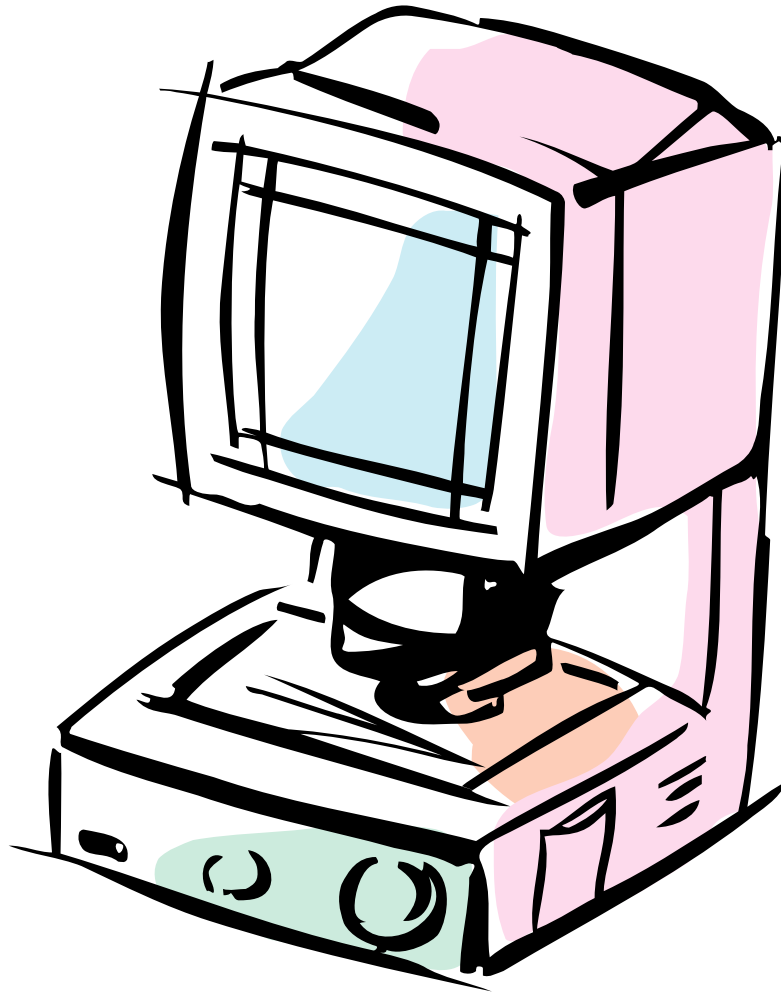


Canon

Microfilm Scanner 400

INSTRUCTIONS



ENGLISH

Be sure to read this instructions before you use the equipment.
Keep this instructions on hand for reference to ensure optimum performance.

FCC REGULATIONS (For 120V models)

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.

Do not make any changes or modifications to the equipment unless otherwise specified in the manual. If such changes or modifications should be made, you could be required to stop operation of the equipment.

RADIO INTERFERENCE REGULATIONS (For 120V models)

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Interference-causing equipment standard entitled "Digital Apparatus", ICES-003 of the Industry Canada.

RÈGLEMENT SUR LE BROUILLAGE RADIOÉLECTRIQUE (For 120V models)

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe A prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques", NMB-003 édictée par l'Industrie Canada.

Für EMVG

Dieses Produkt ist Gebrauch im Wohnbereich, Geschäfts-und Gewerbebereich sowie in Kleinbetrieben vorgesehen.

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BEFORE YOU BEGIN ...

These instructions describe the operating procedures for the Canon Microfilm Scanner 400. After you set up the unit, keep this manual in a convenient location so you can find it when you need it.

Important features

Saves space

The economical design of this compact film scanner requires less space on your desk or work table.

Automatic film detection

The unit automatically detects the presence of negative film or positive film and performs accordingly. Troublesome adjustments for the type of film are not required.

Uses a variety of film formats

A wide variety of roll/fiche carriers or auto carriers can be installed so you can use several film formats like microfiche, aperture card, and roll film.

Easy operation

Operations like border removal and image trimming can be performed at the press of a few keys before printing.

Easy expansion

With the installation of an SCSI board (sold separately), you can connect the unit to a personal computer for advanced operations like CAR detection and image transfers.

Conventions

A few symbols and notations alert you to additional information that will make operation of the scanner more efficient, trouble free, and safe.

(→13)

A number preceded by an arrow and enclosed in parentheses shows you the page number that contains more information about the previous statement or paragraph.



Notes provide additional hints or advice about making the operation easier or saving time.



Caution notices alert you to incorrect procedures that may damage the equipment.

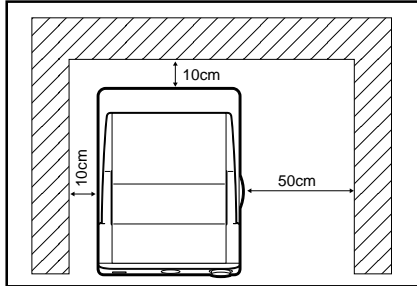


WARNINGS ARE FOR YOUR SAFETY. FAILURE TO FOLLOW WARNING INSTRUCTIONS CAN CAUSE SERIOUS INJURY TO YOU OR YOUR CO-WORKERS.

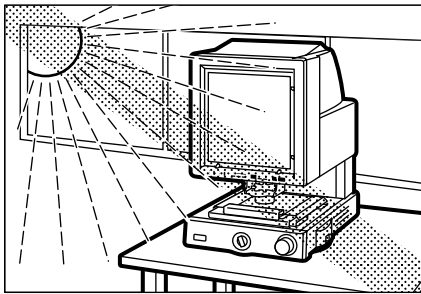
Work safely!

To ensure safe, efficient operation, read the follow precautions and recommendations before you choose a location and set up the system.

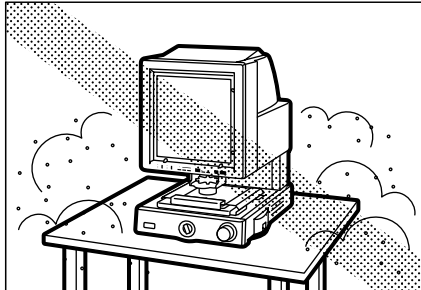
Choosing a safe location



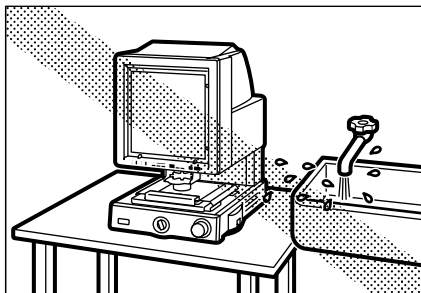
- To ensure adequate space for ventilation, operation, and maintenance, make sure there is enough space around the system on all sides. To prevent overheating, never block the ventilation slots.



