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fi-5650C Image Scanner Operator's Guide   **P3PC-E957-01EN**

fi-5650C Image Scanner Operator's Guide

Introduction

Thank you for purchasing the fi-5650C fi-5650C duplex color scanner product.
The fi-5650C is a high-performance duplex color scanner product, equipped with ADF (Automatic Document Feeder) for automatically scanning documents.

Features:

- Basic High Resolution: 600 dpi.
- High Speed Scanning:
  Simplex (One-sided page): 55 pages per minute (Standard A4, 200/300 dpi)
  Duplex (Two-sided page): 110 pages per minute (Standard A4, 200/300 dpi)

- Scanner automatically reads images just with the touch of the [Scan] and [Send] to buttons.
- Ultrasonic sensor can detect double feeding of pages.
- Automatically switches the background color (black / white), corrects the images of skewed pages, and detects automatically the page sizes.

→ **Contents Map**

CONTENTS MAP
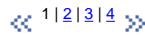
Regulatory Information

FCC declaration

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These 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 instruction manual, 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 located.
- Consult your dealer or an experienced radio/TV technician.

FCC warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

ATTENTION

- The use of a shielded interface cable is required to comply with the Class B limits of Part 15 of FCC rules.
- The length of the AC cable must be 3 meters (10 feet) or less.

Regulatory Information (Continued from the previous page)

Canadian DOC Regulations

This digital apparatus does not exceed the Class B limit for radio noise emission from digital apparatus set out in the Radio interference Regulations of the Canadian Department of Communications.
This Class B digital apparatus complies with Canadian ICES-003.
Le pésent appareil numérique n'ément pas de bruits radioélectriques dépaassant les limites applicables aux appareils numériques de la classe B prescridtes dans le Réglesment sur le brouillage radioélectrique dicté par le ministere des Communications du Canada.
Cet appareil numérique de la classe B est conformme á la norme NMB-003 du Canada.

Bescheinigung des Herstellers / Importeurs

Hiermit wird bescheinigt, daß der/die/das
fi-5650C
In Übereinsstimmung mit den Bestimmungen der EN45014(CE) funkentstört ist.
Laut Maschinenlärminformationsverordnung 3. GS GV, 18.01.1991:Der höchste Schalldruckpegel beträgt 70 dB (A) oder weniger gemäß ISO/7779.
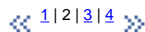
fi-5650C Image Scanner Operator's Guide

Regulatory Information (Continued from the previous page)

International ENERGY STAR® Program

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

The International ENERGY STAR® Office Equipment Program is an international program that promotes energy saving through the penetration of energy efficient computers and other office equipment. The program backs the development and dissemination of products with functions that effectively reduce energy consumption. It is an open system in which business proprietors can participate voluntarily. The targeted products are office equipment such as computers, monitors, printers, facsimiles, copiers, scanners, and multifunction devices. Their standards and logos are uniform among participating nations.

Regulatory Information (Continued from the previous page)

Use in High-safety Applications

This product has been designed and manufactured on the assumption that it will be used in office, personal, domestic, regular industrial, and general-purpose applications. It has not been designed and manufactured for use in applications (simply called "high-safety applications" from here on) that directly involve danger to life and health when a high degree of safety is required, for example, in the control of nuclear reactions at nuclear power facilities, automatic flight control of aircraft, air traffic control, operation control in mass-transport systems, medical equipment for sustaining life, and missile firing control in weapons systems, and when provisionally the safety in question is not ensured. The user should use this product with adopting measures for ensuring safety in such high-safety applications. PFU LIMITED assumes no liability whatsoever for damages arising from use of this product by the user in high-safety applications, and for any claims or compensation for damages by the user or a third party.

About the use of mercury

Hg   Lamp(s) inside this product contain mercury and must be recycled or disposed of according to local, state, or federal laws.

To avoid unexpected injury, read the following carefully.
Doing the following actions may result in serious personal injuries:

- Do not put the substance in the lamp in your mouth as it contains mercury.
- Do not incinerate, crush, or shred the scanner.
- Do not breathe the chemical liquid contained in the scanner parts.

fi-5650C Image Scanner Operator's Guide

Trademarks

Use in High-safety Applications

Microsoft, Windows, and Windows NT are registered trademarks of Microsoft Corporation in the United States and/or other countries.
Adobe, the Adobe logo, and Acrobat are either registered trademarks of Adobe Systems Incorporated in the United States and/or other countries.
ISIS, QuickScan and their respective logos are trademarks or registered trade marks of Pixel Translations, a division of Captiva Software Corporations in the United States.
Other product names are the trademarks or registered trademarks of the respective companies.

How Trademarks Are Indicated In This Manual

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

Windows® 95:	Microsoft® Windows® 95 operating system.
Windows® 98:	Microsoft® Windows® 98 operating system.
Windows® Me:	Microsoft® Windows® Millennium Edition operating system.
WindowsNT® 4.0:	Microsoft® WindowsNT® 4.0 Server operating system, Microsoft® WindowsNT® 4.0 Workstation operating system.
Windows® 2000:	Microsoft® Windows® 2000 Professional operating system.
Windows® XP:	Microsoft® Windows® XP Professional operating system, Microsoft® Windows® XP Home Edition operating system.

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

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Trademarks (Continued from the previous page)

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

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Note, Liability

READ ALL OF THIS MANUAL CAREFULLY BEFORE USING THIS PRODUCT. IF THIS PRODUCT IS NOT USED CORRECTLY, UNEXPECTED INJURY MAY BE CAUSED TO USERS OR BYSTANDERS.

While all efforts have been made to ensure the accuracy of all information in this manual, PFU assumes no liability to any party for any damage caused by errors or omissions or by statements of any kind in this manual, its updates or supplements, whether such errors are omissions or statements resulting from negligence, accidents, or any other cause. PFU further assumes no liability arising from the application or use of any product or system described herein; nor any liability for incidental or consequential damages arising from the use of this manual. PFU disclaims all warranties regarding the information contained herein, whether expressed, implied, or statutory.

Preface

Safety Precautions

This manual describes important details for ensuring the safe and correct use of this product. Thoroughly read this manual before you start to use this product. In particular, be sure to read and fully understand the Safety Precautions described in this manual before you use this product.

Also, store this manual in a safe place so that it can be easily referred to during use of this product.

Warning Indications Used In This Manual

This manual uses the following indications to ensure safe and correct use of this product, and to prevent possible danger and injury to the operator and other persons.

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.

Preface (Continued from the previous page)

Symbols Used In This Manual

This manual uses the following symbols in explanations in addition to warning indications.

ATTENTION

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

HINT

This symbol alerts operators to helpful advice regarding operation.

A TRIANGLE symbol indicates that special care and attention is required. The drawing inside the triangle shows the specific caution.

A CIRCLE with a diagonal line inside shows action which users may not perform. The drawing inside or under the circle shows the specific action that is not allowed.

Outline characters on a colored background show instructions users should follow. It may also include the drawing that shows the specific instruction.

Clicking in this icon will play a movie.

CONTENTS

Preface (Continued from the previous page)

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.

Warning Label

The following picture shows the warning label used in this scanner.

High Temperature

The surrounding area where this warning label is affixed can become very hot. Please take serious caution as the heat can cause burns.
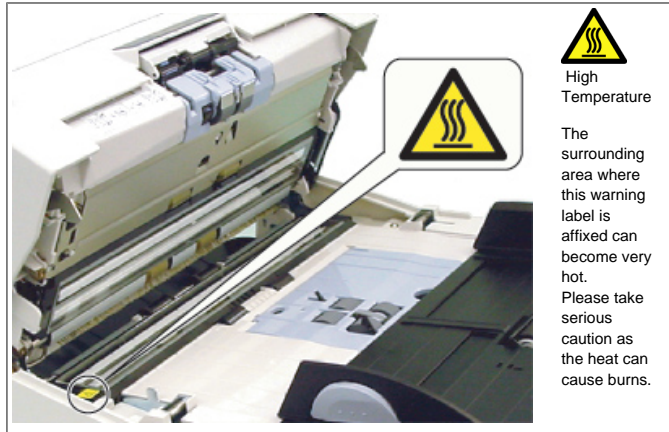
Do NOT remove from the scanner, stain or scratch the warning labels.

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

⚠ **WARNING**

The following describes important warnings described in this manual.

Do not touch the AC cable with wet hands.

Do not touch the power plug with wet hands. Doing so might cause electric shock.

Do not damage the AC cable.

A damaged AC cable may cause fire or electric shock. Do not place heavy objects on AC cables, or pull, bend, twist, heat, damage or modify AC cables. Also, do not use damaged AC cables or power plugs, and AC cables or power plugs when the wall socket is loose.

Use only specified AC cables and connector cables

Use only specified AC cables and connector cables. Failure to use the correct cables might cause electric shock and equipment failure.

Use this scanner only at the indicated power voltage. Do not connect to multiple-power strips

Use this scanner only at the indicated power voltage and current. Improper power voltage and current might cause fire or electric shock. Also, do not connect to multiple-power strips.

Wipe any dust from the power plug.

Wipe off any dust from metal parts on the power plug or metal fittings with a soft, dry cloth. Accumulated dust might cause fire or electric shock. Do not install in locations subject to oil smoke, steam, humidity, and dust.

Safety Precautions (Continued from the previous page)

⚠️ **WARNING**

The following describes important warnings described in this manual.

🚫 **Do not install the scanner in locations subject to oil smoke, steam, humidity, and dust.**

Doing so might cause a fire or electric shock.

Do not use the scanner if you smell strange odor.

If you detect heat coming from the device or detect other problems such as smoke, strange smells or noises, immediately turn off the scanner and then disconnect its power plug. Make sure that the smoking has stopped, and then contact the store where you bought the scanner or an authorized FUJITSU scanner service provider.

Turn the scanner OFF if it is damaged.

If the scanner is damaged for any reason, turn off the scanner and unplug the power cable before contacting the store where you purchased the scanner.Do not put liquids inside the scanner.Do not insert or drop metal objects in to the scanner.Do not scan wet documents or documents with paper clips or staples.Do not splash or allow the scanner to get wet.If foreign objects (water, small metal objects, liquids, etc.) get inside the scanner, immediately turn off the scanner and disconnect the power plug from the power outlet, then contact the store where you bought the scanner or the maintenance Service Center. Pay particular attention to this warning in households where there are small children.

Do not touch the inside of the scanner unless necessary.

Do not take apart or modify the scanner. The inside of the scanner contains high-voltage components. Touching these components might cause fire or electric shock.
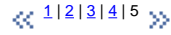
Safety Precautions (Continued from the previous page)

⚠ **CAUTION**

The following describes important cautions described in this manual.

Do not install the scanner on unstable surfaces.

Install the scanner on a desk so that none of its parts protrude outside of the desktop. Also, make sure that the scanner is installed on a flat, level surface. Do not install the scanner on unstable surfaces. Install the scanner on a level surface that is free of vibration to prevent it from falling.Install the scanner on a strong surface that will support the weight of the scanner and other devices.

Firmly insert the power plug.

Firmly insert the power plug into the power outlet as far it can go.

Do not block the ventilation ports.

Do not block the ventilation ports.Blocking the ventilation ports generates heat inside of scanner, which may results in fire or scanner failure.

Do not place heavy objects or climb on top of the scanner.

Do not place heavy objects on the scanner or use the scanner's top surface for performing other work. Improper installation might cause injuries.

Before moving the scanner, disconnect the power plug from the power outlet.

Do not move the scanner with the power and interface cables connected as this might damage the cables, causing fire, electric shock or injuries.Before moving the scanner, be sure to disconnect the power plug from the power outlet, and disconnect data cables. Also, make sure that the floor is free of obstructions.

CONTENTS

Safety Precautions (Continued from the previous page)

⚠ **CAUTION**

The following describes important cautions described in this manual.

🚫 **Protect the scanner from static electricity.**

Install the scanner away from strong magnetic fields and other sources of electronic noise. Also, protect the scanner from static electricity as this might cause the scanner to malfunction. Do not use aerosol sprays near the scanner.

🚫 **Do not use aerosol sprays to clean the scanner.**

Aerosol sprays cause dirt and dust to enter the scanner, resulting scanner failure and malfunction.

⚠ **Avoid any contact when scanner is in use.**

Avoid touching any scanner mechanism when scanning as this may cause injuries.

Disconnect the power plug from the power outlet when the scanner is not used for a long period of time.

When the scanner is not used for a long period of time, be sure to disconnect the power plug from the power outlet for safety.

🚫 **Do not install the scanner in the direct sunlight.**

Do not install the scanner in the direct sunlight or near heating apparatus.Doing so might cause excessive heat to build up inside the scanner, causing fire or scanner trouble. Install the scanner in a well-ventilated location.

Safety Precautions (Continued from the previous page)

⚠ **CAUTION**

The following describes important cautions described in this manual.

❗ **Do not try to move or lift the scanner alone.**

This scanner is heavy (43.5 lbs / 20kg). When you carry the scanner, ensure that additional personnel are used.

Chapter 1 NAMES AND FUNCTIONS OF PARTS

This chapter describes names and functions of parts.

1.1 Names and functions of parts (Continued from the previous page)

No.	Name	Function
1	Operator Panel	This panel consists of a Function No. display, four operating push buttons and a LED. Operation can be conducted from either of two sides of the scanner. Can be closed and compactly stored when not in use. (Refer to 1.2 Functions of the operator panel)
2	ADF Paper Chute	Holds in place the document pages / sheets that feed into the ADF.
3	ADF Paper Chute Extension	Please pull out when scanning a long size sheet.
4	Side Guide	It is adjusted to the width of the paper in order not to scanned skewed pages.
5	Side guide button	Used for adjusting the side guides.
6	ADF buttons	Press this button to open the ADF.
7	ADF (Automatic Document Feeder)	It transports a document to the reading position automatically.
8	Stacker	Scanned documents are ejected from the ADF onto this tray. It is possible to change the height. (Please refer to "2.2 Loading documents onto the ADF")
9	Stacker Extension / Stopper	Pull out and set the stopper to the paper length.

1.1 Names and functions of parts (Continued from the previous page)

No.	Name	Function
10	SCSI interface connector	Used for connecting a SCSI interface cable from a PC.
11	SCSI ID switch	Used for setting SCSI ID (The setting at the factory shipment is ID=5).
12	USB interface connector	Used for connecting a USB interface cable from a PC.
13	Power inlet	Used for connecting a power cable from the power outlet..
14	Power switch	Used for turning ON/OFF the scanner.
15	Third Party Slot (Optional Slot)	The slot for an option board.
16	EXT connector	Connector port for optional units.

CONTENTS

1.1 Names and functions of parts (Continued from the previous page)

No.	Name	No.	Name
17	Chute Roller	22	Plastic Roller
18	Pick Roller Set	23	Feed Roller
19	Sheet Guide	24	Ultra Sonic Sensor (Multi feed detection)
20	Brake Roller	25	Glass
21	Pick Arm		

1.2 Functions of the operator panel

Name		Function
(1) LED ①		Lights when the scanner is turned ON.
(2) Function No. display		Indicates the function No. and error status.
Buttons	(3) Function	Changes the Function activated by the Send to button.
	(4) Send to	Launches the linked application software.
	(5) Scan	

For the use of the Operator panel, open it as shown below.

Chapter 2 BASIC SCANNER OPERATION

This chapter describes how to scan various types of documents.

2.1 Turning the scanner ON/OFF

When "|" of the power switch is pressed, the scanner is turned ON, and the green LED on the operator panel lights. During the initialization, the indication of the Function No. display changes as follows:
"8" → "P" → "0" → "1"

The indication "1" means that the operator panel is in the ready status. When turning off the scanner, press the "0" side of the power switch.
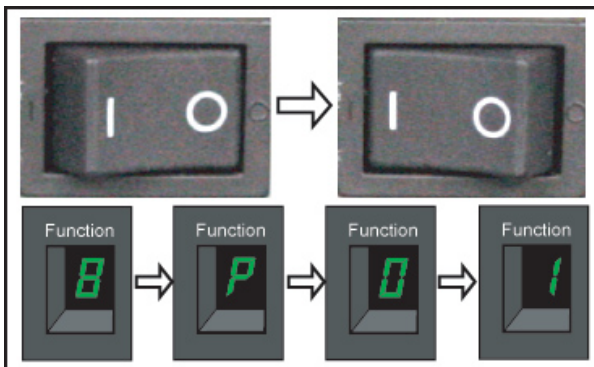
The photograph shows an example of "Turning ON".

CONTENTS

2.1 Turning the scanner ON/OFF (Continued from the previous page)

Power Save Mode

The Power Saving Mode is designed to reduce the scanner's power consumption when not in use while switched on.
The scanner will switch automatically to power saving mode at preset intervals if idle and remain in a state of low power.

Power saving mode is factory preset to automatically execute at 15 minutes intervals of idle time. Please refer to 7.9 Power saving to adjust the preset execution time.

In the Power Save mode, the indication of the Function No. display on the operator panel goes out, while the green LED is kept lit.

To return the scanner from the Power Save mode, perform one of the following operations:

- Load documents on the ADF paper chute.
- Press any button on the operator panel.
- Execute a command from the scanner driver.

2.2 Loading documents onto the ADF

1. Confirm the following items before loading documents
   - All the documents have the same width
   - Check the number of sheets in the document stack.

   The standard of number of sheets that can be loaded on the scanner is as follows:

   A4-size paper or smaller:
   20 mm or less.
   Note: 200 sheets at in 80g/m^2.

   Over A4-size paper:
   10 mm or less.
   Note: 100 sheets at 80g/m^2.

   For details on loading documents sheets, refer to Chapter 8 DOCUMENT SPECIFICATION OF ADF.

2.2 Loading documents onto the ADF (Continued from the previous page)

2. Fan the documents

- ○ Lightly grip both ends of the document, then bend and fan it.
- ○ Repeat this operation a couple of times.
- ○ Rotate the document 90 degrees, then bend and fan it again.
- ○ Align the edges of the documents.

