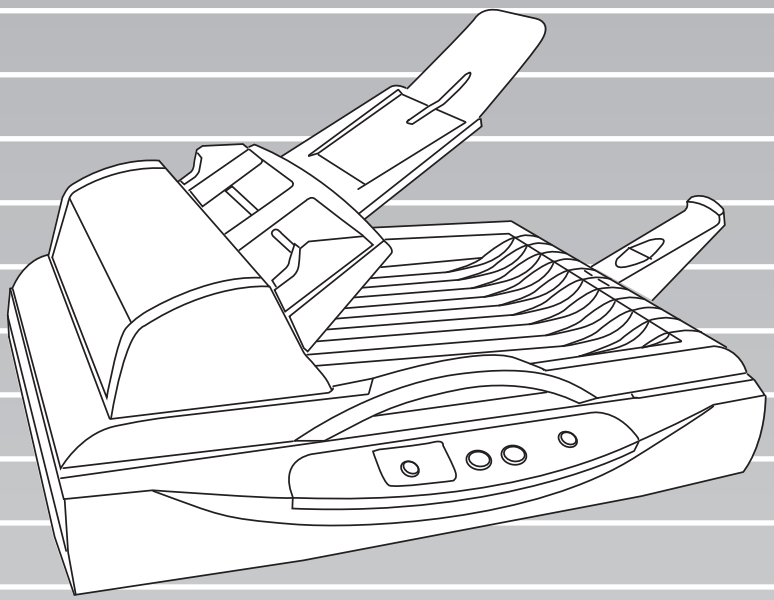
P3PC-1592-06ENZ0

fi-5015C Image Scanner

Operator's Guide



FUJITSU

CONTENTS

INTRODUCTION

Thank you for purchasing the fi-5015C Color Scanner.
This document describes how to handle fi-5015C and basic operation methods. Before you start using fi-5015C be sure to thoroughly read this manual to ensure correct use.

This document describes the basic operation methods to perform scanning by using ScandAll PRO.
The version of ScandAll PRO bundled with this product is subject to change without notice, in which case the screenshots captured in this document may differ from the actual displayed image.
For more information about ScandAll PRO, refer to the separate [ScandAll PRO User's Guide].

Trademarks

Microsoft, Windows, Windows Server, and Windows Vista are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
ISIS is a registered trademark or trademark of EMC Corporation in the United States.
Other company names and product names are the registered trademarks or trademarks of the respective companies.

How Trademarks Are Indicated In This Manual

References to operating systems (OS) are indicated as follows:

Windows 2000	Windows® 2000 Professional operating system
Windows XP	Windows® XP Home Edition operating system, Windows® XP Professional operating system (32/64-bit)
Windows Server 2003	Windows Server® 2003, Standard Edition (32/64-bit), Windows Server® 2003 R2, Standard Edition (32/64-bit)
Windows Vista	Windows Vista® Home Basic operating system (32/64-bit), Windows Vista® Home Premium operating system (32/64-bit), Windows Vista® Business operating system (32/64-bit), Windows Vista® Enterprise operating system (32/64-bit), Windows Vista® ultimate operating system (32/64-bit)
Windows Server 2008	Windows Server® 2008 Standard (32/64-bit), Windows Server® 2008 R2 Standard
Windows 7	Windows® 7 Home Premium operating system (32/64-bit), Windows® 7 Professional operating system (32/64-bit), Windows® 7 Enterprise operating system (32/64-bit), Windows® 7 Ultimate operating system (32/64-bit)

Windows Server 2012	Windows Server® 2012 Standard (64-bit)
Windows 8	Windows® 8 operating system (32/64-bit), Windows® 8 Pro operating system (32/64-bit), Windows® 8 Enterprise operating system (32/64-bit)

Where there is no distinction between the different versions of the above operating system, the general term "Windows" is used.

Manufacturer

PFU LIMITED

International Sales Dept., Imaging Business Division, Products Group
Solid Square East Tower, 580 Horikawa-cho, Saiwai-ku, Kawasaki-shi Kanagawa 212-8563, Japan
Phone : (81-44) 540-4538

About Maintenance

The user must not perform repairs on this scanner.
Contact the store where you purchased the scanner or an authorized FUJITSU Image Scanner service provider to make repairs to this product.

Safety Precautions

The attached "Safety Precautions" manual describes important details for users to use this product safely and correctly. Read the Safety Precautions thoroughly before you start using this product.

Warning Indications Used In This Manual

⚠WARNING	This indication alerts operators to an operation that, if not strictly observed, may result in severe injury or death.
⚠ CAUTION	This indication alerts operators to an operation that, if not strictly observed, may result in safety hazards to personnel or damage to equipment.

Symbols Used In This Manual

This symbol alerts operators to particularly important information. Be sure to read this information.

This symbol alerts operators to helpful advice regarding operation.

Screen Examples In This Manual

The screen examples in this manual are subject to change without notice in the interest of product improvement. If the actual displayed screen differs from the screen examples in this manual, operate by following the actual displayed screen while referring to the User's Manual of the scanner application you are using.
The screen examples used in this manual are of the TWAIN driver, ISIS driver, and ScandAll PRO (image scanning application).

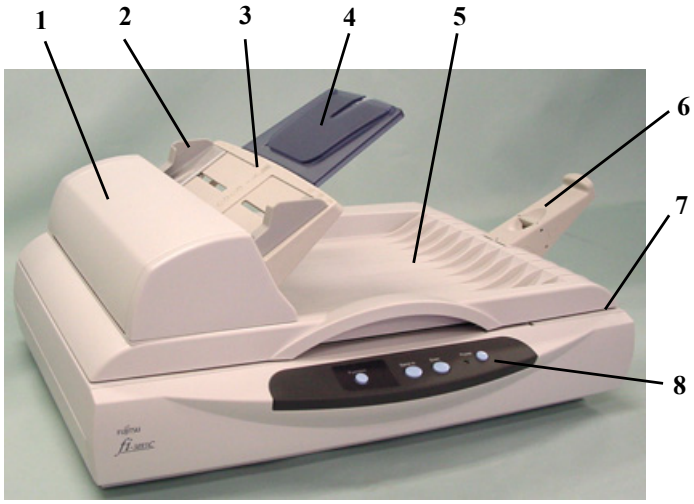
Chapter 1

NAME OF PARTS

This chapter shows the exterior view and the name of each part to descrive its function.

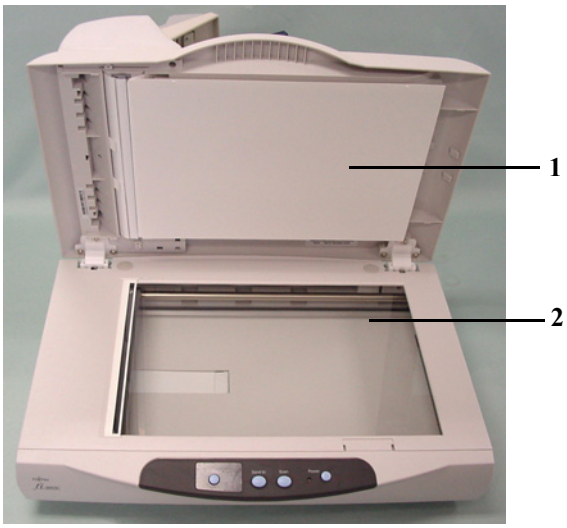
1.1 Units

1. Front side



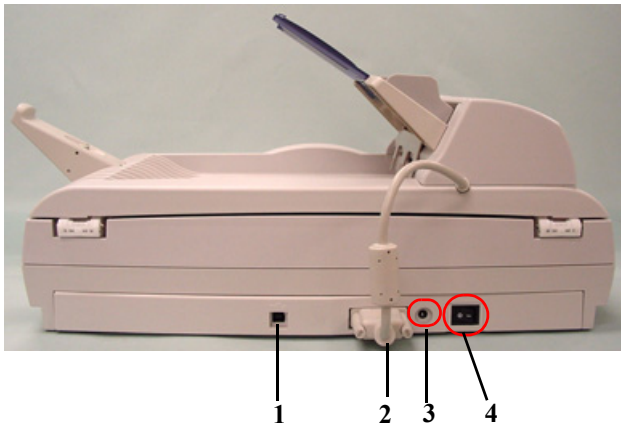
Part	Function
1. Automatic document feeder (ADF)	Automatically feeds documents one by one to the reading position in the scanner.
2. Side guides	Holds the documents straight.
3. ADF paper chute	Holds the documents to be fed by the automatic document feeder (ADF).
4. Extension	Extended when long documents are set.
5. Document cover	Stacks the documents after being scanned by ADF. Holds the document to be scanned on Flatbed.
6. Document stopper	Prevents ejected documents from dropping off the scanners exit tray.
7. Flatbed	Used when the ADF is not appropriate to scan the document.
8. Operator panel	Turns on/off the scanner, starts scanning by [Send to] or [Scan] button, or displays function number.

2. Flatbed



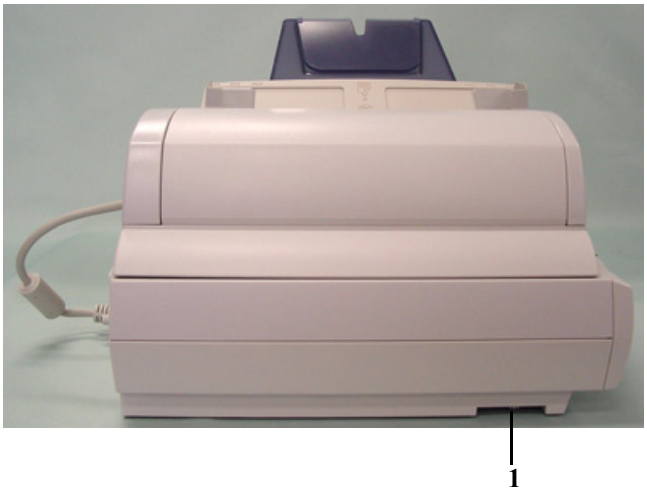
Part	Function
1. Document holding pad	Holds the document on Flatbed.
2. Document bed	On which the document is set face down.

3. Backside

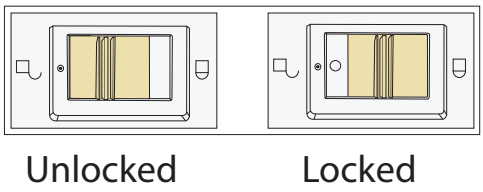


Part	Function
1. USB connector	Connects USB cable to PC.
2. ADF cable connector	Connects the cable from ADF.
3. DC inlet	Connects the cable from AC adaptor
4. Main Power switch	Turns the power ON or OFF to the scanner

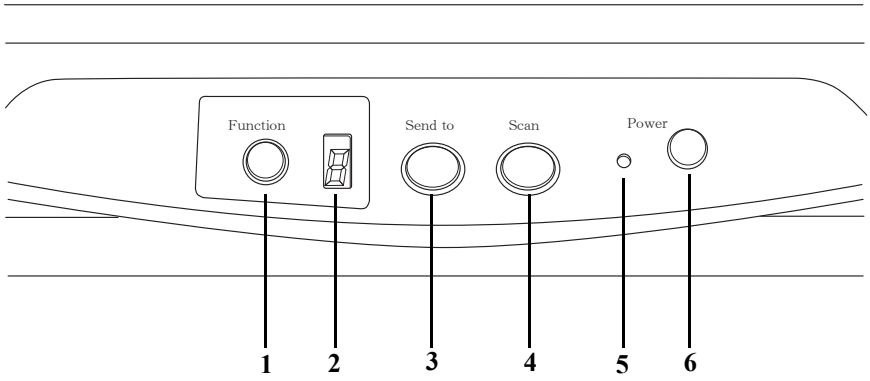
4. Side (ADF side)



Part	Function
1. Shipping lock	Locks the scanning head to prevent the scanner damaged when moving or transporting.



1.2 Operator Panel



Part	Function
1. Function button	Changes the function activated by [Send to] button.
2. Function number display	Indicates the function number or error status. For detail refer "4.1Error Indications in the Function Number Display" on page 50
3. [Send to] button	Launches an application software which is linked by the value of Function number display.
4. [Scan] button	Launches an application software linked.
5. Power LED	Lights when the scanner is turned on.
6. Power button	Turns the scanner ON or OFF

Chapter 2

BASIC SCANNER OPERATIONS

This chapter describes how to turn On/Off the scanner, and how to load/scan the documents.

In this chapter Windows XP screenshots are illustrated.
The screens and operations may differ slightly if the OS you are using is not Windows XP.
Also, when TWAIN is updated the screens and operations noted in this chapter will differ slightly.

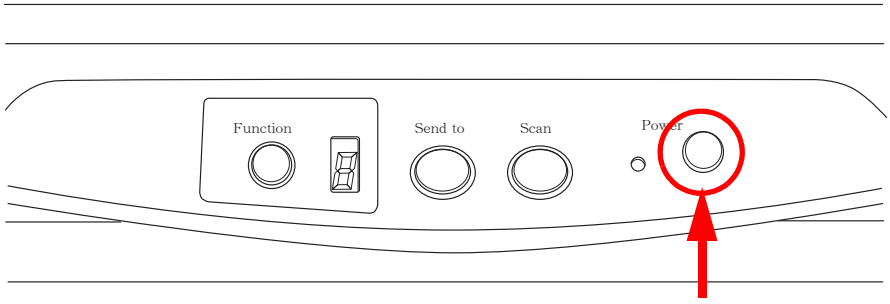
2.1 Turning ON/OFF the Scanner

1. Turning the Power On

   Switch on the Main Power switch located on the side. Then press [Power] button on the operator Panel.
   The scanner is turned ON, and the green LED on the operator panel lights.
   During the initialization, the indication of the Function Number Display changes as follows: “8”->"P" -> "0" -> "1"
   The indication "1" means that the operator panel scanner is in the ready status.