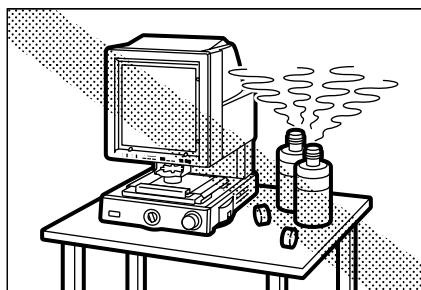
- Avoid exposure to direct sunlight. When exposure to sunlight is unavoidable, install curtains to protect the unit.



- Avoid a dusty location. Dust can adversely affect the internal parts of the unit.

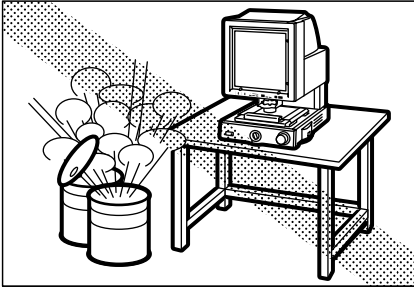


- Do not set up and use the unit in a location where the unit is exposed to water, steam, or high humidity. Keep all liquids away from the unit.

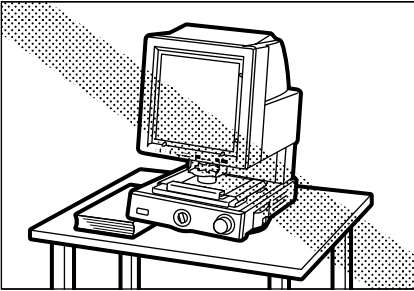


- Avoid areas like laboratories where fumes from ammonia, acetone, or other volatile chemicals are present. Never use any kind of volatile, flammable spray near the unit.

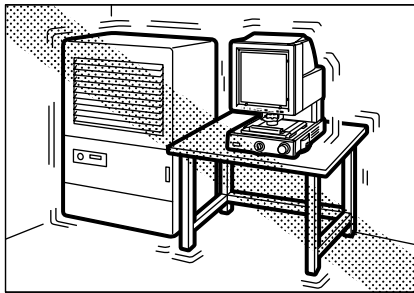
Work safely!



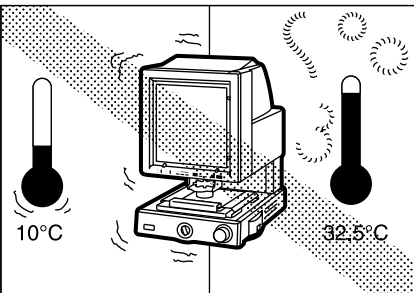
- Never set up the unit in an area where flammable substances like alcohol, thinner, or other organic chemicals are present.



- Select a flat, stable surface that can support the 26 kg (57.2 lb) weight of the unit.

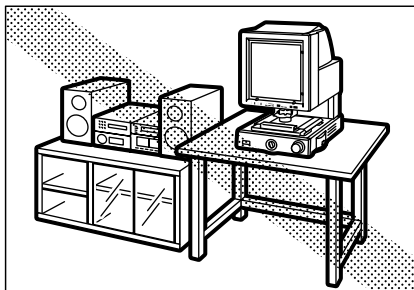


- Choose a location that is free of excessive vibration.



- Avoid a location subject to sudden or wide changes in temperature. Condensation inside the unit can cause poor print quality. Use the unit in a location within these ranges for temperature and humidity.

Temperature	10°C to 32.5°C (50°F to 90.5°F)
Humidity	10% to 85% RH



- Do not place the unit near large speakers, a radio, a television, or any other type of equipment that can generate a strong magnetic field.

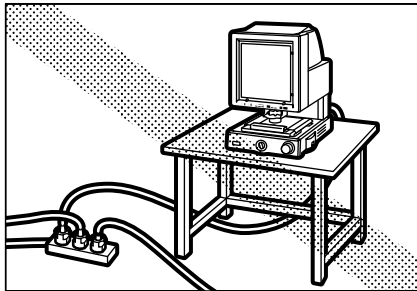
Selecting a power source

Power supply requirements

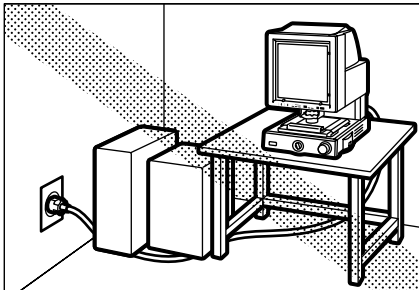
U.S.A.	120V, 50-60 Hz	With no variation more than 10% above the rated power on the unit label.
Europe (other areas)	220-240V, 50-60 Hz	



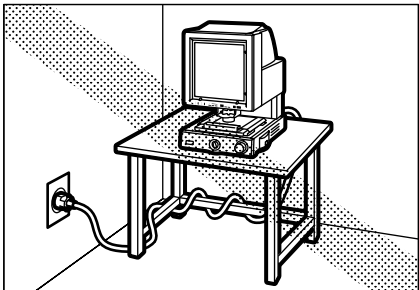
If you have any questions about the power source at your work site, contact your supplier or the power company.



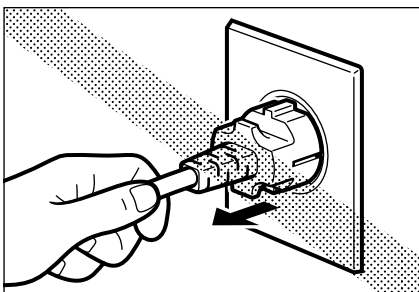
- The unit should have an independent power source that is not shared with any other electrical device. If you have to use an extension cord or power strip, make sure the total ampere rating for all the equipment does not exceed the ampere rating of the extension cord.



- Do not place anything on the power cord, and do not locate the unit where people working around the unit will walk on the cord.



