

Kodak

3000DSV-E Digital Scanner-Printer

Operator's Manual

A-61371

Safety Warnings

This section contains detailed instructions on the operation and maintenance of the *Kodak 3000DSV-E* Digital Scanner-Printer. All operators should carefully read and follow the instructions in this manual.

The following section contains important information related to operator safety and may help prevent equipment problems. Make sure you observe all of the precautions listed in this manual.



Warning symbols

	<ul style="list-style-type: none"> Do not modify this product, as a fire, electrical shock, or breakdown could result. If the product employs a laser, the laser beam source could cause blindness. Do not attempt to remove the covers and panels, which have been fixed to the product. Some products have a high-voltage part or a laser beam source inside that could cause an electrical shock or blindness. The operator is only allowed to slide out/in the projection unit of the scanner.
	<ul style="list-style-type: none"> Only use the power cord supplied in the package. If a power cord is not supplied, only use the power cord and plug that is specified in <i>Power Cord Instruction</i>. Failure to use this cord could result in fire or electrical shock. Use only the specified power source voltage. Failure to do so could result in fire or electrical shock. If you are in doubt, contact a qualified electrician. Do not use a multiple outlet adapter to connect any other appliances or machines. Use of a power outlet for more than the marked current value could result in fire or electrical shock.
	<ul style="list-style-type: none"> Do not touch the plug of the power cord with a wet hand, as an electrical shock could result.
	<ul style="list-style-type: none"> Connect the plug of the power cord all the way into the power outlet. Failure to do this could result in a fire or electrical shock.
	<ul style="list-style-type: none"> Do not scratch, abrade, place a heavy object on, heat, twist, bend, pull on, or damage the power cord. Use of a damaged power cord (exposed core wire, broken wire, etc.) could result in a fire, electrical shock or breakdown. Should any of these conditions be found, immediately turn OFF the power switch, unplug the power cord from the power outlet, and then call your Kodak Service Representative. Do not use an extension cord. Use of an extension cord could cause a fire or electrical shock. Contact your Kodak Service Representative if an extension cord is required.
	<ul style="list-style-type: none"> Do not place a flower vase or other container that contains water, or metal clips or other small metallic objects on this product. Spilled water or metallic objects dropped inside the product could result in a fire, electrical shock, or breakdown. Should a piece of metal, water, or any other similar foreign matter get inside the product, immediately turn OFF the power switch, unplug the power cord from the power outlet, and call your Kodak Service Representative.
	<ul style="list-style-type: none"> If this product becomes inordinately hot or emits smoke, or unusual odor or noise, immediately turn OFF the power switch, unplug the power cord from the power outlet, and then call your Kodak Service Representative. A fire or electrical shock could result if you continue to use the product. If this product has been dropped or its cover damaged, immediately turn OFF the power switch, unplug the power cord from the power outlet, and call your Kodak Service Representative. A fire or electrical shock could result if you continue to use the product.
	<ul style="list-style-type: none"> Connect the plug of the power cord to a wall socket-outlet that is equipped with a grounding terminal.



Caution symbols

	<ul style="list-style-type: none">• Do not use flammable sprays, liquids, or gases near this product, as fire could result.• Do not let any object plug the ventilation holes of this product. Heat could accumulate inside the product, resulting in a fire or malfunction.• Do not install this product at a site that is exposed to direct sunlight, or near an air conditioner or heating apparatus. The resultant temperature changes inside the product could cause a malfunction, fire, or electrical shock.• Do not place the product in a dusty place, or a site exposed to soot or steam, near a kitchen table, bath, or a humidifier. A fire, electrical shock, or breakdown could result.• Do not place this product on an unstable or tilted bench, or in a location subject to a lot of vibration and shock. It could drop or fall, causing personal injury or mechanical breakdown.• After installing this product, mount it on a secure base. If the unit moves or falls, it may cause personal injury.• Do not store toner units and PC drum units near a floppy disk or watch that are susceptible to magnetism. They could cause these products to malfunction.
	<ul style="list-style-type: none">• The inside of this product has areas subject to high temperature, which may cause burns. When checking the inside of the unit for malfunctions such as a paper misfeed, do not touch the locations (around the fusing unit, etc.) which are indicated by a "CAUTION HOT" label.
	<ul style="list-style-type: none">• Do not place any objects around the power plug, as the power plug may be difficult to pull out when an emergency occurs.
	<ul style="list-style-type: none">• The wall socket-outlet shall be installed near the machine and shall be easily accessible as the power plug may be difficult to pull out when an emergency occurs.• Always use this product in a well-ventilated location. Operating the product in a poorly ventilated room for an extended period of time could injure your health. Ventilate the room at regular intervals.• Whenever moving this product, be sure to disconnect the power cord and other cables. Failure to do this could damage the cord or cable, resulting in a fire, electrical shock, or breakdown.• When moving this product, always hold it by the locations specified in the Operator's Manual. If the unit falls, it may cause severe personal injury. The product may also be damaged or malfunction.• When unplugging the power cord, be sure to hold onto the plug. Pulling on the power cord could damage the cord, resulting in a fire or electrical shock.

Routine Precautions

	<ul style="list-style-type: none">• Do not store toner units, PC drum units, and other supplies and consumables in a place subject to direct sunlight and high temperature and humidity, as poor image quality and malfunction could result.• Do not attempt to replace the toner unit and PC drum unit in a place exposed to direct sunlight. If the PC drum is exposed to intense light, poor image quality could result.• Do not unpack a toner unit or PC drum unit until the time of use. Do not leave an unpacked unit standing. Install it immediately or poor image quality could result.• Do not keep toner units and PC drum units in an upright position or upside down, as poor image quality could result.• Do not throw or drop a toner unit or PC drum unit as poor image quality could result.• Do not use this product in an area where ammonia or other gases or chemicals are present. Failure to do so may shorten the service life of the product, cause damage or decrease performance.• Do not use this product in an environment with a temperature outside the range specified in the Operator's Manual, as a breakdown or malfunction could result.• Do not attempt to feed stapled paper, carbon paper or aluminum foil through this product, as a malfunction or fire could result.
	<ul style="list-style-type: none">• Do not touch or scratch the surface of the toner unit developing roller and the PC drum, as poor image quality could result.
	<ul style="list-style-type: none">• Use the supplies and consumables recommended by the dealer. Use of any supply or consumable not recommended could result in poor image quality and breakdown.

1 Introduction

This Operator's Manual provides information and procedures for using the *Kodak 3000DSV-E* Digital Scanner-Printer. Following is a summary of what is included:

Chapter 1, *Introduction* — provides general information about the *Kodak 3000DSV-E* Digital Scanner-Printer including a product description, installation information, environmental specifications, an overview of external components, and how to turn the scanner on and off.

Chapter 2, *Control Panel and Functions* — provides a list of the icons found on the Operator Control Panel and what functions can be performed using the Operator Control Panel.

Chapter 3, *Using the Scanner* — provides procedures on how to use the scanner, including selecting and installing the lens, zooming and focusing images, rotating images, selecting the paper size, print position and image density, adjusting the image processing features and how to print and scan the displayed image.

Chapter 4, *Printer Functions* — provides general information about the printer including an overall description of external components, use and care of the printer and printer supplies.

Chapter 5, *Maintenance* — provides maintenance procedures for the scanner, including replacement procedures for replacing the projection lamp.

Chapter 6, *Troubleshooting/Messages* — provides information on analyzing and correcting operating/printing problems or errors. Also provides procedures for clearing paper misfeeds in the printer.

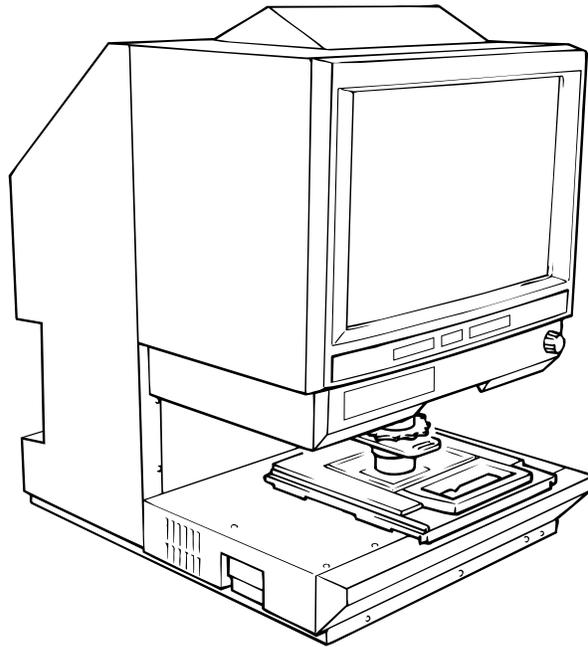
Appendix A — provides specifications for the *Kodak 3000DSV-E* Scanner and A3/A4 Laser Printer.

Appendix B — user and system settings can be changed by you or your Kodak Service Representative. This appendix provides the factory settings and a description of those settings.

Appendix C — provides Key Operator information along with a chart that you can record system information, such as scanner/printer model, accessory names and serial numbers.

Product description

The *Kodak 3000DSV-E* Digital Scanner-Printer scans images and outputs to the optional Video Laser Printer through a built-in PC interface. The 3000DSV-E Scanner is ideal for medium-high volume scanning of all formats of media from microfiche, jackets, aperture cards, 16 and 35 mm roll film and 16 mm M and ANSI cartridges.



Installation

Placement of the unit in the environment described below will ensure optimal performance throughout the long life of service for which it was designed.

- A well-ventilated place.
- An area which is free from ammonia or other organic gases.
- A place which has easy access to a power wall socket-outlet so that the unit may be easily plugged in and unplugged.
- Any area free from direct sunlight.
- A place which is out of the direct air stream of an air conditioner, heater or ventilator and is not subject to extremely high or low temperatures or humidity.
- A stable location with a flat surface that is not subject to undue vibration.
- A place that is free from any object that would block the heat exhaust duct of the printer.
- A place away from curtains or anything else that is easily flammable.
- An area that is safe from spilled water or other liquids.
- A dust-free location.

NOTE: If the scanner is located near a window, do not face the screen towards the window.

Power source

The power source voltage requirements are as follows:

- Use a power source with minimal voltage fluctuation.

Power Source: 50Hz-60Hz

Voltage fluctuation: within $\pm 10\%$

Frequently fluctuation: within $\pm 3\%$

NOTE: If you are in doubt, call a qualified electrician.

- The outlet should be located near the unit and be easily accessible so that the power cord can be unplugged immediately if necessary.
- NEVER connect any other appliances or machines by means of a multiple socket to the outlet being used for the unit.
- Make sure that the power cord and extension cord do not become caught in any mechanism of the system. Do not allow either the power or extension cord to become caught underneath the weight of the unit.

Grounding

To prevent electrical shocks caused by electrical leakage, always ground the printer. Connect the grounding wire to:

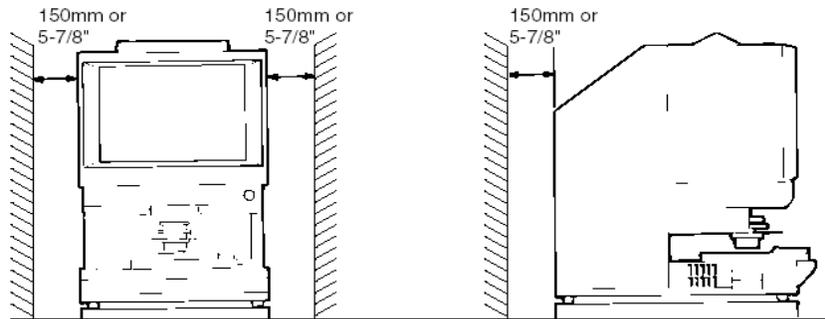
In the United States:

- Connect the grounding wire to:
 - The ground terminal of the outlet.
 - A grounding contact that complies with the local electrical standards.
- A grounding contact that complies with the local electrical standards.
- NEVER connect the grounding wire to a gas pipe, the grounding wire for a telephone, or a water pipe.

Space requirements

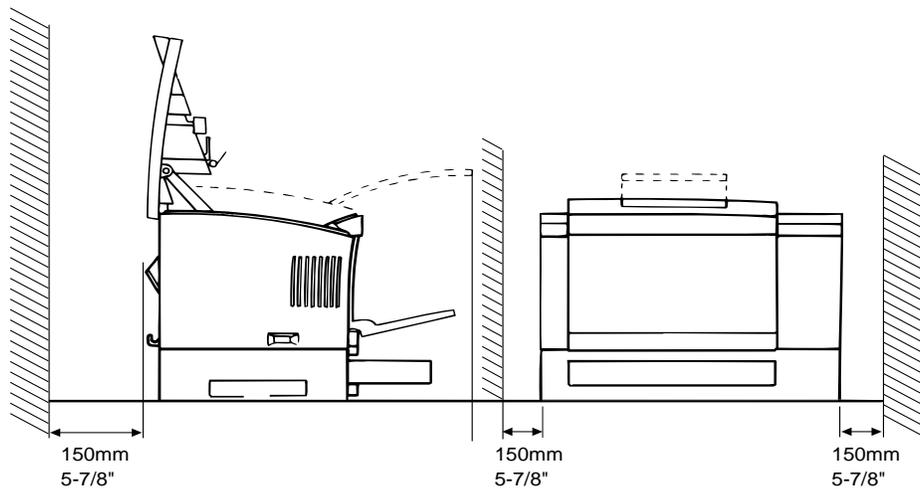
Scanner:

The illustration below provides the clearance dimensions between the wall and the rear of the unit as well as the right and left sides which provide ample space for the ventilation ports to dissipate heat.



System Printer (A3/A4 Laser Printer):

For ease of operation, maintenance and replenishment of supplies, the minimum clearance shown below is required. Install the unit in an area that allows easy access.



Operating environment

The environmental requirements for operating the system are as follows:

Temperature: 10° to 35°C (50 to 95°F) with a fluctuation of 10°C (18°F) per hour.

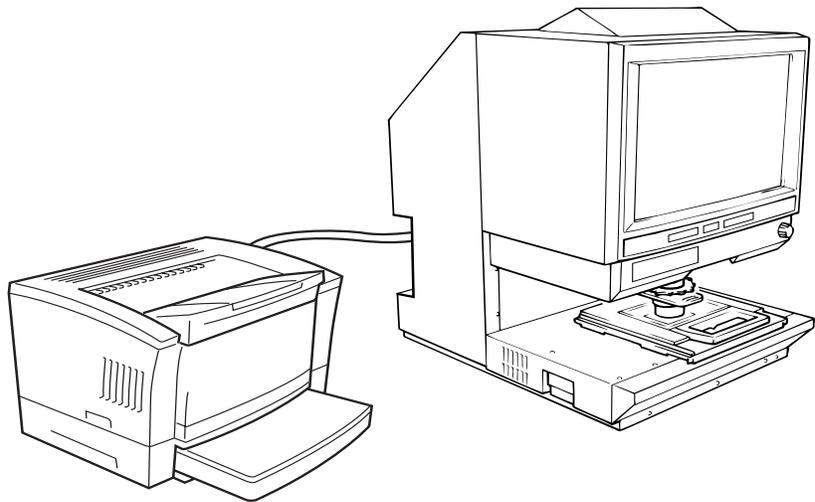
Humidity: 15 to 85% with a fluctuation of 20% per hour.