2. Turning the Power Off

   Hold the power button down for at least two seconds.



ATTENTION

Be sure to turn off the Power button on the operation panel before turning off the main power switch. If you turn off the main power switch without turning off the Power button first, other USB devices connected with the USB2.0 hub may fail.

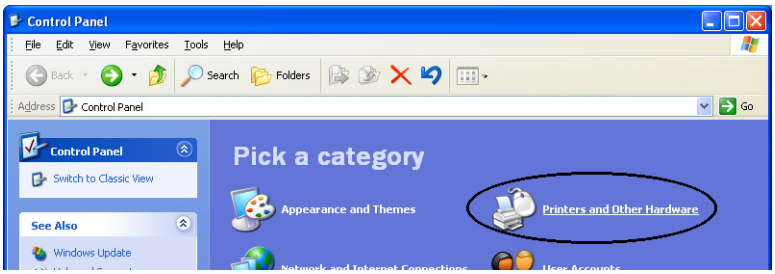
■ About Power ON/OFF Control

You can select either the scanner to be turned on/off with disable the Power button on the operator panel, or alternately you would then power the scanner on/off by connecting or disconnecting the power cable.The procedure is as follows.

1. Open Scanner’s Properties.

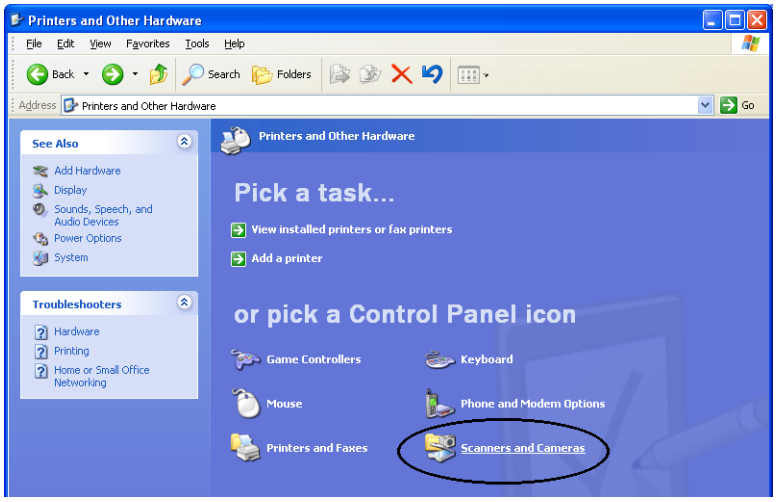
   1) When turning on the power, check that the scanner is connected to your PC. Refer to "2.3 Connecting the Scanner your a PC" in fi-5015C Getting Started on the Setup DVD-ROM for information about connecting the scanner to your personal computer.

2) Double click the "Printer and Other Hardware" icon on the Control panel of your PC.



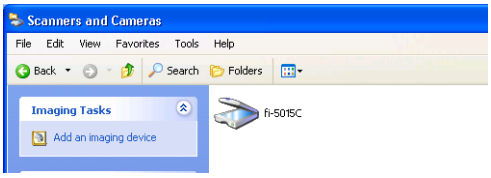
⇒ The [Printer and Other Hardware] window appears.

3) On the [Printers and Other Hardware] window, double click the [Scanners and Cameras] icon.

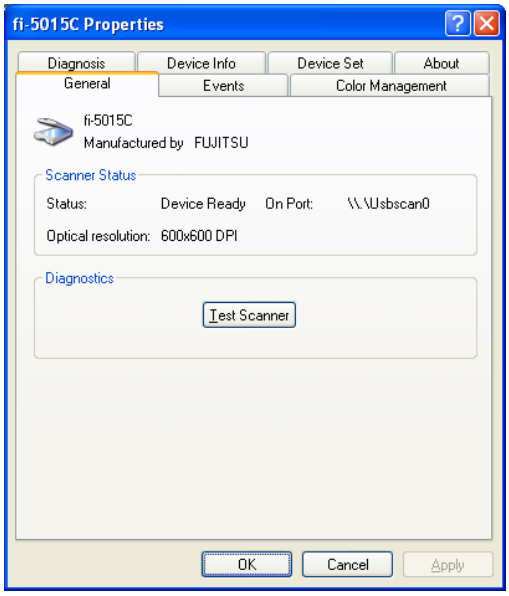


⇒ The [Scanners and Cameras] window is displayed.

4) Right click the "fi-5015C", and select [Properties] from the menu (for Windows XP), or double click (for Windows 2000).

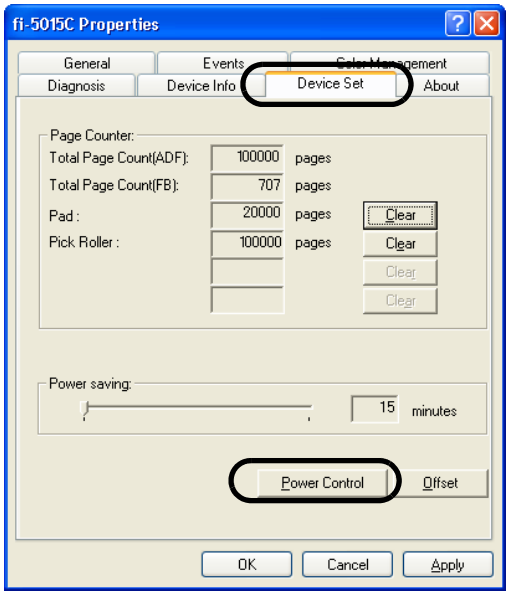


⇒ The [fi-5015C Properties] dialog box appears.



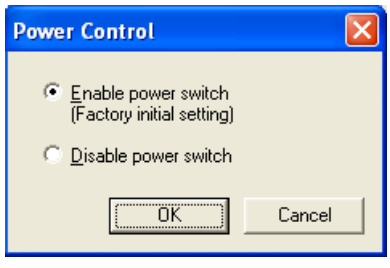
5) Click the "Device Set" tab.

⇒ The following panel appears.



2. Click [Power Control] button

⇒ The following screen is displayed.



3. In this screen,

   - To power on/off the scanner by pressing the Power button:
     ⇒ select "Enable power switch".
   - To power on/off the scanner by connecting or disconnecting the AC cable:
     ⇒ select "Disable power switch".

If [Disable power switch] is selected, the scanner will not turn off even when the [Power off after a certain period of time] check box is selected in [Device Setting] of the Software Operation Panel.

■ Power Save Mode

The Power Save mode keeps the scanner in a low-powered state after it has been turned ON.
If no operation is performed on the scanner for 15 minutes, the scanner automatically switches to the Power Save mode.
In the Power Save mode, the indication of the Function Number display on the operator panel goes out, but the green LED stays lit.
To return from the Power Save mode, perform one of the following:

- Load the document on the ADF paper chute.
- Press any button on the operator panel.
  (The scanner will be turned OFF when pressing down the power button for at least two seconds.)
- Execute a command from the scanner driver.

Also, the scanner can be set to turn itself off automatically when it is turned on and left unused for a certain period of time.
You can save the power consumption by having the scanner turn off automatically.
To enable this setting, select the [Power off after a certain period of time] check box in [Device Setting] of the Software Operation Panel.
To turn the scanner back on when it is automatically turned off, press the power button on the scanner.
For details, refer to "2.1 Turning ON/OFF the Scanner" (page. 8).

- Depending on the application you are using, the scanner may not be turned off automatically even when the [Power off after a certain period of time] check box is selected.
- If the scanner turns itself off automatically while you are using an image scanning application, close the application first, then turn the scanner back on.

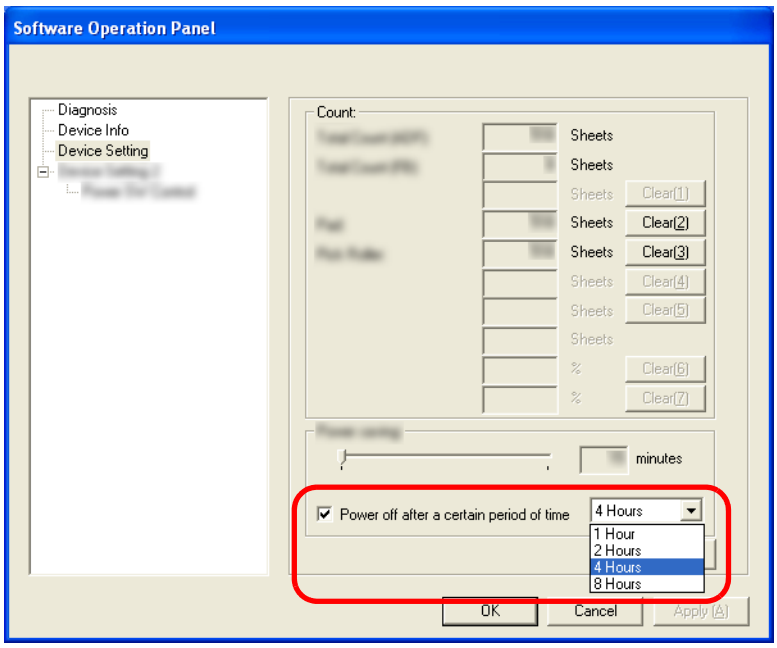
Follow the procedure below to enable auto power OFF.

1. Check that the scanner and the computer are connected and turned on.

2. Select [Start] - [All Programs] - [Scanner Utility for Microsoft Windows] and click [Software Operation Panel].

   ⇒ The Software Operation Panel appears.

3. Change the setting in the Software Operation Panel window below.



- Select the [Power off after a certain period of time] check box to enable this function.
- The time until auto-power off can be set to 1 Hour, 2 Hours, 4 Hours or 8 Hours.

HINT

The default setting of this function varies depending on the part number of the scanner.

Part No.	Default setting
PAxxxxx-Bxx**1**	Enabled (power off after 4 hours)
PAxxxxx-Bxx**2**	Disabled
PAxxxxx-Bxx**3**	
PAxxxxx-Bxx**5**	
PAxxxxx-Bxx**7**	

* Check the part number on the product label on the scanner.

2.2 Loading Documents on ADF

This section explains how to check the document condition and load them on ADF. These operations are very important to avoid paper jam or scanning error.

2.2.1 Checking document condition

Check that the document meets the following condition.

- If the documents do not meet the conditions, scan them on Flatbed referring to "Loading Document on Flatbed" on page.18
- If you scan sheets of paper that is not recommended for feeding with ADF, a paper jam may occur in the scanner or a wrinkle may occur on a sheet. To prevent this from occurring, use Flatbed when scanning such paper.

■ Document Size

For ADF:	Minimum 115 (Width) x 140 (Length) mm	(4.53 x 5.51 in.)
	Maximum 216 (Width) x 355 (Length) mm	(8.5 x 14 in.)

■ Document Type

The following paper types are recommended for ADF scanning:

- Woodfree paper
- Wood containing paper

When using documents other than above paper types, scan som test sheets of the same type to see if the documents can be scanned or not, before attempting to scan the documents.

■ Document Thickness

Paper thickness is generally expressed by "paper weight". The following shows the paper weights that can be used on this scanner:

- 52 g/m^2 to 127 g/m^2 (14lb to 34lb)

■ Precautions

The following documents may not be scanned successfully:

- Documents of non-uniform thickness (e.g. envelopes and documents with photographs attached)
- Wrinkled or curled documents (Refer to HINTs on the next page)
- Folded or torn documents
- Tracing paper
- Coated paper
- Carbon paper
- Carbonless paper
- Photosensitive paper
- Perforated or punched documents

- Documents that are not square or rectangular
- Very thin documents
- Photographs

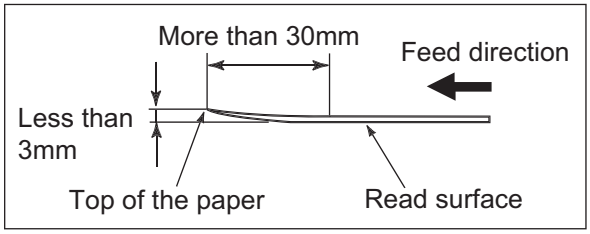
Do not use the following documents:

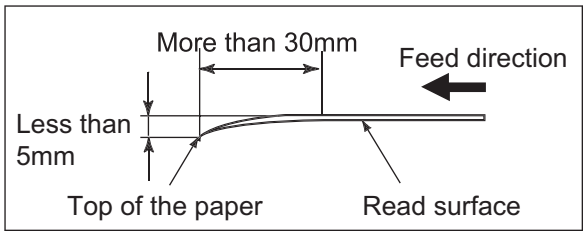
- Paper-clipped or stapled documents
- Documents on which the ink is still wet
- Documents other than paper such as fabric, metal foil, or transparencies

- When scanning semi-transparent documents, slide the [Brightness] bar to light to avoid bleed through.
- To prevent the rollers from becoming dirty, avoid scanning documents containing large areas written or filled in pencil. If scanning of such documents is unavoidable, clean the rollers frequently

- Carbonless paper contains chemical substances that may damage the Pad ASSY or rollers (e.g. Pick roller) when these types of documents are fed. Pay attention to the following:
  Cleaning:
  If pick errors occur frequently, clean the Pad ASSY.
  For details on cleaning the Pad ASSY, refer to "3.2.3 Cleaning the ADF" on page 37.
  Replacing parts:
  The service lives of the Pad ASSY and Pick roller ASSY are sometimes shortened when scanning medium-grade paper documents.
- If paper containing wood is scanned, the service life of the Pad and Pick roller may become shorter than that of the Pad and Pick roller used for scanning only woodfree paper.
- The pad or rollers of the scanner could be damaged if photographs or sheets of paper attached to the scanned document have contact with the pad or rollers during scanning.
- Scanning documents of calendered paper such as photographs may damage the surface of them.