- Do not bundle the power cord or wrap it around an object like a table or chair leg. The area around the unit should be clear of all obstacles. In case of an emergency, you should be able to reach the power source quickly to unplug the cord.



- To remove the power cord from the power outlet, grasp the head of the plug firmly to remove it. Never pull on the cord to remove the plug from the power outlet. Never touch the power cord with wet hands.

Important warnings

Before you use the equipment, make sure you and your co-workers read the following warnings about using this equipment.



PAY ATTENTION TO THESE WARNINGS! FAILURE TO FOLLOW THESE WARNINGS COULD RESULT IN INJURY FROM FIRE OR ELECTRICAL SHOCK!

- Use only the power cord supplied with the unit.
- Never disassemble the unit. There are no user servicable parts inside the unit.
- If you detect strange noises, odors, or smoke around the unit, turn the power switch off immediately, remove the plug from the power source and call for service.
- Handle the unit carefully to avoid dropping it, hitting it, or subjecting it to strong shock or vibration. If something collides with the unit or hits it, turn it off immediately, remove the plug from the power source, and call for service.
- Before you move the unit even a short distance, turn off the power switch and remove the plug from the power source.
- Never place anything on top of the unit, especially a liquid container like a flower vase.
- When you are working around the unit, avoid wearing loose fitting jewelry like bracelets and necklaces.
- Keep the work area clear of metal clips, pins, paper clips and other types of fasteners. If something falls into the unit accidentally, turn the unit power switch off, unplug the power cord from the power source, and call for service.
- To avoid possible injury from falling objects, never place heavy objects on the unit.
- If the unit is not to be used for a long period, turn the power switch off and unplug the power cord from the power source.
- Avoid touching internal parts when you perform routine cleaning or maintenance like changing the lamp. Some parts inside the main unit generate high temperatures and high voltages.
- To avoid minor injuries, avoid touching the metal studs on the bottom of the unit when you move it.

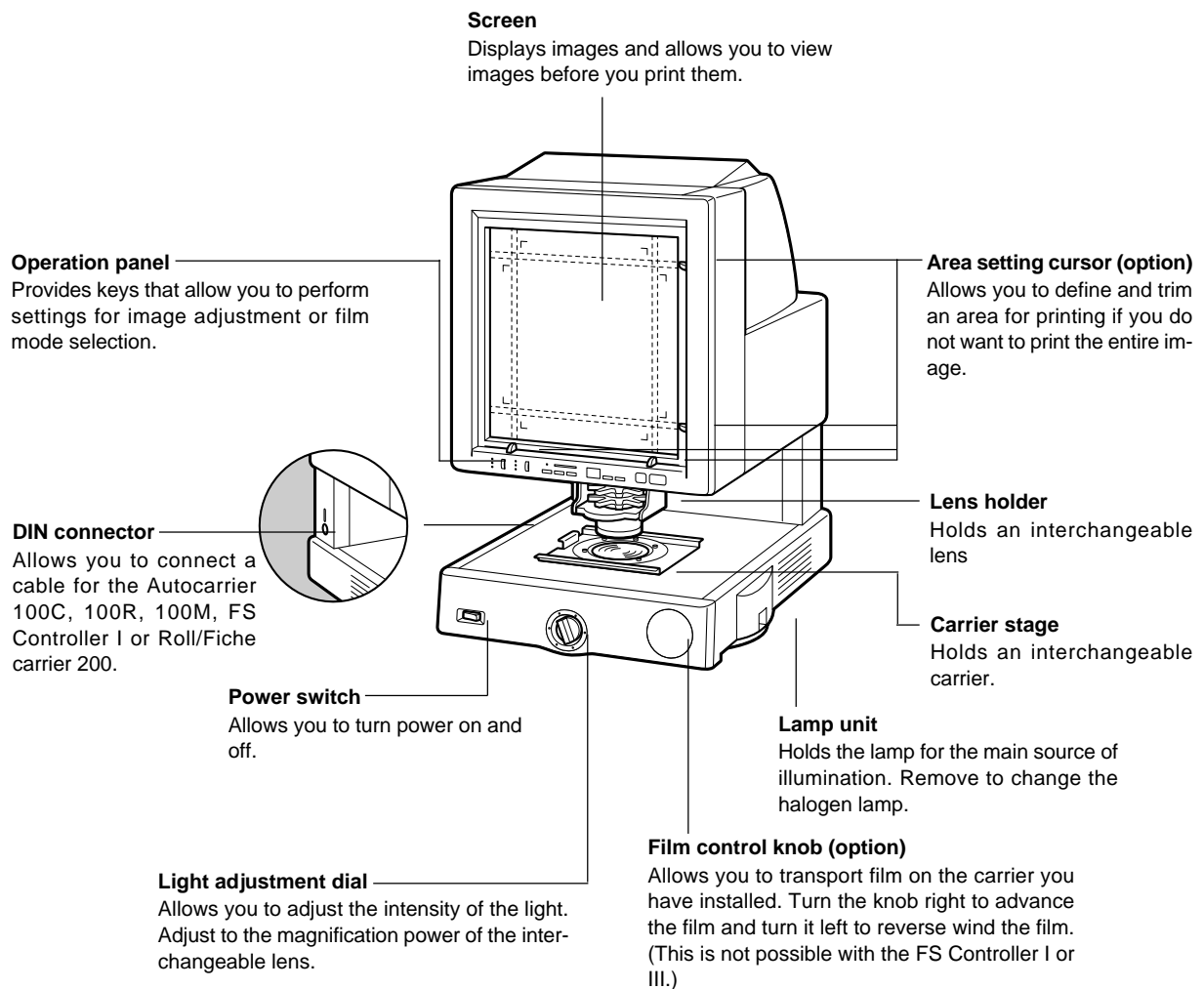
Unpacking: What's in the box?

When you unpack the box, use the checklist below to make sure that you have everything. If anything is missing, contact your supplier.

- Microfilm Scanner 400
- Halogen lamp
- Power cord
- Lens label
- Instructions
- Warranty Card (U.S.A. and Canada only)

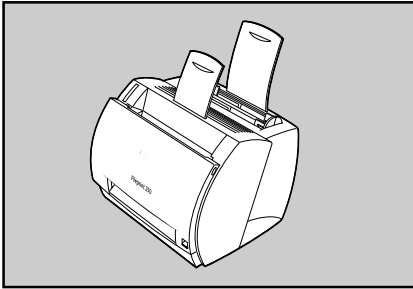
Important parts and their functions

Before you use the unit, take a few minutes to become familiar with the names of the important parts.