System configuration

This scanner is available in the following configurations:

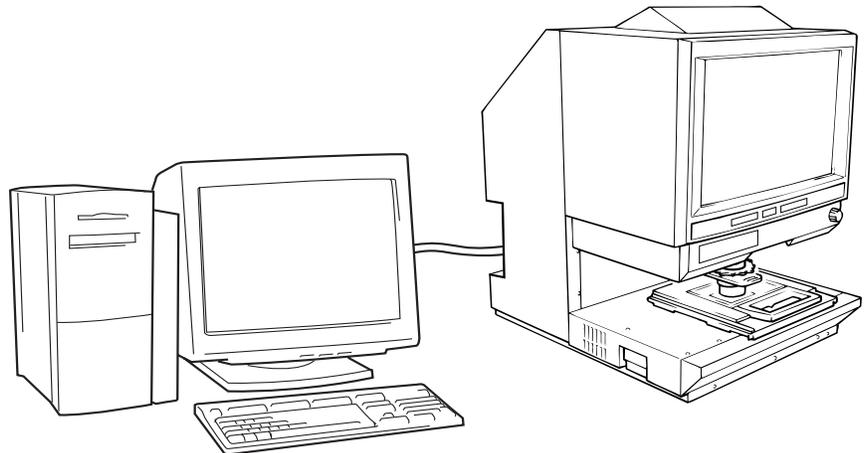
Printer mode (connected to the A3/A4 Laser Printer)

The scanner is connected to a dedicated printer, allowing scanned images to be printed out directly.



PC mode (connected to a personal computer)

The scanner is connected to a personal computer and the scanned images can be uploaded to the computer.

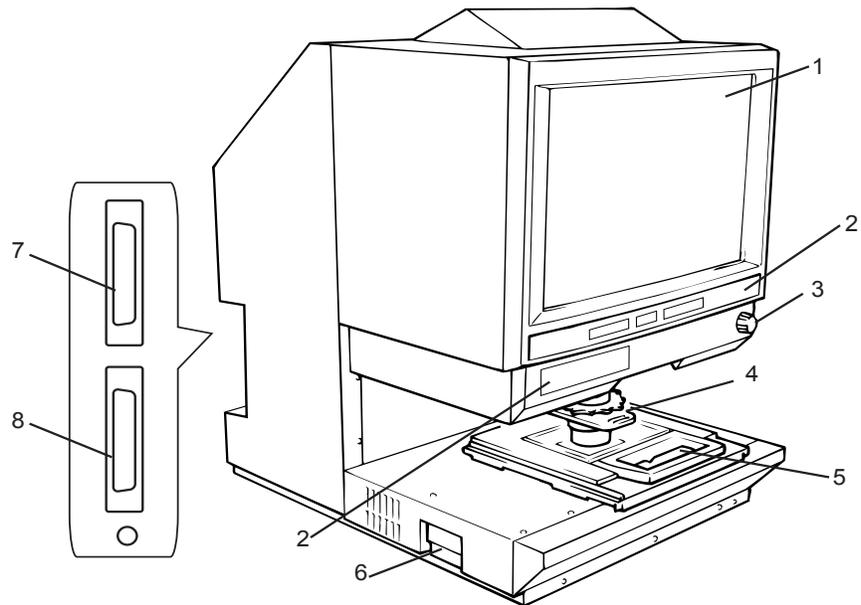


Connection to a personal computer and printer can be switched using the control panel.

3000DSV-E Scanner components

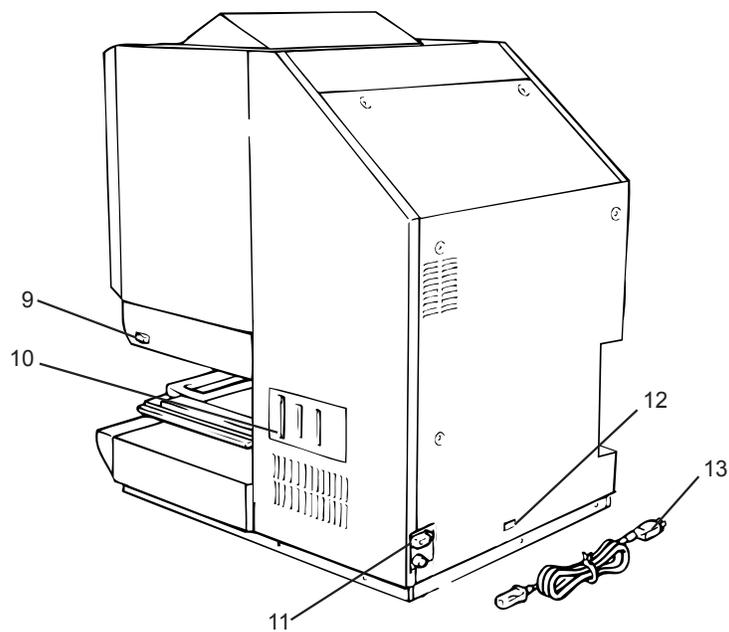
Following is a list of the standard components of the 3000DSV-E Scanner:

Front view



- 1 Screen** — the image from the film is displayed for viewing on the screen. The frame on the screen marks the data reading range.
- 2 Control Panel** — most operations are controlled from the keys and indicators on the control panel. See Chapter 2, *Control Panel and Functions* for more information.
- 3 Image Rotation Knob** — use this knob to rotate the image on the screen.
- 4 Projection Lens (optional)** — several projection lenses are available to change the size and adjust the focus of the image. For more information on the projection lenses, see the next section.
- 5 Fiche Carrier 5 (optional)** — supports the viewing of microfiche.
- 6 Projection Lamp Unit** — contains the Projection Lamp (halogen lamp) which projects the film image onto the screen.
- 7 Printer Connector** — Connects the scanner to the printer through an interface cable.
- 8 SCSI Connector** — Connects the scanner to the Personal Computer through a SCSI cable.

Rear view



- 9 Power Switch** — used to turn the power to the unit on and off.
- 10 Connectors** — provides connection points for the various options (Film Carrier and Controller).
- 11 Power Cord Socket** — plug the power cord furnished with the scanner into this socket.
- 12 Total Counter** — shows the total number of prints made regardless of paper size.
- 13 Power Cord** — connects the scanner to the power wall socket-outlet.

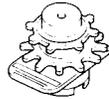
3000DSV-E Scanner optional accessories

Optional accessories are available for the scanner such as different projection lenses, film carriers, and auto retrieval controllers. The optional accessories are listed below. Contact your Kodak Representative for more information about these accessories.

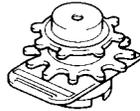
Projection Lenses - several projection lenses are available to change the size and adjust the focus of the image. Four lenses are available:



Single lens 7.5X



Zoom lens 9-16X



Zoom lens 13-27X



Zoom lens 23-50X

Auto-retrieval Controllers



Mini Mars-2 Controller — for automatic reading of 16 mm Cartridge Microfilm using up to 2-level image marks.



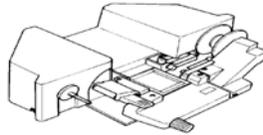
Mars IV Controller — for automatic reading of 16 mm Cartridge Microfilm using up to 3-level image marks.

Both controllers may be used in conjunction with the RFC-15A, RFC-15M or RFC-21A/M Carriers.

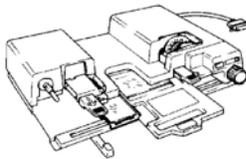
Film carriers



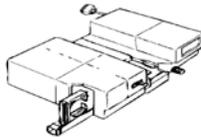
Fiche Carrier-5 — for use with jackets, microfiche and aperture cards.



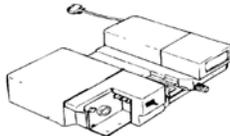
RFC-9B — a motorized carrier for semi-automatic loading of 16 and 35 mm open spool film.



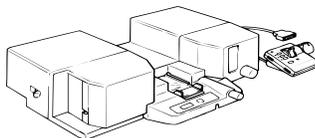
UC-2 — a motorized carrier for semi-automatic loading of 16 and 35 mm open spool film, microfiche, aperture cards, jackets.



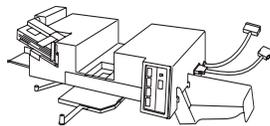
RCF-15A — for automatic loading of 16 mm ANSI Clip Cartridge Microfilm (Open Spool Adapter option).



RCF-15M — for automatic loading of 16 mm 3M Type Cartridge Microfilm.



RCF-21 — for automatic loading of 16 mm ANSI or 3M Type Cartridges. This carrier is designed for very high-speed 16 mm film searching.



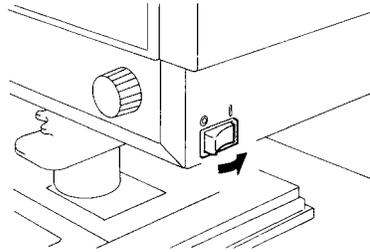
ACF7 — for automatic loading, viewing and ejection of aperture cards and works in medium- to high-volume applications.

Turning the power on and off

Following are procedures for turning the scanner power on and off.

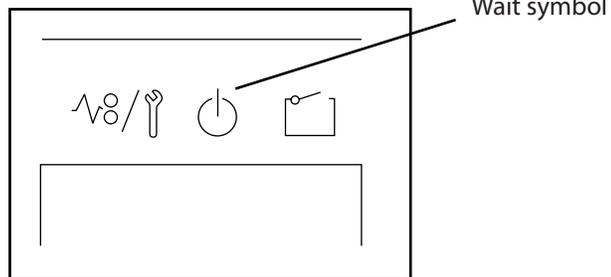
Power On

- Press the power switch of the scanner to the on (I) position.



- For PR mode, turn on the power to the scanner only.
- For PC mode, turn on the scanner and the power to the Personal Computer.

The indicators on the Control Panel light up and the system starts the initialization operation. When the wait indicator goes out, the system is ready for printing.



NOTE: If you load the film in the Film Carrier and press Start while the printer is warming up, you can scan and memorize the film image of about 9 pages (letter or A4 size/400 dpi). The printer allows that print process to be started as soon as the printer completes warming up.

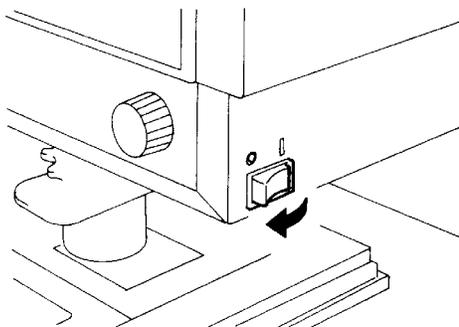
Exposure



Both ends of the Exposure display blink. If you want this function disabled, contact your Kodak Service Representative.

To turn the power off

- Press the Power switch of the scanner to the O (Off) position.



Auto Power Save/ Projection Lamp functions

This system provides two functions that help to decrease power consumption:

- The Auto Power Save function that automatically shuts down power to the printer heater.
- The Auto Projection Lamp OFF function that automatically turns off the Projection Lamp of the scanner.

Both are activated when the system is left idle for a specified period of time.

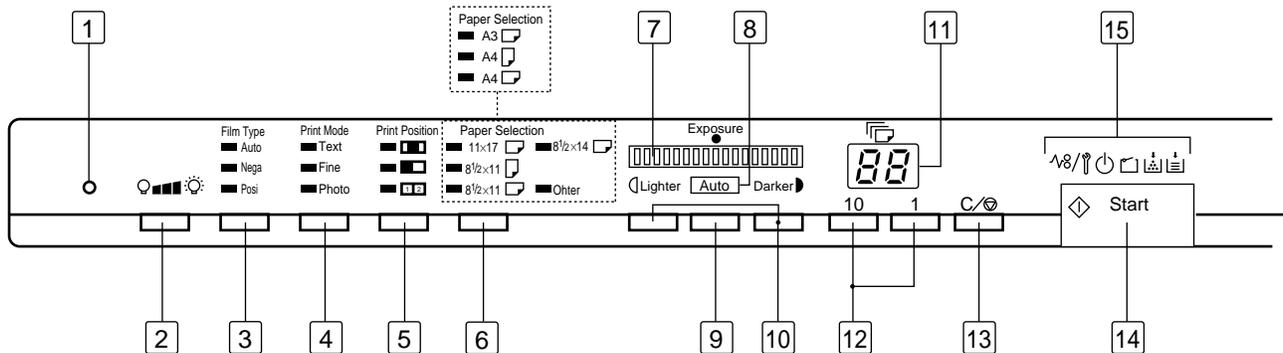
These functions may be disabled or enabled. When enabled, timing can be selected from either 30 or 60 minutes. The default for both of these functions is Disabled. Contact your Kodak Service Representative for more information.

When the system is in the Auto Power Save mode, each outside segment of the Multi-Print Display LEDs light up sequentially.

2 Control Panel and Functions

Following are descriptions of the Control Panel functions. Some functions are available by using the Shift key and some of the functions provide access to optional accessories. This chapter provides an overview of each function. An overview of the image processing features are also described in this chapter. Chapter 3, *Using the Scanner*, provides procedures on how to use each function.

Control Panel - Standard



1 **Memory Input Key** — to store one of the following functions into the memory of the scanner, first set one of the functions on the Control Panel and then press this button with the head of a pen or other device. The next time the scanner is turned on, that function will appear as a default setting until a new one is entered. A maximum of three settings can be memorized.

- Negative or positive
- Print mode
- Print position*
- Paper size
- Print image density
- Exposure mode
- Centering or Fit
- Manual Masking
- Auto Masking
- Auto Skew Correction
- Horizontal Area setting
- Vertical Area setting
- Electrical Zoom magnification
- Resolution
- Image Distortion Correction

*If the current paper tray or cassette is different from the paper tray/cassette that is loaded when the Paper size setting was made, Center Image Print is selected for the print position and the current paper size is selected.

NOTE: If you do not press the Memory Input key within 60 seconds after a setting has been made with the Auto Reset function set to On, the previous setting remains valid.

- 2 **Lamp Illuminance key** — manually adjusts the Projection Lamp illuminance. When the Projection Lamp is Off, it can be turned On again by pressing any key.
- 3 **Film Type key** — rotates between Auto, Nega, and Posi each time the key is pressed.

Auto: The scanner automatically determines between the film type options of negative or positive for print production.

Nega: Select when using negative film. Dark and light values of the print will be reversed.

Posi: Select when using positive film. Dark and light values of the print will be consistent with the image on film.

- 4 **Print Mode Key** — allows you to fine-tune the image quality of the print according to the original being used. Rotate between Text, Fine and Photo with every press of this key.

Text: For use with text images.

Fine: For use with lower grades of film.

Photo: For use with photo images.

- 5 **Print Position Key** — selects the portion of the image displayed on the screen to be printed.

