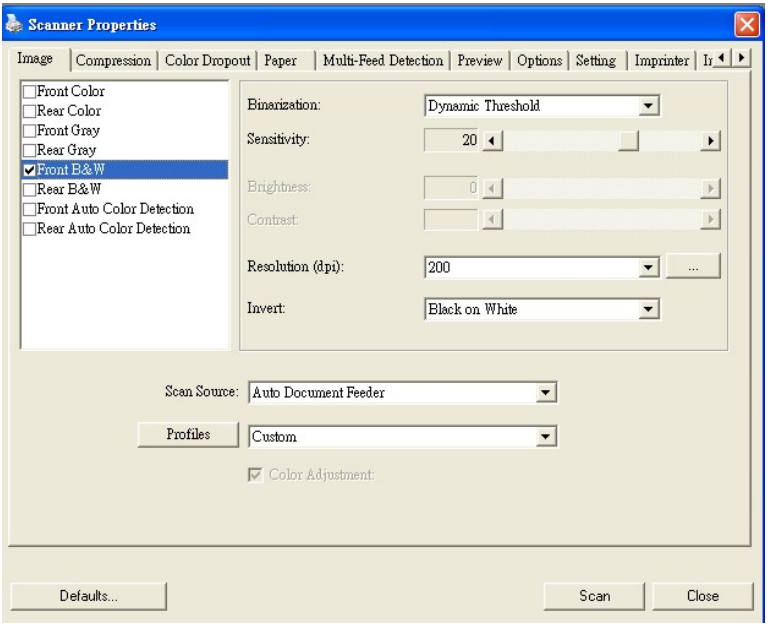
3.3.1 A Glance of the Scanner Properties Dialog Box



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

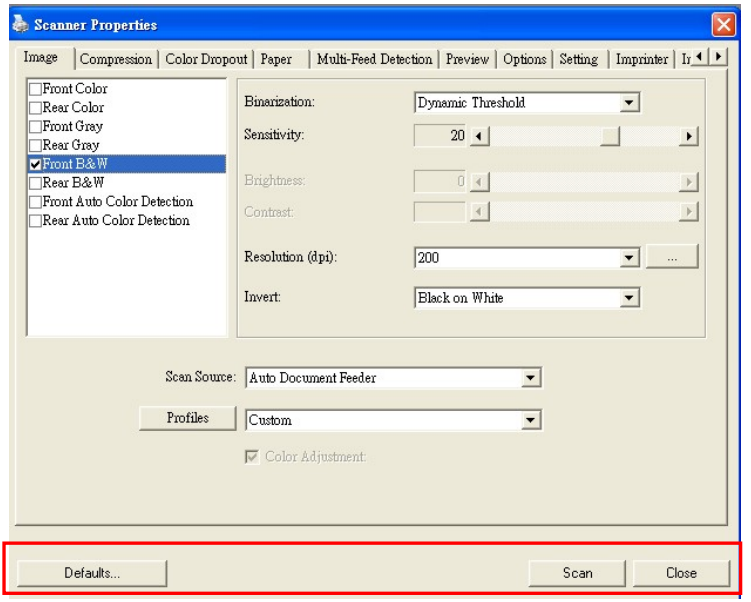
4. Using the Scanner Properties Dialog Box

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

4.1 Buttons on the Scanner Properties Dialog Box



The buttons on the Scanner Properties dialog box

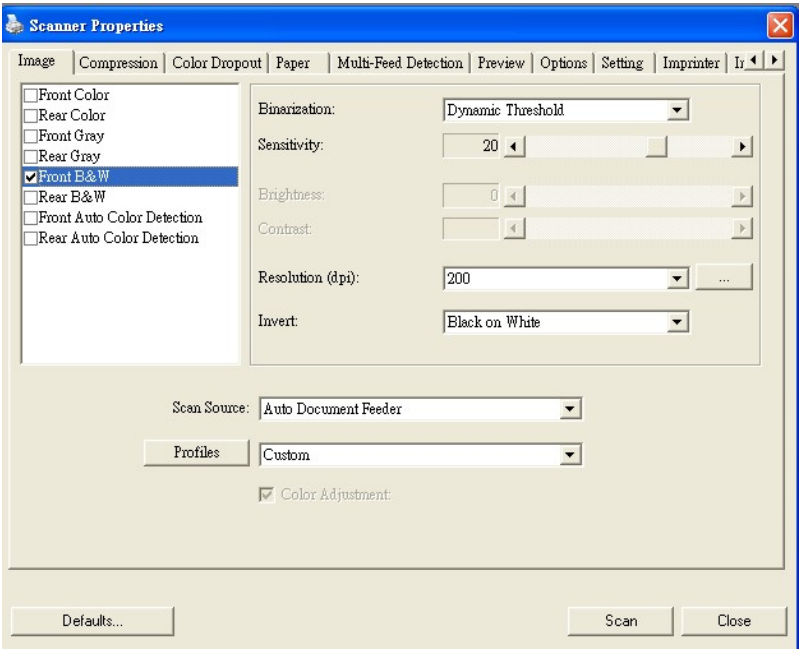
Buttons	Description
Defaults	Click the **Defaults** button, the factory default settings will be shown on each tab.
Scan	After all the scan settings are satisfactory, click the **Scan** button to start scanning your document.
Close	Click the **Close** button to leave the Scanner Properties dialog box.

The following table shows the default settings :

Tab name	Default settings
Image	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
Compression	None
Color Dropout	None
Paper	Cropping : Automatic Deskew : Yes Orientation : Portrait OverScan : 0.00 Multifeed Detection : None Unit : Inch
Options	Rotation Degrees : None Blank Page Removal : None Edge Fill : White , 0 mm Image Control Option : None
Setting	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 type of image, and to set several basic scan settings.