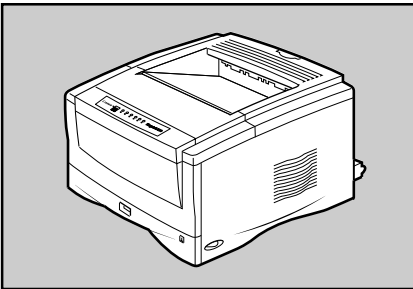


Preparing the printer

In order to print images, you need to connect the Canon Fileprint 250 or Canon Fileprint 400 (sold separately). For details about connection and other important operations for the printer, call for service from your supplier or see the instructions you received with the printer.



Canon Fileprint 250



Canon Fileprint 400

Preparing the carrier

This is a list of the all the carriers that can be installed and used with the Microfilm Scanner 400. For more details about these options, contact your supplier. For details about installation and operation, refer to the instructions provided with each auto carrier.

■ Fiche Carrier 190RII

A film carrier which allows viewing of fiche, jackets, or aperture cards up to 105 mm x 190 mm.

■ Autocarrier 100C (AC100C)

A motorized auto carrier for 16 mm cartridge film cartridges (ANSI, ANSI ENCLOSED*¹, Kodak Ektamate, 3M) that features fast autoloading and high speed film feeding for image display.

■ Autocarrier 100M (AC100M)

A motorized auto carrier for 3M or TUSCAN M-Type*² cartridges that feature fast autoloading and high speed film feeding for image display.

■ Autocarrier 100R (AC100R)

A motorized auto carrier for 16 mm or 35 mm film wound on standard open reels.

■ FS Controller I

A motorized auto carrier for 16 mm cartridge films (ANSI, Kodak Ektamate, 3M). This carrier is required for reading film marked with blips for image search and retrieval.

■ FS Controller III

A motorized auto carrier for the new 16 mm cartridge films (ANSI, Kodak Ektamate, 3M). This carrier is required for reading film marked with blips for image search and retrieval.

■ Roll/Fiche Carrier 200

A motorized fiche auto carrier for either fiche, jacket, or aperture card format film, 16mm/35mm film standard open reels or 3M, TUSCAN M-Type*² cartridges.

*¹ ANSI ENCLOSED cartridge is defined as ANSI MS-15.

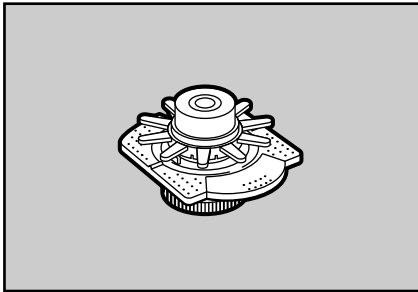
*² TUSCAN M-Type is a TUSCAN cartridge with a 3M-type core.

Preparing the lens

The following types of lenses are available.

Fixed lens

EX7 (x7)



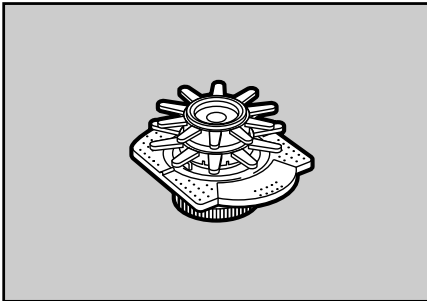
Zoom lenses

EZ01 (x9.5 to x16)

EZ02 (x16 to x32)

EZ03 (x30 to x55)

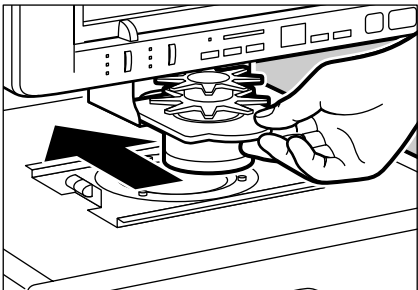
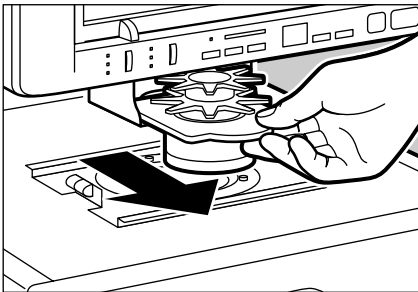
EZ04 (x10 to x24)

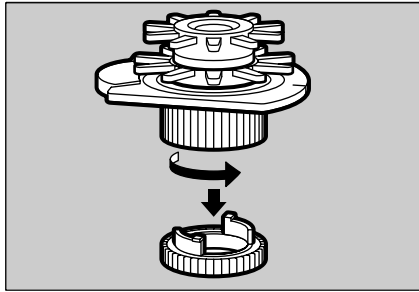


Switching the lens

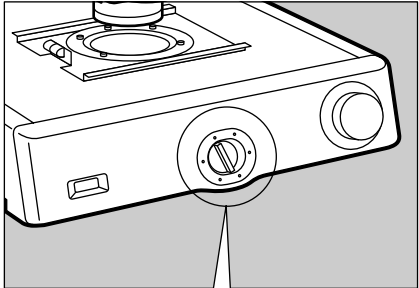
Follow the procedure below to install or exchange lenses.

1. If a lens is already installed, grasp the edge of the holder and slide it out of the unit.
2. Slide the other lens into the unit.



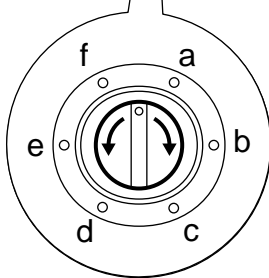


If you are using the FS Controller I, before you insert the lens, remove the bottom cover of the lens as shown in the illustration. Make sure you keep the cover and install it on the lens again after it is removed from the unit.



3. Turn the light adjustment dial to the left or right to adjust the light intensity of the screen. Adjust the light intensity to the type of lens installed.

