

INSTRUCTION MANUAL

**FRONTIER WORKFLOW
MANAGEMENT SOFTWARE**

**FILM SCANNER CONNECTION
SOFTWARE FOR SP-3000**

Condition Setup and Maintenance



Introduction

- This Instruction Manual — Condition Setup and Maintenance — explains the procedures for condition setup and maintaining the scanner SP-3000 as well as precautions for use.
- To ensure proper use and optimum performance of the scanner SP-3000, read this manual thoroughly.
- This manual should be kept in a fixed place near the machine so that it can be referred to whenever a point needs to be clarified.
- In addition to this instruction manual, the following separate volumes have been prepared:

Operating Instructions: This volume describes the operating instructions and routine maintenance procedures, as well as error messages and actions to be taken in operating the scanner SP-3000.

NOTICE: 1. Electro-optical-mechanical reproduction of this manual is strictly forbidden.
2. Product innovations may result in specification changes without prior notice.

UNITED STATES OF AMERICA (FCC)

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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

CANADA (ICES)

This class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la class A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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1. OPERATIONAL SAFETY AND USE CONDITIONS

1.1

Before using the equipment, carefully read and thoroughly understand the precautions set forth in this section.

Note that Fujifilm is not responsible for any defects or malfunction due to operations other than those described in this manual.

The safety precautions are classified into WARNING and CAUTION categories. Supplementary operating instructions are given under IMPORTANT and NOTE categories.

These four categories are defined as follows.

WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in serious injury or even death.

CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices and property-damage-only accidents.

IMPORTANT

IMPORTANT describes improper handling procedures that may adversely affect performance or damage the equipment.

NOTE:

NOTE designates those items, provisions, and supplementary explanations for which it is important to maintain methodical concern and consideration relative to operational procedures.

1.1 Safety

1.1.1 Basic Operating Precautions

- When accessing the machine interior for inspection or servicing, shut down the system by doing the post-operational checks, place the built-in circuit breaker in the OFF (○) position, and turn OFF the main power (external power distribution switch).

Inspecting or servicing the inside of the machine with the main power circuit breaker left ON may expose personnel to hazardous conditions and damage the machine.

- If the machine emits smoke, generates an abnormal sound or its external surface becomes unduly hot, immediately stop using it, place the built-in circuit breaker in the OFF (○) position, unplug the power cable, turn OFF the main power circuit breaker, and contact your local dealer.

WARNING

1 Do not modify the machine without permission from the manufacturer because safety assurance features and other essential functions may be impaired. If the machine needs to be modified, contact your local dealer.

2 Never remove covers or other parts that are screwed down to avoid the risk of electric shock or injury to personnel. If any parts need to be unscrewed, contact your local dealer.

- Use only Fujifilm-recommended replacement parts.

IMPORTANT

If parts other than those recommended by Fujifilm are used, the warranty will be voided.

- 3 Do not insert your hands or fingers under the scanner section while the machine is in operation to avoid the risk of injury by being caught between the scanner section and carrier.

⚠ CAUTION

- 1 Do not stare at the light emitted from the light source for prolonged periods of time because this may damage your eyesight.
- 2 Be sure to lock the casters before using the scanner.
- 3 If anything drops into the machine, remove it after turning OFF the power, or consult your technical representative. If the machine is operated without removing this foreign matter, mechanical failure or abnormal prints may result.
- 4 Do not use liquid near the keyboard. If liquid is spilled on the keyboard, the keyboard may become inoperative due to a short circuit.
- 5 Do not disconnect the cable connectors located on the rear side of the main control unit unless instructed by your technical representative. If these connectors are disconnected, special operations may be required for checking the system.

1.1.2

1.1.2 Caution regarding Electric Shock**⚠ WARNING**

- 1 Utmost care should be taken as the scanner and the processor is connected to 200/210/220/230/240V AC power source. Avoid the possibility of electric shock by noting the following:
 - Never operate the machine if it is wet.
 - Never operate the machine if the surrounding floor is wet.
 - Ensure the electrical earth connection is permanently made.
 - Ensure that all cables are undamaged and correctly connected.
- 2 Do not place items such as a cup, plastic bottle, vase, vessel of water, etc. on the machine. If the contents (coffee, tea, water, etc.) are spilled, electric shock to personnel, short circuit in the machine or other accidents may occur.
- 3 Connect the power cable of the scanner to an outlet having a capacity of 10 amperes or higher, and position the cable so it does not get in the way of the operator. If the operator steps on the power cable while working, electric shock to personnel or abnormal operation may result.
- 4 Do not pull the cables forcibly. If the cables are handled roughly, electric shock to personnel or abnormal operation may result.
- 5 When connecting the power cable to an outlet, take care not to overload the outlet or wiring accessories such as power strips. Overloading may result in fire due to heat generation.
- 6 Be sure to connect the power cable to the outlet completely. Incomplete connection may cause fire or electric shock to personnel.
- 7 When disconnecting the power cable, be sure to hold the plug. Pulling the power cable may cause electric shock to personnel or fire due to a short circuit.
- 8 Do not handle the power cable with wet hands to avoid the risk of electric shock.
- 9 During a thunderstorm, do not touch the machine or the plug of the power cable to avoid the risk of electric shock.

1.2 Precautions for Using Film Carrier

1.2.1 General Precautions for Using the Film Carrier

⚠CAUTION

1 A magnet with a strong magnetic force is located on the rear side of the carrier. Confirm that no metallic foreign matter is attached to the magnet before installing the carrier.

When installing the carrier, if any metallic foreign matter attached to the magnet is not improved, the carrier may be damaged.

2 Do not stare at the light emitted from the light source for prolonged periods of time because this may damage your eyesight.

IMPORTANT

- *When scanning film, observe the following precautions:*
 - *Do not cover the light path while scanning film. If the light path is covered, images will be scanned abnormally.*
 - *Do not deliver any impact to the table. If any impact is delivered to the table, images may be scanned abnormally due to vibration.*
 - *Do not touch the carrier while the indicator lamp is lit. Otherwise film may be misaligned and images may be scanned abnormally.*
 - *Do not pull the film. Otherwise film may be misaligned and images scanned abnormally.*
- *Although the system has dust-removing and dust-eliminating function (retouching), remove any dust or dirt adhered to film as far as possible before scanning film.*

1.2.2 Auto Film Carrier NC100AY

To use the auto film carrier correctly, observe the following precautions.

⚠CAUTION

Precautions for installing film or cartridge into the auto film carrier NC100AY:

1 The following operations must be performed slowly and surely while the carrier is not in operation:

- Removing or installing the carrier
- Switching between 135 and IX240 feed lanes

2 Before switching the feed lane, confirm that the indicator lamp does not blink and film does not remain in the carrier to avoid damaging film. (In the case of the one-way mode, note that the indicator lamp turns OFF in 10 seconds even if film remains in the carrier.)

3 Do not switch to the 135 feed lane while the IX240 cartridge is installed. Otherwise the carrier or cartridge may be damaged.

- NOTE:**
- *Confirm that the carrier is fixed to the feed lane before installing film or cartridge.*
 - *If 135 film is not fed into the carrier, check whether or not the carrier is set to the 135 feed lane, and the lane change lever is locked.*
 - *Before closing the pressure cover, make sure the carrier is locked securely. If the film feed lane is switched with the pressure cover open, the carrier may be damaged.*
 - *When film ejection is completed, remove the film promptly. Especially in the case of the one-way mode, if the next film is scanned without removing the ejected film, a film feed error may occur.*
 - *Film feed mode (one-way or two-way mode) may be switched automatically according to the print size and magnification. When the*

film feed mode is switched automatically, the film feed direction is indicated. Take care of the ejecting direction of film.

- *When installing the IX240 cartridge, take care of the direction of the cartridge.*
- *Reshaping the trailing end of the IX240 film is limited in length. Refer to Subsection 4.30.2 of the "Operating Instructions".*

⚠ CAUTION

Precautions for handling the auto film carrier NC100AY:

- 1 When installing the carrier, keep the carrier horizontal. If the carrier is installed with the front side raised, the carrier may be damaged.
- 2 When moving the carrier, hold the handles using both hands in a balanced manner. Do not hold the part except by the handles.
- 3 Do not open the carrier cover forcibly beyond the limit of the stopper because this may cause damage to the carrier.
- 4 Close the pressure cover after checking that there is no foreign matter in the carrier. If there is any foreign matter in the carrier, the glass surfaces of the sensors may be damaged.
- 5 Do not deliver any impact to the glass surfaces of the sensors because this may damage the glass surfaces.
- 6 Be sure to clean the feed lanes and feed rollers of the carrier once a day. If any dust or dirt remains, a film feed error, frame position misalignment or scratches on film may result. (When rotating the feed roller cleaning knob swiftly, the indicator lamp may light. But this is not a failure.)

IMPORTANT

- *Be sure to clean the magnetic heads using a cotton swab with the alcohol water during the post-operational check. If the magnetic heads are dirty, a magnetic information reading failure may result.*
 - *Do not use a film cleaner or alcohol water when cleaning the parts for the film feed lane parts or glass surfaces. This may cause a film feed failure or image scanning failure.*
 - *Do not use a cotton swab moistened with alcohol water for cleaning the glass surfaces of the sensors. Otherwise the alcohol water may penetrate into the rear side of the glass surface and abnormal sensor output may result.*
- 7 When the pressure cover is opened for cleaning or inspection, do not drop any foreign matter on the feed lanes. If any foreign matter is dropped on the feed lanes, the glass surfaces of the sensors or feed lanes may be damaged, causing scratches on film.
 - 8 Do not try to close the carrier cover while the IX240 winding section cover is open. The carrier cover may be damaged due to the excessive force applied.
- NOTE:**
- *When installing the 135 insertion section upper guide into the holder, face the projecting section downward.*
 - *When scanning film after IX240 cartridge film feed failure occurs and film is removed, install the carrier into the scanner and then pull the cartridge set lever after the initialization of the carrier.*

⚠ CAUTION

Precautions for handling film before scanning it using the auto film carrier NC100AY:

- 1 In the following cases, mend the film or use the multi film carrier MFC10AY.
 - When film has torn perforations
 - When the leading end of film is excessively slanted or sharply pointed
 - When film is bent or heavily curled
 Otherwise a film feed error or damage to film may result.

- 2 When scanning curled or strip film (long film), keep your hand on the film not to be tangled outside the carrier. If film is tangled or caught in something, film feed errors or damages to film may result.

IMPORTANT • When the equipment for dust removal is installed, consult your technical representative before purchasing it. Magnetic information reading errors may occur depending on the equipment.

CAUTION

- 1 When scanning 135 reversal film using the auto film carrier NC100AY, observe the following precautions to prevent scratches on film.
 - Remove the 135 insertion section upper guide.
 - Install film after removing any dust adhering to film.
 - Install film after cutting into film pieces.
 - When film is heavily curled, install the film after correcting the curl.
 - Clean the feed lanes and rollers of the carrier each time 360 frames or 10 rolls of film are processed, or before scanning reversal film.

NOTE: • If the leading end of a 135 reversal film is fogged, cut the film so that the length of the fogged part is less than 60 mm, and then insert the film from the trailing end. If the film is inserted from the leading end (fogged side), the first frame may not be detected.

- If one side of film is fogged, insert the film so that the fogged side faces the rear side of the carrier. Otherwise the first frame may not be detected.
- If the middle of a film is fogged or a frame is greatly overexposed, the NC100AY cannot be used. Use the MFC10AY (optional) when scanning such film.
- If the leading or trailing end of a film is overexposed (eg. snow or sand beach), film feed error may occur. If this happens, insert the film from the opposite end, or use the MFC10AY (optional).

1.2.3 Multi-film Carrier MFC10AY (Optional)

To use the multi film carrier MFC10AY (optional) correctly, observe the following precautions.

CAUTION

- 1 A magnet is used in the mask mounting section of the film-holding table and the hinge section of each mask. Do not bring magnetic cards, watches, etc. close to these magnets.
- 2 When the carrier is transported, lock the film-holding table to the scanning position. If a mask is set on the carrier, keep the carrier horizontal.
- 3 When a long film is set, slide the film-holding table while holding the film by hand so as not to damage the film.
- 4 Do not place fingers inside the handle when sliding the film-holding table. Otherwise fingers may be caught between the handle and film-holding table.

NOTE: • Slide operation of the film-holding table may become heavy. But this is not a failure. Move the film-holding table forward until it stops to return it to the normal operating position.

- When using the 4.5×6 mask, the edge of film may come into contact with the front side of the film-holding table. Take care not to damage the film.
- To avoid scratches on film, do not pull film which has been inserted into the mask while the mask is closed.

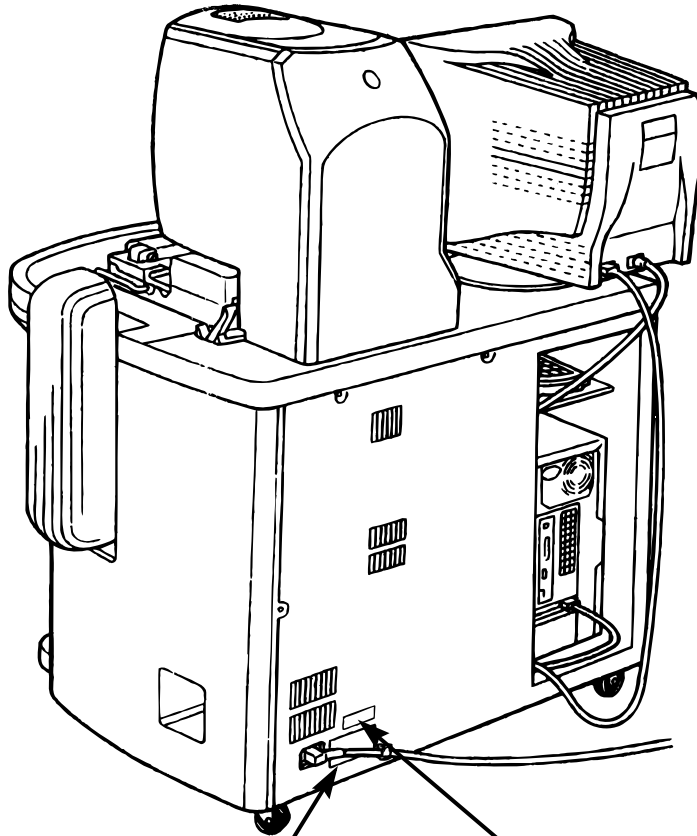
1.3 Certification and Identification Labels




1.3.1 Certification and Identification Label Locations

1.3

1

1.3.1

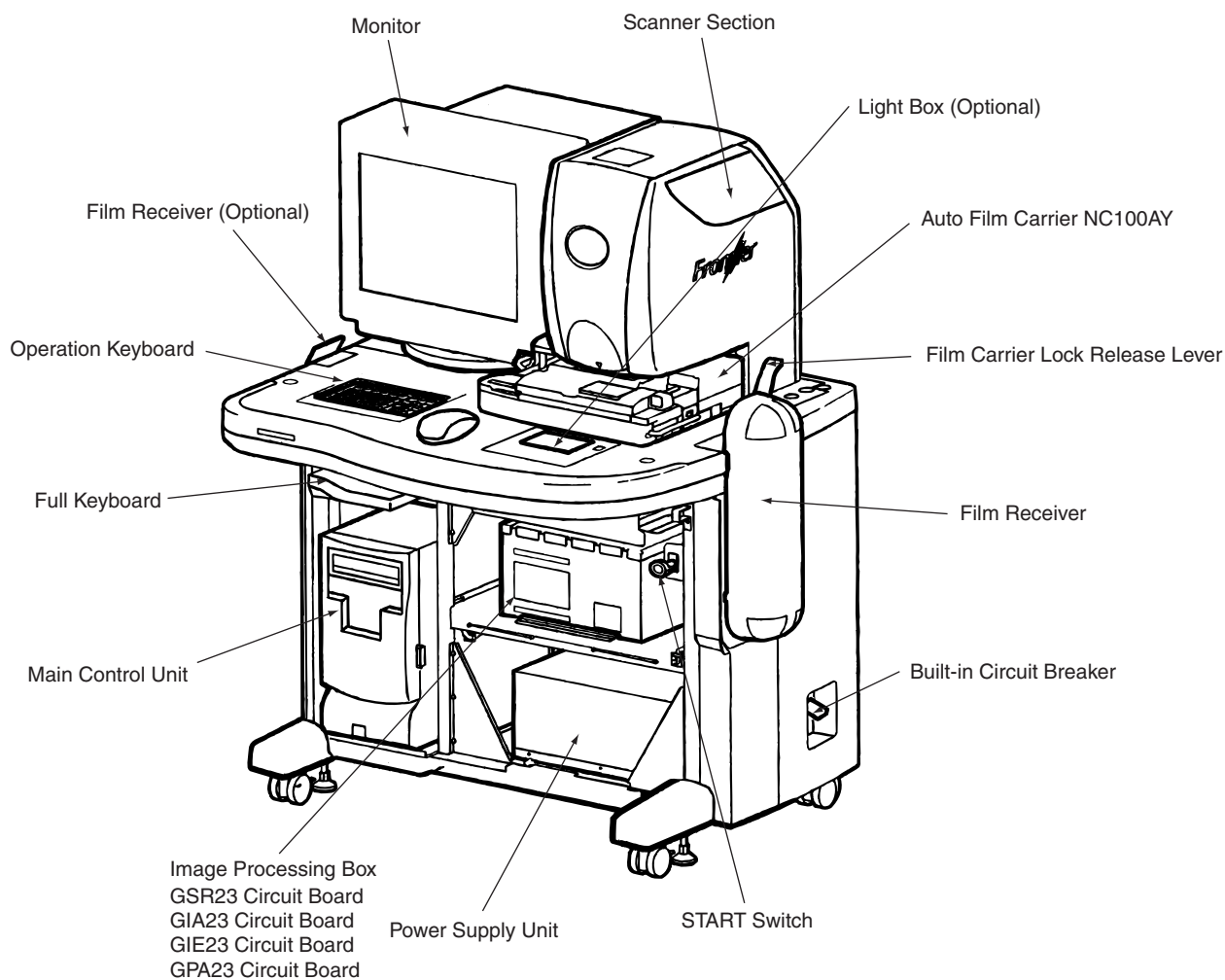


FUJI PHOTO FILM CO., LTD.	
MADE IN JAPAN	
MODEL SP 3000	
ELECTRICAL RATING	
100-240V~	
10A- 4.2A	
50/60Hz	
DATE	
Mfg. NO.	
 LISTED FFTPO	  YM