When using the ADF, the leading edge of all document sheets must be evenly aligned. Make sure that curling at the leading edge is within the following tolerances:





2.2.2 Loading documents on ADF

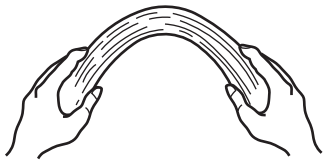
This section explains how to load documents on ADF.

1. Align the edges of the documents.
   1) Grasp no more than 50 sheets in a stack.
   2) Confirm that all the documents have the same width.

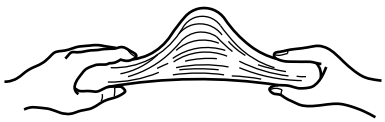
ATTENTION

- The documents on ADF paper chute should be less than 50 sheets. Setting more than 50 sheets may cause paper jam or reading problem.
- When scanning with the ADF, make sure that no documents are placed on the flatbed. Any documents on the flatbed will raise the flatbed cover and cause deterioration of image quality.

2. Fan the documents as follows:
   1) Lightly grip both ends of the documents with both hands, and bend the documents as follows.

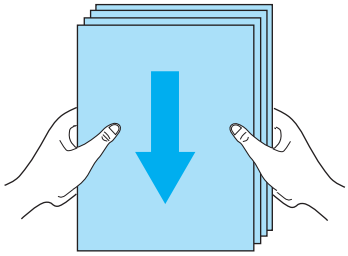


   2) Hold the documents firmly with both hands and bend them back as follows so that the bent section rises up in the middle of the stack as shown below.



   3) Repeat steps 1) and 2) a couple of times.
   4) Rotate documents 90 degrees, and fan again.

3. Align the top of the documents.



4. Load the documents on the ADF paper chute.

ATTENTION

Set the documents face-up in the ADF paper chute with the upper edge of the documents downwards.

5. Adjust the side guides to the width of the documents.

Move the side guides so that they touch both sides of the documents.
If there is any clearance between the side guides and the edges of documents, the scanned image may be skewed.

6. Scan the documents.

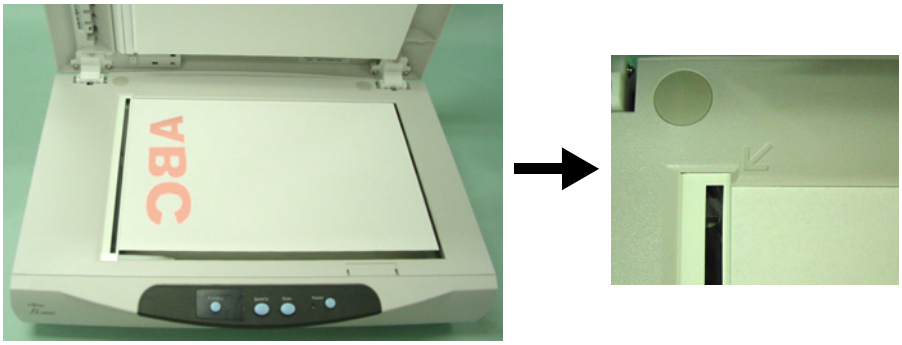
For how to scan the document, refer to "2.4 Scanning Documents" on page.20.

2.3 Loading Document on Flatbed

CAUTION

Do not look directly at the light source during the scanning operation.

1. Open the document cover.
2. Place the document on the document bed (glass) with face down.
3. Position the document so that the upper-left corner of the document is aligned with the reference mark of the document bed.



4. Close the document cover gently.
5. Scan the document.

For how to scan the document, refer to "2.4 Scanning Documents" on page.20.

ATTENTION

- Do not move the document during scanning.
- Do not press or open the document cover during scanning.

■ Scanning Thick Documents with Flatbed

When scanning a thick document such as a book, please remember the following notes.

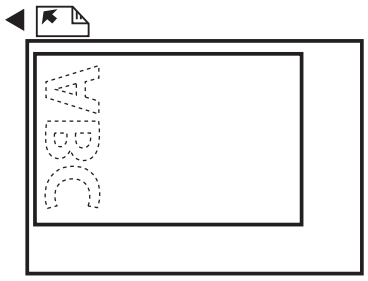
1. The document cover can be pulled out upwards.
2. The not-seated part of the document is not scanned correctly.

■ Document Size

For Flatbed:	Minimum 26 (Width) x 26 (Length) mm	(1 x 1 in.)
	Maximum 216 (Width) x 297 (Length) mm	(8.5 x 11.7 in.)

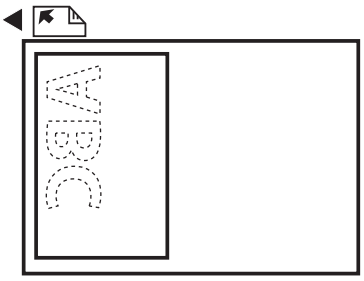
Orientation of the document and how to set Paper size shall be as follows for Portrait scanning or Landscape scanning

[Portrait]

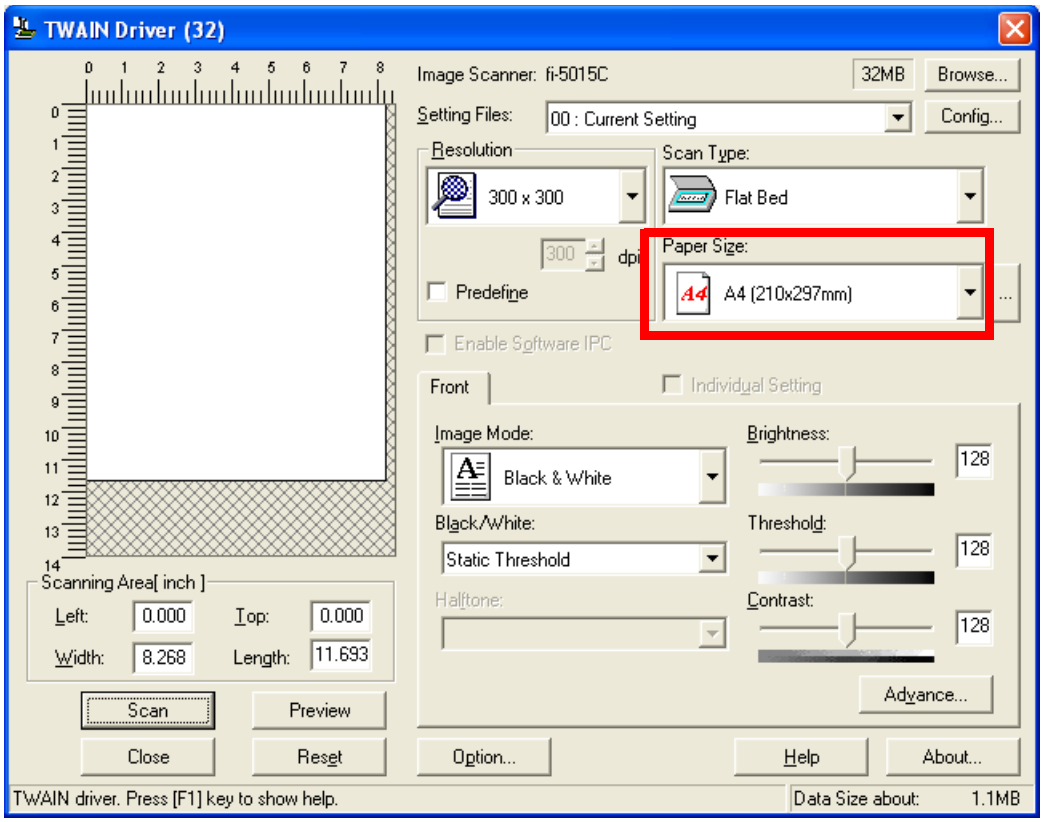


- Paper Size setting
  Select Paper Size among A4, A5, B5, Letter and Exective, in the following driver screen.

[Landscape]



- Paper Size setting
  Select Paper Size A5L, in the following driver screen.



2.4 Scanning Documents

This section explains how to scan documents using ScandAll PRO as an example.

1. Load documents on the scanner.

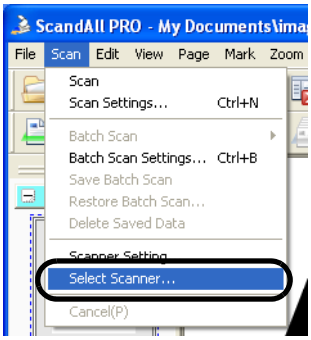
   For details about loading documents, refer to "2.2 Loading Documents on ADF" on page 13 or "2.3 Loading Document on Flatbed" on page 18.

2. Start up ScandAll PRO.

   Select [Start] - [All Programs] - [Fujitsu ScandAll PRO] - [ScandAll PRO].
   ⇒ This starts up ScandAll PRO.

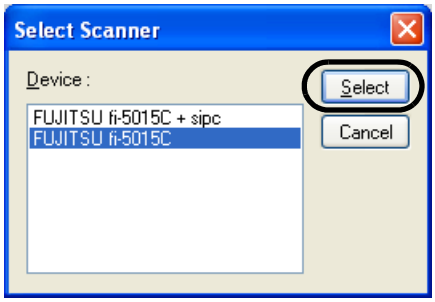
3. Select the scanner to use.

   Select [Select Source] from the [Scan] menu.



   ⇒ The [Select Scanner] dialog box appears.

   Select "FUJITSU fi-5015C" and click the [Select] button.



4. Select the [Scan] menu - [Scan Settings].

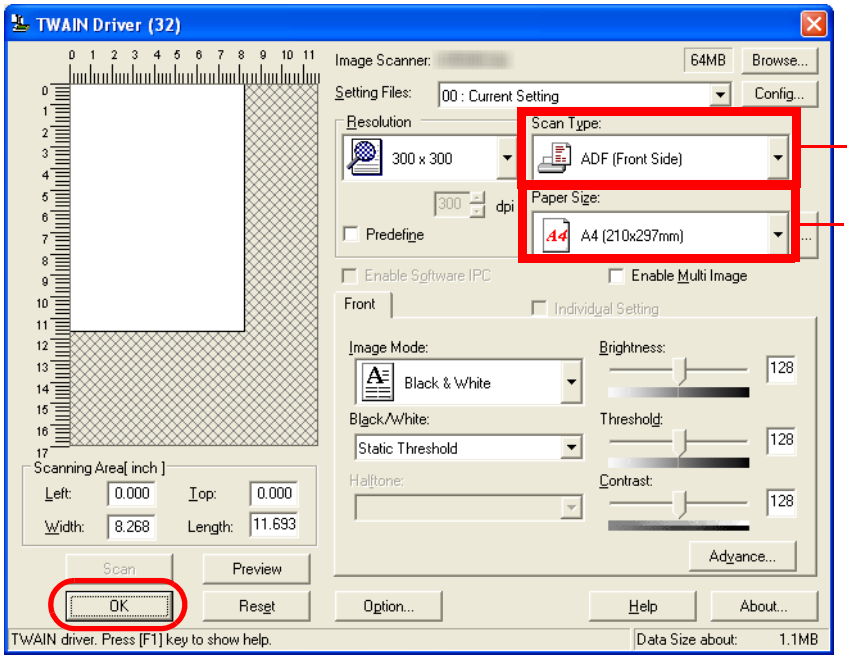
   ⇒ The [Scan Settings] dialog box appears.

5. Click the [Scanner Setting] button.

   ⇒ The [TWAIN Driver] dialog box (for setting the scan conditions) appears.