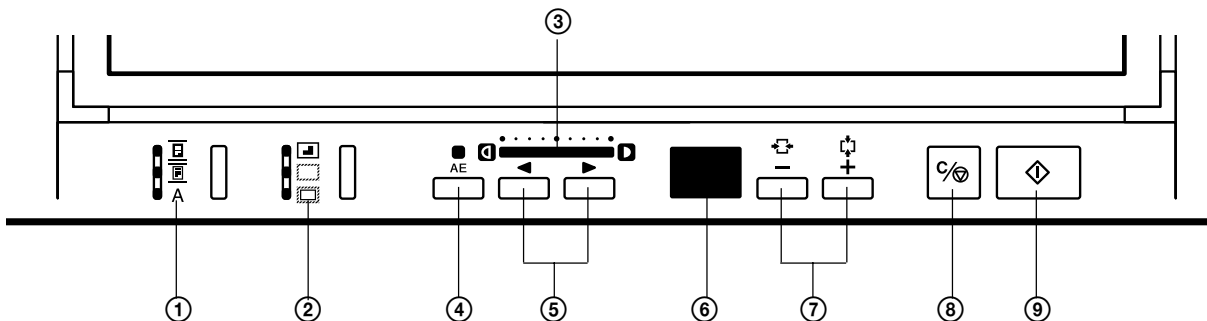
To adjust the light intensity for the lens installed, adjust the light intensity to the color label for the lens shown on the lens label.



Light adjustment dial

Lens Label



The operation panel keys



① Negative/Positive key



Three settings are available:




- () In negative film mode, produces positive prints from negative film images.
- () In positive film mode, produces positive prints from positive images.
- (A) In automatic mode, selects the mode based on the type of film detected.

② Border key



Allows you to remove the dark background or trim the area of the image that you want to print.

Three settings are available:

- () Frames an area.
- () Automatically removes the black border around the image for printing.
- () Automatically removes most of the black border around the image but leaves a border up to 5 mm around the image.

③ Print Density display



Displays the selected print density. Also displays the sharpness and date messages when you set these features.

④ AE On/Off key



Turns automatic print density selection on and off.

If the FilePrint 400 is connected, Hold down the [AE] key for about 5seconds to start the cleaning mode. "A4" is shown in the page count display.

⑤ Print Density Adjustment key



Press to select print density automatically.

⑥ Print/Error Display



Displays the number of prints (01 to 99). Also displays User Calls and Service Calls.

User Calls

Warn you of problems that require your immediate attention. A user call is a 2-digit code consisting of a letter and a number. User Call **L4** for example means the printer door is open. (→26)

Service Calls

Warn you of problems that require the service of a qualified technician. Service calls are 4-digit codes consisting of the letter **E** and number and then two numbers shown alternately in the display. If you see **E2** and **03** displayed alternately, this means Service Call **E203**. (→27)

⑦ Print Number Setting key



Use these keys to set the number of copies to be printed. Press the plus (+) key to increase the number and the minus (-) key to decrease the number.

You can also use these keys to select the cassette if you are specifying the area and the FilePrint 400 is connected.

If the FilePrint 400 is connected and when in the cleaning mode, use the Plus (+) or minus (-) key to set the size of the cleaning paper (A4 or Letter).

⑧ Clear/Stop key



Press this button to cancel printing or change the number of copies to be printed. If the FilePrint 250 is connected, you can also use this button to switch to paper size setting mode.

If the FilePrint 400 is connected, you can also use this button to switch to cassette selection mode.

⑨ Print Start key



Press this button to print.

OPERATING PROCEDURES

This section describes procedures for normal operation of the unit:

- Turning the unit on and off.
- Adjusting the image on the screen.
- Printing the image on the screen.

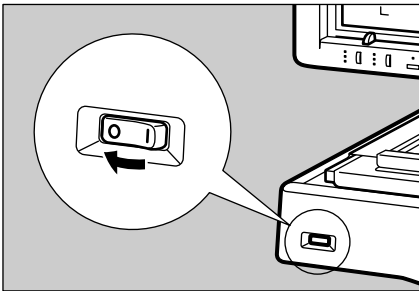
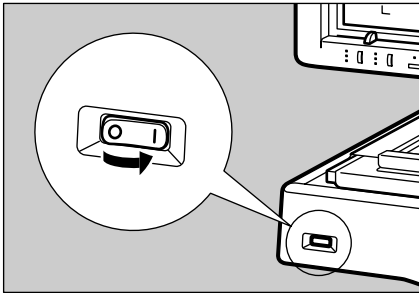
Turning the unit on/off

Follow the procedure below to turn the unit on and off.

1. If you have installed an FS Controller III auto carrier, turn the controller on first.
2. On the front of the main unit, locate the power switch on the lower left corner then press the **I** side of the switch to turn the power on.
3. Turn on the power switch of the printer.

After you turn the unit on, the Print display starts to blink and will continue to blink while the unit warms up. While the Print display is blinking, you cannot start operation. When the Print display stops blinking and stays on, the unit is ready for normal operation.

4. To turn the unit off, press the **O** side of the power switch.

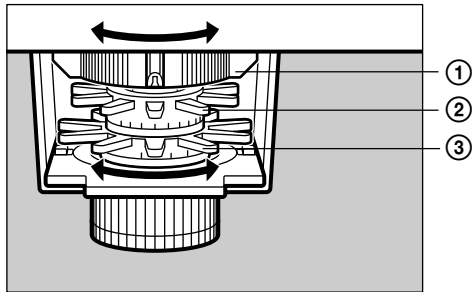


Setting the film

Load the auto carrier with the film you want to view. For details about the auto carrier installation, see the instructions you received with the auto carrier.

Adjusting the image

Follow the procedure below to adjust the image on the screen. Read and perform this procedure correctly to attain a crisp image on the screen and a clear printed copy.



Rotating the image

To rotate the image to the desired angle, rotate the rotation fin ① to the left or right.

Enlarging and reducing image size

To make the image larger or smaller, rotate the zooming fin ② on the lens to the left or right.

Focusing the image

To focus the image on the screen, rotate the focusing fin ③ on the lens to the left or right.

Printing

The image on the screen can be printed with a printer connected to the unit. This section describes how to set the film mode and execute a print.

Starting a print

1. Check the main unit and the printer and make sure that they are both turned on. (The power switches should be set to the **I** position.)



You can execute a print after both the main unit and printer have warmed up. The main unit is warmed up when the Print display on the operation panel comes on and stops blinking.




2. Select a positive or negative type film.


Press the Negative/Positive key to select a film mode.

The lamp to the left of the key and icons tells you the current selection. Press the key and keep pressing it until the lamp next to the selection you want lights.