<p>This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:</p> <p>(1) This device may not cause harmful interference, and</p> <p>(2) this device must accept any interference received, including interference that may cause undesired operation.</p>
<p>This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.</p> <p>Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.</p>

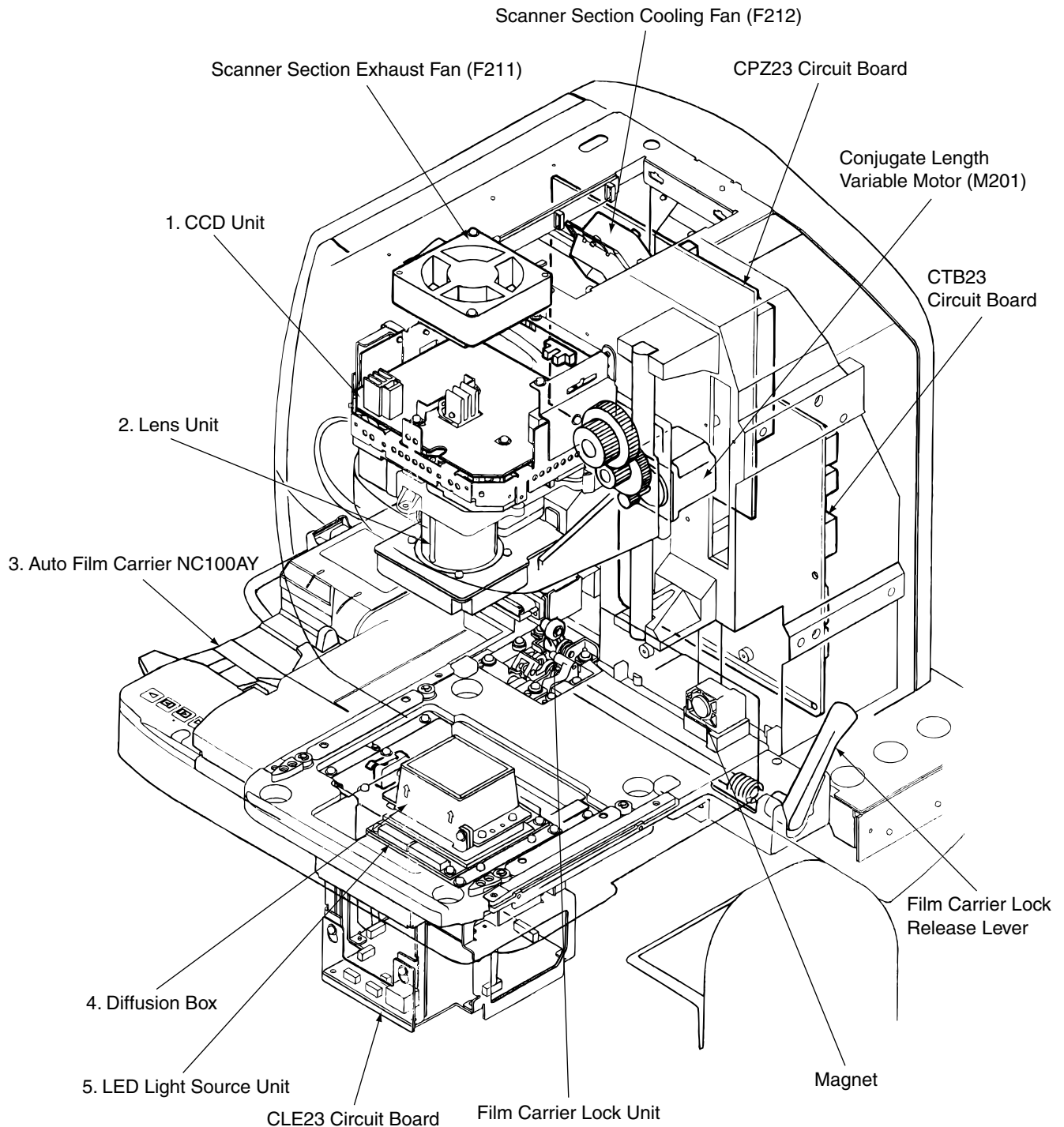
2. COMPONENTS AND RELATED FUNCTIONS

2.1 Scanner Components and Related Functions



Z II 440

2.2 Scanner/Light Source Section

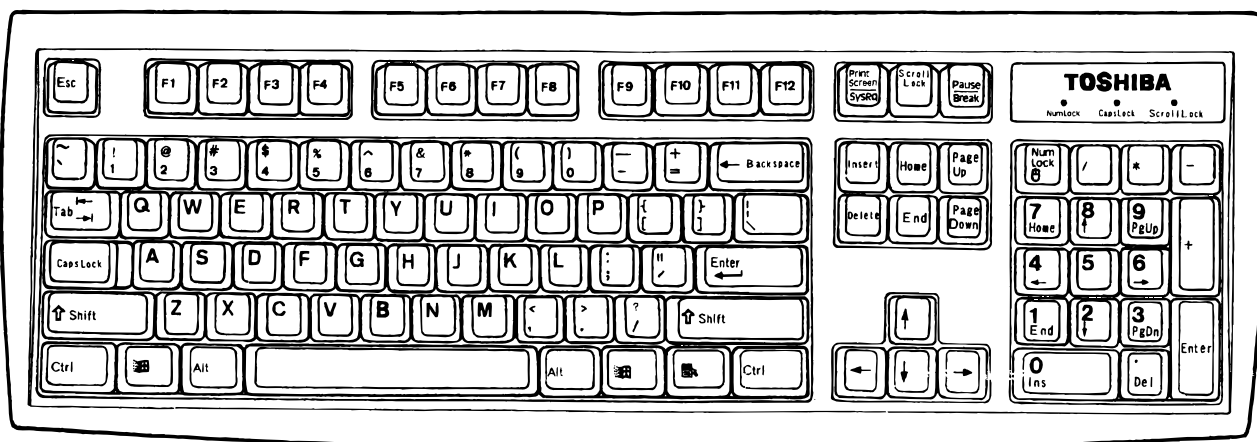


Z II 436

No.	Name	Description
1	CCD Unit	Black and white area Honeycomb CCD with precisely controlled pixel shifting function
2	Lens Unit	Conjugate length variable, single focus lens
3	Auto Film Carrier NC100AY	135/IX240 lane change type (Optional multi-film carrier MFC10AY, and auto film carrier NC120AY)
4	Diffusion Box	110 to 135/120 replacement type
5	LED Light Source Unit	LED circuit board with R×64, G×40, B×50 and IR×144

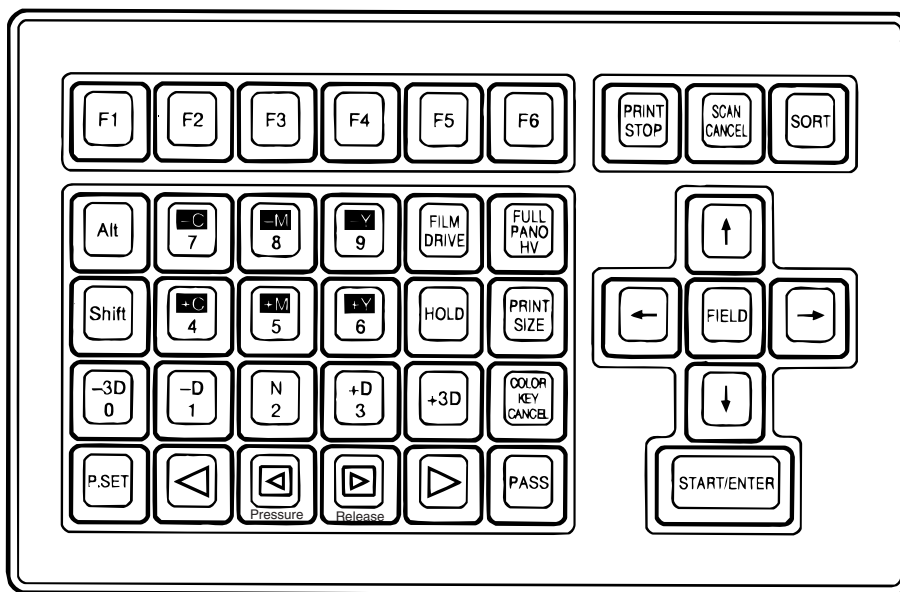
2.3 Keyboard Functions

■ Full Keyboard



Z II 451

■ Operation Keyboard



EZ622

Full Keyboard	Operation Keyboard	Functions
		<ul style="list-style-type: none"> Starts fine-scanning and printing of selected frames. Executes the entered operation.
		<ul style="list-style-type: none"> Selects item or moves field to field in the window. Press it to enter the number of prints directly on the view and order screen.
		<ul style="list-style-type: none"> Moves frame to frame on the view and order screen with multiple frames. Moves item to item on menu bar or pull-down menu. Used to move cropping frame, adjust zoom magnification, and image rotation.
		<ul style="list-style-type: none"> Cancels printing with "Sheet", "Order" and "All". Stops feeding frame in fine-scanning in the full auto mode.
		Cancels pre-scanning.
		Pressed when one printing order is completed. Changes order number and sorts prints.
		<ul style="list-style-type: none"> Moves the cursor to the menu bar. When pressed with other keys simultaneously, their functions are switched.
		Switches the frame feeding between Full Auto, Semi Auto, and Manual when auto carrier is used.
		Switches the print size between Full(C), PANO(P), and HV(H) when auto carrier is used.
		When pressed with other keys simultaneously, their functions are switched.
		Retains or cancels image condition settings such as density, color correction, etc.
		Displays "Print Size Selection" window.
		Cancels the color corrections specified by the color keys.
		Specifies multiple printing. Press this key and enter number of prints with numeral keys.
 	 	<ul style="list-style-type: none"> Specifies the color correction of C(Cyan), M(Magenta), Y(Yellow). Used as numeral keys(4 – 9)
 	 	<ul style="list-style-type: none"> Used for density correction Used as numeral keys(0 – 3)
		Feeds the image to the left at low speed.
		Feeds the image to the right at low speed.
		<ul style="list-style-type: none"> Displays the previous frame in 1-frame image mode. Presses film when using the MFC10AY.
		<ul style="list-style-type: none"> Displays the next frame in 1-frame image mode. Releases the film pressure when using the MFC10AY.
		<ul style="list-style-type: none"> Sets the number of print to "0" (PASS) and the cursor moves to the next frame. Resets to originally specified number of prints from "0".

3. MENU TABLE


3.1 Setup and Maintenance Menu Table

No.	Submenu	No.	Menu	Password		Refer to Subsection
				Operator	Laboratory Manager	
				—	0000	
01	System Operation Setup and Check	0101	Image Export Settings	○	○	4.2.1
		0120	Production Information		○	4.2.2
		0122	Data Backup		○	4.2.3
		0124	Equipment Name Set		○	4.2.4
		0125	Timer Waiting Time Setup		○	4.2.5
		0126	Installation Information Reference		○	4.2.6
		0127	Accumulated Production Information		○	4.2.7
02	Print Condition Setup and Check	0200	Paper Condition Setup	○	○	4.3.1
		0220	Print Size Setup		○	4.3.2
		0222	Monitor Adjustment		○	4.3.3
		0223	Special Film Channel Setting		○	4.3.4
		0224	Monotone Correction Setting		○	4.3.5
		0225	Custom Setting Regist/Delete		○	4.3.6
03	Scanner Adjustment/Maintenance	0300	Image Scanning Method	○	○	4.4.1
		0320	Input Check		○	4.4.2
		0321	Focus Position Adjustment		○	4.4.3
		0322	Working Information Display		○	4.4.4
		0323	AF Function Setup		○	4.4.5
		0324	Image Scanning Condition Method		○	4.4.6
04	Carrier Adjustment/Maintenance	0400	NC100AY Fixed Feeding Setup	○	○	4.5.1
		0420	Mask Position Adjustment		○	4.5.2
		0421	NC100AY Input Check		○	4.5.3
		0422	MFC10AY Input Check		○	4.5.4
		0423	NC100AY Working Information Display		○	4.5.5
		0424	MFC10AY Working Information Display		○	4.5.6
		0425	NC100AY Monitor Frame Ratio Setup		○	4.5.7
		0426	MFC10AY Monitor Frame Ratio Setup		○	4.5.8
07	Image Processing Section Adjustment/Maintenance	0720	Image Processing Section Information Display		○	4.6.1

4. SETUP AND MAINTENANCE

4.1 Setup and Maintenance Menu Selection

NOTE: For details of mouse operation, see the "Operating Instructions" manual.

1. On the FRONTMAN screen, click the  button.



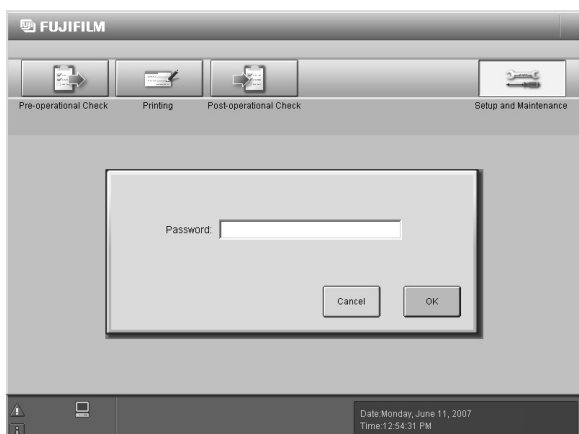
- The main menu screen appears.



2. On the main menu screen, click the [Setup and Maintenance] button.

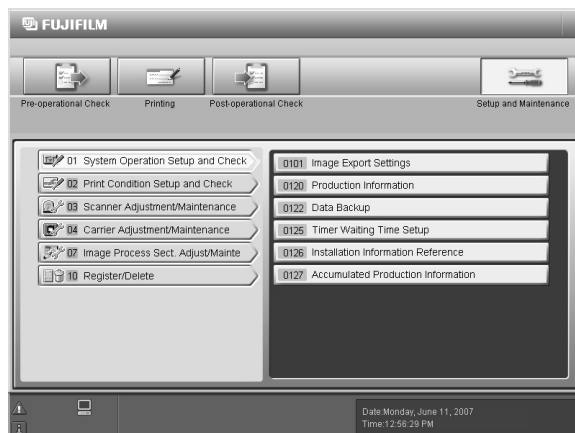
- The "Password" dialog box appears.

3. Enter '0000' in the "Password" box.



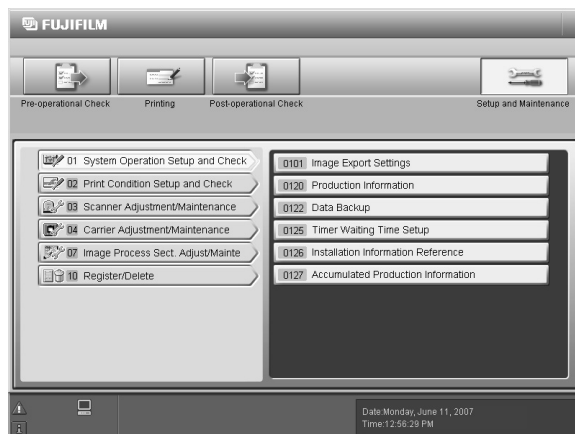
4. Click the [OK] button.

- The submenu screen appears.



5. Click the button in the submenu in the left-hand box.

- The menu items appear in the right-hand box.



6. Click the desired item button to perform the setup and maintenance operation.

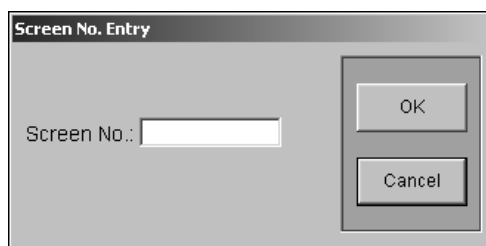
- The operation screen appears.

Reference:

The screen number can be entered directly by following the steps below.

- 1) Press the [F1] key.

- The "Screen No. Entry" dialog box appears.



- 2) Enter the screen number.

- 3) Click the [OK] button.

- The operation screen appears.

4.1

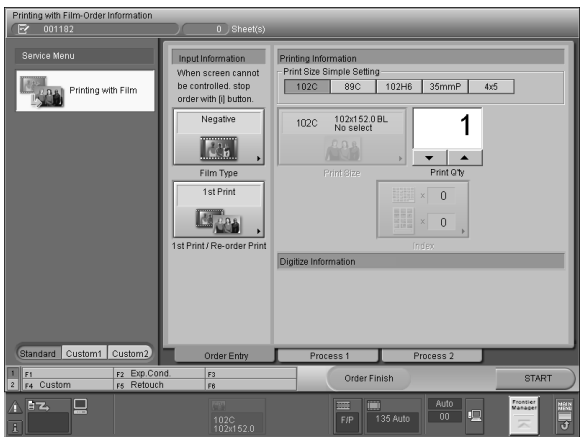
4

4. SETUP AND MAINTENANCE

7. Upon completion of the operation, click the [Close], [Cancel] or [OK] button.
- Operation returns to the submenu screen.



8. Click the [Printing] button.
- The order information screen appears.



4.2 System Operation Setup and Check

4.2.1 Image Export Settings (0101)

See the “Operating Instructions” manual.

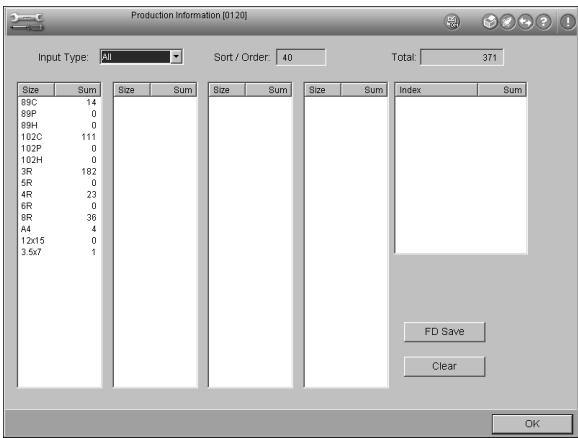
4.2.2 Production Information (0120)

[Selection]

[Setup and Maintenance] - [01 System Operation Setup and Check] - [0120 Production Information]

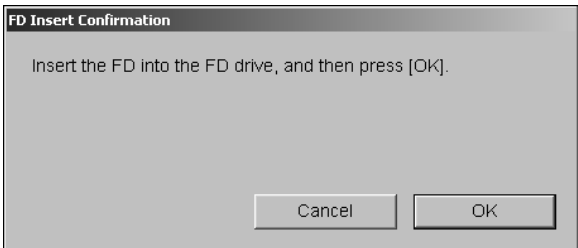
[Procedure]

Confirm the production information. The data can be cleared on this menu.