6. Set the scan type, paper size (see below), etc., and click the [OK] button.

   For details on settings in the [TWAIN Driver] dialog box, refer to "2.5 How to use the Scanner Driver" on page 23



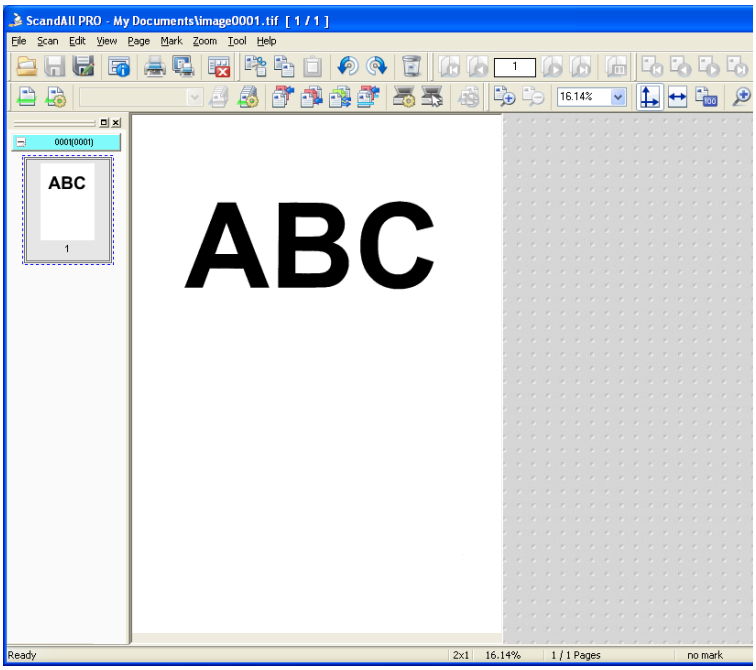
⇒ You are returned to the [Scan Settings] dialog box.

7. Click the [Scan] button.

HINT

When you are using TWAIN, you may see the TWAIN Driver setup dialog box again. If so, click the [Scan] button on the dialog box.

⇒ The images of scanned documents are displayed on the [ScandAll PRO] window.



For details on functions and operations of ScandAll PRO, refer to the description in the [Help] menu.

2.5 How to use the Scanner Driver

To scan documents with the scanner, a scanner driver and application supported by the driver are prerequisites. This scanner is accompanied with two drivers; one is a TWAIN-compliant driver, TWAIN Scanner Driver, and the other is an ISIS-compliant driver, ISIS Scanner Driver; and an application named ScandAll PRO, which supports both the drivers TWAIN and ISIS.

In this section, how to use these drivers is described.
For information about how to use ScandAll PRO and how to invoke a scanner driver via ScandAll PRO, refer to "ScandAll PRO User's Guide".

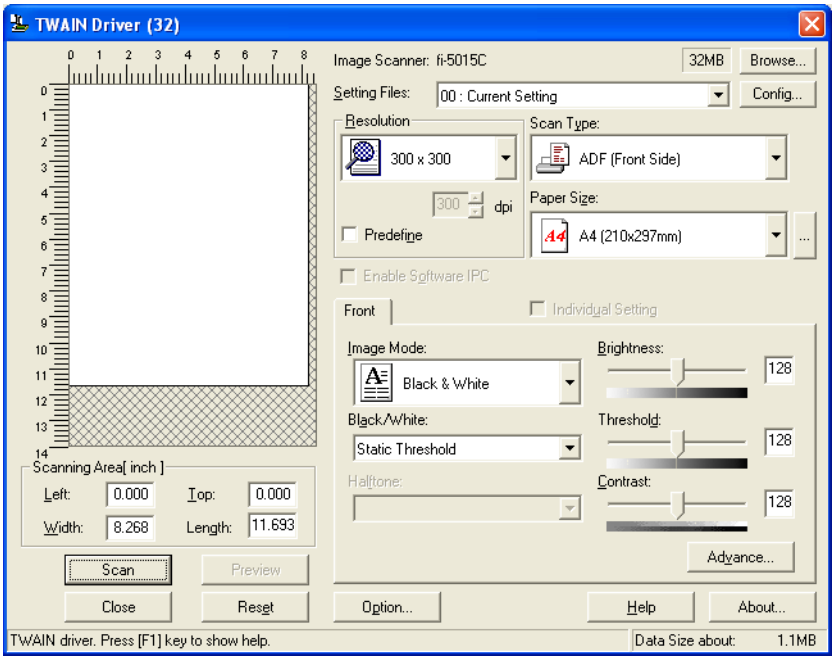
■ TWAIN Scanner Driver

TWAIN Scanner Driver is a driver for scanning documents with the scanner based on a TWAIN-compliant application.
Usually, you can configure the scanner settings in the scanner driver's setup dialog box, invoking a scanner driver via an application. (Depending on the application settings, this setup dialog box may not appear.)

HINT

How to invoke a scanner driver varies depending on the application. For details, refer to the manual or help of the application you use.
For information about how to invoke a driver via ScandAll PRO, refer to "ScandAll PRO User's Guide".

■ Setting Window for TWAIN Scanner Driver



You can set the TWAIN Scanner Driver on this window.

The following describes the main setting items.

- For details on each functions, refer to "TWAIN Scanner Driver Help" (appears by pressing [Help] or [F1] button).

Resolution

Specifies the resolution of scanning.
It can be specified by selecting from the list a default value or "custom" (specifies any resolution in 1 dpi unit).
By marking the [Predefine] checkbox, you can select one from three predefined settings as [Best], [Better] and [Normal] to scan documents instead of setting details by yourself. Otherwise, you can change the predefined settings of [Best], [Better] and [Normal] by clicking the [...] button.

Scan Type

Specifies the feeding method, ADF scanning or Flatbed scanning.

Paper Size

Selects the size of documents to be scanned from the list.
Windows for customizing the paper size will appear when you click on [...] by the list.
You can save any document size as a customized setting (up to three) or for changing the order of the paper size in the list.

Image Mode

Specifies the image type for the scanned documents.

Black & White	Documents are scanned in binary (black and white).
Halftone	Documents are scanned through halftone processing in black and white.
Grayscale	Documents are scanned in gradations from black to white. For this mode you can select 256 gradations or 4 bit (16 gradations).
Color	Documents are scanned color mod. For this mode, you can select 24 bit Color, 256 Color or 8 Color.

[Scan] button

Starts scanning documents with the current settings.

[Preview] button

Documents are scanned preliminarily before the actual scanning.
You can confirm the image of the documents in the preview window.

[Close] button

Saves the current settings and closes this window.

[Reset] button

Undoes change opetation.

[Help] button

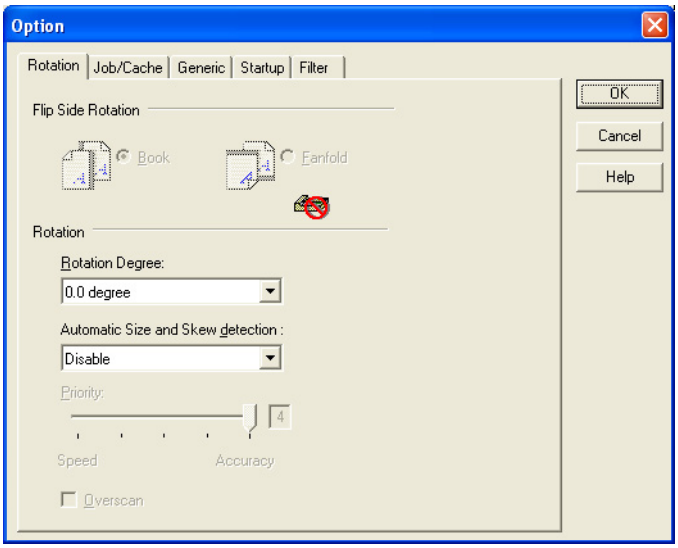
Opens the "TWAIN Scanner Driver Help" window. The window also opens by pressing the [F1] key.

[About...] button

Opens an information window about the TWAIN Scanner Driver's version.

[Option...] button

You can set up the details of optional functions on the window below.



[Rotation] tab

Select this tab when setting image rotation.

[Job/Cache] tab

Select this tab when setting cache mode, blank page skipping, etc.

[Generic] tab

Select this tab to change the unit displayed on the Setting Window for the TWAIN Scanner Driver. (Millimeters, Inches, and Pixels are available)

[Startup] tab

Select this tab for setting the Scanner Operation Panel.

[Filter] tab

Select this tab for setting the image processing filter(s).

Page Edge Filler: Fills up the margins of the scanned documents with a selected color.

Digital Endoser: A character string, such as the alphabet and numbers, can be added in the scanned document.

[Advance...] button

Click this button for settings of the advanced image processing.

You can set Dropout Color, Reverse, etc. Also Gamma Pattern by custom settings,

[Config...] button

Click this button for configuring the Setting Files.

You can save the changed settings as a Setting File. From next scanning, the settings are quickly changed by using these Setting Files.

For details of each function, refer to the "TWAIN Scanner Driver Help".

■ ISIS Scanner Driver

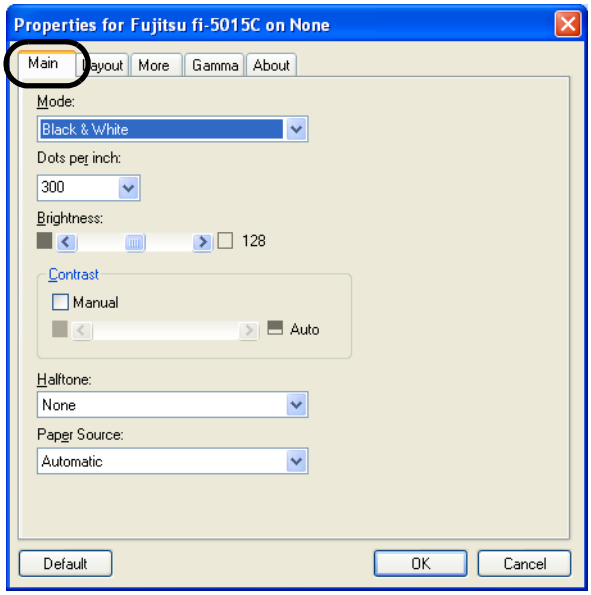
ISIS Scanner Driver is a driver software used to scan documents with a scanner from an ISIScompliant application.
Usually, you configure settings for scanning in the setup dialog box of the scanner driver, which is invoked from an application. (Depending on the application setting, the setup dialog box may not be displayed.)

HINT

How to invoke a scanner driver varies depending on the application. For details, refer to the manual or help of the application you use.
For information about how to invoke a driver via ScandAll PRO, refer to "ScandAll PRO User's Guide".

■ Configuration Window of ISIS Scanner Driver

"Main" tab



Mode

Selects a color mode suitable for the purpose from the menu.

Black & White	Documents are scanned in binary (black and white).
256-level Grayscale	Scans data by 254 shades of gray plus black and white. This mode uses 8 bits per pixel. This mode is switable for scanning monochrome photographs.
24-bit Color	Scans data as full-colored image using 24 bits per pixel. This mode is suitable for scanning color photographs.

Dots per inch

Specifies the number of pixels (dots) per inch.
Select a fixed resolution from the list (75, 100, 150, 200, 300, 400, 500, 600).
A higher resolution produces finer image, but requires much more memory.

Halftone

Selects the halftone pattern for halftone scanning. This setting is available when "Black & White" is selected in the "Image Mode".

Dither Pattern 0	This setting is suitable for scanning dark photographs.

Brightness

Sets the brightness of the entire image. Specify the brightness as a number within the range of 1 (dark) to 128 (bright). To brighten the entire image, increase the value of the setting. To darken the entire image, decrease the value.

Contrast

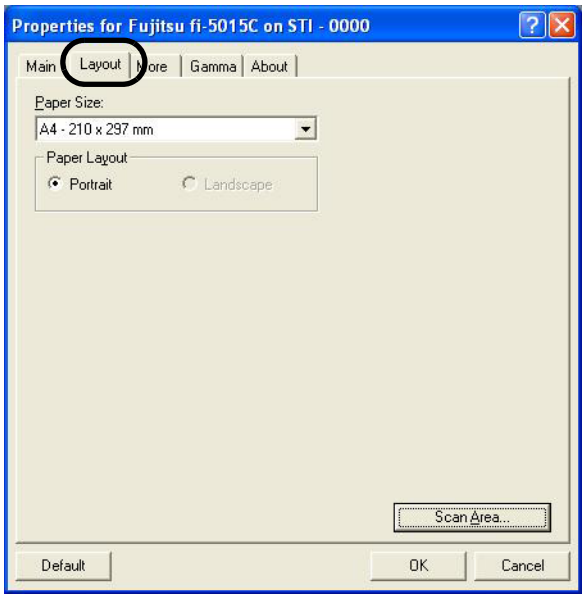
Sets the contrast between light and shadow of the scanned image. Specify the contrast as a number within the range of 1 (low [soft]) to 100 (high [sharp]). Increasing this value makes the contrast sharper.

Paper Source

Selects the scanning method.

Automatic	Automatically switches the method between ADF scanning and flatbed scanning.
ADF	Scans documents using the automatic document feeder (ADF).
Flatbed	Scans documents using the flatbed.

"Layout" tab



Paper Size

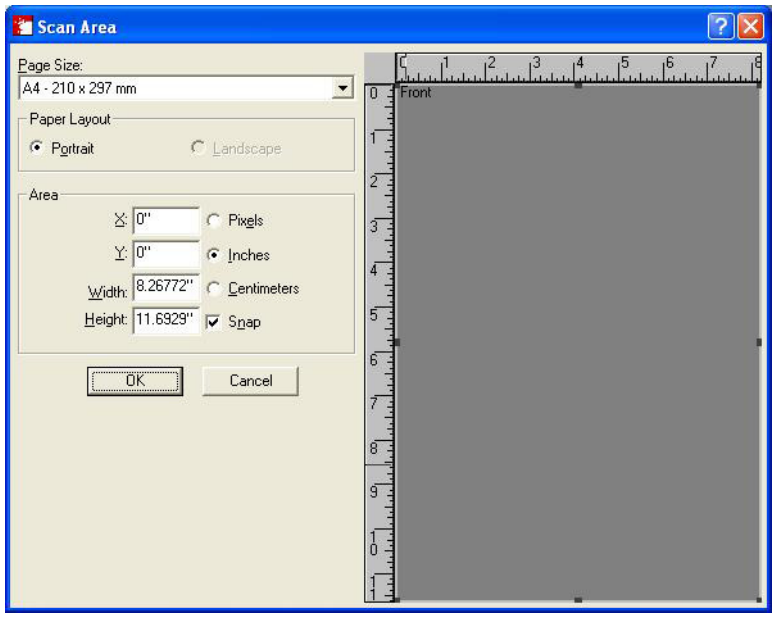
Selects a paper size according to the size of the document to be scanned. Select a standard paper size from the list.