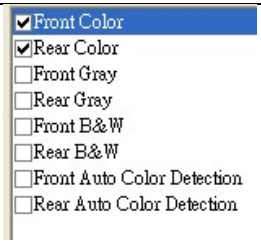
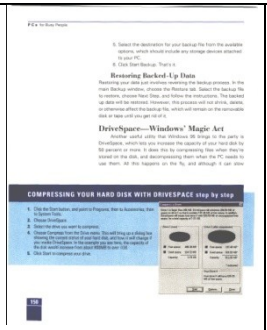
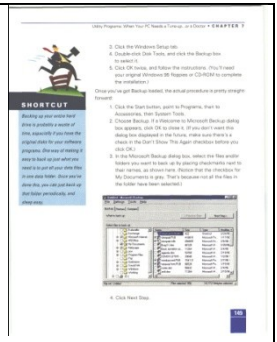


The Image tab dialog box

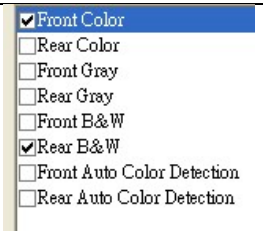
4.2.1 The Image Selection Box

The Image Selection box includes the image type and document side option. The F200 is a Simplex Scanner and only supports scanning one side of a document at a time.

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

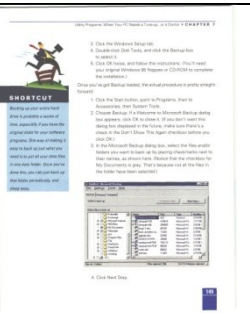
 **Side/Image Selection**	 **Front**	 **Rear**
1		

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



Side/Image Selection

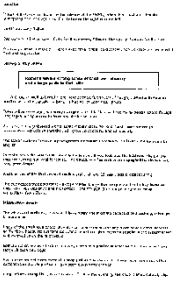
Front



Rear

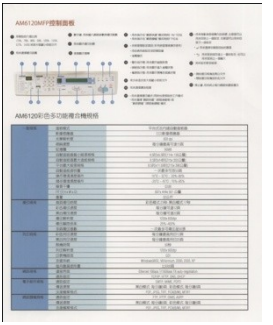
2

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. If you are scanning a black and white photo, use this option.
B&W	Choose B&W if your original contains only text, pencil or ink sketch.



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 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.

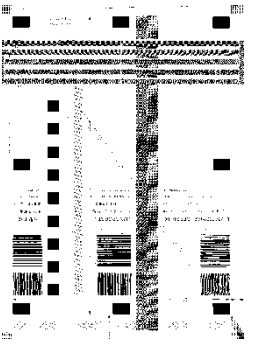
Halftone: In addition to the black and white display, Halftone can present a somehow gray shade of image by using different size of dots. Halftone image looks like the picture we have seen in the newspaper. **Options include Halftone 1, Halftone 2, Halftone 3, Halftone 4, Halftone 5.**

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

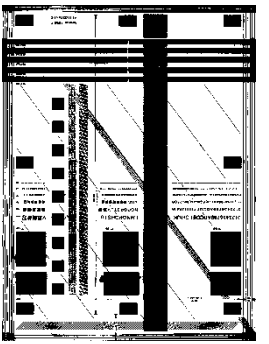
Halftone Image

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

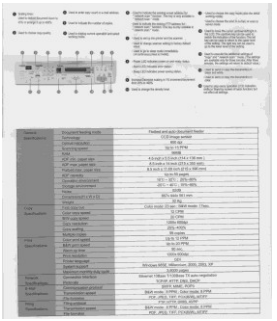
Gray

Document Type: Normal, Photo, Document

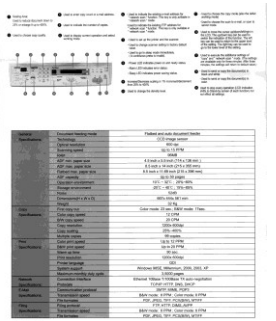
Three options of document type are provided when you choose Gray as the image type for your scanned document. Normal, Photo, Document.

- **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 adjusted.

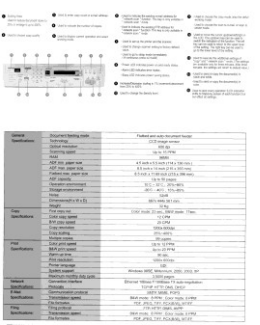
Threshold: The value ranges from 0 to 255. The default is 230. A low threshold value produces a lighter image, and can be used to subdue backgrounds and subtle, unneeded information. A high threshold value produces a darker image, and can be used to help pick up faint images. Adjust the threshold setting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



Normal



Photo



Document (Threshold: 230)

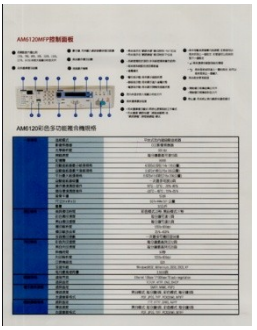
Normal

Photo

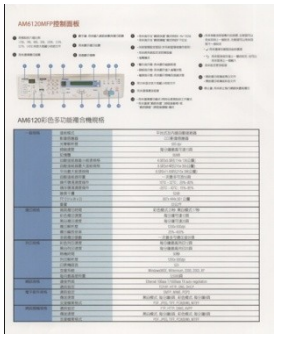
Document (Threshold: 230)

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.

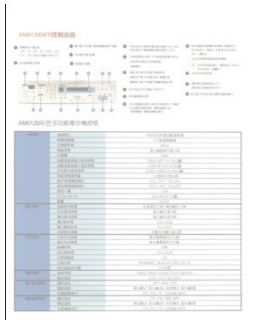
Contrast Adjusts the range between the darkest and the lightest shades in the image. The higher the contrast, the bigger the different grayscale. Drag the slider to the right or left to increase or decrease the contrast. The range is from –100 to +100.