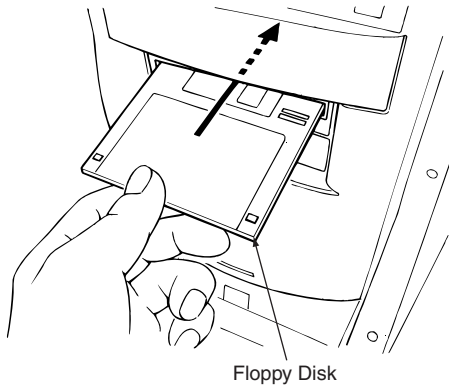


NOTE: An asterisk (*) indicates duplicate size.

1. Record the production information.
2. To save the data into the floppy disk, follow these steps.
 - 1) Click the [FD Save] button.



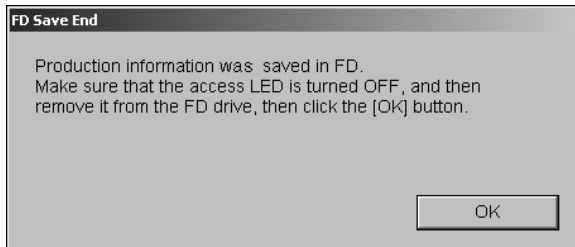
- 2) Insert the formatted floppy disk into the floppy drive of the main control unit.



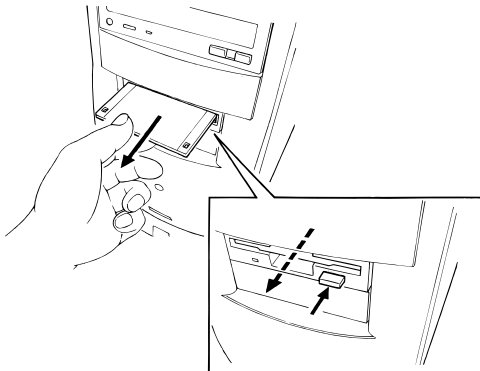
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- 3) Click the [OK] button.

- The data is saved into the floppy disk.



- 4) Remove the floppy disk from the floppy disk drive.



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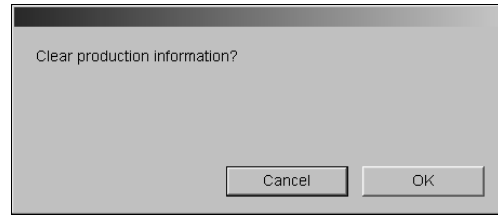
- 5) Click the [OK] button.

- The dialog box disappears.

3. To clear the data, follow these steps.

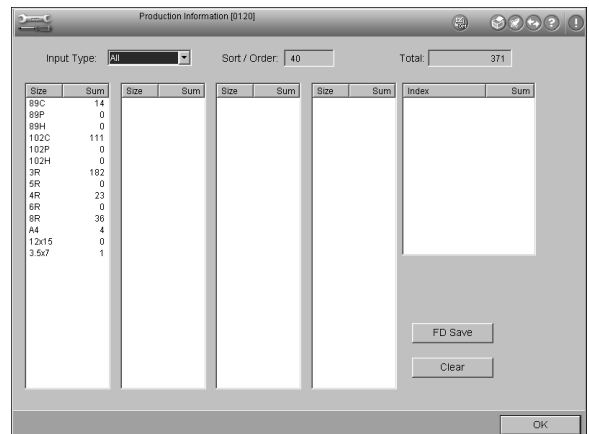
- 1) In "Input Type" choose which data you wish to clear.
- 2) Then click the [Clear] button.

- The "Clear production information?" dialog box appears.



- 3) Click the [OK] button.

- The "The data is cleared." dialog box appears.



4. Click the [OK] button.

- Operation returns to the menu screen.

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4.2.3 Data Backup (0122)

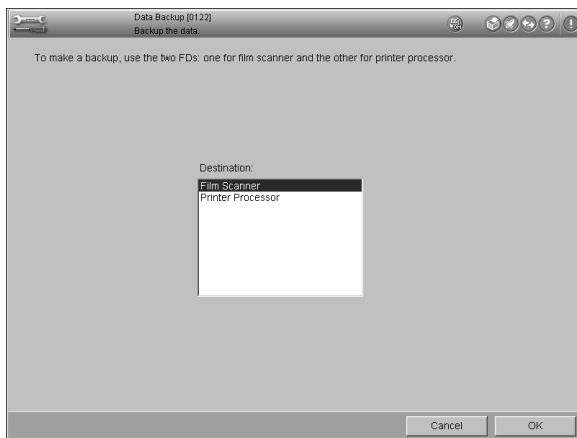
The data backup FD should be kept in a fixed place near the machine because it is used after recovering from trouble or when upgrading the system software.

[Selection]

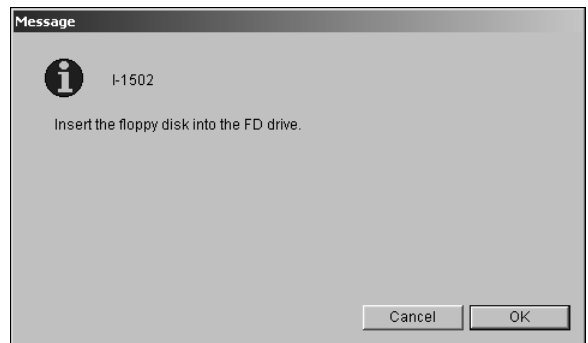
[Setup and Maintenance] → [01 System Operation Setup and Check] → [0122 Data Backup]

[Procedure]

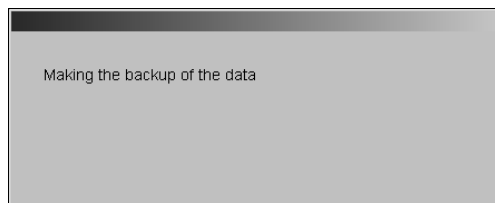
Make a backup of unit data stored in the hard disk of the main control unit, when data is changed.
The backup floppy disks are used when reinstalling or upgrading the system software.



4. Insert the floppy disk into the floppy drive of the main control unit.



5. Click the [OK] button.



6. Upon completion of the backup, click the [Cancel] button.
 - Operation returns to the menu screen.
7. Remove the floppy disk from the disk drive.

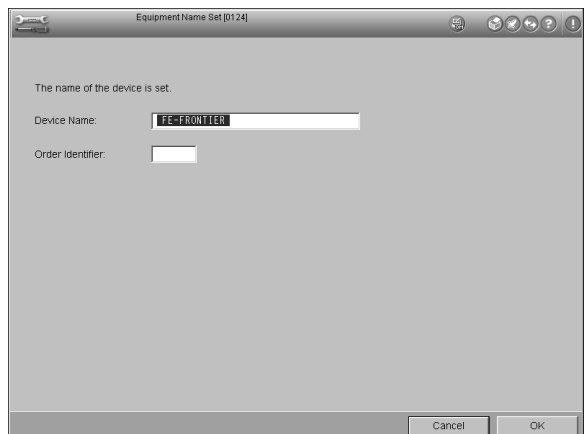
4.2.4 Equipment Name Set (0124)

[Selection]

[Setup and Maintenance] → [01 System Operation Setup and Check] → [0124 Equipment Name Set]

[Procedure]

Set up the equipment names.



“Device Name”: Normally enter “FE-FRONTIER”.
“Order Identifier”: Enter “a” when connecting the IC III. When connecting the second machine to one IC III, select “b” for it.

1. Move the cursor to "Device Name" and enter "FE-FRONTIER" normally.
2. If the IC III is connected, move the cursor to "Order Identifier" and enter "a".
3. Move the cursor to the "Order Identifier" box and enter "b" for the second machine if necessary.
4. Click the [OK] button.
 - Operation returns to the menu screen.

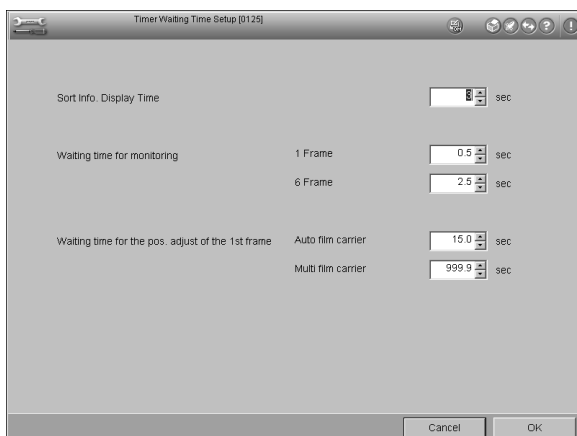
4.2.5 Timer Waiting Time Setup (0125)

[Selection]

[Setup and Maintenance] → [01 System Operation Setup and Check] → [0125 Timer Waiting Time Setup]

[Procedure]

Set the sort information display time, waiting time for monitoring, and waiting time for the position adjustment of the first frame.



- "Sort Info. Display Time": Set up the sort data dialog box display time when pressing the [Sort] key or automatic sorting.
- "Waiting time for monitoring": Set up the waiting time from 1-frame/6-frame display to printing start. This function effects at "Auto" film feed mode only.
- "Waiting time for the pos. adjust of the 1st frame": Set up the display time of the black/white image appears in the view and order screen.

1. Move the cursor to the time box to be changed.
2. Change the time by clicking the [▲] or [▼] button.
3. Click the [OK] button.
 - Operation returns to the menu screen.

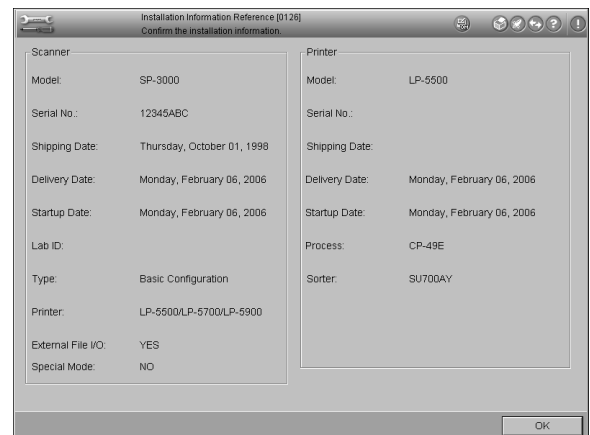
4.2.6 Installation Information Reference (0126)

[Selection]

[Setup and Maintenance] → [01 System Operation Setup and Check] → [0126 Installation Information Reference]

[Procedure]

Check the installation information.



1. Confirm the installation information.
2. Click the [OK] button.

- Operation returns to the menu screen.

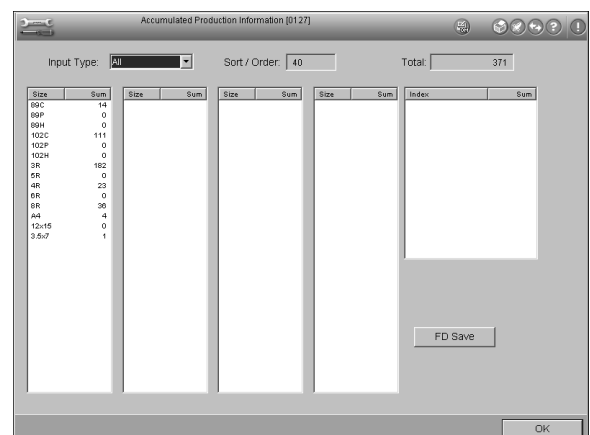
4.2.7 Accumulated Production Information (0127)

[Selection]

[Setup and Maintenance] → [01 System Operation Setup and Check] → [0127 Accumulated Production Information]

[Procedure]

Confirm the accumulated production information.

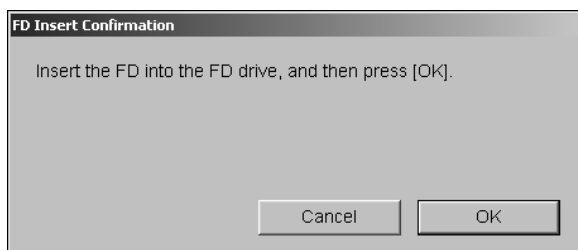


NOTE: An asterisk (*) indicates duplicate size.

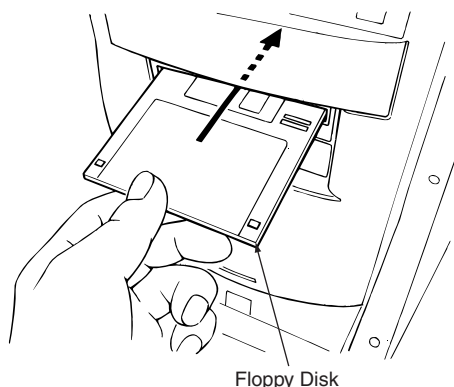
1. Record the accumulated production information.
2. To save the data into the floppy disk, follow these steps.

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- 1) Click the [FD Save] button.



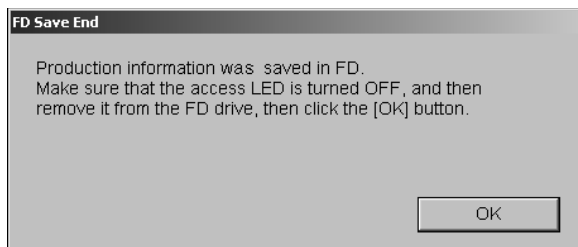
- 2) Insert the formatted floppy disk into the floppy drive of the main control unit.



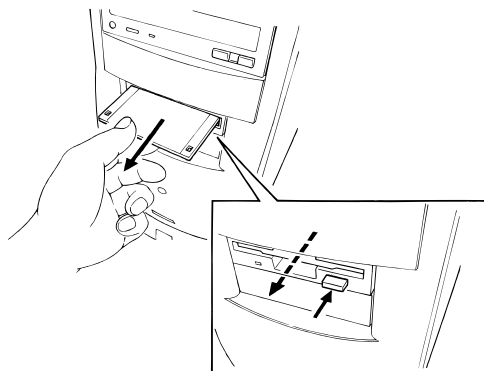
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- 3) Click the [OK] button.

- The data is saved into the floppy disk.



- 4) Remove the floppy disk from the floppy disk drive.



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- 5) Click the [OK] button.

- The dialog box disappears.

3. Click the [OK] button.

- Operation returns to the menu screen.

4.3 Print Condition Setup and Check

4.3.1 Paper Condition Setup (0200)

See the "Operating Instructions" manual.

4.3.2 Print Size Setup (0220)

[Selection]

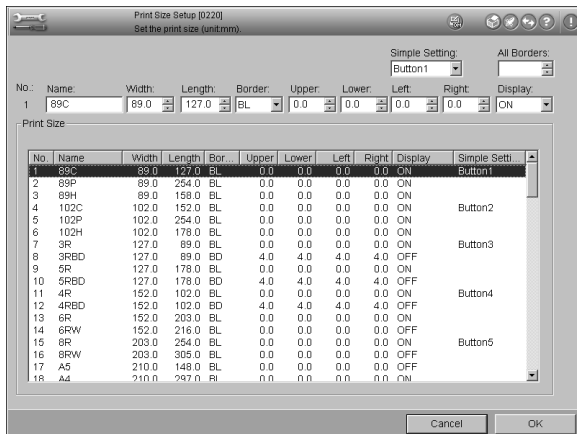
[Setup and Maintenance] → [02 Print Condition Setup and Check] → [0220 Print Size Setup]

[Procedure]

Set the print size to be used.

- Normally, the size is registered as shown in the following table.

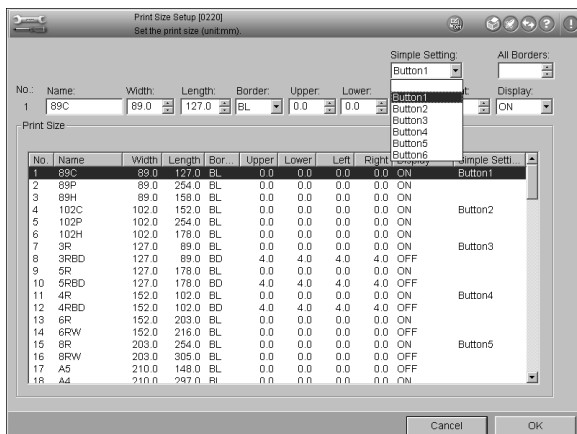
No.	Print Size	Width [0.1mm]	Length [0.1mm]	Display	Border	Simple Setting
1	89C	89.0	127.0	ON	BL	1
2	89P	89.0	254.0	ON	BL	
3	89H	89.0	158.0	ON	BL	
4	102C	102.0	152.0	ON	BL	2
5	102P	102.0	254.0	ON	BL	
6	102H	102.0	178.0	ON	BL	
7	3R	127.0	89.0	ON	BL	3
8	3RBD	127.0	89.0	OFF	BD	
9	5R	127.0	178.0	ON	BL	
10	5RBD	127.0	178.0	OFF	BD	
11	4R	152.0	102.0	ON	BL	4
12	4RBD	152.0	102.0	OFF	BD	
13	6R	152.0	203.0	ON	BL	
14	6RW	152.0	216.0	OFF	BL	
15	8R	203.0	254.0	ON	BL	5
16	8RW	203.0	305.0	OFF	BL	
17	A5	210.0	148.0	OFF	BL	
18	A4	210.0	297.0	ON	BL	
19	8R1	254.0	203.0	OFF	BL	
20	10R	254.0	305.0	OFF	BL	
21	10RW	254.0	381.0	OFF	BL	
22	11×14	279.0	356.0	OFF	BL	
23	11×17	279.0	432.0	OFF	BL	
24	12×10	305.0	254.0	OFF	BL	
25	12×15	305.0	381.0	ON	BL	
26	12×18	305.0	457.0	OFF	BL	
27	3DSC	89.0	119.0	OFF	BL	
28	3DSCf	89.0	127.0	OFF	BD	
29	4DSC	102.0	136.0	OFF	BL	
30	4DSCf	102.0	152.0	OFF	BD	
31	5DSC	127.0	169.0	OFF	BL	
32	5DSCf	127.0	178.0	OFF	BD	
33	89lx	89.0	120.0	OFF	BL	
34	CDIDX	102.0	120.0	OFF	BL	
35	127lx	127.0	120.0	OFF	BL	



1. Allocate "Button 1" to "Button 6" in the "Simple Setting" box for the most frequently used six print sizes.

NOTE: To change the simple setting button allocation, follow the steps below.

