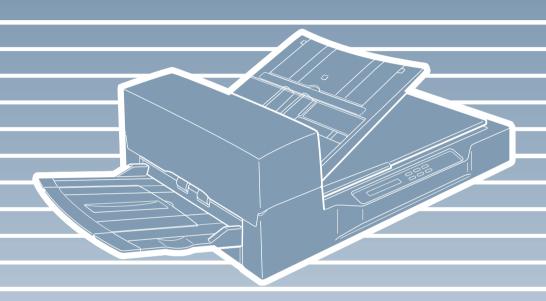




fi-4750C Image Scanner Cleaning and Maintenance





Revisions, Disclaimers

Revisions

Edition	Date published	Revised contents	
01	October, 2000	First edition	
Specification No. C150-E183-01EN			

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 connected.
- Consult the dealer or an experienced radio/TV technician for help.

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



- The use of a non-shielded interface cable with the referenced device is prohibited. The length of the parallel interface cable must be 3 meters (10 feet) or less. The length of the serial interface cable must be 15 meters (50 feet) or less.
- The length of the power cord must be 3 meters (10 feet) or less.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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Preface

This manual explains how to clean and maintain the fi-4750C image scanner.

The fi-4750C is a highly functional color image scanner developed for volume filing, using charge-coupled device (CCD) color image sensors. This scanner features duplex scanning and high quality color image processing with an automatic document feeder (ADF).

Refer to the Operator's Guide for basic information about the fi-4750C.

Conventions

Important information that requires special attention is indicated as follows:



WARNING

WARNING indicates that serious personal injury may result if you do not follow a procedure correctly.



CAUTION

CAUTION indicates that minor personal injury, loss of data, or damage to the scanner may result if you do not follow a procedure correctly.

Official Fujitsu part names are indicated with an initial capital letter, as in the part name "Pick roller".



A NOTE provides "how-to" tips or suggestions to help you perform a procedure correctly.

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CHAPTER	1

DESCRIPTION

CHAPTER 2

CLEANING

CHAPTER 3

REPLACEMENT OF PARTS

CHAPTER 4

TROUBLESHOOTING



DESCRIPTION

This chapter describes units, assemblies, indicators and LED functions.

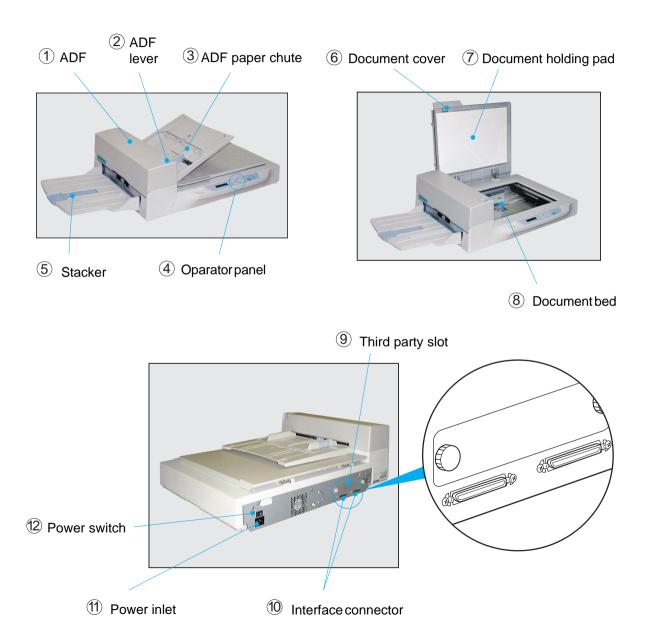
Units

Assemblies

Operator Panel

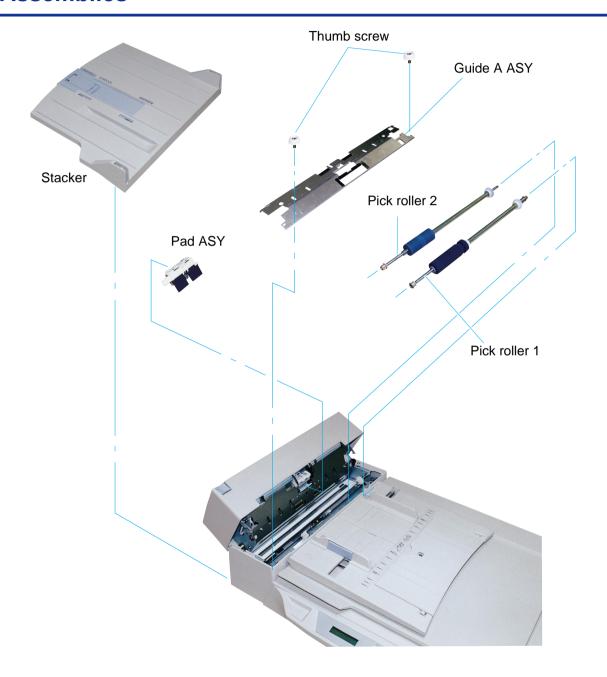
Panel Display

Units



Nº	Function
1	Automatically feeds documents to the reading position.
2	Opens/closes ADF to enable the removal of jammed documents.
3	Holds the documents to be fed by ADF.
4	Displays the status of the scanner. Also displays buttons that enable the operator to change settings in Feed mode, Manual Feed mode, and Setup mode.
5	Stacks the read documents.
6	Covers the document to be read.
7	Presses the document to the Document bed.
8	Holds the document to be read. Also called Flatbed (FB).
9	Third party slot.
10	Connects to the host system with interface cables.
11)	Connect the power cable from an AC power outlet here.
12	Power switch.

Assemblies



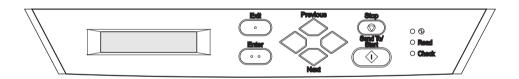
Operator panel

The Operator panel is located on the upper right hand side of the scanner. The panel consists of an LCD (16 characters x 2 lines), LEDs, and buttons.