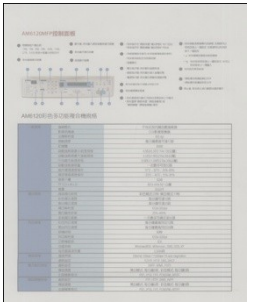
Brightness: -50



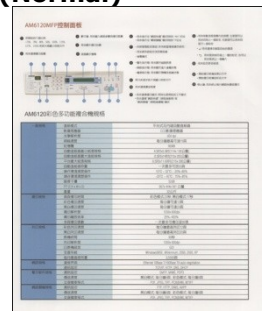
Brightness: 0 (Normal)



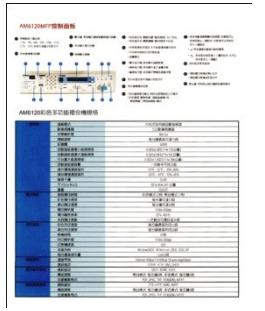
Brightness: +50



Contrast: -50



Contrast: 0 (Normal)



Contrast: +50

Resolution

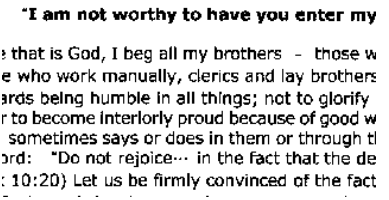
Resolution is the value that controls how much information is captured when the scan is performed. A higher resolution will capture more information and increase the file size, trading off performance for quality. Most business documents are best saved in 200 or 300 DPI (Dots Per Inch) depending on the 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.

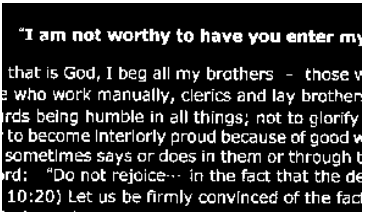
Resolution: 75 dpi

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.



Black on White



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

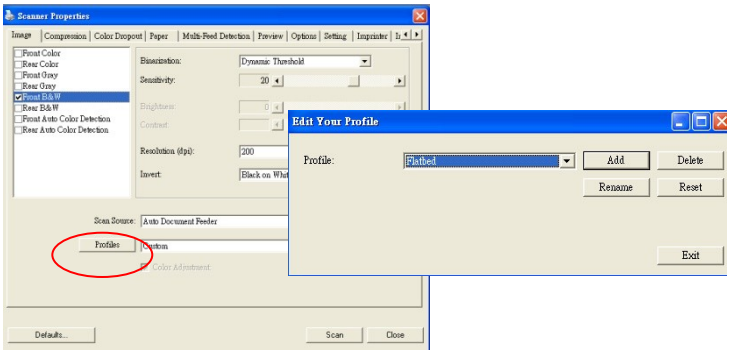
- Binarization (Fix Processing)
- Threshold
- Brightness
- Resolution
- Invert

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.

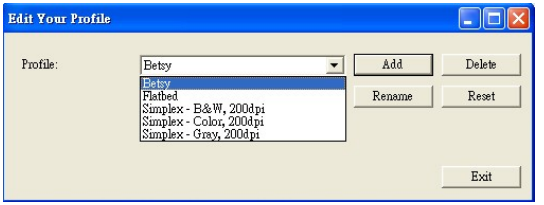


3. Click "Add" to enter the name of the profile and then choose "Save".

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

To load a profile,

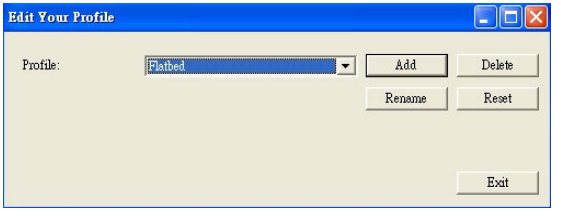
1. From the Image tab dialog box, choose your favorable profile from the "Profiles" dropdown list box.



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

To delete a profile,

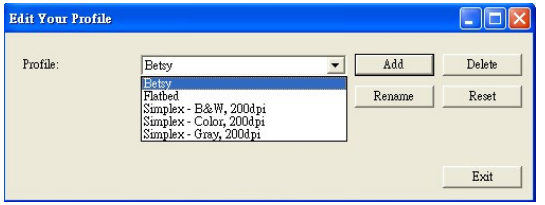
1. From the Image tab dialog box, click "Profiles" to prompt the Edit Your Profile dialog box.



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.

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.

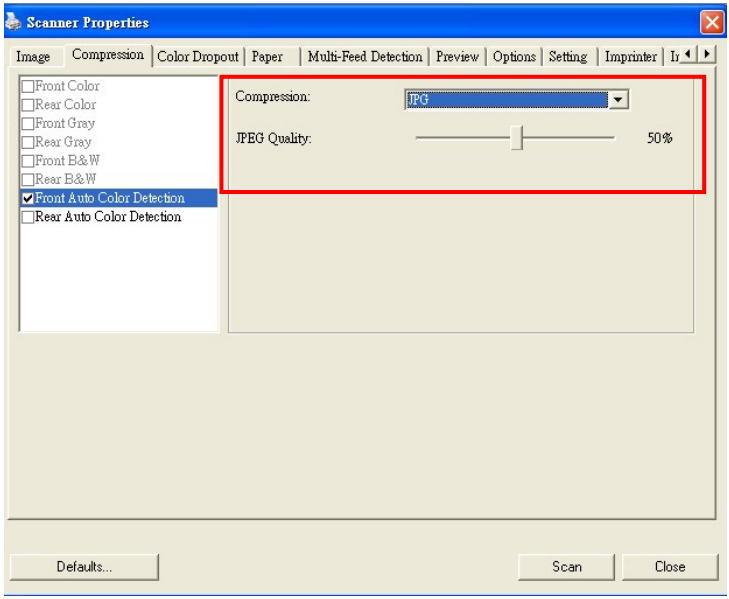
JPEG (Joint Photographic Editor Group). This group developed and lent their name to a file compression standard for color and grayscale images that is widely used by scanners, and software applications. On Microsoft Windows-based systems, a file with the extension .jpg has normally been compressed using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