2.2 Loading documents onto the ADF (Continued from the previous page)

3. Load the documents onto the ADF paper chute.
   Pull out the ADF paper chute extension according to the length of the document.

For details on loading documents, refer to Chapter "8. DOCUMENT SPECIFICATION OF ADF".

2.2 Loading documents onto the ADF (Continued from the previous page)

4. Adjust the side guides to the width of the documents.
   Move the side guides so that they contact both sides of the documents. If there is any space between the side guides and the edges of documents, the scanned image may be skewed.

   Set the documents face-down onto the ADF paper chute (so that the side to be scanned faces towards the ADF paper chute).
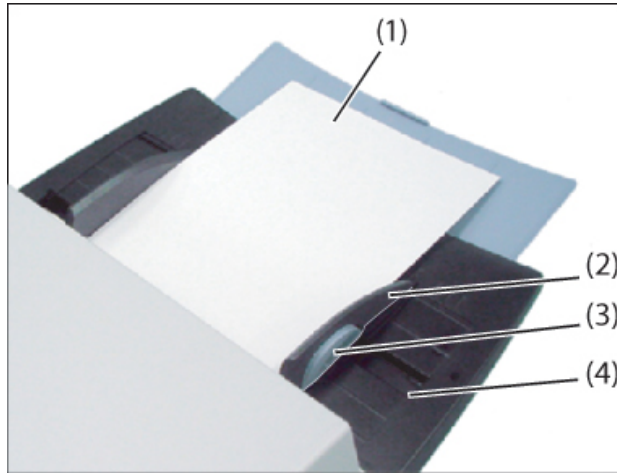
(1) Document, (2) Side Guide, (3) Side Guide button (both sides), (4) ADF Paper Chute

ATTENTION

- Please remove clips and staples from the document. When double-feeds or miss picking occurred, reduce the quantity of document.
- When loading small documents onto the ADF paper chute, be careful not to touch the Chute roller cover for it may open while scanning operation and your fingers may get caught.

CONTENTS

2.2 Loading documents onto the ADF (Continued from the previous page)

5. Adjust the stacker extension according to the document size and raise the stopper.

6. Adjust the stacker level.
    The level of the stacker can be changed according to the type and amount of paper. Place the stacker on the lower level in a slant position for paper of regular thickness. However, lightweight or thin paper or for paper that is slightly curled, bring the stacker to its upper horizontal position.

Lower position (Regular paper)   Upper position (Thin paper)

ATTENTION

When the stacker is mounted on the upper position, the stacking capacity decreases (Around 100 sheets at 80g/m^2 (21lb)).

2.2 Loading documents onto the ADF (Continued from the previous page)

♦With the movie below, review how to load the document onto the ADF:

2.3 Scanning documents

1. Load documents onto the ADF paper chute.
   Pull out the ADF paper chute extension according to the length of the document. For details on how to load documents, refer to "2.2 Loading documents onto the ADF".

2. Start ScandAll 21.
   Select [Start] - [Program] - [Scanner Utility for Microsoft Windows] and click [ScandAll 21].

   → This starts up ScandAll 21.
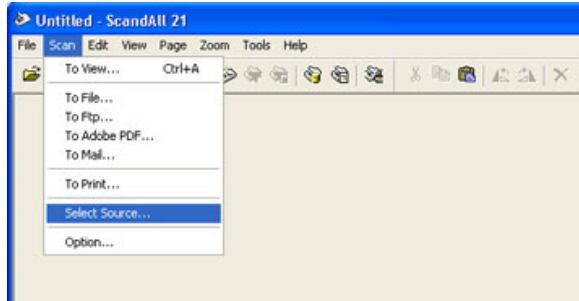
3. Select [Select Source] from the [Scan] menu.

   → The [Select Source] dialog box appears.

4. Select "FUJITSU fi-5650Cdj" (for Windows 95 and WindowsNT 4.0, select "FUJITSU TWAIN 32") and click the [Select] button.
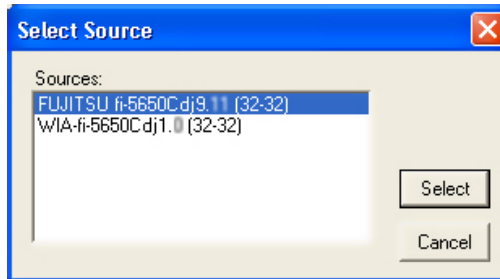
   HINT

   ○ The scanning procedure described in this section were explained by using the scanner driver application software, Fujitsu TWAIN, provided with this product.

   ○ You can scan using other applications software that complies with the TWAIN standard.

   ○ Scanning can also be performed by installing the Fujitsu ISIS Scanner Driver.

2.3 Scanning documents (Continued from the previous page)

5. Click the [Scan To View] button on the tool bar.
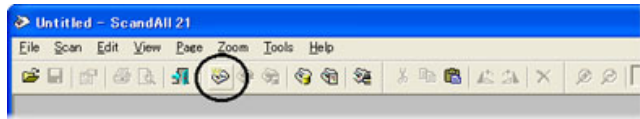
→ The [TWAIN Driver] dialog box (for setting the scan conditions) appears.

6. Set the scan resolution, paper size, etc., and click the [Scan] button.
   For details on settings in the [TWAIN Driver] dialog box, refer to "2.4 How to use the Scanner Driver".

« 1 | 2 | 3 »

2.3 Scanning documents (Continued from the previous page)

The images of scanned documents are displayed on the [ScandAll 21] window.

For details on different types of scanning, refer to "3 SCANNING VARIOUS TYPES OF DOCUMENTS".
For details on functions and operations of ScandAll 21, refer to "ScandAll 21 Help".

ATTENTION

When the documents do not pile up on the Stacker tidily, set the Stacker to the Upper position. For details refer to 2.2 Loading documents onto the ADF.

2.4 How to use the Scanner Driver

2.4.1 FUJITSU TWAIN32 Scanner Driver

FUJITSU TWAIN32 Scanner Driver is designed for scanning documents with FUJITSU image scanner fi series by using application software that complies with the TWAIN standard.

The following describes the procedure with examples of ScandAll 21 for ordinary scanning by using this driver software.

fi-5650C Image Scanner Operator's Guide

2.4 How to use the Scanner Driver (Continued from the previous page)

Procedure for Basic Scanning Operation

1. Start up the application.
   From the [Start] menu, select [Programs]-[Scanner Utility for Microsoft Window] and click [ScandAll 21].

2. Select [Select Source] from the [Scan] menu.
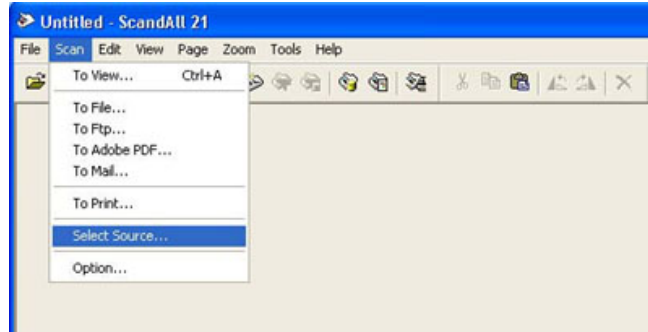
→ The [Select Source] dialog box appears.

CONTENTS

2.4 How to use the Scanner Driver (Continued from the previous page)

3. Select the scanner to use.

Select Source

Sources:

FUJITSU fi-5650Cdj9.11 (32-32)
WIA-fi-5650Cdj1.0 (32-32)

Select

Cancel
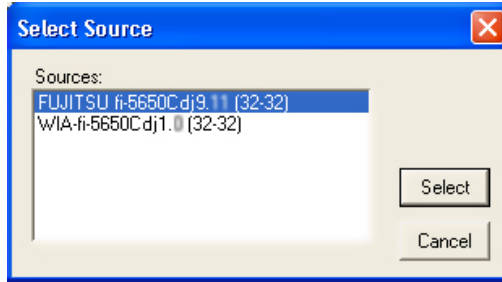
Select

   ○ [FUJITSU fi-5650C] for FUJITSU TWAIN32 V9

     or
   ○ [FUJITSU TWAIN32] for FUJITSU TWAIN32 V8

then click the [Select] button.

2.4 How to use the Scanner Driver (Continued from the previous page)

4. Load the documents on the scanner.
   For details on loading documents, refer to "2.2 Loading documents onto the ADF".

5. Open the TWAIN Driver window.
   Select [Scan To View] from the [Scan] menu.

   → [TWAIN Driver] dialog box appears.
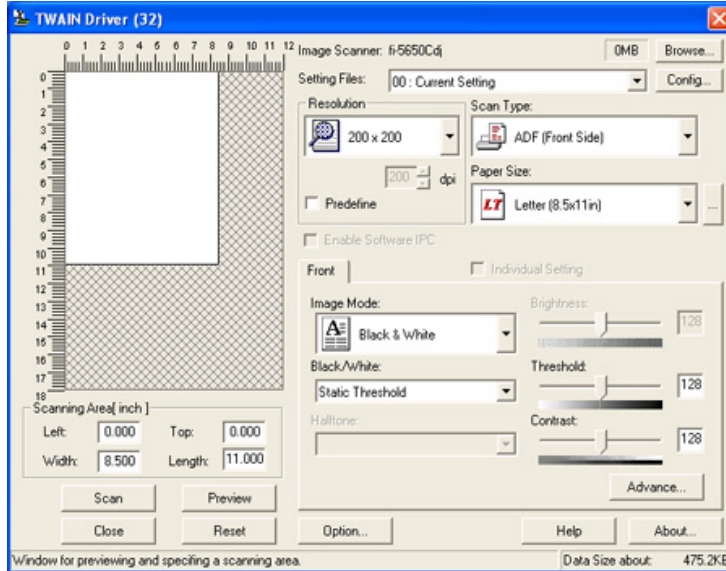
HINT

ScandAll 21 provide scanning methods as follows:

- [To View...] :Displays scanned images on the window.
- [To File...:] :Saves scanned images as files (*.BMP, *.TIF, *.JPG).
- [To FTP...:] :Transfers scanned images to a FTP server.
- [To Adobe PDF....:] :Saves scanned images as PDF files.
  (*Adobe Acrobat must be installed beforehand.)
- [To Microsoft SharePoint Portal Server...] :Transfers scanned images to Microsoft Share Point Portal Server.
- [To Mail...] :Launches mailer software and attaches scanned images to email.

For details, refer to "ScandAll 21 Help".

2.4 How to use the Scanner Driver (Continued from the previous page)

6. Configure settings for scanning and click the [Scan] button.
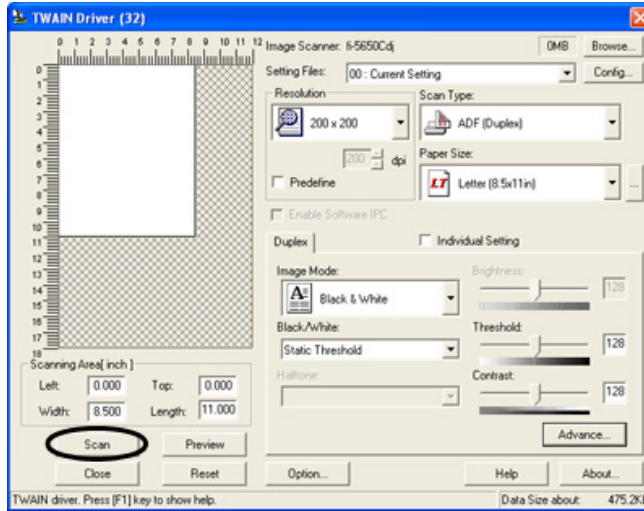
For details about the settings on this window, refer to "Setting Window for FUJITSU TWAIN32 Scanner Driver".

2.4 How to use the Scanner Driver (Continued from the previous page)

→ The images of scanned documents are displayed on the [ScandAll 21] window.

Depending on the settings of the application software, images may not be displayed. For details, refer to the documentation or Help file of your application.
e.x.) When you select [To File...] from the [Scan] menu of ScandAll 21, images of scanned documents are not displayed on the window.

7. Save the scanned images.
Select [Save As...] from the [File] menu to save the scanned images.
If you wish to start another scanning, return to procedure 4.

ATTENTION

File saving format and saving procedure may vary depending on the application software used.
For details, refer to the application's documentation or to the application Help file.

8. End the application.
Select [Exit] from the [File] menu.

2.4 How to use the Scanner Driver (Continued from the previous page)

Setting Window for FUJITSU TWAIN32 Scanner Driver
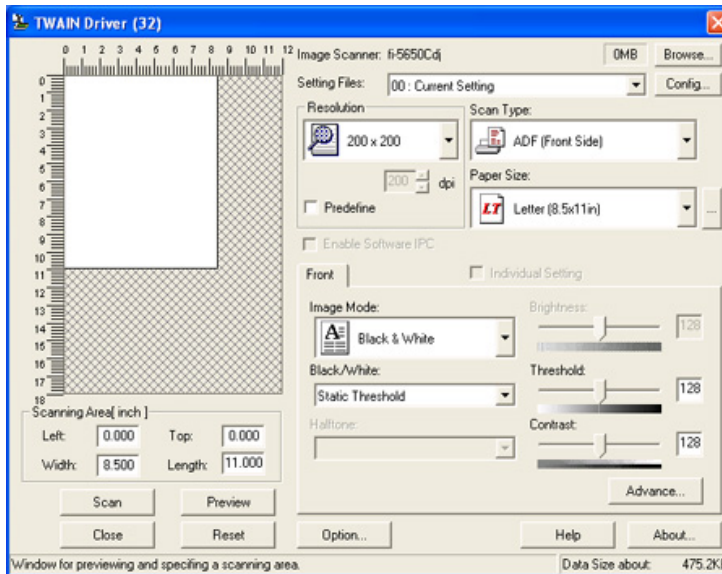
You can perform settings for the FUJITSU TWAIN32 Scanner Driver on this window.
The following describes the main setting items.

- For details on each functions, refer to "FUJITSU TWAIN32 Scanner Driver Help" (appears by clicking [Help] or pressing [F1] button).

2.4 How to use the Scanner Driver (Continued from the previous page)

Resolution

Specifies the resolution of scanning.
It can be specified by selecting a default value from the list or customizing (specify any resolution in 1 dpi unit).
By marking the [Predefine] check box, you can select one from three predefined settings as [Normal], [Fine], [Super Fine] to scan documents instead of setting details by yourself.
Otherwise, you can change the details of the predefined settings on the [Resolution Setting] window, which appears when you click on the [...] button.

Scan Type

Specifies the scanning method, the side(s) to be scanned (ADF Front Side, ADF Back Side, ADF Duplex) or details of Long page (the size of documents longer than A3).

Paper Size

Select the size of documents to be scanned from this list.
Windows for customizing the paper size will appear when you click on [...] besides 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.

2.4 How to use the Scanner Driver (Continued from the previous page)

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 with 256 gradations of black and white.

- Color
  Documents are scanned colored. For this mode, you can select 24 bit Color, 256Color or 8 Color.

[Scan] button

Starts scanning documents with the current settings.

[Preview] button

Documents are scanned preliminary 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

Used to undo changes of settings.

2.4 How to use the Scanner Driver (Continued from the previous page)

[Help] button

Opens the "FUJITSU TWAIN32 Scanner Driver Help" window. The window also opens by pushing the [F1] key.

[About...] button

Opens an information window about the FUJITSU TWAIN32 Scanner Driver's version.

[Option...] button

You can set up the details of optional functions on the window below.
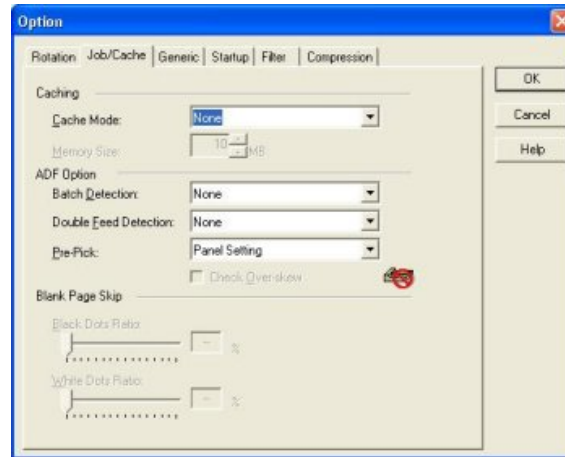
2.4 How to use the Scanner Driver (Continued from the previous page)

[Rotation] tab

Select this tab when setting image rotation, detection of document size, etc.

[Job/Cache] tab

Select this tab when setting cache mode, job controls, double-feed detection, blank page skipping, etc.

[Generic] tab

Select this tab to change the unit displayed on the Setting Window for the FUJITSU TWAIN32 Scanner Driver.
(Millimeters, Inches, and Pixels are available)

[Startup] tab

Select this tab for setting the Scanner Operation Panel.
(Displayed only when using the scanner of supported type.)

[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 Endorser : adds characters (such as names, dates, serial numbers, etc.) on scanned image data.

2.4 How to use the Scanner Driver (Continued from the previous page)

[Compression] tab

Select this tab for setting the compression rate of JPEG Transfer.

[Advance...] button

Click this button for settings of the advanced image processing.
You can set Edge Extract, Gamma Pattern, White Level Follower, Dropout Color, Reverse, etc.

[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.

HINT

For details of each function, refer to the "FUJITSU TWAIN32 Scanner Driver Help".

2.4 How to use the Scanner Driver (Continued from the previous page)

2.4.2 FUJITSU ISIS Scanner Driver

FUJITSU ISIS Scanner Driver is designed for scanning documents with FUJITSU image scanner fi series by using application software that complies with The ISIS standard. The following describes the procedure with examples of QuickScan for ordinary scanning by using this driver software.

ATTENTION

The procedure may vary depending on your application. If you use an application other than QuickScan, please refer to its Guide or Help for further information.