Arrangement



Operator panel



Panel Display

Button/LED Function

Name of the button and LED		Function
Button Next <>		Displays the next LCD screen.
	Previous 🔷	Displays the previous LCD screen.
	\Diamond	Moves the cursor (blinking part) to the left
	\Diamond	Moves the cursor (blinking part) to the right
	Exit	When you are entering settings on the Operator panel, pressing this button returns you immediately to the Scanner Ready screen.
	Enter	Enters the parameter currently selected by the cursor.
	Send To Start	Starts the reading. while Manual start mode is set or the Read lamp lights when the video interface option is used. Some application software packages might use this button.
	Stop	When the Check LED lights, pressing this button releases the error status (turns off Check and returns to the Scanner Ready screen). Stops the reading while reading when the video interface option is used. Also turns off the Check lamp.
LED	0	Indicates the scanner is ON.
	Read	Indicates the scanner is reading or ready to read.
	Check	If lit, indicates an alarm occurred. Pressing the Stop button turns the Check lamp off. If it blinks at one second intervals, this indicates a jam or double feed has been detected. If the problem is jammed paper, removing paper turns off the Check lamp. If the problem is double feed, pressing the Stop button turns off the Check lamp. If it blinks at four second intervals, this indicates cleaning the ADF is necessary.



Counter Display

The scanner is provided with a counter display.



Counter	Function		
Paper counter	When the <> button is pressed	The paper counter counts the number of scanned sheets from the start of reading until Paper Empty or until an error is detected. The counter is automatically reset at the start of reading. The counter is used for checking the number of sheets scanned at one time.	
	When the \diamondsuit button is pressed	This counter increments each time a document is scanned. The counter is not initialized until the power is turned off. The counter can be used, for example, for checking the number of sheets that have been scanned in one day.	
Abrasion counter	Abrasion counter counts the accumulated number of the scanned sheet. This counter increments at every 10 sheets. This counter is useful to check the cleaning cycle or parts replacement cycle. How to reset is described in Chapter 6.		



When the counter value is 0, no number is displayed.

Panel Display

Operation status

The operation status is indicated by the following messages:

<Power-on>

Warming - up Now!!

<Reading>

Now Reading!

<Low Power Mode>

When the Scanner Display turns Off and the power \bigcirc indicator remains "On", the scanner is in the Low Power Mode.



One of the following will wake up the scanner:

- Pressing any button.
- Setting the paper on the ADF.
- Sending a command from the host computer.

<Waiting for Start>

The scanner displays the following screen when waiting for the Start button to be pressed:

(Only When the Video Interface Option is installed.)

Start SW ON!

<Cleaning request>

When the Pick roller cleaning is necessary, the scanner displays the following on the upper line:

Clean Pickroller Now Reading!

When the ADF glass cleaning is necessary, the scanner displays the following on the LCD:

Clean ADF Glass Now Reading!

Clean the Pick roller or the ADF glass in accordance with the instructions given in chapter 2, Cleaning the ADF, and chapter 3, Pick Roller.

Temporary error

<Hopper empty>

Paper Empty

This message is displayed if there is no more paper on the ADF paper chute during a read operation in ADF mode. Fill the ADF paper chute with paper. To enable the read operation, press the stop button.

<Jam>

Paper Jam

This message is displayed if a document is jammed in the ADF. See Chapter 4 for removing jammed ducuments.

<ADF cover open>

ADF-Cover Open

This message is displayed if the ADF is not closed completely. Close the ADF completely, and enable the read operation.

<Double feed error>

Double Feed

This message is displayed when the ADF detects a Double feed error. Check the document and re-scan it.

Alarm

One of the following messages is displayed if an error occurs in the scanner. If one of the following error messages is displayed, turn the power Off and then On again. If the same message is displayed, contact your service representative.

<Optical alarm front>

Front Side Optical Alarm(R)

Front Side Optical Alarm(G)

Front Side Optical Alarm(B)

<Optical alarm back>

Back Side Optical Alarm (R)

Back Side Optical Alarm (G)

Back Side Optical Alarm (B)

<FB mechanism alarm>

Flat bed Mechanical Alarm



When the total number of sheets scanned by the ADF is less than 100, the message above and the message below are displayed alternately. Remove the bracket (Shipping Lock) that holds the carrier in place.

Check Shipping Lock <Motor fuse alarm> Motorfuse Alarm <Lamp fuse alarm> Lampfuse Alarm I m g Trans Alarm <Memory alarm> Memory Alarm <EEPROM alarm> Alarm EEPROM <FAN alarm> F A N Alarm <SCSI fuse alarm> SCSIfuse Alarm



When this message is displayed, turn Off system power and then turn it On again. Alternatively, replace the current cable with one recommended by the manufacturer of the SCSI board. When the cause of the alarm has been corrected, the scanner automatically resumes operation once power is turned On again.



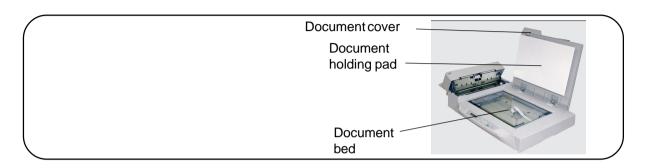
This chapter describes cleaning supplies, areas that require cleaning, and procedures for cleaning the ADF and the flatbed.

Cleaning Supplies and Areas Requiring Cleaning

Cleaning the ADF

Cleaning the Flatbed

Cleaning Supplies and Areas Requiring Cleaning



Supplies

Supplies	Type No.	Frequencies (*1)(*3)	Remarks
Cleaning paper	Contact your dealer or	Every 5,000 sheets	
Cleaner F2	distributor	• Plastic rollers (*2)	1 bottle Apply Cleaner F2 to cotton swab.
Cleaner F1 or Isopropyl alcohol		 PAD assembly Every 5,000 sheets Pick roller/Feed rollers/ Glass/Sheet guide Every 5,000 sheets 	1 bottle. Apply Cleaner F1 to cloth.
Cotton swab			
Dry cloth			

^{*1} If the display on the operator panel shows "Please clean Pick-roller", then clean it regardless of the frequencies recommended here.