Paper Layout

Specifies orientation of the documents as portrait or landscape.

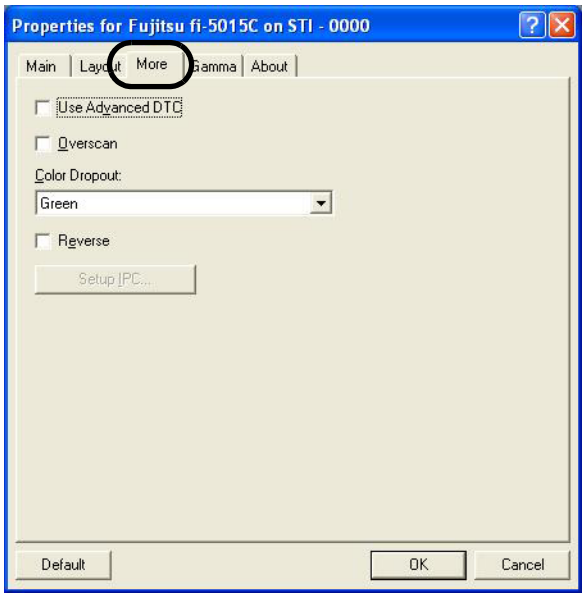
[Scan Area...] button

Opens the Scan Area dialog box. Specify scan area for the document size.
The size can be set by dragging the frame with mouse. Otherwise, enter any value for the setting.



"More" tab

Opens [More Settings] window. Used for setting advanced features.



Use Advanced DTC

This option scans any kind of documents by binary processing to produce data with good scanning quality. Documents containing thin letters, characters with the colored background, and colored charts cannot be scanned sufficiently clearly by ordinary binary processing. By using this option, however, you can achieve good scanning quality.

Overscan

Specifies the overscan function, which makes the scanned images larger than the original documents by adding margins.

Color Dropout

Excludes selected color (the three primary colors of light i.e. green, red, blue) from scanned images. For example, if the document contains black text in a red frame and when the red color is selected, the scanner reads only the text and eliminates (drops out) the red frame.

If you do not wish to have any colors dropped out select "None".

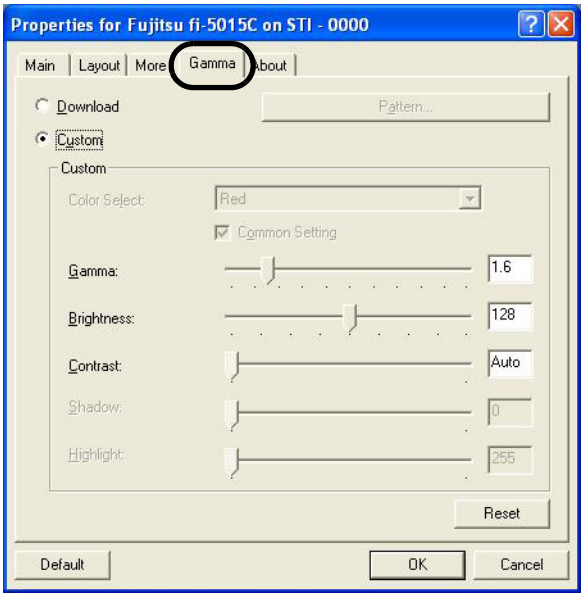
Reverse

Colors of scanned images are reversed.

[Setup IPC...] button

You can configure settings for scanning with Image Processing Software Option.

"Gamma" tab



Download

You can download and use any Gamma pattern.

Custom

You can specify the numeric values of items such as “Gamma”, “Brightness”, “Contrast”.

"About" tab

Displays the version number of ISIS driver.

2.6 Image Scanning Application

This section explains about the bundled "ScandAll PRO" image scanning application, which is used as an example to explain the procedures in this manual.

ScandAll PRO supports both TWAIN and ISIS drivers. By defining scan settings as profiles, you can customize the settings according to your preference.

Chapter 3

MAINTENANCE

This chapter describes how to clear the paper jam, perform daily maintenance and cleaning.

Do not use aerosol sprays near the scanner

Do not use any aerosol sprays or alcohol based sprays to clean the scanner.

Dust blown up by strong air from the spray may enter the inside of the scanner. This may cause the scanner to fail or malfunction.

Sparks, caused by static electricity, generated when blowing off dust and dirt from the outside of the scanner may cause a fire.

Be careful, the inside of ADF (automatic document feeder) may become hot during the operation.

3.1 How to clear the paper jam

CAUTION

Be careful not to get injured when removing jammed documents.

When a paper jam occurs while using ADF, follow the procedure below to remove jammed paper.

1) Remove the documents from the ADF paper chute.

2) Open the ADF.

CAUTION

Be careful, the ADF may close and pinch your fingers.

3) Remove the jammed paper.

ATTENTION

Staples, paper clips, etc. cause document jams. Be sure to fully check the document and feed path, and remove any small metal objects such as these.
Also, before you start scanning, be sure to remove any staples, clips, etc. from the document.

4) Close the ADF completely until it clicks.

3.2 Cleaning

To keep scanner performance stable, clean the scanner and replace the consumable if necessary as follows.

⚠ CAUTION	Be careful, the inside of ADF (automatic document feeder) may become hot during the operation.

3.2.1 Cleaning Materials

Cleaning Materials	Parts Number	Remarks
Cleaner F1 	PA03950-0352 (*1)	1 bottle Moisten a cloth with this fluid and wipe the scanner clean.
Cleaning Wipe	PA03950-0419 (*2)	24 sheets/pack
Lint-free dry cloth	- Commercially available one	

For details about the cleaning materials, contact the FUJITSU scanner dealer where you purchased the scanner.

*1) It may take long before the cleaner vaporizes if a large quantity is used. When cleaning the scanner parts, dampen a cloth with modest quantities of the cleaner. In addition, wipe off the cleaner completely with a soft lint-free cloth to leave no residue on the surface of the cleaned parts.

*2) Pre-moistened with Cleaner F1, Cleaning Wipes are used instead of moistened cloths.

3.2.2 Cleaning the Flatbed

ATTENTION

- Detergent for cleaning windows or glass cleaner can be used instead of cleaning fluid. However, do not use paint thinner or other organic solvents.
- Do not allow moisture to get inside the device during cleaning.

■ Cleaning Method

1. Open the document cover.
2. Clean the following locations using a soft, dry cloth moistened with cleaning fluid.

- Document holding pad - ①
  Wipe gently.
- Document bed - ②
  Wipe lightly.

ATTENTION

- Be careful not to allow moisture to get inside the device during cleaning.
- It may take long before the cleaner vaporizes if a large quantity is used. When cleaning the scanner parts, dampen a cloth with modest quantities of the cleaner. In addition, wipe off the cleaner completely with a soft lint-free cloth to leave no residue on the surface of the cleaned parts.

3. Wait for cleaned parts to dry.
4. Gently close the document cover.

3.2.3 Cleaning the ADF

Clean the ADF every 1,000 scans. Note that this guideline varies according to the type of documents you are scanning. For example, it may be necessary to clean the ADF more frequently if documents are scanned when the toner is not sufficiently fixed on the printout.
As the documents are scanned by ADF, Pad ASSY and Pick roller unit may be contaminated with ink, toner particles or paper dust. In this case the scanner may not feed documents smoothly or several documents may be fed at once. If this occurs please clean the ADF as follows to return your scanner to its original state.

CAUTION

Be careful, the inside of ADF (automatic document feeder) may become hot during the operation.

■ Cleaning Method

ATTENTION

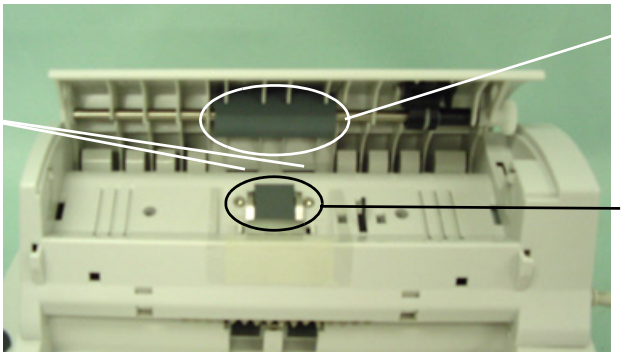
The glass surface under the ADF becomes hot during the operation of the scanner.
Before you start to clean the inner parts of the scanner, disconnect the AC adapter from the power outlet, and wait at least 15 minutes to let the glass cool down.

1. Open the ADF.

CAUTION

Be careful, the ADF may close and pinch your fingers.

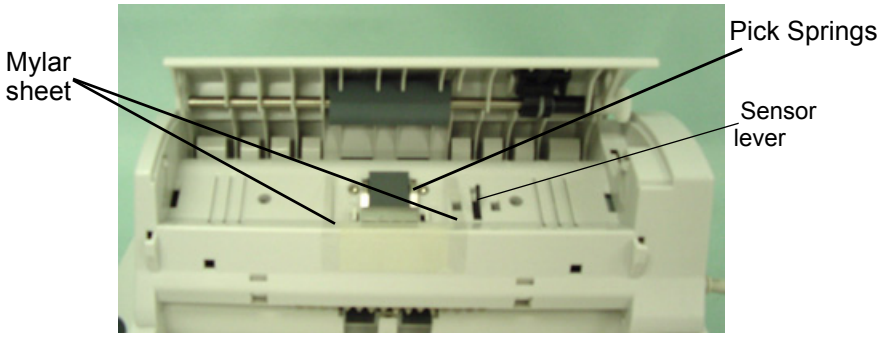
2. Clean the following locations with a lint-free cloth moistened with the Cleaner F1.



ATTENTION

It may take long before the cleaner vaporizes if a large quantity is used. When cleaning the scanner parts, dampen a cloth with modest quantities of the cleaner. In addition, wipe off the cleaner completely with a soft lint-free cloth to leave no residue on the surface of the cleaned parts.

- Pad ASSY
  Wipe Pad ASSY with the cloth in the direction from bottom to top.



ATTENTION

Be careful not to hook the pick springs, sensor lever and mylar sheet near the Pad ASSY.

- Pick roller unit
  Wipe the Pick roller unit by moving the cloth from side to side of rollers. Rotate the rollers forward with your finger and repeat the wiping procedure until all surface of roller are cleaned.
- Pinch rollers
  Clean Pinch roller softly not to damage its surface. Try to remove any black stain which may degrade the performance of paper feeding

3. Push in the center of the ADF to return it to its original position, until it clicks.

ATTENTION

Close the ADF until it clicks. Paper jams or feeding errors may occur if the ADF is not closed completely.

4. Open the Flatbed cover and clean the following locations.

ATTENTION

The glass surface under the ADF becomes hot during the operation of the scanner.

3.3 Replacing Consumable

CAUTION

Note the inside of ADF (automatic document feeder) may become hot during the operation.

3.3.1 Part number and Replacement cycle

The following table lists the consumable used in the scanner. Be sure to keep some consumables in stock.
The customer is required to replace consumable periodically. Otherwise, the scanner may not function properly. Part number and recommended replacement cycle is,

No.	Name	Part Number	Replacement Cycle
1	Pad ASSY	PA03209-0550	Up to 20,000 sheets, or 1 year
2	Pick roller unit	PA03209-0551	Up to 100,000 sheets, or 1 year

Replacement cycle may be shortened depending on the type of scanned documents. The above replacement cycle is estimated with the following paper quality:

Woodfree paper or Plain paper

ATTENTION

Use only the above specified consumables.

HINT

Refer to "Guidelines for Consumable Replacement Cycle" on page 41 to find how many documents are scanned by the consumable.

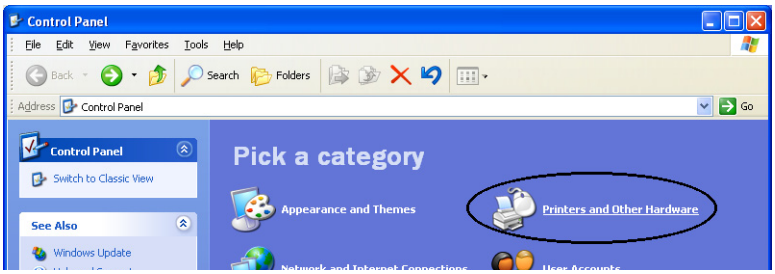
3.3.2 Guidelines for Consumable Replacement Cycle

With this product, you can learn how many times the consumables are used so that you can estimate the right timing for the replacement.