Procedure for Basic Scanning Operation

1. Start up the application.
   From the [Start] menu, select [Programs]-[QuickScan] and click [QuickScan].

2. Select your scanner on the window below.
   Select [Scan] - [Select Scanner] on the menu bar.
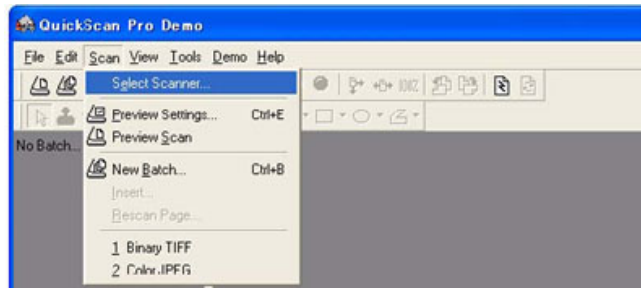
2.4 How to use the Scanner Driver (Continued from the previous page)

3. Select [fi-5650C], then click the [OK] button.
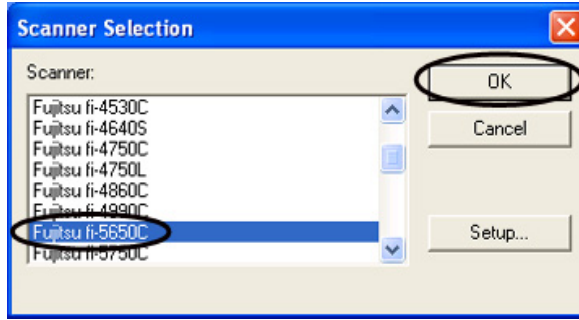
4. Select [Scan] - [New Batch] on the menu bar.

2.4 How to use the Scanner Driver (Continued from the previous page)

5. Choose the scanning profile that you wish to use.
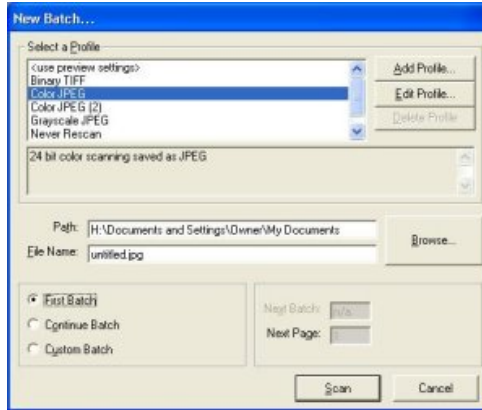
○ When creating a new profile
Select one from already existing profiles and click [Add Profile...] button.
→ A new profile will be created based on the profile you select.

○ When changing the settings of already existing profiles
Select one from already existing profiles and click [Edit Profile...] button.
→ The settings of the selected profile will be changed.

○ When using an existing profile
Select one from already existing profiles.
→ Scanning will be started according to the settings of the selected profile. → Go to the procedure 10.

2.4 How to use the Scanner Driver (Continued from the previous page)

6. Select the [Scan] tab and click the [Scanner Settings] on the [Profile Editor] window.
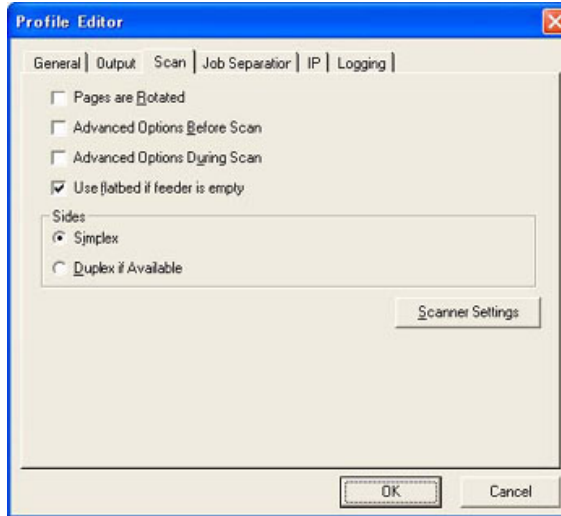
→ The configuration window of ISIS driver appears.

2.4 How to use the Scanner Driver (Continued from the previous page)

7. Configure settings for scanning and click the [OK] button.
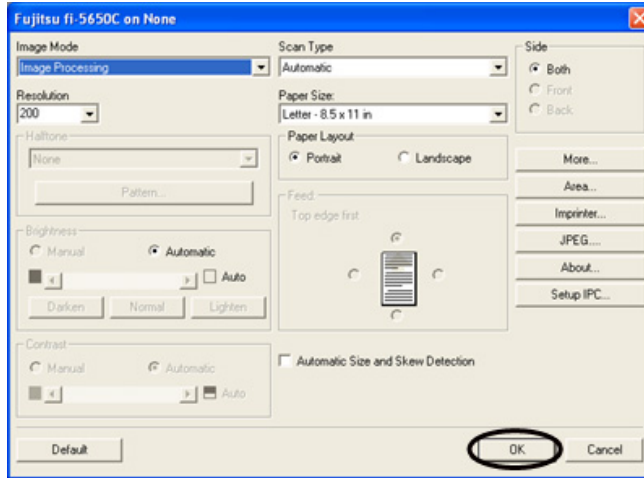
HINT

For details on this dialog box, refer to "Configuration Window of FUJITSU ISIS Scanner Driver".

2.4 How to use the Scanner Driver (Continued from the previous page)

8. The [Profile Editor] window appears. Click the [OK] button to return to [New batch] dialog.

   HINT

   Configure other settings of the profile, if necessary.
   Refer to the "QuickScan Overview" or the "QuickScan Help" for further information on functions and operations of QuickScan. After the installation of QuickScan, it is registered in the [Start] menu.
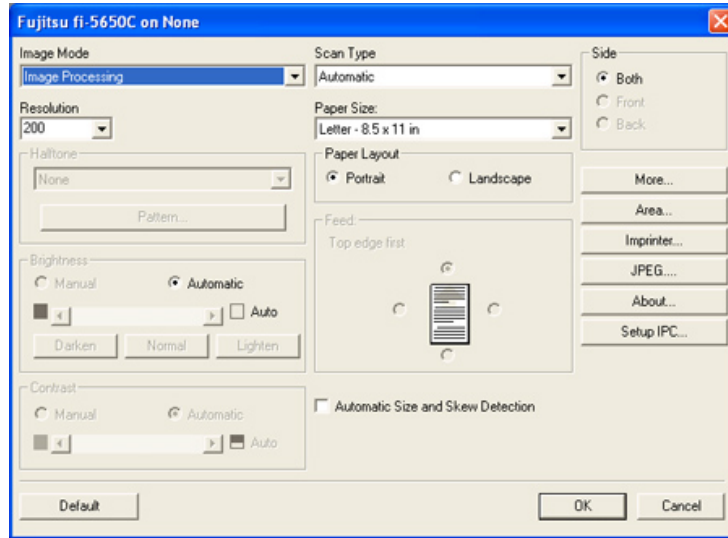
9. Load the documents on the scanner.
   For detail on loading the documents, refer to 2.2 Loading documents onto the ADF.

2.4 How to use the Scanner Driver (Continued from the previous page)

10. Click the [Scan] button.
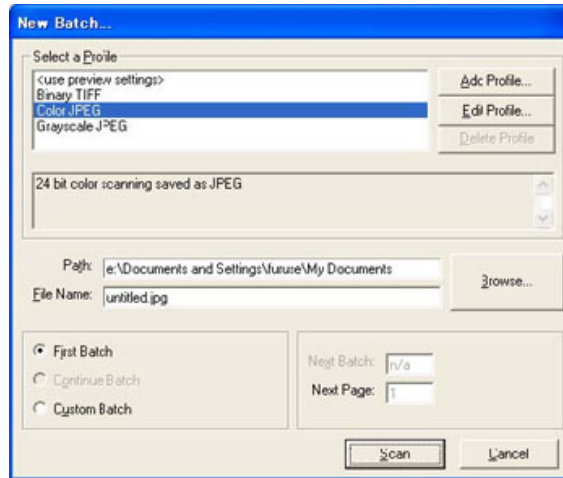
  → Scanned images are displayed on the window.

11. End the application.
    Select [Exit] from the [File] menu.

HINT

Refer to the "QuickScan Overview" or the "QuickScan Help" for further information on functions and operations of QuickScan. After the installation of QuickScan, it is registered in the [Start] menu.

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fi Series

2.4 How to use the Scanner Driver (Continued from the previous page)

Configuration Window of FUJITSU ISIS Scanner Driver

2.4 How to use the Scanner Driver (Continued from the previous page)

Image Mode

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

- Black & White
  Scans data in binary (black and white). Distinguishes black from white according to the fixed threshold. This scanning mode is suitable for scanning line drawings and text documents.

- 16-level Gray scale
  Scans data by 14 shades of gray plus black and white. This mode uses 4 bits per pixel.

- 256-level Gray scale
  Scans data by 254 shades of gray plus black and white. This mode uses 8 bits per pixel. This mode is suitable 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.

- Image Processing
  Binary processing is applied to the scanned images This mode is available only when Image Processing Software Option (separately sold) is installed. Please refer to the Users Guide of Image Processing Software Option for details.

Resolution

Specifies the number of pixels (dots) per inch.
Select a fixed resolution from the list or enter any value (from 50 to 600) manually.
A higher resolution setting produces finer image, but the file size becomes larger and takes much more time.

2.4 How to use the Scanner Driver (Continued from the previous page)

Half tone

Select the half tone pattern for half tone 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.

Dither Pattern 1

This setting is suitable for scanning dark-colored documents containing both text and photographs.

Dither Pattern 2

This setting is suitable for scanning light photographs.

Dither Pattern 3

This setting is suitable for scanning dark-colored documents containing both text and photographs.

Error Diffusion

This function minimizes differences of color levels due to subtractive color process by diffusing the difference to the adjacent pixels. This mode is suitable for scanning images of photographs, etc.

Download

Executes processing with the dithered download pattern specified in the dithered download file.

Brightness

Sets the brightness of the entire image. Specify the brightness as a number within the range of 1 (dark) to 255 (bright). To brighten the entire image, decrease the value of the setting. To darken the entire image, increase 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 255 (high [sharp]). Increasing this value makes the contrast sharper.

2.4 How to use the Scanner Driver (Continued from the previous page)

Scan Type

Selects the scanning method.

ADF (Front Side)

Scans only the front sides of documents.

ADF (Back Side)

Scans only back sides of documents.

ADF (Duplex)

Scans both front and the back sides of documents. When this option is selected, the each sheet of the document is scanned in "front" → "back" order. This option can be used only with application software that supports duplex scanning. Application software which do not support duplex scanning will only scan one side of the document.

2.4 How to use the Scanner Driver (Continued from the previous page)

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.

Automatic Size and Skew Detection

Scanning with the [Automatic Size and Skew Detection] selected, the output will be adjusted to the detected page size. Document skewing is detected and corrected for the output image.
When you mark this check box, "Scanner's Maximum" is set in [Paper Size].
It is also possible to change the document size. Scanning performance may be improved when the paper size is reduced to the actual document size. (For example, set the [paper size] as A5 when scanning documents of the size A5 or smaller.)

[More...] button

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

fi-5650C Image Scanner Operator's Guide

2.4 How to use the Scanner Driver (Continued from the previous page)

[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.
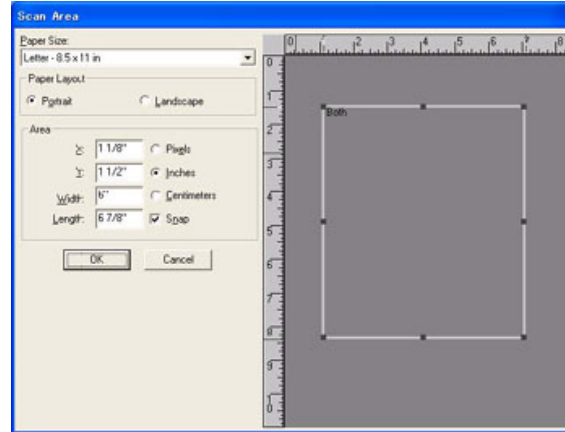
2.4 How to use the Scanner Driver (Continued from the previous page)

[Imprinter...] button

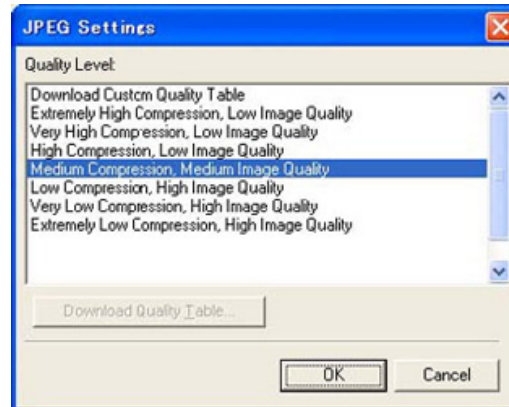Opens the Imprinter Configuration dialog box. Used for setting the strings to be printed by the imprinter.
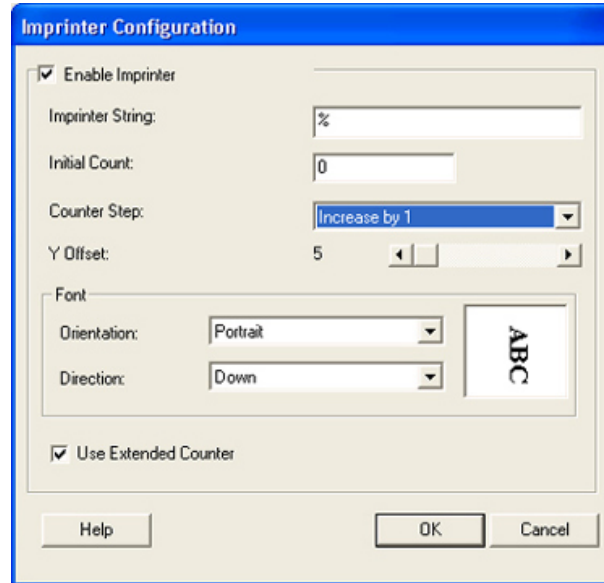
ATTENTION

This function is available only when the Imprinter (sold separately) is installed to the scanner.

[JEPG...] button

Opens the JPEG Settings dialog box. Used for setting the compression rate of JPEG transfer.

[About...] button

This button displays the version information.

2.4 How to use the Scanner Driver (Continued from the previous page)

[Setup IPC...] button

This button displays the Image Processing dialog. This button is enabled when Image Processing Software Option (separately sold) is installed and "Image Processing" is selected in the "Image Mode". Refer to the documentation provided with Image Processing Software Option.
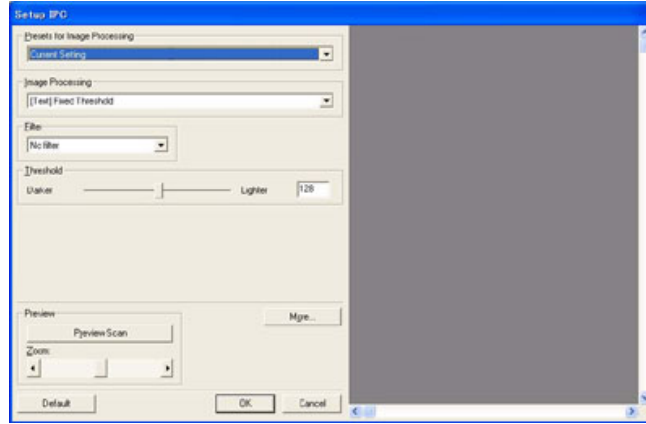
2.4 How to use the Scanner Driver (Continued from the previous page)
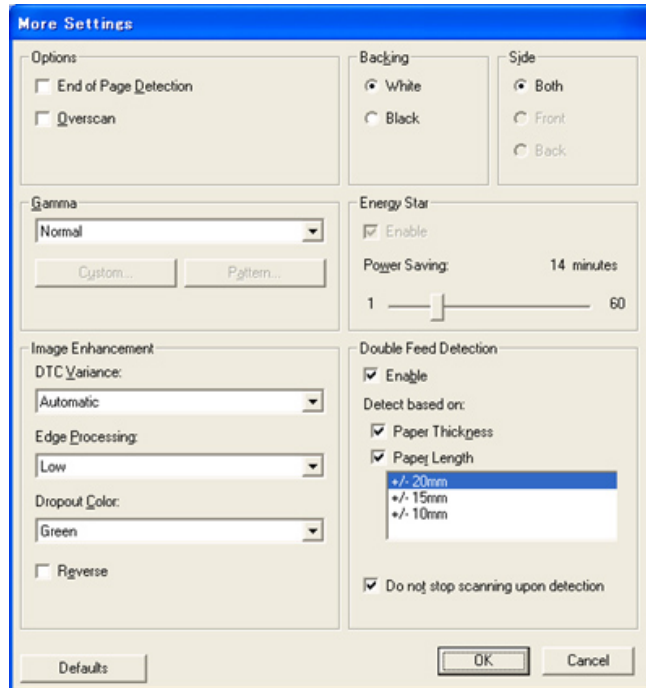
End of Page Detection

Scans the edge (bottom) of the documents and outputs data adjusted to the document length. When any page shorter than specified "Paper Size" is included, the output size is adjusted to the detected short size.

Overscan

This option specifies the overscan function. This function makes the scanned images larger than the original documents by adding margins.

Gamma

Specifies Gamma correction. Correction patterns are: "Normal", "Soft", "Sharp", "Custom", or "Download".

DTC Variance

This option specifies the value for adjusting the variance based on the brightness of the image.

Edge Processing

This option specifies the sharpness of contour extraction.

- Low, Mid, High

    Emphasizes contour of images. Available settings are: Low, Mid, High

- Smoothing

    Smoothes jaggy images.

2.4 How to use the Scanner Driver (Continued from the previous page)

Dropout Color

This option 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 eliminate (drop out) the red frame.

Reverse

Colors of scanned images are reversed.

Background

Specifies the Background color. Enabled only for the scanners equipped with Background color switching mechanisms.