CAUTION

*2 Do not clean the rubber rollers with cleaner F2.



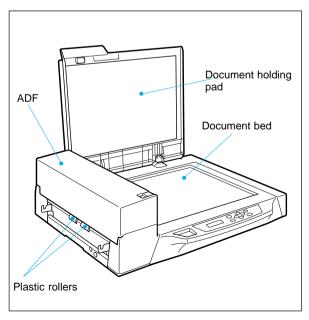
NOTE

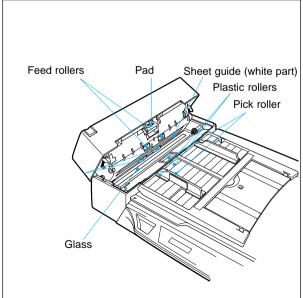
When the following paper types are used, it may be necessary to clean more frequently:

- Paper with a smooth surface, such as coated paper.
- Paper almost entirely covered with printing.
- Paper with special chemical coatings, such as carbonless paper.
- Paper including a great quantity of calcium.
- When reading a great many documents written with a pencil.
- *3 Refer to the Abrasion counter on the Operator panel to estimate when the next cleaning is necessary.

Areas Requiring Cleaning

Area	Name	Cleaning paper with Cleaner F1	Dry cloth with Cleaner F1	Cotton swab with Cleaner F1 or F2
Flatbed	Document holding pad		0	
	Document bed		0	
ADF	Pad	0	0	
	Glass/Sheet guide	0	0	
	Pick roller	0	0	
	Plastic rollers	0	0	0
	Feed rollers	0	0	
	Pick Arm Rollers		0	0

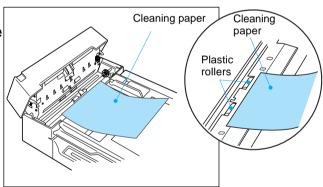




Cleaning the ADF

- Cleaning the ADF with cleaning paper
- Pull the ADF lever to open the ADF.
- Apply cleaner F1 to a new piece of cleaning paper.

Place the cleaning paper on the ADF so that the edge of the short side touches the Plastic roller.



- Close the ADF and turn the power on to start the cleaning.
- Turn the power off.
- Repeat steps 1 through 5.



Cleaning the ADF with a Dry cloth or a Cloth with Cleaner F1

- Pull the ADF lever to open the ADF.
- Use a dry cloth or a cloth moistened with Cleaner F1 to softly remove dirt and dust as follows.

Pad assembly:

Wipe the pad in a downward direction (as indicated by the arrow). Be careful not to catch the spring for the Pick roller when wiping.

Pad assembly



Glass:

Wipe the glass lightly.



NOTE

If the glass is dirty, the image may include black vertical stripes.



Pick roller:

Wipe the roller.

Be careful not to damage the surface of the roller and the mylar strip above the Pick roller.

Pick roller

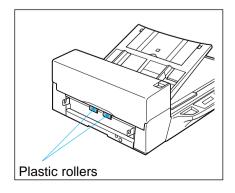


Feed rollers:
and Plastic rollers
Wipe the rollers.
Be careful not to damage the surface of the rollers.

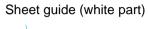


Feed rollers

Plastic rollers



Sheet guide (white part): Wipe the sheet guide.







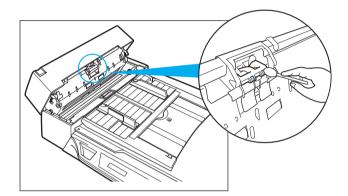
If the Sheet guide is dirty, the front image may show vertical stripes.

Close the ADF to lock the ADF lever.



Cleaning the Pick Arm Rollers

- Pull the ADF lever to open the ADF.
- Moisten a cotton swab or Dry cloth with F1 or F2 Cleaner.
- Wipe the small Plastic rollers at the tip of the Pick Arm.
- Wipe the small Plastic rollers and the Pick Arm with a clean, dry cloth to dry them.





NOTE

When non-carbon paper is used, the Pick Arm rollers may become dirty with a black substance. Use Cleaner F2 to remove the contamination.

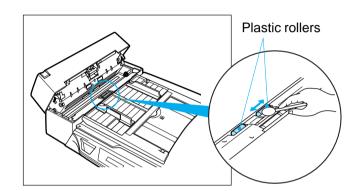


CAUTION

- 1. Don't wipe the pad rubbers with the F2 cleaner.
- 2. Don't apply the F2 cleaner to the pad rubber.

Cleaning the Plastic rollers with Cleaner F2

- Pull the ADF lever to open the ADF.
- Moisten a cotton swab with Cleaner F2.
- Wipe the Plastic roller surfaces.

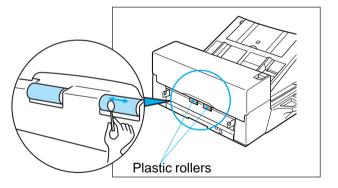




CAUTION

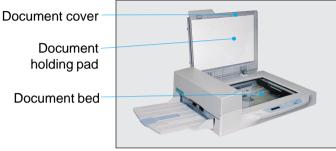
Don't wipe the Pick Rollers with a cotton swab using cleaner F2.

Wipe the Plastic roller surface with a clean, dry cloth. Allow it to dry.



Cleaning the Flatbed

Cleaning the Flatbed with a Cloth and Cleaner F1





Window or glass cleaner can be used instead of cleaner F1. However, do not use organic solvents.

- Open the Document cover.
- Apply Cleaner F1 to a clean cloth.
- Wipe the Document holding pad and the Document bed.
- Allow them to dry.





NOTE

Be sure to prevent liquid from seeping through the opening between the Document bed and the plastic cover.



REPLACEMENT OF PARTS

This chapter describes how to replace the pad assembly and the pick roller.