- 1) When newly setting up the simple setting button, select a print size to be set up and then the unused simple setting button.
- 2) To cancel the simple setting button allocation, select a print size to be canceled and then the blank in the list of the "Simple Setting" box.



2. Move the cursor to the print size to be used, select "ON" or "OFF" shown in the "Display".
 - If you select "ON", the description appears on the list. If you select "OFF", nothing appears on the list.
3. To register a new print size, follow the steps below.
 - 1) Move the cursor to an unnecessary print size.
 - 2) Enter the IDno., name, width, length, border/borderless and four border values and information display ON/OFF.
 - 3) Select "ON" for "Display".
4. Click the [OK] button.
 - Operation returns to the menu screen.

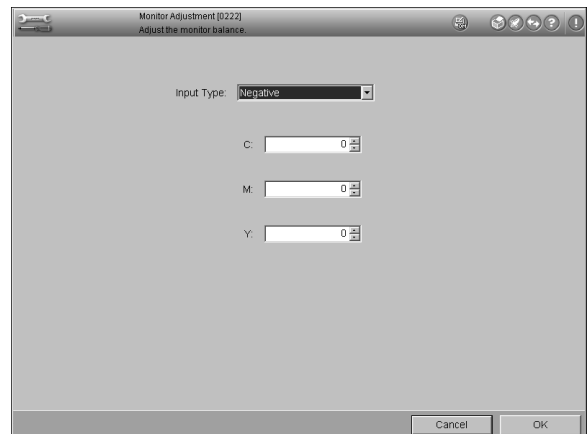
4.3.3 Monitor Adjustment (0222)

[Selection]

[Setup and Maintenance] → [02 Print Condition Setup and Check] → [0222 Monitor Adjustment]

[Procedure]

Set the color balance of the monitor for each input film type (negative, reversal or B/W negative).



1. Make a print without color and density corrections from a normal film using the master channel of the custom setting.
2. On the view and order screen, select master channel (0) for custom setting and correct the pre-scanning image with the C, M and Y keys so that it matches the print.
3. Multiply each of the key correction values by the "Key Step Width Setup" value of the master channel (0) in Menu 0225 "Custom Setting Regist/Delete". Then enter the results in the respective boxes on the screen.

<Example>

"Key Step Width Setup" values of the master channel (0) in Menu 0225 "Custom Setting Regist/Delete":

C: 8
M: 8
Y: 8

Correction values in Step 2:

C: +2
M: -1
Y: 0

Correction values to be entered:

C: $8 \times 2 = 16$
M: $8 \times -1 = -8$
Y: $8 \times 0 = 0$

4. Click the [OK] button.

- Operation returns to the menu screen.

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4.3.4 Special Film Channel Setting (0223)

This menu is for setting up the automatic condition selection function for the special monotone film by reading its DX code.

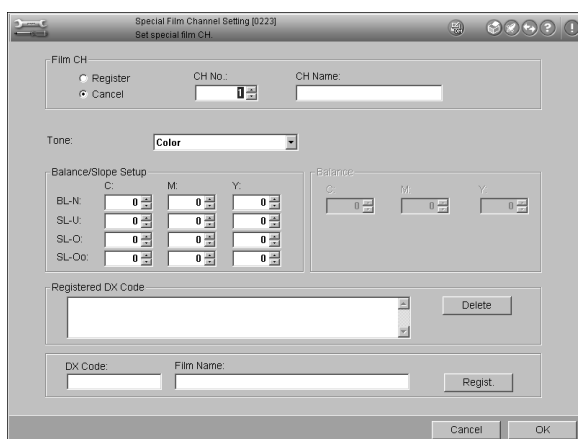
[Selection]

[Setup and Maintenance] → [02 Print Condition Setup and Check] → [0223 Special Film Channel Setting]

[Procedure]

Register the DX code and name of the special monotone film (which uses color developer) in this mode.

Register or delete channel for DX code of the special monotone film. Also fine-adjust the slope (for color) and balance (for black & white).



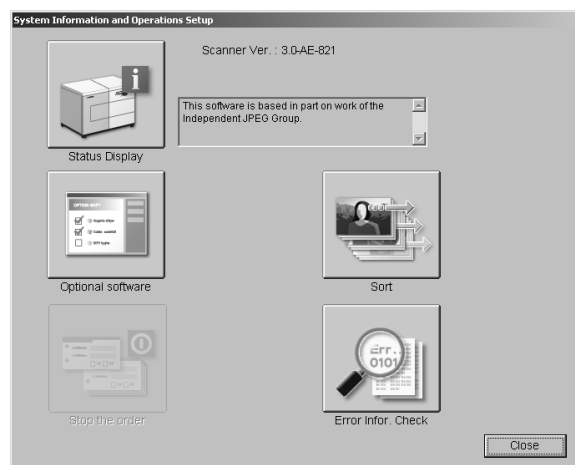
<DX Code and Film Name Registration>

1. Pre-scan the film to be registered on the view and order screen.



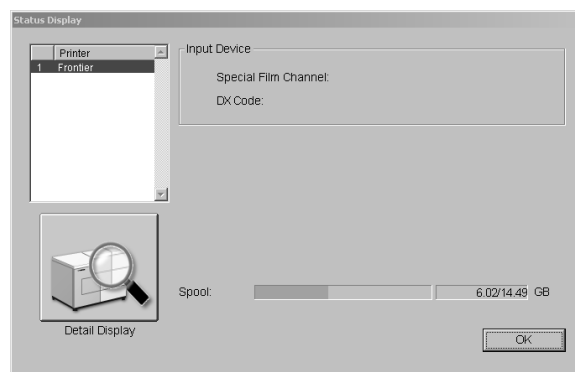
2. Click the [i] button of the status icon at the lower left-hand corner of the screen.

- The “System Information and Operations Setup” screen appears.



3. Click the [i] button of the “Status Display”.

- The “Status Display” dialog box appears.



4. Record the DX code.
5. Proceed to the Menu 42E screen.
6. Enter the DX code recorded in the “DX Code” box.
7. Enter the film name (30 letters maximum) in the “Film Name” box using the full keyboard.
8. Click the [Regist.] button.

<Channel Registration>

NOTE: Before channel registration, register the DX code and film name.

1. Enter channel number to be registered in the "CH No." box.
There are 128 film channels.
2. Enter film name in the box next to the "CH No." box.
3. Select "Register".
 - The registered channel is added to the "Special Film CH Selection" dialog box accessed from the "Process 1" screen and used when the DX code cannot be read. (See the "Operating Instructions" manual.)
4. Select the tone in the "Tone" box.

Tone: Color
 Sepia 1
 Sepia 2
 B/W
5. Set up the "Balance/Slope" for Color and the "Balance" for Sepia 1, 2 and B/W.
6. Enter the DX code registered in the "DX Code" box.
7. Click the [Register] button.
 - The DX code is listed in the "Registered DX Code" box.
8. Click the [OK] button.
 - Operation returns to the menu screen.

<Deleting>

1. Select the channel number to be deleted in the "CH No." box.
 - The DX code and name are displayed in the "Registered DX Code" box.
2. Click the [Delete] button.
 - The DX code is deleted.
3. Click the [OK] button.
 - Operation returns to the menu screen.

4.3.5 Monotone Correction Setting (0224)

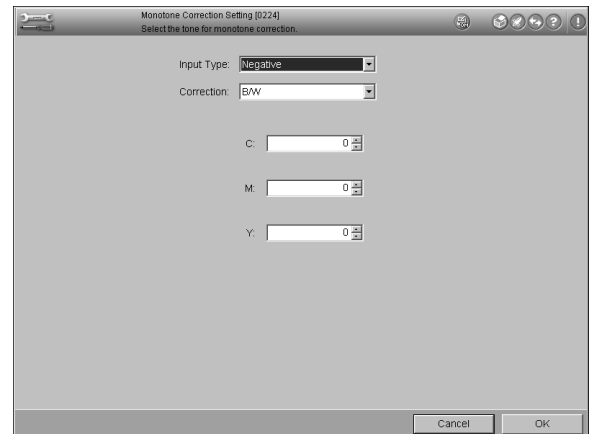
Monotone correction setup in this menu can be accessed from the "Process 1" screen regardless of the film types (see the "Operating Instructions" manual).

[Selection]

[Setup and Maintenance] → [02 Print Condition Setup and Check] → [0224 Monotone Correction Setting]

[Procedure]

Fine-adjust the balance values for the correction type in the "Monotone Correction" dialog box in the "Process 1" panel in this mode.



1. Select the correction type to be adjusted in the "Input Type" box.

Input Type: Negative
 Reversal

2. Select the correction type to be adjusted in the "Correction" box.

Correction: B/W
 Sepia 1
 Sepia 2
 User B/W
 User Sepia 1

3. Change the color balance values.

4. Click the [OK] button.

- Operation returns to the menu screen.

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4.3.6 Custom Setting Regist/Delete (0225)

Printing is normally performed with condition of the Master “0” channel.

The 65 (0 + 64) custom conditions can be set up for each input type.

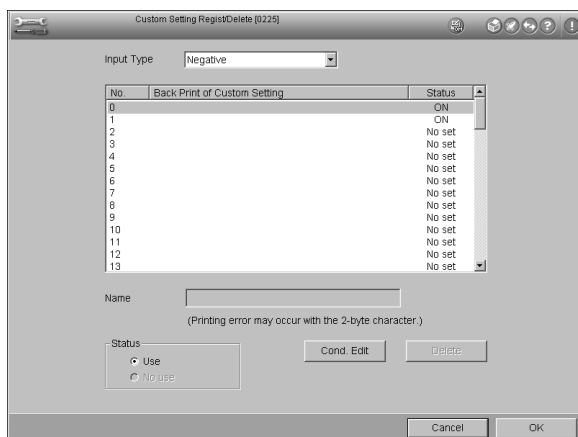
The custom conditions can be selected on the “Process 1” screen (see the “Operating Instructions” manual).

[Selection]

[Setup and Maintenance] → [02 Print Condition Setup and Check] → [0225 Custom Setting Regist/Delete]

[Procedure]

Set up the custom conditions.



4.3.6

1. Select the input type to be set up.

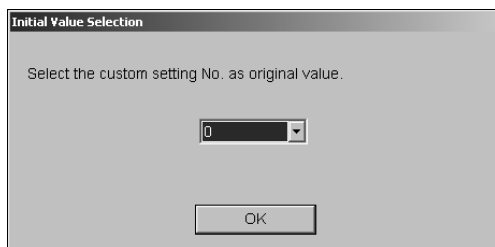
Input Type: Negative
Reversal
Black & White Negative

2. Select the number to be set up.

3. Enter the name for the back printing of custom setting in the “Name” box using the full keyboard.

4. Click the [Cond. Edit] button.

- The “Initial Value Selection” dialog box appears.

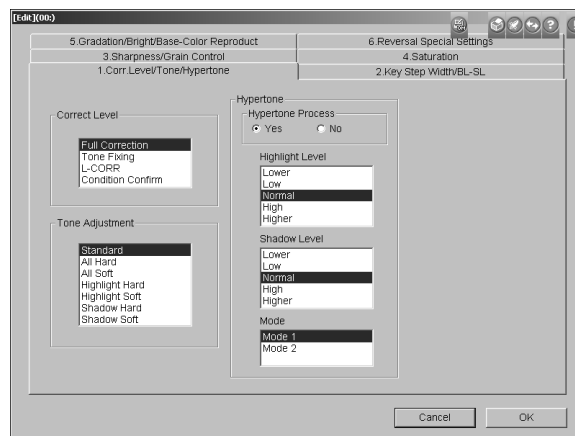


5. Select the number to be used as the initial value.

6. Click the [OK] button.

● Input Type: Negative

- The “1. Corr. Level/Tone/Hypertone” screen appears.



- 1) Set up the “Correct Level”, “Tone Adjustment” and “Hypertone”.

<Correct Level>

	Tone Correction	Color/Density Correction	Hypertone
Full Correction:	Yes	Yes	ON
Tone Fixing:	No	Yes	OFF
L-CORR:		(Low Correction)	OFF
Condition Confirm:	No	No	OFF

<Tone Adjustment>

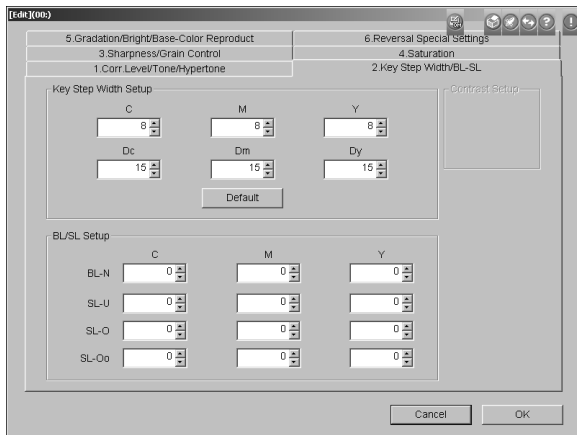
Standard
All Hard
All Soft
Highlight Hard
Highlight Soft
Shadow Hard
Shadow Soft

<Hypertone>

Hypertone Process:	Yes	No
Highlight Level:	Lower Low Normal High Higher	
Shadow Level:	Lower Low Normal High Higher	
Mode:	Mode 1	(Normal Hypertone Mode)
	Mode 2	(Preceding acceptance rate by improving backlighting and increasing contrast)

2) Click the “2. Key Step Width/BL-SL” tab.

- The “2. Key Step Width/BL-SL” panel appears.



3) Set up the key step width and balance/slope.

NOTE: Click the [Default] button to return the key step width to the initial value.

<Key Step Width Setup>

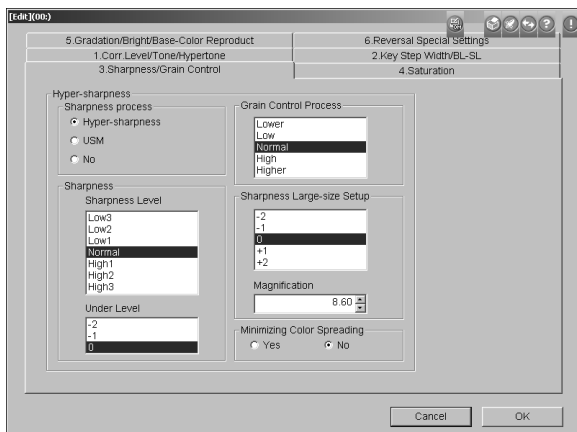
C, M, Y : Normally enter “8”.
Dc, Dm, Dy : Normally enter “15”.

<BL/SL Setup>

Normally enter “0”.
Change settings only when the whole slope condition is offset.

4) Click the “3. Sharpness/Grain Control” tab.

- The “3. Sharpness/Grain Control” panel appears.



5) Select “Hyper-sharpness” for “Sharpness process”. Set up “Sharpness”, “Grain Control Process”, “Sharpness Large-size Setup” and “Minimizing Color Spreading”.

<Sharpness>

Sharpness Level: Low 3
Low 2
Low 1
Normal
High 1
High 2
High 3
Under Level: -2
-1
0

(Sharpness can only be set individually for under level.)

<Grain Control Process>

Grain Roughness
Higher Invisible
Normal ↑
Lower Visible

<Sharpness Large-size Setup>

Sharpness can be set up individually for magnification entered in the “Magnification” box or higher.

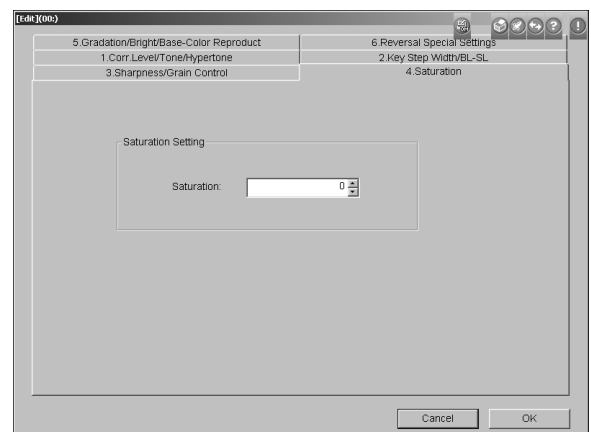
-2
-1
0
+1
+2

<Minimizing Color Spreading>

Select “Yes” to minimize red spreading in white areas when printing black and white grids, stripes, etc.

6) Click the “4. Saturation” tab.

- The “4. Saturation” panel appears.



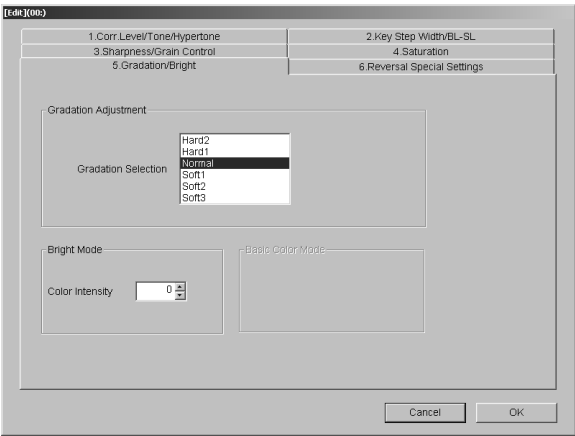
7) Set up the “Saturation”.

<Saturation>

Color vividness control is set up. Range is -9 to +9.
Normally enter “0”.

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- 8) Click the “Gradation/Bright” tab.
- The “Gradation/Bright” panel appears.



- 9) Set up the “Gradation Adjustment” and “Bright Mode”.

<Gradation Adjustment>

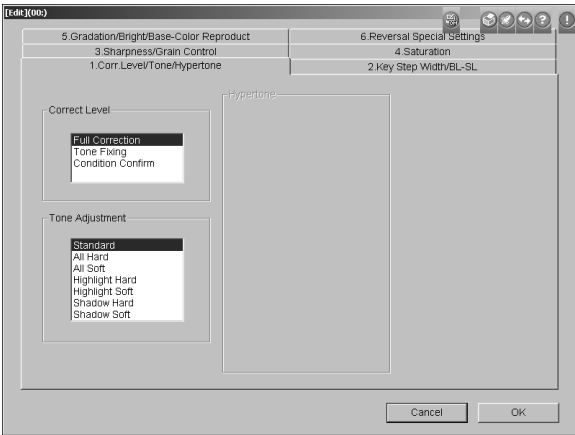
Gradation Selection: Hard 2
Hard 1
Normal
Soft 1
Soft 2
Soft 3

<Bright Mode>

Color Intensity: 4
3
2
1
0
-1
-2

● Input Type: Reversal

- The “1. Corr. Level/Tone/Hypertone” panel appears.