Power saving

This option specifies the waiting time before the scanner switches to the Power save mode.

Double Feed Detection

Detects Double-feeds (phenomena that two or more sheets are accidentally fed). You can set conditions for detecting Double-feeds so that the scanner should stop and display error messages. Double feeds are scanned by the differences in document lengths or thicknesses.

Chapter 3 SCANNING VARIOUS TYPES OF DOCUMENTS

This chapter describes how to scan various types of documents with examples of TWAIN Driver.
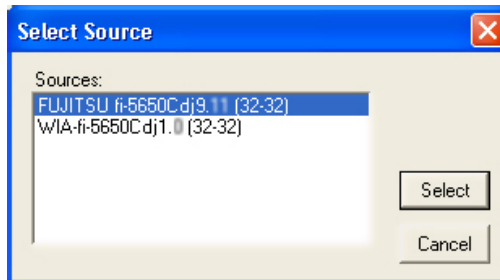
3.1 Scanning double sided documents

1. Load documents onto the ADF paper chute.
   For details on how to load documents, refer to "2.2 Loading documents onto the ADF".

2. Start up ScandAll 21.
   At [Start] menu, select [Program] - [Scanner Utility for Microsoft Windows] - [ScandAll 21]. This starts up ScandAll 21.

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

→ The [Select Source] dialog box appears.

4. Select "FUJITSU fi-5650Cdj"(for Windows 95 and WindowsNT 4.0, select "FUJITSU TWAIN 32") and click the [Select] button.

3.1 Scanning double sided documents (Continued from the previous page)

5. Click [Scan To View] on the tool bar.

→The [TWAIN Driver] dialog box appears.

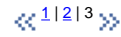6. Select [ADF (Duplex)] from [Scan Type].

≪ 1 | 2 | 3 ≫

3.1 Scanning double sided documents (Continued from the previous page)

7. Click the [Scan] button.

  → Scanned images are displayed in ScandAll21 window.

HINT

- For details on ScandAll 21, refer to [ScandAll 21 Help].

- For details on settings of [TWAIN Driver] dialog box, refer to "2.4 How to use the Scanner Driver".

3.2 Scanning documents with different widths

When you scan a batch of documents with different widths by using the ADF, you may get skewed images from smaller sized documents. Be sure to scan only documents of the same width together. To prevent skewed images, enable [Automatic Size and Skew Detection] function. For details on this function, refer to "3.8 Correcting skewed documents".

1. Align the page edges of the documents.

2. Load documents onto the ADF paper chute and move the side guides so that they contact both sides of the documents. If there is any space between the side guides and the edges of documents, the scanned image may be skewed.

ATTENTION

As shown in the figure below, smaller documents are not fed into the ADF if they do not to contact the Pick Arm. Make sure to load the document so that all of sheets contact the Pick Arm.
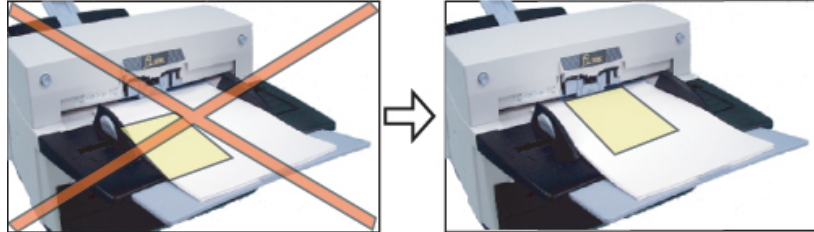
For details on how to load documents, refer to "2.2 Loading documents onto the ADF".

⚠ CAUTION

When loading small documents onto the ADF paper chute, be careful not to touch the Chute roller cover for it may open while scanning operation and your fingers may get caught.

3.3 Scanning document longer than A3 size

1. Load the documents onto the ADF paper chute.
   For details on loading documents, refer to Chapter "2.2 Loading documents onto the ADF".

2. Adjust the side guides to the document width.

3. Start ScandAll 21.
   At [Start] menu, select [Program] - [Scanner Utility for Microsoft Windows] - [ScandAll 21].

   → This starts up ScandAll 21.

4. Select the scanner to use.
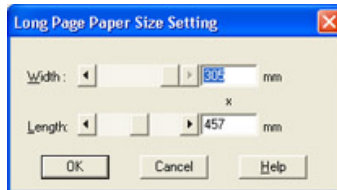
5. Click [Scan To View] on the tool bar.

   → The [TWAIN Driver] dialog box appears.

6. Select "Long page (Front Side)" or "Long page (Duplex)" from [Scan Type]. [Long Page Paper Size Setting] window appears.
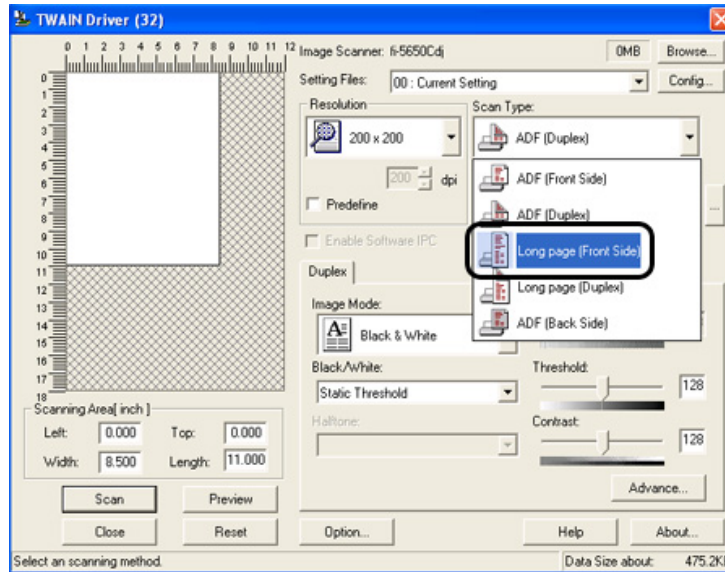
7. Specify the length of documents and click [OK].

8. Click the [Scan] button.
   For details on the settings of TWAIN driver, refer to Chapter "2.4 How to use the Scanner Driver".

   → The image of scanned documents are displayed on the ScandAll 21 window. For details on the functions and operations of ScandAll 21, refer to [ScandAll 21 Help].

3.4 Saving scanned images in PDF format

ATTENTION

To save scanned images in PDF format, Adobe Acrobat 6.0 must be installed on your PC.
Install Adobe Acrobat 6.0 from the provided Adobe Acrobat CD-ROM. For details on installation, refer to fi-5650C Getting Started.

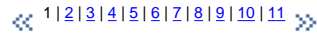There are two methods for saving scanned images in PDF format:

1. Using ScandAll 21

   This method is recommended for color or grayscale scanning and when a smaller PDF file size is required. Your benefits are: - Reduced PDF data size - Simplified method for creating PDF files with no troublesome operations

2. Using Adobe Acrobat 6.0

   This method is recommended for faster creation of PDF files and for black and white scanning.
   Your benefits are: - Quick creation of PDF files with the original scan resolution. - Flexible creation of PDF files by changing the PDF compression rates.

The file size increases when scanning color documents by an ordinary method. However, you can drastically reduce the size by using the Acrobat Distiller before saving the file.
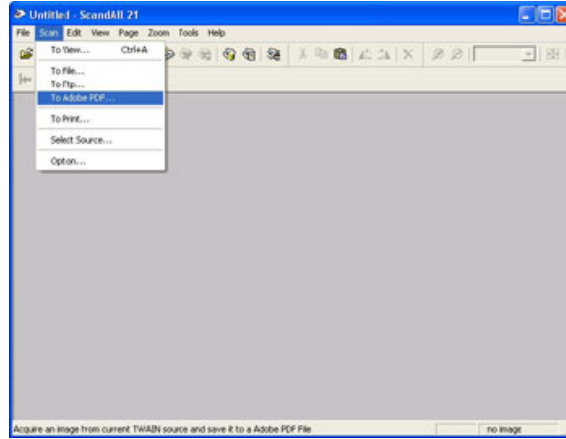
3.4 Saving scanned images in PDF format (Continued from the previous page)

3.4.1 Using ScandAll 21

1. Load the documents on the ADF paper chute.

2. Start up ScandAll 21.
   Select [Program] - [ScannerUtility for Microsoft Windows] - [ScandAll21] from the [Start] menu.

   → This will start up the application.

3. From the [Scan] menu select [To Adobe PDF].
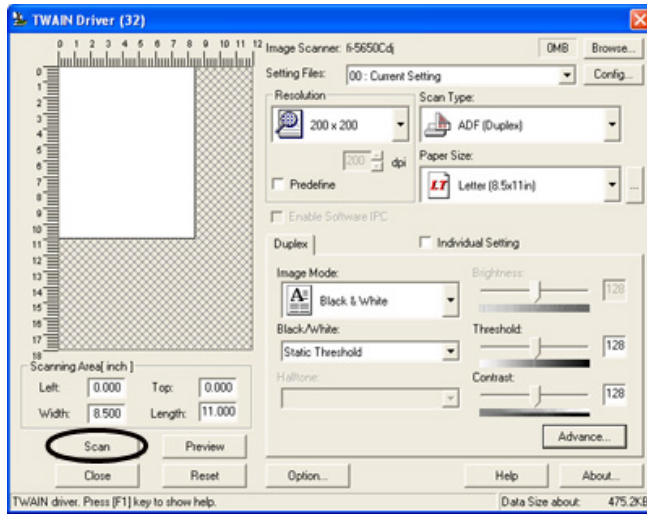

→ [TWAIN Driver] dialog box appears.

3.4 Saving scanned images in PDF format (Continued from the previous page)

4. Set the scan resolution, paper size, etc., and then click the [Scan] button.

3.4 Saving scanned images in PDF format (Continued from the previous page)

5. To end scanning, click the [Close] button.
   → The scanned image is displayed.

6. Enter the file name and select the destination to save the scanned image.
   For details, refer to "ScandAll 21 Help".

Specify the PDF file name

Save in: My Documents

Adobe
My eBooks
My Music
My Pictures
Untitled3.pdf

File name: Untitled.pdf   Save

Save as type: Adobe PDF File (*.pdf)   Cancel

3.4 Saving scanned images in PDF format (Continued from the previous page)

3.4.2 Using Adobe Acrobat 6.0

1. Load the documents on the ADF paper chute.

2. Start up Adobe Acrobat 6.0
   Select [Program] - [Adobe Acrobat 6.0] from the [Start] menu. This starts up Adobe Acrobat 6.0.

3. From the [File] menu select [Create PDF] - [From Scanner].

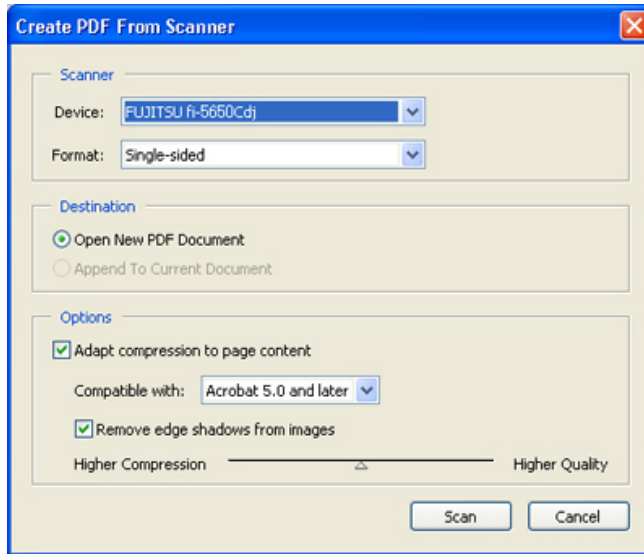→ [Create PDF From Scanner] dialog box appears.

3.4 Saving scanned images in PDF format (Continued from the previous page)

4. Select [FUJITSU fi-5650Cdj] ([FUJITSU TWAIN 32] for WindowsNT 4.0) at [Device] and click the [Scan] button.

Create PDF From Scanner

Scanner

Device: FUJITSU fi-5650Cdj

Format: Single-sided

Destination

◉ Open New PDF Document

○ Append To Current Document

Options

☑ Adapt compression to page content

Compatible with: Acrobat 5.0 and later

☑ Remove edge shadows from images

Higher Compression ———————— Higher Quality

Scan   Cancel

→[TWAIN Driver] dialog box appears.

3.4 Saving scanned images in PDF format (Continued from the previous page)

5. Select the scan resolution, document size, etc., and click the [Scan] button.

3.4 Saving scanned images in PDF format (Continued from the previous page)

6. To end scanning, click the [Done] button.

→ The scanned image is displayed.

3.4 Saving scanned images in PDF format (Continued from the previous page)

7. Select [Save as...] or [Save] from the [File] menu to save the scanned image.
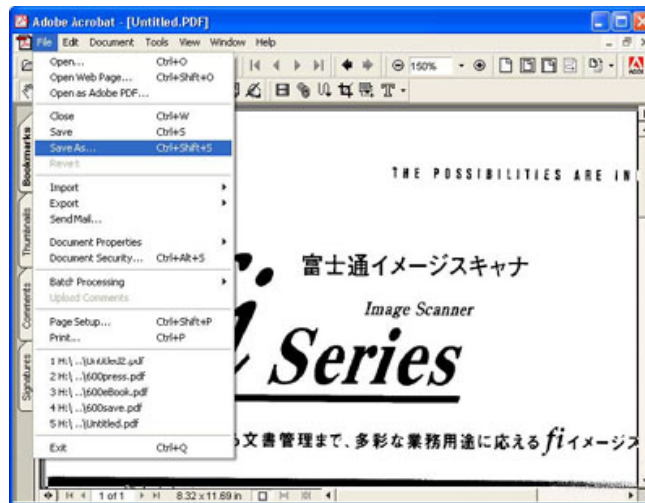
HINT

For the details on Adobe Acrobat 6.0 operations, refer to the Adobe Acrobat 6.0 manual and Help.

3.4 Saving scanned images in PDF format (Continued from the previous page)

HINT If you save scanned images by this procedure, the file size may increase greatly. For reducing the file size, follow the procedure below. (It may take much more time than the usual saving procedure.)

1. Select [File] - [Print...]

2. On the following dialog specify [Adobe PDF] for [Name].

3.4 Saving scanned images in PDF format (Continued from the previous page)

3. Click the [Properties] button.

4. Click the [Adobe PDF Settings] tab.

5. From [Default Settings], select an option. Here, as an example, [Smallest file Size] is choosen.

ATTENTION

The data size of the PDF file will change according to the option setting selected.
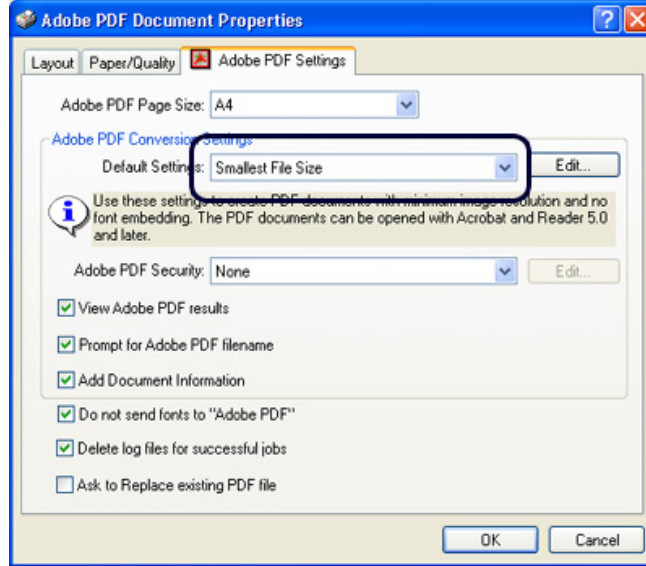
6. Click the [OK] button.

7. Enter a file name and click the [Save] button on the [Save PDF File As] dialog box.

3.5 Selecting a color to drop out

A selected color (red, green, blue) can be removed (dropped out) from the scanned image data. For example, if the document contains black text in green frames, you can set the scanner to get only the text and eliminate the green frames.

To drop out a color, change the setting in the driver setting dialog box.

1. Click [Advance] button in the [TWAIN Driver] dialog box.

→ The [Advance] dialog box appears.

3.5 Selecting a color to drop out (Continued from the previous page)

2. Select the color to drop out from [Dropout Color] under [More]. For example, if the document contains black text in green frames, you can set the scanner to get only the text and eliminate the green frames.
   If you do not wish to have any colors dropped out select "White".

3. Click [OK]button.
   → The display returns to [TWAIN Driver] dialog box. Perform the scanning operation on the dialog box.

3.6 Skipping blank pages

Change settings in the [TWAIN Driver] dialog box for skipping blank pages at scanning documents.

1. Click [Option] button in the [TWAIN Driver] dialog box.

→ The [Option] dialog box appears.

« 1 | 2 | 3 »

3.6 Skipping blank pages (Continued from the previous page)

2. Click the [Job/Cache] tab.

3. Check the [Blank Page Skip] box.
   * If an item other than "Ram cache" or "Use Both Memory" has been selected in the [Cache Mode:] and this check box is marked, it will change to "Ram cache".

3.6 Skipping blank pages (Continued from the previous page)

4. With the slider control under [Blank Page Skip], specify the Blank Page Skip degree.

<In Binary/Halftone mode>
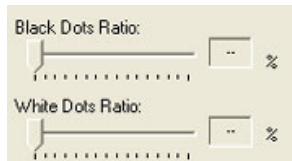
For white pages, use the [Black Dots Ratio] slider bar to set the skip condition. For black pages, use the [White Dots Ratio] scroll bar to set the skip condition.
The value displayed to the right of the scroll bar displays the noise ratio(*1). If a scanned document is below this value, it is recognized as a blank page. The setting range is OFF(- -) and 0.2% to 3.0% (in increments of 0.2%).
*1: Ratio of black dots included in the scanning area. (for white pages)

<In Color/Grayscale mode>

Use the slider bar to set the skip condition in five stages from 1 to 5. To make the blank pages easy to skip, increase the value of the setting.