	Negative	Prints positive on negative film.
	Positive	Prints positive on positive film.
A	Auto	Automatically detects the type of film in use and prints a positive image. If you select Auto, the Negative or Positive lamp blinks to tell you which type of film has been detected.

 The EZ-04 zoom lens has no function to automatically switch between Negative and Positive. When using the EZ-04 zoom lens, always use the Negative/Positive switching key to select () negative or () positive.

 Do not use Auto for an image with a grey or light border (where black and white may be difficult to distinguish), or if you intend to remove the border from the image, trim the image, or define the area on the image with the other keys. If you intend to use these special functions, set Negative or Positive manually.

3. Display the image you want to print. Adjust the image so it is within the print frame. (→15)
4. Adjust the print density. You can let the unit adjust the print density automatically by pressing the **AE** key, or adjust it manually.



■ **Automatic adjustment**

Press the **AE** key on the keyboard or operation panel, so that the lamp above the key comes on. The MS400 adjusts the print density automatically.



Even when using automatic adjustment, you can still use the Print Density Adjustment keys to fine tune the setting. The Print Density display changes accordingly. You can fine tune to 17 different levels.

■ **Manual adjustment**



Make sure that the lamp above the **AE** key is off. (If necessary, press the **AE** key so that the lamp goes off.) Then adjust the density by pressing the appropriate Print Density Adjustment key (right arrow or left arrow) on the keyboard or operation panel. The Print Density display changes accordingly, with rightward movement indicating higher density. You can set to any of 33 levels.

5. Set the paper size that you want to print.

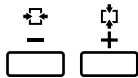
■ **If you use Fileprint 250, please select paper size set on the Paper Tray.**

(1) Press the Clear/stop key and keep on for about 5 seconds to enter the paper size setting mode. At that time, the current paper size appears on the print display.



A4 A4
11 Letter
b5 B5
14 Legal

(2) When pressing plus (+) key of the print number setting key, the display is changed in due order as *A4* → *11* → *b5* → *14*. On the other hand, when pressing minus (-) key, the display is changed in due order as *14* → *b5* → *11* → *A4*.



(3) Press the Clear/stop key to define paper size that you want to use.

■ **If you use Fileprint 400, please select the Paper Cassette or Paper Tray you want to use.**



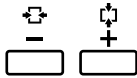
The paper size to be set on the paper tray will be selected by a service technician at the installation of Fileprint 400.



(1) Press the Clear/stop key and keep on for about 5 seconds to enter the cassette select mode. At that time, the current paper cassette appears on the print display.

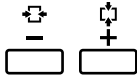
Print display	Tray selection
<i>00</i>	Multipurpose tray selected
<i>01</i>	Upper cassette selected
<i>02</i>	Lower cassette selected

OPERATING PROCEDURES



(2) When pressing plus (+) key on the print number setting key, the display is changed in due order as $00 \rightarrow 01 \rightarrow 02 \rightarrow 03$. On the other hand, when pressing minus (-) key, the display is changed in due order as $03 \rightarrow 02 \rightarrow 01 \rightarrow 00$.

(3) Press the Clear/stop key to define paper size that you want to use. At that time, the print number display returns to "01".



6. Set the number of print prints (01 to 99)
Press the Print keys to set the number of prints.

To increase or decrease the number of prints:

Press the plus key to increase the number.

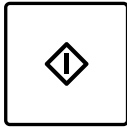
Press the minus key to decrease the number.

To restore the default (1 copy):

Press the Stop/Clear key to reset the number of prints to 01.

7. You can also remove the border from the image or trim the image (→19, 20).
8. To start printing, press the Print Start key.

If you want to cancel printing at any time, press the Stop/Clear key C/⊙.



Setting automatic border removal

An image on negative film is displayed on the screen with a black border around the image, and this black border will also appear in your printed copy unless you remove it with the automatic border removal function.


Remove these black borders around your images to avoid wasting toner when the images are printed.


-or-

You can also leave the border around the image but with very little of the black color remaining.

Press the Border key to change the setting.

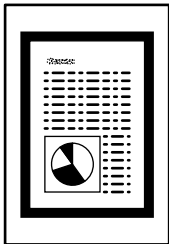
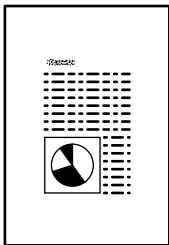
The lamp to the left of the Border key shows you the current selection. To change the selection, press the Border key until the lamp lights next to the selection you want to use.

() Select for removal of all black color around the image.

() Select for removing most of the black color around the image.

Note the following restrictions on the use of this feature:

- For images with ill defined borders, this function may not operate correctly.
- This function cannot be used when part of the image is outside the print frame.
- If several images are on the screen, the image other than the one you want may print.
- This feature cannot print a border larger than 5 mm around an image.



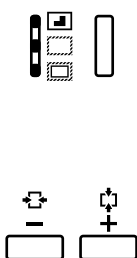
Using trimming

Use the trimming feature to crop and print only a selected portion of an image.

■ What is trimming?

Trimming means selecting only a portion of an image and cropping it for printing. Only the trimmed or cropped area of the image is printed. For example, you could trim a single article from a full page of newspaper print and print only the article enclosed in a trimmed rectangle.

To select trimming, press the Border key on the operation panel until the lamp next to the trimming icon lights (■). Follow the procedure below to define the area to the image to be printed.



■ Defining an area for trimming

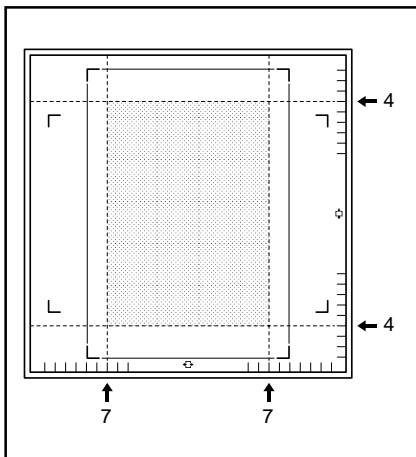
1. Press and hold down the Border key for approximately 5 seconds until the lamp for trimming (■) starts blinking.

The current area setting is shown in the Print display.

2. To adjust the area setting, press the Print Number Setting keys. The starting point or origin for defining the screen area is the lower right corner of the screen.

Plus key	Press to move in the vertical direction. The number in the Print display shows the current screen vertical coordinate.
Minus key	Press to move in the horizontal direction. The number in the Print display shows the current horizontal coordinate.