1. When turning on the power, check that the scanner is connected to your PC.

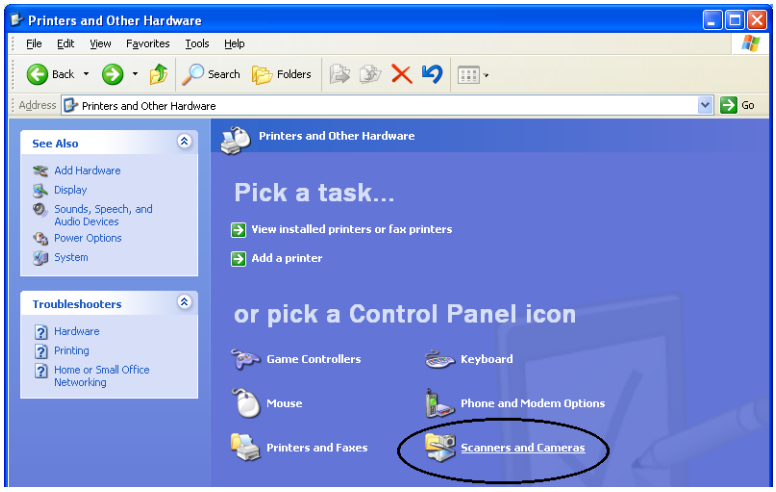
   Refer to "2.3 Connecting the Scanner to your PC" in fi-5015C Getting Started on the Setup DVD-ROM for information about connecting the scanner to your personal computer.

2. Double click the "Printers and Other Hardware" icon on the Control panel of your PC.



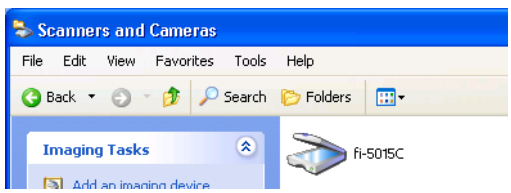
⇒ The [Printer and Other Hardware] window appears.

3. On the [Printers and Other Hardware] window, double click the [Scanners and Cameras] icon.

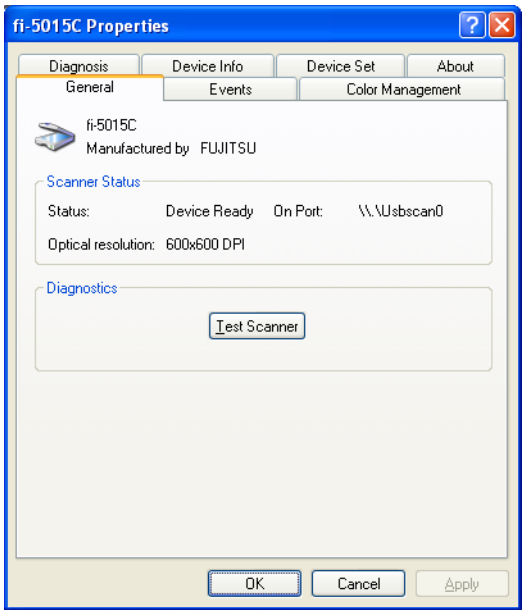


⇒ The [Scanners and Cameras] window is displayed.

4. Right click the "fi-5015C", and select [Properties] from the menu (for Windows XP), or double click (for Windows 2000)

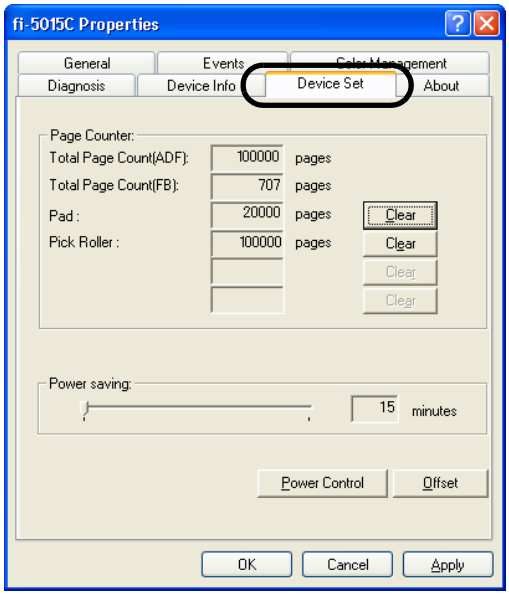


⇒ The [fi-5015C Properties] dialog box appears.



5. Click the "Device Set" tab.

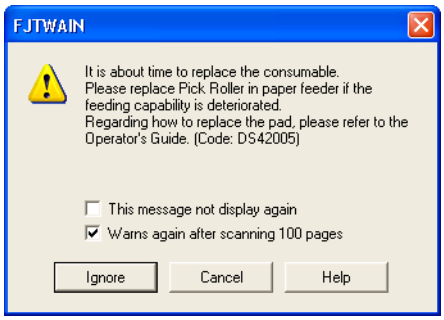
⇒ The following panel appears.



You can confirm the following information on this panel:

- Total number of scans with ADF and Flatbed.
- Pad and Pick roller counter (approximate number of scans after resetting the counter)

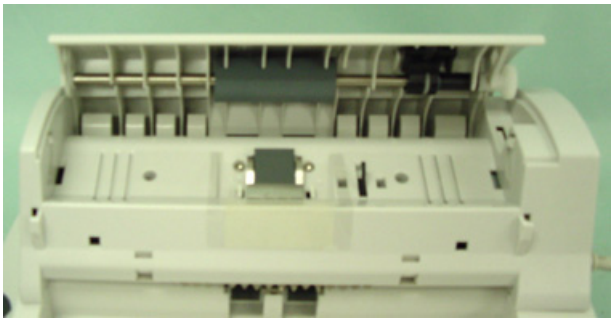
The following message may appear while using the scanner:



Replace consumables when this message is displayed.
After clicking the [Ignore] button, this message will disappear and scanning will continue.
Please replace the consumable as soon as possible.
As a default, this message appears again after 100 scans. If you do not wish this message to display, click the [This message not display again].
To stop scanning and replace the consumable, click the [Cancel] button.

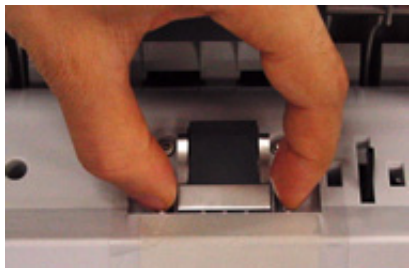
3.3.3 Replacing the Pad ASSY

1. Remove all documents from the ADF paper chute.
2. Open the ADF.



⚠ CAUTION	Be careful, the ADF may close and pinch your fingers.

3. Remove the snap-in Pad ASSY by pinching the upper part of the pad clamp as shown in the following photo.



4. Install new Pad ASSY by the reverse procedure of removing.

ATTENTION

Make sure that the Pad ASSY is firmly attached. When the Pad ASSY is not correctly attached, document jams or other feeding errors may occur.

5. Press the center of the ADF to close it until it clicks.

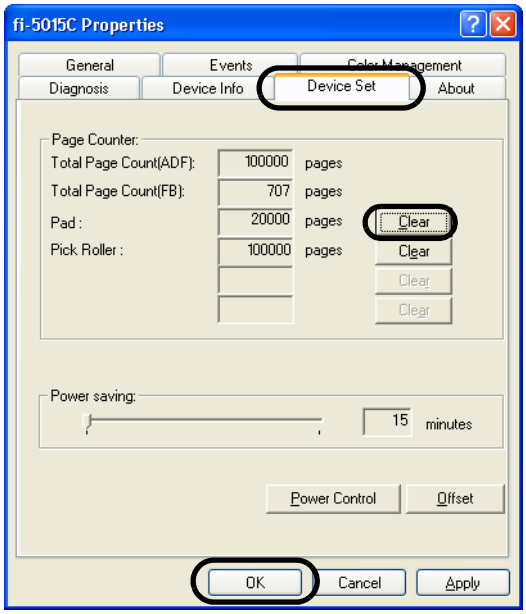
6. Reset the pad counter.

   1) Check that the scanner is connected to your PC and turn on the scanner.

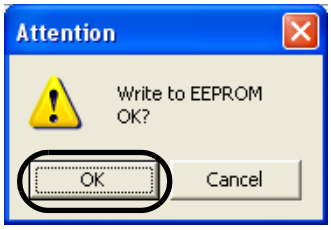
   2) Open the [Scanners and Cameras] from the control panel of your PC.

   3) Open the [Properties] of [fi-5015C] from the [Scanners and Cameras].
      ⇒ The [Properties of fi-5015C] dialog box appears.

4) Click the "Device Set" tab.



5) After clicking the [Clear] button beside "Pad" in "Page Counter", click the [OK] button.
⇒ The following window appears.



Click the [OK] button.
The Pad counter returns to "0".

3.3.4 Replacing the Pick roller unit

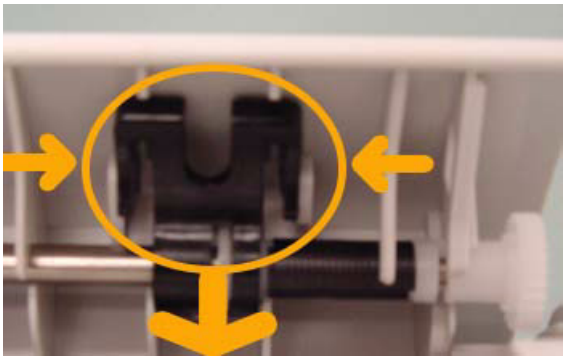
1. Remove all documents from the ADF paper chute.
2. Open the ADF.

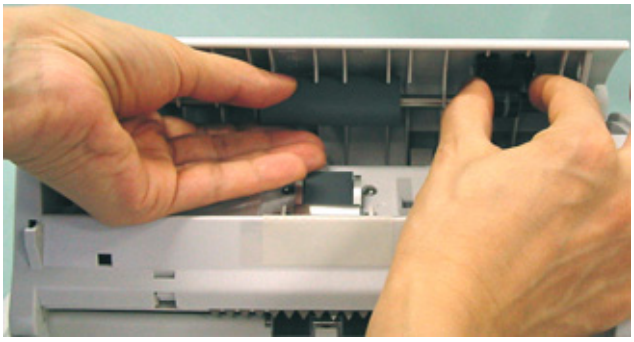
CAUTION

Be careful, the ADF may close and pinch your fingers.

3. Remove the Pick roller unit from the scanner.

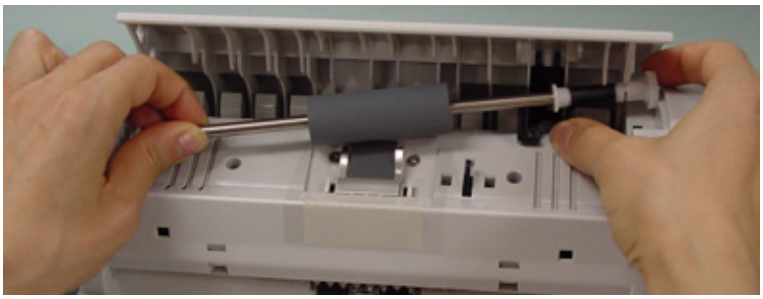
1) Pinch the fixture with your fingers with another hand holding the Pick roller unit.





2) Pull the Pick roller unit to the fixture‘s side.

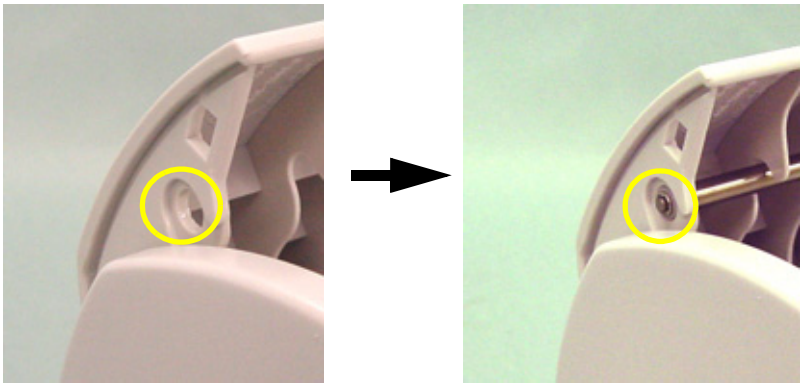
⇒ The Pick roller unit is removed downwards.



4. Attach a new Pick roller unit to the scanner.

Attatch a new Pick roller unit to the scanner in reverse order of removing.

1) Set the Pick roller unit inserting an end of shaft into the shaft hole correctly as shown in the following photos.



ATTENTION

Make sure that the end of the Pick roller unit shaft is correctly inserted in the shaft hole. Otherwise the ADF will not be closed completely.

2) Lock the fixture in the original place to fix the Pick roller unit.

5. Press the center of the ADF to close it until it clicks.

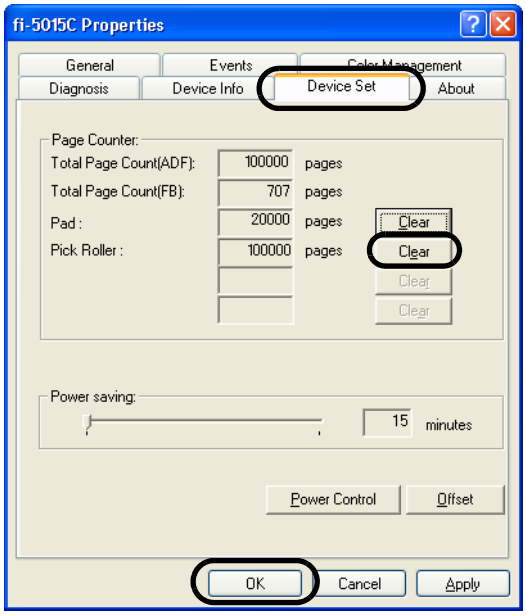
6. Reset the Pick roller counter.