	Center: The image in the center of the screen is printed.
	Left: The image on the left half of the screen is printed.
	Page-by-Page: The images on both the left and right sides of the screen are printed consecutively on 8 1/2 x 11" (A4) sheets of paper. This option is only available when 8-1/2 x 11" (A4) paper is selected.

- 6 **Paper Selection Key** — allows you to select either PC or PR mode.

PC mode: selects the scanning size.

PR mode: selects the size of paper to be used for printing. When the paper feeding tray is loaded with 8 1/2 x 11" (A4) paper and the paper in the paper cassette contains 11 x 17" (A3) paper, pressing this key rotates through the Auto, Paper Feeding Tray, and Paper Cassette options. Both the 8 1/2 x 11" (A4) and 11 x 17" (A3) indicators will illuminate when Auto is selected.

- 7 **Exposure Display** — indicates the current density level of the printed image.
- 8 **Exposure Mode Indicator** — Auto Exposure mode is indicated when the green Auto light is on. The green Auto light turns off when the scanner is in the Manual Exposure mode.

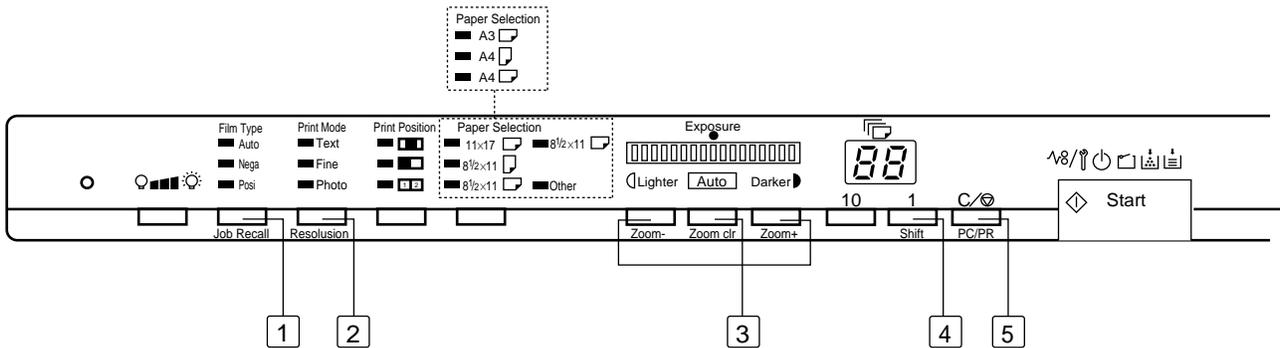
- 9 **Exposure Mode Key** — press to select between the Auto or Manual Exposure modes.
- 10 **Exposure Adjustment Keys** — adjusts the density of the image to be printed during the Auto or Manual Exposure mode.
 - **Darker:** supports darker image density.
 - **Lighter:** supports lighter image density.
- 11 **Multi-Print Display** — displays the number of prints to be made. Also displays corresponding codes in the event of a malfunction or paper misfeed. The blinking number in this display indicates the print cycle in progress.
- 12 **Multi-Print Keys** — used to input the number of prints to be made. This function is only available in the PR mode.
 - **10:** increases the number of prints to be made in increments of 10 (10, 20, 30 ...90, etc.)
 - **1:** increases the number of prints to be made in increments of 1 (1, 2, 3 ... 9, etc.)
- 13 **Clear/Stop Key** — clears the setting on the Multi-Print Display, resets the display to 1 or stops a multi-print cycle. This function is only available in the PR mode.
- 14 **Start Key** — starts the print (scan) process of the displayed image.
- 15 **Indicators:**

	Misfeed/Call Kodak indicator: lights up when a paper misfeed or malfunction occurs.
	Wait indicator: lights when the scanner is initializing and when the printer is warming up.
	Closure Failure indicator: lights up if the printer cover is open.
	Add Toner indicator: blinks when the imaging cartridge of the printer is running out of toner and lights up when the cartridge is completely out of toner.
	Add Paper indicator: lights up when the printer is not loaded with the selected paper size or when either the Paper Feeding Tray or Paper Cassette has run out of paper with Auto Paper selected.

Using the Shift function on the Control Panel

When you use the Shift function (Clear/Stop key) on the Control Panel, other options are available.

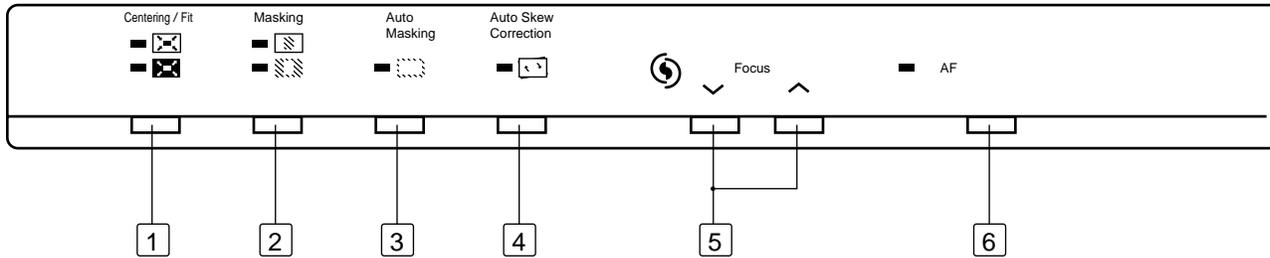
Control Panel - Shift Function



NOTE: All of these functions can be performed when the Shift key and one of the keys described below are pressed.

- 1 **Job Recall** — when this key is pressed together with the Shift key, the program registration locations (1J, 2J and 3J) are called. Each time this key is pressed while the Shift key is held down, the display rotates through 1J, 2J and 3J.
- 2 **Resolution** — sets the resolution of the scanner.
 - When the scanner is connected to the printer, available resolutions are: 400 dpi (4H) and 600 dpi (6H).
 - When the scanner is connected to the PC through PowerFilm Application Software, available resolutions are: 200, 300, 400, 600 and 800 dpi (2H, 3H, 4H, 6H and 8H respectively).
- 3 **Zoom** - sets zoom magnification.
 - **Zoom+**: when Zoom+ is pressed with the Shift key, the magnification is increased by an increment of 0.01X (up to 2.00X).
 - **Zoom clr**: clears the current zoom setting when this key is held down together with the Shift key for one second.
 - **Zoom-**: when Zoom- is pressed with the Shift key, the magnification is decreased by a decrement of 0.01X (down to 0.50X).
- 4 **Shift** — the Shift key must be pressed when you want to access one of the functions described in this section: Lamp Illumination, Resolution, Job Recall, Zoom or PC/PR.
- 5 **PC/PR** — when selected (with the Shift key) the connection to the PC or printer is selected. This key is not valid unless the PC interface cable is connected to the PC.

Control Panel



- 1 Centering/Fit key** — when pressed, enables or disables the Centering and Fit functions. When Auto Masking, Trimming or Masking are set to Off, Auto Masking will automatically be enabled when Centering is selected.

	Centering: centers all masked images onto the printed page.
	Fit: enlarges the displayed image to fill the page when printed. Enlargement is only to the full length or width of the paper, whichever is achieved first.

- 2 Masking** — when pressed, cycles through Off, Trimming, Masking if the system has the optional Manual Masking Kit.

Off	Indicates no masking or trimming will be done.
	Masking: prints only the image outside of the area that is defined on the screen.
	<p>Trimming: prints only the area of the image that is defined on the screen.</p> <ul style="list-style-type: none"> • If Trimming is selected from the Off state, the previously entered settings for Centering/Fit and Manual Masking are applied. • From Trimming, when Masking is selected, the Centering/Fit setting is disabled and the previous settings for the Masking area are applied. • The Manual Masking area will be cancelled whenever Off is selected from the Masking state. • Trimming or Masking are not available through the Auto Masking function.

3 Auto Masking Key — turns auto masking on or off. Auto masking omits the frame (non-image area) of a printed film image. Auto masking is only available in the PR mode.

- The previous Centering/Fit setting is applied when On is selected from the Off state.
- If Off is selected from the On state, Centering/Fit is disabled.
- Auto Masking is not applicable with Masking or Trimming.

4  Auto Skew Correction key — turns auto skew on or off. When auto skew is on, the indicator is lit and any skew of the image will be corrected during printing.

After printing, the skew is retained by default. Contact your Kodak Service Representative to change the default.

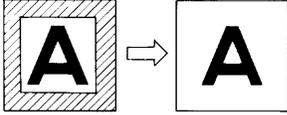
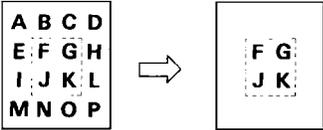
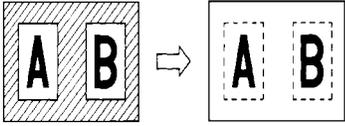
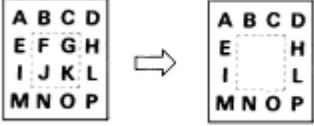
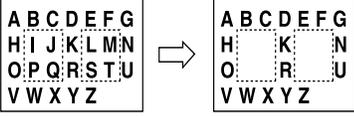
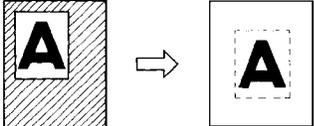
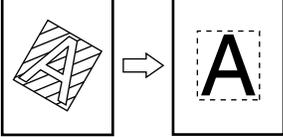
5 Manual Focus keys — press the up or down arrow keys to manually adjust the focus of the displayed image.

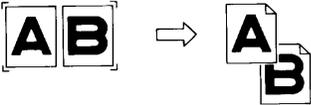
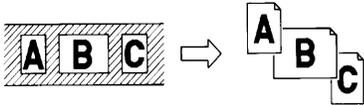
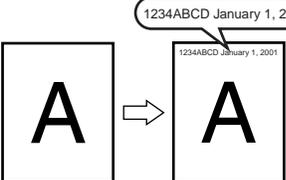
6 AF (Auto Focus) key — when pressed the system automatically finds the optimum focus for the displayed image. When the image is in focus, the Auto Focus LED will turn off.

NOTE: If an image is not properly centered or the contrast and density of the image is such that it causes the Auto Focus to error, the LED will blink. The LED will turn off when the Manual Focus keys or the Auto Focus key is pressed.

Image Processing features

This section provides a description of the image processing features. Procedures on how to use these features can be found in Chapter 3, *Using the Scanner*.

Screen image to Print Image	Description
<p>Auto Masking (1 Frame)</p> 	<p>The black borders that run along the edges of the image are masked.</p>
<p>Trimming (1 Frame)</p> 	<p>Everything but the center of the image is masked.</p>
<p>Trimming (2 Frames) When 11 x 17" (A3) is selected.</p> 	<p>The frames surrounding the center of both images are masked. The Manual Frame Masking Kit is required.</p>
<p>Masking (1 Frame)</p> 	<p>The center of the image appearing on the screen will be masked. The Manual Masking Kit is required.</p>
<p>Masking (2 Frames) When 11 x 17" (A3) is selected.</p> 	<p>Two areas of the center of the image appearing on the screen will be masked. The Manual Masking Kit is required.</p>
<p>Auto Centering</p> 	<p>An image is generated that is centered on the printed page from the displayed image with a masked frame.</p>
<p>Auto Skew Correction</p> 	<p>Automatically corrects any skew when the image is printed.</p>

Screen Image to Print Image	Description
<p>Page-by-Page Print</p> 	<p>The system takes two film images that appear side-by-side on the screen and prints them on separate 8 1/2 x 11" (A4) sheets of paper.</p>
<p>Auto Paper Select Print</p> 	<p>The system automatically detects either half-size or full-size film to determine the size of paper for printing (half-size film is printed on 8 1/2 x 11" (A4) portrait paper, full-size film is printing on 11 x 17" (A3) landscape paper).</p>
<p>Text Imprint</p> 	<p>Time, date and messages can be included on a print. To enable this function, contact your Kodak Representative.</p>
<p>Image Distortion</p> <p>Before Correction</p>  <p>After Correction</p>	<p>The system automatically corrects slight image distortion that can occur during scanning.</p>

3 Using the Scanner

This chapter provides procedures on how to use the *Kodak 3000DSV-E* Scanner.

Following is an outline of the basic printing procedure. Detailed procedures on these steps can be found later in this chapter.

1. Load the film. The procedure for loading film is determined by the type of Film Carrier (optional) that is being used. Review the Operator's Manual that came with your Film Carrier for more information.
2. Select and replace the lens.
3. Select the connection mode.
4. If desired, zoom, focus or rotate the image.
5. Select the paper size. If both 8 1/2 x 11" (A4) and 11 x17" (A3) are loaded, the system can select the correct size automatically.
6. Select the print position.
7. Select the image density.
8. Enter the number of prints to be made.
9. Adjust the image processing features.
10. Print and scan the displayed image. The printing or scanning of the image appearing on the screen is initiated after the Start key is pressed.

Selecting a projection lens

Projection lenses are available in the following types. Select the type of lens that corresponds to the film you are using.

- 1 Type 1: 7.5X
- 2 Type 1: 9 x 16X
- 3 Type 2: 13 to 27X
- 4 Type 3: 23 to 50X

The list below shows the standard types of film and the recommended zoom ratios of lenses to be used with the system printer. The size and format of one frame of film may vary depending on the shooting conditions.

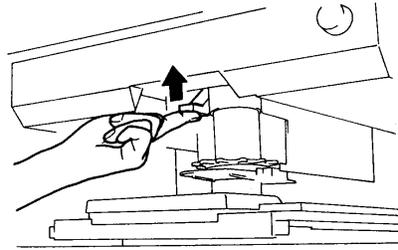
Film		Scanning Size			
		11 x 17" (A3)	8 1/2 x 11" (A4)	B4	3 2/3 x 8 1/2"
35mm	Half	2 or 3	2	2	2
	Full	2	1	1	-
16 mm	Half	4	3	3	3 or 4
	Full	3 or 4	2	2	2 or 3
Source Document	60	3 or 4	3	3	3 or 4
	98	4	3 or 4	3 or 4	4
	325	-	4	4	4
	420	-	4	4	-
COM	63	3 or 4	3	3	3 or 4
	70	3 or 4	3	3	3 or 4
	80	4	3 or 4	3 or 4	4
	84	4	3 or 4	3 or 4	4
	120	4	3 or 4	3 or 4	4
	208	4	4	4	4
	270	-	4	4	4

Zoom the lens in and out to find the optimum ratio that will fit the scanning size.

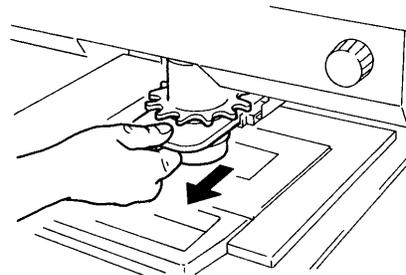
Installing the projection lens

To install a lens with a magnification different from the pre-installed lens.