For example, the illustration shows the vertical set for 4 and the horizontal set for 7. The shaded area is the area trimmed and selected for printing.



3. To save the setting, press the Border Button. The setting remains in effect even after the power is turned off and turned again.



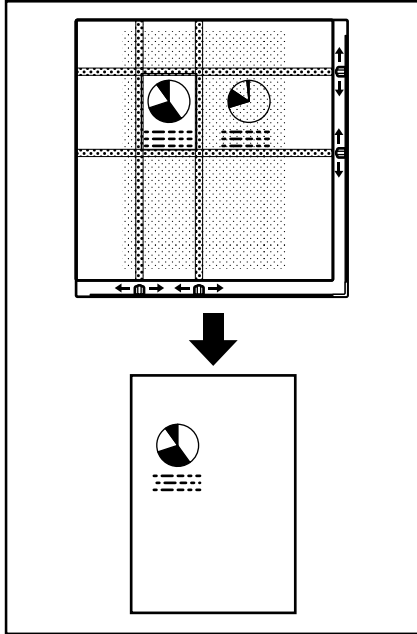
If you have installed the optional Framing Kit, you cannot use this method to set an area on the screen. Use the area setting tapes to define an area.

■ Setting an area with the area setting tapes (option)

If you have installed the optional Framing Kit, you can use the keys at the bottom and on the right side of the screen to select an area for printing. There are 4 tapes on the screen you can move to select an area for printing. The rectangle enclosed by the 4 tapes is the area selected for printing.



You can use this feature only after you have installed the optional Framing Kit.



MAINTENANCE AND TROUBLESHOOTING

This section describes routine maintenance and troubleshooting procedures:

- Changing the halogen lamp.
- Cleaning the main unit.
- Reading and understanding errors and solving the problem.

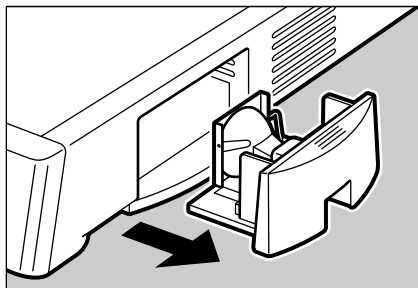
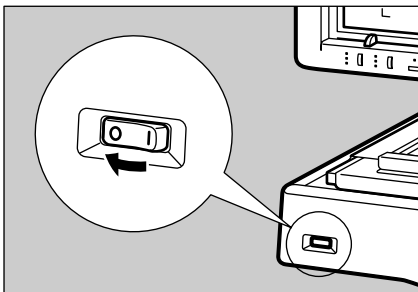
To ensure optimum performance and a long service life for the unit, perform the routine maintenance procedures described below.

Changing the lamp

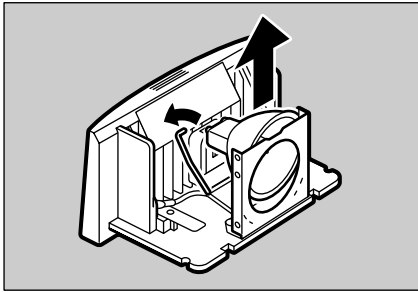
The halogen lamp projects the film image on the screen. If it burns out, you will not be able to see images on the screen. Follow the procedure below to change the lamp after it burns out.

If the lamp burns out, you will see **L5** displayed in the Print display.

! THE HALOGEN LAMP AND LAMP UNIT ARE EXTREMELY HOT. AFTER "L5" APPEARS IN THE PRINT DISPLAY, WAIT A FEW MINUTES FOR THE LAMP AND LAMP UNIT TO COOL DOWN BEFORE YOU TURN OFF THE UNIT AND CHANGE THE BULB.

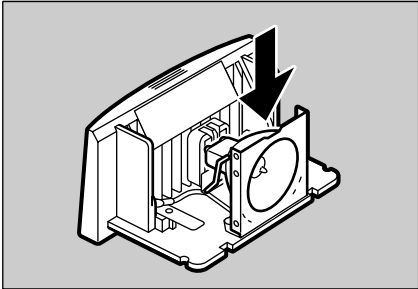


1. If you do not see the image on the screen, check the Print display. If you see **L5** in the Print display, this confirms that the halogen lamp has burned out. (→26)
2. Wait about 5 minutes for the lamp and lamp unit to cool down. Then turn off the unit.
3. On the right side of the unit, grip the lamp unit with firm pressure and pull it from the main unit.



⚠ IF THE LAMP IS STILL WARM, WAIT UNTIL THE LAMP UNIT COOLS DOWN. HALOGEN LAMPS BURN EXTREMELY HOT AND REQUIRE MORE TIME TO COOL DOWN THAN ORDINARY BULBS.

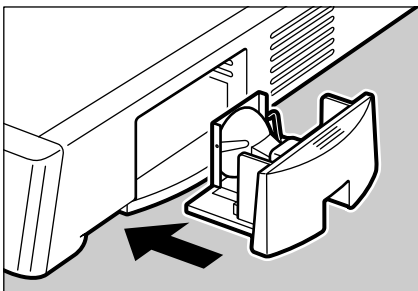
4. Push the side lever holding the halogen bulb to the side then lift up the bulb.



5. Replace the halogen bulb only with a Canon specified replacement.

👉 Handle the new halogen bulb with extreme care. Do not touch the surface of the new bulb with your bare fingertips. Oil from your fingertips or other foreign matter can cause the bulb to burn unevenly, shortening the service life of the halogen bulb.

While holding the company mark on the new halogen bulb up, insert the bulb into the lamp unit.



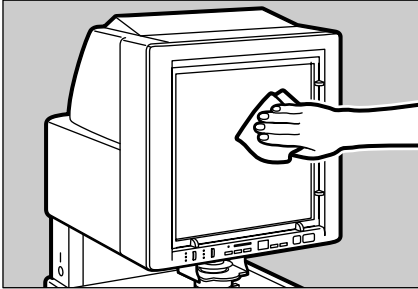
6. Insert the lamp unit into the main unit with firm, even pressure until it locks into place.

Routine cleaning

Follow these simple procedures to clean the unit at least once a day to ensure optimum performance and to guarantee a long service life for the main unit.