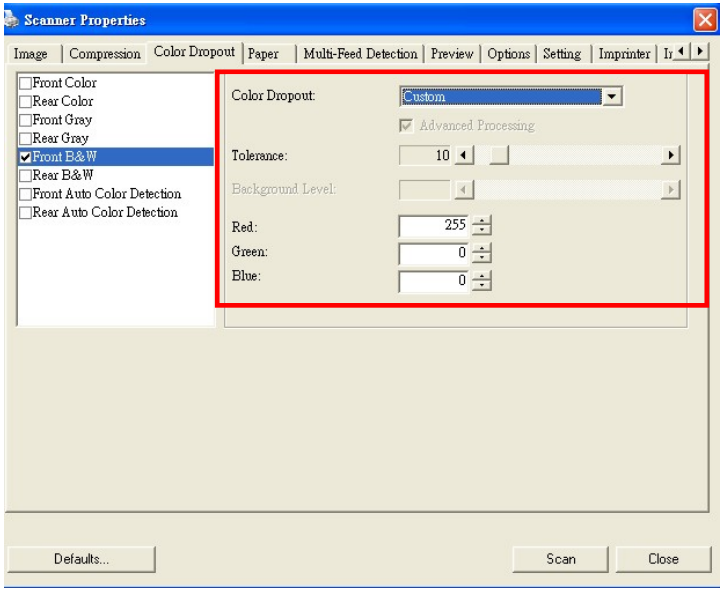
4.4.1 Color Dropout Selection

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 large 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.

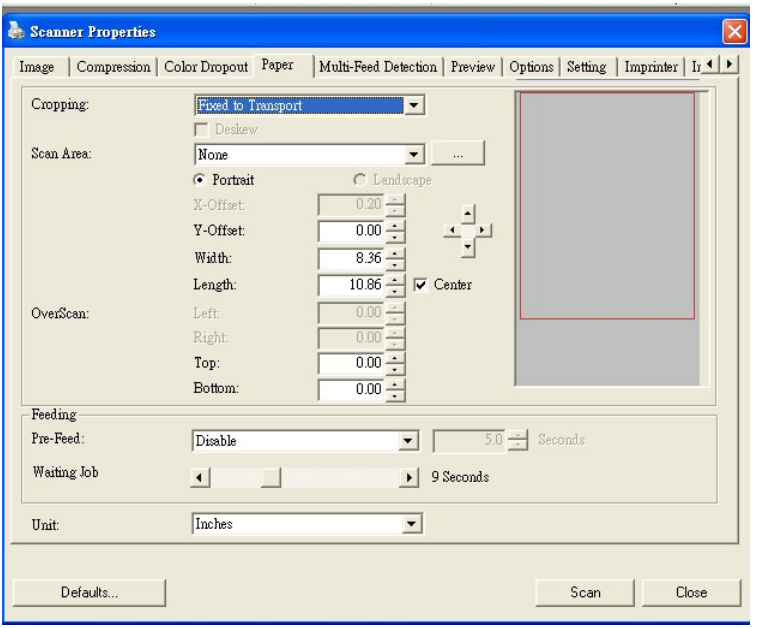
Original

Remove Blue, Threshold: 20, Background: 255

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, Automatic Multiple.**

Options	Description
Automatic	Automatic adjusts the cropping window according to different document sizes. Use this option for batches of mixed-sized documents.
Fixed to Transport	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.
EOP (End of Page) Detection	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.

Automatic Multiple	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.

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. 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.

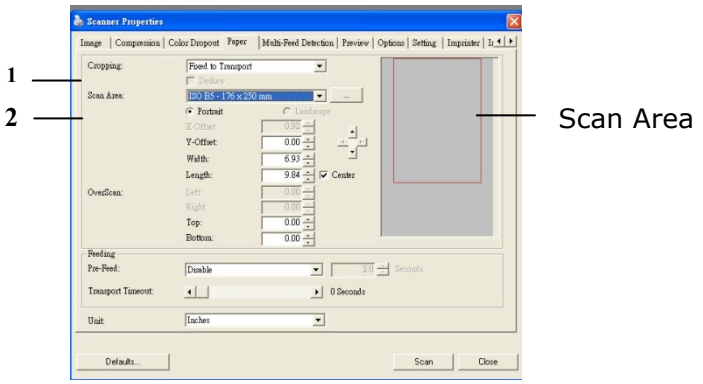
2 If you place your paper on the flatbed, after the timeout period, you need to click the Scan button on the TWAIN user interface to start scanning.

4.5.3 Multimode cropping

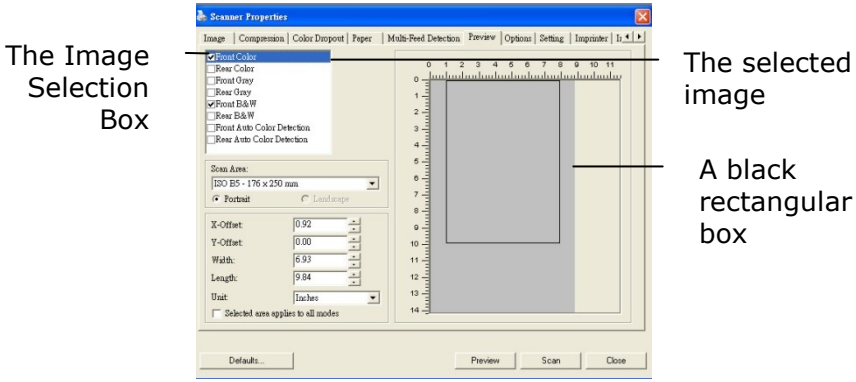
This feature provides flexibility if you are performing a scan that outputs in a more than one mode (B&W, Gray, or Color); you can assign different crop areas on your documents for each color mode. For example, there are applications which require you to store the entire form in B&W and a part of the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