- 1) Set up the “Correct Level” and “Tone Adjustment”.

<Correct Level>

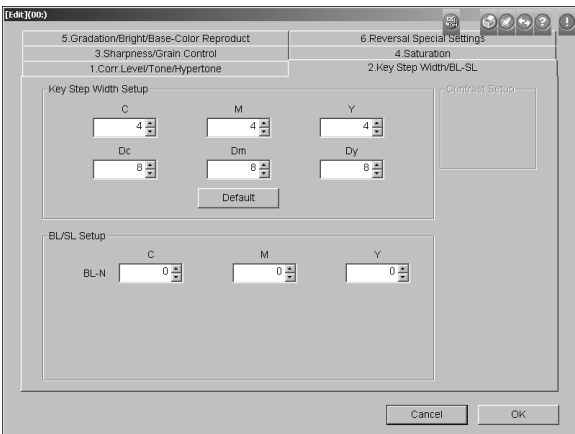
	Tone Correction	Color/Density Correction	Hypertone
Full Correction:	Yes	Yes	ON
Tone Fixing:	No	Yes	OFF
Condition Confirm:	No	No	OFF

<Tone Adjustment>

Standard
All Hard
All Soft
Highlight Hard
Highlight Soft
Shadow Hard
Shadow Soft

- 2) Click the “2. Key Step Width/BL-SL” tab.

- The “2. Key Step Width/BL-SL” panel appears.



- Set up the key step width and balance/slope.

NOTE: Click the [Default] button to return the key step width setup to the initial value.

<Key Step Width Setup>

C, M, Y :Normally enter "4".

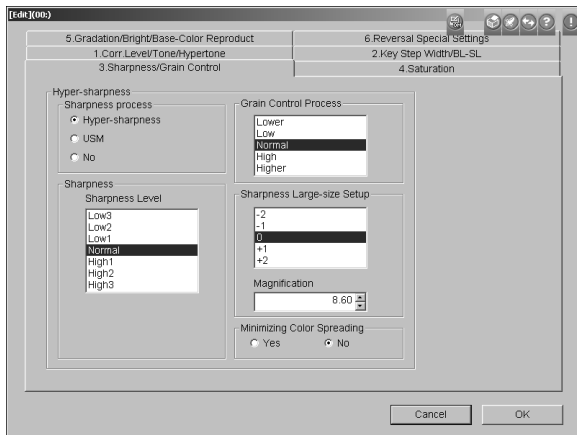
Dc, Dm, Dy :Normally enter "8".

<BL/SL Setup>

Normally enter "0".

- Click the "3. Sharpness/Grain Control" tab.

- The "3. Sharpness/Grain Control" panel appears.



- Select "Hyper-sharpness" for "Sharpness process". Set up "Sharpness", "Grain Control Process", "Sharpness Large-size Setup" and "Minimizing Color Spreading".

<Sharpness>

Sharpness Level: Low 3
Low 2
Low 1
Normal
High 1
High 2
High 3

<Grain Control Process>

	Grain Roughness
Higher	Invisible
Normal	↑
Lower	Visible

<Sharpness Large-size Setup>

Sharpness can be set up individually for magnification entered in the "Magnification" box or higher.

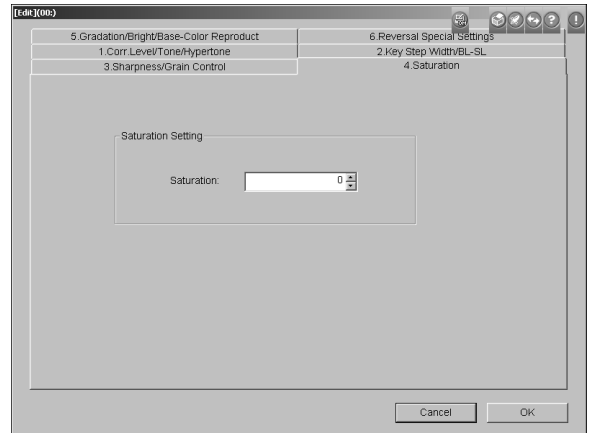
-2
-1
0
+1
+2

<Minimizing Color Spreading>

Select "Yes" to minimize red spreading in white areas when printing black and white grids, stripes, etc.

- Click the "4. Saturation" tab.

- The "4. Saturation" panel appears.



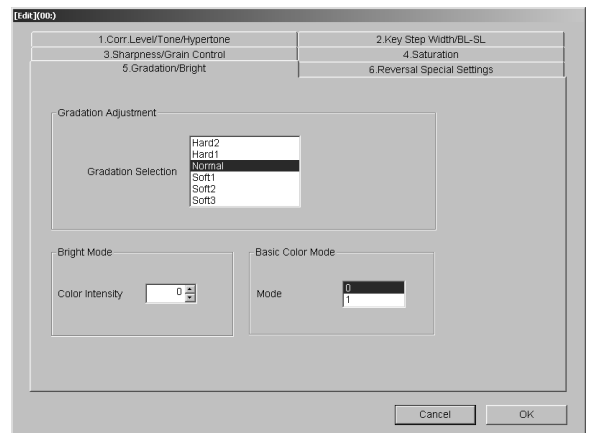
- Set up the saturation.

<Saturation>

Color vividness control is set up. Range is -9 to +9. Normally enter "0".

- Click the "Gradation/Bright" tab.

- The "Gradation/Bright" panel appears.



4. SETUP AND MAINTENANCE

- Set up the "Gradation Adjustment", "Bright Mode" and "Basic Color Mode".

<Gradation Adjustment>

Gradation Selection: Hard 2
 Hard 1
 Normal
 Soft 1
 Soft 2
 Soft 3

<Bright Mode>

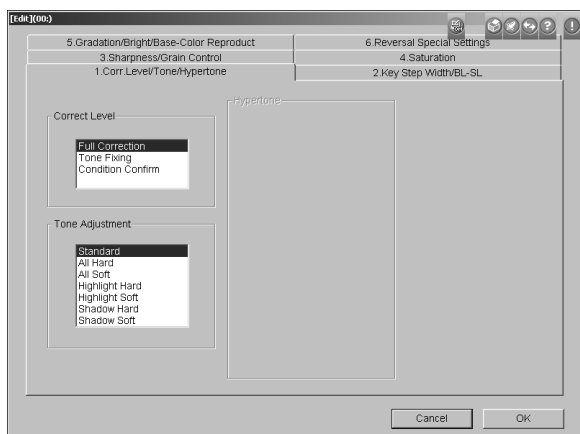
Color Intensity: 4
 3
 2
 1
 0
 -1
 -2

<Basic Color Mode>

Mode: 0
 1(Nature Mode)

● Input Type: Black & White

- The "1. Corr. Level/Tone/Hypertone" panel appears.



- Set up the "Correct Level", "Tone Adjustment" and "Hypertone".

<Correct Level>

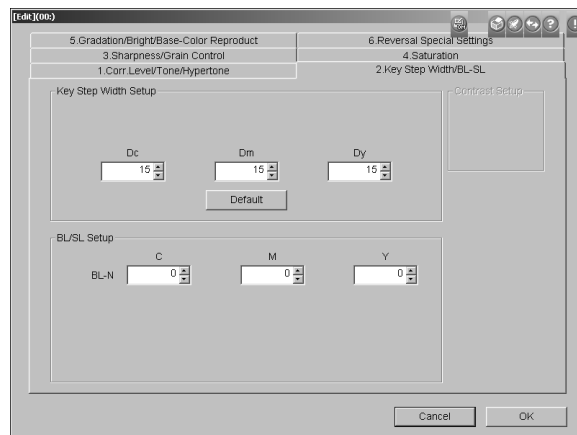
	Tone Correction	Color/Density Correction
Full Correction:	Yes	Yes
Tone Fixing:	No	Yes
Condition Confirm:	No	No

<Tone Adjustment>

Standard
 All Hard
 All Soft
 Highlight Hard
 Highlight Soft
 Shadow Hard
 Shadow Soft

- Click the "2. Key Step Width/BL-SL" tab.

- The "2. Key Step Width/BL-SL" panel appears.



- Set up the key step width and balance/slope.

NOTE: Click the [Default] to return the key step width setup to the initial value.

<Key Step Width Setup>

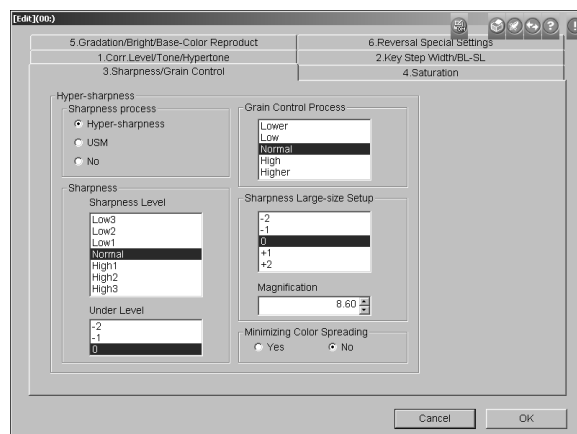
Dc, Dm, Dy: Normally enter "15".

<BL/SL Setup>

Normally enter "0".

- Click the "3. Sharpness/Grain Control" tab.

- The "3. Sharpness/Grain Control" panel appears.



- Select "Hyper-sharpness" for "Sharpness process". Set up "Sharpness", "Grain Control Process", "Sharpness Large-size Setup" and "Minimizing Color Spreading".

<Sharpness>

Sharpness Level: Low 3
 Low 2
 Low 1
 Normal
 High 1
 High 2
 High 3
 Under Level: -2
 -1
 0

(Sharpness can only be set individually for under level.)

<Grain Control Process>

	Grain Roughness
Higher	Invisible
Normal	↑
Lower	Visible

<Sharpness Large-size Setup>

Sharpness can be set up individually for magnification entered in the "Magnification" box or higher.

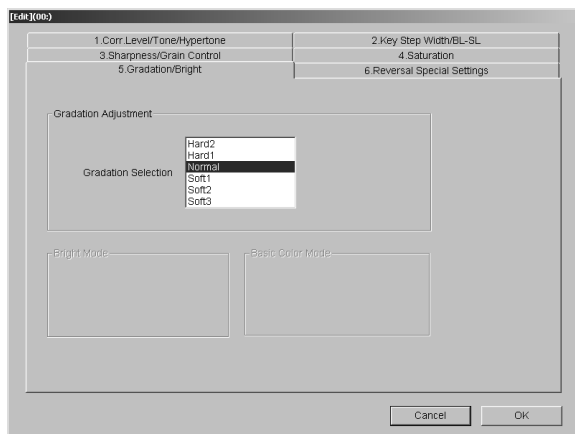
-2
-1
0
+1
+2

<Minimizing Color Spreading>

Select "Yes" to minimize color spreading in white areas when printing black and white grids, stripes, etc.

6) Click the "Gradation/Bright" tab.

- The "Gradation/Bright" panel appears.



7) Set up the "Gradation Adjustment".

<Gradation Adjustment>

Gradation Selection: Hard 2
Hard 1
Normal
Soft 1
Soft 2
Soft 3

7. Click the [OK] button.

- Operation returns to the "Custom Setting Regist/Delete" screen.
 - The "Status" column of the selected number changes to "Use".
8. To delete the custom condition, select number to be deleted and click the [Delete] button.
9. Click the [OK] button.
- Operation returns to the menu screen.

4.4 Scanner Adjustment/Maintenance

4.4.1 Image Scanning Method (0300)

See the "Operating Instructions" manual.

4.4.2 Input Check (0320)

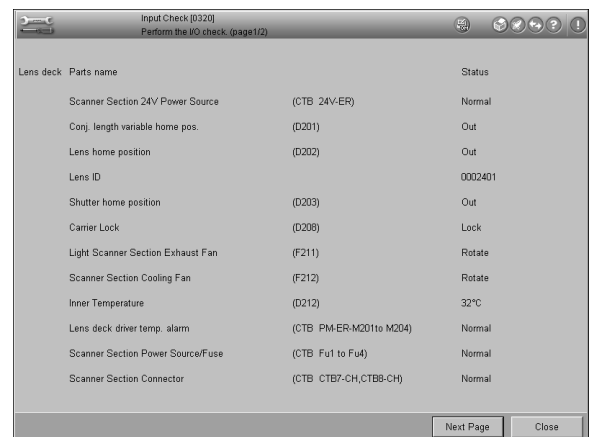
The current status of each scanner section sensor can be checked.

[Selection]

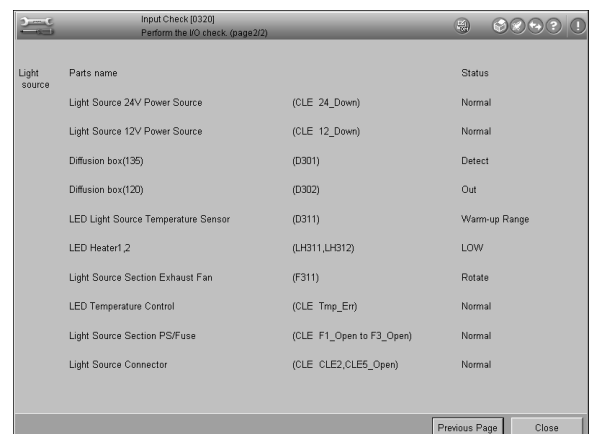
[Setup and Maintenance] → [03 Scanner Adjustment/Maintenance] → [0320 Input Check]

[Procedure]

Check the current status of each sensor.



1. Click the [Next Page] button.



2. Click the [Close] button.

- Operation returns to the menu screen.

4.4.3 Focus Position Adjustment (0321)

This menu is used to set up the center value when auto focusing of each film carrier mask is done.

Always perform this adjustment before a new mask is used. A mask cannot be used if this adjustment is not done.

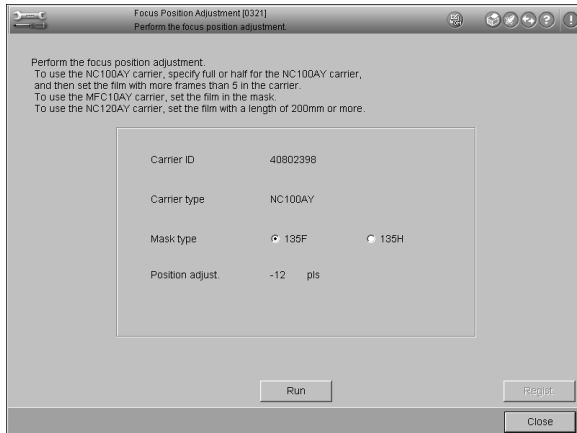
4. SETUP AND MAINTENANCE

[Selection]

[Setup and Maintenance] → [03 Scanner Adjustment/Maintenance] → [0321 Focus Position Adjustment]

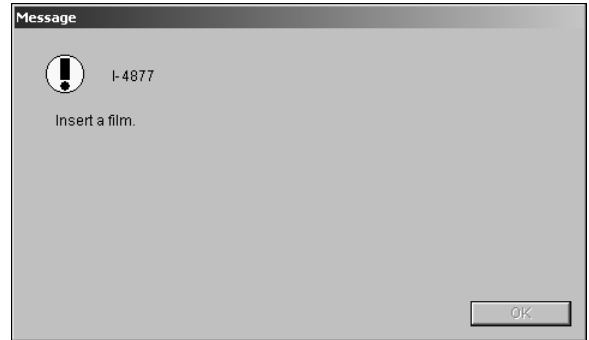
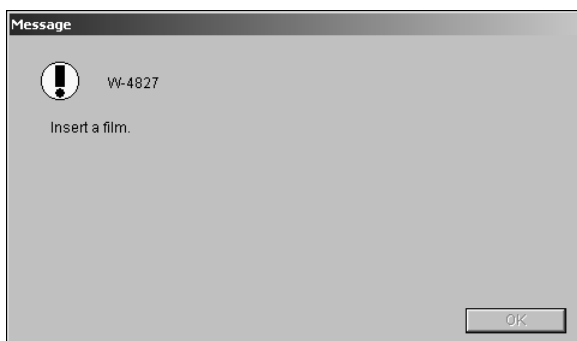
[Procedure]

Perform the focus position adjustment.



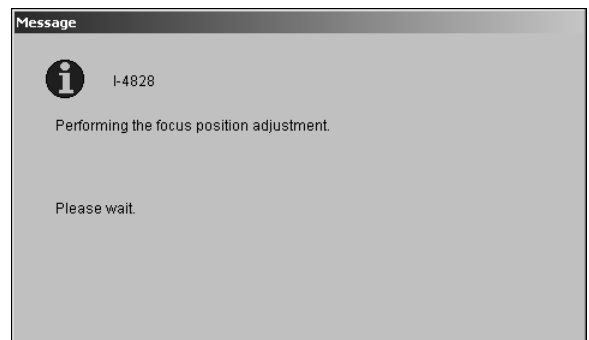
1. 135F/135H of the NC100AY: Install the mask to be adjusted to the carrier.
2. Install the carrier.
3. MFC10AY: Install the mask to the carrier.
NOTE: Use a mount holder without film for the mount mask.
 - Carrier ID, carrier type, mask type and position adjustment value are displayed.
4. 135F/135H of the NC100AY: Select “135F” or “135H” for “Mask type”.
135M/IX240M of the MFC10AY: Select “135M” or “240M” for “Mask type”.
5. Except for mount mask: Insert a film into the carrier or mask.
NOTE:
 - For the NC100AY, use a film having more than five frames.
 - For the NC120AY, use a film having more than 200 mm in length.

6. Click the [Run] button.
 - NC100AY: The “W-4827” message appears.
 - MFC10AY: The “I-4877” message appears.

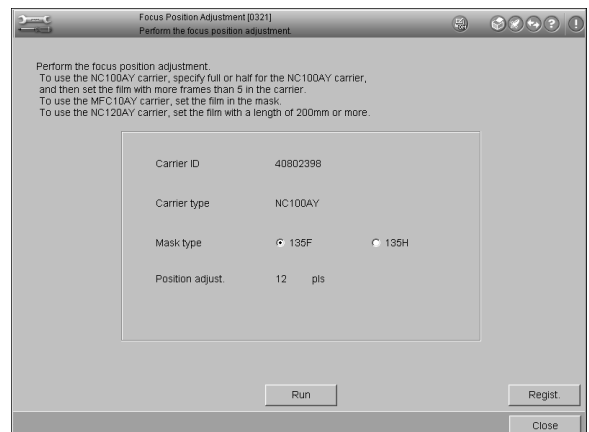


7. Confirm film insertion and click the [OK] button.

- The “I-4828” message appears.