1) Check that the scanner is connected to your PC and turn on the scanner.

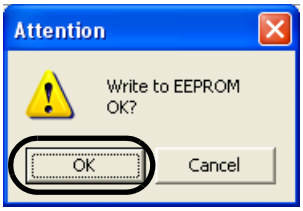
2) Open the [Scanners and Cameras] from the control panel of your PC.

3) Open the [Properties] of [fi-5015C] from the [Scanners and Cameras].
⇒ The [Properties of fi-5015C] dialog box appears.

4) Click the "Device Set" tab.



5) After clicking the [Clear] button besides "Pick roller" in "Page Counter", click the [OK] button.
⇒ The following window appears.



Click the [OK] button.
The Pick roller counter returns to "0".

Chapter 4

TROUBLESHOOTING

This chapter describes how to remedy troubles and items to check before contacting the agent where you bought the scanner.

4.1 Error Indications in the Function Number Display

When any error occurs, the operator panel indicates "U" followed by a number alternately for temporary errors, or "E" followed by a number for device alarms (permanent error).
Temporary errors can be resolved by the operator, but the device alarm requires recovery works by support engineers.
When the Error Recovery Guide is installed on your PC and if any error or device alarm has occurred, this software displays information such as error names and error codes regarding the error/alarm. Take notes of the information and click [Details] on its window to learn detailed information for troubleshooting.

■ Temporary Errors:

A number appearing in alternation following the "U" refers to the following type of errors:

Indication	Meaning	Solution
U0	Shipping lock error occurred.	Confirm that the shipping lock is released.
U1	A paper feed error occurred.	1. Remove the jammed documents. (Refer to "3.1 How to clear the paper jam" on page 34.) 2. Confirm that the documents meet the paper conditions for scanning. (Refer to "2.2.1 Checking document condition" on page 13.)
U9	ADF error	Turn OFF the scanner power. Confirm/ Connect the ADF cable, then turn on the scanner power.

The Error Recover Guide is stored in Setup DVD-ROM. For installing the application software, refer to "2.1 Installing the Scanner Application" in fi-5015C Getting Started.

■ Device alarms:

A number appearing in alternation following the "E" refers to the following type of device alarms:

Indication	Meaning	Solution
E0	Shipping lock error occurred.	Confirm that the shipping lock is released.
	Flatbed motor malfunction	When you encounter any alarm, turn off and on the scanner. If the alarm is still displayed on the Function Number Display, contact the dealer where you purchased the scanner or an authorized FUJITSU scanner service provider.
E2	Trouble in the optical system	
E7	Trouble occurred in the internal memory (EEPROM).	
Eb	A LSI error	
Ec	An error in the memory	
Ed	An error with USB chip	

4.2 Troubleshooting

CAUTION

Be careful, the inside of ADF (automatic document feeder) may become hot during the operation.

If a problem occurs, check the following items before contacting the manufacturer's authorized service center.

Symptom	Check this item	Remedy
Scanner does not turn on.	Is the main switch turned on?	Turn the main switch on.
	Have you pushed the power button?	Push the power button.
	Are the AC cable and AC adapter properly connected to the scanner?	Correctly connect the AC cable and the AC adapter.
		Disconnect the AC cable and the AC adapter from the scanner, then connect them again. If this does not restore the power supply, contact the store where you purchased the scanner or an authorized FUJITSU scanner service provider.
	Is Windows normally started up?	Push the power button again after completely starting up Windows.
Scanning does not start.	Are the documents loaded correctly on the ADF paper chute?	Load the document correctly on ADF paper chute.
	Is the ADF closed completely?	Close the ADF completely.
	Is the USB cable properly connected?	Correctly connect the cable. (When a USB hub is used, check the hub's power supply.)
	Does the Function Number Display indicates an alarm or an error?	When the Function Number Display indicates an alarm or an error, refer to the Operator’s Guide "4.1 Error Indications in the Function Number Display" (page. 50) for removing the alarm or the error.
	Does the alarm state remain displayed even after the scanner has been turned off and back on again?	Turn off and on the power button. If this does not eliminate the alarm state, contact the store where you purchased the scanner or an authorized FUJITSU scanner service provider.
Vertical lines appear in the generated image of the scanned image.	Is the glass dirty?	Clean the glass following the instructions in the Operator's Guide "3. Maintenance".
The generated image shifts or is distorted.	Are the documents loaded correctly?	Load the documents correctly.
Quality of generated image is unsatisfactory.	Are the glass or sheet guides (a white location) clean?	Clean dirty locations.

Symptom	Check this item	Remedy
Multi feed* frequently occurs.	Does the document satisfy the "Document Quality" described in Section 2.2.1?	Scan the documents by Flatbed.
	Are the documents set properly in the ADF paper chute?	Fan the documents before scanning. Correctly align the document stack and load them on the ADF paper chute. Refer to Section 2.2.2 for details.
	Is the document stack thicker than 4mm?	Reduce the number of sheets in the document stack to 4 mm thickness or less.
	Is the Pad ASSY dirty?	Clean the Pad ASSY. Refer to the Operator's Guide "3.2.3 Cleaning the ADF".
	Is the Pad ASSY worn out?	Replace the Pad ASSY. Refer to the Operator's Guide "3.3.3 Replacing the Pad ASSY".
Paper is not fed (paper feed error occurs frequently, or document stops midway).	Does the document satisfy the "Document Quality" described in Section 2.2.1?	Scan the documents by Flatbed.
	Is the thick document placed on the Flatbed?	Remove the document from the Flatbed.
	Is the Pick roller dirty?	Clean the Pick roller. Refer to the Operator's Guide "3.2.3 Cleaning the ADF".
	Is the Pick roller worn out?	Replace the Pick roller ASSY. Refer to the Operator's Guide "3.3.4 Replacing the Pick Roller".
The generated image are elongated.	Is the Pick roller dirty?	Clean the Pick roller. Refer to the Operator's Guide "3.2.3 Cleaning the ADF".
There is a shadow on the leading edge of the generated image.	Are the Pinch rollers dirty?	Clean the Pinch rollers. Refer to the Operator's Guide "3.2.3 Cleaning the ADF" on page 37..
	Have you adjusted the offset (the scanning starting position)?	Adjust the [Sub-scan Setting] on [Scanners and Cameras] in the control panel.

* "Multi feed" means that more than 2 papers are fed at the same time.

APPENDIX A

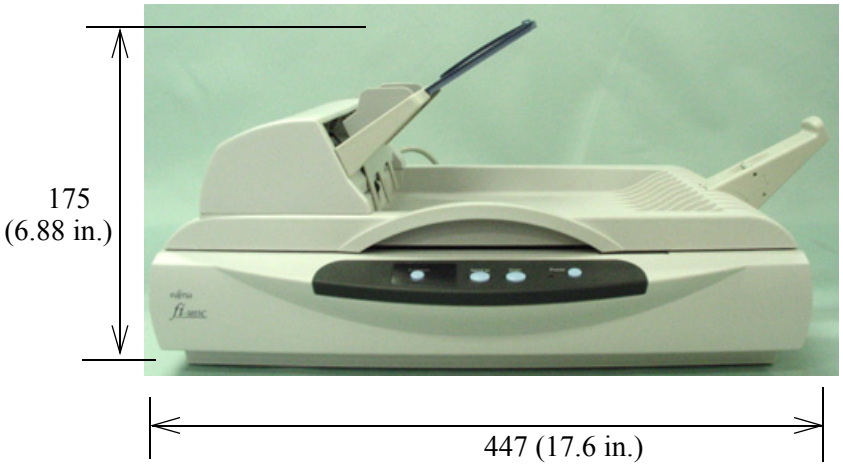
SCANNER SPECIFICATIONS

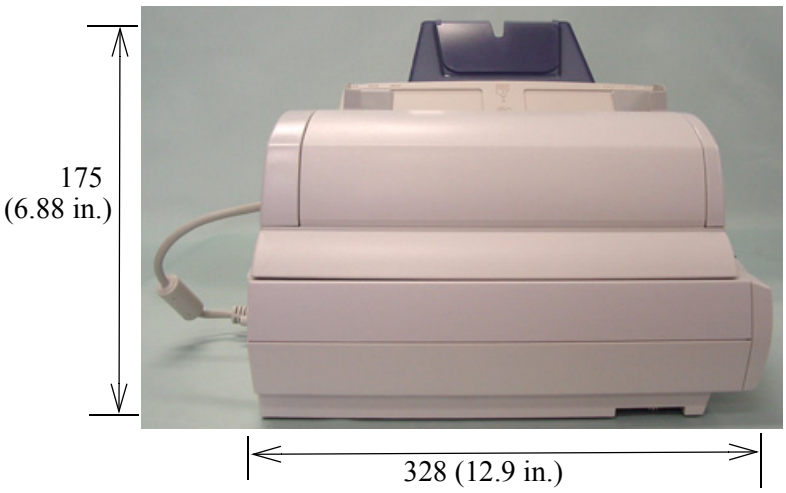
■ Basic Specifications

Item		Specifications		
Dimension (mm)		Width	Depth	Height
		328 (12.9 in.)	447 (17.6 in.)	175 (6.9 in.)
Weight(kg)/lb		5.5 (11.7 lbs)		
Input power	Voltage	AC100 to 240V		
	Phases	Single		
	Frequency	50 / 60Hz		
Power consumption	During operation	24W or less		
	Stand by	5.3W or less		
Operating environment	Device status	At Operation	At Stand by	At shipping
	Temperature	5 to 35°C (59 to 95 °F)	-20 to 60 °C (-4 to 140°F)	-20 to 60 °C (-4 to 140 °F)
	Humidity	10 to 85%	8 to 95%	8 to 95%

A

■ Dimensions





Unit: millimeters

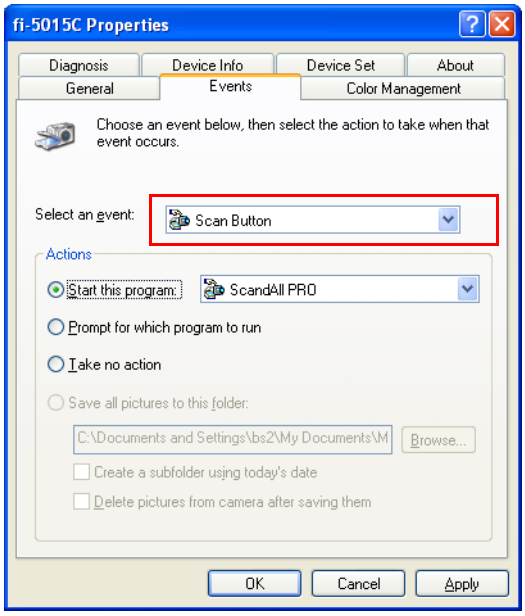
APPENDIX B

Using [Scan] or [Send to] button

■ Settings on the Personal Computer

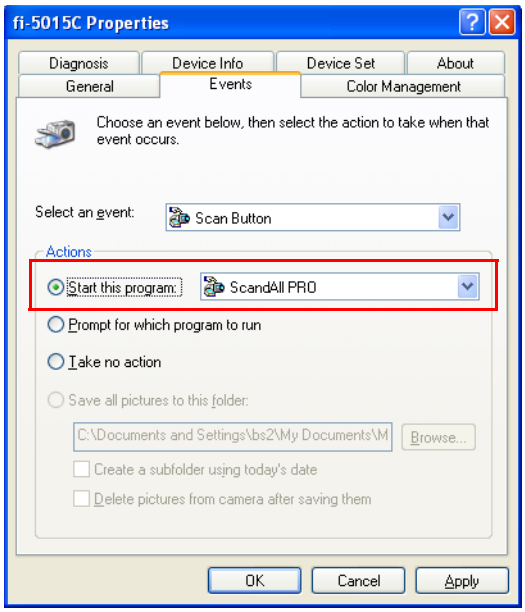
By setting the link of the application software to the [Scan] or [Send to] button, you can launch the linked application by simply pushing the button.

1. Select [Start]-[Control Panel].
2. Select [Scanners and Cameras]-[Properties].
3. Select the [Events] tab.
4. Select an Event. For the case of Windows XP, select an event for starting up any application from the [Select an event] menu.



The events available for this function are:
- Scan Button (When pressing the [Scan] button)
- Send to 1- 9 (When pressing the [Send to] button)

5. Select the application with its process, excuted by the event. For the case of Windows XP, click [Start this program] under [Actions] and select the application and process from the menu.



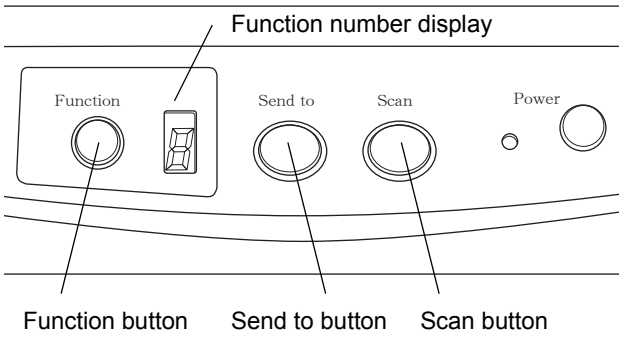
6. Click the [OK] button.