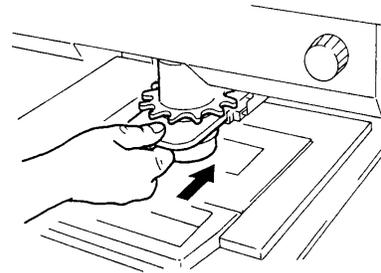
1. Grasp the Prism Holder lever and pull it up.



2. Pull out the projection lens unit.



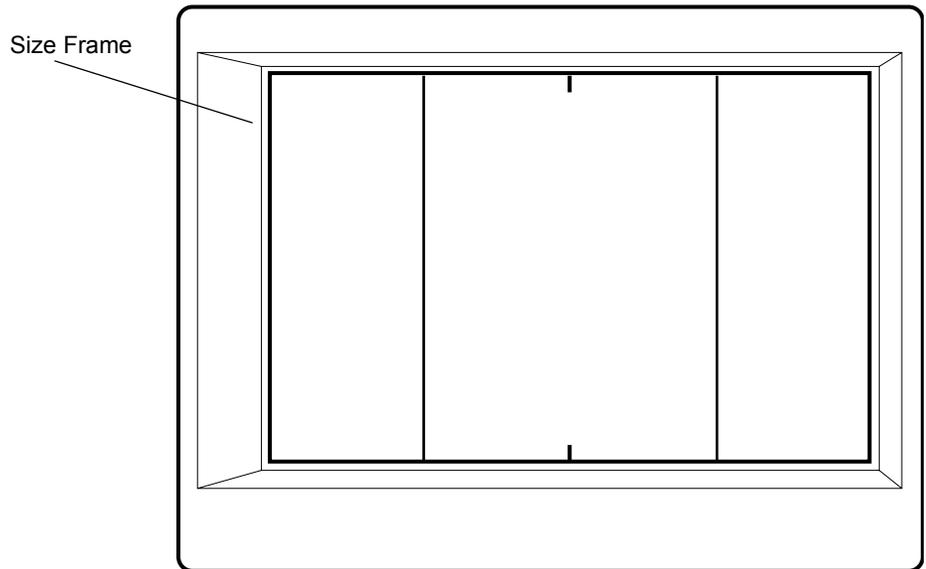
3. Slide the desired projection lens unit into the scanner along the lens holder guide.

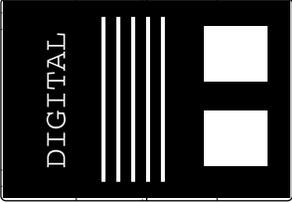
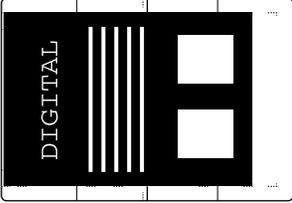
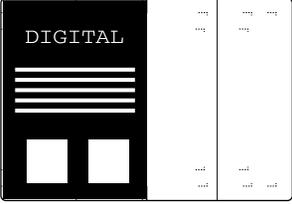
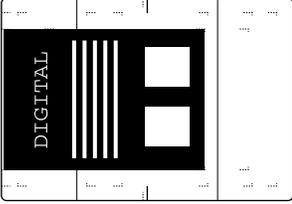


NOTE: When the projection lens unit is slid into position, the scanner automatically selects the optimum screen brightness according to the type of lens being used.

Positioning the film image

The size frame markers that correspond to the scanning size are marked on the screen. Through zooming and image rotation, and by operating the film carrier mounted on the system, position the image on the screen so the image fits in the scanning size.

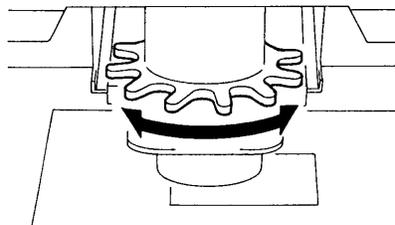


11 x 17" or A3 size	8 1/2 x 14" size
 <p>A black rectangular marker with the word 'DIGITAL' written vertically on the left. To the right of the text are four vertical white bars of varying heights, and on the far right are two white squares stacked vertically.</p>	 <p>A black rectangular marker with the word 'DIGITAL' written vertically on the left. To the right of the text are four vertical white bars of varying heights, and on the far right are two white squares stacked vertically.</p>
8 1/2 x 11" or A4 size	
<p>Vertical</p>  <p>A black rectangular marker with the word 'DIGITAL' written horizontally at the top. Below the text are four horizontal white bars of varying lengths. At the bottom are two white squares side-by-side.</p>	<p>Horizontal</p>  <p>A black rectangular marker with the word 'DIGITAL' written vertically on the left. To the right of the text are four vertical white bars of varying heights, and on the far right are two white squares stacked vertically.</p>

Zooming and focusing images

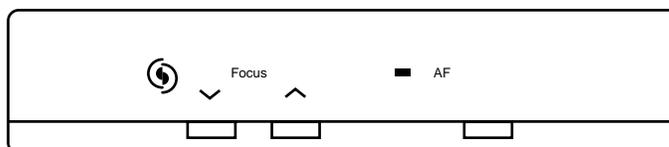
Zooming in on the displayed image:

- Rotate the Zooming Ring dial to bring the image on the screen into the print size frame.



Focusing the displayed image:

- Center the displayed image and press the AF (Auto Focus) key to let the scanner automatically bring the image into focus.

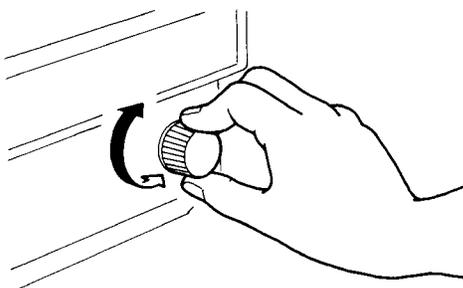


NOTE: You can use the Focus (manual focus) keys to manually adjust the focus of the displayed image.

Rotating images

To rotate the image on the screen:

- Turn the Image Rotation knob until the image is displayed at the desired rotation. The greater the turning angle of the Image Rotation knob, the faster the turning speed.



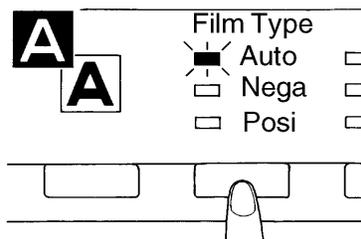
NOTES:

- If you hold down the Shift key and turn the Image Rotation knob, the image quickly rotates by 90 degrees.
- If Auto Skew Correction is turned on, the system automatically corrects any skew of the image when printed. When Auto Skew Correction is on, the indicator is lit.

Selecting the film type

Auto

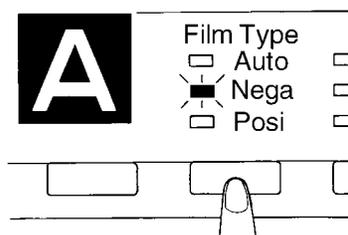
The system will automatically determine the polarity of the film being used when Auto is selected with the Film Type key.



NOTE: The system cannot determine the polarity of certain types of film. If the system cannot detect a film type, select it manually.

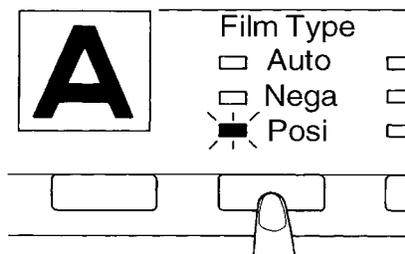
Nega (Negative film)

If negative film is being used, press the Film Type key to select Nega.



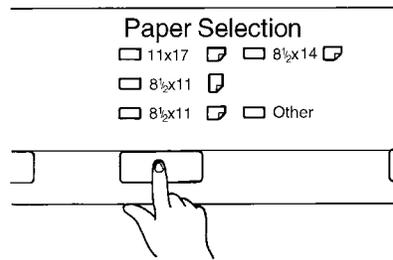
Posi (Positive film)

If positive film is being used, press the Film Type key to select Posi.



Selecting the paper size

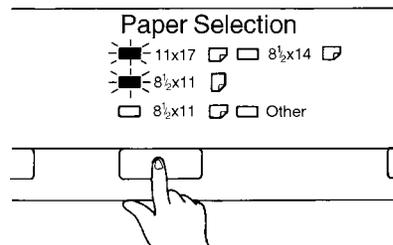
Press the Paper Selection key to select the desired print size. The system cycles through the available sizes each time you press the key.



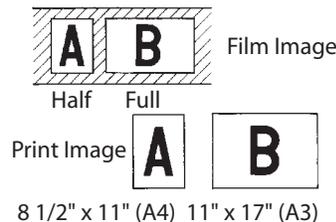
Using the Auto Paper Selection function

When the Paper Feeding Tray is loaded with 8 1/2 x 11" (A4) paper and the paper cassette is loaded with 11 x 17" (A3) paper, this function can be used to automatically select the appropriate size of paper for the current job.

- Press the Paper Selection key so both the 11 x 17" (A3) and the 8 1/2 x 11" (A4) LEDs light up.



The system automatically detects the image area and prints on 8 1/2 x 11" (A4) paper for half-size film and on 11 x 17" (A3) paper for full-size film.



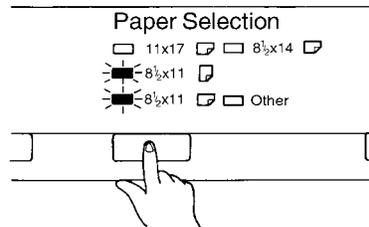
NOTES:

- The Auto Paper Selection function can only be used for a combination of 11 x 17" (A3) and 8 1/2 x 11" (A4) paper sizes. The Page-by-Page function cannot be selected when the Auto Paper Selection capability is being used.
- When a 7.5x lens is being used, the Auto Paper Selection function cannot use 11 x 17" (A3) size paper because of the size of the image area.
- When Masking or Trimming has been previously selected, the system selects 8 1/2 x 11" (A4) if the defined area is less than 8 1/2 x 11" (A4) size and 11 x 17" (A3) for all other print jobs.

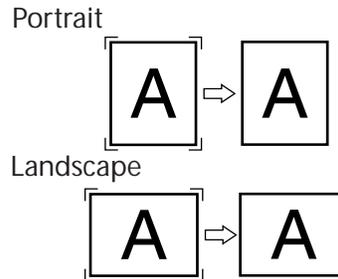
Using the Auto Film Format Selection function

When the paper feeding tray is loaded with 8 1/2 x 11" (A4) paper and the paper cassette is loaded with 8 1/2 x 11" (A4) paper, this function can be used to automatically select the appropriate size of paper for the current print job.

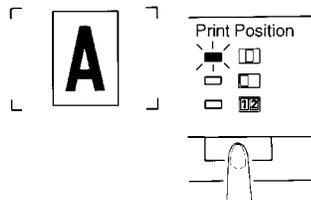
1. Press the Paper Selection key so both the 8 1/2 x 11" (A4) and the 8 1/2 x 11" (A4) LEDs light up.



2. Press the Start key. The system automatically detects the image area and prints on 8 1/2 x 11" (A4) paper for portrait film and on 8 1/2 x 11" (A4) paper for landscape film.

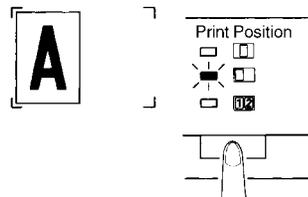


Selecting the Print Position



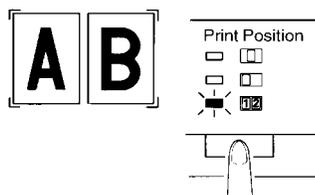
Center

- The system prints the image that appears in the center of the screen.



Left

- The system makes a print of the image that appears on the left side of the screen.



Page-by-Page

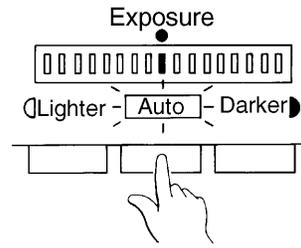
- The system prints the images that appear on both the left and right sides of the screen on separate sheets of 8 1/2 x 11" (A4) paper.

NOTE: Only 8 1/2 x 11" (A4) paper can be selected for Page-by-Page.

Selecting the image density

Using Auto Exposure

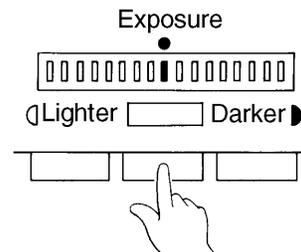
1. Press the Exposure Mode key to select the Auto Exposure mode.



2. If the Auto Exposure setting is not satisfactory, press the appropriate Exposure Adjustment key, either Lighter or Darker, to set the desired image density.

Using Manual Exposure

1. Press the Exposure Mode key and select the Manual Exposure mode.

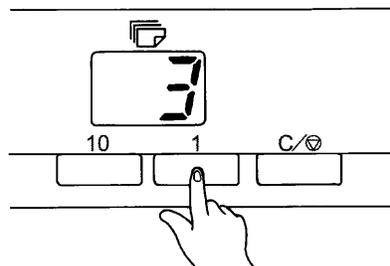


2. Press the appropriate Exposure Adjustment key, either Lighter or Darker, to set the desired image density.

Entering the number of prints to be made

Entering a number from 1-9

- Enter the desired number of prints using the Multi Print key "1".



If the "1" key is pressed when "9" is displayed, the number on the display is incremented by one: 10, 11, 12, etc.

Entering a number from 10- 99

1. Set the tens digit using the "10" key.
2. Set the units digit using the "1" key.

For example, to set "25" press the "10" key twice and press the "1" key five times.

Correcting a number

To reset an entry:

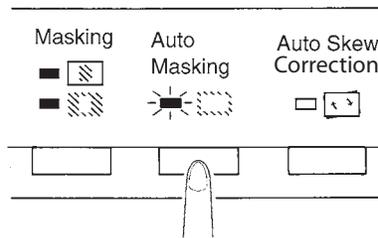
- Press the Clear/Stop key, which resets the number on the Multi-Print display to "1".

Using Auto Masking

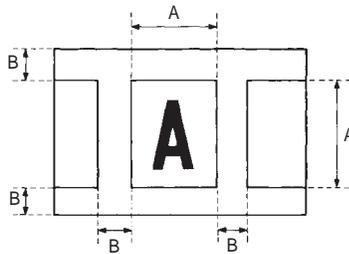
The Auto Masking function prevents the frame (non-image area) of a film image from appearing on the print.

Selecting Auto Masking

- Press the Auto Masking key to turn on this function.