« 1 | 2 | 3 »

3.7 Detecting double-feeds

"Double-feed" is an error that occurs when two or more sheets are accidentally fed into the ADF at the same time. You can set the scanner to display an error message when it detects a double-feed.

To set conditions for the double-feed detection, change the settings in the [TWAIN Driver] dialog box.

1. Click [Option] button in the [TWAIN Driver] dialog box.
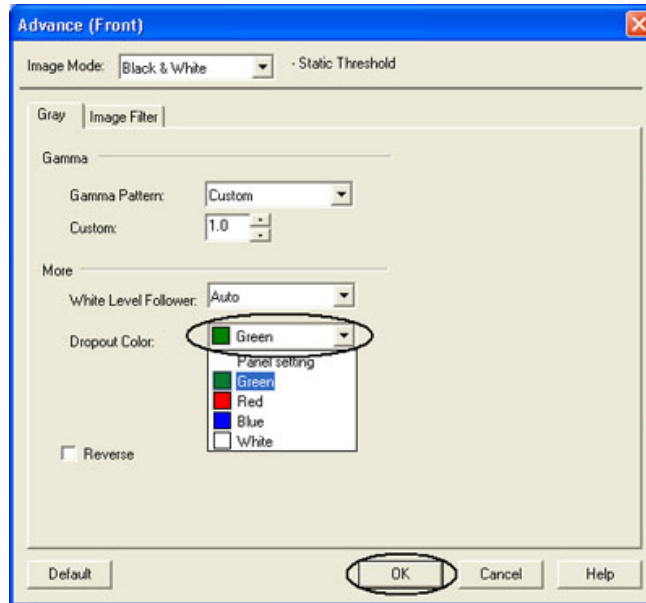

→ The [Option] dialog box appears.

≪ 1 | 2 | 3 ≫

3.7 Detecting double-feeds (Continued from the previous page)

2. Click the [Job/Cache] tab.

3.7 Detecting double-feeds (Continued from the previous page)

3. Select the detection conditions from [Double Feed Detection] under [ADF Option]. The following are the detection conditions

None	Double-feed detection is not performed
Check overlapping	The scanner monitors the overlapping of documents.It detects a double-feed by differences in document thickness when two or more document sheets are fed overlapping.
Check length	The scanner monitors the length of documents. It detects a double-feed by differences in the document length when two or more document sheets are fed overlapping.
Check overlapping and length	The scanner monitors both document overlapping and length to detect double-feeds.

4. Click [OK] button to return to [TWAIN driver] dialog box. Perform the scanning operation on the dialog box.

For details, refer to "<u>8.5 Double feed detection conditions</u>".

3.8 Correcting skewed documents

With the TWAIN driver's [Automatic Size and Skew detection], you can set the scanner so that skew of documents are detected and corrected automatically when skewed documents are fed into the ADF.

Change the setting in the [TWAIN Driver] dialog box to enable this function. The following shows the procedure for changing the setting in the dialog box:

1. Click [Option] button in the [TWAIN Driver] dialog box.
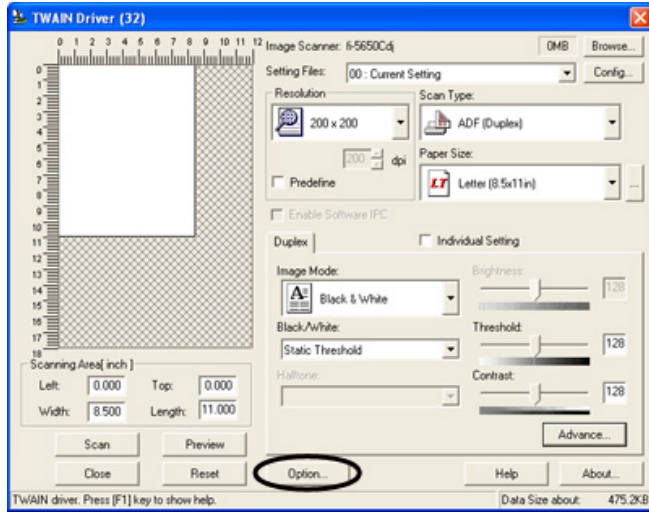
→ The [Option] dialog box appears.

2. Click the [Rotation] tab.

3.8 Correcting skewed documents (Continued from the previous page)

3. Select the "Automatic page size detection"] from the [Automatic Size and Skew Detection] menu.
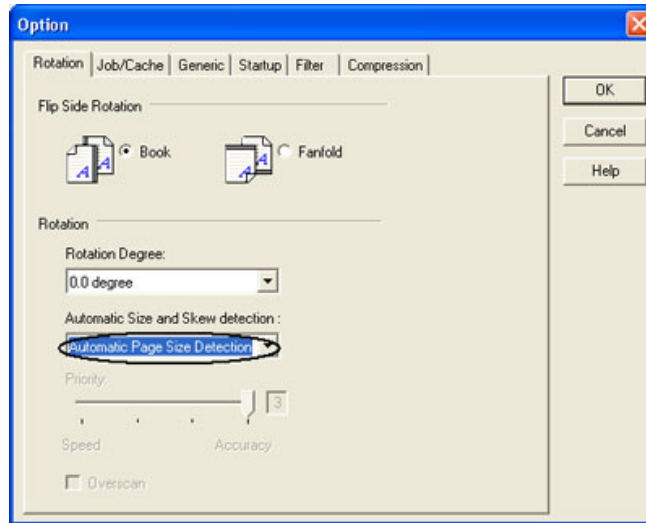
4. Click the [OK] button.
   → The display returns to [TWAIN Driver] dialog box.

5. Click the [Scan] button.
   → the scanning operation will be performed. (Skew documents will be corrected)

HINT

With [Priority] slider control, you can change accuracy of Automatic Page Size Detection. Move the slider to the right when improving the detection accuracy. (Note that higher accuracy setting requires much more processing time and scanning speed becomes slower.)

ATTENTION

When using either of the following documents, the automatic page size detection may not function correctly:

- Paper of weight $52g/m^2$ or less.

- Not rectangular documents.

- Documents which their edges are filled.

« 1 | 2 »

Chapter 4 DAILY CARE

This chapter describes how to clean the scanner.

4.1 Cleaning material and locations requiring cleaning

1. Cleaning material

Cleaning material	Part No.	Remarks
Cleaning paper	CA99501-0012	Used with Cleaner F1
Cleaner F1 (or isopropyl alcohol)	CA99501-0013	1 bottle Moisten cloth with this fluid and wipe the scanner clean.
Cleaner F2	CA99501-0014	1 bottle (70 ml) For cleaning the plastic rollers only.
Cotton swab	Commercially available one.	
Cloth		

⚠ **CAUTION**

Do not clean rubber rollers with Cleaner F2.

4.1 Cleaning material and locations requiring cleaning (Continued from the previous page)

2. Locations requiring cleaning

Part	Names of parts	Using cleaning paper with Cleaner F1	Using Cloth with Cleaner F1	Using Cotton swab with Cleaner F2
		per 10,000 scans	per 10,000 scans	When stains are persistent
ADF	Chute roller		Yes	
	Pick arm		Yes	
	Pick roller	Yes	Yes	
	Brake roller	Yes	Yes	
	Feed roller	Yes	Yes	
	Plastic roller	Yes	Yes	Yes
	Sheet guide		Yes	
	Glass		Yes	
	Ultrasonic sensor		Clean this part with a dry lint-free cloth.	

You have to clean the scanner frequently as following cases :

- Scan a smooth surface document such as a coated paper.
- Scan a printed document almost fill in the paper.
- Scan a processed with chemicals document such as carbonless paper.
- Scan a document having a high calcium content.
- Scan a lot of penciled document.

⚠ **CAUTION**

Do not clean rubber rollers with Cleaner F2.

≪ 1 | 2 ≫

4.2 Cleaning the ADF

4.2.1 Cleaning the ADF using with a cloth moisten with Cleaner F1

Cleaning the Brake roller, Glasses, Sheet guides, Plastic rollers

1. Open the ADF while pushing the ADF button.

2. Using a cloth moisten with Cleaner F1, clean the Glasses, Sheet guides, Plastic rollers.

3. Open the brake roller holder and remove the brake roller. Using a cloth moisten with the F1Cleaner , clean the brake roller.

4. After cleaning the brake roller, reinstalled it in to the brake roller holder and close the holder.

5. Close the ADF.

⚠️ **CAUTION**

Be careful not to pinch your fingers with the ADF cover.

When operating the scanner, the ADF's inside glass becomes very hot. Please take serious caution as the heat can cause burns.
Before you clean the inside of the scanner, turn off its power and unplug the AC adapter from the outlet and wait (at least three minutes) until it gets cold.

ATTENTION

Install the Brake roller aligning the flat part of the shaft to the holder.
Confirm that the Brake roller is installed completely. If not, document jams or other feeding errors may occur.

As a guideline, clean the ADF per 10,000 scans.
This value may vary depending on the type of document that you scan. For example, when you scan documents which toner is not sufficiently fixed, the scanner must be cleaned more frequently.

HINT

For information on the number of pages scanned, see <u>5.1 Consumable and Replacement Cycle.</u>

4.2 Cleaning the ADF (Continued from the previous page)

4.2.1 Cleaning the ADF using with a cloth moisten with Cleaner F1 (Continued from the previous page)

Cleaning the Pick roller set

1. Pressing on the ADF button pull slowly towards you the ADF to open and, remove the ADF paper chute from the scanner.

2. Open the pick roller cover. Remove the pick rollers (2 rollers) from the shafts and use a clean cloth with the F1 Cleaner to clean.

3. After cleaning the rollers, re-install them in their proper positions in the shafts.

4. Close the pick roller cover and attach the ADF paper chute.

5. Holding the upper center portion of the ADF, gently close it until the ADF button latches and clicks close.

Cleaning the Feed rollers

1. Open the ADF while pushing the ADF button. If you open the ADF when the indication of the Function No. display is "P" or "0", the Feed rollers will not rotate even if you try operating the scanner as in step 2 below.

2. Hold a lint-free dry cloth moistened with the Cleaner F1 against the feed rollers.

3. Hold down both the "Send to" and "Scan" buttons on the operator panel. The Feed rollers start rotate a little. For details on locations of the "Send to" and "Scan" buttons, refer to "1.2 Functions of the operator panel".

4. Perform 7 times the step 3 (the Feed rollers will rotate one full turn). Repeat this cleaning process until the rollers get completely clean, otherwise any dirt on them can adversely affect the image pick-up performance.

5. Once you have cleaned the Feed Rollers, close the ADF by pushing it gently forward until the ADF button latches and clicks close.

⚠ **CAUTION**

-Be careful not to pinch your fingers with the ADF cover.
-The glass surface inside the ADF becomes hot during the operation of the scanner. Take care not to touch the glass.

4.2 Cleaning the ADF (Continued from the previous page)

4.2.1 Cleaning the ADF using with a cloth moisten with Cleaner F1 (Continued from the previous page)

Cleaning the Chute roller

Open the Chute roller cover and clean the Chute roller using a cloth moisten with Cleaner F1.

Cleaning the Pick arm

Open the ADF while pushing the ADF button and clean the rollers located at the tip of Pick arm using a cloth moisten with Cleaner F1.

⚠ **CAUTION**

When closing the ADF, be careful not to pinch your fingers with the ADF cover.

4.2 Cleaning the ADF (Continued from the previous page)

4.2.2 Cleaning the ADF using Cleaning paper

1. Open the ADF while pushing the ADF button.

2. Apply Cleaner F1 on a new piece of cleaning paper.

3. Place the cleaning paper on the ADF so that its edge contact the plastic rollers.

4. Close the ADF and the cleaning paper is ejected through the ADF.

5. Repeat steps 1 through 4.
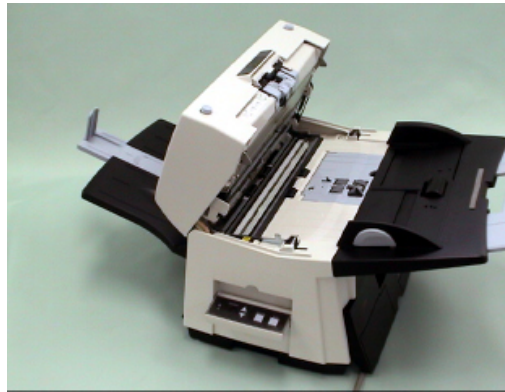
ATTENTION

Leave the scanner on during the ADF cleaning.

CONTENTS

Chapter 5 REPLACING CONSUMABLES

This chapter describes how to replace scanner consumables.

5.1 Consumable and Replacement Cycle

The following table shows the specifications of consumables and guidelines for the replacement cycle.

Description	Parts No.	Standard Replacement Cycle
Brake roller	PA03338-K010	After 250,000 scans or one year
Pick roller*	PA03338-K011	After 250,000 scans or one year

* A set of two rollers.

The replacement cycles above are rough guidelines for the case of using A4/Letter wood free or wood containing paper 64 g/m^2 (17 lb). This cycle varies according to the type of the used paper and how frequently the scanner is used and cleaned.

ATTENTION
Use only the specified consumables.
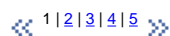
5.1 Consumable and Replacement Cycle (Continued from the previous page)

- **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 "2.2 Connecting the Scanner to a PC" in fi-5650C Getting Started for information about connecting the scanner to your personal computer.

5.1 Consumable and Replacement Cycle (Continued from the previous page)

2. From [Start] menu, select [All Programs] - [Scanner Utility for Microsoft Windows] and click [Software Operation Panel].

→ The [FUJITSU Software Operation Panel] window appears.
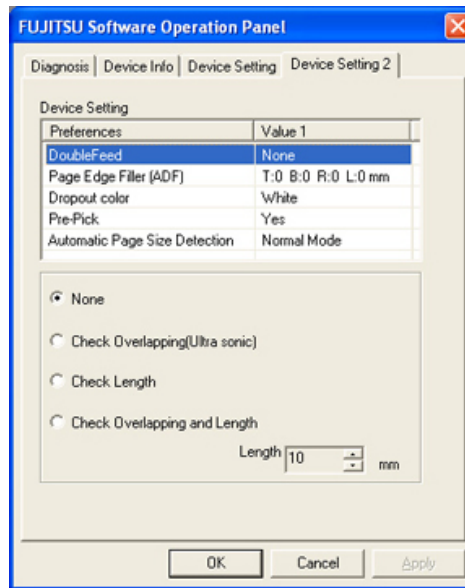
5.1 Consumable and Replacement Cycle (Continued from the previous page)

3. Click the [Device Setting] tab.

   → The following panel appears.
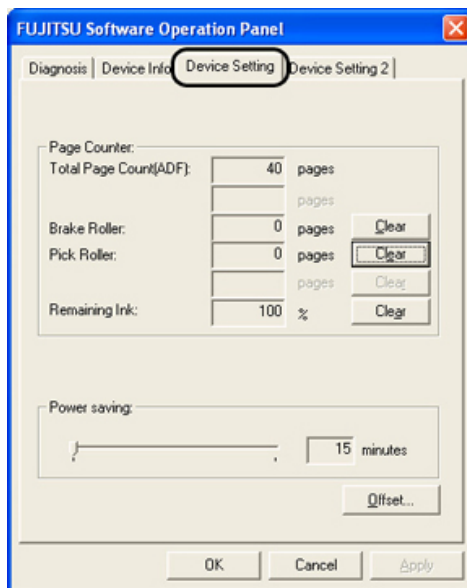
You can confirm the following information on this panel:

- Total number of scans
- Brake Roller counter (approximate number of scans after resetting the Brake Roller counter)
- Pick Roller (approximate number of scans after resetting the Pick Roller counter)
- Print cartridge remaining ink (It will be displayed only when the Imprinter option (sold separately) is installed to the scanner).

5.1 Consumable and Replacement Cycle (Continued from the previous page)

The following message may appear while you use the scanner:

FJTWAIN

⚠ It is about time to replace the consumable.
Please replace Pick Roller in paper feeder if the feeding capability is deteriorated.
Regarding how to replace the pad, please refer to the Operator's Guide. (Code: DS42005)

☐ This message not display again
☑ Warns again after scanning 1000 pages

[Ignore]   [Cancel]   [Help]
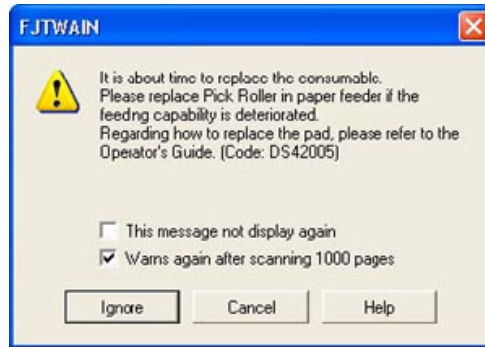
Replace consumables when this message is displayed.

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 1,000 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.

Replacement information is given in the following:
Brake Roller: see 5.2 Replacing the brake roller
Pick Roller: see 5.3 Replacing the pick roller set

5.2 Replacing the brake roller

1. Remove all documents from the ADF paper chute.

2. Open the ADF cover by pushing down the ADF button.

3. Open the brake roller holder and remove the brake roller.

4. Remove the brake roller from its shaft.

5. Install a new roller to the shaft aligning the protrusion on the shaft to the slot on the brake roller.
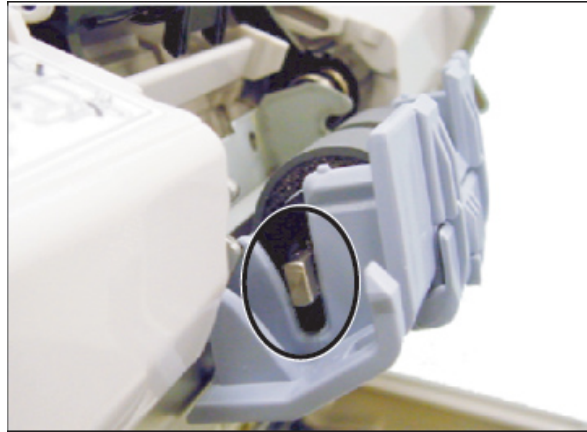
6. Close the brake roller holder.