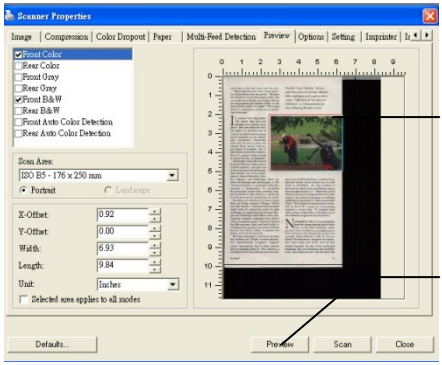
1. On the Paper tab, choose "Relative to Document" or "Fixed to Transport" from the Cropping option.
2. Choose your scan size from the Scan Area option. The selected scan size will be displayed in a red rectangular box. This is also the scan size of your entire document. (If you have not chosen a scan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



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



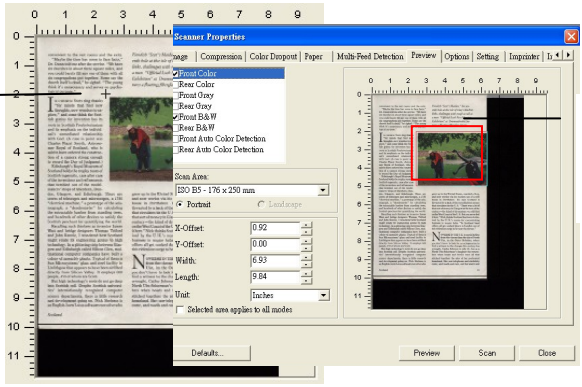
4. Click the Preview button to view the entire image in low resolution to correctly crop your relative scan area.



5. Select 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.)

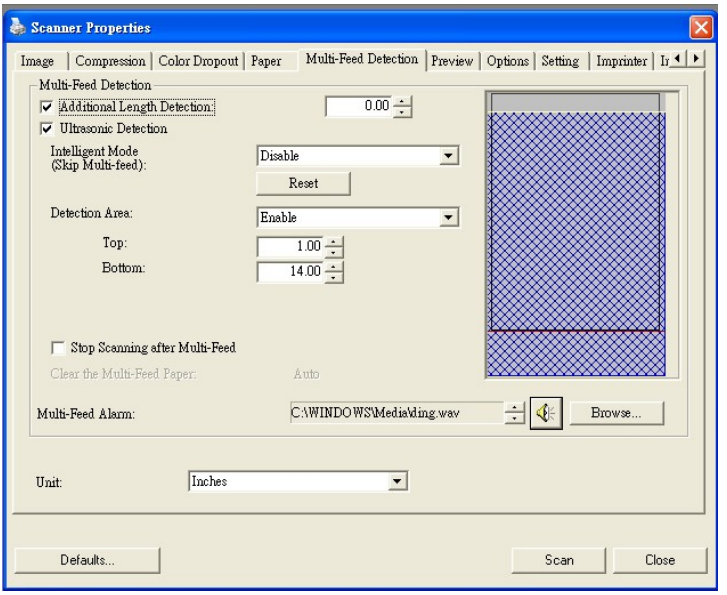
The entire document in B&W

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. 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.

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.

Clear the Multi-Fed Paper:

Choice: Manual, 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. If manual is selected, once multi-feed is detected and scanning operation is stopped, you need to manually clear the transport of the multi-fed paper. Note: The availability of this option varies based on type of scanner.

- **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.

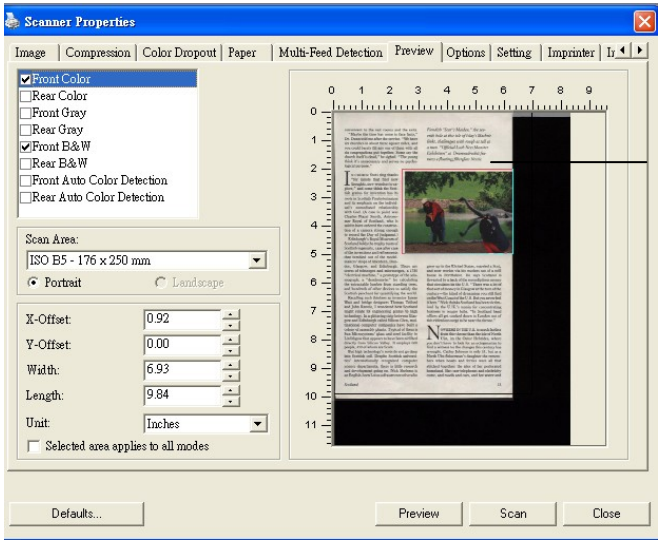
Units

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 select 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.

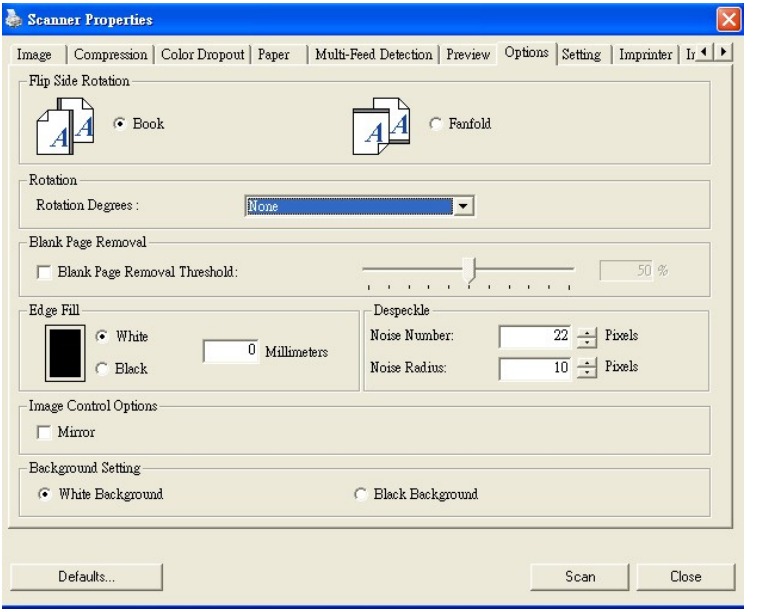
Note: If you choose "Automatic Cropping" on the "Paper Tab", then to select a scan area on the Preview tab is not allowed.