Pad Assembly

Pick Roller

Pad Assembly

ADF lever Pad ASY (PA03951-0151)





NOTE

The life span of the pad assembly is about 100,000 sheets or one year. Use the Abrasion counter on the Operator panel to estimate when the Pad assembly needs replacement. The life span may be decreased by as much as half when carbonless paper is read frequently.



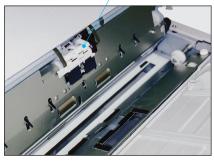
WARNING

Turn off the power before replacing the Pad Assembly.



Pick Arm

- Pull the ADF lever to open the ADF.
- Push the Pick Arm carefully.



Slide the Pad Assembly to the left and pull it towards you. Then, being careful not to hook the spring for the Pad, remove the Pad Assembly.



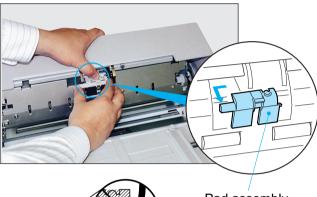
NOTE

Hold both ends of the Pad assembly as shown in the right photo.



CAUTION

Don't hold the sensor arm with the Pad assembly.



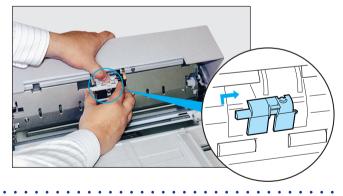


Attach the Pad Assembly to the ADF in the reverse sequence of step 3.



NOTE

Fit the Pad assembly pin into the larger hole, then slide it to the right until it stops.



Close the ADF.



Pick Roller

Pick rollers (PA03951-0153) (Two rollers are included)





NOTE

The life span of the Pick roller is about 200, 000 sheets or one year. Use the Abrasion counter on the operator panel to estimate when the Pick roller needs replacement. The life span may be decreased by as much as half when carbonless sheets are frequently read.

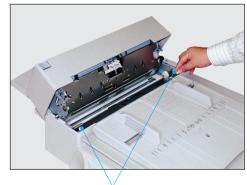


WARNING

Turn off the power before replacing the Pick Rollers.

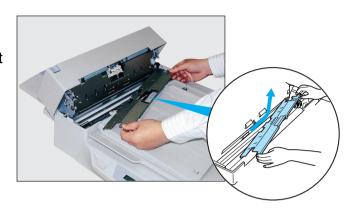
- Pull the ADF lever to open the ADF.
- Remove the two Thumb screws.
- ✓ NOTE

Use a Phillips screwdriver if they are tight.

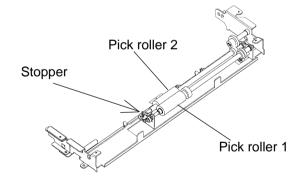


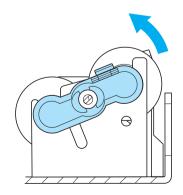
Thumb screws

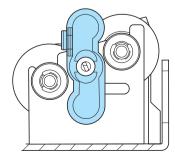
With both hands, lift up Guide A and disengage its tip from the right hole. Then lift the right side of the cover and remove it.



To remove the Pick rollers, turn the stopper counter-clockwise.

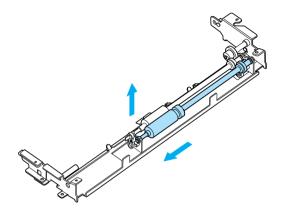




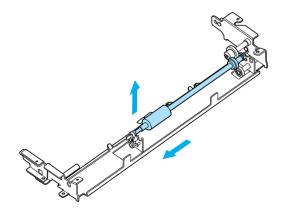


Position for Replacement

To remove the Pick roller 1, move it to the left and then lift it.

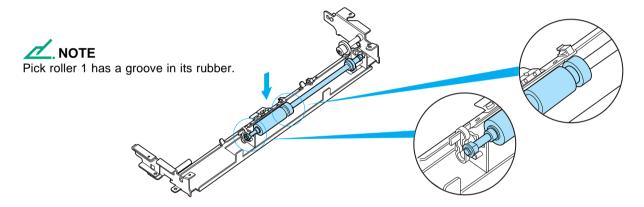


Immediately after removing the Pick roller 1, remove the Pick roller 2 in the same way.

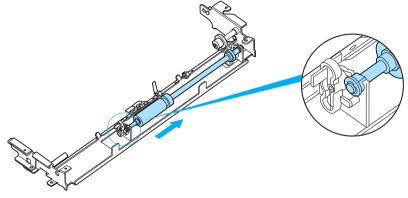




To attach the new Pick rollers, place Pick roller 1 from the right side above the bearing for Pick roller 1.



Put the shaft of Pick roller 1 into the bearing. Then, slide Pick roller 1 toward the right side.

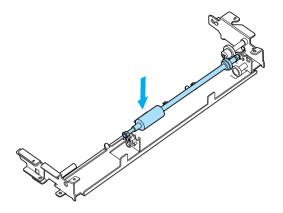




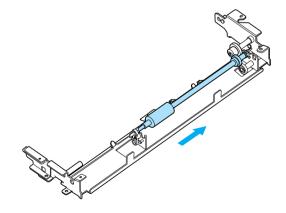
Make sure that the shaft is securely fixed to the bearings.

8

Attach Pick roller 2, in the same way as Pick roller 1 as shown in step 7.



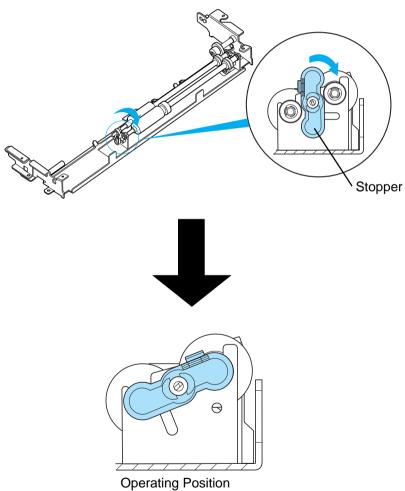
Then slide the Pick roller 2 toward right side.