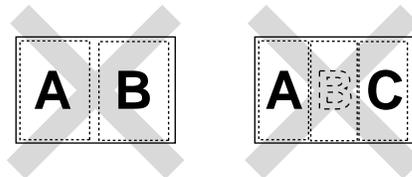


Operating Conditions for Auto Masking

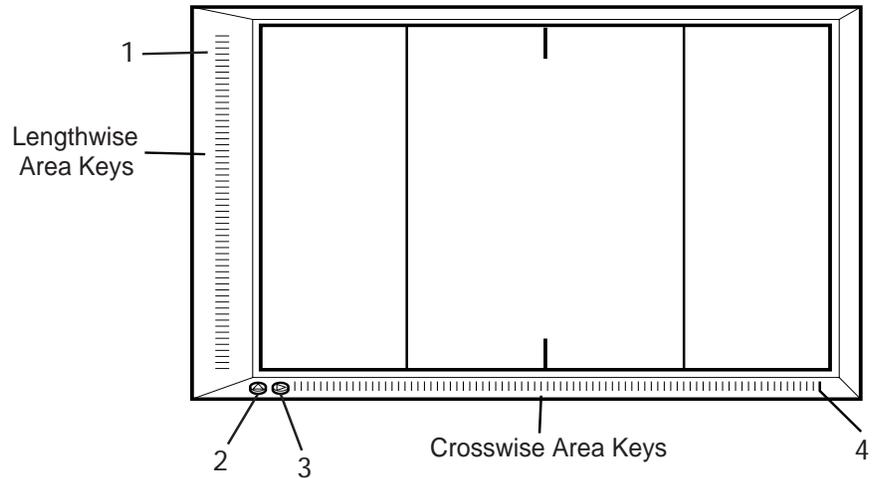


- The image area of the screen must provide at least 45 mm horizontally and vertically.
- The width of the frame to be masked must be at least 10 mm.

NOTE: If the film image on the screen does not meet the above requirements, the Auto Masking function will not work properly. Auto Masking is a frame erasing feature, it cannot remove an image from in between two separate frames.



Manual Masking panels (option)



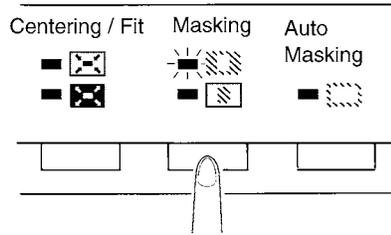
- 1 Lengthwise Area Indication panel** — use to specify the print area in the vertical direction of the image on the screen. The system makes a print of the image corresponding to the way the Area keys are illuminated. A total of 42 Area keys are placed at 7 mm intervals.
- 2 Lengthwise Area Clear key** — press to clear any print area previously defined in the vertical direction.
- 3 Crosswise Area Clear key** — press to clear any print area previously defined in the horizontal direction.
- 4 Crosswise Area Indication panel** — use to specify the print area in the horizontal direction of the image on the screen. The system makes a print of the image corresponding to the way the Area keys are illuminated. A total of 61 Area keys are placed at 7 mm intervals.

NOTE: When 11 x 17" (A3) and Page-by-Page are selected, all keys light up except those on the right and left ends. The keys on the right and left ends are invalid for the Manual Masking panels.

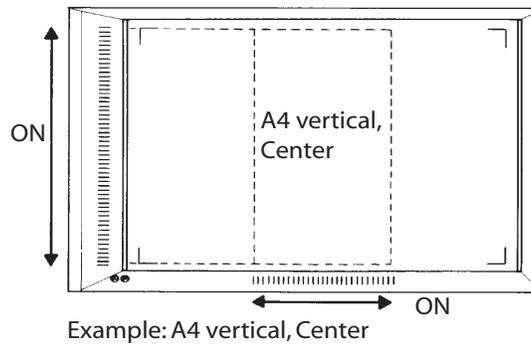
Using Manual Masking

The optional Manual Masking Kit allows you to specify an area of printing of the displayed image through two separate features: trimming and masking.

Selecting Trimming



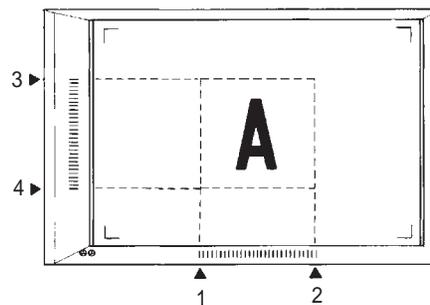
- Press the Masking key to select **Trimming**. The lights on the panel light up according to the currently selected paper size and print position.



NOTE: You can print the area specified by the green lights.

Defining an area

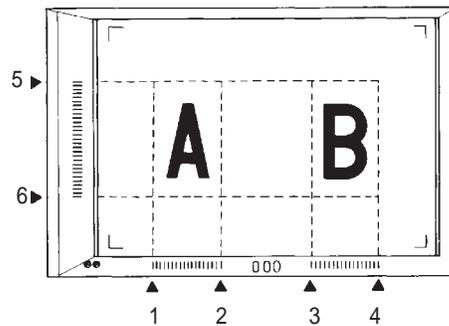
Define the end points for both the vertical and horizontal areas of the image on the screen using the green lights on the area indication panels.



NOTE: The points defining the vertical and horizontal area can be selected in any order. Blinking lights on the indication panels indicate an improper entry of the specified area.

Defining two separate areas

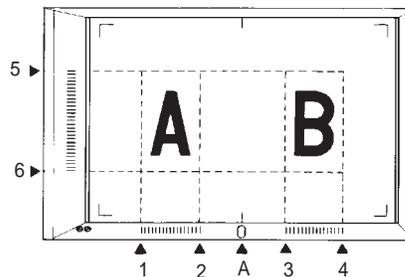
Define the areas to print by specifying the vertical and horizontal areas as follows: 2 end points for vertical and 4 end points for horizontal.



NOTE: The points defining the vertical and horizontal area can be selected in any order. Blinking lights on the indication panels indicate an improper entry of the specified area.

Defining Page-by-Page Print Area

- Using the vertical and horizontal points on the Area Indication panels, define the print areas of the image on the screen.

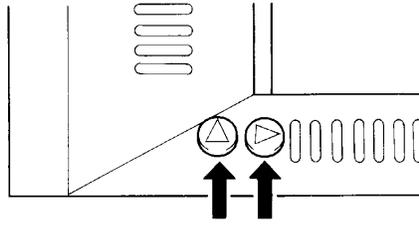


NOTES:

- The horizontal indicator marked A does not light up and cannot be used for defining an area.
- Four different areas cannot be defined on a single page.
- If the Area keys start blinking when the Print key is pressed, it indicates that the print area defined is not available. Specify the area again.
- Paper must be 11 x 17" (A3) when defining two areas and 8 1/2 x 11" (A4) when defining Page-by-Page print areas.
- Paper can be of any size when defining one area.
- The print area, once defined, is stored in memory for each paper size and print position. Press the Area Clear key to clear the area setting.

Clearing a defined Print area

- Press the Vertical and Horizontal Clear keys.



Selecting Masking

- Press the Masking key to select Masking when you want to mask a given area of an image.

NOTE: The basic operation for Manual Masking is similar to Trimming. Refer to the previous procedures on Trimming and defining areas for instruction on performing Manual Masking.

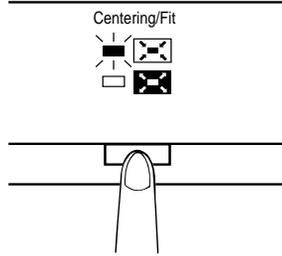
Using Centering and Fit

Once the image on the screen has been manually trimmed or auto masked, the Image Centering function moves the image to the center of the print. The Fit function however, fits the image on the screen onto the entire surface of the print.

	Screen Image	Print Image	
Centering		Centering Off	Centering On
Fit		Fit Off	Fit On

Centering

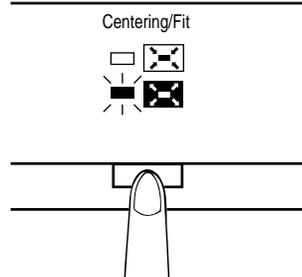
- Press the Centering/Fit key to turn on Centering.



NOTE: Centering/Fit mode cannot be used if Masking is selected.

Fit

- Press the Centering/Fit key to turn on Fit.



NOTE: Fit mode cannot be used when the scanner is connected to the PC.

Using the Cycle Print Mode

This function automatically scans the next image following a preset period of time. Images are manually loaded on the carrier glass in between cycles.

This is a system setting that must be entered by an Kodak Service Representative.

If you want to use the Cycle Print Mode, ask your Kodak Representative to make the necessary system setting, then you can perform the following functions.

Specifying the interval between scanning operations

The chart below provides the time intervals that can be set between scanning operations. The time interval is based upon how much time it takes you to move, for example, a roll of film from frame-to-frame. Refer to this table when making a value selection.

Value	1	2	3	4	5	6	7	8	9	0
Period (seconds)	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0

1. Press the **10** key to change the value to **A**. This enables the Cycle Print Mode.
2. Press the **1** key to change values. Each value corresponds to an interval between scanning operations shown in the table above.
3. Press the Memory Input key to store the currently selected interval setting of the Cycle Print Mode into the memory.

Operating in the Cycle Print Mode

- After entering the Cycle Print Mode, press the Start key. After the first scanning operation has finished, the system will automatically scan the next image following a preset period of time. The system will continue to operate until the Cycle Print Mode is canceled.

The *No. of Copies* value flashes during the scanning and waiting operations.

The next scanning job can be started manually by pressing the Start key before the system automatically initiates the same job.

To pause an operation during the Cycle Print Mode:

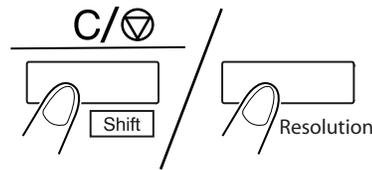
- Press the Clear/Stop key (the *No. of Copies* value switches from a flashing display to a constant display).

While the Pause function is enabled, it is possible to exit the Cycle Print Mode by pressing the Clear/Stop key a second time (the value displayed in the *No. of Copies* display will change to a 1).

Selecting the Resolution

The resolution for scanning (printing) can be selected.

1. Press the Shift key and the Resolution key together. The current resolution is displayed.



2. Press the Resolution key while holding down the Shift key to set the resolution.

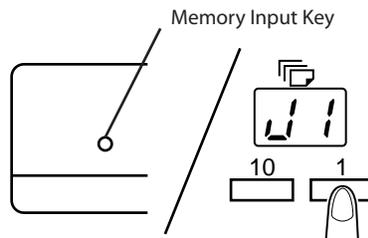
Connection mode	Resolution	Display
PR mode	400 dpi	4H
	600 dpi	6H
PC mode	200 dpi	2H
	300 dpi	3H
	400 dpi	4H
	600 dpi	6H
	800 dpi	8H

Registering the Job Program

The current setting can be set up to 3 program registration locations (1J, 2J and 3J) for both the PR connection and the PC connection. Once the Job Programs have been set, you can recall them as needed.

1. Press the Memory Input key in the Setting mode. 1J starts blinking.

To change the program registration location, press the 1 key. The display is cycled in order of 1J to 2J to 3J to 1J.



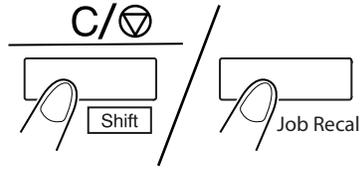
2. Select the program registration location (1J, 2J or 3J), and press the Memory Input key again.

The program registration is over when all LEDs on the control panel light up and the normal display is resumed.

Calling the Job Program

To call a registered Job Program:

1. Press the Shift key and the Job Recall key together.



Each time the Job Recall key is pressed while the Shift key is held down, the display is cycled in order of 1J to 2J to 3J.

When the desired setting is displayed, release the keys.

Using Electrical Zoom

In addition to using the lens to zoom, the electrical zoom function has been provided for magnifying the image when it is printed.

Zoom+: When the Zoom+ key is pressed with the Shift key, the magnification is increased by an increment of 0.01X (up to 2.00X).

Zoom-: When the Zoom- key is pressed with the Shift key, the magnification is decreased by a decrement of 0.01X (down to 0.50X).

NOTE: The Zoom magnification is displayed in the Multi-Print display to 2 decimal places.

The Zoom magnification level is displayed in the Exposure display.

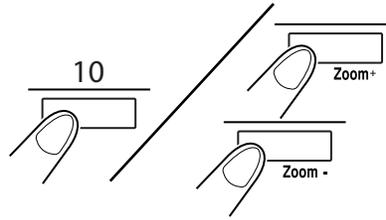
Example: When the magnification is 0.50X, it is displayed as 50. When the magnification is 1.50X, it is displayed as 50 also. When the Zoom magnification is changed, the display is made in the Multi-Print display as follows.



When it is returned to the standard magnification, this display goes off. When the Zoom function is used, Multi-Print can be set only up to 9.

Skip of magnification

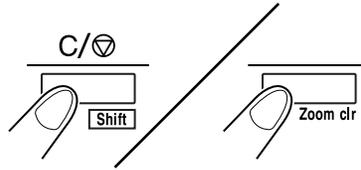
Hold down the 10 key and the Zoom+ or Zoom- key together, the magnification skips as follows:



Inch Area		Metric Area	
Magnification	Size	Magnification	Size
0.50	minimum	0.50	minimum
0.65	11 x 17" to 8 1/2 x 11"	0.71	A3 to A4
0.77	11 x 17" to 8 1/2 x 11"	0.82	B4 to A4
0.79	8 1/2 x 14" to 8 1/2 x 11"	0.86	A3 to B4
1.00	full	1.00	full
1.27	8 1/2 x 11" to 8 1/2 x 14"	1.15	B4 to A3
1.29	8 1/2 x 11" to 11 x 17"	1.22	A4 to B4
1.55	8 1/2 x 11" to 11 x 17"	1.41	A4 to A3
2.00	maximum	2.00	maximum

Clearing the Zoom magnification

When the Zoom clr key is held down together with the Shift key for more than one second, the standard magnification is resumed.



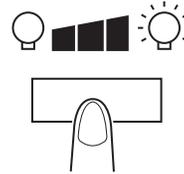
Standard magnification is fixed according to the selected paper size:

Paper size	A3	B4	A4	B5	11 x 17"	8 1/2 x 14"	8 1/2 x 11"
Standard magnification	1.41X	1.22X	1.00X	1.00X	1.55X	1.27X	1.00X

Adjusting screen illumination

To adjust the screen illumination:

Press the Illumination key to adjust the illumination of the screen.



The screen is gradually darkened until it is turned off. When any key is pressed, the illumination returns to the maximum level.

When the illuminance of the screen is dark, hold down the Shift key and the Illuminance key together. The illuminance of the screen is gradually lightened until the maximum level is achieved.

Changing settings with the User mode

User mode allows the default values of various functions to be set or changed as necessary. Most of these functions are set-up and changed by your Kodak representative, however some User modes can be changed by you.

Setting these default values according to your needs saves time and allows you to work more efficiency. The following modes can be set:

Display	Function	Description
U2	Image Distortion	Corrects any slight image distortion that can occur during scanning.
U6	Year, Month, Date Set Mode	Used to set the print pattern for the Date Print function.
U7	Imprint Mode	Used to correct the time of day for the Date Print function when it is incorrect.