7. Push the center of the ADF cover to close it until the ADF button is locked.

8. Reset the Brake Roller counter. For details on resetting, refer to "<u>7.6 Resetting the consumable counters</u>".

⚠ **CAUTION**

- Be careful not to pinch your fingers with the ADF cover.

- Do not close the ADF cover when the Brake Roller Holder is opened.

ATTENTION

Confirm that the Brake roller is firmly installed. If not, it may cause feeding errors such as double-feeding.

5.3 Replacing the pick roller set

1. Open the ADF while pushing the ADF button.

2. Remove the ADF paper chute from the scanner.

3. Open the pick roller cover. Remove the rollers from the shafts.

4. Install the new pick rollers aligning their grooves to the shafts.

5. Close the pick roller cover.

6. Attach the ADF paper chute.

7. Push in the center of the ADF to close it until the ADF button is locked.

8. Reset the Pick Roller counter. For details on resetting, refer to "7.6 Resetting the consumable counters".

⚠️ **CAUTION**

Be careful not to pinch your fingers with the ADF cover. -Do not close the ADF cover when the pick roller cover is opened.

ATTENTION

Confirm that rollers of the pick roller set are firmly installed. If not, they may cause feeding errors such as document jams.

Chapter 6 TROUBLESHOOTING

This chapter describes how to remedy document jams, other troubles, items to check before contacting the dealer where you bought the scanner, and how to check the device labels.

6.1 Removing jammed documents

⚠️ **CAUTION**

-The glass surface inside the ADF becomes hot during the operation. Be careful not to touch the glass surface inside the ADF.

-Be careful not to pinch your fingers with the ADF.

If a document jam occurred because of double-feeding, etc., follow the procedure below to remove the jammed documents.

1. Remove all documents from the ADF paper chute.

2. Open the ADF by pushing the ADF button.

3. Remove the jammed documents.

4. Push in the center of the ADF to close it until the ADF button is locked. Confirm that it is closed completely.
   Make sure that the ADF is completely closed. When it is not completely closed, document jams or feeding errors may occur.

ATTENTION

If there is any metal object (paper clips, etc.) in the inside of the ADF, it causes document jams. Check the inside of the ADF and make sure there is no metal object.

Be sure to remove metal object (paper clips, etc.) from the document before scanning.

6.2 Indications of operator panel for errors

When any error occurrs, the operator panel indicates "U" followed by a number 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 Error Recovery Guide is installed on your PC, its window appears when Windows is started up. If any error or device alarm occurred, this software displays information such as error names and error codes regarding the error/alarm. Record the information and click [Details] on its window to learn detailed information for trouble shooting.

Temporary Errors :

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

Indication	Meaning
U1	A paper feed error occurred.
U2	A double feed error occurred.
U4	The ADF cover is opened.
U6	The print cartridge is not installed (*).
U7	A paper detection failure has occurred at Imprinter.(*)

   * "U6" and "U7" are temporary errors related with the Imprinter option (sold separately).

HINT

Error Recover Guide is stored in Setup CD-ROM. When installing the application software, refer to "2.3.3 Installing other application programs" in fi-5650C Getting Started.

6.2 Indications of operator panel for errors (Continued from the previous page)

Device alarm:

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

Indication	Meaning
E2	Optical error (ADF front)
E3	Optical error (ADF back)
E4	Motor fuse malfunction
E5	Lamp fuse malfunction
E6	Operator panel malfunction
E7	EEPROM malfunction
E8	SCSI interface fuse malfunction
E9	Image memory malfunction

When you encounter any alarm, turn off and on the scanner. If the alarm is still displayed on the Function No. display, contact the dealer where you purchased the scanner or an authorized FUJITSU scanner service provider.

6.2 Indications operator panel for errors (Continued from the previous page)

Indication	Meaning
EA	Imprinter malfunction (*)
Ec	Memory malfunction
Ed	Malfunction at SCSI interface controller
EF	Background switching mechanism malfunction
E10	ROM malfunction
E11	Fan malfunction
E12	Heater malfunction
E15	Extended memory board malfunction * See the ATTENTION below.
E16	Option board malfunction
E17	Imprinter fuse malfunction (*)
E18	Sensor malfunction
E19	LSI malfunction
E1A	Scanner inside communication malfunction

* "EA" and "A17" are alarms related with the Imprinter option (sold separately).

ATTENTION

An error has occurred to any of the additional memory boards installed by the user. Please check the following conditions given below, and refer to "9.1 Extended memory board". This error indication will be displayed 3 times after turning on the scanner to indicate that the scanner will perform scanning operations with the extended memory boards deactivated.

1. Check for correct additional memory module number.
2. Is the additional memory board installed correctly?
3. Isn't the additional memory board broken?
4. Two memory boards are required, are there two installed?

When you encounter any alarm, turn off and on the scanner. If the alarm is still displayed on the Function No. display, turn off the scanner, remove the additional memory board and check that the scanner functions correctly. Return the memory board where the memory was purchased or contact an authorized FUJITSU scanner service provider.

CONTENTS

6.3 Items to check before contacting the dealer where you bought the scanner

Before you ask for repair service, click the link below to display Trouble shooting table and check the items on the table.

➢ Trouble Shooting

If you cannot solve the problem after checking the remedies in the Trouble shooting table, contact the dealer where you bought the scanner or an authorized FUJITSU scanner service provider. Before you ask for repair service, please collect the following information.

Check items:

1. Model : fi-5650C

2. Serial No. : (Example) 000001
   For details on the serial No., refer to section "6.4 Checking labels on the scanner".

3. Production date : (Example) 2004-01 (January, 2004)
   For details on the production date, refer to section "6.4 Checking labels on the scanner".

6.3 Items to check before contacting the dealer where you bought the scanner (Continued from the previous page)

Please print out the Check List as below, it will be displayed on a new window when you click the link, and fill as much information as possible before contacting the agent.

➤ The check list.

« 1 | 2 »

Trouble Shooting

- The scanner cannot be turned ON.

- The Function No. display indicates an alarm after the scanner is powered ON.

- Indication on the Function No. display goes out. The scanning does not start.

- The scanning does not start.

- Quality of scanned pictures or photos is not satisfactory.

- Quality of scanned text or lines is not satisfactory.

- Images are distorted or blurred.

- Vertical lines appear in the scanned images.

- Double-feed errors occur frequently.

- Pickup errors occur frequently.

- Paper jams occur frequently.

- The scanned images are elongated

- There is a shadow on the leading edge of the scanned images.

Symptom : **The scanner cannot be turned ON.**

Is the power cable correctly connected?	NO	Connect the power cable correctly.
↓ YES		
Did you push the power button?	NO	Push the power button.
↓ YES		
If you cannot solve the problem after taking measures, check the items in "6.3 Items to check before contacting the dealer where you bought the scanner" and contact the dealer or an authorized FUJITSU service provider.		

Symptom : The Function No. display indicates an alarm ("E" and any number or character) after the scanner is powered ON.

Does the Function No. display indicate any alarm after turning ON the scanner again?	YES	The scanner operation is normal.

NO

If you cannot solve the problem after taking measures, check the items in "6.3 Items to check before contacting the dealer where you bought the scanner" and contact the dealer or an authorized FUJITSU service provider.

Symptom : Indication on the Function No. display goes out.

Does the display remain blank even after you push any button on the operator panel?	NO	The scanner operation is normal.
↓ YES		
Does the display remain blank even after running ON the scanner again?	NO	The scanner operation is normal.
↓ YES		
If you cannot solve the problem after taking measures, check the items in "6.3 Items to check before contacting the dealer where you bought the scanner" and contact the dealer or an authorized FUJITSU service provider.		

Symptom : The scanning does not start.

Are the documents loaded correctly on the ADF paper chute?	NO →	Load the documents correctly onto the ADF paper chute.
↓ YES		
Is the ADF closed completely?	NO →	Close the ADF completely.
↓ YES		
Is the interface cable connected correctly?	NO →	Connect the interface cable correctly. Reference : "Getting Started" 2.2 Connecting the scanner to your PC
↓ YES		
Is the connector of interface cable broken?	YES →	Use a new interface cable and correctly connect it.
↓ NO		
(When using the scanner on SCSI interface) Is the SCSI ID set correctly?	NO →	Turn OFF the scanner and set the SCSI ID correctly, then turn ON the scanner again. Reference : "Getting Started" 2.2 Connecting the scanner to your PC
↓ YES		
Does the scanning start after running ON the scanner again?	YES →	The scanner operation is normal.
↓ NO		
If you cannot solve the problem after taking measures, check the items in "6.3 Items to check before contacting the dealer where you bought the scanner" and contact the dealer or an authorized FUJITSU service provider.		

Symptom : Quality of scanned pictures or photos is not satisfactory.

Back to the trouble shooting index

Did you select half toning or dithering?	→ NO	Select half toning or dithering on your PC.
↓ YES		
Are the upper/lower glasses inside the ADF clean?	→ NO	Clean dirty locations.
↓ YES		
If you cannot solve the problem after taking measures, check the items in "6.3 Items to check before contacting the dealer where you bought the scanner" and contact the dealer or an authorized FUJITSU service provider.		

Symptom : Quality of scanned text or lines is not satisfactory.

Back to the trouble shooting index

Are the upper/lower glasses inside the ADF clean?	**NO**	Clean dirty locations.
↓ YES		
If you cannot solve the problem after taking measures, check the items in "6.3 Items to check before contacting the dealer where you bought the scanner" and contact the dealer or an authorized FUJITSU service provider.		

Symptom : Images are distorted or blurred.

Are the upper/lower glasses inside the ADF clean?	NO	Clean dirty locations.
↓ YES		
Is the ADF cover pressed down or heavy object placed on the ADF during scanning?	YES	Do not press down the ADF or place heavy object on the ADF during scanning.
↓ NO		
Is something causing the scanner to vibrate during scanning?	YES	Do not allow anything to cause the scanner to vibrate while scanning.
↓ NO		
Is the scanner installed on a flat, level surface?	NO	Install the scanner on a flat, level surface.
↓ YES		
If you cannot solve the problem after taking measures, check the items in "6.3 Items to check before contacting the dealer where you bought the scanner" and contact the dealer or an authorized FUJITSU service provider.		

Symptom : Vertical lines appear in the scanned images.

Do the lines appear on the same part of images?	YES	Clean the upper/lower glasses inside the ADF.
⬇ NO		
Do the lines disappear on images with low resolution settings?	YES	Scan the documents with low resolution settings.
⬇ NO		
If you cannot solve the problem after taking measures, check the items in "6.3 Items to check before contacting the dealer where you bought the scanner" and contact the dealer or an authorized FUJITSU service provider.		

Symptom : Double-feed errors occur frequently.

⤴ Back to the trouble shooting index

Do the documents satisfy the conditions described in "8.2 Document Quality"?	➡ NO	Use documents that satisfy the requirements.
⬇ YES		
When the double-feed detection is ON, are the double feed detection conditions satisfied?	➡ NO	Satisfy the double-feed detection conditions.
⬇ YES		
Were the documents fanned before loaded onto the ADF paper chute?	➡ NO	Fan the documents before loading, or reduce the number of sheets of the documents.
⬇ YES		
Have the documents just been printed out by a copier or laser printer?	➡ YES	Fan the documents 3 or 4 times to remove static electricity from the paper.
⬇ NO		
Is the document stack over 20mm(A4)/10mm(A3)?	➡ YES	Reduce the number of sheets in the stack, referring to "8.3 Maximum ADF capacity".
⬇ NO		
Are all the consumables (Pick roller set, Brake roller) installed correctly?	➡ NO	Correctly install the consumable(Pick roller set, Brake roller), if needed.
⬇ YES		
Is any of consumables (Pick roller set, Brake roller) dirty?	➡ YES	Clean the dirty consumable.
⬇ NO		
Is any of consumables (Pick roller set, Brake roller) worn out? Check the consumable counter.	➡ YES	Replace the consumable, if needed. Refer to "" for details on the consumable counter.
⬇ NO		
If you cannot solve the problem after taking measures, check the items in "6.3 Items to check before contacting the dealer where you bought the scanner" and contact the dealer or an authorized FUJITSU service provider.		

Symptom : Pickup errors occur frequently.

  Back to the trouble shooting index

Do the documents satisfy the conditions described in "8.2 Document Quality"?	NO →	Use documents that satisfy the requirements.
↓ YES		
Were the documents fanned before loaded onto the ADF paper chute?	NO →	Fan the documents before loading, or reduce the number of sheets of the documents.
↓ YES		
Are all the consumables (Pick roller set, Brake roller) installed correctly?	NO →	Correctly install the consumable(Pick roller set, Brake roller), if needed.
↓ YES		
Is any of consumables (Pick roller set, Brake roller) dirty?	YES →	Clean the dirty consumable.
↓ NO		
Is any of consumables (Pick roller set, Brake roller) worn out? Check the consumable counter.	YES →	Replace the consumable, if needed. Refer to "Replacing Consumables" for details on the consumable counter.
↓ NO		
If you cannot solve the problem after taking measures, check the items in "6.3 Items to check before contacting the dealer where you bought the scanner" and contact the dealer or an authorized FUJITSU service provider.		

Symptom : Paper jams occur frequently.

⁎ Back to the trouble shooting index

Do the documents satisfy the conditions described in "8.2 Document Quality"?	NO →	Use documents that satisfy the requirements.
YES ↓		
Is there any debris in the ADF?	YES →	Clean the ADF or remove debris from the ADF.
NO ↓		
Are all the consumables (Pick roller set, Brake roller) installed correctly?	NO →	Correctly install the consumable (Pick roller set, Brake roller) , if needed.
YES ↓		
Is any of consumables (Pick roller set, Brake roller) dirty?	YES →	Clean the dirty consumable UI.
NO ↓		
Is any of consumables (Pick roller set, Brake roller) worn out? Check the consumable counter.	YES →	Replace the consumable, if needed. Refer to "Replacing Consumables" for details on the consumable counter.
NO ↓		
If you cannot solve the problem after taking measures, check the items in "6.3 Items to check before contacting the dealer where you bought the scanner" and contact the dealer or an authorized FUJITSU service provider.		

Symptom : The scanned images are elongated

⁂ Back to the trouble shooting index

Did you cleaned all of the rollers?	NO	Clean all of the rolles.
YES		
Do the documents satisfy the conditions described in "8.2 Document Quality"?	NO	Use documents that satisfy the requirements.
YES		
Adjust [Vertical magnification Adjustment] From [Start] menu, select [All Programs] - [Scanner Utility for Microsoft Windows] and click [FUJITSU Software Operation Panel]. Click the [Device Setting] on the [FUJITSU Software Operation Panel] window, then adjust [Vertical magnification Adjustment]. Is the problem fixed ?	YES	Normal Operation
NO		

If you cannot solve the problem after taking measures, check the items in "6.3 Items to check before contacting the dealer where you bought the scanner" and contact the dealer or an authorized FUJITSU service provider.

Symptom : There is a shadow on the leading edge of the scanned images.

Back to the trouble shooting index

Did you adjust the offset (starting position for scanning the document)?	**NO** →	From [Start] menu, select [All Programs] - [Scanner Utility for Microsoft Windows] and click [FUJITSU Software Operation Panel]. Click the [Device Setting] on the [FUJITSU Software Operation Panel] window, then adjust [Sub] under [Offset Setting].
⬇ YES		
If you cannot solve the problem after taking measures, check the items in "6.3 Items to check before contacting the dealer where you bought the scanner" and contact the dealer or an authorized FUJITSU service provider.		

Items to check before contacting the dealer where you bought the scanner

Check the following items before you contact the dealer where you bought the scanner.

General Details

Meaning	Findings
Model	(Example) fi-5650C
Serial No. (*)	(Example) 000001
Production date (*)	(Example) 2004-01 (January, 2004)
Date of purchase	
Symptom	
Frequency of trouble	
Total Page Count(ADF) (**)	

*Please confirm the necessary information in the product label. (Refer to 6.4 Checking labels on the scanner)

** Please confirm the Software Operation Panel. (Refer to 5.1 Consumable and Replacement Cycle)

Installation or PC connection issues

Trouble of connection to your PC

Meaning	Findings
OS	
Displayed error message	(For support engineers, please record the error message and send images of captured screen.)
Interface	(Example) SCSI interface
Interface controllers	(Example) made by Adaptec SCSI Card 2940AU

Feed system trouble

Meaning	Findings
Document type	
Main purpose of use	
Last cleaning date	
Value of Consumable counter	(Example) Pick roller set counter XXX
Displayed sign or number on the Operator panel at trouble	

Imaging system trouble

Meaning	Findings
Type and version of scanner driver	
Type of interface controller	(Example) made by Adaptec SCSI Card 2940AU
OS (Windows)	
Application software	(Example) ScandAll 21, Acrobat

Others

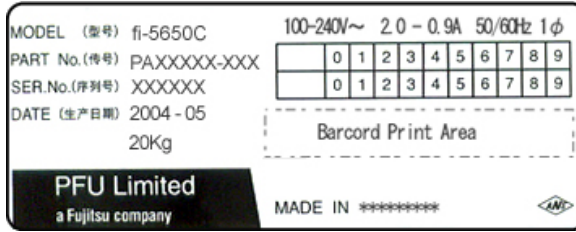| Meaning	Findings
Can you send us both the original document and the scanned images by e-mail or Fax?	

6.4 Checking labels on the scanner

The following illustrations are samples of the product labels of fi-5650C Image Scanner.

The label position is as below.

Chapter 7 ONLINE SETUP

This chapter describes settings of fi-5650C Image Scanner using "Software Operation Panel".