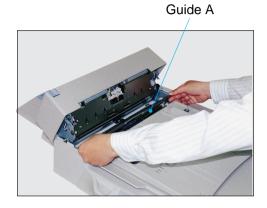
_____. NOTE

Make sure that the shaft is securely fixed to the bearings.

Turn the stopper clockwise to secure the Pick rollers.



Attach Guide A in the reverse sequence of step 3 and align the screw hole. See the graphic on page 1-4.



- Tighten the thumb screws.
- Close the ADF unit.



Thumb screws



TROUBLESHOOTING

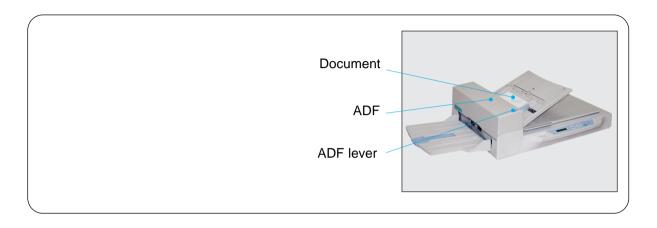
This chapter describes how to clear paper jams and run initial checks. It also contains a Problem Checklist that should be completed before you call a service representative.

Clearing Paper Jams

Initial Checks

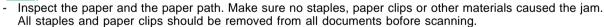
Problem Checklist

Clearing Paper Jams



- Remove all the documents from the ADF paper chute.
- Pull the ADF lever to open the ADF.
- Remove the jammed document(s).

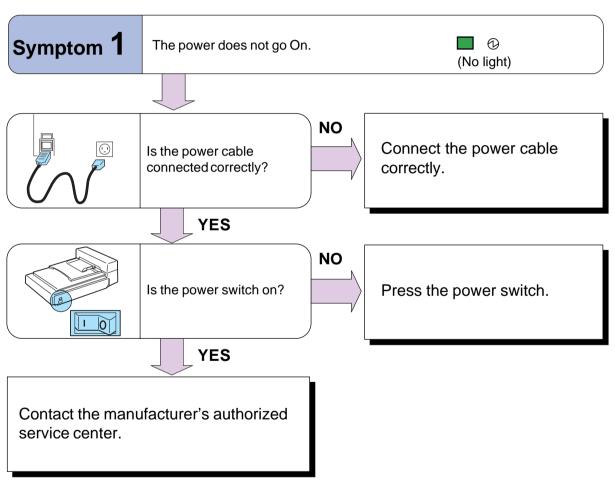


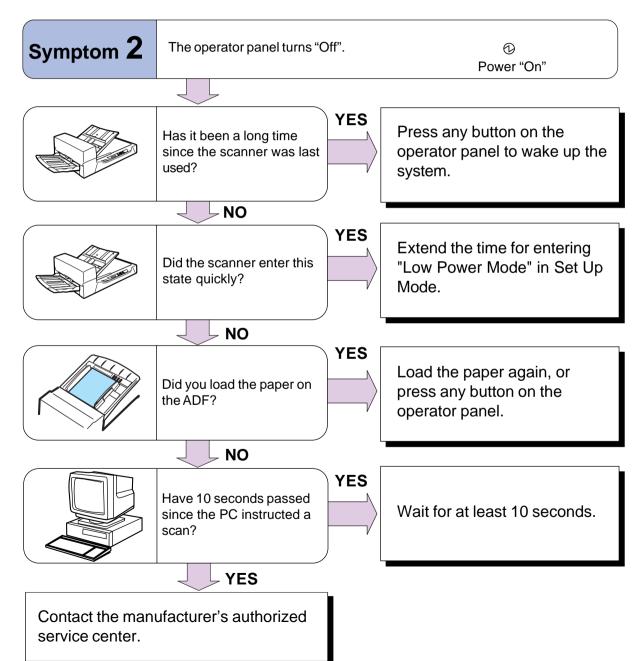


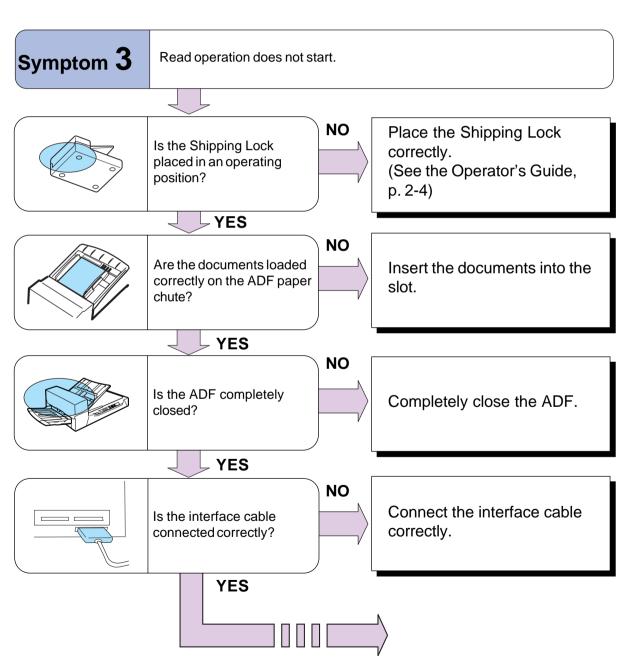
- Be careful not to pull the spring for the Pad while removing a jammed document.
- Close the ADF so that the ADF lever locks.