Entering and exiting the User mode

1. Hold down the Shift key and Paper Selection key at the same time. The Multi-Print Display displays a "U".



2. Press the Exposure Adjustment key (Darker or Lighter) to select the specific function: U2, U6 or U7.
 - Pressing the Darker key scrolls through the functions in the following order: U, U1, U2, U3, etc.
 - Pressing the Lighter key scrolls through the functions in the following order: U8, U7, U6, U5, etc.
3. Press the Exposure Mode key to display d(*). The asterisk indicates the current setting value.



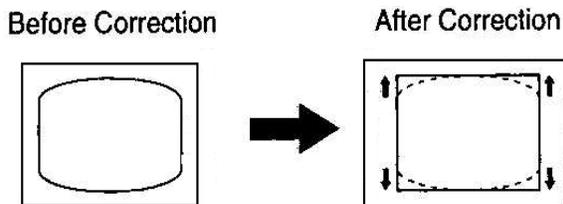
4. Press the Exposure Adjustment key (Darker or Lighter) to select the specific setting value.
 - Pressing the Darker key scrolls through the setting values in the following order: d0, d1, d2, etc.
 - Pressing the Lighter key scrolls through the setting values in the following order: d5, d4, d3, etc.
5. Press the Start key to validate the setting value.

NOTES:

- If the Exposure Mode key is pressed, the setting value is not validated and the User mode initial screen (U) appears.
 - If a new function is to be set, start the procedure over beginning with Step 2.
6. Press the Clear key to exit User mode.

Correcting Image Distortion

You can set up the scanner-printer to automatically correct any slight image distortion that occurs during scanning.



1. Press and hold the Shift key and the Paper Selection key.
2. Select U2 in the User mode.
3. Press the Exposure Mode key to display d*. The table below shows the amount of correction based on the setting value:

Code	Setting Value
d0	0 mm
d1	0.5 mm
d2	1.0 mm
d3	1.5 mm
d4	2.0 mm
d5	2.5 mm
d6	3.0 mm
d7	3.5 mm
d8	4.0 mm

4. Press the Exposure Adjustment key (Darker or Lighter) to select the desired setting value.
5. Press the Start key to validate the setting.

NOTE: This setting returns to the default value (d3) when the Power switch is turned off. You can register this setting by using the Job Program function.

Year, Month and Date Set mode

The print pattern for the Date Print function can be set with this function.

1. Press and hold the Shift key and the Paper Selection key.
2. Select U6 in the User mode.

NOTE: Press the Exposure Mode key to display d*. The table below shows the amount of time based on the setting value.

Code	Setting Value
d0	Year, month, day (2004.05.15)
d1	Month day year (05 15 2004)
d2	Day month year (15 05 2004)
d3	Month, day Hours:minutes (05.15 13:45)

Year: 4 digits of dominical year

Month: 2 digits

Day: 2 digits

Hour: 2 digits (24-hour system)

Minutes: 2 digits

3. Press the Exposure Adjustment key (Darker or Lighter) to select the desired setting value.
4. Press the Start key to validate the setting.

Set Imprint mode

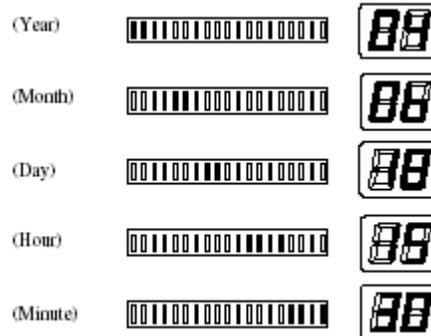
If the time of day becomes incorrect for the Date function, you can reset it by following the procedure below.

1. Press and hold the Shift key and the Paper Selection key.
2. Select U7 in the User mode.
3. Press the Exposure Mode key. When the Exposure Mode key is pressed, both the Exposure Display and Multi-Print Display light up steadily.

NOTE: In the initial condition, the year default setting is displayed.

To set the *Year, Month, Day, Hour* and/or *Minutes* you will use the Exposure Adjustment key (either Darker or Lighter).

- Each time the Darker key is pressed, the Exposure Display scrolls upward to select the current setting mode in the following order: Month, Day, Hours, Minutes.



- Each time the Lighter key is pressed, the Exposure Display scrolls downward to select a default mode.

Code	Setting Value
d0	Year, month, day (2004.05.15)
d1	Month day year (05 15 2004)
d2	Day month year (15 05 1004)
d3	Month, day Hours:minutes (05.15 13:45)

Year: 4 digits of dominical year

Month: 2 digits

Day: 2 digits

Hour: 2 digits (24-hour system)

Minutes: 2 digits

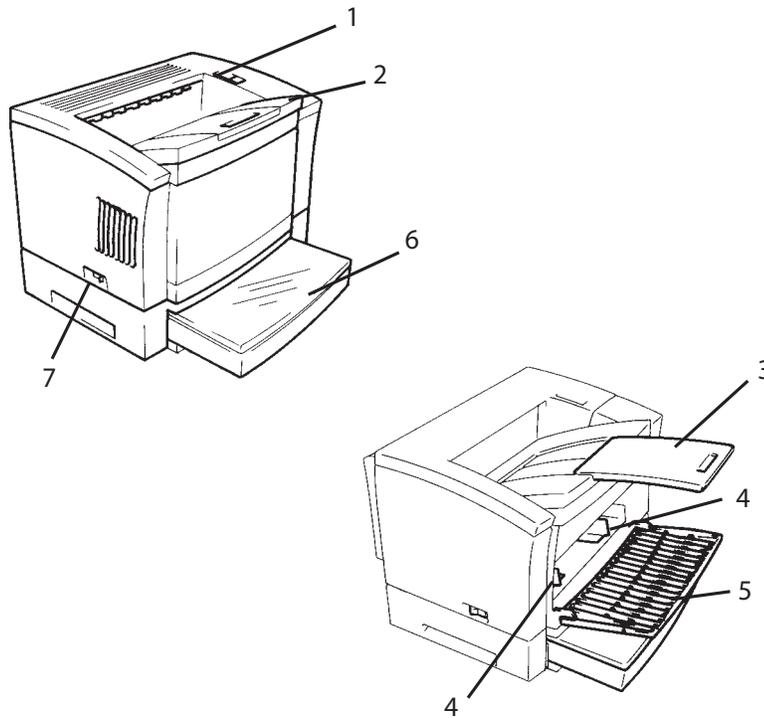
4. Press the Exposure Adjustment key (Darker or Lighter) to select the desired setting value.
5. Press the Start key to validate the setting.

4 Printer Functions

This chapter provides general information about the A3/A4 Laser Printer including an overall description of external components, use and care of the printer and printer supplies.

Parts of the printer

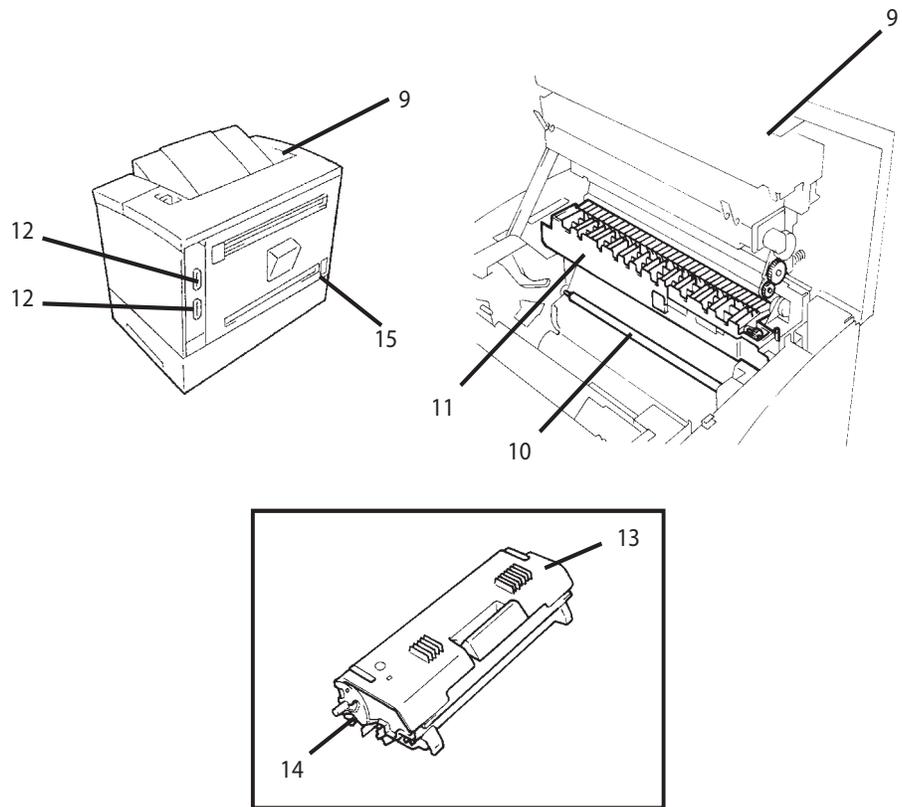
Following is a list of the standard components of the A3/A4 Laser Printer.



- 1 Upper Unit Lock Release Lever** —used to open the Upper Unit.
- 2 Power indicator** — lights when the printer is turned on.
- 3 Print Tray** — prints are output from the printer face-down onto this tray which can hold up to 500 sheets of standard paper.
- 4 Paper Guides** — slide the guides to secure the paper stack.
- 5 Paper Feeding Tray: (Tray)** — capable of holding up to 150 sheets of 8 1/2 x 11" (A4) or 11 x 17" (A3) paper.
- 6 Cassette 1** — capable of holding up to 250 sheets of standard-sized paper (5 1/2 x 8 1/2", 8 1/2 x 11", 11 x 17", 8 1/2 x 14"/ A4, A3, B4, B5).

NOTE: An optional paper cassette (Cassette 2) is available if required. Cassette 2 is capable of holding up to 250 sheets of standard-sized paper (5 1/2 x 8 1/2", 8 1/2 x 11", 11 x 17", 8 1/2 x 14"/ A4, A3, B4, B5).

- 7 Power Switch** — used to turn power to the printer on and off.



- 9 Upper Unit** — open to replace the imaging cartridge and to clear misfed sheets of paper.
- 10 Image Transfer Roller** — transfers the image onto a sheet of paper. Avoid touching it with your bare hands.
- 11 Fusing Unit** — permanently fixes the image onto the sheet of paper.
- 12 Interface Connectors** — facilitates connections for the scanner. The printer has two connectors to facilitate connection with two separate scanner units.
- 13 Imaging cartridge** — where the image is generated for transfer onto a sheet of paper. Avoid touching it with your bare hands.
- 14 Seal** — remove the seal before installing the new cartridge.
- 15 Power Cord Socket** — the socket of the power cord is plugged into this AC-Inlet.

Paper specifications

Use only the following types of paper:

Type — plain and recycled paper (weight 16 to 24 lbs / 60 to 90 g/m²)

Standard sizes — 11 x 17", 8 1/2 x 11", 5 1/2 x 8 1/2", A3, A4, B4, B5.

Capacity

- **Paper Feeding Tray:** 8 1/2 x 11" (A4) plain and recycled paper - up to 150 sheets.
- **Paper Cassette:** 5 1/2 x 8 1/2" (B5) to 11 x 17" (A3) plain and recycled paper - up to 250 sheets.

Using the printer

To ensure the best performance of the printer, follow the precautions below:

1. NEVER open any cover, or turn off the printer during printing.
2. NEVER bring any magnetized object or flammable gas or liquid close to the printer.
3. ALWAYS insert the power plug all the way into the wall socket-outlet.
4. ALWAYS provide good ventilation when making a large number of continuous prints.

NOTE: *Locate the printer in a well ventilated room.* A minimal amount of ozone is generated during normal operation of the printer. An unpleasant odor may, however, be created in poorly ventilated rooms during extensive printer operations.

Care of printer supplies

When handling the printer supplies (Imaging Cartridge, paper, etc.), avoid storing the supplies in any of the following places:

- Any place subject to direct sunlight. The Imaging Cartridge should not be exposed to fluorescent light.
- A hot, humid or dusty place or near an open flame.

In addition:

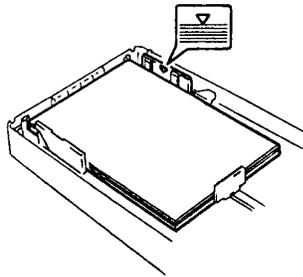
- Store paper, which has been removed from its wrapper but not loaded onto the print tray, in a sealed plastic bag in a cool, dark place.
- Only use Imaging Cartridges that are exclusively designed for use with this printer.
- Keep supplies out of the reach of children.
- If your hands become soiled with toner, wash them with soap and water immediately.

NOTE: Whenever the Imaging Cartridge is removed from the printer, immediately wrap it in a heavy cloth to protect it from light.

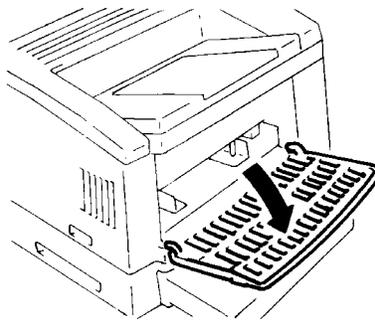
Loading paper into the paper feeding tray

Before loading paper in the paper tray/paper cassette, be sure of the following:

- Make sure the paper stack does not exceed the Maximum Level indicator.
- Load a new paper stack only after the old one has run out.



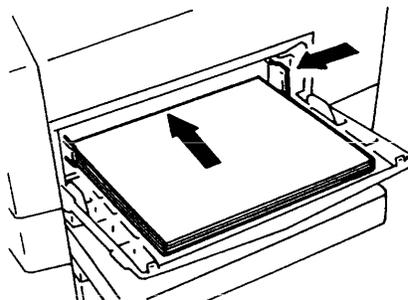
1. Open the paper feeding tray.



2. Fan the paper stack thoroughly and align the edges.



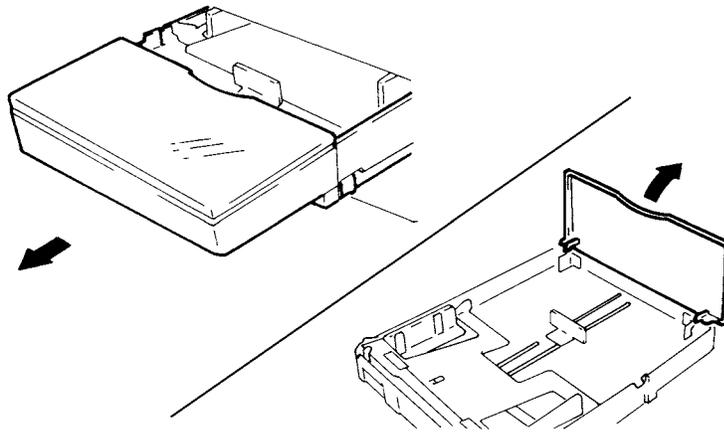
3. Load the paper stack face up in the tray and adjust the paper guides to secure the paper stack.



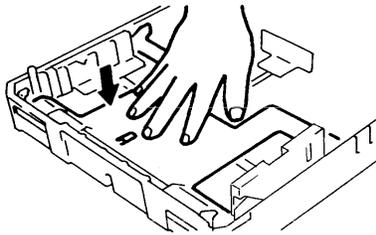
4. Close the paper feeding tray.