   If you are using ScandAll PRO, refer to "ScandAll PRO User's Guide".

HINT

The window and operations may vary depending on your OS.

■ Settings on the Scanner



- To use the [SCAN] button:
  You can use this button as is; no special settings are required.
  ⇒ Simply pressing the [SCAN] button starts the linked application.

- To use the [Send to] button:
  Press the [Function] button to change the number on the function number display.
  Choose the same number as an event number you selected (Send to 1 - 9) on the computer.

HINT

- For example, when you want to execute an event "Send to 2", choose  on the function number display.
- Every time you press the [Function] button, the number displayed will change in the order presented below.
  "1, 2, 3...9, C, 1, 2, 3,..."

⇒ Simply pressing the [Send to] button starts the linked application

B

APPENDIX C

GLOSSARY OF TERMS

A4 size

A standard paper size. Paper size is 210 x 297 mm.

A5 size

A standard paper size. Paper size is 148 x 210 mm.

A6 size

A standard paper size. Paper size is 105 x 148 mm.

A7 size

A standard paper size. Paper size is 74 x 105 mm.

A8 size

A standard paper size. Paper size is 53 x 74 mm.

ADF (Automatic Document Feeder)

A unit that allows the user to scan a number of pages consecutively. Fed documents are transported from the ADF paper chute (or hopper) to the Stacker. Actual scanning operation is executed by the mechanism inside of this unit. Backside reading = Back-side scanning Refers to reading the backside of the document, specifically in Duplex reading mode.

Automatic separation

An image processing method in which the scanner automatically detects difference between text and photos, and chooses the threshold accordingly. This function allows the scanner to switch between line mode and half tone mode in one pass.

Automatic size/skew detection

A function that automatically detects the documents' page size and adjusts output data to the detected page size. Document skewing is automatically detected and corrected for the output image.

Brake roller

A roller that prevents two or more sheets of paper from being fed simultaneously into the ADF.

Brightness

Refers to the brightness of scanned images in this manual.

Canadian DOC Regualtions

"A standard issued by Industry Canada, a department of the Canadian government, which sets out the technical requirements relative to the radiated and conducted radio noise emissions from digital apparatus. "

CCD (Charged Coupling Device) Image Sensor

A semiconductor device inside the scanner that registers light reflected from the original image and converts it into a digitized (electronic) form. CCD technology is the basis of high-quality image acquisition in scanners, cameras, and other specialized devices.

Cleaning paper

Sheets used with the F1 cleaner for cleaning the rollers (pick rollers, pinch rollers, etc.) and complete document path in the scanner. Used in daily maintenance of the low volume production scanner to reduce paper transport problems. Note: these sheets are not meant to replace the more thorough periodic cleaning of the scanner.

Cleaning sheet

Adhesive sheets used for cleaning the rollers (pick rollers, pinch rollers, etc.) and complete document path in the scanner. Used in daily maintenance of the high volume production level scanner to reduce paper transport problems. Note: these sheets are not meant to replace the more thorough periodic cleaning of the scanner.

Color balance

Balance of colors in images.

Default settings

Pre-set values for optional menus.

Density

In this manual, refers to a measurement of the depth of the display.

Dither

The process by which a group of dots is arranged to represent a shade of gray. The predetermined dot pattern simulates shades of gray. This scanning process offers the advantage of reduce memory requirements compared to multilevel gray.

Document jam

A warning that appears when document is jammed in the transport unit, or transportation is interrupted because the paper is slipping.

dpi

Dots per inch. Number of dots lined along one inch A measurement of resolution normally used for scanners and printers. Higher dpi means better resolution.

Driver software

In this manual, driver software refers to software that allows the scanning application software to communicate with the scanner.

Dropout color

A color which is used in the document but does not appear in the read image.

Duplex reading mode

A mode for scanning both sides of the document in one pass.

Eject rollers

Rollers that transport documents from the ADF onto the Stacker.

Energy Star

ENERGY STAR is an international standard for energy-efficient electronic equipment. It was created by the US Environment Protection Agency (EPA) in 1992. The standard program has now been adopted by several countries around the world.

Equipment Error

An error that cannot be fixed by the operator. The operator should call the manufacturer for service.

Error diffusion

High-quality halftone (pseudo-grayscale) image production based on black-and-white pixel binarization. A pixel's optical density and that of adjacent pixels are summed, with black pixels relocated in their order of density as they relate to adjacent pixels. The purpose of this technique is to minimize the average error between read and printed densities. Density data for adjacent pixels is modified by diffusing errors on the objective pixel into several pixels, which are then binarized. This maintains high grayscale levels and resolution during reading, while suppressing more patterns by dotted halftone images such as newspaper photographs.

FCC

Acronym for "The Federal Communications Commission", an independent United States government agency which is in charge of regulating interstate and international communications via radio, television, wire, satellite and cable. The Part 15 of the FCC regulations mentioned in this manual is designed to prevent harmful interferences on radio communication of radio receivers and other devices which radiate radio frequency energy, and provides for the certification of radio receivers. It also provides the certification of low power transmitters and the operation of certificated transmitters without a license.

Feeds rollers

Rollers that feed documents through the ADF.

Filtering

A correction method that improves the read quality of handwritten documents. The read quality of images written in pencil or ball-pointed pen depends on the reflective light characteristics of the specific ink or lead used. Dropped pixels may produce outlines, gaps, or thin, barely connected lines due to uneven optical density. Filtering detects areas lighter than their surroundings and increases their density to improve image clarity. Flat bed An input device of the scanner, where documents are placed and scanned. Generally used for scanning pages out of a book, or paper that is out of the feeding specification of the ADF. Also used to scan a small volume of documents by manual operation.

Flatbed

An input device of the scanner, where documents are placed and scanned. Generally used for scanning pages out of a book, or paper that is out of the feeding specification of the ADF. Also used to scan a small volume of documents by manual operation.

Gamma

A unit of changes of images' brightness. It is expressed as a function of the electric input power to devices (scanner, display, etc.) and an image's brightness. If the gamma rate is larger than 1, the brightness of an image increases and vice versa. In order to adjust the brithtness of an image close to the orignal, generally the gamma value is set to 1.

Grayscale

A method for realizing the gradation from black to white on the scanned image. For example, when scanning monochrome documents, the computer recognizes the documents as sets of black and white dots. In the Gray scale method, each dot contains data regarding density of black. The original gradation of the documents is realized as the gradation of the density data.

Halftone processing

Any method used to reproduce a photograph which includes a shade as an image composed of dots, namely, a binary image. Dithering and error diffusion processing are examples of halftone processing.

Image emphasis

Density is decreased for lighter but not completely white areas adjacent to black areas. Weakening this emphasis eliminates spot noise or produces softened images.

Image processing

An image is scanned with specified parameters.

Interface

The connection that allows communication from the computer to the scanner.

Inversion (Reverse-image reading)

In reverse-image reading, data is changed from black to white and vice versa.

IPC preset mode

While reading binary images, it is necessary to set the scanner according to the quality of the sheet to be read. In this mode, these settings can be performed in advance by corresponding each setting to a pattern number.

ISIS (Image Scanner Interface Specification)

A standard of API (Application Program Interface) or protocol for imaging devices (scanners, digital cameras, etc.) developed by Pixel Translations, a division of Captiva Software. In order to use imaging devices designed on the ISIS standard, it is necessary to install the driver software of the same standard.

Jaggy images

Images that have sharp projections or irregular shape on their edges.

Job separation sheet

A sheet inserted between documents in a batch for separating different jobs.

Landscape

A document is transported and read with the short side parallel to the moving direction.

Landscape orientation

A document is transported and scanned with the long side vertical to the moving direction.

Letter size

A standard paper size used in the U.S.A. and other countries. Paper size is 8-1/2 x 11 inches.

Linedrawing mode

Selecting linedrawing mode makes threshold and contrast settings effective but prevents brightness from being set. The specified threshold value determines whether black or white pixels are scanned. Line drawing mode is therefore appropriate for scanning text and line art images.

Multi Feed detection

A scanner function which detects accidental feeding of multiple sheets into the ADF. This can be set as both enabled/disabled.

Mirror image

The read image is symmetrically flipped to produce a mirror image of the original detected in the main scanning direction.

Moire Patterns

Recurrent patterns on scanned images caused by incorrect settings of angles.

Noise removal

Isolated noise from an image appearing as black spots in white areas and voids in black areas is removed to improve image quality.
Removes particles from the document image. Common particles include toner and fax particles. Noise reduction works via an algorithm that removes pixels up to 5 x 5 dots appart. A dot is 1/400 inch. A particle can be distinguished from a character as it is not connected to another dot within 5 pixels.

OCR (optical character recognition)

Devices or technologies for identifying characters on documents and converting them into text data that can be manipulated. The documents are checked by light and the differences of light reflection are recognized as character shapes.

Operator panel

A panel consists of indicators and buttons. The operator panel is used to control scanner operations such as, selecting features, and changing settings.

Optical sensor

A type of sensor for detecting Multi Feeding by light transmission. It also detects multi feeding by recognizing differences in length of documents.

Outline extraction

The boundary between black and white areas is traced and the outline extracted for closed areas.

Pad ASSY (Pad Assembly)

This part is used to separate a sheet of paper from a batch before feeding documents into the ADF. This assembly is made out of rubber.

Photograph mode (White level follower OFF)

Selecting photograph mode makes brightness and contrast settings effective but prevents the threshold from being set. With photograph mode, the darkness of image corresponds to the black-pixel density, making it suitable in scanning images such as photographs having gradations.

Pick roller

Roller(s) that picks the page from the batch of paper in the paper chute and feed it into the ADF.

Pick start time

The period from the manual insertion of the document until picking starts after the document passes the hopper empty sensor.

Pixel (Picture Element)

The tiny dots that make up a scanned image.

Portrait

Orientation of documents or images. Documents/images are set or displayed vertically.

Portrait orientation

A document is transported and read with the long side parallel to the moving direction.

Resolution

The measure of the details or grain of images displayed on a computer screen. As a metric of the resolution, dpi is customarily used.

SCSI (Small Computer System Interface)

An abbreviation for "Small Computer System Interface". SCSI is a standard for interfaces, used to connect devices such as hard disks, scanners, etc. Up to seven devices can be connected through this interface (daisy chain). The data transfer rates are different between "Fast SCSI" (Max. 10MB/sec.) and "Wide SCSI" (Max. 20MB/sec.).

SCSI-ID

Used to specify a particular SCSI device when the initiator selects a target or the target reconnects to the initiator.

Separation roller

A roller that separates the sheets of paper from each other.

Simplex reading mode

A mode for scanning only the front side of the document.

Smoothing

A process that eliminates "jaggies" from slanted lines and curves. Irregular convexities are deleted and irregular concavities filled in. This is useful in OCR applications, for example.

Storage temperature/humidity

The temperature and humidity levels necessary for proper storage of the scanner.
Temporary Error
An error that can be fixed by the operator.

Terminator

Devices with a SCSI interface can be daisy-chained. A resistor that includes terminal circuits needs to be placed at both ends of the SCSI chain when devices are daisy-chained. If a device (such as a scanner) is the last device in a chain, leaving an interface connector unused, a Terminator therefore must be attached to provide those terminal circits.

Third Party Interface

Used to install optional board provided by Fujitsu or interface board manufactured by a third party.

Threshold

A value used as a metric for judging a color as black or white. For scanning an image with gray gradation, this value must be defined. The threshold setting determines which pixels are converted to black and which will become white.

TUV

"An institution that controls products for conformity with various standars of security, usability and environmental matters. "

TWAIN (Technology Without Any Interesting Name)

A standard for API (Application Program Interface) or protocol for imaging devices (scanners, digital cameras, etc.) developed by TWAIN Working Group. In order to use devices that comply with this standard, it is necessary to install driver software based on the same standard.

Ultrasonic sensor

A type of sensor for detecting multi feeding by ultrasonic sound. Scanners detect multi feeding by recognizing differences in the amount of ultrasonic waves that penetrates the documents.

USB (Universal Serial Bus)

An abbreviation for "Universal Serial Bus". A standard for interfaces used to connect devices such as key boards, scanners, etc. Up to 127 devices can be connected through this interface. USB devices can be plugged/unplugged without turning off their power. Data transfer rates are different between the "Low speed mode" (1.5Mbps) and "High speed mode" (Max. 12Mbps).

White level follower

A function to correct the difference between white colors in unbleached paper (e.g. wood containing paper, etc.) and in scanned images.

White Reference Stripe

The white part located in the ADF that defines the lightest area in an image, causing all other areas to be adjusted accordingly.

INDEX

U

fi-5015C Image Scanner Operator's Guide

P3PC-1592-06ENZ0

Date of issuance: March, 2013

Issuance responsibility: PFU LIMITED

- The contents of this manual are subject to change without notice.
- PFU LIMITED is not liable whatsoever for any damages resulting from the use of this scanner and procedures described in this manual, profit loss due to defects, and any claims by a third party.
- Copying of the contents of this manual in whole or in part and copying of the scanner application is forbidden under the copyright law.