- The position adjustment value is displayed when the adjustment is completed.



8. Click the [Regist.] button.

- The focus position adjustment value is registered.

NOTE: The adjustment value is not registered if the [Regist.] button is not clicked.

9. Repeat Steps 1 to 8 if there are other carriers or masks to be registered.
10. Click the [Close] button.
 - Operation returns to the menu screen.

4.4.4 Working Information Display (0322)

[Selection]

[Setup and Maintenance] → [03 Scanner Adjustment/Maintenance] → [0322 Working Information Display]

[Procedure]

Check the LED operating time and piezoelectric actuator operating time displayed.



1. Click the [Close] button.

- Operation returns to the menu screen.

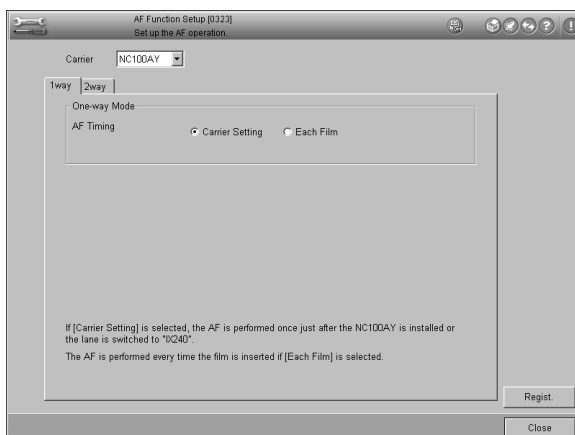
4.4.5 AF Function Setup (0323)

[Selection]

[Setup and Maintenance] → [03 Scanner Adjustment/Maintenance] → [0323 AF Function Setup]

[Procedure]

Select AF (auto focus) condition for each film carrier, mask and print size.



1. Select "NC100AY" or "MFC10AY" or "NC120AY" in the "Carrier" box.

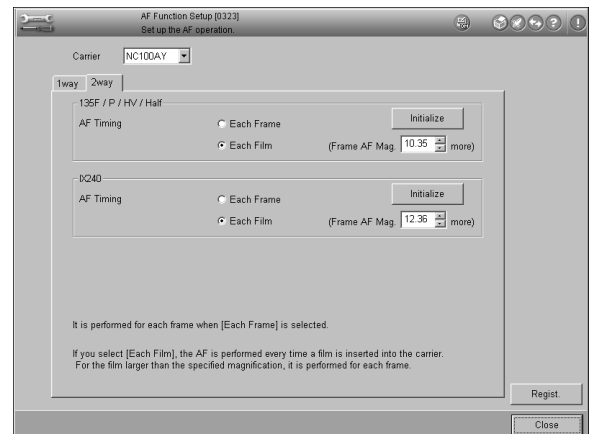
For NC100AY:

- 1) Select "Carrier Setting" or "Each Film" for "AF Timing" of "One-way Mode".

Carrier Setting: Auto focusing is executed when the NC100AY is installed or the feed lane is changed from the IX240 to the 135.

Each Film: Auto focusing is executed when a film is inserted.

- 2) Click the "2way" tab.



- 3) Select "Each Frame" or "Each Film" for "AF Timing" of "135" and "IX240".

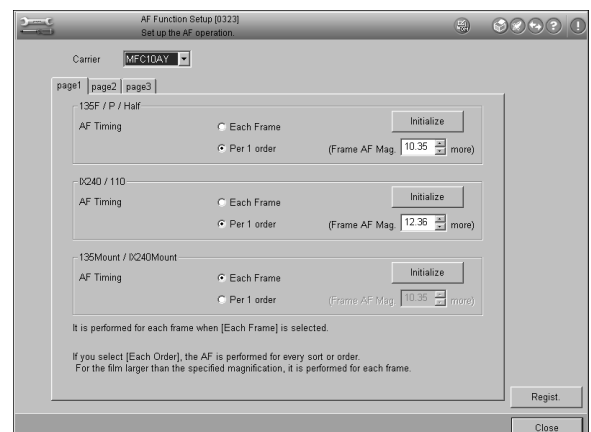
Each Frame: Auto focusing is executed for each frame.

Each Film: Auto focusing is executed when the film is inserted. Magnification can be entered in the "Mag." box when it is selected. For sizes beyond the entered magnification, auto focusing is executed for each frame.

Magnification Range: 0.2 to 42

NOTE: Click the [Initialize] button to return initial setting.

For MFC10AY:



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- 1) Select “Each Frame” or “Per 1 order” for each mask.

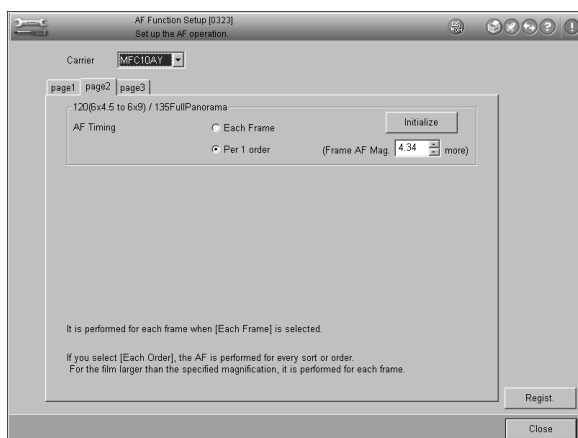
Each Frame: Auto focusing is executed for each frame.

Per 1 order: Auto focusing is executed with each new sort/order.
Magnification can be entered in the “Mag.” box when it is selected.
For sizes beyond the entered magnification, auto focusing is executed for each frame.

Magnification Range: 0.2 to 42

NOTE: Click the [Initialize] button to return initial setting.

- 2) Click the “Page 2” tab.



- 3) Select “Each Frame” or “Per 1 order” for “AF Timing” of “120/135 Full Panorama”.

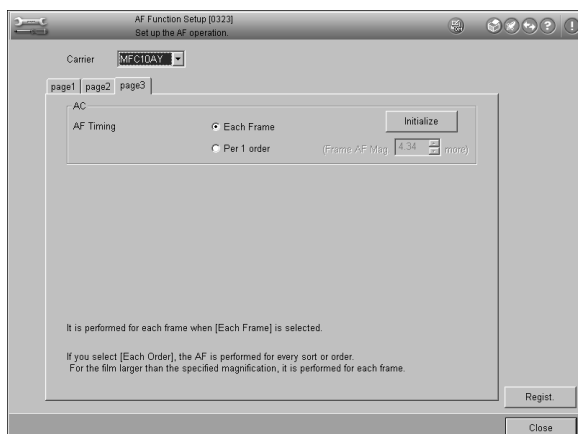
Each Frame: Auto focusing is executed for each frame.

Per 1 order: Auto focusing is executed with each new sort/order.
Magnification can be entered in the “Mag.” box when it is selected.
For sizes beyond the entered magnification, auto focusing is executed for each frame.

Magnification Range: 0.1 to 22

NOTE: Click the [Initialize] button to return initial setting.

- 4) Click the “Page 3” tab.



- 5) Select “Each Frame” or “Per 1 order” for “AF Timing” of “AC”.

Each Frame: Auto focusing is executed for each frame.

Per 1 order: Auto focusing is executed with each new sort/order.
Magnification can be entered in the “Frame AF Mag.” box when it is selected.
For sizes beyond the entered magnification, auto focusing is executed for each frame.

Magnification Range: 0.1 to 22

NOTE: Click the [Initialize] button to return initial setting.

For NC120AY:



- 1) Select “Each Frame” or “Each Film” for “AF Timing” of “All masks (6×4.5 to 6×9)”.

Each Frame: Auto focusing is executed for each frame.

Each Film: Auto focusing is executed when the film is inserted.
Magnification can be entered in the “Frame AF Mag.” box when it is selected.
For sizes beyond the entered magnification, auto focusing is executed for each frame.

Magnification Range: 0.1 to 22

NOTE: Click the [Initialize] button to return initial setting.

2. Click the [Regist.] button.

3. Click the [Close] button.

- Operation returns to the menu screen.

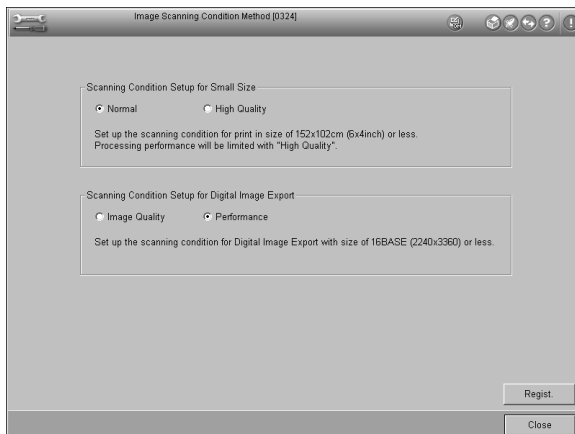
4.4.6 Image Scanning Condition Method (0324)

[Selection]

[Setup and Maintenance] → [03 Scanner Adjustment/Maintenance] → [0324 Image Scanning Condition Method]

[Procedure]

Select the scanning condition when scanning small size prints or digital image export.



1. Select "Normal" or "High Quality" for "Scanning Condition Setup for Small Size".

Normal: Image quality is standard but processing speed is increased.
High Quality: Image quality is high but processing speed is reduced.

2. Select "Image Quality" or "Performance" for "Scanning Condition Setup for Digital Image Export".

Image Quality: Image quality is high but processing speed is reduced.
Performance: Image quality is standard but processing speed is increased.

3. Click the [Regist.] button.

4. Click the [Close] button.

- Operation returns to the menu screen.

4.5 Carrier Adjustment/Maintenance

4.5.1 NC100AY Fixed Feeding Setup (0400)

See the "Operating Instructions" manual.

4.5.2 Mask Position Adjustment (0420)

This menu is used to calibrate the mask position for the monitor screen and prints.

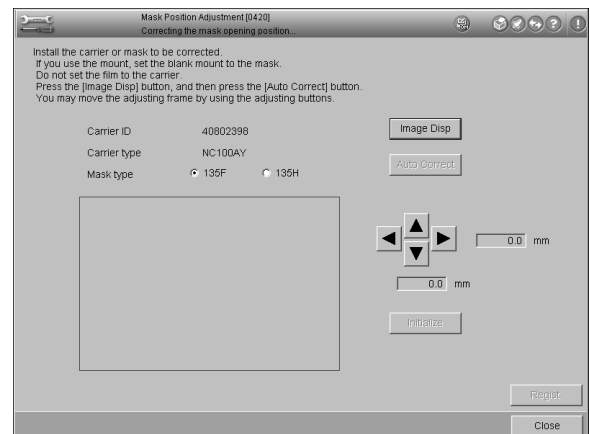
Always perform this adjustment for all masks to be used.

[Selection]

[Setup and Maintenance] → [04 Carrier Adjustment/Maintenance] → [0420 Mask Position Adjustment]

[Procedure]

Adjust the mask position.



1. Install the carrier and mask to be used.

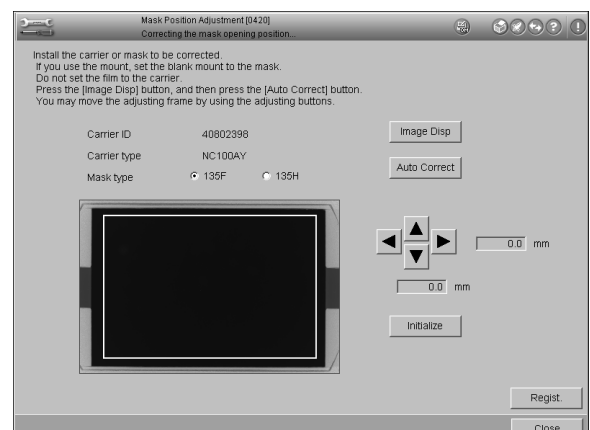
- The carrier ID, carrier type and mask type are displayed.

NOTE: • To adjust position of the mount mask, install the mount holder without film.
• Do not insert a film.

2. 135 feed lane of the NC100AY: Select "135F" or "135H" for "Mask type".
135M/IX240M of the MFC10AY: Select "135M" or "240M" for "Mask type".

3. Click the [Image Disp] button.

- The mask position and adjustment frame are displayed.



4.5

4

4.4.6

4.5.1

4.5.2

4. SETUP AND MAINTENANCE

- Click the [Auto Correct] button.
 - The mask position is corrected automatically and the correct vertical and horizontal values are displayed in the "Position Adjust" boxes.
- Adjust mask position if necessary by clicking the arrow buttons while checking the adjustment values indicated at the right-hand side of and below the arrow buttons.

NOTE: The mask position is returned to the "0.0 mm" position if the [Initialize] button is clicked.

- Click the [Regist.] button.
- Repeat Steps 1 to 6 for all masks to be used.
- Click the [Close] button.
 - Operation returns to the menu screen.

4.5.3 NC100AY Input Check (0421)

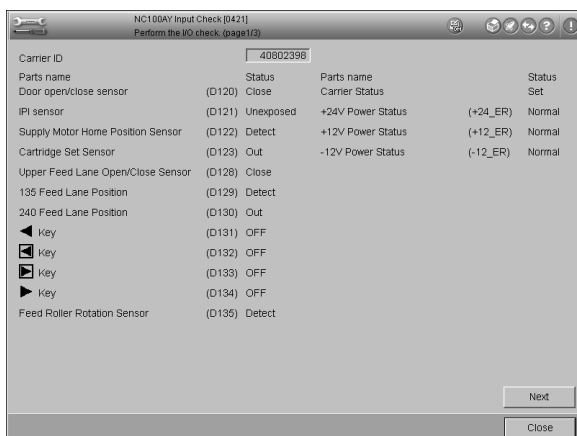
The status of each sensor of the auto film carrier NC100AY can be checked.
Install the auto film carrier NC100AY before performing the steps on this menu.

[Selection]

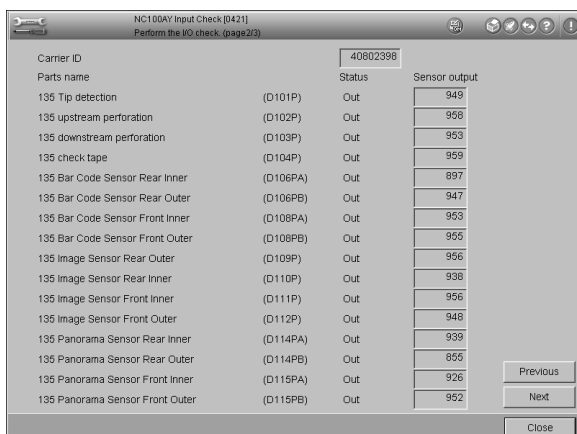
[Setup and Maintenance] → [04 Carrier Adjustment/Maintenance] → [0421 NC100AY Input Check]

[Procedure]

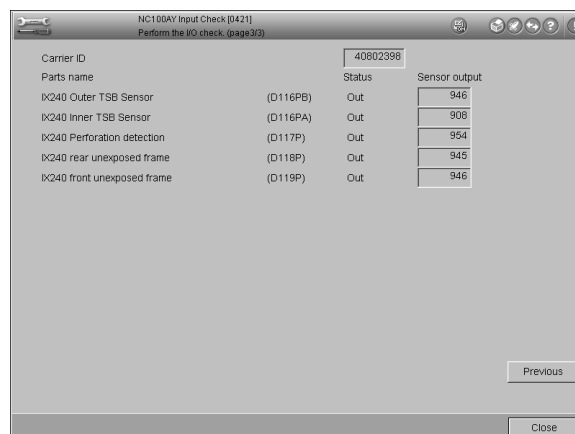
Check the current status of the sensors.



- Click the [Next] button.



- Click the [Next] button.



- Click the [Close] button.

- Operation returns to the menu screen.

4.5.4 MFC10AY Input Check (0422)

The status of each sensor of the multi-film carrier MFC10AY can be checked.
Install the multi-film carrier MFC10AY before performing the steps on this menu.

[Selection]

[Setup and Maintenance] → [04 Carrier Adjustment/Maintenance] → [0422 MFC10AY Input Check]

[Procedure]

Check the current status of the sensors.



- Click the [Close] button.

- Operation returns to the menu screen.

4.5.5 NC100AY Working Information Display (0423)

[Selection]

[Setup and Maintenance] → [04 Carrier Adjustment/Maintenance] → [0423 NC100AY Working Information Display]

[Procedure]

This procedure displays the working information of the auto film carrier NC100AY.

Set	Carrier ID	Total	Current Value
Carrier	Number of Carrier Setting [freq.]	168	168
	Number of Carrier Start-up [freq.]	505	505
	Turn-ON Time [time]	1059	1059
	Feeding Lane Switching (135→240) [freq.]	83	83
Fine-feeding	Feeding Lane Switching (240→135) [freq.]	70	70
	Frame Feeding/Rewinding Frequency [x1000]	0	0
	Frame Feeding/Rewinding Length[m]	0.0	0.0
	Number of Fine-feeding/rewinding [x1000]	0	0
	Fine-feeding/Fine-rewinding Length [m]	0.0	0.0

The following buttons apply to all parts for feeding lane, supply section, carrier, LED and key operations.

Next FlashROM Reading HD Reading FlashROM Writing HD Writing Close

1. Install the auto film carrier NC100AY.
2. Click the [Next] button.

	Carrier ID	Total	Current Value
135	Time of Emitting for Insertion(135) [time]	4	4
	Number of Emitting for Insertion (135) [x1000]	1	1
	Image Sensor Emitting Time(135) [time]	45	45
240	Time of Emitting for Insertion(240) [time]	4	4
	Number of Emitting for Insertion (240) [x1000]	0	0
	Image Sensor Emitting Time(240) [time]	6	6

The following buttons apply to all parts for feeding lane, supply section, carrier, LED and key operations.