Loading paper into the paper cassette

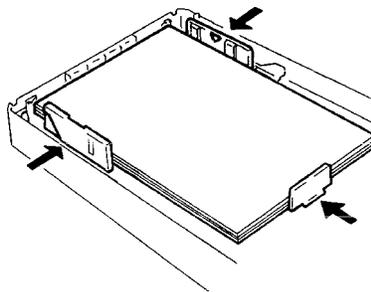
1. Pull the cassette out of the printer and open the cover.



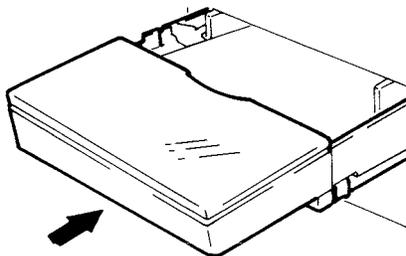
2. Press down the Paper Lifting Plate until it locks. Fan the paper stack thoroughly, align the edges, and place the paper in the cassette.



3. Secure the paper stack in the paper cassette with the paper guides.

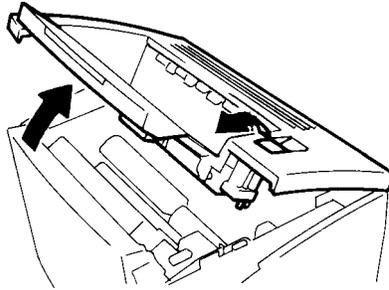


4. Close the cover and insert the cassette into the printer.

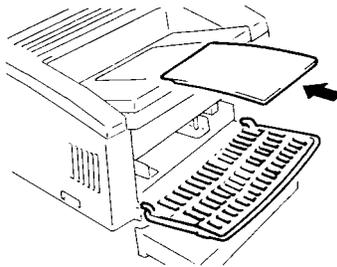


Replacing the toner cartridge

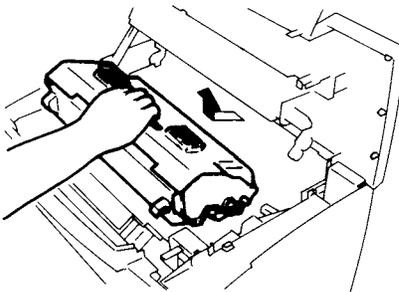
1. Open the upper unit by pulling the Upper Unit Lock Release Lever forward.



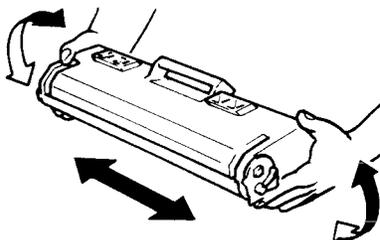
NOTE: Push the print tray in before opening the upper unit.



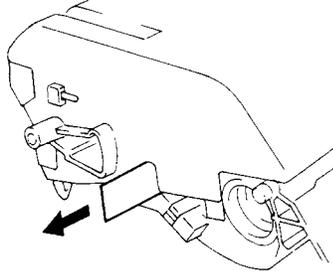
2. Remove the old imaging cartridge from the printer.



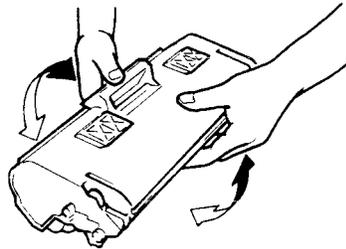
3. Take a new imaging cartridge out of the box. Holding it with both hands, shake it well in the direction indicated by the arrows.



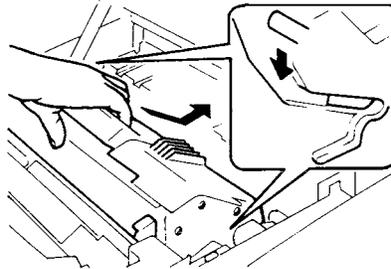
4. Remove the seal from the imaging cartridge by pulling it steadily straight out.



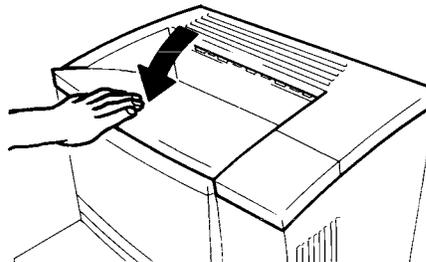
5. Shake the imaging cartridge four or five times as shown to evenly distribute the toner inside.



6. Slide the pins located on both sides of the imaging cartridge into the grooves of the printer as shown and gently push the imaging cartridge securely into place.



7. Close the upper unit.

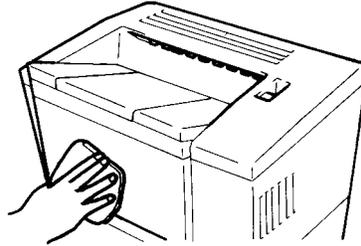


Cleaning the printer

Clean the printer at regular intervals.

CAUTION: Use a soft cloth and NEVER use abrasives or corrosive detergents.

1. Before cleaning the printer, turn off the power and unplug the power cord from the power cord wall socket outlet. Grasp the power cord plug only when unplugging the power cord.
2. Clean the exterior panels with a soft, dry cloth.



NOTE: A damp cloth and a mild home detergent can be used for heavier cleaning.

5 Maintenance

This chapter provides maintenance procedures for:

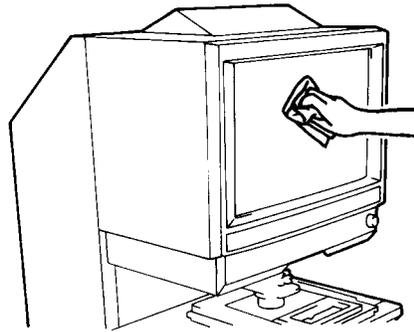
- Cleaning the scanner
- Replacing the projection lamp

Cleaning the scanner

The scanner should be cleaned daily for optimal operating conditions.

Cleaning the Scanner screen

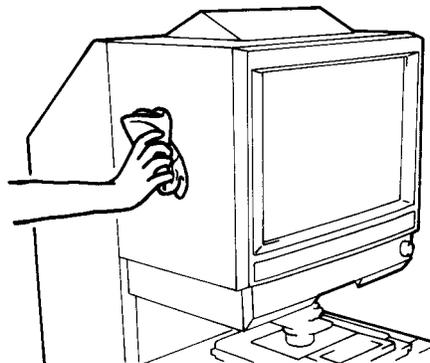
- With a damp cloth, clean and remove any dust or debris from the surface of the screen.



CAUTION: Never use alcohol or any other solvent when cleaning to avoid causing damage to the screen or erasing the frame size markers.

Outer covers

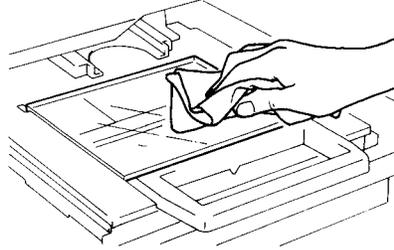
- Dust the exterior panels of the scanner with a soft, dry cloth.



Carrier Glass (option)

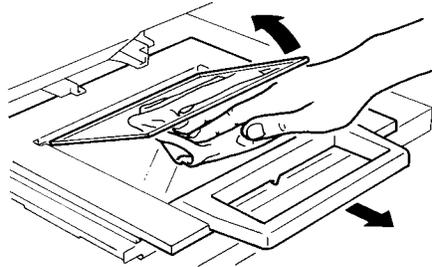
NOTE: Before cleaning the carrier glass, remove the projection lens from the scanner. Refer to Chapter 3, "Installing the projection lens" for procedures.

- With a damp cloth, clean and remove any dust or debris from the surface of the carrier glass.



To open the carrier glass:

- Pull the handle of the microfiche holder. With a damp cloth, clean and remove dust and debris by wiping the inner surfaces of the carrier glass.



Replacing the projection lamp

Use the following procedure to replace the projection lamp whenever a reduction in brightness on the screen is detected or whenever the lamp burns out. Make sure that the replacement lamp is specified for use with this scanner.

If the projection lamp burns out during a print operation, an L2 code appears and the print job will stop (a blank piece of paper may be output depending upon the stage of the job).

Once the system detects that the projection lamp has burnt out, the scan job will be cancelled. If the system is operating in the Cycle Print mode, the scanner operation will stop.

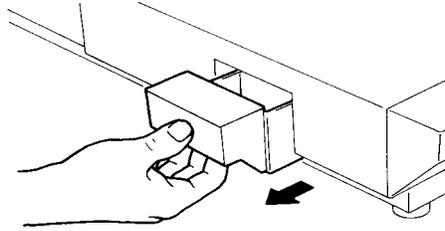
To replace the projection lamp:

1. Turn the power switch off and unplug the power cord from the wall socket-outlet. Grasp the power cord plug only when unplugging the power cord.

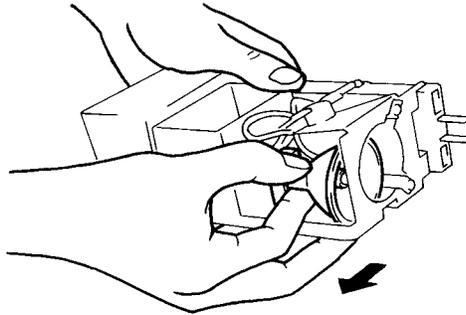


WARNING: Never touch the lamp with bare hands just after operation or immediately after turning it off. Wait at least 10 minutes after shutting the power off to allow the lamp to cool down as it becomes very hot during use.

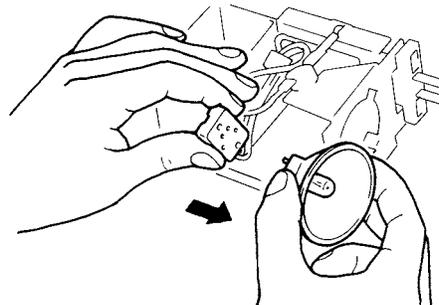
2. Slide out the projection lamp unit.



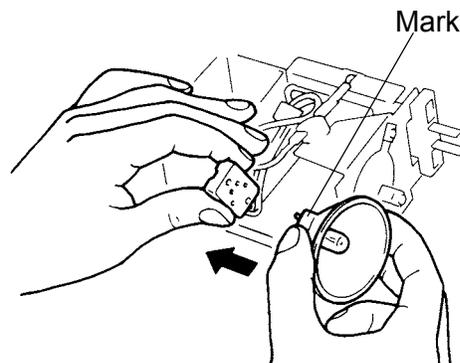
3. Remove the projection lamp, together with the lamp socket, from the projection lamp unit.



4. Unplug the projection lamp from the lamp socket.



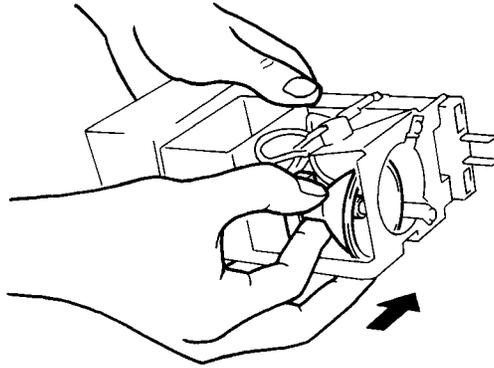
5. Insert the new projection lamp so that the mark on its base is facing upwards. Make sure that the new projection lamp is inserted securely so there is no gap between the projection lamp and the lamp socket.



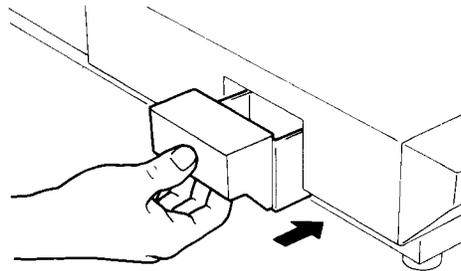


CAUTION: Do not touch the reflector mirror surface of the projection lamp. Fingerprints, smudges or debris should be wiped clean with a soft, dry cloth. USE ONLY KODAK LAMPS, Catalog Number: 384 5427.

6. Insert the projection lamp all the way into the lamp holder of the projection lamp unit.



7. Slide the projection lamp unit securely back into place.



6 Troubleshooting/Messages

This chapter contains information on analyzing and correcting operating problems or errors that may occasionally arise during the use of the *Kodak 3000DSV-E* Digital Scanner-Printer.

Messages

Misfeed Clearing Procedure: Locate the misfeed using the code and perform the misfeed clearing procedure.		
Display	Code	Description
	P0	The Paper Feeding Tray is loaded with paper other than 8 1/2 x 11" (A4). <ul style="list-style-type: none">• Load 8 1/2 x 11" (A4) paper in the tray and open and close the upper unit.
	P1	A misfeed near the paper take-up section or more than one sheet of paper is taken up at the same time.
	P2	A misfeed near the imaging cartridge.
	P3	A misfeed near the fusing unit.

Other Malfunctions

Display	Code	Description
---	E1	The power to the printer is off or there is a problem with the connection of the interface cable to the printer. Turn on the printer or make sure that the interface cable is securely connected.
	E2	The upper cover of the printer is not closed. Make sure that it is completely closed.
	PE	Paper Empty indicator: Lights up when the Printer is not loaded with the paper size selected for use, or when either the Paper Feeding Tray or Paper Cassette has run out of paper with Auto (auto paper selection) selected.
---	PC	The Scanner is connected to the PC and ready for scanning by pressing the Start key. This display is blinking when the Scanner is in operation.
	Pc	The Scanner is not connected to the PC. • Turn on the PC or connect the Scanner to the PC with the interface cable.
	L1	The lens is not mounted or is loose. • Check the lens for correct installation and reinstall it as necessary.
	L2	The Projection Lamp is burned out. • Turn the power off and unplug the power cord from the wall socket-outlet. Grasp the power cord plug only when unplugging the power cord. • Replace the lamp. If the lamp goes out during a print cycle, a blank print may be output.
		

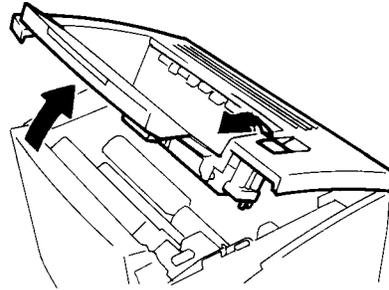
Call your Kodak Service Representative if one of the following codes is displayed.