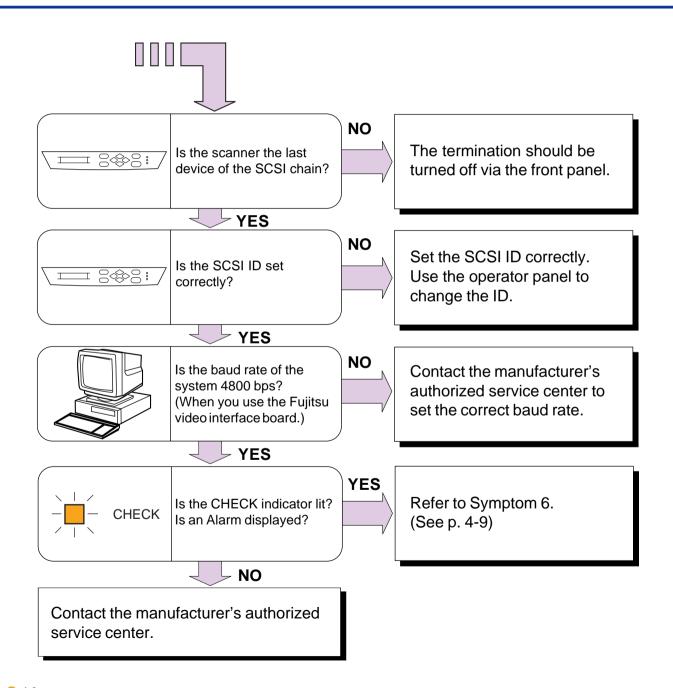
Initial Checks

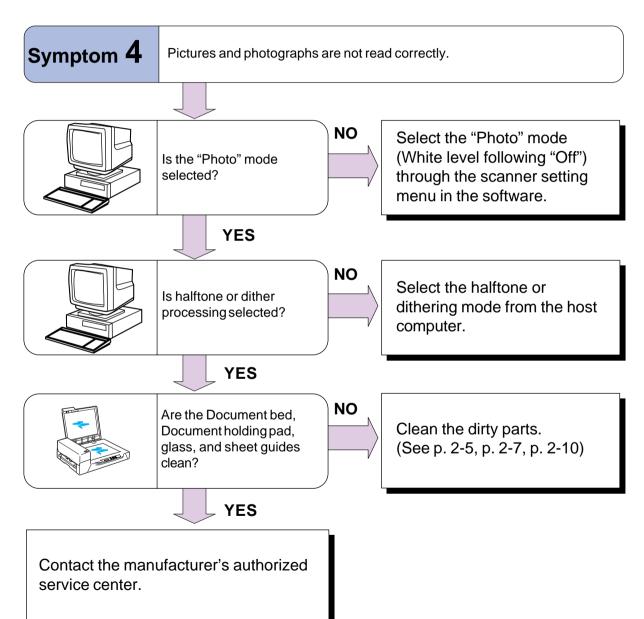
If a problem occurs, check the following items before contacting the manufacturer's authorized service center.