Previous Next FlashROM Reading HD Reading FlashROM Writing HD Writing Close

3. Click the [Next] button.

	Carrier ID	Total	Current Value
Driving	Feeding Distance(135)[km]	3.79	3.79
	Feeding Distance(240)[km]	0.47	0.47
	Feed Motor Turn-ON Time [time]	14	14
	Frequency of Feed Motor Driving [x1000]	5	5
	Supply Motor Driving Times [x1000]	1	1
	Door Open/Close Motor Driving Freq. [x1000]	1	1
Pressure	Film Pressure Frequency (135) [x1000]	38	38
	Film Pressure Frequency (240) [x1000]	8	8

The following buttons apply to all parts for feeding lane, supply section, carrier, LED and key operations.

Previous Next FlashROM Reading HD Reading FlashROM Writing HD Writing Close

4. Click the [Close] button.
 - Operation returns to the menu screen.

4.5.6 MFC10AY Working Information Display (0424)

[Selection]

[Setup and Maintenance] → [04 Carrier Adjustment/Maintenance] → [0424 MFC10AY Working Information Display]

[Procedure]

This procedure displays the working information of the multi-film carrier MFC10AY.

	Carrier ID	Current Value
Carrier	Number of Carrier Setting [freq.]	215
	Number of Carrier Start-up [freq.]	276
	Turn-ON Time [time]	230
	Number of Original Base Switching [freq.]	878
Mask	135F Mask Set Freq [count]	78
	135F Film Pressure Frequency [x1000]	0
	135H Mask Set Freq [count]	6
	135H Film Pressure Frequency [x1000]	0
	135P Mask Set Freq [count]	0
	135P Film Pressure Frequency [x1000]	0

The following buttons apply to all parts for carrier and mask operations.

Next FlashROM Reading HD Reading FlashROM Writing HD Writing Close

1. Click the [Next] button.

	Carrier ID	Current Value
Mask	135FP Mask Set Freq [count]	5
	135FP Film Pressure Frequency [x1000]	0
	240 Mask Set Freq [count]	2
	240 Film Pressure Frequency [x1000]	0
	110 Mask Set Freq [count]	0
	110 Film Pressure Frequency [x1000]	0
	6x4.5 Mask Set Freq [count]	67
	6x4.5 Film Pressure Frequency [x1000]	0
	6x4.5 Vertical Mask Set Freq [count]	40
	6x4.5 Vertical Film Pressure Freq. [x1000]	0

The following buttons apply to all parts for carrier and mask operations.

Previous Next FlashROM Reading HD Reading FlashROM Writing HD Writing Close

2. Click the [Next] button.

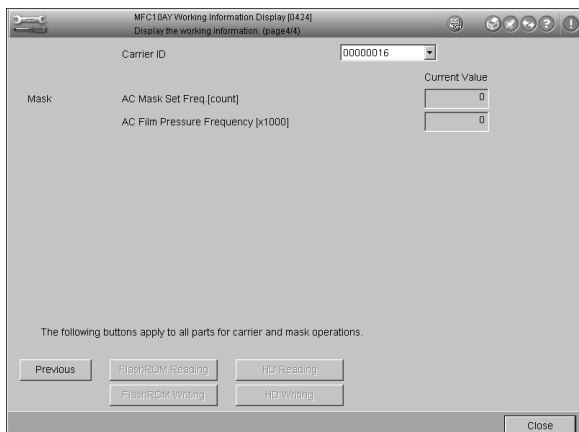
	Carrier ID	Current Value
Mask	6x6 Mask Set Freq [count]	8
	6x6 Film Pressure Frequency [x1000]	0
	6x7 Mask Set Freq [count]	30
	6x7 Film Pressure Frequency [x1000]	0
	6x8 Mask Set Freq [count]	16
	6x8 Film Pressure Frequency [x1000]	0
	6x9 Mask Set Freq [count]	44
	6x9 Film Pressure Frequency [x1000]	0
	135/240 Mount Mask Set Freq [count]	30
	135/240 Film Pressure Frequency [x1000]	0

The following buttons apply to all parts for carrier and mask operations.

Previous Next FlashROM Reading HD Reading FlashROM Writing HD Writing Close

4. SETUP AND MAINTENANCE

- Click the [Next] button.



- Click the [Close] button.

- Operation returns to the menu screen.

4.5.7 NC100AY Monitor Frame Ratio Setup (0425)

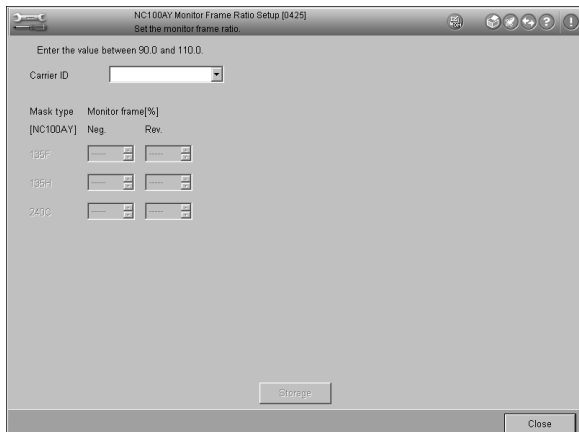
The image frame size displayed after pre-scanning can be set up in this menu.

[Selection]

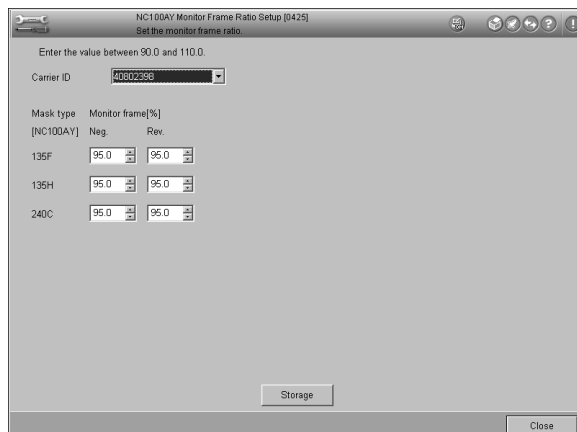
[Setup and Maintenance] → [04 Carrier Adjustment/Maintenance] → [0425 NC100AY Monitor Frame Ratio Setup]

[Procedure]

Set up the monitor frame ratio for each mask.

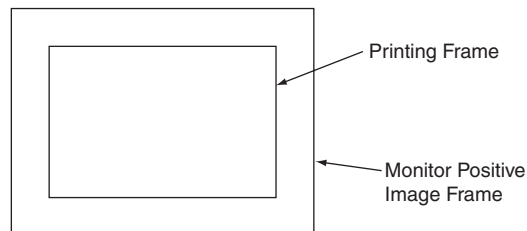


- Select the carrier ID to be set up.

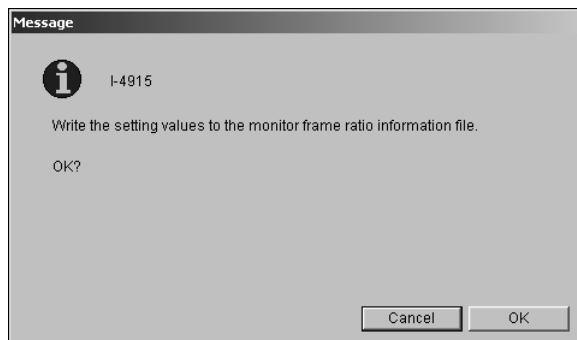


- Change the monitor frame ratio.

NOTE: Set the monitor frame ratio to 95% normally. If more than 95% is set up, the film mask frame may be displayed on the monitor screen. Make sure the mask frame is not displayed in the printing frame after setting up.



- Click the [Storage] button.



- Click the [OK] button.

- The changed data is saved.

- Click the [Close] button.

- Operation returns to the menu screen.

4.5.8 MFC10AY Monitor Frame Ratio Setup (0426)

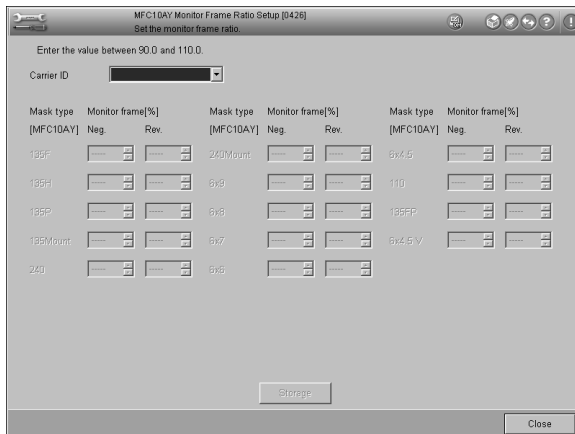
The image frame size displayed after pre-scanning can be set up in this menu.

[Selection]

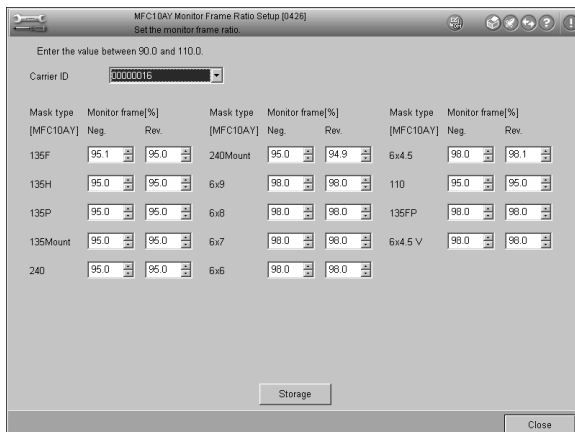
[Setup and Maintenance] → [04 Carrier Adjustment/Maintenance] → [0426 MFC10AY Monitor Frame Ratio Setup]

[Procedure]

Set up the monitor frame ratio for each mask.



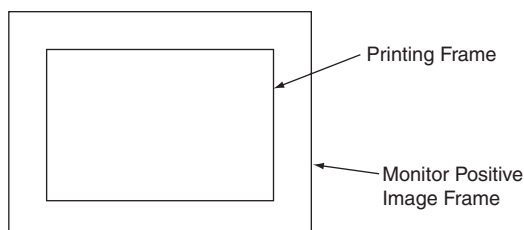
1. Select the carrier ID to be set up.



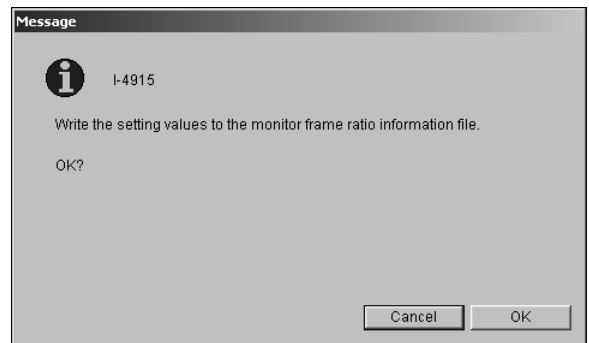
2. Change the monitor frame ratio.

NOTE: Set the monitor frame ratio to 95% for 135F/H/P/mount, IX240/mount and 110, and 98% for the other films.

If values greater than these are set up, the film mask frame may be displayed on the monitor screen. Make sure the mask frame is not displayed in the printing frame after setting up.



3. Click the [Storage] button.



4. Click the [OK] button.

- The changed data is saved.

5. Click the [Close] button.

- Operation returns to the menu screen.

4.6 Image Processing Section Adjustment/Maintenance

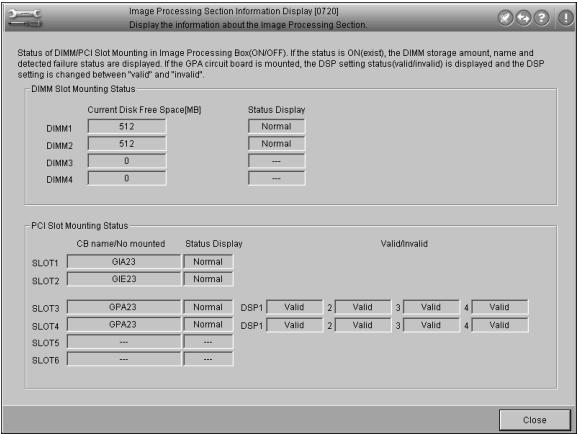
4.6.1 Image Processing Section Information Display (0720)

[Selection]

[Setup and Maintenance] → [07 Image Processing Section Adjustment/Maintenance] → [0720 Image Processing Section Information Display]

[Procedure]

Check the displayed DIMM/PCI slot mounting status (mounted or unmounted) in image processing box as well as each processing capacity, circuit board name and detected failure if mounted, and DSP setting status (valid or invalid) if the GPA circuit board is installed.



- Click the [Close] button.
- Operation returns to the menu screen.

5. SPECIAL PRINTING FUNCTIONS AND USE OF MAINTENANCE MENU

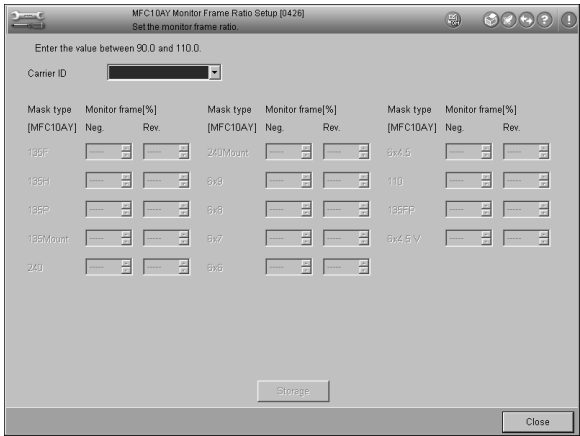
5.1 When a New Multi-film Carrier/ Mask is Used

When a new multi-film carrier MFC10AY or mask is used, set up the condition in accordance with the table below.

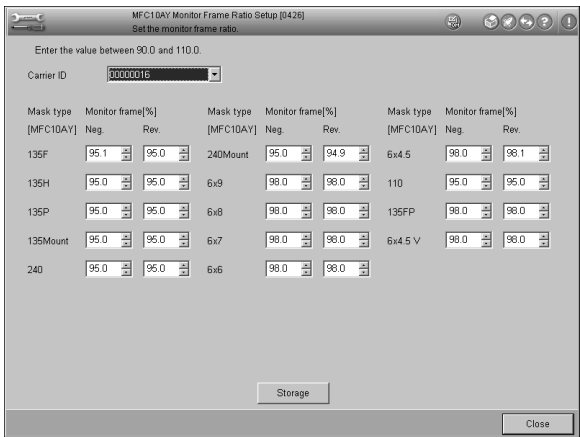
No.	Maintenance Menu	See Subsection
1	0426 MFC10AY Monitor Frame Ratio Setup	4.5.8
2	0321 Focus Position Adjustment	4.4.3
3	0420 Mask Position Adjustment	4.5.2

5.1.1 MFC10AY Monitor Frame Ratio Setup (Menu 0426)

- Click the [Setup and Maintenance] → [04 Carrier Adjustment/Maintenance] → [0426 MFC10AY Monitor Frame Ratio Setup] buttons.



- Select the carrier ID.

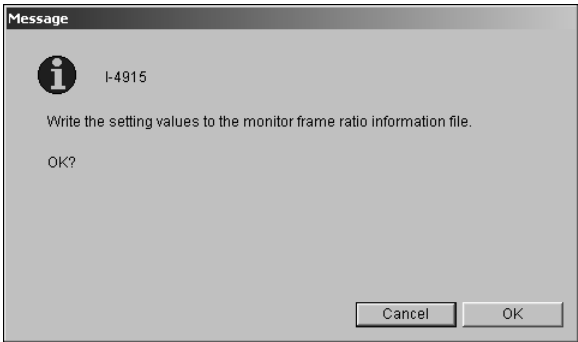


- Set all monitor frame ratios to 98%.

NOTE: Set the monitor frame ratio to 95% for 135F/H/P/ mount, IX240/mount and 110, and 98% for other films.

- Click the [Storage] button.

- The changed data is saved.



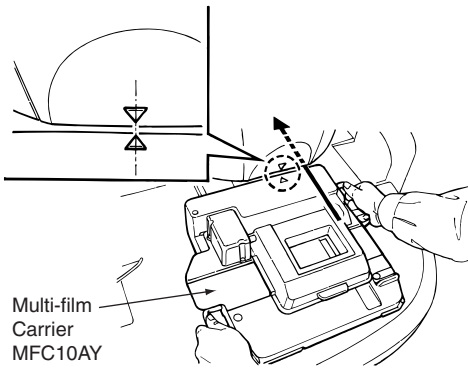
- Click the [OK] button.

- Click the [Close] button.

- Operation returns the menu screen.

5.1.2 Focus Position Adjustment (Menu 0321)

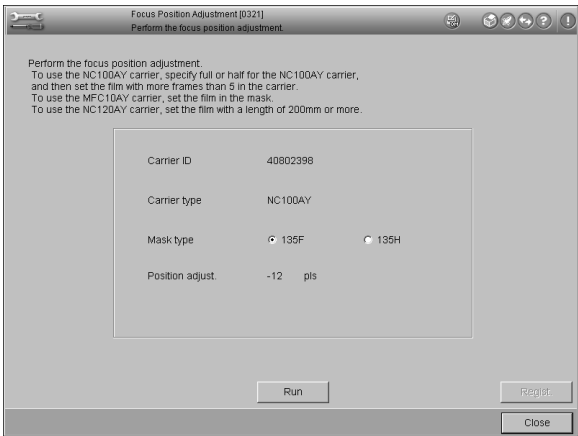
- Click the [Setup and Maintenance] → [03 Scanner Adjustment/Maintenance] → [0321 Focus Position Adjustment] buttons.
- Install the multi-film carrier MFC10AY.



- Install the mask to the carrier.

NOTE: Use the mount holder without film for the mount mask.

- Carrier ID, carrier type, mask type and position adjustment value are displayed.



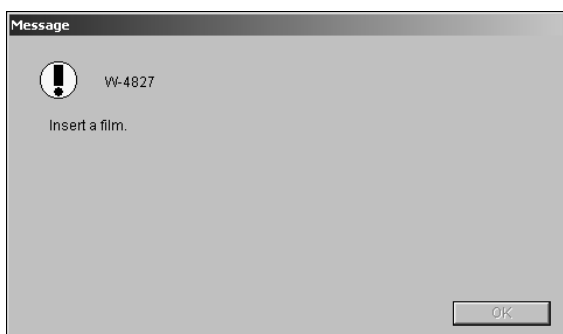
5. SPECIAL PRINTING FUNCTIONS AND USE OF MAINTENANCE MENU

4. 135M/IX240M: Select “135M” or “240M” for “Mask type”.