Cleaning the screen and main unit

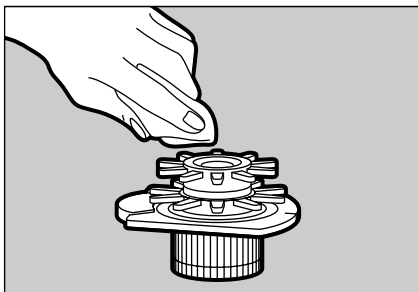
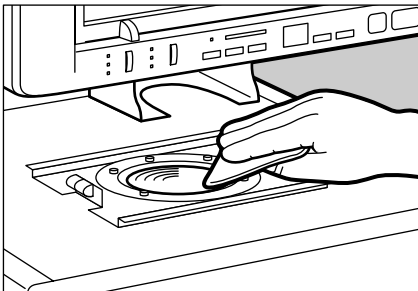
Use a dry, soft cloth or a clean, slightly damp cloth to wipe off the screen and body of the main unit.



To avoid damaging the surface of the main unit, never use an organic solvent or cleaner to wipe down the main unit.

Cleaning the lens

1. Turn the main unit off. Then remove the carrier and lens unit.
2. Use only a soft, dry cloth to wipe off the field lens.
3. Use only a soft, dry cloth to wipe off the upper and lower surfaces of the lens.



Troubleshooting

If you detect a problem during operation of the main unit, check the list of problems and possible solutions below.

Problem	Solution
Screen does not come on, even after turning on the power switch.	<ul style="list-style-type: none"> • Check the lamp unit and make sure it is set securely. • Check the lamp to see if the lamp is burnt out. After the lamp burns out, L5 is displayed. If the lamp is burned out, change the halogen lamp. (→22)
Screen brightness is uneven or too dark.	<ul style="list-style-type: none"> • Check the lens and make sure it is clean. • Check the lens and make sure it is securely installed. • Check the lamp and lamp unit and make sure both are installed securely. • Check the setting of the Light Adjustment dial and make sure it is set correctly for the type of lens installed. (→11)
Image is out of focus.	<ul style="list-style-type: none"> • Rotate the focus fin on the lens to adjust the focus. (→15) • Check the lens and make sure that it is installed correctly. • Check the carrier and make sure that it is installed correctly. For details, read the instructions you received with the carrier. • Check the lens and lamp and make sure they are clean. If required, clean the lens or lamp
Image is skewed.	<ul style="list-style-type: none"> • Rotate the rotation fin on the lens to adjust the image. (→15) • Check the carrier and make sure that it is installed correctly. For details, read the instructions you received with the carrier.
After pressing the print key, print will not start.	<ul style="list-style-type: none"> • If the Print display is blinking, this means the unit is warming up. After the display lights and stays on, then the unit is ready to use. • If the Print display shows a User Call Error, look it up in the table. (→26)

User Call Errors

Here is a list of User Call Errors. If you see a User Call Error in the Print display, look it up in the table below.

Error Number	Meaning	Solution
P0	After removing a piece of jammed paper, a sheet of paper is still jammed in the printer.	Remove the jammed sheet from the printer. For details, refer to your printer manual.
P1	A sheet of paper jam has occurred inside the printer.	
P2	Two sheets of paper have jammed inside the printer.	
L1	Paper is not set in the printer.	Supply paper to the paper cassette of the printer. For details, refer to the printer manual.
L2	Toner in the toner cartridge is low, or the toner cartridge is not installed correctly.	Remove the toner cartridge and install it again. If the message appears again, replace the toner cartridge. For details, refer to the printer manual.
L4	The printer cover is open.	Close the printer cover and make sure it locks in place. For details see the printer manual.
L5	The halogen lamp on the main unit has burned out or is not installed correctly.	Check the lamp installation and make sure it is installed correctly. If the error occurs again, replace the halogen lamp. (→22)
L8	Wrong paper size in printer feed tray.	Re-load the tray with the correct paper size.
L9	Printer power is not turned on, or a test print is printing.	If the printer is off, turn the printer power switch on. For details, see the printer manual.

Service Call Errors

Every time you turn on the main unit, the unit automatically performs a self-diagnostic test. If the unit detects a problem at power on, or at any other time during operation, it will display a Service Call Error message in the Print display. A Service Call Error is a three-digit number prefixed with the letter "E" (Ennn). A Service Call Error message tells the service technician the source of the problem.

Follow the procedure below when a Service Call Error occurs.

1. Note the Service Call Error in the Print display and turn the main unit off immediately. Wait a few moments.
2. Turn the main unit on again and watch the display.

If you see a "1" in the Print display, the main unit has recovered and you can resume normal operation.



When a service call error occurs, turning the main unit off and on again frequently solves the problem.

If you see the Service Call Error again (Ennn), jot down the error number, turn the main unit off immediately, then unplug the main unit, printer, and/or carrier from the power source. Call for service and make sure you tell the service technician the number of the Service Call Error displayed in the Print display.

SPECIFICATIONS

Microfilm Scanner 400**Main Unit**

Type	Desktop digital microfilm scanner
Screen	300 mm x 300 mm
Scanning method	400 dpi digital scanning
Film	Negative, Positive, Negative/Positive auto switching
Lens magnification	x7,x9.5-x16, x16-x32, x30-x55, x10-x24
Light source	Halogen lamp (20V 150W)

Film

Type	Silver film, diazo film, (blue/black)
Base density	0.6 to 1.4 for negative, 0.3 or less for positive

Image Adjustment

Focus/zoom/rotation	Manual
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Printing

Print size (USA or Canada)	A4, Letter, Legal
Print size (other areas)	A4
Density control	AE, manual
Continuous printing	1 to 99
Print options	Automatic border deletion, Trimming

General

Power	AC 120V 50/60 Hz AC 220-240V 50/60 Hz
Power consumption	Max. 290W
Acoustic noise level	Less than 70 dB
Work environment	Room temperature: 10°C to 32.5°C (50°F to 90.5°F) Humidity: 10% to 80%RH (without condensation)
Dimensions	668 x 442 x 541 mm (H x W x D)
Weight	Approx. 26 kg

Options

Fixed lens	EX7 (x7)
Zoom lenses	EZ01 (x9.5-x16), EZ02 (x16-x32), EZ03 (x30-x55), EZ04 (x10-x24)
Carriers	FC 190 RII, AC 100C, AC 100R, AC 100M FS Controller I, FS Controller III, Roll Fiche Carrier 200
Framing Kit	
Installation Kit	
SCSI Board	

Specifications subject to change without notice.

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