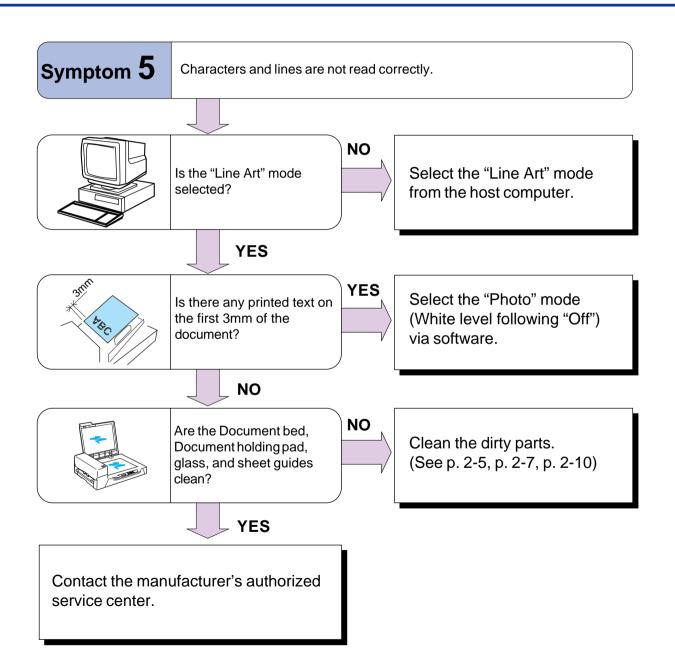


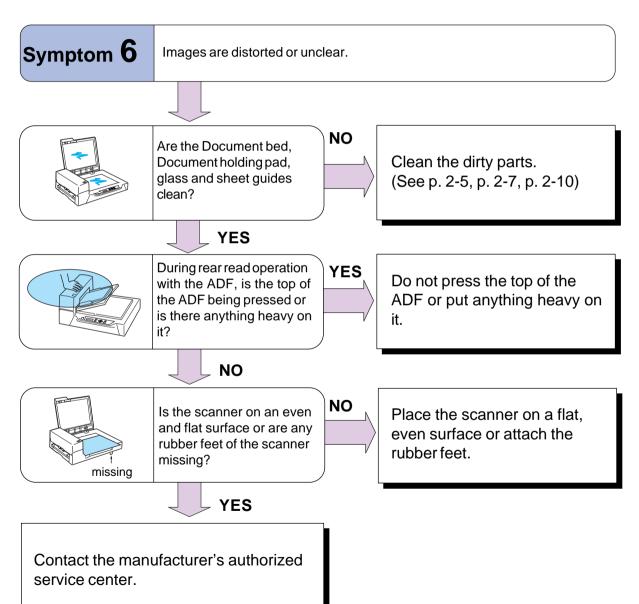


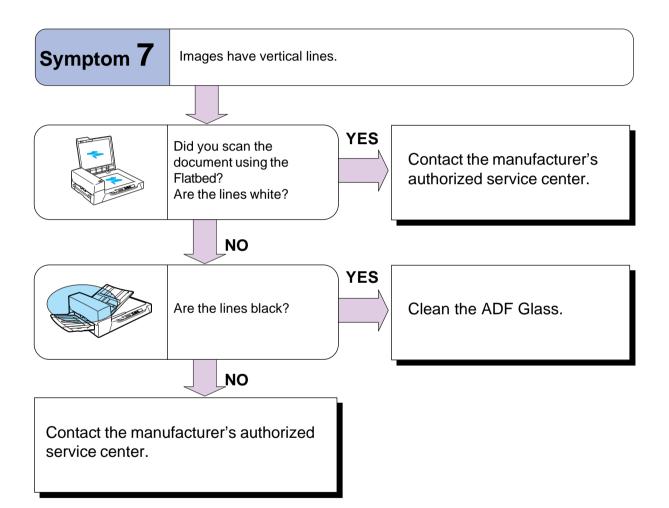


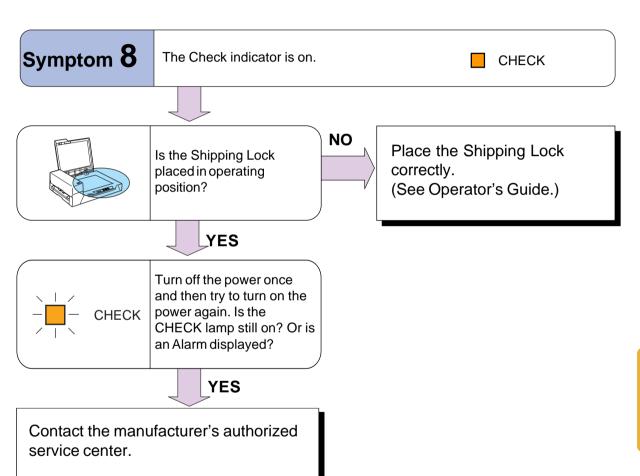


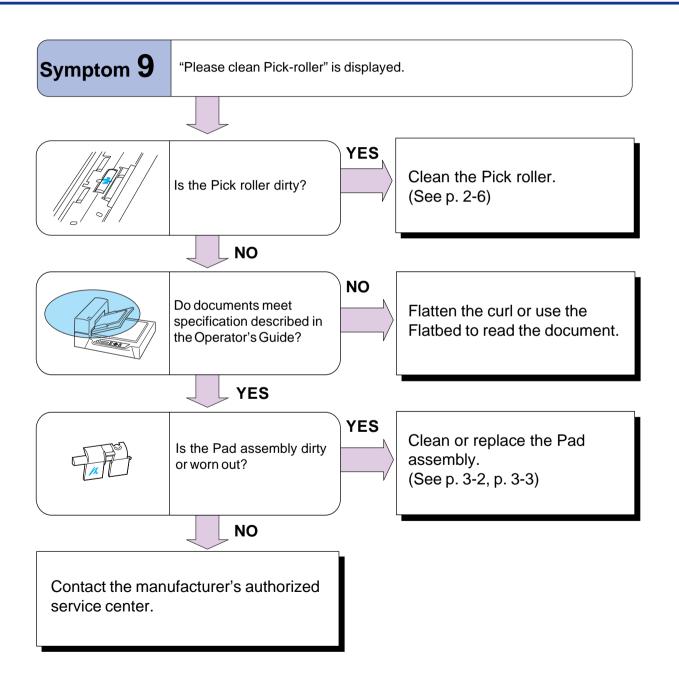








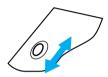




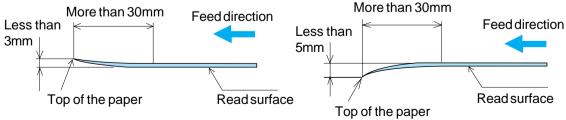
NOTES



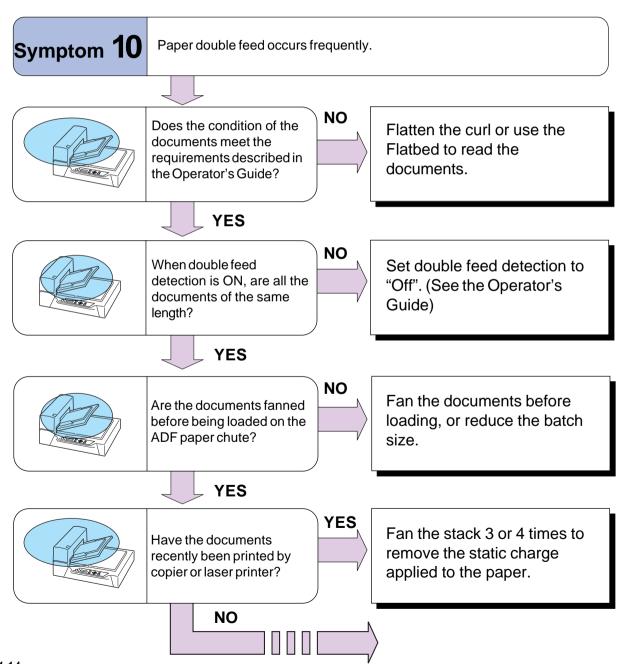
• Remove paper clips and staples. Flatten the staple holes.