5. Except mount mask: Insert a film into the carrier.

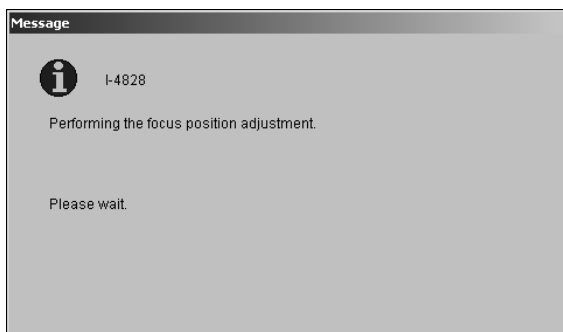
6. Click the [Run] button.

- The “I-4877” message appears.

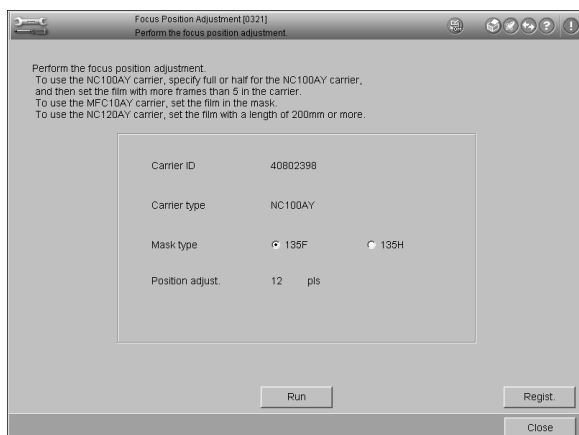


7. Confirm film insertion and click the [OK] button.

- The “I-4828” message appears.



- The position adjustment value is displayed when the adjustment is completed.



8. Click the [Regist.] button.

- The focus position adjustment value is registered.

NOTE: The adjustment value is not registered if the [Regist.] button is not clicked.

9. Repeat Steps 3 to 8 if there are other carriers or masks to be registered.

10. Click the [Close] button.

- Operation returns to the menu screen.

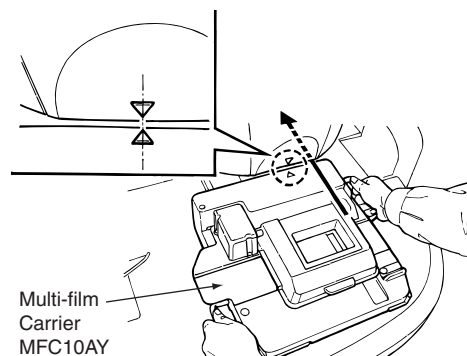
5.1.3 Mask Position Adjustment (Menu 0420)

NOTE:

- To adjust the mask position for the 135 reversal mount, use the mount holder without film.

- To adjust the mask position for the IX240 reversal mount, use the mount holder without film.

1. Install the multi-film carrier MFC10AY.

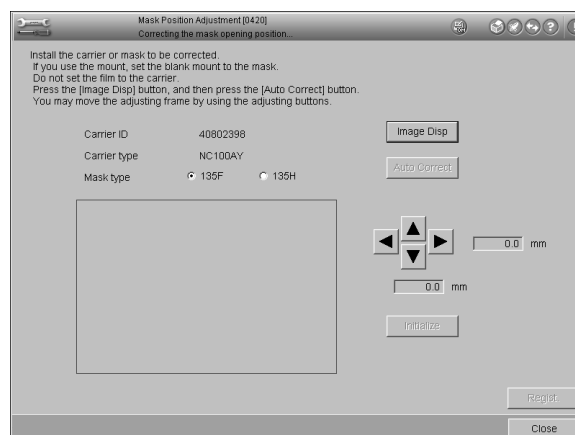


Z II 075

2. Click the [Setup and Maintenance] → [04 Carrier Adjustment/ Maintenance] → [0420 Mask Position Adjustment] buttons.

3. Install the mask to the carrier.

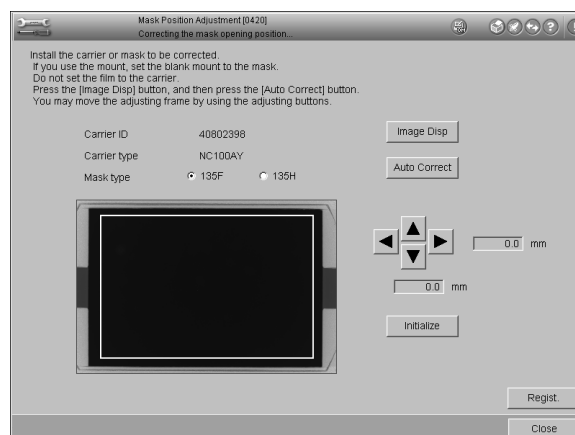
- The carrier ID, carrier type and mask type are displayed.



4. In the case of the mount mask, select “135M” or “240M”.

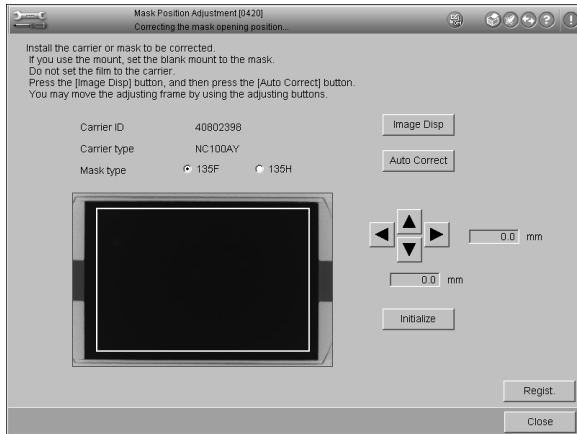
5. Click the [Image Disp] button.

- The mask position is measured and displayed.



6. Click the [Auto Correct] button.

- The mask position is corrected automatically and the vertical and horizontal correction values are displayed in the “Position Adjust” boxes.



7. If necessary, adjust manually by clicking the “Position Adjust” arrow buttons.

NOTE: The mask position is returned to the “0.0 mm” position if the [Initialize] button is clicked.

8. Click the [Regist.] button.

9. Repeat Steps 3 through 8 for all masks to be used.

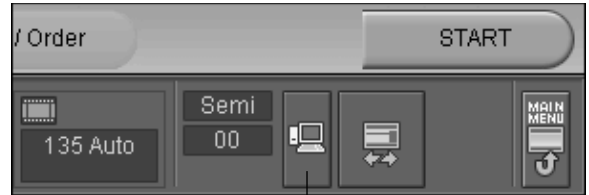
10. Click the [Close] button.

- Operation returns to the menu screen.

5.2 How to Print Underexposed Film and Fixed Feeding Adjustment

Select “Fixed Feed” when printing an underexposed 135-film. If the film feed length is incorrect, adjust it in Menu 0400.

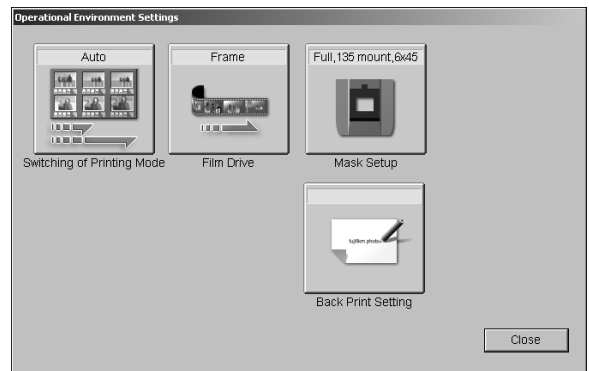
5.2.1 Fixed Feed Selection and Feed Length Check



[Operational Environment Settings] Button

1. Click the [Operational Environment Settings] button in the status and setting check bar on the order information screen.

- The “Operational Environment Settings” dialog box appears.



2. Click the [Film Drive] button.

- The “Film Feeding Method” dialog box appears.



3. Click the [Feed] (Fixed Feed) button.

4. Click the [All] button.

5. On the printing screen, insert a 36-exposure negative into the auto film carrier NC100AY.

6. Press the [PASS], [Start/Enter] keys thirty-five times to feed the negative to the final frame.

7. Make sure the final frame is in the printing frame correctly.

8. Cancel scanning and remove the negative.

5.2

5

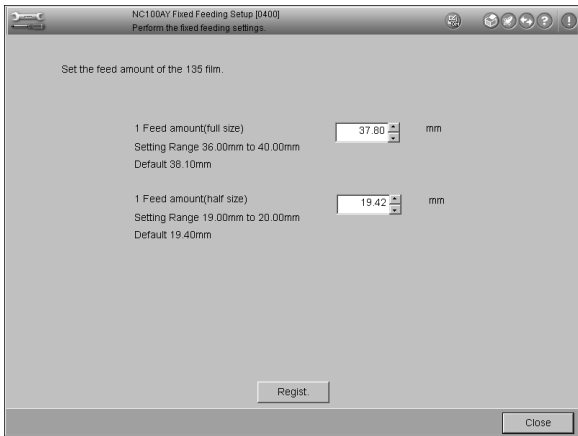
5.2.1

5. SPECIAL PRINTING FUNCTIONS AND USE OF MAINTENANCE MENU

9. If the frame is in the correct position, proceed to the printing operation.
If the frame position is incorrect, refer to Subsection 5.2.2 “Fixed Feed Length Adjustment (0400)”.

5.2.2 Fixed Feed Length Adjustment

1. Click the [Setup and Maintenance] → [04 Carrier Adjustment/Maintenance] → [0400 NC100AY Fixed Feeding Setup] buttons.

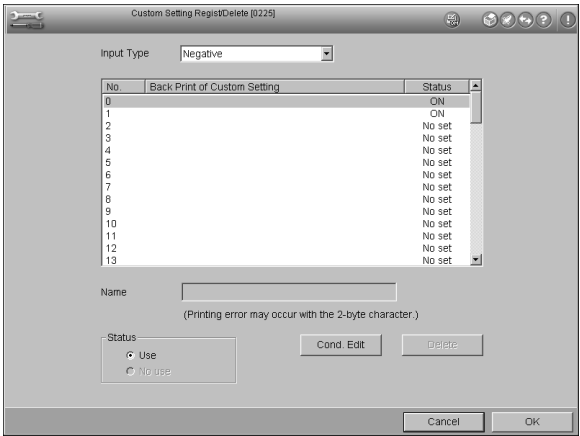


2. Decrease the feed length in the box on the screen when it is too large (the frame is shifted to the right-hand side). Increase the feed length in the box on the screen when it is too small (the frame is shifted to the left-hand side).
3. Click the [Regist.] button.
4. Check the feed length by repeating the steps given in Subsection 5.2.1.

5.3 Special Printing Functions

5.3.1 Changing Finished Image

To change the finished image for a specific film, set up the condition previously in Menu 0225 “Custom Setting Regist/Delete” (see Subsection 4.3.6 and call it up on the “Process 1” screen (see the “Operating Instructions” manual).



5.3.2 Changing IX240 Unexposed Frame Display Condition

The unexposed frame display condition for the IX240 on the monitor and index print can be selected in Menu 0300 “Image Scanning Method”.



● Printing Screen

Detect Level 1:

Unexposed frames are not displayed.

Detect Level 2:

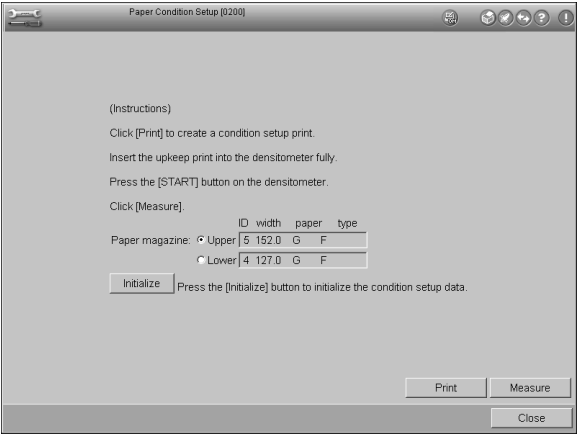
All frames including unexposed frames are displayed.

Detect Level 3:

Unexposed frames between exposed frames are also displayed.

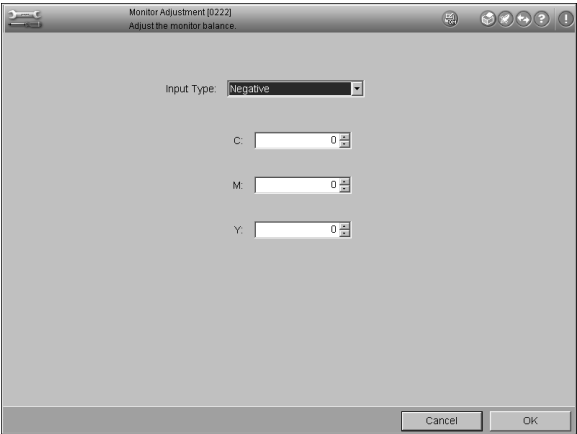
5.3.3 Print Image Color is Abnormal for a Specific Paper

When printing image color is abnormal for a specific paper, perform Menu 0200 “Paper Condition Setup” (see the “Operating Instructions” manual).



5.3.4 Monitor Color Balance Does Not Match Prints

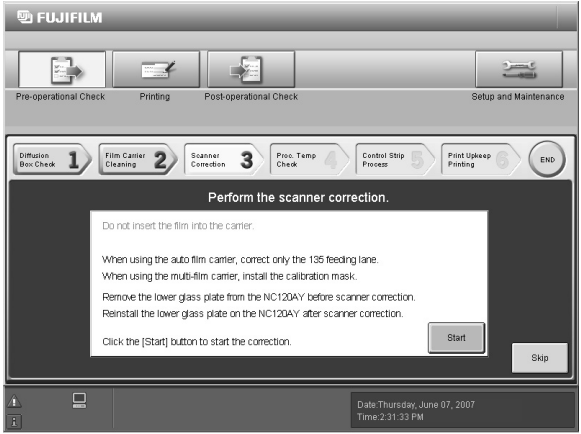
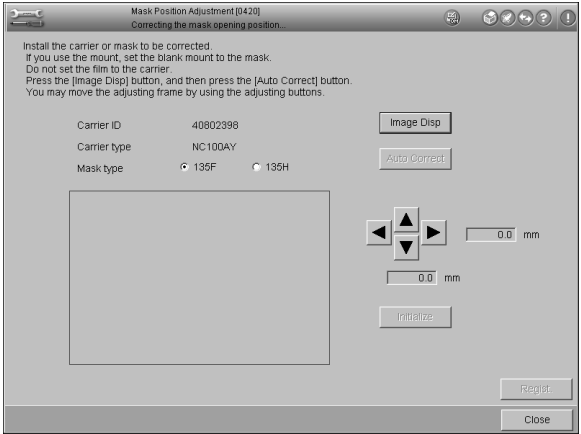
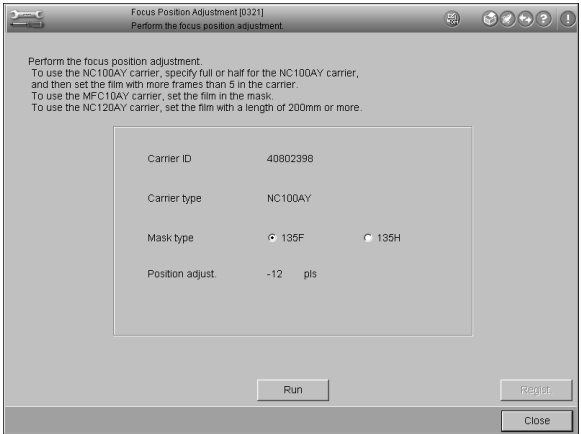
If color balance of the monitor does not match prints, perform Menu 0222 “Monitor Adjustment” (see Subsection 4.3.3).



5.3.5 Frequent Occurrence of Auto Focusing Error

When errors concerning auto focusing often occur, perform the adjustments in the order listed below.

Order	Menu	Refer to
1	0321 Focus Position Adjustment	4.4.3
2	0420 Mask Position Adjustment	4.5.2
3	Pre-operational Check-3 Scanner Correction	“Operating Instructions” Manual



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5.3.3

5.3.4

5.3.5

6. MAIN SPECIFICATIONS

6.1 Scanner and Image Processor

Item	Specifications
Type	Floor-type, independent scanner
Scanner section	Newly developed Super CCD Honeycomb (Area type), with precision pixel shifting system
Lens system	Single focus lens; conjugate length variable system
Light source	High luminance LED type, diffusion box
Film carrier	(1) 135/IX240 automatic film carrier NC100AY (standard) <ul style="list-style-type: none"> • 135F/P/HV/Half (optional): Color negative/black-white negative/color reversal; piece and strip film • IX240: Color negative/color reversal; cartridge and strip film (2) Multi-film carrier MFC10AY (optional) 110, IX240, 135F, 135P, 135 half, 135FP, 120/220 (6 × 4.5, 6 × 6, 6 × 7, 6 × 8, 6 × 9), 135 reversal mount (3) Auto-film carrier NC120AY (optional) 120/220 (6 × 4.5, 6 × 6, 6 × 7, 6 × 8, 6 × 9)
Operation	Operation keyboard, mouse and full keyboard (standard)
Image processing	Optimal color reproduction processing, gradation control, facial expression enhancement, hyper-tone processing, hyper sharpness processing, monotone finishing, retouching function (dust or scratches on film can be erased automatically in printing) Optional: Variety Print Service Software: mounted prints, negative index print, soft focus, cross lighting function, red-eye auto correction
Monitor	17-inch CRT color monitor (800 × 600 pixels) 6-frame or 1-frame display
Front printing	Printing possible for IX240
Index prints	Possible for 135 and IX240
Processing capacity	Scanner capacity (135 → 3R or 4R): 1,800 prints/hr Print capacity with LP-5700 (135 → 3R): 1,800 prints/hr
Power requirement	100 to 240V (50Hz/60Hz) single phase, automatic switching 100V: 10A max., 240V: 4.2A max.
Dimensions	890mm (970mm with negative receiver)(W) × 770mm(D) × 1.208mm(H) 35.04in (38.19in with negative receiver)(W) × 30.31in(D) × 40.47in(H)
Weight	118kg (260 lbs) with NC100AY and 17in CRT monitor
Installation space	2.03m ² /2.43sq.yd. [1,135mm/44.68in(W) × 1,785mm/70.28in(D)]

6.1

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