7.1 Online setup

"Software Operation Panel" is an application program that is installed with driver software (TWAIN/ISIS). This software allows you to configure various settings for fi-5650C with user-friendly interfaces. To start this application, select [All Programs] - [Scanner Utility for Microsoft Windows] from [Start] menu then click [FUJITSU Software Operation Panel]. Details of settings are as follows:

No	Function	Description	Settings	Default
1	Double feed	Specifies double feed detection method. The scanner monitors differences in document length, overlapping or both, for detecting double-feeds.	None / Check Overlapping / Check Length / Check overlapping and length For setting the length difference detection, select 15 / 10 / 20mm	None
2	Page Edge Filler	Specifies area to be erased from image margins when scanning documents.	Top/Bottom/Right/Left: set the value from 0 to 15mm (can be changed by 1mm) A B (A: Image output area B: Page Edge Filler area)	Top/Bottom/Right/Left: 0mm

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7.1 Online setup (Continued from the previous page)

The following shows the contents of the setup:

No	Function	Description	Settings	Default
3	Dropout Color	Use this function to drop out a color in Grayscale or Binary mode.	Red/Green/Blue/White	Green
4	Pre pick	Select "Yes" to enable Prepicking, otherwise select "No".	YES/NO	YES
5	Consumable counter	Used to know when to replace the consumable items. After replacing the consumable, reset this counter.	To reset	
6	Offset adjustment	Set the horizontal and vertical offset for scanning.	Main: -2 to 3 (can be changed by 0.5mm) Sub: -2 to 3 (can be changed by 0.5mm)	Right & left : 0mm Top & bottom : 0mm
7	Vertical magnification Adjustment	Set the magnification of a scanned image.	-6.3% to 6.3% (can be changed by 0.1%)	0%
8	Power saving	Set the waiting time for the scanner to switch into the power save mode	You can set the waiting time from 5 minutes to 55 minutes (can be changed by 5 minutes)	15minutes

7.2 Double-feed detection

The settings for the double feed detection are as follows.

1. Select [All Programs] - [Scanner Utility for Microsoft Windows] from [Start] menu then click [FUJITSU Software Operation Panel].

2. Click [Device Setting 2] tab, then select [DoubleFeed] from [Preferences].
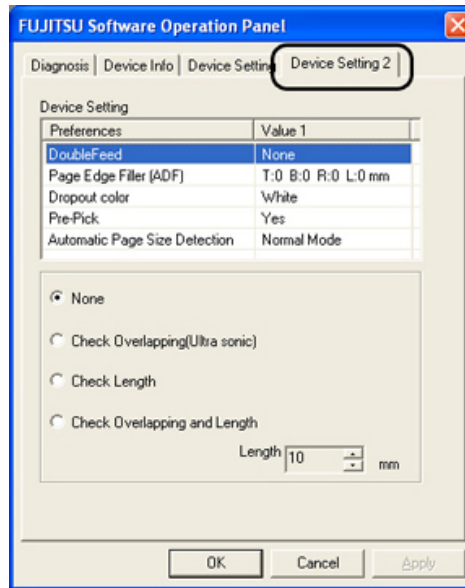
3. When you select [Check Length] or [Check overlapping and length], select [Length] from 10, 15 or 20mm.

   None : The double feed detection will not be performed.
   Check Length : The documents length will be monitored.
   Check Overlapping : Document overlapping will be monitored.
   Check overlapping and length: The document length (you can select error detection tolerance from 10, 15 or 20mm) and overlapping will be monitored. If the detected length deviation is within the specified tolerance, it will not be detected as an error.

ATTENTION

Change the double feed configure of the FUJITSU TWAIN32 Scanner driver before you change the double feed configure in the [Software Operation Panel]. It will take precedence FUJITSU TWAIN32 Scanner driver.

7.3 Setting of Page Edge Filler

1. Select [All Programs] - [Scanner Utility for Microsoft Windows] from [Start] menu then click [FUJITSU Software Operation Panel].

2. When you scan documents with the ADF, click [Device Setting 2] tab, and select [PageEdgeFille(ADF)] from [Preferences]. Then specify the area to delete by entering value in [Top], [Bottom], [Right] and [Left].
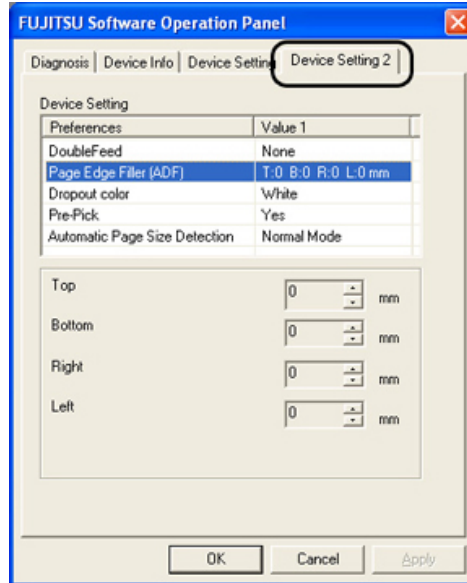
ATTENTION

If you configure the Page Edge Filter in both [Software Operation Panel] and [FUJITSU TWAIN32 Scanner Driver], the images of [Software Operation Panel] configuration will overwrite the images of FUJITSU TWAIN32 Scanner Driver configuration.

7.4 Setting dropout color

Set a color to be dropped out as follows.

1. Select [All Programs] - [Scanner Utility for Microsoft Windows] from [Start] menu then click [FUJITSU Software Operation Panel].

2. Click [Device Setting 2] tab, and select [Dropout color] from [Preferences].
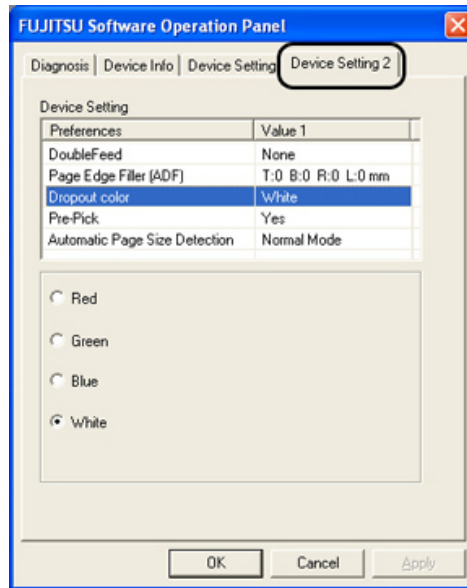
3. Mark the check box of the color to be dropped out (Red, Green, Blue and White).
   Red : Red will be dropped out.
   Green : Green will be dropped out.
   Blue : Blue will be dropped out.
   White : No dropout

ATTENTION

FUJITSU TWAIN32 Scanner driver selection has precedence over this setting.

7.5 Setting of pre-pick mode

The settings of the pre-pick mode are as follows.

1. Select [All Programs] - [Scanner Utility for Microsoft Windows] from [Start] menu then click [FUJITSU Software Operation Panel].

2. Click [Device Setting 2] tab, and select [Pre-Pick] from [Preferences].
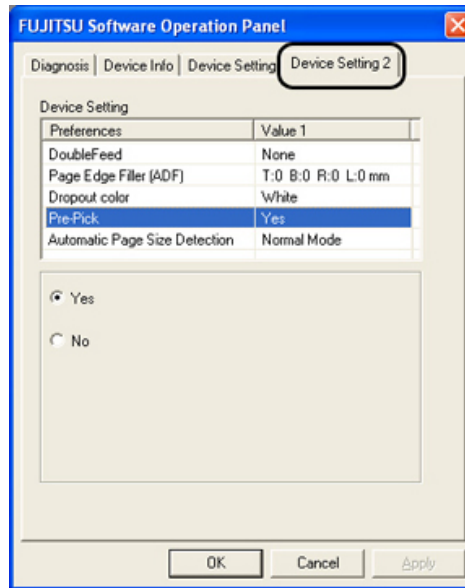
- Yes : The setting prioritizes for the processing speed. The next document will be fed to the pick roller automatically.
- No : The next document won't be fed to the pick roller automatically.

ATTENTION

FUJITSU TWAIN32 Scanner driver selection has precedence over this setting.

7.6 Resetting the consumables counters

Reset the consumables counters as follows.

1. Select [All Programs] - [Scanner Utility for Microsoft Windows] from [Start] menu then click [FUJITSU Software Operation Panel].

2. Click [Device Setting] tab.
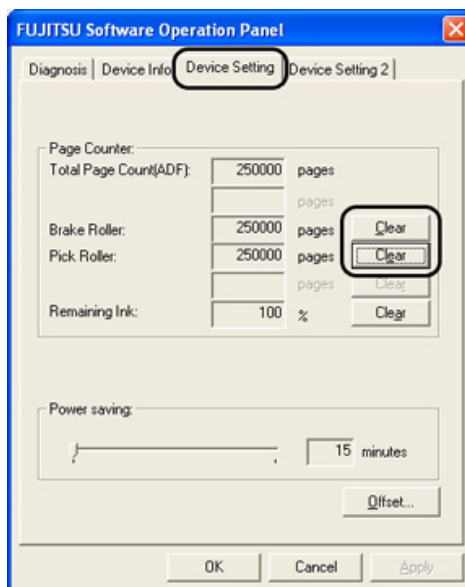
3. Click [Clear] button of the consumable which has been replaced.
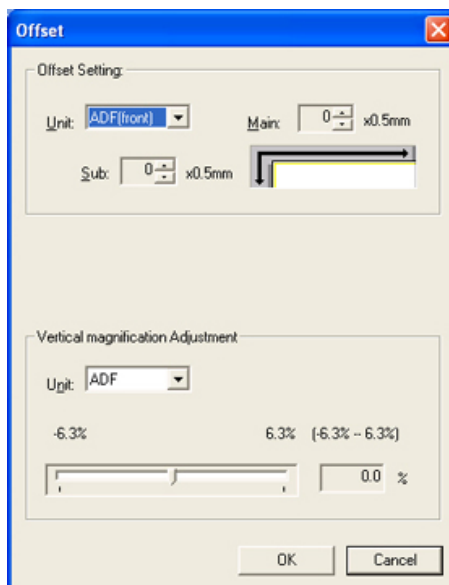   → The counter of the consumable replaced will return to zero.

7.7 Adjusting The Offset

The settings for adjusting the offset are as follows.

1. Select [All Programs] - [Scanner Utility for Microsoft Windows] from [Start] menu then click [FUJITSU Software Operation Panel].

2. Select [Device Setting] tab and click [Offset] button.
   → The following panel appears.

3. In [Unit], select either "ADF (Front)" or "ADF (back)".

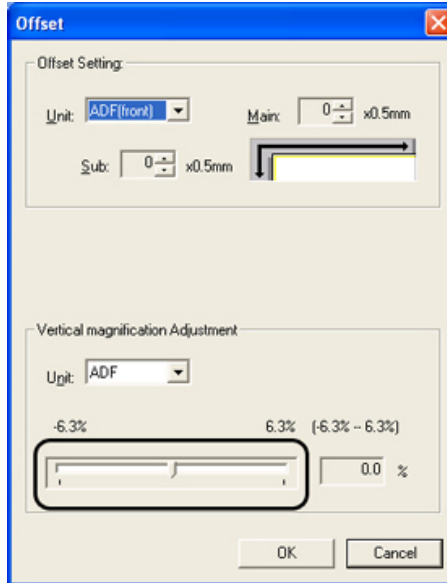4. Change the value at [Main] and [Sub] to specify the offset for scanning.

7.8 Adjust the magnification

The the setting for the magnification is as follows.

1. From [Start] menu click [All Programs], select [Scanner Utility for Microsoft Windows] and click [FUJITSU Software Operation Panel].

2. Select [Device Setting] tab and click [Offset] button.
   → The following panel appears.

3. Using the slider control under [Vertical magnification Adjustment], specify magnification scale.

7.9 Power saving

The setting for the power saving is as follows.

1. Select [All Programs] - [Scanner Utility for Microsoft Windows] from [Start] menu then click [FUJITSU Software Operation Panel].

2. Select [Device Setting] tab.

3. Using the slider control under [Power saving], specify waiting time for switching the scanner operation to power save mode.
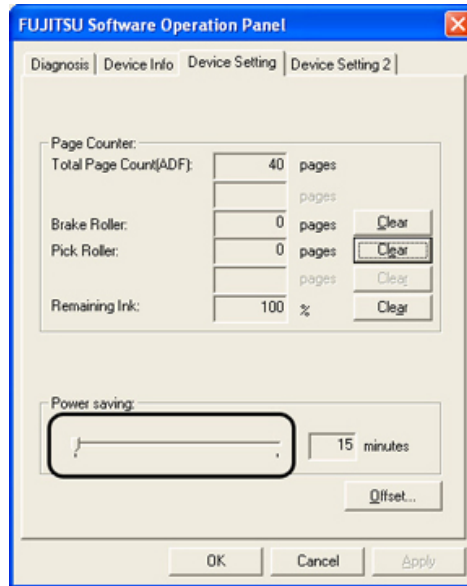
Chapter 8 DOCUMENT SPECIFICATION OF ADF

This chapter describes the required document sizes and paper quality for ensuring a correct operation when scanning documents on the ADF.
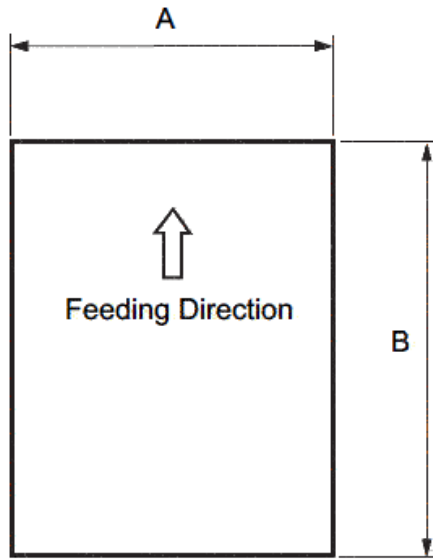
8.1 Document size

The following shows the size of documents that can be scanned.

Maximum		Minimum	
A	B	A	B
297 (11.7 in.)	431 (17 in.) (*)	53 (2.0 in.)	74 (2.9 in.)

(Unit: mm)

* When "Long page" is selected in [Scan Type], B = 860mm (33.9 in.)

8.2 Document quality

It is recommended to use documents of wood free paper and wood containing paper. When using other kinds of papers, perform a test-scanning with a few sheets of the same type before executing the actual task in order to check whether or not the documents can be scanned.

Paper thickness is expressed by "paper weight".

Following paper weights can be used with this scanner:

A4/Letter and under : 41g/m^2 - 203 g/m^2 (11lb to 54lb)
Larger than A4/Letter : 52 g/m^2 - 203g/m^2 (13.9lb to 54lb)
(A3 is the maximum size)

The following documents may not be scanned successfully:

Documents of non-uniform thickness (e.g. Envelope, etc.)
Wrinkled or curled documents
Folded or torn documents
Tracing paper
Coated paper
Carbon paper
Carbonless paper
Photo sensitive paper
Perforated or pounced documents
Documents that are not square or rectangular
Very thin documents

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8.2 Document quality (Continued)

Do not use the following documents:

- Paper-clipped or stapled documents
- Documents on which the ink is still wet
- Documents smaller than A8 (Portrait) in size
- Documents wider than A3 or 11 in. x 17 in. size
- Documents other than paper such as fabric, metal foil, or transparencies

ATTENTION

- When scanning semi-transparent documents, set the density 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 inevitable, clean the rollers more frequently.

Carbonless paper contains chemical substances that may harm the Pad ASSY or rollers (e.g. Pick roller) when documents are fed.
Pay attention to the following:

Cleaning :
If pick errors occur frequently, clean the Pad ASSY and the Pick roller. For details on clean the Brake roller and the Pick roller set. For details on cleaning the Brake roller and the Pick roller set, refer to "4.2 Cleaning the ADF".

Replacing parts :
The service life of the Pad ASSY and the Pick roller may be shortened compared to the case of scanning wood containing paper documents.

When scanning wood containing paper, the life of the Pad ASSY and the Pick roller may be shortened compared to the case of scanning wood free paper.

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:
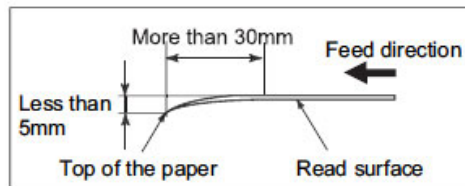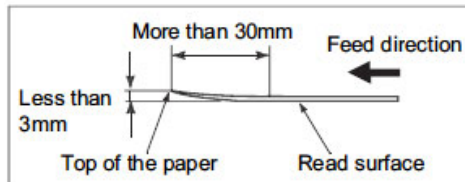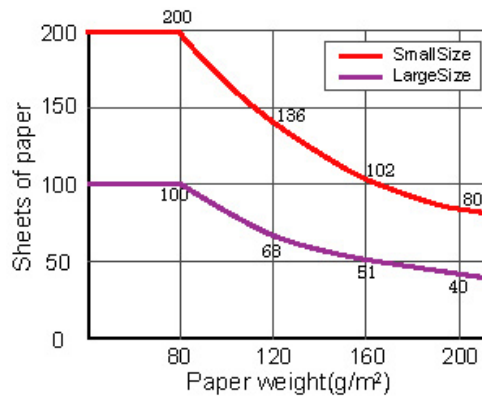
8.3 Maximum ADF capacity

The maximum number of sheets that can be loaded on the ADF paper chute is determined by the size and weight of the documents. The following shows the maximum document loading capacity of the ADF according to the paper weight.

Small Size:
The documents of A4/Letter or smaller size.
Large Size:
The documents over A4/Letter size.

Unit	Conversion								
g/m^2	41	52	64	75	80	90	104	127	203
lb	11	13.9	17.0	20.0	21	24.0	27.9	34.0	54

8.4 Area not to be perforated

Document trouble might occur if there are punched holes in the shaded area of a document sheet shown below.