The 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

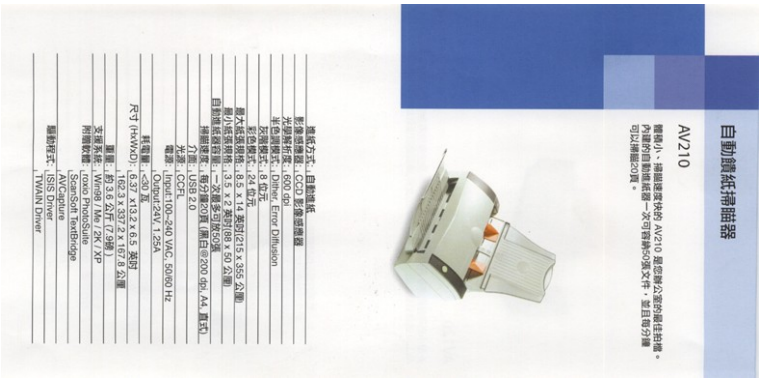
Select “fanfold” to rotate the image of the reverse side to 180 degrees.

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.

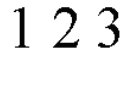
If “Book” is selected, the image of the reverse side will not be rotated.

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.



Original

Rotate 90°CW

Rotate 90°CCW

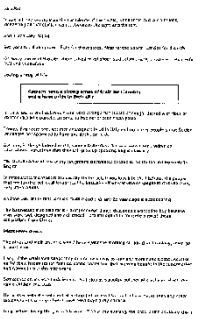
Rotate 180°

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

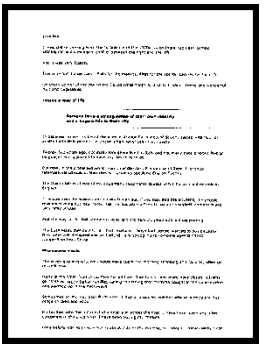
Auto rotate every even page: Automatically rotate 180**°** on every even page. This is especially useful when you scan the inside pages from a book. As a result, if you choose "Flatbed (book)" from the "Scan Source" option, "auto rotate every even page" will be selected as default.

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

Edge Fill 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.

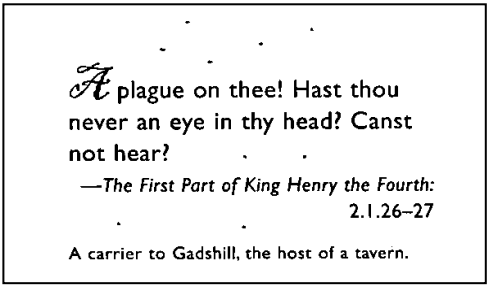
Original

The Mirror Effect

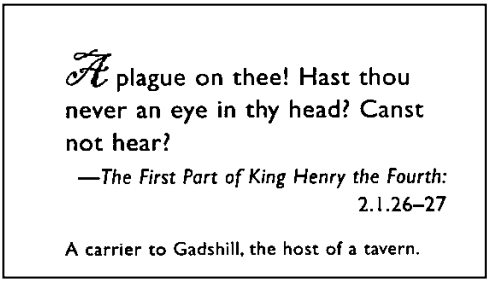
Despeckle

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.


A plague on thee! Hast thou never an eye in thy head? Canst not hear?
—*The First Part of King Henry the Fourth:* 2.1.26–27
A carrier to Gadshill, the host of a tavern.

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

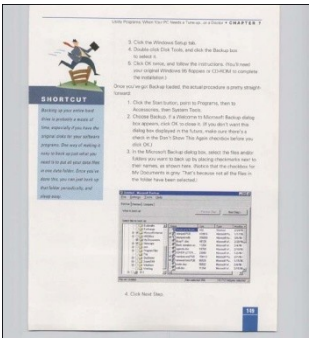

A plague on thee! Hast thou never an eye in thy head? Canst not hear?
—*The First Part of King Henry the Fourth:* 2.1.26–27
A carrier to Gadshill, the host of a tavern.

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

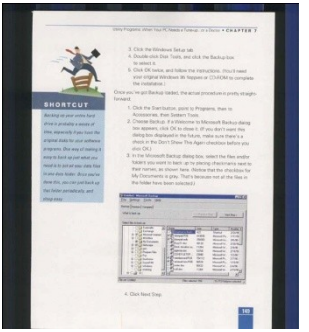
Note:

- The function is for Black and White image only.

Background Setting	This option allows you to set your scan background. **Choice: White Background, Black Background.**



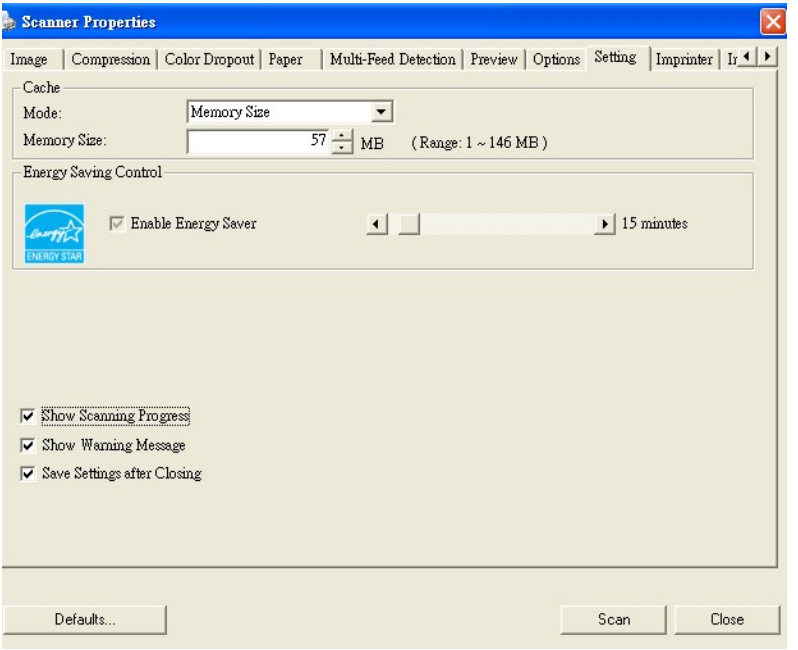
White Background



Black Background

4.9 The Setting Tab

The Setting tab allows you to set the following settings:



The Setting tab dialog box

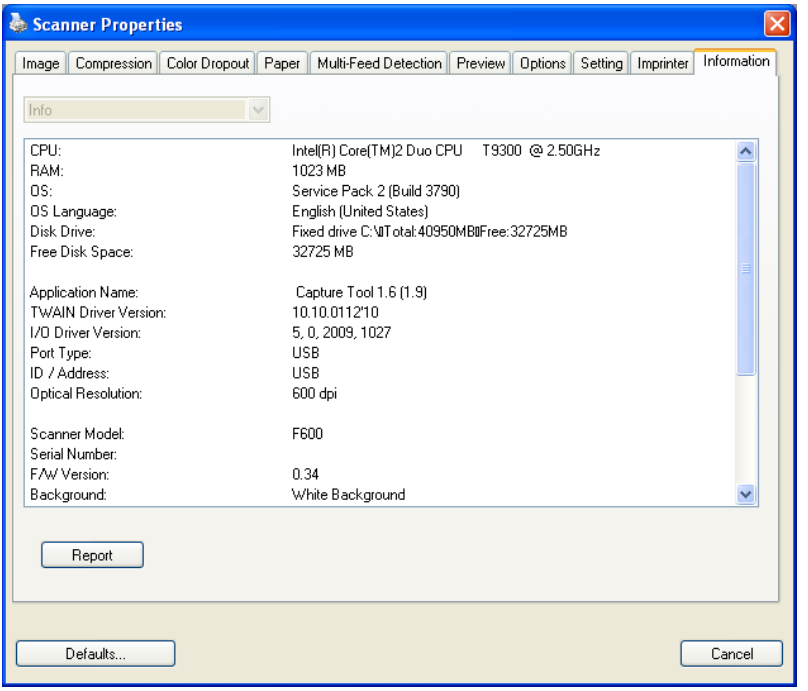
Energy Saving Control	Check the **Enable Energy Saver** box and move the slider to the right to set the amount of time to start the energy saver after your last action. The range is from 1 to 240 minutes. The default is 15 minutes.

Cache	**Mode: None, Page Number, Memory Size**. 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. 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. **Image Count** 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.
Barcode Detection	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. Note: The availability of this feature varies based on type of scanner.

Show Scanning Progress	Check and the scanning progress bar will be shown during scanning.
Show Warning Message	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."
Save Settings after Closing	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:\F200) will be generated. Please send this file to the nearest service center for trouble shooting.

The "Reset Pad Count" button」：

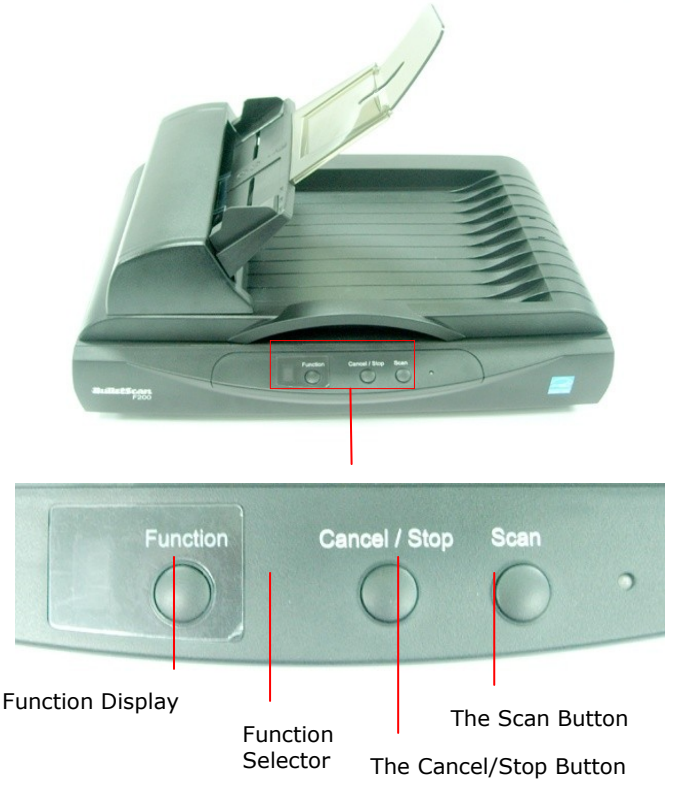
After scanning approximately 20,000 pages (the number varies based on type of scanner, type of paper and size of batches) through the Auto Document Feeder (ADF), the ADF pad may be worn out and you may experience problems with document feeding. In this case, it is highly recommended to replace the ADF 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 contact support for roller replacement.) After replacing the ADF roller, click the "**Reset Roller Count**" button to reset the roller count.

5. Using the Buttons

The convenient buttons on the scanner is shown as below:



5.1 The BulletScan Manager

The buttons on the scanner are controlled by the BulletScan Manager. It is installed by default from the CD when you use the Easy Installation mode, and is selected by default when choosing the Advanced Installation mode.
Please consult the BulletScan Manager Manual for how to use and configure the buttons.

The BulletScan Manager provides you with 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. It is recommended to examine the button configurations first for the best results.

5.2 Scanning From One Touch of the Buttons

1. Adjust the paper guide for the width of paper and load the document facing down with their tops into the automatic document feeder.
2. Check the number on the display of the scanner to ensure if you are selecting the proper scan settings and destination application.
3. Press the Scan button on scanner.
4. After the scanning is finished, the destination application will be launched and the scanned image appears in the application.