Display	Location	Code	Description
	Scanner	C1	Optical Path switch failure
		C2	A Scanner malfunction
		C3	A Condenser Lens Motor malfunction Shading Correction malfunction
		C4	A Fan Motor malfunction
		C5	Imperfect auto focusing
	Printer	C6	A Fusing Unit malfunction
		C7	A LED malfunction
		C8	A Polygon Motor malfunction
		C9	A Main Drive Motor malfunction
		CA	A Fan Motor malfunction
	Scanner Printer	C6	A Communication malfunction (Printer)
		CL	A Printer Clock malfunction
	Scanner PC	CC	A Communication malfunction (PC)

Clearing misfeeds from the paper feeding tray

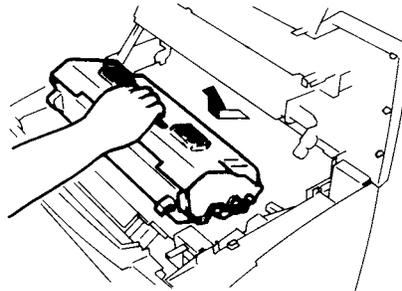
CAUTION: The fusing unit inside the printer becomes very hot during operation. To avoid a burn, be careful not to touch it.

1. Open the upper unit by pulling the Upper Unit Lock Release Lever forward.



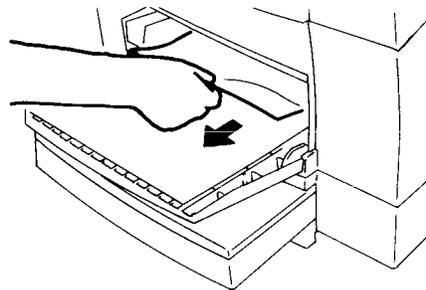
NOTE: Push the print tray in before opening the upper unit.

2. Remove the imaging cartridge.

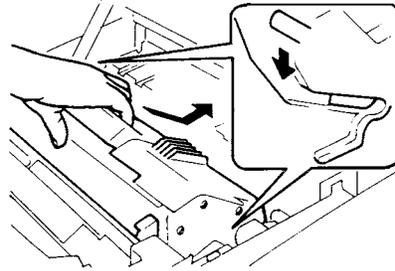


NOTE: Be sure to cover the imaging cartridge with a heavy cloth to protect it from light when it is removed from the printer.

3. Remove the sheet(s) of paper that caused the misfeed from the paper feeding tray.



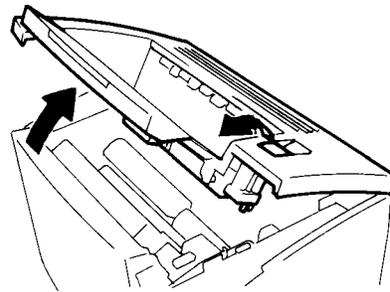
4. Check that no misfed paper is left in the printer and then reinstall the imaging cartridge.



5. Close the upper unit.

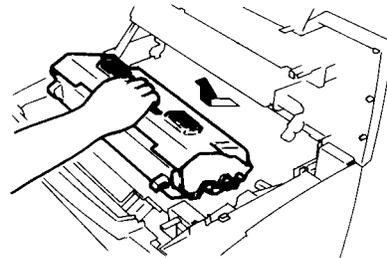
Clearing a misfeed from the paper cassette

1. Open the upper unit by pulling the Upper Unit Lock Release Lever forward.



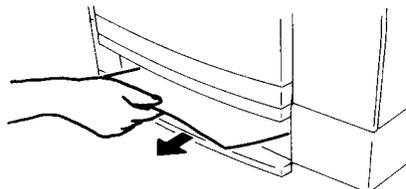
NOTE: Push the print tray in before opening the upper unit.

2. Remove the imaging cartridge.

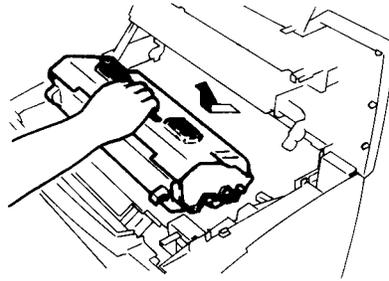


NOTE: Be sure to cover the imaging cartridge with a heavy cloth to protect it from light when it is removed from the printer.

3. Remove the sheet(s) of paper that caused the misfeed.



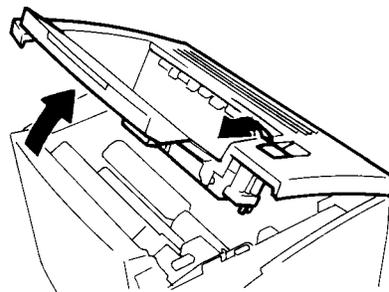
4. Check that no misfed paper is left in the printer and then reinstall the imaging cartridge.



5. Close the upper unit.

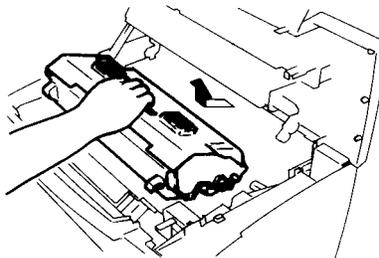
Clearing a misfeed from inside the printer

1. Open the upper unit by pulling the Upper Unit Lock Release Lever forward.



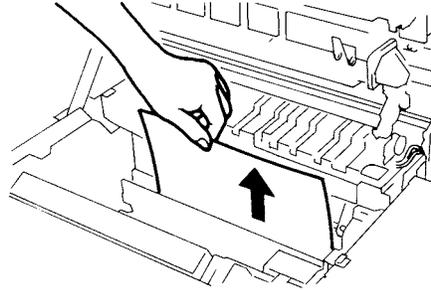
NOTE: Push the print tray in before opening the upper unit.

2. Remove the imaging cartridge.

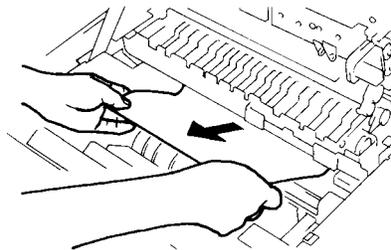


NOTE: Be sure to cover the imaging cartridge with a heavy cloth to protect it from light when it is removed from the printer.

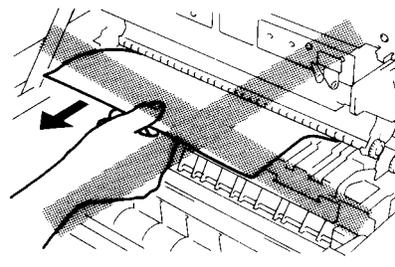
3. If the misfeed occurred before the sheet of paper entered the fusing unit, gently pull the misfed sheet up and out.



4. If the misfeed occurred after the sheet of paper entered the fusing unit, gently pull the misfed sheet toward you and out.



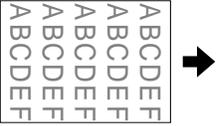
- Since the toner has not yet been fixed onto the sheet of paper, be careful not to soil your hands or clothes when pulling out the misfed sheet.
- Do not remove the misfeed by pulling on the sheet of paper toward the output end of the fusing unit.



5. Reinstall the imaging unit and close the upper unit.

Solving printing problems

Use the following procedures to fix minor printing problems. If print quality does not improve after implementing the procedures below, contact your Kodak Service Representative.

Symptom	Cause	Action
Light image 	Print density is not properly set Toner in the imaging cartridge is running out.	Change the print density setting as necessary. Replace the imaging cartridge with a new one.
Dark image 	Print density is not properly set.	Change the print density setting as necessary.
Partial void image 	The paper in the tray is damp.	Replace the damp paper with fresh, dry paper.
Uneven image density 	Toner in the imaging cartridge is not evenly distributed.	Remove the imaging cartridge, shake it several times and replace.
Blank print 	The printer has malfunctioned.	Contact your Kodak Service Representative.

Appendix A Specifications

The following are specifications for the *Kodak 3000DSV-E* Digital Scanner-Printer.

NOTE: Specifications are subject to change without notice.

Kodak 3000DSV-E Digital Scanner-Printer

Specifications	
Type	Desktop-type microfilm scanner
Type of Film	Microfiche, Jackets, Aperture Cards, 16 mm & 35 mm Roll Film, 16 mm Film Cartridges
Magnification	7.5x, 9x-16x, 13x-27x, 20x-50x
Screen	303 mm x 440 mm (12 x 17 1/4")
Image Rotation	Prism rotation, Carrier rotation (fiche carrier)
Scanning Method	Scanning/Scanning direction: CCD scanning Scanning/Feeding direction: Mirror scanning
Exposure Control	Automatic and Manual
Light Source	Halogen lamp; Kodak CAT No. 384 5427 ONLY
Power Requirement	120 VAC (60Hz) or 220-240VAC (50-60Hz)
Power Consumption	Less than 350W
Dimensions	560(W) x 760(D) x 853(H) mm 22(W) x 30(D) x 33 1/2(H) inches
Weight	65 kg (143.25 lbs)
Standard Accessories	Power cord, printer cable, Prism Unit, Kodak Operator's Manual
Options	Projection Lenses, Fiche Carrier 5, Universal Carrier UC-2, Roll Film Carrier 9B, Roll Film Carrier 15A/15M, MARS Controller 4, MARS Mini Controller 2, Manual Frame Masking Unit, Auto Focus Unit, AF Lens Modification Kit, Foot Switch Kit, Grayscale Memory Board, PC Interface Cable Kit

PC Mode

Specifications	
Resolution	200, 300, 400, 600, 800 dpi
Output Scale	Binary, Grayscale (option)
PC Interface	SCSI-2 Option: PC Interface Cable Kit
Scanning Speed	5 sec./1 frame scanning (8 1/2 x 11" or A4 vertical/400 dpi/AE) 4 sec./multi-frame scanning (8 1/2 x 11" or A4 vertical/400 dpi/AE)

A3/A4 Laser Printer - Printer Mode

Specifications	
Resolution	400 and 600 dpi
Output Scale	Binary
Printing Method	Laser Electrostatic
Developing System	Fine Micro-Toning (Fine-MT) System
Print Size	A3, A4 (portrait), A4 (Landscape), B4, B5 11 x 17", 11 x 8 1/2", 8 1/2 x 11", 8 1/2 x 14"
Warm-up Time	Less than 70 seconds
First Print Time	15.2 seconds (11 x 17" or A3, 400 dpi, AE) 13 seconds (8 1/2 x 11" or A4, 400 dpi, AE)
Print Speed	11 sheets per minute (11 x 17" or A3, 400 dpi) 20 sheets per minute (8 1/2 x 11" or A4, 400 dpi)
Multiple Printing	1 to 99 sheets (LED countdown identification)
Paper Supply	Automatic Feeding Supply Multi-purpose Tray (150 sheets max.) Paper Cassette 1 (250 sheets max.)
Printer's Power Consumption	Less than 750 W
Printer's Dimensions	561(W) x 521(D) x 409(H) mm 22(W) x 20 1/2(D) x 16(H) inches
Printer's Weight	28 kg (61.75 lbs) including imaging cartridge
Options	Cassette 2 — hold 250 sheets of paper

Appendix B User and System Settings

This system offers two types of settings:

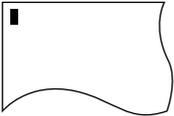
- User settings that are set up by the operator from the control panel.
- System settings that are set up and can be changed by the Kodak Service Representative.

Following is a list of factory settings:

User Settings	Initial Setting	Remark
Exposure mode	Auto	
Print image density	Center	
Paper size	Letter (A4)	
Print position	Center	
Film type	Auto	
Auto Skew Correction	ON	
Auto Masking	ON	
Manual Masking	-	Enabled only when the Manual Masking Kit (option) is mounted.
Centering/Fit	OFF	

NOTE: When any of these functions has been changed and you want to store the new setting in the system's memory, press the Memory Input key.

System Setting	Selection	Default	Description
Auto Reset	Enabled Disabled	Enabled	Setting changes made to the control panel that are not used within 60 seconds of being input are automatically cancelled and the system reverts back to the original settings.
Auto power save (PR mode only)	Disabled 30 min. 60 min.	Disabled	Turns the printer's fuser off if the system is left idle for a specific period of time. NOTE:230V units operate on a 30-minute Auto Power Save setting.
Auto Projection Lamp OFF	Disabled 30 min. 60 min.	Disabled	Turns the projection lamp off if the system is left idle for a specified period of time.
Fine mode contrast select	Contrast Emphasis Outline Emphasis	Contrast Emphasis	Applies the following functions as required: Contrast Emphasis: applied when film contains text that is poorly contrasted against its background making it difficult to read. Outline Emphasis: applied when film contains blurred black-and-white images.
Auto Skew Correction Retain	Retained Not Retained	Not Retained	Determines whether or not to retain the original (uncorrected) skew of a screen image after the print has been made.

System Setting	Selection	Default	Description
Machine ID Printing (Printer mode only)	Disabled Pattern 1 Pattern 2	Disabled	When two scanners are connected to one printer, this function leaves an identification marker on the print so the scanner used for the job can be determined after printing. <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>Pattern 1</p>  <p>Paper</p> </div> <div style="text-align: center;"> <p>Pattern 2</p>  <p>Paper</p> </div> </div>
Cycle Print mode (Printer mode only)	Enabled Disabled	Disabled	This function automatically scans the next image following a preset period of time (the period can be set by your Kodak Service Representative). Images are set by the user onto the carrier glass in between cycles.
Paper Size of Paper Feeding tray (Printer mode only)	Letter / A4 portrait Letter / A4 landscape Legal / A3 Legal / B4 B5 portrait B5 landscape	Letter / A4 portrait	Determines the desired paper size from the Paper Feeding tray of the printer. It is possible to feed the following paper sizes and orientations into the printer: Inch values: Letter-landscape, Legal, Ledger Metric values: A4-landscape, A3, B4, B5-landscape
Contrast setting	Lighter Normal Darker	Normal	To view subtle images with standard ranges of density clearly: Light (-1 to -7). To bring out the darker and lighter ranges of an image: Dark (+1 to +7).
The print function at the time of Toner Empty detection (PR mode only)	Disable Print Enable Print	Disable Print	After a Toner Empty condition is detected, this function allows you to select either to stop printing or continue printing.
Auto Film Format Select Print function (PR mode only)	Enable Disable	Disable	The Auto Format Select Print function is enabled or disabled through the control panel.
90 degree rotation setting	Enable Disable	Disable	Enables the prism to rotate the screen image 90 degrees.
Automatic paper source switching	Auto switching Disable Auto switching	Auto switching	Allows you to specify the paper source when same size paper is loaded into both the paper feeding tray and paper feeding cassette. Auto switching: Printing continues by automatically switching to the remaining paper source after paper in the specified paper source runs out. Disabling Auto switching: A Paper Empty mode occurs and printing stops after paper in the specified paper source runs out. The paper source must be refilled or the paper source must be switched by pressing the Output Selection key in order to resume printing.

NOTE: To change any of the system settings described above, contact your Kodak Service Representative.

Appendix C Key Operator Information

When you need to call for service, be prepared to provide the following information:

- Your company name, address, telephone number, department name, floor number, machine location, etc.
- K# (Mainframe and/or Printer), model name, serial number, condition or system(s) indications(s) on the display, etc.

Model Name	Kodak 3000DSV-E Digital Scanner-Printer Serial Number K#
	A3/A4 Laser Printer Serial No. K#
Attached Accessories	Serial No.
	Serial No.
Installation Date	
Kodak Representative Phone #	

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