8.5 Double feed detection conditions

To obtain a correct monitoring and preventing miss detections of doublefeeds, the documents have to meet the following conditions.

Check overlapping

Paper weight : 41 g/m^2 - 203 g/m^2 (10.9 lb to 53.9 lb)

Punched holes are not allowed within 35 mm (1.4 in.) of the vertical centerline of the document.

Other paper shall not be glued within 35 mm (1.4 in.) of the vertical centerline of the document.

Check length

Document length deviation : 1 % or less

Punched holes are not allowed within 35 mm (1.4 in.) of the vertical centerline of the document.

Check overlapping and length

Paper weight : 41 g/m^2 - 203 g/m^2 (10.9 lb to 53.9 lb)

Document length deviation : 1 % or less

Punched holes are not allowed within 35 mm (1.4 in.) of the vertical centerline of the document.

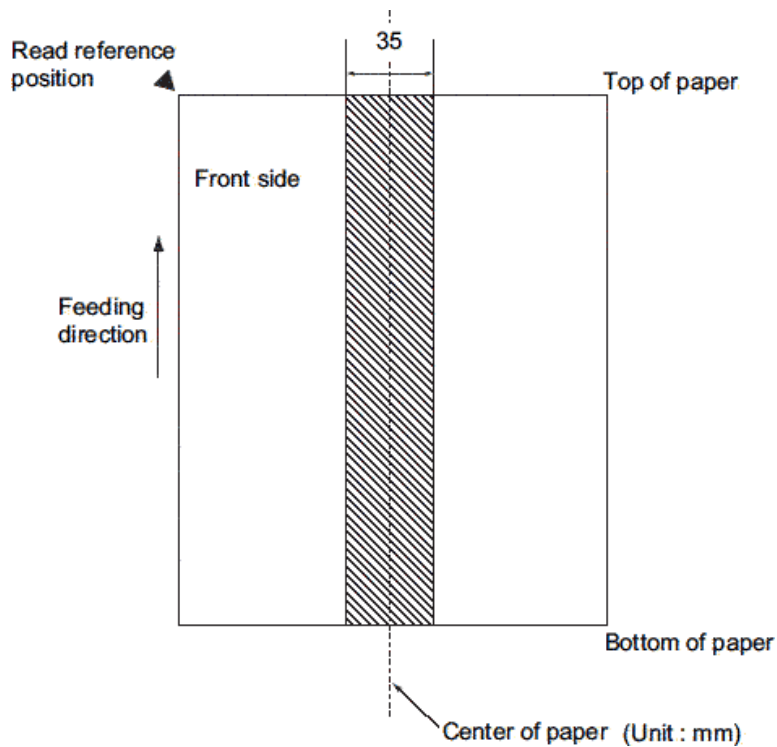Other paper shall not be glued within 35 mm (1.4 in.) of the vertical centerline of the document.

ATTENTION

When the overlapping check is specified, the papers which contact closely each other, such as glued paper or electro-statically charged paper, can result in the miss-detection of double-feed.
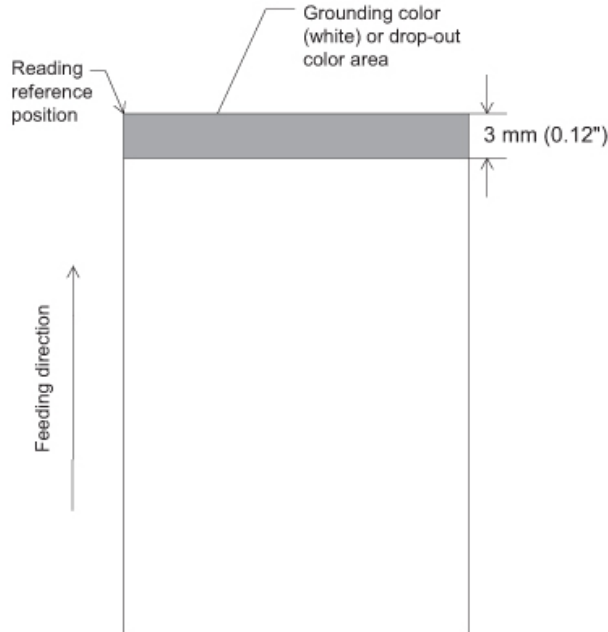
8.6 Background Color Areas

Paper white detection is performed in the shaded area as shown in the Figure below. The top 3mm area on both sides of a document, should have no printing.
When the [White Level Follower] is selected, the color of this area must be the dropout color (color you want to remove) or the document's background color (white) .

If the above cannnot be performed, turn the [White Level Follower] off before scanning.

For the details on dropout color, please refer to section <u>3.5 Selecting a color to drop out</u>.

Reading reference position

Grounding color (white) or drop-out color area
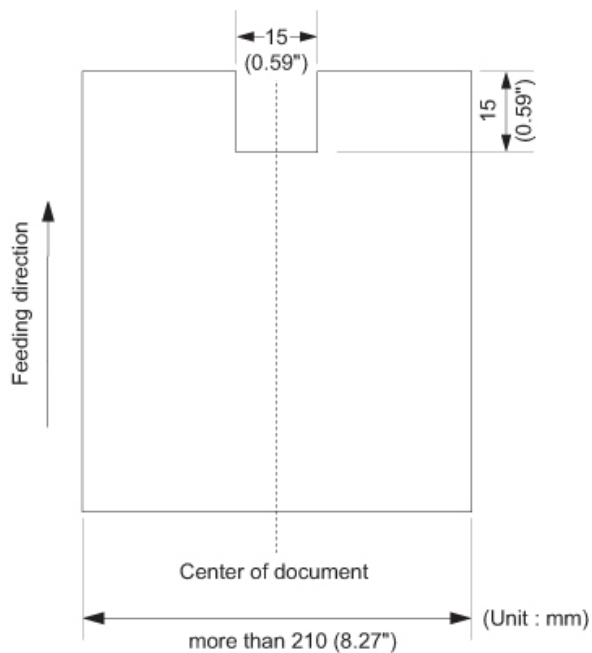
3 mm (0.12")

Feeding direction

8.7 Job Separation Sheet

1. **Shape**

   The following shows the typical format of the job separation sheet.

   Document width must be Letter (8.5 inch) / A4 size width (210mm) or wider.

2. **Document Specifications**

   Document width must be Letter (8.5 inch) / A4 size width (210mm) or wider.

Chapter 9 OPTIONS

This chapter describes the options (sold separately) for fi-5650C Image Scanner.

fi-5650C Image Scanner option.

No.	Name	Spec	Description
1	Imprinter (*)	PA03338-D301	Prints characters in the back side of the document after performing the scanning.
2	Image Processing Software Option	PA43400-D72201	For image processing (Binarizaiton)

* By Using this Imprinter, a character string, such as the alphabet and numbers, can be printed in the scanned document.
It helps you to organize your documents by printing a name, date, time or a serial number on the scanned document.
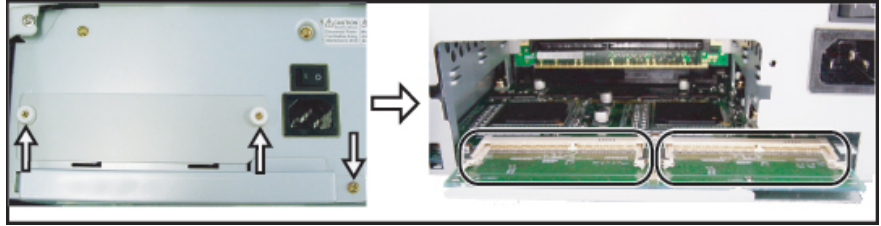
9.1 Extended memory board

The scanning performance is optimized at higher resolution settings by installing additional memory boards. Additionally, with added memory boards, scanning both sided color sheets at 401 dpi or at higher resolutions will not be suspended or interrupted.

1. Remove the screws on the rear side of the scanner, and remove the covers.

2. Insert the memory boards into the slots and push it down so that the boards are fixed in by the claws.
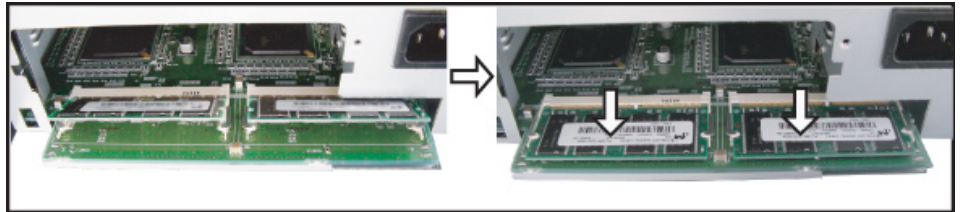
3. Secure the screws to fix the covers.

The following memory boards are recommendable for using with fi-5650C Color Image Scanner.

Manufacturer	Model	Memory Size
Micron Technology	MT4LSDT1664HG-13E	128MB
Micron Technology	MT8LSDT3264HG-13E	256MB

ATTENTION

Install 2 memory boards whose specifications must be equal, otherwise this option might not operate correctly.

HINT

To confirm the instalation of the extended memory board, check the scanner memory value of [standard information] on [Device information] panel in [Software operation panel].

CONTENTS

Chapter 10 SCANNER SPECIFICATIONS

This chapter lists the scanner specifications.

10.1 Basic Specifications

No.	Items		Specification	Remarks
1	Operating method		Automatic Document Feeder(ADF)	
2	Image sensor		Color CCD (Charge-coupled device) x 2	Front/Back
3	Light source		Incandescent cold cathode fluorescent lamp x4	Front/Back
4	Scanning area	Min.	A8 (Portrait)	Note *1
		Max.	A3 or 11x17 Long page scanning : 297x863mm (11.7 x 34 in)	
5	Paper weight		41 g/m^2(11lb) to 203 g/m^2(54lb)	at ADF scanning
6	Scanning speed (A4, Portrait, 200dpi)	Simplex	55 ppm	Black&White Grayscale/Color
		Duplex	110 ipm	Note *2
7	Capacity of ADF		200 sheets	A4, 80 g/m^2 Note *3

*1 The minimum size for scanning is A8.
*2 The scanning speed is the maximum speed of the scanner hardware.
*3 The maximum loading capacity varies according to the document thickness. For details, refer to 8.3 Maximum ADF capacity.

10.1 Basic Specifications (Continued from the previous page)

No.	Items	Specification		Remarks
8	Optical resolution	Basic	600 dpi	Black&White Grayscale/Color
		Output	50 dpi to 600 dpi	
9	Grayscale level	24 bits/pixel (Color), 8 bits/pixel (Grayscale), 1 bit/pixel (Binary)		
10	Halftone Patterns	Dither, Error diffusion		
11	Interface	Ultra SCSI	Shield-type 50pin(pin type) halfpitch	Note *4
		USB 2.0/1.1	B type	
12	Other function	Hard real time JPEG compression		Grayscale/Color

*4 The SCSI and USB interfaces cannot be used at the same time.

10.2 Installation specifications

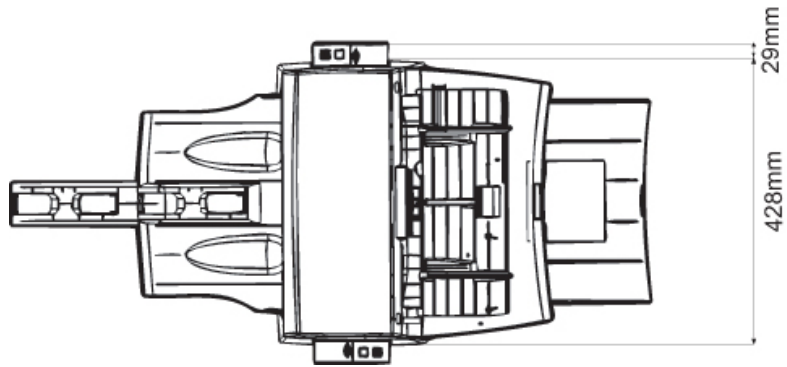| Items	Specification		
Dimension (With ADF paper chute extension and stacker extension retracted)	Width	Depth	Height
	639 mm (25.2 in)	428 mm (16.9 in)	301 mm (11.9 in)
Installation space	1179mm (46.4in) x 686mm (27.0in) x 600mm (23.6in) (Width x Depth x Height)		
Weight	20 kg (43.5 lb)		
Input power	Voltage range	AC100V to 240V, ±10%	
	Phases	Single-phase	
	Frequency range	50/60 ± 3 Hz	
Power consumption	216 W or less		
Ambient condition	Device status	Operating	Not operating
	Temperature	5 to 35 °C (41 to 95 °F)	-20 to 60 °C (-4 to 140 °F)
	Humidity	20 to 80%	8 to 95%

10.3 External dimensions

The external dimension of the fi-5650C Image Scanner

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10.3 Physical dimensions (Continued from the previous page)
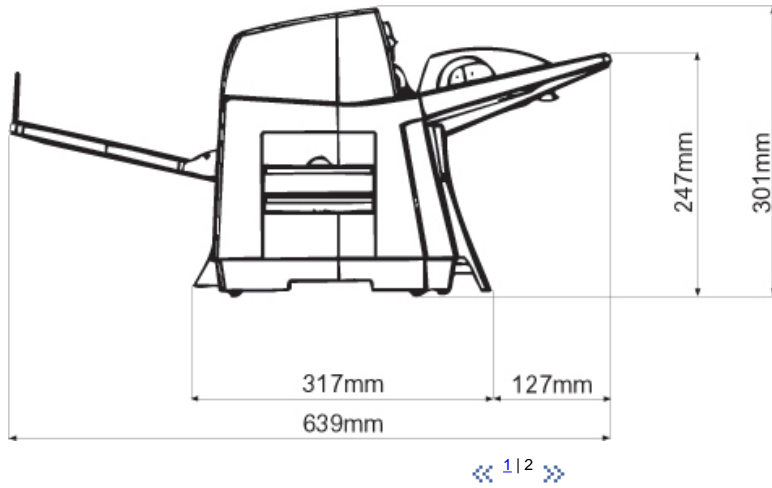
247mm

301mm

317mm

127mm

639mm

(Side View)

fi-5650C Image Scanner Operator's Guide

Appendix

The Appendix is structured as follows:

Appendix 1 Before using [Scan] button and [Send to] button
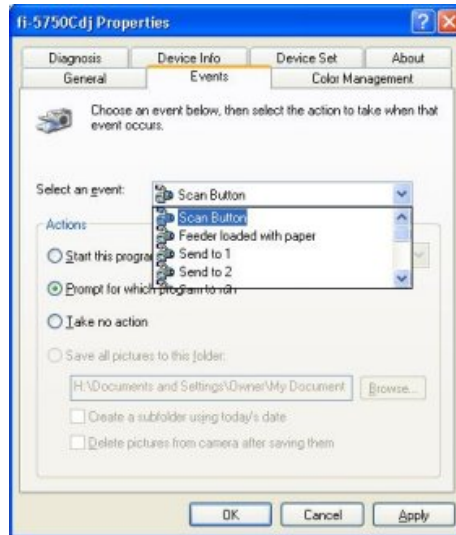**Appendix 2** Glossary

Appendix 1 Before using [Scan] button and [Send to] button

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

For Windows 98, Windows Me, Windows 2000 and Windows XP:

1. Select [Control panel] from the [Start] menu.

2. Select [Property] from [Scanner & Cameras].

3. Select the [Event] tab.

4. Select the event. For Windows XP, select event to be performed by the application from the [Select event] menu.

With this function, the next events can be selected.
Scan button (When clicking on [Scan] button)
Feeder loaded with paper (When document are loaded on the ADF)
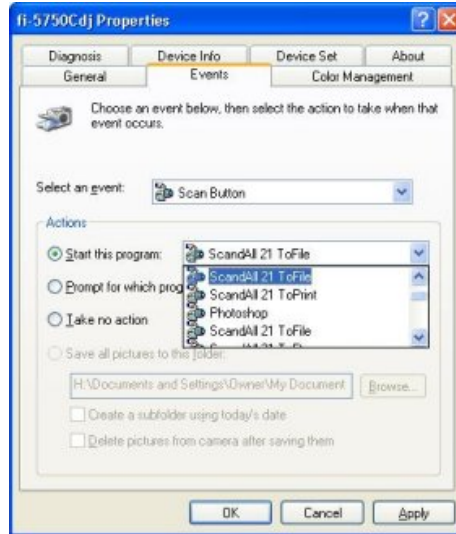Send to 1~9(When clicking the [Send to] button)

Appendix 1 Before using [Scan] button and [Send to] button (Continued from the previous page)

5. Select the application executed by the event.
   For Windows XP, select [Performing selected program] under [Performing] and then select the application to be processed.

6. Click [OK]

   HINT

   When loading documents on the ADF, a pop-up screen may be displayed. In order to avoid displaying the pop-up screen, to select [Feeder loaded with paper] at [Selecting event] , and to select [Nothing to do] under [Performing] and click [OK].
   The displayed screen may differ slightly according to your OS.

Appendix 1 Before using [Scan] button and [Send to] button (Continued from the previous page)

-For Windows 95 and Windows NT 4.0:

1. Right click [FUJITSU Scanner Control Center] on the task trail and select [Option].

2. Select the event for starting up the application from the [Event] menu.
   With this function, the next events can be selected.
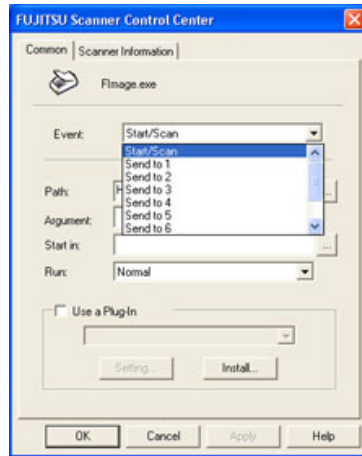
Start/Scan (When pushing the [Scan] button)
Send to 1~9(Function button to switch the number when pushing the [Send to] button.

3. Click [...] button right to the entry field of [Path].

4. Click [OK].