6. Care and Maintenance

6.1 Cleaning the ADF

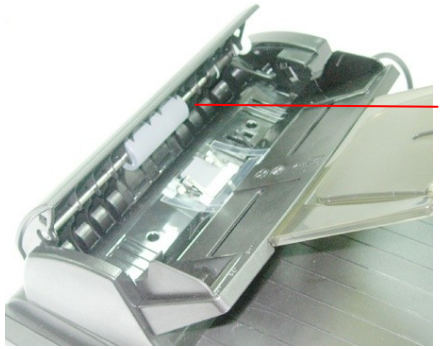
Your scanner is designed to be maintenance-free.
However, it still needs to be cleaned occasionally to ensure optimum image quality and performance.

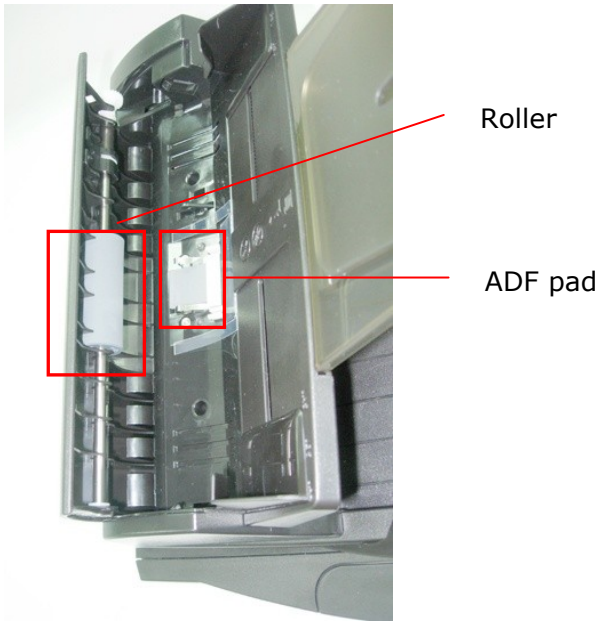
The scanner parts may be contaminated with ink, toner particles or paper coatings. As a result, the scanner needs to be cleaned occasionally particularly in the following cases:

1. Documents do not feed smoothly or easily;
2. Several documents feed at one time.

The cleaning procedures

1. Wet a cotton swab with some isopropyl alcohol. (95%)
2. Open the ADF front cover to the left as shown below and wipe the upper feeding roller by moving the swab from side to side. Rotate the roller forward with your finger and repeat the above cleaning procedures until the entire roller is cleaned. 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.


ADF front
cover


Roller
ADF pad

6.2 Cleaning the Glass

The procedures

1) Soak a cotton swab with some isopropyl alcohol. (95%)
2) Open the ADF unit and document cover as shown below. Wipe the glass of flatbed and ADF area by moving the swab from side to side.
3) Close the ADF unit and document cover. Your scanner is now ready for use.

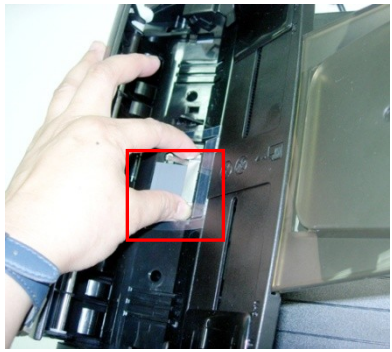
6.3 Replacing the ADF detachable pad module

After scanning approximately 20,000 pages through the ADF, the pad spring 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 in below to replace it.

Removing Procedure

1. Open the ADF front cover.

2. Remove the ADF detachable pad module by pulling out the upper part of the pad clamp as shown in the figure below.



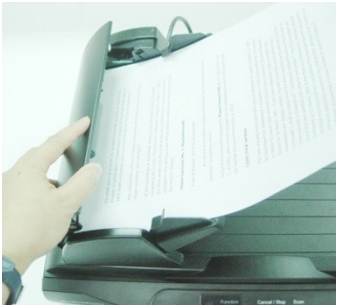
7. Troubleshooting

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

7.1 Frequently asked Questions

Question: Paper becomes jammed during scanning.

Answer: 1) Open the ADF unit.
2) Pull out the jammed paper carefully.
3) Close the ADF unit.



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

Answer: 1) Open ADF unit.
2) Remove the multi-fed sheets of paper.
3) Close the ADF unit.
4) Flatten the corners and edges; loosen the Paper before reloading it in the paper guide.
5) Check the feeding roller condition and do the cleaning if necessary.

Question: Paper becomes skewed in the scanner.

Answer: 1) Check the feeding roller condition; do the cleaning if necessary.
2) 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:
1) You forgot to remove the shipping lock from the scanner. Please remove the shipping lock first.
2) You did not place the scanner on a flat desktop surface. This may cause the scanner to function improperly.

Question: While scanning, the scanner often makes noises or it scans back and forth.

Answer: Please choose lower speed from the TWAIN user interface for low speed PC.

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.

7.2 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);
- The name and version of your scanning software application;
- The version of your scanner driver.

For the latest information, visit us online at:

www.bulletscan.com

8. Specifications

All specifications are subject to change without notice.

Model Name	BulletScan F200
Scanner Type	ADF/Flatbed Desktop scanner
Scanning Mode	48-bit color 256 shades of gray scale Line Art Error Diffusion
Optical Resolution	600 dpi
Light Source	Cold cathode fluorescent lamp
ADF Scanning Speed	20 PPM
Scanning Document Size	ADF mode 8.5"x 14" Flatbed mode 8.5"x 11.69"
Interface	USB 2.0
Power Requirements	24Vdc,1.25A
Power Consumption	< 24W
Operation Temperature	5 °C to 35 °C
Storage Temperature	-40 °C to 60 °C
Dimension	275 mm x 445 mm x 332 mm (WxDxH)
Weight	5.4 kgs

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