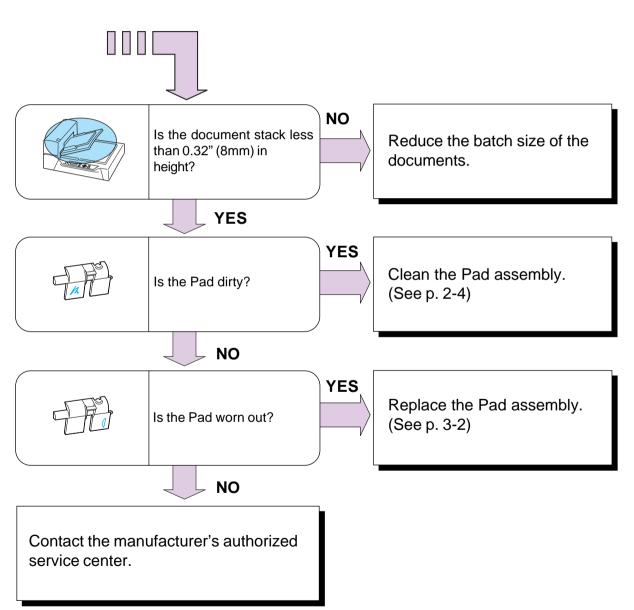


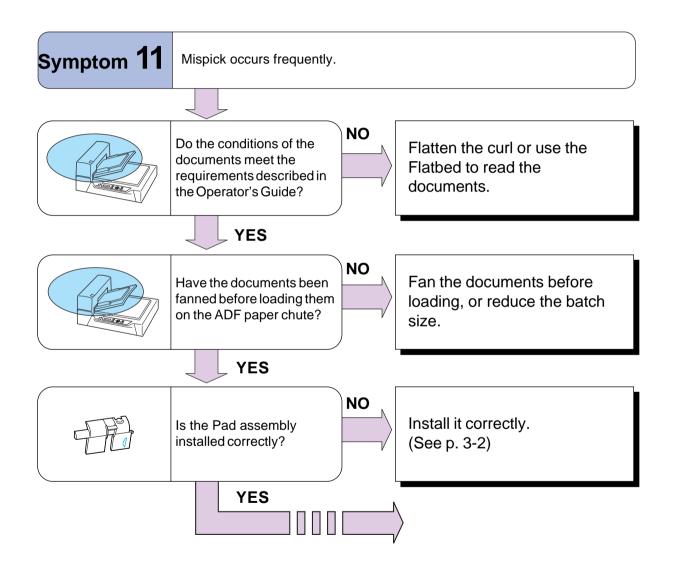
- Read the following types of documents using the Flatbed:
 - Paper with clips or staples.
 - Paper with wet ink.
 - Paper of uneven thickness (for example, envelopes).
 - Paper with large rumples or curls.
 - Paper with folds or tears.
 - Tracing paper.
 - Coated paper.
 - Carbon paper.
 - Paper smaller than A6 size or larger than A3.
 - Materials other than paper (for example, cloth, sheet metal, or OHP film).
 - Photographic paper.
 - Paper with perforations on its sides.
 - Non-rectangular paper.
 - Very thin paper.
- The leading edge of all documents fed by the ADF should be straightened so the curl of the paper meets the specifications below:

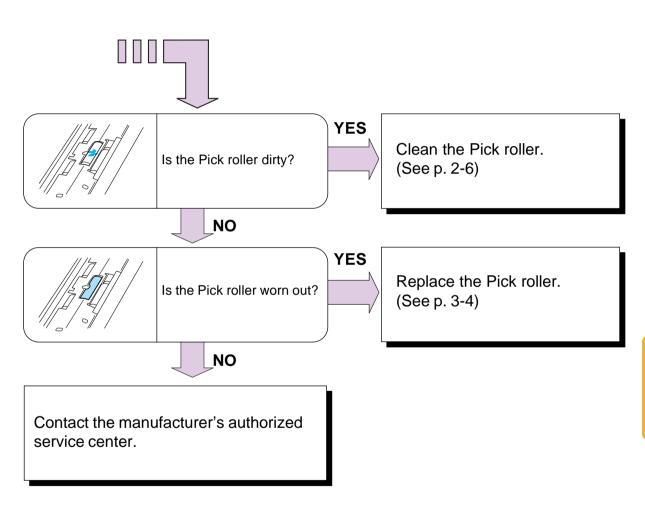


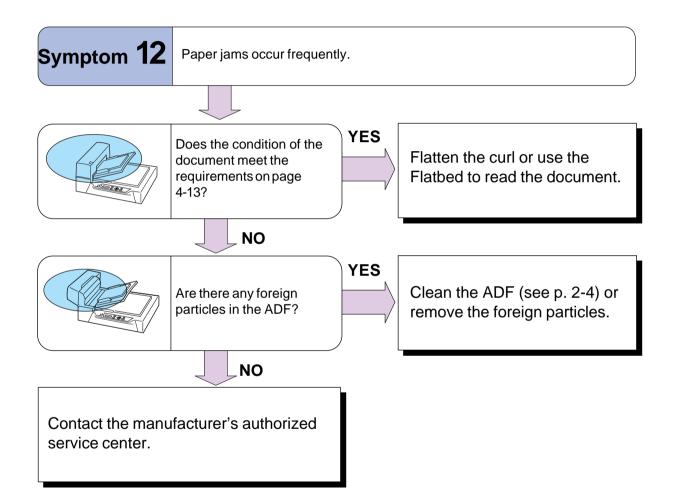
· Do not mix documents of different widths.

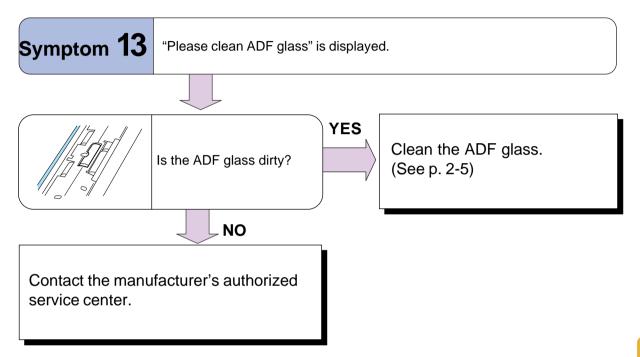












Problem Checklist

Before contacting the manufacturer's authorized service center, please fill in the following items.

General		
Model		(Example) fi-4750C
Part number		(Example) CA02956-2352
Serial number		(Example) 00002
Manufactured data		(Example) 2000-2
Revision		The revision is printed on the label
A 0 1 2	23456789 23456789	located at the left corner of the back.
		The revision is indicated by the double line.
	23456789	This example shows the revision A2.
Date of purchase		
Symptoms		
Persistent problem?		
Serviced before (when and how)?		
Error status		
Transport error		
Type of document.		
What is your daily usage?		
Date of last cleaning.		
Date of the consumable replacement.		
Image error		
Interface controller model		
Software/application name		
Can you send the original and output of sheet by facsimile or by mail?		



This manual uses recycled paper.